AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

N62269.AR.000452
NAWC WARMINSTER
5090.3a

received
8/07/97

August 5, 1997

Carl

~~Rita Lee~~
Foster Wheeler Environmental Corporation
One Oxford Valley
2300 Lincoln Highway East
Suite 200
Langhorne, PA 19047

Dear Ms Lee:

Enclosed please find results of analyses performed on a sample received 7/17/97.

The sample was analyzed in accordance with EPA-approved methods.

Please feel free to call me at (410) 730-8525 if you have any questions about this report.

Sincerely,

John C. Ermatinger
Project Manager

9707-081
Enclosures
jce

Prepare in quintuplicate (original and 4 copies)

CONTRACTOR DRAWINGS & INFORMATION SUBMITTAL
NORTHNAVFACENGCOM 4335/3 (Rev. 6/80)

CONTROL NO. 31

CONTRACT NO	DELIVERY ORDER #	ACTIVITY LOCATION
N62472-94-D-0398	0018	Warminster, PA

PROJECT TITLE:
Various Remedial Action at NAWC

FROM:	DATE
Foster Wheeler Environmental Corp. - Program QCM: Akram Aziz	August 15, 1997
TO	DATE
S. Lehman (2 copies)	August 15, 1997

1 THE CONTRACTOR SUBMITTALS LISTED BELOW ARE FORWARDED FOR YOUR REVIEW AND RECOMMENDATIONS
(a) APPLY APPROPRIATE STAMP IMPRINT TO EACH SUBMITTAL AND INDICATE REVIEW COMMENTS, AS REQUIRED.
(b) RETAIN ONE (1) COPY OF THIS TRANSMITTAL FORM AND RETURN REMAINING COPIES WITH REVIEWED SUBMITTALS TO ROICC

2. THESE SUBMITTALS SHOULD BE RETURNED TO THIS OFFICE BY _____

3. _____

COPY TO

[X] ROICC **E. Beatty (2 copies)** [ ] RPM [X] CSO **M. Hunter (2 copies)**

SIGNATURE AND DATE 8/15/97

FROM DESIGNER	DATE
TO ROICC	DATE

1 THE SUBMITTALS LISTED BELOW HAVE BEEN REVIEWED AND ARE RETURNED, WITH ACTION TAKEN AS INDICATED.

2. _____

COPY TO

[ ] ROICC [ ] DESIGNER

SIGNATURE AND DATE

FROM ROICC	DATE
TO CONTRACTOR	DATE

1 THE SUBMITTALS LISTED BELOW HAVE BEEN REVIEWED AND ARE APPROVED/DISAPPROVED AS SHOWN BELOW AND ON EACH STAMP IMPRINT.

COPY TO:
[ ] ROICC [ ] OTHER

FOR COMMANDING OFFICER, NORTHERN DIVISION NAVAL FACILITIES ENGINEERING COMMAND — DATE

ITEM NO.	SUBMITTAL DESCRIPTION	PREPARED/ SUBMITTED BY	APPROVED	DISAPPROVED	REMARKS
31	SD-10, Test Reports	A. Aziz			
	WWTP Laboratory Analysis Reports				
	(June & July, 97)				

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road, Columbia, MD 21045 Phone (410) 730-8525 Fax (410) 997-2586

CHAIN OF CUSTODY RECORD

GREY SHADED AREAS FOR AEN LAB USE

AEN # 9707081 Quote # _____ Scope Q / M

Client Name: Foster Wheeler

Project Name: NAWC WARMINSTER

Site Location: City, State WARMINSTER, PA

# of Container	1	4	9	15	3	3	3
Container Type							
Preservative Used	—	—	H_2SO_4	HCL	—	HNO_3	NaOH
Type of Analysis	TSS	pH + TSS	TOC	TCL VOA	Chromium +6	Metals	CN

LAB #	SAMPLE - ID	DATE	TIME	MATRIX	TSS	pH + TSS	TOC	TCL VOA	Chromium +6	Metals	CN				REMARKS
1	DO-0018-06-001	7/16/97	1110	H_2O		1									
2	DO-0018-06-002	7/16/97	1123	H_2O		1	3	3	1	1	1				
3	DO-0018-06-003	7/16/97	1130	H_2O	1										
4	DO-0018-06-004	7/16/97	1134	H_2O		1			1	1	1				
5	DO-0018-06-005	7/16/97	1137	H_2O				3							
6	DO-0018-06-006	7/16/97	1141	H_2O			3	3							
7	DO-0018-06-007	7/16/97	1149	H_2O		1	3	3	1	1	1				
8	DO-0018-06-Field Blank	7/16/97	1153	H_2O				3							

Relinquished by: (Signature) ①	Date / Time	Received by: (Signature)	Received by Laboratory: (Signature)	Date / Time	Shipped via: Shipping Ticket No.
[signature]	7/16/97 1200		[signature]	7/17/97 10:30	
Relinquished by: (Signature) ②	Date / Time	Received by: (Signature)	Remarks:		
Relinquished by: (Signature) ③	Date / Time	Received by: (Signature)	Sampling By:	Sampler's Signature	

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9707081
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: July 22, 1997
Analysis: General Chemistry Parameters

Client ID	AENI ID	Date Sampled	Date Received
DO-0018-06-001	9707081-001	07/16/97	07/17/97
DO-0018-06-002	9707081-002	07/16/97	07/17/97
DO-0018-06-003	9707081-003	07/16/97	07/17/97
DO-0018-06-004	9707081-004	07/16/97	07/17/97
DO-0018-06-007	9707081-007	07/16/97	07/17/97

Five water samples were received and analyzed for General Chemistry Parameters.

Samples were analyzed three hours outside of hold time for hexavalent chromium. All other quality control data were within acceptable limits.

This report consists of tabulated sample results and a QC Summary Report.

Report Released By:

Christopher Baggett
Inorganic Laboratory Manager

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9707081-001
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: July 22, 1997
Sample ID: D0-0018-06-001

Parameter	Method	Result	Date Analyzed
pH	EPA 150.1	6.9	07/17/97
Total Suspended Solids (1)	EPA 160.2	< 1	07/21/97 (2)

(1) Results reported as mg/L
(2) Date analysis started

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9707081-002
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: July 22, 1997
Sample ID: D0-0018-06-002

Parameter	Method	Result	Date Analyzed
Hexavalent Chromium (1)	SW846 7196	< 0.01	07/17/97
pH	EPA 150.1	7.3	07/17/97
Total Cyanide (1)	SW846 9010A	< 0.02	07/21/97
Total Suspended Solids (1)	EPA 160.2	< 1	07/21/97 (2)

(1) Results reported as mg/L
(2) Date analysis started

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9707081-003
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: July 22, 1997
Sample ID: D0-0018-06-003

Parameter	Method	Result	Date Analyzed
Total Suspended Solids (1)	EPA 160.2	< 1	07/21/97 (2)

(1) Results reported as mg/L
(2) Date analysis started

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9707081-004
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: July 22, 1997
Sample ID: D0-0018-06-004

Parameter	Method	Result	Date Analyzed
Hexavalent Chromium (1)	SW846 7196	< 0.01	07/17/97
pH	EPA 150.1	7.4	07/17/97
Total Cyanide (1)	SW846 9010A	< 0.02	07/21/97
Total Suspended Solids (1)	EPA 160.2	< 1	07/21/97 (2)

(1) Results reported as mg/L
(2) Date analysis started

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9707081-007
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: July 22, 1997
Sample ID: D0-0018-06-007

Parameter	Method	Result	Date Analyzed
Hexavalent Chromium (1)	SW846 7196	< 0.01	07/17/97
pH	EPA 150.1	7.8	07/17/97
Total Cyanide (1)	SW846 9010A	< 0.02	07/21/97
Total Suspended Solids (1)	EPA 160.2	< 1	07/21/97 (2)

(1) Results reported as mg/L
(2) Date analysis started

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9707081
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: July 22, 1997
Analysis: General Chemistry Parameters

QC SUMMARY

Parameter	Sample ID	Result/Recovery
Hexavalent Chromium	PBLK970717	< 0.01 mg/L
	BS970717	100%
	BSD970717	102%
	9707081-007	< 0.01 mg/L
	9707081-007D	< 0.01 mg/L
	9707081-007MS	108%
	9707081-007MSD	108%
Total Suspended Solids	PBLK970721	< 1 mg/L
	BS970721	93%
	9707075-005	19 mg/L
	9707075-005D	17 mg/L
pH (true value = 6.00)	BS970717	6.01
	BSD970717	6.00
	9707081-001	6.9
	9707081-001D	6.9
Total Cyanide	PBLK970721	< 0.02 mg/L
	BS970721	95%
	BSD970721	95%
	9707081-002	< 0.02 mg/L
	9707081-002D	< 0.02 mg/L
	9707081-004	< 0.02 mg/L
	9707081-004MS	94%
	9707081-007	< 0.02 mg/L
	9706081-007MS	92%

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Client: Foster Wheeler

Project: Warminster, PA

Case: 9707081

Analysis: General Chemistry Parameters

Date: July 29, 1997

Client ID	AENI ID	Date Sampled	Date Received
DO-0018-06-002	9707081-002	07/16/97	07/17/97
DO-0018-06-006	9707081-006	07/16/97	07/17/97
DO-0018-06-007	9707081-007	07/16/97	07/17/97

Three samples were received and analyzed for General Chemistry Parameters. The samples were subcontracted to a third party labs for Total Organic Carbon analyses.

The enclosed reports consist of tabulated results.

Report Released By:

John C. Ermatinger
Project Manager

American Environmental Network, Inc.
11 East Olive Road • Pensacola, FL 32514 • (904) 474-1001

SIGNATURE PAGE

Reviewed by: Linda Lofton
AEN Project Manager

Client: AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
COLUMBIA, MARYLAND

Project Name: FOSTER WHEELER
Project Number: 9707081/~~75/54~~
Project Location: WARMINSTER, PA
Accession Number: 707298

Project Manager: JOHN ERMATINGER
Sampled By: N/S

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: TOTAL ORGANIC CARBON

Accession:	707298
Client:	AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number:	9707081/~~75/54~~
Project Name:	FOSTER WHEELER
Project Location:	WARMINSTER, PA
Department:	SEMI-VOLATILE FUELS

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 707298
Client: AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number: 9707081/~~75/54~~
Project Name: FOSTER WHEELER
Project Location: WARMINSTER, PA
Test: TOTAL ORGANIC CARBON
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A
Matrix: WATER
QC Level: III

Lab Id: 001 Sample Date/Time: 16-JUL-97 1141
Client Sample Id: DO-0018-06-002 Received Date: 22-JUL-97

Batch: TOW070 Extraction Date: N/A
Blank: B Dry Weight %: N/A Analysis Date: 24-JUL-97

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	ND	1	R
ANALYST	INITIALS	LP		

Comments:
R = IMPROPER PRESERVATION, SAMPLE TEMPERATURE EXCEEDED EPA TEMPERATURE REQUIREMENT UPON RECEIPT.

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 707298
Client: AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number: 9707081/~~75/54~~
Project Name: FOSTER WHEELER
Project Location: WARMINSTER, PA
Test: TOTAL ORGANIC CARBON
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A
Matrix: WATER
QC Level: III

Lab Id: 002 Sample Date/Time: 16-JUL-97 1123
Client Sample Id: DO-0018-06-006 Received Date: 22-JUL-97

Batch: TOW070 Extraction Date: N/A
Blank: B Dry Weight %: N/A Analysis Date: 24-JUL-97

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	ND	1	R
ANALYST	INITIALS	LP		

Comments:
R = IMPROPER PRESERVATION, SAMPLE TEMPERATURE EXCEEDED EPA TEMPERATURE REQUIREMENT UPON RECEIPT.

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 707298
Client: AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number: 9707081/~~75/54~~
Project Name: FOSTER WHEELER
Project Location: WARMINSTER, PA
Test: TOTAL ORGANIC CARBON
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A
Matrix: WATER
QC Level: III

Lab Id: 003 Sample Date/Time: 16-JUL-97 1110
Client Sample Id: DO-0018-06-007 Received Date: 22-JUL-97

Batch: TOW070 Extraction Date: N/A
Blank: B Dry Weight %: N/A Analysis Date: 24-JUL-97

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	ND	1	R
ANALYST	INITIALS	LP		

Comments:
R = IMPROPER PRESERVATION, SAMPLE TEMPERATURE EXCEEDED EPA TEMPERATURE REQUIREMENT UPON RECEIPT.

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Quality Control Report

Analysis: TOTAL ORGANIC CARBON

Accession:	707298
Client:	AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number:	9707081/~~75/54~~
Project Name:	FOSTER WHEELER
Project Location:	WARMINSTER, PA
Department:	SEMI-VOLATILE FUELS

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"QC Report"

Title: Water Blank
Batch: TOW070
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A

Blank Id: B Date Analyzed: 24-JUL-97 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
TOTAL ORGANIC CARBON	MG/L	ND	1
ANALYST	INITIALS	LP	

Comments:

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"QC Report"

Title: Water Reagent
Batch: TOW070
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A

RS Date Analyzed: 22-JUL-97
RSD Date Analyzed: 22-JUL-97

RS Date Extracted: N/A
RSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	RSD Conc	RSD %Rec	RPD	RPD Lmts	Rec Lmts
TOC	6.7	<1	6.8	101	7.0	104	3	30	71-127

Surrogates:

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/L = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"QC Report"

Title: Water Matrix
Batch: TOW070
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A

Dry Weight %: N/A
Sample Spiked: 707298-1

MS Date Analyzed: 24-JUL-97
MSD Date Analyzed: 24-JUL-97

MS Date Extracted: N/A
MSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
TOC	6.7	<1	6.7	100	6.9	103	3	30	51-135

Surrogates:

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/L = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

Common notation for Organic reporting

N/S = NOT SUBMITTED
N/A = NOT APPLICABLE
D = DILUTED OUT
UG = MICROGRAMS
UG/L = PARTS PER BILLION.
UG/KG = PARTS PER BILLION.
MG/M3 = MILLIGRAM PER CUBIC METER.
PPMV = PART PER MILLION BY VOLUME.
MG/KG = PARTS PER MILLION.
MG/L = PARTS PER MILLION.
< = LESS THAN DETECTION LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS
Y = IMPROPER PRESERVATION, NO PRESERVATIVE PRESENT IN SAMPLE UPON RECEIPT.

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRYWEIGHT BASIS.

ND = NOT DETECTED ABOVE REPORTING LIMIT.

RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

AEN/GC/FID
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME IONIZATION DETECTOR (FID).

AEN/GC/FIX
AEN GAS CHROMATOGRAPHIC METHOD FOR ANALYSIS OF FIXED GASES EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD) AND FLAME IONIZATION DETECTOR (FID).

