Versar INC.

230916

FINAL

REMEDIAL INVESTIGATION/FEASIBILITY STUDY
DOVER GAS LIGHT SITE
INTERIM REPORT
GROUND-WATER EVALUATION STUDY
APPENDIX D
SUMMARY LABORATORY ANALYTICAL DATA

Prepared for:

Chesapeake Utilities Corporation
350 South Queen Street
Dover, Delaware 19901

Prepared by:

Versar, Inc.
6800 Versar Center
Springfield, Virginia 22151

Versar Job No. 6527.107

November 8, 1991

Versar INC.

LIST OF SECTIONS

BATCH 5	Off-Site Borings Soil Data, Volatile and Semivolatile Organic Compounds
BATCH 7	Off-Site and Pathway Analysis Borings Soil Data, Volatile and Semivolatile Organic Compounds
BATCH 8	City of Dover Wells, Ground-Water Data, Semivolatile Organic Compounds
BATCH 9	Monitoring Well MW7C Soil Data, Volatile and Semivolatile Organic Compounds
BATCH 12	Monitoring Well 7C Soil Data, Volatile and Semivolatile Organic Compounds and Total Metals
BATCH 13	Monitoring Well MW13B Soil Data, Volatile and Semivolatile Organic Compounds and Total Metals
BATCH 14	Ground-Water Data, Volatile and Semivolatile Organic Compounds
BATCH 15	Ground-Water Data, Total and Dissolved Metals
BATCH 16	Ground-Water Data, Total and Dissolved Metals

Versar INC.

BATCH 5

OFF-SITE BORINGS SOIL DATA
VOLATILE AND SEMIVOLATILE ORGANIC COMPOUNDS

Versa

CHAIN OF CUS[illegible]Y RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.103.01	Dover Gas Light	Y / N

SAMPLERS: (Signature) Juliana de la Fuente (Printed) Juliana de la Fuente

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	CLP-VOA	CLP-BNA							REMARKS
58647	6/13/91	12:17	✓		OB-4 (Bank lane)	1	✓								(~~[illegible]~~)
58648	↓	12:18	✓		OB-4 (Bank lane)	1		✓							
58649	↓	4:19	✓		OB-6 (water street parking lot)	1	✓								
58650	↓	4:20	✓		OB-6 (water street parking lot)	1		✓							
58651	6/14/91	11:37	✓		OB-13 (Kerbin street)	1	✓								
58652	↓	11:39	✓		OB-13 (Kerbin street)	1		✓							
58654	6/13/91	4:30 pm	✓		OB-25	2	✓								
58656	6/17/91	11:57	✓		OB-10	1	✓								
58657	6/17/91	11:58	✓		OB-10	1	✓	✓							
58658	6/17/91	10:07	✓		OB-14	1	✓								
58659	6/17/91	10:08	✓		OB-14	1		✓							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Juliana de la Fuente (Printed)	6/17/91 2:00	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		14 Day Turnaround - please call Jeri Sullivan w/ VOA data as soon as receive.

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301344

SEMIVOLATILE ANALYSIS
ANALYTICAL DATA PACKAGE

CLIENT : VERSAR DIV 61
SITE : DOVER GAS LIGHT
PROJECT: 420.1 B#5
CONTROL: 5003
DATE : 07/30/91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-2

Versar INC

DELIVERABLES INDEX -- BNA ANALYSES ONLY

I. CASE NARRATIVE: Narrative proceeds Volatile Organic data.

II. QC SUMMARY

A. Surrogate Percent Recovery Summary (Form II)
B. Matrix Spike/Matrix Spike Duplicate Summary (Form III)
C. Method Blank Summary (Form IV)
D. GC/MS Tuning and Calibration Standard (Form V)

III. SAMPLE DATA

A. Organic Analysis Data Sheet (Form I)
B. Tentatively Identified Compounds (TIC)
C. Raw Data for the Semivolatile Sample Fraction
1. Reconstruction Ion Chromatogram(s)
2. Quantitation report
3. Raw HSL mass spectra and background subtracted HSL mass spectra with lab generated HSL standard spectra
4. GC/MS library search spectra for each TIC

Note: Samples arranged in alpha-numeric sequence.

IV. STANDARDS DATA

A. Initial Calibration Data (Form VI) in order if more than one instrument is used.
B. BNA standard(s) reconstructed ion chromatograms and quantitation reports for the initial calibration(s).
C. Continuing Calibration (Form VII) in order by instrument.
D. BNA standard(s) reconstructed ion chromatograms and quantitation reports for the continuing calibration(s).
E. Internal Standard Data (Form VIII).

V. RAW QC DATA

A. DFTPP (For each 12-hour period, for each GC/MS system)
1. Bar graph spectrum
2. Mass listing
B. Reagent Blank Data
1. Organic Analysis Data Sheet (Form I),
2. Tentatively Identified Compounds (TIC)
3. Raw Data
a. Reconstructed ion chromatogram(s) and quantitation report(s).
b. HSL spectra with lab generated standard.
i. Raw HSL compound spectra
ii. Enhanced or background subtracted spectra
iii. Laboratory generated HSL standard spectra
iv. GC/MS library search spectra for each TIC
v. Quantitation/calculation of each TIC concentration

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V. RAW QC DATA (CONT'D)

C. Matrix Spike/Matrix Spike Duplicate Data
   1. Tabulated results (Form I) of non-spiked HSL compounds.
   2. Reconstructed ion chromatograms and quantitation reports.

VI. SAMPLE PREPARATION

A. Parameter Request Sheet
B. GC/FID Screening Data (soils only)
C. Extraction Sample Comments
D. GC/MS Analyst Comments
E. Extraction Chronicle and Worksheets
F. pH Results
G. Dry Weight Factor (soils only)
H. Dilution Factor Worksheet
I. Instrument Injection Logs

I. NARRATIVE

II. QC SUMMARY

450 Versar Center • P O Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

July 30, 1991

Narrative
Versar Division 61 - Dover
Semivolatile Organic Analysis
EPA CLP Protocol (Rev 2/88)
Versar Project 420.1 - Batch 5/Control 5003

This report contains the results from the semivolatile organic analysis of five (5) soil samples. The samples, listed below, were received by Versar Labs on June 18, 1991. Analysis was performed for the semivolatile organic compounds following EPA CLP protocol, revision 2/88.

SAMPLE LIST

58648	58650	58652	58657	58659

GC/MS instrument calibrations using DFTPP met method requirements. All SPCC and CCC criteria were met for the initial calibration curves. All GC/MS analyses were performed during the twelve hour period that followed instrument calibration.

Semivolatile surrogate standard recovery values met QC requirements for all analyses. Internal standard area abundance values were compliant for all analyses except 58648MS, 58648MSRE, and SBLK85. Each of the three non-compliant samples had low recovery of the fifth and sixth internal standards. The samples were not reanalyzed since no target compounds were confirmed present in the samples and impact to the data is considered minimal. Extractions and analyses for semivolatile organic compounds were completed prior to expiration of the method specified sample holding times. All sample extracts were analyzed without dilution. Detection limits and concentrations of semivolatile organic compounds present in the soil samples are reported on a "dry weight" basis, which accounts for the moisture content of each sample.

One set of semivolatile organic matrix spike/matrix spike duplicate analyses was performed for this batch shipment of samples. The laboratory currently uses matrix spike concentrations specified in EPA CLP Revision 12/90, in which acid matrix spike compounds are spiked at 150 ppb and base-neutral compounds are spiked at 100 ppb. Surrogate recovery values have been calculated using these concentrations.

Identification of semivolatile non-target compounds has been performed using the EPA/NBS Mass Spectral Database Library.

Narrative - Page 2
Versar Div 61 - Dover
Control 5003

Please contact Larry Pollack, Laboratory Project Manager, should you require additional information or have any questions pertaining to the semivolatile organic analysis of these samples.

Data Release Approved By:

Linda E. Bock
Linda E. Bock
GC/MS Data QA Officer

Narrative Reviewed By:

M. A. Templeton
Mary Anne Templeton
GC/MS Data QA Assistant

Data Qualifier Flags

J — For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B — This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

U — This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T — This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E — This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D — This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

Y — This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

Z — This flag is used when benzo(B)fluoranthene and benzo(K)fluoranthene cannot be quantified due to lack of chromatographic separation. The result listed under benzo(B)fluoranthene is the average of both compounds.

****** Above flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

BRL — This flag is used on the quantitation reports to eliminate compounds below a reasonable confidence limit. All compounds flagged "BRL" are less than the CRQL.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58648

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53514

Sample wt/vol: 30.5 (g/mL) G Lab File ID: W4794

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.78 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	bis(2-Chloroisopropyl)ether	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic Acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58648

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53514

Sample wt/vol: 30.5 (g/mL) G Lab File ID: W4794

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.78 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
84-74-2	Di-n-butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	710	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	360	U
117-84-0	Di-n-octyl phthalate	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenz(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58648

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53514

Sample wt/vol: 30.5 (g/mL) G Lab File ID: W4794

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.78 Dilution Factor: 1.0

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	18.74	180	J
2.	UNKNOWN	20.70	720	J
3.	UNKNOWN	21.82	220	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58650

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53515

Sample wt/vol: 30.2 (g/mL) G Lab File ID: W4797

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 3 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 5.59 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58650

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53515

Sample wt/vol: 30.2 (g/mL) G Lab File ID: W4797

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 3 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 5.59 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
86-30-6	N-nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-butylphthalate	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
117-84-0	Di-n-octyl phthalate	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenz(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58650

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53515

Sample wt/vol: 30.2 (g/mL) G Lab File ID: W4797

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 3 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 5.59 Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 4337-65-9	HEXANEDIOIC ACID, MONO(2-ETH	18.69	140	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58652

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53516

Sample wt/vol: 30.1 (g/mL) G Lab File ID: W4798

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.67 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	bis(2-Chloroisopropyl)ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58652

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53516

Sample wt/vol: 30.1 (g/mL) G Lab File ID: W4798

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.67 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenz(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58652

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53516

Sample wt/vol: 30.1 (g/mL) G Lab File ID: W4798

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.67 Dilution Factor: 1.0

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	16.45	310	J
2.	UNKNOWN HYDROCARBON	17.20	660	J
3.	UNKNOWN HYDROCARBON	17.94	590	J
.	UNKNOWN HYDROCARBON	18.65	470	J
5.	UNKNOWN HYDROCARBON	19.37	310	J
6.	UNKNOWN HYDROCARBON	20.09	160	J
7.	UNKNOWN	21.74	230	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58657

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53517

Sample wt/vol: 30.6 (g/mL) G Lab File ID: W4799

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 19 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.53 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	bis(2-Chloroisopropyl)ether	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

AR301361

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58657

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53517

Sample wt/vol: 30.6 (g/mL) G Lab File ID: W4799

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 19 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.53 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
84-74-2	Di-n-butylphthalate	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	800	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	400	U
117-84-0	Di-n-octyl phthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenz(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58657

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53517

Sample wt/vol: 30.6 (g/mL) G Lab File ID: W4799

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 19 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.53 Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58659

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53518

Sample wt/vol: 30.2 (g/mL) G Lab File ID: W4800

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 7.10 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
84-74-2	Di-n-butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	750	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	380	U
117-84-0	Di-n-octyl phthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenz(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58659

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53518

Sample wt/vol: 30.2 (g/mL) G Lab File ID: W4800

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 7.10 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
100-51-6	Benzyl alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	bis(2-Chloroisopropyl)ether	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58659

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53518

Sample wt/vol: 30.2 (g/mL) G Lab File ID: W4800

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 7.10 Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58648MS

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53514MS

Sample wt/vol: 30.3 (g/mL) G Lab File ID: W4795

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.78 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	bis(2-Chloroisopropyl)ether	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic Acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58648MS

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53514MS

Sample wt/vol: 30.3 (g/mL) G Lab File ID: W4795

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.78 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
84-74-2	Di-n-butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	720	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	360	U
117-84-0	Di-n-octyl phthalate	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenz(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58648MSRE

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53514MSRE

Sample wt/vol: 30.3 (g/mL) G Lab File ID: W4822

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/18/91

GPC Cleanup: (Y/N) N pH: 6.78 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	bis(2-Chloroisopropyl)ether	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic Acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58648MSRE

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53514MSRE

Sample wt/vol: 30.3 (g/mL) G Lab File ID: W4822

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/18/91

GPC Cleanup: (Y/N) N pH: 6.78 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
84-74-2	Di-n-butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	720	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	360	U
117-84-0	Di-n-octyl phthalate	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenz(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58648MSD

L. Name: VERSAR INC. Contract: _____

Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53514MSD

Sample wt/vol: 30.2 (g/mL) G Lab File ID: W4796

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.78 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	bis(2-Chloroisopropyl)ether	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic Acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58648MSD

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53514MSD

Sample wt/vol: 30.2 (g/mL) G Lab File ID: W4796

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 06/27/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/17/91

GPC Cleanup: (Y/N) N pH: 6.78 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
84-74-2	Di-n-butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	720	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	360	U
117-84-0	Di-n-octyl phthalate	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenz(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

(1) - Cannot be separated from Diphenylamine

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
6527.103.01	Dover Gas Lift

SAMPLERS: (Signature) Juliana de la Fuente (Printed) Juliana de la Fuente

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	CLP-VOA	CLP-BNA								REMARKS
58647	6/13/91	12:17	✓		OB-4 (Bank lane)	1	✓									(~~[illegible]~~)
58648	↓	12:18	✓		OB-4 (Bank lane)	1		✓								
58649	↓	4:19	✓		OB-6 (Water Street parking lot)	1	✓									
58650	↓	4:20	✓		OB-6 (Water Street parking lot)	1		✓								
58651	6/14/91	11:37	✓		OB-13 (Kerbin Street)	1	✓									
58652	↓	11:39	✓		OB-13 (Kerbin Street)	1		✓								
58654	6/17/91	9:30	✓		OB-25	2	✓									
58656	6/17/91	11:57	✓		OB-10	1	✓									
58657	6/17/91	11:58	✓		OB-10	1	✓	✓								
58658	6/17/91	10:07	✓		OB-14	1	✓									
58659	6/17/91	10:08	✓		OB-14	1		✓								

PARAMETERS

INDUSTRIAL HYGIENE SAMPLE Y / N

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Juliana de la Fuente (Printed)	6/17/91 2:00	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		14 Day Turnaround. - please call Jeri Sullivan w/ VOA data as soon as receive.

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301373

VOLATILE ANALYSIS
DATA SUMMARY PACKAGE

CLIENT : VERSAR DIVISION 61
SITE : DOVER GAS LIGHT
PROJECT: 420.1 B#5
CONTROL: 5003
DATE : 06/27/91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

June 27, 1991

Narrative
Versar Division 61 - Dover Gas Light
GC/MS Volatile Organic Analysis
EPA CLP Protocol
Versar Project 420.1 - Batch 5
Control 5003

This report contains the analytical data for the volatile organic analysis of one (1) water sample and five (5) soil samples. The samples, listed below, arrived at Versar Laboratories on June 18, 1991. The samples were analyzed following the EPA CLP protocol for volatile organic compounds. Results of additional analytical parameters are provided separately.

SAMPLE LIST

58647	58654*
58649	58656
58651	58658

*water sample

//

GC/MS instrument calibrations using BFB met method requirements for volatile organic analysis. SPCC and CCC criteria were met for the volatile initial calibration curves and the continuing calibration standards. All GC/MS analyses occurred during the twelve hour period that followed daily instrument calibration. Volatile surrogate standard recovery values, internal standard area abundance values and associated relative retention times met QC requirements for all analyses. All samples were analyzed without dilution.

One set of volatile matrix spike and matrix spike duplicate (MS/MSD) quality control samples was analyzed for this batch shipment of samples. All analyses were completed prior to expiration of sample holding time.

Volatile non-target compounds have been tentatively identified using the EPA/NBS Mass Spectral Database Library. Detection limits and concentrations of volatile compounds present in soil samples been reported on a "dry weight" basis, which accounts for the moisture content of each sample.

Explanations of data qualifier flags used on the data reporting forms are provided in the listing which immediately follows this case narrative.

Narrative - Page 2
Versar Division 61
Control 5003

Please contact Larry Pollack, Laboratory Project Manager, should you have any questions or require additional information pertaining to the analysis of these samples for volatile organic compounds.

Data Release Approved By:

M. A. Templeton

Mary Anne Templeton
GC/MS Data QA Assistant

Narrative Reviewed By:

L. Bock

Linda E. Bock
GC/MS Data QA Officer

Data Qualifier Flags

J — For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B — This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

u — This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T — This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E — This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D — This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

Y — This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

Z — This flag is used when benzo(B)fluoranthene and benzo(K)fluoranthene cannot be quantified due to lack of chromatographic separation. The result listed under benzo(B)fluoranthene is the average of both compounds.

****** Above flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

BRL — This flag is used on the quantitation reports to eliminate compounds below a reasonable confidence limit. All compounds flagged "BRL" are less than the CRQL.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58647

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53508

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8447

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 19 Date Analyzed: 06/21/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58647

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53508

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8447

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 19 Date Analyzed: 06/21/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.34	9.9	J
2.	UNKNOWN SILOXANE	19.52	30	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58649

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53509

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8450

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 22 Date Analyzed: 06/21/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	13	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58649

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53509

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8450

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 22 Date Analyzed: 06/21/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	19.57	34	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58651

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53510

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8451

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 5 Date Analyzed: 06/21/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58651

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53510

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8451

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 5 Date Analyzed: 06/21/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	19.55	13	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58654

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 53511

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9017

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. ____ Date Analyzed: 06/21/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58654

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 53511

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9017

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. ____ Date Analyzed: 06/21/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58656

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 52512

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8463

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 7 Date Analyzed: 06/22/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	11	
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58656

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 52512

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8463

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 7 Date Analyzed: 06/22/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1066-40-6	SILANOL, TRIMETHYL-	8.37	110	J
2.	UNKNOWN SILOXANE	10.35	140	J
3. 541-05-9	CYCLOTRISILOXANE, HEXAMETHYL	14.45	57	J
4.	UNKNOWN SILOXANE	19.55	210	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58658

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53513

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8468

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 22 Date Analyzed: 06/22/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	14	
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58658

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53513

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8468

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 22 Date Analyzed: 06/22/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1066-40-6	SILANOL, TRIMETHYL-	8.39	75	J
2.	UNKNOWN SILOXANE	10.37	45	J
3. 541-05-9	CYCLOTRISILOXANE, HEXAMETHYL	14.45	51	J
4.	UNKNOWN SILOXANE	19.54	360	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58647_MS

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53508_MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8448

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 19 Date Analyzed: 06/21/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58647_MSD

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53508_MSD

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8449

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 19 Date Analyzed: 06/21/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58647_MSD

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5003 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: 53508_MSD

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y8449

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. 19 Date Analyzed: 06/21/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	14.44	4.8	J

FORM I VOA-TIC 1/87 Rev.

Versar INC.

BATCH 7

OFF-SITE AND PATHWAY ANALYSIS BORINGS SOIL DATA
VOLATILE AND SEMIVOLATILE ORGANIC COMPOUNDS

Ver[illegible] INC.

CHAIN OF CU[illegible]DY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.103	Denver Gas Light	Y / (N)

SAMPLERS: (Signature) [illegible] (Printed) Juliana de la Fuente

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA CLP	BNA-CLP							REMARKS
58660	6/19/91	11:03	✓		OB-5	1	✓								
58661	↓	11:03	✓		OB-5	1		✓							
58662	6/18/91	3:38	✓		OB-8	1	✓								
58663	↓	3:38	✓		OB-8	1		✓							
58664	6/18/91	12:08	✓		OB-9	1	✓								
58665	↓	12:08	✓		OB-9	1		✓							
58666	6/19/91	8:52	✓		OB-11	1	✓								
58667	↓	8:54	✓		OB-11	1		✓							
58668	6/19/91	2:51	✓		OB-12	1	✓								
58669	↓	2:51	✓		OB-12	1		✓							
58670	6/20/91	9:11	✓		PA-1	1	✓								
58671	6/20/91	9:11	✓		PA-1	1		✓							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Juliana de la Fuente	6/21/91 6:30 pm				
(Printed) Juliana de la Fuente		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
				14-day turn around w/ Jeri Sullivan w/ VOA data once received
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301394

Versar INC.

CHAIN OF CUSTODY RECORD

2 of 3

PROJECT NO.	PROJECT NAME
6527.103	Dover Gas Light

SAMPLERS: (Signature) [illegible] (Printed) Juliana de la Fuente

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	CLP-VOA	CLP-SVOA							REMARKS
58672	6/14/11	3:10	✓		PA-2	1	✓								
58673	↓	3:10	✓		PA-2	1		✓							
58674	6/18/11	2:17	✓		PA-3	1	✓								
58675	↓	2:17	✓		PA 3	1		✓							
58676	6/24/11	10:17	✓		PA 4	1	✓								
58677		10:18	✓		PA 4	1		✓							
58678		8:15	✓		PA-5	1	✓								
58679		8:16	✓		PA5	1		✓							
58680		11:11	✓		PA-6	1	✓								
58681	↓	11:12	✓		PA-6	1		✓							
58682	6/14/11	4:25	✓		PA-7	1	✓								
58683	↓	4:26	✓		PA-7	1		✓							

INDUSTRIAL HYGIENE SAMPLE: Y / N

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	6/21/11 6:32pm				
(Printed) Juliana de la Fuente		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		14-Day Turn Around Call Jeni Sullivan w/ WA Data once Received

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301395

Versar INC.

CHAIN OF CUSTODY RECORD

3

PROJECT NO.	PROJECT NAME
6527.102	Dover Gas Light

SAMPLERS: (Signature) [signature] (Printed) Juliana de la Fuente

INDUSTRIAL HYGIENE SAMPLE: Y / N

PARAMETERS

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	CLP-VOA	CLP-BNA							REMARKS
58684	4/20/91	2:17	✓		PA-8	1	✓								
58685	↓	2:17	✓		PA-8	1		✓							
58686		1:12	✓		PA 9	1	✓								
58687		1:12	✓		PA 9	1		✓							
58688		3:18	✓		PA-10	1	✓								
58689	↓	3:18	✓		PA-10	1		✓							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	4/21/91 6:30pm				
(Printed) Juliana de la Fuente		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		14-Day Turn Around! Call Jeri Sullivan w/ VOA Data as soon as Received.

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301396

Versar Laboratories INC.

VOLATILE ANALYSIS
ANALYTICAL DATA PACKAGE

CLIENT: Versar Div 61
SITE: DOVER GAS LIGHT
PROJECT: 420.1-Batch #7
CONTROL: 5038
DATE: 09/06/91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

Versar INC.

DELIVERABLES INDEX -- VOA ANALYSES ONLY

I. CASE NARRATIVE

A. The narrative contains: case and contract numbers, summary of QC analyses, discussion of any analytical problems, and documentation of all corrective actions.
B. Copy of Sample Traffic Reports.

II. QC SUMMARY

A. Surrogate Percent Recovery Summary (Form II)
B. Matrix Spike/Matrix Spike Duplicate Summary (Form III)
C. Method Blank Summary (Form IV)
D. GC/MS Tuning and Calibration Standard (Form V)

III. SAMPLE DATA

A. Organic Analysis Data Sheet (Form I)
B. Tentatively Identified Compounds (TIC)
C. Raw Data for the Volatile Sample Fraction
   1. Reconstructed Ion Chromatogram (s)
   2. Quantitation Report
   3. Raw HSL mass spectra and background subtract HSL mass spectra with lab generated HSL standard spectra
   4. GC/MS library search spectra for each TIC

   Note: Samples arranged in alpha-numeric sequence.

IV. STANDARDS DATA

A. Initial Calibration Data (Form VI) in order if more than one instrument is used.
B. VOA standard(s) reconstructed ion chromatograms and quantitation reports for the initial calibration(s).
C. Continuing Calibration (Form VII) in order by instrument.
D. VOA standard(s) reconstructed ion chromatograms and quantitation reports for the continuing calibration(s).
E. Internal Standard Data (Form VIII).

V. RAW QC DATA

A. BFB (For each 12-hour period, for each GC/MS system)
   1. Bar graph spectrum
   2. Mass listing

Versar INC.

V. RAW QC DATA (CONT'D)

B. Reagent Blank Data
   1. Organic Analysis Data Sheet (Form I)
   2. Tentatively Identified Compounds (TIC)
   3. Raw Data
      a. Reconstructed ion chromatogram(s) and quantitation report(s).
      b. HSL spectra with lab generated standard
         i. Raw HSL compound spectra
         ii. Enhanced or background subtracted spectra
         iii. Laboratory generated HSL standard spectra
         iv. GC/MS library search spectra for each TIC
         v. Quantitation/calculation of each TIC concentration

C. Matrix Spike/Matrix Spike Duplicate Data
   1. Tabulated results (Form I) of non-spiked HSL compounds.
   2. Reconstructed ion chromatograms and quantitation reports.

VI. SAMPLE PREPARATION

A. Parameter Request Sheet
B. Sample Receiving Log-In Information
C. VOA Sample Comments
D. Instrument Injection Logs
E. Field Chain of Custody
F. Copy(s) of Federal Express Airbills

I. NARRATIVE

II. QC SUMMARY

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

September 6, 1991

Narrative
Versar Division 61 - DOVER GAS LIGHT
Volatile Organic Analysis - EPA CLP Protocol (2/88)
Versar Project 420.1 - Batch 7/Control 5038

This report contains the analytical data for the volatile organic analysis of fifteen (15) soil samples. The samples listed below arrived at Versar on June 22, 1991. The samples were analyzed for volatile organic compounds following procedures outlined in the EPA CLP Organic Statement of Work (Rev. 2/88) which uses purge and trap techniques with GC/MS instrumentation. Results from semivolatile organic analyses are reported separately.

SAMPLE LIST

58660	58676
58662	58678
58664	58680
58666	58682
58668	58684
58670	58686
58672	58688
58674	

Analytical results are presented in the order listed
****

GC/MS instrument calibrations using BFB met requirements for volatile organic analyses. SPCC and CCC criteria were met for the initial calibration curves and the continuing calibration standards. All GC/MS analyses occurred during the twelve hour period that followed daily instrument calibration. All initial volatile organic sample analyses were completed prior to expiration of sample holding times.

Volatile surrogate compounds met specified recovery limits for all samples with the exception of samples 58672, 58678, and 58688. Sample 58672 experienced a leak during the purge procedure resulting in noncompliant surrogate and internal standard area abundance values. Following method protocol, the samples containing surrogate outlier values were reanalyzed (RE); the reanalyses were performed after holding times had elapsed. Both sets of data are included in the report. Surrogate recovery values were compliant in the reanalyses of samples 58672 and 58678. The reanalysis of sample 58678 resulted in poor replication of target analytes detected during the initial analysis of this soil sample. The delay in reanalysis may have

resulted in volatilization. The toluene-d8 outlier value was replicated in sample 58688. Internal standard area abundance values and associated relative retention times met specified criteria for volatile organic analyses with the exception of sample 58672 which experienced a purge leak and was subsequently reanalyzed.

N-butyl alcohol listed as the last entry on the each data summary Form 1A is not a CLP volatile target analyte and should be disregarded.

Nontarget compounds were tentatively identified using the EPA/NBS Mass Spectral Database Library. The samples did not require dilution prior to instrumental analysis.

Detection limits and reported concentrations of volatile organic compounds detected in the soil samples are reported on a "dry weight" basis which accounts for the moisture content of the each soil.

Explanations of data qualifier flags used on the individual data summary pages are provided in the listing which immediately follows this case narrative.

Please contact me should you have any questions or require additional information pertaining to the volatile organic analysis of these soil samples.

Data Release Approved By:

Lawrence P. Pollack
Project Coordinator
Laboratory Operations

Narrative Reviewed By:

M. A. Templeton
Mary Anne Templeton
GC/MS Data QA Assistant

Data Qualifier Flags

J — For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B — This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

u — This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T — This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E — This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D — This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

Y — This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

Z — This flag is used when benzo(B)fluoranthene and benzo(K)fluoranthene cannot be quantified due to lack of chromatographic separation. The result listed under benzo(B)fluoranthene is the average of both compounds.

****** Above flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

BRL — This flag is used on the quantitation reports to eliminate compounds below a reasonable confidence limit. All compounds flagged "BRL" are less than the CRQL.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58660

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54065

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2898

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 13 Date Analyzed: 07/01/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	230	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58660

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54065

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2898

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 13 Date Analyzed: 07/01/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	5.77	22	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58662

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54066

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2914

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 6 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U
71-36-3	N-Butyl alcohol	210	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58662

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54066

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2914

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 6 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM I VOA-TIC 1/87 Rev.

AR301407

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58664

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54067

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2915

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 21 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	13	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	250	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58664

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54067

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2915

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 21 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58666

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54068

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2901

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 10 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	220	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58666

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54068

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2901

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 10 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58668

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54069

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2902

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 22 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	13	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	260	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58668

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54069

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2902

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 22 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58670

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54070

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2916

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 10 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	220	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58670

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54070

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2916

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 10 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM I VOA-TIC 1/87 Rev.

AR301415

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58672

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54071

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2917

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	240	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58672

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54071

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2917

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

AR301417

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58672RE

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54071RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S3054

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 Date Analyzed: 07/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	240	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58672RE

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54071RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S3054

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 Date Analyzed: 07/16/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	18.09	23	J

FORM I VOA-TIC 1/87 Rev.

AR301419

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58674

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54072

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2918

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 13 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	230	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58674

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54072

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2918

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 13 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM I VOA-TIC 1/87 Rev.

AR301421

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58676

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54073

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2919

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 18 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	5	J
67-64-1	Acetone	49	
75-15-0	Carbon disulfide	4	J
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	5	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	11	
71-36-3	N-Butyl alcohol	240	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58676

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54073

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2919

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 18 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SUBSTITUTED BENZENE	23.87	7.3	J
2.	UNKNOWN SUBSTITUTED BENZENE	25.51	23	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58678

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54074

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2920

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 12 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	170	
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	7	
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	30	
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	230	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58678

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54074

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2920

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 12 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SUBSTITUTED BENZENE	20.02	10	J
2.	UNKNOWN SUBSTITUTED BENZENE	22.12	30	J
3.	UNKNOWN SUBSTITUTED BENZENE	22.37	45	J
4.	UNKNOWN SUBSTITUTED BENZENE	22.99	56	J
5.	UNKNOWN HYDROCARBON	23.64	15	J
6.	UNKNOWN SUBSTITUTED BENZENE	24.69	61	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58678RE

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54074RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S3055

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 12 Date Analyzed: 07/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	230	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58678RE

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54074RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S3055

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 12 Date Analyzed: 07/16/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	18.09	8.0	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58680

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54075

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2921

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 10 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	220	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58680

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54075

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2921

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 10 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SUBSTITUTED BENZENE	21.59	41	J
2.	UNKNOWN SUBSTITUTED BENZENE	22.12	6.7	J
3.	UNKNOWN HYDROCARBON	23.62	31	J
4.	UNKNOWN SUBSTITUTED BENZENE	24.52	47	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58682

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54076

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2922

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 8 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U
71-36-3	N-Butyl alcohol	220	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58682

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54076

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2922

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 8 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	22.52	14	J
2.	UNKNOWN HYDROCARBON	24.80	30	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58684

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54077

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2923

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 8 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U
71-36-3	N-Butyl alcohol	220	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58684

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54077

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2923

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 8 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58686

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54078

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2924

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 7 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U
71-36-3	N-Butyl alcohol	220	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58686

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54078

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2924

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 7 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58688

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54079

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2925

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 Date Analyzed: 07/02/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	240	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58688

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54079

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S2925

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 Date Analyzed: 07/02/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58688RE

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54079RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S3056

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 Date Analyzed: 07/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U
71-36-3	N-Butyl alcohol	240	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58688RE

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54079RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: S3056

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 Date Analyzed: 07/16/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 541-05-9	CYCLOTRISILOXANE, HEXAMETHYL	18.22	11	J

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
6527.103	Dover Gas Light

SAMPLERS: (Signature) Juliana de la Fuente (Printed) Juliana de la Fuente

INDUSTRIAL HYGIENE SAMPLE: Y / N

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA CLP	BNA-CLP							REMARKS
58660	6/19/91	11:03	✓		OB-5	1	✓								
58661	↓	11:03	✓		OB-5	1		✓							
58662	6/18/91	3:38	✓		OB-8	1	✓								
58663	↓	3:38	✓		OB-8	1		✓							
58664	6/18/91	12:08	✓		OB-9	1	✓								
58665	↓	12:08	✓		OB-9	1		✓							
58666	6/19/91	8:52	✓		OB-11	1	✓								
58667	↓	8:59	✓		OB-11	1		✓							
58668	6/19/91	2:51	✓		OB-12	1	✓								
58669	↓	2:51	✓		OB-12	1		✓							
58670	6/20/91	9:11	✓		PA-1	1	✓								
58671	6/20/91	9:11	✓		PA-1	1		✓							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Juliana de la Fuente	6/21/91 6:30 pm				
(Printed) Juliana de la Fuente		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
				14-day turn around all Jeri Sullivan w/ VOA data once received
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301440

Versar INC.

CHAIN OF CUSTODY RECORD

2 of 3

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.103	Dover Gas Light	Y / N

SAMPLERS: (Signature) Juliana de la Fuente (Printed) Juliana de la Fuente

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PARAMETERS: CLP-VOA	PARAMETERS: CLP-BNA							REMARKS
58672	6/19/91	3:10	✓		PA-2	1	✓								
58673	↓	3:10	✓		PA-2	1		✓							
58674	6/18/91	2:17	✓		PA-3	1	✓								
58675	↓	2:17	✓		PA 3	1		✓							
58676	6/20/91	10:17	✓		PA 4	1	✓								
58677		10:18	✓		PA 4	1		✓							
58678		8:15	✓		PA-5	1	✓								
58679		8:16	✓		PA5	1		✓							
58680		11:11	✓		PA-6	1	✓								
58681	↓	11:12	✓		PA-6	1		✓							
58682	6/19/91	4:25	✓		PA-7	1	✓								
58683	↓	4:26	✓		PA-7	1		✓							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Juliana de la Fuente	6/21/91 6:30pm				
(Printed) Juliana de la Fuente		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
				14-Day Turn Around Call Jeri Sullivan w/ WA Data once Received
(Printed)		(Printed)		

Distribu[illegible]riginal Plus One Accompanies Shipment (white and yellow); Copy to Coordinator F[illegible]les (pink).

AR301441

Versar INC.

CHAIN OF CUSTODY RECORD

of 3

PROJECT NO.	PROJECT NAME	PARAMETERS	INDUSTRIAL HYGIENE SAMPLE Y / N
6527.102	Dover Gas Light		

SAMPLERS: (Signature) [signature] (Printed) Juliana de la Fuente

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	CLP-VOA	CLP-BNA							REMARKS
58684	6/20/91	2:17	✓		PA-8	1	✓								
58685		2:17	✓		PA-8	1		✓							
58686		1:12	✓		PA 9	1	✓								
58687		1:12	✓		PA 9	1		✓							
58688		3:18	✓		PA-10	1	✓								
58689	↓	3:18	✓		PA-10	1		✓							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	6/21/91 6:30pm				
(Printed) Juliana de la Fuente		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
				14-Day Turn Around / Call Jeri Sullivan w/ VOA Data as soon as Recieved.
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301442

SEMIVOLATILE ANALYSIS
ANALYTICAL DATA PACKAGE

CLIENT: Versar Div 61
SITE: DOVER GAS LIGHT
PROJECT: 420.1-Batch # 7
CONTROL: 5038
DATE: 09/23/91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

I. NARRATIVE

II. QC SUMMARY

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7

September 23, 1991

Narrative
Versar Div 61 - DOVER GAS LIGHT
Semivolatile Organic Analysis - EPA CLP Protocol
Versar Project 420.1 - Batch 7
Control 5038

This report contains the analytical data for the semivolatile (BNA) organic analysis of fifteen (15) soil samples. The samples listed below arrived at Versar on June 22, 1991. Sample analyses were performed using the EPA CLP protocol (2/88 Rev). Results for additional analytical parameters are provided separately.

SAMPLE LIST

58661	58677
58663	58679
58665	58681
58667	58683
58669	58685
58671	58687
58673	58689
58675	

////////////////////////////////////

GC/MS instrument calibrations using DFTPP met requirements for semivolatile organic analysis. SPCC and CCC criteria were met for the semivolatile initial calibration curves and the continuing calibration standards. All GC/MS analyses occurred during the twelve hour period that followed daily instrument calibration. Sample extractions and analyses were performed prior to expiration of the specified holding times.

Semivolatile surrogate standard recovery requirements were met for the soil samples with the exception of sample 58673. EPA CLP protocol allows for no more than one acid surrogate and one base-neutral surrogate to exceed QC limits and all recovery values must not be less than ten percent. It appears that no surrogate spike solution was added to this field samples. The complex sample matrix containing numerous polynuclear aromatic hydrocarbon target analytes may have had an effect in the lack of separation and detection of the surrogate compounds. However, following method protocol, this sample will be reextracted and reanalyzed. The additional data will be submitted as soon as it becomes available and is released from the laboratory.

Internal standard area abundance values and associated relative retention times were within specified QC limits for all analyses except samples 58663 and 58667. The initial analysis of these two samples had low recovery of the sixth internal standards. The extract from sample 58663 was reinjected (RE) was and the recovery of the internal standard outlier was compliant.

Narrative - Page 2
DOVER GAS LIGHT
VLI CNTL 5038 - Batch #7

Both sets of data are included in this report. Insufficient extract volume was available for reinjection of sample 58667. Since no target compounds were confirmed present in the sample, reextraction has not been requested.

