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BLACK & VEATCH
SPECIAL PROJECTS CORP.

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USEPA Region 5
American Chemical Services 80-5PJ7

BVSPC Project 71670
BVSPC File C.3
February 28, 1997

Ms. Sheri Bianchin
U.S. Environmental Protection Agency
77 West Jackson Boulevard (HSR-6J)
Chicago, Illinois 60604

Subject: November and December 1996 Upper and Lower Aquifer Monitoring Well Sample Data Comparison

Dear Ms. Bianchin:

Enclosed for your review is the November and December 1996 Upper and Lower Aquifer monitoring well sample comparison between the data collected by Montgomery Watson on behalf of the American Chemical Services Respondents and the split samples collected by Black & Veatch Special Projects Corp. on behalf of the U.S. Environmental Protection Agency (USEPA). Generally, the data are comparable; however, it should be noted that the groundwater data results reported by Montgomery Watson in the January 1997 Technical Memorandum 1996 Groundwater Sampling Results Report for wells MW52 and MW53 were inconsistent with the results of the corresponding USEPA split samples collected from these wells.

BVSPC has determined that the USEPA split samples from wells MW52 and MW53 were correctly identified on the traffic report based on the sample collection times. The wells are nested Lower Aquifer wells; the deeper of the two wells, MW53, was sampled first. Extra sample volume was collected from MW53 because the sample was designated as the matrix spike/matrix spike duplicate. Based on our determination, we have compared the results from the USEPA split sample collected from MW53 and MW52 with the sample results designated by Montgomery Watson as MW52 and MW53, respectively, in the Groundwater Sampling Results Report; a good correlation exists in these comparisons.

Ms. Sheri Bianchin

BVSPC Project 71670
February 28, 1997

If you have any questions or desire additional information, please contact me at 312/346-3775.

Sincerely,

BLACK & VEATCH SPECIAL PROJECTS CORP.

Steve Mrkvicka
Site Manager

Enclosure

cc: P. Hendrixson, USEPA w/o enclosure
E. Howard, USEPA w/o enclosure
L. Campbell, BVSPC w/o enclosure
A. Rupani, BVSPC w/enclosure

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November and December 1996 Upper and Lower Aquifer Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Introduction

Black & Veatch Special Projects Corp. (BVSPC), under the Alternative Remedial Contracting Strategy, has been tasked by the U.S. Environmental Protection Agency (USEPA) to provide field oversight during the remedial design and expedited remedial action to USEPA Region V in their endeavor to complete remediation of the American Chemical Services site. The Respondents are the ACS Technical Committee, and their contractor is Montgomery Watson.

Purpose

The purpose of this document is to present BVSPC's evaluation and comparison of groundwater split sample analytical results with Montgomery Watson's data. BVSPC representatives collected twelve split samples during groundwater sampling of Upper and Lower Aquifer monitoring wells by Montgomery Watson.

Sampling Effort

From November 5 to 7, 1996, and from December 26 to 27, 1996, twelve split samples were collected during the field oversight. Table 1 shows the corresponding USEPA Contract Laboratory Program (CLP) numbers. Sampling was performed in accordance with the USEPA-approved field sampling plan and quality assurance project plan.

Laboratory

The USEPA split samples were analyzed by CLP analytical services in accordance with the procedures outlined in the User's Guide to the CLP, USEPA, February 1995. USEPA Region V Central Regional Laboratory (CRL), Chicago, Illinois, analyzed the inorganic samples and Mitkem, Warwick, Rhode Island, and Rollins, Ann Arbor, Michigan, analyzed the organic samples. Montgomery Watson's samples were analyzed by IEA for organic and inorganic analyses.

Data Validation

USEPA Region V CRL validated the split sample data and BVSPC reviewed the validated data using the USEPA CLP National Functional Guidelines for Organic Data Review (EPA 540/R-94/012, February 1994) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (EPA 540/R-94/013, February 1994). Montgomery Watson did not provide validation narratives of the data analyzed by their laboratories. It is unknown if Montgomery Watson used the USEPA CLP guidelines for their organic and inorganic data review.

The USEPA split sample analytical results were acceptable; however, due to minor analytical quality control problems, some of the compounds/analytes were qualified. Appendix A is a copy of raw data sheets from USEPA for split samples. Qualifiers are fully explained in the narratives.

Montgomery Watson did not report if the overall quality of data from their laboratory was good with any significant instrument problems or if the calculations were acceptable. Appendix B is a copy of raw data sheets for the Montgomery Watson data.

Data Comparison

BVSPC compared the validated split sample data to Montgomery Watson's data. Table 1 presents the Upper and Lower Aquifer monitoring well sample data comparison. Both data sets were consistent except for the following:

- It should be noted that the groundwater data results reported by Montgomery Watson in the January 1997 Technical Memorandum 1996 Groundwater Sampling Results Report for wells MW52 and MW53 were inconsistent with the results of the corresponding USEPA split samples collected from these wells. BVSPC has determined that the USEPA split samples from wells MW52 and MW53 were correctly identified on the traffic report based on the sample collection times. The wells are nested Lower Aquifer wells; the deeper of the two wells, MW53, was sampled first. Extra sample volume was collected from MW53 because the sample was designated as the matrix spike/matrix spike duplicate. Based on our determination, we have compared the results from the USEPA split sample collected from MW53 and MW52 with the sample results designated by Montgomery Watson as MW52 and MW53, respectively, in the Groundwater Sampling Results Report; a good correlation exists in these comparisons.

- A few volatile and semivolatile organic compounds were analyzed for by USEPA's laboratory that were not analyzed by Montgomery Watson's laboratory; conversely, some organic compounds were analyzed for by Montgomery Watson's laboratory that were not analyzed by USEPA's laboratory.
- Generally, detection limits of organic compounds in Montgomery Watson's data were higher than the USEPA split sample data.

Volatile Organic Compounds

MW8. Both samples indicated non-detect. No tentatively identified compounds (TICs) were identified.

MW19. Both samples indicated non-detect. Chloroethane was detected in both samples. USEPA data indicated two TICs; Montgomery Watson data indicated no TICs.

MW12. Chlorobenzene and one TIC were detected in both samples. USEPA data indicated trans-1,2-dichloroethene and benzene; Montgomery Watson data indicated non-detect.

MW9. Chloroethane and benzene were detected in both samples. USEPA data contained acetone; Montgomery Watson data indicated non-detect. USEPA data indicated six TICs; Montgomery Watson data indicated no TICs.

MW10C. Both samples indicated non-detect. One TIC was identified in both samples.

MW51. Both samples indicated non-detect. USEPA data indicated no TICs; Montgomery Watson data indicated one TIC.

MW50. Both samples indicated non-detect. No TICs were identified.

MW13. Both samples indicated non-detect. Chloroethane and benzene were detected in both samples. USEPA data indicated three TICs; Montgomery Watson data indicated one TIC.

MW55. USEPA data indicated acetone, chloroform, 2-butanone, and bromodichloromethane; Montgomery Watson data indicated non-detect. No TICs were identified.

MW54. USEPA data indicated chloroethane; Montgomery Watson data indicated non-detect. No TICs were identified.

MW52. Acetone and toluene were detected in both samples. USEPA data indicated bromodichloromethane; Montgomery Watson data indicated non-detect. USEPA data indicated two TICs; Montgomery Watson data indicated four TICs.

MW53. Acetone and toluene were detected in both samples. USEPA data indicated 2-butanone; Montgomery Watson data indicated non-detect. USEPA data indicated two TICs; Montgomery Watson data indicated one TIC.

Semivolatile Organic Compounds

MW8. Both samples indicated non-detect. USEPA data indicated one TIC; Montgomery Watson data indicated five TICs.

MW19. Bis(2-chloroethyl)ether was detected in both samples. USEPA data indicated 20 TICs; Montgomery Watson data indicated five TICs.

MW12. 2,2'-oxybis(1-chloropropane) was detected in both samples. USEPA data indicated one TIC; Montgomery Watson data indicated three TICs.

MW9. Bis(2-chloroethyl)ether and 20 TICs were detected in both samples. USEPA data indicated phenol and di-n-octylphthalate; Montgomery Watson data indicated non-detect. Montgomery Watson data indicated nitrobenzene; USEPA data indicated non-detect.

MW10C. USEPA data indicated phenol, isophorone, and diethylphthalate; Montgomery Watson data indicated non-detect. USEPA data indicated 23 TICs; Montgomery Watson data indicated 20 TICs.

MW51. Both samples indicated non-detect. USEPA data indicated 17 TICs; Montgomery Watson data indicated 20 TICs.

MW50. USEPA data indicated 2,2'-oxybis(1-chloropropane); Montgomery Watson data indicated non-detect. USEPA data indicated three TICs; Montgomery Watson data indicated six TICs.

MW13. USEPA data indicated 2,2'-oxybis(1-chloropropane); Montgomery Watson data indicated non-detect. USEPA data indicated three TICs; Montgomery Watson data indicated 16 TICs.

MW55. Both samples indicated non-detect. USEPA data indicated no TICs; Montgomery Watson data indicated four TICs.

MW54. USEPA data indicated bis(2-ethylhexyl)phthalate; Montgomery Watson data indicated non-detect. USEPA data indicated four TICs; Montgomery Watson data indicated 15 TICs.

MW52. Phenol and isophorone were detected in both samples. USEPA data indicated 4-methylphenol and di-n-octylphthalate; Montgomery Watson data indicated non-detect. USEPA data indicated 15 TICs; Montgomery Watson data indicated 13 TICs.

MW53. USEPA data indicated bis(2-chloroethyl)ether; Montgomery Watson data indicated non-detect. Montgomery Watson data indicated phenol; USEPA data indicated non-detect. USEPA data indicated three TICs; Montgomery Watson data indicated 20 TICs.

Pesticides/PCBs

The pesticide/PCB results from all USEPA samples and corresponding Montgomery Watson samples were non-detect. The USEPA endosulfan sulfate results were qualified as R, unusable.

Inorganic Analytes

Generally, the data are comparable. Montgomery Watson reported inorganic results for filtered and unfiltered samples; however, the USEPA split samples were not filtered and therefore the sample results were compared to the associated Montgomery Watson unfiltered sample data.

Precision of the laboratory analyses was assessed by comparing the detected concentrations for each sample for organic and inorganic analysis. The relative percent difference (RPD) was calculated for each pair of results using the following equation:

$$RPD = \frac{Pc - Dc}{(Pc + Dc) / 2} \times 100$$

where:

P_c = Primary Concentration (assumed USEPA's data)

D_c = Duplicate Concentration (assumed Montgomery Watson's data)

Table 2 presents the sample variation comparison for organic and inorganic analyses. Compounds/analytes that exceeded the 30% RPD criteria included the following:

Organic Compounds	Inorganic Analytes	
Chloroethane	Aluminum	Lead
Methylene chloride	Antimony	Mercury
Acetone	Arsenic	Nickel
Toluene	Chromium	Potassium
Benzene	Cobalt	Thallium
2,2'-oxybis(1-chloropropane)	Copper	Vanadium
Bis(2-chloroethyl)ether	Iron	Zinc

All other compounds/analytes were consistent, comparable, and within the 30% RPD range between USEPA and Montgomery Watson's data; however, BVSPC recommends that the detected compounds/analytes with higher concentrations should be viewed with caution.

Conclusions

The overall sample analytical results between USEPA and Montgomery Watson's data were comparable; however, differences in concentrations for some compounds/analytes between USEPA and Montgomery Watson's data were noted. These compounds/analytes should be viewed carefully in future sampling events.

A discrepancy exists that was evident during the comparison between USEPA and Montgomery Watson's data collected from wells MW53 and MW52. BVSPC believes the results reported by Montgomery Watson for these wells have been misidentified.

Table 1

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW8 (Lower Aquifer)		MW19 (Upper Aquifer)		MW12 (Upper Aquifer)		MW9 (Lower Aquifer)		MW10C (Lower Aquifer)	
	97ZB01S01 USEPA	PRP	97ZB01S02 USEPA	PRP	97ZB01S03 USEPA	PRP	97ZB01S04 USEPA	PRP	97ZB01S05 USEPA	PRP
Volatile Organic Compounds										
Chloromethane	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Bromomethane	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Vinyl chloride	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Chloroethane	1 U	10 U	24	20	1 U	10 U	2,200 DJ	2,200	210 DJ	120
Methylene chloride	2 U	10 U	2 BJU	10 U	2 U	10 U	720 BDU	200 U	32 U	100 U
Acetone	5 U	10 U	5 U	10 U	5 U	10 U	690 DJ	200 U	80 U	100 U
Carbon disulfide	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
1,1-Dichloroethene	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
1,1-Dichloroethane	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
cis-1,2-Dichloroethene	1 U	--	1 U	--	1 U	--	200 U	--	16 U	--
trans-1,2-Dichloroethene	1 U	--	1 U	--	0.4 J	--	200 U	--	16 U	--
1,2-Dichloroethene (total)	--	10 U	--	10 U	--	10 U	--	200 U	--	100 U
Chloroform	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
1,2-Dichloroethane	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
2-Butanone	5 U	10 U	5 U	10 U	5 U	10 U	1,000 U	200 U	80 U	100 U
Bromochloromethane	1 U	--	1 U	--	1 U	--	200 U	--	16 U	--
1,1,1-trichloroethane	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Carbon tetrachloride	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Bromodichloromethane	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
1,2-Dichloropropane	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
cis-1,3-dichloropropene	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Trichloroethene	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Dibromochloromethane	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
1,1,2-Trichloroethane	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Benzene	1 U	10 U	1 U	10 U	1	10 U	330 D	310	16 U	100 U
trans-1,3-Dichloropropene	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Bromoform	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
4-Methyl-2-pentanone	5 U	10 U	5 U	10 U	5 U	10 U	1,000 U	200 U	80 U	100 U
2-Hexanone	5 U	10 U	5 U	10 U	5 U	10 U	1,000 U	200 U	80 U	100 U
Tetrachloroethene	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
1,1,2,2-Tetrachloroethane	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
1,2-Dibromoethane	1 U	--	1 U	--	1 U	--	200 U	--	16 U	--
Toluene	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Chlorobenzene	1 U	10 U	1 U	10 U	6	5 J	200 U	200 U	16 U	100 U
Ethylbenzene	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Styrene	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U
Xylene (total)	1 U	10 U	1 U	10 U	1 U	10 U	200 U	200 U	16 U	100 U

Table 1

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW8 (Lower Aquifer)		MW19 (Upper Aquifer)		MW12 (Upper Aquifer)		MW9 (Lower Aquifer)		MW10C (Lower Aquifer)	
	97ZB01S01 USEPA	PRP	97ZB01S02 USEPA	PRP	97ZB01S03 USEPA	PRP	97ZB01S04 USEPA	PRP	97ZB01S05 USEPA	PRP
1,3-Dichlorobenzene	1 U	--	1 U	--	1 U	--	200 U	--	16 U	--
1,4-Dichlorobenzene	1 U	--	1 U	--	1 U	--	200 U	--	16 U	--
1,2-Dichlorobenzene	1 U	--	1 U	--	1 U	--	200 U	--	16 U	--
1,2-Dibromo-3-chloropropene	1 U	--	1 U	--	1 U	--	200 U	--	16 U	--
1,2,4-Trichlorobenzene	1 U	--	1 U	--	1 U	--	200 U	--	16 U	--
VOA TICs	0	0	2	0	1	1	6	0	1	1
Semivolatile Organic Compounds										
Phenol	5 U	10 U	5 U	10 U	20 U	20 U	2 J	10 U	2 J	10 U
bis(2-Chloroethyl)ether	5 U	10 U	10	11	20 U	20 U	31	44	5 U	10 U
2-Chlorophenol	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
1,3-Dichlorobenzene	--	10 U	--	10 U	--	20 U	--	10 U	--	10 U
1,4-Dichlorobenzene	--	10 U	--	10 U	--	20 U	--	10 U	--	10 U
1,2-Dichlorobenzene	--	10 U	--	10 U	--	20 U	--	10 U	--	10 U
2-Methylphenol	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
2,2'-oxybis(1-Chloropropane)	5 U	10 U	5 U	10 U	100 E	120 J	5 U	10 U	5 U	10 U
4-Methylphenol	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
N-Nitroso-di-n-propylamine	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Hexachloroethane	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Nitrobenzene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	0.8 J	5 U	10 U
Isophorone	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	1 J	10 U
2-Nitrophenol	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
2,4-Dimethylphenol	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
bis(2-Chloroethoxy)methane	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
2,4-Dichlorophenol	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
1,2,4-Trichlorobenzene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Naphthalene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
4-Chloroaniline	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Hexachlorobutadiene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
4-Chloro-3-methylphenol	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
2-Methylnaphthalene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Hexachlorocyclopentadiene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
2,4,6-Trichlorophenol	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
2,4,5-Trichlorophenol	20 U	25 U	20 U	25 U	80 U	50 U	20 U	25 U	20 U	25 U
2-Chloronaphthalene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
2-Nitroaniline	20 U	25 U	20 U	25 U	80 U	50 U	20 U	25 U	20 U	25 U
Dimethylphthalate	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Acenaphthylene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
2,6-Dinitrotoluene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
3-Nitroaniline	20 U	25 U	20 U	25 U	80 U	50 U	20 U	25 U	20 U	25 U

Table 1

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW8 (Lower Aquifer)		MW19 (Upper Aquifer)		MW12 (Upper Aquifer)		MW9 (Lower Aquifer)		MW10C (Lower Aquifer)	
	97ZB01S01 USEPA	PRP	97ZB01S02 USEPA	PRP	97ZB01S03 USEPA	PRP	97ZB01S04 USEPA	PRP	97ZB01S05 USEPA	PRP
Acenaphthene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
2,4-Dinitrophenol	20 U	25 U	20 U	25 U	80 U	50 U	20 U	25 U	20 U	25 U
4-Nitrophenol	20 U	25 U	20 U	25 U	80 U	50 U	20 U	25 U	20 U	25 U
Dibenzofuran	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
2,4-Dinitrotoluene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Diethylphthalate	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	3 J	10 U
4-Chlorophenyl-phenylether	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Fluorene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
4-Nitroaniline	20 U	25 U	20 U	25 U	80 U	50 U	20 U	25 U	20 U	25 U
4,6-Dinitro-2-methylphenol	20 U	25 U	20 U	25 U	80 U	50 U	20 U	25 U	20 U	25 U
N-Nitrosodiphenylamine	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
4-Bromophenyl-phenylether	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Hexachlorobenzene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Pentachlorophenol	20 U	25 U	20 U	25 U	80 U	50 U	20 U	25 U	20 U	25 U
Phenanthrene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Anthracene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Carbazole	--	10 U	--	10 U	--	20 U	--	10 U	--	10 U
Di-n-butylphthalate	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Fluoranthene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Pyrene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Butylbenzylphthalate	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
3,3'-Dichlorobenzidine	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Benzo(a)anthracene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Chrysene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
bis(2-Ethylhexyl)phthalate	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Di-n-octylphthalate	5 U	10 U	5 U	10 U	20 U	20 U	1 J	10 U	5 U	10 U
Benzo(b)fluoranthene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Benzo(k)fluoranthene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Benzo(a)pyrene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Indeno(1,2,3-cd)pyrene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Dibenzo(a,h)anthracene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
Benzo(g,h,i)perylene	5 U	10 U	5 U	10 U	20 U	20 U	5 U	10 U	5 U	10 U
SVOA TICs	1	5	20	5	1	3	20	20	23	20
Pesticides										
Alpha-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Beta-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Delta-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Lindane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U

Table 1

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services. Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW8 (Lower Aquifer)		MW19 (Upper Aquifer)		MW12 (Upper Aquifer)		MW9 (Lower Aquifer)		MW10C (Lower Aquifer)	
	97ZB01S01 USEPA	PRP	97ZB01S02 USEPA	PRP	97ZB01S03 USEPA	PRP	97ZB01S04 USEPA	PRP	97ZB01S05 USEPA	PRP
Aldrin	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor Epoxide	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Endosulfan I	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Dieldrin	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDE	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endrin	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan II	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDD	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan Sulfate	0.020 UR	0.10 U	0.020 UR	0.10 U	0.020 UR	0.10 U	0.020 UR	0.10 U	0.020 UR	0.10 U
p,p'-DDT	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Methoxychlor	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U
Endrin Ketone	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endrin Aldehyde	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Alpha-chlordane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Gamma-chlordane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Toxaphene	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U
PCBs										
Aroclor 1016	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1221	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U
Aroclor 1232	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1242	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1248	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1254	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1260	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Inorganic Analytes										
Aluminum	80 U	16.0 U	242	283	192	361	80 U	16.0 U	1,560	1,170
Antimony	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Arsenic	3	4.4 B	21	26.9	3	5.6 B	3	3.2 B	6 U	2.4 B
Barium	116	128 B	563	673	67.1	85.5 B	321	337	370	368
Beryllium	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Cadmium	0.2 U	1.0 U	0.2 U	1.0 U	0.2 U	1.0 U	0.2 U	1.0 U	0.2 U	1.0 U
Calcium	52,600	58,300	74,000	79,400	52,900	54,100	152,000	159,000	118,000	118,000
Chromium	10 U	1.9 UB	10 U	6.8 UB	10 U	7.6 UB	10 U	2.4 UB	17	14.1
Cobalt	6 U	1.0 U	6 U	1.4 B	6.9	1.0 U	6	3.5 B	6 U	2.9 B
Copper	6 U	1.0 U	9.3	5.0 UB	6 U	9.0 JB	6 U	1.0 U	6 U	4.4 UB
Iron	952	1,030	3,960	4,810	11,200	22,500	17,500	17,800	10,200	10,100
Lead	2 U	1.0 U	2 U	1.5 JB	10	14.1 J	2 U	1.0 UJ	6 U	3.2 J
Magnesium	16,000	18,600	60,900	67,700	17,200	18,400	30,300	33,000	55,400	57,200
Manganese	97.5	108	260	268	1,260	1,310	220	231	106	107

Table 1

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services. Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW8 (Lower Aquifer)		MW19 (Upper Aquifer)		MW12 (Upper Aquifer)		MW9 (Lower Aquifer)		MW10C (Lower Aquifer)	
	97ZB01S01 USEPA	PRP	97ZB01S02 USEPA	PRP	97ZB01S03 USEPA	PRP	97ZB01S04 USEPA	PRP	97ZB01S05 USEPA	PRP
Mercury	0.1 U	0.20 U	0.3	0.20 U	0.1 U	0.20 U	0.1 U	0.20 U	0.3	0.20 U
Nickel	20 U	2.4 UB	20 U	17.8 B	20 U	5.7 UB	20 U	4.6 UB	20 U	14.2 B
Potassium	5,000 U	1,540 B	74,300	113,000	5,000 U	4,660 B	7,170	10,800	5,000 U	6,150
Selenium	2 U	2.0 U	4 U	2.0 U	4 U	2.1 B	4 U	2.0 U	4 U	2.0 U
Silver	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U
Sodium	13,000	12,700	738,000	772,000	21,700	19,300	115,000	110,000	207,000	193,000
Thallium	2 U	2.0 U	2 U	2.4 B	2 U	2.0 U	2 U	2.0 U	2 U	2.0 U
Vanadium	5 U	1.0 U	5 U	1.0 U	7.1	18.9 JB	5 U	5.0 B	6.5	3.8 B
Zinc	40 U	7.4 UB	40 U	8.6 UB	40 U	11.5 UB	40 U	4.5 UB	40 U	26.7 U
Cyanide	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U

Table 1

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW51 (Lower Aquifer)		MW50 (Lower Aquifer)		MW13 (Upper Aquifer)		MW55 (Lower Aquifer)		MW54 (Lower Aquifer)	
	97ZB01S06 USEPA	PRP	97ZB01S07 USEPA	PRP	97ZB01S08 USEPA	PRP	97ZB02S01 USEPA	PRP	97ZB02S02 USEPA	PRP
Volatile Organic Compounds										
Chloromethane	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Bromomethane	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Vinyl chloride	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Chloroethane	1 U	100 U	1 U	10 U	89 D	97	1 U	10 U	1 J	10 U
Methylene chloride	2 U	100 U	2 U	10 U	21 DBU	10 U	2 U	10 U	5 BU	10 U
Acetone	5 U	100 U	5 U	10 U	40 U	10 U	6	10 U	5 U	10 U
Carbon disulfide	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
1.1-Dichloroethene	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
1.1-Dichloroethane	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
cis-1.2-Dichloroethene	1 U	--	1 U	--	8 U	--	1 U	--	1 U	--
trans-1.2-Dichloroethene	1 U	--	1 U	--	8 U	--	1 U	--	1 U	--
1.2-Dichloroethene (total)	--	100 U	--	10 U	--	10 U	--	10 U	--	10 U
Chloroform	1 U	100 U	1 U	10 U	8 U	10 U	0.8 J	10 U	1 U	10 U
1.2-Dichloroethane	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
2-Butanone	5 U	100 U	5 U	10 U	40 U	10 U	0.6 J	10 U	5 U	10 U
Bromochloromethane	1 U	--	1 U	--	8 U	--	1 U	--	1 U	--
1.1.1-trichloroethane	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Carbon tetrachloride	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Bromodichloromethane	1 U	100 U	1 U	10 U	8 U	10 U	0.5 J	10 U	1 U	10 U
1.2-Dichloropropane	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
cis-1.3-dichloropropene	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Trichloroethene	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Dibromochloromethane	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
1.1.2-Trichloroethane	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Benzene	1 U	100 U	1 U	10 U	8 D	6 J	1 U	10 U	1 U	10 U
trans-1.3-Dichloropropene	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Bromoform	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
4-Methyl-2-pentanone	5 U	100 U	5 U	10 U	40 U	10 U	5 U	10 U	5 U	10 U
2-Hexanone	5 U	100 U	5 U	10 U	40 U	10 U	5 U	10 U	5 U	10 U
Tetrachloroethene	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
1.1.2.2-Tetrachloroethane	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
1.2-Dibromoethane	1 U	--	1 U	--	8 U	--	1 U	--	1 U	--
Toluene	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Chlorobenzene	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Ethylbenzene	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Styrene	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U
Xylene (total)	1 U	100 U	1 U	10 U	8 U	10 U	1 U	10 U	1 U	10 U

Table 1

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW51 (Lower Aquifer)		MW50 (Lower Aquifer)		MW13 (Upper Aquifer)		MW55 (Lower Aquifer)		MW54 (Lower Aquifer)	
	97ZB01S06 USEPA	PRP	97ZB01S07 USEPA	PRP	97ZB01S08 USEPA	PRP	97ZB02S01 USEPA	PRP	97ZB02S02 USEPA	PRP
1,3-Dichlorobenzene	1 U	--	1 U	--	8 U	--	1 U	--	1 U	--
1,4-Dichlorobenzene	1 U	--	1 U	--	8 U	--	1 U	--	1 U	--
1,2-Dichlorobenzene	1 U	--	1 U	--	8 U	--	1 U	--	1 U	--
1,2-Dibromo-3-chloropropene	1 U	--	1 U	--	8 U	--	1 U	--	1 U	--
1,2,4-Trichlorobenzene	1 U	--	1 U	--	8 U	--	1 U	--	1 U	--
VOA TICs	0	1	0	0	3	1	0	0	0	0
Semivolatile Organic Compounds										
Phenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
bis(2-Chloroethyl)ether	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2-Chlorophenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
1,3-Dichlorobenzene	--	10 U	--	10 U	--	10 U	--	10 U	--	10 U
1,4-Dichlorobenzene	--	10 U	--	10 U	--	10 U	--	10 U	--	10 U
1,2-Dichlorobenzene	--	10 U	--	10 U	--	10 U	--	10 U	--	10 U
2-Methylphenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2,2'-oxybis(1-Chloropropane)	5 U	10 U	200 E	10 U	5 J	10 U	5 U	10 U	5 U	10 U
4-Methylphenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
N-Nitroso-di-n-propylamine	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Hexachloroethane	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Nitrobenzene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Isophorone	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2-Nitrophenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2,4-Dimethylphenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
bis(2-Chloroethoxy)methane	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2,4-Dichlorophenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
1,2,4-Trichlorobenzene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Naphthalene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
4-Chloroaniline	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Hexachlorobutadiene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
4-Chloro-3-methylphenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2-Methylnaphthalene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Hexachlorocyclopentadiene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2,4,6-Trichlorophenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2,4,5-Trichlorophenol	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U
2-Chloronaphthalene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2-Nitroaniline	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U
Dimethylphthalate	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Acenaphthylene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2,6-Dinitrotoluene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
3-Nitroaniline	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U

Table 1

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW51 (Lower Aquifer)		MW50 (Lower Aquifer)		MW13 (Upper Aquifer)		MW55 (Lower Aquifer)		MW54 (Lower Aquifer)	
	97ZB01S06 USEPA	PRP	97ZB01S07 USEPA	PRP	97ZB01S08 USEPA	PRP	97ZB02S01 USEPA	PRP	97ZB02S02 USEPA	PRP
Acenaphthene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2,4-Dinitrophenol	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U
4-Nitrophenol	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U
Dibenzofuran	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
2,4-Dinitrotoluene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Diethylphthalate	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
4-Chlorophenyl-phenylether	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Fluorene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
4-Nitroaniline	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U
4,6-Dinitro-2-methylphenol	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U
N-Nitrosodiphenylamine	5 U	10 U	5 U	10 U	5 U	10 U	5 UJ	10 U	5 UJ	10 U
4-Bromophenyl-phenylether	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Hexachlorobenzene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Pentachlorophenol	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U
Phenanthrene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Anthracene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Carbazole	--	10 U	--	10 U	--	10 U	--	10 U	--	10 U
Di-n-butylphthalate	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Fluoranthene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Pyrene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Butylbenzylphthalate	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
3,3'-Dichlorobenzidine	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Benzo(a)anthracene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Chrysene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
bis(2-Ethylhexyl)phthalate	5 U	10 U	5 U	10 U	5 BJU	10 U	5 JBU	10 U	5 JB	10 U
Di-n-octylphthalate	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Benzo(b)fluoranthene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Benzo(k)fluoranthene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Benzo(a)pyrene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Indeno(1,2,3-cd)pyrene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Dibenzo(a,h)anthracene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
Benzo(g,h,i)perylene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U
SVOA TICs	17	20	3	6	3	16	0	4	4	15
Pesticides										
Alpha-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Beta-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Delta-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Lindane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U

Table 1

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW51 (Lower Aquifer)		MW50 (Lower Aquifer)		MW13 (Upper Aquifer)		MW55 (Lower Aquifer)		MW54 (Lower Aquifer)	
	97ZB01S06 USEPA	PRP	97ZB01S07 USEPA	PRP	97ZB01S08 USEPA	PRP	97ZB02S01 USEPA	PRP	97ZB02S02 USEPA	PRP
Aldrin	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor Epoxide	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Endosulfan I	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Dieldrin	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDE	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endrin	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan II	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDD	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan Sulfate	0.020 UR	0.10 U	0.020 UR	0.10 U	0.020 UR	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDT	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Methoxychlor	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U
Endrin Ketone	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endrin Aldehyde	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Alpha-chlordane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Gamma-chlordane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Toxaphene	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U
PCBs										
Aroclor 1016	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1221	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U
Aroclor 1232	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1242	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1248	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1254	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1260	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Inorganic Analytes										
Aluminum	580	684	974	813	518	232	7,100	14,900 JN*	331	853 JN*
Antimony	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	2 U	2.1 UB	4	3.2 UB
Arsenic	2 U	4.7 B	2 U	2.7 B	2 U	2.0 U	5	12.9	7	7.5 B
Barium	414	400	255	236	60.7	66.5 B	235	271	163	190 B
Beryllium	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	2.1	2.5 B	1 U	1.0 U
Cadmium	0.2 U	1.0 U	0.2 U	1.0 U	0.2 U	1.0 U	0.3	1.0 U	0.2 U	1.0 U
Calcium	155,000	147,000	135,000	126,000	100,000	118,000	73,600	74,200	123,000	132,000
Chromium	10 U	4.1 UJB	10 U	5.0 UB	10 U	3.4 UB	116	133	43.8	82.2
Cobalt	6 U	1.9 B	6 U	1.1 B	6 U	1.9 B	11.3	10.5 B	6 U	4.0 B
Copper	6 U	3.7 B	6 U	1.8 UB	6.1	5.9 B	79.0	84.4	44.5	59.9
Iron	8,240	8,230	2,830	2,760	4,860	5,240	14,000	16,700	1,150	1,880
Lead	2 U	3.1 J	2 U	3.9 J	2 U	2.0 UB	29	43.2	5	6.3 U
Magnesium	68,100	66,300	66,900	62,700	26,500	32,000	33,000	35,800	46,900	54,100
Manganese	228	193	81.3	76.9	576	674	503	546	176	202

Table 1

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW51 (Lower Aquifer)		MW50 (Lower Aquifer)		MW13 (Upper Aquifer)		MW55 (Lower Aquifer)		MW54 (Lower Aquifer)	
	97ZB01S06 USEPA	PRP	97ZB01S07 USEPA	PRP	97ZB01S08 USEPA	PRP	97ZB02S01 USEPA	PRP	97ZB02S02 USEPA	PRP
Mercury	0.1	0.20 U	0.1	0.20 U	0.1 U	0.20 U	0.1	0.24	0.2	0.20 U
Nickel	20 U	12.1 B	20 U	10.8 B	20 U	3.1 B	84.3	101	37.9	66.0
Potassium	5,000 U	4,290 B	11,400	17,500	5,000 U	2,940 JBE	6,990	10,700 JE	5,000 U	4,540 JBE
Selenium	4 U	2.0 U	2 U	2.0 U	4 U	2.0 U	4 U	4.5 UB	4 U	2.7 UB
Silver	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U
Sodium	114,000	102,000	409,000	353,000	26,800	27,800	128,000	122,000	18,300	20,600
Thallium	2 U	2.0 U	2 U	2.1 B	2 U	2.0 UB	2 U	2.1 B	2 U	2.0 U
Vanadium	5 U	2.2 JB	5 U	1.5 B	5 U	1.7 B	9.6	15.6 B	5 U	1.9 B
Zinc	40 U	23.8 UJ	40 U	29.7 U	40 U	12.0 UB	100	105	40 U	13.6 UB
Cyanide	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U

Table 1
November and December 1996 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)			
	MW52 (Lower Aquifer)		MW53 (Lower Aquifer)	
	97ZB02S04 USEPA	PRP (Reported as MW53)	97ZB02S03 USEPA	PRP (Reported as MW52)
Volatile Organic Compounds				
Chloromethane	1 U	10 U	1 U	10 U
Bromomethane	1 U	10 U	1 U	10 U
Vinyl chloride	1 U	10 U	1 U	10 U
Chloroethane	1 U	10 U	1 U	10 U
Methylene chloride	2 U	10 U	2 U	10 U
Acetone	17	22	8	11
Carbon disulfide	1 U	10 U	1 U	10 U
1,1-Dichloroethene	1 U	10 U	1 U	10 U
1,1-Dichloroethane	1 U	10 U	1 U	10 U
cis-1,2-Dichloroethene	1 U	--	1 U	--
trans-1,2-Dichloroethene	1 U	--	1 U	--
1,2-Dichloroethene (total)	--	10 U	--	10 U
Chloroform	1 U	10 U	1	10 U
1,2-Dichloroethane	1 U	10 U	1 U	10 U
2-Butanone	2 J	10 U	1 J	10 U
Bromochloromethane	1 U	--	1 U	--
1,1,1-trichloroethane	1 U	10 U	1 U	10 U
Carbon tetrachloride	1 U	10 U	1 U	10 U
Bromodichloromethane	1 U	10 U	0.9 J	10 U
1,2-Dichloropropane	1 U	10 U	1 U	10 U
cis-1,3-dichloropropene	1 U	10 U	1 U	10 U
Trichloroethene	1 U	10 U	1 U	10 U
Dibromochloromethane	1 U	10 U	1 U	10 U
1,1,2-Trichloroethane	1 U	10 U	1 U	10 U
Benzene	1 U	10 U	1 U	10 U
trans-1,3-Dichloropropene	1 U	10 U	1 U	10 U
Bromoform	1 U	10 U	1 U	10 U
4-Methyl-2-pentanone	5 U	10 U	5 U	10 U
2-Hexanone	5 U	10 U	5 U	10 U
Tetrachloroethene	1 U	10 U	1 U	10 U
1,1,2,2-Tetrachloroethane	1 U	10 U	1 U	10 U
1,2-Dibromoethane	1 U	--	1 U	--
Toluene	2	3 J	0.8 J	1 J
Chlorobenzene	1 U	10 U	1 U	10 U
Ethylbenzene	1 U	10 U	1 U	10 U
Styrene	1 U	10 U	1 U	10 U
Xylene (total)	1 U	10 U	1 U	10 U

Table 1
November and December 1996 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)			
	MW52 (Lower Aquifer)		MW53 (Lower Aquifer)	
	97ZB02S04 USEPA	PRP (Reported as MW53)	97ZB02S03 USEPA	PRP (Reported as MW52)
1,3-Dichlorobenzene	1 U	--	1 U	--
1,4-Dichlorobenzene	1 U	--	1 U	--
1,2-Dichlorobenzene	1 U	--	1 U	--
1,2-Dibromo-3-chloropropene	1 U	--	1 U	--
1,2,4-Trichlorobenzene	1 U	--	1 U	--
VOA TICs	2	1	2	4
Semivolatile Organic Compounds				
Phenol	5 U	3 J	13	10
bis(2-Chloroethyl)ether	4 J	10 U	5 U	10 U
2-Chlorophenol	5 U	10 U	5 U	10 U
1,3-Dichlorobenzene	--	10 U	--	10 U
1,4-Dichlorobenzene	--	10 U	--	10 U
1,2-Dichlorobenzene	--	10 U	--	10 U
2-Methylphenol	5 U	10 U	5 U	10 U
2,2'-oxybis(1-Chloropropane)	5 U	10 U	5 U	10 U
4-Methylphenol	5 U	10 U	3 J	10 U
N-Nitroso-di-n-propylamine	5 U	10 U	5 U	10 U
Hexachloroethane	5 U	10 U	5 U	10 U
Nitrobenzene	5 U	10 U	5 U	10 U
Isophorone	5 U	10 U	1 J	0.8 J
2-Nitrophenol	5 U	10 U	5 U	10 U
2,4-Dimethylphenol	5 U	10 U	5 U	10 U
bis(2-Chloroethoxy)methane	5 U	10 U	5 U	10 U
2,4-Dichlorophenol	5 U	10 U	5 U	10 U
1,2,4-Trichlorobenzene	5 U	10 U	5 U	10 U
Naphthalene	5 U	10 U	5 U	10 U
4-Chloroaniline	5 U	10 U	5 U	10 U
Hexachlorobutadiene	5 U	10 U	5 U	10 U
4-Chloro-3-methylphenol	5 U	10 U	5 U	10 U
2-Methylnaphthalene	5 U	10 U	5 U	10 U
Hexachlorocyclopentadiene	5 U	10 U	5 U	10 U
2,4,6-Trichlorophenol	5 U	10 U	5 U	10 U
2,4,5-Trichlorophenol	20 U	25 U	20 U	25 U
2-Chloronaphthalene	5 U	10 U	5 U	10 U
2-Nitroaniline	20 U	25 U	20 U	25 U
Dimethylphthalate	5 U	10 U	5 U	10 U
Acenaphthylene	5 U	10 U	5 U	10 U
2,6-Dinitrotoluene	5 U	10 U	5 U	10 U
3-Nitroaniline	20 U	25 U	20 U	25 U

