

87-02

PARSONS ENGINEERING SCIENCE, INC.

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April 4, 1995
725980-01004

Mr. Randall Battaglia
ATTN: SDSSE-HE
Seneca Army Depot Activity
Romulus, New York, 14541-5001

SUBJECT: First Quarter Groundwater Monitoring for 1995
Ash Landfill, Seneca Army Depot Activity, Romulus, New York

Dear Mr. Battaglia:

Enclosed are the analytical results for the first quarter of 1995 for groundwater monitoring of selected monitoring wells at the Ash Landfill at the Seneca Army Depot Activity (SEDA). The analytical results are divided into two major groups: volatile organics and QA/QC data (Sections 1 and 2 in the attached document). This is the fourth and last quarter of groundwater monitoring that will be performed under the existing Scope of Work (SOW) issued as Annex AC, Delivery Order 0029, to the current Parsons Engineering Science, Inc. (Parsons ES) Contract DACA87-92-D-0022.

This quarter's program incorporates the modifications to the groundwater monitoring program, approved by the New York State Department of Environmental Conservation (NYSDEC) on December 6, 1993. The proposed changes were based on the dimensions of the existing groundwater plume and were intended to monitor the migration, if any, of the plume. Under this plan, selected wells were sampled and analyzed for Volatile Organic Compounds (VOC) using NYSDEC Contract Laboratory Procedures (CLP). The off-site farmhouse wells were sampled and analyzed for VOCs following the methods described in EPA's Method 524.2. Several on-site monitoring wells were also analyzed using headspace techniques. NSYDEC CLP and EPA Method 524.2 analyses were performed by Inchcape Laboratories Inc. and headspace analyses were performed by Parsons ES personnel.

Chemical analysis data of the groundwater from wells on-site indicate no VOCs were detected in the samples, except that trichloroethene was detected at 1 ug/L in MW-30 using the headspace analysis technique. Groundwater from this well was split and analyzed using EPA Method 524.2. The laboratory analysis detected trichloroethene at 0.6 ug/L. Previous analyses of groundwater from MW-30 detected trichloroethene at concentrations of 0.8, 15 and 3 ug/L using the headspace analysis technique during the second, third and fourth quarters of 1994, respectively. A split sample from MW-30 was analyzed using EPA Method 524.2 during the fourth quarter of 1994 and trichloroethene was determined to be present at 2 ug/L.


Mr. Randall Battaglia
April 4, 1995
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Using EPA Method 524.2 analyses, no VOCs were detected in the drinking water samples from the three farmhouse wells.

Please call me at (617) 859-2492 if you have any questions.

Sincerely,

PARSONS ENGINEERING SCIENCE, INC.

A handwritten signature in black ink, appearing to read "Michael Duchesneau", with a long horizontal flourish extending to the right.

Michael Duchesneau, P.E.
Project Manager

MD/cmf/D#12

Enclosure

cc: Ms. L. Percifield, MRD-Lab, 1 copy
Ms. D. Richards, USACE, 2 copies
Mr. A. Struzeki, DESCOM, 1 copy

**GROUNDWATER MONITORING
VALIDATED ANALYTICAL RESULTS FOR THE FIRST QUARTER 1995
ASH LANDFILL, SENECA ARMY DEPOT**

PREPARED FOR:
U.S. Army Corps of Engineers
Huntsville, Alabama

PREPARED BY:
Parsons Engineering Science, Inc.
Boston, Massachusetts

April 1995
D#12

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 - 2.2 Matrix Spike/Matrix Spike Duplicates
 - 2.3 Method Blanks

SECTION 1.0
Volatile Organic Compounds

- 1.1 Summary of Validated and Headspace Volatile Analysis Results**
- 1.2 Validated Volatile Analysis Results
(TCL and 524.2)**