Based on preliminary GC/FID sample screening, all field samples were extracted using the low concentration protocol developed for the soil matrix. The use of Gel Permeation Chromatography (GPC) clean-up procedures was also used to minimize potential high molecular weight interferences.

All soil samples were initially analyzed without dilution of the organic extract. Some of the polynuclear aromatic hydrocarbon compounds detected in sample 58673 exceeded (E) the established range of the standard calibration curve. The sample was reanalyzed (DL) using an additional dilution factor of two for the sole purpose of quantifying the target analytes only. Nontarget compounds were not reidentified or requantified in the analysis of the diluted sample extract. The concentration of the target analytes was flagged with a "D" on Form 1C indicating that quantitation was performed using a diluted sample extract.

Semivolatile non-target compounds have been tentatively identified using the EPA/NBS Mass Spectral Database Library. Detection limits and concentrations of semivolatile organic compounds present in the soil samples are reported on a "dry weight" basis, which accounts for the moisture content of each sample.

Explanations of data qualifier flags used on the individual data summary pages are provided in the listing which immediately follows this case narrative.

Please contact me should you have any questions or require additional information pertaining to the analyses of these soil samples for semivolatile organic compounds.

Data Release Approved By:

Lawrence P. Pollack
Project Coordinator
Laboratory Operations

Narrative Reviewed By:

M. A. Templeton
Mary Anne Templeton
GC/MS Data QA Assistant

Versar INC.

DELIVERABLES INDEX -- BNA ANALYSES ONLY

I. CASE NARRATIVE: Narrative proceeds Volatile Organic data.

II. QC SUMMARY

A. Surrogate Percent Recovery Summary (Form II)
B. Matrix Spike/Matrix Spike Duplicate Summary (Form III)
C. Method Blank Summary (Form IV)
D. GC/MS Tuning and Calibration Standard (Form V)

III. SAMPLE DATA

A. Organic Analysis Data Sheet (Form I)
B. Tentatively Identified Compounds (TIC)
C. Raw Data for the Semivolatile Sample Fraction
   1. Reconstruction Ion Chromatogram(s)
   2. Quantitation report
   3. Raw HSL mass spectra and background subtracted HSL mass spectra with lab generated HSL standard spectra
   4. GC/MS library search spectra for each TIC

Note: Samples arranged in alpha-numeric sequence.

IV. STANDARDS DATA

A. Initial Calibration Data (Form VI) in order if more than one instrument is used.
B. BNA standard(s) reconstructed ion chromatograms and quantitation reports for the initial calibration(s).
C. Continuing Calibration (Form VII) in order by instrument.
D. BNA standard(s) reconstructed ion chromatograms and quantitation reports for the continuing calibration(s).
E. Internal Standard Data (Form VIII).

V. RAW QC DATA

A. DFTPP (For each 12-hour period, for each GC/MS system)
   1. Bar graph spectrum
   2. Mass listing
B. Reagent Blank Data
   1. Organic Analysis Data Sheet (Form I),
   2. Tentatively Identified Compounds (TIC)
   3. Raw Data
      a. Reconstructed ion chromatogram(s) and quantitation report(s).
      b. HSL spectra with lab generated standard.
         i. Raw HSL compound spectra
         ii. Enhanced or background subtracted spectra
         iii. Laboratory generated HSL standard spectra
         iv. GC/MS library search spectra for each TIC
         v. Quantitation/calculation of each TIC concentration

Versar INC.

V. RAW QC DATA (CONT'D)

C. Matrix Spike/Matrix Spike Duplicate Data
   1. Tabulated results (Form I) of non-spiked HSL compounds.
   2. Reconstructed ion chromatograms and quantitation reports.

VI. SAMPLE PREPARATION

A. Parameter Request Sheet
B. GC/FID Screening Data (soils only)
C. Extraction Sample Comments
D. GC/MS Analyst Comments
E. Extraction Chronicle and Worksheets
F. pH Results
G. Dry Weight Factor (soils only)
H. Dilution Factor Worksheet
I. Instrument Injection Logs

Data Qualifier Flags

J — For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B — This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

u — This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T — This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E — This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D — This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

Y — This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

Z — This flag is used when benzo(B)fluoranthene and benzo(K)fluoranthene cannot be quantified due to lack of chromatographic separation. The result listed under benzo(B)fluoranthene is the average of both compounds.

****** Above flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

BRL — This flag is used on the quantitation reports to eliminate compounds below a reasonable confidence limit. All compounds flagged "BRL" are less than the CRQL.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58661

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54080

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9774

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.80 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	780	U
111-44-4	bis(2-Chloroethyl)ether	780	U
95-57-8	2-Chlorophenol	780	U
541-73-1	1,3-Dichlorobenzene	780	U
106-46-7	1,4-Dichlorobenzene	780	U
100-51-6	Benzyl alcohol	780	U
95-50-1	1,2-Dichlorobenzene	780	U
95-48-7	2-Methylphenol	780	U
108-60-1	bis(2-Chloroisopropyl)ether	780	U
106-44-5	4-Methylphenol	780	U
621-64-7	N-Nitroso-di-n-propylamine	780	U
67-72-1	Hexachloroethane	780	U
98-95-3	Nitrobenzene	780	U
78-59-1	Isophorone	780	U
88-75-5	2-Nitrophenol	780	U
105-67-9	2,4-Dimethylphenol	780	U
65-85-0	Benzoic Acid	3800	U
111-91-1	bis(2-Chloroethoxy)methane	780	U
120-83-2	2,4-Dichlorophenol	780	U
120-82-1	1,2,4-Trichlorobenzene	780	U
91-20-3	Naphthalene	780	U
106-47-8	4-Chloroaniline	780	U
87-68-3	Hexachlorobutadiene	780	U
59-50-7	4-Chloro-3-methylphenol	780	U
91-57-6	2-Methylnaphthalene	780	U
77-47-4	Hexachlorocyclopentadiene	780	U
88-06-2	2,4,6-Trichlorophenol	780	U
95-95-4	2,4,5-Trichlorophenol	3800	U
91-58-7	2-Chloronaphthalene	780	U
88-74-4	2-Nitroaniline	3800	U
131-11-3	Dimethylphthalate	780	U
208-96-8	Acenaphthylene	780	U
606-20-2	2,6-Dinitrotoluene	780	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58661

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54080

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9774

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.80 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3800	U
83-32-9	Acenaphthene	780	U
51-28-5	2,4-Dinitrophenol	3800	U
100-02-7	4-Nitrophenol	3800	U
132-64-9	Dibenzofuran	780	U
121-14-2	2,4-Dinitrotoluene	780	U
84-66-2	Diethylphthalate	780	U
7005-72-3	4-Chlorophenyl-phenylether	780	U
86-73-7	Fluorene	780	U
100-01-6	4-Nitroaniline	3800	U
534-52-1	4,6-Dinitro-2-methylphenol	3800	U
86-30-6	N-nitrosodiphenylamine (1)	780	U
101-55-3	4-Bromophenyl-phenylether	780	U
118-74-1	Hexachlorobenzene	780	U
87-86-5	Pentachlorophenol	3800	U
85-01-8	Phenanthrene	780	U
120-12-7	Anthracene	780	U
84-74-2	Di-n-butylphthalate	780	U
206-44-0	Fluoranthene	780	U
129-00-0	Pyrene	780	U
85-68-7	Butylbenzylphthalate	780	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	780	U
218-01-9	Chrysene	780	U
117-81-7	bis(2-Ethylhexyl)phthalate	780	U
117-84-0	Di-n-octyl phthalate	780	U
205-99-2	Benzo(b)fluoranthene	780	U
207-08-9	Benzo(k)fluoranthene	780	U
50-32-8	Benzo(a)pyrene	780	U
193-39-5	Indeno(1,2,3-cd)pyrene	780	U
53-70-3	Dibenz(a,h)anthracene	780	U
191-24-2	Benzo(g,h,i)perylene	780	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58661

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54080

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9774

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.80 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58663

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54081

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9776

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 5 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.61 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	690	U
111-44-4	bis(2-Chloroethyl)ether	690	U
95-57-8	2-Chlorophenol	690	U
541-73-1	1,3-Dichlorobenzene	690	U
106-46-7	1,4-Dichlorobenzene	690	U
100-51-6	Benzyl alcohol	690	U
95-50-1	1,2-Dichlorobenzene	690	U
95-48-7	2-Methylphenol	690	U
108-60-1	bis(2-Chloroisopropyl)ether	690	U
106-44-5	4-Methylphenol	690	U
621-64-7	N-Nitroso-di-n-propylamine	690	U
67-72-1	Hexachloroethane	690	U
98-95-3	Nitrobenzene	690	U
78-59-1	Isophorone	690	U
88-75-5	2-Nitrophenol	690	U
105-67-9	2,4-Dimethylphenol	690	U
65-85-0	Benzoic Acid	3400	U
111-91-1	bis(2-Chloroethoxy)methane	690	U
120-83-2	2,4-Dichlorophenol	690	U
120-82-1	1,2,4-Trichlorobenzene	690	U
91-20-3	Naphthalene	690	U
106-47-8	4-Chloroaniline	690	U
87-68-3	Hexachlorobutadiene	690	U
59-50-7	4-Chloro-3-methylphenol	690	U
91-57-6	2-Methylnaphthalene	690	U
77-47-4	Hexachlorocyclopentadiene	690	U
88-06-2	2,4,6-Trichlorophenol	690	U
95-95-4	2,4,5-Trichlorophenol	3400	U
91-58-7	2-Chloronaphthalene	690	U
88-74-4	2-Nitroaniline	3400	U
131-11-3	Dimethylphthalate	690	U
208-96-8	Acenaphthylene	690	U
606-20-2	2,6-Dinitrotoluene	690	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58663

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54081

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9776

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 5 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.61 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3400	U
83-32-9	Acenaphthene	690	U
51-28-5	2,4-Dinitrophenol	3400	U
100-02-7	4-Nitrophenol	3400	U
132-64-9	Dibenzofuran	690	U
121-14-2	2,4-Dinitrotoluene	690	U
84-66-2	Diethylphthalate	690	U
7005-72-3	4-Chlorophenyl-phenylether	690	U
86-73-7	Fluorene	690	U
100-01-6	4-Nitroaniline	3400	U
534-52-1	4,6-Dinitro-2-methylphenol	3400	U
86-30-6	N-nitrosodiphenylamine (1)	690	U
101-55-3	4-Bromophenyl-phenylether	690	U
118-74-1	Hexachlorobenzene	690	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	690	U
120-12-7	Anthracene	690	U
84-74-2	Di-n-butylphthalate	690	U
206-44-0	Fluoranthene	690	U
129-00-0	Pyrene	690	U
85-68-7	Butylbenzylphthalate	690	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)anthracene	690	U
218-01-9	Chrysene	690	U
117-81-7	bis(2-Ethylhexyl)phthalate	690	U
117-84-0	Di-n-octyl phthalate	690	U
205-99-2	Benzo(b)fluoranthene	690	U
207-08-9	Benzo(k)fluoranthene	690	U
50-32-8	Benzo(a)pyrene	690	U
193-39-5	Indeno(1,2,3-cd)pyrene	690	U
53-70-3	Dibenz(a,h)anthracene	690	U
191-24-2	Benzo(g,h,i)perylene	690	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58663

) Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54081

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9776

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 5 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.61 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

AR301455

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58663RE

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54081RE

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9888

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 5 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/16/91

GPC Cleanup: (Y/N) Y pH: 6.61 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	690	U
111-44-4	bis(2-Chloroethyl)ether	690	U
95-57-8	2-Chlorophenol	690	U
541-73-1	1,3-Dichlorobenzene	690	U
106-46-7	1,4-Dichlorobenzene	690	U
100-51-6	Benzyl alcohol	690	U
95-50-1	1,2-Dichlorobenzene	690	U
95-48-7	2-Methylphenol	690	U
108-60-1	bis(2-Chloroisopropyl)ether	690	U
106-44-5	4-Methylphenol	690	U
621-64-7	N-Nitroso-di-n-propylamine	690	U
67-72-1	Hexachloroethane	690	U
98-95-3	Nitrobenzene	690	U
78-59-1	Isophorone	690	U
88-75-5	2-Nitrophenol	690	U
105-67-9	2,4-Dimethylphenol	690	U
65-85-0	Benzoic Acid	3400	U
111-91-1	bis(2-Chloroethoxy)methane	690	U
120-83-2	2,4-Dichlorophenol	690	U
120-82-1	1,2,4-Trichlorobenzene	690	U
91-20-3	Naphthalene	690	U
106-47-8	4-Chloroaniline	690	U
87-68-3	Hexachlorobutadiene	690	U
59-50-7	4-Chloro-3-methylphenol	690	U
91-57-6	2-Methylnaphthalene	690	U
77-47-4	Hexachlorocyclopentadiene	690	U
88-06-2	2,4,6-Trichlorophenol	690	U
95-95-4	2,4,5-Trichlorophenol	3400	U
91-58-7	2-Chloronaphthalene	690	U
88-74-4	2-Nitroaniline	3400	U
131-11-3	Dimethylphthalate	690	U
208-96-8	Acenaphthylene	690	U
606-20-2	2,6-Dinitrotoluene	690	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58663RE

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54081RE

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9888

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 5 dec. _____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/16/91

GPC Cleanup: (Y/N) Y pH: 6.61 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3400	U
83-32-9	Acenaphthene	690	U
51-28-5	2,4-Dinitrophenol	3400	U
100-02-7	4-Nitrophenol	3400	U
132-64-9	Dibenzofuran	690	U
121-14-2	2,4-Dinitrotoluene	690	U
84-66-2	Diethylphthalate	690	U
7005-72-3	4-Chlorophenyl-phenylether	690	U
86-73-7	Fluorene	690	U
100-01-6	4-Nitroaniline	3400	U
534-52-1	4,6-Dinitro-2-methylphenol	3400	U
86-30-6	N-nitrosodiphenylamine (1)	690	U
101-55-3	4-Bromophenyl-phenylether	690	U
118-74-1	Hexachlorobenzene	690	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	690	U
120-12-7	Anthracene	690	U
84-74-2	Di-n-butylphthalate	690	U
206-44-0	Fluoranthene	690	U
129-00-0	Pyrene	690	U
85-68-7	Butylbenzylphthalate	690	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)anthracene	690	U
218-01-9	Chrysene	690	U
117-81-7	bis(2-Ethylhexyl)phthalate	690	U
117-84-0	Di-n-octyl phthalate	690	U
205-99-2	Benzo(b)fluoranthene	690	U
207-08-9	Benzo(k)fluoranthene	690	U
50-32-8	Benzo(a)pyrene	690	U
193-39-5	Indeno(1,2,3-cd)pyrene	690	U
53-70-3	Dibenz(a,h)anthracene	690	U
191-24-2	Benzo(g,h,i)perylene	690	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58663RE

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54081RE

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9888

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 5 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/16/91

GPC Cleanup: (Y/N) Y pH: 6.61 Dilution Factor: 1.0

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ORGANIC ACID ESTER	18.37	280	J
2.	UNKNOWN	18.94	560	J
3.	UNKNOWN	21.24	420	J

AR301458

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58665

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54082

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9775

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 18 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.78 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	800	U
111-44-4	bis(2-Chloroethyl)ether	800	U
95-57-8	2-Chlorophenol	800	U
541-73-1	1,3-Dichlorobenzene	800	U
106-46-7	1,4-Dichlorobenzene	800	U
100-51-6	Benzyl alcohol	800	U
95-50-1	1,2-Dichlorobenzene	800	U
95-48-7	2-Methylphenol	800	U
108-60-1	bis(2-Chloroisopropyl)ether	800	U
106-44-5	4-Methylphenol	800	U
621-64-7	N-Nitroso-di-n-propylamine	800	U
67-72-1	Hexachloroethane	800	U
98-95-3	Nitrobenzene	800	U
78-59-1	Isophorone	800	U
88-75-5	2-Nitrophenol	800	U
105-67-9	2,4-Dimethylphenol	800	U
65-85-0	Benzoic Acid	3900	U
111-91-1	bis(2-Chloroethoxy)methane	800	U
120-83-2	2,4-Dichlorophenol	800	U
120-82-1	1,2,4-Trichlorobenzene	800	U
91-20-3	Naphthalene	800	U
106-47-8	4-Chloroaniline	800	U
87-68-3	Hexachlorobutadiene	800	U
59-50-7	4-Chloro-3-methylphenol	800	U
91-57-6	2-Methylnaphthalene	800	U
77-47-4	Hexachlorocyclopentadiene	800	U
88-06-2	2,4,6-Trichlorophenol	800	U
95-95-4	2,4,5-Trichlorophenol	3900	U
91-58-7	2-Chloronaphthalene	800	U
88-74-4	2-Nitroaniline	3900	U
131-11-3	Dimethylphthalate	800	U
208-96-8	Acenaphthylene	800	U
606-20-2	2,6-Dinitrotoluene	800	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58665

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54082

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9775

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 18 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.78 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3900	U
83-32-9	Acenaphthene	800	U
51-28-5	2,4-Dinitrophenol	3900	U
100-02-7	4-Nitrophenol	3900	U
132-64-9	Dibenzofuran	800	U
121-14-2	2,4-Dinitrotoluene	800	U
84-66-2	Diethylphthalate	800	U
7005-72-3	4-Chlorophenyl-phenylether	800	U
86-73-7	Fluorene	800	U
100-01-6	4-Nitroaniline	3900	U
534-52-1	4,6-Dinitro-2-methylphenol	3900	U
86-30-6	N-nitrosodiphenylamine (1)	800	U
101-55-3	4-Bromophenyl-phenylether	800	U
118-74-1	Hexachlorobenzene	800	U
87-86-5	Pentachlorophenol	3900	U
85-01-8	Phenanthrene	800	U
120-12-7	Anthracene	800	U
84-74-2	Di-n-butylphthalate	800	U
206-44-0	Fluoranthene	800	U
129-00-0	Pyrene	800	U
85-68-7	Butylbenzylphthalate	800	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	800	U
218-01-9	Chrysene	800	U
117-81-7	bis(2-Ethylhexyl)phthalate	800	U
117-84-0	Di-n-octyl phthalate	800	U
205-99-2	Benzo(b)fluoranthene	800	U
207-08-9	Benzo(k)fluoranthene	800	U
50-32-8	Benzo(a)pyrene	800	U
193-39-5	Indeno(1,2,3-cd)pyrene	800	U
53-70-3	Dibenz(a,h)anthracene	800	U
191-24-2	Benzo(g,h,i)perylene	800	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58665

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54082

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9775

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 18 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.78 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58667

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54083

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9777

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 11 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.38 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	740	U
111-44-4	bis(2-Chloroethyl)ether	740	U
95-57-8	2-Chlorophenol	740	U
541-73-1	1,3-Dichlorobenzene	740	U
106-46-7	1,4-Dichlorobenzene	740	U
100-51-6	Benzyl alcohol	740	U
95-50-1	1,2-Dichlorobenzene	740	U
95-48-7	2-Methylphenol	740	U
108-60-1	bis(2-Chloroisopropyl)ether	740	U
106-44-5	4-Methylphenol	740	U
621-64-7	N-Nitroso-di-n-propylamine	740	U
67-72-1	Hexachloroethane	740	U
98-95-3	Nitrobenzene	740	U
78-59-1	Isophorone	740	U
88-75-5	2-Nitrophenol	740	U
105-67-9	2,4-Dimethylphenol	740	U
65-85-0	Benzoic Acid	3600	U
111-91-1	bis(2-Chloroethoxy)methane	740	U
120-83-2	2,4-Dichlorophenol	740	U
120-82-1	1,2,4-Trichlorobenzene	740	U
91-20-3	Naphthalene	740	U
106-47-8	4-Chloroaniline	740	U
87-68-3	Hexachlorobutadiene	740	U
59-50-7	4-Chloro-3-methylphenol	740	U
91-57-6	2-Methylnaphthalene	740	U
77-47-4	Hexachlorocyclopentadiene	740	U
88-06-2	2,4,6-Trichlorophenol	740	U
95-95-4	2,4,5-Trichlorophenol	3600	U
91-58-7	2-Chloronaphthalene	740	U
88-74-4	2-Nitroaniline	3600	U
131-11-3	Dimethylphthalate	740	U
208-96-8	Acenaphthylene	740	U
606-20-2	2,6-Dinitrotoluene	740	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58667

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54083

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9777

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 11 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.38 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3600	U
83-32-9	Acenaphthene	740	U
51-28-5	2,4-Dinitrophenol	3600	U
100-02-7	4-Nitrophenol	3600	U
132-64-9	Dibenzofuran	740	U
121-14-2	2,4-Dinitrotoluene	740	U
84-66-2	Diethylphthalate	740	U
7005-72-3	4-Chlorophenyl-phenylether	740	U
86-73-7	Fluorene	740	U
100-01-6	4-Nitroaniline	3600	U
534-52-1	4,6-Dinitro-2-methylphenol	3600	U
86-30-6	N-nitrosodiphenylamine (1)	740	U
101-55-3	4-Bromophenyl-phenylether	740	U
118-74-1	Hexachlorobenzene	740	U
87-86-5	Pentachlorophenol	3600	U
85-01-8	Phenanthrene	740	U
120-12-7	Anthracene	740	U
84-74-2	Di-n-butylphthalate	740	U
206-44-0	Fluoranthene	740	U
129-00-0	Pyrene	740	U
85-68-7	Butylbenzylphthalate	740	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)anthracene	740	U
218-01-9	Chrysene	740	U
117-81-7	bis(2-Ethylhexyl)phthalate	740	U
117-84-0	Di-n-octyl phthalate	740	U
205-99-2	Benzo(b)fluoranthene	740	U
207-08-9	Benzo(k)fluoranthene	740	U
50-32-8	Benzo(a)pyrene	740	U
193-39-5	Indeno(1,2,3-cd)pyrene	740	U
53-70-3	Dibenz(a,h)anthracene	740	U
191-24-2	Benzo(g,h,i)perylene	740	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58667

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54083

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9777

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 11 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.38 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

AR301464

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58669

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54084

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9778

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 14 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.31 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	760	U
111-44-4	bis(2-Chloroethyl)ether	760	U
95-57-8	2-Chlorophenol	760	U
541-73-1	1,3-Dichlorobenzene	760	U
106-46-7	1,4-Dichlorobenzene	760	U
100-51-6	Benzyl alcohol	760	U
95-50-1	1,2-Dichlorobenzene	760	U
95-48-7	2-Methylphenol	760	U
108-60-1	bis(2-Chloroisopropyl)ether	760	U
106-44-5	4-Methylphenol	760	U
621-64-7	N-Nitroso-di-n-propylamine	760	U
67-72-1	Hexachloroethane	760	U
98-95-3	Nitrobenzene	760	U
78-59-1	Isophorone	760	U
88-75-5	2-Nitrophenol	760	U
105-67-9	2,4-Dimethylphenol	760	U
65-85-0	Benzoic Acid	3700	U
111-91-1	bis(2-Chloroethoxy)methane	760	U
120-83-2	2,4-Dichlorophenol	760	U
120-82-1	1,2,4-Trichlorobenzene	760	U
91-20-3	Naphthalene	760	U
106-47-8	4-Chloroaniline	760	U
87-68-3	Hexachlorobutadiene	760	U
59-50-7	4-Chloro-3-methylphenol	760	U
91-57-6	2-Methylnaphthalene	760	U
77-47-4	Hexachlorocyclopentadiene	760	U
88-06-2	2,4,6-Trichlorophenol	760	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	760	U
88-74-4	2-Nitroaniline	3700	U
131-11-3	Dimethylphthalate	760	U
208-96-8	Acenaphthylene	760	U
606-20-2	2,6-Dinitrotoluene	760	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58669

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54084

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9778

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 14 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.31 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3700	U
83-32-9	Acenaphthene	760	U
51-28-5	2,4-Dinitrophenol	3700	U
100-02-7	4-Nitrophenol	3700	U
132-64-9	Dibenzofuran	760	U
121-14-2	2,4-Dinitrotoluene	760	U
84-66-2	Diethylphthalate	760	U
7005-72-3	4-Chlorophenyl-phenylether	760	U
86-73-7	Fluorene	760	U
100-01-6	4-Nitroaniline	3700	U
534-52-1	4,6-Dinitro-2-methylphenol	3700	U
86-30-6	N-nitrosodiphenylamine (1)	760	U
101-55-3	4-Bromophenyl-phenylether	760	U
118-74-1	Hexachlorobenzene	760	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	760	U
120-12-7	Anthracene	760	U
84-74-2	Di-n-butylphthalate	760	U
206-44-0	Fluoranthene	760	U
129-00-0	Pyrene	760	U
85-68-7	Butylbenzylphthalate	760	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)anthracene	760	U
218-01-9	Chrysene	760	U
117-81-7	bis(2-Ethylhexyl)phthalate	760	U
117-84-0	Di-n-octyl phthalate	760	U
205-99-2	Benzo(b)fluoranthene	760	U
207-08-9	Benzo(k)fluoranthene	760	U
50-32-8	Benzo(a)pyrene	760	U
193-39-5	Indeno(1,2,3-cd)pyrene	760	U
53-70-3	Dibenz(a,h)anthracene	760	U
191-24-2	Benzo(g,h,i)perylene	760	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58669

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54084

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9778

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 14 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.31 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

AR301467

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58671

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54085

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9789

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 10 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.31 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	730	U
111-44-4	bis(2-Chloroethyl)ether	730	U
95-57-8	2-Chlorophenol	730	U
541-73-1	1,3-Dichlorobenzene	730	U
106-46-7	1,4-Dichlorobenzene	730	U
100-51-6	Benzyl alcohol	730	U
95-50-1	1,2-Dichlorobenzene	730	U
95-48-7	2-Methylphenol	730	U
108-60-1	bis(2-Chloroisopropyl)ether	730	U
106-44-5	4-Methylphenol	730	U
621-64-7	N-Nitroso-di-n-propylamine	730	U
67-72-1	Hexachloroethane	730	U
98-95-3	Nitrobenzene	730	U
78-59-1	Isophorone	730	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	730	U
65-85-0	Benzoic Acid	3500	U
111-91-1	bis(2-Chloroethoxy)methane	730	U
120-83-2	2,4-Dichlorophenol	730	U
120-82-1	1,2,4-Trichlorobenzene	730	U
91-20-3	Naphthalene	730	U
106-47-8	4-Chloroaniline	730	U
87-68-3	Hexachlorobutadiene	730	U
59-50-7	4-Chloro-3-methylphenol	730	U
91-57-6	2-Methylnaphthalene	730	U
77-47-4	Hexachlorocyclopentadiene	730	U
88-06-2	2,4,6-Trichlorophenol	730	U
95-95-4	2,4,5-Trichlorophenol	3500	U
91-58-7	2-Chloronaphthalene	730	U
88-74-4	2-Nitroaniline	3500	U
131-11-3	Dimethylphthalate	730	U
208-96-8	Acenaphthylene	730	U
606-20-2	2,6-Dinitrotoluene	730	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58671

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54085

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9789

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 10 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.31 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3500	U
83-32-9	Acenaphthene	730	U
51-28-5	2,4-Dinitrophenol	3500	U
100-02-7	4-Nitrophenol	3500	U
132-64-9	Dibenzofuran	730	U
121-14-2	2,4-Dinitrotoluene	730	U
84-66-2	Diethylphthalate	730	U
7005-72-3	4-Chlorophenyl-phenylether	730	U
86-73-7	Fluorene	730	U
100-01-6	4-Nitroaniline	3500	U
534-52-1	4,6-Dinitro-2-methylphenol	3500	U
86-30-6	N-nitrosodiphenylamine (1)	730	U
101-55-3	4-Bromophenyl-phenylether	730	U
118-74-1	Hexachlorobenzene	730	U
87-86-5	Pentachlorophenol	3500	U
85-01-8	Phenanthrene	730	U
120-12-7	Anthracene	730	U
84-74-2	Di-n-butylphthalate	730	U
206-44-0	Fluoranthene	730	U
129-00-0	Pyrene	730	U
85-68-7	Butylbenzylphthalate	730	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)anthracene	730	U
218-01-9	Chrysene	730	U
117-81-7	bis(2-Ethylhexyl)phthalate	730	U
117-84-0	Di-n-octyl phthalate	730	U
205-99-2	Benzo(b)fluoranthene	730	U
207-08-9	Benzo(k)fluoranthene	730	U
50-32-8	Benzo(a)pyrene	730	U
193-39-5	Indeno(1,2,3-cd)pyrene	730	U
53-70-3	Dibenz(a,h)anthracene	730	U
191-24-2	Benzo(g,h,i)perylene	730	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58671

) Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54085

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9789

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 10 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.31 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

AR301470

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58673

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54086

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9790

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.60 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	770	U
111-44-4	bis(2-Chloroethyl)ether	770	U
95-57-8	2-Chlorophenol	770	U
541-73-1	1,3-Dichlorobenzene	770	U
106-46-7	1,4-Dichlorobenzene	770	U
100-51-6	Benzyl alcohol	770	U
95-50-1	1,2-Dichlorobenzene	770	U
95-48-7	2-Methylphenol	770	U
108-60-1	bis(2-Chloroisopropyl)ether	770	U
106-44-5	4-Methylphenol	770	U
621-64-7	N-Nitroso-di-n-propylamine	770	U
67-72-1	Hexachloroethane	770	U
98-95-3	Nitrobenzene	770	U
78-59-1	Isophorone	770	U
88-75-5	2-Nitrophenol	770	U
105-67-9	2,4-Dimethylphenol	770	U
65-85-0	Benzoic Acid	3700	U
111-91-1	bis(2-Chloroethoxy)methane	770	U
120-83-2	2,4-Dichlorophenol	770	U
120-82-1	1,2,4-Trichlorobenzene	770	U
91-20-3	Naphthalene	1300	
106-47-8	4-Chloroaniline	770	U
87-68-3	Hexachlorobutadiene	770	U
59-50-7	4-Chloro-3-methylphenol	770	U
91-57-6	2-Methylnaphthalene	770	U
77-47-4	Hexachlorocyclopentadiene	770	U
88-06-2	2,4,6-Trichlorophenol	770	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	770	U
88-74-4	2-Nitroaniline	3700	U
131-11-3	Dimethylphthalate	770	U
208-96-8	Acenaphthylene	460	J
606-20-2	2,6-Dinitrotoluene	770	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58673

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54086

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9790

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.60 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3700	U
83-32-9	Acenaphthene	7300	
51-28-5	2,4-Dinitrophenol	3700	U
100-02-7	4-Nitrophenol	3700	U
132-64-9	Dibenzofuran	500	J
121-14-2	2,4-Dinitrotoluene	770	U
84-66-2	Diethylphthalate	770	U
7005-72-3	4-Chlorophenyl-phenylether	770	U
86-73-7	Fluorene	5100	
100-01-6	4-Nitroaniline	3700	U
534-52-1	4,6-Dinitro-2-methylphenol	3700	U
86-30-6	N-nitrosodiphenylamine (1)	770	U
101-55-3	4-Bromophenyl-phenylether	770	U
118-74-1	Hexachlorobenzene	770	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	16000	E
120-12-7	Anthracene	8700	
84-74-2	Di-n-butylphthalate	770	U
206-44-0	Fluoranthene	10000	
129-00-0	Pyrene	12000	
85-68-7	Butylbenzylphthalate	770	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)anthracene	6100	
218-01-9	Chrysene	5400	
117-81-7	bis(2-Ethylhexyl)phthalate	770	U
117-84-0	Di-n-octyl phthalate	770	U
205-99-2	Benzo(b)fluoranthene	2100	
207-08-9	Benzo(k)fluoranthene	3200	
50-32-8	Benzo(a)pyrene	4600	
193-39-5	Indeno(1,2,3-cd)pyrene	1700	
53-70-3	Dibenz(a,h)anthracene	410	J
191-24-2	Benzo(g,h,i)perylene	1400	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58673

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54086

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9790

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.60 Dilution Factor: 1.0

Number TICs found: 27

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.80	4200	J
2.	UNKNOWN	9.00	3800	J
3.	UNKNOWN	12.10	1300	J
4.	UNKNOWN	12.17	1600	J
5.	UNKNOWN	13.00	1700	J
6.	UNKNOWN	13.55	2300	J
7.	UNKNOWN	14.44	1900	J
8.	UNK POLYAROMATIC HYDROCARBON	14.79	3500	J
9.	UNK POLYAROMATIC HYDROCARBON	14.92	2000	J
10.	UNK POLYAROMATIC HYDROCARBON	15.02	6300	J
11.	UNK POLYAROMATIC HYDROCARBON	15.39	2100	J
12.	UNK POLYAROMATIC HYDROCARBON	17.34	3500	J
13.	UNK POLYAROMATIC HYDROCARBON	17.47	2000	J
14.	UNK POLYAROMATIC HYDROCARBON	17.55	1400	J
15.	UNK POLYAROMATIC HYDROCARBON	17.79	1900	J
16.	UNKNOWN	21.07	310	J
17.	UNKNOWN	21.24	390	J
18.	UNKNOWN	21.35	390	J
19.	UNK POLYAROMATIC HYDROCARBON	21.90	1200	J
20.	UNKNOWN	22.17	310	J
21.	UNK POLYAROMATIC HYDROCARBON	22.40	2300	J
22.	UNKNOWN	22.97	390	J
23.	UNKNOWN	23.12	390	J
24.	UNKNOWN	23.32	390	J
25.	UNKNOWN	23.40	390	J
26.	UNKNOWN	23.47	470	J
27.	UNKNOWN	24.35	620	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58673DL

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54086DL

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9818

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/12/91

GPC Cleanup: (Y/N) Y pH: 7.60 Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1500	U
111-44-4	bis(2-Chloroethyl)ether	1500	U
95-57-8	2-Chlorophenol	1500	U
541-73-1	1,3-Dichlorobenzene	1500	U
106-46-7	1,4-Dichlorobenzene	1500	U
100-51-6	Benzyl alcohol	1500	U
95-50-1	1,2-Dichlorobenzene	1500	U
95-48-7	2-Methylphenol	1500	U
108-60-1	bis(2-Chloroisopropyl)ether	1500	U
106-44-5	4-Methylphenol	1500	U
621-64-7	N-Nitroso-di-n-propylamine	1500	U
67-72-1	Hexachloroethane	1500	U
98-95-3	Nitrobenzene	1500	U
78-59-1	Isophorone	1500	U
88-75-5	2-Nitrophenol	1500	U
105-67-9	2,4-Dimethylphenol	1500	U
65-85-0	Benzoic Acid	7500	U
111-91-1	bis(2-Chloroethoxy)methane	1500	U
120-83-2	2,4-Dichlorophenol	1500	U
120-82-1	1,2,4-Trichlorobenzene	1500	U
91-20-3	Naphthalene	1500	U
106-47-8	4-Chloroaniline	1500	U
87-68-3	Hexachlorobutadiene	1500	U
59-50-7	4-Chloro-3-methylphenol	1500	U
91-57-6	2-Methylnaphthalene	1500	U
77-47-4	Hexachlorocyclopentadiene	1500	U
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	7500	U
91-58-7	2-Chloronaphthalene	1500	U
88-74-4	2-Nitroaniline	7500	U
131-11-3	Dimethylphthalate	1500	U
208-96-8	Acenaphthylene	1500	U
606-20-2	2,6-Dinitrotoluene	1500	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58673DL

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54086DL

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9818

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/12/91

GPC Cleanup: (Y/N) Y pH: 7.60 Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	7500	U
83-32-9	Acenaphthene	1500	U
51-28-5	2,4-Dinitrophenol	7500	U
100-02-7	4-Nitrophenol	7500	U
132-64-9	Dibenzofuran	1500	U
121-14-2	2,4-Dinitrotoluene	1500	U
84-66-2	Diethylphthalate	1500	U
7005-72-3	4-Chlorophenyl-phenylether	1500	U
86-73-7	Fluorene	1500	U
100-01-6	4-Nitroaniline	7500	U
534-52-1	4,6-Dinitro-2-methylphenol	7500	U
86-30-6	N-nitrosodiphenylamine (1)	1500	U
101-55-3	4-Bromophenyl-phenylether	1500	U
118-74-1	Hexachlorobenzene	1500	U
87-86-5	Pentachlorophenol	7500	U
85-01-8	Phenanthrene	19000	D
120-12-7	Anthracene	1500	U
84-74-2	Di-n-butylphthalate	1500	U
206-44-0	Fluoranthene	1500	U
129-00-0	Pyrene	1500	U
85-68-7	Butylbenzylphthalate	1500	U
91-94-1	3,3'-Dichlorobenzidine	3100	U
56-55-3	Benzo(a)anthracene	1500	U
218-01-9	Chrysene	1500	U
117-81-7	bis(2-Ethylhexyl)phthalate	1500	U
117-84-0	Di-n-octyl phthalate	1500	U
205-99-2	Benzo(b)fluoranthene	1500	U
207-08-9	Benzo(k)fluoranthene	1500	U
50-32-8	Benzo(a)pyrene	1500	U
193-39-5	Indeno(1,2,3-cd)pyrene	1500	U
53-70-3	Dibenz(a,h)anthracene	1500	U
191-24-2	Benzo(g,h,i)perylene	1500	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58673DL

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54086DL

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9818

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/12/91

GPC Cleanup: (Y/N) Y pH: 7.60 Dilution Factor: 2.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58675

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54087

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9781

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 12 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.66 Dilution Factor: 0.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
100-51-6	Benzyl alcohol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	bis(2-Chloroisopropyl)ether	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58675