Table 1
November and December 1996 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)			
	MW52 (Lower Aquifer)		MW53 (Lower Aquifer)	
	97ZB02S04 USEPA	PRP (Reported as MW53)	97ZB02S03 USEPA	PRP (Reported as MW52)
Acenaphthene	5 U	10 U	5 U	10 U
2,4-Dinitrophenol	20 U	25 U	20 U	25 U
4-Nitrophenol	20 U	25 U	20 U	25 U
Dibenzofuran	5 U	10 U	5 U	10 U
2,4-Dinitrotoluene	5 U	10 U	5 U	10 U
Diethylphthalate	5 U	10 U	5 U	10 U
4-Chlorophenyl-phenylether	5 U	10 U	5 U	10 U
Fluorene	5 U	10 U	5 U	10 U
4-Nitroaniline	20 U	25 U	20 U	25 U
4,6-Dinitro-2-methylphenol	20 U	25 U	20 U	25 U
N-Nitrosodiphenylamine	5 UJ	10 U	5 UJ	10 U
4-Bromophenyl-phenylether	5 U	10 U	5 U	10 U
Hexachlorobenzene	5 U	10 U	5 U	10 U
Pentachlorophenol	20 U	25 U	20 U	25 U
Phenanthrene	5 U	10 U	5 U	10 U
Anthracene	5 U	10 U	5 U	10 U
Carbazole	--	10 U	--	10 U
Di-n-butylphthalate	5 U	10 U	1 J	10 U
Fluoranthene	5 U	10 U	5 U	10 U
Pyrene	5 U	10 U	5 U	10 U
Butylbenzylphthalate	5 U	10 U	5 U	10 U
3,3'-Dichlorobenzidine	5 U	10 U	5 U	10 U
Benzo(a)anthracene	5 U	10 U	5 U	10 U
Chrysene	5 U	10 U	5 U	10 U
bis(2-Ethylhexyl)phthalate	5 U	10 U	5 BU	21 U
Di-n-octylphthalate	5 U	10 U	5 U	10 U
Benzo(b)fluoranthene	5 U	10 U	5 U	10 U
Benzo(k)fluoranthene	5 U	10 U	5 U	10 U
Benzo(a)pyrene	5 U	10 U	5 U	10 U
Indeno(1,2,3-cd)pyrene	5 U	10 U	5 U	10 U
Dibenzo(a,h)anthracene	5 U	10 U	5 U	10 U
Benzo(g,h,i)perylene	5 U	10 U	5 U	10 U
SVOA TICs	3	20	15	13
Pesticides				
Alpha-BHC	0.010 U	0.050 U	0.010 U	0.050 U
Beta-BHC	0.010 U	0.050 U	0.010 U	0.050 U
Delta-BHC	0.010 U	0.050 U	0.010 U	0.050 U
Lindane	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor	0.010 U	0.050 U	0.010 U	0.050 U

Table 1
November and December 1996 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)			
	MW52 (Lower Aquifer)		MW53 (Lower Aquifer)	
	97ZB02S04 USEPA	PRP (Reported as MW53)	97ZB02S03 USEPA	PRP (Reported as MW52)
Aldrin	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor Epoxide	0.010 U	0.050 U	0.010 U	0.050 U
Endosulfan I	0.010 U	0.050 U	0.010 U	0.050 U
Dieldrin	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDE	0.020 U	0.10 U	0.020 U	0.10 U
Endrin	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan II	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDD	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan Sulfate	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDT	0.020 U	0.10 U	0.020 U	0.10 U
Methoxychlor	0.10 U	0.50 U	0.10 U	0.50 U
Endrin Ketone	0.020 U	0.10 U	0.020 U	0.10 U
Endrin Aldehyde	0.020 U	0.10 U	0.020 U	0.10 U
Alpha-chlordane	0.010 U	0.050 U	0.010 U	0.050 U
Gamma-chlordane	0.010 U	0.050 U	0.010 U	0.050 U
Toxaphene	1.0 U	5.0 U	1.0 U	5.0 U
PCBs				
Aroclor 1016	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1221	0.40 U	2.0 U	0.40 U	2.0 U
Aroclor 1232	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1242	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1248	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1254	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1260	0.20 U	1.0 U	0.20 U	1.0 U
Inorganic Analytes				
Aluminum	3,850	4,190 JN*	16,700	39,200 JN*
Antimony	5	6.8 B	2 U	1.7 UB
Arsenic	36	40.3	16	30.1
Barium	265	264	942	997
Beryllium	1 U	1.2 B	6.2	6.2
Cadmium	0.2 U	1.0 U	1.1	1.0 U
Calcium	129,000	135,000	180,000	160,000
Chromium	51.7	134	187	189
Cobalt	14.1	13.1 B	30.3	24.9 B
Copper	21.9	66.8	107	107
Iron	13,500	11,600	45,100	48,800
Lead	16	31.4	120	138
Magnesium	44,500	49,100	76,100	75,300
Manganese	567	673	1,620	1,630

Table 1
November and December 1996 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)			
	MW52 (Lower Aquifer)		MW53 (Lower Aquifer)	
	97ZB02S04 USEPA	PRP (Reported as MW53)	97ZB02S03 USEPA	PRP (Reported as MW52)
Mercury	0.1	0.20 U	0.4	0.24
Nickel	124	201	136	139
Potassium	5.000 U	7.770 JE	15.600	24.400 JE
Selenium	4 U	2.0 U	4 U	5.1 U
Silver	6 U	1.0 U	6 U	1.0 U
Sodium	104.000	87.900	328.000	252.000
Thallium	2 U	4.1 B	2 U	2.0 B
Vanadium	8.9	10.6 B	21.5	32.3 B
Zinc	40 U	90.3	406	443
Cyanide	8 U	10.0 U	8 U	10.0 U

Table 2

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

Relative Percent Difference

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)														
	MW8 (Lower Aquifer)			MW19 (Upper Aquifer)			MW12 (Upper Aquifer)			MW9 (Lower Aquifer)			MW10C (Lower Aquifer)		
	97ZB01S01 USEPA	PRP	RPD	97ZB01S02 USEPA	PRP	RPD	97ZB01S03 USEPA	PRP	RPD	97ZB01S04 USEPA	PRP	RPD	97ZB01S05 USEPA	PRP	RPD
Volatile Organic Compounds															
Chloroethane													210 DJ	120	-55%
Methylene chloride										720 BDU	200 U	-113%			
Acetone										690 DJ	200 U	-110%			
Toluene															
Semivolatile Organic Compo nds															
bis(2-Chloroethyl)ether										31	44	35%			
2.2'-oxybis(1-Chloropropane)															
Inorganic Analytes															
Aluminum							192	361	61%						
Antimony															
Arsenic	3	4.4 B	38%				3	5.6 B	60%						
Chromium															
Cobalt							6.9	1.0 U	-149%	6	3.5 B	-53%			
Copper				9.3	5.0 UB	-60%	6 U	9.0 JB	40%						
Iron							11,200	22,500	67%						
Lead							10	14.1 J	34%						
Mercury				0.3	0.20 U	-40%							0.3	0.20 U	-40%
Nickel															
Potassium				74,300	113,000	41%				7,170	10,800	40%			
Thallium															
Vanadium							7.1	18.9 JB	91%				6.5	3.8 B	-52%
Zinc															

Table 2

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

Relative Percent Difference

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)														
	MW51 (Lower Aquifer)			MW50 (Lower Aquifer)			MW13 (Upper Aquifer)			MW55 (Lower Aquifer)			MW54 (Lower Aquifer)		
	97ZB01S06 USEPA	PRP	RPD	97ZB01S07 USEPA	PRP	RPD	97ZB01S08 USEPA	PRP	RPD	97ZB02S01 USEPA	PRP	RPD	97ZB02S02 USEPA	PRP	RPD
Volatile Organic Compounds															
Chloroethane															
Methylene chloride															
Acetone															
Toluene															
Semivolatile Organic Compo															
bis(2-Chloroethyl)ether															
2,2'-oxybis(1-Chloropropane)				200 E	10 U	-181%									
Inorganic Analytes															
Aluminum							518	232	-76%	7,100	14,900 JN*	71%	331	853 JN*	88%
Antimony															
Arsenic	2 U	4.7 B	81%	2 U	2.7 B	30%				5	12.9	88%			
Chromium													43.8	82.2	61%
Cobalt															
Copper													44.5	59.9	30%
Iron													1,150	1,880	48%
Lead	2 U	3.1 J	43%	2 U	3.9 J	64%				29	43.2	39%			
Mercury										0.1	0.24	82%			
Nickel													37.9	66.0	54%
Potassium				11,400	17,500	42%				6,990	10,700 JE	42%			
Thallium															
Vanadium										9.6	15.6 B	48%			
Zinc															

Table 2

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

Relative Percent Difference

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)					
	MW53 (Lower Aquifer)			MW52 (Lower Aquifer)		
	97ZB02S03 USEPA	PRP (Reported as MW52)	RPD	97ZB02S04 USEPA	PRP (Reported as MW53)	RPD
Volatile Organic Compounds						
Chloroethane						
Methylene chloride						
Acetone				8	11	32%
Toluene	2	3 J	40%			
Semivolatile Organic Compo						
bis(2-Chloroethyl)ether						
2,2'-oxybis(1-Chloropropane)						
Inorganic Analytes						
Aluminum				16,700	39,200 JN*	81%
Antimony	5	6.8 B	31%			
Arsenic				16	30.1	61%
Chromium	51.7	134	89%			
Cobalt						
Copper	21.9	66.8	101%			
Iron						
Lead	16	31.4	65%			
Mercury				0.4	0.24	-50%
Nickel	124	201	47%			
Potassium	5,000 U	7,770 JE	43%	15,600	24,400 JE	44%
Thallium	2 U	4.1 B	69%			
Vanadium				21.5	32.3 B	40%
Zinc	40 U	90.3	77%			

Appendix A

USEPA Organic and Inorganic Analysis Data Sheets

December 1996
Analyzed Data
71670
File I.7

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on Jan 17, 1997

FROM: Stephen L. Ostrodka, Chief (HSRL-5J)
Superfund Technical Support Section

TO: Data User: B+V PJS for Steve Ostrodka 01/28/97

We have reviewed the data for the following case:

SITE NAME: American Chem SVCS (IN)

CASE NUMBER: 25256 SDG NUMBER: ~~EBSK2~~ EBS59 MK 1-21-97

Number and Type of Samples: 11 (water)

Sample Numbers: EBSK0-4 EBSJ07 4-6, 8-9 PJS 01/27/97

Laboratory: Mitkem Hrs. for Review: 13+1.5

Following are our findings:

The data are acceptable and usable with the qualifications discussed in the attached narrative

Patricia J Scott

cc: Regional TPO
Brian Freeman
HSMC-5J

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on Jan 17, 1997

FROM: Stephen L. Ostrodka, Chief (HSRL-5J)
Superfund Technical Support Section

TO: Data User: B+V PJS for Steve Ostrodka 01/28/97

We have reviewed the data for the following case:

SITE NAME: American Chem Svcs (IN)

CASE NUMBER: 25256 SDG NUMBER: ~~EBSK2~~ EBSJ9 MK 1-21-97

Number and Type of Samples: 11 (water)

Sample Numbers: EBSKQ-4 EBSJ7, 4-6, 8-9 PJS 01/27/97

Laboratory: Mitkem Hrs. for Review: 13+1.5

Following are our findings:

The data are acceptable and usable with the qualifications discribed in the attached narrative

Patricia J Scott

cc: Regional TPO
Brian Freeman
HSMC-5J

NARRATIVE

Contractor:	Mitkem	Case:	25256
Site:	American Chemical Svcs (IN)	SDG:	EBSJ9

This case consists of 11 low concentration water samples EBSK0, EBSK1, EBSK2, EBSK3, EBSK4, EBSJ4, EBSJ5, EBSJ6, EBSJ7, EBSJ8, and EBSJ9. These samples were all collected on December 26 and 27, 1996 and were received by the laboratory on December 27 and 28, 1996. All samples except EBSJ4, EBSJ7, and EBSK3 were analyzed for the volatiles, semi-volatiles, and pesticide/PCB organic analytes. Samples EBSJ4, EBSJ7, and EBSK3 were designated as trip blanks and was only analyzed for volatiles. All samples were analyzed according to CLP Low Concentration Water (OLC02.1).

The VOA analyses were performed within the technical holding time of 14 days after sample collection, for preserved water samples; therefore, the results are acceptable. All semivolatile and pesticide/PCB samples were extracted within the 7 day holding time for water samples, and analyzed within the 40 day hold time; therefore, the results are acceptable.

From the record of communication enclosed as part of this narrative, the new CLP sample numbers listed shows that sample EBSK0 was designated as a rinsate blank. Samples EBSJ5 and EBSJ6 were field duplicates as were EBSK1 and EBSK2.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: M. Kaminsky Lockheed-Martin ESAT
Date: January 24, 1997

NARRATIVE

Contractor: Mitkem Case: 25256
Site: American Chemical Svcs (IN) SDG: EBSJ9

1.HOLDING TIMES

This case consists of 11 low concentration water samples EBSK0, EBSK1, EBSK2, EBSK3, EBSK4, EBSJ7, EBSJ4, EBSJ5, EBSJ6, EBSJ8, and EBSJ9. These samples were all collected on December 26 and 27, 1996 and were received by the laboratory on December 27 and 28, 1996. All samples except EBSJ4, EBSJ7, and EBSK3 were analyzed for the volatiles, semi-volatiles, and pesticide/PCB organic analytes. Samples EBSJ4, EBSJ7, and EBSK3 were designated as trip blanks and was only analyzed for volatiles. All samples were analyzed according to CLP Low Concentration Water (OLC02.1).

The VOA analyses were performed within the technical holding time of 14 days after sample collection, for preserved water samples; therefore, the results are acceptable. All semivolatile and pesticide/PCB samples were extracted within the 7 day holding time for water samples, and analyzed within the 40 day hold time; therefore, the results are acceptable.

2.GC/MS TUNING

All GC/MS tuning complied with the mass list and ion abundance criteria for BFB, and all samples were analyzed within the 12 hour periods for instrument performance checks.

All GC/MS tuning complied with the mass list and ion abundance criteria for DFTPP, and all samples were analyzed within the 12 hour periods for instrument performance checks. GC Resolution Check Mixes met the 60% resolution criteria. Endrin and DDT degradation checks using PEM MIX on DB-608 and DB-1701 columns were <20%; therefore, the results are acceptable. The Florisil Cartridge Check met QC criteria; therefore, the results are acceptable.

3.CALIBRATION

Initial and continuing calibrations of the volatile, semivolatile, and pesticide/PCBs were evaluated for the target compound list and outliers are recorded on the forms included as part of the narrative.

4.BLANKS

VOA:

The volatile water blank VBLK01 was found to contain the common laboratory chemical methylene chloride. The presence of the common laboratory chemical in the samples as well as the volatile holding blank associated with blank VBLK01, are flagged as undetected (U) if the concentration in the sample is less than ten times the blank concentration. There were no TICs found in this blank. The volatile method blank summary (Form IVVOA) lists the samples associated with these blanks.

SVOA:

Reviewed by: M. Kaminsky Lockheed-Martin ESAT
Date: January 24, 1997

NARRATIVE

Contractor: Mitkem Case: 25256
Site: American Chemical Svcs (IN) SDG: EBSJ9

SBLK01 was found to contain the common laboratory chemical bis (2-ethylhexyl) phthalate and no TICs. The presence of the common laboratory contaminant in any sample associated with the blank SBLK01 is flagged as undetected (U) when the sample results are less than ten (10) times the blank contamination. The semivolatile method blank summary (Form IV SVOA) lists the samples associated with these blanks.

PESTICIDE/PCB:

The pesticide blank PBLK01 was found to be clean. The pesticide/PCB blank summary (Form IV PEST) lists the samples associated with this blank.

5.SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

VOA:

The volatile water system monitoring compounds were within the QC limits for all samples; therefore the results are acceptable.

SVOA:

The semivolatile water system monitoring compounds were within the QC limits for all samples, therefore all results are acceptable.

PESTICIDE/PCB:

The pesticide surrogate TCX (tetrachloro-m-xylene) had high recovery on one column for the following samples; PBLK01, PLCS01, EBSK2, EBSK0, EBSJ5, EBSJ6, and EBSJ9. The cause of this high recovery is an impurity that is coeluting on the DB-1701 column. In the opinion of this reviewer this high recovery on one column does not adversely impact the data so no qualification is needed.

6. LABORATORY CONTROL SAMPLE

VOA:

All recoveries for the volatile water samples were within QC limits; therefore, the results are acceptable.

SVOA:

All recoveries for the semivolatile water samples were within QC limits; except for N-nitrosodiphenylamine which was high. Therefore; positive hits of this compound in the associated samples should be considered estimated (J) and nondetects need no qualification.

Reviewed by: M. Kaminsky Lockheed-Martin ESAT
Date: January 24, 1997

NARRATIVE

Contractor: Mitkem Case: 25256
Site: American Chemical Svcs (IN) SDG: EBSJ9

PESTICIDE/PCB:

All recoveries for the pesticide/PCB water samples were within QC limits; therefore, the results are acceptable.

7.FIELD BLANKS AND FIELD DUPLICATES

Trip blanks EBSJ4 and EBSK3 were found to contain ~~one each~~ no one each volatile TCLs and no TICs. Trip blank EBSJ7 contained 1 TCL and no TICs. Rinsate blank EBJK0 contained 2 volatile TCLs and no volatile TICs, no semivolatile TCLs and TICS, and no pesticide/PCBs TCLs. Sample EBSJ5 contained 2 volatile TCLs no volatile TICs, 1 semivolatile TCL and 2 semivolatile TICs, and no pesticide/PCBs TCLs. Its duplicate EBSJ6 contained 4 volatile TCLs no volatile TICs, 1 semivolatile TCL and 2 semivolatile TICs, and no pesticide/PCBs TCLs. Sample EBSK1 contained 4 volatile TCLs no volatile TICs, no semivolatile TCLs and no semivolatile TICs, and no pesticide/PCBs TCLs. Its duplicate EBSK2 contained 4 volatile TCLs no volatile TICs, no semivolatile TCLs and no semivolatile TICs, and no pesticide/PCBs TCLs.

PB 01/24/97

8.INTERNAL STANDARDS

VOA:

No problems were reported.

SVOA:

No problems were reported.

9.COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all VOA, SVOA, and pesticide/PCB compounds were properly identified.

10.COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All CRQLs were properly reported and no dilutions were performed All target compounds were properly reported.

11.SYSTEM PERFORMANCE

GC/MS and pesticide baselines indicated acceptable performance.

12.ADDITIONAL INFORMATION

None.

Reviewed by: M. Kaminsky Lockheed-Martin ESAT
Date: January 24, 1997

CALIBRATION OUTLIERS
LOW CONCENTRATION WATER VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 25256
COLUMN: RTX-624
HEATED PURGE (Y/N): N

LABORATORY: M.T Kem
SITENAME: Am Chem Semm

Instrument# V2		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		12/26 1620			1/06 1501											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01															
Acetone	0.01	90.29	45.0	S/R												
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
cis-1,2-Dichloroethene	0.10															
trans-1,2-Dichloroethene	0.10															
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
Bromochloromethane	0.10															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane	0.01															
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
1,2-Dibromoethane	0.10															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
1,2-Dibromo-3-chloropropane	0.10															
1,3-Dichlorobenzene	0.60															
1,4-Dichlorobenzene	0.50															
1,2-Dichlorobenzene	0.40															
Bromofluorobenzene	0.40															

Samples affected:
VBLK01
VHBLK01
VLCS01
EBSK0-4
EBSJ7, 4-6,8,9
V1BLK01

Reviewer's Init/Date: MC 1-21-97

CALIBRATION OUTLIER
Semivolatile TCL
(Page 1 of 2)

CASE/SAS #: 25256
COLUMN:

LABORATORY: Mitkem
SITE NAME: Omega

Instrument ID: S1		Initial Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
Date:		11-16			1-09											
Time:		1142			1333											
	#	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol	0.800															
bis(2-Chloroethyl)ether	0.700															
2-Chlorophenol	0.800															
1,3-Dichlorobenzene	0.600															
1,4-Dichlorobenzene	0.500															
1,2-Dichlorobenzene	0.400															
2-Methylphenol	0.700															
2,2-oxybis(1-Chloropropane)	0.010															
4-Methylphenol	0.600															
N-Nitroso-di-n-propylamine	0.500															
Hexachloroethane	0.300															
Nitrobenzene	0.200															
Isophorone	0.400															
2-Nitrophenol	0.100															
2,4-Dimethylphenol	0.200															
bis(2-Chloroethoxy)methane	0.300															
2,4-Dichlorophenol	0.200															
1,2,4-Trichlorobenzene	0.200															
thalene	0.700															
- chloroaniline	0.010	0213	337	S	0074	652	S									
Hexachlorobutadiene	0.010															
4-Chloro-3-methylphenol	0.200															
2-Methylnaphthalene	0.400															
Hexachlorocyclopentadiene	0.010															
2,4,6-Trichlorophenol	0.200															
2,4,5-Trichlorophenol	0.200															
2-Chloronaphthalene	0.800															
2-Nitroaniline	0.010	1232	442	S												
Dimethylphthalate	0.010															
Acenaphthylene	0.900															
2,6-Dinitrotoluene	0.200															
3-Nitroaniline	0.010	0144	523	S												
Acenaphthene	0.900															
2,4-Dinitrophenol	0.010															

Affected Samples:

	SBLK01			
	SLCS 01			
	FBSK0-2,4			
	FBSS5,6,8,9			

Minimum Relative Response Factor.

CALIBRATION OUTLIER
Semivolatile TCL
(Page 2 of 2)

CASE/SAS #: 25256
COLUMN:

LABORATORY: Mitkem
SITE NAME: Ensco

Instrument ID: S1		Initial Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
Date:		11-16			1-09											
Time:		1142			1333											
	#	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
4-Nitrophenol	0.010	0284			0178	37.3	S									
Dibenzofuran	0.800															
2,4-Dinitrotoluene	0.200															
Diethylphthalate	0.010															
4-Chlorophenyl-phenylether	0.400															
Fluorene	0.900															
4-Nitroaniline	0.010	0122	36.3	S												
4,6-Dinitro-2-methylphenol	0.010															
N-nitrosodiphenylamine	0.010															
4-Bromophenyl-phenylether	0.100	0226			0292	292	S									
Hexachlorobenzene	0.100															
Pentachlorophenol	0.050															
Phenanthrene	0.700															
Anthracene	0.700															
Carbazole	0.010															
Di-n-butylphthalate	0.010															
Fluoranthene	0.600															
Pyrene	0.600															
Butylbenzylphthalate	0.010															
3-3'-Dichlorobenzidine	0.010	0105			0055	476	S									
Benzo(a)anthracene	0.800															
Chrysene	0.700															
bis(2-Ethylhexyl)phthalate	0.010															
Di-n-octylphthalate	0.010															
Benzo(b)fluoranthene	0.700															
Benzo(k)fluoranthene	0.700															
Benzo(a)pyrene	0.700															
Indeno(1,2,3-cd)pyrene	0.500															
Dibenz(a,h)anthracene	0.400															
Benzo(g,h,i)perylene	0.500															
Nitrobenzene-d_5	0.200															
2-Flurobiphenyl	0.700															
Terphenyl-d_{14}	0.500															
Phenol-d_5	0.800															
2-Fluorophenol	0.600															
2,4,6-Tribromophenol	0.010															
2-Chlorophenol-d_4	0.800															
1,2-Dichlorobenzene-d_4	0.400															

[1] Minimum Relative Response Factor.
[2] These flags should be applied to the analytes on the sample data sheets.
[3] All positive results are estimated "J" and non-detected results are unusable "R".

CALIBRATION OUTLIER
Pesticide/PCB TCL
(Page 1 of 1)

CASE/SAS #: 25256
COLUMN: DB608

LABORATORY: Mitkem
SITE NAME: [illegible]

Instrument Number	Initial Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.	
Date SC 3	1-02		1 02							
Time	1120		2211							
-	%RSD	*	%D	*	%D	*	%D	*	%D	*
alpha-BHC										
beta-BHC										
delta-BHC										
gamma-BHC										
Hepachlor										
Aldrin										
Heptachlor Epoxide										
Endosulfan I										
Dieldrin										
4,4'-DDE										
Endrin										
Endosulfan II										
4,4'-DDD										
Endosulfan Sulfate										
4,4'-DDT										
Methoxychlor										
Endrin Ketone										
Endrin Aldehyde										
alpha-Chlordane										
gamma-Chlordane										
Arolcor 1016										
Aroclor 1221										
Aroclor 1232										
Arolcor 1242										
Aroclor 1248										
Aroclor 1254										
Aroclor 1260										

Affected Samples:

	PBLK01			
	PLCS01C			
	EBSK0-2,4			
	EBSJ5-6,8,9			

* These flags should be applied to the analytes on the sample data sheets.
J/R = All positive results are estimated "J" and non-detected results are unusable "R".

Reviewer's Init/Date: [illegible] 1-22-97

CALIBRATION OUTLIER
Pesticide/PCB TCL
(Page 1 of 1)

CASE/SAS #: 25256
COLUMN: DB17C1

LABORATORY: Mitkem
SITE NAME: [illegible]

Instrument Number	Initial Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.	
Date SC3	1-02		1-02							
Time	1120		2211							
	%RSD	*	%D	*	%D	*	%D	*	%D	*
alpha-BHC										
beta-BHC										
delta-BHC										
gamma-BHC										
Hepachlor										
Aldrin										
Heptachlor Epoxide										
Endosulfan I										
Dieldrin										
4,4'-DDE										
Endrin										
Endosulfan II										
4,4'-DDD										
Endosulfan Sulfate										
4,4'-DDT										
Methoxychlor										
Endrin Ketone										
Endrin Aldehyde										
alpha-Chlordane										
gamma-Chlordane										
Arolcor 1016										
Aroclor 1221										
Aroclor 1232										
Arolcor 1242										
Aroclor 1248										
Aroclor 1254										
Aroclor 1260										

Affected Samples:

	PBLK01			
	PLCS01P			
	EBSK0-2,4			
	EBSJ5,6,8,9			

* These flags should be applied to the analytes on the sample data sheets.
J/R = All positive results are estimated "J" and non-detected results are unusable "R".

Reviewer's Init/Date: [illegible] 1-22-92

ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL).

U Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound but the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.

R Indicates the data are unusable. (Note: The analyte may or may not be present.)

N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.

P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

C Indicates pesticide results that have been confirmed by GC/MS.

B Indicates the analyte is detected in the associated blank as well as the sample.

E Indicates compounds whose concentrations exceed the calibration range of the instrument.

D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.

A Indicates tentatively identified compounds that are suspected to be aldol condensation products.

G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.

L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.

T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

X, Y, Z are reserved for laboratory defined flags.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on Jan 17, 1997

FROM: Stephen L. Ostrodka, Chief (HSRL-5J)
Superfund Technical Support Section

TO: Data User: B+V PJS for Steve Ostrodka 01/28/97

We have reviewed the data for the following case:

SITE NAME: American Chem SVCS (IN)

CASE NUMBER: 25256 SDG NUMBER: ~~EBSK2~~ EBSJ9 MK 1-21-97

Number and Type of Samples: 11 (water)

Sample Numbers: EBSKQ-4 EBSJQ7, 4-6, 8-9 PJS 01/27/97

Laboratory: Mitkem Hrs. for Review: 13+1.5

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Patricia J Scott

cc: Regional TPO
Brian Freeman
HSMC-5J

NARRATIVE

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Site:	American Chemical Svcs (IN)	SDG:	EBSJ9

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From the record of communication enclosed as part of this narrative, the new CLP sample numbers listed shows that sample EBSK0 was designated as a rinsate blank. Samples EBSJ5 and EBSJ6 were field duplicates as were EBSK1 and EBSK2.

The reviewer's narrative and data qualifiers are noted in the following pages.

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Date: January 24, 1997

NARRATIVE

Contractor: Mitkem Case: 25256
Site: American Chemical Svcs (IN) SDG: EBSJ9

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Initial and continuing calibrations of the volatile, semivolatile, and pesticide/PCBs were evaluated for the target compound list and outliers are recorded on the forms included as part of the narrative.

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VOA:

The volatile water blank VBLK01 was found to contain the common laboratory chemical methylene chloride. The presence of the common laboratory chemical in the samples as well as the volatile holding blank associated with blank VBLK01, are flagged as undetected (U) if the concentration in the sample is less than ten times the blank concentration. There were no TICs found in this blank. The volatile method blank summary (Form IVVOA) lists the samples associated with these blanks.

SVOA:

Reviewed by: M. Kaminsky Lockheed-Martin ESAT
Date: January 24, 1997

NARRATIVE

Contractor: Mitkem Case: 25256
Site: American Chemical Svcs (IN) SDG: EBSJ9

SBLK01 was found to contain the common laboratory chemical bis (2-ethylhexyl) phthalate and no TICs. The presence of the common laboratory contaminant in any sample associated with the blank SBLK01 is flagged as undetected (U) when the sample results are less than ten (10) times the blank contamination. The semivolatile method blank summary (Form IV SVOA) lists the samples associated with these blanks.

PESTICIDE/PCB:

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5.SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

VOA:

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6. LABORATORY CONTROL SAMPLE

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Date: January 24, 1997

NARRATIVE

Contractor: Mitkem Case: 25256
Site: American Chemical Svcs (IN) SDG: EBSJ9

PESTICIDE/PCB:

All recoveries for the pesticide/PCB water samples were within QC limits; therefore, the results are acceptable.

7.FIELD BLANKS AND FIELD DUPLICATES

Trip blanks EBSJ4 and EBSK3 were found to contain ~~one each~~ NO ONE EACH volatile TCLs and no TICs. Trip blank EBSJ7 contained 1 TCL and no TICs. Rinsate blank EBJK0 contained 2 volatile TCLs and no volatile TICs, no semivolatile TCLs and TICS, and no pesticide/PCBs TCLs. Sample EBSJ5 contained 2 volatile TCLs no volatile TICs, 1 semivolatile TCL and 2 semivolatile TICs, and no pesticide/PCBs TCLs. Its duplicate EBSJ6 contained 4 volatile TCLs no volatile TICs, 1 semivolatile TCL and 2 semivolatile TICs, and no pesticide/PCBs TCLs. Sample EBSK1 contained 4 volatile TCLs no volatile TICs, no semivolatile TCLs and no semivolatile TICs, and no pesticide/PCBs TCLs. Its duplicate EBSK2 contained 4 volatile TCLs no volatile TICs, no semivolatile TCLs and no semivolatile TICs, and no pesticide/PCBs TCLs. PP 01/28/97

8.INTERNAL STANDARDS

VOA:

No problems were reported.

SVOA:

No problems were reported.

9.COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all VOA, SVOA, and pesticide/PCB compounds were properly identified.

10.COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All CRQLs were properly reported and no dilutions were performed All target compounds were properly reported.

11.SYSTEM PERFORMANCE

GC/MS and pesticide baselines indicated acceptable performance.

12.ADDITIONAL INFORMATION

None.

Reviewed by: M. Kaminsky Lockheed-Martin ESAT
Date: January 24, 1997

CALIBRATION OUTLIERS
LOW CONCENTRATION WATER VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 25256
COLUMN: RTX-624
HEATED PURGE (Y/N): N

LABORATORY: M.T Kem
SITENAME: Am Chem Sewer

Instrument# V2		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		12/26	1620		1/06	1501										
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01															
Acetone	0.01	0029	45.0	J/R												
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
cis-1,2-Dichloroethene	0.10															
trans-1,2-Dichloroethene	0.10															
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
Bromochloromethane	0.10															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane	0.01															
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
1,2-Dibromoethane	0.10															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
1,2-Dibromo-3-chloropropane	0.10															
1,3-Dichlorobenzene	0.60															
1,4-Dichlorobenzene	0.50															
1,2-Dichlorobenzene	0.40															
Bromofluorobenzene	0.40															

Samples affected:						
		VBLK01				
		VHBLK01				
		VLCS01				
		EBSK0-4				
		EBSJ7,4-6,8,9				
		VIBLK01				

Reviewer's Init/Date: MK 1-21-97

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

* = These flags should be applied to the analytes on the sample data sheets.
\# = Minimum Relative Response Factor

CALIBRATION OUTLIER
Semivolatile TCL
(Page 1 of 2)

CASE/SAS #: 25256
COLUMN:

LABORATORY: Mitkin
SITE NAME: [illegible]

Instrument ID: S1		Initial Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
Date:		11-16			1-09											
Time:		1142			1333											
	#	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol	0.800															
bis(2-Chloroethyl)ether	0.700															
2-Chlorophenol	0.800															
1,3-Dichlorobenzene	0.600															
1,4-Dichlorobenzene	0.500															
1,2-Dichlorobenzene	0.400															
2-Methylphenol	0.700															
2,2-oxybis(1-Chloropropane)	0.010															
4-Methylphenol	0.600															
N-Nitroso-di-n-propylamine	0.500															
Hexachloroethane	0.300															
Nitrobenzene	0.200															
Isophorone	0.400															
2-Nitrophenol	0.100															
2,4-Dimethylphenol	0.200															
bis(2-Chloroethoxy)methane	0.300															
2,4-Dichlorophenol	0.200															
1,2,4-Trichlorobenzene	0.200															
[illegible]thalene	0.700															
[illegible]chloroaniline	0.010	0213	337	J	0074	652	J									
Hexachlorobutadiene	0.010															
4-Chloro-3-methylphenol	0.200															
2-Methylnaphthalene	0.400															
Hexachlorocyclopentadiene	0.010															
2,4,6-Trichlorophenol	0.200															
2,4,5-Trichlorophenol	0.200															
2-Chloronaphthalene	0.800															
2-Nitroaniline	0.010	1232	442	J												
Dimethylphthalate	0.010															
Acenaphthylene	0.900															
2,6-Dinitrotoluene	0.200															
3-Nitroaniline	0.010	0144	523	J												
Acenaphthene	0.900															
2,4-Dinitrophenol	0.010															

Affected Samples:

	SBLK01			
	SLCS01			
	FBSK0-2,4			
	FB5JS,6,8,9			

Minimum Relative Response Factor.
* These flags should be applied to the analytes on the sample data sheets.
J/R = All positive results are estimated "J" and non-detected results are unusable "R".

Reviewer's Init/Date: MK 1-21-97

CALIBRATION OUTLIER
Semivolatile TCL
(Page 2 of 2)

CASE/SAS #: 25256
COLUMN:

LABORATORY: Mitkem
SITE NAME: Owen

Instrument ID: S1		Initial Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
Date:		11-16			1-09											
Time:		1142			1333											
	#	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
4-Nitrophenol	0.010	0284			0178	37.3	J									
Dibenzofuran	0.800															
2,4-Dinitrotoluene	0.200															
Diethylphthalate	0.010															
4-Chlorophenyl-phenylether	0.400															
Fluorene	0.900															
4-Nitroaniline	0.010	0122	36.3	J												
4,6-Dinitro-2-methylphenol	0.010															
N-nitrosodiphenylamine	0.010															
4-Bromophenyl-phenylether	0.100	0226			0292	29.2	J									
Hexachlorobenzene	0.100															
Pentachlorophenol	0.050															
Phenanthrene	0.700															
Anthracene	0.700															
Carbazole	0.010															
Di-n-butylphthalate	0.010															
Fluoranthene	0.600															
Pyrene	0.600															
Butylbenzylphthalate	0.010															
3-3'-Dichlorobenzidine	0.010	0105			0055	47.6	J									
Benzo(a)anthracene	0.800															
Chrysene	0.700															
bis(2-Ethylhexyl)phthalate	0.010															
Di-n-octylphthalate	0.010															
Benzo(b)fluoranthene	0.700															
Benzo(k)fluoranthene	0.700															
Benzo(a)pyrene	0.700															
Indeno(1,2,3-cd)pyrene	0.500															
Dibenz(a,h)anthracene	0.400															
Benzo(g,h,i)perylene	0.500															
Nitrobenzene-d_5	0.200															
2-Fluorobiphenyl	0.700															
Terphenyl-d_{14}	0.500															
Phenol-d_6	0.800															
2-Fluorophenol	0.600															
2,4,6-Tribromophenol	0.010															
2-Chlorophenol-d_4	0.800															
1,2-Dichlorobenzene-d_4	0.400															

* Minimum Relative Response Factor.
* These flags should be applied to the analytes on the sample data sheets.
J/R - All positive results are estimated "J" and non-detected results are unusable "R".

Reviewer's Init/Date: MK 1-21-97

CALIBRATION OUTLIER
Pesticide/PCB TCL
(Page 1 of 1)

CASE/SAS #: 25256
COLUMN: DB608

LABORATORY: Mitkem
SITE NAME: [illegible]

Instrument Number	Initial Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.	
Date SC 3	1-02		102							
Time	1120		2211							
	%RSD	*	%D	*	%D	*	%D	*	%D	*
alpha-BHC										
beta-BHC										
delta-BHC										
gamma-BHC										
Hepachlor										
Aldrin										
Heptachlor Epoxide										
Endosulfan I										
Dieldrin										
4,4'-DDE										
Endrin										
Endosulfan II										
4,4'-DDD										
Endosulfan Sulfate										
4,4'-DDT										
Methoxychlor										
Endrin Ketone										
Endrin Aldehyde										
alpha-Chlordane										
gamma-Chlordane										
Arolcor 1016										
Aroclor 1221										
Aroclor 1232										
Arolcor 1242										
Aroclor 1248										
Aroclor 1254										
Aroclor 1260										

Affected Samples:

	PBLK01			
	PLCS01C			
	EBSK0-2,4			
	EBSJ5-6,8,9			

* These flags should be applied to the analytes on the sample data sheets.
J/R = All positive results are estimated "J" and non-detected results are unusable "R".

Reviewer's Init/Date: MK 1-22-97

CALIBRATION OUTLIER
Pesticide/PCB TCL
(Page 1 of 1)

CASE/SAS #: 25256
COLUMN: DB17C1

LABORATORY: Mitkem
SITE NAME: [illegible]

Instrument Number / Date SC3	Initial Cal. 1-02		Cont. Cal. 1-02		Cont. Cal.		Cont. Cal.		Cont. Cal.	
Time	1120		2211							
	%RSD	*	%D	*	%D	*	%D	*	%D	*
alpha-BHC										
beta-BHC										
delta-BHC										
gamma-BHC										
Hepachlor										
Aldrin										
Heptachlor Epoxide										
Endosulfan I										
Dieldrin										
4,4'-DDE										
Endrin										
Endosulfan II										
4,4'-DDD										
Endosulfan Sulfate										
4,4'-DDT										
Methoxychlor										
Endrin Ketone										
Endrin Aldehyde										
alpha-Chlordane										
gamma-Chlordane										
Arolcor 1016										
Aroclor 1221										
Aroclor 1232										
Arolcor 1242										
Aroclor 1248										
Aroclor 1254										
Aroclor 1260										

Affected Samples:

	PBLK01			
	PLCS01P			
	EBSK0-2,4			
	EBSJ5,6,8,9			

* These flags should be applied to the analytes on the sample data sheets.
J/R = All positive results are estimated "J" and non-detected results are unusable "R".

Reviewer's Init/Date: MK 1-22-92

ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

VALUE-if the results-is a value greater than or equal to the Contract Required Quantitation Limit (CRQL).

U Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound but the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.

R Indicates the data are unusable. (Note: The analyte may or may not be present.)

N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.

P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

C Indicates pesticide results that have been confirmed by GC/MS.

B Indicates the analyte is detected in the associated blank as well as the sample.

E Indicates compounds whose concentrations exceed the calibration range of the instrument.

D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.

A Indicates tentatively identified compounds that are suspected to be aldol condensation products.

G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.

L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.

T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

X, Y, Z are reserved for laboratory defined flags.