1.1 Summary of Validated and Headspace Volatile Analysis Results

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

MONITORING WELL	COMPOUND									TOTAL VOCs (ug/l)	
	1,2-DCE (ug/l)	1,1-DCE (ug/l)	TCE (ug/l)	Vinyl Chloride (ug/l)	Chloroform (ug/l)	1,2-DCA (ug/l)	Methylene Chloride (ug/l)	Styrene (ug/l)	Benzene (ug/l)		
MW-36	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	ND
MW-40	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	ND
MW-63(MW-40 DUP)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	ND
MW-47	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	ND
MW-56	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	ND
MW-30	0.5 U	0.5 U	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6
FH-S	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	0.5 U	ND
FH-D	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	0.5 U	ND
BN-S	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	0.5 U	ND
MW-64(BN-S DUP)	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	0.5 U	ND

Notes:

1,2-DCE = 1,2-Dichloroethene (total)
TCE = Trichloroethene
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene

U = Not detected above the concentration shown
ND = Not Detected
ug/l = micrograms per liter

**ASH LANDFILL FIRST 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	100U	1U	1U	1	1
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 = microgram per liter

**1.2 Validated Volatile Analysis Results
(TCL and 524.2)**

**ASH LANDFILL FIRST QUARTER 1995 GROUNDWATER MONITORING
VALIDATED VOLATILE ANALYSIS RESULTS (TCL)**

COMPOUND	MATRIX LOCATION SAMPLE DATE ES ID LAB ID UNITS	WATER ASH 3/16/95 MW-36 251176	WATER ASH 3/17/95 MW-40 251178	WATER ASH 3/17/95 MW-63 251182 MW-40 DUP	WATER ASH 3/16/95 MW-47 251180	WATER ASH 3/16/95 MW-56 251181	WATER ASH 3/17/95 MW-40R 251177 RINSATE
VOLATILE ORGANICS							
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	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	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	ug/L	10 U	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	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	10 U	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	10 U
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	10 U	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	10 U
Benzene	ug/L	10 U	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	10 U
Bromoform	ug/L	10 U	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	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	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	10 U
Toluene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U

NOTES:

ug/L = micrograms/liter

U = Not detected above the concentration shown

ASH LANDFILL FIRST QUARTER 1995 GROUNDWATER MONITORING
VALIDATED VOLATILE 524.2 ANALYSIS RESULTS

COMPOUND	MATRIX LOCATION SAMPLE DATE ES ID LAB ID UNITS	WATER ASH 3/16/95 BN-S 251172	WATER ASH 3/16/95 MW-64 251183 BN-S DUP	WATER ASH 3/16/95 FH-D 251173	WATER ASH 3/16/95 FH-S 251174	WATER ASH 3/17/95 MW-30 251175	WATER ASH 3/16/95 BN-S-R 251171 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 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
trans-1,2-Dichloroethene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide	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	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
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	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
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	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	0.6	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	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
1,1,1-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
1,1,1,2-Tetrachloroethane	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

**ASH LANDFILL FIRST QUARTER 1995 GROUNDWATER MONITORING
VALIDATED VOLATILE 524.2 ANALYSIS RESULTS**

COMPOUND	MATRIX LOCATION SAMPLE DATE ES ID LAB ID UNITS	WATER ASH 3/16/95 BN-S 251172	WATER ASH 3/16/95 MW-64 251183 BN-S DUP	WATER ASH 3/16/95 FH-D 251173	WATER ASH 3/16/95 FH-S 251174	WATER ASH 3/17/95 MW-30 251175	WATER ASH 3/16/95 BN-S-R 251171 RINSATE
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

NOTES:

ug/L = micrograms/liter

U = Not detected above the concentration shown

Section 2.0
QA/QC Data

- 2.1 Surrogate Spike Recoveries**
- 2.2 Matrix Spike/Matrix Spike Duplicates**
- 2.3 Method Blanks**

2.1 Surrogate Spike Recoveries

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKP4	97	103	96		0
02	MW36	97	106	99		0
03	MW40R	97	105	99		0
04	MW40	98	105	98		0
05	MW47	101	108	102		0
06	MW56	98	107	100		0
07	MW63	98	107	99		0
08	MW40MS	97	105	98		0
09	MW40MSD	96	106	97		0
10	MSB	97	104	96		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 SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