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54087

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9781

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 12 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.66 Dilution Factor: 0.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	370	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	750	U
56-55-3	Benzo(a)anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)phthalate	370	U
117-84-0	Di-n-octyl phthalate	370	U
205-99-2	Benzo(b)fluoranthene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	370	U
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenz(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58675

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54087

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9781

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 12 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.66 Dilution Factor: 0.50

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.68	750	J
2.	UNKNOWN	5.72	380	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58677

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54088

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9782

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 17 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.69 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	790	U
111-44-4	bis(2-Chloroethyl)ether	790	U
95-57-8	2-Chlorophenol	790	U
541-73-1	1,3-Dichlorobenzene	790	U
106-46-7	1,4-Dichlorobenzene	790	U
100-51-6	Benzyl alcohol	790	U
95-50-1	1,2-Dichlorobenzene	790	U
95-48-7	2-Methylphenol	790	U
108-60-1	bis(2-Chloroisopropyl)ether	790	U
106-44-5	4-Methylphenol	790	U
621-64-7	N-Nitroso-di-n-propylamine	790	U
67-72-1	Hexachloroethane	790	U
98-95-3	Nitrobenzene	790	U
78-59-1	Isophorone	790	U
88-75-5	2-Nitrophenol	790	U
105-67-9	2,4-Dimethylphenol	790	U
65-85-0	Benzoic Acid	3800	U
111-91-1	bis(2-Chloroethoxy)methane	790	U
120-83-2	2,4-Dichlorophenol	790	U
120-82-1	1,2,4-Trichlorobenzene	790	U
91-20-3	Naphthalene	790	U
106-47-8	4-Chloroaniline	790	U
87-68-3	Hexachlorobutadiene	790	U
59-50-7	4-Chloro-3-methylphenol	790	U
91-57-6	2-Methylnaphthalene	790	U
77-47-4	Hexachlorocyclopentadiene	790	U
88-06-2	2,4,6-Trichlorophenol	790	U
95-95-4	2,4,5-Trichlorophenol	3800	U
91-58-7	2-Chloronaphthalene	790	U
88-74-4	2-Nitroaniline	3800	U
131-11-3	Dimethylphthalate	790	U
208-96-8	Acenaphthylene	790	U
606-20-2	2,6-Dinitrotoluene	790	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58677

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54088

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9782

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 17 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.69 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3800	U
83-32-9	Acenaphthene	790	U
51-28-5	2,4-Dinitrophenol	3800	U
100-02-7	4-Nitrophenol	3800	U
132-64-9	Dibenzofuran	790	U
121-14-2	2,4-Dinitrotoluene	790	U
84-66-2	Diethylphthalate	790	U
7005-72-3	4-Chlorophenyl-phenylether	790	U
86-73-7	Fluorene	790	U
100-01-6	4-Nitroaniline	3800	U
534-52-1	4,6-Dinitro-2-methylphenol	3800	U
86-30-6	N-nitrosodiphenylamine (1)	790	U
101-55-3	4-Bromophenyl-phenylether	790	U
118-74-1	Hexachlorobenzene	790	U
87-86-5	Pentachlorophenol	3800	U
85-01-8	Phenanthrene	790	U
120-12-7	Anthracene	790	U
84-74-2	Di-n-butylphthalate	790	U
206-44-0	Fluoranthene	810	
129-00-0	Pyrene	690	J
85-68-7	Butylbenzylphthalate	790	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	440	J
218-01-9	Chrysene	590	J
117-81-7	bis(2-Ethylhexyl)phthalate	790	U
117-84-0	Di-n-octyl phthalate	790	U
205-99-2	Benzo(b)fluoranthene	790	U
207-08-9	Benzo(k)fluoranthene	790	U
50-32-8	Benzo(a)pyrene	420	J
193-39-5	Indeno(1,2,3-cd)pyrene	640	J
53-70-3	Dibenz(a,h)anthracene	790	U
191-24-2	Benzo(g,h,i)perylene	510	JX

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58677

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54088

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9782

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 17 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.69 Dilution Factor: 1.0

Number TICs found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN KETONE	4.67	560	J
2.	UNKNOWN HYDROCARBON	17.54	2800	J
3.	UNKNOWN HYDROCARBON	18.24	3400	J
4. 629-99-2	PENTACOSANE	18.90	3800	J
5.	UNKNOWN HYDROCARBON	19.55	3500	J
6.	UNKNOWN HYDROCARBON	20.29	2700	J
7.	UNKNOWN HYDROCARBON	21.14	2900	J
8.	UNK POLYAROMATIC HYDROCARBON	21.57	720	J
9.	UNKNOWN HYDROCARBON	22.15	2200	J
10.	UNKNOWN HYDROCARBON	23.35	1100	J
11.	UNKNOWN HYDROCARBON	24.85	800	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58679

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54089

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9783

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 12 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.99 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	750	U
111-44-4	bis(2-Chloroethyl)ether	750	U
95-57-8	2-Chlorophenol	750	U
541-73-1	1,3-Dichlorobenzene	750	U
106-46-7	1,4-Dichlorobenzene	750	U
100-51-6	Benzyl alcohol	750	U
95-50-1	1,2-Dichlorobenzene	750	U
95-48-7	2-Methylphenol	750	U
108-60-1	bis(2-Chloroisopropyl)ether	750	U
106-44-5	4-Methylphenol	750	U
621-64-7	N-Nitroso-di-n-propylamine	750	U
67-72-1	Hexachloroethane	750	U
98-95-3	Nitrobenzene	750	U
78-59-1	Isophorone	750	U
88-75-5	2-Nitrophenol	750	U
105-67-9	2,4-Dimethylphenol	750	U
65-85-0	Benzoic Acid	3600	U
111-91-1	bis(2-Chloroethoxy)methane	750	U
120-83-2	2,4-Dichlorophenol	750	U
120-82-1	1,2,4-Trichlorobenzene	750	U
91-20-3	Naphthalene	750	U
106-47-8	4-Chloroaniline	750	U
87-68-3	Hexachlorobutadiene	750	U
59-50-7	4-Chloro-3-methylphenol	750	U
91-57-6	2-Methylnaphthalene	750	U
77-47-4	Hexachlorocyclopentadiene	750	U
88-06-2	2,4,6-Trichlorophenol	750	U
95-95-4	2,4,5-Trichlorophenol	3600	U
91-58-7	2-Chloronaphthalene	750	U
88-74-4	2-Nitroaniline	3600	U
131-11-3	Dimethylphthalate	750	U
208-96-8	Acenaphthylene	750	U
606-20-2	2,6-Dinitrotoluene	750	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58679

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54089

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9783

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 12 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.99 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3600	U
83-32-9	Acenaphthene	750	U
51-28-5	2,4-Dinitrophenol	3600	U
100-02-7	4-Nitrophenol	3600	U
132-64-9	Dibenzofuran	750	U
121-14-2	2,4-Dinitrotoluene	750	U
84-66-2	Diethylphthalate	750	U
7005-72-3	4-Chlorophenyl-phenylether	750	U
86-73-7	Fluorene	750	U
100-01-6	4-Nitroaniline	3600	U
534-52-1	4,6-Dinitro-2-methylphenol	3600	U
86-30-6	N-nitrosodiphenylamine (1)	750	U
101-55-3	4-Bromophenyl-phenylether	750	U
118-74-1	Hexachlorobenzene	750	U
87-86-5	Pentachlorophenol	3600	U
85-01-8	Phenanthrene	780	
120-12-7	Anthracene	750	U
84-74-2	Di-n-butylphthalate	750	U
206-44-0	Fluoranthene	1900	
129-00-0	Pyrene	1600	
85-68-7	Butylbenzylphthalate	750	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)anthracene	1000	
218-01-9	Chrysene	1000	
117-81-7	bis(2-Ethylhexyl)phthalate	750	U
117-84-0	Di-n-octyl phthalate	750	U
205-99-2	Benzo(b)fluoranthene	790	X
207-08-9	Benzo(k)fluoranthene	1100	X
50-32-8	Benzo(a)pyrene	940	
193-39-5	Indeno(1,2,3-cd)pyrene	850	
53-70-3	Dibenz(a,h)anthracene	750	U
191-24-2	Benzo(g,h,i)perylene	640	J

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58679

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54089

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9783

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 12 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 6.99 Dilution Factor: 1.0

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.68	910	J
2.	UNKNOWN	5.72	450	J
3.	UNK POLYAROMATIC HYDROCARBON	17.32	380	J
4.	UNKNOWN SUBSTITUTED BENZENE	17.64	380	J
5.	UNK POLYAROMATIC HYDROCARBON	21.87	300	J
6. 205-82-3	BENZO[J]FLUORANTHENE	22.37	750	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58681

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54090

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9784

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.27 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	720	U
111-44-4	bis(2-Chloroethyl)ether	720	U
95-57-8	2-Chlorophenol	720	U
541-73-1	1,3-Dichlorobenzene	720	U
106-46-7	1,4-Dichlorobenzene	720	U
100-51-6	Benzyl alcohol	720	U
95-50-1	1,2-Dichlorobenzene	720	U
95-48-7	2-Methylphenol	720	U
108-60-1	bis(2-Chloroisopropyl)ether	720	U
106-44-5	4-Methylphenol	720	U
621-64-7	N-Nitroso-di-n-propylamine	720	U
67-72-1	Hexachloroethane	720	U
98-95-3	Nitrobenzene	720	U
78-59-1	Isophorone	720	U
88-75-5	2-Nitrophenol	720	U
105-67-9	2,4-Dimethylphenol	720	U
65-85-0	Benzoic Acid	3500	U
111-91-1	bis(2-Chloroethoxy)methane	720	U
120-83-2	2,4-Dichlorophenol	720	U
120-82-1	1,2,4-Trichlorobenzene	720	U
91-20-3	Naphthalene	720	U
106-47-8	4-Chloroaniline	720	U
87-68-3	Hexachlorobutadiene	720	U
59-50-7	4-Chloro-3-methylphenol	720	U
91-57-6	2-Methylnaphthalene	720	U
77-47-4	Hexachlorocyclopentadiene	720	U
88-06-2	2,4,6-Trichlorophenol	720	U
95-95-4	2,4,5-Trichlorophenol	3500	U
91-58-7	2-Chloronaphthalene	720	U
88-74-4	2-Nitroaniline	3500	U
131-11-3	Dimethylphthalate	720	U
208-96-8	Acenaphthylene	720	U
606-20-2	2,6-Dinitrotoluene	720	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58681

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54090

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9784

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.27 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3500	U
83-32-9	Acenaphthene	720	U
51-28-5	2,4-Dinitrophenol	3500	U
100-02-7	4-Nitrophenol	3500	U
132-64-9	Dibenzofuran	720	U
121-14-2	2,4-Dinitrotoluene	720	U
84-66-2	Diethylphthalate	720	U
7005-72-3	4-Chlorophenyl-phenylether	720	U
86-73-7	Fluorene	720	U
100-01-6	4-Nitroaniline	3500	U
534-52-1	4,6-Dinitro-2-methylphenol	3500	U
86-30-6	N-nitrosodiphenylamine (1)	720	U
101-55-3	4-Bromophenyl-phenylether	720	U
118-74-1	Hexachlorobenzene	720	U
87-86-5	Pentachlorophenol	3500	U
85-01-8	Phenanthrene	720	U
120-12-7	Anthracene	720	U
84-74-2	Di-n-butylphthalate	720	U
206-44-0	Fluoranthene	720	U
129-00-0	Pyrene	720	U
85-68-7	Butylbenzylphthalate	720	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)anthracene	720	U
218-01-9	Chrysene	720	U
117-81-7	bis(2-Ethylhexyl)phthalate	720	U
117-84-0	Di-n-octyl phthalate	720	U
205-99-2	Benzo(b)fluoranthene	720	U
207-08-9	Benzo(k)fluoranthene	720	U
50-32-8	Benzo(a)pyrene	720	U
193-39-5	Indeno(1,2,3-cd)pyrene	720	U
53-70-3	Dibenz(a,h)anthracene	720	U
191-24-2	Benzo(g,h,i)perylene	720	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58681

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54090

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9784

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.27 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58683

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54091

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9785

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 8 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 4.10 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	710	U
111-44-4	bis(2-Chloroethyl)ether	710	U
95-57-8	2-Chlorophenol	710	U
541-73-1	1,3-Dichlorobenzene	710	U
106-46-7	1,4-Dichlorobenzene	710	U
100-51-6	Benzyl alcohol	710	U
95-50-1	1,2-Dichlorobenzene	710	U
95-48-7	2-Methylphenol	710	U
108-60-1	bis(2-Chloroisopropyl)ether	710	U
106-44-5	4-Methylphenol	710	U
621-64-7	N-Nitroso-di-n-propylamine	710	U
67-72-1	Hexachloroethane	710	U
98-95-3	Nitrobenzene	710	U
78-59-1	Isophorone	710	U
88-75-5	2-Nitrophenol	710	U
105-67-9	2,4-Dimethylphenol	710	U
65-85-0	Benzoic Acid	3500	U
111-91-1	bis(2-Chloroethoxy)methane	710	U
120-83-2	2,4-Dichlorophenol	710	U
120-82-1	1,2,4-Trichlorobenzene	710	U
91-20-3	Naphthalene	710	U
106-47-8	4-Chloroaniline	710	U
87-68-3	Hexachlorobutadiene	710	U
59-50-7	4-Chloro-3-methylphenol	710	U
91-57-6	2-Methylnaphthalene	710	U
77-47-4	Hexachlorocyclopentadiene	710	U
88-06-2	2,4,6-Trichlorophenol	710	U
95-95-4	2,4,5-Trichlorophenol	3500	U
91-58-7	2-Chloronaphthalene	710	U
88-74-4	2-Nitroaniline	3500	U
131-11-3	Dimethylphthalate	710	U
208-96-8	Acenaphthylene	710	U
606-20-2	2,6-Dinitrotoluene	710	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58683

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54091

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9785

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 8 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 4.10 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3500	U
83-32-9	Acenaphthene	710	U
51-28-5	2,4-Dinitrophenol	3500	U
100-02-7	4-Nitrophenol	3500	U
132-64-9	Dibenzofuran	710	U
121-14-2	2,4-Dinitrotoluene	710	U
84-66-2	Diethylphthalate	710	U
7005-72-3	4-Chlorophenyl-phenylether	710	U
86-73-7	Fluorene	710	U
100-01-6	4-Nitroaniline	3500	U
534-52-1	4,6-Dinitro-2-methylphenol	3500	U
86-30-6	N-nitrosodiphenylamine (1)	710	U
101-55-3	4-Bromophenyl-phenylether	710	U
118-74-1	Hexachlorobenzene	710	U
87-86-5	Pentachlorophenol	3500	U
85-01-8	Phenanthrene	710	U
120-12-7	Anthracene	710	U
84-74-2	Di-n-butylphthalate	710	U
206-44-0	Fluoranthene	710	U
129-00-0	Pyrene	710	U
85-68-7	Butylbenzylphthalate	710	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)anthracene	710	U
218-01-9	Chrysene	710	U
117-81-7	bis(2-Ethylhexyl)phthalate	710	U
117-84-0	Di-n-octyl phthalate	710	U
205-99-2	Benzo(b)fluoranthene	710	U
207-08-9	Benzo(k)fluoranthene	710	U
50-32-8	Benzo(a)pyrene	710	U
193-39-5	Indeno(1,2,3-cd)pyrene	710	U
53-70-3	Dibenz(a,h)anthracene	710	U
191-24-2	Benzo(g,h,i)perylene	710	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58683

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54091

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9785

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 8 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 4.10 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

AR301491

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58685

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54092

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9786

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 7 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 5.90 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	710	U
111-44-4	bis(2-Chloroethyl)ether	710	U
95-57-8	2-Chlorophenol	710	U
541-73-1	1,3-Dichlorobenzene	710	U
106-46-7	1,4-Dichlorobenzene	710	U
100-51-6	Benzyl alcohol	710	U
95-50-1	1,2-Dichlorobenzene	710	U
95-48-7	2-Methylphenol	710	U
108-60-1	bis(2-Chloroisopropyl)ether	710	U
106-44-5	4-Methylphenol	710	U
621-64-7	N-Nitroso-di-n-propylamine	710	U
67-72-1	Hexachloroethane	710	U
98-95-3	Nitrobenzene	710	U
78-59-1	Isophorone	710	U
88-75-5	2-Nitrophenol	710	U
105-67-9	2,4-Dimethylphenol	710	U
65-85-0	Benzoic Acid	3400	U
111-91-1	bis(2-Chloroethoxy)methane	710	U
120-83-2	2,4-Dichlorophenol	710	U
120-82-1	1,2,4-Trichlorobenzene	710	U
91-20-3	Naphthalene	710	U
106-47-8	4-Chloroaniline	710	U
87-68-3	Hexachlorobutadiene	710	U
59-50-7	4-Chloro-3-methylphenol	710	U
91-57-6	2-Methylnaphthalene	710	U
77-47-4	Hexachlorocyclopentadiene	710	U
88-06-2	2,4,6-Trichlorophenol	710	U
95-95-4	2,4,5-Trichlorophenol	3400	U
91-58-7	2-Chloronaphthalene	710	U
88-74-4	2-Nitroaniline	3400	U
131-11-3	Dimethylphthalate	710	U
208-96-8	Acenaphthylene	710	U
606-20-2	2,6-Dinitrotoluene	710	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58685

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54092

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9786

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 7 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 5.90 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3400	U
83-32-9	Acenaphthene	710	U
51-28-5	2,4-Dinitrophenol	3400	U
100-02-7	4-Nitrophenol	3400	U
132-64-9	Dibenzofuran	710	U
121-14-2	2,4-Dinitrotoluene	710	U
84-66-2	Diethylphthalate	710	U
7005-72-3	4-Chlorophenyl-phenylether	710	U
86-73-7	Fluorene	710	U
100-01-6	4-Nitroaniline	3400	U
534-52-1	4,6-Dinitro-2-methylphenol	3400	U
86-30-6	N-nitrosodiphenylamine (1)	710	U
101-55-3	4-Bromophenyl-phenylether	710	U
118-74-1	Hexachlorobenzene	710	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	710	U
120-12-7	Anthracene	710	U
84-74-2	Di-n-butylphthalate	710	U
206-44-0	Fluoranthene	710	U
129-00-0	Pyrene	710	U
85-68-7	Butylbenzylphthalate	710	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)anthracene	710	U
218-01-9	Chrysene	710	U
117-81-7	bis(2-Ethylhexyl)phthalate	710	U
117-84-0	Di-n-octyl phthalate	710	U
205-99-2	Benzo(b)fluoranthene	710	U
207-08-9	Benzo(k)fluoranthene	710	U
50-32-8	Benzo(a)pyrene	710	U
193-39-5	Indeno(1,2,3-cd)pyrene	710	U
53-70-3	Dibenz(a,h)anthracene	710	U
191-24-2	Benzo(g,h,i)perylene	710	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58685

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54092

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9786

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 7 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 5.90 Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.70	360	J
2.	UNKNOWN	5.72	360	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58687

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54093

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9787

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 7 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.62 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	710	U
111-44-4	bis(2-Chloroethyl)ether	710	U
95-57-8	2-Chlorophenol	710	U
541-73-1	1,3-Dichlorobenzene	710	U
106-46-7	1,4-Dichlorobenzene	710	U
100-51-6	Benzyl alcohol	710	U
95-50-1	1,2-Dichlorobenzene	710	U
95-48-7	2-Methylphenol	710	U
108-60-1	bis(2-Chloroisopropyl)ether	710	U
106-44-5	4-Methylphenol	710	U
621-64-7	N-Nitroso-di-n-propylamine	710	U
67-72-1	Hexachloroethane	710	U
98-95-3	Nitrobenzene	710	U
78-59-1	Isophorone	710	U
88-75-5	2-Nitrophenol	710	U
105-67-9	2,4-Dimethylphenol	710	U
65-85-0	Benzoic Acid	3400	U
111-91-1	bis(2-Chloroethoxy)methane	710	U
120-83-2	2,4-Dichlorophenol	710	U
120-82-1	1,2,4-Trichlorobenzene	710	U
91-20-3	Naphthalene	710	U
106-47-8	4-Chloroaniline	710	U
87-68-3	Hexachlorobutadiene	710	U
59-50-7	4-Chloro-3-methylphenol	710	U
91-57-6	2-Methylnaphthalene	710	U
77-47-4	Hexachlorocyclopentadiene	710	U
88-06-2	2,4,6-Trichlorophenol	710	U
95-95-4	2,4,5-Trichlorophenol	3400	U
91-58-7	2-Chloronaphthalene	710	U
88-74-4	2-Nitroaniline	3400	U
131-11-3	Dimethylphthalate	710	U
208-96-8	Acenaphthylene	710	U
606-20-2	2,6-Dinitrotoluene	710	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58687

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54093

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9787

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 7 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.62 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3400	U
83-32-9	Acenaphthene	710	U
51-28-5	2,4-Dinitrophenol	3400	U
100-02-7	4-Nitrophenol	3400	U
132-64-9	Dibenzofuran	710	U
121-14-2	2,4-Dinitrotoluene	710	U
84-66-2	Diethylphthalate	710	U
7005-72-3	4-Chlorophenyl-phenylether	710	U
86-73-7	Fluorene	710	U
100-01-6	4-Nitroaniline	3400	U
534-52-1	4,6-Dinitro-2-methylphenol	3400	U
86-30-6	N-nitrosodiphenylamine (1)	710	U
101-55-3	4-Bromophenyl-phenylether	710	U
118-74-1	Hexachlorobenzene	710	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	710	U
120-12-7	Anthracene	710	U
84-74-2	Di-n-butylphthalate	710	U
206-44-0	Fluoranthene	710	U
129-00-0	Pyrene	710	U
85-68-7	Butylbenzylphthalate	710	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)anthracene	710	U
218-01-9	Chrysene	710	U
117-81-7	bis(2-Ethylhexyl)phthalate	710	U
117-84-0	Di-n-octyl phthalate	710	U
205-99-2	Benzo(b)fluoranthene	710	U
207-08-9	Benzo(k)fluoranthene	710	U
50-32-8	Benzo(a)pyrene	710	U
193-39-5	Indeno(1,2,3-cd)pyrene	710	U
53-70-3	Dibenz(a,h)anthracene	710	U
191-24-2	Benzo(g,h,i)perylene	710	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58687

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54093

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Z9787

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 7 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.62 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58689

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54094

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9788

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.32 Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3900	U
111-44-4	bis(2-Chloroethyl)ether	3900	U
95-57-8	2-Chlorophenol	3900	U
541-73-1	1,3-Dichlorobenzene	3900	U
106-46-7	1,4-Dichlorobenzene	3900	U
100-51-6	Benzyl alcohol	3900	U
95-50-1	1,2-Dichlorobenzene	3900	U
95-48-7	2-Methylphenol	3900	U
108-60-1	bis(2-Chloroisopropyl)ether	3900	U
106-44-5	4-Methylphenol	3900	U
621-64-7	N-Nitroso-di-n-propylamine	3900	U
67-72-1	Hexachloroethane	3900	U
98-95-3	Nitrobenzene	3900	U
78-59-1	Isophorone	3900	U
88-75-5	2-Nitrophenol	3900	U
105-67-9	2,4-Dimethylphenol	3900	U
65-85-0	Benzoic Acid	19000	U
111-91-1	bis(2-Chloroethoxy)methane	3900	U
120-83-2	2,4-Dichlorophenol	3900	U
120-82-1	1,2,4-Trichlorobenzene	3900	U
91-20-3	Naphthalene	3900	U
106-47-8	4-Chloroaniline	3900	U
87-68-3	Hexachlorobutadiene	3900	U
59-50-7	4-Chloro-3-methylphenol	3900	U
91-57-6	2-Methylnaphthalene	3900	U
77-47-4	Hexachlorocyclopentadiene	3900	U
88-06-2	2,4,6-Trichlorophenol	3900	U
95-95-4	2,4,5-Trichlorophenol	19000	U
91-58-7	2-Chloronaphthalene	3900	U
88-74-4	2-Nitroaniline	19000	U
131-11-3	Dimethylphthalate	3900	U
208-96-8	Acenaphthylene	3900	U
606-20-2	2,6-Dinitrotoluene	3900	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58689

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54094

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9788

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.32 Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	19000	U
83-32-9	Acenaphthene	3900	U
51-28-5	2,4-Dinitrophenol	19000	U
100-02-7	4-Nitrophenol	19000	U
132-64-9	Dibenzofuran	3900	U
121-14-2	2,4-Dinitrotoluene	3900	U
84-66-2	Diethylphthalate	3900	U
7005-72-3	4-Chlorophenyl-phenylether	3900	U
86-73-7	Fluorene	3900	U
100-01-6	4-Nitroaniline	19000	U
534-52-1	4,6-Dinitro-2-methylphenol	19000	U
86-30-6	N-nitrosodiphenylamine (1)	3900	U
101-55-3	4-Bromophenyl-phenylether	3900	U
118-74-1	Hexachlorobenzene	3900	U
87-86-5	Pentachlorophenol	19000	U
85-01-8	Phenanthrene	4400	
120-12-7	Anthracene	3900	U
84-74-2	Di-n-butylphthalate	3900	U
206-44-0	Fluoranthene	13000	
129-00-0	Pyrene	10000	
85-68-7	Butylbenzylphthalate	3900	U
91-94-1	3,3'-Dichlorobenzidine	7700	U
56-55-3	Benzo(a)anthracene	7000	
218-01-9	Chrysene	6400	
117-81-7	bis(2-Ethylhexyl)phthalate	3900	U
117-84-0	Di-n-octyl phthalate	3900	U
205-99-2	Benzo(b)fluoranthene	5400	
207-08-9	Benzo(k)fluoranthene	7000	
50-32-8	Benzo(a)pyrene	6600	
193-39-5	Indeno(1,2,3-cd)pyrene	5700	
53-70-3	Dibenz(a,h)anthracene	3900	U
191-24-2	Benzo(g,h,i)perylene	4100	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58689

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5038 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) SOIL Lab Sample ID: 54094

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z9788

Level: (low/med) LOW Date Received: 06/22/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/09/91

GPC Cleanup: (Y/N) Y pH: 7.32 Dilution Factor: 5.0

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNK POLYAROMATIC HYDROCARBON	17.34	2300	J
2.	UNK POLYAROMATIC HYDROCARBON	18.67	2000	J
3.	UNK POLYAROMATIC HYDROCARBON	21.89	2000	J
.	UNK POLYAROMATIC HYDROCARBON	22.39	4300	J

Versar INC.

BATCH 8

CITY OF DOVER WELLS
GROUND-WATER DATA
SEMIVOLATILE ORGANIC COMPOUNDS

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	PARAMETERS	INDUSTRIAL HYGIENE SAMPLE Y/N
6527107.61	DOVER GAS LIGHT		

SAMPLERS: (Signature) [illegible] (Printed) ENID J. SULLIVAN

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BUA								REMARKS
70652	7/12/11	1300		✓	CITY WELL NO 9	4	✓								MATRIX SPIKE + MS DUP
70653	7/12/11	1300		✓	CITY WELL NO 25	4	✓								MATRIX SPIKE + MS DUP.

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	7/15 1430				
(Printed)		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[illegible]	7/15/11	30-DAY TURNAROUND RESULTS TO JERI SULLIVAN X246
(Printed)		(Printed)		

Distrib[illegible]riginal Plus One Accompanies Shipment (white and yellow); Copy to Coordinator [illegible]es (pink).

AR301502

SEMIVOLATILE ANALYSIS
DATA SUMMARY PACKAGE

CLIENT: Versar Div 61
SITE: DOVER GAS LIGHT
PROJECT: 420.1-Batch #8
CONTROL: 5142
DATE: 09/17/91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

September 17, 1991

Narrative
Versar Div 61 - DOVER GAS LIGHT
Semivolatile Organic Analysis - EPA CLP Protocol
Versar Project 420.1 - Batch 8
Control 5142

This report contains the analytical data for the semivolatile (BNA) organic analysis of two (2) water samples. The samples listed below arrived at Versar on July 15, 1991. Sample analyses were performed using the EPA CLP protocol. Results for additional analytical parameters are provided separately.

SAMPLE LIST

70652
70653

////////////////////////////////////

GC/MS instrument calibrations using DFTPP met requirements for semivolatile organic analysis. SPCC and CCC criteria were met for the semivolatile initial calibration curves and the continuing calibration standards. All GC/MS analyses occurred during the twelve hour period that followed daily instrument calibration. Sample extractions and analyses were performed prior to expiration of the specified holding times.

Semivolatile surrogate standard recovery requirements were met for the water samples with the exception of phenol-d5 in sample 70652. EPA CLP protocol allows for no more than one acid surrogate and one base-neutral surrogate to exceed QC limits and all recovery values must not be less than ten percent. Since phenol-d5 recovery was less than ten percent in sample 70652, the sample will be reextracted and reanalyzed if sufficient sample volume remains. This sample was also used for the matrix spike and the matrix spike duplicate (MS/MSD) QC analyses. Surrogate recovery values were compliant in the MS and MSD aliquots.

All internal standard area abundance values and relative retention times met specified QC limits in each sample.

One set of matrix spike and matrix spike duplicate QC samples were extracted and analyzed. All recovery and relative percent differences values met QC limits established for the water matrix.

No semivolatile organic compounds were confirmed present in any of the field samples. Nontarget compounds have been tentatively identified using the EPA/NBS Mass Spectral Database Library. The samples did not require dilution prior to instrumental analysis.

Narrative - Page 2
DOVER GAS LIGHT
VLI CNTL 5142 - Batch #8

Explanations of data qualifier flags used on the individual data summary pages are provided in the listing which immediately follows this case narrative.

Please contact me should you have any questions or require additional information pertaining to the analyses of these samples for semivolatile organic compounds.

Data Release Approved By:

Lawrence P. Pollack
Project Coordinator
Laboratory Operations

Narrative Reviewed By:

M. A. Templeton
Mary Anne Templeton
GC/MS Data QA Assistant

Data Qualifier Flags

J For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

U This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

/ This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

I This flag is used when benzo(B)fluoranthene and benzo(K)fluoranthene cannot be quantified due to lack of chromatographic separation. The result listed under benzo(B)fluoranthene is the average of both compounds.

****** Above flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

BRL This flag is used on the quantitation reports to eliminate compounds below a reasonable confidence limit. All compounds flagged "BRL" are less than the CRQL.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

70652

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5142 SAS No.: _____ SDG No.: 8

Matrix: (soil/water) WATER Lab Sample ID: 55458

Sample wt/vol: 1020 (g/mL) ML Lab File ID: Z9865

Level: (low/med) LOW Date Received: 07/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/17/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/15/91

GPC Cleanup: (Y/N) N pH: 6.00 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	49	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	49	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	49	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

70652

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5142 SAS No.: _____ SDG No.: 8

Matrix: (soil/water) WATER Lab Sample ID: 55458

Sample wt/vol: 1020 (g/mL) ML Lab File ID: Z9865

Level: (low/med) LOW Date Received: 07/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/17/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/15/91

GPC Cleanup: (Y/N) N pH: 6.00 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	49	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	49	U
100-02-7	4-Nitrophenol	49	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	49	U
534-52-1	4,6-Dinitro-2-methylphenol	49	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	49	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

70652

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5142 SAS No.: _____ SDG No.: 8

Matrix: (soil/water) WATER Lab Sample ID: 55458

Sample wt/vol: 1020 (g/mL) ML Lab File ID: Z9865

Level: (low/med) LOW Date Received: 07/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/17/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/15/91

GPC Cleanup: (Y/N) N pH: 6.00 Dilution Factor: 1.00

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 24070-77-7	CYCLOPENTANOL, 2-METHYL-	3.77	230	BJ
2.	UNKNOWN	5.92	12	J

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

70653

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5142 SAS No.: _____ SDG No.: 8

Matrix: (soil/water) WATER Lab Sample ID: 55459

Sample wt/vol: 1020 (g/mL) ML Lab File ID: Z9877

Level: (low/med) LOW Date Received: 07/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/17/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/16/91

GPC Cleanup: (Y/N) N pH: 6.00 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	49	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	49	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	49	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

70653

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5142 SAS No.: _____ SDG No.: 8

Matrix: (soil/water) WATER Lab Sample ID: 55459

Sample wt/vol: 1020 (g/mL) ML Lab File ID: Z9877

Level: (low/med) LOW Date Received: 07/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/17/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/16/91

GPC Cleanup: (Y/N) N pH: 6.00 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	49	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	49	U
100-02-7	4-Nitrophenol	49	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	49	U
534-52-1	4,6-Dinitro-2-methylphenol	49	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	49	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

70653

I ` Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5142 SAS No.: _____ SDG No.: 8

Matrix: (soil/water) WATER Lab Sample ID: 55459

Sample wt/vol: 1020 (g/mL) ML Lab File ID: Z9877

Level: (low/med) LOW Date Received: 07/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/17/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/16/91

GPC Cleanup: (Y/N) N pH: 6.00 Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.85	14	J

FORM I SV-TIC 1/87 Rev.

AR301512

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

70652MS

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5142 SAS No.: _____ SDG No.: 8

Matrix: (soil/water) WATER Lab Sample ID: 55458MS

Sample wt/vol: 1030 (g/mL) ML Lab File ID: Z9875

Level: (low/med) LOW Date Received: 07/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/17/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/16/91

GPC Cleanup: (Y/N) N pH: 6.00 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	49	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	49	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	49	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

70652MS

) Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5142 SAS No.: _____ SDG No.: 8

Matrix: (soil/water) WATER Lab Sample ID: 55458MS

Sample wt/vol: 1030 (g/mL) ML Lab File ID: Z9875

Level: (low/med) LOW Date Received: 07/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/17/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/16/91

GPC Cleanup: (Y/N) N pH: 6.00 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	49	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	49	U
100-02-7	4-Nitrophenol	49	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	49	U
534-52-1	4,6-Dinitro-2-methylphenol	49	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	49	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	19	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

70652MSD

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5142 SAS No.: _____ SDG No.: 8

Matrix: (soil/water) WATER Lab Sample ID: 55458MSD

Sample wt/vol: 1030 (g/mL) ML Lab File ID: Z9876

Level: (low/med) LOW Date Received: 07/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/17/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/16/91

GPC Cleanup: (Y/N) N pH: 6.00 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	49	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	49	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	49	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

70652MSD

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5142 SAS No.: _____ SDG No.: 8

Matrix: (soil/water) WATER Lab Sample ID: 55458MSD

Sample wt/vol: 1030 (g/mL) ML Lab File ID: Z9876

Level: (low/med) LOW Date Received: 07/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/17/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/16/91

GPC Cleanup: (Y/N) N pH: 6.00 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	49	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	49	U
100-02-7	4-Nitrophenol	49	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	49	U
534-52-1	4,6-Dinitro-2-methylphenol	49	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	49	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	19	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

Versar INC.

BATCH 9

MONITORING WELL MW7C SOIL DATA
VOLATILE AND SEMIVOLATILE ORGANIC COMPOUNDS

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE Y / N
1527106	[illegible]	

SAMPLERS: (Signature) [illegible] (Printed) FRED T. SULLIVAN

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	[illegible]	[illegible]								REMARKS
62498	7/11	13[illegible]		✓	[illegible]	1	✓	✓								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	7/16 1100				
(Printed)		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[illegible] Maxwell	7/18/91 1100	[illegible]
(Printed)		(Printed) Debbie Maxwell		

Distribut[illegible]inal Plus One Accompanies Shipment (white and yellow); Copy to Coordinator F[illegible] (pink).

AR301518

Versar Laboratories INC.

GC/MS ORGANIC ANALYSIS
DATA SUMMARY PACKAGE

CLIENT: Versar Div 61
SITE: DOVER GAS LIGHT
PROJECT: 420.1-Batch #9
CONTROL: 5147
DATE: 09/17/91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

September 17, 1991

Narrative
Versar Div 61 - DOVER GAS LIGHT
SAMPLE: 62498
GC/MS Organic Analysis - EPA CLP Protocol
Versar Project 420.1 - Batch 9/Control 5147

This report contains the analytical data for the volatile (VOA) and semivolatile (BNA) organic analysis of one (1) soil sample. The sample listed above arrived at Versar on July 16, 1991. Sample extractions and analyses were performed using the EPA CLP protocol. Results for additional analytical parameters are provided separately.

GC/MS instrument calibrations using BFB and DFTPP met requirements for volatile and semivolatile analyses, respectively. SPCC and CCC criteria were met for the volatile and semivolatile initial calibration curves and the continuing calibration standards. All volatile and semivolatile surrogate standard recovery values met specified requirements for the soil matrix. Internal standard area abundances and associated relative retention times were within specified QC windows for both volatile and semivolatile analyses. All GC/MS analyses occurred during the twelve hour period following daily instrument calibration. Sample extraction and analysis for volatile and semivolatile organic analyses were completed prior to expiration of sample holding times.

Few volatile and semivolatile organic compounds were detected in the field sample. Nontarget compounds have been tentatively identified using the EPA/NBS Mass Spectral Database Library. The sample did not require dilution prior to instrumental analyses.

Detection limits and reported concentrations of volatile and semivolatile organic compounds detected in the soil sample are reported on a "dry weight" basis which accounts for the moisture content of the soil.

Definitions of data qualifier flags used on the individual data summary pages are provided in the listing which follows this case narrative.

Please contact me should you have any questions or require additional information pertaining to the GC/MS volatile and semivolatile organic organic analyses of this sample.