In Reference to Case No(s):

25256

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 1-21-97

Laboratory Name: Mitkin

Lab Contact:

Region: V

Regional Contact: Cecilia Luckett

Call Initiated By: ___ Laboratory ✓ Region

In reference to data for the following sample number(s):

all

Summary of Questions/Issues Discussed:

need clarification of sample numbers on COC to Form I numbers - conversion not clear
An error also exists on page #1 of Lab Narrative which read
EBSJ4 USP
EBSJ5 V
This is reversed & should read EBSJ5 - USP
EBSJ4 - V

Summary of Resolution:

Corrected form faxed over by Cecilia Luckett 1-21-97

M Kaul
Signature

1-21-97
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

ATTN: CECILIA LUCKETT

Contract Laboratory Analytical Services Support (CLASS)

Record of Communication

Name: Mistie Llewellyn

Contact Recv'd Via: ☐ Phone ☐ Fax ☒ Vmail ☐ Memo ☐ Other

Date/Time of Contact: 12/30/96 8:45 AM

Contact/Org./Phone #: Mark Shipple/ Encotec/ (401) 732-3400

Initiated By: ☐ EPA ☐ CLASS ☐ Engr. Contr. ☒ Lab ☐ Region ☐ SCC ☐ Other

Lab: MITKEM Contract #: 68-D6-0063 Case #: 25256 SDG: Region: 5

SOW: Affected Samples: ALL Invoice #:

Discussion/Issue:

12/30/96, 8:45 AM: Mark Shipple, MITKEM, called CLASS and informed us that he received the shipments for the samples but there were no CLP sample numbers assigned to the case. CLASS stated that we needed the traffic reports (TR) so we can let the Region know the circumstances.

12/30/96, 9:00 AM: CLASS called Bal Berena, sampler, and explained the issue. He stated CLASS should assign CLP sample numbers to the samples.

Resolution:

12/30/96, 9:30 AM: CLASS called Cecilia Lucken, RSCC, and left a message stating CLASS would assign the CLP sample numbers to the samples.

12/30/96, 2:00 PM: CLASS called Mark and gave him the new sample numbers from the TR as follows:

Sample Number on TR	New CLP Sample Numbers
97ZB02~~S05~~ TB02	EBSJ4 (VOA TB)
97ZB02S05	EBSJ5
97ZB02D05	EBSJ6
97ZB02TB03	EBSJ7
97ZB02S03	EBSJ8
97ZB02S02	EBSJ9
97ZB02R01	EBSK0
97ZB02S01	EBSK1
97ZB02D01	EBSK2
97ZB02TB01	EBSK3
97ZB02S04	EBSK4

CL

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL
# of pages ▶ 1
To Mel Kaminsky From C. Luckett
Dept./Agency Phone # 6-1488
Fax # 3-8307 Fax # 6-0753
NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

CLPAS OPS: Yes Completed Date/Time: 1/6/96 7:15 AM

Routed: Yes Referred To: Date/Time: W.A.#: ST&R

Distribution: ◉ Lab ◉ Region ◉ CLASS ○ AOC ○ Work Assign. Man.

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No.	Case No.
—	252561

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. Oil
   7. Waste
   8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NAHSO4
   4. H2SO4
   5. NAOH
   6. Ice Only
   7. Other (Specify in Column D)
   N. Not Preserved

2. Region No.: V
Sampling Co.: BVSPC
4. Date Shipped: 12/26/96
Carrier: AIRBORNE
6. Date Received–Received by: 12/27/96 Mark Shippie

Sampler (Name): ASHOK RUPANI
Airbill Number: 7941768030
Laboratory Contract Number: 68-D6-0063
Unit Price: 498.75

Sampler Signature: [signature]
3. Purpose*: Lead [ ] SF [ ] PRP [ ] ST [ ] FED; Early Action [ ] CLEM [ ] PA [ ] REM; [ ] SI [ ] ESI [ ] RI [ ] OIL [ ] UST; Long-Term Action [ ] FS [X] RD [X] RA [ ] O&M [ ] NPLD

5. Ship To: NITREM CORP.
175 METRO CENTER BLVD
WARWICK RI 02886
ATTN: MARK SHIPPIE

7. Transfer to:
Date Received
Received by
Contract Number
Price

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
97ZB02S02	2	L	G	6	ABN	5-164594 ACS-	GW02-001	12/26/96 1525	AKR			
97ZB02S02	2	L	G	6	PEST/PCBs	5-164595 ACS-	GW02-001	12/26/96 1525				
97ZB02R01	2	L	G	6	ABN	5-164599 ACS-	RB01-201	12/26/96 1615				
97ZB02R01	2	L	G	6	PEST/PCBs	5-164600 ACS-	RB01-201	12/26/96 1615				

Shipment for SAS Complete? (Y/N)	Page of	Sample(s) to be Used for Laboratory QC	Additional Sampler Signatures	Chain of Custody Seal Number(s)
				166776, 166185

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Ashok Rupani	12/26/96 2045				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) Mark Shippie	Date/Time 12/27/96 10:45	Remarks Is custody seal intact? (Y) / N / none 5°C	

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

A21-012-7 REV. 3/94

52462

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No.: ____ Case No.: 52563

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. Oil
   7. Waste
   8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NAHSO4
   4. H2SO4
   5. NAOH
   6. Ice Only
   7. Other (Specify in Column D)
   N. Not Preserved

2. Region No.: V
Sampling Co.: EVSPC
4. Date Shipped: 12/26/96
Carrier: AIRBORNE
6. Date Received–Received by: 12/27/96 Mark Shippie
Sampler (Name): Ashok Rupani
Airbill Number: 7941768332
Laboratory Contract Number: 68-D6-0063
Unit Price: 498.75
Sampler Signature: [signature]
5. Ship To: MITKEM CORP. 145 METRO CENTER BLVD. WARWICK, RI 02886 ATTN: MARK SHIPPIE
7. Transfer to:
Date Received
Received by
Contract Number
Price

3. Purpose*
Lead: SF, PRP, ST, FED
Early Action: CLEM, PA, REM
SI, ESI, RI, OIL, UST
Long-Term Action: FS, RD, RA, O&M, NPLD

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
97ZB02S01	2	L	G	1	VOAs	S-164584, 85	ACS-GW01-001	12/26/96 1430	MKR			
97ZB02S01	2	L	G	6	ABN	S-164588						
97ZB02S01	2	L	G	6	PEST/PCBs	S-164583						
97ZB02D01	2	L	G	1	VOAs	S-164586, 87	ACS-GW01-101					
97ZB02D01	2	L	G	6	ABN	S-164578						
97ZB02D01	2	L	G	6	PEST/PCBs	S-164577						
97ZB02S02	2	L	G	1	VOAs	S-164592, 93	ACS-GW02-001	12/26/96 1535				
97ZB02R01	2	L	G	1	VOAs	S-164591, 98	ACS-RB01-201	12/26/96 1615				
97ZB02TB01	2	L	G	1	VOAs	S-164589, 90	ACS-TB01-201	12/26/96 1745				

Shipment for SAS Complete? (Y / N): N
Page ___ of ___
Sample(s) to be Used for Laboratory QC:
Additional Sampler Signatures:
Chain of Custody Seal Number(s): 125700, 166692

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Ashok Rupani	12/26/96 2045				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) Mark Shippie	Date/Time 12/27/96 1045	Remarks Is custody seal intact? Y / N / none 5°C	

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

A21-012-7 REV. 3/94

52463

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No. ——

Case No. 25256

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. Oil
   7. Waste
   8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NAHSO4
   4. H2SO4
   5. NAOH
   6. Ice Only
   7. Other (Specify in Column D)
   N. Not Preserved

2. Region No. ~~1 BVSPC~~
Sampling Co. BVSPC

Sampler (Name) ASHOK RUPANI

Sampler Signature [illegible]

3. Purpose*
Lead: SF, PRP, ST, FED
Early Action: CLEM, PA, REM
Long-Term Action: SI, ESI, RI, OIL, UST, FS, RD, RA, O&M, NPLD
[X] RD [X] RA

4. Date Shipped 12/27/96
Carrier AIRBORNE

Airbill Number 7941767934

5. Ship To
MITKEM CORP.
175 METRO CENTER BLVD.
WARWICK, RI 02886
ATTN: MARK SHIPPIE

6. Date Received–Received by:

Laboratory Contract Number

Unit Price

7. Transfer to:

Date Received

Received by

Contract Number

Price

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
972B02503	2	L	G	6	ABN	5-164817, 564 ACS	GW03-001	12/27/96;10:00	AK			
972B02503	2	L	G	6	PEST/PCBs	5-164565-66	↓	↓	↓			

Shipment for SAS Complete? (Y/N) Y

Page 2 of 2

Sample(s) to be Used for Laboratory QC: 5-164817, 564-566

Additional Sampler Signatures: Matt Boston

Chain of Custody Seal Number(s): 166600, 166797

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Ashok Rupani	12/27/96 1730				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks Is custody seal intact? (Y) N / none	
		[illegible]	12/28/96 12:30	5°C	

A21-012-7 REV. 3/94

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

52466

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No. —

Case No. 25256

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil
7. Waste
8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NAHSO4
4. H2SO4
5. NAOH
6. Ice Only
7. Other (Specify in Column D)
N. Not Preserved

2. Region No. V
Sampling Co. BVSPC
Sampler (Name) Ashok Rupani
Sampler Signature Ashok Rupani

3. Purpose*
Lead: SF, PRP, ST, FED
Early Action: CLEM, PA, REM
SI, ESI, RI, OIL, UST
Long-Term Action: FS, RD, RA, O&M, NPLD

4. Date Shipped 12/27/96
Carrier AIRBORNE
Airbill Number 7941767831.

5. Ship To MITKEM CORP.
175 METRO CENTER BLVD.
WARWICK, RI 02886
ATTN: MARK SHIPPIE

6. Date Received–Received by:
Laboratory Contract Number
Unit Price
7. Transfer to:
Date Received
Received by
Contract Number
Price

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
97ZB02S03	2	L	G	1	VOAs	5-164990,91	ACS-GW03-001	12/27/96:1000	AKR			
97ZB02S03	2	L	G	6	ABN	5-164992						
97ZB02S03	2	L	G	6	PEST/PCBs	5-164993						
97ZB02S04	2	L	G	1	VOAs	5-164571,72	ACS-GW04-001	12/27/96:1045				
97ZB02S04	2	L	G	6	ABN	5-164573						
97ZB02S04	2	L	G	6	PEST/PCBs	5-164574						
97ZB02S03	2	L	G	1	VOAs	5-164995-96, 815-816	ACS-GW03-001	12/27/96:1000				
97ZB02TB02	2	L	G	1	VOAs	5-164582, 851	ACS-TB02-001	12/27/96:1400				

Shipment for SAS Complete? (Y) N
Page 1 of 2
Sample(s) to be Used for Laboratory QC: 5-164995-96, 815-816
Additional Sampler Signatures: Matt Booth
Chain of Custody Seal Number(s): 166299, 166300

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Ashok Rupani	12/27/96 1930				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) Mark Shippie	Date/Time 12/28/96 12:30	Remarks Is custody seal intact? (Y) N / none 5°C	

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EPA Form 9110-3

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

A21-012-7 REV. 3/94

52460

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No.: —
Case No.: 25256

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. Oil
   7. Waste
   8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NAHSO4
   4. H2SO4
   5. NAOH
   6. Ice Only
   7. Other (Specify in Column D)
   N. Not Preserved

2. Region No.: V
Sampling Co.: BUSPC
4. Date Shipped: 12/27/96
Carrier: AIRBORNE
6. Date Received–Received by:
Sampler (Name): ASOK RUPANI
Airbill Number: 7941767735
Laboratory Contract Number
Unit Price
Sampler Signature: [signature]
5. Ship To: MITKEM CORP. 175 METRO CENTER BLVD. WARWICK, RI 02886 ATTN: MARK SHIPPIE
7. Transfer to:
Date Received
Received by
Contract Number
Price

3. Purpose*
Lead: SF, PRP, ST, FED
Early Action: CLEM, PA, REM
SI, ESI, RI, OIL, UST
Long-Term Action: FS, RD, RA, O&M, NPLD

Sample Numbers (From Labels)	A Matrix (from Box 6)	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7)	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
972B12505	1	L	G	6	ABN	5-164622, 23 ACS-SW01-001		12/27/96; 13	AK			
972B12505	1	L	G	6	PEST/PCBs	5-164624, 25	↓	↓	↓			

Shipment for SAS Complete? (Y) N
Page 2 of 2
Sample(s) to be Used for Laboratory QC: 5-164622-25
Additional Sampler Signatures: Matt Baker
Chain of Custody Seal Number(s): 166700, 166798

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	12/27/96 1930				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks Is custody seal intact? (Y) N / none	
		[signature]	12/28/96 12:30	5°C	

A21-012-7 REV. 3/94

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

52467

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No. —

Case No. 25256

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil
7. Waste
8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NAHSO4
4. H2SO4
5. NAOH
6. Ice Only
7. Other (Specify in Column D)
N. Not Preserved

2. Region No. V

Sampling Co. BVSPC

4. Date Shipped 12/27/96

Carrier Airborne

6. Date Received--Received by:

Sampler (Name) Ashok Rupani

Airbill Number 7941767632

Laboratory Contract Number

Unit Price

Sampler Signature Ashok Rupani

5. Ship To Mitkem CORP.
175 METRO CENTER BLVD.
WARWICK, RI 02886
ATTN: MARK SHIPPIE

7. Transfer to:

Date Received

Received by

Contract Number

Price

3. Purpose*

Lead: SF, PRP, ST, FED

Early Action: CLEM, PA, REM

SI, ESI, RI, OIL, UST

Long-Term Action: FS, RD, RA, O&M, NPLD

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
972B02SD5	1	L	G	1	VOAs	5-164612, 13 ACS-SW01-001		12/27/96; 1345	AKR			
972B02SD5	1	L	G	6	ABN	5-164614						
972B02SD5	1	L	G	6	PEST/PCBs	5-164615						
972B02SD5	1	L	G	1	VOAs	5-164618-21						
972B02DD5	1	L	G	6	ABN	5-164952 ACS-SW01-101		12/27/96; 1345				
972B02DD5	1	L	G	6	PEST/PCBs	5-164953						
972B02DD5	1	L	G	1	VOAs	5-164630, 951						
972B02TB03	1	L	G	1	VOAs	5-164606, 07 ACS-TB03-201		12/27/96; 1400				

Shipment for SAS Complete? (Y/N) Y

Page 1 of 2

Sample(s) to be Used for Laboratory QC: 5-164618-21

Additional Sampler Signatures: Matt Boston

Chain of Custody Seal Number(s): 166114, 15674

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Ashok Rupani	12/27/96 1930				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks Is custody seal intact? (Y) N / none	
		[illegible]	12/28/96 12:30	5°C	

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EPA Form 9110-3

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

52461

SDG Narrative

The enclosed data package is submitted by Mitkem Corporation in response to USEPA Case # 25256 and SDG# EBSJ9. Analyses were performed for eleven (11) aqueous samples that were received on December 27 and 28, 1996. The analysis was performed under USEPA Contract# 68-D6-0063.

The following samples are submitted in this data package:

Client ID	Analysis
EBSK0	V, S, P
EBSK1	V, S, P
EBSK2	V, S, P
EBSK3	V
EBSK4	V, S, P
EBSJ4	V, S, P
EBSJ5	V
EBSJ6	V, S, P
EBSJ7	V
EBSJ8	V, S, P
EBSJ9	V, S, P

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17 07
US ... LAB.
CHICAGO, ILLINOIS 60605

V = Volatile Organics
S = Semivolatile Organics
P = Pesticides/PCB

The analyses were performed using USEPA CLP Low Concentration Water (OLC02.1) protocols.

The instruments used for the analyses are as follows:

Volatile Analysis

V2 Hewlett Packard Model 5972 GC/MS with 30 m x 0.25 mm id (1.4 um film thickness) RTX-624 capillary column
Purge and Trap system fitted with an OI Molecular Sieve/Tenax/Silica three stage trap

Semivolatile Analysis

S1 Hewlett Packard Model 5922 GC/MS with 30 m x 0.25 mm id DB-5MS capillary column

Pesticides/PCB Analysis

SC3 Hewlett Packard Model 5890 GC/ECD with 30 m x 0.53 mm id DB-608 and 30 m x 0.53 mm id DB-1701 megabore columns

The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

1. Overall Observation:

The wrong EPA ID were recorded on the chain of custody form. Per discussion with SMO (see communication logs), the EPA ID were changed.

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required.

2. Volatile Analysis:

All of the samples' pH were determined to be less than 2.
VIBLK01 was performed due to the high TIC concentration in EBSJ8.

An OI Molecular sieve/Tenax/Silica gel trap was used for the Purge and Trap Instrument on V2. Based on the performance, the laboratory manager certified that

- the alternate trap material meets the technical acceptance criteria listed in SOW 9.3.5 and 9.4.5
- the low point initial calibration standard analysis has adequate sensitivity to meet the volatile CRQLs
- the high point initial calibration standard analysis was not overloaded
- the alternate trap material did not introduce contaminants which interfered with the identification and/or quantitation of the compounds listed in SOW Exhibit C (Volatiles)

3. Semivolatile Analysis:

None

4. Pesticides/PCB Analysis:

Due to coeluting interferences, TCX exhibited high recovery on the DB-1701 column.

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 diskette (diskette not submitted here) has been authorized by the laboratory manager or his designee, as verified by the following signature.

Kin S. Chiu, 1/15/97
Laboratory Manager

2LCA
LOW CONC. WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

	EPA SAMPLE NO.	SMC1 %REC #	OTHER	TOT OUT
01	EBSJ9	102		0
02	VBLK01	95		0
03	VLCS01	97		0
04	EBSK2	100		0
05	EBSK0	101		0
06	EBSK1	103		0
07	EBSK3	98		0
08	EBSJ6	94		0
09	EBSJ8	101		0
10	EBSK4	84		0
11	EBSJ5	92		0
12	EBSJ4	94		0
13	EBSJ7	94		0
14	VHBLK01	96		0
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

QC LIMITS
%REC
SMC1 = 4-Bromofluorobenzene (80-120)

Column to be used to flag recovery values.
* Values outside of contract required QC limits.

3LCA

LOW CONC. WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

VLCS01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: V2L0106A LCS Lot No.:

Lab File ID: V2A6353 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

LCS Aliquot:10 (uL)

COMPOUND	CONC ADDED (UG/L)	CONC RECOVERED (UG/L)	%REC #	QC LIMITS
Vinyl Chloride	5.0	4.7	94	60-140
1,2-Dichloroethane	5.0	5.0	100	60-140
Carbon Tetrachloride	5.0	4.6	92	60-140
1,2-Dichloropropane	5.0	4.9	98	60-140
cis-1,3-Dichloropropene	5.0	4.6	92	60-140
Trichloroethene	5.0	4.8	96	60-140
1,1,2-Trichloroethane	5.0	4.9	98	60-140
Benzene	5.0	4.8	96	60-140
Bromoform	5.0	4.9	98	60-140
Tetrachloroethene	5.0	4.7	94	60-140
1,2-Dibromoethane	5.0	4.7	94	60-140
1,4-Dichlorobenzene	5.0	5.1	102	60-140

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 12 total.

COMMENTS:

4LCA

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: V2B0106A Date Analyzed: 01/06/97

Lab File ID: V2A6352 Time Analyzed: 1542

Instrument ID: V2

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCS01	V2L0106A	V2A6353	1609
02	EBSK2	C1566-01	V2A6354	1636
03	EBSK0	C1566-02	V2A6355	1704
04	EBSK1	C1566-03	V2A6356	1731
05	EBSJ9	C1566-04	V2A6357	1758
06	EBSK3	C1566-05	V2A6358	1826
07	EBSJ6	C1566-06	V2A6359	1853
08	EBSJ8	C1566-07	V2A6360	1920
09	EBSK4	C1566-08	V2A6362	2015
10	EBSJ5	C1566-09	V2A6363	2042
11	EBSJ4	C1566-10	V2A6364	2109
12	EBSJ7	C1566-11	V2A6365	2136
13	VHBLK01	V2B0106C	V2A6366	2203
14				
15				
16				
17				
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19				
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27				
28				
29				
30				

COMMENTS:

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: V2B0106A Date Received: _____

Lab File ID: V2A6352 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	0.8	J
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: V2B0106A Date Received: _____

Lab File ID: V2A6352 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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26.				
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28.				
29.				
30.				

TB02

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-10 Date Received: 12/28/96

Lab File ID: V2A6364 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2 ~~2~~ 0.7	JB U MK 1-21-97
67-64-1	Acetone	1	J
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

TB02

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSJ4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-10 Date Received: 12/28/96

Lab File ID: V2A6364 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
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SW Sample

S05

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-09 Date Received: 12/28/96

Lab File ID: V2A6363 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	2	
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	0.7	J
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

SW Sample

S05

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSJ5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-09 Date Received: 12/28/96

Lab File ID: V2A6363 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
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SW Sample Duplicate

DØ5

1LCA

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EBSJ6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-06 Date Received: 12/28/96

Lab File ID: V2A6359 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	2	
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	0.8	J
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	0.5	J
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

SW Sample duplicate

D05

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSJ6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-06 Date Received: 12/28/96

Lab File ID: V2A6359 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
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TB Ø3

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-11 Date Received: 12/28/96

Lab File ID: V2A6365 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	~~8~~ 20	JB U
67-64-1	Acetone	2	J
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

036

TB03

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSJ7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-11 Date Received: 12/28/96

Lab File ID: V2A6365 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
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MW-53 SØ3

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-07 Date Received: 12/28/96

Lab File ID: V2A6360 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	17	
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	2	J
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	2	
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

042

MW-53

S Ø3

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSJ8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-07 Date Received: 12/28/96

Lab File ID: V2A6360 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
1. 109999	FURAN, TETRAHYDRO-	5.66	2	NJ
2. 60297	ETHER	2.49	310	NJ
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MW-54

S02

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-04 Date Received: 12/27/96

Lab File ID: V2A6357 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	J
75-09-2	Methylene Chloride	5	BU
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1-22-97

MW-54 S02

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSJ9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-04 Date Received: 12/27/96

Lab File ID: V2A6357 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-02 Date Received: 12/27/96

Lab File ID: V2A6355 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	8	
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	4	J
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

Rinsate

R01

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSK0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-02 Date Received: 12/27/96

Lab File ID: V2A6355 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
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MW-55

S01

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-03 Date Received: 12/27/96

Lab File ID: V2A6356 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	6	
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.8	J
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	0.6	J
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	0.5	J
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

MW-55

S01

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSK1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-03 Date Received: 12/27/96

Lab File ID: V2A6356 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
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MW-55 Duplicate D01

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-01 Date Received: 12/27/96

Lab File ID: V2A6354 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.8	J
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	0.8	J
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	0.5	J
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

070

MW-55 duplicate

D01

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSK2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-01 Date Received: 12/27/96

Lab File ID: V2A6354 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
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TB01

1LCA
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-05 Date Received: 12/27/96

Lab File ID: V2A6358 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2 ~~2~~ ~~0.6~~	JB U MK 1-21-97
67-64-1	Acetone	2	J
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

PBS 01/27/97

077

TBØ1

EPA SAMPLE NO.

EBSK3

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-05 Date Received: 12/27/96

Lab File ID: V2A6358 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
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MW-52 S04

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-08 Date Received: 12/28/96

Lab File ID: V2A6362 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	8	
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	1	J
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	0.9	J
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	0.8	J
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

MW-52

SØ4

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSK4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: CI566-08 Date Received: 12/28/96

Lab File ID: V2A6362 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
1. 123911	1,4-DIOXANE	7.72	4	NJ
2.	UNKNOWN	14.30	2	J
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: V2B0106C Date Received: _____

Lab File ID: V2A6366 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (UG/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	~~0.6~~ 2	JBU mlc 1-21-97
67-64-1	Acetone	1	J
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	1	J
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: V2B0106C Date Received: _____

Lab File ID: V2A6366 Date Analyzed: 01/06/97

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: RTX-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
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2LCB
LOW CONC. WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

	EPA SAMPLE NO.	2FP %REC #	PHL %REC #	NBZ %REC #	FBP %REC #	TBP %REC #	TPH %REC #	OTHER	TOT OUT
01	SBLK01	52	58	55	59	67	62		0
02	SLCS01	90	91	86	84	91	87		0
03	EBSK2	87	92	87	88	95	61		0
04	EBSK0	78	81	78	80	87	86		0
05	EBSK1	60	70	63	72	86	82		0
06	EBSJ9	84	93	86	89	99	86		0
07	EBSJ6	89	95	88	86	92	78		0
08	EBSJ8	68	81	69	77	89	76		0
09	EBSK4	90	98	86	84	94	60		0
10	EBSJ5	78	83	78	75	83	65		0
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		QC LIMITS %REC
2FP	= 2-Fluorophenol	(15-121)
PHL	= Phenol-d5	(15-115)
NBZ	= Nitrobenzene-d5	(23-120)
FBP	= 2-Fluorobiphenyl	(30-115)
TBP	= 2,4,6-Tribromophenol	(15-130)
TPH	= Terphenyl-d14	(18-140)

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

3LCB

LOW CONC. WATER SEMIVOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

SLCS01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: S1230-LCS2 LCS Lot No.:

Lab File ID: S1230-L2 Date Extracted: 12/30/96

LCS Aliquot: 0 (uL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

COMPOUND	CONC ADDED (ug/L)	CONC RECOVERED (ug/L)	%REC #	QC LIMITS
Phenol	40	33	82	40-120
bis(2-Chloroethyl)ether	20	16	80	50-110
2-Chlorophenol	40	33	82	50-110
N-Nitroso-di-n-propylamine	20	16	80	30-110
Hexachloroethane	20	11	55	20-110
Isophorone	20	16	80	50-110
Naphthalene	20	16	80	30-110
4-Chloroaniline	40	28	70	10-120
2,4,6-Trichlorophenol	40	33	82	40-120
2,4-Dinitrotoluene	20	14	70	30-120
Diethylphthalate	20	17	85	50-120
N-Nitrosodiphenylamine (1)	20	26	130*	30-110
Hexachlorobenzene	20	17	85	40-120
Benzo(a)pyrene	20	15	75	50-120

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

COMMENTS:

4LCB

LOW CONC. WATER SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: S1230-B2 Date Extracted: 12/30/96

Lab File ID: S1230-B2 Date Analyzed: 01/09/97

Instrument ID: S1 Time Analyzed : 1456

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES and LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SLCS01	S1230-LCS2	S1230-L2	01/09/97
02	EBSK2	C1566-01	C1566-01	01/09/97
03	EBSK0	C1566-02	C1566-02	01/09/97
04	EBSK1	C1566-03	C1566-03	01/09/97
05	EBSJ9	C1566-04	C1566-04	01/09/97
06	EBSJ6	C1566-06	C1566-06	01/09/97
07	EBSJ8	C1566-07	C1566-07	01/09/97
08	EBSK4	C1566-08	C1566-08	01/09/97
09	EBSJ5	C1566-09	C1566-09	01/09/97
10				
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COMMENTS:

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: S1230-B2 Date Received: _____

Lab File ID: S1230-B2 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

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

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: S1230-B2 Date Received: _____

Lab File ID: S1230-B2 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U J
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenz(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: S1230-B2 Date Received: _____

Lab File ID: S1230-B2 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.				
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SW Sample

1LCB

SQ5

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EBSJ5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-09 Date Received: 12/28/96

Lab File ID: C1566-09 Date Extracted: 01/30/70

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

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

SW Sample

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SØ5

EPA SAMPLE NO.

EBSJ5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-09 Date Received: 12/28/96

Lab File ID: C1566-09 Date Extracted: 01/30/70

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U J
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenz(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from Diphenylamine

SW Sample

S05

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EBSJ5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-09 Date Received: 12/28/96

Lab File ID: C1566-09 Date Extracted: 01/30/70

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1. 112367	ETHANE, 1,1'-OXYBIS[2-ETHOXY	9.90	66	NJ
2.	UNKNOWN	14.96	11	J
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SW Sample duplicate

D05

1LCB

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EBSJ6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-06 Date Received: 12/28/96

Lab File ID: C1566-06 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

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

SW Sample duplicate

1LCC

D05

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EBSJ6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-06 Date Received: 12/28/96

Lab File ID: C1566-06 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U J
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5 ~~4~~	JB U mlc 1-2+97
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenz(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from Diphenylamine

SW Sample duplicate

D05

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EBSJ6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-06 Date Received: 12/28/96

Lab File ID: C1566-06 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1. 112367	ETHANE, 1,1'-OXYBIS[2-ETHOXY	9.90	65	NJ
2.	UNKNOWN	14.97	11	J
3.				
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MW-53

S03

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-07 Date Received: 12/28/96

Lab File ID: C1566-07 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)ether	4	J
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

MW-53 SØ3

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-07 Date Received: 12/28/96

Lab File ID: C1566-07 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U J
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenz(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-53

S03

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSJ8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-07 Date Received: 12/28/96

Lab File ID: C1566-07 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 3

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.	112367	ETHANE, 1,1'-OXYBIS[2-ETHOXY	9.90	58	NJ
2.		UNKNOWN	14.98	12	J
3.		UNKNOWN	22.78	23	J
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

MW-54 SØ2

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-04 Date Received: 12/27/96

Lab File ID: C1566-04 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

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

MW-54

SØ2

1LCC

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EBSJ9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-04 Date Received: 12/27/96

Lab File ID: C1566-04 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U J
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5 ~~2~~	JB✓ mlc 1-2-97
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenz(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-54 S02

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSJ9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-04 Date Received: 12/27/96

Lab File ID: C1566-04 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 4

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	7.54	22	J
2.		UNKNOWN	7.93	10	J
3.		UNKNOWN	9.97	16	J
4.		UNKNOWN AMIDE	15.40	10	J
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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R01

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-02 Date Received: 12/27/96

Lab File ID: C1566-02 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

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

R01

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-02 Date Received: 12/27/96

Lab File ID: C1566-02 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U J
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	~~5~~ 4	JB U MR 1-21-97
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenz(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from Diphenylamine

R01

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSK0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-02 Date Received: 12/27/96

Lab File ID: C1566-02 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.				
2.				
3.				
4.				
5.				
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27.				
28.				
29.				
30.				

MW-55 SD1

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-03 Date Received: 12/27/96

Lab File ID: C1566-03 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

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

MW-55 S01

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-03 Date Received: 12/27/96

Lab File ID: C1566-03 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U UJ
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	~~1~~ 5	JB U MK 1-21-97
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenz(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-55 S01

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EBSK1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-03 Date Received: 12/27/96

Lab File ID: C1566-03 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.				
2.				
3.				
4.				
5.				
6.				
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27.				
28.				
29.				
30.				

MW-55 duplicate

D01

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-01 Date Received: 12/27/96

Lab File ID: C1566-01 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

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

MW-55 duplicate D01

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-01 Date Received: 12/27/96

Lab File ID: C1566-01 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U J
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	7	BU MLC 1-27-97
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenz(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-55 duplicate D01

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EBSK2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-01 Date Received: 12/27/96

Lab File ID: C1566-01 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.				
2.				
3.				
4.				
5.				
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MW-52 S04

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-08 Date Received: 12/28/96

Lab File ID: C1566-08 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	13	
111-44-4	bis(2-Chloroethyl)ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	3	J
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	1	J
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

MW-52

S04

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-08 Date Received: 12/28/96

Lab File ID: C1566-08 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U J
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	1	J
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	BU MK 1-21-97
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenz(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-52

S04

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EBSK4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-08 Date Received: 12/28/96

Lab File ID: C1566-08 Date Extracted: 12/30/96

Sample Volume: 1000.00 (mL) Date Analyzed: 01/09/97

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 15

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.	UNKNOWN	7.13	16	J
2.	UNKNOWN	7.45	12	J
3.	UNKNOWN	7.66	24	J
4.	UNKNOWN	8.03	34	J
5.	2-PROPANOL, 1-(2-METHOXY-1-M	8.82	15	J
6.	2-PROPANOL, 1-(2-METHOXY-1-M	8.87	21	J
7.	UNKNOWN	10.01	14	J
8.	UNKNOWN	10.44	20	J
9.	UNKNOWN	11.80	10	J
10.	UNKNOWN	12.66	12	J
11.	UNKNOWN	13.69	30	J
12.	UNKNOWN	14.93	22	J
13. 101100	PROPANOIC ACID, 2-(3-CHLOROP	16.00	63	NJ
14.	UNKNOWN	19.25	15	J
15.	UNKNOWN	25.25	10	J
16.				
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2LCC
LOW CONC. WATER PESTICIDE SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

GC Column(1): DB-1701 ID: 0.53 (mm) GC Column(2): DB-608 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX(2) %REC #	TCX(1) %REC #	DCB(2) %REC #	DCB(1) %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK01	57	172*	92	104			1
02	PLCS01	57	172*	92	104			1
03	EBSK2	67	194*	42	39			1
04	EBSK0	62	166*	67	65			1
05	EBSK1	67	57	54	56			0
06	EBSJ9	77	155*	79	78			1
07	EBSJ6	46	173*	74	70			1
08	EBSJ8	70	109	72	63			0
09	EBSK4	63	135	52	54			0
10	EBSJ5	51	166*	71	65			1
11								
12								
13								
14								
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27								
28								
29								
30								

QC LIMITS

		%REC
S1 TCX	= Tetrachloro-m-xylene	(30-150)
S2 DCB	= Decachlorobiphenyl	(30-150)

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

3LCC

LOW CONC. WATER PESTICIDE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

PLCS01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: P1230-LCS1 LCS Lot No.:

LCS Aliquot: 0 (uL) Date Extracted: 12/30/96

Concentrated Extract Volume: 2000(uL) Date Analyzed: 01/03/97

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N

Instrument ID(1): SC3 GC Column(1):DB-608 ID:0.53 (mm)

COMPOUND	CONC ADDED (ug/L)	CONC RECOVERED (ug/L)	%REC #	QC LIMITS
gamma-BHC (Lindane)	0.10	0.076	76	50-120
Heptachlor epoxide	0.10	0.073	73	50-150
Dieldrin	0.20	0.15	75	30-130
4,4'-DDE	0.20	0.16	80	50-150
Endrin	0.20	0.18	90	50-120
Endosulfan sulfate	0.20	0.16	80	50-120
gamma-Chlordane	0.10	0.068	68	30-130

Instrument ID(2): SC3 GC Column(2):DB-1701 ID:0.53 (mm)

COMPOUND	CONC ADDED (ug/L)	CONC RECOVERED (ug/L)	%REC #	QC LIMITS
gamma-BHC (Lindane)	0.10	0.070	70	50-120
Heptachlor epoxide	0.10	0.075	75	50-150
Dieldrin	0.20	0.15	75	30-130
4,4'-DDE	0.20	0.16	80	50-150
Endrin	0.20	0.18	90	50-120
Endosulfan sulfate	0.20	0.16	80	50-120
gamma-Chlordane	0.10	0.075	75	30-130

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

COMMENTS:

4LCC

LOW CONC. WATER PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Date Extracted: 12/30/96 Lab Sample ID: P1230-B1

Date Analyzed (1): 01/02/97 Date Analyzed (2): 01/02/97

Time Analyzed (1): 2331 Time Analyzed (2): 2331

Instrument ID (1): SC3 Instrument ID (2): SC3

GC Column (1): DB-1701 ID: 0.53(mm) GC Column (2): DB-608 ID: 0.53(mm)

Sulfur Cleanup (Y/N) N Extraction:(SepF/Cont) SEPF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PLCS01	P1230-LCS1	01/03/97	01/03/97
02	EBSK2	C1566-01	01/03/97	01/03/97
03	EBSK0	C1566-02	01/03/97	01/03/97
04	EBSK1	C1566-03	01/03/97	01/03/97
05	EBSJ9	C1566-04	01/03/97	01/03/97
06	EBSJ6	C1566-06	01/03/97	01/03/97
07	EBSJ8	C1566-07	01/03/97	01/03/97
08	EBSK4	C1566-08	01/03/97	01/03/97
09	EBSJ5	C1566-09	01/03/97	01/03/97
10				
11				
12				
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25				
26				

COMMENTS:

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: P1230-B1 Date Received: _____

Sample Volume: 1000.00 (mL) Date Extracted: 12/30/96

Concentrated Extract Volume: 2000(uL) Date Analyzed: 01/02/97

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

SW Sample

S05

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-09 Date Received: 12/28/96

Sample Volume: 1000.00 (mL) Date Extracted: 12/30/96

Concentrated Extract Volume: 2000(uL) Date Analyzed: 01/03/97

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

Sw Sample duplicate

D05

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-06 Date Received: 12/28/96

Sample Volume: 1000.00 (mL) Date Extracted: 12/30/96

Concentrated Extract Volume: 2000(uL) Date Analyzed: 01/03/97

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

MW-53

S03

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-07 Date Received: 12/28/96

Sample Volume: 1000.00 (mL) Date Extracted: 12/30/96

Concentrated Extract Volume: 2000(uL) Date Analyzed: 01/03/97

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

MW-54

SØ2

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSJ9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-04 Date Received: 12/27/96

Sample Volume: 1000.00 (mL) Date Extracted: 12/30/96

Concentrated Extract Volume: 2000(uL) Date Analyzed: 01/03/97

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

RØ1

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-02 Date Received: 12/27/96

Sample Volume: 1000.00 (mL) Date Extracted: 12/30/96

Concentrated Extract Volume: 2000(uL) Date Analyzed: 01/03/97

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

MW-55 SØ1

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-03 Date Received: 12/27/96

Sample Volume: 1000.00 (mL) Date Extracted: 12/30/96

Concentrated Extract Volume: 2000(uL) Date Analyzed: 01/03/97

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-01 Date Received: 12/27/96

Sample Volume: 1000.00 (mL) Date Extracted: 12/30/96

Concentrated Extract Volume: 2000(uL) Date Analyzed: 01/03/97

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EBSK4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 25256 SAS No.: SDG No.: EBSJ9

Lab Sample ID: C1566-08 Date Received: 12/28/96

Sample Volume: 1000.00 (mL) Date Extracted: 12/30/96

Concentrated Extract Volume: 2000(uL) Date Analyzed: 01/03/97

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: IN

Case No: 25256 Site Name Location: American Chem Svcs

Contractor or EPA Lab: Mittens Data User: BTV

No. of Samples: 11 Date Sampled or Data Received: 1/17/97

Have Chain-of-Custody records been received? Yes ✓ No ___
Have traffic reports or packing lists been received? Yes ✓ No ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? Yes ✓ No ___
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____

_____ _____ _____ _____

Are basic data forms in? Yes ✓ No ___
No of samples claimed: 11 No. of samples received: 11

Received by: Lynette Burnett Date: 1/17/97

Received by LSSB: Lynette Burnett Date: 1/17/97

Review started: 1-21-97 Reviewer Signature: [illegible]

Total time spent on review: 13 Date review completed: 1-22-97

Copied by: Lynette Burnett Date: 1-30-97

Mailed to user by: Lynette Burnett Date: 1-30-97

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____

_____

Received by Data Mgmt. Coordinator for Files. Data: _____

November 1996
Am Chem Services
71670
File I.7

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on NOV 25 1996

FROM: Stephen L. Ostrodka, Chief (HSRL-5J) for Steve Ostrodka
Superfund Technical Support Section Richard L Bynick
12/31/96

TO: Data User: B+V

We have reviewed the data for the following case:

SITE NAME: American Chem. Svs (IN)

CASE NUMBER: 25125 SDG NUMBER: 97ZB01S01

Number and Type of Samples: 16 (water)

Sample Numbers: 97ZB01S01-S08 97ZB01TB01-TB06, 97ZB01R01, 97ZB01D01, P9858, P9070, PV214

Laboratory: Rollins Hrs. for Review: 16+1.5

Following are our findings:

the data are usable and acceptable with the qualifications described in the attached narrative.

