

**PARSONS ENGINEERING SCIENCE, INC.**

Prudential Center • Boston, Massachusetts 02199-7697 • (617) 859-2000 • Fax: (617) 859-2043

August 16, 1995  
725980-01006Mr. Stephen Absolom  
FFA Program Manager  
Directorate of Engineering and Housing  
ATTN: SDSSE-HE  
Building 123  
Seneca Army Depot Activity  
Romulus, New York 14541-5001

00545

25

**SUBJECT: Ash Landfill Second Quarter 1995 Groundwater Monitoring Program,  
Seneca Army Depot Activity, Romulus, New York**

Dear Mr. Absolom:

This letter report describes the field activities and results for the second quarter 1995 groundwater monitoring program at the Ash Landfill located at the Seneca Army Depot Activity (SEDA). At the request of the USACOE, this quarter's sampling program was expanded to include sampling of all the available monitoring wells at the Ash Landfill. The samples were analyzed to determine the impact of the recently completed remedial activities at the Ash Landfill. The analytical results indicate the volatile organic compound (VOC) plume in the groundwater has not changed as compared to the Phase II remedial investigation (RI) results.

The work for this quarter of groundwater monitoring was performed in compliance with Task Numbers 11 and 13 described in the Scope of Work issued as Annex AC, Delivery Order 0029, to the current Parsons Engineering Science, Inc. (Parsons ES) Contract DACA87-92-D-0022.

**Field Activities**

The field activities at the Ash Landfill consisted of measuring the depth to groundwater and sampling all the available monitoring wells. The three farmhouse wells were also sampled.

The depth to groundwater was measured in 45 of the 49 monitoring wells at the Ash Landfill on June 5, 1995. Groundwater could not be measured in four monitoring wells: MW-44 had been removed by the recent excavation activities, PT-12 and PT-21 were destroyed by heavy equipment, and MW-30 did not contain any groundwater. These measurements are tabulated in Table 1.

The 45 monitoring wells at the Ash Landfill and the three wells at the nearby farmhouse located west of the Ash Landfill were sampled from June 6 to 14, 1995. The field forms documenting the sample collection are provided in Appendix A.



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Mr. Stephen Absolom  
FFA Program Manager  
Directorate of Engineering and Housing  
ATTN: SDSSE-HE  
Building 123  
Seneca Army Depot Activity  
Romulus, New York 14541-5001

**SUBJECT:      Second Quarter 1995 Groundwater Monitoring Program,  
                  Seneca Army Depot Activity, Romulus, New York**

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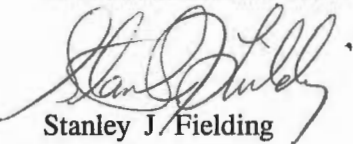
Dear Mr. Absolom:

Two letter reports prepared by Parsons Engineering Science, Inc. are enclosed with this transmittal letter. They present the chemical analysis results from the OB and OD Grounds and from the Ash Landfill associated with the second quarter 1995 groundwater monitoring program.

Copies of these reports have been sent to the people copied at the end of this letter. Copies have not been sent to the USEPA or NYSDEC at this time. I will call you shortly after you receive this letter to determine if you want us to send copies to the USEPA and NYSDEC.

Sincerely,

**PARSONS ENGINEERING SCIENCE, INC.**



Stanley J. Fielding  
Task Manager

SJF/cmfd/D#13

Enclosures

cc:      Ms. L. Percifield, CEMRD  
          Ms. D. Richards, USACOE  
          Mr. R. Battaglia, CENAN



### Groundwater Elevation Data

Groundwater levels in the 45 monitoring wells were measured on June 5, 1995 to determine the direction of groundwater flow. Groundwater elevation contours, prepared using linear interpolation, are presented in Figure 1. These contours indicate the groundwater continues to flow in a westerly direction.

### Laboratory Chemical Analysis and Data Evaluation

Groundwater samples from the 45 monitoring wells and three farmhouse wells were chemically analyzed by Aquatec Laboratories for volatile organic compounds (VOCs). The NYSDEC CLP method was used to analyze nine groundwater samples from monitoring wells where VOCs had been detected previously. EPA Method 524.2 was used to analyze 39 groundwater samples from monitoring wells where little to no VOCs had been detected previously.

The chemical analysis data were validated using Region II EPA procedures and are presented in Appendix B. The chemical analysis data have also been summarized in Table 2 and compared to previous data in tables presented in Appendix C. Appendix C contains tabulated historical data for monitoring wells in the quarterly monitoring program where VOCs have been detected. Historical data is presented for the following monitoring wells: PT-11, PT-12, PT-22, PT-24, MW-29, MW-30, MW-40, MW-45, and MW-56.

The forms in the laboratory's reports which present the quality assurance /quality control data have been submitted with this report in Appendix D. The data include information on surrogate spikes, matrix spikes, matrix spike duplicates, laboratory control samples, method blanks, and holding times. A set of the chemical analysis reports obtained from Aquatec Laboratories has been sent to Ms. Laura Percifield (CEMRD).

### Headspace Analysis for VOCs

Groundwater samples were collected for headspace analysis at the following perimeter wells: PT-11, PT-19, PT-27, MW-45, MW-48, MW-59, and MW-60. Groundwater from MW-30 is usually analyzed using this technique, but there was no groundwater present in the well. Headspace analysis was conducted by Parsons ES using a portable gas chromatograph. The technique for this analysis is presented in Appendix E. The analysis results are presented in Table 3.

### Effect of Remediation on the VOC Plume

The VOC data from this round of groundwater sampling was compared to the VOC data obtained as a result of the Phase II RI sampling which occurred in June and July 1993 to evaluate the effect of the recently completed remediation at the Ash Landfill on the VOC plume.



Mr. S. Absolom  
August 16, 1995  
Page 3

Remedial activities at the Ash Landfill involved excavating soil and pumping groundwater. These activities took place from November 1994 to June 1995. During this time, 24,000 cubic yards of soil from the landfill were excavated. VOCs in the excavated soil were thermally desorbed by heating the soil to approximately 900 degrees F. The desorbed VOCs were destroyed in an afterburner. A total of approximately 500,000 gallons of groundwater was intermittently pumped from the excavation. The VOCs in the pumped groundwater were removed from the water using an air stripper, then captured by passing the air from the stripper through activated carbon. The treated groundwater was discharged to the ground surface in accordance with a NYSDEC permit.

The effect of the recent remediation on the VOC plume was evaluated by comparing the isopach maps of the VOC concentrations from the current round of sampling and analysis and from the Phase II Remedial Investigation results. These maps are presented in Figures 2 and 3, respectively. Comparison of the data on the two maps shows no significant change in the extent of the plume and in the VOC concentrations within the plume at this time.

In summary, groundwater levels and VOC concentrations in the groundwater from all the available wells at the Ash Landfill were obtained. Comparison of the VOC concentrations to VOC concentrations obtained during Phase II of the RI indicate the distribution of VOCs has not changed significantly. Please do not hesitate to call me at (617) 859-2492 if you have any questions.

Sincerely,

**PARSONS ENGINEERING SCIENCE, INC.**

  
for Michael Duchesneau, P.E.  
Project Manager

MD/cmf/D#13

Enclosures

cc: Ms. L. Percifield, CEMRD  
Ms. D. Richards, USACOE  
Mr. R. Battaglia, CENAN





**PARSONS ENGINEERING SCIENCE, INC.**

Prudential Center • Boston, Massachusetts 02199-7697 • (617) 859-2000 • Fax: (617) 859-2043

July 7, 1995  
725980-01006

*in turn*

*Smry*  
*Tom E*  
*Janet JF*  
*TRE*  
*8/19/95*

Mr. Steve Absolom  
SDSSE-HE  
Seneca Army Depot Activity  
Romulus, NY 14541

**SUBJECT: Seneca Army Depot Activity, Second Quarter 1995 Groundwater Sampling, Interim Report**

---

Dear Mr. Absolom:

This Interim Report describes the recent field activities conducted in June associated with the Second Quarter 1995 Groundwater Sampling at the OB/OD Grounds and Ash Landfill sites. The activities were conducted in full compliance with the requirements of the Parsons Engineering Science, Inc. (Parsons ES) Phase 2 workplan and the U.S. Army Corps of Engineers Statement of Work.

At the Open Burning (OB) and Open Detonation (OD) Grounds, all the groundwater samples were obtained on June 8, 1995. Groundwater sampling at the Ash Landfill occurred from June 6 to June 14, 1995.

Four sets of replicate indicator parameter samples were obtained from the four wells at the OB Grounds and from two of the four wells at the OD Grounds. Wells MW45-1 and MW45-2 were dry. In compliance with CRF 265.92(b)(2) a single set of samples per well was submitted for the following analyses: TAL Metals, Phenols, Chloride, and Sulfate.

The four wells at the OB Grounds have cracked and frost heaved pads. Wells MW-13 and MW-14 cannot be properly secured due to frost heave damage to both the pads and well risers. These wells are located in an area prone to early spring flooding and freezing conditions. We are presently assessing various options regarding the repair of these wells for future use in the quarterly monitoring program.

At the request of the USACOE, the second quarterly monitoring program at the Ash Landfill was expanded to include VOC sampling at all of the remaining wells to determine the impact of the recently completed remedial activities. Of the original 52 wells, 48 wells were sampled. Monitoring well MW-44 was removed by the excavation. Monitoring wells PT-12 and PT-21 were destroyed by heavy equipment, and monitoring well MW-30 was dry. Groundwater samples from these wells were submitted for either NYSDEC CLP analysis or EPA Method 524.2.

Groundwater headspace samples were collected at the designated wells for the quarterly monitoring program with the exception of MW-30. Headspace analysis was conducted on June 16, 1995 and no volatile contaminants were detected.



Mr. Steve Absolom  
July 7, 1995  
Page 2

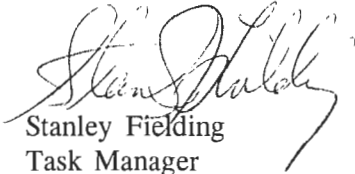
At the request of the EPA and in agreement with the USACOE, additional samples were collected at 25 monitoring wells in and around the plume area at the Ash Landfill to provide additional information on possible biological activity within the aquifer. The samples were analyzed for methane, ethane, ethene, CO<sub>2</sub>, dissolved sulfide, dissolved organic carbon, various anions, specific conductivity, pH, alkalinity, ferrous iron, and redox potential.

Ten monitoring wells at the Ash Landfill have frost heaved and/or cracked pads. PT-19 has a broken riser just below the ground surface which allows outside material to enter the well. We are presently assessing various options regarding the repair of these wells.

If you have any questions or comments, I can be reached at 617-859-2078.

Sincerely,

**PARSONS ENGINEERING SCIENCE, INC.**



Stanley Fielding  
Task Manager

SF/cmf/D#13



TABLE 1

**SENECA ARMY DEPOT ACTIVITY  
1995 GROUNDWATER MONITORING PROGRAM  
GROUNDWATER ELEVATION DATA**

Monitoring Well	Elevation at Top of Riser (MSL)	First Quarter 1995			Second Quarter 1995		
		Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)
<b>Ash Landfill</b>							
PT-10	681.52				06/05/95	10.4	671.12
PT-11	658.22	03/16/95	4.28	653.94	06/05/95	7.2	651.02
PT-12	652.15				06/05/95	Destroyed	
PT-15	637.76				06/05/95	8.2	629.56
PT-16	637.51				06/05/95	4.68	632.83
PT-17	640.14				06/05/95	7.87	632.27
PT-18	656.68				06/05/95	8.24	648.44
PT-19	645.26	03/17/95	3.1	642.16	06/05/95	6.33	638.93
PT-20	647.28				06/05/95	7.69	639.59
PT-21	647.73				06/05/95	Destroyed	
PT-22	648.61				06/05/95	8.92	639.69
PT-23	641.58				06/05/95	6.95	634.63
PT-24	636.4				06/05/95	5.41	630.99
PT-25	637.09				06/05/95	7.2	629.89
PT-26	614.64				06/05/95	7.02	607.62
MW-27	639.32	03/16/95	5.13	634.19	06/05/95	6.85	632.47
MW-28	637.21				06/05/95	5.93	631.28
MW-29	637.31				06/05/95	7.38	629.93
MW-30	640.32	03/17/95	4.1	636.22	06/05/95	Dry	
MW-31	636.7				06/05/95	6.49	630.21
MW-32	641.68				06/05/95	8	633.68
MW-33	639.56				06/05/95	8.76	630.8
MW-34	632.89				06/05/95	5.93	626.96
MW-35D	631.82				06/05/95	4.15	627.67
MW-36	631.79	03/16/95	2.34	629.45	06/05/95	4.36	627.43
MW-37	632.89	09/23/01			06/05/95	4.58	628.31
MW-38D	637.9	09/28/01			06/05/95	5.23	632.67
MW-39	659.54	10/20/01			06/05/95	3.96	655.58
MW-40	659.3	10/20/01	3.61	655.69	06/05/95	6.48	652.82
MW-41D	694.02	11/24/01			06/05/95	8.48	685.54
MW-42D	683.04				06/05/95	5.97	677.07
MW-43	657.73				06/05/95	4.72	653.01
MW-44	653.85				06/05/95	Destroyed	
MW-45	650.9	03/17/95	3.05	647.85	06/05/95	5.26	645.64
MW-46	650.41				06/05/95	7.06	643.35
MW-47	628.06	03/16/95	2.84	625.22	06/05/95	6.48	621.58
MW-48	648.32	03/17/95	3.1	645.22	06/05/95	6.13	642.19
MW-49D	650.5				06/05/95	7.1	643.4
MW-50D	649.88				06/05/95	6.88	643
MW-51D	628.24				06/05/95	6.63	621.61
MW-52D	626.35				06/05/95	6.12	620.23
MW-53	639.41				06/05/95	8.45	630.96
MW-54D	639.11				06/05/95	8.3	630.81
MW-55D	639.16				06/05/95	8.18	630.98
MW-56	630.51	03/16/95	2.95	627.56	06/05/95	4.14	626.37
MW-57D	629.82				06/05/95	3.79	626.03
MW-58D	629.69				06/05/95	3.6	626.09
MW-59	656.83	03/17/95	1.9	654.93	06/05/95	3.26	653.57
MW-60	660.15	03/17/95	2.02	658.13	06/05/95	3.83	656.32



TABLE 2

**ASH LANDFILL SECOND QUARTER 1995 GROUNDWATER MONITORING PROGRAM  
SUMMARY OF VALIDATED VOLATILE ANALYSIS RESULTS (TCL AND 524.2)**

MONITORING WELL	COMPOUND					
	1,2-DCE (ug/l)	TCE (ug/l)	1,1,1-TCA (ug/l)	Chloroform (ug/l)	1,2-DCA (ug/l)	TOTAL VOCs (ug/l)
PT-10	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
PT-11	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
PT-15	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
PT-16	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
PT-17	64	220	10 U	10 U	10 U	284
PT-18	550 J	23000	1200 U	600 J	1200 U	24150
PT-19	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
PT-20	41	34	10 U	10 U	10 U	75
PT-22	170	110	10 U	10 U	6 J	286
PT-23	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
PT-24	72	5 J	10 U	10 U	10 U	77
PT-25	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
PT-26	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-27	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-28	31	27	10 U	10 U	10 U	58
MW-29	94	2 J	1 J	10 U	10 U	97
MW-31	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-32	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-33	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-34	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-35D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-36	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-37	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-38D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-39	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-40	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-41D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-42D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-43	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-45	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-46	89	52	10 U	10 U	10 U	141
MW-47	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-48	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-49D	4	2	0.5 U	0.5 U	0.5 U	6
MW-50D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-51D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-52D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-53	27	3 J	10 U	10 U	10 U	30
MW-54D	3	0.5 U	0.5 U	0.5 U	0.5 U	3
MW-55D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-56	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-57D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-58D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-59	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
MW-60	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
FH-S	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
FH-D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND
BN-S	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	ND

## Notes:

1,2-DCE = 1,2-Dichloroethene (total)

TCE = Trichloroethene

1,2-DCA = 1,2-Dichloroethane

1,1,1-TCA = 1,1,1-Trichloroethane

U = Not detected above the concentration shown

ND = Not Detected

ug/l = micrograms per liter





**TABLE 3**

**ASH LANDFILL SECOND QUARTER 1995 GROUNDWATER MONITORING  
SUMMARY OF GROUNDWATER HEADSPACE VOLATILE ANALYSIS RESULTS**

MONITORING WELL	COMPOUND				TOTAL VOCs ug/l
	Vinyl chloride ug/l	1,1-DCE ug/l	Trans-1,2-DCE ug/l	TCE ug/l	
PT-11	100U	1U	1U	1U	ND
PT-19	100U	1U	1U	1U	ND
PT-27	100U	1U	1U	1U	ND
MW-30	NA	NA	NA	NA	NA
MW-45	100U	1U	1U	1U	ND
MW-48	100U	1U	1U	1U	ND
MW-59	100U	1U	1U	1U	ND
MW-60	100U	1U	1U	1U	ND

**NOTES:**

Analysis performed on PHOTOVAC 10S50 GC

1,1-DCE = 1,1-Dichloroethene

Trans-1,2-DCE = Trans-1,2-dichloroethene

TCE = Trichloroethene

U = Not detected above concentration shown

ND = Not detected

ug/l = micrograms per liter

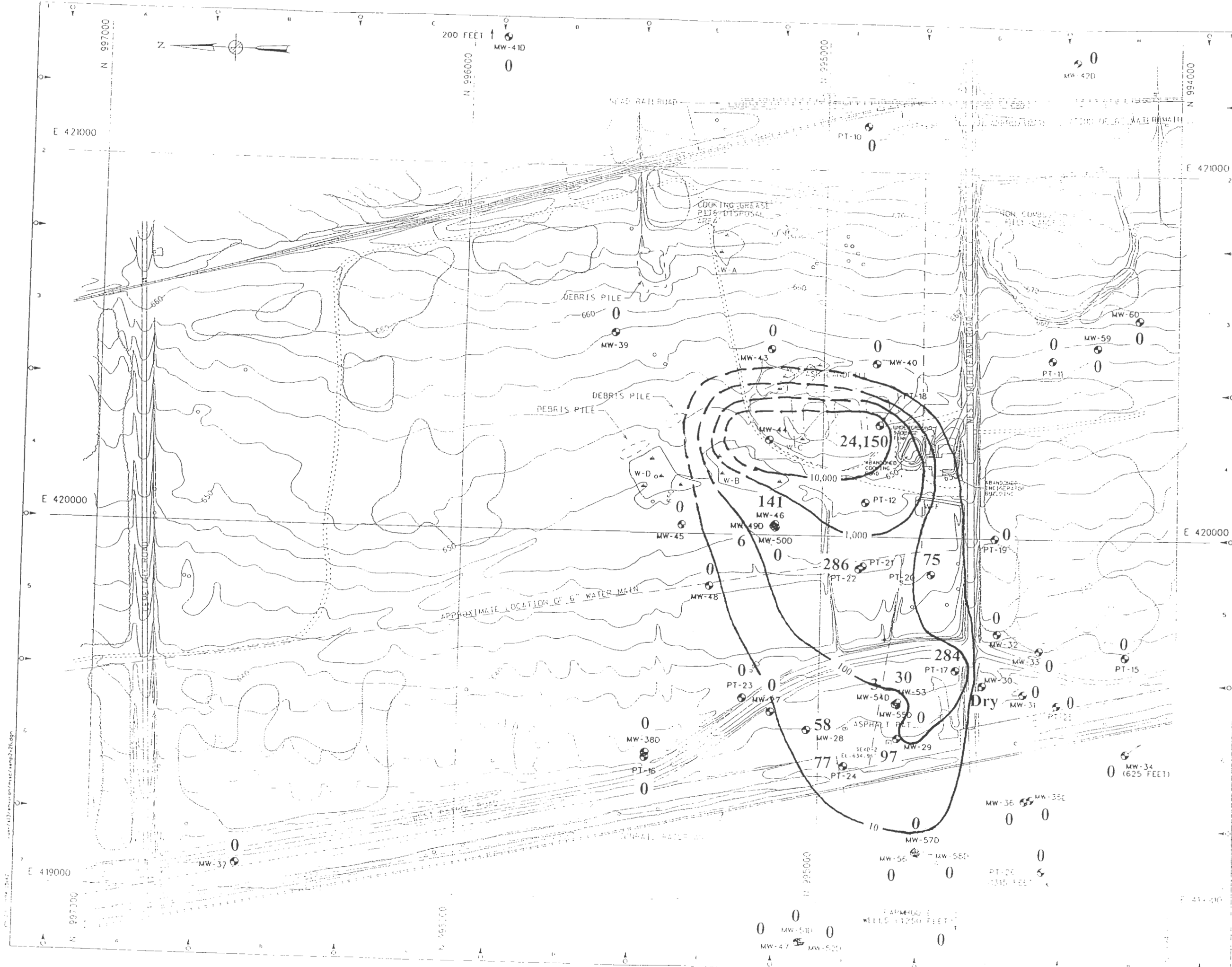
There was no groundwater in monitoring well MW-30.







FIGURE 2



**LEGEND:**

- PAVED ROAD
- DIRT ROAD
- GROUND CONTOUR AND ELEVATION
- TREE
- WETLAND & DESIGNATION
- APPROXIMATE EXTENT OF FILL
- OUTLINE OF FORMER REFUSE PITS IDENTIFIED FROM AERIAL PHOTO
- APPROXIMATE EXTENT OF DEBRIS PILE
- BRUSH
- CHAIN LINK FENCE
- UTILITY POLE
- APPROXIMATE LOCATION OF FIRE HYDRANT
- FUEL OR UNDERGROUND STORAGE TANK
- SURVEY MONUMENT
- MONITORING WELL AND DESIGNATION

100 Groundwater Isocontour (ug/L)

REV	DATE	DESCRIPTION
B	10/13/95	PRELIMINARY PHASE II REPORT
A	10/13/95	ISSUED WITH PRELIMINARY SITE CHARACTERIZATION REPORT
1	10/13/95	ISSUED WITH PRELIMINARY SITE CHARACTERIZATION REPORT

NO.	DATE	DESCRIPTION	BY	CHECKED BY	APPROVED BY
1	10/13/95	ISSUED WITH PRELIMINARY SITE CHARACTERIZATION REPORT	G. A. KELIN	M. J. BAKER	M. J. BAKER
2	10/13/95	ISSUED WITH PRELIMINARY SITE CHARACTERIZATION REPORT	G. A. KELIN	M. J. BAKER	M. J. BAKER
3	10/13/95	ISSUED WITH PRELIMINARY SITE CHARACTERIZATION REPORT	M. J. BAKER	M. J. BAKER	M. J. BAKER
4	10/13/95	ISSUED WITH PRELIMINARY SITE CHARACTERIZATION REPORT	M. J. BAKER	M. J. BAKER	M. J. BAKER

**ES**  
ENGINEERING-SCIENCE, INC.

SENeca ARMY DEPOT  
ASHTABULA  
GROUNDWATER MONITORING PROGRAM

Environmental Engineering  
Total Chlorinated Volatile Organic Plume (ug/L)  
June 1995



FIGURE 3



- LEGEND:**
- PAVED ROAD
  - DIRT ROAD
  - GROUND CONTOUR AND ELEVATION
  - TREE
  - WETLAND & DESIGNATION
  - APPROXIMATE EXTENT OF FILL
  - OUTLINE OF FORMER TRASH PITS (IDENTIFIED FROM AERIAL PHOTO)
  - APPROXIMATE EXTENT OF DEBRIS PILE
  - BRUSH
  - CHAIN LINK FENCE
  - UTILITY POLE
  - APPROXIMATE LOCATION OF FIRE HYDRANT
  - FUEL OR UNDERGROUND STORAGE TANK
  - SURVEY MONUMENT
  - MONITORING WELL AND DESIGNATION
  - 10,000 GROUNDWATER ISOCONTOUR (ug/L)


B	10/93	PRELIMINARY PHASE II R/ITS						
A	1/94	ISSUED WITH PRELIMINARY SITE CHARACTERIZATION REPORT						
REV DATE		DESCRIPTION						
DRAWN BY	C.A. KAELIN	CHECKED BY	M.E. BAKER	DRAWN	CHECKED	DESIGN	REVISION	DATE
DESIGN SUPV.	C.A. KAELIN	RESP. ENGR.	M.N. DUCHESNEAU					
CHIEF BUREAU ENGR.	M.E. BAKER	MR. OF ENGR.	J.P. CHAPLICK					
PROJECT MANAGER	M.N. DUCHESNEAU							
MR. OF PROJECTS	J.P. CHAPLICK							
IN CHARGE	W.D. PATTERSON							

**ES**  
ENGINEERING-SCIENCE, INC.

CLIENT/PROJECT TITLE  
**SENECA ARMY DEPOT  
REMEDIAL INVESTIGATION  
FEASIBILITY STUDY  
ASH LANDFILL**

DEPT. ENVIRONMENTAL ENGINEERING    PROJ. NO. 720447-03000

**Phase II  
TOTAL CHLORINATED VOLATILE  
ORGANIC PLUME (ug/L)**

SCALE 1" = 250'

720447-03000-1-1    B

4-48.DWG





## APPENDIX A

### SAMPLING DATA FORMS

1. Groundwater Sampling Forms
2. Chain of Custody Forms



## 1. GROUNDWATER SAMPLING FORMS



SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)		DATE: 6/11/95							
PROJECT: Quarterly Groundwater Monitoring OB Grounds 2nd Quarter of 1995				INSPECTOR: T.F. / M.L.							
LOCATION: OB Grounds at the Seneca Army Depot Activity				LABORATORY:							
WELL NUMBER: P7-10 Ash				CHAIN OF CUSTODY #:							
SCREENED INTERVAL (TOC):				MONITORING							
				INSTRUMENT		DETECTOR					
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC): 10.68				STANDING WATER VOLUME IN WELL (gallons): 5.82							
WELL DEPTH (TOC): 46.36				THREE WELL VOLUMES (gallons):							
FEET OF WATER IN WELL: 35.68				ONE: 5.82 TWO: 11.64 THREE: 17.46							
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:	14:30	14:45	14:58	15:27	TIME END PURGING:						
TIME:	14:44	14:57	15:26	15:38							
DEPTH TO WATER (ft)	23.54	24.12	25.63	25.46							
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	46.1	36.1	36.1	36.1	*- slow recovery w/						
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	900	570 330 (14:47)	330	330	- Purge vol > 1 well volume - 570 gal readings						
VOLUME OF WATER REMOVED (gals)	4.0	1.1	3.0	1.0	- Allow 2 1/2 hrs.						
TEMPERATURE (deg. C)	12.9	14.7 *	15.1	14.7	recharge: 15:40.						
SPEC. COND (umhos)	600.	600	625	625							
PH	7.65	7.85	7.67	7.54							
DEPTH TO WATER MEASUREMENTS AFTER PURGING											
DATE	6/11/95										
TIME	18:25										
DEPTH TO WATER (ft)	11.41										
"AFTER PURGE" WATER COLUMN (ft)	37.95										
"STATIC" WATER COLUMN (ft)	35.68										
% RECOVERY	98%										
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											

\* Sun heating up Tube & GW!