Data Release Approved By:

Lawrence P. Pollack
Project Coordinator
Laboratory Operations

Narrative Reviewed By:

M. A. Templeton
Mary Anne Templeton
GC/MS Data QA Assistant

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

Data Qualifier Flags

J — For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B — This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

U — This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T — This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E — This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D — This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

/ — This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

I — This flag is used when benzo(B)fluoranthene and benzo(K)fluoranthene cannot be quantified due to lack of chromatographic separation. The result listed under benzo(B)fluoranthene is the average of both compounds.

****** Above flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

BRL — This flag is used on the quantitation reports to eliminate compounds below a reasonable confidence limit. All compounds flagged "BRL" are less than the CRQL.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62498

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5147A SAS No.: _____ SDG No.: B9

Matrix: (soil/water) SOIL Lab Sample ID: 55529

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Z9862

Level: (low/med) LOW Date Received: 07/16/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/26/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/15/91

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	650	
117-84-0	Di-n-octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenz(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62498

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5147A SAS No.: _____ SDG No.: B9

Matrix: (soil/water) SOIL Lab Sample ID: 55529

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Z9862

Level: (low/med) LOW Date Received: 07/16/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/26/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/15/91

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	bis(2-Chloroisopropyl)ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

62498

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5147 SAS No.: _____ SDG No.: 9

Matrix: (soil/water) SOIL Lab Sample ID: 55529A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y9211

Level: (low/med) LOW Date Received: 07/16/91

% Moisture: not dec. 18 Date Analyzed: 07/26/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	19.54	3.7	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62498

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5147 SAS No.: _____ SDG No.: 9

Matrix: (soil/water) SOIL Lab Sample ID: 55529A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y9211

Level: (low/med) LOW Date Received: 07/16/91

% Moisture: not dec. 18 Date Analyzed: 07/26/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	95	B
67-64-1	Acetone	11	J
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

62498

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5147A SAS No.: _____ SDG No.: B9

Matrix: (soil/water) SOIL Lab Sample ID: 55529

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Z9862

Level: (low/med) LOW Date Received: 07/16/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 07/26/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/15/91

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

AR301526

Versar INC.

BATCH 12

MONITORING WELL 7C SOIL DATA
VOLATILE AND SEMIVOLATILE ORGANIC COMPOUNDS
AND
TOTAL METALS

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6507.106.1	DOVER GAS LIGHT	Y / N

SAMPLERS: (Signature) [signature] (Printed) ENID J. SULLIVAN

PARAMETERS

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	CLP VOA	CLP BNA	TOTAL METALS	BTEX	TRPH *				REMARKS
640 —	8/1/91	0905		✓	MW 6C 30-32'	2	22	23 →							
640 —	8/1/91	1020		✓	mw 6C 50-52	2	24	25 →							
640 —	8/1/91	0945		✓	mw 6C 45-47	2	20	21 →							
640 —	8/1/91	1700		✓	mw 6C Drill Fluid	2				26	27				Disposal Spl.

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature] (Printed)	8/1/91 1900	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		* DO CHEAPEST METHOD - NOT CALIF.

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301528

GC/MS ORGANIC ANALYSIS
DATA SUMMARY PACKAGE

CLIENT: Versar Div 61
SITE: DOVER GAS LIGHT
PROJECT: 420.1-Batch #12
CONTROL: 5263
DATE: 09/24/91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

I. NARRATIVE

II. QC SUMMARY

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

September 23, 1991

Narrative
Versar Div 61 - DOVER GAS LIGHT
GC/MS Organic Analysis - EPA CLP Protocol
Versar Project 420.1 - Batch 12/Control 5263

This report contains the analytical data for the volatile (VOA) and semivolatile (BNA) organic analysis of three (3) soil samples. The samples listed below arrived at Versar on August 5, 1991. Sample extractions and analyses were performed using the EPA CLP protocol. Results for additional analytical parameters are provided separately.

SAMPLE LIST

VOA	BNA
64020	64021
64022	64023
64024	64025

//

GC/MS instrument calibrations using BFB and DFTPP met requirements for volatile and semivolatile analyses, respectively. SPCC and CCC criteria were met for the volatile and semivolatile initial calibration curves and the continuing calibration standards. All volatile and semivolatile surrogate standard recovery values met specified requirements for the soil matrix. Internal standard area abundance values and associated relative retention times were within specified QC windows for both volatile and semivolatile analyses. All GC/MS analyses occurred during the twelve hour period following daily instrument calibration. Sample extraction and analysis for volatile and semivolatile organic analyses were completed prior to expiration of sample holding times.

Few volatile and semivolatile organic compounds were detected in samples 64022/64023 and 64024/64025. These samples did not require dilution prior to instrumental analyses. Sample 64020 was screened prior to GC/MS analysis and was determined to require extraction and analysis using the medium concentration protocol developed for a soil matrix. This procedure uses four grams of sample which is diluted into methanol. A serial dilution into distilled and deionized water follows, resulting in a method specified dilution factor of 125. The dilution factor listed on individual data reporting forms represents only the additional dilution required prior to instrumental analysis. The additional dilution was required to quantify detected target analytes within the established range of the standard calibration curve and to prevent instrument saturation.

Analyses of medium concentration soil samples are performed in conjunction with a calibration curve developed for a water matrix and analysis of an aqueous laboratory generated reagent blank. This technique is applicable to the medium concentration soil matrix since the sample purge procedure is performed on an aqueous methanol and water mixture rather than a solid matrix directly purged with water. Protocol for the medium concentration analyses does not use the heated purge associated with the low concentration soil protocol.

Numerous polynuclear aromatic hydrocarbon target analytes were confirmed present in the semivolatile organic analysis of sample 64021. The use of Gel Permeation Chromatography (GPC) clean-up procedures was used to minimize potential high molecular weight interferences. Some of the polynuclear aromatic hydrocarbon compounds detected in sample 64021 exceeded (E) the established range of the standard calibration curve. The sample was reanalyzed (DL) using an additional dilution factor of four for the sole purpose of quantifying the target analytes only. Nontarget compounds were not reidentified or requantified in the analysis of the diluted sample extract. The concentration of the target analytes was flagged with a "D" on Forms 1B and 1C indicating that quantitation was performed using a diluted sample extract.

Mass spectra of target analytes that did not meet all EPA CLP mass spectral identification criteria have been flagged with an "X". Coeluting ions not characteristic of the compound or missing ions result in the use of this flag. Benzo (b) and (k) fluoranthene could not be chromatographically separated in sample 64021 and the subsequent dilution. The result has been reported as Total Benzo(b & k)fluoranthene and flagged with a "Z".

Nontarget compounds have been tentatively identified using the EPA/NBS Mass Spectral Database Library.

Detection limits and reported concentrations of volatile and semivolatile organic compounds detected in the soil samples are reported on a "dry weight" basis which accounts for the moisture content of each soil.

Definitions of additional data qualifier flags used on the individual data summary pages are provided in the listing which follows this case narrative.

Narrative - Page 3
DOVER GAS LIGHT
VLI CNTL 5263

Please contact me should you have any questions or require additional information pertaining to the GC/MS volatile and semi-volatile organic organic analyses of these samples.

Data Release Approved By:

Lawrence P. Pollack
Project Coordinator
Laboratory Operations

Narrative Reviewed By:

M. A. Templeton
Mary Anne Templeton
GC/MS Data QA Assistant

Data Qualifier Flags

J For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

u This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

Y This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

Σ This flag is used when benzo(B)fluoranthene and benzo(K)fluoranthene cannot be quantified due to lack of chromatographic separation. The result listed under benzo(B)fluoranthene is the average of both compounds.

****** Above flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

BRL This flag is used on the quantitation reports to eliminate compounds below a reasonable confidence limit. All compounds flagged "BRL" are less than the CRQL.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64022

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57127A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y9561

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 15 Date Analyzed: 08/14/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	10	
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	11	
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

64022

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57127A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y9561

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 15 Date Analyzed: 08/14/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	19.54	5.9	J

FORM I VOA-TIC 1/87 Rev.

AR301536

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64024

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57128A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y9562

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 19 Date Analyzed: 08/14/91

Column: (pack/cap) CAP Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	62	U
74-83-9	Bromomethane	62	U
75-01-4	Vinyl chloride	62	U
75-00-3	Chloroethane	62	U
75-09-2	Methylene chloride	46	
67-64-1	Acetone	62	U
75-15-0	Carbon disulfide	57	
75-35-4	1,1-Dichloroethene	31	U
75-34-3	1,1-Dichloroethane	31	U
540-59-0	1,2-Dichloroethene (total)	31	U
67-66-3	Chloroform	31	U
107-06-2	1,2-Dichloroethane	31	U
78-93-3	2-Butanone	62	U
71-55-6	1,1,1-Trichloroethane	31	U
56-23-5	Carbon tetrachloride	31	U
108-05-4	Vinyl acetate	62	U
75-27-4	Bromodichloromethane	31	U
78-87-5	1,2-Dichloropropane	31	U
10061-01-5	cis-1,3-Dichloropropene	31	U
79-01-6	Trichloroethene	31	U
124-48-1	Dibromochloromethane	31	U
79-00-5	1,1,2-Trichloroethane	31	U
71-43-2	Benzene	31	U
10061-02-6	Trans-1,3-dichloropropene	31	U
75-25-2	Bromoform	31	U
108-10-1	4-Methyl-2-pentanone	62	U
591-78-6	2-Hexanone	62	U
127-18-4	Tetrachloroethene	31	
79-34-5	1,1,2,2-Tetrachloroethane	31	U
108-88-3	Toluene	31	U
108-90-7	Chlorobenzene	31	U
100-41-4	Ethylbenzene	31	U
100-42-5	Styrene	31	U
1330-20-7	Total xylenes	31	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

64024

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57128A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y9562

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 19 Date Analyzed: 08/14/91

Column (pack/cap) CAP Dilution Factor: 5.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	19.49	25	J

FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64020

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57126

Sample wt/vol: 4.0 (g/mL) G Lab File ID: U8877

Level: (low/med) MED Date Received: 08/05/91

% Moisture: not dec. 39 Date Analyzed: 08/15/91

Column: (pack/cap) PACK Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	4100	U
74-83-9	Bromomethane	4100	U
75-01-4	Vinyl chloride	4100	U
75-00-3	Chloroethane	4100	U
75-09-2	Methylene chloride	2000	U
67-64-1	Acetone	4100	U
75-15-0	Carbon disulfide	5500	
75-35-4	1,1-Dichloroethene	2000	U
75-34-3	1,1-Dichloroethane	2000	U
540-59-0	1,2-Dichloroethene (total)	2000	U
67-66-3	Chloroform	2000	U
107-06-2	1,2-Dichloroethane	2000	U
78-93-3	2-Butanone	4100	U
71-55-6	1,1,1-Trichloroethane	2000	U
56-23-5	Carbon tetrachloride	2000	U
108-05-4	Vinyl acetate	4100	U
75-27-4	Bromodichloromethane	2000	U
78-87-5	1,2-Dichloropropane	2000	U
10061-01-5	cis-1,3-Dichloropropene	2000	U
79-01-6	Trichloroethene	2000	U
124-48-1	Dibromochloromethane	2000	U
79-00-5	1,1,2-Trichloroethane	2000	U
71-43-2	Benzene	2000	U
10061-02-6	Trans-1,3-dichloropropene	2000	U
75-25-2	Bromoform	2000	U
108-10-1	4-Methyl-2-pentanone	4100	U
591-78-6	2-Hexanone	4100	U
127-18-4	Tetrachloroethene	32000	
79-34-5	1,1,2,2-Tetrachloroethane	2000	U
108-88-3	Toluene	2000	U
108-90-7	Chlorobenzene	2000	U
100-41-4	Ethylbenzene	2000	U
100-42-5	Styrene	2000	U
1330-20-7	Total xylenes	2000	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

64020

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57126

Sample wt/vol: 4.0 (g/mL) G Lab File ID: U8877

Level: (low/med) MED Date Received: 08/05/91

% Moisture: not dec. 39 Date Analyzed: 08/15/91

Column (pack/cap) PACK Dilution Factor: 2.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

AR301540

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.106.1	DOVER GAS LIGHT	Y / N

SAMPLERS: (Signature) [signature] (Printed) ENID J. SULLIVAN

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	CLP VOA	CLP BNA	TOTAL METALS	BTEX	TRPH *				REMARKS
640 —	8/1/91	0905		✓	MW 6C 30-32'	2	22	23 →							
640 —	8/1/91	1020		✓	mw 6C 50-52	2	24	25 →							
640 —	8/1/91	0945		✓	mw 6C 45-47	2	20	21 →							
640 —	8/1/91	1700		✓	mw 6C Drill Fluid	2				26	27				Disposal Spl.

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature] (Printed)	8/1/91 1900	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		* DO CHEAPEST METHOD - NOT CALIF.

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301541

Versar Laboratories INC.

SEMIVOLATILE ANALYSIS
ANALYTICAL DATA PACKAGE

CLIENT: Versar Div 61
SITE: DOVER GAS LIGHT
PROJECT: 420.1-Batch #12
CONTROL: 5263
DATE: 09/24/91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

Versar INC.

DELIVERABLES INDEX -- BNA ANALYSES ONLY

I. CASE NARRATIVE: Narrative proceeds Volatile Organic data.

II. QC SUMMARY

A. Surrogate Percent Recovery Summary (Form II)
B. Matrix Spike/Matrix Spike Duplicate Summary (Form III)
C. Method Blank Summary (Form IV)
D. GC/MS Tuning and Calibration Standard (Form V)

III. SAMPLE DATA

A. Organic Analysis Data Sheet (Form I)
B. Tentatively Identified Compounds (TIC)
C. Raw Data for the Semivolatile Sample Fraction
   1. Reconstruction Ion Chromatogram(s)
   2. Quantitation report
   3. Raw HSL mass spectra and background subtracted HSL mass spectra with lab generated HSL standard spectra
   4. GC/MS library search spectra for each TIC

Note: Samples arranged in alpha-numeric sequence.

IV. STANDARDS DATA

A. Initial Calibration Data (Form VI) in order if more than one instrument is used.
B. BNA standard(s) reconstructed ion chromatograms and quantitation reports for the initial calibration(s).
C. Continuing Calibration (Form VII) in order by instrument.
D. BNA standard(s) reconstructed ion chromatograms and quantitation reports for the continuing calibration(s).
E. Internal Standard Data (Form VIII).

V. RAW QC DATA

A. DFTPP (For each 12-hour period, for each GC/MS system)
   1. Bar graph spectrum
   2. Mass listing
B. Reagent Blank Data
   1. Organic Analysis Data Sheet (Form I),
   2. Tentatively Identified Compounds (TIC)
   3. Raw Data
      a. Reconstructed ion chromatogram(s) and quantitation report(s).
      b. HSL spectra with lab generated standard.
         i. Raw HSL compound spectra
         ii. Enhanced or background subtracted spectra
         iii. Laboratory generated HSL standard spectra
         iv. GC/MS library search spectra for each TIC
         v. Quantitation/calculation of each TIC concentration

Versar INC.

V. RAW QC DATA (CONT'D)

C. Matrix Spike/Matrix Spike Duplicate Data
   1. Tabulated results (Form I) of non-spiked HSL compounds.
   2. Reconstructed ion chromatograms and quantitation reports.

VI. SAMPLE PREPARATION

A. Parameter Request Sheet
B. GC/FID Screening Data (soils only)
C. Extraction Sample Comments
D. GC/MS Analyst Comments
E. Extraction Chronicle and Worksheets
F. pH Results
G. Dry Weight Factor (soils only)
H. Dilution Factor Worksheet
I. Instrument Injection Logs

I. NARRATIVE

II. QC SUMMARY

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

September 23, 1991

Narrative
Versar Div 61 - DOVER GAS LIGHT
GC/MS Organic Analysis - EPA CLP Protocol
Versar Project 420.1 - Batch 12/Control 5263

This report contains the analytical data for the volatile (VOA) and semivolatile (BNA) organic analysis of three (3) soil samples. The samples listed below arrived at Versar on August 5, 1991. Sample extractions and analyses were performed using the EPA CLP protocol. Results for additional analytical parameters are provided separately.

SAMPLE LIST

VOA	BNA
64020	64021
64022	64023
64024	64025

//

GC/MS instrument calibrations using BFB and DFTPP met requirements for volatile and semivolatile analyses, respectively. SPCC and CCC criteria were met for the volatile and semivolatile initial calibration curves and the continuing calibration standards. All volatile and semivolatile surrogate standard recovery values met specified requirements for the soil matrix. Internal standard area abundance values and associated relative retention times were within specified QC windows for both volatile and semivolatile analyses. All GC/MS analyses occurred during the twelve hour period following daily instrument calibration. Sample extraction and analysis for volatile and semivolatile organic analyses were completed prior to expiration of sample holding times.

Few volatile and semivolatile organic compounds were detected in samples 64022/64023 and 64024/64025. These samples did not require dilution prior to instrumental analyses. Sample 64020 was screened prior to GC/MS analysis and was determined to require extraction and analysis using the medium concentration protocol developed for a soil matrix. This procedure uses four grams of sample which is diluted into methanol. A serial dilution into distilled and deionized water follows, resulting in a method specified dilution factor of 125. The dilution factor listed on individual data reporting forms represents only the additional dilution required prior to instrumental analysis. The additional dilution was required to quantify detected target analytes within the established range of the standard calibration curve and to prevent instrument saturation.

Analyses of medium concentration soil samples are performed in conjunction with a calibration curve developed for a water matrix and analysis of an aqueous laboratory generated reagent blank. This technique is applicable to the medium concentration soil matrix since the sample purge procedure is performed on an aqueous methanol and water mixture rather than a solid matrix directly purged with water. Protocol for the medium concentration analyses does not use the heated purge associated with the low concentration soil protocol.

Numerous polynuclear aromatic hydrocarbon target analytes were confirmed present in the semivolatile organic analysis of sample 64021. The use of Gel Permeation Chromatography (GPC) clean-up procedures was used to minimize potential high molecular weight interferences. Some of the polynuclear aromatic hydrocarbon compounds detected in sample 64021 exceeded (E) the established range of the standard calibration curve. The sample was reanalyzed (DL) using an additional dilution factor of four for the sole purpose of quantifying the target analytes only. Nontarget compounds were not reidentified or requantified in the analysis of the diluted sample extract. The concentration of the target analytes was flagged with a "D" on Forms 1B and 1C indicating that quantitation was performed using a diluted sample extract.

Mass spectra of target analytes that did not meet all EPA CLP mass spectral identification criteria have been flagged with an "X". Coeluting ions not characteristic of the compound or missing ions result in the use of this flag. Benzo (b) and (k) fluoranthene could not be chromatographically separated in sample 64021 and the subsequent dilution. The result has been reported as Total Benzo(b & k)fluoranthene and flagged with a "Z".

Nontarget compounds have been tentatively identified using the EPA/NBS Mass Spectral Database Library.

Detection limits and reported concentrations of volatile and semivolatile organic compounds detected in the soil samples are reported on a "dry weight" basis which accounts for the moisture content of each soil.

Definitions of additional data qualifier flags used on the individual data summary pages are provided in the listing which follows this case narrative.

Narrative - Page 3
DOVER GAS LIGHT
VLI CNTL 5263

Please contact me should you have any questions or require additional information pertaining to the GC/MS volatile and semi-volatile organic organic analyses of these samples.

Data Release Approved By:

Lawrence P. Pollack
Project Coordinator
Laboratory Operations

Narrative Reviewed By:

Mary Anne Templeton
GC/MS Data QA Assistant

Data Qualifier Flags

J — For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B — This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

u — This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T — This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E — This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D — This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

Y — This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

Z — This flag is used when benzo(B)fluoranthene and benzo(K)fluoranthene cannot be quantified due to lack of chromatographic separation. The result listed under benzo(B)fluoranthene is the average of both compounds.

****** — Above flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

BRL — This flag is used on the quantitation reports to eliminate compounds below a reasonable confidence limit. All compounds flagged "BRL" are less than the CRQL.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64023

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57130

Sample wt/vol: 30.0 (g/mL) G Lab File ID: T1250

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 08/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/04/91

GPC Cleanup: (Y/N) Y pH: 4.82 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	780	U
111-44-4	bis(2-Chloroethyl)ether	780	U
95-57-8	2-Chlorophenol	780	U
541-73-1	1,3-Dichlorobenzene	780	U
106-46-7	1,4-Dichlorobenzene	780	U
100-51-6	Benzyl alcohol	780	U
95-50-1	1,2-Dichlorobenzene	780	U
95-48-7	2-Methylphenol	780	U
108-60-1	bis(2-Chloroisopropyl)ether	780	U
106-44-5	4-Methylphenol	780	U
621-64-7	N-Nitroso-di-n-propylamine	780	U
67-72-1	Hexachloroethane	780	U
98-95-3	Nitrobenzene	780	U
78-59-1	Isophorone	780	U
88-75-5	2-Nitrophenol	780	U
105-67-9	2,4-Dimethylphenol	780	U
65-85-0	Benzoic Acid	3800	U
111-91-1	bis(2-Chloroethoxy)methane	780	U
120-83-2	2,4-Dichlorophenol	780	U
120-82-1	1,2,4-Trichlorobenzene	780	U
91-20-3	Naphthalene	780	U
106-47-8	4-Chloroaniline	780	U
87-68-3	Hexachlorobutadiene	780	U
59-50-7	4-Chloro-3-methylphenol	780	U
91-57-6	2-Methylnaphthalene	780	U
77-47-4	Hexachlorocyclopentadiene	780	U
88-06-2	2,4,6-Trichlorophenol	780	U
95-95-4	2,4,5-Trichlorophenol	3800	U
91-58-7	2-Chloronaphthalene	780	U
88-74-4	2-Nitroaniline	3800	U
131-11-3	Dimethylphthalate	780	U
208-96-8	Acenaphthylene	780	U
606-20-2	2,6-Dinitrotoluene	780	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64023

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57130

Sample wt/vol: 30.0 (g/mL) G Lab File ID: T1250

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 08/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/04/91

GPC Cleanup: (Y/N) Y pH: 4.82 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3800	U
83-32-9	Acenaphthene	780	U
51-28-5	2,4-Dinitrophenol	3800	U
100-02-7	4-Nitrophenol	3800	U
132-64-9	Dibenzofuran	780	U
121-14-2	2,4-Dinitrotoluene	780	U
84-66-2	Diethylphthalate	780	U
7005-72-3	4-Chlorophenyl-phenylether	780	U
86-73-7	Fluorene	780	U
100-01-6	4-Nitroaniline	3800	U
534-52-1	4,6-Dinitro-2-methylphenol	3800	U
86-30-6	N-nitrosodiphenylamine (1)	780	U
101-55-3	4-Bromophenyl-phenylether	780	U
118-74-1	Hexachlorobenzene	780	U
87-86-5	Pentachlorophenol	3800	U
85-01-8	Phenanthrene	780	U
120-12-7	Anthracene	780	U
84-74-2	Di-n-butylphthalate	780	U
206-44-0	Fluoranthene	780	U
129-00-0	Pyrene	780	U
85-68-7	Butylbenzylphthalate	780	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	780	U
218-01-9	Chrysene	780	U
117-81-7	bis(2-Ethylhexyl)phthalate	780	U
117-84-0	Di-n-octyl phthalate	780	U
205-99-2	Benzo(b)fluoranthene	780	U
207-08-9	Benzo(k)fluoranthene	780	U
50-32-8	Benzo(a)pyrene	780	U
193-39-5	Indeno(1,2,3-cd)pyrene	780	U
53-70-3	Dibenz(a,h)anthracene	780	U
191-24-2	Benzo(g,h,i)perylene	780	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

64023

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57130

Sample wt/vol: 30.0 (g/mL) G Lab File ID: T1250

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 08/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/04/91

GPC Cleanup: (Y/N) Y pH: 4.82 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64025

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57131

Sample wt/vol: 30.0 (g/mL) G Lab File ID: T1251

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 19 dec. ____ Date Extracted: 08/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/04/91

GPC Cleanup: (Y/N) Y pH: 5.70 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	810	U
111-44-4	bis(2-Chloroethyl)ether	810	U
95-57-8	2-Chlorophenol	810	U
541-73-1	1,3-Dichlorobenzene	810	U
106-46-7	1,4-Dichlorobenzene	810	U
100-51-6	Benzyl alcohol	810	U
95-50-1	1,2-Dichlorobenzene	810	U
95-48-7	2-Methylphenol	810	U
108-60-1	bis(2-Chloroisopropyl)ether	810	U
106-44-5	4-Methylphenol	810	U
621-64-7	N-Nitroso-di-n-propylamine	810	U
67-72-1	Hexachloroethane	810	U
98-95-3	Nitrobenzene	810	U
78-59-1	Isophorone	810	U
88-75-5	2-Nitrophenol	810	U
105-67-9	2,4-Dimethylphenol	810	U
65-85-0	Benzoic Acid	4000	U
111-91-1	bis(2-Chloroethoxy)methane	810	U
120-83-2	2,4-Dichlorophenol	810	U
120-82-1	1,2,4-Trichlorobenzene	810	U
91-20-3	Naphthalene	810	U
106-47-8	4-Chloroaniline	810	U
87-68-3	Hexachlorobutadiene	810	U
59-50-7	4-Chloro-3-methylphenol	810	U
91-57-6	2-Methylnaphthalene	810	U
77-47-4	Hexachlorocyclopentadiene	810	U
88-06-2	2,4,6-Trichlorophenol	810	U
95-95-4	2,4,5-Trichlorophenol	4000	U
91-58-7	2-Chloronaphthalene	810	U
88-74-4	2-Nitroaniline	4000	U
131-11-3	Dimethylphthalate	810	U
208-96-8	Acenaphthylene	810	U
606-20-2	2,6-Dinitrotoluene	810	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64025

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57131

Sample wt/vol: 30.0 (g/mL) G Lab File ID: T1251

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 19 dec. ____ Date Extracted: 08/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/04/91

GPC Cleanup: (Y/N) Y pH: 5.70 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4000	U
83-32-9	Acenaphthene	810	U
51-28-5	2,4-Dinitrophenol	4000	U
100-02-7	4-Nitrophenol	4000	U
132-64-9	Dibenzofuran	810	U
121-14-2	2,4-Dinitrotoluene	810	U
84-66-2	Diethylphthalate	810	U
7005-72-3	4-Chlorophenyl-phenylether	810	U
86-73-7	Fluorene	810	U
100-01-6	4-Nitroaniline	4000	U
534-52-1	4,6-Dinitro-2-methylphenol	4000	U
86-30-6	N-nitrosodiphenylamine (1)	810	U
101-55-3	4-Bromophenyl-phenylether	810	U
118-74-1	Hexachlorobenzene	810	U
87-86-5	Pentachlorophenol	4000	U
85-01-8	Phenanthrene	810	U
120-12-7	Anthracene	810	U
84-74-2	Di-n-butylphthalate	810	U
206-44-0	Fluoranthene	810	U
129-00-0	Pyrene	810	U
85-68-7	Butylbenzylphthalate	810	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	810	U
218-01-9	Chrysene	810	U
117-81-7	bis(2-Ethylhexyl)phthalate	810	U
117-84-0	Di-n-octyl phthalate	810	U
205-99-2	Benzo(b)fluoranthene	810	U
207-08-9	Benzo(k)fluoranthene	810	U
50-32-8	Benzo(a)pyrene	810	U
193-39-5	Indeno(1,2,3-cd)pyrene	810	U
53-70-3	Dibenz(a,h)anthracene	810	U
191-24-2	Benzo(g,h,i)perylene	810	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

64025

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57131

Sample wt/vol: 30.0 (g/mL) G Lab File ID: T1251

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 19 dec. _____ Date Extracted: 08/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/04/91

GPC Cleanup: (Y/N) Y pH: 5.70 Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN AMIDE	17.70	740	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64021

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57129

Sample wt/vol: 30.0 (g/mL) G Lab File ID: T1252

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 29 dec. ____ Date Extracted: 08/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/04/91

GPC Cleanup: (Y/N) Y pH: 6.55 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	930	U
111-44-4	bis(2-Chloroethyl)ether	930	U
95-57-8	2-Chlorophenol	930	U
541-73-1	1,3-Dichlorobenzene	930	U
106-46-7	1,4-Dichlorobenzene	930	U
100-51-6	Benzyl alcohol	930	U
95-50-1	1,2-Dichlorobenzene	930	U
95-48-7	2-Methylphenol	930	U
108-60-1	bis(2-Chloroisopropyl)ether	930	U
106-44-5	4-Methylphenol	930	U
621-64-7	N-Nitroso-di-n-propylamine	930	U
67-72-1	Hexachloroethane	930	U
98-95-3	Nitrobenzene	930	U
78-59-1	Isophorone	930	U
88-75-5	2-Nitrophenol	930	U
105-67-9	2,4-Dimethylphenol	930	U
65-85-0	Benzoic Acid	4500	U
111-91-1	bis(2-Chloroethoxy)methane	930	U
120-83-2	2,4-Dichlorophenol	930	U
120-82-1	1,2,4-Trichlorobenzene	930	U
91-20-3	Naphthalene	930	U
106-47-8	4-Chloroaniline	930	U
87-68-3	Hexachlorobutadiene	930	U
59-50-7	4-Chloro-3-methylphenol	930	U
91-57-6	2-Methylnaphthalene	22000	E
77-47-4	Hexachlorocyclopentadiene	930	U
88-06-2	2,4,6-Trichlorophenol	930	U
95-95-4	2,4,5-Trichlorophenol	4500	U
91-58-7	2-Chloronaphthalene	930	U
88-74-4	2-Nitroaniline	4500	U
131-11-3	Dimethylphthalate	930	U
208-96-8	Acenaphthylene	9300	
606-20-2	2,6-Dinitrotoluene	930	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64021

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57129

Sample wt/vol: 30.0 (g/mL) G Lab File ID: T1252

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 29 dec. ____ Date Extracted: 08/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/04/91

GPC Cleanup: (Y/N) Y pH: 6.55 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4500	U
83-32-9	Acenaphthene	2400	
51-28-5	2,4-Dinitrophenol	4500	U
100-02-7	4-Nitrophenol	4500	U
132-64-9	Dibenzofuran	1300	
121-14-2	2,4-Dinitrotoluene	930	U
84-66-2	Diethylphthalate	930	U
7005-72-3	4-Chlorophenyl-phenylether	930	U
86-73-7	Fluorene	12000	
100-01-6	4-Nitroaniline	4500	U
534-52-1	4,6-Dinitro-2-methylphenol	4500	U
86-30-6	N-nitrosodiphenylamine (1)	930	U
101-55-3	4-Bromophenyl-phenylether	930	U
118-74-1	Hexachlorobenzene	930	U
87-86-5	Pentachlorophenol	4500	U
85-01-8	Phenanthrene	22000	E
120-12-7	Anthracene	7500	
84-74-2	Di-n-butylphthalate	930	U
206-44-0	Fluoranthene	14000	
129-00-0	Pyrene	15000	E
85-68-7	Butylbenzylphthalate	930	U
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo(a)anthracene	8400	
218-01-9	Chrysene	7200	
117-81-7	bis(2-Ethylhexyl)phthalate	640	JX
117-84-0	Di-n-octyl phthalate	930	U
205-99-2	Benzo(b)fluoranthene* TOTAL B+K =	5700	Z
207-08-9	Benzo(k)fluoranthene	930	U
50-32-8	Benzo(a)pyrene	6300	
193-39-5	Indeno(1,2,3-cd)pyrene	2700	
53-70-3	Dibenz(a,h)anthracene	640	J
191-24-2	Benzo(g,h,i)perylene	2500	

(1) - Cannot be separated from Diphenylamine

*See Narrative

FORM I SV-2 1/87 Rev.

AR301557

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

64021

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 12

Matrix: (soil/water) SOIL Lab Sample ID: 57129

Sample wt/vol: 30.0 (g/mL) G Lab File ID: T1252

Level: (low/med) LOW Date Received: 08/05/91

% Moisture: not dec. 29 dec. ____ Date Extracted: 08/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/04/91

GPC Cleanup: (Y/N) Y pH: 6.55 Dilution Factor: 1.0

Number TICs found: 30

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN HYDROCARBON	4.75	3900	J
2.	95-13-6	1H-INDENE	5.47	3500	J
3.		UNKNOWN	5.75	1100	J
4.		UNKNOWN HYDROCARBON	6.85	2200	J
5.		UNKNOWN	7.33	2300	J
6.		UNKNOWN HYDROCARBON	8.54	23000	J
7.		UNKNOWN HYDROCARBON	8.74	20000	J
8.	92-52-4	1,1'-BIPHENYL	9.42	2800	J
9.		UNKNOWN SUB NAPHTHALENE	9.60	940	J
10.		UNKNOWN SUB NAPHTHALENE	9.72	3900	J
11.	573-98-8	NAPHTHALENE, 1,2-DIMETHYL-	9.89	4600	J
12.	827-54-3	NAPHTHALENE, 2-ETHENYL-	9.99	1500	J
13.	573-98-8	NAPHTHALENE, 1,2-DIMETHYL-	10.10	2300	J
14.	2131-42-2	NAPHTHALENE, 1,4,6-TRIMETHYL	11.02	1100	J
15.		UNKNOWN TRIMETHYL NAPHTHALEN	11.19	1100	J
16.		UNK. POLYCYCLIC AROMATIC	11.39	1600	J
17.		UNKNOWN	11.77	850	J
18.		UNK. POLYCYCLIC AROMATIC	11.99	4400	J
19.	1430-97-3	9H-FLUORENE, 2-METHYL-	12.67	3800	J
20.		UNK. POLYCYCLIC AROMATIC	12.74	2900	J
21.		UNK. POLYCYCLIC AROMATIC	13.04	2100	J
22.	132-65-0	DIBENZOTHIOPHENE	13.20	5000	J
23.		UNKNOWN	14.07	3900	J
24.		UNK. POLYCYCLIC AROMATIC	14.49	8300	J
25.		UNKNOWN SUB PHENANTHRENE	14.55	2300	J
26.		UNK. POLYCYCLIC AROMATIC	14.65	11000	J
27.		UNKNOWN HYDROCARBON	15.02	4300	J
28.		UNK. POLYCYCLIC AROMATIC	16.95	5400	J
29.		UNK. POLYCYCLIC AROMATIC	17.39	3000	J
30.	205-82-3	BENZO[J]FLUORANTHENE	21.80	3000	J

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6507.106.1	DOVER GAS LIGHT	Y / N

SAMPLERS: (Signature) [signature] (Printed) ENID J. SULLIVAN

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	CLP VOA	CLP BNA	TOTAL METALS	BTEX	TRPH *				REMARKS
640 —	8/1/91	0905		✓	MW 6C 30-32'	2	22	23 →							
640 —	8/1/91	1020		✓	MW 6C 50-52	2	24	25 →							
640 —	8/1/91	0945		✓	MW 6C 45-47	2	20	21 →							
640 —	8/1/91	1700		✓	MW 6C Drill Fluid	2			26	27					Disposal Spl.

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature] (Printed)	8/1/91 1900	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		* DO CHEAPEST METHOD - NOT CALIF.

Distribut[illegible]inal Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Fi[illegible] (pink).

AR301559

ANALYTICAL DATA PACKAGE
Metals Section

CLIENT: VERSAR DIV 61
SITE: DOVER GAS LIGHT
CODE-BATCH: VERS DOV - 12
CONTROL #: 5263
VERSAR #: 6527.106.1
DATE: 04-SEP-91

TRACE METALS SECTION
ANALYSIS NARRATIVE

Versar Code: VERS DOV - 12
Client:Versar Div 61
Control Number: 5263

Date: September 4, 1991
Site: Dover Gas Light

This report contains metals analytical results for three soil samples which were received at Versar Laboratories, Inc. on August 5, 1991. The samples were analyzed for the following elements:

Aluminum	Antimony	Arsenic	Barium
Beryllium	Cadmium	Calcium	Chromium
Cobalt	Copper	Iron	Lead
Magnesium	Manganese	Mercury	Nickel
Potassium	Selenium	Silver	Sodium
Thallium	Vanadium	Zinc	

Analytical Methods

The samples were prepared and analyzed by the US EPA Contract Laboratory Program (CLP) Statement of Work (SOW) 7/87. The following is a summary of the methods:

Soils Preparation	Method: Exhibit D, Sec. III Part B, D-4
ICP Analysis	Method: 200.7 CLP-M
GFAA Analysis	Method:
Arsenic	206.3 CLP-M
Lead	239.2 CLP-M
Selenium	270.2 CLP-M
Thallium	279.2 CLP-M
Mercury - Soil Preparation/Analysis	Method: 245.5 CLP-M
Percent Solids Determination	Method: Exhibit D, Sec. IV Part F, D-84

Analytical Results

The report is divided into several sections. A description of each part and any comments concerning them is provided below:

Analytical Results (continued)

Cover Page	-	Cross reference list of the laboratory sample number and the field sample number.
Form I	-	Summary of results for each sample.
Form IIA	-	Initial and continuing calibration verification results. All ICP and graphite furnace atomic absorption (GFAA) recoveries were within the 10 % control limits. All cold vapor atomic absorption (CVAA) recoveries were within the 20 % control limits.
Form IIB	-	CRDL standard results for ICP and GFAA.
Form III	-	Initial and continuing calibration blanks and preparation blank results. All blanks were less than the contract required detection limit (CRDL).
Form IV	-	ICP interference check sample. All recoveries were within the 20 % control limits.
Form VII	-	Laboratory control sample results. All elements were within their specified control limits for the solid LCS.
Form VIII	-	Standard addition results.
Form X	-	Holding times. All analyses for metals were performed within their specified holding times.
Form XI	-	Instrument detection limits.
Form XII	-	ICP interelement correction factors.
Form XIII	-	ICP linear ranges.
Raw Data	-	Copies of all raw data associated with this report.