Richard L Bynick
12/31/96

cc: Regional TPO
Brian Freeman
HSMC-5J

NARRATIVE

LABORATORY: Rollins Environmental **CASE: 25125**

SITE NAME: American Chemical Systems **SDG: 97ZB01S01**

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

This review covers sixteen water samples numbered 97ZB01S01 - S08, 97ZB01TB01 - TB06, 97ZB01R01, 97ZB01D01 and three performance evaluation (PE) samples numbered PQ858, PV070 and PV214. Samples were collected on November 5, 6 and 7, 1996. Rollins Environmental of Ann Arbor, MI received the samples on November 6, 7 and 8, 1996 in good condition. Samples 97ZB01S01 - S08, D01 and R01 were analyzed for volatile, semivolatile and pesticide/PCB fractions. Samples 97ZB01TB01- TB06 and PV214 were analyzed for volatiles only. Sample PV070 was analyzed for semivolatiles only. Sample PQ858 was analyzed for pesticides/PCBs only.

All sample analyses were performed following the CLP SOW OLC02.1 protocol.

All volatile analysis were performed within the technical holding time of fourteen days after sample collection for acid preserved water samples. The results are acceptable.

All semivolatile extractions and reextractions were performed within seven days except 97ZB01S05RE. All analytes were flagged estimated, "J" or "UJ", for this sample. All analyses were performed within forty days after extraction.

All pesticide extractions were performed within seven days. All pesticide reextractions were performed after hold time requirements. For samples 97ZB01S01RE - S07RE all analytes were flagged estimated, "J" or "UJ". All analyses were performed within forty days after extraction.

Sample 97ZB01R01 was identified as a field blank. Samples 97ZB01TB01- TB06 were identified as trip blanks.

The PE samples (PQ858, PV070 and PV214) were not included in the chain of custody. These samples were assigned at a later date (see letter dated 10/29/96 included in this data package).

Sample 97ZB01D01 was mislabeled in all fractions as 97ZB01001.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: _____Robert D. Kuhajda__Lockheed/ESAT
Date:__December 6th, 1996__

NARRATIVE

LABORATORY: **Rollins Environmental** **CASE: 25125**

SITE NAME: **American Chemical Systems** **SDG: 97ZB01S01**

1.HOLDING TIME

This review covers sixteen water samples numbered 97ZB01S01 - S08, 97ZB01TB01 - TB06, 97ZB01R01, 97ZB01D01 and three performance evaluation (PE) samples numbered PQ858, PV070 and PV214. Samples were collected on November 5, 6 and 7, 1996. Rollins Environmental of Ann Arbor, MI received the samples on November 6, 7 and 8, 1996 in good condition. Samples 97ZB01S01 - S08, D01 and R01 were analyzed for volatile, semivolatile and pesticide/PCB fractions. Samples 97ZB01TB01- TB06 and PV214 were analyzed for volatiles only. Sample PV070 was analyzed for semivolatiles only. Sample PQ858 was analyzed for pesticides/PCBs only.

All sample analyses were performed following the CLP SOW OLC02.1 protocol.

All volatile analysis were performed within the technical holding time of fourteen days after sample collection for acid preserved water samples. The results are acceptable.

All semivolatile extractions and reextractions were performed within seven days except 97ZB01S05RE. All analytes were flagged estimated, "J" or "UJ", for this sample. All analyses were performed within forty days after extraction.

All pesticide extractions were performed within seven days. All pesticide reextractions were performed after hold time requirements. For samples 97ZB01S01RE - S07RE all analytes were flagged estimated, "J" or "UJ". All analyses were performed within forty days after extraction.

2.GC/MS TUNING PERFORMANCE

All GC/MS tuning complied with the mass list and ion abundance criteria for BFB, and all samples were analyzed within the twelve hour periods for instrument performance checks.

All GC/MS tuning complied with the mass list and ion abundance criteria for DFTPP, and all samples were analyzed within the twelve hour periods for instrument performance checks.

The GC Resolution Check Mix met the 60% resolution criteria. DDT and Endrin degradation checks were acceptable (<20%).

Reviewed by: _____Robert D. Kuhajda__Lockheed/ESAT
Date:__December 6th, 1996__

NARRATIVE

LABORATORY: Rollins Environmental **CASE: 25125**

SITE NAME: American Chemical Systems **SDG: 97ZB01S01**

The Florisil Cartridge Check met with QC criteria. The results are acceptable.

3.CALIBRATION

Initial and continuing calibration standards of volatile, semivolatile and pesticide/PCB were evaluated for the Target Compounds List (TCLs) and outliers were recorded on the outlier forms included as a part of this narrative.

4.METHOD BLANK

Volatile:

VBLK06, VBLK07, VBLK08 and VBLK09 are the volatile method blanks. VBLK06 contained methylene chloride (0.7 ug/L). Methylene chloride IS A common laboratory contaminant. The presence of common laboratory contaminants in the samples were flagged as not detected "U" when sample results are less than ten times the blank results. VBLK07 contained methylene chloride (0.8 ug/L) and 1,2,4-trichlorobenzene (0.6 ug/L). Methylene chloride is a common laboratory contaminant. The presence of common laboratory contaminants in the samples were flagged as not detected "U" when sample results are less than ten times the blank results. 1,2,4-Trichlorobenzene was flagged not detected, "U", in samples when the results were less than five times the blank results. VBLK08 contained methylene chloride (1 ug/L) and one TIC. Methylene chloride is a common laboratory contaminant. The presence of common laboratory contaminants in the samples were flagged as not detected "U" when sample results are less than ten times the blank results. TICs were flagged not detected, "U", in samples when the results were less than five times the blank results. VBLK09 contained methylene chloride (2 ug/L), acetone (1 ug/L) and 1,2,4-trichlorobenzene (0.5 ug/L). Methylene chloride and acetone are common laboratory contaminants. The presence of common laboratory contaminants in the samples were flagged as not detected "U" when sample results are less than ten times the blank results. 1,2,4-Trichlorobenzene were flagged not detected, "U", in samples when the results were less than five times the blank results. The volatile method blank summary (FORM IV VOA) lists the associated samples.

VHBLK05, the volatile storage blank, reported methylene chloride (1 ug/L) and acetone (4 ug/L).

Reviewed by: _____Robert D. Kuhajda__Lockheed/ESAT
Date:__December 6th, 1996__

NARRATIVE

LABORATORY: Rollins Environmental **CASE:** 25125

SITE NAME: American Chemical Systems **SDG:** 97ZB01S01

Semivolatile:
SBLK01, SBLK02, SBLK03 and SBLK04 were the semivolatile method blanks. SBLK01 reported no TCLs and one TIC. SBLK02 reported no TCLs and six TICs. SBLK03 reported bis(2-ethylhexyl)phthalate (1 ug/L) and one TIC. SBLK04 reported no TICs or TCLs. Bis(2-ethylhexyl)phthalate is a common laboratory contaminant. The presence of the common laboratory contaminants in the samples were flagged as non-detected "U" when sample results are less than ten times the blank results. TICs were flagged as "U" when sample results are less than five times the blank results. The semivolatile method blank summary (FORM IV SV) lists the associated samples.

Pesticide/PCB:
PBLKW1, PBLKW2 and PBLKW3 are the pesticide/PCB method blanks. No TCLs were reported in the method blanks.

5.SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

Volatile:
The system monitoring compound was within the QC limits for all samples except PV214 was out of control limits high (126% R). All detected analytes were flagged estimated "J" and non-detected analytes were not flagged.

Semivolatile:
The surrogates were within the QC limits for all samples except 97ZB01S05 reported one acid surrogate out of control limits low. The method allows one surrogate per fraction out of control limits without flagging the data.

Pesticide/PCB:
Sample PBLKW1, 97ZB01S02, 97ZB01S02RE, 97ZB01S04RE, 97ZB01S06RE, 97ZB01S08 and PLCSW1 reported high recovery for decachlorobiphenyl on column #2. The samples were flagged estimated "J" for detected analytes and not flagged for nondetects.

6.LABORATORY CONTROL SAMPLES (LCS)
Volatile:
All spike recoveries were within the QC limits. The results are acceptable.

Semivolatile:

Reviewed by: _____Robert D. Kuhajda__Lockheed/ESAT
Date:__December 6th, 1996__

NARRATIVE

LABORATORY: Rollins Environmental **CASE:** 25125

SITE NAME: American Chemical Systems **SDG:** 97ZB01S01

All spike recoveries were within the QC limits. The results are acceptable.

Pesticide/PCB:

PLCSW1: dieldrin and endrin reported high recovery for column 2. The samples were flagged estimated "J" for these analytes when reported and not flagged for nondetects. Endosulfan sulfate reported low recoveries for both columns. The samples were flagged estimated "J" for this analyte when reported and flagged unusable "UR" for nondetects.

PLCSW3: All spike recoveries were within the QC limits. The results are acceptable.

PLCSW3 is associated with all reextracted samples. PLCSW1 is associated with all the original samples.

7a. FIELD BLANK AND FIELD DUPLICATE

No field duplicate was included. Sample 97ZB01D01 is listed as collected at the same time as sample 97ZB01S08 but at a different location. Sample 97ZB01R01 was identified as a field blank. Samples 97ZB01TB01- TB06 were identified as trip blanks. The compounds detected in the field and trip blanks are presented in the Table below:

Compound	-R01	-TB01	-TB02	-TB03	-TB04	-TB05	-TB06
			(µg/L)				
VOA:							
chloroethane	-	-	1	-	-	-	-
acetone	-	2	-	-	-	-	-
chloroform	0.7	-	-	-	-	0.5	3
#VOA TICs	-	1	1	-	-	-	1
SVOA:							
# SVOA TICs	1						
Pest/PCB:	-						

7b. PERFORMANCE EVALUATION SAMPLES

Volatile:

The volatile performance evaluation sample (PE) numbered PV214 reported chloromethane, chlorobenzene and 1,1-dichloroethane within warning limits. 2-Hexanone was reported as within action limits, warning high. Bromoform, 1,1,2,2-tetrachloroethane, styrene and 1,2-dibromo-3-chloropropane

Reviewed by: Robert D. Kuhajda Lockheed/ESAT
Date: December 6th, 1996

NARRATIVE

LABORATORY: Rollins Environmental **CASE:** 25125

SITE NAME: American Chemical Systems **SDG:** 97ZB01S01

were reported as outside of action limits high. A dilution was analyzed for 1,1,2,2-tetrachloroethane. This also reported action high.

No target compounds were missed. There were ~~three~~ two target contaminants; ~~methylene chloride,~~ RXB 12/27/96 chloroform and trichloroethene.

2-Chlorotoluene was missed as a TIC. No TIC contaminants were reported.

Semivolatile:

The semivolatile PE sample numbered PU070 reported naphthalene, 4-chloro-3-methylphenol, hexachlorocyclopentadiene, 2-chloronaphthalene, acenaphthene, phenanthrene, di-n-butylphthalate, pyrene and benzo (B) fluoroanthene within warning limits. No target compounds were outside of warning or action limits.

No target compounds were missed. One target compound was a contaminant, bis (2-ethylhexyl) phthalate.

Endrin was missed as TICs. No TIC contaminants were reported.

Pesticide/PCB:

The pesticide/PCB PE sample numbered PQ858 reported alpha-BHC, aldrin and 4,4'-DDE within warning limits. No target compounds were outside of warning or action limits.

Delta-BHC, endosulfan I, dieldrin, methoxychlor and endrin ketone were missed target compounds.

8. INTERNAL STANDARDS

Volatile:

The internal standards area counts and retention time were within the QC limits. The results are acceptable.

Semivolatile:

97ZB01S05 reported low IS areas for IS 6. Analytes associated with this internal standards were flagged estimated "J" or "UJ". See Table 4 for a list of internal standards and associated compounds.

9. COMPOUND IDENTIFICATION

SLCS01
VLCS01

Reviewed by: Robert D. Kuhajda Lockheed/ESAT
Date: December 6th, 1996

NARRATIVE

LABORATORY: **Rollins Environmental** **CASE: 25125**

SITE NAME: **American Chemical Systems** **SDG: 97ZB01S01**

The target compounds and TICs for the volatile, semivolatile and pesticide/PCB fractions were correctly identified.

10.COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The volatile and pesticide/PCB Target Compounds (TCLs) and Tentative Identified Compounds (TICs) were properly quantitated and the CRQLs were properly listed. The data is acceptable.

11.SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.
GC baselines for the pesticide/PCB analysis was acceptable.

12.ADDITIONAL INFORMATION

Volatile:
1,1,2,2-Tetrachloroethane exceeded calibration range in sample PV214; use the diluted sample for this analyte. Chloroethane exceeded calibration range in 97ZB01D01 and 97ZB01S08; use the -DL diluted samples for this analyte in the respective samples. Do not use 97ZB01D01DL2. Vinyl chloride, chloroethane and benzene exceeded calibration range in 97ZB01S04; use -DL2 for benzene and -DL3 for chloroethane. Vinyl chloride is diluted out in -DL, -DL2 and -DL3. The value in the undiluted sample must therefore be used for vinyl chloride. Do not use 97ZB01S04DL. Sample 97ZB01S05 reported only diluted values. Flag all analytes "D".

Semivolatile:
2,2'-Oxybis(1-chloropropane) exceeded calibration range in samples 97ZB01S03 and 97ZB01S07; use the diluted sample for this analyte. Sample 97ZB01S05 reported IS 6 low. Sample 97ZB01S05RE was extracted after hold time. The reviewer recommends the use of 97ZB01S05.

Pesticide/PCB:
Endosulfan sulfate was out of control low for both columns in PLCSW1. All samples associated with this LCS flag endosulfan sulfate estimated "J" for detects and unusable "R" for nondetects. Samples reextracted after hold time were flagged estimated "J" or "UJ" for all analytes. The reviewer recommends that the reextracted samples be used for endosulfan sulfate where nondetects occur and the original sample where detects occur, this avoids the "R" flag.

Reviewed by: _____Robert D. Kuhajda__Lockheed/ESAT
Date:__December 6th, 1996__

CALIBRATION OUTLIERS
LOW CONCENTRATION WATER VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 25125
COLUMN:
HEATED PURGE (Y/N): N

LABORATORY: Rollins Environmental
SITENAME: American Chemical Systems

Instrument# 007		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		11/15/96 1304			11/15/96 1420			11/16/96 0026								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01	0.357	39.3	J	0.249	30.6	J									
Acetone	0.01	0.025	38.9	J												
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
cis-1,2-Dichloroethene	0.10															
trans-1,2-Dichloroethene	0.10	0.291						0.478	64.3	J						
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01	0.072	53.4	J				0.040	44.4	J						
Bromochloromethane	0.10															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane	0.01															
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
1,2-Dibromoethane	0.10															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
1,2-Dibromo-3-chloropropane	0.10															
1,3-Dichlorobenzene	0.60															
1,4-Dichlorobenzene	0.50															
1,2-Dichlorobenzene	0.40															
Bromofluorobenzene	0.40															

Samples affected:						
		VBIK08	VBIK09			
		97ZB01S01DL	97ZB01S04DL2			
		97ZB01S04DL	97ZB01S04DL3			
		97ZB01D01DL	VHBLK05			

Reviewer's Init/Date: [illegible] 11/15/96

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# = Minimum Relative Response Factor

CALIBRATION OUTLIERS
LOW CONCENTRATION WATER VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 25125
COLUMN:
HEATED PURGE (Y/N): N

LABORATORY: Rollins Environmental
SITENAME: American Chemical Systems

Instrument# 007		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		11/12/96 1636			11/12/96 1250			11/13/96 1127								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01															
Acetone	0.01															
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
cis-1,2-Dichloroethene	0.10															
trans-1,2-Dichloroethene	0.10															
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
Bromochloromethane	0.10															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane	0.01															
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01	0.115	31.1	J												
2-Hexanone	0.01	0.059	48.7	J												
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
1,2-Dibromoethane	0.10															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
1,2-Dibromo-3-chloropropane	0.10															
1,3-Dichlorobenzene	0.60															
1,4-Dichlorobenzene	0.50															
1,2-Dichlorobenzene	0.40															
Bromofluorobenzene	0.40															

Samples affected:		
	VBIK06	VBLK07
	972B01S01	972B01S04
	972B01S02	972B01TB02
	972B01S03	PV214
	972B01TB01	972B01R01
	972B01S07	PV214DL
	972B01TB04	972B01TB06
	972B01S05	972B01D01
	972B01S06	972B01TB05
	972B01TB03	LCS

Reviewer's Init/Date: RK 12/5/96

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= Minimum Relative Response Factor

CALIBRATION OUTLIER
LOW CONCENTRATION WATER SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 25125
COLUMN:

LABORATORY: Rollins Environmental
SITE NAME: American Chemical Systems

Instrument#		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		11/14/96 1235			11/14/96 1410			11/15/96 0023								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01															
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01															
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:					
		SBLK01	SD1K03		
		SBLK02	97ZB01R01		
		LCS	97ZB01S08		
		PU070	97ZB01D01		
		97ZB01S01	97ZB01S07		
		97ZB01S02	97ZB01S06		
		97ZB01S03	97ZB01S04		
			97ZB01S05		

Reviewer's Init/Date: AK 12/5/96

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CALIBRATION OUTLIER
LOW CONCENTRATION WATER SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 25125
COLUMN:

LABORATORY: Rollins Environmental
SITE NAME: American Chemical Systems

Instrument# C.4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		11/14/96 1235			11/14/96 [illegible]			11/15/96 0023								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01															
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fluoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01															

Reviewer's Init/Date: RJS 12/5/96

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# = Minimum Relative Response Factor

CALIBRATION OUTLIER
LOW CONCENTRATION WATER SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 25125
COLUMN:

LABORATORY: Rollins Environmental
SITE NAME: American Chemical Systems

Instrument# 024		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		11/19/96 0058			11/19/96 0231											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01															
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01															
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:
SBLK04
972B01S03DL
972B01S05RE
972B01S07DL

Reviewer's Init/Date: JK 12/5/96

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

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# = Minimum Relative Response Factor

CALIBRATION OUTLIER
LOW CONCENTRATION WATER SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 25125
COLUMN:

LABORATORY: Rollins Environmental
SITE NAME: American Chemical Svs.

Instrument# C24		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		11/19/96 0057			11/19/96 0321											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01															
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fluoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01															

Reviewer's Init/Date: RK 12/5/96

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

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CALIBRATION OUTLIER
Pesticide/PCB TCL
(Page 1 of 1)

CASE/SAS #: 25125
COLUMN: DB17

LABORATORY: Rollins Environmental
SITE NAME: American Chemical Systems

Instrument Number 3600/A	Initial Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.	
Date	11/19/96 →				11/20/96					
Time	2144				1415					
	%RSD	*	%D	*	%D	*	%D	*	%D	*
alpha-BHC										
beta-BHC										
delta-BHC										
gamma-BHC										
Heptachlor										
Aldrin										
Heptachlor Epoxide										
Endosulfan I										
Dieldrin										
4,4'-DDE										
Endrin										
Endosulfan II										
4,4'-DDD										
Endosulfan Sulfate										
4,4'-DDT										
Methoxychlor										
Endrin Ketone										
Endrin Aldehyde										
alpha-Chlordane										
gamma-Chlordane										
Aroicor 1016										
Aroclor 1221										
Aroclor 1232										
Aroicor 1242										
Aroclor 1248										
Aroclor 1254										
Aroclor 1260										

Affected Samples:

PBLKW1	972B01S01RE	972B01S01	972B01S07RE	
PBLKW2	972B01S03RE	972B01S02	972B01S06RE	
PBLKW3	972B01S07RE	972B01S03		
PLCSW1		972B01S04		
PLCSW3		972B01S05		
PQ858		972B01S06		
972B01D01		972B01S07		
972B01R01		972B01S02RE		
972B01S08		972B01S04RE		

* These flags should be applied to the analytes on the sample data sheets.
J/R = All positive results are estimated "J" and non-detected results are unusable "R".

Reviewer's Init/Date: AK 12/6/96

CALIBRATION OUTLIER
Pesticide/PCB TCL
(Page 1 of 1)

CASE/SAS #: 25125
COLUMN: DB1701

LABORATORY: Rollins Environmental
SITE NAME: American Chemical Systems

Instrument Number 36001B	Initial Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.	
Date	11/19/96				11/20/96					
Time	2144				1415					
	%RSD	*	%D	*	%D	*	%D	*	%D	*
alpha-BHC										
beta-BHC										
delta-BHC										
gamma-BHC										
Heptachlor										
Aldrin										
Heptachlor Epoxide										
Endosulfan I										
Dieldrin										
4,4'-DDE										
Endrin										
Endosulfan II										
4,4'-DDD										
Endosulfan Sulfate										
4,4'-DDT										
Methoxychlor										
Endrin Ketone										
Endrin Aldehyde										
alpha-Chlordane										
gamma-Chlordane										
Aroclor 1016										
Aroclor 1221										
Aroclor 1232										
Aroclor 1242										
Aroclor 1248										
Aroclor 1254										
Aroclor 1260										

Affected Samples:

PBLKW1	97ZB01S01RE	97ZB01S01	97ZB01S05RE	
PBLKW2	97ZB01S03RE	97ZB01S02	97ZB01S06RE	
PBLKW3	97ZB01S07RE	97ZB01S03		
PLCSW1		97ZB01S04		
PLCSW3		97ZB01S05		
PQ858		97ZB01S06		
97ZB01D01		97ZB01S07		
97ZB01R01		97ZB01S02RE		
97ZB01S08		97ZB01S04RE		

* These flags should be applied to the analytes on the sample data sheets.
J/R = All positive results are estimated "J" and non-detected results are unusable "R".

Reviewer's Init/Date: RK 12/6/96

ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL).

U Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound but the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.

R Indicates the data are unusable. (Note: The analyte may or may not be present.)

N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.

P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

C Indicates pesticide results that have been confirmed by GC/MS.

B Indicates the analyte is detected in the associated blank as well as the sample.

E Indicates compounds whose concentrations exceed the calibration range of the instrument.

D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.

A Indicates tentatively identified compounds that are suspected to be aldol condensation products.

G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.

L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.

T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

X, Y, Z are reserved for laboratory defined flags.

TABLE 4

(For Low Concentration water)

VOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4-Difluorobenzene	Chlorobenzene-d_5	1,4-Dichlorobenzene-d_4
Chloromethane	4-Methyl-2-pentanone	Bromoform
Bromomethane	1,1,1-Trichloroethane	1,2-Dibromo-3-chloropropane
Vinyl chloride	Carbon tetrachloride	1,2-Dichlorobenzene
Chloroethane	Bromodichloromethane	1,3-Dichlorobenzene
Methylene chloride	1,2-Dichloropropane	1,4-Dichlorobenzen
Acetone	trans-1,3-Dichloropropene	
Carbon disulfide	Trichloroethene	
1,1-Dichloroethene	Dibromochloromethane	
1,1-Dichloroethane	1,1,2-Trichloroethane	
4-Bromofluorobenzene	Benzene	
Chloroform	cis-1,3-Dichloropropene	
1,2-Dichloroethane	Chlorobenzene	
1,2-Dichloroethane-d_4(surr,smc)	1,2-Dibromomethane	
2-Butanone	Ethylbenzene	
Bromochloromethane	2-Hexanone	
cis-1,2-Dichloroethene	Styrene	
trans-1,2-Dichloroethene	Xylene(total)	
	Toluene	
	Tetrachloroethene	
	1,1,2,2-Tetrachloroethane	

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4-Dichlorobenzene-d_4	Naphthalene-d_8	Acenaphthene-d_{10}	Phenanthrene-d_{10}	Chrysene-d_{12}	Perylene-d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene	Di-n-octyl phthalate
bis(2-chloroethyl)ether	Isophorone	2,4,6-Trichlorophenol	N-nitroso-di-phenylamine	butylbenzyl phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	1,2-Diphenylhydrazine	3,3'-Dichlorobenzidine	Benzo(k)fluoranthene
2-Methylphenol	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl phenyl ether	Benzo(a)anthracene	Benzo(a)pyrene
bis(2-chloroisopropyl)ether	2-Methylnaphthalene	2-Nitroaniline	Hexachlorobenzene	bis(2-Ethylhexyl)phthalate	Indeno(1,2,3-cd)pyrene
4-Methylphenol	bis(2-Chloroethoxy)methane	Dimethylphthalate	Pentachlorophenol	Chrysene	Dibenzo(a,h)anthracene
N-nitroso-di-n-propylamine	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d_{14}(surr)	Benzo(g,h,i)perylene
2-Fluorophenol(surr)	Nitrobenzene-d_6(surr)	3-Nitroaniline	Anthracene		
Phenol-d_6(surr)	4-Chloroaniline	Acenaphthene	Di-n-butyl phthalate		
	Hexachlorobutadiene	2,4-Dinitrophenol	Fluoranthene		
	4-Chloro-3-methylphenol	4-Nitrophenol			
		Dibenzofuran			
		2,4-Dinitrotoluene			
		2,6-Dinitrotoluene			
		Diethyl phthalate			
		4-Chlorophenyl phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl(surr)			
		2,4,6-Tribromophenol(surr)			

(surr) - surrogate

In Reference to Case No(s):

25/25

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: ~~12/04/96~~ 12/06/96

Laboratory Name: Rollins Environmental

Lab Contact: Thomas Marshal

Region: 5

Regional Contact: R. Kubajda /ESAT

Call Initiated By: ___ Laboratory ✓ Region

In reference to data for the following sample number(s):

All semi volatile samples

Summary of Questions/Issues Discussed:

Missing all DFTPP raw data

Summary of Resolution:

Data faxed 12/12/96

Signature

12/12/96
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

In Reference to Case No(s):
25125

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: 11/04/96

Laboratory Name: Rollins Environmental
Lab Contact: Thomas Marshal

Region: 5
Regional Contact: R. Kuhajda /ESAT

Call Initiated By: ___ Laboratory x Region

In reference to data for the following sample number(s):
PU214, PU070 + PQ858

Summary of Questions/Issues Discussed:
No sample tags or Chain of Custody Documents.

Summary of Resolution:
Rollins Environmental faxed a copy of a letter from Region 5 requesting that the lab include three PE samples with this case. The letter originated from Luba Finkelberg dated 10/29/96.

Signature

11/06/96
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No. —
Case No. 25125

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil
7. Waste
8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NAHSO4
4. H2SO4
5. NAOH
6. Ice Only
7. Other (Specify in Column D)
N. Not Preserved

2. Region No. V
Sampling Co. BVSPC
4. Date Shipped 11/7/96
Carrier AIRBORNE EXP
6. Date Received-Received by: [signature] 11/8/96 9:30
Sampler (Name) ASHOK KUPANI
Airbill Number 2955 797854
Laboratory Contract Number 68-D6-0061
Unit Price 459.50
Sampler Signature [signature]
5. Ship To ROLLINS ENVIRONMENTAL 3985 RESEARCH TRIANGLE PARK ANN ARBOR, MI 48108
ATTN: TOM MARSHALL
7. Transfer to:
Date Received
Received by
Contract Number
Price

3. Purpose*
Lead: [X] SF [ ] PRP [ ] ST [ ] FED
Early Action: [ ] CLEM [ ] PA [ ] REM
[ ] SI [ ] ESI [ ] RI [ ] OIL [ ] UST
Long-Term Action: [ ] FS [X] RD [X] RA [ ] O&M [ ] NPLD

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
97ZB01R01	4	L	G	1	VOA	S-164820,21	AC-RB01-201	11/7/96 1010	AKK			
97ZB01R01	4	L	G	6	PEST/PCBS	S-164944	AC-RB01-201	↓	↓			
97ZB01R01	4	L	G	6	ABN	S-164824	AC-RB01-201	↓	↓			
97ZB01TB01	4	L	G	1	VOA	S-164926,27	AC-RB01-201	↓ 1035	↓			

Shipment for SAS Complete? (Y/N) Y
Page 1 of 1
Sample(s) to be Used for Laboratory QC
Additional Sampler Signatures
Chain of Custody Seal Number(s) 158505 158507

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	11/7/96 1800				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) [signature]	Date/Time 11/8/96 9:30	Remarks Is custody seal intact? Y / N / none	

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

A21-012-7 REV. 3/94

50414

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No. —

Case No. 25125

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil
7. Waste
8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NAHSO4
4. H2SO4
5. NAOH
6. Ice Only
7. Other (Specify in Column D)
N. Not Preserved

2. Region No. V

Sampling Co. BVSPC

4. Date Shipped 11/6/96

Carrier AIR BORNE

6. Date Received–Received by: [signature] 11/7/96

Sampler (Name) ASHOK RUPANI

Airbill Number 5019812545

Laboratory Contract Number 08-D6-0061

Unit Price 45950

Sampler Signature [signature]

3. Purpose*
Lead: [X] SF [ ] PRP [ ] ST [ ] FED
Early Action: [ ] CLEM [ ] PA [ ] REM
[ ] SI [ ] ESI [ ] RI [ ] OIL [ ] UST
Long-Term Action: [ ] FS [X] RD [X] RA [ ] O&M [ ] NPLD

5. Ship To
ROLLINS ENVIRONMENTAL
3985 RESEARCH TRIANGLE PARK
ANN ARBOR, NI 48108
ATTN: TOM MARSHALL

7. Transfer to:

Date Received

Received by

Contract Number

Price

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
97ZB01S04	2	L	G	1	VOA	S-164633,905	AC-GW04-001	11/6/96 0830				
97ZB01S04	2	L	G	6	PEST/PCBs	S-164909	AC-GW04-001					
97ZB01S04	2	L	G	6	ABN	S-164908	AC-GW04-001					
97ZB01S05	2	L	G	1	VOA	S-164810,11	AC-GW04-001	11/6/96 1005				
97ZB01TB02	4	L	G	1	VOA	S-164936,37	AC-TB02-001	11/6/96 1405				

Shipment for SAS Complete? (Y/N) Y

Page 1 of 1

Sample(s) to be Used for Laboratory QC

Additional Sampler Signatures

Chain of Custody Seal Number(s) 166195, 166196

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	11/6/96 1815				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) [signature]	Date/Time 11/7/96 903	Remarks Is custody seal intact? Y / N / none	

A21-012-7 REV. 3/94

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

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*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

52459

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No. —
Case No. 25125

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil 7. Waste 8. Other (Specify in Column A)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NAHSO4 4. H2SO4 5. NAOH 6. Ice Only 7. Other (Specify in Column D) N. Not Preserved

2. Region No.: V
Sampling Co.: BVSPC
4. Date Shipped: 11/6/96
Carrier: AIRBORNE
6. Date Received–Received by: [signature] 11/7/96
Sampler (Name): ASHOK RUPANI
Airbill Number: 5017812346
Laboratory Contract Number: 68-D6-0061
Unit Price: 459.50
Sampler Signature: [signature]
5. Ship To: ROLLINS ENVIRONMENTAL 3985 RESEARCH TRIANGLE PARK ANN ARBOR, MI 48108 ATTN: TOM MARSHALL
7. Transfer to:
Date Received
Received by
Contract Number
Price

3. Purpose*: Lead: [X] SF [ ] PRP [ ] ST [ ] FED; Early Action: [ ] CLEM [ ] PA [ ] REM; [ ] SI [ ] ESI [ ] RI [ ] OIL [ ] UST; Long-Term Action: [ ] FS [X] RD [X] RA [ ] O&M [ ] NPLD

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
972B01507	2	L	G	6	PEST/PCBS	S-164225	AC-GIV07-001	11/6/96 1415	AKR			
972B01507	2	L	G	6	ABN	S-164227	↓	↓	↓			
972B01507	2	L	G	1	VOA	S-164942,50	↓	↓	↓			
972B01TB04	4	L	G	1	VOA	S-164940,41	AC-TB04-201	11/6/96 1510	↓			

Shipment for SAS Complete? (Y/N): N
Page 1 of 1
Sample(s) to be Used for Laboratory QC
Additional Sampler Signatures
Chain of Custody Seal Number(s): 158505, 158506

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	11/6/96 1815				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) [signature]	Date/Time 11/7/96 9:03	Remarks Is custody seal intact? Y / N / none	

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

A21-012-7 REV. 3/94

52458

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No. —

Case No. 25125

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil
7. Waste
8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NAHSO4
4. H2SO4
5. NAOH
6. Ice Only
7. Other (Specify in Column D)
N. Not Preserved

2. Region No. V

Sampling Co. BUSPC

4. Date Shipped 11/6/96

Carrier AIRBORNE

6. Date Received - Received by: [signature] 11/7/96

Sampler (Name) ASHOK RUPANI

Airbill Number 5017812442

Laboratory Contract Number 68-D6-0061

Unit Price 459.50

Sampler Signature [signature]

3. Purpose*
Lead: [X] SF [ ] PRP [ ] ST [ ] FED
Early Action: [ ] CLEM [ ] PA [ ] REM
[ ] SI [ ] ESI [ ] RI [ ] OIL [ ] UST
Long-Term Action: [ ] FS [X] RD [X] RA [ ] O&M [ ] NPLD

5. Ship To
ROLLINS ENVIRONMENTAL
3985 RESEARCH TRIANGLE PARK
ANN ARBOR MI 48108
ATTN: TOM MARSHALL

7. Transfer to:

Date Received

Received by

Contract Number

Price

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
972B01SD5	2	L	G	6	PEST/PCBs	5-164809	AC-GW05-001	11/6/96 1035	AKR			
972B01SD5	2	L	G	6	ABN	5-164808	AC-GW05-001	11/6/96 1035	AKR			
972B01SD6	2	L	G	1	VOA	5-164901, 03	AC-GW06-001	11/6/96 1130	AK			
972B01SD6	2	L	G	6	PEST/PCBs	5-164812	AC-GW06-001	11/6/96 1130	AK			
972B01SD6	2	L	G	6	ABN	5-164814	AC-GW06-001	11/6/96 1130	AK			
972B01TB03	4	L	G	1	VOA	5-164938, 39	AC-TB03-001	11/6/96 1410	AK			

Shipment for SAS Complete? (Y/N) N

Page 1 of 1

Sample(s) to be Used for Laboratory QC

Additional Sampler Signatures

Chain of Custody Seal Number(s) 166193, 166194

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	11/6/96 1815				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks Is custody seal intact? Y / N / none	
	11/7/96 9:03	[signature]			

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

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A21-012-7 REV. 3/94

52457

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No.	Case No.
—	22125

1. Matrix (Enter in Column A)	2. Preservative (Enter in Column D)
1. Surface Water	1. HCl
2. Ground Water	2. HNO3
3. Leachate	3. NAHSO4
4. Field QC	4. H2SO4
5. Soil/Sediment	5. NAOH
6. Oil	6. Ice Only
7. Waste	7. Other (Specify in Column D)
8. Other (Specify in Column A)	N. Not Preserved

2. Region No.	Sampling Co.	4. Date Shipped	Carrier	6. Date Received–Received by:
V	BVSPC	11/5/96	AIR BORNE	[signature] 11/6/94

Sampler (Name)	Airbill Number	Laboratory Contract Number	Unit Price
ASHOK RUPANI	5019812744	68-D6-0061	459.50

Sampler Signature: Ashok Rupani

3. Purpose*: Lead: [X] SF [ ] PRP [ ] ST [ ] FED; Early Action: [ ] CLEM [ ] PA [ ] REM; [ ] SI [ ] ESI [ ] RI [ ] OIL [ ] UST; Long-Term Action: [ ] FS [X] RD [X] RA [ ] O&M [ ] NPLD

5. Ship To: ROSLINS ENVIRONMENTAL, 3985 RESEARCH TRIANGLE PARK, ANN ARBOR, MI 48108
ATTN: TOM MARSHALL

7. Transfer to: | Date Received
Received by
Contract Number | Price

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
[illegible]	2	L	G	6	[illegible]	5-164845	AC-GW03-001	11/5/96 [illegible]	AKR			
[illegible]	2	L	G	6	[illegible]	5-164844	AC-GW03-001	↓	↓			
[illegible]	2	L	G	6	[illegible]	5-164848-49	AC-GW03-001	↓	↓			
[illegible]	2	L	G	6	[illegible]	5-164847, 6[illegible]	AC-GW03-001	↓	↓			

Received

Shipment for SAS Complete? (Y/N)	Page	Sample(s) to be Used for Laboratory QC	Additional Sampler Signatures	Chain of Custody Seal Number(s)
	1 of 1	5-164848-49, 5-164847, 634		[illegible]

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Ashok Rupani	11/5/96 2015				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks Is custody seal intact? Y / N / none	
	11/6/96 9:01	[signature]			

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
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**Data User means the organization which contracted the laboratory services

A21-012-7 REV. 3/94

52456

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EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No. —

Case No. 25125

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil
7. Waste
8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NAHSO4
4. H2SO4
5. NAOH
6. Ice Only
7. Other (Specify in Column D)
N. Not Preserved

2. Region No. V

Sampling Co. BVSPC

4. Date Shipped 11/5/96

Carrier AIRBORNE

6. Date Received-Received by: [signature] 11/6/96

Sampler (Name) ASHOK RUPANI

Airbill Number 5017812641

Laboratory Contract Number 68-D6-0061

Unit Price 459.50

Sampler Signature [signature]

5. Ship To ROLLINS ENVIRONMENTAL
3925 RESEARCH TRIANGLE PARK
ANN ARBOR MI 48108
ATTN: TOM MARSHALL

7. Transfer to:

Date Received

Received by

Contract Number

Price

3. Purpose*
Lead: [X] SF [ ] PRP [ ] ST [ ] FED
Early Action: [ ] CLEM [ ] PA [ ] REM
[ ] SI [ ] ESI [ ] RI [ ] OIL [ ] UST
Long-Term Action: [ ] FS [X] RD [X] RA [ ] O&M [ ] NPLD

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
[illegible]	2	L	G	1	[illegible]	S-[illegible]	AC-GW01-001	11/5/96 [illegible]	AK			
[illegible]	2	L	G	6	[illegible]	S-164831	↓	↓				
[illegible]	2	L	G	6	PEST/PCBs	S-164827	↓	↓				
[illegible]	2	L	G	1	VOA	S-164834-35	AC-GW02-001	11/5/96 [illegible]				
[illegible]	2	L	G	6	ABN	S-164846	↓	↓				
[illegible]	2	L	G	6	PEST/PCBs	S-164830	↓	↓				
[illegible]	2	L	G	1	VOA	S-164836-37	AC-GW03-001	11/5/96 [illegible]				
[illegible]	2	L	G	1	VOA	S-164838-41	↓	↓				
[illegible]	4	L	G	1	VOA	S-164843-43	↓	↓	↓			

Shipment for SAS Complete? (Y/N) Y

Page 1 of 1

Sample(s) to be Used for Laboratory QC: S-164838-41

Additional Sampler Signatures

Chain of Custody Seal Number(s): 152501, 502

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	11/5/96 2015				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks Is custody seal intact? Y / N / none	
	11/6/96 9:01	[signature]			

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

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*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

A21-012-7 REV. 3/94

52455

EPA United States Enviromental Protection Agency
Contract Laboratory Program

Special Analytical Services Packing List/Chain of Custody

SAS No.:

Case No.: 25125

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil 7. Waste 8. Other (Specify in Column A)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NAHSO4 4. H2SO4 5. NAOH 6. Ice Only 7. Other (Specify in Column D) N. Not Preserved

2. Region No.: V

Sampling Co.: BVSPC

Sampler (Name): ASHOK RUPANI

Sampler Signature: [signature]

3. Purpose*: Lead [X] SF [ ] PRP [ ] ST [ ] FED; Early Action [ ] CLEM [ ] PA [ ] REM; [ ] SI [ ] ESI [ ] RI [ ] OIL [ ] UST; Long-Term Action [X] FS [X] RD [X] RA [ ] O&M [ ] NPLD

4. Date Shipped: 11/7/96

Carrier: AIRBORNE EXP

Airbill Number: 2955797751

5. Ship To: ROLLINS ENVIRONMENTAL
3925 RESEARCH TRIANGLE PARK
ANN ARBOR, MI 48108
ATTN: TOM MARSHALL

6. Date Received–Received by: [signature] 11/8/96 9:30

Laboratory Contract Number: 68-D6-0061

Unit Price: 459.50

7. Transfer to:

Date Received:

Received by:

Contract Number:

Price:

Sample Numbers (From Labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type Comp./Grab	D Preservative (from Box 7) Other:	E Analysis	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J High Phases: Solids	Water-Miscible Liq.	Water-Immis Liq.
97EB01S08	2	L	G	1	VOAs	S-164916,17	AC-GW07-00	11/7/96 0700	ALK			
97EB01S08	2	L	G	6	PEST/PCBs	S-164920	↓	↓	↓			
97EB01S08	2	L	G	6	ABN	S-164921	↓	↓	↓			
97EB01D01	2	L	G	1	VOAs	S-164922,23	AC-GW08-10	↓	↓			
97EB01D01	2	L	G	6	PEST/PCBs	S-164917	↓	↓	↓			
97EB01D01	2	L	G	6	ABN	S-164928	↓	↓	↓			
97EB01TB05	4	L	G	1	VOAs	S-164945,46	AC-TB05-201	11/7/96 1100	↓			

Shipment for SAS Complete? (Y/N): Y

Page 1 of 1

Sample(s) to be Used for Laboratory QC:

Additional Sampler Signatures:

Chain of Custody Seal Number(s): 166197, 166198

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	11/7/96 1900				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) [signature]	Date/Time 11/8/96 9:30	Remarks: Is custody seal intact? Y / N / none	

DISTRIBUTION: White – Region Copy; Gold – Lab Copy for Return to Region; Yellow – Data User**; Pink – Lab Copy for Return to Data User**

EPA Form 9110-3

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

**Data User means the organization which contracted the laboratory services

A21-012-7 REV. 3/94

50413

12

SDG NARRATIVE

Client Name: US EPA Region V

Project Name: NA

Project Number: 75100

Sample Delivery Group: 97ZB01S01

Batch Number(s): 100000532, 100000566, 100000593, 100000602

Narrative Date: November 23, 1996

Samples: 97ZB01S01, 97ZB01S02, 97ZB01S03, 87ZB01TB01, 97ZB01S07, 97ZB01TB04, 97ZB01S05, 97ZB01S06, 97ZB01TB03, 97ZB01S04, 97ZB01TB02, PV214, PV070, PQ858, 97ZB01R01, 97ZB01TB06, 97ZB01S08, 97ZB01TB05

A total of nineteen samples were received by ENCOTEC on November 06, 1996 through November 08, 1996, and were scheduled for Organics Analysis. Please refer to the following table for vital information that pertains to this case.