**SAMPLING INFORMATION**

SAMPLING DEVICE: *Baiter*

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
524.2 VOC	18:30	3 VOAs		HCL
<i>methane ethane ethene</i>		3 VOAs		HCL
CO <sub>2</sub>		1 VOA		
Ferric <sup>TC</sup>		3 VOAs		
DOC		250ml Amber		H <sub>2</sub> SO <sub>4</sub>
Sulfide, Dis		500ml Poly		Zinc Ac <sub>2</sub> Cl <sub>2</sub>
CL, SO <sub>4</sub>		500ml Poly		
NO <sub>2</sub> , NO <sub>3</sub>		500ml Poly		H <sub>2</sub> SO <sub>4</sub>
SC, PH, Alkal	✓	IL 11		

**REPLICATE SAMPLES:**

REPLICATE SAMPLE COLLECTED: YES or NO

Replicate Sample Names:

Rep. 1	Rep. 2	Rep. 3	Rep. 4

**QA/QC:**

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

**INVESTIGATION DERIVED WASTE (IDW):**

Date:	<i>6/11/95</i>		
Volume Transferred to Drum:			
Drum Number:	<i>N/A</i>		

**COMMENTS:**

SAMPLING RECORD FOR REPLICATES - GROUNDWATER																																																																																																			
PARSONS ENGINEERING SCIENCE, INC.			CLIENT: U.S. Army Corps of Engineers (USACOE)				DATE: 6/13/95																																																																																												
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995						INSPECTOR: NL / TAF																																																																																													
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity						LABORATORY:																																																																																													
WELL NUMBER:						CHAIN OF CUSTODY #:																																																																																													
SCREENED INTERVAL (TOC): DT-11						MONITORING																																																																																													
WELL DIAMETER FACTORS						INSTRUMENT																																																																																													
DIAMETER (INCHES):						DETECTOR																																																																																													
GALLONS/FOOT:																																																																																																			
PURGE INFORMATION:																																																																																																			
STATIC DEPTH TO WATER (TOC): 7.5						STANDING WATER VOLUME IN WELL (gallons): 2																																																																																													
WELL DEPTH (TOC): 19.55						THREE WELL VOLUMES (gallons): 6																																																																																													
FEET OF WATER IN WELL: 12.04						ONE: 2 TWO: 4 THREE: 6																																																																																													
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)																																																																																																			
TIME BEGIN PURGING: 9:44						TIME END PURGING: 10:32																																																																																													
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**SAMPLING INFORMATION**

SAMPLING DEVICE: *Barton*

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
<i>524.2</i>	<i>10:00</i>	<i>3 UVAW</i>		<i>HCL</i>
<i>Headline</i>	<i>10:00</i>	<i>2 UVAW</i>		<i>No pres.</i>

QA/QC:

QA/QC SAMPLE COLLECTED: YES or  NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or  NO

INVESTIGATION DERIVED WASTE (IDW):

*N/A*

Date:	<i>6/13/75</i>			
Volume Transferred to Drum:				
Drum Number:				

COMMENTS:



SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/10/95						
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: T. Ford							
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY:							
WELL NUMBER: P7-15 Ash				CHAIN OF CUSTODY #:							
SCREENED INTERVAL (TOC):				MONITORING							
				INSTRUMENT		DETECTOR					
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC):	9.34		1/2 = 19.42		STANDING WATER VOLUME IN WELL (gallons):						
WELL DEPTH (TOC):	19.50				THREE WELL VOLUMES (gallons):						
FEET OF WATER IN WELL:	10.16				ONE: 1.66	TWO: 3.32	THREE: 4.98				
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)											
Re-purge of well.											
TIME BEGIN PURGING:	14:40	14:50	15:35	TIME END PURGING:							
TIME:	14:49	14:52	15:41								
DEPTH TO WATER (ft)	13.8	14.50	16.25								
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	19.00	19.00	18.00								
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	570	570	570								
VOLUME OF WATER REMOVED (gals)	1.70	0.55	1.00								
TEMPERATURE (deg. C)	10.9	11.2	11.0								
SPEC. COND (umhos)	440	440	440								
PH	7.8	7.47	7.53								
DEPTH TO WATER MEASUREMENTS AFTER PURGING											
DATE	6-11-95										
TIME	1200										
DEPTH TO WATER (ft)	10.0										
"AFTER PURGE" WATER COLUMN (ft)	3.5										
"STATIC" WATER COLUMN (ft)	10.16										
% RECOVERY	35%										
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											



SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)		DATE: 6/6/95							
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: TF/MEL							
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY:							
WELL NUMBER: <del>AW-23</del> - Repurge 6/9 Sample 6/10 MWB33 PT-15				CHAIN OF CUSTODY #:							
SCREENED INTERVAL (TOC):				MONITORING							
				INSTRUMENT		DETECTOR					
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	② 3	4	5	6	7	8	9	10	
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC): 8 25				STANDING WATER VOLUME IN WELL (gallons): 0.35							
WELL DEPTH (TOC): 10.39				THREE WELL VOLUMES (gallons): 1.04							
FEET OF WATER IN WELL: 2.14				ONE: 0.35 TWO: 0.69 THREE: 1.04							
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:	14 50		15:05		TIME END PURGING:						
TIME:	14:58	15:10									
DEPTH TO WATER (ft)	10.86	10.32									
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	9.89	9.39	9.39								
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	330	330									
VOLUME OF WATER REMOVED (gals)	0.35	0.69	1.04								
TEMPERATURE (deg. C)	13.3	15.7*									
SPEC. COND (umhos)	450	470									
PH	7.75	7.93									
DEPTH TO WATER MEASUREMENTS AFTER PURGING											
DATE	6/6/95	6/7/95									
TIME		08:50									
DEPTH TO WATER (ft) "AFTER PURGE"		8.4'									
WATER COLUMN (ft) "STATIC"											
WATER COLUMN (ft)											
% RECOVERY											
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											

\* SOME WARMING

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
EPA 524.2	8:55 6/7/95	3 4umL vials	clear	

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date: NA

Volume Transferred to Drum: \_\_\_\_\_

Drum Number: \_\_\_\_\_

COMMENTS:

well failed to recover. Returned following AM (6/7/95) to sampler.

SAMPLING RECORD FOR REPLICATES - GROUNDWATER						
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6-6-95	
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: KFS		
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY:		
WELL NUMBER: PT-16				CHAIN OF CUSTODY #:		
SCREENED INTERVAL (TOC):				MONITORING		
				INSTRUMENT		DETECTOR
				007		Q
WELL DIAMETER FACTORS						
DIAMETER (INCHES): 1 1.5 2 3 4 5 6 7 8 9 10						
GALLONS/FOOT: 0.041 0.092 0.163 0.367 0.654 1.02 1.47 2.00 2.61 3.30 5.87						
PURGE INFORMATION:						
STATIC DEPTH TO WATER (TOC): 4.69			STANDING WATER VOLUME IN WELL (gallons): 1.0			
WELL DEPTH (TOC): 11.04			THREE WELL VOLUMES (gallons):			
FEET OF WATER IN WELL: 6.35			ONE: 1.0		TWO: 2.0	THREE: 3.0
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)						
TIME BEGIN PURGING: 1130			TIME END PURGING:			
TIME:						
1132 1134 1137						
DEPTH TO WATER (ft) 4.84 4.85 4.86						
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC) 11.0 6.5 6.8						
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.) 1.5 L 1.5 L 1.5 L						
VOLUME OF WATER REMOVED (gals) 1.0 1.0 1.0						
TEMPERATURE (deg. C) 13.0 12.5 12.0						
SPEC. COND (umhos) 435 440 435						
PH 7.45 7.42 7.37						
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>						
DATE 6-6-95						
TIME 1145						
DEPTH TO WATER (ft) 4.69						
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY 100%						
Notes:						
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.						
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.						



SAMPLING RECORD FOR REPLICATES - GROUNDWATER					
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)		DATE: 6/6/95	
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995			INSPECTOR:		
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity			LABORATORY:		
WELL NUMBER: PT-17			CHAIN OF CUSTODY #:		
SCREENED INTERVAL (TOC):			MONITORING		
			INSTRUMENT	DETECTOR	
WELL DIAMETER FACTORS					
DIAMETER (INCHES): 1 1.5 (2) 3 4 5 6 7 8 9 10					
GALLONS/FOOT: 0.041 0.092 0.163 0.367 0.654 1.02 1.47 2.00 2.61 3.30 5.87					
PURGE INFORMATION:					
STATIC DEPTH TO WATER (TOC): 7.99		9.22 <i>to water level</i>		STANDING WATER VOLUME IN WELL (gallons): 0.597	
WELL DEPTH (TOC): 11.05				THREE WELL VOLUMES (gallons): 1.8, 11, 721	
FEET OF WATER IN WELL: 3.66				ONE: TWO: THREE:	
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)					
TIME BEGIN PURGING: 11:18		TIME END PURGING: 11:35			
TIME:					
	11:18	11:22 11:27	11:25 11:35		
DEPTH TO WATER (ft)	8.17 <del>7.99</del>	8.14	8.14		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	11.05	9.0 <del>10.65</del>	9.0 <del>10.65</del>		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	400	400-1/2	400		
VOLUME OF WATER REMOVED (gals)	0.60	0.60	0.60		
TEMPERATURE (deg. C)	12.0	11.6	11.4		
SPEC. COND (umhos)	650	625	610		
PH	7.31	7.2	7.2		
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>					
DATE	6/6/95				
TIME	11:40				
DEPTH TO WATER (ft)	8.08 <del>7.99</del>				
"AFTER PURGE" WATER COLUMN (ft)	21.0 @ 3.57				
"STATIC" WATER COLUMN (ft)	71.0 @ 3.66				
% RECOVERY	97.5%				
Notes:					
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.					
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.					

**SAMPLING INFORMATION**

SAMPLING DEVICE: Bottle Bailor

PT-17

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
<u>UR</u>	<u>11:35</u>	<u>1000 mL</u>	<u>clear</u>	<u>1st</u>

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	<u>2/10</u>			
Volume Transferred to Drum:	<u>72 Gal</u>			
Drum Number:	<u>AH 3</u>			

COMMENTS:



SAMPLING RECORD FOR REPLICATES - GROUNDWATER						
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6-12-95	
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: KRS		
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY: .		
WELL NUMBER: MW-18				CHAIN OF CUSTODY #:		
SCREENED INTERVAL (TOC):				MONITORING		
				INSTRUMENT		DETECTOR
				DVM		PID 5.6 ppm
WELL DIAMETER FACTORS				cleaned quickly		
DIAMETER (INCHES):	1	1.5	2	3	4	5
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02
PURGE INFORMATION:						
STATIC DEPTH TO WATER (TOC):	8.36		STANDING WATER VOLUME IN WELL (gallons): .54			
WELL DEPTH (TOC):	11.70		THREE WELL VOLUMES (gallons):			
FEET OF WATER IN WELL:	3.34		ONE: .54	TWO: 1	THREE: 6.5	
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)						
TIME BEGIN PURGING:	745			TIME END PURGING:		
	TIME:	0752	756	0800		
DEPTH TO WATER (ft)		9.35	9.85	10.0		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)		11.5	10	10		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)		650	650	650/500		
VOLUME OF WATER REMOVED (gals)		16.5	5	5		
TEMPERATURE (deg. C)		10.5	11	11		
SPEC. COND (umhos)		1200	1150	1100		
PH		7.25	7.15	7.10		
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>						
DATE	6-12-95					
TIME	0930					
DEPTH TO WATER (ft)	8.36					
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY	100%					
Notes:						
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.						
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.						

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)	
VOC CLP	0930	15 x 40 ml			
M/E/E					
CO <sub>2</sub>					
Dis. Sulfate					
DOC					
CL, SO <sub>4</sub>					
NO <sub>2</sub> , NO <sub>3</sub>					
SC, pH-Alk					
Ferris -2		X			

headspace - 2 VOAS

QA/QC:

Dup - MW-118

QA/QC SAMPLE COLLECTED:  YES or NO

MRD SAMPLE NAME: MW-18MRD

QA/QC RINSATE SAMPLE NAME: MW-18-R MW-18MRD-R

MATRIX SPIKE SAMPLE COLLECTED:  YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	6-12-25		
Volume Transferred to Drum:	1.5		
Drum Number:	A5423		

COMMENTS:

SAMPLING RECORD FOR REPLICATES - GROUNDWATER						
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)		DATE: 6/13/95		
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995			INSPECTOR: TF			
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity			LABORATORY:			
WELL NUMBER: PT-19			CHAIN OF CUSTODY #:			
SCREENED INTERVAL (TOC):			MONITORING			
			INSTRUMENT			
			DETECTOR			
WELL DIAMETER FACTORS						
DIAMETER (INCHES): 1 1.5 2 3 4 5 6 7 8 9 10						
GALLONS/FOOT: 0.041 0.092 0.165 0.367 0.654 1.02 1.47 2.00 2.61 3.30 5.87						
PURGE INFORMATION:						
STATIC DEPTH TO WATER (TOC): 7.04			STANDING WATER VOLUME IN WELL (gallons): 0.75			
WELL DEPTH (TOC): 11.70			THREE WELL VOLUMES (gallons):			
FEET OF WATER IN WELL: 4.66			ONE: 0.75 TWO: 1.5 THREE: 2.3			
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)						
TIME BEGIN PURGING:		15:16	15:27	15:40	15:51	TIME END PURGING: 15:54
TIME:		15:22	15:37	15:51	15:54	
DEPTH TO WATER (ft)		9.4	9.38	10.29	9.85	
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)		11.5	10.0'	10.0'	10.0'	
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)		570	330	330	330	
VOLUME OF WATER REMOVED (gals)		0.75	0.75	0.75	0.25	
TEMPERATURE (deg. C)		13.4	14.0	13.4	13.4	
SPEC. COND (umhos)		575	590	590	590	
PH		7.46	7.45	7.46	7.46	
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>						
DATE		6/13/95	6/13/95			
TIME		14:30	15:30			
DEPTH TO WATER (ft)		7.88	7.32			
"AFTER PURGE" WATER COLUMN (ft)		3.82	4.38			
"STATIC" WATER COLUMN (ft)		4.66	4.66			
% RECOVERY		82%	94%			
Notes:						
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.						
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.						

**SAMPLING INFORMATION**

SAMPLING DEVICE:

*Baiten*

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
<i>524 Z</i>	<i>15:30</i>	<i>5 VOLS</i>		<i>HCl</i>
<i>Head space</i>	<i>15:30</i>	<i>2 VOLS</i>		<i>no Pres.</i>

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

*N/A*

Date:	<i>6/13/95</i>			
Volume Transferred to Drum:				
Drum Number:				

COMMENTS:

SAMPLING RECORD FOR REPLICATES - GROUNDWATER							
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)		DATE: 6-11-85			
PROJECT: Quarterly Groundwater Monitoring <del>OB Grounds</del> 2nd Quarter of 1995 <i>ASH</i>				INSPECTOR: <i>KKS</i>			
LOCATION: OB Grounds at the Seneca Army Depot Activity				LABORATORY:			
WELL NUMBER: <i>PJ-20</i>				CHAIN OF CUSTODY #:			
SCREENED INTERVAL (TOC):				MONITORING			
				INSTRUMENT: <i>0017</i>		DETECTOR: <i>PID 2.6ppm</i>	
WELL DIAMETER FACTORS							
DIAMETER (INCHES): 1 1.5 <u>2</u> 3 4 5 6 7 8 9 10							
GALLONS/FOOT: 0.041 0.092 0.163 0.367 0.654 1.02 1.47 2.00 2.61 3.30 5.87							
PURGE INFORMATION:							
STATIC DEPTH TO WATER (TOC): <i>8.05</i>				STANDING WATER VOLUME IN WELL (gallons): <i>.5</i>			
WELL DEPTH (TOC): <i>11.08</i>				THREE WELL VOLUMES (gallons):			
FEET OF WATER IN WELL: <i>3.0</i>				ONE: <i>.5</i>		TWO: <i>1.0</i> THREE: <i>1.5</i>	
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)							
TIME BEGIN PURGING: <i>1538</i>				TIME END PURGING: <i>1550</i>			
	TIME:	<i>1542</i>	<i>1546</i>	<i>1550</i>			
DEPTH TO WATER (ft)		<i>8.6</i>	<i>8.95</i>	<i>9.1</i>			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)		<i>11.0</i>	<i>10.0</i>	<i>10.0</i>			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)		$\frac{600}{800}$	<i>800</i>	<i>800</i>			
VOLUME OF WATER REMOVED (gals)		<i>.5</i>	<i>.5</i>	<i>.5</i>			
TEMPERATURE (deg. C)		<i>16</i>	<i>13</i>	<i>13</i>			
SPEC. COND (umhos)		<i>750</i>	<i>775</i>	<i>775</i>			
PH		<i>7.50</i>	<i>7.39</i>	<i>7.35</i>			
DEPTH TO WATER MEASUREMENTS AFTER PURGING							
DATE		<i>6-11-85</i>					
TIME		<i>1555</i>					
DEPTH TO WATER (ft)		<i>8.05</i>					
"AFTER PURGE" WATER COLUMN (ft)							
"STATIC" WATER COLUMN (ft)							
% RECOVERY		<i>100%</i>					
Notes:							
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.							
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.							

*2.5*

*cleared in 2 sec.*

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC CLP	1600	2 x 40ml		
M/E/E	↓	3 x 40ml		
CO <sub>2</sub>		1 x 40ml		
F + 2		2 x 40 ml		
D. Sulf		1 x 500		
DOC		1 x 250		
Anion		2 x 250		
Sp, pH, Alk		1 x 1L		

**REPLICATE SAMPLES:**

REPLICATE SAMPLE COLLECTED: YES or NO

Replicate Sample Names:

Rep. 1	Rep. 2	Rep. 3	Rep. 4

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

**INVESTIGATION DERIVED WASTE (IDW):**

Date:	6-11-25			
Volume Transferred to Drum:	1.5 gal			
Drum Number:	ASH #3			

**COMMENTS:**

**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-14-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) INSPECTOR:  
 2nd Quarter of 1995 LABORATORY:  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity CHAIN OF CUSTODY #:

WELL NUMBER: AW-30 PT-22 MONITORING  
 SCREENED INTERVAL (TOC): INSTRUMENT: OVI DETECTOR: PED 3.7 ppm

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

10.53

PURGE INFORMATION:  
 STATIC DEPTH TO WATER (TOC): 9.25  
 WELL DEPTH (TOC): 11.81  
 FEET OF WATER IN WELL: 2.56  
 STANDING WATER VOLUME IN WELL (gallons): 4  
 THREE WELL VOLUMES (gallons): ONE: .4 TWO: .8 THREE: 1.2

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 0804 TIME END PURGING:

TIME:	0810	0814	0825			
DEPTH TO WATER (ft)	10.5	10.7	10.8			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	11.8	10.8	10.9			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	400	140	100		Slow Well	
VOLUME OF WATER REMOVED (gals)	2.4	.2	.1			
TEMPERATURE (deg. C)	12	13	13			
SPEC. COND (umhos)	1100	1050	1050			
PH	7.22	7.12	7.29			

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6-14-95				
TIME	0944				
DEPTH TO WATER (ft)	9.30				
"AFTER PURGE" WATER COLUMN (ft)					
"STATIC" WATER COLUMN (ft)					
% RECOVERY	98%				

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC <sup>CLP</sup> <del>SRM2</del>	1030	<del>2x40</del>		
<del>Hand</del> Headspace		2x40		
M/E/E		3x40		
CO <sub>2</sub>		1x40		
DS		1x500		
DOC		1x125		
<del>NO<sub>2</sub></del> NO <sub>3</sub>		1x500		
<del>NO<sub>2</sub></del> <sup>SO<sub>4</sub></sup>		1x500		
Sp pH Alk		1xL		
Fe <sup>+2</sup> + decal		3x40ml		

Fe<sup>+2</sup> = 0.04 6-14 1045

35  
35  
35

QA/QC:

QA/QC SAMPLE COLLECTED:  YES or  NO Dup = PT-122  
 MRD SAMPLE NAME: PT-22MRD PT-22-R + PT-22MRD-R 1015 TB-1015  
 QA/QC RINSATE SAMPLE NAME:  
 MATRIX SPIKE SAMPLE COLLECTED:  YES or  NO  
 INVESTIGATION DERIVED WASTE (IDW):

Date:	6-14-95			
Volume Transferred to Drum:	15.11			
Drum Number:	ASH #4			

COMMENTS:

Slow Well



**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-6-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity  
 INSPECTOR: KKS  
 LABORATORY:  
 CHAIN OF CUSTODY #:

WELL NUMBER: PT-23  
 MONITORING  
 INSTRUMENT: CUM DETECTOR

SCREENED INTERVAL (TOC):

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 6.95 STANDING WATER VOLUME IN WELL (gallons): 84  
 WELL DEPTH (TOC): 12.08 THREE WELL VOLUMES (gallons):  
 FEET OF WATER IN WELL: 5.13 ONE: 84 TWO: 1.7 THREE: 2.5

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1535 TIME END PURGING:

TIME:	1540	1550	1600		
DEPTH TO WATER (ft)	8.5	9.3 <del>7.0</del>	9.4		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	12.0	10.0	10.0		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	870 ml/min	500 ml/min 360	200 ml/min		
VOLUME OF WATER REMOVED (gals)	.85	.85	.85		
TEMPERATURE (deg. C)	11	12	12		
SPEC. COND (umhos)	420	445	460		
PH	7.71	7.42	7.40		

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6-6-95				
TIME	1700				
DEPTH TO WATER (ft)	7.2				
"AFTER PURGE" WATER COLUMN (ft)					
"STATIC" WATER COLUMN (ft)					
% RECOVERY	95%				

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

9.4

5



SAMPLING RECORD FOR REPLICATES - GROUNDWATER						
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6-6-95	
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				INSPECTOR: KKS LABORATORY: Aquatec CHAIN OF CUSTODY #:		
WELL NUMBER: PT-24				MONITORING		
SCREENED INTERVAL (TOC):				INSTRUMENT		DETECTOR
				OUM		R
WELL DIAMETER FACTORS						
DIAMETER (INCHES): 1 1.5 2 3 4 5 6 7 8 9 10						
GALLONS/FOOT: 0.041 0.092 0.163 0.367 0.654 1.02 1.47 2.00 2.61 3.30 5.87						
PURGE INFORMATION:						
STATIC DEPTH TO WATER (TOC): 5.43				STANDING WATER VOLUME IN WELL (gallons): 1.0		
WELL DEPTH (TOC): 11.88				THREE WELL VOLUMES (gallons):		
FEET OF WATER IN WELL: 6.45				ONE: 1 TWO: 2 THREE: 3		
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)						
TIME BEGIN PURGING: 0858			TIME END PURGING: 0915			
TIME:						
0903 0908 0915						
DEPTH TO WATER (ft) 5.65 5.64 5.66						
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC) 11.88 8.3 8.3						
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.) 1.0 1.0 1.0						
VOLUME OF WATER REMOVED (gals) 1.0 1.0 1.0						
TEMPERATURE (deg. C) 10.5 11.0 11.0						
SPEC. COND (umhos) 600 600 600						
PH 6.77 6.97 7.04						
DEPTH TO WATER MEASUREMENTS AFTER PURGING						
DATE 6-6-95						
TIME 0920						
DEPTH TO WATER (ft) 5.43						
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY 100%						
Notes:						
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.						
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.						



SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/6/95						
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: TFMEL							
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY:							
WELL NUMBER:				CHAIN OF CUSTODY #:							
SCREENED INTERVAL (TOC): P5-25				MONITORING							
				INSTRUMENT		DETECTOR					
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC): 7.29				STANDING WATER VOLUME IN WELL (gallons): 77							
WELL DEPTH (TOC): 12.03				THREE WELL VOLUMES (gallons):							
FEET OF WATER IN WELL: 4.74				ONE: 77 TWO: 1.55 THREE: 2.32							
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:	13:12	13:16	13:22	TIME END PURGING: 13:26							
	TIME: 13:16	13:22	13:26								
DEPTH TO WATER (ft)	7.37	7.37	7.38								
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	11.53	10.5	10.5								
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	400	400	400								
VOLUME OF WATER REMOVED (gals)	.77	.77	.77								
TEMPERATURE (deg. C)	12.8	11.9	12.1								
SPEC. COND (umhos)	500	500	500								
PH	7.15	7.09	7.14								
DEPTH TO WATER MEASUREMENTS AFTER PURGING											
DATE	6/6										
TIME	13:26										
DEPTH TO WATER (ft)	7.38										
"AFTER PURGE" WATER COLUMN (ft)	4.65										
"STATIC" WATER COLUMN (ft)	4.74										
% RECOVERY	98 %										
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											



**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-7-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity

WELL NUMBER: PT-26  
 INSPECTOR: KKS  
 LABORATORY:  
 CHAIN OF CUSTODY #:  
 MONITORING  
 INSTRUMENT: OUM DETECTOR: A

SCREENED INTERVAL (TOC):

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 7.05  
 WELL DEPTH (TOC): 14.00  
 FEET OF WATER IN WELL: 7.00  
 STANDING WATER VOLUME IN WELL (gallons): 1.14  
 THREE WELL VOLUMES (gallons): ONE: 1.14 TWO: 2.3 THREE: 3.5

**PURGING WITH A PERISTALTIC PUMP OR BAILER**

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1055 TIME END PURGING: 1110

TIME:	1100	1105	1110		
DEPTH TO WATER (ft)	8.5	8.9	9.1		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	14.00	14.00	10.0		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1500	1500	150		
VOLUME OF WATER REMOVED (gals)	1.2	1.2	1.2		
TEMPERATURE (deg. C)	17	10	10		
SPEC. COND (umhos)	600	600	600		
PH	7.55	7.47	7.42		

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6-7-95				
TIME	1120				
DEPTH TO WATER (ft)	6.65				
"AFTER PURGE" WATER COLUMN (ft)					
"STATIC" WATER COLUMN (ft)	7.35				
% RECOVERY	95%				

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOE 524.2	1120	3 x 40ml	clear	

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transferred to Drum:	N/A			
Drum Number:				

COMMENTS:



**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-6-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity

WELL NUMBER: MW-28  
 INSPECTOR: KKS  
 LABORATORY:  
 CHAIN OF CUSTODY #:  
 MONITORING  
 INSTRUMENT: OVA DETECTOR: ~~X~~

SCREENED INTERVAL (TOC):

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 5.95  
 WELL DEPTH (TOC): 10.39  
 FEET OF WATER IN WELL: 4.44

STANDING WATER VOLUME IN WELL (gallons): .7  
 THREE WELL VOLUMES (gallons):  
 ONE: .7 TWO: .14 THREE: 4.31

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1000 TIME END PURGING: 1010

TIME:	1002	1006	1009			
DEPTH TO WATER (ft)	6.12	6.18	6.20			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	10.00	7.4	7.4			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1L	1L	1L			
VOLUME OF WATER REMOVED (gals)	.7	.7	.7			
TEMPERATURE (deg. C)	12.5	11.5	11.5			
SPEC. COND (umhos)	495	495	495			
PH	7.25	7.24	7.23			

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6-6-95					
TIME	1012					
DEPTH TO WATER (ft)	5.95					
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY	100%					

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.



SAMPLING RECORD FOR REPLICATES - GROUNDWATER																														
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/14/95																									
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: TFMEL																										
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY:																										
WELL NUMBER: MW-24				CHAIN OF CUSTODY #:																										
SCREENED INTERVAL (TOC):				MONITORING																										
WELL DIAMETER FACTORS				INSTRUMENT																										
DIAMETER (INCHES):				DETECTOR																										
GALLONS/FOOT:																														
<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;"></td> <td style="width:10%;">1</td> <td style="width:10%;">1.5</td> <td style="width:10%; text-align: center;">2</td> <td style="width:10%;">3</td> <td style="width:10%;">4</td> <td style="width:10%;">5</td> <td style="width:10%;">6</td> <td style="width:10%;">7</td> <td style="width:10%;">8</td> <td style="width:10%;">9</td> <td style="width:10%;">10</td> </tr> <tr> <td></td> <td>0.041</td> <td>0.092</td> <td>0.163</td> <td>0.367</td> <td>0.654</td> <td>1.02</td> <td>1.47</td> <td>2.00</td> <td>2.61</td> <td>3.30</td> <td>5.87</td> </tr> </table>								1	1.5	2	3	4	5	6	7	8	9	10		0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
	1	1.5	2	3	4	5	6	7	8	9	10																			
	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87																			
PURGE INFORMATION:																														
STATIC DEPTH TO WATER (TOC): 7.42				STANDING WATER VOLUME IN WELL (gallons): .5																										
WELL DEPTH (TOC): 10.54				THREE WELL VOLUMES (gallons): 1.5																										
FEET OF WATER IN WELL: 3.12				ONE: .5      TWO: 1.0      THREE: 1.5																										
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)																														
TIME BEGIN PURGING:	11:45	11:50	11:54	TIME END PURGING:	11:54																									
TIME:	11:49	11:54	11:56																											
DEPTH TO WATER (ft)	7.60	7.78	7.83																											
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	10.04	8.0	8.0																											
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	400	400	400																											
VOLUME OF WATER REMOVED (gals)	.5	.5	.5																											
TEMPERATURE (deg. C)	12.0	11.4	11.4																											
SPEC. COND (umhos)	700	690	700																											
PH	7.14	7.19	7.14																											
DEPTH TO WATER MEASUREMENTS AFTER PURGING																														
DATE	6/16/95																													
TIME	12:02																													
DEPTH TO WATER (ft)	7.46																													
"AFTER PURGE" WATER COLUMN (ft)	3.08																													
"STATIC" WATER COLUMN (ft)	3.12																													
% RECOVERY	98.7%																													
Notes:																														
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.																														
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.																														