General Discussion

There were no preparation or analysis problems associated with this batch.

If there are any questions concerning this report, please contact Larry Pollack at (703) 750-3000.

Prepared by: Austina C. Thomas

Reviewed by: Louise C. Umbach

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: VERSAR_LABORATORIES_INC._ Contract: _____

Lab Code: VERSAR Case No.: 5263_ SAS No.: _____ SDG No.: 64021_

SOW No.: 7/87_

EPA Sample No.	Lab Sample ID.
64021	57129
64023	57130
64025	57131

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Louise C. Kimbrell

Date: 09/04/91

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

64023

Lab Name: VERSAR_LABORATORIES_INC._ Contract: _____

Lab Code: VERSAR Case No.: 5263_ SAS No.: _____ SDG No.: 64021_

Matrix (soil/water): SOIL_ Lab Sample ID: 57130_____

Level (low/med): LOW__ Date Received: 08/05/91

% Solids: _84.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	757_	_		P_
7440-36-0	Antimony_	3.8_	U		P_
7440-38-2	Arsenic__	9.6_	_	+	F_
7440-39-3	Barium___	3.7_	B		P_
7440-41-7	Beryllium	0.44_	U		P_
7440-43-9	Cadmium__	1.1_	U		P_
7440-70-2	Calcium__	80.7_	B		P_
7440-47-3	Chromium_	16.6_	_		P_
7440-48-4	Cobalt___	1.1_	U		P_
7440-50-8	Copper___	2.4_	B		P_
7439-89-6	Iron____	6270_	_		P_
7439-92-1	Lead____	3.3_	_		F_
7439-95-4	Magnesium	76.5_	B		P_
7439-96-5	Manganese	0.44_	U		P_
7439-97-6	Mercury__	0.11_	U		CV
7440-02-0	Nickel___	2.7_	B		P_
7440-09-7	Potassium	248_	B		P_
7782-49-2	Selenium_	0.82_	B	W	F_
7440-22-4	Silver___	0.54_	B		P_
7440-23-5	Sodium___	24.3_	B		P_
7440-28-0	Thallium_	0.22_	U		F_
7440-62-2	Vanadium_	7.1_	B		P_
7440-66-6	Zinc____	4.9_	_		P_
	Cyanide__		_		NR

Color Before: YELLOW___ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:

AR301564

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

64025

Lab Name: VERSAR LABORATORIES INC. Contract: _____

Lab Code: VERSAR Case No.: 5263 SAS No.: _____ SDG No.: 64021

Matrix (soil/water): SOIL Lab Sample ID: 57131

Level (low/med): LOW Date Received: 08/05/91

% Solids: 81.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3110			P
7440-36-0	Antimony	4.0	U		P
7440-38-2	Arsenic	11.1		+	F
7440-39-3	Barium	10.4	B		P
7440-41-7	Beryllium	0.47	U		P
7440-43-9	Cadmium	1.2	U		P
7440-70-2	Calcium	568	B		P
7440-47-3	Chromium	31.8			P
7440-48-4	Cobalt	8.0	B		P
7440-50-8	Copper	5.3	B		P
7439-89-6	Iron	12800			P
7439-92-1	Lead	7.4			F
7439-95-4	Magnesium	296	B		P
7439-96-5	Manganese	24.5			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	15.7			P
7440-09-7	Potassium	664	B		P
7782-49-2	Selenium	0.91	B	S	F
7440-22-4	Silver	0.47	U		P
7440-23-5	Sodium	47.8	B		P
7440-28-0	Thallium	0.24	U		F
7440-62-2	Vanadium	25.5			P
7440-66-6	Zinc	49.5			P
	Cyanide				NR

Color Before: BLACK Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: CLEAR Artifacts: ___

Comments:

AR301565

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

64021

Lab Name: VERSAR_LABORATORIES_INC._ Contract: _____

Lab Code: VERSAR Case No.: 5263_ SAS No.: _____ SDG No.: 64021_

Matrix (soil/water): SOIL_ Lab Sample ID: 57129_____

Level (low/med): LOW__ Date Received: 08/05/91

% Solids: _60.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	1330_	_	_____	P_
7440-36-0	Antimony_	4.8_	U	_____	P_
7440-38-2	Arsenic__	0.94_	B	_____	F_
7440-39-3	Barium___	6.0_	B	_____	P_
7440-41-7	Beryllium	0.57_	U	_____	P_
7440-43-9	Cadmium__	1.4_	U	_____	P_
7440-70-2	Calcium__	117_	B	_____	P_
7440-47-3	Chromium_	7.6_		_____	P_
7440-48-4	Cobalt___	1.4_	U	_____	P_
7440-50-8	Copper___	1.4_	U	_____	P_
7439-89-6	Iron_____	6610_	_	_____	P_
7439-92-1	Lead_____	3.0_	_	_____	F_
7439-95-4	Magnesium	119_	B	_____	P_
7439-96-5	Manganese	14.8_	_	_____	P_
7439-97-6	Mercury__	0.15_	U	_____	CV
7440-02-0	Nickel___	2.3_	U	_____	P_
7440-09-7	Potassium	144_	B	_____	P_
7782-49-2	Selenium_	0.85_	U	_____	F_
7440-22-4	Silver___	0.57_	U	_____	P_
7440-23-5	Sodium___	35.5_	B	_____	P_
7440-28-0	Thallium_	0.28_	U	_____	F_
7440-62-2	Vanadium_	9.3_	B	_____	P_
7440-66-6	Zinc_____	5.2_	B	_____	P_
_____	Cyanide__	_____	_	_____	NR

Color Before: YELLOW___ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:

FORM I - IN 7/87

AR301566

Versar INC.

BATCH 13

MONITORING WELL MW13B SOIL DATA
VOLATILE AND SEMIVOLATILE ORGANIC COMPOUNDS
AND
TOTAL METALS

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.106	DOVER GAS LIGHT	Y / N

SAMPLERS: (Signature) [signature] (Printed) ENID J. SULLIVAN

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA - CLP	BNA - CLP	TOTAL METALS						REMARKS
640 —	8/7/91	1105		✓	MW 13 B 35-37'	3	28	29	30						
640 —	8/7/91	1125		✓	MW 13 B 45-47'	2	31	32	→						get what you can from given volume

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/8/91 0945				
(Printed)		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
				Call Jeri Sullivan @ 346 or Larry Pollock if problems.
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301568

VOLATILE ANALYSIS
ANALYTICAL DATA PACKAGE

CLIENT: Versar Div 61
SITE: DOVER GAS LIGHT
PROJECT: 420.1-Batch #13
CONTROL: 5289
DATE: 09/24/91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

Versar INC.

DELIVERABLES INDEX -- VOA ANALYSES ONLY

I. CASE NARRATIVE

A. The narrative contains: case and contract numbers, summary of QC analyses, discussion of any analytical problems, and documentation of all corrective actions.
B. Copy of Sample Traffic Reports.

II. QC SUMMARY

A. Surrogate Percent Recovery Summary (Form II)
B. Matrix Spike/Matrix Spike Duplicate Summary (Form III)
C. Method Blank Summary (Form IV)
D. GC/MS Tuning and Calibration Standard (Form V)

III. SAMPLE DATA

A. Organic Analysis Data Sheet (Form I)
B. Tentatively Identified Compounds (TIC)
C. Raw Data for the Volatile Sample Fraction
   1. Reconstructed Ion Chromatogram (s)
   2. Quantitation Report
   3. Raw HSL mass spectra and background subtract HSL mass spectra with lab generated HSL standard spectra
   4. GC/MS library search spectra for each TIC

Note: Samples arranged in alpha-numeric sequence.

IV. STANDARDS DATA

A. Initial Calibration Data (Form VI) in order if more than one instrument is used.
B. VOA standard(s) reconstructed ion chromatograms and quantitation reports for the initial calibration(s).
C. Continuing Calibration (Form VII) in order by instrument.
D. VOA standard(s) reconstructed ion chromatograms and quantitation reports for the continuing calibration(s).
E. Internal Standard Data (Form VIII).

V. RAW QC DATA

A. BFB (For each 12-hour period, for each GC/MS system)
   1. Bar graph spectrum
   2. Mass listing

V. RAW QC DATA (CONT'D)

B. Reagent Blank Data
   1. Organic Analysis Data Sheet (Form I)
   2. Tentatively Identified Compounds (TIC)
   3. Raw Data
      a. Reconstructed ion chromatogram(s) and quantitation report(s).
      b. HSL spectra with lab generated standard
         i. Raw HSL compound spectra
         ii. Enhanced or background subtracted spectra
         iii. Laboratory generated HSL standard spectra
         iv. GC/MS library search spectra for each TIC
         v. Quantitation/calculation of each TIC concentration

C. Matrix Spike/Matrix Spike Duplicate Data
   1. Tabulated results (Form I) of non-spiked HSL compounds.
   2. Reconstructed ion chromatograms and quantitation reports.

VI. SAMPLE PREPARATION

A. Parameter Request Sheet
B. Sample Receiving Log-In Information
C. VOA Sample Comments
D. Instrument Injection Logs
E. Field Chain of Custody
F. Copy(s) of Federal Express Airbills

I. NARRATIVE

II. QC SUMMARY

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

September 23, 1991

Narrative
Versar Div 61 - DOVER GAS LIGHT
GC/MS Organic Analysis - EPA CLP Protocol
Versar Project 420.1 - Batch 13/Control 5289

This report contains the analytical data for the volatile (VOA) and semivolatile (BNA) organic analysis of two (2) soil samples. The samples listed below arrived at Versar on August 8, 1991. Sample extractions and analyses were performed using the EPA CLP protocol. Results for additional analytical parameters are provided separately.

SAMPLE LIST

VOA	BNA
64028	64029
64031	64032

//

GC/MS instrument calibrations using BFB and DFTPP met requirements for volatile and semivolatile analyses, respectively. SPCC and CCC criteria were met for the volatile and semivolatile initial calibration curves and the continuing calibration standards. All volatile and semivolatile surrogate standard recovery values met specified requirements for the soil matrix. Internal standard area abundance values and associated relative retention times were within specified QC windows for both volatile and semivolatile analyses. All GC/MS analyses occurred during the twelve hour period following daily instrument calibration. Sample extraction and analysis for volatile and semivolatile organic analyses were completed prior to expiration of sample holding times.

Few volatile and no semivolatile organic compounds were detected in the field samples. The samples did not require dilution prior to instrumental analyses. Gel Permeation Chromatography (GPC) clean-up procedures were used to minimize potential high molecular weight interferences in the semivolatile fraction. Nontarget compounds have been tentatively identified using the EPA/NBS Mass Spectral Database Library.

Detection limits and reported concentrations of volatile and semivolatile organic compounds detected in the soil samples are reported on a "dry weight" basis which accounts for the moisture content of each soil.

Definitions of data qualifier flags used on the individual data summary pages are provided in the listing which follows this case narrative.

Narrative - Page 2
DOVER GAS LIGHT
VLI CNTL 5289

Please contact me should you have any questions or require additional information pertaining to the GC/MS volatile and semi-volatile organic organic analyses of these samples.

Data Release Approved By:

Lawrence P. Pollack
Project Coordinator
Laboratory Operations

Narrative Reviewed By:

M. A. Templeton

Mary Anne Templeton
GC/MS Data QA Assistant

Data Qualifier Flags

J — For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B — This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

u — This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T — This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E — This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D — This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

Y — This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

Z — This flag is used when benzo(B)fluoranthene and benzo(K)fluoranthene cannot be quantified due to lack of chromatographic separation. The result listed under benzo(B)fluoranthene is the average of both compounds.

****** Above flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

BRL — This flag is used on the quantitation reports to eliminate compounds below a reasonable confidence limit. All compounds flagged "BRL" are less than the CRQL.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64028

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5289 SAS No.: _____ SDG No.: 13

Matrix: (soil/water) SOIL Lab Sample ID: 57798A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y9604

Level: (low/med) LOW Date Received: 08/08/91

% Moisture: not dec. 16 Date Analyzed: 08/16/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	16	X
75-15-0	Carbon disulfide	38	
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

64028

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5289 SAS No.: _____ SDG No.: 13

Matrix: (soil/water) SOIL Lab Sample ID: 57798A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y9604

Level: (low/med) LOW Date Received: 08/08/91

% Moisture: not dec. 16 Date Analyzed: 08/16/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.99	260	J
2.	UNKNOWN HYDROCARBON	10.20	49	J
3.	UNKNOWN	15.37	6.0	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64031

Name: VERSAR INC. Contract: _____

Code: VERSAR Case No.: 5289 SAS No.: _____ SDG No.: 13

Matrix: (soil/water) SOIL Lab Sample ID: 57799A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y9605

Level: (low/med) LOW Date Received: 08/08/91

% Moisture: not dec. 14 Date Analyzed: 08/16/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

64031

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5289 SAS No.: _____ SDG No.: 13

Matrix: (soil/water) SOIL Lab Sample ID: 57799A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y9605

Level: (low/med) LOW Date Received: 08/08/91

% Moisture: not dec. 14 Date Analyzed: 08/16/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 496-11-7	1H-INDENE, 2,3-DIHYDRO-	14.77	9.3	J

FORM I VOA-TIC 1/87 Rev.

AR301579

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	PARAMETERS	INDUSTRIAL HYGIENE SAMPLE (Y / N)
6527.106	DOVER GAS LIGHT		

SAMPLERS: (Signature) [signature] (Printed) ENID T. SULLIVAN

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA - CLP	BNA - CLP	TOTAL METALS						REMARKS
640 —	8/7/91	1105		✓	MW 13 B 35-37'	3	28	29	30						
640 —	8/7/91	1125		✓	MW 13 B 45-47'	2	31	32	→						get what you can from given volume

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature] (Printed)	8/8/91 0945	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		Call Jeri Sullivan @ 346 or Larry Pollack if problems.

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301580

SEMIVOLATILE ANALYSIS
ANALYTICAL DATA PACKAGE

CLIENT: Versar Div 61
SITE: DOVER GAS LIGHT
PROJECT: 420.1-Batch #13
CONTROL: 5289
DATE: 09/24/91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

Versar INC.

DELIVERABLES INDEX -- BNA ANALYSES ONLY

I. CASE NARRATIVE: Narrative proceeds Volatile Organic data.

II. QC SUMMARY

A. Surrogate Percent Recovery Summary (Form II)
B. Matrix Spike/Matrix Spike Duplicate Summary (Form III)
C. Method Blank Summary (Form IV)
D. GC/MS Tuning and Calibration Standard (Form V)

III. SAMPLE DATA

A. Organic Analysis Data Sheet (Form I)
B. Tentatively Identified Compounds (TIC)
C. Raw Data for the Semivolatile Sample Fraction
   1. Reconstruction Ion Chromatogram(s)
   2. Quantitation report
   3. Raw HSL mass spectra and background subtracted HSL mass spectra with lab generated HSL standard spectra
   4. GC/MS library search spectra for each TIC

Note: Samples arranged in alpha-numeric sequence.

IV. STANDARDS DATA

A. Initial Calibration Data (Form VI) in order if more than one instrument is used.
B. BNA standard(s) reconstructed ion chromatograms and quantitation reports for the initial calibration(s).
C. Continuing Calibration (Form VII) in order by instrument.
D. BNA standard(s) reconstructed ion chromatograms and quantitation reports for the continuing calibration(s).
E. Internal Standard Data (Form VIII).

V. RAW QC DATA

A. DFTPP (For each 12-hour period, for each GC/MS system)
   1. Bar graph spectrum
   2. Mass listing
B. Reagent Blank Data
   1. Organic Analysis Data Sheet (Form I),
   2. Tentatively Identified Compounds (TIC)
   3. Raw Data
      a. Reconstructed ion chromatogram(s) and quantitation report(s).
      b. HSL spectra with lab generated standard.
         i. Raw HSL compound spectra
         ii. Enhanced or background subtracted spectra
         iii. Laboratory generated HSL standard spectra
         iv. GC/MS library search spectra for each TIC
         v. Quantitation/calculation of each TIC concentration

Versar INC.

V. RAW QC DATA (CONT'D)

C. Matrix Spike/Matrix Spike Duplicate Data
   1. Tabulated results (Form I) of non-spiked HSL compounds.
   2. Reconstructed ion chromatograms and quantitation reports.

VI. SAMPLE PREPARATION

A. Parameter Request Sheet
B. GC/FID Screening Data (soils only)
C. Extraction Sample Comments
D. GC/MS Analyst Comments
E. Extraction Chronicle and Worksheets
F. pH Results
G. Dry Weight Factor (soils only)
H. Dilution Factor Worksheet
I. Instrument Injection Logs

I. NARRATIVE

II. QC SUMMARY

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

September 23, 1991

Narrative
Versar Div 61 - DOVER GAS LIGHT
GC/MS Organic Analysis - EPA CLP Protocol
Versar Project 420.1 - Batch 13/Control 5289

This report contains the analytical data for the volatile (VOA) and semivolatile (BNA) organic analysis of two (2) soil samples. The samples listed below arrived at Versar on August 8, 1991. Sample extractions and analyses were performed using the EPA CLP protocol. Results for additional analytical parameters are provided separately.

SAMPLE LIST

VOA	BNA
64028	64029
64031	64032

//

GC/MS instrument calibrations using BFB and DFTPP met requirements for volatile and semivolatile analyses, respectively. SPCC and CCC criteria were met for the volatile and semivolatile initial calibration curves and the continuing calibration standards. All volatile and semivolatile surrogate standard recovery values met specified requirements for the soil matrix. Internal standard area abundance values and associated relative retention times were within specified QC windows for both volatile and semivolatile analyses. All GC/MS analyses occurred during the twelve hour period following daily instrument calibration. Sample extraction and analysis for volatile and semivolatile organic analyses were completed prior to expiration of sample holding times.

Few volatile and no semivolatile organic compounds were detected in the field samples. The samples did not require dilution prior to instrumental analyses. Gel Permeation Chromatography (GPC) clean-up procedures were used to minimize potential high molecular weight interferences in the semivolatile fraction. Nontarget compounds have been tentatively identified using the EPA/NBS Mass Spectral Database Library.

Detection limits and reported concentrations of volatile and semivolatile organic compounds detected in the soil samples are reported on a "dry weight" basis which accounts for the moisture content of each soil.

Definitions of data qualifier flags used on the individual data summary pages are provided in the listing which follows this case narrative.

Narrative - Page 2
DOVER GAS LIGHT
VLI CNTL 5289

Please contact me should you have any questions or require additional information pertaining to the GC/MS volatile and semi-volatile organic organic analyses of these samples.

Data Release Approved By:

Lawrence P. Pollack
Project Coordinator
Laboratory Operations

Narrative Reviewed By:

M. A. Templeton

Mary Anne Templeton
GC/MS Data QA Assistant

Data Qualifier Flags

J — For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B — This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

u — This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T — This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E — This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D — This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

Y — This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

Z — This flag is used when benzo(B)fluoranthene and benzo(K)fluoranthene cannot be quantified due to lack of chromatographic separation. The result listed under benzo(B)fluoranthene is the average of both compounds.

****** Above flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

BRL — This flag is used on the quantitation reports to eliminate compounds below a reasonable confidence limit. All compounds flagged "BRL" are less than the CRQL.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64029

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5289A SAS No.: _____ SDG No.: B13

Matrix: (soil/water) SOIL Lab Sample ID: 57800

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z1227

Level: (low/med) LOW Date Received: 08/08/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 08/12/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/14/91

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: 0.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	bis(2-Chloroisopropyl)ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64029

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5289A SAS No.: _____ SDG No.: B13

Matrix: (soil/water) SOIL Lab Sample ID: 57800

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z1227

Level: (low/med) LOW Date Received: 08/08/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 08/12/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/14/91

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: 0.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenz(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

64029

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5289A SAS No.: _____ SDG No.: B13

Matrix: (soil/water) SOIL Lab Sample ID: 57800

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z1227

Level: (low/med) LOW Date Received: 08/08/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 08/12/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/14/91

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: 0.50

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64032

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5289A SAS No.: _____ SDG No.: B13

Matrix: (soil/water) SOIL Lab Sample ID: 57801

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z1228

Level: (low/med) LOW Date Received: 08/08/91

% Moisture: not dec. 14 dec. ____ Date Extracted: 08/12/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/14/91

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: 0.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
100-51-6	Benzyl alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	bis(2-Chloroisopropyl)ether	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

64032

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5289A SAS No.: _____ SDG No.: B13

Matrix: (soil/water) SOIL Lab Sample ID: 57801

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z1228

Level: (low/med) LOW Date Received: 08/08/91

% Moisture: not dec. 14 dec. ____ Date Extracted: 08/12/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/14/91

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: 0.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
84-74-2	Di-n-butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	760	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	380	U
117-84-0	Di-n-octyl phthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenz(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

64032

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 5289A SAS No.: _____ SDG No.: B13

Matrix: (soil/water) SOIL Lab Sample ID: 57801

Sample wt/vol: 30.1 (g/mL) G Lab File ID: Z1228

Level: (low/med) LOW Date Received: 08/08/91

% Moisture: not dec. 14 dec. ____ Date Extracted: 08/12/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/14/91

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: 0.50

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.106	DOVER GAS LIGHT	Y / N

SAMPLERS: (Signature) [signature] (Printed) ENID J. SULLIVAN

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA - CLP	BNA - CLP	TOTAL METALS						REMARKS
640 —	8/7/91	1105		✓	MW 13 B 35-37'	3	28	29	30						
640 —	8/7/91	1125		✓	MW 13 B 45-47'	2	31	32	→						get what you can from given volume

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/8/91 0945				
(Printed)		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
				Call Jeri Sullivan @ 346 or Larry Pollack if problems.
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301594

Versar Laboratories INC

ANALYTICAL DATA PACKAGE
Metals Section

CLIENT: VERSAR DIV 61
SITE: DOVER GAS LIGHT
CODE-BATCH: VERS DOV - 13
CONTROL #: 5289
VERSAR #: 6527.106
DATE: 16-SEP-91

6850 Versar Center • P. O. Box 1549 • Springfield, Virginia 22151 • Telephone: (703) 750-3000 • 1-800-283-7727

TRACE METALS SECTION
ANALYSIS NARRATIVE

Versar Code: VERS DOV - 13
Client: Versar Div 61
Control Number: 5289

Date: September 19, 1991
Site: Dover Gas Light

This report contains metals analytical results for two soil samples which were received at Versar Laboratories, Inc. on August 8, 1991. The samples were analyzed for the following elements:

Aluminum	Antimony	Arsenic	Barium
Beryllium	Cadmium	Calcium	Chromium
Cobalt	Copper	Iron	Lead
Magnesium	Manganese	Mercury	Nickel
Potassium	Selenium	Silver	Sodium
Thallium	Vanadium	Zinc	

Analytical Methods

The samples were prepared and analyzed by the US EPA Contract Laboratory Program (CLP) Statement of Work (SOW) 7/87. The following is a summary of the methods:

Soil Preparation	Method: Exhibit D, Sec. III Part B, D-4
ICP Analysis	Method: 200.7 CLP-M
GFAA Analysis	Method:
Arsenic	206.3 CLP-M
Lead	239.2 CLP-M
Selenium	270.2 CLP-M
Thallium	279.2 CLP-M
Mercury - Soil Preparation/Analysis	Method: 245.5 CLP-M
Percent Solids Determination	Method: Exhibit D, Sec. IV Part F, D-84

Analytical Results

The report is divided into several sections. A description of each part and any comments concerning them is provided below:

Cover Page	-	Cross reference list of the laboratory sample number and the field sample number.
Form I	-	Summary of results for each sample.
Form IIA	-	Initial and continuing calibration verification results. All ICP and graphite furnace atomic absorption (GFAA) recoveries were within the 10 % control limits. All cold vapor atomic absorption (CVAA) recoveries were within the 20 % control limits.
Form IIB	-	CRDL standard results for ICP and GFAA.
Form III	-	Initial and continuing calibration blanks and preparation blank results. All blanks were less than the contract required detection limit (CRDL).
Form IV	-	ICP interference check sample. All recoveries were within the 20 % control limits.
Form VII	-	Laboratory control sample results. All elements were within their specified control limits for the solid LCS.
Form VIII	-	Standard addition results.
Form X	-	Holding times. All analyses for metals were performed within their specified holding times.
Form XI	-	Instrument detection limits.
Form XII	-	ICP interelement correction factors.
Form XIII	-	ICP linear ranges.
Raw Data	-	Copies of all raw data associated with this report.

General Discussion

There were no preparation or analysis problems associated with these samples. If there are any questions concerning this report, please contact Larry Pollack at (703) 750-3000.

Prepared by: Lisa S. Lee

Reviewed by: Austina A. Thomas

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Client : VERSAR_DIV_61_____ Site: DOVER_GAS_

Lab Name: VERSAR Control No.: 5289_ Code: VERS_DOV Batch: 13____

SOW No.: 7/87_

EPA Sample No.	Lab Sample ID.
__64030___	57802_____
__64032___	57801_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: [signature]

Date: 9-16-91

COVER PAGE - IN

AR301599

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

64030

Client : VERSAR_DIV_61 Site: DOVER_GAS_LIGHT

Lab Name: VERSAR Control No.: 5289 Code: VERS_DOV Batch: 13

Matrix (soil/water): SOIL Lab Sample ID: 57802

Level (low/med): LOW Date Received: 08/08/91

% Solids: 100.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1270			P
7440-36-0	Antimony	3.3	U		P
7440-38-2	Arsenic	12.0			F
7440-39-3	Barium	3.0	B		P
7440-41-7	Beryllium	0.38	U		P
7440-43-9	Cadmium	0.96	U		P
7440-70-2	Calcium	232	B		P
7440-47-3	Chromium	8.9			P
7440-48-4	Cobalt	2.3	B		P
7440-50-8	Copper	2.9	B		P
7439-89-6	Iron	5490			P
7439-92-1	Lead	2.4			F
7439-95-4	Magnesium	288	B		P
7439-96-5	Manganese	12.4			P
7439-97-6	Mercury	0.09	U		F
7440-02-0	Nickel	6.8	B		P
7440-09-7	Potassium	367	B		P
7782-49-2	Selenium	1.5			F
7440-22-4	Silver	0.38	U		P
7440-23-5	Sodium	39.4	B		P
7440-28-0	Thallium	0.75	B		F
7440-62-2	Vanadium	10.6			P
7440-66-6	Zinc	15.7			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
TOTAL SOLID WAS NOT REQUIRED FOR THIS SAMPLE; THUS 100% SOLID WAS ASSUMED AND THE SAMPLE WAS REPORTED IN MG/KG WET WEIGHT.

FORM I - IN

AR301600

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

64032

Client : VERSAR_DIV_61 Site: DOVER_GAS_LIGHT

Lab Name: VERSAR Control No.: 5289 Code: VERS_DOV Batch: 13

Matrix (soil/water): SOIL Lab Sample ID: 57801

Level (low/med): LOW Date Received: 08/08/91

% Solids: 86.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	334			P
7440-36-0	Antimony	3.3	U		P
7440-38-2	Arsenic	0.61	B	S	F
7440-39-3	Barium	3.2	B		P
7440-41-7	Beryllium	0.39	U		P
7440-43-9	Cadmium	1.1			P
7440-70-2	Calcium	61.9	B		P
7440-47-3	Chromium	5.8			P
7440-48-4	Cobalt	0.97	U		P
7440-50-8	Copper	1.4	B		P
7439-89-6	Iron	2230			P
7439-92-1	Lead	1.0			F
7439-95-4	Magnesium	49.4	B		P
7439-96-5	Manganese	9.3			P
7439-97-6	Mercury	0.12	U		F
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	116	B		P
7782-49-2	Selenium	0.77	U		F
7440-22-4	Silver	0.39	U		P
7440-23-5	Sodium	43.7	B		P
7440-28-0	Thallium	0.19	U		F
7440-62-2	Vanadium	1.6	B		P
7440-66-6	Zinc	3.4	B		P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

AR301601

Versar INC.

BATCH 14

GROUND-WATER DATA
VOLATILE AND SEMIVOLATILE ORGANIC COMPOUNDS

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.107	Dover Gas Light	Y / N

SAMPLERS: (Signature) John A Glover (Printed) John A Glover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	BNA	TOTAL DISSOLVED METALS						REMARKS
✓ x80013	8/13/91	1510		x	MW7C	3	x								
✓ x80085		1510		x	MW7C	2		x							
✓ 80049		1510		x	MW7C	2			x						DISSOLVED METALS UNFILTERED UNPRESERVED
✓ x 80012		1600		x	MW7A	3	x								
✓ x 80084		1600		x	MW7A	2		x							DISSOLVED METALS UNFILTERED UNPRESERVED
✓ 80048		1600		x	MW7A	2			x						↓
✓ x 80009		1155		x	MW10C	3	x								
✓ x 80081		1155		x	MW10C	2		x							
✓ 80045		1155		x	MW10C	2			x						DISSOLVED METALS UNFILTERED UNPRESER
✓ x 80106	↓	0700		x	Trip Blank	3	x								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John A Glover	8/13/91 ~~1837~~ 1830				
(Printed) John A Glover		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
				TOTAL METALS PRESERVED HNO_3 DISSOLVED METALS UNFILTERED UNPRESERVED VOC PRESERVED SODIUM BISULFATE.
(Printed)		(Printed)		

AR301603

Distrib[illegible] Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinato[illegible] Files (pink).

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
6527.107	Dover Gas Light

INDUSTRIAL HYGIENE SAMPLE: Y / N

SAMPLERS: (Signature) Keith Billy, John A Glover

(Printed) Keith Billy, John A Glover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	BNA							REMARKS
80100	8/14/91	1200		X	MW2A	2		X							
80028		↓		X	MW2A	3	X								
80101		1100		X	MW2B	2		X							
80029		↓		X	MW2B	3	X								
80102		1135		X	MW2C	2		X							
80030		↓		X	MW2C	3	X								
80090		1710		X	MW5A	4		X							
80018		↓		X	MW5A	3	X								
80091		1820		X	MW5B	2		X							
80019		↓		X	MW5B	3	X								
80020		1810		X	MW5C	3	X								
80021	↓	1710		X	MW5D	3	X								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John A Glover	8/16/91 1845				
(Printed) John A Glover		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		VOC Preserved NaHSO4·H2O

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301604

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	PARAMETERS	INDUSTRIAL HYGIENE SAMPLE
6527.107	Dover Gas Light		Y / N

SAMPLERS: *(Signature)* Keith Billy John A Hover

(Printed) Keith Billy John A Hover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Dissolved Metals								REMARKS
80066	8/14/91	1135		X	MW2C	1	X								
80065	↓	1100		X	MW2B	1	X								
80064	↓	1200		X	MW2A	1	X								

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
John A Hover	8/16/91 1845				
(Printed) John A Hover		(Printed)	(Printed)		(Printed)

Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks
(Printed)		(Printed)		Dissolved Metal filtered & Preserved

Distri[illegible] Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinato[illegible] Files (pink).

AR301605

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.107	Dover Gas Light	Y / N

SAMPLERS: (Signature) Keith Billy, John A Glover (Printed) Keith Billy, John A Glover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	Total Metals							REMARKS
80112	8/15/91	1130		X	Boiler Rinsate	1		X							
✓ 80110	↓	↓		X	Boiler Rinsate	3	X								
80109	8/14/91	1745		X	MW12C	1		X							
✓ 80107	↓	↓		X	MW12C	3	X								
80038	8/15/91	0815		X	MW12B	1		X							
✓ 80002	↓	↓		X	MW12B	3	X								
80037	8/15/91 ~~8/15/91~~	0850		X	MW12A	1		X							
✓ 80001	↓	↓		X	MW12A	3	X								
80044	8/14/91	0900		X	MW10A	1		X							
✓ 80008	↓	↓		X	MW10A	3	X								
80115	8/15/91	1300		X	GE DUPLICATE AT MW6B	1		X							
✓ 80113	↓	↓		X	GE DUPLICATE AT MW6B	3	X								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John A Glover	8/16/91 ~~8/15/91~~ 1845				
(Printed) John A Glover		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		VOC Preserved $Na_2HSO_4 \cdot H_2O$ T. Metals HNO_3

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301606

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.107	Dover Gas Light	Y / N

SAMPLERS: *(Signature)* Keith Billy, John A Glover (Printed) Keith Billy, John A Glover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Dissolved Metals								REMARKS
80112	8/15/91	1130		X	Bailer Rinsate	1	X								
80109	~~8/14/91~~	1745		X	MW12C	1	X								
80038	8/15/91	0815		X	MW12B	1	X								
80037	8/15/91	0850		X	MW12A	1	X								
80044	8/14/91	0900		X	MW10A	1	X								
80115	8/15/91 ~~1300~~	1300		X	GE DUPLICATE AT MW6B	1	X								
80053	8/15/91	1130		X	MW6C	1	X								
80052	8/15/91	1300		X	MW6B	1	X								
80057	8/14/91	1745		X	MW5D	1	X								
80056		1810		X	MW5C	1	X								
80055		1820		X	MW5B	1	X								
80054		1710		X	MW5A	1	X								

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
John A Glover	8/16/91 1875				
(Printed) John A Glover		(Printed)	(Printed)		(Printed)

Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks
(Printed)		(Printed)		UNLESS NOTED ALL DISSOLVED METALS FILTERED & PRESERVED.

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Files (pink).

AR301607

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.107	Dover Gas Light	Y / N

SAMPLERS: (Signature) Keith Billy, John A Glover (Printed) Keith Billy, John A Glover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	Total Metals							REMARKS
80053	8/15/91	1130		X	MW6C	1		X*							
✓ 80017		1130		X	MW6C	3	X								
80052		1300		X	MW6B	1		X*							
✓ 80016		1300		X	MW6B	3	X								
80057	8/14/91	1745		X	MW5D	1		X*							
80056		1810		X	MW5C	1		X*							
80055		1820		X	MW5B	1		X*							
80054		1710		X	MW5A	1		X*							
80066		1135		X	MW2C	1		X*							
80065		1100		X	MW2B	1		X*							
80064		1200		X	MW2A	1		X*							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John A Glover	8/16/91 15:15				
(Printed) John A Glover		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		VOC Preserved $NaHSO_4 \cdot H_2O$ T. Metals · HNO_3

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301608

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.107	Dover Gas Light	Y / N

SAMPLERS: (Signature) Keith Billy John A Glover (Printed) Keith Billy John A Glover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BNA								REMARKS
✓ 80114	8/15/91	1300		X	GE DUPLICATE AT MW6B	2	X								
✓ 80089	↓	1130		X	MW6C	4	X								
✓ 80088	↓	1300		X	MW6B	2	X								
✓ 80093	8/14/91	1745		X	MW5D	2	X								
✓ 80092	↓	1810		X	MW5C	2	X								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John A Glover	8/16/91 1815				
(Printed) John A Glover		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		

Distrib[illegible] Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinato[illegible] Files (pink).

AR301609

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	PARAMETERS	INDUSTRIAL HYGIENE SAMPLE
6527.107	Dover Gas Light		Y / N

SAMPLERS: (Signature) Keith Billy, John A. Glover (Printed) Keith Billy, John A. Glover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BNA								REMARKS
80080	8/14/91	0900		X	MW10A	2	X								
80073	8/15/91	0850		X	MW12A	4	X								
80074	8/15/91	0815		X	MW12B	2	X								
80108	8/14/91	1745		X	MW12C	2	X								
80111	8/15/91	1130		X	Bailer Rinsate	2	X								
80101	8/14/91	1100		X	MW2B	2	X								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John A. Glover	8/16/91 1745				
(Printed) John A. Glover		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301610

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE Y / N
6527.107	DOVER GAS LIGHT	

SAMPLERS: (Signature) John A Glover, Keith Billy (Printed) John A Glover, Keith Billy

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	BNA	[illegible]	[illegible]					REMARKS
✓ 80022	8/16/91	1230		x	MW 1A	3	x								
✓ 80094		1230		x	MW-1A	2	~~x~~	x							
80058		1230		x	MW-1A	2	~~x~~		x						DISSOLVED METALS UNFILTERED; UNPRESERVED
✓ 80023		1110		x	MW-1B	3	x								
✓ 80095		↓		x	MW-1B	2		x							
80059		↓		x	MW-1B	2			x						
✓ 80024		1150		x	~~MW-1B~~ MW-1C	3	x								
✓ 80096		↓		x	MW-1C	2	~~x~~	x							
80060		↓		x	MW-1C	2		~~x~~	x						
80012		1600		x	MW-11D	2			x						
✓ 80031		0920		x	MW 1A	3	x								
✓ 80103	↓	↓		x	MW-1A	2		x	~~x~~	~~x~~					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John A Glover	8/16/91 1815				
(Printed) John A Glover		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		SAMPLE 80058 DISSOLVED METALS UNFILTERED & UNPRESERVED.

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Files (pink).