Table 1.0

SDG #:. 97ZB01S01

	SAMPLE ANALYZED			
	Actual Samples	QC Samples	Re-Run Samples	Total Billable Analyses
Volatile Analyses	17	1	7	25
Semivolatile Analyses	11	1	2	14
Pesticide/PCB Analyses	11	1	0	12

Total Analyses: 12 FULL + 13 VOA + 2 BNA

This Deliverables Package is assembled in accordance with instructions in Section B, OLC02.1 revision of the Contract Laboratory Program - Statement of Work. A copy of this deliverable has been distributed to SMO and Region V.

The following is a detailed description of quality control, shipment, and/or analytical problems that were encountered in the processing of these samples.

Sample Login

ENCOTEC received nineteen samples from Federal Express on November 06, 1996 through November 08, 1996. Standard Chain of Custody procedures were followed. The samples were stored at 4°C and/or chemically preserved as required by EPA protocol. The samples were scheduled for Full Organic Analysis.

Sample Analysis - Volatile

Sample analysis was performed without incident and within holding times. Chain of custody was maintained, and samples were analyzed according to EPA SOW OLC02.1. Quality control results are summarized as follows:

- Analyses of surrogates were performed on all samples; please see FORM II LCV for results.

- The method blanks contained the following target analytes: Methylene Chloride, Acetone, and 1,2,4-Trichlorobenzene near or below the CRQL. One Tentatively Identified Compounds (TICs) was detected. Please see method blank Forms I LCV-TIC for results.

- A Laboratory control sample was performed with this SDG. Please see Form III LCV for results.

- All EICP areas and retention times were within QA/QC. Please see FORM VIII LCV for results.

Summary

The samples revealed several positively detected Target Compounds. Several Tentatively Identified Compounds were detected in the samples. Samples 97ZB01S01, 97ZB01S04, 97ZB01S08, and PV214 required reanalyses at secondary dilutions due quantitated concentrations exceeding the range established by the calibration standards. Please see FORM's I LCV for results.

Sample Extraction

The semivolatile samples were continuous liquid-liquid extracted on November 07, 1996 through November 18, 1996. The Pesticide/PCB samples were separatory funnel extracted on November 08, 1996 through November 19, 1996. All extracts were processed according to CLP protocol. Final extracts were given to the GC/MS group on November 8, 1996 through November 19, 1996 and to the GC group on November 12, 1996 through November 19, 1996.

Sample Analysis - Semivolatile

Sample analysis was performed without incident and within holding times with the following exception. Sample 97ZB01S05 was reextracted outside of holding times and reanalyzed due to a surrogate recovery outlier in the original sample analysis. Chain of custody was maintained, and samples were analyzed according to EPA SOW OLC02.1. Quality control results are summarized as follows:

- Analyses of surrogates were performed on all samples; please see FORM II LCSV for results.

- The method blank revealed the following target analyte: bis(2-Ethylhexyl) phthalate. Several TICs were identified. Please see method blank FORM's I LCSV-1, LCSV-2 and LCSV-TIC for results.

- A Laboratory Control Sample was analyzed with this SDG. Please see Form III LCSV for results.

- EICP areas and retention times were within QA/QC windows. Please see FORM's VIII LCSV-1 and LCSV-2 for results.

Summary

The samples revealed several positively detected Target compounds. Several TIC's were detected in the samples. Samples 97ZB01S03 and 97ZB01S07 required reanalyses at secondary dilutions due quantitated concentrations exceeding the range established by the calibration standards. Please see FORM's I LCSV-1, LCSV-2, and LCSV-TIC for results.

Sample Analysis - Pesticide/PCB

Sample analysis was performed without incident and within holding times. Chain of custody was maintained, and samples were analyzed according to EPA SOW OLC02.1. Quality control results are summarized as follows:

- Analyses of surrogates were performed on all samples; please see FORM II LCP for results.

- The method blanks did not contain any target analytes at or above the CRQL.

- A Laboratory Control Sample was analyzed with this SDG. Please see FORM III LCP for results.

Summary

Target analytes were found in sample PQ858 above the CRQL. Several samples were reextracted outside of holding times and reanalyzed due to a low surrogate recovery with PBLKW1 and low recoveries in PLCSW1. Please see all FORM I LCP for results.

Any technical questions regarding the data present in this deliverable should be addressed to the individual whose name appears at the end of this case narrative. Any manual integrations/compound identifications were done so on account the automatic software either failing to properly identify/quantitate the analyte of interest.

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 implied or detailed above. Release of the information contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Thomas H. Marshall

Thomas H. Marshall
Project Manager
THM
75100

2LCA

LOW CONC. WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

	EPA SAMPLE NO.	SMC2 (BFB)#	OTHER	TOT OUT
01	97ZB01001	116	0	0
02	97ZB01001DL	101	0	0
03	97ZB01001DL2	100	0	0
04	97ZB01R01	113	0	0
05	97ZB01S01	97	0	0
06	97ZB01S02	103	0	0
07	97ZB01S03	109	0	0
08	97ZB01S04	110	0	0
09	97ZB01S04DL	104	0	0
10	97ZB01S04DL2	92	0	0
11	97ZB01S04DL3	91	0	0
12	97ZB01S05	101	0	0
13	97ZB01S06	120	0	0
14	97ZB01S07	118	0	0
15	97ZB01S08	95	0	0
16	97ZB01S08DL	97	0	0
17	97ZB01TB01	115	0	0
18	97ZB01TB02	112	0	0
19	97ZB01TB03	109	0	0
20	97ZB01TB04	112	0	0
21	97ZB01TB05	113	0	0
22	97ZB01TB06	111	0	0
23	PV214	126 *	0	1
24	PV214DL	105	0	0
25	VHBLK05	91	0	0
26	VLCS07	104	0	0
27	VBLK06	100	0	0
28	VBLK07	102	0	0
29	VBLK08	102	0	0
30	VBLK09	91	0	0

QC LIMITS
%REC

BFB = Bromofluorobenzene (80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3LCA

LOW CONC. WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

VLCS07

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LCSG1113 LCS Lot No.: LA 62539

Lab File ID: LCSG1113 Date Analyzed: 11/13/96

Purge Volume: 10.0 (mL) Dilution Factor: 1.0

LCS Aliquot: 10.0 (uL)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
Vinyl chloride	50	53.20	106	60-140
1,2-Dichloroethane	50	69.50	139	60-140
Carbon tetrachloride	50	53.50	107	60-140
1,2-Dichloropropane	50	54.20	108	60-140
Trichloroethene	50	49.20	98	60-140
1,1,2-Trichloroethane	50	67.00	134	60-140
Benzene	50	52.60	105	60-140
cis-1,3-Dichloropropene	50	57.70	115	60-140
Bromoform	50	59.70	119	60-140
Tetrachloroethene	50	47.70	95	60-140
1,2-Dibromoethane	50	64.20	128	60-140
1,4-Dichlorobenzene	50	51.30	103	60-140

Column to be used to flag recovery values
* Values outside of contract required QC limits

LCS Recovery: 0 outside of Limits out of 12 total.

Comments:

FORM III LCV OLC02.0

4LCA

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK06

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab File ID: VWBK12G1 Lab Sample ID: VWBK12G1

Date Analyzed: 11/12/96 Time Analyzed: 2018

Instrument ID: 007

GC Column: CAP ID: 0.530(mm) Length: 60 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	97ZB01S01	2671V	2671V	2055
02	97ZB01S02	2672V	2672V	2132
03	97ZB01S03	2673V	2673V	2209
04	97ZB01S05	2795V	2795V	0114
05	97ZB01S06	2796V	2796V	0151
06	97ZB01S07	2793V	2793V	0000
07	97ZB01TB01	2674V	2674V	2246
08	97ZB01TB03	2797V	2797V	0230
09	97ZB01TB04	2794V	2794V	0037

COMMENTS:

4LCA

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK07

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab File ID: VWBK131G Lab Sample ID: VWBK13G1

Date Analyzed: 11/13/96 Time Analyzed: 1204

Instrument ID: 007

GC Column: CAP ID: 0.530(mm) Length: 60 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	97ZB01001	2936V	2936V	1818
02	97ZB01R01	2933V	2933V	1546
03	97ZB01S04	2798V	2798V	1318
04	97ZB01S08	2935V	2935V	1741
05	97ZB01TB02	2800V	2800V	1355
06	97ZB01TB05	2937V	2937V	1855
07	97ZB01TB06	2934V	2934V	1704
08	PV214	2908V	2908V	1509
09	PV214DL	2908VDL	2908VDL	1627
10	VLCS07	LCSG1113	LCSG1113	2009

COMMENTS:

4LCA

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK08

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab File ID: VWBK15G1 Lab Sample ID: VWBK15G1

Date Analyzed: 11/15/96 Time Analyzed: 1650

Instrument ID: 007

GC Column: CAP ID: 0.530(mm) Length: 60 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	97ZB01001DL	2936VDL	2936VDL	2036
02	97ZB01S04DL	2798VDL	2798VDL	1921
03	97ZB01S08DL	2935VDL	2935VDL	1958

COMMENTS:

4LCA

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK09

ıb Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab File ID: VWBK15G2 Lab Sample ID: VWBK15G2

Date Analyzed: 11/16/96 Time Analyzed: 0140

Instrument ID: 007

GC Column: CAP ID: 0.530(mm) Length: 60 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	97ZB01001DL2	2936VDL2	2936VDL2	0521
02	97ZB01S04DL2	2798VDL2	2798VDL2	0254
03	97ZB01S04DL3	2798VDL3	2798VDL3	0816
04	VHBLK05	VBLK05G1	VBLK05	0916

ɔMMENTS:

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK06

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: VWBK12G1 Date Received:

Lab File ID: VWBK12G1 Date Analyzed: 11/12/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	0.7	J
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK06

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: VWBK12G1 Date Received:

Lab File ID: VWBK12G1 Date Analyzed: 11/12/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/l)	Q

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK07

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: VWBK131G Date Received:

Lab File ID: VWBK131G Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	0.8	J
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.6	J

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK07

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: VWBK131G Date Received:

Lab File ID: VWBK131G Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/l)	Q

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK08

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: VWBK15G1 Date Received:

Lab File ID: VWBK15G1 Date Analyzed: 11/15/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK08

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: VWBK15G1 Date Received:

Lab File ID: VWBK15G1 Date Analyzed: 11/15/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/l)	Q
1. 000-00-0	N-(PENTAFLUOROBENZYLIDENE)-B	24.27	5	JN

FORM I LCV-TIC OLC02.0

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK09

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: VWBK15G2 Date Received:

Lab File ID: VWBK15G2 Date Analyzed: 11/16/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	
67-64-1	Acetone	1	J
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.5	J

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK09

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: VWBK15G2 Date Received:

Lab File ID: VWBK15G2 Date Analyzed: 11/16/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/l)	Q

FORM I LCV-TIC OLC02.0

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK05

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: VBLK05 Date Received:

Lab File ID: VBLK05 Date Analyzed: 11/16/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2 ~~1~~	BJ
67-64-1	Acetone	5 ~~4~~	BJ
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

U U BR 12/18/96

FORM I LCV OLC02.0

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK05

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: VBLK05 Date Received:

Lab File ID: VBLK05 Date Analyzed: 11/16/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q

MW-13 duplicate

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01001

ab Name: REI Contract: 68-D2-0061
Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01
Lab Sample ID: 2936V Date Received: 11/08/96
Lab File ID: 2936V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	160	E
75-09-2	Methylene Chloride	2 ~~1~~	BJ
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

TBOS detect

U RK 12/10/96

MW-13 duplicate

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01001

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2936V Date Received: 11/08/96

Lab File ID: 2936V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	4.52	180	J

FORM I LCV-TIC OLC02.0

MW-13 duplicate

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01001DL

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2936VDL Date Received: 11/07/96

Lab File ID: 2936VDL Date Analyzed: 11/15/96

Purge Volume: 10 (mL) Dilution Factor: 8.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	8	U
74-83-9	Bromomethane	8	U
75-01-4	Vinyl Chloride	8	U
75-00-3	Chloroethane	93	D
75-09-2	Methylene Chloride	28	BD U
67-64-1	Acetone	40	U
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
156-59-2	cis-1,2-Dichloroethene	8	U
156-60-5	trans-1,2-Dichloroethene	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	40	U
74-97-5	Bromochloromethane	8	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	D
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	40	U
591-78-6	2-Hexanone	40	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
106-93-4	1,2-Dibromoethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U
541-73-1	1,3-Dichlorobenzene	8	U
106-46-7	1,4-Dichlorobenzene	8	U
95-50-1	1,2-Dichlorobenzene	8	U
96-12-8	1,2-Dibromo-3-Chloropropane	8	U
120-82-1	1,2,4-Trichlorobenzene	8	U

wdw 12/13/96

MW-13 duplicate

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01001DL

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2936VDL Date Received: 11/07/96

Lab File ID: 2936VDL Date Analyzed: 11/15/96

Purge Volume: 10 (mL) Dilution Factor: 8.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 3

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	2.52	75	J
2.	UNKNOWN	4.58	170	J
3.	UNKNOWN	24.28	35	JB U

W 11/18/96

FORM I LCV-TIC OLC02.0

MW-13 duplicat

1LCA
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01001DL2

ab Name: REI Contract: 68-D2-0061
Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01
Lab Sample ID: 2936VDL2 Date Received: 11/07/96
Lab File ID: 2936VDL2 Date Analyzed: 11/16/96

Purge Volume: 10 (mL) Dilution Factor: 5.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	160	DE
75-09-2	Methylene Chloride	17	BD U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	25	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	9	D
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	25	U
591-78-6	2-Hexanone	25	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

w/ 12/13/96

MW-13 duplicate

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01001DL2

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2936VDL2 Date Received: 11/07/96

Lab File ID: 2936VDL2 Date Analyzed: 11/16/96

Purge Volume: 10 (mL) Dilution Factor: 5.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q

FORM I LCV-TIC OLC02.0

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01R01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2933V Date Received: 11/07/96

Lab File ID: 2933V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2 ~~0.4~~	BJ U RK 12/16/96
67-64-1	Acetone	12	
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.7	J
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

TB06 detect

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01R01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2933V Date Received: 11/07/96

Lab File ID: 2933V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q

MW-8

1LCA
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S01

Lab Name: REI Contract: 68-D2-0061
Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01
Lab Sample ID: 2671V Date Received: 11/06/96
Lab File ID: 2671V Date Analyzed: 11/12/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

MW-8

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2671V Date Received: 11/06/96

Lab File ID: 2671V Date Analyzed: 11/12/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q

MW-19

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S02

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2672V Date Received: 11/06/96

Lab File ID: 2672V Date Analyzed: 11/12/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	24	
75-09-2	Methylene Chloride	2 ~~0.7~~	BJ U RKR 11/16/96
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

MW-19

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S02

ɔ Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2672V Date Received: 11/06/96

Lab File ID: 2672V Date Analyzed: 11/12/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 75-45-6	CHLORODIFLUOROMETHANE	2.63	4	JN
2.	UNKNOWN	4.53	3	J

FORM I LCV-TIC OLC02.0

MW-12

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03

Lab Name: REI Contract: 68-D2-0061
Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01
Lab Sample ID: 2673V Date Received: 11/06/96
Lab File ID: 2673V Date Analyzed: 11/12/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	0.4	J
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	6	
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

MW-12

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S03

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2673V Date Received: 11/06/96

Lab File ID: 2673V Date Analyzed: 11/12/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	OXYBIS[3-CHLROO-PROPANE] ISO	23.35	17	J N

RK 12/4/96

FORM I LCV-TIC OLC02.0

MW-9

1LCA
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S04

Lab Name: REI Contract: 68-D2-0061
Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01
Lab Sample ID: 2798V Date Received: 11/07/96
Lab File ID: 2798V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	44	E
75-00-3	Chloroethane	1000	E J
75-09-2	Methylene Chloride	8	B U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	0.9	J
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	210	E
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	3	
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

TBΦ2 detect

w/ [illegible] 12/13/96

MW-9

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S04

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2798V Date Received: 11/07/96

Lab File ID: 2798V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 6

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 359-11-5	TRIFLUOROETHENE	2.42	23	JN
2. 108-20-3	DIISOPROPYL ETHER	7.05	6	JN
3.	UNKNOWN	8.47	6	J
4. 111-43-3	DI-N-PROPYL ETHER	10.02	19	JN
5. 352-93-2	1,1'-THIOBIS ETHANE	10.83	3	JN
6. 873-94-9	3,3,5-TRIMETHLY CYCLOHEXANON	23.32	30	JN

MW-9

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S04DL

Lab Name: REI Contract: 68-D2-0061
Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01
Lab Sample ID: 2798VDL Date Received: 11/07/96
Lab File ID: 2798VDL Date Analyzed: 11/15/96

Purge Volume: 10 (mL) Dilution Factor: 200.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	200	U
74-83-9	Bromomethane	200	U
75-01-4	Vinyl Chloride	200	U
75-00-3	Chloroethane	2200	D J
75-09-2	Methylene Chloride	720	BD U
67-64-1	Acetone	690	DJ
75-15-0	Carbon Disulfide	200	U
75-35-4	1,1-Dichloroethene	200	U
75-34-3	1,1-Dichloroethane	200	U
156-59-2	cis-1,2-Dichloroethene	200	U
156-60-5	trans-1,2-Dichloroethene	200	U
67-66-3	Chloroform	200	U
107-06-2	1,2-Dichloroethane	200	U
78-93-3	2-Butanone	1000	U
74-97-5	Bromochloromethane	200	U
71-55-6	1,1,1-Trichloroethane	200	U
56-23-5	Carbon Tetrachloride	200	U
75-27-4	Bromodichloromethane	200	U
78-87-5	1,2-Dichloropropane	200	U
10061-01-5	cis-1,3-Dichloropropene	200	U
79-01-6	Trichloroethene	200	U
124-48-1	Dibromochloromethane	200	U
79-00-5	1,1,2-Trichloroethane	200	U
71-43-2	Benzene	330	D
10061-02-6	trans-1,3-Dichloropropene	200	U
75-25-2	Bromoform	200	U
108-10-1	4-Methyl-2-Pentanone	1000	U
591-78-6	2-Hexanone	1000	U
127-18-4	Tetrachloroethene	200	U
79-34-5	1,1,2,2-Tetrachloroethane	200	U
106-93-4	1,2-Dibromoethane	200	U
108-88-3	Toluene	200	U
108-90-7	Chlorobenzene	200	U
100-41-4	Ethylbenzene	200	U
100-42-5	Styrene	200	U
1330-20-7	Xylene (total)	200	U
541-73-1	1,3-Dichlorobenzene	200	U
106-46-7	1,4-Dichlorobenzene	200	U
95-50-1	1,2-Dichlorobenzene	200	U
96-12-8	1,2-Dibromo-3-Chloropropane	200	U
120-82-1	1,2,4-Trichlorobenzene	200	U

wdw 12/13/96

MW-9

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S04DL

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2798VDL Date Received: 11/07/96

Lab File ID: 2798VDL Date Analyzed: 11/15/96

Purge Volume: 10 (mL) Dilution Factor: 200.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	0.04	910	J
2. 000-00-0	N-(PENTAFLUOROBENZYLIDENE)-B	24.28	480	BJN U

12/13/9

FORM I LCV-TIC OLC02.0

MW-9

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S04DL2

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2798VDL2 Date Received: 11/07/96

Lab File ID: 2798VDL2 Date Analyzed: 11/16/96

Purge Volume: 10 (mL) Dilution Factor: 100.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	100	U
74-83-9	Bromomethane	100	U
75-01-4	Vinyl Chloride	100	U
75-00-3	Chloroethane	3100	DE
75-09-2	Methylene Chloride	270	BD U
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
156-59-2	cis-1,2-Dichloroethene	100	U
156-60-5	trans-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	100	U
78-93-3	2-Butanone	500	U
74-97-5	Bromochloromethane	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
75-27-4	Bromodichloromethane	100	U
78-87-5	1,2-Dichloropropane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
79-01-6	Trichloroethene	100	U
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	360	D
10061-02-6	trans-1,3-Dichloropropene	100	U
75-25-2	Bromoform	100	U
108-10-1	4-Methyl-2-Pentanone	500	U
591-78-6	2-Hexanone	500	U
127-18-4	Tetrachloroethene	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
106-93-4	1,2-Dibromoethane	100	U
108-88-3	Toluene	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U
541-73-1	1,3-Dichlorobenzene	100	U
106-46-7	1,4-Dichlorobenzene	100	U
95-50-1	1,2-Dichlorobenzene	100	U
96-12-8	1,2-Dibromo-3-Chloropropane	100	U
120-82-1	1,2,4-Trichlorobenzene	100	U

RK 12/5/96
[illegible]
12/13/96

MW-9

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S04DL2

b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2798VDL2 Date Received: 11/07/96

Lab File ID: 2798VDL2 Date Analyzed: 11/16/96

Purge Volume: 10 (mL) Dilution Factor: 100.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q

MW-9

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S04DL3

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2798VDL3 Date Received: 11/07/96

Lab File ID: 2798VDL3 Date Analyzed: 11/16/96

Purge Volume: 10 (mL) Dilution Factor: 160.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	160	U
74-83-9	Bromomethane	160	U
75-01-4	Vinyl Chloride	160	U
75-00-3	Chloroethane	2400	D
75-09-2	Methylene Chloride	380	BDU
67-64-1	Acetone	960	BDU
75-15-0	Carbon Disulfide	160	U
75-35-4	1,1-Dichloroethene	160	U
75-34-3	1,1-Dichloroethane	160	U
156-59-2	cis-1,2-Dichloroethene	160	U
156-60-5	trans-1,2-Dichloroethene	160	U
67-66-3	Chloroform	160	U
107-06-2	1,2-Dichloroethane	160	U
78-93-3	2-Butanone	800	U
74-97-5	Bromochloromethane	160	U
71-55-6	1,1,1-Trichloroethane	160	U
56-23-5	Carbon Tetrachloride	160	U
75-27-4	Bromodichloromethane	160	U
78-87-5	1,2-Dichloropropane	160	U
10061-01-5	cis-1,3-Dichloropropene	160	U
79-01-6	Trichloroethene	160	U
124-48-1	Dibromochloromethane	160	U
79-00-5	1,1,2-Trichloroethane	160	U
71-43-2	Benzene	300	D
10061-02-6	trans-1,3-Dichloropropene	160	U
75-25-2	Bromoform	160	U
108-10-1	4-Methyl-2-Pentanone	800	U
591-78-6	2-Hexanone	800	U
127-18-4	Tetrachloroethene	160	U
79-34-5	1,1,2,2-Tetrachloroethane	160	U
106-93-4	1,2-Dibromoethane	160	U
108-88-3	Toluene	160	U
108-90-7	Chlorobenzene	160	U
100-41-4	Ethylbenzene	160	U
100-42-5	Styrene	160	U
1330-20-7	Xylene (total)	160	U
541-73-1	1,3-Dichlorobenzene	160	U
106-46-7	1,4-Dichlorobenzene	160	U
95-50-1	1,2-Dichlorobenzene	160	U
96-12-8	1,2-Dibromo-3-Chloropropane	160	U
120-82-1	1,2,4-Trichlorobenzene	160	U

Water 12/13/96

MW-9

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S04DL3

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2798VDL3 Date Received: 11/07/96

Lab File ID: 2798VDL3 Date Analyzed: 11/16/96

Purge Volume: 10 (mL) Dilution Factor: 160.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q

FORM I LCV-TIC OLC02.0

MW-10C

1LCA
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S05

Lab Name: REI Contract: 68-D2-0061
Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01
Lab Sample ID: 2795V Date Received: 11/07/96
Lab File ID: 2795V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 16.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	210	D J
75-09-2	Methylene Chloride	32	U
67-64-1	Acetone	80	U
75-15-0	Carbon Disulfide	16	U
75-35-4	1,1-Dichloroethene	16	U
75-34-3	1,1-Dichloroethane	16	U
156-59-2	cis-1,2-Dichloroethene	16	U
156-60-5	trans-1,2-Dichloroethene	16	U
67-66-3	Chloroform	16	U
107-06-2	1,2-Dichloroethane	16	U
78-93-3	2-Butanone	80	U
74-97-5	Bromochloromethane	16	U
71-55-6	1,1,1-Trichloroethane	16	U
56-23-5	Carbon Tetrachloride	16	U
75-27-4	Bromodichloromethane	16	U
78-87-5	1,2-Dichloropropane	16	U
10061-01-5	cis-1,3-Dichloropropene	16	U
79-01-6	Trichloroethene	16	U
124-48-1	Dibromochloromethane	16	U
79-00-5	1,1,2-Trichloroethane	16	U
71-43-2	Benzene	16	U
10061-02-6	trans-1,3-Dichloropropene	16	U
75-25-2	Bromoform	16	U
108-10-1	4-Methyl-2-Pentanone	80	U
591-78-6	2-Hexanone	80	U
127-18-4	Tetrachloroethene	16	U
79-34-5	1,1,2,2-Tetrachloroethane	16	U
106-93-4	1,2-Dibromoethane	16	U
108-88-3	Toluene	16	U
108-90-7	Chlorobenzene	16	U
100-41-4	Ethylbenzene	16	U
100-42-5	Styrene	16	U
1330-20-7	Xylene (total)	16	U
541-73-1	1,3-Dichlorobenzene	16	U
106-46-7	1,4-Dichlorobenzene	16	U
95-50-1	1,2-Dichlorobenzene	16	U
96-12-8	1,2-Dibromo-3-Chloropropane	16	U
120-82-1	1,2,4-Trichlorobenzene	16	U

TB02 detect

RK 11/21/96

FORM I LCV OLC02.0

MW-10C

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S05

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2795V Date Received: 11/07/96

Lab File ID: 2795V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 16.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	4.53	2300	J D RK 12/5/96

FORM I LCV-TIC OLC02.0

MW-51

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S06

Lab Name: REI Contract: 68-D2-0061
Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01
Lab Sample ID: 2796V Date Received: 11/07/96
Lab File ID: 2796V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

MW-51

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S06

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2796V Date Received: 11/07/96

Lab File ID: 2796V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 109-99-9	TETRAHYDROFURAN	8.52	5	JN

MW-50

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S07

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2793V Date Received: 11/07/96

Lab File ID: 2793V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

MW-50

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S07

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2793V Date Received: 11/07/96

Lab File ID: 2793V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q

FORM I LCV-TIC OLC02.0

MW-13

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S08

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2935V Date Received: 11/08/96

Lab File ID: 2935V Date Analyzed: 11/13/96

Purge Volume: 10.0 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Lenght: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q	
74-87-3	Chloromethane	1	U	
74-83-9	Bromomethane	1	U	
75-01-4	Vinyl Chloride	1	U	
75-00-3	Chloroethane	140	E	
75-09-2	Methylene Chloride	2 ~~0.9~~	BJ U	RK 11/10/96
67-64-1	Acetone	5	U	
75-15-0	Carbon Disulfide	1	U	
75-35-4	1,1-Dichloroethene	1	U	
75-34-3	1,1-Dichloroethane	1	U	
156-59-2	cis-1,2-Dichloroethene	1	U	
156-60-5	trans-1,2-Dichloroethene	1	U	
67-66-3	Chloroform	3	J	TB05 detect
107-06-2	1,2-Dichloroethane	1	U	
78-93-3	2-Butanone	5	U	
74-97-5	Bromochloromethane	1	U	
71-55-6	1,1,1-Trichloroethane	1	U	
56-23-5	Carbon Tetrachloride	1	U	
75-27-4	Bromodichloromethane	1	U	
78-87-5	1,2-Dichloropropane	1	U	
10061-01-5	cis-1,3-Dichloropropene	1	U	
79-01-6	Trichloroethene	1	U	
124-48-1	Dibromochloromethane	1	U	
79-00-5	1,1,2-Trichloroethane	1	U	
71-43-2	Benzene	1	U	
10061-02-6	trans-1,3-Dichloropropene	1	U	
75-25-2	Bromoform	1	U	
108-10-1	4-Methyl-2-Pentanone	5	U	
591-78-6	2-Hexanone	5	U	
127-18-4	Tetrachloroethene	1	U	
79-34-5	1,1,2,2-Tetrachloroethane	1	U	
106-93-4	1,2-Dibromoethane	1	U	
108-88-3	Toluene	1	U	
108-90-7	Chlorobenzene	1	U	
100-41-4	Ethylbenzene	1	U	
100-42-5	Styrene	1	U	
1330-20-7	Xylene (total)	1	U	
541-73-1	1,3-Dichlorobenzene	1	U	
106-46-7	1,4-Dichlorobenzene	1	U	
95-50-1	1,2-Dichlorobenzene	1	U	
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	
120-82-1	1,2,4-Trichlorobenzene	1	U	

MW-13

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S08

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2935V Date Received: 11/08/96

Lab File ID: 2935V Date Analyzed: 11/13/96

Purge Volume: 10.0 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	4.52	160	J

FORM I LCV-TIC OLC02.0

MW-13

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S08DL

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2935VDL Date Received: 11/08/96

Lab File ID: 2935VDL Date Analyzed: 11/13/96

Purge Volume: 10.0 (mL) Dilution Factor: 8.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	8	U
74-83-9	Bromomethane	8	U
75-01-4	Vinyl Chloride	8	U
75-00-3	Chloroethane	89	D
75-09-2	Methylene Chloride	21	DB U
67-64-1	Acetone	40	U
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
156-59-2	cis-1,2-Dichloroethene	8	U
156-60-5	trans-1,2-Dichloroethene	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	40	U
74-97-5	Bromochloromethane	8	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	D
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	40	U
591-78-6	2-Hexanone	40	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
106-93-4	1,2-Dibromoethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U
541-73-1	1,3-Dichlorobenzene	8	U
106-46-7	1,4-Dichlorobenzene	8	U
95-50-1	1,2-Dichlorobenzene	8	U
96-12-8	1,2-Dibromo-3-Chloropropane	8	U
120-82-1	1,2,4-Trichlorobenzene	8	U

Wdw 12/28/9

MW-13

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S08DL

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2935VDL Date Received: 11/08/96

Lab File ID: 2935VDL Date Analyzed: 11/13/96

Purge Volume: 10.0 (mL) Dilution Factor: 8.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 3

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 000-00-0	N-(PENTAFLUOROBENZYLIDENE)-B	0.41	57	JBN
2.	UNKNOWN	2.52	72	J
3.	UNKNOWN	4.58	160	J

FORM I LCV-TIC OLC02.0

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01TB01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2674V Date Received: 11/06/96

Lab File ID: 2674V Date Analyzed: 11/12/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2 ~~1~~	BJ U RK 12/18/96
67-64-1	Acetone	2	J
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01TB01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2674V Date Received: 11/06/96

Lab File ID: 2674V Date Analyzed: 11/12/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 000-00-0	N-(PENTAFLUOROBENZYLIDENE)-B	24.25	3	JBN U

RK 11/10/96

FORM I LCV-TIC OLC02.0

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01TB02

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2800V Date Received: 11/07/96

Lab File ID: 2800V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	
75-09-2	Methylene Chloride	~~1~~ 2	BJ U RK 12/10/96
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01TB02

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2800V Date Received: 11/07/96

Lab File ID: 2800V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 873-94-9	3,3,5-TRIMETHYL CYCLOHEXANON	23.33	5	JN

FORM I LCV-TIC OLC02.0

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01TB03

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2797V Date Received: 11/07/96

Lab File ID: 2797V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	~~2~~ 0.9	BJ U RK 12/10/96
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01TB03

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2797V Date Received: 11/07/96

Lab File ID: 2797V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	4.53	46	J

FORM I LCV-TIC OLC02.0

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01TB04

b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2794V Date Received: 11/07/96

Lab File ID: 2794V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q	
74-87-3	Chloromethane	1	U	
74-83-9	Bromomethane	1	U	
75-01-4	Vinyl Chloride	1	U	
75-00-3	Chloroethane	1	U	
75-09-2	Methylene Chloride	2 ±	BJ	U RK 12/10/96
67-64-1	Acetone	5	U	
75-15-0	Carbon Disulfide	1	U	
75-35-4	1,1-Dichloroethene	1	U	
75-34-3	1,1-Dichloroethane	1	U	
156-59-2	cis-1,2-Dichloroethene	1	U	
156-60-5	trans-1,2-Dichloroethene	1	U	
67-66-3	Chloroform	1	U	
107-06-2	1,2-Dichloroethane	1	U	
78-93-3	2-Butanone	5	U	
74-97-5	Bromochloromethane	1	U	
71-55-6	1,1,1-Trichloroethane	1	U	
56-23-5	Carbon Tetrachloride	1	U	
75-27-4	Bromodichloromethane	1	U	
78-87-5	1,2-Dichloropropane	1	U	
10061-01-5	cis-1,3-Dichloropropene	1	U	
79-01-6	Trichloroethene	1	U	
124-48-1	Dibromochloromethane	1	U	
79-00-5	1,1,2-Trichloroethane	1	U	
71-43-2	Benzene	1	U	
10061-02-6	trans-1,3-Dichloropropene	1	U	
75-25-2	Bromoform	1	U	
108-10-1	4-Methyl-2-Pentanone	5	U	
591-78-6	2-Hexanone	5	U	
127-18-4	Tetrachloroethene	1	U	
79-34-5	1,1,2,2-Tetrachloroethane	1	U	
106-93-4	1,2-Dibromoethane	1	U	
108-88-3	Toluene	1	U	
108-90-7	Chlorobenzene	1	U	
100-41-4	Ethylbenzene	1	U	
100-42-5	Styrene	1	U	
1330-20-7	Xylene (total)	1	U	
541-73-1	1,3-Dichlorobenzene	1.	U	
106-46-7	1,4-Dichlorobenzene	1	U	
95-50-1	1,2-Dichlorobenzene	1	U	
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	
120-82-1	1,2,4-Trichlorobenzene	1	U	

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01TB04

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2794V Date Received: 11/07/96

Lab File ID: 2794V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01TB05

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2937V Date Received: 11/08/96

Lab File ID: 2937V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2 ~~1~~	BJ U RK 11/18/96
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.4	J
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01TB05

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2937V Date Received: 11/08/96

Lab File ID: 2937V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01TB06

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2934V Date Received: 11/08/96

Lab File ID: 2934V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2 ~~1~~	BJ U RK 11/10/96
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	3	
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01TB06

ıb Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2934V Date Received: 11/08/96

Lab File ID: 2934V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 000-0-0	N(PENTAFLUOROBENZYLIDENE)-BE	24.25	2	JN

FORM I LCV-TIC OLC02.0

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PV214

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2908V Date Received: 11/07/96

Lab File ID: 2908V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	18	J
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	~~7~~ ~~0.8~~	BJ U RK 12/12/96
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	2	J
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	16	J
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	50	J
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	33	E J
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	2	J
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	23	J
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	15	J
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PV214

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2908V Date Received: 11/07/96

Lab File ID: 2908V Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 108-41-8	1-CHLORO-3-METHYL BENZENE	19.87	17	JN

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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PV214DL

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2908VDL Date Received: 11/07/96

Lab File ID: 2908VDL Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 2.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L)	Q
74-87-3	Chloromethane	15	D
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	2 ±	BDJ U RK 12/12/96
67-64-1	Acetone	6	DJ
75-15-0	Carbon Disulfide	2	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	2	D
156-59-2	cis-1,2-Dichloroethene	2	U
156-60-5	trans-1,2-Dichloroethene	2	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	10	U
74-97-5	Bromochloromethane	2	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	1	DJ
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	trans-1,3-Dichloropropene	2	U
75-25-2	Bromoform	14	D
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	36	D
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	29	D
106-93-4	1,2-Dibromoethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	D
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	19	D
1330-20-7	Xylene (total)	2	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U
96-12-8	1,2-Dibromo-3-Chloropropane	13	D
120-82-1	1,2,4-Trichlorobenzene	2	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PV214DL

ıb Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2908VDL Date Received: 11/07/96

Lab File ID: 2908VDL Date Analyzed: 11/13/96

Purge Volume: 10 (mL) Dilution Factor: 2.0

GC Column: CAP ID: 0.530 (mm) Length: 60 (m)

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 67-63-0	2-PROPANOL	5.18	7	JN D RK 12/5/96
2. 108-41-8	1-CHLORO-3-METHYL BENZENE	19.87	16	JN D

FORM I LCV-TIC OLC02.0

2LCC
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	TOT OUT
01	97ZB01D01	97	84	90	85	94	65	0
02	97ZB01R01	86	83	103	71	64	49	0
03	97ZB01S01	97	94	101	90	85	64	0
04	97ZB01S02	91	82	98	92	86	69	0
05	97ZB01S03	45	43	76	48	33	45	0
06	97ZB01S03DL	74	66	79	72	81	51	0
07	97ZB01S04	81	84	92	50	74	61	0
08	97ZB01S05	87	101	92	10 *	80	62	1
09	97ZB01S05RE	83	75	63	80	77	59	0
10	97ZB01S06	89	87	96	78	80	66	0
11	97ZB01S07	87	86	99	77	74	62	0
12	97ZB01S07DL	74	67	78	68	70	51	0
13	97ZB01S08	94	84	93	79	90	64	0
14	PU070	99	92	101	89	86	58	0
15	SLCS01	85	82	99	87	75	56	0
16	SBLK02	78	90	101	82	74	47	0
17	SBLK01	98	86	102	102	93	59	0
18	SBLK03	95	83	102	76	81	56	0
19	SBLK04	68	53	87	58	58	36	0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl-d14	(18-140)
S4 (PHL)	= Phenol-d5	(15-115)
S5 (2FP)	= 2-Fluorophenol	(15-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(15-121)

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

3LCB

LOW CONC. WATER SEMIVOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

VLCS01

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LCSK071A LCS Lot No.: LA-52122

Lab File ID: LCSK071A Date Extracted: 11/07/96

LCS Aliquot: 1000 (uL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
Phenol	40	29.33	73	40-120
bis(2-Chloroethyl)ether	20	15.61	78	50-110
2-Chlorophenol	40	29.21	73	50-110
N-Nitroso-di-n-propylamine	20	16.06	80	30-110
Hexachloroethane	20	13.10	66	20-110
Isophorone	20	15.03	75	50-110
Naphthalene	20	15.00	75	30-110
4-Chloroaniline	40	22.12	55	10-120
2,4,6-Trichlorophenol	40	26.27	66	40-120
2,4-Dinitrotoluene	20	14.09	70	30-120
Diethylphthalate	20	18.85	94	50-120
N-Nitrosodiphenylamine	20	14.01	70	30-110
Hexachlorobenzene	20	18.84	94	40-120
Benzo(a)pyrene	20	16.54	83	50-120

Column to be used to flag recovery values with an asterisk
* Values outside QC limits

LCS Recovery: 0 outside of Limits out of 14 total.