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
AYSDEC CLP	12:00	2 VCR	clear	

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO  
 MRD SAMPLE NAME:  
 QA/QC RINSATE SAMPLE NAME:  
 MATRIX SPIKE SAMPLE COLLECTED: YES or NO  
 INVESTIGATION DERIVED WASTE (IDW):

Date:	6/6			
Volume Transferred to Drum:	1.5			
Drum Number:	85H 3			

COMMENTS:

SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6-14-95						
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				INSPECTOR: ICKS LABORATORY: CHAIN OF CUSTODY #:							
WELL NUMBER: MW-30				MONITORING							
SCREENED INTERVAL (TOC):				INSTRUMENT		DETECTOR					
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC): 10.2		STANDING WATER VOLUME IN WELL (gallons):									
WELL DEPTH (TOC): 10.5		THREE WELL VOLUMES (gallons):									
FEET OF WATER IN WELL:		ONE:		TWO:		THREE:					
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING: 0845		TIME END PURGING:									
TIME:											
DEPTH TO WATER (ft)	10.5										
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	10.5										
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	100 ml	Dry Well									
VOLUME OF WATER REMOVED (gals)	.01										
TEMPERATURE (deg. C)	N/A										
SPEC. COND (umhos)	↓										
PH											
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>											
DATE											
TIME											
DEPTH TO WATER (ft) "AFTER PURGE"											
WATER COLUMN (ft)											
"STATIC"											
WATER COLUMN (ft)											
% RECOVERY											
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											



**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6/16/95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity  
 INSPECTOR: TFMEL  
 LABORATORY:  
 CHAIN OF CUSTODY #:

WELL NUMBER: MW-31  
 SCREENED INTERVAL (TOC):  
 MONITORING  
 INSTRUMENT DETECTOR

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:  
 STATIC DEPTH TO WATER (TOC): 6.577  
 WELL DEPTH (TOC): 10.34  
 FEET OF WATER IN WELL: 3.77  
 STANDING WATER VOLUME IN WELL (gallons): 0.62  
 THREE WELL VOLUMES (gallons): 1.84  
 ONE: 0.62 TWO: 1.22 THREE: 1.84

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING:	12:44	12:48	12:52	TIME END PURGING:		
TIME:	12:48	12:52	12:57			
DEPTH TO WATER (ft)	7.00	7.04	6.95			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	9.84	8.5 9.34	8.5 9.34			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	400 ML	400 ML	400			
VOLUME OF WATER REMOVED (gals)	.62	.62	.62			
TEMPERATURE (deg. C)	12.2	12.0	11.6			
SPEC. COND (umhos)	500	500	500			
PH	7.24	7.26	7.25			

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6/16				
TIME	13:00				
DEPTH TO WATER (ft)	6.64				
"AFTER PURGE" WATER COLUMN (ft)	3.7				
"STATIC" WATER COLUMN (ft)	3.77				
% RECOVERY	98%				

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.





**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-11-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity  
 INSPECTOR: KKS  
 LABORATORY:  
 CHAIN OF CUSTODY #:

WELL NUMBER: MW-32  
 MONITORING  
 INSTRUMENT DETECTOR

SCREENED INTERVAL (TOC):

**WELL DIAMETER FACTORS**

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

**PURGE INFORMATION:**

STATIC DEPTH TO WATER (TOC): 10.37  
 WELL DEPTH (TOC): 8.42  
 FEET OF WATER IN WELL: 1.95  
 STANDING WATER VOLUME IN WELL (gallons): 32  
 THREE WELL VOLUMES (gallons):  
 ONE: 32 TWO: 64 THREE: 96

**PURGING WITH A PERISTALTIC PUMP OR BAILER**

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1237 TIME END PURGING: 1250

TIME:	1241	1246	1250		
DEPTH TO WATER (ft)	8.80	9.0	9.3		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	10.4	8.8	9.5		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	150	100	100		
VOLUME OF WATER REMOVED (gals)	1.2	.1	.2	Slow well	
TEMPERATURE (deg. C)	14	15	14		
SPEC. COND (umhos)	650	650	650		
PH	7.45	7.40	7.60		

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6-11-95				
TIME	1452				
DEPTH TO WATER (ft)	8.42				
"AFTER PURGE" WATER COLUMN (ft)					
"STATIC" WATER COLUMN (ft)					
% RECOVERY	100%				

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	1500	3 x 40ml		
M/E/E		3 x 40ml		
CO <sub>2</sub>		1 x 40ml		
F <sup>2</sup>		2 x 40ml		
D-Sulf		1 x 500ml		
DOC		1 x 250ml		
Anion		2 x 250ml		
Sp, pH, Alk		1 x 1L		

QA/QC:

QA/QC SAMPLE COLLECTED: YES or  NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or  NO

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transferred to Drum:				
Drum Number:	N/A			

COMMENTS: Thick brown silt on bottom

SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/09/95						
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: NL / FF							
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY: August							
WELL NUMBER: MW-33 ASH				MONITORING							
SCREENED INTERVAL (TOC):				INSTRUMENT		DETECTOR					
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC): 9.24				STANDING WATER VOLUME IN WELL (gallons): 115.19							
WELL DEPTH (TOC): 10.39				THREE WELL VOLUMES (gallons):							
FEET OF WATER IN WELL: 1.15				ONE: 0.19 TWO: 0.37 THREE: 0.56							
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:	15:55		10:15 15:54	10:25		TIME END PURGING:					
TIME:	15:59	16:20	16:30								
DEPTH TO WATER (ft)	10.17	10.24	10.25								
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	10.0	10.0	10.0			- well near 77.1 to					
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	230	230	230			recharge over 27					
VOLUME OF WATER REMOVED (gals)	.2	.2	.2								
TEMPERATURE (deg. C)	15.7	13.0	13.4								
SPEC. COND (umhos)	600	500	600								
PH	7.22	7.20	7.24								
DEPTH TO WATER MEASUREMENTS AFTER PURGING											
DATE	6/10/95										
TIME	15:20										
DEPTH TO WATER (ft)	9.3										
"AFTER PURGE" WATER COLUMN (ft)											
"STATIC" WATER COLUMN (ft)	1.15										
% RECOVERY											
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											



SAMPLING RECORD FOR REPLICATES - GROUNDWATER						
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/6/95	
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				INSPECTOR: LABORATORY: CHAIN OF CUSTODY #:		
WELL NUMBER: <del>PT-15</del> MW-34				MONITORING		
SCREENED INTERVAL (TOC):				INSTRUMENT		DETECTOR
WELL DIAMETER FACTORS						
DIAMETER (INCHES):	1	1.5	(2)	3	4	5
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02
PURGE INFORMATION:						
STATIC DEPTH TO WATER (TOC):	6.0		STANDING WATER VOLUME IN WELL (gallons): 2.2			
WELL DEPTH (TOC):	14.50		THREE WELL VOLUMES (gallons): 6.6			
FEET OF WATER IN WELL:	13.50		ONE: 2.2 TWO: 4.4 THREE: 6.6			
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)						
TIME BEGIN PURGING:	13:41	13:48	13:57	TIME END PURGING: 14:02		
TIME:	13:48	13:56	14:02			
DEPTH TO WATER (ft)	7.84	8.32	8.43			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	19.0	17.5 <del>18.5</del>	17.5 <del>18.5</del>			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	570 <del>1720</del>	570	570			
VOLUME OF WATER REMOVED (gals)	2.2	2.2	2.2			
TEMPERATURE (deg. C)	12.3	11.5	11.4			
SPEC. COND (umhos)	400	450	470			
PH	7.58	7.38	7.76			
DEPTH TO WATER MEASUREMENTS AFTER PURGING						
DATE	6/6	6/6				
TIME	14:02	14:10				
DEPTH TO WATER (ft)	8.43	6.68				
"AFTER PURGE" WATER COLUMN (ft)	11.07	12.82				
"STATIC" WATER COLUMN (ft)	13.50	13.50				
% RECOVERY	82%	95%				
Notes:						
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.						
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.						

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
EDA 524.2	14:10	40 mL vials	Clear	

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	<u>NA</u>		
Volume Transferred to Drum:			
Drum Number:			

COMMENTS:

**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6/7/95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity

WELL NUMBER: MW-35D  
 SCREENED INTERVAL (TOC):  
 MONITORING INSTRUMENT DETECTOR

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:  
 STATIC DEPTH TO WATER (TOC): 4.28  
 WELL DEPTH (TOC): 56.64  
 FEET OF WATER IN WELL: 52.36  
 STANDING WATER VOLUME IN WELL (gallons): 8.5  
 THREE WELL VOLUMES (gallons): ONE: 8.5 TWO: 17 THREE: 25.5

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

30

TIME BEGIN PURGING:	12:10	12:59	13:52	TIME END PURGING:		
TIME:	12:59	13:12	13:52	14:47	14:47	15:30
DEPTH TO WATER (ft)	26.31	27.23	27.71	29.24		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	45.0	45.0	45.0	45.0		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	900 0-4.4 330 4-8.5 gal	330	330	330		
VOLUME OF WATER REMOVED (gals)	8.5	6.0	5.0	5		
TEMPERATURE (deg. C)	14.5	15.1	14.1	14.4		
SPEC. COND (umhos)	450	450	450	450		
PH	8.40	8.39	8.9	8.9		

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6/8/95					
TIME	7:00					
DEPTH TO WATER (ft)	4.41					
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY	97%					

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

**SAMPLING INFORMATION**

SAMPLING DEVICE: Bullor

4/2/95

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
542.2	7:00	3 40ml vials	clear	

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Volume Transferred to Drum:                      Date:                     

Drum Number:                     

COMMENTS:

Had to wait overnight for well to be 100% recharged.



**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6/7/95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity

WELL NUMBER: MW-36  
 SCREENED INTERVAL (TOC):  
 WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:  
 STATIC DEPTH TO WATER (TOC): 4.57  
 WELL DEPTH (TOC): 10.54  
 FEET OF WATER IN WELL: 11.99  
 STANDING WATER VOLUME IN WELL (gallons): 1.95  
 THREE WELL VOLUMES (gallons): ONE: 1.95 TWO: 3.9 THREE: 5.85

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING:	15:36	15:40	15:49	TIME END PURGING:	15:58
TIME:	15:40	15:49	15:58		
DEPTH TO WATER (ft)	8.34	8.43	8.43		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	10.56	10.56	10.56		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	900	900	900		
VOLUME OF WATER REMOVED (gals)	1.95	1.95	1.95		
TEMPERATURE (deg. C)	12.5	12.1	11.8		
SPEC. COND (umhos)	600	550	550		
PH	7.81	7.91	7.91		

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6/7/95				
TIME	15:58				
DEPTH TO WATER (ft)	4.3				
"AFTER PURGE" WATER COLUMN (ft)					
"STATIC" WATER COLUMN (ft)					
% RECOVERY	95%				

Notes:  
 (1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.  
 (2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.



**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-6-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity

WELL NUMBER: MW-37  
 INSPECTOR: KKS  
 LABORATORY:  
 CHAIN OF CUSTODY #:  
 MONITORING  
 INSTRUMENT: OVM DETECTOR: 0

SCREENED INTERVAL (TOC):  
 WELL DIAMETER FACTORS  
 DIAMETER (INCHES): 1 1.5 2 3 4 5 6 7 8 9 10  
 GALLONS/FOOT: 0.041 0.092 0.163 0.367 0.654 1.02 1.47 2.00 2.61 3.30 5.87

9.1

PURGE INFORMATION:  
 STATIC DEPTH TO WATER (TOC): 4.63  
 WELL DEPTH (TOC): 13.62  
 FEET OF WATER IN WELL: 8.99  
 STANDING WATER VOLUME IN WELL (gallons): 1.5  
 THREE WELL VOLUMES (gallons):  
 ONE: 1.5 TWO: 3.0 THREE: 4.5

**PURGING WITH A PERISTALTIC PUMP OR BAILER**

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING:	TIME:			TIME END PURGING:		
1050	1054	1101	1107			
DEPTH TO WATER (ft)	6.2	6.37	6.40			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	13.00	8.5	8.5			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1 L	1 L	1 L			
VOLUME OF WATER REMOVED (gals)	1.5	1.5	1.5			
TEMPERATURE (deg. C)	13.5	13.0	13.0			
SPEC. COND (umhos)	430	430	425			
PH	7.39	7.28	7.27			

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6-6-95				
TIME	1112				
DEPTH TO WATER (ft)	4.63				
"AFTER PURGE" WATER COLUMN (ft)					
"STATIC" WATER COLUMN (ft)					
% RECOVERY	100%				

Notes:  
 (1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.  
 (2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.



**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-6-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity  
 INSPECTOR: KKS  
 LABORATORY:  
 CHAIN OF CUSTODY #:

WELL NUMBER: MW-38D  
 MONITORING  
 INSTRUMENT: OVA DETECTOR:  $\checkmark$

SCREENED INTERVAL (TOC):

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 5.26 STANDING WATER VOLUME IN WELL (gallons): 4.4  
 WELL DEPTH (TOC): 32.24 THREE WELL VOLUMES (gallons):  
 FEET OF WATER IN WELL: 26.98 ONE: 4.4 TWO: 8.8 THREE: 13.2

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

8.5

TIME BEGIN PURGING: 1200 TIME END PURGING: 1245

TIME:	1210	1227	1245			
DEPTH TO WATER (ft)	12.6	14.0	14.25			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	32.0	15	15			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1.4 L	1 L	1 L			
VOLUME OF WATER REMOVED (gals)	4.5	4.5	4.5			
TEMPERATURE (deg. C)	10.5	11.00	12.0			
SPEC. COND (umhos)	390	395	400			
PH	7.58	7.48	7.60			

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6-6-95					
TIME						
DEPTH TO WATER (ft)	5.39					
"AFTER PURGE" WATER COLUMN (ft)	26.85					
"STATIC" WATER COLUMN (ft)	<del>26.98</del> 32.24					
% RECOVERY	99%					

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.



SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/12/95						
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: TJSF							
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY:							
WELL NUMBER: MW-39				CHAIN OF CUSTODY #:							
SCREENED INTERVAL (TOC):				MONITORING							
				INSTRUMENT		DETECTOR					
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC): 4.51				STANDING WATER VOLUME IN WELL (gallons): 1.15							
WELL DEPTH (TOC): 11.87				THREE WELL VOLUMES (gallons):							
FEET OF WATER IN WELL: 7.59				ONE: 1.15 TWO: 2.30 THREE: 3.46							
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:			TIME END PURGING:								
TIME:	8:52										
DEPTH TO WATER (ft)	8:58	9:06	9:13								
DEPTH TO BOTTOM	5.08	4.94	5.13								
OPENING OF											
TEFLON TUBE (TOC)	11.5	10.5	10.5								
FLOW RATE (ml/min.)											
or											
VOL. OF BAILER (gal.)	570	330	570								
VOLUME OF WATER											
REMOVED (gals)	1.15	1.15	1.15								
TEMPERATURE (deg. C)	10.4 F C	10.7	10.7								
SPEC. COND (umhos)	450	450	450								
PH	7.47	7.40	7.40								
DEPTH TO WATER MEASUREMENTS AFTER PURGING											
DATE	6/12/95										
TIME	9:20										
DEPTH TO WATER (ft)	4.59										
"AFTER PURGE"											
WATER COLUMN (ft)											
"STATIC"											
WATER COLUMN (ft)	4.51										
% RECOVERY	98%										
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											

457-5761

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOG - 524.2	9:30	3 VOA		HCL
METHANE ETHE, ETHA	↓	3 VOA		HCL
CO2		1 VOA		
FERROUS +2		3 VOA		
DOC		250ml Amber		H2SO4
SULFIDE, DIS		500ml P.I.		Zinc Acetate
CL, SO4		500ml P.I.		
NO2 NO3		500ml P.I.		H2SO4
SC, PH, ALK		1L P.I.		

QA/QC:

QA/QC SAMPLE COLLECTED: YES or  NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or  NO

INVESTIGATION DERIVED WASTE (IDW): "CLEAN" WCLL

Date:	NA		
Volume Transferred to Drum:			
Drum Number:			

COMMENTS:



### SAMPLING RECORD FOR REPLICATES - GROUNDWATER

PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)		DATE: 6/11/95	
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995			INSPECTOR: JNF		
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity			LABORATORY:		
WELL NUMBER: MW-40			CHAIN OF CUSTODY #:		
SCREENED INTERVAL (TOC):			MONITORING		
WELL DIAMETER FACTORS			INSTRUMENT		
DIAMETER (INCHES):			DETECTOR		
GALLONS/FOOT:					
PURGE INFORMATION:					
STATIC DEPTH TO WATER (TOC): 7.68			STANDING WATER VOLUME IN WELL (gallons): 1.15 gals		
WELL DEPTH (TOC): 14.71			THREE WELL VOLUMES (gallons):		
FEET OF WATER IN WELL: 7.03			ONE: 1.15 TWO: 2.30 THREE: 3.45		
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)					
TIME BEGIN PURGING:	14:58	15:05	15:12	TIME END PURGING:	
TIME:	15:04	15:12	15:17		
DEPTH TO WATER (ft)	8.07	8.42	8.92		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	14.5	10.0	10.0		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	570	570	570		
VOLUME OF WATER REMOVED (gals)	1.25	1.25	1.00		
TEMPERATURE (deg. C)	10.7	11.8	11.2		
SPEC. COND (umhos)	400	400	400		
PH	7.52	7.61	7.80		
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>					
DATE	6/11/95				
TIME	15:55				
DEPTH TO WATER (ft)	7.93				
"AFTER PURGE" WATER COLUMN (ft)	6.78				
"STATIC" WATER COLUMN (ft)	7.03				
% RECOVERY	96%				
Notes:					
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.					
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.					

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
524.2	16:00 <del>07:00</del>			
methane ethane, ethane	↓			
CO2				
DOC				
sulfide, dis				
CL, SO4				
NO2, NO3				
SF, pH, H/L				
Fern. +2				

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date: 6/1/95

Volume Transferred to Drum:			
Drum Number:			

COMMENTS:

SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/11/95						
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: TF/ML							
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY: Evergreen							
WELL NUMBER: NW-410				CHAIN OF CUSTODY #:							
SCREENED INTERVAL (TOC):				MONITORING							
				INSTRUMENT		DETECTOR					
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC):	8.89			STANDING WATER VOLUME IN WELL (gallons):			7.66				
WELL DEPTH (TOC):	47.02			THREE WELL VOLUMES (gallons):							
FEET OF WATER IN WELL:	38.13			ONE: 7.66		TWO: 15.3		THREE: 23.			
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:	08:32		08:46		09:02		09:54				
TIME END PURGING:	10:36		11:25		11:25		11:25				
TIME:	08:45		09:02		09:54		10:36		11:25		
DEPTH TO WATER (ft)	22.21		28.31		30.90		30.82		31.14		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	47.0'		47.0'		44.0		44.0		44.0		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	2,100 ml/h		900 ml/h		900 ml/h		330		330		
VOLUME OF WATER REMOVED (gals)	4.0 gals		3.8 gal		7.0 gal		4.0		4.0		
TEMPERATURE (deg. C)	10.6		11.3		13.4		13.9		13.8		
SPEC. COND (umhos)	520		520		520		520		520		
PH	7.48		7.91		7.83		7.94		7.94		
DEPTH TO WATER MEASUREMENTS AFTER PURGING											
DATE	6/11/95		6/11/95		6/11/95						
TIME	13:50		15:18		16:10						
DEPTH TO WATER (ft)	18.78		13.40		11.78						
"AFTER PURGE" WATER COLUMN (ft)	28.24		33.62		35.24						
"STATIC" WATER COLUMN (ft)	38.13		38.13		38.13						
% RECOVERY	74%		88%		92.4%						
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											

**SAMPLING INFORMATION**

SAMPLING DEVICE: *Baiter*

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
<i>VOC: methane ethane, ethene</i>	<i>16:15</i>	<i>3 VOA</i>		<i>HCL</i>
<i>524.2 VOC</i>	<i> </i>	<i>3 VOA</i>		<i>HCL</i>
<i>CO2</i>		<i>1 VOA</i>		
<i>Ferric +2</i>		<i>3 VOA</i>		
<i>DOC</i>				<i>H2SO4</i>
<i>Sulfide, Dis.</i>		<i>500-1 Pol</i>		<i>Zinc Acetate</i>
<i>CL, SO4</i>				
<i>NO2, NO3</i>				<i>H2SO4</i>
<i>SC, pH, Alkal.</i>	<i>✓</i>			

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

*N/A "Clean"*

Date:	<i>6/11/95</i>			
Volume Transferred to Drum:				
Drum Number:				

COMMENTS:

SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/11/95						
PROJECT: Quarterly Groundwater Monitoring OB Grounds 2nd Quarter of 1995				INSPECTOR: TF/ML							
LOCATION: OB Grounds at the Seneca Army Depot Activity				LABORATORY:							
WELL NUMBER: MW-42D				CHAIN OF CUSTODY #:							
SCREENED INTERVAL (TOC):				MONITORING							
WELL DIAMETER FACTORS				INSTRUMENT							
DIAMETER (INCHES):				DETECTOR							
1	1.5	2	3	4	5	6	7	8	9	10	
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC): 6.40			STANDING WATER VOLUME IN WELL (gallons): 6.68								
WELL DEPTH (TOC): 47.38			THREE WELL VOLUMES (gallons):								
FEET OF WATER IN WELL: 40.98			ONE: 6.68		TWO: 13.36						
					THREE: 20.04						
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:	11:44	12:02	01:25	TIME END PURGING:							
TIME:	12:02	12:14	02:05	02:05							
DEPTH TO WATER (ft)	28.49	31.06	31.05	29.54							
DEPTH TO BOTTOM	47.0'	44.0'		38.0'							
OPENING OF											
TEFLON TUBE (TOC)											
FLOW RATE (ml/min.)	1,440	570		330							
or											
VOL. OF BAILER (gal.)		330									
VOLUME OF WATER											
REMOVED (gals)	6.7	4.5	1.1	1.1							
TEMPERATURE (deg. C)	12.0	12.3		13.1							
SPEC. COND (umhos)	490	490		500							
PH	7.71	7.82		7.83							
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>											
DATE	6/11/95	6/11/95	6/12/95								
TIME	15:08	16:45	9:45								
DEPTH TO WATER (ft)	28.27	28.21	8.50								
"AFTER PURGE"											
WATER COLUMN (ft)	19.11	19.11	38.88								
"STATIC"											
WATER COLUMN (ft)	40.98	40.98	40.99								
% RECOVERY	47%	47%	75%								
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											

SAMPLING INFORMATION								
SAMPLING DEVICE: <i>Baiten</i>								
<i>6/12/95</i>								
SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)				
<i>VOC - 524.2</i>	<i>10:00</i>	<i>3 VOA</i>		<i>HCL</i>				
<i>methane ethane, ethene</i>	<i>↓</i>	<i>3 VOA</i>		<i>HCL</i>				
<i>CO2</i>		<i>1 VOA</i>						
<i>Ferric +2</i>		<i>3 VOA</i>						
<i>DOC</i>		<i>250ml Amber</i>		<i>H2SO4</i>				
<i>Sulfide, Dis</i>		<i>500ml P.L.</i>		<i>Zinc Acetate</i>				
<i>CL, SO4</i>		<i>500ml P.L.</i>						
<i>NO2, NO3</i>		<i>500ml P.L.</i>		<i>H2SO4</i>				
<i>Sc, pH, Alkal.</i>		<i>1L P.L.</i>						
<b>REPLICATE SAMPLES:</b>								
REPLICATE SAMPLE COLLECTED: YES or <input checked="" type="radio"/> NO								
Replicate Sample Names:    Rep. 1            Rep. 2            Rep. 3            Rep. 4								
<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table>								
<b>QA/QC:</b>								
QA/QC SAMPLE COLLECTED: YES or <input checked="" type="radio"/> NO								
MRD SAMPLE NAME:								
QA/QC RINSATE SAMPLE NAME:								
MATRIX SPIKE SAMPLE COLLECTED: YES or <input checked="" type="radio"/> NO								
<b>INVESTIGATION DERIVED WASTE (IDW):</b>								
<i>N/A</i>								
Date: <i>6/11/95</i>								
Volume Transferred to Drum:								
Drum Number:								
<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table>								
<b>COMMENTS:</b>								

SAMPLING RECORD FOR REPLICATES - GROUNDWATER						
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 2/11/95	
PROJECT: Quarterly Groundwater Monitoring - OB Grounds 2nd Quarter of 1995				INSPECTOR: TF		
LOCATION: OB Grounds at the Seneca Army Depot Activity				LABORATORY:		
WELL NUMBER: Mw-45				CHAIN OF CUSTODY #:		
SCREENED INTERVAL (TOC):				MONITORING		
WELL DIAMETER FACTORS				INSTRUMENT		
DIAMETER (INCHES):				DETECTOR		
GALLONS/FOOT:						
PURGE INFORMATION:						
STATIC DEPTH TO WATER (TOC): 5.15				STANDING WATER VOLUME IN WELL (gallons): 0.35		
WELL DEPTH (TOC): 7.47				THREE WELL VOLUMES (gallons):		
FEET OF WATER IN WELL: 2.32				ONE: 0.35 TWO: 0.76 THREE: 1.14		
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)						
TIME BEGIN PURGING:		17:25	17:32	17:39	TIME END PURGING: 17:46	
TIME:		17:32	17:38	17:46		
DEPTH TO WATER (ft)		5.30	5.36	5.38		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)		6.5'	6.5'	6.5'		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)		330	330	330		
VOLUME OF WATER REMOVED (gals)		0.4	0.5	0.5		
TEMPERATURE (deg. C)		16.2	14.5	14.8		
SPEC. COND (umhos)		600	600	600		
PH		7.45	7.7	7.61		
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>						
DATE		6/11/95				
TIME		17:50				
DEPTH TO WATER (ft)		5.21				
"AFTER PURGE" WATER COLUMN (ft)		2.26				
"STATIC" WATER COLUMN (ft)		2.32				
% RECOVERY		97%				
Notes:						
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.						
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.						