	EPA SAMPLE NO.	SMC1 (DCE) #	SMC2 (BFB) #	SMC3 (DCB) #	OTHER	TOT OUT
01	MCVFLFB1	92	94	89		0
02	VBLKP9	106	98	101		0
03	BNSR	91	95	92		0
04	BNS	106	99	104		0
05	FHD	107	98	104		0
06	FHS	110	96	102		0
07	MW30	110	97	102		0
08	MW64	113	99	105		0
09	TB316	109	96	100		0
10	TB317	109	97	101		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

2.2 Matrix Spike/Matrix Spike Duplicates

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

Matrix Spike - EPA Sample No.: MW40

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	36	72	61-145
Trichloroethene	50	0	49	98	71-120
Benzene	50	0	50	100	76-127
Toluene	50	0	49	98	76-125
Chlorobenzene	50	0	52	104	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD REC.	
1,1-Dichloroethene	50	37	74	3	14	61-145
Trichloroethene	50	49	98	0	14	71-120
Benzene	50	50	100	0	11	76-127
Toluene	50	49	98	0	13	76-125
Chlorobenzene	50	52	104	0	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:

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

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		35	70	61-145
Trichloroethene	50		48	96	71-120
Benzene	50		50	100	76-127
Toluene	50		48	96	76-125
Chlorobenzene	50		51	102	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:

Report Date: 27-Mar-1995 13:05

Aquatec, Inc.

RECOVERY REPORT

Contract: 93206
Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: MCVFLFB1
Level: LOW

Case No.: 93206
Client SDG: 49994
Fraction: VOA
Client Smp ID: MCVFLFB1
Operator: CMP

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	0.9	90.55	60-140
2 Chloromethane	1	0.8	81.00	60-140
3 Vinyl Chloride	1	0.8	84.75	60-140
4 Bromomethane	1	1	102.91	60-140
5 Chloroethane	1	1	108.44	60-140
6 Trichlorofluoromet	1	1.0	97.85	60-140
7 1,1-Dichloroethene	1	1	106.38	60-140
8 Acetone	5	4	86.85	60-140
10 Methylene Chloride	1	0.9	94.27	60-140
11 trans-1,2-Dichloro	1	1	101.32	60-140
12 Methyl-t-Butyl Eth	1	0.9	92.36	60-140
13 1,1-Dichloroethane	1	1	103.82	60-140
14 2,2-Dichloropropan	1	1	107.43	60-140
15 cis-1,2-Dichloroet	1	0.9	86.62	60-140
16 2-Butanone	5	4	76.17	60-140
17 Bromochloromethane	1	0.9	90.76	60-140
19 Chloroform	1	1	103.34	60-140
20 1,1,1-Trichloroeth	1	1.0	98.37	60-140
21 Carbon Tetrachlori	1	1.0	97.75	60-140
22 1,1-Dichloropropen	1	1	109.08	60-140
24 Benzene	1	1	104.80	60-140
25 1,2-Dichloroethane	1	0.9	86.10	60-140
27 Trichloroethene	1	1	103.16	60-140
28 1,2-Dichloropropan	1	0.9	94.71	60-140
29 Dibromomethane	1	0.9	91.85	60-140
31 Bromodichlorometha	1	1.0	99.44	60-140
32 cis-1,3-Dichloropr	1	0.9	89.01	60-140
33 4-Methyl-2-Pentano	5	4	81.20	60-140
34 Toluene	1	1.0	99.80	60-140
35 trans-1,3-Dichloro	1	0.8	84.93	60-140
36 1,1,2-Trichloroeth	1	0.9	86.78	60-140
37 Tetrachloroethene	1	1	102.78	60-140
38 1,3-Dichloropropan	1	1.0	95.13	60-140
39 2-Hexanone	5	4	86.75	60-140
40 Dibromochlorometha	1	0.9	86.07	60-140
41 1,2-Dibromoethane	1	0.9	91.46	60-140