Comments: Additional lot numbers used are LA-53928, LA-53972, LA-53932, LA-53866, LA-54335

4LCB
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab File ID: LWBK071A Lab Sample ID: LWBK071A

Instrument ID: 024 Date Extracted: 11/07/96

Matrix: (soil/water) WATER Date Analyzed: 11/14/96

Level:(low/med) LOW Time Analyzed: 1719

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	97ZB01S01	02671B	02671B	11/14/96
02	97ZB01S02	02672B	02672B	11/14/96
03	97ZB01S04	02798B	02798B	11/15/96
04	97ZB01S05	02795B	02795B	11/15/96
05	97ZB01S06	02796B	02796B	11/15/96
06	97ZB01S07	02793B	02793B	11/15/96
07	97ZB01S07DL	02793DL	02793DL	11/20/96
08	PU070	LESK071A	LESK071A	11/14/96
09	SLCS01	LCSK071A	LCSK071A	11/14/96

COMMENTS:

4LCB
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK02

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab File ID: LWBK081B Lab Sample ID: LWBK081B

Instrument ID: 024 Date Extracted: 11/08/96

Matrix: (soil/water) WATER Date Analyzed: 11/14/96

Level:(low/med) LOW Time Analyzed: 1633

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	97ZB01S03	02673B	02673B	11/14/96
02	97ZB01S03DL	02673DL	02673DL	11/20/96

COMMENTS:

4LCB
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK03

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab File ID: LWBK07C Lab Sample ID: LWBK07C

Instrument ID: 024 Date Extracted: 11/11/96

Matrix: (soil/water) WATER Date Analyzed: 11/15/96

Level:(low/med) LOW Time Analyzed: 0109

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	97ZB01001	02936B	02936B	11/15/96
02	97ZB01R01	02933B	02933B	11/15/96
03	97ZB01S08	02935B	02935B	11/15/96

COMMENTS:

4LCB

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK04

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab File ID: LWBK184D Lab Sample ID: LWBK184D

Instrument ID: 024 Date Extracted: 11/18/96

Matrix: (soil/water) WATER Date Analyzed: 11/20/96

Level:(low/med) LOW Time Analyzed: 0449

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	97ZB01S05RE	02795RE	02795RE	11/20/96

COMMENTS:

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK071A Date Received:

Lab File ID: LWBK071A Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK071A Date Received:

Lab File ID: LWBK071A Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK01

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK071A Date Received:

Lab File ID: LWBK071A Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	8.82	2	J

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1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB0

Lab Sample ID: LWBK081B Date Received:

Lab File ID: LWBK081B Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK081B Date Received:

Lab File ID: LWBK081B Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK02

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK081B Date Received:

Lab File ID: LWBK081B Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 6

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	6.60	4	J
2.	UNKNOWN	7.33	4	J
3.	UNKNOWN	8.83	51	J
4.	UNKNOWN	8.93	9	J
5.	UNKNOWN	12.72	7	J
6.	UNKNOWN	14.22	3	J

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1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK03

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK07C Date Received:

Lab File ID: LWBK07C Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK03

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK07C Date Received:

Lab File ID: LWBK07C Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	J
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK03

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK07C Date Received:

Lab File ID: LWBK07C Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	8.82	12	J

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1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK04

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK184D Date Received:

Lab File ID: LWBK184D Date Extracted: 11/18/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK04

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK184D Date Received:

Lab File ID: LWBK184D Date Extracted: 11/18/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK04

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LWBK184D Date Received:

Lab File ID: LWBK184D Date Extracted: 11/18/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q

FORM I LCSV-TIC OLC02.0

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCS01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LCSK071A Date Received:

Lab File ID: LCSK071A Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	29	
111-44-4	bis(2-Chloroethyl)Ether	16	
95-57-8	2-Chlorophenol	29	
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	16	
67-72-1	Hexachloroethane	13	
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	15	
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	15	
106-47-8	4-Chloroaniline	22	
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	26	
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	14	

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCS01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LCSK071A Date Received:

Lab File ID: LCSK071A Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	19	
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	14	
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	19	
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	17	
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-13 duplicate

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01001

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02936B Date Received: 11/08/96

Lab File ID: 02936B Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

MW-13 duplicate

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01001

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02936B Date Received: 11/08/96

Lab File ID: 02936B Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5 ~~1~~	BJ U RK 11/10/96
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-13 duplicate

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01001

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2936B Date Received: 11/08/96

Lab File ID: 2936B Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 4

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	8.33	18	J
2.	UNKNOWN	8.83	11	JB U RK 12/16/96
3.	UNKNOWN	11.88	3	J
4.	UNKNOWN	16.72	4	J

FORM I LCSV-TIC OLC02.0

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01R01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02933B Date Received: 11/08/96

Lab File ID: 02933B Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01R01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02933B Date Received: 11/08/96

Lab File ID: 02933B Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	~~5~~	BJ U RK 12/10/96
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01R01

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02933B Date Received: 11/08/96

Lab File ID: 02933B Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	8.83	21	JB U

RK 12/10/96

FORM I LCSV-TIC OLC02.0

MW-8

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S01

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02671B Date Received: 11/06/96

Lab File ID: 02671B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

MW-8

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02671B Date Received: 11/06/96

Lab File ID: 02671B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-8

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S01

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02671B Date Received: 11/06/96

Lab File ID: 02671B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	8.83	3	JB J

AK 12/16/96

FORM I LCSV-TIC OLC02.0

MW-19

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S02

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02672B Date Received: 11/06/96

Lab File ID: 02672B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

MW-19

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S02

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02672B Date Received: 11/06/96

Lab File ID: 02672B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-19

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S02

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02672B Date Received: 11/06/96

Lab File ID: 02672B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 20

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	7.82	9	J
2.	UNKNOWN	7.87	22	J
3.	UNKNOWN	8.50	53	J
4.	UNKNOWN	8.55	8	J
5.	UNKNOWN	10.12	8	J
6.	UNKNOWN	11.82	10	J
7.	UNKNOWN	11.87	7	J
8.	UNKNOWN	12.17	5	J
09.	UNKNOWN	13.32	10	J
10.	UNKNOWN	13.73	86	J
11.	UNKNOWN	13.92	460	J
12.	UNKNOWN	14.80	8	J
13.	UNKNOWN ORGANIC ACID	15.13	34	J
14. 000101-10-0	2-(3-CHLOROPHENOXY) PROPANOI	16.50	32	JN
15.	UNKNOWN	17.28	6	J
16.	UNKNOWN	18.97	7	J
17.	UNKNOWN	19.53	5	J
18.	UNKNOWN	21.80	40	J
19. 010544-50-0	SULFUR	22.12	90	JN
20.	UNKNOWN	25.42	6	J

FORM I LCSV-TIC OLC02.0

MW-12

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673B Date Received: 11/06/96

Lab File ID: 02673B Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

MW-12

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673B Date Received: 11/06/96

Lab File ID: 02673B Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-12

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S03

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673B Date Received: 11/06/96

Lab File ID: 02673B Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	15.10	26	J
2.	UNKNOWN	25.87	3	J

FORM I LCSV-TIC OLC02.0

MW-12

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03DL

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673DL Date Received: 11/06/96

Lab File ID: 02673DL Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 4.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	20	U
111-44-4	bis(2-Chloroethyl)Ether	20	U
95-57-8	2-Chlorophenol	20	U
95-48-7	2-Methylphenol	20	U
108-60-1	2,2'-oxybis(1-Chloropropane)	210	D
106-44-5	4-Methylphenol	20	U
621-64-7	N-Nitroso-Di-n-Propylamine	20	U
67-72-1	Hexachloroethane	20	U
98-95-3	Nitrobenzene	20	U
78-59-1	Isophorone	20	U
88-75-5	2-Nitrophenol	20	U
105-67-9	2,4-Dimethylphenol	20	U
111-91-1	bis(2-Chloroethoxy)Methane	20	U
120-83-2	2,4-Dichlorophenol	20	U
91-20-3	Naphthalene	20	U
106-47-8	4-Chloroaniline	20	U
87-68-3	Hexachlorobutadiene	20	U
59-50-7	4-Chloro-3-Methylphenol	20	U
91-57-6	2-Methylnaphthalene	20	U
77-47-4	Hexachlorocyclopentadiene	20	U
88-06-2	2,4,6-Trichlorophenol	20	U
95-95-4	2,4,5-Trichlorophenol	80	U
91-58-7	2-Chloronaphthalene	20	U
88-74-4	2-Nitroaniline	80	U
131-11-3	Dimethylphthalate	20	U
208-96-8	Acenaphthylene	20	U
606-20-2	2,6-Dinitrotoluene	20	U
99-09-2	3-Nitroaniline	80	U
83-32-9	Acenaphthene	20	U
51-28-5	2,4-Dinitrophenol	80	U
100-02-7	4-Nitrophenol	80	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U

MW-12

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03DL

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673DL Date Received: 11/06/96

Lab File ID: 02673DL Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 4.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	80	U
534-52-1	4,6-Dinitro-2-Methylphenol	80	U
86-30-6	N-Nitrosodiphenylamine (1)	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	80	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
84-74-2	Di-n-Butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(A) anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	bis(2-Ethylhexyl)Phthalate	20	U
117-84-0	Di-n-Octylphthalate	20	U
205-99-2	Benzo(b)Fluoranthene	20	U
207-08-9	Benzo(k)Fluoranthene	20	U
50-32-8	Benzo(a)Pyrene	20	U
193-39-5	Indeno(1,2,3-cd)Pyrene	20	U
53-70-3	Dibenz(a,h)Anthracene	20	U
191-24-2	Benzo(g,h,i)Perylene	20	U

(1) - Cannot be separated from Diphenylamine

MW-12

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S03DL

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673DL Date Received: 11/06/96

Lab File ID: 02673DL Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 4.0

Injection Volume: 1.0(uL)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	15.07	27	J

FORM I LCSV-TIC OLC02.0

MW-9

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S04

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02798B Date Received: 11/07/96

Lab File ID: 02798B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	2	J
111-44-4	bis(2-Chloroethyl)Ether	31	
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U

MW-9

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S04

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02798B Date Received: 11/07/96

Lab File ID: 02798B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	1	J
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-9

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S04

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02798B Date Received: 11/07/96

Lab File ID: 02798B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 20

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 000873-94-9	3,3,5-TRIMETHYL-CYCLOHEXANON	6.92	480	JN
2.	UNKNOWN	7.22	170	J
3.	UNKNOWN	7.82	28	J
4.	UNKNOWN	7.88	28	J
5.	UNKNOWN	8.38	20	J
6.	UNKNOWN	9.93	43	J
7.	UNKNOWN	11.68	22	J
8.	UNKNOWN	11.75	23	J
9.	UNKNOWN	11.78	23	J
10.	UNKNOWN	11.85	23	J
11. 000085-44-9	PHTHALIC ANHYDRIDE	11.93	19	JN
12.	UNKNOWN	12.08	14	J
13.	UNKNOWN ORGANIC ACID	14.02	19	J
14.	UNKNOWN	14.57	37	J
15.	UNKNOWN	14.92	41	J
16.	UNKNOWN	15.12	22	J
17.	UNKNOWN	15.23	48	J
18.	UNKNOWN	16.52	27	J
19.	UNKNOWN	16.62	19	J
20.	UNKNOWN	20.23	12	J

MW-10C

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S05

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02795B Date Received: 11/07/96

Lab File ID: 02795B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

MW-1DC

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S05

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02795B Date Received: 11/07/96

Lab File ID: 02795B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	3	J
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-10C

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S05

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02795B Date Received: 11/07/96

Lab File ID: 02795B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 23

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	6.30	7	J
2.	UNKNOWN ALKYL BENZENE	6.60	5	J
3.	UNKNOWN	6.73	20	J
4.	UNKNOWN	7.88	4	J
5.	UNKNOWN	8.07	7	J
6.	UNKNOWN	8.33	9	J
7.	UNKNOWN	8.43	25	J
8.	UNKNOWN	8.53	20	J
9.	UNKNOWN	8.58	28	J
10.	UNKNOWN	8.62	15	J
11.	UNKNOWN	8.68	13	J
12.	UNKNOWN	8.82	6	J
13.	UNKNOWN	8.97	7	J
14.	UNKNOWN	9.20	6	J
15.	UNKNOWN	11.03	4	J
16.	UNKNOWN	11.88	8	J
17.	DIMETHYL BENZOIC ACID ISOMER	12.67	6	J
18.	UNKNOWN	13.20	11	J
19.	UNKNOWN	14.27	8	J
20.	UNKNOWN	14.98	11	J
21.	UNKNOWN	15.12	5	J
22.	UNKNOWN	20.80	3	J
23.	UNKNOWN	21.47	6	J

MW-10C

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S05RE

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02795RE Date Received: 11/07/96

Lab File ID: 02795RE Date Extracted: 11/18/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

J

MW-10C

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S05RE

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02795RE Date Received: 11/07/96

Lab File ID: 02795RE Date Extracted: 11/18/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	J
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

J

(1) - Cannot be separated from Diphenylamine

FORM I LCSV-2

OLC02.0

MW-10C

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S05RE

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02795RE Date Received: 11/07/96

Lab File ID: 02795RE Date Extracted: 11/18/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 16

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	6.33	8	J
2.	UNKNOWN	6.52	4	J
3.	UNKNOWN	7.17	3	J
4.	UNKNOWN	8.47	27	J
5.	UNKNOWN	9.23	12	J
6.	UNKNOWN	9.35	8	J
7.	UNKNOWN	10.23	14	J
8.	UNKNOWN	11.18	11	J
9.	UNKNOWN	11.85	5	J
10.	UNKNOWN	12.92	6	J
11.	UNKNOWN	13.27	9	J
12.	UNKNOWN	13.78	5	J
13.	UNKNOWN	13.95	7	J
14.	UNKNOWN	14.95	7	J
15.	UNKNOWN	16.42	4	J
16.	UNKNOWN	22.03	6	J

MW-51

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S06

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02796B Date Received: 11/07/96

Lab File ID: 02796B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

MW-51

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S06

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02796B Date Received: 11/07/96

Lab File ID: 02796B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-51

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S06

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02796B Date Received: 11/07/96

Lab File ID: 02796B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 17

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	6.37	8	J
2.	UNKNOWN	7.13	7	J
3.	UNKNOWN	8.33	18	~~JB~~
4.	UNKNOWN	8.83	17	JB
5. 144-19-4	2,2,4-TRIMETHYL 1,3-PENTANED	9.22	24	JN
6.	UNKNOWN	10.20	13	J
7.	UNKNOWN	11.18	30	J
8.	UNKNOWN	12.00	10	J
9.	UNKNOWN	13.23	7	J
10.	UNKNOWN	13.28	10	J
11.	UNKNOWN	13.98	19	J
12.	UNKNOWN	15.03	7	J
13.	UNKNOWN	16.43	6	J
14.	UNKNOWN	16.52	11	J
15.	UNKNOWN	16.62	13	J
16.	UNKNOWN	16.68	6	J
17.	UNKNOWN	16.75	10	J

RK 12/17/96

FORM I LCSV-TIC OLC02.0

MW-50

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S07

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02793B Date Received: 11/07/96

Lab File ID: 02793B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

MW-50

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S07

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02793B Date Received: 11/07/96

Lab File ID: 02793B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-50

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S07

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02793B Date Received: 11/07/96

Lab File ID: 02793B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 3

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 55702-61-9	4,4,5-TRIMETHYL-2-HEXENE	8.83	3	JNB U
2.	UNKNOWN	15.10	34	J
3.	UNKNOWN	25.87	3	J

RK 12/10/96

FORM I LCSV-TIC OLC02.0

MW-50

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S07DL

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02793DL Date Received: 11/07/96

Lab File ID: 02793DL Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 4.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	20	U
111-44-4	bis(2-Chloroethyl)Ether	20	U
95-57-8	2-Chlorophenol	20	U
95-48-7	2-Methylphenol	20	U
108-60-1	2,2'-oxybis(1-Chloropropane)	190	D
106-44-5	4-Methylphenol	20	U
621-64-7	N-Nitroso-Di-n-Propylamine	20	U
67-72-1	Hexachloroethane	20	U
98-95-3	Nitrobenzene	20	U
78-59-1	Isophorone	20	U
88-75-5	2-Nitrophenol	20	U
105-67-9	2,4-Dimethylphenol	20	U
111-91-1	bis(2-Chloroethoxy)Methane	20	U
120-83-2	2,4-Dichlorophenol	20	U
91-20-3	Naphthalene	20	U
106-47-8	4-Chloroaniline	20	U
87-68-3	Hexachlorobutadiene	20	U
59-50-7	4-Chloro-3-Methylphenol	20	U
91-57-6	2-Methylnaphthalene	20	U
77-47-4	Hexachlorocyclopentadiene	20	U
88-06-2	2,4,6-Trichlorophenol	20	U
95-95-4	2,4,5-Trichlorophenol	80	U
91-58-7	2-Chloronaphthalene	20	U
88-74-4	2-Nitroaniline	80	U
131-11-3	Dimethylphthalate	20	U
208-96-8	Acenaphthylene	20	U
606-20-2	2,6-Dinitrotoluene	20	U
99-09-2	3-Nitroaniline	80	U
83-32-9	Acenaphthene	20	U
51-28-5	2,4-Dinitrophenol	80	U
100-02-7	4-Nitrophenol	80	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U

MW-50

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S07DL

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02793DL Date Received: 11/07/96

Lab File ID: 02793DL Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 4.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	80	U
534-52-1	4,6-Dinitro-2-Methylphenol	80	U
86-30-6	N-Nitrosodiphenylamine (1)	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	80	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
84-74-2	Di-n-Butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(A) anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	bis(2-Ethylhexyl)Phthalate	20	U
117-84-0	Di-n-Octylphthalate	20	U
205-99-2	Benzo(b)Fluoranthene	20	U
207-08-9	Benzo(k)Fluoranthene	20	U
50-32-8	Benzo(a)Pyrene	20	U
193-39-5	Indeno(1,2,3-cd)Pyrene	20	U
53-70-3	Dibenz(a,h)Anthracene	20	U
191-24-2	Benzo(g,h,i)Perylene	20	U

(1) - Cannot be separated from Diphenylamine

MW-50

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S07DL

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02793DL Date Received: 11/07/96

Lab File ID: 02793DL Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 4.0

Injection Volume: 1.0(uL)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	15.07	27	J

FORM I LCSV-TIC OLC02.0

MW-13

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S08

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02935B Date Received: 11/08/96

Lab File ID: 02935B Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

MW-13

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S08

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02935B Date Received: 11/08/96

Lab File ID: 02935B Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	~~3~~ 5	BJ U RK 11/12/96
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-13

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S08

.b Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02935B Date Received: 11/08/96

Lab File ID: 02935B Date Extracted: 11/11/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 3

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	8.37	18	JB U RK 11/16/96
2.	UNKNOWN	8.83	6	J
3.	UNKNOWN	26.12	3	J

FORM I LCSV-TIC OLC02.0

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PU070

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LESK071A Date Received: 11/07/96

Lab File ID: LESK071A Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	10	
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	9	
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	12	
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	10	
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	40	
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PU070

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: LESK071A Date Received: 11/07/96

Lab File ID: LESK071A Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	24	
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	10	
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	15	
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3	J
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	14	
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: PU070

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB0

Lab Sample ID: LESK071A Date Received: 11/07/96

Lab File ID: LESK071A Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 3

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. 55702-61-9	4,4,5-TRIMETHYL-2-HEXENE	8.83	6	JN
2. 56-38-2	PARATHION	21.67	12	JN
3.	UNKNOWN	24.28	6	J

FORM I LCSV-TIC OLC02.0

2LCC
LOW CONC. WATER PESTICIDE SURROGATE RECOVERY

b Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No. SDG No.: 97ZB01S01

GC Column(1): DB-17 ID: 0.32(mm) GC Column(2): DB-1701 ID: 0.32(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKW1	70	403*	116	114			1
02	PBLKW2	76	122	113	112			0
03	PBLKW3	93	100	118	116			0
04	97ZB011001	68	116	110	106			0
05	97ZB01R01	78	107	71	80			0
06	97ZB01S01	106	140	136	136			0
07	97ZB01S01RE	84	103	120	114			0
08	97ZB01S02	80	331*	96	90			1
09	97ZB01S02RE	88	162*	102	98			1
10	97ZB01S03	73	109	96	94			0
11	97ZB01S03RE	74	104	95	133			0
12	97ZB01S04	68	74	82	78			0
13	97ZB01S04RE	86	190*	100	94			1
14	97ZB01S05	44	80	96	94			0
15	97ZB01S05RE	85	115	72	72			0
16	97ZB01S06	66	91	97	92			0
17	97ZB01S06RE	82	172*	110	110			1
18	97ZB01S07	69	97	74	72			0
19	97ZB01S07RE	88	140	71	92			0
20	97ZB01S08	78	174*	112	108			1
21	PLCSW1	94	625*	145	148			1
22	PLCSW3	90	94	112	106			0
23	PQ858	78	112	104	102			0

QC LIMITS

	%REC
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

3LCC

LOW CONC. WATER PESTICIDE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

PLCSW1

ıb Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 110896 LCS Lot No.: A006180

LCS Aliquot: 1000 (uL) Date Extracted: 11/08/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

Sulfur Cleanup: Y (Y/N)

Instrument ID(1) : 36001A GC Column (1): DB-17 ID: 0.32 (mm)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
gamma-BHC (Lindane)	100	101	101	50-120
Heptachlor epoxide	100	106	106	50-150
Dieldrin	200	252	126	30-130
4,4'-DDE	200	197	98	50-150
Endrin	200	241	120	50-120
Endosulfan sulfate	200	81	40 *	50-120
gamma-Chlordane	100	98	98	30-130

Instrument ID(2) : 36001B GC Column (2):DB-1701 ID: 0.32 (mm)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
gamma-BHC (Lindane)	100	102	102	50-120
Heptachlor epoxide	100	110	110	50-150
Dieldrin	200	264	132 *	30-130
4,4'-DDE	200	224	112	50-150
Endrin	200	269	134 *	50-120
Endosulfan sulfate	200	80	40 *	50-120
gamma-Chlordane	100	100	100	30-130

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits
LCS Recovery: 4 outside limits out of 14 total.

COMMENTS:

FORM III LCP OLC02.0

3LCC

LOW CONC. WATER PESTICIDE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

PLCSW3

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 111996 LCS Lot No.: A006180

LCS Aliquot: 1000 (uL) Date Extracted: 11/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

Sulfur Cleanup: Y (Y/N)

Instrument ID(1) : 36001A GC Column (1): DB-17 ID: 0.32 (mm)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
gamma-BHC (Lindane)	100	87	87	50-120
Heptachlor epoxide	100	87	87	50-150
Dieldrin	200	223	112	30-130
4,4'-DDE	200	163	82	50-150
Endrin	200	224	112	50-120
Endosulfan sulfate	200	147	74	50-120
gamma-Chlordane	100	86	86	30-130

Instrument ID(2) : 36001B GC Column (2):DB-1701 ID: 0.32 (mm)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
gamma-BHC (Lindane)	100	87	87	50-120
Heptachlor epoxide	100	88	88	50-150
Dieldrin	200	219	110	30-130
4,4'-DDE	200	176	88	50-150
Endrin	200	241	120	50-120
Endosulfan sulfate	200	149	74	50-120
gamma-Chlordane	100	87	87	30-130

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits
LCS Recovery: 0 outside limits out of 14 total.

MMENTS:

FORM III LCP OLC02.0

4LCC

LOW CONC. WATER PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKW1

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Date Extracted: 11/08/96 Lab Sample ID: MB110896-1A

Date Analyzed (1): 11/20/96 Date Analyzed (2): 11/20/96

Time Analyzed (1): 0234 Time Analyzed (2): 0234

Instrument ID (1): 36001A Instrument ID (2): 36001B

GC Column (1): DB-17 ID: 0.32 (mm) GC Column (2): DB-1701 ID: 0.32 (mm)

Sulfur Cleanup: (Y/N) Y Extraction:(SepF/Cont/Sonc) SEPF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	97ZB01S01	2671	11/20/96	11/20/96
02	97ZB01S02	2672	11/20/96	11/20/96
03	97ZB01S03	2673	11/20/96	11/20/96
04	97ZB01S04	2798	11/20/96	11/20/96
05	97ZB01S05	2795	11/20/96	11/20/96
06	97ZB01S06	2796	11/20/96	11/20/96
07	97ZB01S07	2793	11/20/96	11/20/96
08	PLCSW1	110896	11/20/96	11/20/96
09	PQ858	2910	11/20/96	11/20/96

COMMENTS:

4LCC

LOW CONC. WATER PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKW2

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Date Extracted: 11/11/96 Lab Sample ID: MB111196-1B

Date Analyzed (1): 11/20/96 Date Analyzed (2): 11/20/96

Time Analyzed (1): 0759 Time Analyzed (2): 0759

Time Analyzed (1): 0759 Time Analyzed (2): 0759

GC Column (1): DB-17 ID: 0.32 (mm) GC Column (2): DB-1701 ID: 0.32 (mm)

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	97ZB011001	2936	11/20/96	11/20/96
02	97ZB01R01	2933	11/20/96	11/20/96
03	97ZB01S08	2935	11/20/96	11/20/96

COMMENTS:

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LOW CONC. WATER PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKW3

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Date Extracted: 11/19/96 Lab Sample ID: MB111996-1

Date Analyzed (1): 11/20/96 Date Analyzed (2): 11/20/96

Time Analyzed (1): 0939 Time Analyzed (2): 0939

Instrument ID (1): 36001A Instrument ID (2): 36001B

GC Column (1): DB-17 ID: 0.32 (mm) GC Column (2): DB-1701 ID: 0.32 (mm)

Sulfur Cleanup: (Y/N) Y Extraction:(SepF/Cont/Sonc) SEPF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	97ZB01S01RE	2671RE	11/20/96	11/20/96
02	97ZB01S02RE	2672RE	11/20/96	11/20/96
03	97ZB01S03RE	2673RE	11/20/96	11/20/96
04	97ZB01S04RE	2798RE	11/20/96	11/20/96
05	97ZB01S05RE	2795RE	11/20/96	11/20/96
06	97ZB01S06RE	2796RE	11/21/96	11/21/96
07	97ZB01S07RE	2793RE	11/20/96	11/20/96
08	PLCSW3	111996	11/20/96	11/20/96

COMMENTS:

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKW1

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: MB110896-1A Date Received:

Sample Volume: 1000 (mL) Date Extracted: 11/08/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKW2

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: MB111196-1B Date Received:

Sample Volume: 1000 (mL) Date Extracted: 11/11/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKW3

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: MB111996-1C Date Received:

Sample Volume: 1000 (mL) Date Extracted: 11/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB011001

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2936 Date Received: 11/08/96

Sample Volume: 1000 (mL) Date Extracted: 11/11/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01R01

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2933 Date Received: 11/08/96

Sample Volume: 1000 (mL) Date Extracted: 11/11/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S01

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2671 Date Received: 11/06/96

Sample Volume: 1000 (mL) Date Extracted: 11/08/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

FORM I LCP OLC02.0

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S01RE

ab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2671RE Date Received: 11/06/96

Sample Volume: 1000 (mL) Date Extracted: 11/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q	
319-84-6	alpha-BHC	0.010	U	J
319-85-7	beta-BHC	0.010	U	
319-86-8	delta-BHC	0.010	U	
58-89-9	gamma-BHC (Lindane)	0.010	U	
76-44-8	Heptachlor	0.010	U	
309-00-2	Aldrin	0.010	U	
1024-57-3	Heptachlor epoxide	0.010	U	
959-98-8	Endosulfan I	0.010	U	
60-57-1	Dieldrin	0.020	U	
72-55-9	4,4'-DDE	0.020	U	
72-20-8	Endrin	0.020	U	
33213-65-9	Endosulfan II	0.020	U	
72-54-8	4,4'-DDD	0.020	U	
1031-07-8	Endosulfan sulfate	0.020	U	R
50-29-3	4,4'-DDT	0.020	U	
72-43-5	Methoxychlor	0.10	U	
53494-70-5	Endrin ketone	0.020	U	
7421-93-4	Endrin aldehyde	0.020	U	
5103-71-9	alpha-Chlordane	0.010	U	
5103-74-2	gamma-Chlordane	0.010	U	
8001-35-2	Toxaphene	1.0	U	
12674-11-2	Aroclor-1016	0.20	U	
11104-28-2	Aroclor-1221	0.40	U	
11141-16-5	Aroclor-1232	0.20	U	
53469-21-9	Aroclor-1242	0.20	U	
12672-29-6	Aroclor-1248	0.20	U	
11097-69-1	Aroclor-1254	0.20	U	
11096-82-5	Aroclor-1260	0.20	U	

FORM I LCP OLC02.0

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S02

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2672 Date Received: 11/06/96

Sample Volume: 1000 (mL) Date Extracted: 11/08/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S02RE

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2672RE Date Received: 11/06/96

Sample Volume: 1000 (mL) Date Extracted: 11/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2673 Date Received: 11/06/96

Sample Volume: 1000 (mL) Date Extracted: 11/08/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03RE

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2673RE Date Received: 11/06/96

Sample Volume: 1000 (mL) Date Extracted: 11/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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MW-9

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S04

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2798 Date Received: 11/07/96

Sample Volume: 1000 (mL) Date Extracted: 11/08/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S04RE

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2798RE Date Received: 11/07/96

Sample Volume: 1000 (mL) Date Extracted: 11/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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MW-10C

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S05

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2795 Date Received: 11/07/96

Sample Volume: 1000 (mL) Date Extracted: 11/08/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q	
319-84-6	alpha-BHC	0.010	U	
319-85-7	beta-BHC	0.010	U	
319-86-8	delta-BHC	0.010	U	
58-89-9	gamma-BHC (Lindane)	0.010	U	
76-44-8	Heptachlor	0.010	U	
309-00-2	Aldrin	0.010	U	
1024-57-3	Heptachlor epoxide	0.010	U	
959-98-8	Endosulfan I	0.010	U	
60-57-1	Dieldrin	0.020	U	
72-55-9	4,4'-DDE	0.020	U	
72-20-8	Endrin	0.020	U	
33213-65-9	Endosulfan II	0.020	U	
72-54-8	4,4'-DDD	0.020	U	
1031-07-8	Endosulfan sulfate	0.020	U	R
50-29-3	4,4'-DDT	0.020	U	
72-43-5	Methoxychlor	0.10	U	
53494-70-5	Endrin ketone	0.020	U	
7421-93-4	Endrin aldehyde	0.020	U	
5103-71-9	alpha-Chlordane	0.010	U	
5103-74-2	gamma-Chlordane	0.010	U	
8001-35-2	Toxaphene	1.0	U	
12674-11-2	Aroclor-1016	0.20	U	
11104-28-2	Aroclor-1221	0.40	U	
11141-16-5	Aroclor-1232	0.20	U	
53469-21-9	Aroclor-1242	0.20	U	
12672-29-6	Aroclor-1248	0.20	U	
11097-69-1	Aroclor-1254	0.20	U	
11096-82-5	Aroclor-1260	0.20	U	

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S05RE

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2795RE Date Received: 11/07/96

Sample Volume: 1000 (mL) Date Extracted: 11/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q	
319-84-6	alpha-BHC	0.010	U	J
319-85-7	beta-BHC	0.010	U	
319-86-8	delta-BHC	0.010	U	
58-89-9	gamma-BHC (Lindane)	0.010	U	
76-44-8	Heptachlor	0.010	U	
309-00-2	Aldrin	0.010	U	
1024-57-3	Heptachlor epoxide	0.010	U	
959-98-8	Endosulfan I	0.010	U	
60-57-1	Dieldrin	0.020	U	
72-55-9	4,4'-DDE	0.020	U	
72-20-8	Endrin	0.020	U	
33213-65-9	Endosulfan II	0.020	U	
72-54-8	4,4'-DDD	0.020	U	
1031-07-8	Endosulfan sulfate	0.020	U	R
50-29-3	4,4'-DDT	0.020	U	
72-43-5	Methoxychlor	0.10	U	
53494-70-5	Endrin ketone	0.020	U	
7421-93-4	Endrin aldehyde	0.020	U	
5103-71-9	alpha-Chlordane	0.010	U	
5103-74-2	gamma-Chlordane	0.010	U	
8001-35-2	Toxaphene	1.0	U	
12674-11-2	Aroclor-1016	0.20	U	
11104-28-2	Aroclor-1221	0.40	U	
11141-16-5	Aroclor-1232	0.20	U	
53469-21-9	Aroclor-1242	0.20	U	
12672-29-6	Aroclor-1248	0.20	U	
11097-69-1	Aroclor-1254	0.20	U	
11096-82-5	Aroclor-1260	0.20	U	

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S06

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2796 Date Received: 11/07/96

Sample Volume: 1000 (mL) Date Extracted: 11/08/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S06RE

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2796RE Date Received: 11/07/96

Sample Volume: 1000 (mL) Date Extracted: 11/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/21/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S07

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2793 Date Received: 11/07/96

Sample Volume: 1000 (mL) Date Extracted: 11/08/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S07RE

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2793RE Date Received: 11/07/96

Sample Volume: 1000 (mL) Date Extracted: 11/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S08

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2935 Date Received: 11/08/96

Sample Volume: 1000 (mL) Date Extracted: 11/11/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PQ858

Lab Name: ENCOTEC Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 2910 Date Received: 11/07/96

Sample Volume: 1000 (mL) Date Extracted: 11/08/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/20/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.013	
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.031	
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.031	
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U R
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: IN

Case No: 25125 Site Name Location: American Chem Svc

Contractor or EPA Lab: Rollins Data User: BTV

No. of Samples: 14 Date Sampled or Data Received: 11-25-96

Have Chain-of-Custody records been received? Yes ✓ No____
Have traffic reports or packing lists been received? Yes ✓ No____
If no, are traffic report or packing list numbers written on the chain-of-custody record? Yes ✓ No____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____

_____ _____ _____ _____

Are basic data forms in? Yes ✓ No____
No of samples claimed: 14 No. of samples received: 14

Received by: Lynette Burnett Date: 11-25-96

Received by LSSS: Lynette Burnett Date: 11-25-96

Review started: 12/04/96 Reviewer Signature: [illegible]

Total time spent on review: 16.0 Date review completed: 12/06/96

Copied by: Lynette Burnett Date: 1-2-97

Mailed to user by: Lynette Burnett Date: 1-2-97

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____

_____

Received by Data Mgmt. Coordinator for Files. Data: _____

MW-12

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673B Date Received: 11/06/96

Lab File ID: 02673B Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

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

MW-12

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673B Date Received: 11/06/96

Lab File ID: 02673B Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

MW-12

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S03

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673B Date Received: 11/06/96

Lab File ID: 02673B Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/14/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	15.10	26	J
2.	UNKNOWN	25.87	3	J

FORM I LCSV-TIC OLC02.0

MW-12

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03DL

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673DL Date Received: 11/06/96

Lab File ID: 02673DL Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 4.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	20	U
111-44-4	bis(2-Chloroethyl)Ether	20	U
95-57-8	2-Chlorophenol	20	U
95-48-7	2-Methylphenol	20	U
108-60-1	2,2'-oxybis(1-Chloropropane)	210	D
106-44-5	4-Methylphenol	20	U
621-64-7	N-Nitroso-Di-n-Propylamine	20	U
67-72-1	Hexachloroethane	20	U
98-95-3	Nitrobenzene	20	U
78-59-1	Isophorone	20	U
88-75-5	2-Nitrophenol	20	U
105-67-9	2,4-Dimethylphenol	20	U
111-91-1	bis(2-Chloroethoxy)Methane	20	U
120-83-2	2,4-Dichlorophenol	20	U
91-20-3	Naphthalene	20	U
106-47-8	4-Chloroaniline	20	U
87-68-3	Hexachlorobutadiene	20	U
59-50-7	4-Chloro-3-Methylphenol	20	U
91-57-6	2-Methylnaphthalene	20	U
77-47-4	Hexachlorocyclopentadiene	20	U
88-06-2	2,4,6-Trichlorophenol	20	U
95-95-4	2,4,5-Trichlorophenol	80	U
91-58-7	2-Chloronaphthalene	20	U
88-74-4	2-Nitroaniline	80	U
131-11-3	Dimethylphthalate	20	U
208-96-8	Acenaphthylene	20	U
606-20-2	2,6-Dinitrotoluene	20	U
99-09-2	3-Nitroaniline	80	U
83-32-9	Acenaphthene	20	U
51-28-5	2,4-Dinitrophenol	80	U
100-02-7	4-Nitrophenol	80	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U

MW-12

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S03DL

ab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673DL Date Received: 11/06/96

Lab File ID: 02673DL Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 4.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	80	U
534-52-1	4,6-Dinitro-2-Methylphenol	80	U
86-30-6	N-Nitrosodiphenylamine (1)	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	80	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
84-74-2	Di-n-Butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(A) anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	bis(2-Ethylhexyl)Phthalate	20	U
117-84-0	Di-n-Octylphthalate	20	U
205-99-2	Benzo(b)Fluoranthene	20	U
207-08-9	Benzo(k)Fluoranthene	20	U
50-32-8	Benzo(a)Pyrene	20	U
193-39-5	Indeno(1,2,3-cd)Pyrene	20	U
53-70-3	Dibenz(a,h)Anthracene	20	U
191-24-2	Benzo(g,h,i)Perylene	20	U

(1) - Cannot be separated from Diphenylamine

MW-12

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB01S03DL

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02673DL Date Received: 11/06/96

Lab File ID: 02673DL Date Extracted: 11/08/96

Sample Volume: 1000 (mL) Date Analyzed: 11/20/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 4.0

Injection Volume: 1.0(uL)

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	UNKNOWN	15.07	27	J

FORM I LCSV-TIC OLC02.0

MW-9

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S04

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02798B Date Received: 11/07/96

Lab File ID: 02798B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	2	J
111-44-4	bis(2-Chloroethyl)Ether	31	
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U

MW-9

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB01S04

Lab Name: REI Contract: 68-D2-0061

Lab Code: ROLLIN Case No.: 25125 SAS No.: SDG No.: 97ZB01S01

Lab Sample ID: 02798B Date Received: 11/07/96

Lab File ID: 02798B Date Extracted: 11/07/96

Sample Volume: 1000 (mL) Date Analyzed: 11/15/96

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(A) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octylphthalate	1	J
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenz(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

(1) - Cannot be separated from Diphenylamine

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: 1-13-97

Subject: Review of Region 5 Data for American Chemical Services Code:J7

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To: B & V

Attached are the results for American Chemical Services Code:J7
CRL request number 970042
for analyses for Antimony, Arsenic, Cadmium, Lead, Selenium and Thallium
Results are reported for sample designations: 97ZB02S01, 97ZB02D01, 97ZB02S02, 97ZB02S03, 97ZB02S04, 97ZB02S05, 97ZB02D05 and 97ZB02R01

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal. Samples 97ZB02S01, 97ZB02D01, 97ZB02S03 and 97ZB02S04 exceed the disposal criterion for particulate matter, and 97ZB02D01 and 97ZB02S04 meet or exceed the lead criterion.