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
524.2	17.50	3 VOA <sub>1</sub>		HCL
methane ethane, propane		3 VOA <sub>1</sub>		HCL
CO <sub>2</sub>		1 VOA <sub>1</sub>		
Formic +2		2 VOA <sub>1</sub>		
DOC		250 ml Ambr		H <sub>2</sub> SO <sub>4</sub>
Sulfide, Diss		500 ml P <sub>1</sub>		200 ml H <sub>2</sub> SO <sub>4</sub>
NO <sub>2</sub> , NO <sub>1</sub>		500 ml P <sub>1</sub>		H <sub>2</sub> SO <sub>4</sub>
Cl, SO <sub>4</sub>		500 ml P <sub>1</sub>		
pH, SC, Alk.	-1	1L, P <sub>1</sub>		

**REPLICATE SAMPLES:**

REPLICATE SAMPLE COLLECTED: YES or  NO

Replicate Sample Names:

Rep. 1	Rep. 2	Rep. 3	Rep. 4

**QA/QC:**

QA/QC SAMPLE COLLECTED: YES or  NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or  NO

**INVESTIGATION DERIVED WASTE (IDW):**

Date:	6/11/95			
Volume Transferred to Drum:	29.6			
Drum Number:	Ash 3			

**COMMENTS:**



**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-14-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity

WELL NUMBER: 14 W-45  
 SCREENED INTERVAL (TOC):  
 WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:  
 STATIC DEPTH TO WATER (TOC): 5.74  
 WELL DEPTH (TOC): 8.34  
 FEET OF WATER IN WELL: 2.6  
 STANDING WATER VOLUME IN WELL (gallons): .42  
 THREE WELL VOLUMES (gallons): ONE: .42 TWO: .84 THREE: 1.3

**PURGING WITH A PERISTALTIC PUMP OR BAILER**

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING:	0920			TIME END PURGING:			
TIME:	0924	0926	0930				
DEPTH TO WATER (ft)	7.0	7.0	7.0				
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	8.34	7.09	7.09				
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1000	600	300				
VOLUME OF WATER REMOVED (gals)	.42	.42	.42				
TEMPERATURE (deg. C)	13.0	13	13.5				
SPEC. COND (umhos)	525	550	550				
PH	7.7	7.46	7.4				

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6-14-95				
TIME	1000				
DEPTH TO WATER (ft)	5.75				
"AFTER PURGE" WATER COLUMN (ft)					
"STATIC" WATER COLUMN (ft)					
% RECOVERY	100%				

Notes:  
 (1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.  
 (2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

7.0

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
524.2	1000	6 x 40 ml		
M/E/B		3 x 40 ml		
CO <sub>2</sub>		1 x 40 ml		

QA/QC:

QA/QC SAMPLE COLLECTED:  YES or NO

Matrix Spike VOC 5242

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED:  YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date: 

N/A			
-----	--	--	--

Volume Transferred to Drum: 

N/A			
-----	--	--	--

Drum Number: 

--	--	--	--

COMMENTS:

**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-12-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995 INSPECTOR: ML/TJ  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity LABORATORY:  
 CHAIN OF CUSTODY #:

WELL NUMBER: MW-46 MONITORING  
 SCREENED INTERVAL (TOC): INSTRUMENT DETECTOR

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:  
 STATIC DEPTH TO WATER (TOC): 7.39 STANDING WATER VOLUME IN WELL (gallons): .66  
 WELL DEPTH (TOC): 11.45 THREE WELL VOLUMES (gallons):  
 FEET OF WATER IN WELL: 4.06 ONE: .66 TWO: 1.32 THREE: 1.98

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING:	13:08	13:13	13:22	TIME END PURGING:	13:28
TIME:	13:13	13:20	13:28		
DEPTH TO WATER (ft)	7.50	7.61	7.54		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	10.95	9.50	9.50		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	330	330	330		
VOLUME OF WATER REMOVED (gals)	0.66	0.7	0.7		
TEMPERATURE (deg. C)	12.6	12.7	12.5		
SPEC. COND (umhos)	525	525	525		
PH	8.02	7.95	7.61		

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6/12/95				
TIME	13:30				
DEPTH TO WATER (ft)	7.39				
"AFTER PURGE" WATER COLUMN (ft)	4.06				
"STATIC" WATER COLUMN (ft)	4.06				
% RECOVERY	100%				

Notes:  
 (1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.  
 (2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
MYSDE CLD	13:30	3 VOA's		HCL
METHANE ETHANE ETILANE	13:30	3 VOA's		HCL
CO <sub>2</sub>	13:30	1 VOA		
Ferrous <sup>2+</sup>	13:30	2 VOA		
COND PH ALK	13:30	1L Poly		
DOC	13:30	250 A. G. / L.		H <sub>2</sub> SO <sub>4</sub> <del>None</del>
NO <sub>2</sub> /NO <sub>3</sub>	13:30	500ml P.G.		H <sub>2</sub> SO <sub>4</sub>
Diss. Sulfide	13:30	500ml P.G.		Zinc
Cl / SO <sub>4</sub>	13:30	500ml P.G.		None

QA/QC:

QA/QC SAMPLE COLLECTED: YES or  NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or  NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	6/12/95		
Volume Transferred to Drum:	2.8 gal		
Drum Number:	As 4		

COMMENTS:

**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6/6/95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity

WELL NUMBER: MW-47  
 INSPECTOR: KKS  
 LABORATORY:  
 CHAIN OF CUSTODY #:  
 MONITORING

SCREENED INTERVAL (TOC):

WELL DIAMETER FACTORS	1	1.5	2	3	4	5	6	7	8	9	10
DIAMETER (INCHES):											
GALLONS/FOOT:	0.041	0.092	0.143	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:  
 STATIC DEPTH TO WATER (TOC): 6.79  
 WELL DEPTH (TOC): 8.56  
 FEET OF WATER IN WELL: 1.77  
 STANDING WATER VOLUME IN WELL (gallons): 3  
 THREE WELL VOLUMES (gallons):  
 ONE: 3 TWO: 6 THREE: 9

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 0903 TIME END PURGING:

TIME:	0908	0915	0918			
DEPTH TO WATER (ft)	7.34	7.36	7.40			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	8.5	7.5	7.5			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	360	300	300			
VOLUME OF WATER REMOVED (gals)	.3	.3	.3			
TEMPERATURE (deg. C)	13.5	13.5	13.0			
SPEC. COND (umhos)	490	490	490			
PH	7.50	7.33	7.26			

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6-7-95				
TIME	0930				
DEPTH TO WATER (ft)	6.79				
"AFTER PURGE" WATER COLUMN (ft)					
"STATIC" WATER COLUMN (ft)					
% RECOVERY	100%				

Notes:  
 (1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.  
 (2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.



SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/14/95						
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: m							
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY:							
WELL NUMBER: MW-48				CHAIN OF CUSTODY #:							
SCREENED INTERVAL (TOC):				MONITORING							
				INSTRUMENT		DETECTOR					
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC):	6.40		STANDING WATER VOLUME IN WELL (gallons): 0.83								
WELL DEPTH (TOC):	11.50		THREE WELL VOLUMES (gallons):								
FEET OF WATER IN WELL:	5.1		ONE: 0.83		TWO: 1.66		THREE: 2.49				
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:	09:12		09:16		09:20		TIME END PURGING:				
	TIME:	09:16	09:20	09:25							
DEPTH TO WATER (ft)		6.74	6.78	6.84							
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)		11.5	9.0	9.0							
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)		570	570	570							
VOLUME OF WATER REMOVED (gals)		0.90	0.90	0.90							
TEMPERATURE (deg. C)		11.7	12.6	12.5							
SPEC. COND (umhos)		490	490	490							
PH		7.42	7.45	7.62							
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>											
DATE	6/14/95										
TIME	09:35										
DEPTH TO WATER (ft)	6.40										
"AFTER PURGE" WATER COLUMN (ft)	5.1										
"STATIC" WATER COLUMN (ft)	5.1										
% RECOVERY	100%										
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
524.2	09:45	3 VOC	1	1111
Headspace	09:45	2 VOC		
with Ethyl Ether	09:45	3 VOC		1111
Ferrous + 2	09:45	1 VOC		
POC	09:45	500 ml		
Surface Dis	09:45	500 ml		3rd Acell
M SO4		500 ml		
NO2 NO3		500 ml		H2SO4
DOC		250 PPM		H2SO4
SE OH 211		1L PPM		

QA/QC:

QA/QC SAMPLE COLLECTED: YES or  NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or  NO

INVESTIGATION DERIVED WASTE (IDW):

Date:

Volume Transferred to Drum:

Drum Number:

COMMENTS:



**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6/12/95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity

WELL NUMBER: MW-49A  
 MONITORING INSTRUMENT DETECTOR

SCREENED INTERVAL (TOC):

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 7.36  
 WELL DEPTH (TOC): 37.54  
 FEET OF WATER IN WELL: 30.18

STANDING WATER VOLUME IN WELL (gallons): 4.91  
 THREE WELL VOLUMES (gallons): ONE: 4.91 TWO: 9.82 THREE: 14.63

**PURGING WITH A PERISTALTIC PUMP OR BAILER**

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING:	10:43	11:03	11:27	TIME END PURGING:		
TIME:	10:58	11:16	11:42			
DEPTH TO WATER (ft)	12.79	12.70	13.49			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	37.5	29.0	29.0'			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1,440	1,440	1,440			
VOLUME OF WATER REMOVED (gals)	<del>12.79</del> <sup>5.0</sup>	5.0	5.0			
TEMPERATURE (deg. C)	10.6	10.6	10.0			
SPEC. COND (umhos)	500	490	475			
PH	8.02	7.96	7.97			

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6/12/95			
TIME	11:55			
DEPTH TO WATER (ft)	8.17			
"AFTER PURGE" WATER COLUMN (ft)	29.37			
"STATIC" WATER COLUMN (ft)	30.18			
% RECOVERY	97%			

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC - 524.2	12:00	3 VOA		HCL
METH EDHE, EDTA	               ↓	3 VOA		HCL
CO2		1 VOA		
FERROUS +2		2 VOA		
DOC		250ml Amber		H2SO4
sulfide, DW		500ml P.L.		ZINC ACETATE
CL SO4		500 ml P.L.		
NO2 NO3		500 ml P.L.		H2SO4
SE PH ALK		1L, P.L.		

N.T.C.: NS, ASD + Duplicate collected for  
Evenness - labs. N.T. 524.2!

**QA/QC:**

QA/QC SAMPLE COLLECTED:  YES or NO  
 MRD SAMPLE NAME: None collected → MW-49R 11:45 sample time  
 QA/QC RINSATE SAMPLE NAME:  
 MATRIX SPIKE SAMPLE COLLECTED:  YES or NO 490 NS + 490 ASD

**INVESTIGATION DERIVED WASTE (IDW):**

Date:	6/12/95			
Volume Transferred to Drum:	18 gals			
Drum Number:	Ash 3+4			

**COMMENTS:**

SAMPLING RECORD FOR REPLICATES - GROUNDWATER						
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6-12-95	
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: JCS		
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY:		
WELL NUMBER: MW-50D				CHAIN OF CUSTODY #:		
SCREENED INTERVAL (TOC):				MONITORING		
				INSTRUMENT		DETECTOR
				OUM		Q
WELL DIAMETER FACTORS						
DIAMETER (INCHES):	1	1.5	2	3	4	5
GALLONS/FOOT:	0.041	0.092	0.167	0.367	0.654	1.02
PURGE INFORMATION:						
STATIC DEPTH TO WATER (TOC):	7.22		STANDING WATER VOLUME IN WELL (gallons): 8.6			
WELL DEPTH (TOC):	60.0		THREE WELL VOLUMES (gallons):			
FEET OF WATER IN WELL:	52.78		ONE: 8.7	TWO: 17	THREE: 25.2	
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)						
TIME BEGIN PURGING:	1058			TIME END PURGING:		
TIME:	12:20	13:08	16:30	4:00		
DEPTH TO WATER (ft)	27.6	27.92 <del>27.9</del>	28:55			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	60.0	60.0	60.0			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	200 ml	200 ml	200 ml			
VOLUME OF WATER REMOVED (gals)	8.6	<del>8.7</del> 4	4			
TEMPERATURE (deg. C)	15.5	14.0	14.0			
SPEC. COND (umhos)	380	400	400			
PH	6.93	6.93	7.73			
DEPTH TO WATER MEASUREMENTS AFTER PURGING						
DATE	6-13-95					
TIME	8:55					
DEPTH TO WATER (ft) "AFTER PURGE"	78.01					
WATER COLUMN (ft)	52.99					
"STATIC" WATER COLUMN (ft)	52.70					
% RECOVERY	99.6%					
Notes:						
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.						
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.						

**SAMPLING INFORMATION**

SAMPLING DEVICE:

6/13/95

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC -524.2	9:00	3 Vocas		HCL
METH ETHE, ETHA		3 Vocas		HCL
CO2		1 Voc		
FERROUS		2 Voc		
DOC		250 ml Amber		H2SO4
SULFIDE, DIS		500 ml Poly		Zinc Acetate
CL, SO4		500 ml Poly		
NO2, NO3		500 ml Poly		H2SO4
Sp. Cond pH Alk		1 L Poly		

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	10-12-95			
Volume Transferred to Drum:				
Drum Number:	ASH-4			

COMMENTS:

**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-7-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity

WELL NUMBER: MW-51D  
 INSPECTOR: KKS  
 LABORATORY:  
 CHAIN OF CUSTODY #:  
 MONITORING  
 INSTRUMENT: OUN DETECTOR: 8

SCREENED INTERVAL (TOC):

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 6.80  
 WELL DEPTH (TOC): 36.87  
 FEET OF WATER IN WELL: 30.07

STANDING WATER VOLUME IN WELL (gallons): 5  
 THREE WELL VOLUMES (gallons):  
 ONE: 5 TWO: 10 THREE: 15

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 0815 TIME END PURGING: 0856

TIME:	0830	0840	0856		
DEPTH TO WATER (ft)	12.6	12.90	13.0		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	36.5	25	23		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1500 1250 1080	1080	1080		
VOLUME OF WATER REMOVED (gals)	5	5	5		
TEMPERATURE (deg. C)	10	10.5	11		
SPEC. COND (umhos)	405	450	450		
PH	7.23	7.40	7.34		

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6-6-95				
TIME	0950				
DEPTH TO WATER (ft)	6.8				
"AFTER PURGE" WATER COLUMN (ft)					
"STATIC" WATER COLUMN (ft)					
% RECOVERY	100%				

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

22

20-450  
232

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	0955	3 x 40ml	clear	

QA/QC:

QA/QC SAMPLE COLLECTED: YES or  NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or  NO

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transferred to Drum:	N/A			
Drum Number:				

COMMENTS:

SAMPLING RECORD FOR REPLICATES - GROUNDWATER						
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6-7-95	
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				INSPECTOR: K. Smith T. Ford LABORATORY: CHAIN OF CUSTODY #:		
WELL NUMBER: MW-52D				MONITORING		
SCREENED INTERVAL (TOC):				INSTRUMENT		
WELL DIAMETER FACTORS				DETECTOR		
DIAMETER (INCHES): 1 1.5 2 3 4 5 6 7 8 9 10						
GALLONS/FOOT: 0.041 0.092 0.165 0.367 0.654 1.02 1.47 2.00 2.61 3.30 5.87						
PURGE INFORMATION:						
STATIC DEPTH TO WATER (TOC): 6.26 / 17.2				STANDING WATER VOLUME IN WELL (gallons): 8.6		
WELL DEPTH (TOC): 59 36				THREE WELL VOLUMES (gallons):		
FEET OF WATER IN WELL: 53.1				ONE: 8.6 TWO: 17.5 THREE: 26		
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)						
TIME BEGIN PURGING: 0720				TIME END PURGING: 0943		
TIME: 0734 0750 0805 1006 1020 1040						
DEPTH TO WATER (ft) 21.25 28.3 28.2 21.2 25.0 33.5						
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC) 59 36 36 36 36 36						
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.) $\frac{1500}{400}$ 200 ml 100 ml 100 ml 300 ml 300 ml						
VOLUME OF WATER REMOVED (gals) 3 1.5 1.5 1.25 1.75 1.5						
TEMPERATURE (deg. C) 11.5 14 15 17 16 16						
SPEC. COND (umhos) 430 460 490 460 440 450						
PH 7.35 8.08 7.45 8.59 7.95 8.25						
DEPTH TO WATER MEASUREMENTS AFTER PURGING						
DATE 6/7/95 6/7/95						
TIME 13:36 14:50						
DEPTH TO WATER (ft) 1.83 8.68						
"AFTER PURGE" WATER COLUMN (ft) 47.53 50.68						
"STATIC" WATER COLUMN (ft) 53.1 53.1						
% RECOVERY 90% 95.4%						
Notes:						
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.				sampled 15:00		
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.						

**SAMPLING INFORMATION**

SAMPLING DEVICE:

*Barton*

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
<i>EPH 524.2</i>	<i>15:00</i>	<i>3 vials</i>	<i>clear</i>	

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW): *N/A*

Date:				
Volume Transferred to Drum:				
Drum Number:				

COMMENTS:

*Grey-milky sludge on bottom of sump - cleaned in .25 gal*



SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.			CLIENT: U.S. Army Corps of Engineers (USACOE)				DATE: JUNE 6 1995				
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity						INSPECTOR: T F IMEL LABORATORY: CHAIN OF CUSTODY #:					
WELL NUMBER: MWI-53						MONITORING					
SCREENED INTERVAL (TOC):						INSTRUMENT		DETECTOR			
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC):	8.44					STANDING WATER VOLUME IN WELL (gallons): 31					
WELL DEPTH (TOC):	10.35					THREE WELL VOLUMES (gallons): 93					
FEET OF WATER IN WELL:	1.91					ONE: 31		TWO: 62		THREE: 93	
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:	7:46		7:52		7:56		TIME END PURGING: 7:59				
TIME:	7:46	7:55	7:59								
DEPTH TO WATER (ft)	8.60	8.60	8.51								
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	9.85	<del>9.35</del>	7:35 <del>9.35</del>								
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	400 <del>430</del>	400 <del>430</del>	400								
VOLUME OF WATER REMOVED (gals)	.30	.30	.30								
TEMPERATURE (deg. C)	11.0	11.5	11.4								
SPEC. COND (umhos)	750	700	700								
PH	7.16	7.6	7.7								
DEPTH TO WATER MEASUREMENTS AFTER PURGING											
DATE	6/6										
TIME	6:15										
DEPTH TO WATER (ft)	8.44										
"AFTER PURGE" WATER COLUMN (ft)	1.91										
"STATIC" WATER COLUMN (ft)	1.91										
% RECOVERY	100%										
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											

9.4

Baylor  
GUP

8:11

40m vial clear

MUO-53

**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6/6/95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity  
 INSPECTOR: TFMEL  
 LABORATORY:  
 CHAIN OF CUSTODY #:

WELL NUMBER: MLC - 57D  
 MONITORING  
 INSTRUMENT DETECTOR

SCREENED INTERVAL (TOC):

**WELL DIAMETER FACTORS**

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

**PURGE INFORMATION:**

STATIC DEPTH TO WATER (TOC): 8.30  
 WELL DEPTH (TOC): 34.94  
 FEET OF WATER IN WELL: 26.64  
 STANDING WATER VOLUME IN WELL (gallons): 4.35  
 THREE WELL VOLUMES (gallons): 13.05  
 ONE: 4.35 TWO: 8.70 THREE: 13.05

**PURGING WITH A PERISTALTIC PUMP OR BAILER**

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING:	8:21	8:33	8:42	TIME END PURGING:	8:50
TIME:	8:32	8:41	8:50		
DEPTH TO WATER (ft)	18.22	20.85	22.83		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	34.49 <del>30.24</del>	32.94 <del>32.84</del>	28.0 <del>33.49</del>		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	15.30	15.30	15.30		
VOLUME OF WATER REMOVED (gals)	4.35	4.3	4.3		
TEMPERATURE (deg. C)	10.2	10.6	10.7		
SPEC. COND (umhos)	450	450	450		
PH	7.7	8.3	7.6		

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE	6/6/95	6/6/95			
TIME	9:00	10:49			
DEPTH TO WATER (ft)	16.0	8.34			
"AFTER PURGE" WATER COLUMN (ft)	18.39	26.65			
"STATIC" WATER COLUMN (ft)	26.69	26.69			
% RECOVERY	70%	100%			

Notes:

- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
- Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

30.24

16:00



SAMPLING RECORD FOR REPLICATES - GROUNDWATER

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6/16/95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity  
 INSPECTOR: TF/MEC  
 LABORATORY:  
 CHAIN OF CUSTODY #:

WELL NUMBER: NW-50D  
 SCREENED INTERVAL (TOC):  
 MONITORING INSTRUMENT DETECTOR

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:  
 STATIC DEPTH TO WATER (TOC): 9.25  
 WELL DEPTH (TOC): 59.18  
 FEET OF WATER IN WELL: 49.9  
 STANDING WATER VOLUME IN WELL (gallons): 8.13  
 THREE WELL VOLUMES (gallons): 24.39  
 ONE: 8.13 TWO: 16.27 THREE: 24.39

PURGING WITH A PERISTALTIC PUMP OR BAILER  
 (measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING:	9:05	9:36	10:21	TIME END PURGING:	10:50
TIME:	4:35	10:20	10:58		
DEPTH TO WATER (ft)	20.92	28.83	29.20		
DEPTH TO BOTTOM	59.18	34.18			
OPENING OF TEFロン TUBE (TOC)	58.68	58.18	39.18		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	220	220	1140		
VOLUME OF WATER REMOVED (gals)	8.0	8.0	8.0		
TEMPERATURE (deg. C)	12.0	13.0*	13.4		
SPEC. COND (umhos)	400	400	400		
PH	9.06	9.04	7.00		

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	6/6		6/6		
TIME	11:03	14:	14:00		
DEPTH TO WATER (ft)	24.76		8.8		
"AFTER PURGE" WATER COLUMN (ft)	49.76	34.42	8.8		
"STATIC" WATER COLUMN (ft)	49.9	49.9	49.9		
% RECOVERY	70%		<100%		

- Notes:
- Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
  - Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

\* SOLAR HEATING



SAMPLING RECORD FOR REPLICATES - GROUNDWATER									
PARSONS ENGINEERING SCIENCE, INC.			CLIENT: U.S. Army Corps of Engineers (USACOE)				DATE: 4/7/95		
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995					INSPECTOR:				
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity					LABORATORY:				
WELL NUMBER: MW-54 MRD DUP Rinsate					CHAIN OF CUSTODY #:				
SCREENED INTERVAL (TOC):					MONITORING				
WELL DIAMETER FACTORS					INSTRUMENT				
DIAMETER (INCHES):					DETECTOR				
GALLONS/FOOT:									
PURGE INFORMATION:									
STATIC DEPTH TO WATER (TOC): 4.38					STANDING WATER VOLUME IN WELL (gallons): 2.5				
WELL DEPTH (TOC): 6.88					THREE WELL VOLUMES (gallons): 12				
FEET OF WATER IN WELL: 2.5					ONE: 4 TWO: 8 THREE: 12				
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)									
TIME BEGIN PURGING:		10:30	10:33	10:35	TIME END PURGING:				
TIME:		10:33	10:35	10:37					
DEPTH TO WATER (ft)		5.11	5.16	5.20					
DEPTH TO BOTTOM OPENING OF TEFロン TUBE (TOC)		4.0	4.0	4.0					
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)		330	330	330					
VOLUME OF WATER REMOVED (gals)		.4	.4	.4					
TEMPERATURE (deg. C)		14.4	14.3	13.9					
SPEC. COND (umhos)		400	600	600					
PH		7.63	<del>8.04</del>	7.75					
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>									
DATE		4/7/95	4/7/95						
TIME		10:45	11:34						
DEPTH TO WATER (ft)		4.38	4.						
"AFTER PURGE" WATER COLUMN (ft)		4.38							
"STATIC" WATER COLUMN (ft)		4.38	4.38						
% RECOVERY		100%	11%						
Notes:									
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.									
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.									

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
RINSEATE	10:45			
RINSEATE	10:45			
NW- <del>7</del> 56	10:50			
MW-156M120	10:50			
MW-156	10:50			

QA/QC:

QA/QC SAMPLE COLLECTED: YES or  NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or  NO

INVESTIGATION DERIVED WASTE (IDW):

Date: 

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 Volume Transferred to Drum: 

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 Drum Number: 

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COMMENTS:



SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/7/95						
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				INSPECTOR: LABORATORY: CHAIN OF CUSTODY #:							
WELL NUMBER: MW - 57D				MONITORING							
SCREENED INTERVAL (TOC):				INSTRUMENT		DETECTOR					
WELL DIAMETER FACTORS											
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC): 6.30				STANDING WATER VOLUME IN WELL (gallons): 4.69							
WELL DEPTH (TOC): 35.09				THREE WELL VOLUMES (gallons):							
FEET OF WATER IN WELL: 28.79				ONE: 4.69 TWO: 4.38 THREE: 14.07							
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:	9:30		9:41		10:00		TIME END PURGING:				
TIME:	9:41	10:00	10:26								
DEPTH TO WATER (ft)	12.8	13.72	13.96								
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	30.00	30.0	30.0								
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	900	900	900								
VOLUME OF WATER REMOVED (gals)	5.0	5.0	5.0								
TEMPERATURE (deg. C)	11.3	12.3	11.5								
SPEC. COND (umhos)	700	450	450								
PH	9.21	9.41	9.44								
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>											
DATE	6/7/95										
TIME	11:40										
DEPTH TO WATER (ft)	4.76	4.81									
"AFTER PURGE" WATER COLUMN (ft)		30.28									
"STATIC" WATER COLUMN (ft)		28.79									
% RECOVERY		105%									
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											

20



SAMPLING RECORD FOR REPLICATES - GROUNDWATER										
PARSONS ENGINEERING SCIENCE, INC.			CLIENT: U.S. Army Corps of Engineers (USACOE)				DATE: 6/7/95			
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995						INSPECTOR:				
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity						LABORATORY:				
WELL NUMBER: MW1-58D						CHAIN OF CUSTODY #:				
SCREENED INTERVAL (TOC):						MONITORING				
WELL DIAMETER FACTORS						INSTRUMENT		DETECTOR		
DIAMETER (INCHES): 1 1.5 ② 3 4 5 6 7 8 9 10										
GALLONS/FOOT: 0.041 0.092 0.163 0.367 0.654 1.02 1.47 2.00 2.61 3.30 5.87										
PURGE INFORMATION:										
STATIC DEPTH TO WATER (TOC): 3.71						STANDING WATER VOLUME IN WELL (gallons): 8.73				
WELL DEPTH (TOC): 57.29						THREE WELL VOLUMES (gallons): 26.19				
FEET OF WATER IN WELL: 53.58						ONE: 8.73		TWO: 17.47		THREE: 26.19
PURGING WITH A PERISTALTIC PUMP OR BAILER (measure indicator parameters at one, two and three well volumes)										
TIME BEGIN PURGING:		7:20		7:50		8:30		TIME END PURGING:		
TIME:		7:50		8:30		9:10				
DEPTH TO WATER (ft)		20.57		20.99		22.16				
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)		49.0		49		49				
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)		1 gal 1440 3 gal 570 567, 900		900		900				
VOLUME OF WATER REMOVED (gals)		9		9		9				
TEMPERATURE (deg. C)		12.6		12.2		12.3				
SPEC. COND (umhos)		800		800		800				
PH		9.49		<del>10.4</del> 9.71		10.07				
DEPTH TO WATER MEASUREMENTS AFTER PURGING										
DATE		6/7/95		6/7/95						
TIME		9:10		11:36						
DEPTH TO WATER (ft)		22.16		4.75						
"AFTER PURGE" WATER COLUMN (ft)		35.13		52.57						
"STATIC" WATER COLUMN (ft)		53.38		53.58						
% RECOVERY		66%		98%						
Notes:										
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.										
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.										

\* trying to surge, drawing about measure

**SAMPLING INFORMATION**

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
EPA 524.2	11:45	3 40ml vials	clear	

QA/QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transferred to Drum:				
Drum Number:	NA			

COMMENTS:

SAMPLING RECORD FOR REPLICATES - GROUNDWATER																														
PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)			DATE: 6/13/95																									
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995				INSPECTOR: M.L.																										
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity				LABORATORY:																										
WELL NUMBER: MW-59				CHAIN OF CUSTODY #:																										
SCREENED INTERVAL (TOC):				MONITORING																										
WELL DIAMETER FACTORS				INSTRUMENT																										
				DETECTOR																										
<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">DIAMETER (INCHES):</td> <td style="width: 5%;">1</td> <td style="width: 5%;">1.5</td> <td style="width: 5%; border: 2px solid black;">2</td> <td style="width: 5%;">3</td> <td style="width: 5%;">4</td> <td style="width: 5%;">5</td> <td style="width: 5%;">6</td> <td style="width: 5%;">7</td> <td style="width: 5%;">8</td> <td style="width: 5%;">9</td> <td style="width: 5%;">10</td> </tr> <tr> <td>GALLONS/FOOT:</td> <td>0.041</td> <td>0.092</td> <td style="border: 2px solid black;">0.163</td> <td>0.367</td> <td>0.654</td> <td>1.02</td> <td>1.47</td> <td>2.00</td> <td>2.61</td> <td>3.30</td> <td>5.87</td> </tr> </table>							DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10	GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87
DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10																			
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87																			
PURGE INFORMATION:																														
STATIC DEPTH TO WATER (TOC): 3.62				STANDING WATER VOLUME IN WELL (gallons): 1.0																										
WELL DEPTH (TOC): 9.99				THREE WELL VOLUMES (gallons):																										
FEET OF WATER IN WELL: 6.37				ONE: 1.0 TWO: 2.0 THREE: 3.0																										
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b>																														
(measure indicator parameters at one, two and three well volumes)																														
TIME BEGIN PURGING:	11:25	11:25	11:35	TIME END PURGING:	11:35																									
TIME:	11:25	11:35	11:45																											
DEPTH TO WATER (ft)	4.98	5.5	5.46																											
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	9.5	6.5	6.5																											
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	260	340	340																											
VOLUME OF WATER REMOVED (gals)	1.0	1.0	1.0																											
TEMPERATURE (deg. C)	14.0	14.6	14.6																											
SPEC. COND (umhos)	1100	1,000	1,100																											
PH	7.04	7.07	7.08																											
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>																														
DATE	6/13/95																													
TIME	13:25																													
DEPTH TO WATER (ft)	3.66																													
"AFTER PURGE" WATER COLUMN (ft)	6.33																													
"STATIC" WATER COLUMN (ft)	6.37																													
% RECOVERY	99%																													
Notes:																														
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.																														
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.																														