AEN/GC/FPD
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME PHOTOMETRIC DETECTOR (FPD) IN SULFUR-SPECIFIC MODE.

AEN/GC/PID
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH PHOTOIONIZATION DETECTOR (PID).

AEN/GC/TCD
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD).

SW-846 METHOD 9020
PARTICULATE MATTER IS REMOVED BY ALLOWING PARTICULATES TO SETTLE IN THE SAMPLE CONTAINER AND DECANTING THE SUPERNATANT LIQUID. EXCESSIVE PARTICULATES ARE REMOVED BY FILTRATION OF THE SUPERNATANT LIQUID.

AEN-PN USES THE MOST CURRENT PROMULGATED METHODS CONTAINED IN THE REFERENCE MANUALS.

SW = STEVE WILHITE
RW = ROBERT WOLFE
KS = KENDALL SMITH
KL = KERRY LEMONT
JO = JENNIFER O'NEAL
LP = LEVERNE PETERSON
PLD = PAULA DOUGHTY

TOW070 7/24/97 LP

NO CAL -- 1 ML
1 TOC 5.613
2 TOC 5.838
3 TOC 5.817

CAL -- 1 ML
CAL AVE 5.756
CAL ADJ 9.992

10 ppm

1 TOC 4.829
2 TOC 4.497

5 ppm

3 TOC 23.78
4 TOC 23.86

25 ppm

5 TOC 43.11
6 TOC 43.99

50 ppm

7 TOC 0.311
8 TOC 0.268

BLK B

9 TOC 0.609
10 TOC 0.751

707298 1

11 TOC 0.453
12 TOC 0.415

2

13 TOC 0.686
14 TOC 0.693

3

707289 1

15 TOC 10.03
16 TOC 10.25

707291 1

17 TOC 3.459
18 TOC 3.648

19 TOC 6.589
20 TOC 6.765

MS 6.7

21 TOC 6.800
22 TOC 6.938

MD 6.9

TOW070 7/24/97 LP

SELFTEST
NO ERRORS

1 TOC 5.562
2 TOC 5.628
3 TOC 5.729

CAL -- 1 ML
CAL AVE 5.640
CAL ADJ 9.994

10 ppm

1 TOC 4.729
2 TOC 4.783

5 ppm

3 TOC 24.38
4 TOC 24.62

25 ppm

5 TOC 44.68
6 TOC 45.34

50 ppm

7 TOC 0.229
8 TOC 0.259

BLK A

9 TOC 6.779
10 ~~TOC 6.757~~ VOID
11 TOC 6.805

KS 6.8

12 TOC 7.730
12 CANCELLED

TIMEOUT ERROR< 10%

13 TOC 6.971
14 TOC 6.978

RP 7.0

American Environmental Network, Inc.

Case Number: L9707081
Client Name: Foster Wheeler Environmental Corp.
Project Name: FWE-WARMINSTER
Method: 8260A

Client ID	AEN ID	Matrix	Date Sampled	Date Received	Date Analyzed
DO-0018-06-002	L9707081-002	Water	07/16/97	07/17/97	07/24/97
DO-0018-06-005	L9707081-005	Water	07/16/97	07/17/97	07/24/97
DO-0018-06-006	L9707081-006	Water	07/16/97	07/17/97	07/24/97
DO-0018-06-007	L9707081-007	Water	07/16/97	07/17/97	07/24/97
DO-0018-06-FLDBLK	L9707081-008	Water	07/16/97	07/17/97	07/24/97

Five ground water samples were analyzed for the TCL volatile organic compounds using SW846 Method 8260A. This package consists of the tabulated results of the sample(s), method blank(s), and the QC forms II, III, IV, V, VI, VII, and VIII.

Form I (Tabulated Results):
All sample analyses were performed within the holding time requirement.

Form II (Surrogate Recovery):
All surrogate recoveries were within specified limits with the exception of Toluene-d8 which was slightly high (120%) in sample DO-0018-06-007.

Form III (Matrix Spike/Matrix Spike Duplicate (MS/MSD):
The MS/MSD analysis was performed on client sample DO-0018-06-007. All recoveries and %RPDs were within specified limits with the following exceptions:

Trichloroethene MS recovery was 70%
%RPD for Trichloroethene was 18%
%RPD for Benzene was 13%

Form IV (Method Blank Summary):
The method blank was free of target analytes with the exception of Methylene chloride at 1.1 µg/L.

Form V (Tuning and Mass Calibration):
All analyses were performed within the specified mass calibration and tune time criteria.

Form VI (Initial Calibration):
Each initial calibration was within the specified minimum mean RRF and maximum %RSD.

Form VII (Continuing Calibration):
Each continuing calibration standard was within the specified minimum RRF and maximum %DIFF.

Form VIII (Internal Standard Summary):
All internal standard areas and retention times were within specified criteria.

Analyst: Will J Glass Date 7/29/97

Released by: Marsha J Burrell Date 7/29/97

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: _____ Location: _____ Group: _____

	SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER #	TOT OUT
01	VBLK01	100	109	78		
02	D0-0018-06-002	83	88	83		
03	D0-0018-06-005	89	97	79		
04	D0-0018-06-006	103	106	81		
05	D0-0018-06-007	111	102	83		
06	D0-0018-06-007	97	120 *	93		1
07	D0-0018-06-007	105	108	78		
08	D0-0018-06-FLDB	85	97	83		
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 = Dibromofluoromethane	(79-122)
SMC2 = Toluene-d8	(86-112)
SMC3 = Bromofluorobenzene	(76-118)

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: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix Spike - Sample No.: DO-0018-06-007

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	41	82	(61-145)
Benzene	50	0	50	100	(76-127)
Trichloroethene	50	0	35	70 *	(71-120)
Toluene	50	0	49	98	(76-125)
Chlorobenzene	50	0	44	88	(75-130)

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MS % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	44	88	7	14	(61-145)
Benzene	50	44	88	13 *	11	(76-127)
Trichloroethene	50	42	84	18 *	14	(71-120)
Toluene	50	44	88	11	13	(76-125)
Chlorobenzene	50	48	96	9	13	(75-130)

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

* Values outside of QC limits

RPD: 2 out of 5 outside limits
Spike Recovery: 1 out of 10 outside limits

Comments:

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Lab File ID: EG168.D Lab Sample ID: VBLK 01

Date Analyzed: 7/24/97 Time Analyzed: 1309

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: E7200

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	DO-0018-06-002	#002	EG169.D	7/24/97
02	DO-0018-06-005	#005	EG170.D	7/24/97
03	DO-0018-06-006	#006	EG171.D	7/24/97
04	DO-0018-06-007	#007	EG172.D	7/24/97
05	DO-0018-06-007MS	#007 MS	EG173.D	7/24/97
06	DO-0018-06-007MSD	#007 MSD	EG174.D	7/24/97
07	DO-0018-06-FLDBLK	#008	EG175.D	7/24/97
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COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: _____ Location: _____ Group: _____

Lab File ID: EG166.D BFB Injection Date: 7/24/97

Instrument ID: E7200 BFB Injection Time: 1215

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.9
75	30.0 - 60.0% of mass 95	48.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	76.6
175	5.0 - 9.0% of mass 174	5.8 (7.5)1
176	95.0 - 101.0% of mass 174	75.1 (98.0)1
177	5.0 - 9.0% of mass 176	5.4 (7.1)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	50 PPB	EG167.D	7/24/97	1237
02	VBLK01	VBLK 01	EG168.D	7/24/97	1309
03	D0-0018-06-002	#002	EG169.D	7/24/97	1341
04	D0-0018-06-005	#005	EG170.D	7/24/97	1414
05	D0-0018-06-006	#006	EG171.D	7/24/97	1449
06	D0-0018-06-007	#007	EG172.D	7/24/97	1521
07	D0-0018-06-007	#007 MS	EG173.D	7/24/97	1553
08	D0-0018-06-007	#007 MSD	EG174.D	7/24/97	1625
09	D0-0018-06-FLD	#008	EG175.D	7/24/97	1657
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8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Lab File ID (Standard): EG167.D Date Analyzed: 7/24/97

Instrument ID: E7200 Time Analyzed: 1237

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	2013689	7.72	2227531	9.37	446738	14.52
	UPPER LIMIT	4027378	8.22	4455062	9.87	893476	15.02
	LOWER LIMIT	1006845	7.22	1113766	8.87	223369	14.02
	SAMPLE NO.						
01	VBLK01	1859213	7.78	2043987	9.43	423238	14.53
02	DO-0018-06-002	1998455	7.77	2225721	9.43	340789	14.53
03	DO-0018-06-005	1932240	7.72	2164956	9.37	390842	14.53
04	DO-0018-06-006	1779615	7.77	2045414	9.41	388805	14.53
05	DO-0018-06-007	1774024	7.77	1982068	9.43	410174	14.55
06	DO-0018-06-007MS	2048193	7.77	1890740	9.43	381143	14.53
07	DO-0018-06-007MSD	1857067	7.77	2044622	9.41	412780	14.53
08	DO-0018-06-FLDBLK	2015946	7.77	2190422	9.43	374008	14.53
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IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

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

Column 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: AENI Contract: FOS60

Project No.: [illegible] Site: Location: Group:

Lab File ID (Standard): EG167.D Date Analyzed: 7/24/97

Instrument ID: E7200 Time Analyzed: 1237

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1188405	18.87				
	UPPER LIMIT	2376810	19.37				
	LOWER LIMIT	594203	18.37				
	SAMPLE NO.						
01	VBLK01	1080451	18.87				
02	D0-0018-06-002	1159700	18.87				
03	D0-0018-06-005	1123841	18.87				
04	D0-0018-06-006	1032415	18.87				
05	D0-0018-06-007	1019400	18.87				
06	D0-0018-06-007MS	1181047	18.87				
07	D0-0018-06-007MSD	1056547	18.86				
08	D0-0018-06-FLDBLK	1176955	18.86				
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IS4 = 1,4-Dichlorobenzene-d4

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.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG169.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	1.8	JB
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	8.2	J
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-002

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG169.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-002

Lab Name: AENI Contract: FOS60

Project No.: 9707 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG169.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

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

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-005

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG170.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	11	
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	4.5	JB
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-005

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG170.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-005

Lab Name: AENI Contract: FOS60

Project No.: 9707 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG170.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

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

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-006

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG171.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	3.2	JB
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-006

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG171.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-006

Lab Name: AENI Contract: FOS60

Project No.: 9707 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG171.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-007

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG172.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	2.7	JB
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-007

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG172.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-007

Lab Name: AENI Contract: FOS60

Project No.: 9707 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG172.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DD-0018-06-FLDBLK

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG175.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	3.5	JB
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-FLDBLK

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG175.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-FLDBLK

Lab Name: AENI Contract: FOS60

Project No.: 9707 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG175.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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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Response Factor Report E7200

Method : C:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Mon Jun 10 16:46:34 1996
Response via : Initial Calibration

Calibration Files
20 =EE116.D 50 =EE117.D 100 =EE118.D
150 =EE119.D 200 =EE120.D

		Compound	20	50	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------						
2)		Dichlorodifluoromethane	0.357	0.311	0.321	0.277	0.287	0.311	10.08
3)	MPCC	Chloromethane	0.249	0.195	0.178	0.160	0.199	0.196	17.04
4)	CCC	Vinyl Chloride	0.147	0.125	0.121	0.101	0.128	0.124	13.23
5)		Bromomethane	0.181	0.168	0.178	0.167	0.168	0.172	3.79
6)		Chloroethane	0.118	0.100	0.102	0.095	0.100	0.103	8.43
7)		Trichlorofluoromethane	0.613	0.578	0.607	0.551	0.581	0.586	4.29
8)		Acrolein	0.017	0.013	0.013	0.013	0.014	0.014	10.90
9)		Acetone	0.051	0.047	0.044	0.045	0.047	0.047	5.63
10)		tert-Butyl Alcohol	0.048	0.033	0.031	0.037	0.039	0.038	16.70
11)	CCC	1,1-Dichloroethene	0.218	0.196	0.206	0.187	0.196	0.201	5.93
12)		Iodomethane	0.736	0.640	0.674	0.633	0.636	0.664	6.57
13)		Acetonitrile	0.280	0.230	0.246	0.225	0.231	0.243	9.22
14)		Methylene Chloride	0.314	0.243	0.237	0.211	0.221	0.245	16.62
15)		Ally chloride	0.280	0.230	0.246	0.225	0.220	0.240	10.13
16)		Carbon Disulfide	0.871	0.596	0.604	0.594	0.615	0.656	18.34
17)		Acrylonitrile	0.073	0.053	0.050	0.051	0.054	0.056	16.61
18)		Methyl tert-Butyl ether	0.890	0.660	0.662	0.635	0.665	0.702	15.06
19)		trans-1,2-Dichloroethene	0.246	0.224	0.234	0.216	0.234	0.231	5.08
20)	MPCC	1,1-Dichloroethane	0.478	0.450	0.466	0.425	0.422	0.448	5.58
21)		Vinyl Acetate	0.457	0.333	0.354	0.307	0.327	0.356	16.60
22)		Isopropyl Ether	1.044	0.784	0.788	0.778	0.809	0.841	13.61
23)		2-Butanone	0.127	0.088	0.082	0.089	0.089	0.095	19.11
24)		Propionitrile	0.028	0.020	0.019	0.019	0.020	0.021	18.37
25)		2,2-Dichloropropane	0.406	0.408	0.409	0.377	0.359	0.392	5.81
26)		cis-1,2-Dichloroethene	0.284	0.273	0.282	0.269	0.262	0.274	3.38
27)		Methacrylonitrile	0.102	0.073	0.072	0.076	0.074	0.079	16.06
28)	CCC	Chloroform	0.594	0.587	0.605	0.567	0.554	0.581	3.58
29)		Bromochloromethane	0.267	0.287	0.291	0.263	0.273	0.276	4.48
30)	S	Dibromofluoromethane	0.531	0.555	0.532	0.525	0.544	0.537	2.21
31)		1,1,1-Trichloroethane	0.572	0.587	0.619	0.545	0.567	0.578	4.76
32)		1,1-Dichloropropene	0.460	0.434	0.455	0.406	0.419	0.435	5.28
33)	I	1,4-Difluorobenzene	----------ISTD----------						
34)		Carbon Tetrachloride	0.601	0.609	0.661	0.601	0.584	0.611	4.78
35)		1,2-Dichloroethane	0.413	0.436	0.438	0.403	0.385	0.415	5.35
36)		Isobutyl Alcohol	0.042	0.032	0.032	0.033	0.032	0.034	12.38
37)		Benzene	0.780	0.777	0.808	0.761	0.730	0.771	3.72
38)		Trichloroethene	0.476	0.473	0.492	0.455	0.428	0.465	5.23
39)	CCC	1,2-Dichloropropane	0.334	0.353	0.363	0.330	0.321	0.340	4.99
40)		Methyl methacrylate	0.271	0.239	0.228	0.236	0.225	0.240	7.60
41)		Bromodichloromethane	0.660	0.710	0.714	0.642	0.618	0.669	6.31
42)		Dibromomethane	0.424	0.384	0.372	0.354	0.332	0.373	9.25

(#) = Out of Range

Response Factor Report E7200

Method : C:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Mon Jun 10 16:46:34 1996
Response via : Initial Calibration

Calibration Files
20 =EE116.D 50 =EE117.D 100 =EE118.D
150 =EE119.D 200 =EE120.D

		Compound	20	50	100	150	200	Avg	%RSD
43)		2-Chloroethylvinyl ether	0.282	0.209	0.194	0.202	0.195	0.216	17.24
44)		4-Methyl-2-Pentanone	0.628	0.455	0.416	0.432	0.413	0.469	19.29
45)		cis-1,3-Dichloropropene	0.472	0.507	0.513	0.471	0.457	0.484	5.07
46)	S	Toluene-d8	1.033	1.034	1.042	1.033	0.969	1.022	2.92
47)	I	Chlorobenzene-d5	----------ISTD----------						
48)	CCC	Toluene	2.877	2.916	3.110	2.851	2.714	2.894	4.94
49)		trans-1,3-Dichloropropene	2.130	2.314	2.338	2.151	2.046	2.196	5.71
50)		Ethyl methacrylate	3.086	2.466	2.366	2.464	2.295	2.536	12.47
51)		1,1,2-Trichloroethane	1.690	1.830	1.827	1.663	1.589	1.720	6.16
52)		2-Hexanone	1.347	1.068	0.978	1.019	0.957	1.074	14.78
53)		1,3-Dichloropropane	2.423	2.562	2.579	2.358	2.253	2.435	5.66
54)		Tetrachloroethene	3.058	2.706	2.929	2.720	2.459	2.775	8.29
55)		Dibromochloromethane	3.297	3.588	3.576	3.277	3.106	3.369	6.19
56)		1,2-Dibromoethane	3.151	2.819	2.759	2.649	2.478	2.771	8.98
57)	MPCC	Chlorobenzene	4.109	4.307	4.436	3.985	3.735	4.115	6.67
58)		1,1,1,2-Tetrachloroethane	2.790	2.451	2.402	2.281	2.084	2.401	10.79
59)	CCC	Ethylbenzene	1.938	1.998	2.005	1.775	1.667	1.877	7.95
60)		m + p-Xylene	2.469	2.546	2.682	2.420	2.259	2.475	6.30
61)		o-Xylene	2.397	2.505	2.575	2.332	2.193	2.400	6.21
62)		Styrene	4.072	4.345	4.433	4.045	3.795	4.138	6.16
63)	MPCC	Bromoform	3.026	3.309	3.243	2.948	2.773	3.060	7.15#
64)		Isopropylbenzene	7.286	7.565	7.861	7.044	6.621	7.275	6.55
65)		cis-1,4-Dichloro-2-butene	1.049	0.750	0.717	0.720	0.664	0.780	19.68
66)	MPCC	1,1,2,2-Tetrachloroethane	2.640	2.851	2.702	2.431	2.370	2.599	7.61#
67)	S	Bromofluorobenzene	3.618	3.389	3.318	3.320	2.986	3.326	6.80
68)	I	1,4-Dichlorobenzene-d4	----------ISTD----------						
69)		1,2,3-Trichloropropane	0.325	0.255	0.249	0.231	0.218	0.256	16.15
70)		trans-1,4-Dichloro-2-bute	0.299	0.233	0.231	0.223	0.207	0.239	14.83
71)		Bromobenzene	0.905	0.919	0.972	0.864	0.814	0.895	6.63
72)		n-Propylbenzene	2.816	2.732	2.977	2.571	2.438	2.707	7.75
73)		1,3,5-Trimethylbenzene	1.975	1.949	2.125	1.846	1.752	1.929	7.30
74)		2-Chlorotoluene	1.888	1.875	1.898	1.628	1.853	1.828	6.21
75)		4-Chlorotoluene	2.051	2.028	2.272	2.016	1.882	2.050	6.86
76)		tert-Butylbenzene	2.759	2.458	2.599	2.296	2.210	2.464	9.02
77)		1,2,4-Trimethylbenzene	2.016	1.995	2.152	1.872	1.762	1.960	7.57
78)		Pentachloroethane	0.773	0.577	0.555	0.538	0.522	0.593	17.34
79)		sec-Butylbenzene	2.700	2.682	2.962	2.519	2.459	2.664	7.35
80)		p-Isopropyltoluene	2.360	2.329	2.574	2.189	2.100	2.310	7.85
81)		1,3-Dichlorobenzene	1.445	1.446	1.564	1.394	1.308	1.431	6.50
82)		1,4-Dichlorobenzene	1.541	1.542	1.618	1.458	1.297	1.491	8.19
83)		Benzyl Chloride	1.938	1.368	1.316	1.271	1.188	1.416	21.12
84)		n-Butylbenzene	2.293	2.224	2.478	2.079	1.999	2.215	8.46

(#) = Out of Range

Response Factor Report E7200

Method : C:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Mon Jun 10 16:46:34 1996
Response via : Initial Calibration

Calibration Files
20 =EE116.D 50 =EE117.D 100 =EE118.D
150 =EE119.D 200 =EE120.D

	Compound	20	50	100	150	200	Avg	%RSD
85)	1,2-Dichlorobenzene	1.387	1.394	1.474	1.304	1.227	1.357	6.97
86)	1,2-Dibromo-3-chloropropa	0.456	0.338	0.328	0.305	0.290	0.344	19.15
87)	1,2,4-Trichlorobenzene	1.401	1.389	1.497	1.289	1.232	1.361	7.59
88)	Hexachlorobutadiene	0.845	0.887	0.953	0.707	0.763	0.831	11.77
89)	Naphthalene	2.234	2.213	2.248	2.007	1.929	2.126	6.95
90)	1,2,3-Trichlorobenzene	1.300	1.260	1.339	1.158	1.101	1.231	8.08

(#) = Out of Range

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Instrument ID: E7200 Calibration Date: 7/24/97 Time: 1237

Lab File ID: EG167.D Init. Calib. Date(s): 5/10/96 5/10/96

Heated Purge: (Y/N) N Init. Calib. Times: 1100 1316

GC Column: CAP ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Chloromethane	0.196	0.209	0.100	-6.6	20.0
Vinyl Chloride	0.124	0.120		3.2	20.0
Bromomethane	0.172	0.185		-7.6	20.0
Chloroethane	0.103	0.111		-7.8	20.0
Acetone	0.047	0.047		0.0	30.0
1,1-Dichloroethene	0.201	0.197		2.0	20.0
Carbon Disulfide	0.656	0.612		6.7	20.0
Methylene Chloride	0.245	0.227		7.3	30.0
trans-1,2-Dichloroethene	0.231	0.201		13.0	20.0
1,1-Dichloroethane	0.448	0.426	0.100	4.9	20.0
cis-1,2-Dichloroethene	0.274	0.315		-15.0	20.0
Chloroform	0.581	0.610		-5.0	20.0
1,1,1-Trichloroethane	0.578	0.527		8.8	20.0
2-Butanone	0.095	0.101		-6.3	30.0
Carbon Tetrachloride	0.611	0.500		18.2	20.0
1,2-Dichloroethane	0.415	0.396		4.6	20.0
Benzene	0.771	0.840		-8.9	20.0
Trichloroethene	0.465	0.455		2.2	20.0
1,2-Dichloropropane	0.340	0.368		-8.2	20.0
Bromodichloromethane	0.669	0.593		11.4	20.0
trans-1,3-Dichloropropene	2.196	2.258		-2.8	20.0
Toluene	2.894	3.148		-8.8	20.0
cis-1,3-Dichloropropene	0.484	0.532		-9.9	20.0
1,1,2-Trichloroethane	1.720	1.726		-0.3	20.0
4-Methyl-2-pentanone	0.469	0.520		-10.9	30.0
2-Hexanone	1.074	1.156		-7.6	30.0
Tetrachloroethene	2.775	2.555		7.9	20.0
Dibromochloromethane	3.369	3.143		6.7	20.0
Chlorobenzene	4.115	3.908	0.300	5.0	20.0
Ethylbenzene	1.877	1.786		4.8	20.0
m + p-Xylene	2.475	2.506		-1.3	20.0
o-Xylene	2.400	2.406		-0.3	20.0
Styrene	4.138	4.152		-0.3	20.0
Bromoform	3.060	2.032	0.250	33.6	20.0
1,1,2,2-Tetrachloroethane	2.599	2.465	0.300	5.2	20.0

Min RRF for SPCC(#) = 0.3 (.25 for Bromoform; 0.1 for Chloromethane and 1,1-Dichloroethene)

Max %RSD for CCC (*) = 25%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Instrument ID: E7200 Calibration Date: 7/24/97 Time: 1237

Lab File ID: EG167.D Init. Calib. Date(s): 5/10/96 5/10/96

Heated Purge: (Y/N) N Init. Calib. Times: 1100 1316

GC Column: CAP ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: VBLK 01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG168.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	1.1	J
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

FORM I VOA 8260/TCL

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLK01

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: VBLK 01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG168.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

Lab Name: AENI Contract: FOS60

Project No.: 9707 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: VBLK 01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG168.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-007MS

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007 MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG173.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	41	
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	6.2	JB
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	50	
79-01-6	Trichloroethene	35	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	49	
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	44	
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-007MS

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007 MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG173.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-007MSD

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007 MSD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EG174.D

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	44	
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	7.8	JB
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	44	
79-01-6	Trichloroethene	42	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	44	
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	48	
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-007MSD

Lab Name: AENI Contract: FOS60

Project No.: 9707081 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007 MSD

Level: (low/med) Date Received: 7/17/97

% Moisture: not dec. 100 Date Analyzed: 7/24/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

AMERICAN ENVIRONMENTAL NETWORK,INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

August 04, 1997

Client: Foster Wheeler Environmental Corporation

Project: NAWC Warminster

Case: 9707081

Analysis: Metals

Client ID	AENI ID	Date Sampled	Date Received	Date Analyzed
DO-0018-06-002	9707081-002	07/16/97	07/17/97	07/18-08/02/97
DO-0018-06-004	9707081-004	07/16/97	07/17/97	07/18-08/02/97
DO-0018-06-007	9707081-007	07/16/97	07/17/97	07/18-08/02/97

Three groundwater samples were received and analyzed for metals per SW846 methodology. Results are reported in units of ug/L.

All quality control results were within normal control limits.

Report Released By

Christopher Baggett
Inorganics Manager

U.S. EPA - CLP

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EPA SAMPLE NO

DO001806002

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60_ SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Lab Sample ID: 970708102

Level (low/med): LOW Date Received: 07/17/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium	289			P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	38000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	11.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	258			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	12400			P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.22			AV
7440-02-0	Nickel	15.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	7830			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	62.8			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: DO-0018-06-002

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DO001806004

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Lab Sample ID: 970708104

Level (low/med): LOW Date Received: 07/17/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium	284			P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	38100			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	11.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	500			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	12600			P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	15.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	7850			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	36.0			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
CLIENT_ID: DO-0018-06-004

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DO001806007

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Lab Sample ID: 970708107

Level (low/med): LOW Date Received: 07/17/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium	266			P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	37600			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	11.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	100	U		P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	12500			P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	15.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	7800			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	22.9			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: DO-0018-06-007

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Initial Calibration Source: INORG VENTUR

Continuing Calibration Source: INORG VENTUR

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	9000.0	9048.18	100.5	10000.0	10084.80	100.8	10085.94	100.9	P
Antimony	450.0	451.30	100.3	500.0	511.43	102.3	513.01	102.6	P
Arsenic	45.0	46.74	103.9	500.0	517.08	103.4	516.88	103.4	P
Barium	9000.0	9125.60	101.4	10000.0	10287.30	102.9	10273.88	102.7	P
Beryllium	225.0	228.07	101.4	250.0	257.78	103.1	258.91	103.6	P
Cadmium	225.0	232.06	103.1	250.0	259.03	103.6	257.76	103.1	P
Calcium	45000.0	46461.32	103.2	50000.0	52164.27	104.3	52251.32	104.5	P
Chromium	450.0	478.17	106.3	1000.0	1035.32	103.5	1033.32	103.3	P
Cobalt	2250.0	2317.63	103.0	2500.0	2601.03	104.0	2603.26	104.1	P
Copper	1125.0	1130.69	100.5	1250.0	1263.38	101.1	1259.08	100.7	P
Iron	4500.0	4677.16	103.9	5000.0	5190.62	103.8	5179.80	103.6	P
Lead	450.0	460.27	102.3	2500.0	2588.03	103.5	2580.65	103.2	P
Magnesium	45000.0	45561.85	101.2	50000.0	51207.34	102.4	51237.67	102.5	P
Manganese	2250.0	2312.44	102.8	2500.0	2589.57	103.6	2553.27	102.1	P
Mercury	1.0	0.96	96.0	2.0	2.09	104.5	2.09	104.5	AV
Nickel	2250.0	2302.60	102.3	2500.0	2602.61	104.1	2602.58	104.1	P
Potassium	45000.0	40807.32	90.7	50000.0	46420.30	92.8	46401.88	92.8	P
Selenium	45.0	45.88	102.0	500.0	520.48	104.1	521.74	104.3	P
Silver	450.0	458.02	101.8	500.0	508.10	101.6	507.92	101.6	P
Sodium	45000.0	40282.87	89.5	50000.0	45554.17	91.1	45679.77	91.4	P
Thallium	400.0	415.38	103.8	500.0	514.76	103.0	517.53	103.5	P
Vanadium	2250.0	2279.44	101.3	2500.0	2570.62	102.8	2582.40	103.3	P
Zinc	2250.0	2328.57	103.5	2500.0	2611.73	104.5	2595.18	103.8	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Initial Calibration Source: INORG VENTUR