Comments on Data Quality by Reviewer

All samples except 97ZB02S05 and 97ZB02D05 were analyzed for antimony by graphite furnace atomic absorption, because the high solids created problems for the flow injection system of the hydride generation method. Lead results for sample 97ZB02S04 should properly be reported as 120 μg Pb/L to use the correct number of significant figures for the measurement, given the dilution necessary.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for American Chemical Services Code:J7

[signature] 13 Jan 97

Peer/Task Monitor Review and Date (✓) Reviewed ( ) Unreviewed

[signature] 13 Jan 97

Team Leader and Date (✓) Reviewed ( ) Unreviewed

Chuck Eddy 1/13/97

QC Coordinator and Date ( ) Reviewed (✓) Unreviewed
(position vacant)

Sylvia Griffin 1-13-97

Data Management Coordinator and Date Received

Date Transmitted 1-13-97

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML - 10C

Received by and Date

Comments:

Method Number: GFAA Metals
Date Generated: January 9, 1997
Author: Bai Yuen

Site Name: American Chemical Services
Charge Number(s): ESE51251
TDF Number: 5104-078
WAD Number: 05-96-0-04

GFAA NARRATIVE for Data Set 970042

Five ground water samples, 97ZB02S01, D01, S02, S03 and S04, two surface water 97ZB02S05 and D05 and one field blank 97ZB02R01 were collected from the American Chemical Services site. The samples were submitted for the analysis of total arsenic, cadmium, lead, selenium and thallium by GFAA. Samples 97ZB02S01, R01, S02, S03, S04 and R01 were analyzed by GFAA for antimony due to matrix interference. The samples were collected on 12/26/96 and 12/27/96 and were received properly preserved by the CRL on 12/27/96. All samples were part of data set 970042.

All samples were digested on 12/31/96. Two sets of duplicates and spikes were digested because two types of water matrices were analyzed.

Analytical results were stored in .DAT files CDBY105.DAT, TLBY103.DAT, ASBY102.DAT, ASBY103.DAT, PBBY105.DAT, PBBY106.DAT, SEBY1231.DAT and SEBY102.DAT and .LPT file SBBY108.LPT.

Arsenic

Data Files ASBY102.DAT and ASBY103.DAT

Arsenic was analyzed without incident.

All QC was within the specified control limits.

Cadmium

Data File CDBY105.DAT

Cadmium was analyzed without incident.

All QC was within the specified control limits.

Lead

Data Files PBBY105.DAT and PBBY106.DAT

Lead was analyzed without incident.

All QC was within the specified control limits.

Narrative by: B. Yuen ESAT
Date: 1-9-97

Thallium

Data File TLBY103.DAT

Thallium was analyzed without incident.

All QC was within the specified control limits.

Selenium

Data Files SEBY102.DAT and SEBY1231.DAT

Selenium was analyzed without incident.

All QC was within the specified control limits.

Antimony

Data file SBBY108.LPT

Antimony was analyzed without incident.

All QC was within the specified control limits.

Acceptable results for arsenic, antimony, cadmium, lead, selenium and thallium were obtained for the samples.

Narrative by: B. Yuen ESAT
Date: 1-9-97

Method Number: 3114B
Date Generated: January 08, 1997
TDF Number: 5104-078

SiteName: AMERICAN CHEM.SERVICE
Charge Number: ESE-51-251
Work Assignment Number: 05-96-0-04

FIAS NARRATIVE for Data Set 970042

8 water samples from data set 970042 (97ZB02S01-05, D01, D05 and R01) were submitted for the analysis of total antimony by hydride AA. The water samples were collected on 12-26-96 and were received by the CRL properly preserved on 12-27-96.

All samples and standards were digested following standard CRL FIAS digestion protocols for waters on 01-06-97 and analyzed on 01-07-97. The data for samples 97ZB02S05, S05DUP, S05SPK and D05, D05SPK and all required QC were acceptable. The spikes results for the rest of the samples from data set 970042 were below the lower acceptance range (85% R), therefore these samples were redigested on 01-07-97 and rerun on 01-08-97. The matrix spike recoveries were still unacceptable and samples 97ZB02S01-S04, D01 and R01 were rerun on 01-08-97 by MSA.

The hold time for metals is six months. All samples were analyzed within the six month hold time for metals. A spiked blank, used as a laboratory control sample (LFM), was digested and analyzed with the set of samples. Analytical results for 97ZB02S05 and D05 were stored in .DAT file SBLL0107.DAT.

Narrative by: T. Learn / J. Gary ESAT
Date: 1-8-97

MW-55 duplicate

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 09-JAN-97

Sample organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **26-DEC-96**

Sample Batch ID: **970042**
Account No: **TFA301**
Sample ID: **97ZB02D01**
Units: **ug/L**
Date Received: **27-DEC-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	09-JAN-97	B. Green	
Arsenic Concentration	6U	03-JAN-97	B. Green	
Cadmium Concentration	0.6	06-JAN-97	B. Green	
Lead Concentration	39	06-JAN-97	B. Green	
Selenium Concentration	4U	02-JAN-97	B. Green	
Thallium Concentration	2U	03-JAN-97	B. Green	

Team Leader: Jan 13 Jan 97

SW Sample duplicate

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 09-JAN-97

Sample organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **27-DEC-96**

Sample Batch ID: **970042**
Account No: **TFA301**
Sample ID: **97ZB02D05**
Units: **ug/L**
Date Received: **27-DEC-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1 U	07-JAN-97	L. Feo	
Arsenic Concentration	4U	03-JAN-97	B. Lynn	
Cadmium Concentration	0.2U	06-JAN-97	B. Lynn	
Lead Concentration	2U	06-JAN-97	B. Lynn	
Selenium Concentration	2U	02-JAN-97	B. Lynn	
Thallium Concentration	2U	03-JAN-97	B. Lynn	

Team Leader: Jvm 13 Jan 97

rinsate

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 09-JAN-97

Sample organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **26-DEC-96**

Sample Batch ID: **970042**
Account No: **TFA301**
Sample ID: **97ZB02R01**
Units: **ug/L**
Date Received: **27-DEC-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	09-JAN-97	B. Green	
Arsenic Concentration	2U	03-JAN-97	B. Green	
Cadmium Concentration	0.2U	06-JAN-97	B. Green	
Lead Concentration	2U	06-JAN-97	B. Green	
Selenium Concentration	2U	02-JAN-97	B. Green	
Thallium Concentration	2U	03-JAN-97	B. Green	

Team Leader: JM 13 Jan 97

MW-55

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 09-JAN-97

Sample organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **26-DEC-96**

Sample Batch ID: **970042**
Account No: **TFA301**
Sample ID: **97ZB02S01**
Units: **ug/L**
Date Received: **27-DEC-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	09-JAN-97	B. Lynn	
Arsenic Concentration	5	02-JAN-97	B. Lynn	
Cadmium Concentration	0.3	06-JAN-97	B. Lynn	
Lead Concentration	29	06-JAN-97	B. Lynn	
Selenium Concentration	4U	02-JAN-97	B. Lynn	
Thallium Concentration	2U	03-JAN-97	B. Lynn	

Team Leader: JM 13 Jan 97

MW-54

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 09-JAN-97

Sample organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **26-DEC-96**

Sample Batch ID: **970042**
Account No: **TFA301**
Sample ID: **97ZB02S02**
Units: **ug/L**
Date Received: **27-DEC-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	4	09-JAN-97	B. Green	
Arsenic Concentration	7	02-JAN-97	B. Green	
Cadmium Concentration	0.2U	06-JAN-97	B. Green	
Lead Concentration	5	06-JAN-97	B. Green	
Selenium Concentration	4U	02-JAN-97	B. Green	
Thallium Concentration	2U	03-JAN-97	B. Green	

Team Leader: JVM 13 Jan 97

MW-53

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 09-JAN-97

Sample organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **27-DEC-96**

Sample Batch ID: **970042**
Account No: **TFA301**
Sample ID: **97ZB02803**
Units: **ug/L**
Date Received: **27-DEC-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	5	09-JAN-97	B. Green	
Arsenic Concentration	36	02-JAN-97	B. Green	
Cadmium Concentration	0.2U	06-JAN-97	B. Green	
Lead Concentration	16	06-JAN-97	B. Green	
Selenium Concentration	4U	02-JAN-97	B. Green	
Thallium Concentration	2U	03-JAN-97	B. Green	

Team Leader: Jan 13 Jan 97

MW-52

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 09-JAN-97

Sample organization: B & V
Sample Requestor: ASWOK RUPAUI
Facility: AMERICAN CHEMICAL SERVICES INC
Matrix: WATER
Date Collected: 27-DEC-96

Sample Batch ID: 970042
Account No: TFA301
Sample ID: 97ZB02S04
Units: ug/L
Date Received: 27-DEC-96

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	09-JAN-97	B. Yuen	
Arsenic Concentration	16	02-JAN-97	B. Yuen	
Cadmium Concentration	1.1	06-JAN-97	B. Yuen	
Lead Concentration	~~117~~ 120 JVM 13 Jan 97	06-JAN-97	B. Yuen	
Selenium Concentration	4U	02-JAN-97	B. Yuen	
Thallium Concentration	2U	03-JAN-97	B. Yuen	

Team Leader: JVM 13 Jan 97

SW Sample

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 09-JAN-97

Sample organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **27-DEC-96**

Sample Batch ID: **970042**
Account No: **TFA301**
Sample ID: **97ZB02805**
Units: **ug/L**
Date Received: **27-DEC-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1 U	07-JAN-97	Z. Zeman	
Arsenic Concentration	4U	03-JAN-97	B. Yuen	
Cadmium Concentration	0.2U	06-JAN-97	B. Yuen	
Lead Concentration	2U	06-JAN-97	B. Yuen	
Selenium Concentration	4U	02-JAN-97	B. Yuen	
Thallium Concentration	2U	03-JAN-97	B. Yuen	

Team Leader: jvm 13 Jan 97

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

December 1996
American Chem Services
71670.
File I.7

Date: 1-8-97

Subject: Review of Region 5 Data for American Chemical Services Code:J7

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To: BEV

Attached are the results for American Chemical Services Code:J7
CRL request number 970042
for analyses for ICP
Results are reported for sample designations: 97ZB02S01, 97ZB02D01, 97ZB02S02, 97ZB02S03, 97ZB02S04, 97ZB02S05, 97ZB02D05 and 97ZB02R01

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use
(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal. Samples 97ZB02S01, 97ZB02D01, 97ZB02S03 and 97ZB02S04 exceed the disposal criterion for iron and particulate matter.

Comments on Data Quality by Reviewer

Matrix spikes and duplicates were performed on both samples selected by the field contractor. Sample 97ZB02S03 represented the groundwater matrix, and sample 97ZB02S05 represented the surface water matrix. The vanadium matrix spike recovery for the spike of 97ZB02S05 was only 81%, outside the CRL's 100±15% acceptance window. The vanadium matrix spike recovery for the spike of 97ZB02S03 was 90%, so the groundwater data are unaffected. There is a chance of a low bias for vanadium for the surface water samples, but because both samples were well below detection, it is unlikely to affect the data.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for American Chemical Services Code:J7

John V. Moore 8 Jan 97

Peer/Task Monitor Review and Date (✓) Reviewed ( ) Unreviewed

John V. Moore 8 Jan 97

Team Leader and Date (✓) Reviewed ( ) Unreviewed

Chuck Ellis 1/8/97

QC Coordinator and Date ( ) Reviewed (✓) Unreviewed
(position vacant)

Sylvia Griffin 1-8-97

Data Management Coordinator and Date Received

Date Transmitted 1-8-97

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML - 10C

Received by and Date

Comments:

1-6-97

Method Number: _200.7_____ Site Name:American Chemical Services

Date Generated: January 2,1997____ Work Unit Number: 05-96004____

Author: _R.Dilg,Lockheed-ESAT_____ TDF Number: 5104-078 _____

Charge Number: ESE-51-251 ____

ICP NARRATIVE

This narrative covers the analysis of 8 water samples (970042) from the above named site sampled on December 26th and 27th for ICP metals analysis.

Data Set	Sample Nos.
970042	97ZB02S01, D01, R01, S02, S03, S04, S05, D05

Routine CRL microwave digestion procedures were used to prepare the samples for ICP analysis. Since two types of water matrices (groundwater and surface water) were present with this 8 sample set of waters, two sets of laboratory duplicate and matrix spike QC audits were prepared and analyzed. The sample digests were analyzed using the TJA 1160 unit; the SED5_AL analysis run method was used. ICP analysis results were stored to file RUN 691. Since the K channel on the 1160 unit was not fully operable, K was analyzed using the TJA 61 unit; K analysis run results were stored to file RUN691K.

RUN 691

The following lists the out-of-control QC CHECK audit results for RUN 691 ICP data:

(Note: Since the K channel was not usable, the K values indicated in the raw run data and in the QC reports are not included in the listing below.)

Blanks: Instr Blank 2: Li, 10.94 µg/L

AQC checks: AQC 2: Ba - 5.2% deviation

Matrix spike: 97ZB02S05: V 81%R

All As, Cd, and Pb sample concentrations were too low to be reliably reported using ICP analysis. Refer to GFAA analysis and / or FIAS hydride AA analysis data for these results.

Li results were not of concern for this data set.

The final AQC (AQC 2) check results for Ba exceeded CRL QC control limits of ± 5% but did not exceed CLP limits of ± 10% deviation. All other QC audit values for Ba are in control. Ba sample results are usable.

JD
1-6-97

RUN 691 (continued)

The matrix spike recovery for V for 97ZB02S05 exceeded CRL control limits of 100 ± 15%R but not CLP limits of 100 ± 25%R. All remaining control audits for V met CRL control limits. All V sample results are usable.

Data for the first two IEC solutions (Cu and Al solutions) were not used. IEC values were zeroed out and then new IEC data acquisition was resumed by beginning over again with the Cu IEC solution. No sample result data were adversely affected by this and the data are usable.

RUN 691 K

All QC check audits for K were within CRL control limits. All K samples are usable.

MW-55 duplicate

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 06-JAN-97

SAMPLE ORGANIZATION: B & V
AMPLE REQUESTOR: ASWOK RUPAUI
LABORATORY: ESAT

SAMPLE BATCH ID: 970042
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB02D01 FIELD: 97ZB02D01

COLLECTED: 26-DEC-96 RECEIVED: 27-DEC-96 ANALYZED: 02-JAN-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	7150	(ug/L)		7429-90-5
Barium	235	(ug/L)		7440-39-3
Beryllium	2.2	(ug/L)		7440-41-7
Calcium	75800	(ug/L)		7440-70-2
Chromium	134	(ug/L)		7440-47-3
Cobalt	9.5	(ug/L)		7440-48-4
Copper	93.6	(ug/L)		7440-50-8
Iron	14400	(ug/L)		7439-89-6
Magnesium	33300	(ug/L)		7439-95-4
Manganese	537	(ug/L)		7439-96-5
Nickel	106	(ug/L)		7440-02-0
Potassium	6830	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	126000	(ug/L)		7440-23-5
Vanadium	11.8	(ug/L)		7440-62-2
Zinc	109	(ug/L)		7440-66-6

ANALYZED BY: RD 1-6-97

8 Jan 97

SW Sample
duplicate

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 06-JAN-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK RUPAUI
LABORATORY: ESAT

SAMPLE BATCH ID: 970042
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB02D05 FIELD: 97ZB02D05

COLLECTED: 27-DEC-96 RECEIVED: 27-DEC-96 ANALYZED: 02-JAN-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	311	(ug/L)		7429-90-5
Barium	118	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	126000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	1030	(ug/L)		7439-89-6
Magnesium	35000	(ug/L)		7439-95-4
Manganese	425	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	21900	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	36000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RD 1-6-97 jm 8 Jan 97

EPA RLIMS CRL - REGION V

rinsate

FINAL RESULTS REPORT

REPORT PRODUCED ON: 06-JAN-97

SAMPLE ORGANIZATION: B & V

SAMPLE BATCH ID: 970042

AMPLE REQUESTOR: ASWOK RUPAUI

ACCOUNT NO: TFA301

LABORATORY: ESAT

FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB02R01 FIELD: 97ZB02R01

COLLECTED: 26-DEC-96 RECEIVED: 27-DEC-96 ANALYZED: 02-JAN-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	6U	(ug/L)	BDL	7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	500U	(ug/L)	BDL	7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	80U	(ug/L)	BDL	7439-89-6
Magnesium	100U	(ug/L)	BDL	7439-95-4
Manganese	5U	(ug/L)	BDL	7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	1000U	(ug/L)	BDL	7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RD 1-6-97

MM 8 Jan 97

MW-55

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 06-JAN-97

SAMPLE ORGANIZATION: B & V
AMPLE REQUESTOR: ASWOK RUPAUI
LABORATORY: ESAT

SAMPLE BATCH ID: 970042
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB02S01 FIELD: 97ZB02S01

COLLECTED: 26-DEC-96 RECEIVED: 27-DEC-96 ANALYZED: 02-JAN-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	7100	(ug/L)		7429-90-5
Barium	235	(ug/L)		7440-39-3
Beryllium	2.1	(ug/L)		7440-41-7
Calcium	73600	(ug/L)		7440-70-2
Chromium	116	(ug/L)		7440-47-3
Cobalt	11.3	(ug/L)		7440-48-4
Copper	79.0	(ug/L)		7440-50-8
Iron	14000	(ug/L)		7439-89-6
Magnesium	33000	(ug/L)		7439-95-4
Manganese	503	(ug/L)		7439-96-5
Nickel	84.3	(ug/L)		7440-02-0
Potassium	6990	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	128000	(ug/L)		7440-23-5
Vanadium	9.6	(ug/L)		7440-62-2
Zinc	100	(ug/L)		7440-66-6

ANALYZED BY: 1-6-97

JVM
8 Jan 97

MW 54

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 06-JAN-97

SAMPLE ORGANIZATION: B & V
AMPLE REQUESTOR: ASWOK RUPAUI
LABORATORY: ESAT

SAMPLE BATCH ID: 970042
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB02S02 FIELD: 97ZB02S02

COLLECTED: 26-DEC-96 RECEIVED: 27-DEC-96 ANALYZED: 02-JAN-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	331	(ug/L)		7429-90-5
Barium	163	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	123000	(ug/L)		7440-70-2
Chromium	43.8	(ug/L)		7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	44.5	(ug/L)		7440-50-8
Iron	1150	(ug/L)		7439-89-6
Magnesium	46900	(ug/L)		7439-95-4
Manganese	176	(ug/L)		7439-96-5
Nickel	37.9	(ug/L)		7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	18300	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: [signature] 1-6-97

[initials] 8 Jan 97

MW-53

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 06-JAN-97

SAMPLE ORGANIZATION: B & V
AMPLE REQUESTOR: ASWOK RUPAUI
LABORATORY: ESAT

SAMPLE BATCH ID: 970042
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB02S03 FIELD: 97ZB02S03

COLLECTED: 27-DEC-96 RECEIVED: 27-DEC-96 ANALYZED: 02-JAN-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	3850	(ug/L)		7429-90-5
Barium	265	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	129000	(ug/L)		7440-70-2
Chromium	51.7	(ug/L)		7440-47-3
Cobalt	14.1	(ug/L)		7440-48-4
Copper	21.9	(ug/L)		7440-50-8
Iron	13500	(ug/L)		7439-89-6
Magnesium	44500	(ug/L)		7439-95-4
Manganese	567	(ug/L)		7439-96-5
Nickel	124	(ug/L)		7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	104000	(ug/L)		7440-23-5
Vanadium	8.9	(ug/L)		7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 1-6-97

8 Jan 97

MW-52

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 06-JAN-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK RUPAUI
LABORATORY: ESAT

SAMPLE BATCH ID: 970042
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB02S04 FIELD: 97ZB02S04

COLLECTED: 27-DEC-96 RECEIVED: 27-DEC-96 ANALYZED: 02-JAN-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	16700	(ug/L)		7429-90-5
Barium	942	(ug/L)		7440-39-3
Beryllium	6.2	(ug/L)		7440-41-7
Calcium	180000	(ug/L)		7440-70-2
Chromium	187	(ug/L)		7440-47-3
Cobalt	30.3	(ug/L)		7440-48-4
Copper	107	(ug/L)		7440-50-8
Iron	45100	(ug/L)		7439-89-6
Magnesium	76100	(ug/L)		7439-95-4
Manganese	1620	(ug/L)		7439-96-5
Nickel	136	(ug/L)		7440-02-0
Potassium	15600	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	328000	(ug/L)		7440-23-5
Vanadium	21.5	(ug/L)		7440-62-2
Zinc	406	(ug/L)		7440-66-6

ANALYZED BY: 1-6-97

7 Jan 97

SW Sample

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 06-JAN-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK RUPAUI
LABORATORY: ESAT

SAMPLE BATCH ID: 970042
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB02S05 FIELD: 97ZB02S05

COLLECTED: 27-DEC-96 RECEIVED: 27-DEC-96 ANALYZED: 02-JAN-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	320	(ug/L)		7429-90-5
Barium	118	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	127000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	1060	(ug/L)		7439-89-6
Magnesium	35500	(ug/L)		7439-95-4
Manganese	429	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	21100	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	36000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RD 1-6-97

JVM 7 Jan 97

Copy 1 of 3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

ACS
71670
File I.7
Analytical Data
December 1996

Date: FEB 07 1997

Subject: Review of Region 5 Data for **AMERICAN CHEMICAL SERVICES INC.**

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To:

Attached are the results for **AMERICAN CHEMICAL SERVICES INC.**
CRL request number **970042**
for analyses for **Cyanide and Mercury**.
Results are reported for sample designations: 96ZB02S01, 96ZB02D01, 96ZB02S02, 96ZB02S03, 96ZB02S04, 96ZB02S05, 96ZB01D05 and 96ZB02R01.

Results Status:

(X) Acceptable for Use: **Cyanide and Mercury**
( ) Data Qualified, but Acceptable for use:
( ) Data Unacceptable for Use:

( ) Sewer Disposal Criteria Met;

Mercury: All portion of the above samples which were collected and submitted for mercury analysis are preserved with acid/dichromate reagents. Those samples should be disposed of in a drum. The preservative utilized is toxic.

Cyanide: Portions of all of the above samples which were collected and submitted for cyanide analyses are preserved with sodium hydroxide reagents. All the samples should be neutralized prior to disposal down the drain provided that the concentrations of other analytes are less than the laboratory detection or other controlling limits. Cyanide concentrations in those samples are below the laboratory detection limit.

Comments on Data Quality by Reviewer:

All the samples submitted for Cyanide and Mercury analysis were assayed and the results are attached. Required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits. Cyanide and Mercury results are acceptable for use.

Comments on Sample Results:

Mercury results for samples 96ZB02S02 and 96ZB02S04 were found to be above the laboratory detection limit of 0.0001 mg/L (0.1 μg/L). Mercury in those samples could pose some risk. Mercury concentrations in the remaining samples and Cyanide results for all samples were found to be below the laboratory detection limit. The laboratory detection limit for Cyanide is 0.008mg/L (8 μg/L). All those samples are considered safe with respect to Cyanide and Mercury.

Comments by Laboratory Director or Quality Control Coordinator:

Francis A. Awanya 2/5/97
Review and Date (✓) Reviewed ( ) Unreviewed

Johnson 7 Feb 97
Team Leader and Date ( ) Reviewed ( ) Unreviewed

Chuck Eldy 2/7/97
QC Coordinator and Date ( ) Reviewed (✓) Unreviewed

Sylvia Griffin FEB 07 1997
Data Management Coordinator and Date Received

Date Transmitted FEB 07 1997

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

MW-55 duplicate

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 05-FEB-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Laboratory: **ESAT**

Sample Batch ID: **970042**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB02D01**
Field: **97ZB02D01**

Collected: **26-DEC-96 /**
Received: **27-DEC-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	03-JAN-97	J. Gary
Mercury (Total)	0.1	(ug/L)	U	03-JAN-97	L. Lee

Reviewed by : Francis A. Awanya 2/5/97

SW Sample duplicate

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 05-FEB-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Laboratory: **ESAT**

Sample Batch ID: **970042**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB02D05**

Field: **97ZB02D05**

Collected: **27-DEC-96 /**

Received: **27-DEC-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	03-JAN-97	J. Gary
Mercury (Total)	0.1	(ug/L)	U	03-JAN-97	L. Ter

Reviewed by : Francis A. Awanga 2/5/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

rinsate

Report produced on: 05-FEB-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Laboratory: **ESAT**

Sample Batch ID: **970042**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB02R01**
Field: **97ZB02R01**

Collected: **26-DEC-96 /**
Received: **27-DEC-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	03-JAN-97	J. Hang
Mercury (Total)	0.1	(ug/L)	U	03-JAN-97	L. Teos

Reviewed by : Francis A. Awanga 2/5/97

MW-57

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 05-FEB-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Laboratory: **ESAT**

Sample Batch ID: **970042**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB02S01**
Field: **97ZB02S01**

Collected: **26-DEC-96 /**
Received: **27-DEC-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	03-JAN-97	J. Barr
Mercury (Total)	0.1	(ug/L)		03-JAN-97	L. Li

Reviewed by : Francis A. Awanga 2/5/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

MW-54

Report produced on: 05-FEB-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Laboratory: **ESAT**

Sample Batch ID: **970042**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB02S02**

Field: **97ZB02S02**

Collected: **26-DEC-96 /**

Received: **27-DEC-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	03-JAN-97	J. Gary
Mercury (Total)	0.2	(ug/L)		03-JAN-97	L. Leo

Reviewed by : Francis A. Awanya 2/5/97

MW-53

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 05-FEB-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Laboratory: **ESAT**

Sample Batch ID: **970042**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB02S03**

Field: **97ZB02S03**

Collected: **27-DEC-96 /**

Received: **27-DEC-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	03-JAN-97	J. Garry
Mercury (Total)	0.1	(ug/L)		03-JAN-97	Z. Leo

Reviewed by : Francis A. Awanga 2/5/97

MW-52

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 05-FEB-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Laboratory: **ESAT**

Sample Batch ID: **970042**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB02S04**
Field: **97ZB02S04**

Collected: **27-DEC-96 /**
Received: **27-DEC-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	03-JAN-97	J. Gary
Mercury (Total)	0.4	(ug/L)		03-JAN-97	L. Lear

Reviewed by : Francis A. Awanga 2/5/97

SW Sample

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 05-FEB-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK RUPAUI**
Laboratory: **ESAT**

Sample: **97ZB02S05**

Collected: **27-DEC-96 /**

Sample Batch ID: **970042**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Field: **97ZB02S05**

Received: **27-DEC-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	03-JAN-97	J. Harz
Mercury (Total)	0.1	(ug/L)	U	03-JAN-97	L. Leon

Reviewed by : Francis A. Awanya 2/5/97

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: NOVEMBER 20, 1996

Subject: Review of Region 5 Data for American Chemical Services Code:J7

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To:

Attached are the results for American Chemical Services Code:J7
CRL request number 970022
for analyses for ICP
Results are reported for sample designations: 97ZB01S01, 97ZB01S02, 97ZB01S03, 97ZB01S04, 97ZB01S05, 97ZB01S06, 97ZB01S07, 97ZB01S08, 97ZB01D08 and 97ZB01R01

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal. All samples **except** 97ZB01S01 and 97ZB01R01 exceed the criterion for iron.

Comments on Data Quality by Reviewer

Iron is very high in most of these samples. Aluminum may be biased slightly low, as the instrument blanks were -58 and -59 μg Al/L (within the limit of $\pm$the detection limit) and the digestion blank was -84 μg Al/L (outside the limit). This could be explained by some aluminum contamination in the calibration blank. This would result in a low bias of the amount of the contamination. It would not seriously affect the slope of the calibration.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for American Chemical Services Code:J7

[signature] 19 Nov 96

Peer/Task Monitor Review and Date (✓) Reviewed ( ) Unreviewed

[signature] 19 Nov 96

Team Leader and Date (✓) Reviewed ( ) Unreviewed

Chuck Elly 11/19/96

QC Coordinator and Date ( ) Reviewed (✓) Unreviewed
(position vacant)

William Sayer for Sylvia Griffin 11/20/96

Data Management Coordinator and Date Received

Date Transmitted 11/20/96

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML - 10C

Received by and Date

Comments:

(RD)
11-13-96

Method Number: _200.7_____ Site Name: American Chemical Services_& November PE

Date Generated: November 12,1996__ Work Unit Number: 05-96004____

Author: _R.Dilg,Lockheed-ESAT_____ TDF Number: 5104-069 & _____ 5104-070

Charge Number: ESE-51-229 &___ ESE-51-230

ICP NARRATIVE

This narrative covers the analysis of 10 water samples (970022) from the above named site sampled on November 5th, 6th, and 7th for ICP metals analysis. Also included is the November PE sample (970020) for metals analysis.

Data Set	Sample Nos.
970022	97ZB01S01, R01,,S02, S03, S04, S05, S06, S07, S08, D08
970020	97OI03S01

Routine CRL microwave digestion procedures were used to prepare the samples for ICP analysis. An LCS / MDL check audit sample was also prepared. The sample digests were analyzed using the TJA 1160 unit; the SED5_AL analysis run method was used. ICP analysis results were stored to file RUN 669. For the November PE sample, the submitted sample concentrate was diluted tenfold by pipetting 20 ml of sample concentrate and diluting to 200 ml; this dilution contained 2% HNO_3; a 50 ml aliquot of this dilution was then digested and analyzed. Since the K channel on the 1160 unit was not fully operable, K was analyzed using the TJA 61 unit; K analysis run results were stored to file RUN669K.

RUN 669

The following lists the out-of-control QC CHECK audit results for RUN 669 ICP data:

(Note: Since the K channel was not usable, the K values indicated in the raw run data and in the QC reports are not included in the listing below.)

Blanks: Digestion Blank: Al, - 83.84 µg/L

AQC checks:	AQC 1:	B	6.4% deviation
		Li	7.5% "
		Mg	5.5% "
		Sr	6.4% "

PD
11-13-96

RUN 669 (continued)

AQC 2:	Li	12.6% deviation
	Sr	11.0% "

Matrix spike: 97ZB01S03: Li 205%R

All As, Cd, and Pb sample concentrations were too low to be reliably reported using ICP analysis. Refer to GFAA analysis and / or FIAS hydride AA analysis data for these results.

B, Li and Sr results were not of concern for this data set.

The low Al response for the digestion blank does not significantly affect the Al values reported for the samples. The remaining QC check audit values for Al gave acceptable values.

The final AQC (AQC 2) check results for a number of analytes exceeded CRL QC control limits of ± 5% but did not exceed CLP limits of ± 10% deviation. These analytes included Al, Ba, Be, Ca, Co, Cu, Fe, Mn, Ni, and Ag. All other QC audit values for these are in control. Sample results for these analytes are usable.

For Mg, the low level Mg channel had AQC 1 and AQC 2 values of +5.5% and +7.2% deviation, respectively. These values exceeded the ± 5% CRL control limits but did not exceed the ± 10% CLP limits. Only two samples had Mg values in the range for the Mg low level channel to be used, 97OI03S01 and 97ZB01R01. For these latter two samples, the Mg values were below limits of detection. For the remaining samples, the Mg results were reported using the high level Mg channel which gave in control QC check audit results. All Mg sample results are usable.

RUN 669K

All QC check audits for K were within CRL control limits. All K samples are usable.

MW-13 duplicate

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 13-NOV-96

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: BAL BERENA
LABORATORY: ESAT

SAMPLE BATCH ID: 970022
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB01D08 FIELD: 97ZB01D08

COLLECTED: 07-NOV-96 RECEIVED: 07-NOV-96 ANALYZED: 12-NOV-96

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	300	(ug/L)		7429-90-5
Barium	59.4	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	101000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	4670	(ug/L)		7439-89-6
Magnesium	26600	(ug/L)		7439-95-4
Manganese	578	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	26800	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: [signature] 11-13-96

JVM 19 Nov 96

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 13-NOV-96

Nusate

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: BAL BERENA
LABORATORY: ESAT

SAMPLE BATCH ID: 970022
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB01R01 FIELD: 97ZB01R01

COLLECTED: 07-NOV-96 RECEIVED: 07-NOV-96 ANALYZED: 12-NOV-96

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	6U	(ug/L)	BDL	7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	500U	(ug/L)	BDL	7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	80U	(ug/L)	BDL	7439-89-6
Magnesium	100U	(ug/L)	BDL	7439-95-4
Manganese	5U	(ug/L)	BDL	7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	1000U	(ug/L)	BDL	7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: [signature] 11-13-96 JVM 19-Nov-96

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 13-NOV-96

MW-B

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: BAL BERENA
LABORATORY: ESAT

SAMPLE BATCH ID: 970022
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB01S01 FIELD: 97ZB01S01

COLLECTED: 05-NOV-96 RECEIVED: 05-NOV-96 ANALYZED: 12-NOV-96

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	116	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	52600	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	952	(ug/L)		7439-89-6
Magnesium	16000	(ug/L)		7439-95-4
Manganese	97.5	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	13000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 11-13-96

JVR 19 Nov 96

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 13-NOV-96

MW-19

SAMPLE ORGANIZATION: B & V
AMPLE REQUESTOR: BAL BERENA
LABORATORY: ESAT

SAMPLE BATCH ID: 970022
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB01S02 FIELD: 97ZB01S02

COLLECTED: 05-NOV-96 RECEIVED: 05-NOV-96 ANALYZED: 12-NOV-96

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	242	(ug/L)		7429-90-5
Barium	563	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	74000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	9.3	(ug/L)		7440-50-8
Iron	3960	(ug/L)		7439-89-6
Magnesium	60900	(ug/L)		7439-95-4
Manganese	260	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	74300	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	738000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 11-13-96

jvm
19 Nov 96

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 13-NOV-96

MW-12

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: BAL BERENA
LABORATORY: ESAT

SAMPLE BATCH ID: 970022
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB01S03 FIELD: 97ZB01S03

COLLECTED: 05-NOV-96 RECEIVED: 05-NOV-96 ANALYZED: 12-NOV-96

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	192	(ug/L)		7429-90-5
Barium	67.1	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	52900	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6.9	(ug/L)		7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	11200	(ug/L)		7439-89-6
Magnesium	17200	(ug/L)		7439-95-4
Manganese	1260	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	21700	(ug/L)		7440-23-5
Vanadium	7.1	(ug/L)		7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 11-13-96

JVM
19 Nov 96

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 13-NOV-96

MW-9

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: BAL BERENA
LABORATORY: ESAT

SAMPLE BATCH ID: 970022
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB01S04 FIELD: 97ZB01S04

COLLECTED: 06-NOV-96 RECEIVED: 07-NOV-96 ANALYZED: 12-NOV-96

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	321	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	152000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6	(ug/L)		7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	17500	(ug/L)		7439-89-6
Magnesium	30300	(ug/L)		7439-95-4
Manganese	220	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	7170	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	115000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 11-13-96

JVM 19 Nov 96

MW-10C

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 13-NOV-96

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: BAL BERENA
LABORATORY: ESAT

SAMPLE BATCH ID: 970022
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB01S05 FIELD: 97ZB01S05

COLLECTED: 06-NOV-96 RECEIVED: 07-NOV-96 ANALYZED: 12-NOV-96

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	1560	(ug/L)		7429-90-5
Barium	370	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	118000	(ug/L)		7440-70-2
Chromium	17	(ug/L)		7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	10200	(ug/L)		7439-89-6
Magnesium	55400	(ug/L)		7439-95-4
Manganese	106	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	207000	(ug/L)		7440-23-5
Vanadium	6.5	(ug/L)		7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 11-13-96

JVM 19 Nov 96

MW-57

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 13-NOV-96

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: BAL BERENA
LABORATORY: ESAT

SAMPLE BATCH ID: 970022
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB01S06 FIELD: 97ZB01S06

COLLECTED: 06-NOV-96 RECEIVED: 07-NOV-96 ANALYZED: 12-NOV-96

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	580	(ug/L)		7429-90-5
Barium	414	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	155000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	8240	(ug/L)		7439-89-6
Magnesium	68100	(ug/L)		7439-95-4
Manganese	228	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	114000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: [signature] 11-13-96 JVM 19 Nov 96

MW-50

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 13-NOV-96

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: BAL BERENA
LABORATORY: ESAT

SAMPLE BATCH ID: 970022
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB01S07 FIELD: 97ZB01S07

COLLECTED: 06-NOV-96 RECEIVED: 07-NOV-96 ANALYZED: 12-NOV-96

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	974	(ug/L)		7429-90-5
Barium	255	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	135000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	2830	(ug/L)		7439-89-6
Magnesium	66900	(ug/L)		7439-95-4
Manganese	81.3	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	11400	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	409000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: [signature] 11-13-96 [signature] 19 Nov 96

MW-13

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 14-NOV-96

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: BAL BERENA
LABORATORY: ESAT

SAMPLE BATCH ID: 970022
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB01S08 FIELD: 97ZB01S08

COLLECTED: 07-NOV-96 RECEIVED: 07-NOV-96 ANALYZED: 12-NOV-96

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	518	(ug/L)		7429-90-5
Barium	60.7	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	100000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6.1	(ug/L)		7440-50-8
Iron	4860	(ug/L)		7439-89-6
Magnesium	26500	(ug/L)		7439-95-4
Manganese	576	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	26800	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RD 14-Nov-96

JWM 19 Nov 96

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: NOV 2 6 1996

Subject: Review of Region 5 Data for American Chemical Services Code:J7

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To:

Attached are the results for American Chemical Services Code:J7
CRL request number 970022
for analyses for Antimony, Arsenic, Cadmium, Lead, Selenium and Thallium
Results are reported for sample designations: 97ZB01S01, 97ZB01S02, 97ZB01S03, 97ZB01S04, 97ZB01S05, 97ZB01S06, 97ZB01S07, 97ZB01S08, 97ZB01D08 and 97ZB01R01

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal. From the ICP analysis, all samples **except** 97ZB01S01 and 97ZB01R01 exceed the criterion for iron.