AR301611

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE Y / N
6527.107	DOVER GAS LIGHT	

SAMPLERS: (Signature) John Oliver, Keith Billy (Printed) John Oliver, Keith Billy

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	BNA	PARAMETERS						REMARKS
80067	8/16/91	0820		x	MW-1A	2			x*						
80032		0830		x	MW-1B	3	x								
80104				x	MW-1B	2		x							
80068				x	MW-1B	2			x*						
80033		0817		x	MW-1C	3	2								
~~80106~~ 80105 ~~80107~~				x	MW-1C	2		x							
80069				x	MW-1C	2			x*						
80018		1600		x	MW-11E	2			x						

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Keith Billy	8/16/91 1845				
(Printed) Keith Billy		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)		TOTAL & DISSOLVED METALS FILTERED HNO3 DISSOLVED METALS VOC PRESERVED NaHSO4 H2O

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301612

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE Y / N
6527.107	Dover Gas Light	

SAMPLERS: *(Signature)* John O'Hlover, Keith Billy (Printed) John A Hlover, Keith Billy

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	BDA	Metals Total & Dissolved							REMARKS
✓ 80004	8/10/91	1500		x	MW-11A ~~TOH~~	3	x									
✓ 80076				x	MW 11A	2		x								
80040				x	MW 11A	2			x*							
✓ 80005		1520		x	MW-11B	3	x									
✓ 80077				x	~~MW~~ MW 11B	4		x								
80043				x	MW 11B	2			x*							
✓ 80006		1540		x	MW-11C	3	x									
✓ 80078				x	MW-11C	2		x								
80041				x	MW-11C	2			x*							
✓ 80007				x	MW-11D	3	x									
✓ 80116 ~~80101~~				x	MW 11E	3	x									
				x												

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
John O'Hlover	8/10/91 1845				
(Printed) John A Hlover		(Printed)	(Printed)		(Printed)

Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks
				Not preserved Na TOTAL & DISSOLVED METALS [illegible] ~~[illegible]~~ HNO3 & FILTERED
(Printed)		(Printed)		

Distrib[illegible] Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator [illegible]les (pink).

AR301613

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE (Y / N)
6577.107	Dover Gas Light	

SAMPLERS: (Signature) John A Glover (Printed) John A Glover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	BNA	METALS						REMARKS
80124	8/17/91	1600		x	Field Blank	2		x							
80121		1524		x	MW 15 A/B	2		x							
80087		1440		x	MW-6A 1/2	2		x							
80050		1420		x	MW 6A	2			x						
~~800~~ 80125		1600		x	~~MW~~ FIELD BLANK	2			x						
80072		1524		x	MW-15 A/B	2			x						
80051		1440		x	MW-6A 1/2	2			x						
80046		1210		x	MW-9A	2			x						
80122		0700 ~~1600~~		x	~~Field Blank~~ Trip Blank	3	x								
80036		1524		x	MW 15 A/B	3	x								
80123		1600		x	~~MW~~ Field Blank	3	x								
80014		1420		x	MW 6A	3	x								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John A Glover	8/19/91 1215				
(Printed) John A Glover		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[illegible]	8-19-91 1220	Dissolved metals filtered & preserved w/ HNO3
(Printed)		(Printed) [illegible]		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301614

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.107	Dover Gas Light	Y / N

SAMPLERS: (Signature) John A Glover (Printed) John A Glover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	BNA	METALS						REMARKS
80015	8/17/91	~~1420~~ 1440		x	MW-6A 1/2	3	x								
~~30~~ 80063		0716		x	MW-3C	2			x						
80062		0745		x	MW-3B	2			x						
80061		0758		x	MW-3A	2			x						
80027		0716		x	MW-3C										
80083		~~0752~~		x	MW-8A	~~2~~ 4		x							
80098		0745		x	MW-3B	2		x							
80097		0758		x	MW-3A	2		x							
80099		0716		x	MW ~~3~~ 3C	4		x							
80025		0758		x	MW-3A	3	x								
80026		0745		x	MW-3B	3	x								
80011		0850		x	MW-8A	3	x								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John A Glover	8/19/91 ~~1475~~ 1275				
(Printed) John A Glover		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Theresa Ruiter	8/19/91 1220	Dissolved metals filtered & preserved HNO3.
(Printed)		(Printed) Theresa Ruiter		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Files (pink).

AR301615

Versar INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
6527.107	Dover Gas Light	Y / (N)

SAMPLERS: (Signature) John A Glover (Printed) John A Glover

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	BNA	METALS							REMARKS
80082	8/19/91	1210			MW 9A	2		X								
80117		1105			MW ~~13C~~ 13B	2		X								
80079		1110			MW 13A	4		X								
80083		0850			MW 8A	2		X								
80010		1210			MW-9A	3	X									
80034		1110			MW-13A	3	X									
80035		1105			MW- ~~13C~~ 13B	3	X									
80070		1110			MW-13A	2			X							
~~80072~~					~~MW-15A/B~~	2			X							VOID
80047		0850			MW 8A	2			X							
80071		1105			MW- ~~13C~~ 13B	2			X							
80086		1420			MW-6A			X								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John A Glover	8/19/91 12:15				
(Printed) John A Glover		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Therese Baker	8-19-91 1220	All metals preserved HNO3 Dissolved have been filtered.
(Printed)		(Printed) Therese Baker		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301616

Pg 1 of 5

CODE VERS DOV C
CNTR 5356

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5356	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: BNA 2/38 LLP

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION MSS#	NO. OF CONTAINERS	BNA 2/38 LLP								REMARKS VLI#
80103					91-0820-02	2	✓								59063
80104					-03	2	✓								64
80105					-04	2	✓								65
80100					-05	2 ~~3~~	✓								66
80101					-06	3 ~~2~~	✓								67
80102					-07	2	✓								68
80094					-08	2	✓								69
80095					-09	2	✓								70
80096					-10	1	✓								71
80090					-11	3	✓								72 ms/msp
80091					-12	2	✓								73
80092					-13	2	✓								74

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1300				
(Printed) Lawrence Pollack		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Noreen M. Hamner	8/20/91 3:30 PM	up to 20 TIC/sample >10% ISTD ms/msp QC as noted set 1/20 field samples
(Printed)		(Printed) Noreen M. Hamner	Courier	Full data pkg 30 day T/A

Distrib[illegible] Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinato[illegible] Files (pink).

AR301617

Versar Laboratories INC.

pg 2 of 5

CHAIN OF CUSTODY RECORD

CODE VERSDOV
CNTL 5356

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5356	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: BNA 2/88 CLP

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION MSS#	NO. OF CONTAINERS	BNA 2/88 CLP								REMARKS VLI#
80093					91-0820-14	2	✓								590675
80088					15	2	✓								76
80089					16	2	✓								77
80114					17	2	✓								78
80080					18	2	✓								79
80076					19	2	✓								80
80077					20	2	✓								81
80078					21	2	✓								82
80073					22	2	✓								83
80074					23 1	2	✓								84
80108					24	2	✓								85
80111					25	2	✓								86

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1300				
(Printed) Laudere Pollak		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Noreen M. Hamner	8/20/91 3.30 PM	See Pg 1 of 5
(Printed)		(Printed) Noreen M. Hamner	Courier	

AR301618

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Pg 3 of 3

CODE VERS DOV
CNTL 5356

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5356	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: VOA 7/88 CLP

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION MSS #	NO. OF CONTAINERS	VOA 7/88 CLP								REMARKS VLI #
~~80001~~ ~~59139~~					91-0820-37	3	✓								59139
80002					38	3	✓								40
80004					39	3	✓								41
80005					40	3	✓								42
80006					41	3	✓								43
80007					42	3	✓								44
80008					43	3	✓								45
80016					44	3	✓								46 QC
80019					45	3	✓								47
80020					46	3	✓								48
80021					47	3	✓								49
80022					48	3	✓								50

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 13:00				
(Printed) Lawrence Pollack		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Noreen M. Hammer	8/20/91 3:30 PM	up to 10 TIC / sample >10% ITI ms/msd QC as note 1 SET/20 fiel Full data pkg
(Printed)		(Printed) Noreen M. Hammer	Courier	

Distrib[illegible] Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator [illegible] files (pink).

20 [illegible] T/A

AR301619

Pg 4 of 5

CODE VERSDOV
CNTL 5356 (2)

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5356	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: VOA 2/88 UP; " ; WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION MSS#	NO. OF CONTAINERS	VOA 2/88 UP								REMARKS VLI#
80023					91-0820-49	3	✓								59151
80024					50	3	✓								52
80028					51	3	✓								53
80029					52	3	✓								54
80030					53	3	✓								55
80031					54	3	✓								56
80032					55	3	✓								57
80033					56	3	✓								58
80107					57	3	✓								59
80110					58	3	✓								60
80113					59	3	✓								61
80116					60	3	✓								62

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1300				
(Printed) Lawrence Pollack		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Noreen M. Hamner	8/20/91 3:30 PM	See Pg 3 of 5
(Printed)		(Printed) Noreen M. Hamner	Courier	

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301620

Pg 5 of 5

CODE Vers Dov
CNTC 5356(4)

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5356	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: VOA 2/88 WT

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION MSS#	NO. OF CONTAINERS	VOA 2/88 WT								REMARKS VLI#
80119					91-0820-73	3	✓								59163
80017					↓ ↓ 74	3	✓								59164
80018					↓ ↓ 75	3	✓								59165

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1300				
(Printed) Lawrence Pollack		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Noreen M. Hammer	8/20/91 3:30 PM	See Pg 3 of 5
(Printed)		(Printed) Noreen M. Hammer	Courier	

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301621

pg 1 of 2

Co Vers Dov

CNTL 5357

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5357	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: BNA 2/88 CLP

REMARKS: Vitrex ✓

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION MSS#	NO. OF CONTAINERS	BNA 2/88 CLP								VII#
80079					91-0820-26	2	✓								59188
80082					27	2	✓								189
80083					28	3	✓								190 QC
80086					29	2	✓								191
80087					30	2	✓								192
80097					31	2	✓								193
80098					32	2	✓								194
80099					33	2	✓								195
80117					34	2	✓								196
80121					35	2	✓								197
80124					36	2	✓								198

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1300				
(Printed) Lawrence Porcaro		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Noreen M. Hamner	8/20/91 3:30 PM	up to 20 TIC/sample >10% ISTD ms/msd QC as noted 1set/20 field sample Full data pkg
(Printed)		(Printed) Noreen M. Hamner	Courier	

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

AR301622

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD

pg 2 of 2

CODE VERS DO. CATL 5357

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5357	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: VOA 2/88 CLP

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION MSS #	NO. OF CONTAINERS	VOA 2/88 CLP							REMARKS VLI #
80010					91-0820-61	3	✓							59199
80011					62	3	✓							59200
80014					63	3	✓							201
80015					64	3	✓							202
80025					65	3	✓							203 QC
80026					66	3	✓							204
80027					67	3	✓							205
80034					68	3	✓							206
80035					69	3	✓							207
80036					70	3	✓							208
80122					71	3	✓							209
80123					72	3	✓							210

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1300				
(Printed) Lawrence Pollack		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Noreen M. Hamer	8/20/91 3:30 PM	up to 10 TIC/sample >10% ISTD ms/msD QC as noted 1 SET/20 Field Samples Full data pkg
(Printed)		(Printed) Noreen M. Hamer	Courier	

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Files (pink).

AR301623

MARYLAND SPECTRAL SERVICES, INC.

1500 Caton Center Drive, Baltimore, Md. 21227

Specialists in Gas Chromatography/Mass Spectrometry

SAMPLE DATA PACKAGE

RESULTS OF ANALYSIS
OF THE

VERSAR DOVER GAS LIGHT WATER SAMPLES

COLLECTED 14 THROUGH 17 AUGUST 1991

Versar Control Numbers 5356 and 5357

Reported 17 September 1991

NARRATIVE

Laboratory Name: Maryland Spectral Services, Inc. (MSS)

Date Samples Delivered to MSS Laboratory: 20 August 1991
Project: Versar/ Dover Gas Light
Versar Control #: 5356 and 5357
Results for the following samples are included in this data package:

Field Sample ID	VLI Number	MSS Lab Number	Matrix	Analysis
80103	59063	910820-02	Water	8270 2/88 CLP
80104	59064	910820-03	Water	8270 2/88 CLP
80105	59065	910820-04	Water	8270 2/88 CLP
80100	59066	910820-05	Water	8270 2/88 CLP
80101	59067	910820-06	Water	8270 2/88 CLP
80102	59068	910820-07	Water	8270 2/88 CLP
80094	59069	910820-08	Water	8270 2/88 CLP
80095	59070	910820-09	Water	8270 2/88 CLP
80096	59071	910820-10	Water	8270 2/88 CLP
80090	59072	910820-11	Water	8270 2/88 CLP
80091	59073	910820-12	Water	8270 2/88 CLP
80092	59074	910820-13	Water	8270 2/88 CLP
80093	59075	910820-14	Water	8270 2/88 CLP
80088	59076	910820-15	Water	8270 2/88 CLP
80089	59077	910820-16	Water	8270 2/88 CLP
80114	59078	910820-17	Water	8270 2/88 CLP
80080	59079	910820-18	Water	8270 2/88 CLP
80076	59080	910820-19	Water	8270 2/88 CLP
80077	59081	910820-20	Water	8270 2/88 CLP
80078	59082	910820-21	Water	8270 2/88 CLP
80073	59083	910820-22	Water	8270 2/88 CLP
80074	59084	910820-23	Water	8270 2/88 CLP
80108	59085	910820-24	Water	8270 2/88 CLP
80111	59086	910820-25	Water	8270 2/88 CLP
80079	59188	910820-26	Water	8270 2/88 CLP
80082	59189	910820-27	Water	8270 2/88 CLP
80083	59190	910820-28	Water	8270 2/88 CLP
80086	59191	910820-29	Water	8270 2/88 CLP
80087	59192	910820-30	Water	8270 2/88 CLP
80097	59193	910820-31	Water	8270 2/88 CLP
80098	59194	910820-32	Water	8270 2/88 CLP
80099	59195	910820-33	Water	8270 2/88 CLP
80117	59196	910820-34	Water	8270 2/88 CLP
80121	59197	910820-35	Water	8270 2/88 CLP
80124	59198	910820-36	Water	8270 2/88 CLP
80001	59139	910820-37	Water	8240 2/88 CLP
80002	59140	910820-38	Water	8240 2/88 CLP
80004	59141	910820-39	Water	8240 2/88 CLP
80005	59142	910820-40	Water	8240 2/88 CLP
80006	59143	910820-41	Water	8240 2/88 CLP
80007	59144	910820-42	Water	8240 2/88 CLP
80008	59145	910820-43	Water	8240 2/88 CLP
80016	59146	910820-44	Water	8240 2/88 CLP
80019	59147	910820-45	Water	8240 2/88 CLP
80020	59148	910820-46	Water	8240 2/88 CLP
80021	59149	910820-47	Water	8240 2/88 CLP
80022	59150	910820-48	Water	8240 2/88 CLP

80023	59151	910820-49	Water	8240	2/88 CLP
80024	59152	910820-50	Water	8240	2/88 CLP
80028	59153	910820-51	Water	8240	2/88 CLP
80029	59154	910820-52	Water	8240	2/88 CLP
80030	59155	910820-53	Water	8240	2/88 CLP
80031	59156	910820-54	Water	8240	2/88 CLP
80032	59157	910820-55	Water	8240	2/88 CLP
80033	59158	910820-56	Water	8240	2/88 CLP
80107	59159	910820-57	Water	8240	2/88 CLP
80110	59160	910820-58	Water	8240	2/88 CLP
80113	59161	910820-59	Water	8240	2/88 CLP
80116	59162	910820-60	Water	8240	2/88 CLP
80010	59199	910820-61	Water	8240	2/88 CLP
80011	59200	910820-62	Water	8240	2/88 CLP
80014	59201	910820-63	Water	8240	2/88 CLP
80015	59202	910820-64	Water	8240	2/88 CLP
80025	59203	910820-65	Water	8240	2/88 CLP
80026	59204	910820-66	Water	8240	2/88 CLP
80027	59205	910820-67	Water	8240	2/88 CLP
80034	59206	910820-68	Water	8240	2/88 CLP
80035	59207	910820-69	Water	8240	2/88 CLP
80036	59208	910820-70	Water	8240	2/88 CLP
80122	59209	910820-71	Water	8240	2/88 CLP
80123	59210	910820-72	Water	8240	2/88 CLP
80119	59163	910820-73	Water	8240	2/88 CLP
80017	59164	910820-74	Water	8240	2/88 CLP
80018	59165	910820-75	Water	8240	2/88 CLP

A summary of results of analysis for the target compounds can be found in Section 3 of this report. Results in this table may differ from those in the EPA Form in the number of significant figures reported. Non-target compounds (TICs) greater than 10% of the closest internal standard were tentatively identified and the quantities present estimated. For duplicate analyses or re-extractions, the TICs were identified for the first analysis only. The TIC results are reported in the Sample Data sections along with the EPA Form 1.

Volatiles:
All samples were analyzed for the EPA-CLP target compound list according to EPA Method 8240 for water samples.

All 2/88 CLP analysis quality control requirements were met. Method 8240 holding time (14 days from sample collection) requirements were met for all sample analyses.

A matrix spike and matrix spike duplicate analysis were performed on samples 80016 and 80025. All recovery values were within EPA suggested limits. Two of the ten RPD values were outside of the EPA suggested limits.

A random sampling showed that the samples were acidified prior to shipment to the laboratory.

Surrogate recovery criteria were met for all analyses.

Many of the samples contained Naphthalene - some at high levels. The values obtained for naphthalene during the volatiles analysis are probably considerably more accurate that the values obtained from the 8270 analysis for the following reasons:

1. The GC/MS is calibrated with a spiked water calibration standard. Therefore the results are automatically adjusted for recovery. Semivolatile results are not adjusted for recovery. Recovery for relatively volatile naphthalene is typically 20% - 45%.

2. The volatiles samples were preserved, thereby preventing bacterial degradation. A re-analysis of a previously high PAH Semivolatile sample (not preserved) 19 days later showed that practically all of the PAHs were no longer present.

If a table of Naphthalene results from the volatiles analysis is desired, please contact the laboratory. Some of these results do not meet quality control requirements because the level present exceeded the demonstrated linear range (200 ppb). These values can also be calculated by obtaining the level of Naphthalene from the raw data quan forms in Section 4, and multiplying by the dilution factor found in the results summary tables.

Semivolatiles:

All samples were analyzed for the EPA-CLP target compound list according to EPA Method 8270 for water samples.

In most cases, samples were extracted by separatory funnel using 1 liter of sample and concentrating to a final volume of two mL. Some sample extracted required dilution prior to GC/MS analysis.

Surrogate recovery criteria were met for all analyses except:

Sample "8021" failed recovery criteria for two acid surrogates. A re-extraction and analysis produced equivalent surrogate results. The second analysis (which was extracted 19 days later) showed that the PAHs were no longer present, suggesting biodegradation had occurred.

Sample "80097" produced unacceptable acid surrogate recoveries for the first analysis. A second analysis produced acceptable surrogate results.

Samples 80086, 80087, and 80094, were diluted prior to GC/MS analysis due to the high levels of compounds present. The recovery of all or some of the surrogates could not be monitored because they were "diluted out."

A matrix spike and matrix spike duplicate analysis were performed on samples 80083 and 80090. All recovery values were within EPA suggested limits. Two of the 22 RPD values were outside of the EPA suggested limits.

All samples were extracted and analyzed within the required holding time except for the re-extractions mentioned above, that were extracted outside of holding time.

RELEASE OF THE DATA CONTAINED IN THIS HARDCOPY DATA PACKAGE HAS BEEN AUTHORIZED BY THE LABORATORY MANAGER OR HIS DESIGNEE, AS VERIFIED BY THE FOLLOWING SIGNATURE:

DATE: 17 Sep 91

Samuel G. Hamner, III 17 September 1991

3. TARGET COMPOUNDS RESULTS SUMMARY

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

VOLATILE ORGANICS BY EPA GC/MS METHOD 8240

CLIENT SAMPLE ID:	80001	80002	80004	80005	80006	80007
	MW12A	MW12B	MW11A	MW11B	MW11C	MW11D
LAB SAMPLE ID:	91082037	91082038	91082039	91082040	91082041	91082042
SAMPLE DATE:	08/15/91	08/15/91	08/16/91	08/16/91	08/16/91	08/16/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
ANALYSIS DATE:	08/27/91	08/25/91	08/21/91	08/21/91	08/21/91	08/21/91
FILE NAME:	082037RR	082038DD	082039	082040	082041	082042
INSTRUMENT ID:	MSB	MSA	MSA	MSA	MSA	MSA
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
DILUTION FACTOR:	4.0	2.5	1.0	1.0	1.0	1.0
VOLATILE COMPOUNDS						
Acetone	40 U	31	10 U	5.1 J	10 U	10 U
Benzene	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	40 U	25 U	10 U	10 U	10 U	10 U
2-Butanone	40 U	25 U	10 U	10 U	10 U	10 U
Carbon Disulfide	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	40 U	25 U	10 U	10 U	10 U	10 U
Chloroform	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	40 U	25 U	10 U	10 U	10 U	10 U
Dibromochloromethane	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	75	18	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	40 U	25 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	40 U	25 U	10 U	10 U	10 U	10 U
Methylene Chloride	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	548	363	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	31	8.7 J	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Acetate	40 U	25 U	10 U	10 U	10 U	10 U
Vinyl Chloride	40 U	25 U	10 U	10 U	10 U	10 U
Xylene (total)	20 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

VOLATILE ORGANICS BY EPA GC/MS METHOD 8240

CLIENT SAMPLE ID:	80008	80016	80019	80020	80021	80022
	MW10A	MW6B	MW5B	MW5C	MW5D	MW4A
LAB SAMPLE ID:	91082043	91082044	91082045	91082046	91082047	91082048
SAMPLE DATE:	08/14/91	08/15/91	08/14/91	08/14/91	08/14/91	08/16/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
ANALYSIS DATE:	08/21/91	08/21/91	08/22/91	08/22/91	08/22/91	08/25/91
FILE NAME:	082043	082044	082045R	082046	082047	082048DD
INSTRUMENT ID:	MSA	MSA	MSA	MSA	MSA	MSA
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
DILUTION FACTOR:	1.0	1.0	1.0	1.0	1.0	8.0
VOLATILE COMPOUNDS						
Acetone	10 U	8.2 J	10 U	10 U	10 U	80 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	88
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Bromomethane	10 U	10 U	10 U	10 U	10 U	80 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	80 U
Carbon Disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Chloroethane	10 U	10 U	10 U	10 U	10 U	80 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Chloromethane	10 U	10 U	10 U	10 U	10 U	80 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
1,2-Dichloroethene (total)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	342
2-Hexanone	10 U	10 U	10 U	10 U	10 U	80 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U	80 U
Methylene Chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1110
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1260
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40 U
Vinyl Acetate	10 U	10 U	10 U	10 U	10 U	80 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	80 U
Xylene (total)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1620

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

VOLATILE ORGANICS BY EPA GC/MS METHOD 8240

CLIENT SAMPLE ID:	80023 MW4B	80024 MW4C	80028 MW2A	80029 MW2B	80030 MW2C	8003[illegible] MW1A
LAB SAMPLE ID:	91082049	91082050	91082051	91082052	91082053	91082054
SAMPLE DATE:	08/16/91	08/16/91	08/14/91	08/14/91	08/14/91	08/16/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
ANALYSIS DATE:	08/25/91	08/22/91	08/25/91	08/22/91	08/22/91	08/22/91
FILE NAME:	082049R	082050	082051D	082052	082053	082054
INSTRUMENT ID:	MSA	MSA	MSA	MSA	MSA	MSA
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
DILUTION FACTOR:	1.0	1.0	6.0	1.0	1.0	1.0
VOLATILE COMPOUNDS						
Acetone	10 U	10 U	60 U	10 U	10 U	10 U
Benzene	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Bromomethane	10 U	10 U	60 U	10 U	10 U	10 U
2-Butanone	10 U	10 U	60 U	10 U	10 U	10 U
Carbon Disulfide	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Chloroethane	10 U	10 U	60 U	10 U	10 U	10 U
Chloroform	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Chloromethane	10 U	10 U	60 U	10 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	115	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	21 J	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	5.0 U	5.0 U	750	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	27 J	5.0 U	5.0 U	5.0 U
2-Hexanone	10 U	10 U	60 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	60 U	10 U	10 U	10 U
Methylene Chloride	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	143	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	606	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	26 J	5.0 U	5.0 U	5.0 U
Vinyl Acetate	10 U	10 U	60 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	33 J	10 U	10 U	10 U
Xylene (total)	5.0 U	5.0 U	30 U	5.0 U	5.0 U	5.0 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

VOLATILE ORGANICS BY EPA GC/MS METHOD 8240

CLIENT SAMPLE ID:	80032	80033	80107	80110	80113	80116
	MW1B	MW1C	MW12C	BAILER-RINSE	MW6B-DUP	MW11E
LAB SAMPLE ID:	91082055	91082056	91082057	91082058	91082059	91082060
SAMPLE DATE:	08/16/91	08/16/91	08/14/91	08/15/91	08/15/91	08/16/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
ANALYSIS DATE:	08/22/91	08/22/91	08/22/91	08/22/91	08/22/91	08/22/91
FILE NAME:	082055	082056	082057	082058	082059	082060
INSTRUMENT ID:	MSA	MSA	MSA	MSA	MSA	MSA
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
DILUTION FACTOR:	1.0	1.0	1.0	1.0	1.0	1.0
VOLATILE COMPOUNDS						
Acetone	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	5.0 U	5.0 U	2.3 J	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	5.0 U	5.0 U	6.2	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Acetate	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

VOLATILE ORGANICS BY EPA GC/MS METHOD 8240

CLIENT SAMPLE ID:	80010	80011	80014	80015	80025	800[illegible]
	MW9A	MW8A	MW6A	MW6A-1-2	MW3A	MW3B
LAB SAMPLE ID:	91082061	91082062	91082063	91082064	91082065	91082066
SAMPLE DATE:	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
ANALYSIS DATE:	08/22/91	08/22/91	08/23/91	08/24/91	08/22/91	08/22/91
FILE NAME:	082061	082062	082063DD	082064DDD	082065D	082066
INSTRUMENT ID:	MSA	MSA	MSB	MSB	MSA	MSA
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
DILUTION FACTOR:	1.0	1.0	12	250	1.2	1.0
VOLATILE COMPOUNDS						
Acetone	10 U	10 U	120 U	2500 U	13 U	10 U
Benzene	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Bromoform	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Bromomethane	10 U	10 U	120 U	2500 U	13 U	10 U
2-Butanone	10 U	10 U	120 U	2500 U	13 U	10 U
Carbon Disulfide	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Chloroethane	10 U	10 U	120 U	2500 U	13 U	10 U
Chloroform	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Chloromethane	10 U	10 U	120 U	2500 U	13 U	10 U
Dibromochloromethane	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 [illegible]
1,1-Dichloroethane	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
1,2-Dichloroethene (total)	5.0 U	5.0 U	1360	1250 U	6.8	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	325	1620	6.3 U	5.0 U
2-Hexanone	10 U	10 U	120 U	2500 U	13 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	120 U	2500 U	13 U	10 U
Methylene Chloride	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Styrene	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Tetrachloroethene	5.0 U	53	1900	47300	193	5.0 U
Toluene	5.0 U	5.0 U	173	3450	6.3 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	60 U	1250 U	6.3 U	5.0 U
Trichloroethene	5.0 U	5.0 U	406	1250 U	6.7	5.0 U
Vinyl Acetate	10 U	10 U	120 U	2500 U	13 U	10 U
Vinyl Chloride	10 U	10 U	120 U	2500 U	13 U	10 U
Xylene (total)	5.0 U	5.0 U	409	3280	6.3 U	5.0 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

VOLATILE ORGANICS BY EPA GC/MS METHOD 8240

CLIENT SAMPLE ID:	80027	80034	80035	80036	80122	80123
	MW3C	MW13A	MW13B	MW15AB	TRIP-BLANK	FIELD-BLANK
LAB SAMPLE ID:	91082067	91082068	91082069	91082070	91082071	91082072
SAMPLE DATE:	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
ANALYSIS DATE:	08/23/91	08/24/91	08/24/91	08/26/91	08/24/91	08/25/91
FILE NAME:	082067	082068	082069	082070RD	082071	082072
INSTRUMENT ID:	MSB	MSB	MSB	MSA	MSB	MSB
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L		UG/L	UG/L	UG/L
DILUTION FACTOR:	1.0	1.0	1.0	8.0	1.0	1.0
VOLATILE COMPOUNDS						
Acetone	10 U	10 U	16	80 U	10	6.8 J
Benzene	5.0 U	5.0 U	119	21 J	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Bromomethane	10 U	10 U	10 U	80 U	10 U	10 U
2-Butanone	10 U	10 U	10 U	80 U	10 U	10 U
Carbon Disulfide	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Chloroethane	10 U	10 U	10 U	80 U	10 U	10 U
Chloroform	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Chloromethane	10 U	10 U	10 U	80 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	31	598	5.0 U	5.0 U
2-Hexanone	10 U	10 U	10 U	80 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	80 U	10 U	10 U
Methylene Chloride	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	5.0 U	260	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	4.5 J	33 J	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	26	254	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	40 U	5.0 U	5.0 U
Vinyl Acetate	10 U	10 U	10 U	80 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	80 U	10 U	10 U
Xylene (total)	5.0 U	5.0 U	229	1190	5.0 U	5.0 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

VOLATILE ORGANICS BY EPA GC/MS METHOD 8240

CLIENT SAMPLE ID:	80119	80017	80018	VBLK0820A2	VBLK0821	VBLK08
	TRIP-BLANK	MW6C	MW5A			
LAB SAMPLE ID:	91082073	91082074	91082075	MTEHOD_BLANK	METHOD_BLANK	METHOD_BLANK
SAMPLE DATE:		08/15/91	08/14/91			
RECEIVED DATE:	08/20/91	08/20/91	08/20/91			
ANALYSIS DATE:	08/25/91	08/25/91	08/25/91	08/21/91	08/22/91	08/22/91
FILE NAME:	082073	082074	082075	0820VBLKA2	0821VBLKA2	0822VBLKA1
INSTRUMENT ID:	MSB	MSB	MSB	MSA	MSA	MSA
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
DILUTION FACTOR:	1.0	1.0	1.0	1.0	1.0	1.0
VOLATILE COMPOUNDS						
Acetone	9.3 J	5.5 J	9.8 J	10 U	10 U	10 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	42	5.0 U	5.0 U	5.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	69	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.6	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	45	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Acetate	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5.0 U	5.0 U	210	5.0 U	5.0 U	5.0 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80103	80104	80105	80100	80101	80102
	MW1A	MW1B	MW1C	MW2A	MW2B	MW2C
LAB SAMPLE ID:	91082002	91082003	91082004	91082005	91082006	91082007
SAMPLE DATE:	08/16/91	08/16/91	08/16/91	08/14/91	08/14/91	08/14/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
ANALYSIS DATE:	08/28/91	08/28/91	08/28/91	08/28/91	08/28/91	08/28/91
FILE NAME:	S082002	S082003	S082004	S082005	S082006	S082007
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-Di-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	27	10 U	10 U
2-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
3-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Pentachlorophenol	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
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SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80103	80104	80105	80100	80101	80[illegible]
	MW1A	MW1B	MW1C	MW2A	MW2B	MW2C
LAB SAMPLE ID:	91082002	91082003	91082004	91082005	91082006	91082007
SAMPLE DATE:	08/16/91	08/16/91	08/16/91	08/14/91	08/14/91	08/14/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
ANALYSIS DATE:	08/28/91	08/28/91	08/28/91	08/28/91	08/28/91	08/28/91
FILE NAME:	S082002	S082003	S082004	S082005	S082006	S082007
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
Acenaphthene	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid	50 U	50 U	50 U	50 U	50 U	50 U
Benzyl Alcohol	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 [illegible]
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 [illegible]
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-Octyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U

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SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80094	80095	80096	80090	80091	80092
	MW4A	MW4B	MW4C	MW5A	MW5B	MW5C
LAB SAMPLE ID:	91082008	91082009	91082010	91082011	91082012	91082013
SAMPLE DATE:	08/16/91	08/16/91	08/16/91	08/14/91	08/14/91	08/14/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
ANALYSIS DATE:	08/28/91	08/28/91	08/28/91	08/28/91	08/29/91	08/29/91
FILE NAME:	S082008DR	S082009	S082010	S082011	S082012	S082013
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
Acenaphthene	150 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	336	10 U	10 U	10 U	10 U	10 U
Anthracene	150 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Anthracene	150 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene	150 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	150 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene	150 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	150 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid	750 U	50 U	50 U	50 U	50 U	50 U
Benzyl Alcohol	150 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	150 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	150 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	150 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	150 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)Methane	150 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	150 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	150 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	150 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	150 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	150 U	10 U	10 U	10 U	10 U	10 U
Chrysene	150 U	10 U	10 U	10 U	10 U	10 U
Di-n-Butylphthalate	150 U	10 U	10 U	10 U	10 U	10 U
Di-n-Octyl Phthalate	150 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene	150 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	150 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	150 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	150 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	150 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	300 U	20 U	20 U	20 U	20 U	20 U
2,4-Dichlorophenol	150 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	150 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	150 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	150 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	750 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrophenol	750 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	150 U	10 U	10 U	10 U	10 U	10 U

MARYLAND SPECTRAL SERVICES, INC.
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SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80094	80095	80096	80090	80091	80092
	MW4A	MW4B	MW4C	MW5A	MW5B	MW5C
LAB SAMPLE ID:	91082008	91082009	91082010	91082011	91082012	91082013
SAMPLE DATE:	08/16/91	08/16/91	08/16/91	08/14/91	08/14/91	08/14/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
ANALYSIS DATE:	08/28/91	08/28/91	08/28/91	08/28/91	08/29/91	08/29/91
FILE NAME:	S082008DR	S082009	S082010	S082011	S082012	S082013
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
2,6-Dinitrotoluene	150 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate	150 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	150 U	10 U	10 U	10 U	10 U	10 U
Fluorene	150 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	150 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	150 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	150 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	150 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	150 U	10 U	10 U	10 U	10 U	10 U
Isophorone	150 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	396	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	150 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	150 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-Di-n-Propylamine	150 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	150 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	3990	10 U	10 U	92	10 U	10 U
2-Nitroaniline	750 U	50 U	50 U	50 U	50 U	50 U
4-Nitroaniline	750 U	50 U	50 U	50 U	50 U	50 U
3-Nitroaniline	750 U	50 U	50 U	50 U	50 U	50 U
Nitrobenzene	150 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	150 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	750 U	50 U	50 U	50 U	50 U	50 U
Pentachlorophenol	750 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene	89 J	10 U	10 U	10 U	10 U	10 U
Phenol	150 U	10 U	10 U	10 U	10 U	10 U
Pyrene	150 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	150 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	750 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	150 U	10 U	10 U	10 U	10 U	10 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

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SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80093	80088	80089	80114	80080	80076
	MW5D	MW6B	MW6C	MW6B-DUP	MW10A	MW11A
LAB SAMPLE ID:	91082014	91082015	91082016	91082017	91082018	91082018
SAMPLE DATE:	08/14/91	08/15/91	08/15/91	08/15/91	08/14/91	08/16/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	08/20/91	08/21/91	08/21/91	08/21/91	08/21/91	08/21/91
ANALYSIS DATE:	08/29/91	08/29/91	08/29/91	08/29/91	08/29/91	09/05/91
FILE NAME:	S082014R	S082015	S082016	S082017	S082018	S082019RR
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
Acenaphthene	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid	50 U	50 U	50 U	50 U	50 U	50 U
Benzyl Alcohol	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-Octyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U