Continuing Calibration Source: INORG VENTUR

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				10000.0	10078.82	100.8	10081.00	100.8	P
Antimony				500.0	516.93	103.4	514.26	102.9	P
Arsenic				500.0	515.79	103.2	518.60	103.7	P
Barium				10000.0	10293.44	102.9	10328.21	103.3	P
Beryllium				250.0	259.31	103.7	260.20	104.1	P
Cadmium				250.0	256.97	102.8	257.19	102.9	P
Calcium				50000.0	52301.40	104.6	52406.32	104.8	P
Chromium				1000.0	1032.20	103.2	1031.94	103.2	P
Cobalt				2500.0	2601.47	104.1	2598.48	103.9	P
Copper				1250.0	1259.44	100.8	1258.72	100.7	P
Iron				5000.0	5187.99	103.8	5190.05	103.8	P
Lead				2500.0	2574.35	103.0	2574.62	103.0	P
Magnesium				50000.0	51101.80	102.2	51179.69	102.4	P
Manganese				2500.0	2551.56	102.1	2565.99	102.6	P
Mercury									NR
Nickel				2500.0	2604.39	104.2	2612.31	104.5	P
Potassium				50000.0	46607.18	93.2			P
Selenium				500.0	524.33	104.9	525.61	105.1	P
Silver				500.0	509.68	101.9	507.60	101.5	P
Sodium				50000.0	45938.19	91.9			P
Thallium				500.0	517.18	103.4	522.28	104.5	P
Vanadium				2500.0	2588.46	103.5	2597.74	103.9	P
Zinc				2500.0	2586.31	103.5	2582.10	103.3	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Initial Calibration Source: INORG VENTUR

Continuing Calibration Source: INORG VENTUR

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				10000.0	10098.83	101.0	10101.57	101.0	P
Antimony				500.0	516.92	103.4	515.75	103.1	P
Arsenic				500.0	518.50	103.7	513.87	102.8	P
Barium				10000.0	10343.95	103.4	10357.59	103.6	P
Beryllium				250.0	261.51	104.6	261.88	104.8	P
Cadmium				250.0	258.64	103.5	258.00	103.2	P
Calcium				50000.0	52681.67	105.4	52724.99	105.4	P
Chromium				1000.0	1036.82	103.7	1036.87	103.7	P
Cobalt				2500.0	2605.23	104.2	2605.72	104.2	P
Copper				1250.0	1263.84	101.1	1261.75	100.9	P
Iron				5000.0	5201.32	104.0	5194.52	103.9	P
Lead				2500.0	2599.61	104.0	2599.56	104.0	P
Magnesium				50000.0	51417.46	102.8	51380.32	102.8	P
Manganese				2500.0	2574.74	103.0	2578.39	103.1	P
Mercury									NR
Nickel				2500.0	2623.30	104.9	2627.94	105.1	P
Potassium									NR
Selenium				500.0	529.32	105.9	529.43	105.9	P
Silver				500.0	510.06	102.0	509.19	101.8	P
Sodium									NR
Thallium				500.0	528.35	105.7	525.19	105.0	P
Vanadium				2500.0	2605.95	104.2	2608.34	104.3	P
Zinc				2500.0	2588.09	103.5	2586.92	103.5	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Initial Calibration Source: INORG VENTUR

Continuing Calibration Source: INORG VENTUR

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				10000.0	10069.45	100.7			P
Antimony				500.0	519.52	103.9			P
Arsenic				500.0	516.15	103.2			P
Barium				10000.0	10351.30	103.5			P
Beryllium				250.0	261.22	104.5			P
Cadmium				250.0	258.39	103.4			P
Calcium				50000.0	52682.92	105.4			P
Chromium				1000.0	1035.14	103.5			P
Cobalt				2500.0	2604.43	104.2			P
Copper				1250.0	1260.50	100.8			P
Iron				5000.0	5185.23	103.7			P
Lead				2500.0	2590.92	103.6			P
Magnesium				50000.0	51181.80	102.4			P
Manganese				2500.0	2575.32	103.0			P
Mercury									NR
Nickel				2500.0	2628.95	105.2			P
Potassium									NR
Selenium				500.0	527.90	105.6			P
Silver				500.0	508.05	101.6			P
Sodium									NR
Thallium				500.0	530.09	106.0			P
Vanadium				2500.0	2605.80	104.2			P
Zinc				2500.0	2586.27	103.5			P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

3
BLANKS

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	200.0	U	200.0	U	200.0	U	200.0	U	200.000	U	P
Antimony	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P
Arsenic	8.0	U	8.0	U	8.0	U	8.0	U	8.000	U	P
Barium	100.0	U	100.0	U	100.0	U	100.0	U	100.000	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Cadmium	4.0	U	4.0	U	4.0	U	4.0	U	4.000	U	P
Calcium	500.0	U	500.0	U	500.0	U	500.0	U	500.000	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Cobalt	11.0	U	11.0	U	11.0	U	11.0	U	11.000	U	P
Copper	25.0	U	25.0	U	25.0	U	25.0	U	25.000	U	P
Iron	100.0	U	100.0	U	100.0	U	100.0	U	100.000	U	P
Lead	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Magnesium	500.0	U	500.0	U	500.0	U	500.0	U	500.000	U	P
Manganese	15.0	U	15.0	U	15.0	U	15.0	U	15.000	U	P
Mercury	0.2	U	0.2	U	0.2	U			0.200	U	AV
Nickel	15.0	U	15.0	U	15.0	U	15.0	U	15.000	U	P
Potassium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Silver	8.0	U	8.0	U	8.0	U	8.0	U	8.000	U	P
Sodium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Vanadium	16.0	U	16.0	U	16.0	U	16.0	U	16.000	U	P
Zinc	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			200.0	U	200.0	U	200.0	U			P
Antimony			20.0	U	20.0	U	20.0	U			P
Arsenic			8.0	U	8.0	U	8.0	U			P
Barium			100.0	U	100.0	U	100.0	U			P
Beryllium			2.0	U	2.0	U	2.0	U			P
Cadmium			4.0	U	4.0	U	4.0	U			P
Calcium			500.0	U	500.0	U	500.0	U			P
Chromium			10.0	U	10.0	U	10.0	U			P
Cobalt			11.0	U	11.0	U	11.0	U			P
Copper			25.0	U	25.0	U	25.0	U			P
Iron			100.0	U	100.0	U	100.0	U			P
Lead			10.0	U	10.0	U	10.0	U			P
Magnesium			500.0	U	500.0	U	500.0	U			P
Manganese			15.0	U	15.0	U	15.0	U			P
Mercury											NR
Nickel			15.0	U	15.0	U	15.0	U			P
Potassium											NR
Selenium			5.0	U	5.0	U	5.0	U			P
Silver			8.0	U	8.0	U	8.0	U			P
Sodium											NR
Thallium			10.0	U	10.0	U	10.0	U			P
Vanadium			16.0	U	16.0	U	16.0	U			P
Zinc			20.0	U	20.0	U	20.0	U			P
Cyanide											NR

U.S. EPA - CLP

BLANKS

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			200.0	U							P
Antimony			20.0	U							P
Arsenic			8.0	U							P
Barium			100.0	U							P
Beryllium			2.0	U							P
Cadmium			4.0	U							P
Calcium			500.0	U							P
Chromium			10.0	U							P
Cobalt			11.0	U							P
Copper			25.0	U							P
Iron			100.0	U							P
Lead			10.0	U							P
Magnesium			500.0	U							P
Manganese			15.0	U							P
Mercury											NR
Nickel			15.0	U							P
Potassium											NR
Selenium			5.0	U							P
Silver			8.0	U							P
Sodium											NR
Thallium			10.0	U							P
Vanadium			16.0	U							P
Zinc			20.0	U							P
Cyanide											NR

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: AENI Contract: 9707081

Lab Code: _____ Case No.: FOS60_ SAS No: _____ SDG No.: DO0018

ICP ID Number: TJA TRACE PB ICS Source: HIGH PURITY

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R
Aluminum	500000	500000	531670	528510.4	105.7	530646	528270.7	105.7
Antimony	0	0	1	2.5		4	10.2	
Arsenic	0	2000	2	2161.0	108.0	-4	2154.3	107.7
Barium	0	500	10	556.1	111.2	10	561.5	112.3
Beryllium	0	500	0	519.2	103.8	-1	529.0	105.8
Cadmium	0	1000	25	1050.4	105.0	25	1050.7	105.1
Calcium	500000	500000	517367	517313.5	103.5	525979	525088.4	105.0
Chromium	0	500	0	515.4	103.1	-1	516.5	103.3
Cobalt	0	500	-1	507.7	101.5	-5	508.7	101.7
Copper	0	500	5	549.6	109.9	3	549.8	110.0
Iron	200000	200000	198248	198233.8	99.1	199103	198917.5	99.5
Lead	0	1000	-8	1030.3	103.0	-10	1029.4	102.9
Magnesium	500000	500000	562029	561353.7	112.3	565434	563892.8	112.8
Manganese	0	500	10	533.0	106.6	10	531.2	106.2
Mercury								
Nickel	0	1000	2	1014.7	101.5	1	1027.4	102.7
Potassium	0	0	-18	-1.0		-26	-10.4	
Selenium	0	2000	-2	2134.6	106.7	-1	2162.0	108.1
Silver	0	1000	1	1099.0	109.9	-1	1102.1	110.2
Sodium	0	0	437	724.3		460	567.5	
Thallium	0	0	-15	-20.2		-12	-18.1	
Vanadium	0	500	-15	501.4	100.3	-16	511.9	102.4
Zinc	0	1000	39	1051.3	105.1	37	1038.5	103.8

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

D0001806002S

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: D0018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	80-120	1928.9300		200.0000	U	2000.00	96.4		P
Antimony	80-120	94.8630		20.0000	U	100.00	94.9		P
Arsenic	80-120	97.4970		8.0000	U	100.00	97.5		P
Barium	80-120	2312.6480		288.8850		2000.00	101.2		P
Beryllium	80-120	49.6620		2.0000	U	50.00	99.3		P
Cadmium	80-120	49.6360		4.0000	U	50.00	99.3		P
Calcium	80-120	47823.0800		37971.9300		10000.00	98.5		P
Chromium	80-120	202.9930		10.0000	U	200.00	101.5		P
Cobalt	80-120	498.9670		11.0000	U	500.00	99.8		P
Copper	80-120	244.8510		25.0000	U	250.00	97.9		P
Iron	80-120	1353.2500		258.1400		1000.00	109.5		P
Lead	80-120	499.9970		10.0000	U	500.00	100.0		P
Magnesium	80-120	22167.9000		12421.0900		10000.00	97.5		P
Manganese	80-120	509.3200		15.0000	U	500.00	101.9		P
Mercury									NR
Nickel	80-120	508.4100		15.0000	U	500.00	101.7		P
Potassium									NR
Selenium	80-120	97.6360		5.0000	U	100.00	97.6		P
Silver	80-120	97.5760		8.0000	U	100.00	97.6		P
Sodium									NR
Thallium	80-120	99.5680		10.0000	U	100.00	99.6		P
Vanadium	80-120	502.1300		16.0000	U	500.00	100.4		P
Zinc	80-120	540.3790		62.7700		500.00	95.5		P
Cyanide									NR

Comments:
MATRIX_SPIKE

U.S. EPA - CLP

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

DO001806002M

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	80-120	1915.1600		200.0000	U	2000.00	95.8		P
Antimony	80-120	93.7720		20.0000	U	100.00	93.8		P
Arsenic	80-120	100.6260		8.0000	U	100.00	100.6		P
Barium	80-120	2341.1030		288.8850		2000.00	102.6		P
Beryllium	80-120	50.1710		2.0000	U	50.00	100.3		P
Cadmium	80-120	50.3970		4.0000	U	50.00	100.8		P
Calcium	80-120	48923.7100		37971.9300		10000.00	109.5		P
Chromium	80-120	204.7280		10.0000	U	200.00	102.4		P
Cobalt	80-120	501.5250		11.0000	U	500.00	100.3		P
Copper	80-120	246.4210		25.0000	U	250.00	98.6		P
Iron	80-120	1259.7700		258.1400		1000.00	100.2		P
Lead	80-120	502.4360		10.0000	U	500.00	100.5		P
Magnesium	80-120	22603.5400		12421.0900		10000.00	101.8		P
Manganese	80-120	514.1000		15.0000	U	500.00	102.8		P
Mercury									NR
Nickel	80-120	512.9820		15.0000	U	500.00	102.6		P
Potassium									NR
Selenium	80-120	95.3180		5.0000	U	100.00	95.3		P
Silver	80-120	97.4110		8.0000	U	100.00	97.4		P
Sodium									NR
Thallium	80-120	103.3970		10.0000	U	100.00	103.4		P
Vanadium	80-120	507.6400		16.0000	U	500.00	101.5		P
Zinc	80-120	546.6880		62.7700		500.00	96.8		P
Cyanide									NR

Comments:
MATRIX_SPIKE_DUPLICATE

U.S. EPA - CLP

EPA SAMPLE NO.

SPIKE SAMPLE RECOVERY

DO001806007M

Lab Name: AENI Contract: 9707081

Lab Code: _____ Case No.: FOS60_ SAS No.: _____ SDG No.: DO0018

Matrix (soil/water): WATER_ Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury	80-120	2.1600		0.2000	U	2.00	108.0		AV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:
MATRIX_SPIKE_DUPLICATE

U.S. EPA - CLP

5A

EPA SAMPLE NO.

D0001806007S

Lab Name: AENI Contract: 9707081

Lab Code: _____ Case No.: FOS60_ SAS No.: _____ SDG No.: DO0018

Matrix (soil/water): WATER_ Level (low/med): LOW___

% Solids for Sample: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury	80-120	2.1300		0.2000	U	2.00	106.5		AV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:
MATRIX_SPIKE

U.S. EPA - CLP

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

970800301S

Lab Name: AENI Contract: 9707081

Lab Code: _____ Case No.: FOS60 SAS No.: _____ SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium	80-120	26453.9300		16075.9400		10000.00	103.8		P
Selenium									NR
Silver									NR
Sodium	80-120	46823.1700		35440.3100		10000.00	113.8		P
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

MATRIX SPIKE

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

970800301M

Lab Name: AENI Contract: 9707081

Lab Code: _____ Case No.: FOS60_ SAS No.: _____ SDG No.: DO0018

Matrix (soil/water): WATER_ Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium	80-120	26051.1100		16075.9400		10000.00	99.8		P
Selenium									NR
Silver									NR
Sodium	80-120	45862.7700		35440.3100		10000.00	104.2		P
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:
MATRIX_SPIKE_DUPLICATE

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

D0001806002D

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: F0S60 SAS No.: SDG No.: D00018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		200.0000	U	200.0000	U			
Antimony		20.0000	U	20.0000	U			P
Arsenic		8.0000	U	8.0000	U			P
Barium	100.0	288.8850		287.4210		0.5		P
Beryllium		2.0000	U	2.0000	U			P
Cadmium		4.0000	U	4.0000	U			P
Calcium		37971.9300		37873.5100		0.3		P
Chromium		10.0000	U	10.0000	U			P
Cobalt		11.0000	U	11.0000	U			P
Copper		25.0000	U	25.0000	U			P
Iron	100.0	258.1400		266.4000		3.1		P
Lead		10.0000	U	10.0000	U			P
Magnesium		12421.0900		12395.8500		0.2		P
Manganese		15.0000	U	15.0000	U			P
Mercury								NR
Nickel		15.0000	U	15.0000	U			P
Potassium								NR
Selenium		5.0000	U	5.0000	U			P
Silver		8.0000	U	8.0000	U			P
Sodium								NR
Thallium		10.0000	U	10.0000	U			P
Vanadium		16.0000	U	16.0000	U			P
Zinc	20.0	62.7700		43.5630		36.1		P
Cyanide								NR

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6
DUPLICATES

EPA SAMPLE NO.