Comments on Data Quality by Reviewer

Most samples were diluted 2-fold for selenium due to analytical spikes falling outside the 90-110% acceptance window. The lead matrix spike had a high analytical spike (112.6%), although the actual matrix spike recovery was 91%. The samples were redigested due to suspected cadmium contamination. The redigested aliquots showed no cadmium.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for American Chemical Services Code:J7

John V. Moore 26 Nov 96

Peer/Task Monitor Review and Date (✓) Reviewed ( ) Unreviewed

John Moore 26 Nov 96

Team Leader and Date (✓) Reviewed ( ) Unreviewed

Chuck E. Ulp 11/26/96

QC Coordinator and Date ( ) Reviewed (✓) Unreviewed
(position vacant)

Sylvia Griffin NOV 2 6 1996

Data Management Coordinator and Date Received

Date Transmitted NOV 2 6 1996

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML - 10C

Received by and Date

Comments:

MW-13 duplicate

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 22-NOV-96

Sample organization: **B & V**
Sample Requestor: **BAL BERENA**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **07-NOV-96**

Sample Batch ID: **970022**
Account No: **TFA301**
Sample ID: **97ZB01D08**
Units: **ug/L**
Date Received: **07-NOV-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	20-NOV-96	L. Feenan	
Arsenic Concentration	2U	12-NOV-96	B. Green	
Cadmium Concentration	0.2U	18-NOV-96	B. Green	
Lead Concentration	2U	11-NOV-96	B. Green	
Selenium Concentration	4U	13-NOV-96	B. Green	
Thallium Concentration	2U	14-NOV-96	B. Green	

Team Leader: JVM 26 Nov 96

Ulsate

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 22-NOV-96

Sample organization: **B & V**
Sample Requestor: **BAL BERENA**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **07-NOV-96**

Sample Batch ID: **970022**
Account No: **TFA301**
Sample ID: **97ZB01R01**
Units: **ug/L**
Date Received: **07-NOV-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	20-NOV-96	L. Leon	
Arsenic Concentration	2U	12-NOV-96	B. Green	
Cadmium Concentration	0.2U	18-NOV-96	B. Green	
Lead Concentration	2U	11-NOV-96	B. Green	
Selenium Concentration	4U	13-NOV-96	B. Green	
Thallium Concentration	2U	14-NOV-96	B. Green	

Team Leader: Jim 26 Nov 96

MW-8

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 22-NOV-96

Sample organization: **B & V**
Sample Requestor: **BAL BERENA**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **05-NOV-96**

Sample Batch ID: **970022**
Account No: **TFA301**
Sample ID: **97ZB01S01**
Units: **ug/L**
Date Received: **05-NOV-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	20-NOV-96	L. Leon	
Arsenic Concentration	3	12-NOV-96	B. Green	
Cadmium Concentration	0.2U	18-NOV-96	B. Green	
Lead Concentration	2U	11-NOV-96	B. Green	
Selenium Concentration	2U	12-NOV-96	B. Green	
Thallium Concentration	2U	14-NOV-96	B. Green	

Team Leader: JVM 26 Nov 96

MW-19

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 22-NOV-96

Sample organization: **B & V**
Sample Requestor: **BAL BERENA**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **05-NOV-96**

Sample Batch ID: **970022**
Account No: **TFA301**
Sample ID: **97ZB01S02**
Units: **ug/L**
Date Received: **05-NOV-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	20-NOV-96	J. Leon	
Arsenic Concentration	21	12-NOV-96	B. Yuen	
Cadmium Concentration	0.2U	18-NOV-96	B. Yuen	
Lead Concentration	2U	11-NOV-96	B. Yuen	
Selenium Concentration	4U	13-NOV-96	B. Yuen	
Thallium Concentration	2U	14-NOV-96	B. Yuen	

Team Leader: [illegible] 26 Nov 96

MW-12

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 22-NOV-96

Sample organization: **B & V**
Sample Requestor: **BAL BERENA**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **05-NOV-96**

Sample Batch ID: **970022**
Account No: **TFA301**
Sample ID: **97ZB01803**
Units: **ug/L**
Date Received: **05-NOV-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	20-NOV-96	L. Leon	
Arsenic Concentration	3	12-NOV-96	B. Green	
Cadmium Concentration	0.2U	15-NOV-96	B. Green	
Lead Concentration	10	11-NOV-96	B. Green	
Selenium Concentration	4U	13-NOV-96	B. Green	
Thallium Concentration	2U	14-NOV-96	B. Green	

Team Leader: Jan 26 Nov 96

MW-9

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 22-NOV-96

Sample organization: **B & V**
Sample Requestor: **BAL BERENA**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **06-NOV-96**

Sample Batch ID: **970022**
Account No: **TFA301**
Sample ID: **97ZB01S04**
Units: **ug/L**
Date Received: **07-NOV-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	20-NOV-96	L. Fear	
Arsenic Concentration	3	12-NOV-96	B. Yuen	
Cadmium Concentration	0.2U	18-NOV-96	B. Yuen	
Lead Concentration	2U	11-NOV-96	B. Yuen	
Selenium Concentration	4U	13-NOV-96	B. Yuen	
Thallium Concentration	2U	14-NOV-96	B. Yuen	

Team Leader: JVM 26 Nov 96

MW-10C

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 22-NOV-96

Sample organization: **B & V**
Sample Requestor: **BAL BERENA**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **06-NOV-96**

Sample Batch ID: **970022**
Account No: **TFA301**
Sample ID: **97ZB01805**
Units: **ug/L**
Date Received: **07-NOV-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	20-NOV-96	Z. Lee	
Arsenic Concentration	2U	12-NOV-96	B. Yuen	
Cadmium Concentration	0.2U	18-NOV-96	B. Yuen	
Lead Concentration	6U	11-NOV-96	B. Yuen	
Selenium Concentration	4U	13-NOV-96	B. Yuen	
Thallium Concentration	2U	14-NOV-96	B. Yuen	

Team Leader: JVM 26 Nov 96

MW-51

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 22-NOV-96

Sample organization: **B & V**
Sample Requestor: **BAL BERENA**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **06-NOV-96**

Sample Batch ID: **970022**
Account No: **TFA301**
Sample ID: **97ZB01806**
Units: **ug/L**
Date Received: **07-NOV-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	20-NOV-96	L. Leo	
Arsenic Concentration	2U	12-NOV-96	B. Yuen	
Cadmium Concentration	0.2U	15-NOV-96	B. Yuen	
Lead Concentration	2U	11-NOV-96	B. Yuen	
Selenium Concentration	4U	13-NOV-96	B. Yuen	
Thallium Concentration	2U	14-NOV-96	B. Yuen	

Team Leader: Nm 26 NOV 96

MW-52

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 22-NOV-96

Sample organization: **B & V**
Sample Requestor: **BAL BERENA**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **06-NOV-96**

Sample Batch ID: **970022**
Account No: **TFA301**
Sample ID: **97ZB01S07**
Units: **ug/L**
Date Received: **07-NOV-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	20-NOV-96	L. Leon	
Arsenic Concentration	2U	12-NOV-96	B. Yuen	
Cadmium Concentration	0.2U	18-NOV-96	B. Yuen	
Lead Concentration	2U	11-NOV-96	B. Yuen	
Selenium Concentration	2U	12-NOV-96	B. Yuen	
Thallium Concentration	2U	14-NOV-96	B. Yuen	

Team Leader: [illegible] 26 Nov 96

MW-13

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 22-NOV-96

Sample organization: **B & V**
Sample Requestor: **BAL BERENA**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **07-NOV-96**

Sample Batch ID: **970022**
Account No: **TFA301**
Sample ID: **97ZB01808**
Units: **ug/L**
Date Received: **07-NOV-96**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	20-NOV-96	L. Leon	
Arsenic Concentration	2U	12-NOV-96	B. Yuen	
Cadmium Concentration	0.2U	18-NOV-96	B. Yuen	
Lead Concentration	2U	11-NOV-96	B. Yuen	
Selenium Concentration	4U	13-NOV-96	B. Yuen	
Thallium Concentration	2U	14-NOV-96	B. Yuen	

Team Leader: JVA 26 Nov 96

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

November 1996
Am. Chem. Services
71610
File I.7

Date: 1-6-97

Subject: Review of Region 5 Data for **AMERICAN CHEMICAL SERVICES INC.**

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To: B&V

Attached are the results for **AMERICAN CHEMICAL SERVICES INC.**
CRL request number **970022**
for analyses for **Cyanide and Mercury**. 97ZB01
Results are reported for sample designations: ~~96~~ZB01S01, ~~96~~ZB01S02, ~~96~~ZB01S03, ~~96~~ZB01S04, ~~96~~ZB01S05, ~~96~~ZB01S06, ~~96~~ZB01S07, ~~96~~ZB01S08, ~~96~~ZB01D08 and ~~96~~ZB01R01.

Results Status:

(X) Acceptable for Use: **Cyanide and Mercury**
( ) Data Qualified, but Acceptable for use:
( ) Data Unacceptable for Use:

( ) Sewer Disposal Criteria Met;

Mercury: All portion of the above samples which were collected and submitted for mercury analysis are preserved with acid/dichromate reagents. Those samples should be disposed of in a drum. The preservative utilized is toxic.

Cyanide: Portions of all of the above samples which were collected and submitted for cyanide analyses are preserved with sodium hydroxide reagents. All the samples should be neutralized prior to disposal down the drain provided that the concentrations of other analytes are less than the laboratory detection or other controlling limits. Cyanide concentrations in those samples are below the laboratory detection limit.

Comments on Data Quality by Reviewer:

All the samples submitted for Cyanide and Mercury analysis were assayed and the results are attached. Required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits. Cyanide and Mercury results are acceptable for use.

Comments on Sample Results:

Mercury results for samples 96ZB01S02 and 96ZB01S05 were found to be above the laboratory detection limit of 0.0001 mg/L (0.1 μg/L).Mercury in those samples could pose some risk. Mercury concentrations in the remaining samples and Cyanide results for all samples were found to be below the laboratory detection limit. The laboratory detection limit for Cyanide is 0.008mg/L (8 μg/L). All those samples are considered safe with respect to Cyanide and Mercury.

Comments by Laboratory Director or Quality Control Coordinator:

Francis A. Awanga 1/6/97
Review and Date (X) Reviewed ( ) Unreviewed

6 Jan 97
Team Leader and Date (X) Reviewed ( ) Unreviewed

Chuck Elby 1/6/97
QC Coordinator and Date ( ) Reviewed ( ) Unreviewed

Sylvia Griffin 1-6-97
Data Management Coordinator and Date Received

Date Transmitted 1-6-97

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

MW-13 duplicate

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 27-NOV-96

Sample Organization: **B & V**
Sample Requestor: **BAL BERENA**
Laboratory: **ESAT**

Sample Batch ID: **970022**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB01D08**

Field: **97ZB01D08**

Collected: **07-NOV-96 /**

Received: **07-NOV-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	13-NOV-96	S. Thom
Mercury (Total)	0.1	(ug/L)	U	25-NOV-96	L. Leone

Reviewed by : Francis A. Awanya 12/23/96

rinsate

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 27-NOV-96

Sample Organization: **B & V**
Sample Requestor: **BAL BERENA**
Laboratory: **ESAT**

Sample Batch ID: **970022**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB01R01**
Field: **97ZB01R01**

Collected: **07-NOV-96 /**
Received: **07-NOV-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	13-NOV-96	S. Tehrin
Mercury (Total)	0.1	(ug/L)	U	25-NOV-96	I. Leonin

Reviewed by : Francis A. Awanyu 12/23/96

MW-B

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 27-NOV-96

Sample Organization: **B & V**
Sample Requestor: **BAL BERENA**
Laboratory: **ESAT**

Sample Batch ID: **970022**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB01S01**

Field: **97ZB01S01**

Collected: **05-NOV-96 /**

Received: **05-NOV-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	13-NOV-96	S. Tobin
Mercury (Total)	0.1	(ug/L)	U	25-NOV-96	L. Leon

Reviewed by : Francis A. Awanya 12/23/96

MW-19

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 27-NOV-96

Sample Organization: **B & V**
Sample Requestor: **BAL BERENA**
Laboratory: **ESAT**

Sample Batch ID: **970022**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB01S02**
Field: **97ZB01S02**

Collected: **05-NOV-96 /**
Received: **05-NOV-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	13-NOV-96	S. Tchin
Mercury (Total)	0.3	(ug/L)		25-NOV-96	L. Leon

Reviewed by : Francis A. Awanya 12/23/96

MW-12

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 27-NOV-96

Sample Organization: **B & V**
Sample Requestor: **BAL BERENA**
Laboratory: **ESAT**

Sample Batch ID: **970022**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB01S03**

Field: **97ZB01S03**

Collected: **05-NOV-96 /**

Received: **05-NOV-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	13-NOV-96	S. Tobin
Mercury (Total)	0.1	(ug/L)	U	25-NOV-96	L. Leon

Reviewed by : Francis A. Awanya 12/23/96

MW-9

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 27-NOV-96

Sample Organization: **B & V**
Sample Requestor: **BAL BERENA**
Laboratory: **ESAT**

Sample Batch ID: **970022**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB01S04**
Field: **97ZB01S04**

Collected: **06-NOV-96 /**
Received: **07-NOV-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	13-NOV-96	S. Tobin
Mercury (Total)	0.1	(ug/L)	U	25-NOV-96	L. Leoni

Reviewed by : Francis A. Avoanya 12/23/96

MW-10C

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 27-NOV-96

Sample Organization: **B & V**
Sample Requestor: **BAL BERENA**
Laboratory: **ESAT**

Sample Batch ID: **970022**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB01805**
Field: **97ZB01805**

Collected: **06-NOV-96 /**
Received: **07-NOV-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	13-NOV-96	S. Tobin
Mercury (Total)	0.3	(ug/L)		25-NOV-96	L. Lean

Reviewed by : Francis A. Aroanya 12/23/96

MW-51

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 27-NOV-96

Sample Organization: **B & V**
Sample Requestor: **BAL BERENA**
Laboratory: **ESAT**

Sample Batch ID: **970022**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB01S06**
Field: **97ZB01S06**

Collected: **06-NOV-96 /**
Received: **07-NOV-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	13-NOV-96	S. Tebin
Mercury (Total)	0.1	(ug/L)		25-NOV-96	L. Tran

Reviewed by : Francis A. Awanya 12/23/96

MW-50

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 27-NOV-96

Sample Organization: **B & V**
Sample Requestor: **BAL BERENA**
Laboratory: **ESAT**

Sample Batch ID: **970022**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB01S07**

Field: **97ZB01S07**

Collected: **06-NOV-96 /**

Received: **07-NOV-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	13-NOV-96	S. Tobin
Mercury (Total)	0.1	(ug/L)		25-NOV-96	L. [illegible]

Reviewed by : Francis A. Awanya 12/23/96

MW-13

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 27-NOV-96

Sample Organization: **B & V**
Sample Requestor: **BAL BERENA**
Laboratory: **ESAT**

Sample Batch ID: **970022**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB01S08**
Field: **97ZB01S08**

Collected: **07-NOV-96 /**
Received: **07-NOV-96**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (Total)	8	(ug/L)	U	13-NOV-96	S. Tobin
Mercury (Total)	0.1	(ug/L)	U	25-NOV-96	T. Leon

Reviewed by : Francis A. Awonga 12/23/96

Appendix B

Montgomery Watson Organic and Inorganic Analysis Data Sheets

APD-GWMW12-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW12

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X10.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

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

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW12

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X10.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

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

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. ~~39638329~~	~~Bis(2-chloroisopropyl) ether~~	~~23.340~~	~~11~~	~~NJ~~
2.				
3.				
4.				
5.	2,2-oxybis(1-chloropropane)	= SVOC TCL		
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW12

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P03.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH:

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

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW12

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P03.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
86-74-8	Carbazole	20	U
84-74-2	Di-n-butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	bis(2-Ethylhexyl)phthalate	20	U
117-84-0	Di-n-octylphthalate	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
50-32-8	Benzo(a)pyrene	20	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	U
53-70-3	Dibenz(a,h)anthracene	20	U
191-24-2	Benzo(g,h,i)perylene	20	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW12

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P03.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 2.0

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

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. ~~108930~~	~~Cyclohexanol~~	~~7.090~~	~~27~~	~~NJ~~ B
~~2.~~	~~Unknown~~	~~7.210~~	~~6~~	~~J~~ B
3.	Unknown	16.910	48	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW12

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_118.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

RPD-GWMW13-01
11/13/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW13

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

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V10.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	97	
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	6	J
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW13

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

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V10.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

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

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 60297	Ether	3.720	420	NJ
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW13

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

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122413.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW13

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

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122413.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW13

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

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122413.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 16

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1.~~	~~Unknown~~	~~7.050~~	~~6~~	~~J~~
~~2.~~	~~Unknown~~	~~7.150~~	~~3~~	~~J~~
~~3. 930687~~	~~2-Cyclohexen-1-one~~	~~7.920~~	~~7~~	~~NJ~~
4.	Unknown	9.250	4	J
5.	Unknown	9.670	2	J
6.	Unknown	10.490	2	J
7.	Unknown	10.540	3	J
8.	Unknown	10.990	7	J
9.	Unknown	12.420	2	J
10.	Unknown	13.790	2	J
11.	Unknown	14.070	2	J
12.	Unknown	15.610	2	J
13.	Unknown	17.580	6	J
14.	Unknown	18.070	3	J
15.	Unknown	19.470	4	J
16.	Unknown	21.340	3	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW13

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

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P1110796_178.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/08/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/13/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW19-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW19

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V06.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/14/96

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

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW19

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V06.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/14/96

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW19

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N11.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	11	
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW19

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N11.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 u ~~2~~	~~J~~
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW19

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N11.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
~~1.~~	~~Unknown~~	~~11.210~~	~~79~~	~~J~~	B
~~2.~~	~~Unknown~~	~~15.200~~	~~20~~	~~J~~	B
~~3. 98737~~	~~Benzoic acid, p-tert-butyl-~~	~~16.750~~	~~34~~	~~NJ~~	B
4. 50066	Phenobarbital	22.300	83	NJ	
5. 10544500	Sulfur, mol. (S8)	22.970	22	NJ	
6.					
7.					
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FORM I SV-TIC VALIDATED 3/90

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW19

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_116.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW12-01
11-5-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW12

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111205

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0 Total

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	361			P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	5.6	B		P_
7440-39-3	Barium___	85.5	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	54100			P_
7440-47-3	Chromium_	u 7.6	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	J 9.0	B		P_
7439-89-6	Iron_____	22500			P_
7439-92-1	Lead_____	J 14.1			P_
7439-95-4	Magnesium	18400			P_
7439-96-5	Manganese	1310			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	J 5.7	B		P_
7440-09-7	Potassium	4660	B		P_
7782-49-2	Selenium_	2.1	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	19300			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	J 18.9	B		P_
7440-66-6	Zinc_____	u 11.5	B		P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____			

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

3/90

VALIDATED

APD-GWMW13-01
11-7-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW13

ıb Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ıb Code: IEA___ Case No:2240_009___ SAS No.: _____ SDG No.: 11140_

ıtrix (soil/water): WATER Lab Sample ID: 961120502

ev l (low/med): LOW__ Date Received: 11/08/96

Solids: __0.0

Total

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	232			P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	66.5	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	118000			P_
7440-47-3	Chromium_	U 3.4	B		P_
7440-48-4	Cobalt___	1.9	B		P_
7440-50-8	Copper___	U 5.9	B		P_
7439-89-6	Iron_____	5240			P_
7439-92-1	Lead_____	U 2.0	B		P_
7439-95-4	Magnesium	32000			P_
7439-96-5	Manganese	674			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	3.1	B		P_
7440-09-7	Potassium	J 2940	B	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	27800			P_
7440-28-0	Thallium_	U 2.0	B		P_
7440-62-2	Vanadium_	1.7	B		P_
7440-66-6	Zinc_____	U 12.0	B		P_
	Cyanide__	10.0	U		CA

ɔlor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

ɔ. ɔr After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

ɔmments:

FORM I - IN

VALIDATED

3/90

APD-GWMW19-01

U.S. EPA - CLP

11-5-96

1

EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

MW19

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111203

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

TOTAL

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	283	_		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	26.9	_		P_
7440-39-3	Barium___	673	_		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	79400	_		P_
7440-47-3	Chromium_	u 6.8	B		P_
7440-48-4	Cobalt___	1.4	B		P_
7440-50-8	Copper___	u 5.0	B		P_
7439-89-6	Iron_____	4810	_		P_
7439-92-1	Lead_____	s 1.5	B		P_
7439-95-4	Magnesium	67700	_		P_
7439-96-5	Manganese	268	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	17.8	B		P_
7440-09-7	Potassium	113000	_		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	772000	_		P_
7440-28-0	Thallium_	2.4	B		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	u 8.6	B		P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____	_		_

Color Before: YELLOW___ Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

VALIDATED

3/90

APD-GWMW08-0
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW08

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V04.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/14/96

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

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW08

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V04.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/14/96

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW08

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N09.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW08

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N09.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW08

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N09.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.140~~	~~5~~	~~NJB~~ B
~~2.~~	~~Unknown~~	~~7.230~~	~~10~~	~~J~~ B
3.	Unknown	9.800	6	J
4. 87412	1(3H)-Isobenzofuranone	14.850	3	NJ
5.	Unknown	17.060	2	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW08

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 500 (g/mL) ML Lab File ID: P2111196_114.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW09-01
11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW09

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K09.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 20.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	200	U
74-83-9	Bromomethane	200	U
75-01-4	Vinyl Chloride	200	U
75-00-3	Chloroethane	2200	
75-09-2	Methylene Chloride	200	U
67-64-1	Acetone	200	U
75-15-0	Carbon Disulfide	200	U
75-35-4	1,1-Dichloroethene	200	U
75-34-3	1,1-Dichloroethane	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
78-93-3	2-Butanone	200	U
71-55-6	1,1,1-Trichloroethane	200	U
56-23-5	Carbon Tetrachloride	200	U
75-27-4	Bromodichloromethane	200	U
78-87-5	1,2-Dichloropropane	200	U
10061-01-5	cis-1,3-Dichloropropene	200	U
79-01-6	Trichloroethene	200	U
124-48-1	Dibromochloromethane	200	U
79-00-5	1,1,2-Trichloroethane	200	U
71-43-2	Benzene	310	
10061-02-6	trans-1,3-Dichloropropene	200	U
75-25-2	Bromoform	200	U
108-10-1	4-Methyl-2-Pentanone	200	U
591-78-6	2-Hexanone	200	U
127-18-4	Tetrachloroethene	200	U
79-34-5	1,1,2,2-Tetrachloroethane	200	U
108-88-3	Toluene	200	U
108-90-7	Chlorobenzene	200	U
100-41-4	Ethylbenzene	200	U
100-42-5	Styrene	200	U
1330-20-7	Xylene (total)	200	U

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW09

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K09.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 20.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW09

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P08.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	44	
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	0.8	J
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW09

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P08.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW09

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P08.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
~~1.~~	~~Unknown~~	~~7.160~~	~~25~~	~~J~~	B
2. 930687	2-Cyclohexen-1-one	8.040	26	NJ	
3.	Unknown	8.190	18	J	
4.	Unknown	9.300	39	J	
5.	Unknown	9.370	24	J	
6.	Unknown	9.800	20	J	
7. 873949	Cyclohexanone, 3,3,5-trimeth	10.060	380	NJ	
~~8.~~	~~1,2-Cyclohexanediol isomer~~	~~10.460~~	~~22~~	~~J~~	B
9.	Unknown	10.740	19	J	
~~10.~~	~~Unknown~~	~~11.170~~	~~45~~	~~J~~	B
11.	Unknown	11.320	78	J	
12.	Unknown	12.530	34	J	
13.	Unknown	13.860	27	J	
14.	Unknown	13.940	49	J	
15.	Unknown	14.160	26	J	
16.	Unknown	20.830	31	J	
17.	Unknown	20.910	24	J	
18.	Unknown	23.470	72	J	
19.	Unknown	25.040	23	J	
20.	Unknown	25.790	23	J	
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW09

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_039.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW10C

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113517

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K11.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. Data Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

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

REVISED DATA

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	100	U
74-83-9	Bromomethane	100	U
75-01-4	Vinyl Chloride	100	U
75-00-3	Chloroethane	120	
75-09-2	Methylene Chloride	100	U
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
540-59-0	1,2-Dichloroethene (total)	100	U
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	100	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
75-27-4	Bromodichloromethane	100	U
78-87-5	1,2-Dichloropropane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
79-01-6	Trichloroethene	100	U
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	100	U
10061-02-6	trans-1,3-Dichloropropene	100	U
75-25-2	Bromoform	100	U
108-10-1	4-Methyl-2-Pentanone	100	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
108-88-3	Toluene	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U

VALIDATED

FORM I VOA

REVISED - VOC run @ 10x
Cl-et = 120 ug/L
JAM 1-10-97

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW10C

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113517

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K11.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. 0 Date Analyzed: 11/15/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

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

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 60297	Ether	3.680	5000	NJ
2.				
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW10C

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113917

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P10.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW10C

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113917

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P10.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW10C

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113917

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P10.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.830	14	J
2. 930687	2-Cyclohexen-1-one	8.040	35	NJ
3.	Unknown	8.220	40	J
4.	Unknown	9.250	11	J
5.	Unknown	9.340	29	J
6.	Unknown	9.400	31	J
7.	Unknown	9.570	11	J
8.	Unknown	9.730	22	J
9.	Unknown	9.800	25	J
10.	Unknown	9.990	9	J
11.	Unknown	10.750	10	J
12.	Unknown	11.070	18	J
13.	Unknown	11.170	27	J
14.	Unknown	11.680	13	J
15.	Unknown	11.980	9	J
16. 610720	Benzoic acid, 2,5-dimethyl-	14.780	9	NJ
17.	Unknown	15.130	18	J
18.	Unknown	20.820	11	J
19.	Unknown	21.870	15	J
20.	Unknown	23.170	15	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW10C

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113517

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_041.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW50-01
11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW50

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V03.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

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

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

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

FORM I VOA

VALIDATED

3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW50

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V03.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW50

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P13.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW50

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P13.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 U ~~2~~	~~J~~
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

VALIDATED

3/90

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW50

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P13.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
~~1. 822673~~	~~2-Cyclohexen-1-ol~~	~~7.170~~	~~6~~	~~NJ~~	B
2.	Unknown	8.030	33	J	
3.	Unknown	9.800	17	J	
~~4.~~	~~Unknown~~	~~11.210~~	~~93~~	~~J~~	B
5.	Unknown	12.550	3	J	
~~6.~~	~~Unknown~~	~~15.060~~	~~9~~	~~J~~	B
7.					
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9.					
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FORM I SV-TIC

VALIDATED

3/90

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW50

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_044.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW51

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K12.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

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

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

FORM I VOA

VALIDATED

3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW51

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K12.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	60297	Ether	3.700	20000	NJ
2.					
3.					
4.					
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FORM I VOA-TIC

VALIDATED

3/90

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW51

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P11.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW51

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P11.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 U ~~5~~	~~J~~
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW51

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P11.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.370	10	J
2.	Unknown	8.080	34	J
3.	Unknown	8.150	25	J
4.	Unknown	8.210	14	J
5.	Unknown	8.290	28	J
6.	Unknown	9.340	12	J
7.	Unknown	9.400	15	J
8.	Unknown	9.770	41	J
9.	Unknown	9.990	10	J
10.	Unknown	11.070	14	J
~~11.~~	~~Unknown~~	~~11.170~~	~~20~~	~~J~~ B
12.	Unknown	11.220	16	J
13.	Unknown	11.380	75	J
14.	Unknown	13.530	23	J
15.	Unknown	13.610	18	J
16.	Unknown	14.300	47	J
~~17.~~	~~Unknown~~	~~15.140~~	~~41~~	~~J~~ B
18.	Unknown	15.810	32	J
19.	Unknown	18.190	15	J
20.	Unknown	18.860	14	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW51

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

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_042.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO
APD-6WMW52-01

MW52

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

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103108.D

Level: (low/med) LOW Date Received: 12/28/96 (1)

% Moisture: not dec. _____ Date Analyzed: 01/03/97 (7)

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

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

CRQL MULTIPLIER = 1.00

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	22	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	J 3	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW52

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103108.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

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

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 60297	Ether	4.340	NJ 970	NJ
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APO-GWMW52-01

MW52

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

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031403.D

Level: (low/med) LOW Date Received: 12/28/96 (7)

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97 (5)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97 (1)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	J 3	J
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO

MW52

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031403.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	104 2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW52

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031403.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.870~~	~~19~~	~~XNJ~~
2.	Unknown	8.570	16	J
3.	Unknown	8.640	16	J
4.	Unknown	8.860	38	J
5.	Unknown	8.920	18	J
6.	Unknown	9.520	5	J
7.	Unknown	10.070	9	J
8.	Unknown	10.140	13	J
9.	Unknown	10.480	10	J
10.	Substituted benzene	10.530	14	J
11.	Unknown	11.860	69	J
12.	Unknown	12.040	91	J
13.	Unknown	13.290	6	J
14.	Unknown	14.180	17	J
15. 632462	Benzoic acid, 2,6-dimethyl-	15.170	5	NJ
16.	Unknown	16.510	18	J
17. 57103	Hexadecanoic acid	22.470	5	XNJ
18.	Unknown	27.200	89	J
19.	Unknown	27.940	7	J
20.	Unknown	28.700	110	J
21.				
22.				
23.				
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30.				
	UNKNOWN (TOTAL)		JN 532	J

FORM I SV-TIC 3/90

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWMW52-01

MW52

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

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4010997_040.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/28/96 (7)

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 01/02/97 (6)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 01/11/97 (9)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO
APO-GW MW53-01

MW53

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

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255006

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103111.D

Level: (low/med) LOW Date Received: 12/28/96 7

% Moisture: not dec. _____ Date Analyzed: 01/03/97 7

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

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

CRQL MULTIPLIER = 1.00

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW53

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255006

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103111.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

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

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

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 109875	Methane, dimethoxy-	4.920	JN 9	NJ
2. 75650	3-Pentanol	6.210	13	NJ
3. 123911	1,4-Dioxane	12.550	22	NJ
4. 104767	1-Hexanol, 2-ethyl-	23.790	6	NJ
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO
APD-GWMW53-01

MW53

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

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255306

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1061408.D

Level: (low/med) LOW Date Received: 12/28/96 (1)

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97 (7)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/06/97 (4)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	J 0.8	J
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW53

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255306

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1061408.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/06/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	214 21	
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW53

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255306

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1061408.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/06/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.870~~	~~B 16~~	~~XNJ~~
2.	Unknown	8.910	JN 75	J
3.	Unknown	10.130	16	J
4.	Unknown	10.470	22	J
5.	Unknown	11.550	16	J
6.	Unknown	11.850	78	J
7.	Unknown	12.310	410	J
8.	Unknown	13.360	19	J
9. 105602	Caprolactam	14.440	34	NJ
10.	Unknown	15.910	23	J
11.	Unknown	16.540	7	J
12.	Unknown	17.350	14	J
13.	Substituted benzene	17.780	9	J
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				
	UNKNOWN (TOTAL)		JN 680	

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWMW53-01

MW53

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

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255306

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4010997_041.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/28/96 1

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 01/02/97 6

Concentrated Extract Volume: 10000(uL) Date Analyzed: 01/11/97 9

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO
APD-GWMW54-01

MW54

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

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103107.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: not dec. _____ Date Analyzed: 01/03/97 (8)

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

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

CRQL MULTIPLIER = 1.00

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW54

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103107.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

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

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

VALIDATED

CLIENT SAMPLE NO.
APD-GWMW54-01

MW54

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

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031406.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97 (7)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97 (1)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO

MW54

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031406.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	104 2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW54

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031406.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.860~~	~~21~~	~~XNJ~~
2.	Unknown	8.650	29	J
3.	Unknown	8.750	22	J
4.	Unknown	10.470	15	J
5.	Unknown	11.930	70	J
6.	Unknown	13.310	2	J
7.	Unknown	14.070	2	J
8.	Unknown	14.790	2	J
9.	Unknown	15.170	12	J
10.	Unknown	16.020	4	J
11.	Unknown	16.270	2	J
12.	Unknown	16.760	2	J
13.	Unknown	16.830	3	J
14.	Substituted benzene	17.780	16	J
15.	Unknown	17.890	3	J
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JN

unknown (form) JN 168

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APO-GWMW54-01

MW54

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

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4010997_038.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/28/96 (2)

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 01/02/97 (7)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 01/11/97 (9)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO
APO-GWMW55-01

MW551

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

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103105.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: not dec. _____ Date Analyzed: 01/03/97 (8)

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

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

CRQL MULTIPLIER = 1.00

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW551

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103105.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO
APD-GWMW55-01

MW551

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

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031404.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97 (7)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97 (1)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO

MW551

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031404.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10M 5	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW551

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

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031404.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.870~~	~~34~~	~~XNJ~~
2.	Unknown	10.530	3	J
3.	Unknown	11.700	7	J
4. 0	Phenol, 2-fluoro-4-nitro-	15.330	4	NJ
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Unknown (total) JN 10

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWMW55-01

MW551

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

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4010997_036.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/28/96 (2)

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 01/02/97 (5)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 01/11/97 (9)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CROL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

APD-GWMW08-01

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11-5-96

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW08

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111201

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0 Total

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	4.4	B		P_
7440-39-3	Barium___	128	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	58300			P_
7440-47-3	Chromium_	u 1.9	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	1030			P_
7439-92-1	Lead_____	1.0	U		P_
7439-95-4	Magnesium	18600			P_
7439-96-5	Manganese	108			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	u 2.4	B		P_
7440-09-7	Potassium	1540	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	12700			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	u 7.4	B		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW09-01
11-6-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW09

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113515

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	3.2	B		P_
7440-39-3	Barium___	337			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	159000			P_
7440-47-3	Chromium_	u 2.4	B		P_
7440-48-4	Cobalt___	3.5	B		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	17800			P_
7439-92-1	Lead_____	uJ 1.0	U		P_
7439-95-4	Magnesium	33000			P_
7439-96-5	Manganese	231			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	u 4.6	B		P_
7440-09-7	Potassium	10800			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	110000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	5.0	B		P_
7440-66-6	Zinc_____	u 4.5	B		P_
	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW10C-01
11-6-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW10C

Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113517

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	1170	_		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.4	B		P_
7440-39-3	Barium___	368	_		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	118000	_		P_
7440-47-3	Chromium_	14.1	_		P_
7440-48-4	Cobalt___	2.9	B		P_
7440-50-8	Copper___	u 4.4	B		P_
7439-89-6	Iron_____	10100	_		P_
7439-92-1	Lead_____	J 3.2	_		P_
7439-95-4	Magnesium	57200	_		P_
7439-96-5	Manganese	107	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	14.2	B		P_
7440-09-7	Potassium	6150	_		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	193000	_		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	3.8	B		P_
7440-66-6	Zinc_____	u 26.7	_		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-6-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW50

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113920

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	813	_		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.7	B		P_
7440-39-3	Barium___	236	_		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	126000	_		P_
7440-47-3	Chromium_	u 5.0	B		P_
7440-48-4	Cobalt___	1.1	B		P_
7440-50-8	Copper___	u 1.8	B		P_
7439-89-6	Iron_____	2760	_		P_
7439-92-1	Lead_____	J 3.9	_		P_
7439-95-4	Magnesium	62700	_		P_
7439-96-5	Manganese	76.9	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	10.8	B		P_
7440-09-7	Potassium	17500	_		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	353000	_		P_
7440-28-0	Thallium_	2.1	B		P_
7440-62-2	Vanadium_	1.5	B		P_
7440-66-6	Zinc_____	u 29.7	_		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-6-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW51

a Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

atrix (soil/water): WATER Lab Sample ID: 961113918

e el (low/med): LOW__ Date Received: 11/07/96

Solids: __0.0

TOTAL

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	684	_		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	4.7	B		P_
7440-39-3	Barium___	400	_		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	147000	_		P_
7440-47-3	Chromium_	UJ 4.1	B		P_
7440-48-4	Cobalt___	1.9	B		P_
7440-50-8	Copper___	U 3.7	B		P_
7439-89-6	Iron_____	8230	_		P_
7439-92-1	Lead_____	J 3.1	_		P_
7439-95-4	Magnesium	66300	_		P_
7439-96-5	Manganese	193	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	12.1	B		P_
7440-09-7	Potassium	4290	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	102000	_		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	J 2.2	B		P_
7440-66-6	Zinc_____	UJ 23.8	_		P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____	_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW52-01
12-27-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW52

I b Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255005

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 Total

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 4190	_	N*	P_
7440-36-0	Antimony_	6.8	B		P_
7440-38-2	Arsenic__	40.3	_		P_
7440-39-3	Barium___	264	_		P_
7440-41-7	Beryllium	1.2	B		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	135000	_		P_
7440-47-3	Chromium_	134	_		P_
7440-48-4	Cobalt___	13.1	B		P_
7440-50-8	Copper___	66.8	_		P_
7439-89-6	Iron_____	11600	_		P_
7439-92-1	Lead_____	31.4	_		P_
7439-95-4	Magnesium	49100	_		P_
7439-96-5	Manganese	673	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	201	_		P_
7440-09-7	Potassium	J 7770	_	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	87900	_		P_
7440-28-0	Thallium_	4.1	B		P_
7440-62-2	Vanadium_	10.6	B		P_
7440-66-6	Zinc_____	90.3	_		P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____	_		__

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW53-01
12-27-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW53

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255306

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 Total

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 39200		N*	P
7440-36-0	Antimony_	U 1.7	B		P
7440-38-2	Arsenic__	30.1			P
7440-39-3	Barium___	997			P
7440-41-7	Beryllium	6.2			P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	160000			P
7440-47-3	Chromium_	189			P
7440-48-4	Cobalt___	24.9	B		P
7440-50-8	Copper___	107			P
7439-89-6	Iron_____	48800			P
7439-92-1	Lead_____	138			P
7439-95-4	Magnesium	75300			P
7439-96-5	Manganese	1630			P
7439-97-6	Mercury__	0.24			CV
7440-02-0	Nickel___	139			P
7440-09-7	Potassium	J 24400		E	P
7782-49-2	Selenium_	U 5.1			P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	252000			P
7440-28-0	Thallium_	2.0	B		P
7440-62-2	Vanadium_	32.3	B		P
7440-66-6	Zinc_____	443			P
_____	Cyanide__	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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PPD-GWMW54-01
12-26-96

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW54

I b Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

M trix (soil/water): WATER Lab Sample ID: 961255003

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 Total

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 853	_	N*	P_
7440-36-0	Antimony_	U 3.2	B		P_
7440-38-2	Arsenic__	7.5	B		P_
7440-39-3	Barium___	190	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	132000	_		P_
7440-47-3	Chromium_	82.2	_		P_
7440-48-4	Cobalt___	4.0	B		P_
7440-50-8	Copper___	59.9	_		P_
7439-89-6	Iron_____	1880	_		P_
7439-92-1	Lead_____	U 6.3	_		P_
7439-95-4	Magnesium	54100	_		P_
7439-96-5	Manganese	202	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	66.0	_		P_
7440-09-7	Potassium	J 4540	B	E	P_
7782-49-2	Selenium_	U 2.7	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	20600	_		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.9	B		P_
7440-66-6	Zinc_____	U 13.6	B		P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW55-01
12-26-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW551

b Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

trix (soil/water): WATER Lab Sample ID: 961255001

vel (low/med): LOW__ Date Received: 12/28/96

Solids: __0.0 Total

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 14900		N*	P
7440-36-0	Antimony_	U 2.1	B		P
7440-38-2	Arsenic__	12.9			P
7440-39-3	Barium___	271			P
7440-41-7	Beryllium	2.5	B		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	74200			P
7440-47-3	Chromium_	133			P
7440-48-4	Cobalt___	10.5	B		P
7440-50-8	Copper___	84.4			P
7439-89-6	Iron_____	16700			P
7439-92-1	Lead_____	43.2			P
7439-95-4	Magnesium	35800			P
7439-96-5	Manganese	546			P
7439-97-6	Mercury__	0.24			CV
7440-02-0	Nickel___	101			P
7440-09-7	Potassium	J 10700		E	P
7782-49-2	Selenium_	U 4.5	B		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	122000			P
7440-28-0	Thallium_	2.1	B		P
7440-62-2	Vanadium_	15.6	B		P
7440-66-6	Zinc_____	105			P
	Cyanide__	10.0	U		CA

olor Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

FORM I - IN

3/90

VALIDATED