MW-59

**SAMPLING INFORMATION**

SAMPLING DEVICE: *Bailer*

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
<i>5242</i>	<i>13:45</i>	<i>VOA</i>		<i>HCL</i>
<i>Headspace</i>	<i>13:45</i>	<i>VOA15</i>		<i>not present</i>

**QA/QC:**

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA/QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

*N/A*

Date: *6/13/95*

Volume Transferred to Drum: \_\_\_\_\_

Drum Number: \_\_\_\_\_

**COMMENTS:**

*NOTE: Specific Conductivity is high!*

**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC.		CLIENT: U.S. Army Corps of Engineers (USACOE)		DATE: 6/13/95		
PROJECT: Quarterly Groundwater Monitoring OB Grounds 2nd Quarter of 1995			INSPECTOR: ML			
LOCATION: OB Grounds at the Seneca Army Depot Activity			LABORATORY:			
WELL NUMBER: MW-60			CHAIN OF CUSTODY #:			
SCREENED INTERVAL (TOC):			MONITORING			
WELL DIAMETER FACTORS			INSTRUMENT		DETECTOR	
DIAMETER (INCHES):			1		10	
GALLONS/FOOT:			0.041 0.092 0.163 0.367 0.654 1.02 1.47 2.00 2.61 3.30 5.87			
PURGE INFORMATION:						
STATIC DEPTH TO WATER (TOC): 4.3			STANDING WATER VOLUME IN WELL (gallons): 1			
WELL DEPTH (TOC): 10.2999			THREE WELL VOLUMES (gallons): 3			
FEET OF WATER IN WELL: 5.999			ONE: 1 TWO: 2 THREE: 3			
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)						
TIME BEGIN PURGING: 12:32			TIME END PURGING: 12:53			
	TIME:	12:35	12:42	12:53		
DEPTH TO WATER (ft)		10.2	6.5	6.5		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)		10.0	7.0	7.0		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)		520	330	330		
VOLUME OF WATER REMOVED (gals)		1	13.22	3		
TEMPERATURE (deg. C)		13.4	<del>13.2</del>	13.2		
SPEC. COND (umhos)		950	900	900		
PH		7.12	<del>7.08</del>	7.08		
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>						
DATE		6/13/95				
TIME		13:35				
DEPTH TO WATER (ft)		4.45				
"AFTER PURGE" WATER COLUMN (ft)		5.84				
"STATIC" WATER COLUMN (ft)		5.99				
% RECOVERY		97%				
Notes:						
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.						
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.						

**SAMPLING INFORMATION**

SAMPLING DEVICE: *Brite*

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
<i>524.2</i>	<i>14:30</i>	<i>3 VOAs</i>		<i>HCL</i>
<i>Headspace</i>	<i>14:30</i>	<i>2 VOAs</i>		<i>no pres.</i>

**REPLICATE SAMPLES:**

REPLICATE SAMPLE COLLECTED: YES or **NO**  
 Replicate Sample Names: **Rep. 1** **Rep. 2** **Rep. 3** **Rep. 4**

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**QA/QC:**

QA/QC SAMPLE COLLECTED: YES or **NO**  
 MRD SAMPLE NAME:  
 QA/QC RINSATE SAMPLE NAME:  
 MATRIX SPIKE SAMPLE COLLECTED: YES or **NO**

**INVESTIGATION DERIVED WASTE (IDW):**

Date: *N/A*  
*6/15/95*

Volume Transferred to Drum:			
Drum Number:			

**COMMENTS:**

*Note: specific conductivity is high!*



SAMPLING RECORD FOR REPLICATES - GROUNDWATER											
PARSONS ENGINEERING SCIENCE, INC.			CLIENT: U.S. Army Corps of Engineers (USACOE)				DATE: 6-7-95				
PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995						INSPECTOR:					
LOCATION: Ash Landfill Site at the Seneca Army Depot Activity						LABORATORY:					
WELL NUMBER: BRN-3						CHAIN OF CUSTODY #:					
SCREENED INTERVAL (TOC):						MONITORING					
WELL DIAMETER FACTORS						INSTRUMENT					
DIAMETER (INCHES):						DETECTOR					
GALLONS/FOOT:											
PURGE INFORMATION:											
STATIC DEPTH TO WATER (TOC):						STANDING WATER VOLUME IN WELL (gallons):					
WELL DEPTH (TOC):						THREE WELL VOLUMES (gallons):					
FEET OF WATER IN WELL:						ONE:			TWO:		THREE:
<b>PURGING WITH A PERISTALTIC PUMP OR BAILER</b> (measure indicator parameters at one, two and three well volumes)											
TIME BEGIN PURGING:						TIME END PURGING:					
TIME:											
DEPTH TO WATER (ft)											
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)											
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)											
VOLUME OF WATER REMOVED (gals)											
TEMPERATURE (deg. C)											
SPEC. COND (umhos)											
PH											
<b>DEPTH TO WATER MEASUREMENTS AFTER PURGING</b>											
DATE											
TIME											
DEPTH TO WATER (ft) "AFTER PURGE"						N/A					
WATER COLUMN (ft) "STATIC"											
WATER COLUMN (ft)											
% RECOVERY											
Notes:											
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.											
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.											



**SAMPLING RECORD FOR REPLICATES - GROUNDWATER**

PARSONS ENGINEERING SCIENCE, INC. CLIENT: U.S. Army Corps of Engineers (USACOE) DATE: 6-13-95

PROJECT: Quarterly Groundwater Monitoring Ash Landfill (Complete Round) 2nd Quarter of 1995 INSPECTOR: KLS  
 LOCATION: Ash Landfill Site at the Seneca Army Depot Activity LABORATORY:  
 CHAIN OF CUSTODY #:

WELL NUMBER: FHD / FHS MONITORING  
 SCREENED INTERVAL (TOC): INSTRUMENT DETECTOR

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	N/A	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:  
 STATIC DEPTH TO WATER (TOC): STANDING WATER VOLUME IN WELL (gallons):  
 WELL DEPTH (TOC): THREE WELL VOLUMES (gallons):  
 FEET OF WATER IN WELL: ONE: TWO: THREE:

**PURGING WITH A PERISTALTIC PUMP OR BAILER**  
 (measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING:	TIME:					TIME END PURGING:				
DEPTH TO WATER (ft)										
DEPTH TO BOTTOM										
OPENING OF										
TEFLON TUBE (TOC)										
FLOW RATE (ml/min.)										
or										
VOL. OF BAILER (gal.)										
VOLUME OF WATER										
REMOVED (gals)										
TEMPERATURE (deg. C)										
SPEC. COND (umhos)										
PH										

**DEPTH TO WATER MEASUREMENTS AFTER PURGING**

DATE					
TIME					
DEPTH TO WATER (ft)					
"AFTER PURGE"					
WATER COLUMN (ft)					
"STATIC"					
WATER COLUMN (ft)					
% RECOVERY					

Notes:  
 (1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.  
 (2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

**SAMPLING INFORMATION**

SAMPLING DEVICE:

FH-D  
FH-S

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	1345	3 x 40 ml		
VOC 524.2	1330	3 x 40 ml		

**QA/QC:**

QA/QC SAMPLE COLLECTED: YES or NO  
 MRD SAMPLE NAME:  
 QA/QC RINSATE SAMPLE NAME:  
 MATRIX SPIKE SAMPLE COLLECTED: YES or NO  
 INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transferred to Drum:		N/A		
Drum Number:				

**COMMENTS:**

FH-D - Farm House well was used all morning - 3 showers, 2 loads of laundry, dishes. Sample taken at kitchen sink. Sulphur odor - bubbly

FH-S - This is an utility well. I watered their garden for 20 min. at 6 gallons/min.

## 2. CHAIN OF CUSTODY FORMS





Prudential Center  
Boston, MA 02199  
Phone: 617-859-2000  
Fax: 617-859-2043

# CHAIN-OF-CUSTODY RECORD

JOB NO. 725980-01006  
PROJECT 2nd Quarterly Monitoring '95 - Ash  
CONTACT M. Duchesneau

LABORATORY Aquatic  
ADDRESS Colchester VT  
CONTACT Lori Arnold

SAMPLE NO.	LABORATORY SAMPLE NO.	SAMPLING		SAMPLE DEPTH	SAMPLE MATRIX	ANALYSES										NO. OF CONTAINERS	COMMENTS (Special instructions, cautions, etc.)		
		DATE	TIME			VOA	SVOC	CL	METALS	PEST/PCB	CN	HERB	TPH						
PT-23		6-6-95	1705	N/A	water	3												3	
MW-37		6-6-95	1115			3												3	
PT-24		6-6-95	0920					2										2	
PT-16		6-6-95	1150			3												3	
MW-38D		6-6-95	1510			3												3	
MW-28		6-6-95	1020					2										2	
MW-53		6-6-95	0811					2										2	
MW-54D		6-6-95	1600			3												3	
MW-55D	Change	6-6-95	1600			3												3	
<del>PT-15</del> to	MW-34	6-6-95	1410			3												3	
PT-25		6-6-95	1330			3												3	
MW-31		6-6-95	1300			3												3	

Sampled and Relinquished by  
Sign *[Signature]*  
Print *Kerry Smith*  
Firm *Parsons ES*  
Date *6-7-95* Time *1330*

Received by  
Sign  
Print  
Firm  
Date  
Time

VOA Vial    
Glass Bottle  
Plastic Bottle  
Preservative A A  
C C

Relinquished by  
Sign  
Print  
Firm  
Date  
Time

Received by  
Sign  
Print  
Firm  
Date  
Time

Container Volume 40 ml 40 ml  
PRESERVATION KEY:  
C - Acidified with HCl  
D - Acidified with HNO<sub>3</sub>  
E - Acidified with H<sub>2</sub>SO<sub>4</sub>  
F - NaOH + Ascorbic  
G - Other

Evidence Samples tampered with?  No  Yes  
If Yes, explain in remarks.

REMARKS: (Sample storage, nonstandard sample bottles)  
*1st Sample D G*  
Cooler #: *109*















ENGINEERING-SCIENCE, INC.

Prudential Center Boston, MA 02199 Phone: 617-859-2000 Fax: 617-859-2043

# CHAIN-OF-CUSTODY RECORD

JOB NO. 725980-01006  
PROJECT SEAD - 2nd Quarterly Monitoring  
CONTACT M. Duchesneau

LABORATORY Aquatic  
ADDRESS Colchester VT  
CONTACT Lori Arnold

SAMPLE NO.	LABORATORY SAMPLE NO.	SAMPLING		SAMPLE DEPTH	SAMPLE MATRIX	ANALYSES										NO. OF CONTAINERS	COMMENTS (Special instructions, cautions, etc.)	
		DATE	TIME			VOA 524.2	SVOC	METALS	PEST/PCB	CN	HERB	TPH						
MW-52D		6-7-95	1500	N/A	water	3											3	
<del>MW-33</del>	Cancel analysis	↓	0855			3											3	
MW-58D		↓	1145			3											3	
MW-35D		6-8-95	0700			3											3	
MW-57D		6-7-95	1140			3											3	
<del>PT-20</del>	Delete - stop used with SDG		1120			3											3	
MW-47			0930			3											3	
TB-6-7			0900			3											3	
BRN-3			1155			3											3	
MW-51D			0955			3											3	

Sampled and Relinquished by  
Sign [Signature]  
Print Kerry Smith  
Firm Parsons ES  
Date 6-8-95 Time 1100

Received by  
Sign  
Print  
Firm  
Date Time

VOA Vial X  
Glass Bottle  
Plastic Bottle  
Preservative A  
C  
Container Volume 40  
ml

REMARKS: (Sample storage, nonstandard sample bottles)  
Began 2nd SDG (8)

Relinquished by  
Sign  
Print  
Firm  
Date Time

Received by  
Sign  
Print  
Firm  
Date Time

PRESERVATION KEY: C - Acidified with HCl F - NaOH + Ascorbic  
A - Ice D - Acidified with HNO<sub>3</sub> G - Other  
B - Filtered E - Acidified with H<sub>2</sub>SO<sub>4</sub>

Evidence Samples tampered with?  No  Yes  
If Yes, explain in remarks.

Cooler #:





ENGINEERING-SCIENCE, INC.

Prudential Center Boston, MA 02199 Phone: 617-859-2000 Fax: 617-859-2043

# CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 1

JOB NO. 725980-01006  
PROJECT SEAD 2nd Quarterly Monitoring Ashland F. II  
CONTACT M. Duchesneau

LABORATORY Aquette  
ADDRESS Colchester, VT  
CONTACT Lon. Arnold

SAMPLE NO.	LABORATORY SAMPLE NO.	SAMPLING		SAMPLE DEPTH	SAMPLE MATRIX	ANALYSES										NO. OF CONTAINERS	COMMENTS (Special instructions, cautions, etc.)	
		DATE	TIME			VOA SM. 2	SVOC/PCB	METALS	PEST/PCB	CN	HERB	TPH						
TB-6-10		6-10-95	1000	N/A	Water	3											3	Trip Blank
MW-33			1530			3											3	
PT-15		6-11-95	1205			3											3	
MW-32			1500			3											3	
PT-20			1600					2									2	
MW-41D			1830			3											3	
PT-10			1830			3											3	
<del>MW-43</del>			1750			3											3	

Sampled and Relinquished by  
Sign: *[Signature]*  
Print: Kerry Smith  
Firm: Parsons ESJ  
Date: 6-12-95 Time: 1400

Received by  
Sign:  
Print:  
Firm:  
Date: Time:

VOA Vial	X	X																
Glass Bottle																		
Plastic Bottle																		
Preservative	A	A																
	C	C																
Container Volume	40	40																
	ml	ml																

Relinquished by  
Sign:  
Print:  
Firm:  
Date: Time:

Received by  
Sign:  
Print:  
Firm:  
Date: Time:

PRESERVATION KEY: C - Acidified with HCl F - NaOH + Ascorbic  
A - Ice D - Acidified with HNO<sub>3</sub> G - Other  
B - Filtered E - Acidified with H<sub>2</sub>SO<sub>4</sub>

Evidence Samples tampered with?  No  Yes  
If Yes, explain in remarks.

REMARKS: (Sample storage, nonstandard sample bottles)  
2nd SDG  
Cooler #:

Cooler #: 19







ENGINEERING-SCIENCE, INC.

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# CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 1

JOB NO. 725980-01009  
PROJECT SEAD - 2nd July Monitoring ASH  
CONTACT M. Duchesneau

LABORATORY Aquatec  
ADDRESS Colchester VT  
CONTACT Lee Arnold

SAMPLE NO.	LABORATORY SAMPLE NO.	SAMPLING		SAMPLE DEPTH	SAMPLE MATRIX	ANALYSES										NO. OF CONTAINERS	COMMENTS (Special instructions, cautions, etc.)	
		DATE	TIME			VOA 124	VOA 124	METALS	PEST/PCB	CN	HERB	TPH						
MW-40		6-12-95	1600	n/a	water	3											3	
MW-49D		6-12-95	1200			3	X										3	
MW-42D		6-12-95	1000			3											3	
MW-39		6-12-95	0930			3											3	
PT-18		6-12-95	0930			3											3	Waters Monitor Sp. Ice
TA-6-12		6-12-95	0850			3											3	Trip Btl
PT-18-R		6-12-95	0930			2											2	Route
MW-46		6-12-95	1330			2											2	
PT-118		6-12-95	0930			2											2	

Sampled and Relinquished by  
Sign [Signature]  
Print Kerry Simard  
Firm Parsons E-S  
Date 6-13-95 Time 1400

Received by  
Sign  
Print  
Firm  
Date  
Time

VOA Vial	X	X																
Glass Bottle																		
Plastic Bottle																		
Preservative	A	A																
	C	C																
Container Volume	47	40																

REMARKS: (Sample storage, nonstandard sample bottles)  
Return cooler to address on side

Relinquished by  
Sign  
Print  
Firm  
Date  
Time

Received by  
Sign  
Print  
Firm  
Date  
Time

PRESERVATION KEY: C - Acidified with HCl F - NaOH + Ascorbic  
A - Ice D - Acidified with HNO<sub>3</sub> G - Other  
B - Filtered E - Acidified with H<sub>2</sub>SO<sub>4</sub>

Evidence Samples tampered with?  No  Yes  
If Yes, explain in remarks.

Cooler #: ES-4859









ENGINEERING-SCIENCE, INC.

Prudential Center Boston, MA 02199 Phone: 617-859-2000 Fax: 617-859-2043

# CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 1

JOB NO. 723780-01006  
PROJECT SEAD-2nd Yrly Monitoring '95 Ash  
CONTACT M. Duchesneau

LABORATORY Aguatec  
ADDRESS Colchester VT  
CONTACT Lori Arnold

SAMPLE NO.	LABORATORY SAMPLE NO.	SAMPLING		SAMPLE DEPTH	SAMPLE MATRIX	ANALYSES										NO. OF CONTAINERS	COMMENTS (Special instructions, cautions, etc.)	
		DATE	TIME			VOA	GLD	SVOC	METALS	PEST/PCB	CN	HERB	TPH					
✓ PT-11		5-14-95	1000 0924 hrs														3	
✓ FH-D		6-13-95	1345														3	
✓ MW-48		6-14-95	0945														3	
✓ MW 27		6-14-95	0900														3	
✓ PT-22		6-14-95	1030														2	
✓ PT-22-R		6-14-95	1015														2	Re-site
✓ FH-S		6-13-95	1330														3	
✓ PT- <del>11</del> <sup>132</sup>		6-14-95	1030														2	
✓ TB-G-13		5-31-95	1600														3	Trip Blank
✓ MW-45		6-14-95	1000														6	Matrix Splice
MW-60		6-13-95	1430														3	
MW-507		6-13-95	0900														3	

Sampled and Relinquished by  
 Sign [Signature]  
 Print Kerry Smith  
 Firm Parsons ES  
 Date 6-14-95 Time 1400

Received by  
 Sign  
 Print  
 Firm  
 Date Time

VOA Vial	X	X
Glass Bottle		
Plastic Bottle		
Preservative	A	A
Container Volume	40	40

REMARKS: (Sample storage, nonstandard sample bottles)  
 Kerry Smith to Parsons ES  
 Prudential Center Boston MA 02199

Relinquished by  
 Sign  
 Print  
 Firm  
 Date Time

Received by  
 Sign  
 Print  
 Firm  
 Date Time

PRESERVATION KEY: C - Acidified with HCl F - NaOH + Ascorbic  
 A - Ice D - Acidified with HNO<sub>3</sub> G - Other  
 B - Filtered E - Acidified with H<sub>2</sub>SO<sub>4</sub>

Evidence Samples tampered with?  No  Yes  
 If Yes, explain in remarks.

Cooler #: ES-12



APPENDIX B  
VALIDATED CHEMICAL ANALYSIS DATA





SENECA ARMY DEPOT ACTIVITY  
 ASH LANDFILL SECOND QUARTER 1995 MONITORING PROGRAM  
 VALIDATED VOLATILE ORGANIC COMPOUND RESULTS (TCL ANALYSIS)

	MATRIX LOCATION	WATER	WATER	WATER	WATER
	ASH	ASH	ASH	ASH	ASH
	SAMPLE DATE	06/06/95	06/12/95	06/11/95	06/14/95
	ES ID	PT-17	PT-18	PT-20	PT-22
	LAB ID	259622	260763	260321	261125
	SDG NUMBER	51736	51751	51751	51863
COMPOUND	UNITS				
VOLATILE ORGANICS					
Chloromethane	ug/L	10 U	1200 U	10 U	10 U
Bromomethane	ug/L	10 U	1200 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	1200 U	10 U	10 U
Chloroethane	ug/L	10 U	1200 U	10 U	10 U
Methylene Chloride	ug/L	10 U	1200 U	10 U	10 U
Acetone	ug/L	10 U	1200 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	1200 U	10 U	10 U
1,1-Dichloroethene	ug/L	10 U	1200 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	1200 U	10 U	10 U
1,2-Dichloroethene (total)	ug/L	64	550 J	41	170
Chloroform	ug/L	10 U	600 J	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	1200 U	10 U	6 J
2-Butanone	ug/L	10 U	1200 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	1200 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	1200 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	1200 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	1200 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	1200 U	10 U	10 U
Trichloroethene	ug/L	220	23000	34	110
Dibromochloromethane	ug/L	10 U	1200 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	1200 U	10 U	10 U
Benzene	ug/L	10 U	1200 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	1200 U	10 U	10 U
Bromoform	ug/L	10 U	1200 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	1200 U	10 U	10 U
2-Hexanone	ug/L	10 U	1200 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	1200 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	1200 U	10 U	10 U
Toluene	ug/L	10 U	1200 U	10 U	10 U
Chlorobenzene	ug/L	10 U	1200 U	10 U	10 U
Ethylbenzene	ug/L	10 U	1200 U	10 U	10 U
Styrene	ug/L	10 U	1200 U	10 U	10 U
Xylene (total)	ug/L	10 U	1200 U	10 U	10 U



**SENECA ARMY DEPOT ACTIVITY  
ASH LANDFILL SECOND QUARTER 1995 MONITORING PROGRAM  
VALIDATED VOLATILE ORGANIC COMPOUND RESULTS (TCL ANALYSIS)**

	MATRIX LOCATION	WATER	WATER	WATER	WATER	WATER
	SAMPLE DATE	ASH	ASH	ASH	ASH	ASH
	ES ID	06/06/95	06/06/95	06/06/95	06/12/95	06/06/95
	LAB ID	PT-24	MW-28	MW-29	MW-46	MW-53
	SDG NUMBER	259624	259612	259613	260784	259617
	UNITS	51736	51736	51736	51863	51736
COMPOUND						
VOLATILE ORGANICS						
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	ug/L	72	31	94	89	27
Chloroform	ug/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	1 J	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	5 J	27	2 J	52	3 J
Dibromochloromethane	ug/L	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U



**SENECA ARMY DEPOT ACTIVITY  
ASH LANDFILL SECOND QUARTER 1995 MONITORING PROGRAM  
VALIDATED VOLATILE ORGANIC COMPOUND RESULTS (TCL ANALYSIS)**

	MATRIX LOCATION	WATER	WATER	WATER	WATER
	SAMPLE DATE	ASH	ASH	ASH	ASH
	ES ID	PT-18-R	PT-118	PT-22-R	PT-122
	LAB ID	260765	260766	261126	261127
	SDG NUMBER	51751	51751	51863	51863
COMPOUND	UNITS	Rinsate	PT-18 Dup	Rinsate	PT-22 Dup
<b>VOLATILE ORGANICS</b>					
Chloromethane	ug/L	10 U	1200 U	10 U	10 U
Bromomethane	ug/L	10 U	1200 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	1200 U	10 U	10 U
Chloroethane	ug/L	10 U	1200 U	10 U	10 U
Methylene Chloride	ug/L	10 U	1200 U	10 U	10 U
Acetone	ug/L	10 U	1200 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	1200 U	10 U	10 U
1,1-Dichloroethene	ug/L	10 U	1200 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	1200 U	10 U	10 U
1,2-Dichloroethene (total)	ug/L	10 U	540 J	10 U	170
Chloroform	ug/L	10 U	600 J	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	1200 U	10 U	6 J
2-Butanone	ug/L	10 U	1200 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	1200 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	1200 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	1200 U	2 J	10 U
1,2-Dichloropropane	ug/L	10 U	1200 U	10 U	10 U
cis-1,3-Dichloropropene	ug/L	10 U	1200 U	10 U	10 U
Trichloroethene	ug/L	10 U	23000	10 U	110
Dibromochloromethane	ug/L	10 U	1200 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	1200 U	10 U	10 U
Benzene	ug/L	10 U	1200 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	1200 U	10 U	10 U
Bromoform	ug/L	10 U	1200 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	1200 U	10 U	10 U
2-Hexanone	ug/L	10 U	1200 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	1200 U	10 U	10 U
1,1,1,2-Tetrachloroethane	ug/L	10 U	1200 U	10 U	10 U
Toluene	ug/L	10 U	1200 U	10 U	10 U
Chlorobenzene	ug/L	10 U	1200 U	10 U	10 U
Ethylbenzene	ug/L	10 U	1200 U	10 U	10 U
Styrene	ug/L	10 U	1200 U	10 U	10 U
Xylene (total)	ug/L	10 U	1200 U	10 U	10 U



SENECA ARMY DEPOT ACTIVITY  
ASH LANDFILL SECOND QUARTER 1995 MONITORING PROGRAM  
VALIDATED VOLATILE ORGANIC COMPOUND RESULTS (524.2 ANALYSIS)

MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER	WATER ASH 06/11/95 PT-10 260326 51751	WATER ASH 06/14/95 PT-11 261128 51863	WATER ASH 06/11/95 PT-15 260327 51751	WATER ASH 06/06/95 PT-16 259621 51736	WATER ASH 06/13/95 PT-19 261124 51863	WATER ASH 06/06/95 PT-23 259623 51736	WATER ASH 06/06/95 PT-25 259625 51736	WATER ASH 06/07/95 PT-26 259789 51736	WATER ASH 06/14/95 MW-27 261118 51863
COMPOUND UNITS									
VOLATILE ORGANICS									
Dichlorodifluoromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	ug/L 5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-t-Butyl Ether	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	ug/L 5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,2-Dichloropropane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	ug/L 5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	ug/L 5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-Dichloropropane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1,2-Tetrachloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (Total)	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Butylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U





SENECA ARMY DEPOT ACTIVITY  
ASH LANDFILL SECOND QUARTER 1995 MONITORING PROGRAM  
VALIDATED VOLATILE ORGANIC COMPOUND RESULTS (524.2 ANALYSIS)

MATRIX LOCATION	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH
SAMPLE DATE	06/06/95	06/11/95	06/10/95	06/06/95	06/08/95	06/07/95	06/06/95	06/06/95	06/12/95
ES ID	MW-31	MW-32	MW-33	MW-34	MW-35D	MW-36	MW-37	MW-38D	MW-39
LAB ID	259614	260322	260323	259620	259797	259784	259615	259616	260781
SDG NUMBER	51736	51751	51751	51736	51751	51736	51736	51736	51863
COMPOUND	UNITS								
VOLATILE ORGANICS									
Dichlorodifluoromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-t-Butyl Ether	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,2-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1,2-Tetrachloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (Total)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U



SENECA ARMY DEPOT ACTIVITY  
ASH LANDFILL SECOND QUARTER 1995 MONITORING PROGRAM  
VALIDATED VOLATILE ORGANIC COMPOUND RESULTS (524.2 ANALYSIS)

MATRIX LOCATION	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH
SAMPLE DATE	06/12/95	06/11/95	06/12/95	06/11/95	06/14/95	06/07/95	06/14/95	06/12/95	06/13/95	06/13/95
ES ID	MW-40	MW-41D	MW-42D	MW-43	MW-45	MW-47	MW-48	MW-49D	MW-50D	MW-50D
LAB ID	260782	260324	260783	260325	261119	259798	261120	260785	261121	261121
SDG NUMBER	51863	51751	51863	51751	51863	51751	51863	51863	51863	51863
COMPOUND	UNITS									
VOLATILE ORGANICS										
Dichlorodifluoromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-t-Butyl Ether	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4	0.5 U	0.5 U
2-Butanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,2-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2	0.5 U	0.5 U
1,2-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1,2-Tetrachloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (Total)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U



SENECA ARMY DEPOT ACTIVITY  
ASH LANDFILL SECOND QUARTER 1995 MONITORING PROGRAM  
VALIDATED VOLATILE ORGANIC COMPOUND RESULTS (524.2 ANALYSIS)

MATRIX LOCATION	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH	WATER ASH
SAMPLE DATE	06/07/95	06/07/95	06/06/95	06/06/95	06/07/95	06/07/95	06/07/95	06/07/95	06/07/95	06/13/95
ES ID	MW-51D	MW-52D	MW-54D	MW-55D	MW-56	MW-156	MW-57D	MW-58D	MW-59	MW-59
LAB ID	259799	259800	259618	259619	259786	259788	259801	259802	261122	261122
SDG NUMBER	51751	51751	51736	51736	51736	51736	51736	51751	51751	51863
COMPOUND	UNITS									
VOLATILE ORGANICS										
Dichlorodifluoromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-t-Butyl Ether	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	ug/L	0.5 U	0.5 U	3	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.5 U
2-Butanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,2-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1,2-Tetrachloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (Total)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoforn	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U



SENECA ARMY DEPOT ACTIVITY  
 ASH LANDFILL SECOND QUARTER 1995 MONITORING PROGRAM  
 VALIDATED VOLATILE ORGANIC COMPOUND RESULTS (524.2 ANALYSIS)

MATRIX LOCATION SAMPLE DATE ES ID LAB ID SDG NUMBER	WATER ASH 06/13/95 MW-60 261123 51863	WATER ASH 06/13/95 FH-S 261117 51863	WATER ASH 06/13/95 FH-D 261116 51863	WATER ASH 06/07/95 BRN-S 259795 51751
COMPOUND UNITS				
VOLATILE ORGANICS				
Dichlorodifluoromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Acetone	ug/L 5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Methyl-t-Butyl Ether	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	ug/L 5 U	5 U	5 U	5 U
2,2-Dichloropropane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Benzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	ug/L 5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	ug/L 5 U	5 U	5 U	5 U
1,3-Dichloropropane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,1,1,2-Tetrachloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Xylene (Total)	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Bromoforn	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
tert-Butylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
n-Butylbenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	ug/L 0.5 U	0.5 U	0.5 U	0.5 U





SENECA ARMY DEPOT ACTIVITY  
ASH LANDFILL SECOND QUARTER 1995 MONITORING PROGRAM  
VALIDATED VOLATILE ORGANIC COMPOUND RESULTS (524.2 ANALYSIS)