DO001806007D

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead								NR
Magnesium								NR
Manganese								NR
Mercury		0.2000	U	0.2000	U			AV
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

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6
DUPLICATES

EPA SAMPLE NO.

970800301D

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead								NR
Magnesium								NR
Manganese								NR
Mercury								NR
Nickel								NR
Potassium		16075.9400		16428.1100		2.2		P
Selenium								NR
Silver								NR
Sodium		35440.3100		36049.2600		1.7		P
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

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7

LABORATORY CONTROL SAMPLE

Lab Name: AENI Contract: 9707081

Lab Code: _____ Case No.: FOS60_ SAS No.: _____ SDG No.: DO0018

Solid LCS Source: _____

Aqueous LCS Source: HIGH PURITY

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	2000.0	1853.45	92.7						
Antimony	100.0	93.18	93.2						
Arsenic	100.0	95.46	95.5						
Barium	2000.0	1989.64	99.5						
Beryllium	50.0	49.03	98.1						
Cadmium	50.0	49.63	99.3						
Calcium	10000.0	10092.64	100.9						
Chromium	200.0	198.87	99.4						
Cobalt	500.0	503.07	100.6						
Copper	250.0	238.26	95.3						
Iron	1000.0	1013.28	101.3						
Lead	500.0	497.37	99.5						
Magnesium	10000.0	9712.54	97.1						
Manganese	500.0	498.84	99.8						
Mercury									
Nickel	500.0	509.06	101.8						
Potassium									
Selenium	100.0	97.15	97.2						
Silver	100.0	94.57	94.6						
Sodium									
Thallium	100.0	99.27	99.3						
Vanadium	500.0	496.60	99.3						
Zinc	500.0	502.70	100.5						
Cyanide									

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LABORATORY CONTROL SAMPLE

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Solid LCS Source:

Aqueous LCS Source: HIGH PURITY

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	1.0	1.07	107.0						
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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7

LABORATORY CONTROL SAMPLE

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Solid LCS Source:

Aqueous LCS Source: HIGH PURITY

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium	40000.0	35973.98	89.9						
Selenium									
Silver									
Sodium	40000.0	35463.38	88.7						
Thallium									
Vanadium									
Zinc									
Cyanide									

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ICP SERIAL DILUTION

EPA SAMPLE NO.

D0001806002L

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	200.00	U	1000.00	U			P
Antimony	20.00	U	100.00	U			P
Arsenic	8.00	U	40.00	U			P
Barium	288.88		500.00	U	100.0		P
Beryllium	2.00	U	10.00	U			P
Cadmium	4.00	U	20.00	U			P
Calcium	37971.93		38941.65		2.6		P
Chromium	10.00	U	50.00	U			P
Cobalt	11.00	U	55.00	U			P
Copper	25.00	U	125.00	U			P
Iron	258.14		500.00	U	100.0		P
Lead	10.00	U	50.00	U			P
Magnesium	12421.09		12637.35		1.7		P
Manganese	15.00	U	75.00	U			P
Mercury							NR
Nickel	15.00	U	75.00	U			P
Potassium							NR
Selenium	5.00	U	25.00	U			P
Silver	8.00	U	40.00	U			P
Sodium							NR
Thallium	10.00	U	50.00	U			P
Vanadium	16.00	U	80.00	U			P
Zinc	62.77		100.00	U	100.0		P

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ICP SERIAL DILUTION

EPA SAMPLE NO.

970800301L

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum							NR
Antimony							NR
Arsenic							NR
Barium							NR
Beryllium							NR
Cadmium							NR
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead							NR
Magnesium							NR
Manganese							NR
Mercury							NR
Nickel							NR
Potassium	16075.94		13187.00		18.0		P
Selenium							NR
Silver							NR
Sodium	35440.31		31503.45		11.1		P
Thallium							NR
Vanadium							NR
Zinc							NR

U.S. EPA - CLP

Instrument Detection Limits (Quarterly)

Lab Name: AENI Contract: 9707081

Lab Code: _____ Case No.: FOS60_ SAS No.: _____ SDG No.: DO0018

ICP ID Number: _____ Date: 04/01/97

Flame AA ID Number : PE_3100

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			20		NR
Arsenic			8		NR
Barium			100		NR
Beryllium			2		NR
Cadmium			4		NR
Calcium			500		NR
Chromium			10		NR
Cobalt			11		NR
Copper			10		NR
Iron			100		NR
Lead			10		NR
Magnesium			500		NR
Manganese			15		NR
Mercury	253.05		0.2	0.2	AV
Nickel			15		NR
Potassium			1000		NR
Selenium			5		NR
Silver			8		NR
Sodium			1000		NR
Thallium			10		NR
Vanadium			16		NR
Zinc			20		NR

Comments:

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Instrument Detection Limits (Quarterly)

Lab Name: AENI Contract: 9707081

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

ICP ID Number: TJA_TRACE_PB Date: 04/28/97

Flame AA ID Number :

Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.21		200	200.0	P
Antimony	206.83		20	20.0	P
Arsenic	189.04		8	8.0	P
Barium	493.41		100	100.0	P
Beryllium	313.04		2	2.0	P
Cadmium	226.50		4	4.0	P
Calcium	317.93		500	500.0	P
Chromium	267.72		10	10.0	P
Cobalt	228.62		11	11.0	P
Copper	324.75		10	25.0	P
Iron	271.44		100	100.0	P
Lead	220.35		10	10.0	P
Magnesium	279.08		500	500.0	P
Manganese	257.61		15	15.0	P
Mercury			0.2		NR
Nickel	231.60		15	15.0	P
Potassium	766.49		1000	1000.0	P
Selenium	196.02		5	5.0	P
Silver	328.07		8	8.0	P
Sodium	330.20		1000	1000.0	P
Thallium	190.86		10	10.0	P
Vanadium	292.40		16	16.0	P
Zinc	206.20		20	20.0	P

Comments:

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PREPARATION LOG

Lab Name: AENI_____ Contract: 9707081___

Lab Code: _____ Case No.:_FOS60_ SAS No.: _____ SDG No.:DO0018

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
1806002	07/18/97		100
806002D	07/18/97		100
806002M	07/18/97		100
806002S	07/18/97		100
1806004	07/18/97		100
1806007	07/18/97		100
LCS3168	07/18/97		100
PBW3168	07/18/97		100

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PREPARATION LOG

Lab Name: AENI_____ Contract: 9707081___

Lab Code: _____ Case No.:_FOS60_ SAS No.: _____ SDG No.:DO0018

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
0800301	08/01/97		100
800301D	08/01/97		100
800301M	08/01/97		100
800301S	08/01/97		100
1806002	08/01/97		100
1806004	08/01/97		100
1806007	08/01/97		100
LCS3198	08/01/97		100
PBW3198	08/01/97		100

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PREPARATION LOG

Lab Name: AENI_____ Contract: 9707081___

Lab Code: _____ Case No.:_FOS60_ SAS No.: _____ SDG No.:DO0018

Method: AV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
1806002	07/24/97		100
1806004	07/24/97		100
1806007	07/24/97		100
806007D	07/24/97		100
806007M	07/24/97		100
806007S	07/24/97		100
LCS1378	07/24/97		100
PBW1378	07/24/97		100

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

June 30, 1997

Carl Dannenberger
Foster Wheeler Environmental Corporation
One Oxford Valley
2300 Lincoln Highway East
Suite 200
Langhorne, PA 19047

Dear Mr. Dannenberger:

Enclosed please find results of analyses performed on a sample received 6/19/97.

The sample was analyzed in accordance with EPA-approved methods.

Please feel free to call me at (410) 730-8525 if you have any questions about this report.

Sincerely,

John C. Ermatinger
Project Manager

9706-101
Enclosures
jce

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9706101
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: June 25, 1997
Analysis: General Chemistry Parameters

Client ID	AENI ID	Date Sampled	Date Received
DO-0018-06-001	9706101-001	06/18/97	06/19/97
DO-0018-06-002	9706101-002	06/18/97	06/19/97
DO-0018-06-003	9706101-003	06/18/97	06/19/97
DO-0018-06-004	9706101-004	06/18/97	06/19/97
DO-0018-06-007	9706101-007	06/18/97	06/19/97

Five water samples were received and analyzed for General Chemistry Parameters.

All quality control data were within acceptable limits.

This report consists of tabulated sample results and a QC Summary Report.

Report Released By:

Christopher Baggett
Inorganic Laboratory Manager

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9706101-001
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: June 25, 1997
Sample ID: D0-0018-06-001

Parameter	Method	Result	Date Analyzed
pH	EPA 150.1	6.8	06/19/97
Total Suspended Solids (1)	EPA 160.2	5	06/24/97

(1) Results reported as mg/L

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9706101-002
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: June 25, 1997
Sample ID: D0-0018-06-002

Parameter	Method	Result	Date Analyzed
Hexavalent Chromium (1,2)	SW846 7196	< 0.01	06/19/97
pH	EPA 150.1	7.1	06/19/97
Total Cyanide (1)	SW846 9010A	< 0.02	06/25/97
Total Suspended Solids (1)	EPA 160.2	< 1	06/24/97

(1) Results reported as mg/L
(2) Sample filtered prior to analysis

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9706101-003
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: June 25, 1997
Sample ID: D0-0018-06-003

Parameter	Method	Result	Date Analyzed
Total Suspended Solids	EPA 160.2	1	06/24/97

(1) Results reported as mg/L

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9706101-004
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: June 25, 1997
Sample ID: D0-0018-06-004

Parameter	Method	Result	Date Analyzed
Hexavalent Chromium (1)	SW846 7196	< 0.01	06/19/97
pH	EPA 150.1	7.1	06/19/97
Total Cyanide (1)	SW846 9010A	< 0.02	06/25/97
Total Suspended Solids (1)	EPA 160.2	1	06/24/97

(1) Results reported as mg/L

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9706101-007
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: June 25, 1997
Sample ID: D0-0018-06-007

Parameter	Method	Result	Date Analyzed
Hexavalent Chromium (1)	SW846 7196	< 0.01	06/19/97
pH	EPA 150.1	7.8	06/19/97
Total Cyanide (1)	SW846 9010A	< 0.02	06/25/97
Total Suspended Solids (1)	EPA 160.2	2	06/24/97

(1) Results reported as mg/L

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9706101
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: June 25, 1997
Analysis: General Chemistry Parameters

QC SUMMARY

Parameter	Sample ID	Result/Recovery
Hexavalent Chromium	PBLK970619	< 0.01 mg/L
	BS970619	98%
	BSD970619	98%
	9706101-002	< 0.01 mg/L
	9706101-002D	< 0.01 mg/L
	9706101-002MS	106%
	9706101-002MSD	105%
Total Suspended Solids	PBLK970624	< 1 mg/L
	BS970624	95%
	9706101-007	2 mg/L
	9706101-007D	1 mg/L
pH (true value = 6.00)	BS970619	5.99
	BSD970619	6.00
	9706101-001	6.8
	9706101-001D	6.8
Total Cyanide	PBLK970624	< 0.02 mg/L
	BS970624	94%
	BSD970624	94%
	9706096-001	< 0.02 mg/L
	9706096-001D	< 0.02 mg/L
	9706096-001MS	94%
	9706096-001MSD	92%

American Environmental Network, Inc.

Case Number: L9706101
Client Name: Foster Wheeler Environmental Corp.
Project Name: FWE-WARMINSTER
Method: 8260(A)

Client ID	AEN ID	Matrix	Date Sampled	Date Received	Date Analyzed
DO-0018-06-002	L9706101-002	Water	06/18/97	06/19/97	06/23/97
DO-0018-06-005	L9706101-005	Water	06/18/97	06/19/97	06/23/97
DO-0018-06-006	L9706101-006	Water	06/18/97	06/19/97	06/23/97
DO-0018-06-007	L9706101-007	Water	06/18/97	06/19/97	06/23/97
EW-16	L9706101-008	Water	06/18/97	06/19/97	06/23/97
DO-0018-06-FLDBLK	L9706101-009	Water	06/18/97	06/19/97	06/23/97

Six Ground Water samples were analyzed for the volatile organic compounds by method 8260(A). This package consists of the tabulated results of the sample(s), method blank(s), and the QC forms II, III, IV, V, VI, VII, and VIII.

Form I (Tabulated Results):
All sample analyses were performed within the holding time requirement.

Form II (Surrogate Recovery):
All surrogate recoveries were within specified limits.

Form III (Matrix Spike/Matrix Spike Duplicate (MS/MSD):
The MS/MSD analysis was performed on AEN sample 9706102-008. All recoveries and %RPDs were within specified limits.

Form IV (Method Blank Summary):
Each method blank was free of target analytes, except for methylene chloride.

Form V (Tuning and Mass Calibration):
All analyses were performed within the specified mass calibration and tune time criteria.

Form VI (Initial Calibration):
Each initial calibration was within the specified minimum mean RRF and maximum %RSD.

Form VII (Continuing Calibration):
Each continuing calibration standard was within the specified minimum RRF and maximum %DIFF.

Form VIII (Internal Standard Summary):
All internal standard areas and retention times were within specified criteria.

Analyst: [signature] Date 6/30/97

Released by: [signature] Date 6/30/97

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

	SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER #	TOT OUT
01	VBLK01	119	108	112		
02	D0-0018-06-002	107	98	110		
03	D0-0018-06-005	113	107	109		
04	D0-0018-06-006	105	97	111		
05	D0-0018-06-007	113	106	110		
06	EW-16	99	93	108		
07	D0-0018-06-FLDB	110	103	115		
08	97060102-008	113	104	116		
09	97060102-008MS	106	100	112		
10	97060102-008MS	103	97	112		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1	= Dibromofluoromethane	(79-122)
SMC2	= Toluene-d8	(86-112)
SMC3	= Bromofluorobenzene	(76-118)

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: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix Spike - Sample No.: 97060102-008

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	51	102	(61-145)
Benzene	50	0	50	100	(76-127)
Trichloroethene	50	0	51	102	(71-120)
Toluene	50	0	55	110	(76-125)
Chlorobenzene	50	0	54	108	(75-130)

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MS % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	50	48	96	6	14	(61-145)
Benzene	50	46	92	8	11	(76-127)
Trichloroethene	50	47	94	8	14	(71-120)
Toluene	50	52	104	6	13	(76-125)
Chlorobenzene	50	55	110	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:

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Lab File ID: FF110.D Lab Sample ID: 970623FW

Date Analyzed: 6/23/97 Time Analyzed: 1429

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F7200

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	D0-0018-06-002	#002	FF113.D	6/23/97
02	D0-0018-06-005	#005	FF114.D	6/23/97
03	D0-0018-06-006	#006	FF115.D	6/23/97
04	D0-0018-06-007	#007	FF116.D	6/23/97
05	EW-16	#008	FF117.D	6/23/97
06	D0-0018-06-FLDBLK	#009	FF118.D	6/23/97
07	97060102-008	QC	FF126.D	6/23/97
08	97060102-008MS	QC MS	FF127.D	6/23/97
09	97060102-008MSD	QC MSD	FF128.D	6/24/97
10				
11				
12				
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30				

COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: AENI Contract: 8260WFD1

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID: FD200.D BFB Injection Date: 4/25/97

Instrument ID: F7200 BFB Injection Time: 1411

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.0
75	30.0 - 60.0% of mass 95	50.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	73.0
175	5.0 - 9.0% of mass 174	6.0 (8.2)1
176	95.0 - 101.0% of mass 174	73.0 (100.0)1
177	5.0 - 9.0% of mass 176	5.0 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	STD#2734	FD210.D	4/25/97	1934
02	VSTD050	STD#2735	FD211.D	4/25/97	2011
03	VSTD100	STD#2736	FD212.D	4/25/97	2050
04	VSTD150	STD#2737	FD213.D	4/25/97	2124
05	VSTD200	STD#2738	FD214.D	4/25/97	2200
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: _____ Location: _____ Group: _____

Lab File ID: FF108.D BFB Injection Date: 6/23/97

Instrument ID: F7200 BFB Injection Time: 1343

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.0
75	30.0 - 60.0% of mass 95	47.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	70.0
175	5.0 - 9.0% of mass 174	5.0 (7.1)1
176	95.0 - 101.0% of mass 174	67.0 (95.7)1
177	5.0 - 9.0% of mass 176	5.0 (7.5)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	STD#2863	FF109.D	6/23/97	1357
02	VBLK01	970623FW	FF110.D	6/23/97	1429
03	D0-0018-06-002	#002	FF113.D	6/23/97	1607
04	D0-0018-06-005	#005	FF114.D	6/23/97	1639
05	D0-0018-06-006	#006	FF115.D	6/23/97	1712
06	D0-0018-06-007	#007	FF116.D	6/23/97	1744
07	EW-16	#008	FF117.D	6/23/97	1817
08	D0-0018-06-FLD	#009	FF118.D	6/23/97	1849
09	97060102-008	QC	FF126.D	6/23/97	2307
10	97060102-008M	QC MS	FF127.D	6/23/97	2339
11	97060102-008M	QC MSD	FF128.D	6/24/97	0011
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF113.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	2.5	JB
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	8.8	J
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF113.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
D0-0018-06-002

Lab Name: AENI Contract: FOS60

Project No.: 9706 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF113.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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

SAMPLE NO.
D0-0018-06-005

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF114.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	24	B
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-005

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF114.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

CAS No.	Compound (ug/L or ug/Kg)	ug/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
D0-0018-06-005

Lab Name: AENI Contract: FOS60

Project No.: 9706 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF114.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-006

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF115.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	23	B
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-006

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF115.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
D0-0018-06-006

Lab Name: AENI Contract: FOS60

Project No.: 9706 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF115.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-007

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF116.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	17	B
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

D0-0018-06-007

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF116.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

D0-0018-06-007

Lab Name: AENI Contract: FOS60

Project No.: 9706 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF116.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
EW-16

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF117.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	17	B
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1.1	J
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
EW-16

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF117.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

EW-16

Lab Name: AENI Contract: FOS60

Project No.: 9706 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF117.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-FLDBLK

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF118.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	23	B
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
00-0018-06-FLDBLK

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF118.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-FLDBLK

Lab Name: AENI Contract: FOS60

Project No.: 9706 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF118.D

Level: (low/med) Date Received: 6/19/97

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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

SAMPLE NO.
VBLKD1

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 970623FW

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF110.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	5.1	J
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 970623FW

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FF110.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 6/23/97

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		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: AENI Contract: 8260WFD1

Project No.: _____ Site: _____ Location: _____ Group: _____

Instrument ID: F7200 Calibration Date(s): 4/25/97 4/25/97

Heated Purge: (Y/N) N Calibration Times: 1934 2200

GC Column: CAP ID: 0.53 (mm)

Lab File ID: RRF20 - FD210.D RRF50 - FD211.D
RRF100 - FD212.D RRF150 - FD213.D RRF200 - FD214.D

COMPOUND		RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD	
Dichlorodifluoromethane		0.154	0.148	0.133	0.126	0.138	0.140	8.1	
Chloromethane	#	0.142	0.144	0.125	0.102	0.130	0.128	13.0	#
Vinyl Chloride	*	0.141	0.138	0.128	0.113	0.132	0.130	8.4	*
Bromomethane		0.137	0.129	0.123	0.128	0.129	0.129	4.1	
Chloroethane		0.062	0.057	0.059	0.058	0.059	0.059	3.1	
Trichlorofluoromethane		0.406	0.407	0.387	0.374	0.417	0.398	4.4	
1,1-Dichloroethene	*	0.183	0.178	0.160	0.156	0.180	0.171	7.3	*
Methylene Chloride		0.235	0.219	0.210	0.197	0.221	0.216	6.6	
trans-1,2-Dichloroethene		0.195	0.195	0.186	0.175	0.196	0.189	4.8	
1,1-Dichloroethane	#	0.414	0.348	0.344	0.341	0.350	0.360	8.6	#
2,2-Dichloropropane		0.332	0.355	0.335	0.313	0.349	0.337	4.9	
cis-1,2-Dichloroethene		0.251	0.236	0.230	0.230	0.236	0.237	3.6	
Chloroform	*	0.542	0.517	0.514	0.522	0.512	0.521	2.4	*
Bromochloromethane		0.289	0.278	0.267	0.265	0.266	0.273	3.7	
1,1,1-Trichloroethane		0.495	0.499	0.472	0.448	0.491	0.481	4.3	
1,1-Dichloropropene		0.449	0.425	0.415	0.406	0.427	0.424	3.9	
Carbon Tetrachloride		0.471	0.445	0.448	0.454	0.458	0.455	2.3	
1,2-Dichloroethane		0.361	0.349	0.349	0.359	0.334	0.350	3.1	
Benzene		0.792	0.777	0.748	0.758	0.755	0.766	2.4	
Trichloroethene		0.455	0.437	0.430	0.430	0.428	0.436	2.5	
1,2-Dichloropropane	*	0.418	0.404	0.391	0.391	0.378	0.396	3.8	*
Bromodichloromethane		0.704	0.681	0.678	0.679	0.638	0.676	3.5	
Dibromomethane		0.445	0.420	0.412	0.427	0.392	0.419	4.7	
trans-1,3-Dichloropropene		2.818	2.777	2.807	2.823	2.613	2.768	3.2	
Toluene	*	3.316	3.230	3.220	3.137	3.146	3.210	2.3	*
cis-1,3-Dichloropropene		0.589	0.554	0.561	0.565	0.527	0.559	4.0	
1,1,2-Trichloroethane		2.375	2.222	2.225	2.209	2.001	2.207	6.0	
1,2-Dibromoethane		3.909	3.763	3.698	3.674	3.325	3.674	5.9	
1,3-Dichloropropane		3.308	3.230	3.212	3.220	2.918	3.178	4.7	
Tetrachloroethene		3.401	3.081	3.155	2.843	3.143	3.125	6.4	
Dibromochloromethane		4.331	4.146	4.207	4.156	3.835	4.135	4.4	
Chlorobenzene	#	4.826	4.670	4.611	4.512	4.402	4.604	3.5	#
Ethylbenzene	*	2.097	2.066	2.026	1.923	1.974	2.017	3.5	*
1,1,1,2-Tetrachloroethane		2.547	2.415	2.406	2.321	2.355	2.409	3.6	
m + p-Xylene		2.351	2.303	2.300	2.232	2.290	2.295	1.9	
o-Xylene		2.447	2.381	2.407	2.248	2.318	2.360	3.3	

Min RRF for SPCC(#) = 0.1
Max %RSD for CCC (*) = 30%
Page 1 of 2

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: AENI Contract: 8260WFD1

Project No.: Site: Location: Group:

Instrument ID: F7200 Calibration Date(s): 4/25/97 4/25/97

Heated Purge: (Y/N) N Calibration Times: 4/25/97 4/25/97

GC Column: CAP ID: 0.53 (mm)

Lab File ID: RRF20 - FD210.D RRF50 - FD211.D
RRF100 - FD212.D RRF150 - FD213.D RRF200 - FD214.D

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD	
Styrene	4.400	4.258	4.344	4.158	4.255	4.283	2.2	
Bromoform #	3.953	3.920	3.889	3.745	3.465	3.794	5.3	#
Isopropylbenzene	6.770	6.512	6.526	6.138	6.436	6.476	3.5	
1,1,2,2-Tetrachloroethane #	3.865	3.806	3.682	3.530	3.207	3.618	7.3	#
1,2,3-Trichloropropane	0.361	0.351	0.311	0.310	0.262	0.319	12.4	
n-Propylbenzene	3.146	3.019	2.868	2.899	2.794	2.945	4.7	
Bromobenzene	1.068	1.035	0.970	0.995	0.909	0.996	6.2	
1,3,5-Trimethylbenzene	1.907	1.836	1.717	1.728	1.681	1.774	5.3	
4-Chlorotoluene	2.212	2.084	2.000	2.046	1.953	2.059	4.8	
2-Chlorotoluene	2.198	2.132	2.009	2.057	1.951	2.069	4.7	
tert-Butylbenzene	2.528	2.395	2.192	2.290	2.104	2.302	7.2	
1,2,4-Trimethylbenzene	2.002	1.897	1.795	1.808	1.765	1.853	5.2	
sec-Butylbenzene	2.759	2.613	2.457	2.461	2.386	2.535	5.9	
p-Isopropyltoluene	2.182	2.102	2.004	2.026	1.974	2.057	4.1	
1,3-Dichlorobenzene	1.661	1.546	1.505	1.531	1.471	1.543	4.6	
1,4-Dichlorobenzene	1.696	1.609	1.553	1.565	1.494	1.583	4.7	
n-Butylbenzene	2.166	2.051	2.015	2.037	1.998	2.053	3.2	
1,2-Dichlorobenzene	1.542	1.459	1.405	1.423	1.351	1.436	4.9	
1,2-Dibromo-3-Chloropropane	0.466	0.460	0.401	0.378	0.332	0.407	13.9	
1,2,4-Trichlorobenzene	1.259	1.136	1.131	1.132	1.094	1.150	5.5	
Hexachlorobutadiene	0.867	0.789	0.750	0.804	0.713	0.784	7.4	
Naphthalene	2.174	2.038	2.035	1.851	1.870	1.994	6.7	
1,2,3-Trichlorobenzene	1.184	1.086	1.006	0.963	0.993	1.046	8.5	
Dibromofluoromethane	0.556	0.500	0.502	0.504	0.511	0.515	4.6	
Toluene-d8	1.021	0.942	0.935	0.917	0.943	0.952	4.2	
Bromofluorobenzene	3.142	2.798	2.913	2.794	2.948	2.919	4.9	

Min RRF for SPCC(#) = 0.1
Max %RSD for CCC (*) = 30%
Page 2 of 2

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Instrument ID: F7200 Calibration Date: 6/23/97 Time: 1357

Lab File ID: FF109.D Init. Calib. Date(s):

Heated Purge: (Y/N) N Init. Calib. Times:

GC Column: CAP ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Chloromethane	0.128	0.124	0.100	3.1	20.0
Vinyl Chloride	0.130	0.144		-10.8	20.0
Bromomethane	0.129	0.144		-11.6	20.0
Chloroethane	0.059	0.061		-3.4	20.0
Acetone	0.055	0.051		7.3	30.0
1,1-Dichloroethene	0.171	0.174		-1.8	20.0
Carbon Disulfide	0.313	0.314		-0.3	20.0
Methylene Chloride	0.216	0.222		-2.8	30.0
trans-1,2-Dichloroethene	0.189	0.180		4.8	20.0
1,1-Dichloroethane	0.359	0.391	0.100	-8.9	20.0
cis-1,2-Dichloroethene	0.237	0.219		7.6	20.0
Chloroform	0.521	0.529		-1.5	20.0
1,1,1-Trichloroethane	0.481	0.458		4.8	20.0
2-Butanone	0.143	0.134		6.3	30.0
Carbon Tetrachloride	0.455	0.453		0.4	20.0
1,2-Dichloroethane	0.350	0.329		6.0	20.0
Benzene	0.766	0.779		-1.7	20.0
Trichloroethene	0.436	0.461		-5.7	20.0
1,2-Dichloropropane	0.396	0.409		-3.3	20.0
Bromodichloromethane	0.676	0.671		0.7	20.0
trans-1,3-Dichloropropene	2.767	2.883		-4.2	20.0
Toluene	3.210	3.216		-0.2	20.0
cis-1,3-Dichloropropene	0.559	0.581		-3.9	20.0
1,1,2-Trichloroethane	2.207	2.290		-3.8	20.0
4-Methyl-2-pentanone	0.521	0.471		9.6	30.0
2-Hexanone	1.325	1.294		2.3	30.0
Tetrachloroethene	3.125	3.247		-3.9	20.0
Dibromochloromethane	4.135	4.462		-7.9	20.0
Chlorobenzene	4.604	4.957	0.300	-7.7	20.0
Ethylbenzene	2.017	2.154		-6.8	20.0
m + p-Xylene	2.295	2.571		-12.0	20.0
o-Xylene	2.360	2.365		-0.2	20.0
Styrene	4.283	4.751		-10.9	20.0
Bromoform	3.794	3.862	0.250	-1.8	20.0
1,1,2,2-Tetrachloroethane	3.618	3.635	0.300	-0.5	20.0

Min RRF for SPCC(#) = 0.3 (.25 for Bromoform; 0.1 for Chloromethane and 1,1-Dichloroethene)

Max %RSD for CCC (*) = 25%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Instrument ID: F7200 Calibration Date: 6/23/97 Time: 1357

Lab File ID: FF109.D Init. Calib. Date(s): 4/25/97 4/25/97

Heated Purge: (Y/N) N Init. Calib. Times: 1934 2200

GC Column: CAP ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AENI Contract: FOS60

Project No.: 9706101 Site: Location: Group:

Lab File ID (Standard): FF109.D Date Analyzed: 6/23/97

Instrument ID: F7200 Time Analyzed: 1357

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	2040228	6.49	2327263	8.07	369010	13.19
	UPPER LIMIT	4080456	6.99	4654526	8.57	738020	13.69
	LOWER LIMIT	1020114	5.99	1163632	7.57	184505	12.69
	SAMPLE NO.						
01	VBLK01	2221036	6.50	2433449	8.08	389882	13.19
02	D0-0018-06-002	1917990	6.49	2110271	8.08	336247	13.19
03	D0-0018-06-005	2009325	6.50	2248827	8.08	362158	13.19
04	D0-0018-06-006	2002123	6.51	2209158	8.07	353355	13.19
05	D0-0018-06-007	1989915	6.49	2083413	8.07	328443	13.19
06	EW-16	2031484	6.51	2133860	8.07	337741	13.19
07	D0-0018-06-FLDBLK	2101419	6.49	2259684	8.08	366923	13.19
08	97060102-008	2086432	6.49	2251536	8.07	365174	13.19
09	97060102-008MS	2130316	6.49	2263805	8.07	374888	13.19
10	97060102-008MSD	2137322	6.49	2261980	8.07	366036	13.19
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IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

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

Column 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: AENI Contract: F0S6U

Project No.: 9706101 Site: Location: Group:

Lab File ID (Standard): FF109.D Date Analyzed: 6/23/97

Instrument ID: F7200 Time Analyzed: 1357

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1246117	17.52				
	UPPER LIMIT	2492234	18.02				
	LOWER LIMIT	623059	17.02				
	SAMPLE NO.						
01	VBLK01	1239868	17.52				
02	D0-0018-06-002	1060927	17.52				
03	D0-0018-06-005	1184228	17.52				
04	D0-0018-06-006	1142502	17.52				
05	D0-0018-06-007	1046068	17.52				
06	EW-16	1101029	17.52				
07	D0-0018-06-FLDBLK	1142489	17.52				
08	97060102-008	1156840	17.52				
09	97060102-008MS	1200310	17.52				
10	97060102-008MSD	1177662	17.52				
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IS4 = 1,4-Dichlorobenzene-d4

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.

AMERICAN ENVIRONMENTAL NETWORK,INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

June 24, 1997

Client: Foster Wheeler Environmental Corporation

Project: NAWC Warminster

Case: 9706101

Analysis: Metals

Client ID	AENI ID	Date Sampled	Date Received	Date Analyzed
D0-0018-06-002	9706101-002	06/18/97	06/19/97	06/23,24/97
D0-0018-06-004	9706101-004	06/18/97	06/19/97	06/23,24/97
D0-0018-06-007	9706101-007	06/18/97	06/19/97	06/23,24/97

Three groundwater samples were received and analyzed for TAL metals per SW846 methodology. Results are reported in units of ug/L.

All quality control results were within normal control limits.

Report Released By

Christopher Baggett
Inorganics Manager

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

0018-06-002

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Matrix (soil/water): WATER Lab Sample ID: 970610102

Level (low/med): LOW Date Received: 06/19/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium	302			P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	37000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	11.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	250			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	12000			P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	9420			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	122			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
CLIENT_ID: D0-0018-06-002

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

0018-06-004

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Matrix (soil/water): WATER Lab Sample ID: 970610104

Level (low/med): LOW Date Received: 06/19/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium	302			P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	37500			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	11.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	100	U		P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	12200			P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	9730			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	26.5			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
CLIENT_ID: D0-0018-06-004

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

0018-06-007

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Matrix (soil/water): WATER Lab Sample ID: 970610107

Level (low/med): LOW Date Received: 06/19/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium	260			P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	37100			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	11.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	100	U		P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	12400			P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	9480			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	20.0	U		P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: D0-0018-06-007

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Initial Calibration Source: INORG VENTUR

Continuing Calibration Source: INORG VENTUR

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	9000.0	8886.50	98.7	10000.0	9757.77	97.6	9810.84	98.1	P
Antimony	450.0	452.16	100.5	500.0	503.17	100.6	511.51	102.3	P
Arsenic	45.0	46.62	103.6	500.0	506.63	101.3	511.98	102.4	P
Barium	9000.0	8987.28	99.9	10000.0	10054.94	100.5	10089.04	100.9	P
Beryllium	225.0	223.36	99.3	250.0	249.34	99.7	251.13	100.5	P
Cadmium	225.0	228.25	101.4	250.0	251.89	100.8	251.81	100.7	P
Calcium	45000.0	45565.04	101.3	50000.0	50280.63	100.6	50439.22	100.9	P
Chromium	450.0	455.94	101.3	1000.0	1001.91	100.2	1001.67	100.2	P
Cobalt	2250.0	2282.12	101.4	2500.0	2528.97	101.2	2533.01	101.3	P
Copper	1125.0	1107.98	98.5	1250.0	1229.45	98.4	1230.04	98.4	P
Iron	4500.0	4515.51	100.3	5000.0	5000.29	100.0	4975.73	99.5	P
Lead	450.0	455.46	101.2	2500.0	2523.04	100.9	2528.63	101.1	P
Magnesium	45000.0	44903.63	99.8	50000.0	49638.58	99.3	49859.89	99.7	P
Manganese	2250.0	2254.16	100.2	2500.0	2494.90	99.8	2500.98	100.0	P
Mercury	1.0	0.95	95.0	2.0	1.97	98.5	1.89	94.5	AV
Nickel	2250.0	2181.00	96.9	2500.0	2446.00	97.8	2416.00	96.6	P
Potassium	45000.0	43601.00	96.9	50000.0	49459.00	98.9	49719.00	99.4	P
Selenium	45.0	43.54	96.8	500.0	514.11	102.8	524.72	104.9	P
Silver	450.0	451.75	100.4	500.0	496.65	99.3	496.71	99.3	P
Sodium	45000.0	43663.00	97.0	50000.0	48492.00	97.0	48896.00	97.8	P
Thallium	400.0	405.93	101.5	500.0	508.11	101.6	510.67	102.1	P
Vanadium	2250.0	2240.92	99.6	2500.0	2497.90	99.9	2510.64	100.4	P
Zinc	2250.0	2271.39	101.0	2500.0	2516.66	100.7	2517.25	100.7	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Initial Calibration Source: INORG VENTUR

Continuing Calibration Source: INORG VENTUR

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				10000.0	9848.05	98.5	9614.04	96.1	P
Antimony				500.0	513.81	102.8	490.59	98.1	P
Arsenic				500.0	508.19	101.6	487.18	97.4	P
Barium				10000.0	10127.21	101.3	10053.46	100.5	P
Beryllium				250.0	251.96	100.8	245.17	98.1	P
Cadmium				250.0	251.23	100.5	244.78	97.9	P
Calcium				50000.0	50390.65	100.8	50002.71	100.0	P
Chromium				1000.0	1000.27	100.0	993.21	99.3	P
Cobalt				2500.0	2525.25	101.0	2464.61	98.6	P
Copper				1250.0	1232.70	98.6	1193.74	95.5	P
Iron				5000.0	4965.66	99.3	4977.14	99.5	P
Lead				2500.0	2532.52	101.3	2466.06	98.6	P
Magnesium				50000.0	49767.53	99.5	48354.17	96.7	P
Manganese				2500.0	2493.67	99.7	2462.11	98.5	P
Mercury				2.0	1.99	99.5	2.03	101.5	AV
Nickel									NR
Potassium									NR
Selenium				500.0	526.58	105.3	500.68	100.1	P
Silver				500.0	497.79	99.6	484.97	97.0	P
Sodium									NR
Thallium				500.0	518.49	103.7	497.52	99.5	P
Vanadium				2500.0	2511.73	100.5	2489.85	99.6	P
Zinc				2500.0	2505.51	100.2	2462.52	98.5	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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3
BLANKS

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	200.0	U	200.0	U	200.0	U	200.0	U	200.000	U	P
Antimony	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P
Arsenic	8.0	U	8.0	U	8.0	U	8.0	U	8.000	U	P
Barium	100.0	U	100.0	U	100.0	U	100.0	U	100.000	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Cadmium	4.0	U	4.0	U	4.0	U	4.0	U	4.000	U	P
Calcium	500.0	U	500.0	U	500.0	U	500.0	U	500.000	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Cobalt	11.0	U	11.0	U	11.0	U	11.0	U	11.000	U	P
Copper	25.0	U	25.0	U	25.0	U	25.0	U	25.000	U	P
Iron	100.0	U	100.0	U	100.0	U	100.0	U	100.000	U	P
Lead	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Magnesium	500.0	U	500.0	U	500.0	U	500.0	U	500.000	U	P
Manganese	15.0	U	15.0	U	15.0	U	15.0	U	15.000	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	AV
Nickel	30.0	U	30.0	U	30.0	U			30.000	U	P
Potassium	1000.0	U	1000.0	U	1000.0	U			1000.000	U	P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Silver	8.0	U	8.0	U	8.0	U	8.0	U	8.000	U	P
Sodium	1000.0	U	1000.0	U	1000.0	U			1000.000	U	P
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Vanadium	16.0	U	16.0	U	16.0	U	16.0	U	16.000	U	P
Zinc	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P
Cyanide											NR

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3
BLANKS

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			200.0	U							P
Antimony			20.0	U							P
Arsenic			8.0	U							P
Barium			100.0	U							P
Beryllium			2.0	U							P
Cadmium			4.0	U							P
Calcium			500.0	U							P
Chromium			10.0	U							P
Cobalt			11.0	U							P
Copper			25.0	U							P
Iron			100.0	U							P
Lead			10.0	U							P
Magnesium			500.0	U							P
Manganese			15.0	U							P
Mercury			0.2	U							AV
Nickel											NR
Potassium											NR
Selenium			5.0	U							P
Silver			8.0	U							P
Sodium											NR
Thallium			10.0	U							P
Vanadium			16.0	U							P
Zinc			20.0	U							P
Cyanide											NR

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: AENI Contract: 9706101

Lab Code: _____ Case No.: FOS60_ SAS No: _____ SDG No.: 0018-0

ICP ID Number: PII CR267 ICS Source: HIGH PURITY

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead								
Magnesium								
Manganese								
Mercury								
Nickel	0	1000	4	846.0	84.6	6	879.0	87.9
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								

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ICP INTERFERENCE CHECK SAMPLE

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No: SDG No.: 0018-0

ICP ID Number: PII CR267 ICS Source: HIGH PURITY

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead								
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium	0	0	43	22.0		-23	-153.0	
Selenium								
Silver								
Sodium	0	0	-27	-22.0		-29	-30.0	
Thallium								
Vanadium								
Zinc								

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No: SDG No.: 0018-0

ICP ID Number: TJA TRACE PB ICS Source: HIGH PURITY

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R
Aluminum	500000	500000	517888	515108.6	103.0	502716	501655.4	100.3
Antimony	0	0	4	5.5		4	7.4	
Arsenic	0	2000	-4	2085.1	104.3	-3	1987.5	99.4
Barium	0	500	9	541.6	108.3	9	542.5	108.5
Beryllium	0	500	0	504.6	100.9	0	494.6	98.9
Cadmium	0	1000	22	1016.9	101.7	20	987.9	98.8
Calcium	500000	500000	497062	495697.1	99.1	490619	490433.7	98.1
Chromium	0	500	0	495.3	99.1	-1	490.8	98.2
Cobalt	0	500	-1	490.0	98.0	-4	473.1	94.6
Copper	0	500	3	533.2	106.6	0	513.9	102.8
Iron	200000	200000	191792	191568.7	95.8	188921	188961.0	94.5
Lead	0	1000	-9	1003.0	100.3	-9	981.9	98.2
Magnesium	500000	500000	543101	541086.3	108.2	526651	525941.8	105.2
Manganese	0	500	6	509.7	101.9	6	503.1	100.6
Mercury								
Nickel								
Potassium								
Selenium	0	2000	-2	2103.6	105.2	-1	2014.6	100.7
Silver	0	1000	0	1074.0	107.4	1	1046.9	104.7
Sodium								
Thallium	0	0	-14	-17.9		-13	-17.4	
Vanadium	0	500	-12	488.0	97.6	-12	487.2	97.4
Zinc	0	1000	-9	985.7	98.6	-10	961.0	96.1

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

970610704M

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury	80-120	1.9200		0.2000	U	2.00	96.0		AV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:
MATRIX_SPIKE_DUPLICATE

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

970610704S

Lab Name: AENI Contract: 9706101

Lab Code: _____ Case No.: FOS60 SAS No.: _____ SDG No.: 0018-0

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury	80-120	1.8800		0.2000	U	2.00	94.0		AV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:
MATRIX_SPIKE

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

970610801M

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	80-120	2038.4800		200.0000	U	2000.00	101.9		P
Antimony	80-120	104.6290		20.0000	U	100.00	104.6		P
Arsenic	80-120	103.5340		8.0000	U	100.00	103.5		P
Barium	80-120	2117.1870		100.0000	U	2000.00	105.9		P
Beryllium	80-120	50.4050		2.0000	U	50.00	100.8		P
Cadmium	80-120	50.9900		4.0000	U	50.00	102.0		P
Calcium	80-120	34632.1900		24289.5200		10000.00	103.4		P
Chromium	80-120	205.7840		10.0000	U	200.00	102.9		P
Cobalt	80-120	522.2120		11.0000	U	500.00	104.4		P
Copper	80-120	256.8660		25.0000	U	250.00	102.7		P
Iron	80-120	1406.1700		346.1500		1000.00	106.0		P
Lead	80-120	511.6790		10.0000	U	500.00	102.3		P
Magnesium	80-120	17453.1700		7395.7500		10000.00	100.6		P
Manganese	80-120	515.0800		15.0000	U	500.00	103.0		P
Mercury									NR
Nickel	80-120	473.0000		30.0000	U	500.00	94.6		P
Potassium	80-120	24573.0000		14590.0000		10000.00	99.8		P
Selenium	80-120	97.0360		5.0000	U	100.00	97.0		P
Silver	80-120	99.5710		8.0000	U	100.00	99.6		P
Sodium	80-120	18567.0000		8525.0000		10000.00	100.4		P
Thallium	80-120	97.7410		10.0000	U	100.00	97.7		P
Vanadium	80-120	510.6000		16.0000	U	500.00	102.1		P
Zinc	80-120	492.1940		20.0000	U	500.00	98.4		P
Cyanide									NR

Comments:
MATRIX_SPIKE_DUPLICATE

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

970610801S

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	80-120	2026.3600		200.0000	U	2000.00	101.3		P
Antimony	80-120	102.6180		20.0000	U	100.00	102.6		P
Arsenic	80-120	102.0030		8.0000	U	100.00	102.0		P
Barium	80-120	2109.2230		100.0000	U	2000.00	105.5		P
Beryllium	80-120	50.1690		2.0000	U	50.00	100.3		P
Cadmium	80-120	50.9510		4.0000	U	50.00	101.9		P
Calcium	80-120	34661.3900		24289.5200		10000.00	103.7		P
Chromium	80-120	204.7280		10.0000	U	200.00	102.4		P
Cobalt	80-120	519.8230		11.0000	U	500.00	104.0		P
Copper	80-120	255.6540		25.0000	U	250.00	102.3		P
Iron	80-120	1437.7500		346.1500		1000.00	109.2		P
Lead	80-120	511.3060		10.0000	U	500.00	102.3		P
Magnesium	80-120	17437.9200		7395.7500		10000.00	100.4		P
Manganese	80-120	513.3000		15.0000	U	500.00	102.7		P
Mercury									NR
Nickel	80-120	445.0000		30.0000	U	500.00	89.0		P
Potassium	80-120	24982.0000		14590.0000		10000.00	103.9		P
Selenium	80-120	97.9350		5.0000	U	100.00	97.9		P
Silver	80-120	97.6730		8.0000	U	100.00	97.7		P
Sodium	80-120	18479.0000		8525.0000		10000.00	99.5		P
Thallium	80-120	104.4820		10.0000	U	100.00	104.5		P
Vanadium	80-120	508.4300		16.0000	U	500.00	101.7		P
Zinc	80-120	506.3800		20.0000	U	500.00	101.3		P
Cyanide									NR

Comments:
MATRIX_SPIKE

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

970610704D

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead								NR
Magnesium								NR
Manganese								NR
Mercury		0.2000	U	0.2000	U			AV
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

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6
DUPLICATES

EPA SAMPLE NO.

970610801D

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		200.0000	U	200.0000	U			P
Antimony		20.0000	U	20.0000	U			P
Arsenic		8.0000	U	8.0000	U			P
Barium		100.0000	U	100.0000	U			P
Beryllium		2.0000	U	2.0000	U			P
Cadmium		4.0000	U	4.0000	U			P
Calcium		24289.5200		24644.8900		1.5		P
Chromium		10.0000	U	10.0000	U			P
Cobalt		11.0000	U	11.0000	U			P
Copper		25.0000	U	25.0000	U			P
Iron	100.0	346.1500		367.6000		6.0		P
Lead		10.0000	U	10.0000	U			P
Magnesium		7395.7500		7509.2400		1.5		P
Manganese		15.0000	U	15.0000	U			P
Mercury								NR
Nickel		30.0000	U	30.0000	U			P
Potassium		14590.0000		14800.0000		1.4		P
Selenium		5.0000	U	5.0000	U			P
Silver		8.0000	U	8.0000	U			P
Sodium		8525.0000		8847.0000		3.7		P
Thallium		10.0000	U	10.0000	U			P
Vanadium		16.0000	U	16.0000	U			P
Zinc		20.0000	U	20.0000	U			P
Cyanide								NR

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Solid LCS Source:

Aqueous LCS Source: HIGH PURITY

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	2000.0	1904.91	95.2						
Antimony	100.0	101.66	101.7						
Arsenic	100.0	99.06	99.1						
Barium	2000.0	2056.57	102.8						
Beryllium	50.0	49.33	98.7						
Cadmium	50.0	50.97	101.9						
Calcium	10000.0	10184.61	101.8						
Chromium	200.0	204.39	102.2						
Cobalt	500.0	518.01	103.6						
Copper	250.0	248.95	99.6						
Iron	1000.0	963.67	96.4						
Lead	500.0	510.20	102.0						
Magnesium	10000.0	9881.40	98.8						
Manganese	500.0	508.51	101.7						
Mercury									
Nickel	500.0	447.00	89.4						
Potassium	10000.0	9578.00	95.8						
Selenium	100.0	97.16	97.2						
Silver	100.0	97.41	97.4						
Sodium	10000.0	9827.00	98.3						
Thallium	100.0	96.72	96.7						
Vanadium	500.0	503.82	100.8						
Zinc	500.0	492.58	98.5						
Cyanide									

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7

LABORATORY CONTROL SAMPLE

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Solid LCS Source:

Aqueous LCS Source: HIGH PURITY

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	1.0	0.92	92.0						
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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9

ICP SERIAL DILUTION

EPA SAMPLE NO.

970610801L

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	200.00	U	1000.00	U			P
Antimony	20.00	U	100.00	U			P
Arsenic	8.00	U	40.00	U			P
Barium	100.00	U	500.00	U			P
Beryllium	2.00	U	10.00	U			P
Cadmium	4.00	U	20.00	U			P
Calcium	24289.52		23809.65		2.0		P
Chromium	10.00	U	50.00	U			P
Cobalt	11.00	U	55.00	U			P
Copper	25.00	U	125.00	U			P
Iron	346.15		500.00	U	100.0		P
Lead	10.00	U	50.00	U			P
Magnesium	7395.75		7227.95		2.3		P
Manganese	15.00	U	75.00	U			P
Mercury							NR
Nickel	30.00	U	150.00	U			P
Potassium	14590.00		14095.00		3.4		P
Selenium	5.00	U	25.00	U			P
Silver	8.00	U	40.00	U			P
Sodium	8525.00		8515.00		0.1		P
Thallium	10.00	U	50.00	U			P
Vanadium	16.00	U	80.00	U			P
Zinc	20.00	U	100.00	U			P

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10
Instrument Detection Limits (Quarterly)

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

ICP ID Number: PII_CR267 Date: 07/26/96

Flame AA ID Number :

Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			20		NR
Arsenic			8		NR
Barium			100		NR
Beryllium			2		NR
Cadmium			4		NR
Calcium			500		NR
Chromium			10		NR
Cobalt			11		NR
Copper			10		NR
Iron			100		NR
Lead			10		NR
Magnesium			500		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel	231.60		15	30.0	P
Potassium	766.49		1000	1000.0	P
Selenium			5		NR
Silver			8		NR
Sodium	589.59		1000	1000.0	P
Thallium			10		NR
Vanadium			16		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

ICP ID Number: Date: 04/01/97

Flame AA ID Number : PE_3100

Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			20		NR
Arsenic			8		NR
Barium			100		NR
Beryllium			2		NR
Cadmium			4		NR
Calcium			500		NR
Chromium			10		NR
Cobalt			11		NR
Copper			10		NR
Iron			100		NR
Lead			10		NR
Magnesium			500		NR
Manganese			15		NR
Mercury	253.05		0.2	0.2	AV
Nickel			15		NR
Potassium			1000		NR
Selenium			5		NR
Silver			8		NR
Sodium			1000		NR
Thallium			10		NR
Vanadium			16		NR
Zinc			20		NR

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

ICP ID Number: TJA_TRACE_PB Date: 04/28/97

Flame AA ID Number :

Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.21		200	200.0	P
Antimony	206.83		20	20.0	P
Arsenic	189.04		8	8.0	P
Barium	493.41		100	100.0	P
Beryllium	313.04		2	2.0	P
Cadmium	226.50		4	4.0	P
Calcium	317.93		500	500.0	P
Chromium	267.72		10	10.0	P
Cobalt	228.62		11	11.0	P
Copper	324.75		10	25.0	P
Iron	271.44		100	100.0	P
Lead	220.35		10	10.0	P
Magnesium	279.08		500	500.0	P
Manganese	257.61		15	15.0	P
Mercury			0.2		NR
Nickel			15		NR
Potassium			1000		NR
Selenium	196.02		5	5.0	P
Silver	328.07		8	8.0	P
Sodium			1000		NR
Thallium	190.86		10	10.0	P
Vanadium	292.40		16	16.0	P
Zinc	206.20		20	20.0	P

Comments:

13

PREPARATION LOG

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
-06-002	06/22/97		100
-06-004	06/22/97		100
-06-007	06/22/97		100
0610801	06/22/97		100
610801D	06/22/97		100
610801M	06/22/97		100
610801S	06/22/97		100
LCS3138	06/22/97		100
PBW3138	06/22/97		100

13
PREPARATION LOG

Lab Name: AENI Contract: 9706101

Lab Code: Case No.: FOS60 SAS No.: SDG No.: 0018-0

Method: AV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
-06-002	06/22/97		100
-06-004	06/22/97		100
-06-007	06/22/97		100
0610704	06/22/97		100
610704D	06/22/97		100
610704M	06/22/97		100
610704S	06/22/97		100
LCS1352	06/22/97		100
PBW1352	06/22/97		100

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Client: Foster Wheeler

Project: Warminster, PA

Case: 9706101

Analysis: General Chemistry Parameters

Date: June 27, 1997

Client ID	AENI ID	Date Sampled	Date Received
DO-0018-06-002	9706101-002	06/18/97	06/19/97
DO-0018-06-006	9706101-006	06/18/97	06/19/97
DO-0018-06-007	9706101-007	06/18/97	06/19/97

Three samples were received and analyzed for General Chemistry Parameters. The samples were subcontracted to a third party labs for Total Organic Carbon analyses.

The enclosed reports consist of tabulated results.

Report Released By:

John C. Ermatinger
Project Manager

American Environmental Network, Inc.
11 East Olive Road • Pensacola, FL 32514 • (904) 474-1001

SIGNATURE PAGE

Reviewed by: Linda Loftin
AEN Project Manager

Client:	AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC. COLUMBIA, MARYLAND
Project Name:	FOSTER WHEELER
Project Number:	9706101
Project Location:	N/S
Accession Number:	706319
Project Manager:	JOHN C. ERMATINGER
Sampled By:	N/S

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: TOTAL ORGANIC CARBON

Accession:	706319
Client:	AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number:	9706101
Project Name:	FOSTER WHEELER
Project Location:	N/S
Department:	SEMI-VOLATILE FUELS

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	706319
Client:	AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number:	9706101
Project Name:	FOSTER WHEELER
Project Location:	N/S
Test:	TOTAL ORGANIC CARBON
Analysis Method:	415.1/EPA-600/4-79-020,March 1983.
Extraction Method:	N/A
Matrix:	GROUNDWATER
QC Level:	II

Lab Id:	001	Sample Date/Time:	18-JUN-97 1520
Client Sample Id:	DO-0018-06-002	Received Date:	21-JUN-97
Batch: TOW061		Extraction Date:	N/A
Blank: A	Dry Weight %: N/A	Analysis Date:	23-JUN-97

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	ND	1	
ANALYST	INITIALS	LP		

Comments:

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 706319
Client: AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number: 9706101
Project Name: FOSTER WHEELER
Project Location: N/S
Test: TOTAL ORGANIC CARBON
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A
Matrix: GROUNDWATER
QC Level: II

Lab Id: 002 Sample Date/Time: 18-JUN-97 1503
Client Sample Id: DO-0018-06-006 Received Date: 21-JUN-97

Batch: TOW061 Extraction Date: N/A
Blank: A Dry Weight %: N/A Analysis Date: 23-JUN-97

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	ND	1	
ANALYST	INITIALS	LP		

Comments:

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 706319
Client: AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number: 9706101
Project Name: FOSTER WHEELER
Project Location: N/S
Test: TOTAL ORGANIC CARBON
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A
Matrix: GROUNDWATER
QC Level: II

Lab Id: 003 Sample Date/Time: 18-JUN-97 1449
Client Sample Id: DO-0018-06-007 Received Date: 21-JUN-97

Batch: TOW061 Extraction Date: N/A
Blank: A Dry Weight %: N/A Analysis Date: 23-JUN-97

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	ND	1	
ANALYST	INITIALS	LP		

Comments:

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Quality Control Report

Analysis: TOTAL ORGANIC CARBON

Accession:	706319
Client:	AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number:	9706101
Project Name:	FOSTER WHEELER
Project Location:	N/S
Department:	SEMI-VOLATILE FUELS

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"QC Report"

Title: Water Blank
Batch: TOW061
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A

Blank Id: A Date Analyzed: 23-JUN-97 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
TOTAL ORGANIC CARBON	MG/L	ND	1
ANALYST	INITIALS	LP	

Comments:

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"QC Report"

Title: Water Reagent
Batch: TOW061
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A

RS Date Analyzed: 23-JUN-97
RSD Date Analyzed: 23-JUN-97

RS Date Extracted: N/A
RSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	RSD Conc	RSD %Rec	RPD	RPD Lmts	Rec Lmts
TOC	6.7	<1	6.5	97	6.7	100	3	30	71-127

Surrogates:

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/L = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"QC Report"

Title: Water Matrix
Batch: TOW061
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A

Dry Weight %: N/A
Sample Spiked: 706164-2

MS Date Analyzed: 25-JUN-97
MSD Date Analyzed: 25-JUN-97

MS Date Extracted: N/A
MSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
TOC	6.7	4	10.7	100	11.0	104	4	30	51-135

Surrogates:

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/L = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

Common notation for Organic reporting

N/S = NOT SUBMITTED
N/A = NOT APPLICABLE
D = DILUTED OUT
UG = MICROGRAMS
UG/L = PARTS PER BILLION.
UG/KG = PARTS PER BILLION.
MG/M3 = MILLIGRAM PER CUBIC METER.
PPMV = PART PER MILLION BY VOLUME.
MG/KG = PARTS PER MILLION.
MG/L = PARTS PER MILLION.
< = LESS THAN DETECTION LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS
Y = IMPROPER PRESERVATION, NO PRESERVATIVE PRESENT IN SAMPLE UPON RECEIPT.

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRYWEIGHT BASIS.

ND = NOT DETECTED ABOVE REPORTING LIMIT.

RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

AEN/GC/FID
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME IONIZATION DETECTOR (FID).

AEN/GC/FIX
AEN GAS CHROMATOGRAPHIC METHOD FOR ANALYSIS OF FIXED GASES EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD) AND FLAME IONIZATION DETECTOR (FID).

AEN/GC/FPD
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME PHOTOMETRIC DETECTOR (FPD) IN SULFUR-SPECIFIC MODE.

AEN/GC/PID
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH PHOTOIONIZATION DETECTOR (PID).

AEN/GC/TCD
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD).

SW-846 METHOD 9020
PARTICULATE MATTER IS REMOVED BY ALLOWING PARTICULATES TO SETTLE IN THE SAMPLE CONTAINER AND DECANTING THE SUPERNATANT LIQUID. EXCESSIVE PARTICULATES ARE REMOVED BY FILTRATION OF THE SUPERNATANT LIQUID.

AEN-PN USES THE MOST CURRENT PROMULGATED METHODS CONTAINED IN THE REFERENCE MANUALS.

SW = STEVE WILHITE
RW = ROBERT WOLFE
KS = KENDALL SMITH
KL = KERRY LEMONT
JBT = JENNIFER TORRANCE
LP = LEVERNE PETERSON
PLD = PAULA DOUGHTY