Report Date: 27-Mar-1995 13:05

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 Chlorobenzene	1	1.0	97.64	60-140
44 1,1,1,2-Tetrachlor	1	1	104.04	60-140
45 Ethylbenzene	1	1	102.79	60-140
46 m- & p-Xylene	2	2	99.69	60-140
47 o-Xylene	1	1	102.26	60-140
M 48 Xylene (total)	3	3	102.53	60-140
49 Styrene	1	0.9	91.95	60-140
50 Bromoform	1	0.8	84.24	60-140
51 Isopropylbenzene	1	1	109.74	60-140
53 Bromobenzene	1	1.0	96.05	60-140
54 1,1,2,2-Tetrachlor	1	0.9	92.87	60-140
55 1,2,3-Trichloropro	1	0.8	75.05	60-140
56 n-Propylbenzene	1	1	104.98	60-140
57 2-Chlorotoluene	1	1.0	95.37	60-140
58 4-Chlorotoluene	1	1.0	97.92	60-140
59 1,3,5-Trimethylben	1	1.0	99.35	60-140
60 tert-Butylbenzene	1	1	107.50	60-140
61 1,2,4-Trimethylben	1	0.9	94.38	60-140
62 sec-Butylbenzene	1	1.0	99.09	60-140
63 1,3-Dichlorobenzen	1	0.9	91.75	60-140
65 p-Isopropyltoluene	1	1	105.92	60-140
66 1,4-Dichlorobenzen	1	1	103.11	60-140
68 1,2-Dichlorobenzen	1	0.9	92.51	60-140
69 n-Butylbenzene	1	1	107.68	60-140
70 1,2-Dibromo-3-Chlo	1	0.9	91.97	60-140
71 1,2,4-Trichloroben	1	0.9	92.34	60-140
72 Hexachlorobutadien	1	1	101.22	60-140
73 Naphthalene	1	0.8	84.81	60-140
74 1,2,3-Trichloroben	1	0.9	89.44	60-140

2.3 Method Blanks

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKP4

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

Lab File ID: MCLB001LV.D

Lab Sample ID: VBLKP4

Date Analyzed: 03/21/95

Time Analyzed: 1708

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	MW36	251176	M251176V.D	2004
02	MW40R	251177	M251177V.D	2032
03	MW40	251178	M251178V.D	2101
04	MW47	251180	M251180V.D	2144
05	MW56	251181	M251181V.D	2206
06	MW63	251182	M251182V.D	2234
07	MW40MS	251178MS	M251178MSV.D	2303
08	MW40MSD	251178MD	M251178MDV.D	2331
09	MSB	251179	M251179V.D	0001
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKP4

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

Matrix: (soil/water) WATER

Lab Sample ID: VBLKP4

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

Lab File ID: MCLB001LV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. _____

Date Analyzed: 03/21/95

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.

VBLKP4

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

Matrix: (soil/water) WATER

Lab Sample ID: VBLKP4

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

Lab File ID: MCLB001LV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. _____

Date Analyzed: 03/21/95

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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4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKP9

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

Lab File ID: MCVB001FV.D

Lab Sample ID: VBLKP9

Date Analyzed: 03/23/95

Time Analyzed: 0904

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	MCVFLFB1	MCVFLFB1	MCVFLFB1V.D	0825
02	BNSR	251171	M251171V.D	0956
03	BNS	251172	M251172V.D	1025
04	FHD	251173	M251173V.D	1101
05	FHS	251174	M251174V.D	1137
06	MW30	251175	M251175V.D	1212
07	MW64	251183	M251183V.D	1247
08	TB316	251184	M251184V.D	1322
09	TB317	251185	M251185V.D	1358
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKP9

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

Matrix: (soil/water) WATER

Lab Sample ID: VBLKP9

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

Lab File ID: MCVB001FV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. _____

Data Analyzed: 03/23/95

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.

VBLKP9

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

Matrix: (soil/water) WATER

Lab Sample ID: VBLKP9

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

Lab File ID: MCVB001FV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. _____

Data Analyzed: 03/23/95

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.

VBLKP9

Lab Name: AQUATEC, INC.

Contract: 93206

Lab Code: AQUAI

Case No.: 93206

SAS No.:

SDG No.: 49994

Matrix: (soil/water) WATER

Lab Sample ID: VBLKP9

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

Lab File ID: MCVB001FV.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. _____

Data Analyzed: 03/23/95

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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APPENDIX 4

OB/OD GROUNDS FIRST QUARTER 1995

GROUNDWATER MONITORING REPORT

PARSONS ENGINEERING SCIENCE, INC.

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

April 4, 1995
725980-01004

Mr. Randall Battaglia
ATTN: SDSSE-HE
Seneca Army Depot Activity
Romulus, New York 14541-5001

SUBJECT: First Quarter Groundwater Monitoring for 1995
OB/OD Grounds, Seneca Army Depot Activity, Romulus, New York

Dear Mr. Battaglia:

Enclosed are the analytical results for the first quarter 1995 groundwater monitoring for selected monitoring wells at the Open Burning (OB) and Open Detonation (OD) grounds at the Seneca Army Depot Activity (SEDA). The analytical results are divided into two major groups: indicator parameters and QA/QC data (Sections 1 and 2 in the attached document). This is the fourth quarter of groundwater monitoring that has been performed under the Scope of Work issued as Annex AC, Delivery Order 0029, to the current contract DACA87-92-D-0022.

During this quarter, only the two newly-designated background wells were scheduled for sampling: MW-13 at the OB Grounds and MW45-4 at the OD Grounds. Four replicate groundwater samples from each well were obtained and analyzed for the four RCRA indicator parameters.

Please do not hesitate to call me at (617) 859-2492 if you have any questions.

Sincerely,

PARSONS ENGINEERING SCIENCE, INC.



Michael Duchesneau
Project Manager

MD/sb/D#12

Enclosure

cc: Ms. L. Percifield, MRD-Lab, 1 copy
 Ms. D. Richards, USACE, 2 copies
 Mr. A. Struzeki, DESCOM, 1 copy

**GROUNDWATER MONITORING
VALIDATED ANALYTICAL RESULTS FOR THE FIRST QUARTER 1995
OB/OD GROUNDS, SENECA ARMY DEPOT**

PREPARED FOR:
U.S. Army Corps of Engineers
Huntsville, Alabama

PREPARED BY:
Parsons Engineering Science, Inc.
Boston, Massachusetts

April 1995
D#12

TABLE OF CONTENTS

- 1.0 Indicator Parameters
 - 1.1 Tabulated Indicator Parameters Results

- 2.0 QA/QC Data
 - 2.1 Indicator Parameter Laboratory Report
 - 2.2 Laboratory Control Samples and Blanks for Indicator Parameters

Section 1.0
Indicator Parameters

1.1 Tabulated Indicator Parameters Results

1.1

Tabulated Indicator Parameters Results

**OB GROUNDS FIRST QUARTER 1995 MONITORING
INDICATOR ANALYSIS RESULTS**

PARAMETER	MATRIX SITE DATE SAMPLED ES ID LAB ID UNITS	WATER OB 3/15/95 MW-13A 251006	WATER OB 3/15/95 MW-13B 251007	WATER OB 3/15/95 MW-13C 251008	WATER OB 3/15/95 MW-13D 251009 & 251093
pH	stnd. units	7.13	7.15	7.09	7.08
Conductivity	umhos/cm	924	867	937	935
Total Organic Carbon	mg/L	0.7	0.5	0.9	0.6
Total Organic Halides	mg/L	0.02 U	0.02 U	0.02 U	0.02 U

**OD GROUNDS FIRST QUARTER 1995 MONITORING
INDICATOR ANALYSIS RESULTS**

PARAMETER	MATRIX SITE DATE SAMPLED ES ID LAB ID UNITS	WATER OD 3/15/95 MW45-4A 251012	WATER OD 3/15/95 MW45-4B 251013	WATER OD 3/15/95 MW45-4C 251014	WATER OD 3/15/95 MW45-4D 251015
pH	std. units	7.27	7.24	7.25	7.23
Conductivity	umhos/cm	840	823	821	810
Total Organic Carbon	mg/L	0.9	0.9	1	0.9
Total Organic Halides	mg/L	0.02 U	0.02 U	0.02 U	0.02 U

Section 2.0
QA/QC Data

- 2.1 Indicator Parameter Laboratory Report
- 2.2 Laboratory Control Samples and Blanks
for Indicator Parameters

2.1

Indicator Parameter Laboratory Report



Inchcape Testing Services

Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Date : 03/23/95
ETR Number : 49994
Project No.: 93206
No. Samples: 10
Arrived : 03/16/95
P.O. Number: 725980-013

Attention : Mike Duchesneau

Page 1

Case:93206 SDG:49994

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

Lab No./ Method No.	Sample Description/ Parameter	Result
251006	MW-13A:03/15/95 @1515(Water)	
9020	Total Organic Halides	<0.02
9060	Total Organic Carbon	0.7
9050	Conductivity (umhos/cm)	924
9040	pH (std. units)	7.13
251007	MW-13B:03/15/95 @1515(Water)	
9020	Total Organic Halides	<0.02
9060	Total Organic Carbon	0.5
9050	Conductivity (umhos/cm)	867
9040	pH (std. units)	7.15
251008	MW-13C:03/15/95 @1515(Water)	
9020	Total Organic Halides	<0.02
9060	Total Organic Carbon	0.9
9050	Conductivity (umhos/cm)	937
9040	pH (std. units)	7.09
251009	MW-13D:03/15/95 @1515(Water)	
9060	Total Organic Carbon	0.6
9050	Conductivity (umhos/cm)	935
9040	pH (std. units)	7.08
251010	MW-13R:03/15/95 @0745(Water)	
9020	Total Organic Halides	<0.02
9060	Total Organic Carbon	<0.5
9050	Conductivity (umhos/cm)	5.0
9040	pH (std. units)	8.08

< Cont. Next Page >





Inchcape Testing Services

Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Date : 03/23/95
ETR Number : 49994
Project No.: 93206
No. Samples: 10
Arrived : 03/16/95
P.O. Number: 725980-013

Attention : Mike Duchesneau

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Case:93206 SDG:49994

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

Lab No./ Method No.	Sample Description/ Parameter	Result
251011	MW45-3R:03/15/95 @0730(Water)	
9020	Total Organic Halides	<0.02
9060	Total Organic Carbon	<0.5
9050	Conductivity (umhos/cm)	4.0
9040	pH (std. units)	8.03
251012	MW45-4A:03/15/95 @1045(Water)	
9020	Total Organic Halides	<0.02
9060	Total Organic Carbon	0.9
9050	Conductivity (umhos/cm)	840
9040	pH (std. units)	7.27
251013	MW45-4B:03/15/95 @1045(Water)	
9020	Total Organic Halides	<0.02
9060	Total Organic Carbon	0.9
9050	Conductivity (umhos/cm)	823
9040	pH (std. units)	7.24
251014	MW45-4C:03/15/95 @1045(Water)	
9020	Total Organic Halides	<0.02
9060	Total Organic Carbon	1.0
9050	Conductivity (umhos/cm)	821
9040	pH (std. units)	7.25
251015	MW45-4D:03/15/95 @1045(Water)	
9020	Total Organic Halides	<0.02
9060	Total Organic Carbon	0.9
9050	Conductivity (umhos/cm)	810
9040	pH (std. units)	7.23

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Submitted By :

Aquatec Inc.



2.2

Laboratory Control Samples and Blanks for Indicator Parameters

Quality Control Summary
Project No 93206 ETR No 49994
SDG No 49994

Method Preparation Blank
Units: mg/L

<u>Parameter</u>	<u>Found Result</u>
Total Organic Halides	<0.02
Total Organic Carbon	<0.5

Laboratory Control Sample
Units: mg/L

<u>Parameter</u>	<u>Found Value</u>	<u>True Value</u>	<u>% Recovery</u>
Total Organic Halides	5.00	5.00	100.0
Total Organic Carbon	9.32	9.96	93.6
Conductivity (umhos/cm)	1424	1413	100.8
PH (std units)	5.97	6.00	99.5