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SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80093	80088	80089	80114	80080	80076
	MW5D	MW6B	MW6C	MW6B-DUP	MW10A	MW11
LAB SAMPLE ID:	91082014	91082015	91082016	91082017	91082018	91082018
SAMPLE DATE:	08/14/91	08/15/91	08/15/91	08/15/91	08/14/91	08/16/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	08/20/91	08/21/91	08/21/91	08/21/91	08/21/91	08/21/91
ANALYSIS DATE:	08/29/91	08/29/91	08/29/91	08/29/91	08/29/91	09/05/91
FILE NAME:	S082014R	S082015	S082016	S082017	S082018	S082019RR
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-Di-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
3-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Pentachlorophenol	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80077	80078	80073	80074	80108	80111
	MW11B	MW11C	MW12A	MW12B	MW12C	BAILER-RINSE
LAB SAMPLE ID:	91082020	91082021	91082022	91082023	91082024	91082025
SAMPLE DATE:	08/16/91	08/16/91	08/15/91	08/15/91	08/14/91	08/15/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	08/21/91	08/21/91	08/21/91	08/21/91	08/21/91	08/21/91
ANALYSIS DATE:	09/05/91	09/05/91	09/05/91	09/06/91	09/06/91	09/06/91
FILE NAME:	S082020	S082021	S082022	S082023	S082024	S082025
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
Acenaphthene	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic Acid	50 U	50 U	50 U	50 U	50 U	50 U
Benzyl Alcohol	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-Butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-Octyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80077	80078	80073	80074	80108	80111
	MW11B	MW11C	MW12A	MW12B	MW12C	BAILER-RIN
LAB SAMPLE ID:	91082020	91082021	91082022	91082023	91082024	910820
SAMPLE DATE:	08/16/91	08/16/91	08/15/91	08/15/91	08/14/91	08/15/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	08/21/91	08/21/91	08/21/91	08/21/91	08/21/91	08/21/91
ANALYSIS DATE:	09/05/91	09/05/91	09/05/91	09/06/91	09/06/91	09/06/91
FILE NAME:	S082020	S082021	S082022	S082023	S082024	S082025
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
•bis(2-Ethylhexyl)Phthalate	15	10 U	10 U	21	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-Di-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10
Naphthalene	10 U	10 U	10 U	10 U	10 U	10
2-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
3-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Pentachlorophenol	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	50 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
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SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80079	80082	80083	80086	80087	80097
	MW13A	MW9A	MW8A	MW6A	MW6A-1-2	MW3A
LAB SAMPLE ID:	91082026	91082027	91082028	91082029	91082030	91082031
SAMPLE DATE:	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	08/21/91	08/21/91	08/21/91	08/21/91	08/21/91	08/21/91
ANALYSIS DATE:	09/06/91	09/06/91	09/06/91	08/29/91	08/28/91	08/29/91
FILE NAME:	S082026	S082027	S082028	S082029D	S082030D	S082031
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
2,6-Dinitrotoluene	10 U	10 U	10 U	40 U	250 U	10 U
bis(2-Ethylhexyl)Phthalate	10 U	10 U	10 U	40 U	250 U	10 U
Fluoranthene	10 U	10 U	10 U	30 J	250 U	10 U
Fluorene	10 U	10 U	10 U	53	250 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	40 U	250 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	40 U	250 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	40 U	250 U	10 U
Hexachloroethane	10 U	10 U	10 U	40 U	250 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	40 U	250 U	10 U
Isophorone	10 U	10 U	10 U	40 U	250 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	123	990	10 U
4-Methylphenol	10 U	10 U	10 U	40 U	250 U	10 U
2-Methylphenol	10 U	10 U	10 U	40 U	250 U	10 U
N-Nitroso-Di-n-Propylamine	10 U	10 U	10 U	40 U	250 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	40 U	250 U	10 U
Naphthalene	10 U	10 U	10 U	744	6350	10 U
2-Nitroaniline	50 U	50 U	50 U	200 U	1250 U	50 U
4-Nitroaniline	50 U	50 U	50 U	200 U	1250 U	50 U
3-Nitroaniline	50 U	50 U	50 U	200 U	1250 U	50 U
Nitrobenzene	10 U	10 U	10 U	40 U	250 U	10 U
2-Nitrophenol	10 U	10 U	10 U	40 U	250 U	10 U
4-Nitrophenol	50 U	50 U	50 U	200 U	1250 U	50 U
Pentachlorophenol	50 U	50 U	50 U	200 U	1250 U	50 U
Phenanthrene	10 U	10 U	10 U	138	378	10 U
Phenol	10 U	10 U	10 U	40 U	250 U	10 U
Pyrene	10 U	10 U	10 U	59	167 J	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	40 U	250 U	10 U
2,4,5-Trichlorophenol	50 U	50 U	50 U	200 U	1250 U	50 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	40 U	250 U	10 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
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SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80079	80082	80083	80086	80087	80097
	MW13A	MW9A	MW8A	MW6A	MW6A-1-2	MW3
LAB SAMPLE ID:	91082026	91082027	91082028	91082029	91082030	91082031
SAMPLE DATE:	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	08/21/91	08/21/91	08/21/91	08/21/91	08/21/91	08/21/91
ANALYSIS DATE:	09/06/91	09/06/91	09/06/91	08/29/91	08/28/91	08/29/91
FILE NAME:	S082026	S082027	S082028	S082029D	S082030D	S082031
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
Acenaphthene	10 U	10 U	10 U	40 U	250 U	10 U
Acenaphthylene	10 U	10 U	10 U	98	445	10 U
Anthracene	10 U	10 U	10 U	30 J	250 U	10 U
Benzo(a)Anthracene	10 U	10 U	10 U	40 U	250 U	10 U
Benzo(a)Pyrene	10 U	10 U	10 U	40 U	250 U	10 U
Benzo(b)fluoranthene	10 U	10 U	10 U	40 U	250 U	10 U
Benzo(g,h,i)Perylene	10 U	10 U	10 U	40 U	250 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	40 U	250 U	10 U
Benzoic Acid	50 U	50 U	50 U	200 U	1250 U	50 U
Benzyl Alcohol	10 U	10 U	10 U	40 U	250 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	40 U	250 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U	40 U	250 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	40 U	250 U	10 U
4-Chloroaniline	10 U	10 U	10 U	40 U	250 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	40 U	250 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	40 U	250 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	40 U	250 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	40 U	250 U	10 U
2-Chlorophenol	10 U	10 U	10 U	40 U	250 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	40 U	250 U	10 U
Chrysene	10 U	10 U	10 U	40 U	250 U	10 U
Di-n-Butylphthalate	10 U	10 U	10 U	40 U	250 U	10 U
Di-n-Octyl Phthalate	10 U	10 U	10 U	40 U	250 U	10 U
Dibenz(a,h)Anthracene	10 U	10 U	10 U	40 U	250 U	10 U
Dibenzofuran	10 U	10 U	10 U	40 U	250 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	40 U	250 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	40 U	250 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	40 U	250 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	80 U	500 U	20 U
2,4-Dichlorophenol	10 U	10 U	10 U	40 U	250 U	10 U
Diethylphthalate	10 U	10 U	10 U	40 U	250 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	40 U	250 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	40 U	250 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	200 U	1250 U	50 U
2,4-Dinitrophenol	50 U	50 U	50 U	200 U	1250 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	40 U	250 U	10 U

MARYLAND SPECTRAL SERVICES, INC.
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SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80097-RE	80098	80099	80117	80121	80121-RE
	MW3A	MW3B	MW3C	MW13B	MW15AB	MW15AB
LAB SAMPLE ID:	91082031	91082032	91082933	91082034	91082035	91082035
SAMPLE DATE:	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	09/09/91	08/21/91	08/21/91	08/21/91	08/21/91	09/09/91
ANALYSIS DATE:	09/10/91	08/30/91	08/30/91	08/30/91	09/06/91	09/10/91
FILE NAME:	S082031RE	S082032	S082033R	S082034	S082035D	S082035RE
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
Acenaphthene	12 U	10 U	10 U	4.1 J	17	13 U
Acenaphthylene	12 U	10 U	10 U	4.4 J	55	13 U
Anthracene	12 U	10 U	10 U	10 U	6.4 J	13 U
Benzo(a)Anthracene	12 U	10 U	10 U	10 U	13 U	13 U
Benzo(a)Pyrene	12 U	10 U	10 U	10 U	13 U	13 U
Benzo(b)fluoranthene	12 U	10 U	10 U	10 U	13 U	13 U
Benzo(g,h,i)Perylene	12 U	10 U	10 U	10 U	13 U	13 U
Benzo(k)fluoranthene	12 U	10 U	10 U	10 U	13 U	13 U
Benzoic Acid	59 U	50 U	50 U	50 U	67 U	67 U
Benzyl Alcohol	12 U	10 U	10 U	10 U	13 U	13 U
4-Bromophenyl-phenylether	12 U	10 U	10 U	10 U	13 U	13 U
Butylbenzylphthalate	12 U	10 U	10 U	10 U	13 U	13 U
4-Chloro-3-Methylphenol	12 U	10 U	10 U	10 U	13 U	13 U
4-Chloroaniline	12 U	10 U	10 U	10 U	13 U	13 U
bis(2-Chloroethoxy)Methane	12 U	10 U	10 U	10 U	13 U	13 U
bis(2-Chloroethyl)Ether	12 U	10 U	10 U	10 U	13 U	13 U
bis(2-Chloroisopropyl)Ether	12 U	10 U	10 U	10 U	13 U	13 U
2-Chloronaphthalene	12 U	10 U	10 U	10 U	13 U	13 U
2-Chlorophenol	12 U	10 U	10 U	10 U	13 U	13 U
4-Chlorophenyl-phenylether	12 U	10 U	10 U	10 U	13 U	13 U
Chrysene	12 U	10 U	10 U	10 U	13 U	13 U
Di-n-Butylphthalate	12 U	10 U	10 U	10 U	13 U	13 U
Di-n-Octyl Phthalate	12 U	10 U	10 U	10 U	13 U	13 U
Dibenz(a,h)Anthracene	12 U	10 U	10 U	10 U	13 U	13 U
Dibenzofuran	12 U	10 U	10 U	10 U	13 U	13 U
1,2-Dichlorobenzene	12 U	10 U	10 U	10 U	13 U	13 U
1,3-Dichlorobenzene	12 U	10 U	10 U	10 U	13 U	13 U
1,4-Dichlorobenzene	12 U	10 U	10 U	10 U	13 U	13 U
3,3'-Dichlorobenzidine	24 U	20 U	20 U	20 U	27 U	27 U
2,4-Dichlorophenol	12 U	10 U	10 U	10 U	13 U	13 U
Diethylphthalate	12 U	10 U	10 U	10 U	13 U	13 U
Dimethyl Phthalate	12 U	10 U	10 U	10 U	13 U	13 U
2,4-Dimethylphenol	12 U	10 U	10 U	10 U	13 U	13 U
4,6-Dinitro-2-Methylphenol	59 U	50 U	50 U	50 U	67 U	67 U
2,4-Dinitrophenol	59 U	50 U	50 U	50 U	67 U	67 U
2,4-Dinitrotoluene	12 U	10 U	10 U	10 U	13 U	13 U

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80097-RE	80098	80099	80117	80121	80121-RE
	MW3A	MW3B	MW3C	MW13B	MW15AB	MW15A
LAB SAMPLE ID:	91082031	91082032	91082933	91082034	91082035	91082035
SAMPLE DATE:	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91	08/17/91
RECEIVED DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
EXTRACTION DATE:	09/09/91	08/21/91	08/21/91	08/21/91	08/21/91	09/09/91
ANALYSIS DATE:	09/10/91	08/30/91	08/30/91	08/30/91	09/06/91	09/10/91
FILE NAME:	S082031RE	S082032	S082033R	S082034	S082035D	S082035RE
INSTRUMENT ID:	MSC	MSC	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS						
2,6-Dinitrotoluene	12 U	10 U	10 U	10 U	13 U	13 U
bis(2-Ethylhexyl)Phthalate	12 U	10 U	10 U	10 U	13 U	13 U
Fluoranthene	12 U	10 U	10 U	10 U	7.3 J	13 U
Fluorene	12 U	10 U	10 U	10 U	22	13 U
Hexachlorobenzene	12 U	10 U	10 U	10 U	13 U	13 U
Hexachlorobutadiene	12 U	10 U	10 U	10 U	13 U	13 U
Hexachlorocyclopentadiene	12 U	10 U	10 U	10 U	13 U	13 U
Hexachloroethane	12 U	10 U	10 U	10 U	13 U	13 U
Indeno(1,2,3-cd)Pyrene	12 U	10 U	10 U	10 U	13 U	13 U
Isophorone	12 U	10 U	10 U	10 U	13 U	13 U
2-Methylnaphthalene	12 U	10 U	10 U	10 U	204	13 U
4-Methylphenol	12 U	10 U	10 U	10 U	13 U	13 U
2-Methylphenol	12 U	10 U	10 U	10 U	13 U	13 U
N-Nitroso-Di-n-Propylamine	12 U	10 U	10 U	10 U	13 U	13 U
N-Nitrosodiphenylamine	12 U	10 U	10 U	10 U	13 U	13
Naphthalene	12 U	10 U	10 U	87	398	13 U
2-Nitroaniline	59 U	50 U	50 U	50 U	67 U	67 U
4-Nitroaniline	59 U	50 U	50 U	50 U	67 U	67 U
3-Nitroaniline	59 U	50 U	50 U	50 U	67 U	67 U
Nitrobenzene	12 U	10 U	10 U	10 U	13 U	13 U
2-Nitrophenol	12 U	10 U	10 U	10 U	13 U	13 U
4-Nitrophenol	59 U	50 U	50 U	50 U	67 U	67 U
Pentachlorophenol	59 U	50 U	50 U	50 U	67 U	67 U
Phenanthrene	12 U	10 U	10 U	10 U	22	13 U
Phenol	12 U	10 U	10 U	10 U	13 U	13 U
Pyrene	12 U	10 U	10 U	10 U	13 J	13 U
1,2,4-Trichlorobenzene	12 U	10 U	10 U	10 U	13 U	13 U
2,4,5-Trichlorophenol	59 U	50 U	50 U	50 U	67 U	67 U
2,4,6-Trichlorophenol	12 U	10 U	10 U	10 U	13 U	13 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80124 FIELD-BLANK	SWBLK0820	SWBLK0821	SBLK0909
LAB SAMPLE ID:	91082036	METHOD_BLANK	METHOD_BLANK	METHOD_BLANK
SAMPLE DATE:	08/17/91			
RECEIVED DATE:	08/20/91			
EXTRACTION DATE:	08/21/91	08/20/91	08/21/91	09/09/91
ANALYSIS DATE:	09/06/91	08/28/91	08/29/91	09/10/91
FILE NAME:	S082036	SWBLK0820R	SWBLK0821	SWBLK0909
INSTRUMENT ID:	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS				
Acenaphthene	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U
Benzo(a)Anthracene	10 U	10 U	10 U	10 U
Benzo(a)Pyrene	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U
Benzoic Acid	50 U	50 U	50 U	50 U
Benzyl Alcohol	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U
Di-n-Butylphthalate	10 U	10 U	10 U	10 U
Di-n-Octyl Phthalate	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene	10 U	10 U	10 U	10 U
Dibenzofuran	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80124 FIELD-BLANK	SWBLK0820	SWBLK0821	SBLK0909
LAB SAMPLE ID:	91082036	METHOD_BLANK	METHOD_BLANK	METHOD_BLANK
SAMPLE DATE:	08/17/91			
RECEIVED DATE:	08/20/91			
EXTRACTION DATE:	08/21/91	08/20/91	08/21/91	09/09/91
ANALYSIS DATE:	09/06/91	08/28/91	08/29/91	09/10/91
FILE NAME:	S082036	SWBLK0820R	SWBLK0821	SWBLK0909
INSTRUMENT ID:	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS				
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U
4-Methylphenol	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U
N-Nitroso-Di-n-Propylamine	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U
2-Nitroaniline	50 U	50 U	50 U	50 U
4-Nitroaniline	50 U	50 U	50 U	50 U
3-Nitroaniline	50 U	50 U	50 U	50 U
Nitrobenzene	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U
Pentachlorophenol	50 U	50 U	50 U	50 U
Phenanthrene	10 U	10 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

CODE VERS DOV
CNTL 5327

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	PARAMETERS	INDUSTRIAL HYGIENE SAMPLE (Y / N)
5327	DOVER GAS LIGHT		

SAMPLERS: (Signature) (Printed) GLOVER

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION MSS#	NO. OF CONTAINERS	VOA CLP 2/88	BNA CLP 2/88							REMARKS VLI#
80013	8/13/91			✓	91-0814-71	2	✓								58610 QC
80012	8/13			✓	91-0814-72	2	✓								58611
80009	8/13			✓	91-0814-73	2	✓								58612
80106	8/13			✓	91-0814-74	2	✓								58613
80085	8/13			✓	91-0814-75	1		✓							58614
80084	8/13			✓	91-0814-76	1		✓							58615
80081	8/13			✓	91-0814-77	1		✓							58616

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Lawrence Pollack (Printed) LAWRENCE POLLACK	8/14/91 10:30	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed) Noreen M. Hammer	8/14/91 4 PM	• CLP PROTOCOL – Organic 2/88 • MS/MSD VOA ONLY (QC Billable) • 30 day T/A • FULL DATA PKG
		NOREEN M. HAMMER	Courier	

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink)

AR301651

MARYLAND SPECTRAL SERVICES, INC.

1500 Caton Center Drive, Baltimore, Md. 21227

Specialists in Gas Chromatography/Mass Spectrometry

SAMPLE DATA PACKAGE

RESULTS OF ANALYSIS
OF THE

VERSAR DOVER GAS LIGHT WATER SAMPLES

COLLECTED 13 AUGUST 1991

Versar Control Number 5327

Reported 11 September 1991

NARRATIVE

Laboratory Name: Maryland Spectral Services, Inc. (MSS)

Date Samples Delivered to MSS Laboratory: 14 August 1991
Project: Versar/ Dover Gas Light
Versar Control #: 5327

Results for the following samples are included in this data package:

Field Sample ID	VLI Number	MSS Lab Number	Matrix	Analysis
80013	58610	910814-71	Water	8240 2/88 CLP
80012	58611	910814-72	Water	8240 2/88 CLP
80009	58612	910814-73	Water	8240 2/88 CLP
80106	58613	910814-74	Water	8240 2/88 CLP
80085	58614	910814-75	Water	8270 2/88 CLP
80084	58615	910814-76	Water	8270 2/88 CLP
80081	58616	910814-77	Water	8270 2/88 CLP

A summary of results of analysis for the target compounds can be found in Section 3 of this report. Results in this table may differ from those in the EPA Form in the number of significant figures reported. Non-target compounds (TICs) greater than 10% of the closest internal standard were tentatively identified and the quantities present estimated. The TIC results are reported in the Sample Data sections along with the EPA Form 1.

Volatiles:
All samples were analyzed for the EPA-CLP target compound list according to EPA Method 8240 for water samples.

All CLP quality control requirements were met.

A matrix spike and matrix spike duplicate analysis were performed on sample 80013. All recovery and RPD values were within EPA suggested limits.

Surrogate recovery criteria were met for all analyses.

All samples were analyzed within the required holding time.

Semivolatiles:
All samples were analyzed for the EPA-CLP target compound list according to EPA Method 8270 for water samples.

All CLP quality control requirements were met.

Surrogate recovery criteria were met for all analyses.

All samples were analyzed within the required holding time.

RELEASE OF THE DATA CONTAINED IN THIS HARDCOPY DATA PACKAGE HAS BEEN AUTHORIZED BY THE LABORATORY MANAGER OR HIS DESIGNEE, AS VERIFIED BY THE FOLLOWING SIGNATURE:

Samuel G. Hamner, III DATE: 11 Sept 91
11 September 1991

3. RESULTS OF ANALYSIS SUMMARY

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

VOLATILE ORGANICS BY EPA GC/MS METHOD 8240

CLIENT SAMPLE ID:	80013	80012	80009	80106	VBLK0820
	VLI-58610	VLI-58611	VLI-58612	VLI-58613	
LAB SAMPLE ID:	91081471	91081472	91081473	91081474	METHOD_BLANK
SAMPLE DATE:	08/13/91	08/13/91	08/13/91	08/13/91	
RECEIVED DATE:	08/14/91	08/14/91	08/14/91	08/14/91	
ANALYSIS DATE:	08/20/91	08/20/91	08/20/91	08/20/91	08/20/91
FILE NAME:	081471	081472	081473	081474	0820VBLKB1
INSTRUMENT ID:	MSB	MSB	MSB	MSB	MSB
MATRIX:	WATER	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L
DILUTION FACTOR:	1.0	1.0	1.0	1.0	1.0
VOLATILE COMPOUNDS					
Acetone	10 U	10 U	10 U	13	10 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	10 U	10 U	10 U	10 U	10 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Acetate	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80085	80084	80081	SWBLK0815
	VLI-58614	VLI-58615	VLI-58616	
LAB SAMPLE ID:	91081475	91081476	91081477	METHOD-BLANK
SAMPLE DATE:	08/13/91	08/13/91	08/13/91	
RECEIVED DATE:	08/14/91	08/14/91	08/14/91	
EXTRACTION DATE:	08/15/91	08/15/91	08/15/91	08/15/91
ANALYSIS DATE:	09/06/91	09/06/91	09/06/91	09/06/91
FILE NAME:	S081475	S081476	S081477	SWBLK0815
INSTRUMENT ID:	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS				
Acenaphthene	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U
Benzo(a)Anthracene	10 U	10 U	10 U	10 U
Benzo(a)Pyrene	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U
Benzoic Acid	50 U	50 U	50 U	50 U
Benzyl Alcohol	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)Ether	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U
Di-n-Butylphthalate	10 U	10 U	10 U	10 U
Di-n-Octyl Phthalate	10 U	10 U	10 U	10 U
Dibenz(a,h)Anthracene	10 U	10 U	10 U	10 U
Dibenzofuran	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	50 U	50 U	50 U	50 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

SEMIVOLATILE ORGANICS BY EPA GC/MS METHOD 8270

CLIENT SAMPLE ID:	80085	80084	80081	SWBLK0815
	VLI-58614	VLI-58615	VLI-58616	
LAB SAMPLE ID:	91081475	91081476	91081477	METHOD-BLANK
SAMPLE DATE:	08/13/91	08/13/91	08/13/91	
RECEIVED DATE:	08/14/91	08/14/91	08/14/91	
EXTRACTION DATE:	08/15/91	08/15/91	08/15/91	08/15/91
ANALYSIS DATE:	09/06/91	09/06/91	09/06/91	09/06/91
FILE NAME:	S081475	S081476	S081477	SWBLK0815
INSTRUMENT ID:	MSC	MSC	MSC	MSC
MATRIX:	WATER	WATER	WATER	WATER
UNITS:	UG/L	UG/L	UG/L	UG/L
SEMIVOLATILE COMPOUNDS				
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate	10 U	19	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U
4-Methylphenol	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U
N-Nitroso-Di-n-Propylamine	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U
2-Nitroaniline	50 U	50 U	50 U	50 U
4-Nitroaniline	50 U	50 U	50 U	50 U
3-Nitroaniline	50 U	50 U	50 U	50 U
Nitrobenzene	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U
Pentachlorophenol	50 U	50 U	50 U	50 U
Phenanthrene	10 U	10 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

Versar INC.

BATCH 15

GROUND-WATER DATA
TOTAL AND DISSOLVED METALS

K4632 CODE VERS Vol
CNTL 5327

Vers[illegible] Laboratories INC.

CHAIN OF CU[illegible]DY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5327	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: Enterprise

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Total CLP Metals	Dissolved CLP Metals							REMARKS VLI#
80045 TOT						1	✓								58620 QC
80048 TOT						1	✓								58621
80049 TOT						1	✓								58622
80045 DIS						1		✓							58617 QC
80048 DIS						1		✓							58618
80049 DIS						1		✓							58619

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/14/91 1130				
(Printed) Lawrence Pollack		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Ruth Allison	8/15/91 0930	CLP 7/87 Metals Protocol CLP MS-DUP QC on Total and on Dissolved metals 30 day T/A - Full Data Pty
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink) → Filter + Preserve Dissolved Metals ←

AR301659

Columbia Analytical Services inc.

September 6, 1991

Larry Pollack
Versar, Laboratories, Inc.
6850 Versar Ctr.
Springfield, VA 22151

diskette w/info.

Re: **Dover Gas Light/Project #5327**

Dear Larry:

Enclosed are the results of the samples submitted to our lab on August 15, 1991. For your reference, our service request number for this work is K914632.

All analyses were performed in accordance with our laboratory's quality assurance program.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Abbie Spielman

Abbie Spielman
Project Chemist

AS/das

1317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 206/577-7222

CASE NARRATIVE

SDG:W58620 PROJECT:DOVER GAS LIGHT SERVICE REQUEST:K914692

Analytical spike recoveries and MSA slope, intercept, and r value calculations are included with raw data prior to the printout for the furnace analytical runs.

When necessary, ICP analysis of undiluted samples has been used to determine any subsequent dilutions needed to bring either Arsenic or Lead within the graphite furnace calibration range.

Respectfully Submitted:

Abbie Spielman

Abbie Spielman
Project Chemist
COLUMBIA ANALYTICAL SERVICES, INC.

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14632 SAS No.: SDG No.: W58620

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
W58617	
W58617D	
W58617S	
W58618	
W58619	
W58620	
W58620D	
W58620S	
W58621	
W58622	

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:
The ICP serial dilution for Ba was outside the 10% control limits generating an E flag. This may be due to possible matrix interference.

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Abbie Spielman

Date: 9/6/91

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W58620

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14632 SAS No.: SDG No.: W58620

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

Level (low/med): LOW Date Received: 08/15/91

% 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	114	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	45.0	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	18600			P
7440-47-3	Chromium	3.5	B		P
7440-48-4	Cobalt	2.3	B		P
7440-50-8	Copper	7.4	B		P
7439-89-6	Iron	7830			P
7439-92-1	Lead	1.1	B		F
7439-95-4	Magnesium	3450	B		P
7439-96-5	Manganese	222			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	17200			P
7782-49-2	Selenium	2.8	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	14200			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	9.7	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W58621

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14632 SAS No.: SDG No.: W58620

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

Level (low/med): LOW Date Received: 08/15/91

% 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	5700			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	13.9			F
7440-39-3	Barium	79.3	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	8140			P
7440-47-3	Chromium	30.7			P
7440-48-4	Cobalt	5.6	B		P
7440-50-8	Copper	17.5	B		P
7439-89-6	Iron	31800			P
7439-92-1	Lead	30.3			F
7439-95-4	Magnesium	3530	B		P
7439-96-5	Manganese	69.6			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.5	B		P
7440-09-7	Potassium	2470	B		P
7782-49-2	Selenium	6.2			F
7440-22-4	Silver	3.0	B		P
7440-23-5	Sodium	10200			P
7440-28-0	Thallium	1.8	B		F
7440-62-2	Vanadium	107			P
7440-66-6	Zinc	40.8			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W58622

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14632 SAS No.: SDG No.: W58620

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

Level (low/med): LOW Date Received: 08/15/91

% 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	720			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	2.5	B		F
7440-39-3	Barium	73.1	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	30200			P
7440-47-3	Chromium	5.6	B		P
7440-48-4	Cobalt	3.5	B		P
7440-50-8	Copper	13.2	B		P
7439-89-6	Iron	4690			P
7439-92-1	Lead	2.5	B		F
7439-95-4	Magnesium	4570	B		P
7439-96-5	Manganese	231			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	18900			P
7782-49-2	Selenium	4.0	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	14200			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.9	B		P
7440-66-6	Zinc	19.3	B		P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W58617

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14632 SAS No.: SDG No.: W58620

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

Level (low/med): LOW Date Received: 08/15/91

% 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	15.8	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	20.0	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	18300			P
7440-47-3	Chromium	2.3	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	11.1	B		P
7439-89-6	Iron	51.5	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	3280	B		P
7439-96-5	Manganese	180			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	17000			P
7782-49-2	Selenium	1.7	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	14500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	11.9	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W58618

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14632 SAS No.: SDG No.: W58620

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

Level (low/med): LOW Date Received: 08/15/91

% 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	34.8	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	53.1	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	7960			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	11.4	B		P
7439-89-6	Iron	5.1	B		P
7439-92-1	Lead	1.6	B		F
7439-95-4	Magnesium	3140	B		P
7439-96-5	Manganese	21.0			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	3010	B		P
7782-49-2	Selenium	3.2	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	10600			P
7440-28-0	Thallium	1.1	B		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	32.2			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W58619

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14632 SAS No.: SDG No.: W58620

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

Level (low/med): LOW Date Received: 08/15/91

% 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	14.3	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	50.8	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	26000			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	7.7	B		P
7439-89-6	Iron	27.1	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	4070	B		P
7439-96-5	Manganese	106			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	17300			P
7782-49-2	Selenium	2.2	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	13400			P
7440-28-0	Thallium	1.2	B		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	10.1	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Pg 1 of 5

CO[illegible] VERS LOV

CNTL 5356

Vellar Laboratories INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5356	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: Total Metals*

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Total Metals*							REMARKS VLI #
80037-TOT					[illegible]	1	✓							59113
80038-TOT					12B	1	✓							114
800~~39~~40-TOT					[illegible]	1	✓							115
80041-TOT					[illegible]	1	✓							116
80042-TOT					11D	1	✓							117
80043-TOT					11B	1	✓							118
80044-TOT					10A	1	✓							119
80052-TOT					6B	1	✓							120
80053-TOT					6C	1	✓							121
80054-TOT					5A	1	✓							122
80055-TOT					5B	1	✓							123
80056-TOT					5C	1	✓							124

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1500				
(Printed) Lawrence Polack		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[signature]	8/21/91 0930	* CLP 7/87 Protocol (TAL METALS) CLP Specified QC Full data pkg 30 day T/A
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

SAMPLES Rcvd At VLI 8-17-91

Can Report together with: PROT 5357 IF You WANT

AP301669

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD * PAGE 2 OF 5 CODE PERS 16V CNTL 5356

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5356	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: Total Metals

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Total Metals							REMARKS VLI #
80057-TOT					5B	1	✓							59125
80058-TOT					4A	1	✓							126
80059-TOT					4B	1	✓							127
80060-TOT					4C	1	✓							128
80064-TOT					2A	1	✓							129
80065-TOT					2B	1	✓							130
80066-TOT					2C	1	✓							131
80067-TOT					1A	1	✓							132
80068-TOT					1B	1	✓							133 *
80069-TOT					1C	1	✓							134 *
80109-TOT					1C	1	✓							135 *
80112-TOT					[illegible]	1	✓							136 *

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1500				
(Printed) Lawrence Pollock		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[signature]	8/21/91 0950	* SEE Pg 1 OF 5
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Samples P. A. VLI 17-91

AR301670

CHAIN OF CUSTODY RECORD

PAGE 1 of 5 CML

PROJECT NO.	PROJECT NAME	PARAMETERS	INDUSTRIAL HYGIENE SAMPLE
5356	DOVER GAS LIGHT		WATER

SAMPLERS: (Signature) (Printed) GLOVER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Total Metals*	Dissolved Metals							REMARKS VLI
80115-TOT					6E-Dup [illegible]	1	✓								59137 *
80118-TOT						1	✓								59138 *
80037-DIS					MW[illegible]	1		✓							59087
80038-DIS					12B	1		✓							59088
80040-DIS					11A	1		✓							59089
80041-DIS					11C	1		✓							59090
80042-DIS					11D	1		✓							59091
80043-DIS					11B	1		✓							59092
80044-DIS					10A	1		✓							59093
80052-DIS					6B	1		✓							59094
80053-DIS					6C	1		✓							59095
80054-DIS					5A	1		✓							59096

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1500				
(Printed) Lawrence Pollack		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[signature]	8/21/91 0930	* SEE PG 1 OF 5
(Printed)		(Printed)		

Dissolved Metals: Filtered + Preserved

Total Metals = "TOT" samples on Bott.

Dissolved metals = "DIS" samples

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

SAMPLES RCVD 8-17-91

AR301671

Columbia Analytical Services inc.

September 12, 1991

Larry Pollack
Versar Laboratories, Inc.
6850 Versar Ctr.
Springfield, VA 22151

Total Metals
B15

Re: **Dover Gas Light/Project #5356**

Dear Larry:

Enclosed are the results of the samples submitted to our lab on August 21, 1991. For your reference, our service request number for this work is K914763.

Due to the large number of samples received, the samples have been split into two SDG's of 20 samples or less in accordance with CLP format. One data package contains data for samples 59113 to 59132, and the other data for samples 59133 to 59138. Due to limitations in the CLP software, all sample names have been modified to meet CLP format. The letter W has been added to the beginning of all sample codes.

All analyses were performed in accordance with our laboratory's quality assurance program.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Abbie Spielman

Abbie Spielman
Project Chemist

AS/mbm

1317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 206/577-7222

CASE NARRATIVE

SDG:W59113 PROJECT:DOVER GAS LIGHT SERVICE REQUEST:K914763

Analytical spike recoveries and MSA slope, intercept, and r value calculations are included with raw data prior to the printout for the furnace analytical runs.

When necessary, ICP analysis of undiluted samples has been used to determine any subsequent dilutions needed to bring either Arsenic or Lead within the graphite furnace calibration range.

Please note redigest of ICP prep blank, LCSW, and spike were performed at half the original digest concentration. Due to insufficient remaining sample, the redigested spike was performed using another sample. The spike was redigested due to pre-screening which indicated the possibility of inadvertantly omitting silver during the spiking procedure. The ICP screen is included in the raw data.

Respectfully Submitted:

Abbie Spielman

Abbie Spielman
Project Chemist
COLUMBIA ANALYTICAL SERVICES, INC.

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
W59113	
W59113D	
W59113S	
W59114	
W59114S	
W59115	
W59116	
W59117	
W59118	
W59119	
W59120	
W59121	
W59122	
W59123	
W59124	
W59125	
W59126	
W59127	
W59128	
W59129	
W59130	
W59131	
W59132	

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Allie Spielman

Date: 9/12/91

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59133

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
W59133	
W59133D	
W59133S	
W59134	
W59134S	
W59135	
W59136	
W59137	
W59138	

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

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

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Arie Apelman

Date: 9/12/91

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59113

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	2000			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.7	B	NW	F
7440-39-3	Barium	102	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	31000			P
7440-47-3	Chromium	11.6			P
7440-48-4	Cobalt	2.3	B		P
7440-50-8	Copper	5.4	B		P
7439-89-6	Iron	13000			P
7439-92-1	Lead	1.8	B	N	F
7439-95-4	Magnesium	9660			P
7439-96-5	Manganese	40.1			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	13300			P
7782-49-2	Selenium	1.8	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	28500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	12.6	B		P
7440-66-6	Zinc	18.7	B		P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59114

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	907			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.3	B	N	F
7440-39-3	Barium	121	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	62400			P
7440-47-3	Chromium	23.3			P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	13.5	B		P
7439-89-6	Iron	1750			P
7439-92-1	Lead	16.8		N	F
7439-95-4	Magnesium	725	B		P
7439-96-5	Manganese	17.6			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	135000			P
7782-49-2	Selenium	1.2	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	52700			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	4.1	B		P
7440-66-6	Zinc	82.4			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59115

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	2590			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	6.0	B	N	F
7440-39-3	Barium	93.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	6150			P
7440-47-3	Chromium	12.6			P
7440-48-4	Cobalt	4.0	B		P
7440-50-8	Copper	11.0	B		P
7439-89-6	Iron	5900			P
7439-92-1	Lead	4.0	B	N	F
7439-95-4	Magnesium	3410	B		P
7439-96-5	Manganese	22.4			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.4	B		P
7440-09-7	Potassium	4360	B		P
7782-49-2	Selenium	1.5	B	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	12000			P
7440-28-0	Thallium	1.0	B		F
7440-62-2	Vanadium	12.5	B		P
7440-66-6	Zinc	42.0			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59116

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	652			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	3.3	B	N	F
7440-39-3	Barium	44.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	24000			P
7440-47-3	Chromium	2.3	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	8.2	B		P
7439-89-6	Iron	4180			P
7439-92-1	Lead	3.1	B	N	F
7439-95-4	Magnesium	4700	B		P
7439-96-5	Manganese	118			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	1790	B		P
7782-49-2	Selenium	1.0	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	7080			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	22.6			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59117

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	10.0	U		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	1.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	30300			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	3.1	B		P
7439-89-6	Iron	13.4	B		P
7439-92-1	Lead	1.0	U	N	F
7439-95-4	Magnesium	4750	B		P
7439-96-5	Manganese	70.5			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2230	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	14000			P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	5.6	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59118

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	303			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.2	B	N	F
7440-39-3	Barium	58.4	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	10400			P
7440-47-3	Chromium	3.2	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	14.1	B		P
7439-89-6	Iron	1310			P
7439-92-1	Lead	4.8	B	N	F
7439-95-4	Magnesium	5700			P
7439-96-5	Manganese	39.1			P
7439-97-6	Mercury	0.23			CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	8900			P
7782-49-2	Selenium	1.5	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	17700			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	32.9			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59119

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	76.4	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	64.0	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	26100			P
7440-47-3	Chromium	3.5	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	159			P
7439-92-1	Lead	1.6	B	NW	F
7439-95-4	Magnesium	11600			P
7439-96-5	Manganese	7.0	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2360	B		P
7782-49-2	Selenium	3.2	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	15600			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	2.8	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59120

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	670			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.2	B	N	F
7440-39-3	Barium	66.4	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	11200			P
7440-47-3	Chromium	3.4	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	3.8	B		P
7439-89-6	Iron	2240			P
7439-92-1	Lead	5.7		N	F
7439-95-4	Magnesium	4140	B		P
7439-96-5	Manganese	23.4			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2070	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8480			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	27.6			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59121

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	5830			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	14.7		N	F
7440-39-3	Barium	96.6	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	4.9	B		P
7440-70-2	Calcium	19600			P
7440-47-3	Chromium	44.0			P
7440-48-4	Cobalt	7.1	B		P
7440-50-8	Copper	20.3	B		P
7439-89-6	Iron	33100			P
7439-92-1	Lead	14.0		N	F
7439-95-4	Magnesium	5050			P
7439-96-5	Manganese	188			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	29.4	B		P
7440-09-7	Potassium	30700			P
7782-49-2	Selenium	3.0	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	20100			P
7440-28-0	Thallium	1.2	B		F
7440-62-2	Vanadium	34.4	B		P
7440-66-6	Zinc	240			P
	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59122

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	559			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	165	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	24100			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	3.7	B		P
7440-50-8	Copper	4.5	B		P
7439-89-6	Iron	6900			P
7439-92-1	Lead	2.0	B	N	F
7439-95-4	Magnesium	8110			P
7439-96-5	Manganese	838			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	5900			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	14700			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.7	B		P
7440-66-6	Zinc	11.4	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO...