COMPOUND	MATRIX	WATER	WATER	WATER	WATER	WATER	WATER
	LOCATION	ASH	ASH	ASH	ASH	ASH	ASH
	SAMPLE DATE	06/06/95	06/07/95	06/10/95	06/12/95	06/13/95	06/07/95
	ES ID	TB-6-6	TB-6-7	TB-6-10	TB-6-12	TB-6-13	MW-56R
	LAB ID	259626	259803	260328	260786	261129	259787
	SDG NUMBER	51736	51751	51751	51863	51863	51736
UNITS		Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Rinsate
VOLATILE ORGANICS							
Dichlorodifluoromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	ug/L	5	5 U	4 J	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-t-Butyl Ether	ug/L	0.5 U	8	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	ug/L	2 J	5 U	5 U	5 U	5 U	5 U
2,2-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	ug/L	0.5 U	1	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/L	0.5 U	2	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
1,3-Dichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1,2-Tetrachloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (Total)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Butylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U



APPENDIX C  
HISTORIC GROUNDWATER QUALITY DATA



**HISTORICAL DATA FOR MONITORING WELL PT-11  
ASH LANDFILL  
SENECA ARMY DEPOT**

Parameters	Source: Units	Galson Oct 1987	Galson Mar 1989	NET Jan 1990	NET Mar 1990	NET June 1990	NET Sept 1990	NET Dec 1990	NET Mar 1991	NET June 1991	NET Sept 1991	NET Dec 1991
<b>VOLATILE ORGANICS</b>												
Chloromethane	µg/L	ND	-	ND	ND	ND	270	ND	17	ND	3.19	ND
Methylene Chloride	µg/L	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	µg/L	ND	-	1.5	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/L	ND	-	ND	ND	ND	ND	2	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/L	ND	-	ND	ND	ND	ND	ND	2	ND	ND	ND
Trichloroethene	µg/L	ND	-	ND	ND	ND	ND	ND	1	ND	2.66	ND
Tetrachloroethene	µg/L	ND	-	ND	ND	ND	ND	ND	4	ND	ND	ND

Notes:

- Galson = Galson Laboratories
- NET = National Environmental Testing
- GTC = General Testing Corporation
- ES = Engineering-Science, Inc. (PACE Laboratory)
- PES = Parsons Engineering Science, Inc. (Aquatec)
- = No Data



**HISTORICAL DATA FOR MONITORING WELL PT-11  
ASH LANDFILL  
SENECA ARMY DEPOT**

Parameters	Source: Units	NET	NET	GTC	ES	ES	ES	PES	PES	PES	PES
		Mar 1992	June 1992	Dec 1992	Jan 1993	April 1993	June 1993	Dec 1993	Feb 1994	July 1994	June 1995
<b>VOLATILE ORGANICS</b>											
Chloromethane	µg/L	ND	ND	ND	ND	ND	ND	10U	10U	10U	0.5U
Methylene Chloride	µg/L	ND	ND	ND	ND	2	ND	10U	10UJ	10U	0.5U
1,1-Dichloroethene	µg/L	ND	ND	ND	ND	ND	ND	10U	10U	10U	0.5U
Chloroform	µg/L	ND	ND	ND	ND	ND	ND	10U	10U	10U	0.5U
1,1,1-Trichloroethane	µg/L	ND	ND	ND	ND	ND	ND	10U	10U	10U	0.5U
Trichloroethene	µg/L	ND	ND	ND	ND	ND	ND	10U	10U	10U	0.5U
Tetrachloroethene	µg/L	ND	ND	ND	ND	ND	ND	10U	10U	10U	0.5U





**SUMMARY OF HISTORICAL DATA FOR MONITORING WELL PT-12**  
**ASH LANDFILL**  
**SENECA ARMY DEPOT**  
**ROMULUS, NEW YORK**

Parameter	Source: Date:	Galson Aug 1987	Galson Oct 1987	Galson Mar 1989	Galson Sept 1989	NET Jan 1990	NET Mar 1990	NET June 1990	NET Sept 1990	NET Dec 1990	NET Mar 1991	NET June 1991	NET Sept 1991
<b>VOLATILE ORGANICS</b>	<b>Units</b>												
Chloromethane	ug/L	<5	<5	10U	50U	<1.0	<5.0	<5.0	51.0	<10	<1.0	<10	<1.0
Vinyl Chloride	ug/L	<5	<5	10U	17	7	<2.0	<2.0	140	<10	<1.0	35	160
Chloroethane	ug/L	<5	<5	10U	50U	<1.0	<5.0	<5.0	<1.0	<10	<1.0	30.0	<1.0
Methylene Chloride	ug/L	<5	<5	5U	25U	<1.0	<5.0	<5.0	<1.0	<10	2.0	<10	<1.0
1,2-Dichloroethane	ug/L	<5	<5	5U	25U	<1.0	<5.0	<5.0	<1.0	<10	<1.0	<10	<1.0
1,1-Dichloroethene	ug/L	<5	<5	5U	25U	1.5	<5.0	<5.0	<1.0	<10	<1.0	<10	7.2
Trichloroethene	ug/L	1700	94	68	950	129	100	790	3100	870	130	2100	1350
trans-1,2-Dichloroethene	ug/L	<5	95.0	5U	25U	<1.0	<5.0	<5.0	<1.0	<10	1.0	51.0	63.2
cis-1,2-Dichloroethene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	ug/L	-	-	43.0	1000.0	-	-	-	-	-	-	-	-

Notes:  
Galson = Galson Laboratories  
NET = National Environmental Testing  
GTC = General Testing Corporation  
ES = Engineering-Science, Inc. (PACE Laboratory)  
PES = Parsons Engineering Science, Inc. (Aquatec)  
- = No Data



**SUMMARY OF HISTORICAL DATA FOR MONITORING WELL PT-12**  
**ASH LANDFILL**  
**SENECA ARMY DEPOT**  
**ROMULUS, NEW YORK**

Parameter	Source: Date:	NET	NET	NET		GTC	ES	ES	ES	ES	ES	
		Dec 1991	Mar 1992	June 1992	Sept 1992	Dec 1992	Jan 1993	April 1993	July 1993	Nov 1993	Jan 1994	
<b>VOLATILE ORGANICS</b>		<b>Units</b>										
Chloromethane	ug/L	<1.0	<1.0	<1.0	-	5U	20U	10U	120U	10U	10U	
Vinyl Chloride	ug/L	1.5	<1.0	14	-	5U	9	10U	100J	10U	10U	
Chloroethane	ug/L	<1.0	<1.0	<1.0	-	5U	20U	10U	120U	10U	10U	
Methylene Chloride	ug/L	<1.0	<1.0	<1.0	-	5U	20U	10U	63J	10U	10U	
1,2-Dichloroethane	ug/L	<1.0	<1.0	<1.0	-	5U	20U	10U	120U	10U	10U	
1,1-Dichloroethene	ug/L	<1.0	<1.0	<1.0	-	5U	20U	10U	120U	10U	10U	
Trichloroethene	ug/L	170	119	323	-	1800	260	45	1400	95	58	
trans-1,2-Dichloroethene	ug/L	2.7	<1.0	5.8	-	54	-	-	-	-	-	
cis-1,2-Dichloroethene	ug/L	-	-	-	-	2800	-	-	-	-	-	
1,2-Dichloroethene (total)	ug/L	-	-	-	-	-	320	36	2000	81	44	



**SUMMARY OF HISTORICAL DATA FOR MONITORING WELL PT-22  
ASH LANDFILL  
SENECA ARMY DEPOT  
ROMULUS, NEW YORK**

Parameter	Source: Date:	NET	NET	NET	NET	NET	NET	NET	NET
		Jan 1990	Mar 1990	June 1990	Sept 1990	Dec 1990	Mar 1991	June 1991	Sept 1991
<b>VOLATILE ORGANICS</b>									
Methylene Chloride	ug/L	<1.0	<5.0	6.0	<1.0	<10	<1.0	<10	<1.0
1,1,1-Trichloroethane	ug/L	1.0	<5.0	<5.0	<1.0	<10	1.0	<10	<1.0
1,2-Dichloroethane	ug/L	7.0	6.0	10.0	8.0	7.0	8.0	8.0	<1.0
Trichloroethene	ug/L	87	100	200	87	93	110	100	74.9
trans-1,2-Dichloroethene	ug/L	4.0	<5.0	<5.0	<1.0	4.0	4.0	3.0	<1.0
cis-1,2-Dichloroethene	ug/L	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	ug/L	-	-	-	-	-	-	-	-

Notes:

Galson = Galson Laboratories  
NET = National Environmental Testing  
GTC = General Testing Corporation  
ES = Engineering-Science, Inc. (PACE Laboratory)  
PES = Parsons Engineering Science, Inc. (Aquatec)  
- = No Data



**SUMMARY OF HISTORICAL DATA FOR MONITORING WELL PT-22**  
**ASH LANDFILL**  
**SENECA ARMY DEPOT**  
**ROMULUS, NEW YORK**

Parameter	Source: Date:	NET	NET	NET	GTC	ES	ES	ES	ES	ES	PES
		Dec 1991	Mar 1992	June 1992	Dec 1992	Jan 1993	April 1993	July 1993	Nov 1993	Jan 1994	June 1995
<b>VOLATILE ORGANICS</b>	<b>Units</b>										
Methylene Chloride	ug/L	<1.0	<1.0	<1.0	5U	10U	10U	10U	10U	10U	10U
1,1,1-Trichloroethane	ug/L	1.3	<1.0	<1.0	5U	10U	10U	10U	10U	10U	10U
1,2-Dichloroethane	ug/L	3.0	4.4	<1.0	5.2	5.0	3J	5J	5J	10U	6J
Trichloroethene	ug/L	69.3	73.9	98.9	89	89	79	87	92	71	110
trans-1,2-Dichloroethene	ug/L	1.4	1.7	2.4	5U	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	-	-	-	150	-	-	-	-	-	-
1,2-Dichloroethene (total)	ug/L	-	-	-	-	140	140	140	140	89	170





**SUMMARY OF HISTORICAL DATA FOR MONITORING WELL PT-24  
ASH LANDFILL  
SENECA ARMY DEPOT**

Parameter	Source: Date:	NET	NET	NET	NET	NET	NET	NET	NET	NET
		Jan 1990	Mar 1990	June 1990	Sept 1990	Dec 1990	June 1991	Sept 1991	Dec 1991	Mar 1992
<b>VOLATILE ORGANICS</b>										
Trichloroethene	ug/L	4.0	6.0	9.0	2.0	6.0	8.0	8.6	2.8	4.4
trans-1,2-Dichloroethene	ug/L	<1.0	<5.0	<5.0	<1.0	<10	<10	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	ug/L	-	-	-	-	-	-	-	-	-

Notes:

Galson = Galson Laboratories  
NET = National Environmental Testing  
GTC = General Testing Corporation  
ES = Engineering-Science, Inc. (PACE Laboratory)  
PES = Parsons Engineering Science, Inc. (Aquatec)  
- = No Data



**SUMMARY OF HISTORICAL DATA FOR MONITORING WELL PT-24  
ASH LANDFILL  
SENECA ARMY DEPOT**

<b>Parameter</b>	<b>Source: Date:</b>	<b>NET June 1992</b>	<b>GTC Dec 1992</b>	<b>ES Jan 1993</b>	<b>ES April 1993</b>	<b>ES July 1993</b>	<b>ES Nov 1993</b>	<b>ES Jan 1994</b>	<b>PES June 1995</b>
<b>VOLATILE ORGANICS</b>									
Trichloroethene	<b>Units</b> ug/L	6.2	6.7	7.0	5J	6J	4J	50U	5J
trans-1,2-Dichloroethene	ug/L	<1.0	5U	-	-	-	-	-	10U
cis-1,2-Dichloroethene	ug/L	-	110	-	-	-	-	-	10U
1,2-Dichloroethene (total)	ug/L	-	-	100	81	99	72	59	72



**HISTORICAL DATA FOR MONITORING WELL MW-29  
ASH LANDFILL**

Parameters	Source: Units	NET	NET	NET	NET	NET	NET	NET	NET	NET	
		Jan 1990	Mar 1990	June 1990	Sept 1990	Dec 1990	Mar 1991	June 1991	Sept 1991	Dec 1991	
		DRY					DRY				
<b>VOLATILE ORGANICS</b>											
1,2-Dichloroethane	µg/L	ND	ND	ND	-	ND	ND	1	-	ND	
1,1,1-Trichloroethane	µg/L	ND	ND	ND	-	1	ND	2	-	ND	
Trichloroethene	µg/L	ND	ND	ND	-	ND	ND	1	-	1.2	
1,2-Dichloroethene	µg/L	-	-	-	-	-	-	-	-	-	
cis-1,2-Dichloroethene	µg/L	-	-	-	-	-	-	-	-	-	
trans-1,2-Dichloroethene	µg/L	ND	ND	ND	-	ND	ND	ND	-	ND	

**Notes:**

Galson = Galson Laboratories  
NET = National Environmental Testing  
GTC = General Testing Corporation  
ES = Engineering-Science, Inc. (PACE Laboratory)  
PES = Parsons Engineering Science, Inc. (Aquatec)  
- = No Data



**HISTORICAL DATA FOR MONITORING WELL MW-29  
ASH LANDFILL**

Parameters	Source: Units	NET Mar 1992	NET June 1992	GTC Dec 1992	ES Jan 1993	ES April 1993	ES June 1993	PES Dec 1993	PES Feb 1994	PES June 1995
<b>VOLATILE ORGANICS</b>										
1,2-Dichloroethane	µg/L	ND	ND	ND	ND	ND	ND	10U	10U	10U
1,1,1-Trichloroethane	µg/L	ND	ND	ND	ND	ND	ND	10U	10U	1J
Trichloroethene	µg/L	ND	ND	ND	2	ND	ND	10U	10U	2J
1,2-Dichloroethene	µg/L	-	-	-	70	76	97	63	80	94
cis-1,2-Dichloroethene	µg/L	-	-	67	-	-	-			
trans-1,2-Dichloroethene	µg/L	ND	ND	ND	-	-	-			





**HISTORICAL DATA FOR MONITORING WELL MW-30  
ASH LANDFILL  
SENECA ARMY DEPOT**

Parameters	Source: Units	NET	NET	NET	NET	NET	NET	NET	NET	NET	NET
		Jan 1990	Mar 1990	June 1990	Sept 1990	Dec 1990	Mar 1991	June 1991	Sept 1991	Dec 1991	Mar 1992
								DRY	DRY		
<b>VOLATILE ORGANICS</b>											
Trichloroethene	µg/L	ND	ND	ND	1	ND	ND	-	-	2.4	ND

Notes:

- NET = National Environmental Testing
- GTC = General Testing Corporation
- ES = Engineering-Science, Inc. (PACE Laboratory)
- PES = Parsons Engineering Science, Inc. (Aquatec)
- = No Data



HISTORICAL DATA FOR MONITORING WELL MW-30  
ASH LANDFILL  
SENECA ARMY DEPOT

Parameters	Source: Units	NET June 1992	GTC Dec 1992	ES Jan 1993	ES April 1993	ES June 1993	PES Dec 1993	PES Feb 1994	PES July 1994	PES Dec 1994	PES Mar 1995
<b>VOLATILE ORGANICS</b>											
Trichloroethene	µg/L	ND	ND	ND	ND	ND	10U	10U	10U	2	0.6



**HISTORICAL DATA FOR MONITORING WELL MW-40  
ASH LANDFILL  
SENECA ARMY DEPOT**

Parameters	Source: Units	ES Jan 1993	ES Apr 1993	ES Jun 1993	PES Dec 1993	PES Feb 1994	PES July 1994	PES June 1995
<b>VOLATILE ORGANICS</b> Methylene Chloride	µg/L	ND	2	ND	10U	10U	10U	0.5U

Notes:

ES = Engineering-Science, Inc. (PACE Laboratory)  
PES = Parsons Engineering Science, Inc. (Aquatec)



**HISTORICAL DATA FOR MONITORING WELL MW-45  
ASH LANDFILL  
SENECA ARMY DEPOT**

Parameters	Source: Units	ES July 1993	ES Nov 1993	PES July 1994	PES June 1995
<b>VOLATILE ORGANICS</b>					
Trichloroethene	µg/L	10U	0.5J	10U	0.5U

Notes:

ES = Engineering-Science, Inc. (PACE Laboratory)  
PES = Parsons Engineering Science, Inc. (Aquatec)





**HISTORICAL DATA FOR MONITORING WELL MW-56  
ASH LANDFILL  
SENECA ARMY DEPOT**

Parameters	Source: Units	ES July 1993	ES Nov 1993	PES July 1994	PES Sept 1994	PES Dec 1994	PES Mar 1995	PES June 1995
<b>VOLATILE ORGANICS</b>								
1,2-Dichloroethene (total)	µg/L	10U	0.2J	10U	10U	10U	10U	0.5U

Notes:

ES = Engineering-Science, Inc. (PACE Laboratory)  
PES = Parsons Engineering Science, Inc. (Aquatec)



APPENDIX D

QUALITY ASSURANCE/QUALITY CONTROL DATA



NYSDEC CLP TCL ANALYSIS QA/QC DATA  
SAMPLE DELIVERY GROUP NUMBER 51736



2A  
 WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKJ6	99	105	96		0
02	MW-28	103	101	93		0
03	MW-29	99	105	97		0
04	MW-53	100	106	99		0
05	PT-17	100	107	100		0
06	PT-24	99	105	99		0
07	PT-17DL	102	102	100		0
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

QC LIMITS

SMC1 (TOL) = Toluene-d8 (88-110)  
 SMC2 (BFB) = Bromofluorobenzene (86-115)  
 SMC3 (DCE) = 1,2-Dichloroethane-d4 (76-114)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out









1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJ6
--------

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VBLKJ6

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: MDDB001ZAV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 06/13/95

GC Column: CAP 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



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKJ6

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VBLKJ6

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: MDDDB001ZAV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 06/13/95

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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30.				









EPA METHOD 524.2 ANALYSIS QA/QC DATA

SAMPLE DELIVERY GROUP NUMBER 51736



2A  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

	EPA SAMPLE NO.	SMC1 (DCE) #	SMC2 (BFB) #	SMC3 (DCB) #	OTHER	TOT OUT
	=====	=====	=====	=====	=====	=====
01	LFBLDIA	98	106	106		0
02	VBLKJ8	95	102	104		0
03	MW-31	98	105	105		0
04	MW-37	92	97	95		0
05	MW-38D	94	91	90		0
06	LFBLDIB	90	96	101		0
07	VBLKK1	104	98	102		0
08	MW-54D	101	100	105		0
09	MW-55D	98	101	106		0
10	MW-34	100	95	101		0
11	PT-16	105	105	105		0
12	PT-23	94	91	93		0
13	PT-25	100	99	101		0
14	TB-6-6	104	98	101		0
15	MW-36	100	98	100		0
16	MW-56R	102	104	97		0
17	MW-156	99	97	99		0
18	PT-26	100	95	96		0
19	MW-56	95	92	96		0
20	VBLKK8	92	98	100		0
21	LFBLDIC	89	97	99		0
22	MW-36MS	96	99	104		0
23	MW-36MSD	104	100	104		0
24	MSB	94	98	99		0
25						
26						
27						
28						
29						
30						

QC LIMITS

SMC1 (DCE) = 1,2-Dichloroethane-d4 (83-143)  
 SMC2 (BFB) = Bromofluorobenzene (86-115)  
 SMC3 (DCB) = 1,2-Dichlorobenzene-d4 (80-120)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out



3A  
 WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix Spike - EPA Sample No.: MSB

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Vinyl Chloride	10		10	100	80-120
Carbon Tetrachloride	10		10	100	80-120
1,2-Dichloroethane	10		10	100	80-120
Benzene	10		10	100	80-120
Trichloroethene	10		9	90	80-120
1,2-Dichloropropane	10		10	100	80-120
cis-1,3-Dichloropropene	10		10	100	80-120
1,1,2-Trichloroethane	10		10	100	80-120
2-Hexanone	25		23	92	80-120
Tetrachloroethene	10		10	100	80-120
1,2-Dibromoethane	10		10	100	80-120
Bromoform	10		9	90	80-120
1,4-Dichlorobenzene	10		10	100	80-120

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.

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

\* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 13 outside limits

COMMENTS:

---



3A  
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix Spike - EPA Sample No.: MW-36

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Vinyl Chloride	10	0	10	100	80-120
Carbon Tetrachloride	10	0	10	100	80-120
1,2-Dichloroethane	10	0	10	100	80-120
Benzene	10	0	10	100	80-120
Trichloroethene	10	0	10	100	80-120
1,2-Dichloropropane	10	0	10	100	80-120
cis-1,3-Dichloropropene	10	0	10	100	80-120
1,1,2-Trichloroethane	10	0	10	100	80-120
2-Hexanone	25	0	24	96	80-120
Tetrachloroethene	10	0	10	100	80-120
1,2-Dibromoethane	10	0	10	100	80-120
Bromoform	10	0	8	80	80-120
1,4-Dichlorobenzene	10	0	10	100	80-120

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD   REC.	
Vinyl Chloride	10	10	100	0	13	80-120
Carbon Tetrachloride	10	10	100	0	13	80-120
1,2-Dichloroethane	10	10	100	0	13	80-120
Benzene	10	10	100	0	13	80-120
Trichloroethene	10	10	100	0	13	80-120
1,2-Dichloropropane	10	11	110	10	13	80-120
cis-1,3-Dichloropropene	10	10	100	0	13	80-120
1,1,2-Trichloroethane	10	10	100	0	13	80-120
2-Hexanone	25	22	88	9	13	80-120
Tetrachloroethene	10	10	100	0	13	80-120
1,2-Dibromoethane	10	10	100	0	13	80-120
Bromoform	10	9	90	12	13	80-120
1,4-Dichlorobenzene	10	10	100	0	13	80-120

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

\* Values outside of QC limits

RPD: 0 out of 13 outside limits

Spike Recovery: 0 out of 26 outside limits

COMMENTS:





## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIA  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51736  
 Fraction: VOA  
 Client Smp ID: LFBLDIA  
 Operator: CMP  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	1	105.19	60-140
2 Chloromethane	1	1	102.06	60-140
3 Vinyl Chloride	1	1	101.68	60-140
4 Bromomethane	1	1	105.82	60-140
5 Chloroethane	1	1	136.44	60-140
6 Trichlorofluoromet	1	1	109.67	60-140
7 1,1-Dichloroethene	1	1	114.18	60-140
8 Acetone	5	7	132.42	60-140
10 Methylene Chloride	1	1	118.71	60-140
11 trans-1,2-Dichloro	1	1	111.46	60-140
12 Methyl-t-Butyl Eth	1	1	115.34	60-140
13 1,1-Dichloroethane	1	1	117.24	60-140
14 2,2-Dichloropropan	1	1	118.10	60-140
15 cis-1,2-Dichloroet	1	1	110.62	60-140
16 2-Butanone	5	6	115.99	60-140
17 Bromochloromethane	1	1	110.19	60-140
19 Chloroform	1	1	112.28	60-140
20 1,1,1-Trichloroeth	1	1	113.22	60-140
21 Carbon Tetrachlori	1	1	112.64	60-140
22 1,1-Dichloropropen	1	1	123.41	60-140
24 Benzene	1	1	115.37	60-140
25 1,2-Dichloroethane	1	1	111.96	60-140
27 Trichloroethene	1	1	121.22	60-140
28 1,2-Dichloropropan	1	1	114.22	60-140
29 Dibromomethane	1	1	113.40	60-140
31 Bromodichlorometha	1	1	119.71	60-140
32 cis-1,3-Dichloropr	1	1	120.45	60-140
33 4-Methyl-2-Pentano	5	5	95.71	60-140
34 Toluene	1	1	110.37	60-140
35 trans-1,3-Dichloro	1	1	127.43	60-140
36 1,1,2-Trichloroeth	1	1	117.27	60-140
37 Tetrachloroethene	1	1	112.09	60-140
38 1,3-Dichloropropan	1	1	113.73	60-140
39 2-Hexanone	5	6	119.87	60-140
40 Dibromochlorometha	1	1	122.74	60-140
41 1,2-Dibromoethane	1	1	119.80	60-140



## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIA  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51736  
 Fraction: VOA  
 Client Smp ID: LFBLDIA  
 Operator: CMP  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 Chlorobenzene	1	1	120.20	60-140
44 1,1,1,2-Tetrachlor	1	1	121.43	60-140
45 Ethylbenzene	1	1	124.21	60-140
46 m- & p-Xylene	2	2	121.67	60-140
47 o-Xylene	1	1	125.19	60-140
M 48 Xylene (total)	3	4	127.99	60-140
49 Styrene	1	1	117.32	60-140
50 Bromoform	1	1	122.35	60-140
51 Isopropylbenzene	1	1	124.05	60-140
53 Bromobenzene	1	1	125.18	60-140
54 1,1,2,2-Tetrachlor	1	1	124.40	60-140
55 1,2,3-Trichloropro	1	1	142.98*	60-140
56 n-Propylbenzene	1	1	123.36	60-140
57 2-Chlorotoluene	1	1	128.01	60-140
58 4-Chlorotoluene	1	1	123.82	60-140
59 1,3,5-Trimethylben	1	1	121.62	60-140
60 tert-Butylbenzene	1	1	127.26	60-140
61 1,2,4-Trimethylben	1	1	122.37	60-140
62 sec-Butylbenzene	1	1	128.00	60-140
63 1,3-Dichlorobenzen	1	1	131.88	60-140
65 p-Isopropyltoluene	1	1	127.26	60-140
66 1,4-Dichlorobenzen	1	1	131.71	60-140
68 1,2-Dichlorobenzen	1	1	125.41	60-140
69 n-Butylbenzene	1	1	130.90	60-140
70 1,2-Dibromo-3-Chlo	1	2	164.30*	60-140
71 1,2,4-Trichloroben	1	1	149.14*	60-140
72 Hexachlorobutadien	1	2	156.42*	60-140
73 Naphthalene	1	1	138.60	60-140
74 1,2,3-Trichloroben	1	1	145.84*	60-140

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 23 1,2-Dichloroethane	2	2	98.23	83-143
\$ 52 Bromofluorobenzene	2	2	105.86	86-115
\$ 67 1,2-Dichlorobenzen	2	2	106.27	80-120



## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIB  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51736  
 Fraction: VOA  
 Client Smp ID: LFBLDIB  
 Operator: DAH  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	0.9	89.87	60-140
2 Chloromethane	1	0.9	94.49	60-140
3 Vinyl Chloride	1	0.8	83.79	60-140
4 Bromomethane	1	0.9	93.33	60-140
5 Chloroethane	1	1	109.17	60-140
6 Trichlorofluoromet	1	0.9	87.34	60-140
7 1,1-Dichloroethene	1	0.9	89.31	60-140
8 Acetone	5	6	119.71	60-140
10 Methylene Chloride	1	0.9	94.16	60-140
11 trans-1,2-Dichloro	1	0.9	89.63	60-140
12 Methyl-t-Butyl Eth	1	0.9	89.40	60-140
13 1,1-Dichloroethane	1	1.0	97.05	60-140
14 2,2-Dichloropropan	1	1	103.84	60-140
15 cis-1,2-Dichloroet	1	1.0	95.56	60-140
16 2-Butanone	5	5	97.61	60-140
17 Bromochloromethane	1	0.9	89.30	60-140
19 Chloroform	1	1.0	97.82	60-140
20 1,1,1-Trichloroeth	1	0.9	88.46	60-140
21 Carbon Tetrachlori	1	0.9	89.58	60-140
22 1,1-Dichloropropen	1	0.9	93.43	60-140
24 Benzene	1	1.0	99.02	60-140
25 1,2-Dichloroethane	1	0.9	93.04	60-140
27 Trichloroethene	1	1.0	99.93	60-140
28 1,2-Dichloropropan	1	0.9	91.15	60-140
29 Dibromomethane	1	0.9	90.55	60-140
31 Bromodichlorometha	1	0.9	94.78	60-140
32 cis-1,3-Dichloropr	1	1.0	98.18	60-140
33 4-Methyl-2-Pentano	5	4	83.28	60-140
34 Toluene	1	0.9	93.55	60-140
35 trans-1,3-Dichloro	1	1.0	96.47	60-140
36 1,1,2-Trichloroeth	1	1.0	99.60	60-140
37 Tetrachloroethene	1	0.9	92.86	60-140
38 1,3-Dichloropropan	1	1.0	97.44	60-140
39 2-Hexanone	5	6	112.64	60-140
40 Dibromochlorometha	1	1.0	95.12	60-140
41 1,2-Dibromoethane	1	1.0	96.28	60-140



## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIB  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51736  
 Fraction: VOA  
 Client Smp ID: LFBLDIB  
 Operator: DAH  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 Chlorobenzene	1	1	103.98	60-140
44 1,1,1,2-Tetrachlor	1	1	104.05	60-140
45 Ethylbenzene	1	1	104.32	60-140
46 m- & p-Xylene	2	2	107.11	60-140
47 o-Xylene	1	1	103.22	60-140
M 48 Xylene (total)	3	3	108.25	60-140
49 Styrene	1	1	102.14	60-140
50 Bromoform	1	1.0	99.39	60-140
51 Isopropylbenzene	1	1	105.06	60-140
53 Bromobenzene	1	1	106.75	60-140
54 1,1,2,2-Tetrachlor	1	1	103.34	60-140
55 1,2,3-Trichloropro	1	1	121.22	60-140
56 n-Propylbenzene	1	1.0	99.60	60-140
57 2-Chlorotoluene	1	1	107.09	60-140
58 4-Chlorotoluene	1	1	110.05	60-140
59 1,3,5-Trimethylben	1	1	113.64	60-140
60 tert-Butylbenzene	1	1	112.66	60-140
61 1,2,4-Trimethylben	1	1	110.32	60-140
62 sec-Butylbenzene	1	1	115.51	60-140
63 1,3-Dichlorobenzen	1	1	111.54	60-140
65 p-Isopropyltoluene	1	1	109.01	60-140
66 1,4-Dichlorobenzen	1	1	109.92	60-140
68 1,2-Dichlorobenzen	1	1	108.94	60-140
69 n-Butylbenzene	1	1	116.48	60-140
70 1,2-Dibromo-3-Chlo	1	1	127.26	60-140
71 1,2,4-Trichloroben	1	1	118.65	60-140
72 Hexachlorobutadien	1	1	127.40	60-140
73 Naphthalene	1	1	112.69	60-140
74 1,2,3-Trichloroben	1	1	118.29	60-140

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 23 1,2-Dichloroethane	2	2	90.00	83-143
\$ 52 Bromofluorobenzene	2	2	96.25	86-115
\$ 67 1,2-Dichlorobenzen	2	2	101.33	80-120





## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIC  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51736  
 Fraction: VOA  
 Client Smp ID: LFBLDIC  
 Operator: CMP  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	1	108.06	60-140
2 Chloromethane	1	1	109.06	60-140
3 Vinyl Chloride	1	1	113.86	60-140
4 Bromomethane	1	1	113.91	60-140
5 Chloroethane	1	1	135.47	60-140
6 Trichlorofluoromet	1	1	114.88	60-140
7 1,1-Dichloroethene	1	1	120.75	60-140
8 Acetone	5	6	114.52	60-140
10 Methylene Chloride	1	1	120.84	60-140
11 trans-1,2-Dichloro	1	1	113.03	60-140
12 Methyl-t-Butyl Eth	1	1	111.17	60-140
13 1,1-Dichloroethane	1	1	121.42	60-140
14 2,2-Dichloropropan	1	1	126.53	60-140
15 cis-1,2-Dichloroet	1	1	111.31	60-140
16 2-Butanone	5	5	93.86	60-140
17 Bromochloromethane	1	1	104.77	60-140
19 Chloroform	1	1	114.32	60-140
20 1,1,1-Trichloroeth	1	1	121.49	60-140
21 Carbon Tetrachlori	1	1	111.40	60-140
22 1,1-Dichloropropen	1	1	120.52	60-140
24 Benzene	1	1	119.91	60-140
25 1,2-Dichloroethane	1	1	113.06	60-140
27 Trichloroethene	1	1	114.92	60-140
28 1,2-Dichloropropan	1	1	114.29	60-140
29 Dibromomethane	1	1	107.13	60-140
31 Bromodichlorometha	1	1	114.24	60-140
32 cis-1,3-Dichloropr	1	1	113.76	60-140
33 4-Methyl-2-Pentano	5	4	86.79	60-140
34 Toluene	1	1	113.43	60-140
35 trans-1,3-Dichloro	1	1	109.29	60-140
36 1,1,2-Trichloroeth	1	1	111.67	60-140
37 Tetrachloroethene	1	1	115.15	60-140
38 1,3-Dichloropropan	1	1	115.42	60-140
39 2-Hexanone	5	5	97.43	60-140
40 Dibromochlorometha	1	1	118.34	60-140
41 1,2-Dibromoethane	1	1	114.41	60-140



## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIC  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51736  
 Fraction: VOA  
 Client Smp ID: LFBLDIC  
 Operator: CMP  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 Chlorobenzene	1	1	118.02	60-140
44 1,1,1,2-Tetrachlor	1	1	122.10	60-140
45 Ethylbenzene	1	1	127.58	60-140
46 m- & p-Xylene	2	2	121.52	60-140
47 o-Xylene	1	1	118.17	60-140
M 48 Xylene (total)	3	4	124.03	60-140
49 Styrene	1	1	118.44	60-140
50 Bromoform	1	1	116.77	60-140
51 Isopropylbenzene	1	1	124.76	60-140
53 Bromobenzene	1	1	120.97	60-140
54 1,1,2,2-Tetrachlor	1	1	120.37	60-140
55 1,2,3-Trichloropro	1	1	133.92	60-140
56 n-Propylbenzene	1	1	116.18	60-140
57 2-Chlorotoluene	1	1	119.89	60-140
58 4-Chlorotoluene	1	1	121.65	60-140
59 1,3,5-Trimethylben	1	1	123.34	60-140
60 tert-Butylbenzene	1	1	128.18	60-140
61 1,2,4-Trimethylben	1	1	125.66	60-140
62 sec-Butylbenzene	1	1	128.79	60-140
63 1,3-Dichlorobenzen	1	1	124.92	60-140
65 p-Isopropyltoluene	1	1	121.01	60-140
66 1,4-Dichlorobenzen	1	1	121.51	60-140
68 1,2-Dichlorobenzen	1	1	126.72	60-140
69 n-Butylbenzene	1	1	127.88	60-140
70 1,2-Dibromo-3-Chlo	1	2	164.37*	60-140
71 1,2,4-Trichloroben	1	1	125.67	60-140
72 Hexachlorobutadien	1	1	121.30	60-140
73 Naphthalene	1	1	122.06	60-140
74 1,2,3-Trichloroben	1	1	122.71	60-140

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 23 1,2-Dichloroethane	2	2	89.39	83-143
\$ 52 Bromofluorobenzene	2	2	96.79	86-115
\$ 67 1,2-Dichlorobenzen	2	2	98.83	80-120







4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKK1

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Lab File ID: LDIB001BV.D

Lab Sample ID: VBLKK1

Date Analyzed: 06/14/95

Time Analyzed: 1824

GC Column:CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	LFBLDIB	LFBLDIB	LDIBLFB1V.D	1736
02	MW-54D	259618	L259618V.D	2003
03	MW-55D	259619	L259619V.D	2035
04	MW-34	259620	L259620V.D	2108
05	PT-16	259621	L259621V.D	2140
06	PT-23	259623	L259623V.D	2213
07	PT-25	259625	L259625V.D	2246
08	TB-6-6	259626	L259626V.D	2318
09	MW-36	259784	L259784.D	0131
10	MW-56R	259787	L259787V.D	0203
11	MW-156	259788	L259788V.D	0235
12	PT-26	259789	L259789V.D	0309
13	MW-56	259786	L259786V.D	0341
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COMMENTS:

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4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKK8
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Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Lab File ID: LDIB001CV.D

Lab Sample ID: VBLKK8

Date Analyzed: 06/16/95

Time Analyzed: 1034

GC Column:CAP ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	LFBLDIC	LFBLDIC	LDICLFB2V.D	1117
02	MW-36MS	259784MS	L259784MSV.D	1905
03	MW-36MSD	259784MD	L259784MDV.D	1938
04	MSB	259785	L259785V.D	2011
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COMMENTS:

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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJ8
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Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VBLKJ8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001AV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/13/95

GC Column: CAP 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
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75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-t-Butyl Ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
590-20-7	2,2-Dichloropropane	0.5	U
67-66-3	Chloroform	0.5	U
74-97-5	Bromochloromethane	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
74-95-3	Dibromomethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
142-28-9	1,3-Dichloropropane	0.5	U



1A-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJ8
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Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VBLKJ8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001AV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/13/95

GC Column: CAP 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
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127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
108-86-1	Bromobenzene	0.5	U
103-65-1	n-Propylbenzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
99-87-6	p-Isopropyltoluene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKJ8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VBLKJ8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001AV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/13/95

GC Column: CAP 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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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLK1

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK1

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001BV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/14/95

GC Column: CAP 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
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75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-t-Butyl Ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
590-20-7	2,2-Dichloropropane	0.5	U
67-66-3	Chloroform	0.5	U
74-97-5	Bromochloromethane	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
74-95-3	Dibromomethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
142-28-9	1,3-Dichloropropane	0.5	U



1A-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKK1

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK1

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001BV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/14/95

GC Column:CAP 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
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
108-86-1	Bromobenzene	0.5	U
103-65-1	n-Propylbenzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
99-87-6	p-Isopropyltoluene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKK1

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK1

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001BV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/14/95

GC Column: CAP 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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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKK8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001CV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/16/95

GC Column: CAP 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
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-t-Butyl Ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
590-20-7	2,2-Dichloropropane	0.5	U
67-66-3	Chloroform	0.5	U
74-97-5	Bromochloromethane	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
74-95-3	Dibromomethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
142-28-9	1,3-Dichloropropane	0.5	U





1A-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKK8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001CV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/16/95

GC Column: CAP 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

127-18-4-----	Tetrachloroethene	0.5	U
124-48-1-----	Dibromochloromethane	0.5	U
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropylbenzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----	1,2,3-Trichloropropane	0.5	U
108-86-1-----	Bromobenzene	0.5	U
103-65-1-----	n-Propylbenzene	0.5	U
95-49-8-----	2-Chlorotoluene	0.5	U
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U
106-43-4-----	4-Chlorotoluene	0.5	U
98-06-6-----	tert-Butylbenzene	0.5	U
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U
135-98-8-----	sec-Butylbenzene	0.5	U
99-87-6-----	p-Isopropyltoluene	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
104-51-8-----	n-Butylbenzene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
87-68-3-----	Hexachlorobutadiene	0.5	U
91-20-3-----	Naphthalene	0.5	U
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VLKK8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Matrix: (soil/water) WATER

Lab Sample ID: VLKK8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001CV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/16/95

GC Column: CAP 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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8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AQUATEC, INC. Contract: 93206  
 Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 51736  
 Lab File ID (Standard): LDI010AHV.D Date Analyzed: 06/13/95  
 Instrument ID: L Time Analyzed: 1322  
 GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	131649	9.21	105309	15.43	0	0.00
UPPER LIMIT	263298	9.71	210618	15.93	0	0.50
LOWER LIMIT	65824	8.71	52654	14.93	0	-0.50
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE No.						
=====	=====	=====	=====	=====	=====	=====
01 LFBLDIA	131721	9.23	99673	15.43		
02 VBLKJ8	134241	9.21	108732	15.42		
03 VSTD0005	138047	9.21	105365	15.41		
04 MW-31	118660	9.21	92098	15.40		
05 MW-37	120631	9.21	94257	15.40		
06 MW-38D	115547	9.21	92123	15.41		
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IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 = N/A

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

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Lab File ID (Standard): LDI010BH.V.D

Date Analyzed: 06/14/95

Instrument ID: L

Time Analyzed: 1650

GC Column:CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	136969	9.21	109263	15.41	0	0.00
UPPER LIMIT	273938	9.71	218526	15.91	0	0.50
LOWER LIMIT	68484	8.71	54632	14.91	0	-0.50
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE No.						
=====	=====	=====	=====	=====	=====	=====
01 LFBLDIB	136852	9.23	102210	15.43		
02 VBLKK1	127185	9.22	101077	15.40		
03 VSTD0005	117926	9.21	95529	15.41		
04 MW-54D	127621	9.22	103091	15.42		
05 MW-55D	123839	9.21	96293	15.40		
06 MW-34	127818	9.22	103029	15.42		
07 PT-16	116879	9.22	91707	15.42		
08 PT-23	129751	9.22	103765	15.42		
09 PT-25	128162	9.21	101903	15.42		
10 TB-6-6	126044	9.22	102630	15.42		
11 MW-36	98187	9.21	78780	15.42		
12 MW-56R	103343	9.21	80210	15.42		
13 MW-156	123018	9.21	97250	15.40		
14 PT-26	129614	9.22	101916	15.42		
15 MW-56	116587	9.22	93557	15.42		
16						
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19						
20						
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22						

IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 = N/A

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

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.





8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51736

Lab File ID (Standard): LDI010CHV.D

Date Analyzed: 06/16/95

Instrument ID: L

Time Analyzed: 0837

GC Column:CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	135143	9.20	107247	15.40	0	0.00
UPPER LIMIT	270286	9.70	214494	15.90	0	0.50
LOWER LIMIT	67572	8.70	53624	14.90	0	-0.50
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE No.						
=====	=====	=====	=====	=====	=====	=====
01 VBLKK8	130769	9.21	103536	15.40		
02 LFBLDIC	129885	9.21	100219	15.41		
03 VSTD0005	133608	9.21	104696	15.41		
04 MW-36MS	132200	9.19	105625	15.40		
05 MW-36MSD	124632	9.19	99926	15.41		
06 MSB	126288	9.21	100917	15.40		
07						
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09						
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17						
18						
19						
20						
21						
22						

IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 = N/A

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

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



NYSDEC CLP TCL ANALYSIS QA/QC DATA  
SAMPLE DELIVERY GROUP NUMBER 51863



2A  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKL4	98	98	92		0
02	MW-46	102	99	108		0
03	VBLKM5	101	104	97		0
04	PT-22	103	104	99		0
05	PT-22-R	102	104	97		0
06	PT-122	98	98	94		0
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QC LIMITS

SMC1 (TOL) = Toluene-d8 (88-110)  
 SMC2 (BFB) = Bromofluorobenzene (86-115)  
 SMC3 (DCE) = 1,2-Dichloroethane-d4 (76-114)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out



4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKL4
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Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Lab File ID: NDSB001AV.D

Lab Sample ID: VBLKL4

Date Analyzed: 06/19/95

Time Analyzed: 2202

GC Column: CAP ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: N

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-46	260784	N260784I2V.D	2318
02				
03				
04				
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COMMENTS:

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4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKM5

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Lab File ID: LDFB001QV.D

Lab Sample ID: VBLKM5

Date Analyzed: 06/21/95

Time Analyzed: 2109

GC Column:CAP ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	PT-22	261125	L261125V.D	2146
02	PT-22-R	261126	L261126V.D	2232
03	PT-122	261127	L261127V.D	2258
04				
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COMMENTS:

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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKM5
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Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Matrix: (soil/water) WATER

Lab Sample ID: VBLKM5

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDFB001QV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 06/21/95

GC Column: CAP 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



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKM5

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Matrix: (soil/water) WATER

Lab Sample ID: VBLKM5

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDFB001QV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 06/21/95

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-54-3	Hexane	4.836	5	NJ
2.				
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKL4

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Matrix: (soil/water) WATER

Lab Sample ID: VBLKL4

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: NDSB001AV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 06/19/95

GC Column: CAP 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
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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	5	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	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





1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKL4

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Matrix: (soil/water) WATER

Lab Sample ID: VBLKL4

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: NDSB001AV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 06/19/95

GC Column: CAP 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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8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AQUATEC, INC. Contract: 93206  
 Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 51863  
 Lab File ID (Standard): LDF050QHV.D Date Analyzed: 06/21/95  
 Instrument ID: L Time Analyzed: 2045  
 GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

	IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	255052	6.00	1385261	7.24	1122677	11.03
UPPER LIMIT	510104	6.50	2770522	7.74	2245354	11.53
LOWER LIMIT	127526	5.50	692630	6.74	561338	10.53
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE No.						
=====	=====	=====	=====	=====	=====	=====
01 VBLKM5	265018	5.99	1384621	7.24	1142481	11.02
02 PT-22	255137	5.99	1363493	7.24	1123487	11.02
03 PT-22-R	268706	5.99	1391228	7.24	1142416	11.02
04 PT-122	246155	5.99	1362334	7.24	1099780	11.02
05						
06						
07						
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19						
20						
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22						

IS1 (BCM) = Bromochloromethane  
 IS2 (DFB) = 1,4-Difluorobenzene  
 IS3 (CBZ) = Chlorobenzene-d5

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

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AQUATEC, INC. Contract: 93206  
 Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 51863  
 Lab File ID (Standard): NDS050AHV.D Date Analyzed: 06/19/95  
 Instrument ID: N Time Analyzed: 2125  
 GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

	IS1 (BCM)	RT #	IS2 (DFB)	RT #	IS3 (CBZ)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	299204	7.04	1238676	8.23	1034644	11.68
UPPER LIMIT	598408	7.54	2477352	8.73	2069288	12.18
LOWER LIMIT	149602	6.54	619338	7.73	517322	11.18
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE No.						
=====	=====	=====	=====	=====	=====	=====
01 VBLKL4	295046	7.04	1206359	8.23	989707	11.69
02 MW-46	261667	7.06	1202985	8.23	980040	11.69
03						
04						
05						
06						
07						
08						
09						
10						
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12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (BCM) = Bromochloromethane  
 IS2 (DFB) = 1,4-Difluorobenzene  
 IS3 (CBZ) = Chlorobenzene-d5

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

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



EPA METHOD 524.2 ANALYSIS QA/QC DATA

SAMPLE DELIVERY GROUP NUMBER 51863





2A  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

	EPA SAMPLE NO.	SMC1 (DCE) #	SMC2 (BFB) #	SMC3 (DCB) #	OTHER	TOT OUT
	=====	=====	=====	=====	=====	=====
01	LFBLDIF	96	102	106		0
02	VBLKL8	91	91	92		0
03	MW-39	112	112	114		0
04	MW-42D	94	96	99		0
05	MW-49D	86	99	95		0
06	TB-6-12	95	94	97		0
07	FH-D	94	98	96		0
08	FH-S	91	90	92		0
09	MW-27	95	95	93		0
10	MW-45	95	98	98		0
11	MW-48	93	97	98		0
12	MW-50D	100	95	96		0
13	MW-59	95	99	97		0
14	MW-60	93	97	96		0
15	LFBLDIG	102	101	102		0
16	VBLKL9	96	98	98		0
17	MW-40	88	93	96		0
18	MW-45MS	100	98	100		0
19	MW-45MSD	101	102	106		0
20	PT-19	101	99	100		0
21	PT-11	97	97	101		0
22	TB-6-13	95	97	95		0
23	MSB	97	101	102		0
24						
25						
26						
27						
28						
29						
30						

QC LIMITS

SMC1 (DCE) = 1,2-Dichloroethane-d4 (83-143)  
 SMC2 (BFB) = Bromofluorobenzene (86-115)  
 SMC3 (DCB) = 1,2-Dichlorobenzene-d4 (80-120)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out



## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIF  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51863  
 Fraction: VOA  
 Client Smp ID: LFBLDIF  
 Operator: DAH  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	0.7	69.23	60-140
2 Chloromethane	1	0.8	78.40	60-140
3 Vinyl Chloride	1	0.8	78.88	60-140
4 Bromomethane	1	0.9	90.02	60-140
5 Chloroethane	1	0.8	82.46	60-140
6 Trichlorofluoromet	1	0.9	86.42	60-140
7 1,1-Dichloroethene	1	0.9	91.18	60-140
8 Acetone	5	6	116.71	60-140
10 Methylene Chloride	1	0.9	94.74	60-140
11 trans-1,2-Dichloro	1	1.0	96.47	60-140
12 Methyl-t-Butyl Eth	1	0.9	91.40	60-140
13 1,1-Dichloroethane	1	1.0	98.95	60-140
14 2,2-Dichloropropan	1	1.0	99.11	60-140
15 cis-1,2-Dichloroet	1	0.9	94.48	60-140
16 2-Butanone	5	4	70.70	60-140
17 Bromochloromethane	1	0.9	91.75	60-140
19 Chloroform	1	0.9	93.58	60-140
20 1,1,1-Trichloroeth	1	0.9	94.86	60-140
21 Carbon Tetrachlori	1	0.9	87.36	60-140
22 1,1-Dichloropropen	1	1	107.48	60-140
24 Benzene	1	1.0	99.29	60-140
25 1,2-Dichloroethane	1	0.9	92.63	60-140
27 Trichloroethene	1	1.0	96.93	60-140
28 1,2-Dichloropropan	1	1.0	99.03	60-140
29 Dibromomethane	1	0.9	92.98	60-140
31 Bromodichlorometha	1	0.9	91.42	60-140
32 cis-1,3-Dichloropr	1	1.0	97.78	60-140
33 4-Methyl-2-Pentano	5	5	105.51	60-140
34 Toluene	1	0.9	92.43	60-140
35 trans-1,3-Dichloro	1	0.9	94.64	60-140
36 1,1,2-Trichloroeth	1	0.9	89.07	60-140
37 Tetrachloroethene	1	1	102.11	60-140
38 1,3-Dichloropropan	1	1.0	95.72	60-140
39 2-Hexanone	5	5	105.16	60-140
40 Dibromochlorometha	1	1.0	96.82	60-140
41 1,2-Dibromoethane	1	0.9	92.31	60-140



## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIF  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51863  
 Fraction: VOA  
 Client Smp ID: LFBLDIF  
 Operator: DAH  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 Chlorobenzene	1	1.0	95.25	60-140
44 1,1,1,2-Tetrachlor	1	0.9	92.16	60-140
45 Ethylbenzene	1	0.9	90.35	60-140
46 m- & p-Xylene	2	2	90.77	60-140
47 o-Xylene	1	0.8	84.67	60-140
M 48 Xylene (total)	3	3	91.31	60-140
49 Styrene	1	0.9	89.47	60-140
50 Bromoform	1	0.8	84.73	60-140
51 Isopropylbenzene	1	1.0	97.22	60-140
53 Bromobenzene	1	0.9	88.76	60-140
54 1,1,2,2-Tetrachlor	1	1.0	96.68	60-140
55 1,2,3-Trichloropro	1	1	106.22	60-140
56 n-Propylbenzene	1	0.9	94.49	60-140
57 2-Chlorotoluene	1	0.9	92.07	60-140
58 4-Chlorotoluene	1	0.9	90.29	60-140
59 1,3,5-Trimethylben	1	0.9	93.56	60-140
60 tert-Butylbenzene	1	1.0	97.43	60-140
61 1,2,4-Trimethylben	1	0.9	91.63	60-140
62 sec-Butylbenzene	1	0.9	88.90	60-140
63 1,3-Dichlorobenzen	1	0.9	88.16	60-140
65 p-Isopropyltoluene	1	0.9	92.87	60-140
66 1,4-Dichlorobenzen	1	0.9	87.95	60-140
68 1,2-Dichlorobenzen	1	0.9	89.99	60-140
69 n-Butylbenzene	1	1.0	96.09	60-140
70 1,2-Dibromo-3-Chlo	1	1	113.45	60-140
71 1,2,4-Trichloroben	1	0.9	94.73	60-140
72 Hexachlorobutadien	1	1	120.53	60-140
73 Naphthalene	1	1	102.63	60-140
74 1,2,3-Trichloroben	1	1	103.96	60-140

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 23 1,2-Dichloroethane	2	2	96.03	83-143
\$ 52 Bromofluorobenzene	2	2	102.36	86-115
\$ 67 1,2-Dichlorobenzen	2	2	105.53	80-120



## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIG  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51863  
 Fraction: VOA  
 Client Smp ID: LFBLDIG  
 Operator: CMP  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	0.7	70.16	60-140
2 Chloromethane	1	0.9	86.67	60-140
3 Vinyl Chloride	1	0.8	84.85	60-140
4 Bromomethane	1	1.0	99.62	60-140
5 Chloroethane	1	1	109.94	60-140
6 Trichlorofluoromet	1	0.9	90.39	60-140
7 1,1-Dichloroethene	1	1	100.38	60-140
8 Acetone	5	6	117.47	60-140
10 Methylene Chloride	1	1	113.80	60-140
11 trans-1,2-Dichloro	1	1	102.95	60-140
12 Methyl-t-Butyl Eth	1	1	100.94	60-140
13 1,1-Dichloroethane	1	1	105.35	60-140
14 2,2-Dichloropropan	1	1	112.52	60-140
15 cis-1,2-Dichloroet	1	1	104.54	60-140
16 2-Butanone	5	4	85.79	60-140
17 Bromochloromethane	1	1.0	99.43	60-140
19 Chloroform	1	1	104.87	60-140
20 1,1,1-Trichloroeth	1	1	102.56	60-140
21 Carbon Tetrachlori	1	0.9	94.69	60-140
22 1,1-Dichloropropen	1	1	107.63	60-140
24 Benzene	1	1	109.09	60-140
25 1,2-Dichloroethane	1	1	109.70	60-140
27 Trichloroethene	1	0.9	94.56	60-140
28 1,2-Dichloropropan	1	1	106.00	60-140
29 Dibromomethane	1	1	105.97	60-140
31 Bromodichlorometha	1	1	105.33	60-140
32 cis-1,3-Dichloropr	1	1	110.26	60-140
33 4-Methyl-2-Pentano	5	4	82.72	60-140
34 Toluene	1	1.0	98.70	60-140
35 trans-1,3-Dichloro	1	1	102.84	60-140
36 1,1,2-Trichloroeth	1	1	102.55	60-140
37 Tetrachloroethene	1	1	107.59	60-140
38 1,3-Dichloropropan	1	1	105.80	60-140
39 2-Hexanone	5	5	95.20	60-140
40 Dibromochlorometha	1	1	105.86	60-140
41 1,2-Dibromoethane	1	1	107.04	60-140





## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFB LDIG  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51863  
 Fraction: VOA  
 Client Smp ID: LFB LDIG  
 Operator: CMP  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 Chlorobenzene	1	1	108.86	60-140
44 1,1,1,2-Tetrachlor	1	1	110.66	60-140
45 Ethylbenzene	1	1	102.03	60-140
46 m- & p-Xylene	2	2	104.17	60-140
47 o-Xylene	1	1.0	97.98	60-140
M 48 Xylene (total)	3	3	106.19	60-140
49 Styrene	1	1	105.06	60-140
50 Bromoform	1	1.0	96.66	60-140
51 Isopropylbenzene	1	1	106.75	60-140
53 Bromobenzene	1	1	101.84	60-140
54 1,1,2,2-Tetrachlor	1	1	109.83	60-140
55 1,2,3-Trichloropro	1	1	119.89	60-140
56 n-Propylbenzene	1	1	103.43	60-140
57 2-Chlorotoluene	1	1	116.77	60-140
58 4-Chlorotoluene	1	1	109.09	60-140
59 1,3,5-Trimethylben	1	1	106.57	60-140
60 tert-Butylbenzene	1	1	107.69	60-140
61 1,2,4-Trimethylben	1	1.0	99.16	60-140
62 sec-Butylbenzene	1	1	104.04	60-140
63 1,3-Dichlorobenzen	1	1	104.51	60-140
65 p-Isopropyltoluene	1	1	103.59	60-140
66 1,4-Dichlorobenzen	1	1	110.05	60-140
68 1,2-Dichlorobenzen	1	1	103.50	60-140
69 n-Butylbenzene	1	1	104.91	60-140
70 1,2-Dibromo-3-Chlo	1	1	128.34	60-140
71 1,2,4-Trichloroben	1	1	104.75	60-140
72 Hexachlorobutadien	1	1	114.97	60-140
73 Naphthalene	1	1	102.13	60-140
74 1,2,3-Trichloroben	1	1	106.93	60-140

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 23 1,2-Dichloroethane	2	2	102.12	83-143
\$ 52 Bromofluorobenzene	2	2	101.08	86-115
\$ 67 1,2-Dichlorobenzen	2	2	102.57	80-120



## WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Matrix Spike - EPA Sample No.: MW-45

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Vinyl Chloride	10	0	9	90	80-120
Carbon Tetrachloride	10	0	10	100	80-120
1,2-Dichloroethane	10	0	11	110	80-120
Benzene	10	0	10	100	80-120
Trichloroethene	10	0	10	100	80-120
1,2-Dichloropropane	10	0	11	110	80-120
cis-1,3-Dichloropropene	10	0	11	110	80-120
1,1,2-Trichloroethane	10	0	11	110	80-120
2-Hexanone	25	0	22	88	80-120
Tetrachloroethene	10	0	11	110	80-120
1,2-Dibromoethane	10	0	11	110	80-120
Bromoform	10	0	10	100	80-120
1,4-Dichlorobenzene	10	0	10	100	80-120

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD REC.	
Vinyl Chloride	10	8	80	12	13	80-120
Carbon Tetrachloride	10	10	100	0	13	80-120
1,2-Dichloroethane	10	11	110	0	13	80-120
Benzene	10	10	100	0	13	80-120
Trichloroethene	10	10	100	0	13	80-120
1,2-Dichloropropane	10	11	110	0	13	80-120
cis-1,3-Dichloropropene	10	11	110	0	13	80-120
1,1,2-Trichloroethane	10	11	110	0	13	80-120
2-Hexanone	25	23	92	4	13	80-120
Tetrachloroethene	10	11	110	0	13	80-120
1,2-Dibromoethane	10	12	120	9	13	80-120
Bromoform	10	9	90	10	13	80-120
1,4-Dichlorobenzene	10	11	110	10	13	80-120

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

\* Values outside of QC limits

RPD: 0 out of 13 outside limits

Spike Recovery: 0 out of 26 outside limits

COMMENTS:



## WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Matrix Spike - EPA Sample No.: MSB

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Vinyl Chloride	10		9	90	80-120
Carbon Tetrachloride	10		11	110	80-120
1,2-Dichloroethane	10		11	110	80-120
Benzene	10		10	100	80-120
Trichloroethene	10		11	110	80-120
1,2-Dichloropropane	10		11	110	80-120
cis-1,3-Dichloropropene	10		11	110	80-120
1,1,2-Trichloroethane	10		11	110	80-120
2-Hexanone	25		26	104	80-120
Tetrachloroethene	10		11	110	80-120
1,2-Dibromoethane	10		11	110	80-120
Bromoform	10		12	120	80-120
1,4-Dichlorobenzene	10		11	110	80-120

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.

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

\* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 13 outside limits

COMMENTS:



4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKL8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Lab File ID: LDIB001FV.D

Lab Sample ID: VBLKL8

Date Analyzed: 06/20/95

Time Analyzed: 2145

GC Column:CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFBLDIF	LFBLDIF	LDIFLFB1V.D	2101
02	MW-39	260781	L260781V.D	0112
03	MW-42D	260783	L260783V.D	0145
04	MW-49D	260785	L260785V.D	0217
05	TB-6-12	260786	L260786V.D	0249
06	FH-D	261116	L261116V.D	0322
07	FH-S	261117	L261117V.D	0355
08	MW-27	261118	L261118V.D	0428
09	MW-45	261119	L261119V.D	0501
10	MW-48	261120	L261120V.D	0534
11	MW-50D	261121	L261121V.D	0606
12	MW-59	261122	L261122V.D	0638
13	MW-60	261123	L261123V.D	0711
14				
15				
16				
17				
18				
19				
20				
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COMMENTS:

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4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKL9
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Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Lab File ID: LDIB001GV.D

Lab Sample ID: VBLKL9

Date Analyzed: 06/21/95

Time Analyzed: 1203

GC Column: CAP ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	LFBLDIG	LFBLDIG	LDIGLFB1V.D	1128
02	MW-40	260782	L260782I2V.D	1328
03	MW-45MS	261119MS	L261119MSV.D	1533
04	MW-45MSD	261119MD	L261119MDV.D	1609
05	PT-19	261124	L261124V.D	1712
06	PT-11	261128	L261128V.D	1745
07	TB-6-13	261129	L261129V.D	1819
08	MSB	261130	L261130I2V.D	1851
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COMMENTS:

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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKL8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Matrix: (soil/water) WATER

Lab Sample ID: VBLKL8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001FV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/20/95

GC Column: CAP 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
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-t-Butyl Ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
590-20-7	2,2-Dichloropropane	0.5	U
67-66-3	Chloroform	0.5	U
74-97-5	Bromochloromethane	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
74-95-3	Dibromomethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
142-28-9	1,3-Dichloropropane	0.5	U



1A-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKL8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Matrix: (soil/water) WATER

Lab Sample ID: VBLKL8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001FV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/20/95

GC Column: CAP 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

127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
108-86-1	Bromobenzene	0.5	U
103-65-1	n-Propylbenzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
99-87-6	p-Isopropyltoluene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKL8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Matrix: (soil/water) WATER

Lab Sample ID: VBLKL8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001FV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/20/95

GC Column: CAP 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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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKL9

Lab Name: AQUATEC, INC. Contract: 93206  
 Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 51863  
 Matrix: (soil/water) WATER Lab Sample ID: VBLKL9  
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: LDIB001GV.D  
 Level: (low/med) LOW Date Received: / /  
 % Moisture: not dec. \_\_\_\_\_ Data Analyzed: 06/21/95  
 GC Column: CAP 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
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-t-Butyl Ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
590-20-7	2,2-Dichloropropane	0.5	U
67-66-3	Chloroform	0.5	U
74-97-5	Bromochloromethane	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
74-95-3	Dibromomethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
142-28-9	1,3-Dichloropropane	0.5	U



1A-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKL9

Lab Name: AQUATEC, INC. Contract: 93206  
 Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 51863  
 Matrix: (soil/water) WATER Lab Sample ID: VBLKL9  
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: LDIB001GV.D  
 Level: (low/med) LOW Date Received: / /  
 % Moisture: not dec. \_\_\_\_\_ Data Analyzed: 06/21/95  
 GC Column: CAP 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
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
108-86-1	Bromobenzene	0.5	U
103-65-1	n-Propylbenzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
99-87-6	p-Isopropyltoluene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKL9

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Matrix: (soil/water) WATER

Lab Sample ID: VBLKL9

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001GV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/21/95

GC Column: CAP 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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8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51863

Lab File ID (Standard): LDI010FHV.D

Date Analyzed: 06/20/95

Instrument ID: L

Time Analyzed: 2021

GC Column:CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	117857	9.23	94142	15.43	0	0.00
UPPER LIMIT	235714	9.73	188284	15.93	0	0.50
LOWER LIMIT	58928	8.73	47071	14.93	0	-0.50
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE No.						
=====	=====	=====	=====	=====	=====	=====
01 LFBLDIF	101637	9.22	82879	15.42		
02 VBLKL8	105014	9.22	86180	15.42		
03 VSTD0005	114545	9.21	90230	15.42		
04 MW-39	83707	9.22	66420	15.40		
05 MW-42D	99842	9.22	79020	15.42		
06 MW-49D	107736	9.22	83512	15.42		
07 TB-6-12	107522	9.21	86515	15.40		
08 FH-D	118642	9.21	93059	15.42		
09 FH-S	116197	9.22	91560	15.42		
10 MW-27	112293	9.22	90153	15.42		
11 MW-45	111082	9.21	87163	15.42		
12 MW-48	108272	9.22	85245	15.40		
13 MW-50D	105799	9.22	84742	15.40		
14 MW-59	112669	9.21	87001	15.40		
15 MW-60	112448	9.22	87548	15.42		
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IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 = N/A

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

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.









NYSDEC CLP TCL ANALYSIS QA/QC DATA  
SAMPLE DELIVERY GROUP NUMBER 51751



2A  
 WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
	=====	=====	=====	=====	=====	=====
01	VBLKK4	97	102	92		0
02	MW-20	100	104	94		0
03	VBLKK9	99	103	97		0
04	MSB	98	104	96		0
05	PT-18-R	99	104	96		0
06	PT-18	100	104	95		0
07	PT-18MS	100	103	94		0
08	PT-18MSD	100	103	94		0
09	PT-118	98	103	93		0
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QC LIMITS

SMC1 (TOL) = Toluene-d8 (88-110)  
 SMC2 (BFB) = Bromofluorobenzene (86-115)  
 SMC3 (DCE) = 1,2-Dichloroethane-d4 (76-114)

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



## WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix Spike - EPA Sample No.: PT-18

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	6200	0	5800	94	61-145
Trichloroethene	6200	23000	29000	97	71-120
Benzene	6200	0	6600	106	76-127
Toluene	6200	0	6600	106	76-125
Chlorobenzene	6200	0	6700	108	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	6200	5800	94	0	14	61-145
Trichloroethene	6200	29000	97	0	14	71-120
Benzene	6200	6600	106	0	11	76-127
Toluene	6200	6500	105	1	13	76-125
Chlorobenzene	6200	6600	106	2	13	75-130

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

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:





3A  
 WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix Spike - EPA Sample No.: MSB

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50		46	92	61-145
Trichloroethene	50		53	106	71-120
Benzene	50		53	106	76-127
Toluene	50		51	102	76-125
Chlorobenzene	50		53	106	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.

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

\* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: \_\_\_\_\_



4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKK4

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Lab File ID: MDDDB001ZCV.D

Lab Sample ID: VBLKK4

Date Analyzed: 06/15/95

Time Analyzed: 1123

GC Column:CAP ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: M

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	MW-20	260321	M260321V.D	1250
02				
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COMMENTS:

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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKK4

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK4

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: MDDB001ZCV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 06/15/95

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

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

CAS NO.	COMPOUND	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





1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKK4

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK4

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: Mddb001ZCV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 06/15/95

GC Column: CAP 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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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKK9

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK9

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: MDDBB001ZEV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 06/16/95

GC Column:CAP 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



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKK9

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK9

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: MDDBB001ZEV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 06/16/95

GC Column: CAP 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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8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Lab File ID (Standard): MDD050ZEHV.D

Date Analyzed: 06/16/95

Instrument ID: M

Time Analyzed: 2027

GC Column: CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

	IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
12 HOUR STD	314030	6.48	1353055	7.60	1042304	10.92
UPPER LIMIT	628060	6.98	2706110	8.10	2084608	11.42
LOWER LIMIT	157015	5.98	676528	7.10	521152	10.42
EPA SAMPLE No.						
01 VELKK9	321030	6.48	1300993	7.59	1033226	10.91
02 MSB	334153	6.48	1328721	7.60	1053067	10.92
03 PT-18-R	339339	6.48	1359309	7.60	1067966	10.91
04 PT-18	342564	6.48	1363241	7.60	1063939	10.91
05 PT-18MS	340911	6.48	1356117	7.60	1047544	10.91
06 PT-18MSD	336756	6.48	1345669	7.60	1043769	10.91
07 PT-118	336958	6.48	1335074	7.60	1045384	10.91
08						
09						
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11						
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17						
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19						
20						
21						
22						

IS1 (BCM) = Bromochloromethane  
 IS2 (DFB) = 1,4-Difluorobenzene  
 IS3 (CBZ) = Chlorobenzene-d5

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

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



EPA METHOD 524.2 ANALYSIS QA/QC DATA

SAMPLE DELIVERY GROUP NUMBER 51751



2A  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

	EPA SAMPLE NO.	SMC1 (DCE) #	SMC2 (BFB) #	SMC3 (DCB) #	OTHER	TOT OUT
01	VBLKK8	92	98	100		0
02	LFBLDIC	89	97	99		0
03	BRN-S	100	96	96		0
04	MW-35D	94	99	100		0
05	MW-47	95	98	100		0
06	MW-51D	96	103	104		0
07	MW-52D	97	96	99		0
08	MW-57D	91	97	99		0
09	MW-58D	88	95	94		0
10	TB-6-7	96	95	105		0
11	LFBLDIE	102	99	99		0
12	VBLKL5	97	101	98		0
13	MW-32	98	105	102		0
14	MW-33	96	103	101		0
15	MW-41D	99	95	97		0
16	MW-43	103	101	103		0
17	PT-10	101	100	101		0
18	PT-15	100	98	98		0
19	TB-6-10	98	101	96		0
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QC LIMITS

SMC1 (DCE) = 1,2-Dichloroethane-d4 (83-143)  
 SMC2 (BFB) = Bromofluorobenzene (86-115)  
 SMC3 (DCB) = 1,2-Dichlorobenzene-d4 (80-120)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out



## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIC  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51751  
 Fraction: VOA  
 Client Smp ID: LFBLDIC  
 Operator: CMP  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	1	108.06	60-140
2 Chloromethane	1	1	109.06	60-140
3 Vinyl Chloride	1	1	113.86	60-140
4 Bromomethane	1	1	113.91	60-140
5 Chloroethane	1	1	135.47	60-140
6 Trichlorofluoromet	1	1	114.88	60-140
7 1,1-Dichloroethene	1	1	120.75	60-140
8 Acetone	5	6	114.52	60-140
10 Methylene Chloride	1	1	120.84	60-140
11 trans-1,2-Dichloro	1	1	113.03	60-140
12 Methyl-t-Butyl Eth	1	1	111.17	60-140
13 1,1-Dichloroethane	1	1	121.42	60-140
14 2,2-Dichloropropan	1	1	126.53	60-140
15 cis-1,2-Dichloroet	1	1	111.31	60-140
16 2-Butanone	5	5	93.86	60-140
17 Bromochloromethane	1	1	104.77	60-140
19 Chloroform	1	1	114.32	60-140
20 1,1,1-Trichloroeth	1	1	121.49	60-140
21 Carbon Tetrachlori	1	1	111.40	60-140
22 1,1-Dichloropropen	1	1	120.52	60-140
24 Benzene	1	1	119.91	60-140
25 1,2-Dichloroethane	1	1	113.06	60-140
27 Trichloroethene	1	1	114.92	60-140
28 1,2-Dichloropropan	1	1	114.29	60-140
29 Dibromomethane	1	1	107.13	60-140
31 Bromodichlorometha	1	1	114.24	60-140
32 cis-1,3-Dichloropr	1	1	113.76	60-140
33 4-Methyl-2-Pentano	5	4	86.79	60-140
34 Toluene	1	1	113.43	60-140
35 trans-1,3-Dichloro	1	1	109.29	60-140
36 1,1,2-Trichloroeth	1	1	111.67	60-140
37 Tetrachloroethene	1	1	115.15	60-140
38 1,3-Dichloropropan	1	1	115.42	60-140
39 2-Hexanone	5	5	97.43	60-140
40 Dibromochlorometha	1	1	118.34	60-140
41 1,2-Dibromoethane	1	1	114.41	60-140





## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFB LDIC  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51751  
 Fraction: VOA  
 Client Smp ID: LFB LDIC  
 Operator: CMP  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 Chlorobenzene	1	1	118.02	60-140
44 1,1,1,2-Tetrachlor	1	1	122.10	60-140
45 Ethylbenzene	1	1	127.58	60-140
46 m- & p-Xylene	2	2	121.52	60-140
47 o-Xylene	1	1	118.17	60-140
M 48 Xylene (total)	3	4	124.03	60-140
49 Styrene	1	1	118.44	60-140
50 Bromoform	1	1	116.77	60-140
51 Isopropylbenzene	1	1	124.76	60-140
53 Bromobenzene	1	1	120.97	60-140
54 1,1,2,2-Tetrachlor	1	1	120.37	60-140
55 1,2,3-Trichloropro	1	1	133.92	60-140
56 n-Propylbenzene	1	1	116.18	60-140
57 2-Chlorotoluene	1	1	119.89	60-140
58 4-Chlorotoluene	1	1	121.65	60-140
59 1,3,5-Trimethylben	1	1	123.34	60-140
60 tert-Butylbenzene	1	1	128.18	60-140
61 1,2,4-Trimethylben	1	1	125.66	60-140
62 sec-Butylbenzene	1	1	128.79	60-140
63 1,3-Dichlorobenzen	1	1	124.92	60-140
65 p-Isopropyltoluene	1	1	121.01	60-140
66 1,4-Dichlorobenzen	1	1	121.51	60-140
68 1,2-Dichlorobenzen	1	1	126.72	60-140
69 n-Butylbenzene	1	1	127.88	60-140
70 1,2-Dibromo-3-Chlo	1	2	164.37*	60-140
71 1,2,4-Trichloroben	1	1	125.67	60-140
72 Hexachlorobutadien	1	1	121.30	60-140
73 Naphthalene	1	1	122.06	60-140
74 1,2,3-Trichloroben	1	1	122.71	60-140

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 23 1,2-Dichloroethane	2	2	89.39	83-143
\$ 52 Bromofluorobenzene	2	2	96.79	86-115
\$ 67 1,2-Dichlorobenzen	2	2	98.83	80-120



## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIE  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51751  
 Fraction: VOA  
 Client Smp ID: LFBLDIE  
 Operator: CMP  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	0.8	77.57	60-140
2 Chloromethane	1	1.0	96.93	60-140
3 Vinyl Chloride	1	0.9	89.57	60-140
4 Bromomethane	1	1	101.39	60-140
5 Chloroethane	1	1	109.51	60-140
6 Trichlorofluoromet	1	1.0	97.29	60-140
7 1,1-Dichloroethene	1	1	107.97	60-140
8 Acetone	5	4	82.67	60-140
10 Methylene Chloride	1	1	111.92	60-140
11 trans-1,2-Dichloro	1	1	106.84	60-140
12 Methyl-t-Butyl Eth	1	1.0	95.03	60-140
13 1,1-Dichloroethane	1	1	116.17	60-140
14 2,2-Dichloropropan	1	1	112.23	60-140
15 cis-1,2-Dichloroet	1	1	113.77	60-140
16 2-Butanone	5	3	67.99	60-140
17 Bromochloromethane	1	1	121.73	60-140
19 Chloroform	1	1	108.90	60-140
20 1,1,1-Trichloroeth	1	1	110.91	60-140
21 Carbon Tetrachlori	1	1	102.20	60-140
22 1,1-Dichloropropen	1	1	114.97	60-140
24 Benzene	1	1	116.61	60-140
25 1,2-Dichloroethane	1	1	108.45	60-140
27 Trichloroethene	1	1	117.56	60-140
28 1,2-Dichloropropan	1	1	116.33	60-140
29 Dibromomethane	1	1	108.65	60-140
31 Bromodichlorometha	1	1	106.11	60-140
32 cis-1,3-Dichloropr	1	1	114.04	60-140
33 4-Methyl-2-Pentano	5	4	83.58	60-140
34 Toluene	1	1	104.83	60-140
35 trans-1,3-Dichloro	1	1	108.44	60-140
36 1,1,2-Trichloroeth	1	1	109.29	60-140
37 Tetrachloroethene	1	1	111.17	60-140
38 1,3-Dichloropropan	1	1	115.58	60-140
39 2-Hexanone	5	4	88.19	60-140
40 Dibromochlorometha	1	1	105.93	60-140
41 1,2-Dibromoethane	1	1	102.21	60-140



## LFB RECOVERY REPORT

Client Name: ENGSC2  
 Sample Matrix: LIQUID  
 Lab Smp Id: LFBLDIE  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: lfbver3ketMTBE.spk

Client SDG: 51751  
 Fraction: VOA  
 Client Smp ID: LFBLDIE  
 Operator: CMP  
 SampleType: MS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 Chlorobenzene	1	1	111.09	60-140
44 1,1,1,2-Tetrachlor	1	1	113.39	60-140
45 Ethylbenzene	1	1	102.66	60-140
46 m- & p-Xylene	2	2	103.40	60-140
47 o-Xylene	1	1	103.20	60-140
M 48 Xylene (total)	3	3	107.05	60-140
49 Styrene	1	1	107.20	60-140
50 Bromoform	1	0.9	93.40	60-140
51 Isopropylbenzene	1	1	109.07	60-140
53 Bromobenzene	1	1	100.45	60-140
54 1,1,2,2-Tetrachlor	1	1	109.00	60-140
55 1,2,3-Trichloropro	1	1	117.34	60-140
56 n-Propylbenzene	1	1	105.46	60-140
57 2-Chlorotoluene	1	1	108.53	60-140
58 4-Chlorotoluene	1	1	105.49	60-140
59 1,3,5-Trimethylben	1	1	108.64	60-140
60 tert-Butylbenzene	1	1	110.31	60-140
61 1,2,4-Trimethylben	1	1	101.38	60-140
62 sec-Butylbenzene	1	1	104.89	60-140
63 1,3-Dichlorobenzen	1	1	101.63	60-140
65 p-Isopropyltoluene	1	1	105.13	60-140
66 1,4-Dichlorobenzen	1	1	107.78	60-140
68 1,2-Dichlorobenzen	1	1	103.81	60-140
69 n-Butylbenzene	1	1	108.08	60-140
70 1,2-Dibromo-3-Chlo	1	1	124.63	60-140
71 1,2,4-Trichloroben	1	1	108.26	60-140
72 Hexachlorobutadien	1	1	121.19	60-140
73 Naphthalene	1	1	106.36	60-140
74 1,2,3-Trichloroben	1	1	111.50	60-140

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 23 1,2-Dichloroethane	2	2	101.56	83-143
\$ 52 Bromofluorobenzene	2	2	98.69	86-115
\$ 67 1,2-Dichlorobenzen	2	2	98.99	80-120









4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKL5
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Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Lab File ID: LDIB001EV.D

Lab Sample ID: VBLKL5

Date Analyzed: 06/20/95

Time Analyzed: 1032

GC Column: CAP ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	LFBLDIE	LFBLDIE	LDIELFB1V.D	1005
02	MW-32	260322	L260322V.D	1448
03	MW-33	260323	L260323V.D	1514
04	MW-41D	260324	L260324V.D	1547
05	MW-43	260325	L260325V.D	1620
06	PT-10	260326	L260326V.D	1653
07	PT-15	260327	L260327V.D	1725
08	TB-6-10	260328	L260328V.D	1758
09				
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COMMENTS:

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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKK8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001CV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/16/95

GC Column: CAP 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
75-71-8-----	Dichlorodifluoromethane	0.5	U
74-87-3-----	Chloromethane	0.5	U
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.5	U
75-00-3-----	Chloroethane	0.5	U
75-69-4-----	Trichlorofluoromethane	0.5	U
67-64-1-----	Acetone	5	U
75-35-4-----	1,1-Dichloroethene	0.5	U
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
75-09-2-----	Methylene Chloride	0.5	U
1634-04-4-----	Methyl-t-Butyl Ether	0.5	U
75-34-3-----	1,1-Dichloroethane	0.5	U
156-59-2-----	cis-1,2-Dichloroethene	0.5	U
78-93-3-----	2-Butanone	5	U
590-20-7-----	2,2-Dichloropropane	0.5	U
67-66-3-----	Chloroform	0.5	U
74-97-5-----	Bromochloromethane	0.5	U
71-55-6-----	1,1,1-Trichloroethane	0.5	U
563-58-6-----	1,1-Dichloropropene	0.5	U
56-23-5-----	Carbon Tetrachloride	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
71-43-2-----	Benzene	0.5	U
79-01-6-----	Trichloroethene	0.5	U
78-87-5-----	1,2-Dichloropropane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
74-95-3-----	Dibromomethane	0.5	U
108-10-1-----	4-Methyl-2-Pentanone	5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-88-3-----	Toluene	0.5	U
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
591-78-6-----	2-Hexanone	5	U
142-28-9-----	1,3-Dichloropropane	0.5	U



1A-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKK8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001CV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/16/95

GC Column: CAP 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
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127-18-4-----Tetrachloroethene	0.5	U
124-48-1-----Dibromochloromethane	0.5	U
106-93-4-----1,2-Dibromoethane	0.5	U
108-90-7-----Chlorobenzene	0.5	U
630-20-6-----1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----Ethylbenzene	0.5	U
1330-20-7-----Xylene (total)	0.5	U
100-42-5-----Styrene	0.5	U
75-25-2-----Bromoform	0.5	U
98-82-8-----Isopropylbenzene	0.5	U
79-34-5-----1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----1,2,3-Trichloropropane	0.5	U
108-86-1-----Bromobenzene	0.5	U
103-65-1-----n-Propylbenzene	0.5	U
95-49-8-----2-Chlorotoluene	0.5	U
108-67-8-----1,3,5-Trimethylbenzene	0.5	U
106-43-4-----4-Chlorotoluene	0.5	U
98-06-6-----tert-Butylbenzene	0.5	U
95-63-6-----1,2,4-Trimethylbenzene	0.5	U
135-98-8-----sec-Butylbenzene	0.5	U
99-87-6-----p-Isopropyltoluene	0.5	U
541-73-1-----1,3-Dichlorobenzene	0.5	U
106-46-7-----1,4-Dichlorobenzene	0.5	U
104-51-8-----n-Butylbenzene	0.5	U
95-50-1-----1,2-Dichlorobenzene	0.5	U
96-12-8-----1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----1,2,4-Trichlorobenzene	0.5	U
87-68-3-----Hexachlorobutadiene	0.5	U
91-20-3-----Naphthalene	0.5	U
87-61-6-----1,2,3-Trichlorobenzene	0.5	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKK8

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix: (soil/water) WATER

Lab Sample ID: VBLKK8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001CV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/16/95

GC Column: CAP 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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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKL5
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Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix: (soil/water) WATER

Lab Sample ID: VBLKL5

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001EV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/20/95

GC Column: CAP 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
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-t-Butyl Ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
590-20-7	2,2-Dichloropropane	0.5	U
67-66-3	Chloroform	0.5	U
74-97-5	Bromochloromethane	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
563-58-6	1,1-Dichloropropene	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
74-95-3	Dibromomethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
142-28-9	1,3-Dichloropropane	0.5	U



1A-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKL5

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix: (soil/water) WATER

Lab Sample ID: VBLKL5

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001EV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/20/95

GC Column: CAP 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
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropylbenzene	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
108-86-1	Bromobenzene	0.5	U
103-65-1	n-Propylbenzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethylbenzene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
98-06-6	tert-Butylbenzene	0.5	U
95-63-6	1,2,4-Trimethylbenzene	0.5	U
135-98-8	sec-Butylbenzene	0.5	U
99-87-6	p-Isopropyltoluene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
104-51-8	n-Butylbenzene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKL5

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Matrix: (soil/water) WATER

Lab Sample ID: VBLKL5

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: LDIB001EV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. \_\_\_\_\_

Data Analyzed: 06/20/95

GC Column: CAP 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.				
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8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 51751

Lab File ID (Standard): LDI010EHV.D

Date Analyzed: 06/20/95

Instrument ID: L

Time Analyzed: 0845

GC Column:CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	122019	9.18	96398	15.40	0	0.00
UPPER LIMIT	244038	9.68	192796	15.90	0	0.50
LOWER LIMIT	61010	8.68	48199	14.90	0	-0.50
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE No.						
=====	=====	=====	=====	=====	=====	=====
01 LFBLDIE	124611	9.21	97751	15.41		
02 VBLKL5	124255	9.21	96603	15.40		
03 VSTD0005	122868	9.21	98517	15.41		
04 MW-32	115496	9.21	86331	15.42		
05 MW-33	119835	9.22	93533	15.42		
06 MW-41D	117492	9.22	94154	15.44		
07 MW-43	115760	9.24	89702	15.44		
08 PT-10	115742	9.22	90349	15.42		
09 PT-15	116224	9.22	93908	15.44		
10 TB-6-10	120287	9.22	94299	15.44		
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19						
20						
21						
22						

IS1 (FBZ) = Fluorobenzene  
IS2 (CBZ) = Chlorobenzene-d5  
IS3 = N/A

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

# Column used to flag values outside QC limits with an asterisk.  
\* Values outside of QC limits.



APPENDIX E

VOC HEADSPACE ANALYSIS TECHNIQUE DESCRIPTION



## DESCRIPTION OF VOC HEADSPACE ANALYSIS TECHNIQUE

The headspace analysis of groundwater for VOCs is performed by sampling the air in a VOA vial half filled with water and injecting it into a Photovac 10S50 gas chromatograph.

Groundwater from a well is poured gently into a VOA vial that contains no preservatives. The vial is filled half full, capped, and stored with ice in a cooler.

Trip blanks and temperature blanks are prepared in the field. Trip blanks for headspace analysis are prepared at the beginning of the day by filling vials that contain no preservative half full with demonstrated analyte-free water. Temperature blanks are prepared by filling a VOA vial half-full with potable water. Both types of blanks are stored with the samples in ice until they are analyzed.

At the end of the day, a chain of custody form is completed for the samples and trip blanks prepared during the day.

Prior to analysis of the samples, the gas chromatograph is set up and calibrated. On the first day of analysis, a five-point calibration curve for the volatile compounds of interest are prepared. At the beginning of each succeeding day, a two-point calibration is run and the response factors are checked. The syringes are checked for cleanliness by running a syringe blank before it is used to collect a sample from a vial.

Prior to analysis, the samples and blanks are heated to room temperature (65 to 70 degrees F) by placing them in a hot water bath. The temperature of the water in the temperature blank is measured to determine when the samples should be removed from the water bath. After the samples and blanks are removed from the water bath, they are shaken for one minute, then stood upright on the table for one minute. The temperature of the temperature blank is measured and recorded just prior to analysis of the samples.

Sample analysis is performed by inserting the needle on a gas-tight syringe through the septum of the vial and extracting exactly 1 mL of air from the headspace above the water sample. The needle is then inserted into the septum of the gas chromatograph and the analysis started. Two more headspace samples are obtained and analyzed to obtain triplicate analyses for each sample. If dilution of the sample is required, triplicate analyses of the diluted sample are performed. Between each sample, one standard is run to determine whether the retention times have changed.