1

INORGANIC ANALYSIS DATA SHEET

W59123

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	1050			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	105	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	11300			P
7440-47-3	Chromium	6.1	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	6.0	B		P
7439-89-6	Iron	4290			P
7439-92-1	Lead	1.9	B	N	F
7439-95-4	Magnesium	4920	B		P
7439-96-5	Manganese	31.2			P
7439-97-6	Mercury	0.21			CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	4740	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	6970			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	5.6	B		P
7440-66-6	Zinc	17.5	B		P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59124

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	206			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	54.7	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	11400			P
7440-47-3	Chromium	3.6	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	4.9	B		P
7439-89-6	Iron	1070			P
7439-92-1	Lead	2.1	B	N	F
7439-95-4	Magnesium	4170	B		P
7439-96-5	Manganese	21.5			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	4130	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8240			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.1	B		P
7440-66-6	Zinc	12.2	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59125

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	316			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	9.8	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	54800			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	531			P
7439-92-1	Lead	3.8	B	N	F
7439-95-4	Magnesium	7770			P
7439-96-5	Manganese	444			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	3040	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	5300			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	30.0			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59126

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	432			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.5	B	N	F
7440-39-3	Barium	398			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	35200			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	11.6	B		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	24400			P
7439-92-1	Lead	1.2	B	N	F
7439-95-4	Magnesium	9410			P
7439-96-5	Manganese	2410			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	8380			P
7782-49-2	Selenium	1.0	B	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	16100			P
7440-28-0	Thallium	1.4	B		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	14.8	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59127

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	1440			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	92.8	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	10900			P
7440-47-3	Chromium	6.1	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	2.7	B		P
7439-89-6	Iron	6590			P
7439-92-1	Lead	4.2	B	N	F
7439-95-4	Magnesium	4410	B		P
7439-96-5	Manganese	40.0			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	6200			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	6400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	8.4	B		P
7440-66-6	Zinc	18.3	B		P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59128

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	1490			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.8	B	N	F
7440-39-3	Barium	53.6	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	12700			P
7440-47-3	Chromium	5.2	B		P
7440-48-4	Cobalt	2.9	B		P
7440-50-8	Copper	3.8	B		P
7439-89-6	Iron	31000			P
7439-92-1	Lead	7.8		N	F
7439-95-4	Magnesium	4510	B		P
7439-96-5	Manganese	670			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	3770	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	6100			P
7440-28-0	Thallium	1.2	B		F
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	16.1	B		P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59129

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	10700			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	2.2	B	N	F
7440-39-3	Barium	147	B		P
7440-41-7	Beryllium	1.6	B		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	71500			P
7440-47-3	Chromium	10.8			P
7440-48-4	Cobalt	11.7	B		P
7440-50-8	Copper	39.7			P
7439-89-6	Iron	60200			P
7439-92-1	Lead	39.2		N	F
7439-95-4	Magnesium	7830			P
7439-96-5	Manganese	2650			P
7439-97-6	Mercury	0.21			CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	11500			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.6	B		P
7440-23-5	Sodium	31300			P
7440-28-0	Thallium	1.7	B		F
7440-62-2	Vanadium	25.3	B		P
7440-66-6	Zinc	48.3			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: YELLOW Clarity After: OPAQUE Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59130

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	345			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	NW	F
7440-39-3	Barium	84.0	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	15800			P
7440-47-3	Chromium	4.4	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	2390			P
7439-92-1	Lead	1.6	B	N	F
7439-95-4	Magnesium	7930			P
7439-96-5	Manganese	14.9	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	4650	B		P
7782-49-2	Selenium	1.5	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	10800			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	3.1	B		P
7440-66-6	Zinc	12.5	B		P
	Cyanide				NR

Color Before: YELLOW Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59131

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	869			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	39.9	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	9190			P
7440-47-3	Chromium	5.1	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	10.4	B		P
7439-89-6	Iron	3430			P
7439-92-1	Lead	17.5		N	F
7439-95-4	Magnesium	2450	B		P
7439-96-5	Manganese	117			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	3800	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8650			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.8	B		P
7440-66-6	Zinc	34.4			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59132

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59113

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

Level (low/med): LOW Date Received: 08/21/91

% 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	2480			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	131	B		P
7440-41-7	Beryllium	1.4	B		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	11100			P
7440-47-3	Chromium	6.3	B		P
7440-48-4	Cobalt	2.9	B		P
7440-50-8	Copper	2.4	B		P
7439-89-6	Iron	8970			P
7439-92-1	Lead	5.9		N	F
7439-95-4	Magnesium	5050			P
7439-96-5	Manganese	323			P
7439-97-6	Mercury	0.28			CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	4470	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8460			P
7440-28-0	Thallium	1.0	B		F
7440-62-2	Vanadium	11.2	B		P
7440-66-6	Zinc	22.8			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59133

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59133

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

Level (low/med): LOW Date Received: 08/21/91

% 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	291		N	P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	154	B	N	P
7440-41-7	Beryllium	1.0	U	N	P
7440-43-9	Cadmium	3.0	U	N	P
7440-70-2	Calcium	12900			P
7440-47-3	Chromium	8.0	B	N	P
7440-48-4	Cobalt	2.0	U	N	P
7440-50-8	Copper	4.8	B	N	P
7439-89-6	Iron	1050		N	P
7439-92-1	Lead	9.8			F
7439-95-4	Magnesium	6310			P
7439-96-5	Manganese	19.6		N	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U	N	P
7440-09-7	Potassium	2770	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U	N	P
7440-23-5	Sodium	8030			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.4	B	N	P
7440-66-6	Zinc	17.6	B	N	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59134

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59133

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

Level (low/med): LOW Date Received: 08/21/91

% 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	311		N	P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	42.7	B	N	P
7440-41-7	Beryllium	1.0	U	N	P
7440-43-9	Cadmium	3.0	U	N	P
7440-70-2	Calcium	23900			P
7440-47-3	Chromium	4.4	B	N	P
7440-48-4	Cobalt	2.0	U	N	P
7440-50-8	Copper	5.2	B	N	P
7439-89-6	Iron	1860		N	P
7439-92-1	Lead	2.6	B	W	F
7439-95-4	Magnesium	4550	B		P
7439-96-5	Manganese	97.5		N	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U	N	P
7440-09-7	Potassium	1140	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U	N	P
7440-23-5	Sodium	5470			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U	N	P
7440-66-6	Zinc	11.2	B	N	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59135

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59133

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

Level (low/med): LOW Date Received: 08/21/91

% 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	115	B	N	P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	77.5	B	N	P
7440-41-7	Beryllium	1.0	U	N	P
7440-43-9	Cadmium	3.0	U	N	P
7440-70-2	Calcium	24200			P
7440-47-3	Chromium	9.1	B	N	P
7440-48-4	Cobalt	2.0	U	N	P
7440-50-8	Copper	9.1	B	N	P
7439-89-6	Iron	6310		N	P
7439-92-1	Lead	14.2			F
7439-95-4	Magnesium	5690			P
7439-96-5	Manganese	211		N	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U	N	P
7440-09-7	Potassium	21400			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U	N	P
7440-23-5	Sodium	22700			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U	N	P
7440-66-6	Zinc	13.5	B	N	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59136

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59133

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

Level (low/med): LOW Date Received: 08/21/91

% 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	13.7	B	N	P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	1.2	B	N	P
7440-41-7	Beryllium	1.0	U	N	P
7440-43-9	Cadmium	3.0	U	N	P
7440-70-2	Calcium	58.6	B		P
7440-47-3	Chromium	2.0	U	N	P
7440-48-4	Cobalt	2.0	U	N	P
7440-50-8	Copper	4.5	B	N	P
7439-89-6	Iron	5.0	U	N	P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	50.0	U		P
7439-96-5	Manganese	1.0	U	N	P
7439-97-6	Mercury	0.20			CV
7440-02-0	Nickel	10.0	U	N	P
7440-09-7	Potassium	913	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U	N	P
7440-23-5	Sodium	150	B		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U	N	P
7440-66-6	Zinc	9.8	B	N	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59138

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59133

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

Level (low/med): LOW Date Received: 08/21/91

% 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	35.5	B	N	P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	2.5	B	N	P
7440-41-7	Beryllium	1.0	U	N	P
7440-43-9	Cadmium	3.0	U	N	P
7440-70-2	Calcium	32600			P
7440-47-3	Chromium	2.1	B	N	P
7440-48-4	Cobalt	2.0	U	N	P
7440-50-8	Copper	1.4	B	N	P
7439-89-6	Iron	55.3	B	N	P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	5090			P
7439-96-5	Manganese	76.6		N	P
7439-97-6	Mercury	0.28			CV
7440-02-0	Nickel	10.0	U	N	P
7440-09-7	Potassium	3740	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U	N	P
7440-23-5	Sodium	12500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U	N	P
7440-66-6	Zinc	4.0	B	N	P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59137

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59133

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

Level (low/med): LOW Date Received: 08/21/91

% 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	649		N	P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.1	B		F
7440-39-3	Barium	72.0	B	N	P
7440-41-7	Beryllium	1.0	U	N	P
7440-43-9	Cadmium	3.0	U	N	P
7440-70-2	Calcium	11100			P
7440-47-3	Chromium	4.5	B	N	P
7440-48-4	Cobalt	3.0	B	N	P
7440-50-8	Copper	8.4	B	N	P
7439-89-6	Iron	3090		N	P
7439-92-1	Lead	5.9			F
7439-95-4	Magnesium	4100	B		P
7439-96-5	Manganese	25.9		N	P
7439-97-6	Mercury	0.44			CV
7440-02-0	Nickel	10.0	U	N	P
7440-09-7	Potassium	3410	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.4	B	N	P
7440-23-5	Sodium	7340			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	3.4	B	N	P
7440-66-6	Zinc	27.4		N	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59137

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59133

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

Level (low/med): LOW Date Received: 08/21/91

% 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	649		N	P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.1	B		F
7440-39-3	Barium	72.0	B	N	P
7440-41-7	Beryllium	1.0	U	N	P
7440-43-9	Cadmium	3.0	U	N	P
7440-70-2	Calcium	11100			P
7440-47-3	Chromium	4.5	B	N	P
7440-48-4	Cobalt	3.0	B	N	P
7440-50-8	Copper	8.4	B	N	P
7439-89-6	Iron	3090		N	P
7439-92-1	Lead	5.9			F
7439-95-4	Magnesium	4100	B		P
7439-96-5	Manganese	25.9		N	P
7439-97-6	Mercury	0.44			CV
7440-02-0	Nickel	10.0	U	N	P
7440-09-7	Potassium	3410	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.4	B	N	P
7440-23-5	Sodium	7340			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	3.4	B	N	P
7440-66-6	Zinc	27.4		N	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59138

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14763 SAS No.: SDG No.: W59133

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

Level (low/med): LOW Date Received: 08/21/91

% 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	35.5	B	N	P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	2.5	B	N	P
7440-41-7	Beryllium	1.0	U	N	P
7440-43-9	Cadmium	3.0	U	N	P
7440-70-2	Calcium	32600			P
7440-47-3	Chromium	2.1	B	N	P
7440-48-4	Cobalt	2.0	U	N	P
7440-50-8	Copper	1.4	B	N	P
7439-89-6	Iron	55.3	B	N	P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	5090			P
7439-96-5	Manganese	76.6		N	P
7439-97-6	Mercury	0.28			CV
7440-02-0	Nickel	10.0	U	N	P
7440-09-7	Potassium	3740	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U	N	P
7440-23-5	Sodium	12500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U	N	P
7440-66-6	Zinc	4.0	B	N	P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD

PAGE 3 OF 5

CODE [illegible]ERS DOV
CNTL 5356

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5356	DOVER GAS LIGHT	Y / N

SAMPLERS: (Signature) (Printed) GLOVER

PARAMETERS

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Total Metals*	Dissolved Metals							REMARKS
80115-TOT						1	✓								VLI 59137 *
80118-TOT						1	✓								59138 *
80037-DIS						1		✓							59087 *
80038-DIS						1		✓							59088 *
80040-DIS						1		✓							59089 *
80041-DIS						1		✓							59090 *
80042-DIS						1		✓							59091 *
80043-DIS						1		✓							59092 *
80044-DIS						1		✓							59093 *
80052-DIS						1		✓							59094 *
80053-DIS						1		✓							59095 *
80054-DIS						1		✓							59096 *

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1500				
(Printed) Lawrence Pollack		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time
		[signature]	8/21/91 0930
(Printed)		(Printed)	

Remarks * SEE PG 1 OF 5
Dissolved Metals: Filtered + Preserved in Field
Total Metals = "TOT" sample suffix on BOTTLE
Dissolved metals = "DIS" sa[illegible] suffix on

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

[illegible] 8. [illegible] 91

AR301702

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD

PAGE 4 OF 5

CODE [illegible]

CNTL 5356

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5356	DOVER GAS LIGHT	Y / N

SAMPLERS: (Signature) (Printed) GLOVER

PARAMETERS: Dissolved Metals

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Dissolved Metals							REMARKS VLI#
80055-DIS						1	✓							~~59123~~ 59097
80056-DIS						1	✓							59098 "
80057-DIS						1	✓							59099 "
(80058-DIS)					NOTE: This single sample needs to be filtered + preserved upon receipt at Columbia Analytical	1	✓							59100 "
80059-DIS						1	✓							59101 "
80060-DIS						1	✓							59102 "
80064-DIS						1	✓							59103 "
80065-DIS						1	✓							59104 "
80066-DIS						1	✓							59105 "
80067-DIS						1	✓							59106 "
80068-DIS						1	✓							59107 "
80069-DIS						1	✓							59108 "

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1500				
(Printed) LAWRENCE POLLACK		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[signature]	8/21/91 0930	SEE PAGE 3 OF 5
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Samples Rcvd 8-1[illegible]-91

AR301703

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD PAGE 5 OF 5

COPY VERSION CNTL 5356

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5356	DOVER GAS LIGHT	Y / N

SAMPLERS: (Signature) (Printed) GROVER

PARAMETERS: Dissolved Metals

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Dissolved Metals							REMARKS VLI#
80109-DIS						1	✓							59109 X
80112-DIS						1	✓							59110 X
80115-DIS						1	✓							59111 X
80118-DIS						1	✓							59112 X

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/20/91 1500				
(Printed) LAWRENCE POLLACK		(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[signature]	8/21/91 0930	SEE PAGE 3 OF 5
(Printed)		(Printed)		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Samples Rcvd 8-17-91

AR301704

Columbia Analytical Services INC.

September 13, 1991

Larry Pollack
Versar Laboratories, Inc.
6850 Versar Ctr.
Springfield, VA 22151

Dissolved METALS
B15

Re: **Dover Gas Light/Project #5356**

Dear Larry:

Enclosed are the results of the samples submitted to our lab on August 21, 1991. For your reference, our service request number for this work is K914770.

Due to the large number of samples received, the samples have been split into two SDG's of 20 samples or less in accordance with CLP format. One data package contains dissolved metals data for samples 59087 to 59106, and the other data for samples 59107 to 59112. Due to limitations in the CLP software, all sample names have been modified to meet CLP format. The letter W has been added to the beginning of all sample codes.

All analyses were performed in accordance with our laboratory's quality assurance program.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Abbie Spielman
Project Chemist

AS/mbm

317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 206/577-7222

CASE NARRATIVE

SDG:W59107 PROJECT:DOVER GAS LIGHT SERVICE REQUEST:K914770

Analytical spike recoveries and MSA slope, intercept, and r value calculations are included with raw data prior to the printout for the furnace analytical runs.

When necessary, ICP analysis of undiluted samples has been used to determine any subsequent dilutions needed to bring either Arsenic or Lead within the graphite furnace calibration range.

Respectfully Submitted:

Abbie Spielman
Project Chemist
COLUMBIA ANALYTICAL SERVICES, INC.

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
W59087	
W59087D	
W59087S	
W59088	
W59089	
W59090	
W59091	
W59092	
W59093	
W59094	
W59095	
W59096	
W59097	
W59098	
W59099	
W59100	
W59101	
W59102	
W59103	
W59104	
W59105	
W59106	

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Allie Spielman

Date: 9/12/91

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59107

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
W59107	
W59107D	
W59107S	
W59108	
W59109	
W59110	
W59111	
W59112	

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

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

Comments:

The ICP serial dilution for Ba, K, and Na were outside the 10% control limits generating an E flag. This may be due to possible matrix interference.

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: [signature]

Date: 9/12/91

AR301708

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59087

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	115	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	2.2	B		F
7440-39-3	Barium	93.1	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	31600			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	23.7	B		P
7439-89-6	Iron	718			P
7439-92-1	Lead	1.0	B		F
7439-95-4	Magnesium	9790			P
7439-96-5	Manganese	9.5	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	14700			P
7782-49-2	Selenium	2.4	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	32000			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	9.0	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59088

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	614			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	102	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	59700			P
7440-47-3	Chromium	21.0			P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	9.1	B		P
7439-89-6	Iron	55.6	B		P
7439-92-1	Lead	3.1	B		F
7439-95-4	Magnesium	67.2	B		P
7439-96-5	Manganese	1.3	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	148000			P
7782-49-2	Selenium	1.3	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	61500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.5	B		P
7440-66-6	Zinc	28.8			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59089

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	207			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	84.1	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	6360			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	248			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	3360	B		P
7439-96-5	Manganese	18.5			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	3640	B		P
7782-49-2	Selenium	1.3	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	11600			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	41.2			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59090

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	15.6	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	26.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	25800			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	1130			P
7439-92-1	Lead	1.4	B	W	F
7439-95-4	Magnesium	4970	B		P
7439-96-5	Manganese	117			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	849	B		P
7782-49-2	Selenium	1.4	B	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	7910			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	18.1	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59091

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	10.0	U		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	1.1	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	31300			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	26.4	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	4880	B		P
7439-96-5	Manganese	72.3			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2100	B		P
7782-49-2	Selenium	4.4	B	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	14600			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	3.4	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59092

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	12.6	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U	W	F
7440-39-3	Barium	51.8	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	10800			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.8	B		P
7440-50-8	Copper	1.8	B		P
7439-89-6	Iron	510			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	5850			P
7439-96-5	Manganese	39.0			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	9270			P
7782-49-2	Selenium	3.4	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	18300			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	32.5			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59093

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	10.0	U		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	68.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	27400			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	5.0	U		P
7439-92-1	Lead	1.7	B	W	F
7439-95-4	Magnesium	12200			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2590	B		P
7782-49-2	Selenium	1.9	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	16400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	3.8	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59094

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	12.5	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	30.1	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	10400			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	20.3	B		P
7439-92-1	Lead	2.0	B	W	F
7439-95-4	Magnesium	3710	B		P
7439-96-5	Manganese	18.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	1760	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8700			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	28.7			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59095

ab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	26.7	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.4	B		F
7440-39-3	Barium	33.1	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	11200			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	97.7	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	2250	B		P
7439-96-5	Manganese	8.7	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	29400			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	21100			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	3.0	B		P
7440-66-6	Zinc	25.8			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59096

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	16.5	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.2	B		F
7440-39-3	Barium	148	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	24900			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.1	B		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	1840			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	8240			P
7439-96-5	Manganese	831			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	6030			P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	16000			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	10.7	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59097

Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	10.0	U		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	86.3	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	12600			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	24.8	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	5410			P
7439-96-5	Manganese	18.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	3830	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8070			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	18.2	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59098

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	17.9	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	23.7	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	11900			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	3.1	B		P
7439-89-6	Iron	44.0	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	4320	B		P
7439-96-5	Manganese	18.3			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2730	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8830			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	18.2	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59099

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	31.0	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	7.0	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	55000			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	45.6	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	7970			P
7439-96-5	Manganese	352			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2240	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	5650			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	14.8	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59100

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	10.0	U		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	360			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	35000			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	7.6	B		P
7440-50-8	Copper	1.2	B		P
7439-89-6	Iron	360			P
7439-92-1	Lead	1.6	B		F
7439-95-4	Magnesium	9210			P
7439-96-5	Manganese	2340			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	7030			P
7782-49-2	Selenium	1.4	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	16400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	4.4	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59101

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	16.0	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	86.8	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	11200			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	49.3	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	4330	B		P
7439-96-5	Manganese	25.9			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	4380	B		P
7782-49-2	Selenium	2.4	B	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	7110			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	18.1	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59102

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	21.1	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	26.7	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	12100			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	342			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	4120	B		P
7439-96-5	Manganese	243			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	1880	B		P
7782-49-2	Selenium	3.8	B	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	6140			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	9.7	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59103

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	61.3	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	82.9	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	71300			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	4.9	B		P
7440-50-8	Copper	1.0	B		P
7439-89-6	Iron	17700			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	7190			P
7439-96-5	Manganese	2420			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	9360			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	35100			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	26.2			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59104

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	21.9	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	66.1	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	16600			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	52.7	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	7990			P
7439-96-5	Manganese	15.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2670	B		P
7782-49-2	Selenium	3.8	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	11900			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	15.5	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

W59105

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	32.7	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	18.4	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	8730			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	2.9	B		P
7439-89-6	Iron	89.9	B		P
7439-92-1	Lead	1.2	B		F
7439-95-4	Magnesium	2040	B		P
7439-96-5	Manganese	81.1			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	1930	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8890			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	33.2			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59106

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59087

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

Level (low/med): LOW Date Received: 08/21/91

% 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	17.7	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	102	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	10500			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	17.5	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	4560	B		P
7439-96-5	Manganese	18.1			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2010	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8700			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	17.9	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59107

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59107

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

Level (low/med): LOW Date Received: 08/21/91

% 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	13.5	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	136	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	11900			P
7440-47-3	Chromium	3.4	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	30.4	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	5930			P
7439-96-5	Manganese	11.0	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	3180	B	E	P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	7680		E	P
7440-28-0	Thallium	1.5	B		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	14.2	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59108

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59107

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

Level (low/med): LOW Date Received: 08/21/91

% 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	19.0	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	25.4	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	19100			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	29.7	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	3690	B		P
7439-96-5	Manganese	52.9			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	821	B	E	P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	4760	B	E	P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.3	B		P
7440-66-6	Zinc	7.7	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59109

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59107

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

Level (low/med): LOW Date Received: 08/21/91

% 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	31.1	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	57.6	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	24000			P
7440-47-3	Chromium	2.2	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.3	B		P
7439-89-6	Iron	127			P
7439-92-1	Lead	6.3			F
7439-95-4	Magnesium	5620			P
7439-96-5	Manganese	182			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	22400		E	P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	22800		E	P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	B		P
7440-66-6	Zinc	13.2	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59110

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59107

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

Level (low/med): LOW Date Received: 08/21/91

% 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	10.8	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	2.8	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	52.9	B		P
7440-47-3	Chromium	4.2	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	5.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	88.4	B		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	636	B	E	P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	263	B	E	P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	3.5	B		P
7440-66-6	Zinc	4.3	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59111

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59107

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

Level (low/med): LOW Date Received: 08/21/91

% 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	30.2	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.1	B		F
7440-39-3	Barium	35.1	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	10400			P
7440-47-3	Chromium	4.8	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.3	B		P
7439-89-6	Iron	41.2	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	3820	B		P
7439-96-5	Manganese	19.8			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2670	B	E	P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8710		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	3.8	B		P
7440-66-6	Zinc	35.8			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59112

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14770 SAS No.: SDG No.: W59107

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

Level (low/med): LOW Date Received: 08/21/91

% 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	23.9	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	4.8	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	32100			P
7440-47-3	Chromium	3.5	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	31.5	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	5140			P
7439-96-5	Manganese	75.2			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2800	B	E	P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	15000		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	4.0	B		P
7440-66-6	Zinc	4.5	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Versar INC.

BATCH 16

GROUND-WATER DATA
TOTAL AND DISSOLVED METALS

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD

Pg 1 of 2

Co[illegible] Vers Div
CNTL 5357

PROJECT NO.	PROJECT NAME	PARAMETERS	INDUSTRIAL HYGIENE SAMPLE Y / N
5357	Dover Gas Light		N

SAMPLERS: (Signature) (Printed) Grover

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TOTAL Metals *							REMARKS VCI #
80046 - TOT						1	✓							59177 ✓
80047 - TOT						1	✓							178 "
80050 - TOT						1	✓							179 "
80051 - TOT						1	✓							180 "
80061 - TOT						1	✓							181 "
80062 - TOT						1	✓							182 "
80063 - TOT						1	✓							183 "
80070 - TOT						1	✓							184 "
80071 - TOT						1	✓							185 "
80072 - TOT						1	✓							186 "
80125 - TOT						1	✓							187 "

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
(Printed) Lawrence Polak	8/20/91 1530	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
(Printed)		(Printed)	8/21/91 0930	* CLP 7/87 Protocol (TAL METALS) CLP Specified QC Full Data Pkg. 30 DAY T/A

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Can Report Together w/ PROT 5357 (TEXW -

Cooler Rec'd w/ WT 8-19-91

AR301736

Columbia Analytical Services inc.

September 11, 1991

Larry Pollack
Versar Laboratories, Inc.
6850 Versar Ctr.
Springfield, VA 22151

Re: **Dover Gas Light/Project #5357** Total Metals B16

Dear Larry:

Enclosed are the results of the samples submitted to our lab on August 21, 1991. For your reference, our service request number for this work is K914772.

This data package contains total metals results for samples 59177 to 59187. Due to limitations with the CLP software, sample names have been modified to fit with CLP format. The letter W has been added to all sample codes.

All analyses were performed in accordance with our laboratory's quality assurance program.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Abbie Spielman

Abbie Spielman
Project Chemist

AS/mbm

CASE NARRATIVE

SDG:W59177 PROJECT:DOVER GAS LIGHT SERVICE REQUEST:K914772

Analytical spike recoveries and MSA slope, intercept, and r value calculations are included with raw data prior to the printout for the furnace analytical runs.

When necessary, ICP analysis of undiluted samples has been used to determine any subsequent dilutions needed to bring either Arsenic or Lead within the graphite furnace calibration range.

Respectfully Submitted:

Abbie Spielman
Project Chemist
COLUMBIA ANALYTICAL SERVICES, INC.

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
W59177	
W59177D	
W59177S	
W59178	
W59179	
W59180	
W59181	
W59182	
W59183	
W59184	
W59185	
W59186	
W59187	

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Allie Apelina

Date: 9/11/91

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59177

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	15900			P
7440-36-0	Antimony	15.2	B	N	P
7440-38-2	Arsenic	82.5		N	F
7440-39-3	Barium	233			P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	8080			P
7440-47-3	Chromium	98.5			P
7440-48-4	Cobalt	5.9	B		P
7440-50-8	Copper	32.0			P
7439-89-6	Iron	88200			P
7439-92-1	Lead	20.5			F
7439-95-4	Magnesium	6540			P
7439-96-5	Manganese	140			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	20.8	B		P
7440-09-7	Potassium	3980	B		P
7782-49-2	Selenium	6.5			F
7440-22-4	Silver	4.4	B		P
7440-23-5	Sodium	7240			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	120			P
7440-66-6	Zinc	51.3			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59178

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	20100			P
7440-36-0	Antimony	17.0	B	N	P
7440-38-2	Arsenic	4.2	B	N	F
7440-39-3	Barium	129	B		P
7440-41-7	Beryllium	1.8	B		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	46400			P
7440-47-3	Chromium	57.1			P
7440-48-4	Cobalt	14.2	B		P
7440-50-8	Copper	28.7			P
7439-89-6	Iron	49400			P
7439-92-1	Lead	13.5			F
7439-95-4	Magnesium	14300			P
7439-96-5	Manganese	599			P
7439-97-6	Mercury	1.0			CV
7440-02-0	Nickel	10.6	B		P
7440-09-7	Potassium	16000			P
7782-49-2	Selenium	2.8	B	W	F
7440-22-4	Silver	2.0	B		P
7440-23-5	Sodium	36100			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	67.7			P
7440-66-6	Zinc	64.1			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59179

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	12200			P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.5	B	N	F
7440-39-3	Barium	297			P
7440-41-7	Beryllium	1.2	B		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	31000			P
7440-47-3	Chromium	27.2			P
7440-48-4	Cobalt	8.8	B		P
7440-50-8	Copper	11.0	B		P
7439-89-6	Iron	50500			P
7439-92-1	Lead	15.7			F
7439-95-4	Magnesium	10900			P
7439-96-5	Manganese	1470			P
7439-97-6	Mercury	0.21			CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	6610			P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.1	B		P
7440-23-5	Sodium	54100			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	34.0	B		P
7440-66-6	Zinc	42.7			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59180

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	275			P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	13.4		N	F
7440-39-3	Barium	456			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	37100			P
7440-47-3	Chromium	2.0	B		P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	7.7	B		P
7439-89-6	Iron	50100			P
7439-92-1	Lead	2.4	B		F
7439-95-4	Magnesium	7790			P
7439-96-5	Manganese	1980			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	14700			P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	3.6	B		P
7440-23-5	Sodium	51500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	10.2	B		P
7440-66-6	Zinc	31.6			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59181

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	44400			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.8	B	N	F
7440-39-3	Barium	414			P
7440-41-7	Beryllium	3.1	B		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	46700			P
7440-47-3	Chromium	40.9			P
7440-48-4	Cobalt	53.0			P
7440-50-8	Copper	63.4			P
7439-89-6	Iron	63300			P
7439-92-1	Lead	65.2			F
7439-95-4	Magnesium	14400			P
7439-96-5	Manganese	12000			P
7439-97-6	Mercury	0.50			CV
7440-02-0	Nickel	29.3	B		P
7440-09-7	Potassium	16500			P
7782-49-2	Selenium	2.6	B	W	F
7440-22-4	Silver	4.0	B		P
7440-23-5	Sodium	28900			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	85.2			P
7440-66-6	Zinc	114			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59182

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	603			P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	14.7	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	4940	B		P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	4.0	B		P
7439-89-6	Iron	1750			P
7439-92-1	Lead	11.5			F
7439-95-4	Magnesium	1530	B		P
7439-96-5	Manganese	30.3			P
7439-97-6	Mercury	0.33			CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2660	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	26500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	13.7	B		P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59183

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	1690			P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	48.0	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	9890			P
7440-47-3	Chromium	13.6			P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	46.6			P
7439-89-6	Iron	5920			P
7439-92-1	Lead	97.2			F
7439-95-4	Magnesium	3020	B		P
7439-96-5	Manganese	74.8			P
7439-97-6	Mercury	0.33			CV
7440-02-0	Nickel	12.5	B		P
7440-09-7	Potassium	3380	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	23400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	5.7	B		P
7440-66-6	Zinc	219			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59184

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	11400			P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.4	B	N	F
7440-39-3	Barium	84.7	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	54200			P
7440-47-3	Chromium	33.3			P
7440-48-4	Cobalt	5.4	B		P
7440-50-8	Copper	7.2	B		P
7439-89-6	Iron	31800			P
7439-92-1	Lead	8.1			F
7439-95-4	Magnesium	13600			P
7439-96-5	Manganese	132			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	7730			P
7782-49-2	Selenium	4.9	B	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	35400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	34.5	B		P
7440-66-6	Zinc	25.2			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59185

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	3680			P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	3.4	B	N	F
7440-39-3	Barium	91.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	27400			P
7440-47-3	Chromium	15.1			P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	12.0	B		P
7439-89-6	Iron	8190			P
7439-92-1	Lead	12.6			F
7439-95-4	Magnesium	6680			P
7439-96-5	Manganese	774			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	14900			P
7782-49-2	Selenium	1.4	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	65400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	10.0	B		P
7440-66-6	Zinc	48.7			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59186

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	141000			P
7440-36-0	Antimony	27.6	B	N	P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	931			P
7440-41-7	Beryllium	20.2			P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	37600			P
7440-47-3	Chromium	213			P
7440-48-4	Cobalt	103			P
7440-50-8	Copper	103			P
7439-89-6	Iron	342000			P
7439-92-1	Lead	276			F
7439-95-4	Magnesium	14400			P
7439-96-5	Manganese	9340			P
7439-97-6	Mercury	0.61			CV
7440-02-0	Nickel	109			P
7440-09-7	Potassium	9990			P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	16.0			P
7440-23-5	Sodium	17200			P
7440-28-0	Thallium	2.2	B		F
7440-62-2	Vanadium	428			P
7440-66-6	Zinc	381			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59187

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14772 SAS No.: SDG No.: W59177

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

Level (low/med): LOW Date Received: 08/21/91

% 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	11.3	B		P
7440-36-0	Antimony	10.0	U	N	P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	5.0	U		P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	5.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	50.0	U		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	400	U		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	50.0	U		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	2.0	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Versar Laboratories INC.

CHAIN OF CUSTODY RECORD Pg 2 of 2 ~4113 CNTL 5357

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
5357	Dover Gas Light	Y / N

SAMPLERS: (Signature) (Printed) Glover

PARAMETERS: Dissolved Metals**

WATER

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Dissolved Metals**								REMARKS VLIT#
80046-DIS						1	✓								59166
80047-DIS						1	✓								167
80050-DIS						1	✓								168
80051-DIS						1	✓								169
80061-DIS						1	✓								170
80062-DIS						1	✓								171
80063-DIS						1	✓								172
80070-DIS						1	✓								173
80071-DIS						1	✓								174
80072-DIS						1	✓								175
80125-DIS						1	✓								176
															177

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature] (Printed) Lawrence Pollack	8/20/91 15:30	(Printed)	(Printed)	[signature]	(Printed)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time
(Printed)		[signature] (Printed)	8/21/91 0920

Remarks ** Dissolved Metals: Filtered + Preserved in Field
Total metals = "TOT" sample suffix on Bottle

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Samples Rcvd At V[illegible] 8-19-91 Dissolved metals = "DI[illegible]" sample suffix on [illegible]

AR301751

Columbia Analytical Services INC.

September 10, 1991

Larry Pollack
Versar Laboratories, Inc.
6850 Versar Ctr.
Springfield, VA 22151

DISSOLVED METALS
B16

Re: **Dover Gas Light/Project #5357**

Dear Larry:

Enclosed are the results of the samples submitted to our lab on August 21, 1991. For your reference, our service request number for this work is K914773.

These are dissolved metals results for samples 59166 to 59176. Due to limitations in the CLP software, the sample names have been modified slightly to fit with the CLP format such that the letter W has been added to start all of the sample codes.

All analyses were performed in accordance with our laboratory's quality assurance program.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Abbie Spielman

Abbie Spielman
Project Chemist

AS/mbm

1317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 206/577-7222

CASE NARRATIVE

SDG:W59166 PROJECT:DOVER GAS LIGHT SERVICE REQUEST:K914773

Analytical spike recoveries and MSA slope, intercept, and r value calculations are included with raw data prior to the printout for the furnace analytical runs.

When necessary, ICP analysis of undiluted samples has been used to determine any subsequent dilutions needed to bring either Arsenic or Lead within the graphite furnace calibration range.

Respectfully Submitted:

Abbie Spielman

Abbie Spielman
Project Chemist
COLUMBIA ANALYTICAL SERVICES, INC.

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
W59166	
W59166D	
W59166S	
W59167	
W59168	
W59169	
W59170	
W59171	
W59172	
W59173	
W59174	
W59175	
W59176	

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Anne Apelina

Date: 9/10/91

AR301754

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59166

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	86.5	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	126	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	7270			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	293			P
7439-92-1	Lead	1.2	B		F
7439-95-4	Magnesium	4690	B		P
7439-96-5	Manganese	96.0			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	1700	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	7310			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	26.2			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59167

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	80.0	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	58.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	47200			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.1	B		P
7440-50-8	Copper	1.2	B		P
7439-89-6	Iron	143			P
7439-92-1	Lead	2.1	B	W	F
7439-95-4	Magnesium	13400			P
7439-96-5	Manganese	11.6	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	15300			P
7782-49-2	Selenium	2.1	B	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	36400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	7.6	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59168

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	231			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	168	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	30800			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	3.7	B		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	3090			P
7439-92-1	Lead	1.1	B		F
7439-95-4	Magnesium	10200			P
7439-96-5	Manganese	1390			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	5460			P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	53800			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	18.5	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

W59169

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	36.4	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	385			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	41200			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	1540			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	8690			P
7439-96-5	Manganese	2110			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	15100			P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	56500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	17.9	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59170

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	33.4	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	76.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	47800			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	29.0	B		P
7439-92-1	Lead	1.2	B		F
7439-95-4	Magnesium	12500			P
7439-96-5	Manganese	4.6	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	14500			P
7782-49-2	Selenium	2.1	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	31400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	3.1	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59171

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	15.4	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	7.1	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	5510			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	14.8	B		P
7439-92-1	Lead	1.4	B	W	F
7439-95-4	Magnesium	1600	B		P
7439-96-5	Manganese	20.0			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	400	U		P
7782-49-2	Selenium	1.5	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	29300			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	15.2	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59172

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	32.3	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	21.4	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	10600			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	8.6	B		P
7439-89-6	Iron	53.0	B		P
7439-92-1	Lead	2.0	B		F
7439-95-4	Magnesium	2500	B		P
7439-96-5	Manganese	18.0			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	606	B		P
7782-49-2	Selenium	1.0	U	W	F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	26900			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	161			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59173

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	157	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	42.8	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	59300			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	291			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	14400			P
7439-96-5	Manganese	9.3	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	5370			P
7782-49-2	Selenium	4.3	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	37400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	5.5	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59174

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	55.1	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	41.7	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	30500			P
7440-47-3	Chromium	2.5	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	3.7	B		P
7439-89-6	Iron	56.2	B		P
7439-92-1	Lead	1.0	B		F
7439-95-4	Magnesium	7490			P
7439-96-5	Manganese	807			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	13600			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	74000			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	19.6	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

W59175

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	62.9	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	75.9	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	36700			P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	7.2	B		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	209			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	9450			P
7439-96-5	Manganese	5340			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	2420	B		P
7782-49-2	Selenium	1.1	B		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	19500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	13.8	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

W59176

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-D9-0085

Lab Code: COLUMB Case No.: 14773 SAS No.: SDG No.: W59166

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

Level (low/med): LOW Date Received: 08/21/91

% 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	25.5	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	4650	B		P
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	5.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	50.0	U		P
7439-96-5	Manganese	2.3	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	400	U		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	50.0	U		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	10.7	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: