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NAS CECIL FIELD, FL  
5090.3a

FLIGHTLINE SOIL REMOVAL LETTER REPORT NAS CECIL FIELD FL  
8/25/2003  
CH2MHILL CONSTRUCTORS INC



CH2M HILL  
115 Perimeter Center Place, N.E.  
Suite 700  
Atlanta, GA  
30346-1278  
Tel 770.604.9095  
Fax 770.604.9282

August 25, 2003

Tetra Tech Nus, Inc.  
Attn: Mark Speranza, P.E.  
661 Anderson Drive  
Pittsburgh, PA 15220

Subject: Contract No. N62467-98-D-0995  
Contract Task Order No. 0057  
Former Naval Air Station (NAS) Cecil Field - Jacksonville, Florida  
Flightline Soil Removal Letter Report

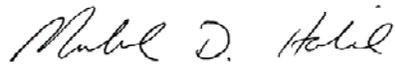
Dear Mr. Speranza:

CH2M HILL Constructors, Inc. (CCI) with J.A. Jones Environmental Services Company (J.A. Jones) is pleased to submit this Flightline Soil Removal Letter Report for the referenced Contract Task Order (CTO). This report was prepared for the United States Navy Southern Division Naval Facilities Engineering Command under CTO 0057 for the Remedial Action Contract (RAC) Number N62467-98-D-0995. The contents of this report document the activities for the removal of petroleum-contaminated soil stockpiled in the vicinity of the intersection of Runway 18L and Taxiway Bravo at former NAS Cecil Field, Jacksonville, Florida.

The stockpiled soil was sampled and analyzed for disposal characterization on June 09, 2003 for TCLP Volatiles by United States Environmental Protection Agency (USEPA) Method 1311/8260B, TCLP Semi-volatiles by USEPA Method 1311/8270C, TCLP Pesticides by USEPA Method 1311/8081A, TCLP Herbicides by USEPA Method 1311/8151A, TCLP Metals by USEPA Method 1311/6010B, and PCBs by USEPA Method 8082. Based on the laboratory analytical results, the stockpiled soil was characterized as non-hazardous petroleum-contaminated. The laboratory analytical report is provided in Enclosure 2. The removal of the stockpiled soil was performed on June 19, 2003. A photographic log documenting the contents of the soil stockpile is provided in Enclosure 1. 60.46 tons of petroleum-contaminated soil was loaded in tandem trailer trucks and transported by Bar-K Trucking for disposal at Broadhurst Environmental, Inc. Soil disposal documentation including the Waste Disposal Profile; Transportation and Disposal Log, Non-hazardous Waste Manifests, and Weight Tickets; and the Certificate of Disposal, is provided in Enclosures 3, 4, and 5, respectively.

If you have any questions with regard to this submittal, please contact Michael Halil at (904) 777-4812 x. 233.

Respectfully,

A handwritten signature in cursive script that reads "Michael D. Halil". The signature is written in black ink and is positioned to the left of a vertical line.

Michael D. Halil, P.E.  
Project Manager

Enclosures (5)

cc: Mark Davidson (Southern Division)  
Larry Blackburn (EFA Southeast)  
Debbie Vaughn-Wright (USEPA)  
David Grabka (FDEP)  
Project File No. 163231

# Enclosure 1

## Photographic Documentation

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Photograph	Description
01	Overview of stockpiled soil before removal
02	Front-end loader removing soil
03	Metal and glass debris
04	Small steel tank
05	Wood debris
06	Metal debris
07	Wood debris
08	Aluminum can marked foam
09	Small miscellaneous mechanical parts
10	Glass and tin debris
11	Asphalt/tar substance (approximately 2.5 feet in diameter)
12	Aluminum debris
13	Aluminum debris
14	Brick debris
15	Small iron tank being removed
16	Asphalt/tar substance (approximately 2.5 feet in diameter)
17	Chain link fence debris
18	Aluminum/tin debris
19	Ceramic debris
20	Restoration of site



Photo 1: Overview of stockpiled soil before removal



Photo 2: Front-end loader removing soil



Photo 3: Metal and glass debris



Photo 4: Small steel tank



Photo 5: Wood debris



Photo 6: Metal debris



Photo 7: Wood debris



Photo 8: Aluminum can marked foam



Photo 9: Small miscellaneous mechanical parts



Photo 10: Glass and tin debris



Photo 11: Asphalt/tar substance (approximately 2.5 feet in diameter)



Photo 12: Aluminum debris



Photo 13: Aluminum debris



Photo 14: Brick debris



Photo 15: Small iron tank being removed



Photo 16: Asphalt/tar substance (approximately 2.5 feet in diameter)



Photo 17: Chain link fence debris



Photo 18: Aluminum/tin debris



Photo 19: Ceramic debris



Photo 20: Restoration of site

Enclosure 2  
Analytical Results  
Chain of Custody

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# ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date: 6/18/03

**GCAL REPORT NO.** 203061006



*Deliver To:* CH2M HILL Constructors Inc.  
115 Perimeter Center Place  
Suite 700  
Atlanta, GA 30346  
770-604-9182 Ext. 614  
*Attn:* Melissa Aycok

**CUSTOMER NAME:** CH2M HILL Constructors Inc.

**PROJECT NAME:** Flight Line

000001

## CASE NARRATIVE

**Client:** CH2M HILL Constructors Inc.      **Report:** 203061006

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

### **VOLATILES MASS SPECTROMETRY**

In the SW-846 8260B analysis of samples 103312 (LCS) for HBN 258472 and 20306100602 (057-TB-W-0609-03), the recovery for the surrogate 4-Bromofluorobenzene was above the upper control limit. The remaining surrogates were all within control limits.

### **SEMI-VOLATILES GAS CHROMATOGRAPHY**

In the Pesticide and Herbicide analyses, the closing CCV failed high, however there were no target analytes present in the sample.

**000002**

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**LABORATORY ENDORSEMENT**

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 Days unless otherwise arranged. Following this retention period the samples will be disposed of in accordance with GCAL's Standard Operating Procedures.

**Common Abbreviations Utilized in this Report**

ND-Indicates that the parameter was not detected at the specified detection limit  
DO-Indicates that the result was diluted out  
MI-Indicates that the result was subject to Matrix Interference  
TNTC-Indicates that the result was Too Numerous to Count  
SUBC-Indicates that the analysis was subcontracted  
FLD-Indicates that the parameter was performed in the field  
PQL-Practical Quantitation Limit  
MDL-Method Detection Limit  
RDL-Reporting Detection Limit

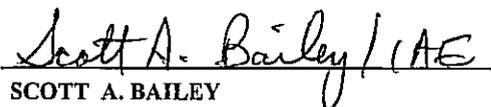
**Reporting Flags Utilized in this Report**

J-Indicates that the result was detected between the PQL and MDL  
U-Indicates that the result was not detected at the referenced detection limit  
B-Organics Indicates that the compound was detected in the associated Method Blank  
B-Inorganics Indicates that the compound was detected between the PQL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This Report pertains only to the samples listed in the Sample Cross-Reference and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the Client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

  
SCOTT A. BAILEY

OPERATIONS MANAGER

GCAL REPORT NO.: 203061006

000003

## SAMPLE CROSS-REFERENCE

GCAL ID	CLIENT ID	MATRIX	SAMPLE DATE/TIME	RECEIVE DATE/TIME
20306100601	057-FL-S-0609-03	Solid	6/9/03 9:30	6/10/03 9:20
20306100602	057-TB-W-0609-03	Water	6/9/03 0:00	6/10/03 9:20
20306100603	057-FL-S-0609-03 (TOTAL)	Solid	6/9/03 9:30	6/10/03 9:10

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20306100601	057-FL-S-0609-03	Solid	6/9/03 09:30	6/10/03 09:20	

**9045C Solid - pH**

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	6/12/03 7:30	OLT	258575

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
pH	pH	7.21	1.00	1.00	pH unit

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20306100601	057-FL-S-0609-03	Solid	6/9/03 09:30	6/10/03 09:20	

**9012A Reactivity Cyanide**

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
6/12/03 07:00	258563	7.3.3.2	1	6/12/03 11:58	BMC	258589

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
57-12-5R	Reactivity Cyanide	250 U	250	250	mg/kg

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20306100601	057-FL-S-0609-03	Solid	6/9/03 09:30	6/10/03 09:20	

**Reactivity Sulfide - 9034**

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
6/12/03 07:00	258564	7.3.4.2	1	6/12/03 13:30	HLO	258611

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
18496-25-8R	Reactivity Sulfide	80 U	80	80	mg/kg

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20306100601	057-FL-S-0609-03	Solid	6/9/03 09:30	6/10/03 09:20	

**1030 Flashpoint**

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	6/12/03 15:34	MDT	258619

<u>CAS #</u>	<u>PARAMETER</u>	<u>RESULT</u>	<u>PQL</u>	<u>MDL</u>	<u>UNITS</u>
000000-01-7	Ignitable	NO			

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20306100603	057-FL-S-0609-03 (TOTAL)	Solid	6/9/03 09:30	6/10/03 09:10	

**2540 G Total Solids - Solid**

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
				6/11/03 17:55	AEL	258558

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
C-008	Total Solids	87.2	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

# QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
103706	Method Blank	Solid	

9012A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
6/12/03 07:00	258563	7.3.3.2	1	6/12/03 11:58	BMC	258589

CAS #	PARAMETER	RESULT	RDL	UNITS
57-12-5R	Reactivity Cyanide	250 U	250	mg/kg

# QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
103709	Method Blank	Solid	

9034

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
6/12/03 07:00	258564	7.3.4.2	1	6/12/03 13:30	HLO	258611

CAS #	PARAMETER	RESULT	RDL	UNITS
18496-25-	Reactivity Sulfide	80 U	80	mg/kg

# QUALITY CONTROL SUMMARY

DUPLICATE SAMPLE ID: 103694	ORIGINAL LAB ID: 20306100603	PREP BATCH:
	MATRIX: Solid	ANALYTICAL BATCH: 258558

## 2540 G (Dry Weight)

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
C-008	Total Solids	87.2	87.3	0.11	0 - 25

DUPLICATE SAMPLE ID: 103755	ORIGINAL LAB ID: 20306100601	PREP BATCH:
	MATRIX: Solid	ANALYTICAL BATCH: 258575

## SW-846 9045

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
pH	pH	7.21	7.25	0.6	- 6

LCS ID: 103707	ORIGINAL LAB ID:	PREP BATCH: 258563
	MATRIX: Solid	ANALYTICAL BATCH: 258589

## 9012A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
57-12-5R	Reactivity Cyanide	250 mg/kg	26.8	11	1 - 25

DUPLICATE SAMPLE ID: 103708	ORIGINAL LAB ID: 20306100601	PREP BATCH: 258563
	MATRIX: Solid	ANALYTICAL BATCH: 258589

## 9012A

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
57-12-5R	Reactivity Cyanide	0.58	0.56	4	0 - 25

LCS ID: 103710	ORIGINAL LAB ID:	PREP BATCH: 258564
	MATRIX: Solid	ANALYTICAL BATCH: 258611

## 9034

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
18496-25-8R	Reactivity Sulfide	1000 mg/kg	576	57.6	26 - 114

DUPLICATE SAMPLE ID: 103711	ORIGINAL LAB ID: 20306100601	PREP BATCH: 258564
	MATRIX: Solid	ANALYTICAL BATCH: 258611

## 9034

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
18496-25-8R	Reactivity Sulfide	0	0	0	0 - 25



## VOLATILE ORGANICS ANALYSIS DATA SHEET

057-TB-W-0609-03

Lab Name: GCAL Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20306100602

Level: (low/med) LOW Lab File ID: 2030610/S0496

% Moisture: not dec. \_\_\_\_\_ Date Collected: 06/09/03 Time: 0000

GC Column: DB-624-30M ID: .53 (mm) Date Received: 06/10/03

Instrument ID: MSV1 Date Analyzed: 06/10/03 Time: 1241

Soil Extract Volume: \_\_\_\_\_ (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: \_\_\_\_\_ (µL) Prep Batch: \_\_\_\_\_ Analytical Batch: 258472

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-55-6	1,1,1-Trichloroethane	5.00	U	0.204	5.00
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	0.200	5.00
79-00-5	1,1,2-Trichloroethane	5.00	U	0.333	5.00
75-34-3	1,1-Dichloroethane	5.00	U	0.122	5.00
75-35-4	1,1-Dichloroethene	5.00	U	0.357	5.00
120-82-1	1,2,4-Trichlorobenzene	5.00	U	0.405	5.00
96-12-8	1,2-Dibromo-3-chloropropane	5.00	U	0.200	5.00
106-93-4	1,2-Dibromoethane	5.00	U	0.116	5.00
95-50-1	1,2-Dichlorobenzene	5.00	U	0.221	5.00
107-06-2	1,2-Dichloroethane	5.00	U	0.277	5.00
78-87-5	1,2-Dichloropropane	5.00	U	0.341	5.00
541-73-1	1,3-Dichlorobenzene	5.00	U	0.320	5.00
106-46-7	1,4-Dichlorobenzene	5.00	U	0.295	5.00
78-93-3	2-Butanone	25.0	U	0.641	25.0
591-78-6	2-Hexanone	5.00	U	0.443	5.00
108-10-1	4-Methyl-2-pentanone	5.00	U	0.252	5.00
67-64-1	Acetone	25.0	U	2.36	25.0
71-43-2	Benzene	5.00	U	0.100	5.00
75-27-4	Bromodichloromethane	5.00	U	0.102	5.00
75-25-2	Bromoform	5.00	U	0.140	5.00
74-83-9	Bromomethane	5.00	U	0.330	5.00
75-15-0	Carbon disulfide	5.00	U	0.180	5.00
56-23-5	Carbon tetrachloride	5.00	U	0.161	5.00
108-90-7	Chlorobenzene	5.00	U	0.157	5.00
75-00-3	Chloroethane	5.00	U	0.237	5.00
67-66-3	Chloroform	5.00	U	0.140	5.00
74-87-3	Chloromethane	5.00	U	0.393	5.00
110-82-7	Cyclohexane	5.00	U	0.169	5.00
124-48-1	Dibromochloromethane	5.00	U	0.105	5.00
75-71-8	Dichlorodifluoromethane	5.00	U	0.228	5.00
10061-01-5	cis-1,3-Dichloropropene	5.00	U	0.128	5.00
10061-02-6	trans-1,3-Dichloropropene	5.00	U	0.329	5.00
100-41-4	Ethylbenzene	5.00	U	0.312	5.00

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

057-TB-W-0609-03

Lab Name: GCAL Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20306100602

Level: (low/med) LOW Lab File ID: 2030610/S0496

% Moisture: not dec. \_\_\_\_\_ Date Collected: 06/09/03 Time: 0000

GC Column: DB-624-30M ID: .53 (mm) Date Received: 06/10/03

Instrument ID: MSV1 Date Analyzed: 06/10/03 Time: 1241

Soil Extract Volume: \_\_\_\_\_ (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: \_\_\_\_\_ (µL) Prep Batch: \_\_\_\_\_ Analytical Batch: 258472

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

**CAS NO.      COMPOUND                                      RESULT      Q                      MDL                      RL**

98-82-8	Isopropylbenzene (Cumene)	5.00	U	0.246	5.00
79-20-9	Methyl Acetate	5.00	U	5.00	5.00
108-87-2	Methylcyclohexane	5.00	U	5.00	5.00
75-09-2	Methylene chloride	2.12	J	0.613	10.0
100-42-5	Styrene	5.00	U	0.173	5.00
127-18-4	Tetrachloroethene	5.00	U	0.269	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
79-01-6	Trichloroethene	5.00	U	0.323	5.00
75-69-4	Trichlorofluoromethane	5.00	U	0.192	5.00
76-13-1	Trichlorotrifluoroethane	5.00	U	0.193	5.00
75-01-4	Vinyl chloride	5.00	U	0.177	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
156-59-2	cis-1,2-Dichloroethene	5.00	U	0.151	5.00
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00
156-60-5	trans-1,2-Dichloroethene	5.00	U	0.192	5.00



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB103314

Lab Name: GCAL Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 103314

Level: (low/med) LOW

Lab File ID: 2030610/S0494

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

Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

GC Column: DB-624-30M ID: .53 (mm)

Date Received: \_\_\_\_\_

Instrument ID: MSV1

Date Analyzed: 06/10/03 Time: 1119

Soil Extract Volume: \_\_\_\_\_ (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: \_\_\_\_\_ (µL)

Prep Batch: \_\_\_\_\_ Analytical Batch: 258472

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

**CAS NO.      COMPOUND                                      RESULT      Q                      MDL                      RL**

71-55-6	1,1,1-Trichloroethane	5.00	U	0.204	5.00
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	0.200	5.00
79-00-5	1,1,2-Trichloroethane	5.00	U	0.333	5.00
75-34-3	1,1-Dichloroethane	5.00	U	0.122	5.00
75-35-4	1,1-Dichloroethene	5.00	U	0.357	5.00
120-82-1	1,2,4-Trichlorobenzene	5.00	U	0.405	5.00
96-12-8	1,2-Dibromo-3-chloropropane	5.00	U	0.200	5.00
106-93-4	1,2-Dibromoethane	5.00	U	0.116	5.00
95-50-1	1,2-Dichlorobenzene	5.00	U	0.221	5.00
107-06-2	1,2-Dichloroethane	5.00	U	0.277	5.00
78-87-5	1,2-Dichloropropane	5.00	U	0.341	5.00
541-73-1	1,3-Dichlorobenzene	5.00	U	0.320	5.00
106-46-7	1,4-Dichlorobenzene	5.00	U	0.295	5.00
78-93-3	2-Butanone	25.0	U	0.641	25.0
591-78-6	2-Hexanone	5.00	U	0.443	5.00
108-10-1	4-Methyl-2-pentanone	5.00	U	0.252	5.00
67-64-1	Acetone	25.0	U	2.36	25.0
71-43-2	Benzene	5.00	U	0.100	5.00
75-27-4	Bromodichloromethane	5.00	U	0.102	5.00
75-25-2	Bromofom	5.00	U	0.140	5.00
74-83-9	Bromomethane	5.00	U	0.330	5.00
75-15-0	Carbon disulfide	5.00	U	0.180	5.00
56-23-5	Carbon tetrachloride	5.00	U	0.161	5.00
108-90-7	Chlorobenzene	5.00	U	0.157	5.00
75-00-3	Chloroethane	5.00	U	0.237	5.00
67-66-3	Chloroform	5.00	U	0.140	5.00
74-87-3	Chloromethane	5.00	U	0.393	5.00
110-82-7	Cyclohexane	5.00	U	0.169	5.00
124-48-1	Dibromochloromethane	5.00	U	0.105	5.00
75-71-8	Dichlorodifluoromethane	5.00	U	0.228	5.00
10061-01-5	cis-1,3-Dichloropropene	5.00	U	0.128	5.00
10061-02-6	trans-1,3-Dichloropropene	5.00	U	0.329	5.00
100-41-4	Ethylbenzene	5.00	U	0.312	5.00

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB103314

Lab Name: GCAL Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 103314

Level: (low/med) LOW

Lab File ID: 2030610/S0494

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

Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

GC Column: DB-624-30M ID: .53 (mm)

Date Received: \_\_\_\_\_

Instrument ID: MSV1

Date Analyzed: 06/10/03 Time: 1119

Soil Extract Volume: \_\_\_\_\_ (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: \_\_\_\_\_ (µL)

Prep Batch: \_\_\_\_\_ Analytical Batch: 258472

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

**CAS NO.      COMPOUND                                      RESULT      Q                      MDL                      RL**

98-82-8	Isopropylbenzene (Cumene)	5.00	U	0.246	5.00
79-20-9	Methyl Acetate	5.00	U	5.00	5.00
108-87-2	Methylcyclohexane	5.00	U	5.00	5.00
75-09-2	Methylene chloride	10.0	U	0.613	10.0
100-42-5	Styrene	5.00	U	0.173	5.00
127-18-4	Tetrachloroethene	5.00	U	0.269	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
79-01-6	Trichloroethene	5.00	U	0.323	5.00
75-69-4	Trichlorofluoromethane	5.00	U	0.192	5.00
76-13-1	Trichlorotrifluoroethane	5.00	U	0.193	5.00
75-01-4	Vinyl chloride	5.00	U	0.177	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
156-59-2	cis-1,2-Dichloroethene	5.00	U	0.151	5.00
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00
156-60-5	trans-1,2-Dichloroethene	5.00	U	0.192	5.00

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

LCS103832

Lab Name: GCAL Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 103832

Level: (low/med) LOW

Lab File ID: 2030612/S5062

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

Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

GC Column: DB-624-30M ID: .53 (mm)

Date Received: \_\_\_\_\_

Instrument ID: MSV2

Date Analyzed: 06/12/03 Time: 1017

Soil Extract Volume: \_\_\_\_\_ (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: \_\_\_\_\_ (µL)

Prep Batch: \_\_\_\_\_ Analytical Batch: 258597

CONCENTRATION UNITS: *mg/L*

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
75-35-4	1,1-Dichloroethene	0.028		0.00047	0.005
107-06-2	1,2-Dichloroethane	0.029		0.00043	0.005
78-93-3	2-Butanone	0.031		0.00055	0.025
71-43-2	Benzene	0.026		0.00042	0.005
56-23-5	Carbon tetrachloride	0.027		0.00035	0.005
108-90-7	Chlorobenzene	0.026		0.00046	0.005
67-66-3	Chloroform	0.027		0.00046	0.005
127-18-4	Tetrachloroethene	0.025		0.00041	0.005
79-01-6	Trichloroethene	0.025		0.00042	0.005
75-01-4	Vinyl chloride	0.029		0.00051	0.005

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

LCS103312

Lab Name: GCAL Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 103312

Level: (low/med) LOW

Lab File ID: 2030610/S0489

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

Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

GC Column: DB-624-30M ID: .53 (mm)

Date Received: \_\_\_\_\_

Instrument ID: MSV1

Date Analyzed: 06/10/03 Time: 0935

Soil Extract Volume: \_\_\_\_\_ (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: \_\_\_\_\_ (µL)

Prep Batch: \_\_\_\_\_ Analytical Batch: 258472

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

**CAS NO.      COMPOUND                                      RESULT      Q           MDL           RL**

71-55-6	1,1,1-Trichloroethane	25.3		0.204	5.00
79-34-5	1,1,2,2-Tetrachloroethane	21.5		0.200	5.00
79-00-5	1,1,2-Trichloroethane	23.0		0.333	5.00
75-34-3	1,1-Dichloroethane	23.5		0.122	5.00
75-35-4	1,1-Dichloroethene	25.8		0.357	5.00
120-82-1	1,2,4-Trichlorobenzene	25.8		0.405	5.00
96-12-8	1,2-Dibromo-3-chloropropane	22.7		0.200	5.00
106-93-4	1,2-Dibromoethane	22.2		0.116	5.00
95-50-1	1,2-Dichlorobenzene	23.7		0.221	5.00
107-06-2	1,2-Dichloroethane	24.0		0.277	5.00
78-87-5	1,2-Dichloropropane	22.1		0.341	5.00
541-73-1	1,3-Dichlorobenzene	25.2		0.320	5.00
106-46-7	1,4-Dichlorobenzene	23.8		0.295	5.00
78-93-3	2-Butanone	25.4		0.641	25.0
591-78-6	2-Hexanone	22.9		0.443	5.00
108-10-1	4-Methyl-2-pentanone	23.6		0.252	5.00
67-64-1	Acetone	25.1		2.36	25.0
71-43-2	Benzene	22.7		0.100	5.00
75-27-4	Bromodichloromethane	23.6		0.102	5.00
75-25-2	Bromoform	25.2		0.140	5.00
74-83-9	Bromomethane	24.9		0.330	5.00
75-15-0	Carbon disulfide	23.2		0.180	5.00
56-23-5	Carbon tetrachloride	22.0		0.161	5.00
108-90-7	Chlorobenzene	26.0		0.157	5.00
75-00-3	Chloroethane	23.9		0.237	5.00
67-66-3	Chloroform	24.5		0.140	5.00
74-87-3	Chloromethane	21.6		0.393	5.00
110-82-7	Cyclohexane	26.1		0.169	5.00
124-48-1	Dibromochloromethane	22.3		0.105	5.00
75-71-8	Dichlorodifluoromethane	23.9		0.228	5.00
10061-01-5	cis-1,3-Dichloropropene	23.6		0.128	5.00
10061-02-6	trans-1,3-Dichloropropene	22.2		0.329	5.00
100-41-4	Ethylbenzene	26.9		0.312	5.00

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

LCS103312

Lab Name: GCAL Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 103312

Level: (low/med) LOW Lab File ID: 2030610/S0489

% Moisture: not dec. \_\_\_\_\_ Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

GC Column: DB-624-30M ID: .53 (mm) Date Received: \_\_\_\_\_

Instrument ID: MSV1 Date Analyzed: 06/10/03 Time: 0935

Soil Extract Volume: \_\_\_\_\_ (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: \_\_\_\_\_ (µL) Prep Batch: \_\_\_\_\_ Analytical Batch: 258472

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
98-82-8	Isopropylbenzene (Cumene)	24.8		0.246	5.00
79-20-9	Methyl Acetate	22.8		5.00	5.00
108-87-2	Methylcyclohexane	24.9		5.00	5.00
75-09-2	Methylene chloride	22.0		0.613	10.0
100-42-5	Styrene	26.4		0.173	5.00
127-18-4	Tetrachloroethene	24.7		0.269	5.00
108-88-3	Toluene	25.9		0.152	5.00
79-01-6	Trichloroethene	24.4		0.323	5.00
75-69-4	Trichlorofluoromethane	24.8		0.192	5.00
76-13-1	Trichlorotrifluoroethane	26.1		0.193	5.00
75-01-4	Vinyl chloride	24.1		0.177	5.00
1330-20-7	Xylene (total)	79.0		0.507	10.0
156-59-2	cis-1,2-Dichloroethene	26.1		0.151	5.00
1634-04-4	tert-Butyl methyl ether (MTBE)	21.1		0.122	5.00
156-60-5	trans-1,2-Dichloroethene	23.8		0.192	5.00

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

LCSD103313

Lab Name: GCAL Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 103313

Level: (low/med) LOW

Lab File ID: 2030610/S0490

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

Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

GC Column: DB-624-30M ID: .53 (mm)

Date Received: \_\_\_\_\_

Instrument ID: MSV1

Date Analyzed: 06/10/03 Time: 1006

Soil Extract Volume: \_\_\_\_\_ (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: \_\_\_\_\_ (µL)

Prep Batch: \_\_\_\_\_ Analytical Batch: 258472

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

**CAS NO.      COMPOUND                                      RESULT      Q           MDL           RL**

71-55-6	1,1,1-Trichloroethane	22.9		0.204	5.00
79-34-5	1,1,2,2-Tetrachloroethane	23.1		0.200	5.00
79-00-5	1,1,2-Trichloroethane	25.2		0.333	5.00
75-34-3	1,1-Dichloroethane	20.8		0.122	5.00
75-35-4	1,1-Dichloroethene	23.1		0.357	5.00
120-82-1	1,2,4-Trichlorobenzene	26.2		0.405	5.00
96-12-8	1,2-Dibromo-3-chloropropane	24.1		0.200	5.00
106-93-4	1,2-Dibromoethane	23.9		0.116	5.00
95-50-1	1,2-Dichlorobenzene	24.6		0.221	5.00
107-06-2	1,2-Dichloroethane	21.8		0.277	5.00
78-87-5	1,2-Dichloropropane	21.9		0.341	5.00
541-73-1	1,3-Dichlorobenzene	24.7		0.320	5.00
106-46-7	1,4-Dichlorobenzene	24.6		0.295	5.00
78-93-3	2-Butanone	25.0		0.641	25.0
591-78-6	2-Hexanone	24.7		0.443	5.00
108-10-1	4-Methyl-2-pentanone	22.7		0.252	5.00
67-64-1	Acetone	26.6		2.36	25.0
71-43-2	Benzene	22.4		0.100	5.00
75-27-4	Bromodichloromethane	22.8		0.102	5.00
75-25-2	Bromoform	26.4		0.140	5.00
74-83-9	Bromomethane	22.2		0.330	5.00
75-15-0	Carbon disulfide	21.3		0.180	5.00
56-23-5	Carbon tetrachloride	21.3		0.161	5.00
108-90-7	Chlorobenzene	25.6		0.157	5.00
75-00-3	Chloroethane	21.8		0.237	5.00
67-66-3	Chloroform	22.1		0.140	5.00
74-87-3	Chloromethane	18.4		0.393	5.00
110-82-7	Cyclohexane	24.3		0.169	5.00
124-48-1	Dibromochloromethane	24.3		0.105	5.00
75-71-8	Dichlorodifluoromethane	20.6		0.228	5.00
10061-01-5	cis-1,3-Dichloropropene	23.8		0.128	5.00
10061-02-6	trans-1,3-Dichloropropene	23.8		0.329	5.00
100-41-4	Ethylbenzene	25.4		0.312	5.00

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

LCSD103313

Lab Name: GCAL Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 103313

Level: (low/med) LOW Lab File ID: 2030610/S0490

% Moisture: not dec. \_\_\_\_\_ Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

GC Column: DB-624-30M ID: .53 (mm) Date Received: \_\_\_\_\_

Instrument ID: MSV1 Date Analyzed: 06/10/03 Time: 1006

Soil Extract Volume: \_\_\_\_\_ (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: \_\_\_\_\_ (µL) Prep Batch: \_\_\_\_\_ Analytical Batch: 258472

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
98-82-8	Isopropylbenzene (Cumene)	23.8		0.246	5.00
79-20-9	Methyl Acetate	23.9		5.00	5.00
108-87-2	Methylcyclohexane	25.1		5.00	5.00
75-09-2	Methylene chloride	20.3		0.613	10.0
100-42-5	Styrene	25.1		0.173	5.00
127-18-4	Tetrachloroethene	25.1		0.269	5.00
108-88-3	Toluene	25.8		0.152	5.00
79-01-6	Trichloroethene	23.9		0.323	5.00
75-69-4	Trichlorofluoromethane	21.6		0.192	5.00
76-13-1	Trichlorotrifluoroethane	23.5		0.193	5.00
75-01-4	Vinyl chloride	21.2		0.177	5.00
1330-20-7	Xylene (total)	75.8		0.507	10.0
156-59-2	cis-1,2-Dichloroethene	23.9		0.151	5.00
1634-04-4	tert-Butyl methyl ether (MTBE)	24.2		0.122	5.00
156-60-5	trans-1,2-Dichloroethene	21.4		0.192	5.00

## WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006

	<b>SAMPLE NO.</b>	<b>SMC1</b>	<b>#</b>	<b>SMC2</b>	<b>#</b>	<b>SMC3</b>	<b>#</b>	<b>SMC4</b>	<b>#</b>	<b>TOT OUT</b>
1.	057-TB-W-0609-03	120	*	113		105		113		1
2.	LCS103312	118	*	109		108		104		1
3.	LCSD103313	107		93		103		95		0
4.	MB103314	114		117		105		123		0

## QC LIMITS

SMC 1	4-Bromofluorobenzene	78	-	115
SMC 2	Dibromofluoromethane	70	-	130
SMC 3	Toluene-d8	83	-	112
SMC 4	1,2-Dichloroethane-d4	76	-	128

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

## WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006

	<i>SAMPLE NO.</i>	<i>SMC1 #</i>	<i>SMC2 #</i>	<i>SMC3 #</i>	<i>SMC4 #</i>	<i>TOT OUT</i>
1.	LCS103832	92	94	92	95	0
2.	MB103833	85	95	96	91	0

## QC LIMITS

SMC 1	4-Bromofluorobenzene	78 - 115
SMC 2	Dibromofluoromethane	70 - 130
SMC 3	Toluene-d8	83 - 112
SMC 4	1,2-Dichloroethane-d4	76 - 128

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

## SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Method: 1311/8260B

<i>SAMPLE NO.</i>	<i>SMC1</i>	<i>#</i>	<i>SMC2</i>	<i>#</i>	<i>SMC3</i>	<i>#</i>	<i>SMC4</i>	<i>#</i>	<i>TOT</i>	<i>OUT</i>
1. 057-FL-S-0609-03	87		97		92		98		0	

## QC LIMITS

SMC 1	4-Bromofluorobenzene	78 - 115
SMC 2	Dibromofluoromethane	70 - 130
SMC 3	Toluene-d8	83 - 112
SMC 4	1,2-Dichloroethane-d4	76 - 128

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

## WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Analytical Batch: 258472SAMPLE NO. : 103312

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS % REC	#	QC. LIMITS
1,1,1-Trichloroethane	ug/L	25	0	25.3	101		45 - 152
1,1,2,2-Tetrachloroethane	ug/L	25	0	21.5	86		55 - 153
1,1,2-Trichloroethane	ug/L	25	0	23	92		73 - 144
1,1-Dichloroethane	ug/L	25	0	23.5	94		75 - 127
1,1-Dichloroethene	ug/L	25	0	25.8	103		67 - 140
1,2,4-Trichlorobenzene	ug/L	25	0	25.8	103		60 - 148
1,2-Dibromo-3-chloropropane	ug/L	25	0	22.7	91		58 - 148
1,2-Dibromoethane	ug/L	25	0	22.2	89		74 - 140
1,2-Dichlorobenzene	ug/L	25	0	23.7	95		67 - 142
1,2-Dichloroethane	ug/L	25	0	24	96		79 - 134
1,2-Dichloropropane	ug/L	25	0	22.1	88		77 - 129
1,3-Dichlorobenzene	ug/L	25	0	25.2	101		65 - 143
1,4-Dichlorobenzene	ug/L	25	0	23.8	95		68 - 142
2-Butanone	ug/L	25	0	25.4	102		59 - 157
2-Hexanone	ug/L	25	0	22.9	92		71 - 166
4-Methyl-2-pentanone	ug/L	25	0	23.6	94		65 - 159
Acetone	ug/L	25	0	25.1	100		58 - 165
Benzene	ug/L	25	0	22.7	91		74 - 128
Bromodichloromethane	ug/L	25	0	23.6	94		76 - 128
Bromoform	ug/L	25	0	25.2	101		67 - 145
Bromomethane	ug/L	25	0	24.9	100		73 - 147
Carbon disulfide	ug/L	25	0	23.2	93		37 - 155
Carbon tetrachloride	ug/L	25	0	22	88		75 - 128
Chlorobenzene	ug/L	25	0	26	104		78 - 125
Chloroethane	ug/L	25	0	23.9	96		46 - 160
Chloroform	ug/L	25	0	24.5	98		80 - 124
Chloromethane	ug/L	25	0	21.6	86		71 - 120
Cyclohexane	ug/L	25	0	26.1	104		70 - 130
Dibromochloromethane	ug/L	25	0	22.3	89		43 - 159
Dichlorodifluoromethane	ug/L	25	0	23.9	96		70 - 127
Ethylbenzene	ug/L	25	0	26.9	108		75 - 138
Isopropylbenzene (Cumene)	ug/L	25	0	24.8	99		66 - 151
Methyl Acetate	ug/L	25	0	22.8	91		40 - 170
Methylcyclohexane	ug/L	25	0	24.9	100		40 - 130
Methylene chloride	ug/L	25	0	22	88		74 - 130
Styrene	ug/L	25	0	26.4	106		75 - 139
Tetrachloroethene	ug/L	25	0	24.7	99		75 - 140

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

\* Values outside of QC limits

RPD : 0 out of 48 outside limitsSpike Recovery: 0 out of 96 outside limits

## WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Analytical Batch: 258472

Toluene	ug/L	25	0	25.9	104	76	-	125
Trichloroethene	ug/L	25	0	24.4	98	63	-	118
Trichlorofluoromethane	ug/L	25	0	24.8	99	73	-	131
Trichlorotrifluoroethane	ug/L	25	0	26.1	104	70	-	130
Vinyl chloride	ug/L	25	0	24.1	96	68	-	127
Xylene (total)	ug/L	75	0	79	105	60	-	154
cis-1,2-Dichloroethene	ug/L	25	0	26.1	104	78	-	124
cis-1,3-Dichloropropene	ug/L	25	0	23.6	94	73	-	128
tert-Butyl methyl ether (MTBE)	ug/L	25	0	21.1	84	70	-	130
trans-1,2-Dichloroethene	ug/L	25	0	23.8	95	75	-	124
trans-1,3-Dichloropropene	ug/L	25	0	22.2	89	72	-	134

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

\* Values outside of QC limits

RPD : 0 out of 48 outside limitsSpike Recovery: 0 out of 96 outside limits

## WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Analytical Batch: 258472SAMPLE NO. : 103313

COMPOUND	UNITS	SPIKE ADDED	LCSD CONC.	LCSD % REC	#	% RPD	#	QC. LIMITS	
								REC	RPD
1,1,1-Trichloroethane	ug/L	25	22.9	92		9		45 - 152	0 - 30
1,1,2,2-Tetrachloroethane	ug/L	25	23.1	92		7		55 - 153	0 - 30
1,1,2-Trichloroethane	ug/L	25	25.2	101		9		73 - 144	0 - 30
1,1-Dichloroethane	ug/L	25	20.8	83		12		75 - 127	0 - 30
1,1-Dichloroethene	ug/L	25	23.1	92		11		67 - 140	0 - 14
1,2,4-Trichlorobenzene	ug/L	25	26.2	105		2		60 - 148	0 - 30
1,2-Dibromo-3-chloropropane	ug/L	25	24.1	96		5		58 - 148	0 - 30
1,2-Dibromoethane	ug/L	25	23.9	96		8		74 - 140	0 - 30
1,2-Dichlorobenzene	ug/L	25	24.6	98		3		67 - 142	0 - 30
1,2-Dichloroethane	ug/L	25	21.8	87		10		79 - 134	0 - 30
1,2-Dichloropropane	ug/L	25	21.9	88		0		77 - 129	0 - 30
1,3-Dichlorobenzene	ug/L	25	24.7	99		2		65 - 143	0 - 30
1,4-Dichlorobenzene	ug/L	25	24.6	98		3		68 - 142	0 - 30
2-Butanone	ug/L	25	25	100		2		59 - 157	0 - 30
2-Hexanone	ug/L	25	24.7	99		7		71 - 166	0 - 30
4-Methyl-2-pentanone	ug/L	25	22.7	91		3		65 - 159	0 - 30
Acetone	ug/L	25	26.6	106		6		58 - 165	0 - 30
Benzene	ug/L	25	22.4	90		1		74 - 128	0 - 11
Bromodichloromethane	ug/L	25	22.8	91		3		76 - 128	0 - 30
Bromoform	ug/L	25	26.4	106		5		67 - 145	0 - 30
Bromomethane	ug/L	25	22.2	89		12		73 - 147	0 - 30
Carbon disulfide	ug/L	25	21.3	85		9		37 - 155	0 - 30
Carbon tetrachloride	ug/L	25	21.3	85		3		75 - 128	0 - 30
Chlorobenzene	ug/L	25	25.6	102		2		78 - 125	0 - 13
Chloroethane	ug/L	25	21.8	87		10		46 - 160	0 - 30
Chloroform	ug/L	25	22.1	88		11		80 - 124	0 - 30
Chloromethane	ug/L	25	18.4	74		15		71 - 120	0 - 30
Cyclohexane	ug/L	25	24.3	97		7		70 - 130	0 - 30
Dibromochloromethane	ug/L	25	24.3	97		9		43 - 159	0 - 30
Dichlorodifluoromethane	ug/L	25	20.6	82		16		70 - 127	0 - 30
Ethylbenzene	ug/L	25	25.4	102		6		75 - 138	0 - 30
Isopropylbenzene (Cumene)	ug/L	25	23.8	95		4		66 - 151	0 - 30
Methyl Acetate	ug/L	25	23.9	96		5		40 - 170	0 - 30
Methylcyclohexane	ug/L	25	25.1	100		0		40 - 130	0 - 30
Methylene chloride	ug/L	25	20.3	81		8		74 - 130	0 - 30
Styrene	ug/L	25	25.1	100		6		75 - 139	0 - 30
Tetrachloroethene	ug/L	25	25.1	100		1		75 - 140	0 - 30

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

\* Values outside of QC limits

RPD : 0 out of 48 outside limitsSpike Recovery: 0 out of 96 outside limits

## WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Analytical Batch: 258472

Toluene	ug/L	25	25.8	103		1		76 - 125	0 - 13
Trichloroethene	ug/L	25	23.9	96		2		63 - 118	0 - 14
Trichlorofluoromethane	ug/L	25	21.6	86		14		73 - 131	0 - 30
Trichlorotrifluoroethane	ug/L	25	23.5	94		10		70 - 130	0 - 30
Vinyl chloride	ug/L	25	21.2	85		12		68 - 127	0 - 30
Xylene (total)	ug/L	75	75.8	101		4		60 - 154	0 - 30
cis-1,2-Dichloroethene	ug/L	25	23.9	96		8		78 - 124	0 - 30
cis-1,3-Dichloropropene	ug/L	25	23.8	95		1		73 - 128	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	25	24.2	97		14		70 - 130	0 - 30
trans-1,2-Dichloroethene	ug/L	25	21.4	86		10		75 - 124	0 - 30
trans-1,3-Dichloropropene	ug/L	25	23.8	95		7		72 - 134	0 - 30

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

\* Values outside of QC limits

RPD : 0 out of 48 outside limitsSpike Recovery: 0 out of 96 outside limits

3A  
WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: 203061006

SAMPLE NO. : 103832

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS % REC	#	QC. LIMITS
1,1-Dichloroethene	mg/L	.025	0	.028	113		67 - 140
1,2-Dichloroethane	mg/L	.025	0	.029	114		79 - 134
2-Butanone	mg/L	.025	0	.031	122		59 - 157
Benzene	mg/L	.025	0	.026	104		74 - 128
Carbon tetrachloride	mg/L	.025	0	.027	106		70 - 140
Chlorobenzene	mg/L	.025	0	.026	104		78 - 125
Chloroform	mg/L	.025	0	.027	106		80 - 124
Tetrachloroethene	mg/L	.025	0	.025	101		75 - 140
Trichloroethene	mg/L	.025	0	.025	102		63 - 118
Vinyl chloride	mg/L	.025	0	.029	116		68 - 127

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

\* Values outside of QC limits

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 10 outside limits

4A  
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB103314

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab File ID: 2030610/S0494 Lab Sample ID: 103314 Date Extracted: \_\_\_\_\_  
 GC Column: DB-624-30M ID: .53 (mm) Date Analyzed: 06/10/03 Time: 1119  
 Instrument ID: MSV1 Matrix: Water Heated Purge: N  
 Level: LOW  
 Prep Batch: \_\_\_\_\_ Analytical Batch: 258472

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

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>LAB FILE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	LCS103312	103312	2030610/S0489	06/10/03	0935
2.	LCSD103313	103313	2030610/S0490	06/10/03	1006
3.	057-TB-W-0609-03	20306100602	2030610/S0496	06/10/03	1241

## VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB103833

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab File ID: 2030612/S5064 Lab Sample ID: 103833 Date Extracted: \_\_\_\_\_  
 GC Column: DB-624-30M ID: .53 (mm) Date Analyzed: 06/12/03 Time: 1108  
 Instrument ID: MSV2 Matrix: Water Heated Purge: N  
 Level: LOW  
 Prep Batch: \_\_\_\_\_ Analytical Batch: 258597

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

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>LAB FILE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	LCS103832	103832	2030612/S5062	06/12/03	1017
2.	057-FL-S-0609-03	20306100601	2030612/S5080	06/12/03	1742

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE ( BFB )

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Lab File ID: 2030531/S0191BFB Injection Date: 05/31/03Instrument ID: MSV1BFB Injection Time: 0935GC Column: DB-624-30M ID: .53 (mm)Analytical Batch: 257949

<i>m/e</i>	<i>ION ABUNDANCE CRITERIA</i>	<i>% Relative Abundance</i>
50	15.0 - 40.0% of mass 95	15.93 ( )
75	30.0 - 60.0% of mass 95	46.16 ( )
95	Base Peak, 100% relative abundance	100 ( )
96	5.0 - 9.0% of mass 95	7.66 ( )
173	Less than 2.0% of mass 174	0 ( 0 ) 1
174	50.0 - 99.9% of mass 95	74.6 ( )
175	5.0 - 9.0% of mass 174	5.48 ( 7.35 ) 1
176	95.0 - 101.0% of mass 174	73.44 ( 98.45 ) 1
177	5.0 - 9.0% of mass 176	5.22 ( 7.11 ) 2

1- Value is % mass 174

2- Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>LAB FILE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	V1STD002	1206	2030531/S0194	05/31/03	1106
2.	V1STD005	1201	2030531/S0195	05/31/03	1131
3.	V1STD020	1202	2030531/S0196	05/31/03	1156
4.	V1STD050	1203	2030531/S0197	05/31/03	1221
5.	V1STD100	1204	2030531/S0198	05/31/03	1245
6.	V1STD00.2	1207	2030531/S0202	05/31/03	1433
7.	V1STD00.4	1208	2030531/S0203	05/31/03	1457
8.	V1STD200	1205	2030531/S0204	05/31/03	1533

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE ( BFB )

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab File ID: 2030610/S0486 BFB Injection Date: 06/10/03  
 Instrument ID: MSV1 BFB Injection Time: 0737  
 GC Column: DB-624-30M ID: .53 (mm)  
 Analytical Batch: 258472

<i>m/e</i>	<i>ION ABUNDANCE CRITERIA</i>	<i>% Relative Abundance</i>
50	15.0 - 40.0% of mass 95	15.28 ( )
75	30.0 - 60.0% of mass 95	44.46 ( )
95	Base Peak, 100% relative abundance	100 ( )
96	5.0 - 9.0% of mass 95	7.89 ( )
173	Less than 2.0% of mass 174	.26 ( .36 ) 1
174	50.0 - 99.9% of mass 95	72.49 ( )
175	5.0 - 9.0% of mass 174	5.89 ( 8.13 ) 1
176	95.0 - 101.0% of mass 174	70.99 ( 97.94 ) 1
177	5.0 - 9.0% of mass 176	5.04 ( 7.1 ) 2

1- Value is % mass 174

2- Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>LAB FILE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	V1STD050	1400	2030610/S0487	06/10/03	0818
2.	LCS103312	103312	2030610/S0489	06/10/03	0935
3.	LCSD103313	103313	2030610/S0490	06/10/03	1006
4.	MB103314	103314	2030610/S0494	06/10/03	1119
5.	057-TB-W-0609-03	20306100602	2030610/S0496	06/10/03	1241

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab File ID: 2030611/S5032 BFB Injection Date: 06/11/03  
 Instrument ID: MSV2 BFB Injection Time: 0829  
 GC Column: DB-624-30M ID: .53 (mm)  
 Analytical Batch: 258466

<i>m/e</i>	<i>ION ABUNDANCE CRITERIA</i>	<i>% Relative Abundance</i>
50	15.0 - 40.0% of mass 95	21.07 ( )
75	30.0 - 60.0% of mass 95	51.29 ( )
95	Base Peak, 100% relative abundance	100 ( )
96	5.0 - 9.0% of mass 95	6.49 ( )
173	Less than 2.0% of mass 174	0 ( 0 ) 1
174	50.0 - 99.9% of mass 95	80.18 ( )
175	5.0 - 9.0% of mass 174	5.63 ( 7.03 ) 1
176	95.0 - 101.0% of mass 174	79.19 ( 98.77 ) 1
177	5.0 - 9.0% of mass 176	4.85 ( 6.13 ) 2

1- Value is % mass 174

2- Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>LAB FILE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	V2STD002	1206	2030611/S5036	06/11/03	1139
2.	V2STD005	1201	2030611/S5037	06/11/03	1200
3.	V2STD020	1202	2030611/S5038	06/11/03	1221
4.	V2STD050	1203	2030611/S5039	06/11/03	1242
5.	V2STD100	1204	2030611/S5040	06/11/03	1303
6.	V2STD200	1205	2030611/S5041	06/11/03	1323

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab File ID: 2030612/S5059 BFB Injection Date: 06/12/03  
 Instrument ID: MSV2 BFB Injection Time: 0837  
 GC Column: DB-624-30M ID: .53 (mm)  
 Analytical Batch: 258597

<i>m/e</i>	<i>ION ABUNDANCE CRITERIA</i>	<i>% Relative Abundance</i>
50	15.0 - 40.0% of mass 95	18.94 ( )
75	30.0 - 60.0% of mass 95	50.44 ( )
95	Base Peak, 100% relative abundance	100 ( )
96	5.0 - 9.0% of mass 95	6 ( )
173	Less than 2.0% of mass 174	0 ( 0 ) 1
174	50.0 - 99.9% of mass 95	79.3 ( )
175	5.0 - 9.0% of mass 174	5.66 ( 7.15 ) 1
176	95.0 - 101.0% of mass 174	78.46 ( 98.95 ) 1
177	5.0 - 9.0% of mass 176	5.3 ( 6.76 ) 2

1- Value is % mass 174

2- Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>LAB FILE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	V2STD050	1400	2030612/S5060	06/12/03 0905
2.	LCS103832	103832	2030612/S5062	06/12/03 1017
3.	MB103833	103833	2030612/S5064	06/12/03 1108
4.	057-FL-S-0609-03	20306100601	2030612/S5080	06/12/03 1742

6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: MSV1 Calibration Date 1: 05/31/03 Time 1: 1106  
 GC Column: DB-624-30M ID: .53 (mm) Calibration Date 2: 05/31/03 Time 2: 1533  
 Heated Purge: (Y/N) N Method: SW-846 8260  
 Analytical Batch: 257949

Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203  
 Level 4: 1204 Level 5: 1205 Level 6: 1206  
 Level 7: 1207 Level 8: 1208 Level 9: \_\_\_\_\_

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	RF	RSD	#	LIMIT	TYPE
Acetone	0.067	0.060	0.068	0.058	0.069					0.064	7.615	50	Averaged	
Acrylonitrile	0.071	0.067	0.071	0.066	0.076					0.070	5.609	50	Averaged	
Bromochloromethane	0.229	0.219	0.210	0.232	0.199					0.218	6.313	50	Averaged	
Bromodichloromethane	0.545	0.590	0.588	0.568	0.566	0.558		0.570		0.569	2.806	50	Averaged	
Bromoform	0.799	0.812	0.788	0.718	0.707	0.612				0.739	10.29	50	Averaged	
Bromomethane	0.281	0.232	0.217	0.244	0.181	0.303		0.209		0.238	17.71	50	Averaged	
Carbon disulfide	0.801	0.748	0.747	0.880	0.734					0.782	7.730	50	Averaged	
Carbon tetrachloride	0.393	0.373	0.362	0.344	0.349	0.323				0.357	6.785	50	Averaged	
Chloroethane	0.220	0.193	0.185	0.205	0.132					0.187	17.93	50	Averaged	
m,p-Xylene	1.395	1.304	1.154	1.138	0.933					1.185	14.91	50	Averaged	
Chloroform	0.687	0.599	0.585	0.606	0.524					0.600	9.680	30	Averaged	
Chloromethane	0.273	0.253	0.237	0.282	0.234	0.342				0.270	14.91	50	Averaged	
Dibromochloromethane	1.171	1.120	1.077	0.914	0.947	0.896		1.054		1.026	10.45	50	Averaged	
Dibromomethane	0.322	0.324	0.320	0.319	0.305					0.318	2.334	50	Averaged	
Dichlorodifluoromethane	0.340	0.332	0.329	0.384	0.313					0.340	7.847	50	Averaged	
1,1-Dichloroethane	0.561	0.508	0.506	0.561	0.482					0.523	6.839	50	Averaged	
1,2-Dichloroethane	0.366	0.372	0.350	0.330	0.322	0.347				0.348	5.599	50	Averaged	
cis-1,2-Dichloroethene	0.495	0.424	0.412	0.424	0.409					0.433	8.254	50	Averaged	
trans-1,2-Dichloroethene	0.405	0.381	0.375	0.398	0.356					0.383	5.082	50	Averaged	
Methylene chloride	0.390	0.342	0.344	0.399	0.336					0.362	8.275	50	Averaged	
1,2-Dichloropropane	0.456	0.421	0.404	0.396	0.388					0.413	6.536	30	Averaged	
cis-1,3-Dichloropropene	0.496	0.554	0.548	0.545	0.566					0.542	4.972	50	Averaged	
trans-1,3-Dichloropropene	1.046	1.037	0.985	0.853	0.909					0.966	8.619	50	Averaged	
Ethylbenzene	0.878	0.832	0.746	0.749	0.655					0.772	11.18	30	Averaged	
2-Hexanone	0.485	0.485	0.466	0.459	0.466					0.472	2.499	50	Averaged	
Isopropylbenzene (Cumene)	3.611	3.399	3.194	3.098	2.625	3.187		4.822		3.419	20.13	50	Averaged	
2-Butanone	0.136	0.117	0.111	0.101	0.127					0.118	11.75	50	Averaged	
Methyl iodide	0.559	0.561	0.568	0.670	0.550					0.582	8.546	50	Averaged	
4-Methyl-2-pentanone	0.288	0.348	0.344	0.353	0.364					0.340	8.751	50	Averaged	
n-Propylbenzene	4.445	4.014	3.950	3.431	3.142					3.796	13.52	50	Averaged	
Styrene	2.115	2.068	1.951	1.925	1.633					1.938	9.712	50	Averaged	
Tetrachloroethene	0.772	0.735	0.687	0.596	0.574	0.740				0.684	11.95	50	Averaged	
1,1,1,2-Tetrachloroethane	0.997	0.929	0.862	0.697	0.698					0.677	0.997	50	Linear	
1,1,2,2-Tetrachloroethane	1.727	1.574	1.512	1.240	1.340	1.578	2.552	1.818		1.667	24.19	50	Averaged	
1,2,4-Trichlorobenzene	0.661	0.674	0.810	0.818	0.793					0.751	10.24	50	Averaged	

# Column used to indicate that the required RRF or %RSD values is outside of QC limits

\* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: MSV1 Calibration Date 1: 05/31/03 Time 1: 1106  
 GC Column: DB-624-30M ID: .53 (mm) Calibration Date 2: 05/31/03 Time 2: 1533  
 Heated Purge: (Y/N) N Method: SW-846 8260  
 Analytical Batch: 257949  
 Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203  
 Level 4: 1204 Level 5: 1205 Level 6: 1206  
 Level 7: 1207 Level 8: 1208 Level 9: \_\_\_\_\_

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	RF	RSD	#	LIMIT	TYPE
1,1,1-Trichloroethane	0.495	0.463	0.463	0.443	0.418					0.456	6.242	50	Averaged	
1,1,2-Trichloroethane	0.952	0.905	0.860	0.688	0.731					0.827	13.69	50	Averaged	
Trichlorofluoromethane	0.462	0.446	0.450	0.500	0.430					0.458	5.777	50	Averaged	
1,2,3-Trichloropropane	1.845	1.832	1.604	1.324	1.544					1.630	13.32	50	Averaged	
1,2,4-Trimethylbenzene	3.038	2.754	2.727	2.446	2.328					2.658	10.51	50	Averaged	
1,3,5-Trimethylbenzene	3.348	2.911	2.852	2.517	2.363					2.798	13.67	50	Averaged	
Vinyl chloride	0.289	0.268	0.268	0.318	0.263	0.356		0.142		0.272	24.47	30	Averaged	
o-Xylene	1.358	1.221	1.150	1.117	0.940					1.157	13.21	50	Averaged	
1,2-Dibromo-3-chloropropane	0.253	0.311	0.359	0.345	0.378	0.150	0.066	0.138		0.377	0.998	50	Linear	
1,2-Dibromoethane	1.153	1.098	1.047	0.909	0.930	0.942	1.211	1.175		1.058	11.29	50	Averaged	
Vinyl acetate	0.189	0.159	0.159	0.151	0.156					0.163	9.215	50	Averaged	
tert-Butyl methyl ether (MTBE)	0.812	0.748	0.735	0.602	0.729					0.725	10.52	50	Averaged	
1,2-Dichloroethene	0.450	0.402	0.394	0.411	0.382					0.408	6.372	50	Averaged	
4-Isopropyltoluene	3.365	3.012	3.074	2.752	2.636					2.968	9.645	50	Averaged	
Xylene (total)	1.586	1.374	1.284	1.123	1.087					1.291	15.68	50	Averaged	
Methylcyclohexane	0.490	0.468	0.475	0.445	0.463					0.468	3.593	50	Averaged	
n-Hexane	0.275	0.263	0.264	0.248	0.266					0.263	3.773	50	Averaged	
trans-1,4-Dichloro-2-butene	0.233	0.243	0.259	0.218	0.248					0.240	6.436	50	Averaged	
Cyclohexane	0.531	0.507	0.509	0.499	0.451					0.500	5.881	50	Averaged	
2,2-Dichloropropane	0.418	0.345	0.339	0.324	0.366					0.358	10.15	50	Averaged	
Methyl Acetate	0.131	0.107	0.112	0.097	0.121					0.114	11.57	50	Averaged	
Trichlorotrifluoroethane	0.514	0.493	0.477	0.441	0.455					0.476	6.119	50	Averaged	
1,1-Dichloropropene	0.476	0.422	0.442	0.418	0.416					0.435	5.868	50	Averaged	
2-Chloroethylvinyl ether	0.118	0.160	0.179	0.182	0.228					0.173	23.03	50	Averaged	
1,3-Dichloropropane	1.489	1.422	1.351	1.113	1.152					1.305	12.71	50	Averaged	
Bromobenzene	3.003	2.645	2.569	2.526	2.112					2.571	12.38	50	Averaged	
2-Chlorotoluene	3.391	2.879	2.714	2.472	2.322					2.281	0.999	50	Linear	
4-Chlorotoluene	3.198	2.816	2.702	2.339	2.289					2.669	13.97	50	Averaged	
tert-Butylbenzene	2.218	2.010	1.976	1.794	1.756					1.951	9.531	50	Averaged	
sec-Butylbenzene	4.496	4.089	4.196	3.782	3.624					4.037	8.526	50	Averaged	
1,3-Dichlorobenzene	1.752	1.654	1.677	1.482	1.397					1.592	9.264	50	Averaged	
1,4-Dichlorobenzene	2.246	1.999	1.917	1.740	1.716					1.924	11.23	50	Averaged	
n-Butylbenzene	2.013	2.174	2.367	2.244	2.223					2.204	5.833	50	Averaged	
1,2-Dichlorobenzene	2.099	1.823	1.827	1.642	1.595					1.797	11.06	50	Averaged	
Hexachlorobutadiene	0.554	0.521	0.535	0.513	0.491	0.479		1.508		0.492	0.999	50	Linear	

# Column used to indicate that the required RRF or %RSD values is outside of QC limits

\* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: MSV1 Calibration Date 1: 05/31/03 Time 1: 1106  
 GC Column: DB-624-30M ID: .53 (mm) Calibration Date 2: 05/31/03 Time 2: 1533  
 Heated Purge: (Y/N) N Method: SW-846 8260  
 Analytical Batch: 257949  
 Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203  
 Level 4: 1204 Level 5: 1205 Level 6: 1206  
 Level 7: 1207 Level 8: 1208 Level 9: \_\_\_\_\_

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	RF	RSD	#	LIMIT	TYPE
Naphthalene	0.850	0.861	1.212	1.331	1.385					1.128	22.71	50	Averaged	
1,2,3-Trichlorobenzene	0.618	0.656	0.795	0.766	0.755					0.718	10.64	50	Averaged	
1,1-Dichloroethene	0.248	0.238	0.234	0.249	0.217					0.237	5.496	30	Averaged	
Benzene	1.135	1.027	0.999	0.978	0.924	1.099		1.363		1.075	13.54	50	Averaged	
Trichloroethene	0.463	0.438	0.432	0.422	0.405	0.414				0.429	4.771	50	Averaged	
Toluene	2.826	2.651	2.449	2.199	2.028					2.431	13.34	30	Averaged	
Chlorobenzene	2.139	1.948	1.796	1.653	1.498					1.807	13.82	50	Averaged	
4-Bromofluorobenzene	1.114	1.102	1.068	1.035	0.909					1.046	7.858	50	Averaged	
Dibromofluoromethane	0.561	0.540	0.535	0.575	0.484					0.539	6.431	50	Averaged	
Toluene-d8	2.607	2.524	2.422	2.127	2.014					2.339	10.97	50	Averaged	
1,2-Dichloroethane-d4	0.198	0.185	0.189	0.181	0.176					0.186	4.381	50	Averaged	

# Column used to indicate that the required RRF or %RSD values is outside of QC limits

\* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: MSV1 Calibration Date: 06/10/03 Time: 0818  
 Lab File ID: 2030610/S0487 Init. Calib. Date 1: 05/31/03 Time 1: 1106  
 Heated Purge: (Y/N) N Init. Calib. Date 2: 05/31/03 Time 2: 1533  
 GC Column: DB-624-30M ID: .53 (mm)  
 Analytical Batch: 258472

COMPOUND	RRF	RRF50	Min RRF	% D	Max %D
Acetone	0.064	0.060	0	-6.86	50
Acrolein		0.008	0	-1000	50
Acrylonitrile	0.070	0.062	0	-11.6	50
Bromochloromethane	0.218	0.224	0	3.116	50
Bromodichloromethane	0.569	0.557	0	-2.18	50
Bromoform	0.739	0.770	.1	4.103	50
Bromomethane	0.238	0.231	0	-3.09	50
Carbon disulfide	0.782	0.725	0	-7.25	50
Carbon tetrachloride	0.357	0.351	0	-1.84	50
Chloroethane	0.187	0.174	0	-7.03	50
m,p-Xylene	1.185	1.225	0	3.379	50
Chloroform	0.600	0.572	0	-4.67	20
Chloromethane	0.270	0.225	.1	-16.5	50
Dibromochloromethane	1.026	0.972	0	-5.17	50
Dibromomethane	0.318	0.300	0	-5.67	50
Dichlorodifluoromethane	0.340	0.308	0	-9.37	50
1,1-Dichloroethane	0.523	0.499	.1	-4.74	50
1,2-Dichloroethane	0.348	0.312	0	-10.4	50
cis-1,2-Dichloroethene	0.433	0.427	0	-1.23	50
trans-1,2-Dichloroethene	0.383	0.348	0	-9.12	50
Methylene chloride	0.362	0.306	0	-15.6	50
1,2-Dichloropropane	0.413	0.375	0	-9.14	20
cis-1,3-Dichloropropene	0.542	0.542	0	-0.03	50
trans-1,3-Dichloropropene	0.966	0.884	0	-8.44	50
Ethylbenzene	0.772	0.817	0	5.842	20
2-Hexanone	0.472	0.421	0	-10.9	50
Isopropylbenzene (Cumene)	3.419	3.279	0	-4.09	50
2-Butanone	0.118	0.095	0	-19.5	50
Methyl iodide	0.582	0.628	0	7.960	50
4-Methyl-2-pentanone	0.340	0.270	0	-20.6	50
n-Propylbenzene	3.796	3.574	0	-5.86	50
Styrene	1.938	2.043	0	5.374	50
Tetrachloroethene	0.684	0.659	0	-3.68	50
1,1,1,2-Tetrachloroethane	0.677	0.789	0	3.521	50
1,1,2,2-Tetrachloroethane	1.667	1.282	.3	-23.1	50
1,2,4-Trichlorobenzene	0.751	0.886	0	18.0	50
1,1,1-Trichloroethane	0.456	0.458	0	0.455	50
1,1,2-Trichloroethane	0.827	0.768	0	-7.19	50
Trichlorofluoromethane	0.458	0.431	0	-5.88	50

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Instrument ID: MSV1Calibration Date: 06/10/03 Time: 0818Lab File ID: 2030610/S0487Init. Calib. Date 1: 05/31/03 Time 1: 1106Heated Purge: (Y/N) NInit. Calib. Date 2: 05/31/03 Time 2: 1533GC Column: DB-624-30M ID: .53 (mm)Analytical Batch: 258472

COMPOUND	RRF	RRF50	Min RRF	% D	Max %D
1,2,3-Trichloropropane	1.630	1.305	0	-19.9	50
1,2,4-Trimethylbenzene	2.658	2.532	0	-4.74	50
1,3,5-Trimethylbenzene	2.798	2.625	0	-6.17	50
Vinyl chloride	0.272	0.252	0	-7.26	20
o-Xylene	1.157	1.187	0	2.555	50
1,2-Dibromo-3-chloropropane	0.377	0.313	0	-12.6	50
1,2-Dibromoethane	1.058	0.944	0	-10.8	50
Vinyl acetate	0.163	0.153	0	-5.94	50
tert-Butyl methyl ether (MTBE)	0.725	0.604	0	-16.7	50
1,2-Dichloroethene	0.408	0.388	0	-5.17	50
4-Isopropyltoluene	2.968	2.901	0	-2.23	50
Xylene (total)	1.291	1.178	0	3.105	50
Methylcyclohexane	0.468	0.445	0	-5.00	50
n-Hexane	0.263	0.258	0	-2.00	50
trans-1,4-Dichloro-2-butene	0.240	0.190	0	-20.7	50
Cyclohexane	0.500	0.521	0	4.398	50
2,2-Dichloropropane	0.358	0.411	0	14.7	50
Methyl Acetate	0.114	0.083	0	-27.0	50
Trichlorotrifluoroethane	0.476	0.471	0	-0.96	50
1,1-Dichloropropene	0.435	0.427	0	-1.80	50
2-Chloroethylvinyl ether	0.173	0.145	0	-16.3	50
1,3-Dichloropropane	1.305	1.177	0	-9.81	50
Bromobenzene	2.571	2.134	0	-16.9	50
2-Chlorotoluene	2.281	2.376	0	-7.49	50
4-Chlorotoluene	2.669	2.401	0	-10.0	50
tert-Butylbenzene	1.951	1.684	0	-13.6	50
sec-Butylbenzene	4.037	3.872	0	-4.09	50
1,3-Dichlorobenzene	1.592	1.466	0	-7.92	50
1,4-Dichlorobenzene	1.924	1.853	0	-3.69	50
n-Butylbenzene	2.204	2.402	0	8.972	50
1,2-Dichlorobenzene	1.797	1.659	0	-7.70	50
Hexachlorobutadiene	0.492	0.541	0	6.896	50
Naphthalene	1.128	1.401	0	24.2	50
1,2,3-Trichlorobenzene	0.718	0.823	0	14.6	50
1,1-Dichloroethene	0.237	0.236	0	-0.56	20
Benzene	1.075	0.941	0	-12.4	50
Trichloroethene	0.429	0.420	0	-2.03	50
Toluene	2.431	2.337	0	-3.84	20
Chlorobenzene	1.807	1.810	.3	0.214	50

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: MSV1 Calibration Date: 06/10/03 Time: 0818  
 Lab File ID: 2030610/S0487 Init. Calib. Date 1: 05/31/03 Time 1: 1106  
 Heated Purge: (Y/N) N Init. Calib. Date 2: 05/31/03 Time 2: 1533  
 GC Column: DB-624-30M ID: .53 (mm)  
 Analytical Batch: 258472

COMPOUND	RRF	RRF50	Min RRF	% D	Max %D
4-Bromofluorobenzene	1.046	1.166	0	11.6	50
Dibromofluoromethane	0.539	0.538	0	-0.16	50
Toluene-d8	2.339	2.244	0	-4.04	50
1,2-Dichloroethane-d4	0.186	0.176	0	-5.02	50

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: MSV2 Calibration Date 1: 06/11/03 Time 1: 1139  
 GC Column: DB-624-30M ID: .53 (mm) Calibration Date 2: 06/11/03 Time 2: 1323  
 Heated Purge: (Y/N) N Method: 1311/8260B  
 Analytical Batch: 258466  
 Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203  
 Level 4: 1204 Level 5: 1205 Level 6: 1206  
 Level 7: \_\_\_\_\_ Level 8: \_\_\_\_\_ Level 9: \_\_\_\_\_

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	RF	RSD	#	LIMIT	TYPE
Acetone	0.077	0.077	0.079	0.074	0.063					0.074	8.808	50	Averaged	
Acrolein	0.010	0.013	0.012	0.012	0.011					0.012	7.668	50	Averaged	
Acrylonitrile	0.072	0.071	0.072	0.074	0.067					0.068	0.998	50	Linear	
Bromochloromethane	0.146	0.145	0.145	0.153	0.147					0.147	2.302	50	Averaged	
Bromodichloromethane	0.406	0.403	0.385	0.410	0.375					0.396	3.871	50	Averaged	
Bromoform	0.487	0.507	0.502	0.565	0.564					0.525	7.004	50	Averaged	
Bromomethane	0.183	0.167	0.152	0.139	0.110	0.230				0.164	25.11	50	Averaged	
Carbon disulfide	0.780	0.740	0.718	0.758	0.685					0.736	5.003	50	Averaged	
Carbon tetrachloride	0.432	0.403	0.388	0.387	0.348					0.392	7.732	50	Averaged	
Chloroethane	0.139	0.142	0.120	0.106	0.088	0.098				0.116	19.02	50	Averaged	
m,p-Xylene	1.116	1.098	1.151	1.303	1.299					1.194	8.359	50	Averaged	
Chloroform	0.523	0.485	0.469	0.468	0.422					0.474	7.640	30	Averaged	
Chloromethane	0.253	0.259	0.261	0.258	0.240					0.254	3.320	50	Averaged	
Dibromochloromethane	0.717	0.705	0.693	0.799	0.792					0.741	6.818	50	Averaged	
Dibromomethane	0.163	0.164	0.161	0.170	0.161					0.164	2.366	50	Averaged	
Dichlorodifluoromethane	0.348	0.332	0.318	0.317	0.290					0.321	6.675	50	Averaged	
1,1-Dichloroethane	0.404	0.407	0.398	0.414	0.363					0.397	4.974	50	Averaged	
1,2-Dichloroethane	0.469	0.467	0.443	0.442	0.376					0.439	8.549	50	Averaged	
cis-1,2-Dichloroethene	0.387	0.390	0.379	0.385	0.358					0.380	3.380	50	Averaged	
trans-1,2-Dichloroethene	0.321	0.307	0.301	0.312	0.264					0.301	7.265	50	Averaged	
Methylene chloride	0.407	0.318	0.300	0.295	0.256					0.254	0.994	50	Linear	
1,2-Dichloropropane	0.213	0.221	0.218	0.230	0.219	0.205				0.218	3.924	30	Averaged	
cis-1,3-Dichloropropene	0.385	0.407	0.400	0.441	0.421					0.411	5.252	50	Averaged	
trans-1,3-Dichloropropene	0.880	0.912	0.891	1.033	0.990					0.941	7.090	50	Averaged	
Ethylbenzene	0.791	0.753	0.808	0.920	0.899					0.834	8.647	30	Averaged	
2-Hexanone	0.220	0.264	0.288	0.303	0.307					0.276	12.93	50	Averaged	
Isopropylbenzene (Cumene)	3.143	3.212	3.297	3.702	3.604					3.392	7.291	50	Averaged	
2-Butanone	0.097	0.095	0.092	0.085	0.081					0.090	7.434	50	Averaged	
Methyl iodide	0.429	0.435	0.439	0.468	0.422					0.439	3.994	50	Averaged	
4-Methyl-2-pentanone	0.148	0.167	0.171	0.174	0.173					0.167	6.454	50	Averaged	
n-Propylbenzene	3.355	3.270	3.116	3.458	3.414					3.323	4.079	50	Averaged	
Styrene	1.803	1.877	2.011	2.287	2.234					2.042	10.44	50	Averaged	
Tetrachloroethene	0.500	0.479	0.479	0.553	0.583					0.519	9.083	50	Averaged	
1,1,1,2-Tetrachloroethane	0.679	0.653	0.637	0.730	0.714					0.682	5.760	50	Averaged	
1,1,2,2-Tetrachloroethane	0.693	0.687	0.606	0.665	0.669					0.664	5.186	50	Averaged	

# Column used to indicate that the required RRF or %RSD values is outside of QC limits

\* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL  
 Lab Code: LA024 Case No.: \_\_\_\_\_  
 Instrument ID: MSV2  
 GC Column: DB-624-30M ID: .53 (mm)  
 Heated Purge: (Y/N) N  
 Analytical Batch: 258466

Contract: \_\_\_\_\_  
 SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Date 1: 06/11/03 Time 1: 1139  
 Calibration Date 2: 06/11/03 Time 2: 1323  
 Method: 1311/8260B

Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203  
 Level 4: 1204 Level 5: 1205 Level 6: 1206  
 Level 7: \_\_\_\_\_ Level 8: \_\_\_\_\_ Level 9: \_\_\_\_\_

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	RF	RSD	#	LIMIT	TYPE
1,2,4-Trichlorobenzene	0.958	0.892	0.718	0.690	0.607					0.773	18.97	50	Averaged	
1,1,1-Trichloroethane	0.479	0.459	0.447	0.449	0.398					0.446	6.679	50	Averaged	
1,1,2-Trichloroethane	0.489	0.467	0.472	0.536	0.542					0.501	7.066	50	Averaged	
Trichlorofluoromethane	0.461	0.442	0.413	0.382	0.303					0.400	15.43	50	Averaged	
1,2,3-Trichloropropane	0.943	0.953	0.826	0.883	0.832					0.887	6.702	50	Averaged	
1,2,4-Trimethylbenzene	1.697	1.620	1.551	1.231	1.051					1.430	19.31	50	Averaged	
1,3,5-Trimethylbenzene	1.699	1.632	1.599	1.346	1.194					1.494	14.36	50	Averaged	
Vinyl chloride	0.220	0.223	0.223	0.226	0.203	0.157				0.209	12.75	30	Averaged	
o-Xylene	0.996	1.029	1.119	1.255	1.208					1.121	9.941	50	Averaged	
1,2-Dibromo-3-chloropropane	0.206	0.205	0.186	0.212	0.219					0.206	6.035	50	Averaged	
1,2-Dibromoethane	0.515	0.538	0.538	0.615	0.629					0.567	9.118	50	Averaged	
Vinyl acetate	0.222	0.205	0.185	0.201	0.183					0.199	7.963	50	Averaged	
tert-Butyl methyl ether (MTBE)	0.663	0.658	0.654	0.682	0.586					0.649	5.645	50	Averaged	
1,2-Dichloroethene	0.354	0.348	0.340	0.348	0.311					0.340	5.045	50	Averaged	
4-Isopropyltoluene	2.174	2.162	2.206	2.061	1.868					2.094	6.567	50	Averaged	
Xylene (total)	1.076	1.075	1.141	1.287	1.268	0.921				1.128	12.12	50	Averaged	
Methylcyclohexane	0.357	0.372	0.368	0.400	0.406					0.381	5.600	50	Averaged	
n-Hexane	0.328	0.308	0.291	0.320	0.304					0.310	4.582	50	Averaged	
trans-1,4-Dichloro-2-butene	0.213	0.211	0.183	0.191	0.180					0.196	7.921	50	Averaged	
Cyclohexane	0.380	0.360	0.361	0.386	0.383					0.374	3.334	50	Averaged	
2,2-Dichloropropane	0.435	0.422	0.396	0.401	0.365					0.404	6.623	50	Averaged	
Methyl Acetate	0.167	0.160	0.156	0.148	0.123					0.151	11.23	50	Averaged	
Trichlorotrifluoroethane	0.276	0.252	0.260	0.271	0.249					0.262	4.522	50	Averaged	
1,1-Dichloropropene	0.329	0.318	0.319	0.329	0.308					0.321	2.812	50	Averaged	
2-Chloroethylvinyl ether	0.110	0.098	0.138	0.143	0.147					0.127	16.99	50	Averaged	
1,3-Dichloropropane	0.819	0.829	0.832	0.939	0.899					0.864	6.111	50	Averaged	
Bromobenzene	1.833	1.746	1.509	1.654	1.610					1.670	7.475	50	Averaged	
2-Chlorotoluene	2.347	1.423	1.811	1.945	2.044					1.914	17.64	50	Averaged	
4-Chlorotoluene	2.417	2.390	2.258	2.413	2.263					2.348	3.442	50	Averaged	
tert-Butylbenzene	1.784	1.709	1.573	1.634	1.537					1.647	6.096	50	Averaged	
sec-Butylbenzene	3.150	3.124	3.084	3.282	3.224					3.173	2.506	50	Averaged	
1,3-Dichlorobenzene	1.532	1.437	1.386	1.463	1.458					1.455	3.604	50	Averaged	
1,4-Dichlorobenzene	1.585	1.489	1.444	1.528	1.480					1.505	3.570	50	Averaged	
n-Butylbenzene	2.201	2.057	2.061	1.723	1.509					1.910	14.92	50	Averaged	
1,2-Dichlorobenzene	1.458	1.412	1.371	1.459	1.416					1.423	2.564	50	Averaged	

# Column used to indicate that the required RRF or %RSD values is outside of QC limits

\* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL  
 Lab Code: LA024 Case No.: \_\_\_\_\_  
 Instrument ID: MSV2  
 GC Column: DB-624-30M ID: .53 (mm)  
 Heated Purge: (Y/N) N  
 Analytical Batch: 258466

Contract: \_\_\_\_\_  
 SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Date 1: 06/11/03 Time 1: 1139  
 Calibration Date 2: 06/11/03 Time 2: 1323  
 Method: 1311/8260B

Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203  
 Level 4: 1204 Level 5: 1205 Level 6: 1206  
 Level 7: \_\_\_\_\_ Level 8: \_\_\_\_\_ Level 9: \_\_\_\_\_

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	RF	RSD	#	LIMIT	TYPE
Hexachlorobutadiene	0.835	0.769	0.714	0.735	0.726					0.756	6.445	50	Averaged	
Naphthalene	2.170	2.036	1.555	1.537	1.363					1.732	20.21	50	Averaged	
1,2,3-Trichlorobenzene	0.950	0.892	0.708	0.693	0.629					0.774	17.91	50	Averaged	
1,2-Diethylbenzene	1.183	1.155	1.158	0.993	0.851					1.068	13.39	50	Averaged	
1,3-Diethylbenzene	1.091	1.122	1.111	0.956	0.874					1.031	10.67	50	Averaged	
1,4-Diethylbenzene	1.276	1.270	1.257	1.079	0.927					1.162	13.32	50	Averaged	
Diethylbenzene (total)	1.183	1.182	1.175	1.009	0.884					1.087	12.46	50	Averaged	
1,1-Dichloroethene	0.146	0.155	0.179	0.179	0.154					0.162	9.374	30	Averaged	
Benzene	0.809	0.799	0.807	0.871	0.843	0.795				0.821	3.655	50	Averaged	
Trichloroethene	0.265	0.264	0.264	0.285	0.287					0.273	4.384	50	Averaged	
Toluene	2.045	1.996	2.059	2.362	2.466					2.186	9.743	30	Averaged	
Chlorobenzene	1.697	1.579	1.596	1.806	1.864					1.708	7.356	50	Averaged	
4-Bromofluorobenzene	1.078	1.019	0.881	1.012	1.051					1.008	7.504	50	Averaged	
Dibromofluoromethane	0.371	0.347	0.337	0.347	0.319					0.344	5.487	50	Averaged	
Toluene-d8	2.072	2.021	2.038	2.342	2.456					2.186	9.134	50	Averaged	
1,2-Dichloroethane-d4	0.208	0.203	0.194	0.198	0.177					0.196	6.111	50	Averaged	

# Column used to indicate that the required RRF or %RSD values is outside of QC limits

\* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Instrument ID: MSV2Calibration Date: 06/12/03 Time: 0905Lab File ID: 2030612/S5060Init. Calib. Date 1: 06/11/03 Time 1: 1139Heated Purge: (Y/N) NInit. Calib. Date 2: 06/11/03 Time 2: 1323GC Column: DB-624-30M ID: .53 (mm)Analytical Batch: 258597

COMPOUND	RRF	RRF50	Min RRF	% D	Max %D
Acetone	0.074	0.106	0	43.1	50
Acrolein	0.012	0.01	0	-17.1	50
Acrylonitrile	0.068	0.064	0	-10.2	50
Bromochloromethane	0.147	0.153	0	3.562	50
Bromodichloromethane	0.396	0.444	0	12.2	50
Bromoform	0.525	0.570	.1	8.497	50
Bromomethane	0.164	0.179	0	9.685	50
Carbon disulfide	0.736	0.765	0	3.956	50
Carbon tetrachloride	0.392	0.454	0	15.8	50
Chloroethane	0.116	0.157	0	35.5	50
m,p-Xylene	1.194	1.280	0	7.215	50
Chloroform	0.474	0.518	0	9.335	20
Chloromethane	0.254	0.240	.1	-5.36	50
Dibromochloromethane	0.741	0.782	0	5.419	50
Dibromomethane	0.164	0.181	0	10.4	50
Dichlorodifluoromethane	0.321	0.344	0	7.302	50
1,1-Dichloroethane	0.397	0.434	.1	9.303	50
1,2-Dichloroethane	0.439	0.509	0	15.8	50
cis-1,2-Dichloroethene	0.380	0.421	0	11.0	50
trans-1,2-Dichloroethene	0.301	0.338	0	12.1	50
Methylene chloride	0.254	0.304	0	5.778	50
1,2-Dichloropropane	0.218	0.239	0	9.756	20
cis-1,3-Dichloropropene	0.411	0.459	0	11.6	50
trans-1,3-Dichloropropene	0.941	1.035	0	9.998	50
Ethylbenzene	0.834	0.883	0	5.850	20
2-Hexanone	0.276	0.313	0	13.3	50
Isopropylbenzene (Cumene)	3.392	3.714	0	9.514	50
2-Butanone	0.090	0.104	0	15.1	50
Methyl iodide	0.439	0.446	0	1.762	50
4-Methyl-2-pentanone	0.167	0.197	0	18.3	50
n-Propylbenzene	3.323	3.705	0	11.5	50
Styrene	2.042	2.253	0	10.3	50
Tetrachloroethene	0.519	0.543	0	4.734	50
1,1,1,2-Tetrachloroethane	0.682	0.735	0	7.711	50
1,1,2,2-Tetrachloroethane	0.664	0.701	.3	5.529	50
1,2,4-Trichlorobenzene	0.773	0.794	0	2.678	50
1,1,1-Trichloroethane	0.446	0.509	0	14.0	50
1,1,2-Trichloroethane	0.501	0.517	0	3.039	50
Trichlorofluoromethane	0.400	0.498	0	24.5	50

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL  
 Lab Code: LA024 Case No.: \_\_\_\_\_  
 Instrument ID: MSV2  
 Lab File ID: 2030612/S5060  
 Heated Purge: (Y/N) N  
 GC Column: DB-624-30M ID: .53 (mm)  
 Analytical Batch: 258597

Contract: \_\_\_\_\_  
 SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Date: 06/12/03 Time: 0905  
 Init. Calib. Date 1: 06/11/03 Time 1: 1139  
 Init. Calib. Date 2: 06/11/03 Time 2: 1323

COMPOUND	RRF	RRF50	Min RRF	% D	Max %D
1,2,3-Trichloropropane	0.887	0.968	0	9.086	50
1,2,4-Trimethylbenzene	1.430	1.597	0	11.7	50
1,3,5-Trimethylbenzene	1.494	1.685	0	12.8	50
Vinyl chloride	0.209	0.229	0	9.721	20
o-Xylene	1.121	1.234	0	10.0	50
1,2-Dibromo-3-chloropropane	0.206	0.203	0	-1.50	50
1,2-Dibromoethane	0.567	0.589	0	3.849	50
Vinyl acetate	0.199	0.214	0	7.604	50
tert-Butyl methyl ether (MTBE)	0.649	0.719	0	10.8	50
1,2-Dichloroethene	0.340	0.380	0	11.5	50
4-Isopropyltoluene	2.094	2.432	0	16.1	50
Xylene (total)	1.128	1.264	0	8.158	50
Methylcyclohexane	0.381	0.420	0	10.2	50
n-Hexane	0.310	0.330	0	6.532	50
trans-1,4-Dichloro-2-butene	0.196	0.221	0	13.1	50
Cyclohexane	0.374	0.408	0	9.078	50
2,2-Dichloropropane	0.404	0.470	0	16.4	50
Methyl Acetate	0.151	0.170	0	12.6	50
Trichlorotrifluoroethane	0.262	0.275	0	5.141	50
1,1-Dichloropropene	0.321	0.361	0	12.6	50
2-Chloroethylvinyl ether	0.127	0.132	0	3.403	50
1,3-Dichloropropane	0.864	0.908	0	5.106	50
Bromobenzene	1.670	1.798	0	7.624	50
2-Chlorotoluene	1.914	2.337	0	22.1	50
4-Chlorotoluene	2.348	2.658	0	13.2	50
tert-Butylbenzene	1.647	1.854	0	12.6	50
sec-Butylbenzene	3.173	3.617	0	14.0	50
1,3-Dichlorobenzene	1.455	1.595	0	9.574	50
1,4-Dichlorobenzene	1.505	1.699	0	12.9	50
n-Butylbenzene	1.910	1.666	0	-12.7	50
1,2-Dichlorobenzene	1.423	1.549	0	8.840	50
Hexachlorobutadiene	0.756	0.826	0	9.295	50
Naphthalene	1.732	1.745	0	0.759	50
1,2,3-Trichlorobenzene	0.774	0.816	0	5.423	50
1,1-Dichloroethene	0.162	0.184	0	13.4	20
Benzene	0.821	0.900	0	9.630	50
Trichloroethene	0.273	0.291	0	6.451	50
Toluene	2.186	2.270	0	3.844	20
Chlorobenzene	1.708	1.760	.3	3.017	50

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Instrument ID: MSV2Calibration Date: 06/12/03 Time: 0905Lab File ID: 2030612/S5060Init. Calib. Date 1: 06/11/03 Time 1: 1139Heated Purge: (Y/N) NInit. Calib. Date 2: 06/11/03 Time 2: 1323GC Column: DB-624-30M ID: .53 (mm)Analytical Batch: 258597

COMPOUND	RRF	RRF50	Min RRF	% D	Max %D
4-Bromofluorobenzene	1.008	0.847	0	-15.9	50
Dibromofluoromethane	0.344	0.323	0	-6.00	50
Toluene-d8	2.186	1.938	0	-11.3	50
1,2-Dichloroethane-d4	0.196	0.188	0	-4.04	50

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Lab File ID ( Standard ): 2030610/S0487Date Analyzed: 06/10/03Instrument ID: MSV1Time: 0818GC Column: DB-624-30M ID: .53 (mm)Heated Purge: (Y/N) NAnalytical Batch: 258472

	<b>IS 1</b>		<b>IS 2</b>		<b>IS 3</b>	
	<b>Area</b>	<b>RT</b>	<b>Area</b>	<b>RT</b>	<b>Area</b>	<b>RT</b>
12 HOUR STD	762052	8.055	1558741	5.962	784354	10.16
<b>EPA Sample</b>	#	#	#	#	#	#
1. LCS103312	819764	8.03	1664227	5.94	786330	10.13
2. LCSD103313	826640	8.04	1791859	5.95	743334	10.14
3. MB103314	748588	8.01	1315006	5.92	643789	10.11
4. 057-TB-W-0609-03	672837	8.02	1234073	5.93	628774	10.13

IS 1 ID : Chlorobenzene-d5

IS 2 ID : Fluorobenzene

IS 3 ID : 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RTLLOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC limits

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Lab File ID ( Standard ): 2030612/S5060Date Analyzed: 06/12/03Instrument ID: MSV2Time: 0905GC Column: DB-624-30M ID: .53 (mm)Heated Purge: (Y/N) NAnalytical Batch: 258597

	<b>IS 1</b>		<b>IS 2</b>		<b>IS 3</b>	
	Area	RT	Area	RT	Area	RT
12 HOUR STD	549239	8.57	1112193	6.068	587821	10.37
UPPER LIMIT	1098478	9.07	2224386	6.568	1175642	10.87
LOWER LIMIT	274619.5	8.07	556096.5	5.568	293910.5	9.874

EPA Sample		#	#	#	#	#	#
1. LCS103832	531416		8.57	1126294	6.07	506065	10.38
2. MB103833	491293		8.57	1106726	6.08	446795	10.37
3. 057-FL-S-0609-03	470649		8.57	992283	6.07	412901	10.37

IS 1 ID : Chlorobenzene-d5

IS 2 ID : Fluorobenzene

IS 3 ID : 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RTLLOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC limits

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 057-FL-S-0609-03  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 SAS No.: \_\_\_\_\_ SDG No.: 203061006 Lab File ID: 2030612/S3234  
 Matrix: Soil Lab Sample ID: 20306100601  
 Sample wt/vol: 200 Units: mL Date Collected: 06/09/03 Time: 0930  
 Level: (low/med) LOW Date Received: 06/10/03  
 % Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Extracted: 06/11/03  
 GC Column: RTX-5MS-30 ID: .53 (mm) Date Analyzed: 06/12/03 Time: 1919  
 Concentrated Extract Volume: 1000 (µL) Dilution Factor: 1 Analyst: RLW  
 Injection Volume: 1.0 (µL) Prep Method: 1311/3510  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Analytical Method: 1311/8270C  
 Instrument ID: MSSV2  
 Prep Batch: 258536 Analytical Batch: 258632

CONCENTRATION UNITS: mg/L

CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
106-46-7	1,4-Dichlorobenzene	0.050	U	0.005	0.050
95-95-4	2,4,5-Trichlorophenol	0.050	U	0.00060	0.050
88-06-2	2,4,6-Trichlorophenol	0.050	U	0.001	0.050
121-14-2	2,4-Dinitrotoluene	0.050	U	0.00080	0.050
1319-77-3	Cresols	0.100	U	0.003	0.100
118-74-1	Hexachlorobenzene	0.050	U	0.001	0.050
87-68-3	Hexachlorobutadiene	0.050	U	0.00050	0.050
67-72-1	Hexachloroethane	0.050	U	0.00050	0.050
98-95-3	Nitrobenzene	0.050	U	0.002	0.050
87-86-5	Pentachlorophenol	0.100	U	0.005	0.100
110-86-1	Pyridine	0.050	U	0.001	0.050
1319-77-3M	m,p-Cresol	0.050	U	0.00050	0.050
95-48-7	o-Cresol	0.050	U	0.003	0.050

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: MB103592  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 SAS No.: \_\_\_\_\_ SDG No.: 203061006 Lab File ID: 2030612/S3232  
 Matrix: Water Lab Sample ID: 103592  
 Sample wt/vol: 1000 Units: mL Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_  
 Level: (low/med) LOW Date Received: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Extracted: 06/11/03  
 GC Column: RTX-5MS-30 ID: .53 (mm) Date Analyzed: 06/12/03 Time: 1825  
 Concentrated Extract Volume: 1000 (µL) Dilution Factor: 1 Analyst: RLW  
 Injection Volume: 1.0 (µL) Prep Method: 3510C  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Analytical Method: 1311/8270C  
 Instrument ID: MSSV2  
 Prep Batch: 258536 Analytical Batch: 258632

CONCENTRATION UNITS: mg/L

CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
106-46-7	1,4-Dichlorobenzene	0.050	U	0.005	0.050
95-95-4	2,4,5-Trichlorophenol	0.050	U	0.00060	0.050
88-06-2	2,4,6-Trichlorophenol	0.050	U	0.001	0.050
121-14-2	2,4-Dinitrotoluene	0.050	U	0.00080	0.050
1319-77-3	Cresols	0.100	U	0.003	0.100
118-74-1	Hexachlorobenzene	0.050	U	0.001	0.050
87-68-3	Hexachlorobutadiene	0.050	U	0.00050	0.050
67-72-1	Hexachloroethane	0.050	U	0.00050	0.050
98-95-3	Nitrobenzene	0.050	U	0.002	0.050
87-86-5	Pentachlorophenol	0.100	U	0.005	0.100
110-86-1	Pyridine	0.050	U	0.001	0.050
1319-77-3M	m,p-Cresol	0.050	U	0.00050	0.050
95-48-7	o-Cresol	0.050	U	0.003	0.050

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: LCS103593  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 SAS No.: \_\_\_\_\_ SDG No.: 203061006 Lab File ID: 2030612/S3233  
 Matrix: Water Lab Sample ID: 103593  
 Sample wt/vol: 1000 Units: mL Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_  
 Level: (low/med) LOW Date Received: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Extracted: 06/11/03  
 GC Column: RTX-5MS-30 ID: .53 (mm) Date Analyzed: 06/12/03 Time: 1852  
 Concentrated Extract Volume: 1000 (µL) Dilution Factor: 1 Analyst: RLW  
 Injection Volume: 1.0 (µL) Prep Method: 3510C  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Analytical Method: 1311/8270C  
 Instrument ID: MSSV2  
 Prep Batch: 258536 Analytical Batch: 258632

CONCENTRATION UNITS: mg/L

CAS NO.	COMPOUND	RESULT	Q	MDL	PQL
106-46-7	1,4-Dichlorobenzene	0.061		0.005	0.050
95-95-4	2,4,5-Trichlorophenol	0.089		0.00060	0.050
86-06-2	2,4,6-Trichlorophenol	0.087		0.001	0.050
121-14-2	2,4-Dinitrotoluene	0.088		0.00080	0.050
1319-77-3	Cresols	0.124		0.003	0.100
118-74-1	Hexachlorobenzene	0.094		0.001	0.050
87-68-3	Hexachlorobutadiene	0.065		0.00050	0.050
67-72-1	Hexachloroethane	0.062		0.00050	0.050
98-95-3	Nitrobenzene	0.086		0.002	0.050
87-86-5	Pentachlorophenol	0.094	J	0.005	0.100
110-86-1	Pyridine	0.041	J	0.001	0.050
1319-77-3M	m,p-Cresol	0.059		0.00050	0.050
95-48-7	o-Cresol	0.065		0.003	0.050

## WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 2 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Method: 1311/8270C Level: ( low/med ) LOW

EPA SAMPLE NO.		SMC1	#	SMC2	#	SMC3	#	SMC4	#	SMC5	#	SMC6	#	TOT OUT
1.	LCS103593	92		78		93		26		46		86		0
2.	MB103592	72		60		84		20		33		69		0

## CONTROL LIMITS

SMC 1	Nitrobenzene-d5	43	110
SMC 2	2-Fluorobiphenyl	16	128
SMC 3	Terphenyl-d14	47	121
SMC 4	Phenol-d5	10	76
SMC 5	2-Fluorophenol	24	96
SMC 6	2,4,6-Tribromophenol	19	133

# Column to be used to flag recovery limits

\* Value outside of contract required limits

D Surrogate diluted out

2D  
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024    2    Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_    SDG No.: 203061006

Method: 1311/8270C

Level: ( low/med ) LOW

EPA SAMPLE NO.	SMC1	#	SMC2	#	SMC3	#	SMC4	#	SMC5	#	SMC6	#	TOT OUT
1. 057-FL-S-0609-03	86		72		94		24		41		85		0
2. 057-FL-S-0609-03MS	85		75		96		23		39		91		0
3. 057-FL-S-0609-03MSD	95		82		104		25		44		93		0

CONTROL LIMITS

SMC 1	Nitrobenzene-d5	43	110
SMC 2	2-Fluorobiphenyl	16	128
SMC 3	Terphenyl-d14	47	121
SMC 4	Phenol-d5	10	76
SMC 5	2-Fluorophenol	24	96
SMC 6	2,4,6-Tribromophenol	19	133

# Column to be used to flag recovery limits

\* Value outside of contract required limits

D Surrogate diluted out

## WATER SEMIVOLATILE LCS/LCSD RECOVERY

Lab Name: GCALLab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006

Contract: \_\_\_\_\_

Method: 1311/8270CPrep Batch: 258536 Analytical Batch.: 258632

Spike HSN : 103593

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS % REC	REC	QC. LIMITS
						FLAG	
1,4-Dichlorobenzene	mg/L	.1	0	.061	61		40 - 122
2,4,5-Trichlorophenol	mg/L	.1	0	.089	89		45 - 135
2,4,6-Trichlorophenol	mg/L	.1	0	.087	87		45 - 135
2,4-Dinitrotoluene	mg/L	.1	0	.088	88		60 - 124
Hexachlorobenzene	mg/L	.1	0	.094	94		60 - 120
Hexachlorobutadiene	mg/L	.1	0	.065	65		38 - 94
Hexachloroethane	mg/L	.1	0	.062	62		45 - 135
Nitrobenzene	mg/L	.1	0	.086	86		60 - 120
Pentachlorophenol	mg/L	.1	0	.094	94		31 - 128
Pyridine	mg/L	.1	0	.041	41		30 - 150
m,p-Cresol	mg/L	.1	0	.059	59		30 - 150
o-Cresol	mg/L	.1	0	.065	65		30 - 150

Spike Dupe HSN :

COMPOUND	UNITS	SPIKE ADDED	LCSD CONC.	LCSD	REC	%	RPD	QC. LIMITS
				% REC	FLAG	RPD	FLAG	REC

RPD : 0 out of 0 outside limitsSpike Recovery: 0 out of 12 outside limits

## SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: GCAL Sample ID: MB103592  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 Lab File ID: 2030612/S3232 SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 GC Column: RTX-5MS-30 ID: .53 (mm) Lab Sample ID: 103592 Date Extracted: 06/11/03  
 Instrument ID: MSSV2 Matrix: Water Date Analyzed: 06/12/03 Time: 1825  
 Level: LOW Method: 1311/8270C  
 Prep Batch: 258536 Analytical Batch: 258632

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>LAB FILE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	LCS103593	103593	2030612/S3233	06/12/03	1852
2.	057-FL-S-0609-03	20306100601	2030612/S3234	06/12/03	1919
3.	057-FL-S-0609-03MS	103594	2030612/S3235	06/12/03	1946
4.	057-FL-S-0609-03MSD	103595	2030612/S3236	06/12/03	2013

SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE ( DFTPP )

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab File ID: 2030528/S3076 DFTPP Injection Date 05/28/03 Time: 1633  
 GC Column: RTX-5MS-30 ID: .53 (mm) Analytical Batch: 258030  
 Instrument ID: MSSV2

<i>m/e</i>	<i>ION ABUNDANCE CRITERIA</i>	<i>% Relative Abundance</i>
51	30.0-60.0% of mass 198	45.36 ( ) ( )
68	Less than 2% of mass 69	0 ( 0 ) ( 1 )
69	Mass 69 relative abundance	58.21 ( ) ( )
70	Less than 2.0% of mass 69	.41 ( .71 ) ( 1 )
127	40.0-60.0% of mass 198	51.18 ( ) ( )
197	Less than 1.0% of mass 198	0 ( ) ( )
198	Base Peak, 100% relative abundance	100 ( ) ( )
199	5.0-9.0% of mass 198	6.57 ( ) ( )
275	10.0-30.0% of mass 198	18.14 ( ) ( )
365	Greater than 1.0% of mass 198	1.86 ( ) ( )
441	Present, but less than mass 443	7.73 ( ) ( )
442	40.0-100.0% of mass 198	50.27 ( ) ( )
443	17.0-23.0% of mass 442	9.64 ( 19.18 ) ( 2 )

(1)-Value is % mass 69

(2)-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>LAB FILE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	SSTD050	1202	2030528/S3077	05/28/03	1651
2.	SSTD010	1201	2030528/S3078	05/28/03	1723
3.	SSTD080	1203	2030528/S3079	05/28/03	1750
4.	SSTD120	1204	2030528/S3080	05/28/03	1816
5.	SSTD160	1205	2030528/S3081	05/28/03	1843
6.	SSTD200	1206	2030528/S3082	05/28/03	1909

SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE ( DFTPP )

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab File ID: 2030612/S3230 DFTPP Injection Date 06/12/03 Time: 1738  
 GC Column: RTX-5MS-30 ID: .53 (mm) Analytical Batch: 258632  
 Instrument ID: MSSV2

<i>m / e</i>	<i>ION ABUNDANCE CRITERIA</i>	<i>% Relative Abundance</i>
51	30.0-60.0% of mass 198	47.02 ( ) ( )
68	Less than 2% of mass 69	0 ( 0 ) ( 1 )
69	Mass 69 relative abundance	59.99 ( ) ( )
70	Less than 2.0% of mass 69	.24 ( .41 ) ( 1 )
127	40.0-60.0% of mass 198	52.31 ( ) ( )
197	Less than 1.0% of mass 198	0 ( ) ( )
198	Base Peak, 100% relative abundance	100 ( ) ( )
199	5.0-9.0% of mass 198	6.79 ( ) ( )
275	10.0-30.0% of mass 198	18.47 ( ) ( )
365	Greater than 1.0% of mass 198	2.02 ( ) ( )
441	Present, but less than mass 443	8.5 ( ) ( )
442	40.0-100.0% of mass 198	54.52 ( ) ( )
443	17.0-23.0% of mass 442	10.48 ( 19.24 ) ( 2 )

(1)-Value is % mass 69

(2)-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>LAB FILE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	SSTD050	1400	2030612/S3231	06/12/03	1756
2.	MB103592	103592	2030612/S3232	06/12/03	1825
3.	LCS103593	103593	2030612/S3233	06/12/03	1852
4.	057-FL-S-0609-03	20306100601	2030612/S3234	06/12/03	1919
5.	057-FL-S-0609-03MS	103594	2030612/S3235	06/12/03	1946
6.	057-FL-S-0609-03MSD	103595	2030612/S3236	06/12/03	2013

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Instrument ID: MSSV2Calibration Date 1: 05/28/03 Time 1: 1651GC Column: RTX-5MS-30 ID: .53 (mm)Calibration Date 2: 05/28/03 Time 2: 1909Method: 1311/8270CAnalytical Batch: 258030Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203Level 4: 1204 Level 5: 1205 Level 6: 1206

Level 7: \_\_\_\_\_ Level 8: \_\_\_\_\_ Level 9: \_\_\_\_\_

COMPOUND	RF 1	RF 2	RF 3	RF 4	RF 5	RF 6	RF 7	RF 8	RF 9	RRF	RSD	#	Type
Acenaphthylene	2.097	2.006	1.866	1.985	1.973	2.137				2.011	4.795		Averaged
Anthracene	1.300	1.150	1.150	1.142	1.165	1.322				1.205	6.886		Averaged
Benzo(a)anthracene	1.367	1.367	1.350	1.323	1.355	1.355				1.353	1.203		Averaged
Benzidine		0.127	0.021	0.018	0.017	0.018				0.040	120.0	*	Averaged
Benzo(b)fluoranthene	1.970	1.830	1.905	1.767	1.855	2.127				1.909	6.653		Averaged
Benzo(k)fluoranthene	1.856	1.731	1.577	1.662	1.758	1.673				1.709	5.566		Averaged
Benzo(g,h,i)perylene	1.481	1.609	1.502	1.461	1.631	1.630				1.552	5.098		Averaged
Benzo(a)pyrene	1.607	1.609	1.541	1.523	1.533	1.627				1.574	2.909		Averaged
Benzoic acid		0.833	0.700	0.799	0.769	0.720				0.764	7.172		Averaged
Butylbenzylphthalate	0.947	0.978	0.948	0.919	0.989	1.009				0.965	3.397		Averaged
Bis(2-Chloroethoxy)methane	0.422	0.376	0.333	0.355	0.359	0.366				0.369	8.138		Averaged
Bis(2-Chloroethyl)ether	1.004	0.944	0.920	0.982	0.998	1.020				0.978	3.914		Averaged
bis(2-Chloroisopropyl)ether	1.840	1.690	1.642	1.656	1.690	1.729				1.708	4.183		Averaged
bis(2-ethylhexyl)phthalate	1.147	1.157	1.162	1.203	1.131	1.230				1.172	3.191		Averaged
4-Bromophenyl-phenylether	0.205	0.186	0.188	0.181	0.192	0.193				0.191	4.374		Averaged
Carbazole	1.317	1.168	1.182	1.091	1.112	1.075				1.158	7.679		Averaged
4-Chlorophenyl-phenylether	0.659	0.617	0.590	0.562	0.593	0.592				0.602	5.464		Averaged
Chrysene	1.267	1.258	1.162	1.255	1.210	1.198				1.225	3.409		Averaged
Dibenz(a,h)anthracene	1.238	1.328	1.235	1.262	1.306	1.401				1.295	4.919		Averaged
Dibenzofuran	1.805	1.654	1.573	1.655	1.698	1.830				1.703	5.777		Averaged
1,2-Dichlorobenzene	1.695	1.559	1.461	1.504	1.554	1.657				1.572	5.662		Averaged
1,3-Dichlorobenzene	1.797	1.657	1.634	1.678	1.790	1.791				1.725	4.402		Averaged
3,3'-Dichlorobenzidine	0.434	0.403	0.328	0.336		0.318				0.309	0.996		Linear
2,4-Dichlorophenol	0.320	0.305	0.291	0.269	0.300	0.324				0.301	6.679		Averaged
Diethylphthalate	1.553	1.465	1.462	1.526	1.564	1.496				1.511	2.901		Averaged
2,4-Dimethylphenol	0.487	0.474	0.466	0.424	0.433	0.482				0.461	5.717		Averaged
Dimethyl-phthalate	1.533	1.453	1.383	1.447	1.478	1.445				1.456	3.354		Averaged
Di-n-octylphthalate	1.834	2.028	1.881	1.930	1.892	2.181				1.958	6.505		Averaged
2,4-Dinitrophenol	0.156	0.259	0.269	0.253	0.279	0.252				0.245	18.16		Averaged
2,6-Dinitrotoluene	0.355	0.340	0.343	0.322	0.353	0.319				0.338	4.500		Averaged
Fluoranthene	1.282	1.179	1.105	1.184	1.198	1.263				1.202	5.331		Averaged
Fluorene	1.406	1.327	1.364	1.333	1.440	1.353				1.370	3.202		Averaged
Hexachlorobenzene	0.210	0.198	0.194	0.194	0.208	0.202				0.201	3.381		Averaged
Hexachlorobutadiene	0.224	0.229	0.216	0.220	0.233	0.223				0.224	2.719		Averaged

# Column used to indicate that the required RRF or %RSD values is outside of QC limits

\* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: MSSV2 Calibration Date 1: 05/28/03 Time 1: 1651  
 GC Column: RTX-5MS-30 ID: .53 (mm) Calibration Date 2: 05/28/03 Time 2: 1909  
 Method: 1311/8270C  
 Analytical Batch: 258030

Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203  
 Level 4: 1204 Level 5: 1205 Level 6: 1206  
 Level 7: \_\_\_\_\_ Level 8: \_\_\_\_\_ Level 9: \_\_\_\_\_

COMPOUND	RF 1	RF 2	RF 3	RF 4	RF 5	RF 6	RF 7	RF 8	RF 9	RRF	RSD	#	Type
Hexachlorocyclopentadiene	0.375	0.418	0.432	0.420	0.426	0.433				0.417	5.134		Averaged
Hexachloroethane	0.778	0.732	0.692	0.703	0.751	0.725				0.730	4.291		Averaged
Isophorone	0.711	0.702	0.675	0.660	0.657	0.658				0.677	3.508		Averaged
Indeno(1,2,3-cd)pyrene	1.728	1.878	1.807	1.801	1.880	1.898				1.832	3.553		Averaged
2-Methylnaphthalene	0.691	0.632	0.627	0.630	0.673	0.690				0.657	4.717		Averaged
o-Cresol	1.345	1.179	1.154	1.094	1.116	1.149				1.173	7.626		Averaged
Naphthalene	1.111	1.005	1.103	1.131	0.837					1.037	11.80		Averaged
Nitrobenzene	0.395	0.359	0.379	0.332	0.340	0.366				0.362	6.540		Averaged
2-Nitrophenol	0.228	0.225	0.204	0.196	0.195	0.208				0.209	6.807		Averaged
N-Nitrosodimethylamine	0.845	0.881	0.864	0.957	0.976	1.007				0.922	7.242		Averaged
N-Nitrosodiphenylamine	0.633	0.579	0.572	0.561	0.639	0.520				0.584	7.795		Averaged
Phenanthrene	1.319	1.217	1.132	1.219	1.233	1.313				1.239	5.629		Averaged
2,4,5-Trichlorophenol	0.453	0.459	0.454	0.443	0.452	0.467				0.454	1.750		Averaged
2,4,6-Trichlorophenol	0.439	0.442	0.443	0.433	0.437	0.440				0.439	0.816		Averaged
Benzyl alcohol	0.985	0.938	0.903	0.879	0.844	0.821				0.895	6.787		Averaged
Aniline	2.108	1.876	1.922	1.904	1.822					1.826	0.999		Linear
Pyridine	0.891	0.771	0.886	0.856	0.843	0.856				0.851	5.073		Averaged
Caprolactam	0.109	0.099	0.092	0.080	0.074	0.080				0.089	14.89		Averaged
Acetophenone	1.118	2.146	2.035	2.037	1.991	1.994				1.887	20.17		Averaged
3-Nitroaniline	0.434	0.379	0.370	0.423	0.425	0.427				0.410	6.725		Averaged
4-Nitroaniline	0.402	0.380	0.334	0.339	0.341	0.294				0.348	10.88		Averaged
Di-n-butylphthalate	1.578	1.441	1.450	1.491	1.581					1.508	4.486		Averaged
1,2-Diphenylhydrazine	2.926	2.937	2.795	2.634	2.635	2.997				2.821	5.622		Averaged
2-Nitroaniline	0.541	0.499	0.487	0.529	0.525	0.468				0.508	5.534		Averaged
2-Chloronaphthalene	1.261	1.186	1.245	1.241	1.259	1.238				1.238	2.218		Averaged
4-Chloroaniline	0.524	0.498	0.462	0.468	0.469	0.473				0.482	4.977		Averaged
Atrazine (Aatrex)	0.222	0.207	0.203	0.225	0.219	0.247				0.220	7.043		Averaged
Benzaldehyde	2.098	2.083	1.996	2.020	2.000					2.040	2.353		Averaged
Biphenyl	3.299	2.891	3.276	2.898	2.836	3.162				3.060	6.839		Averaged
Cresols	2.777	2.438	2.393	2.213	2.379	2.478				2.446	7.585		Averaged
m,p-Cresol	1.432	1.259	1.239	1.120	1.263	1.329				1.274	8.127		Averaged
2-Methyl-4,6-dinitrophenol	0.177	0.194	0.201	0.206	0.194	0.207				0.196	5.553		Averaged
1-Methylnaphthalene	0.626	0.574	0.569	0.612	0.642	0.661				0.614	5.997		Averaged
Phenol	1.722	1.559	1.358	1.701	1.652	1.532				1.587	8.533		Averaged

# Column used to indicate that the required RRF or %RSD values is outside of QC limits

\* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Instrument ID: MSSV2Calibration Date 1: 05/28/03 Time 1: 1651GC Column: RTX-5MS-30 ID: .53 (mm)Calibration Date 2: 05/28/03 Time 2: 1909Method: 1311/B270CAnalytical Batch: 258030Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203Level 4: 1204 Level 5: 1205 Level 6: 1206

Level 7: \_\_\_\_\_ Level 8: \_\_\_\_\_ Level 9: \_\_\_\_\_

COMPOUND	RF 1	RF 2	RF 3	RF 4	RF 5	RF 6	RF 7	RF 8	RF 9	RRF	RSD	#	Type
2-Chlorophenol	1.585	1.470	1.373	1.354	1.337	1.326				1.407	7.186		Averaged
1,4-Dichlorobenzene	1.754	1.637	1.629	1.662	1.838	1.918				1.740	6.813		Averaged
N-Nitroso-di-n-propylamine	1.104	0.977	0.960	0.947	1.103	0.979				1.012	7.132		Averaged
1,2,4-Trichlorobenzene	0.376	0.364	0.350	0.345	0.365	0.375				0.362	3.517		Averaged
4-Chloro-3-methylphenol	0.369	0.345	0.318	0.324	0.348	0.314				0.336	6.330		Averaged
Acenaphthene	1.164	1.107	1.167	1.174	1.276	1.230				1.186	4.944		Averaged
4-Nitrophenol	0.220	0.268	0.275	0.265	0.292	0.303				0.271	10.66		Averaged
2,4-Dinitrotoluene	0.471	0.461	0.434	0.461	0.437	0.456				0.453	3.258		Averaged
Pentachlorophenol	0.128	0.141	0.147	0.144	0.147	0.148				0.142	5.351		Averaged
Pyrene	1.819	1.847	1.748	1.797	1.785	1.835				1.805	2.015		Averaged
Nitrobenzene-d5	0.429	0.426	0.407	0.407	0.412	0.412				0.416	2.247		Averaged
2-Fluorobiphenyl	1.536	1.409	1.458	1.484	1.566	1.600				1.509	4.722		Averaged
Terphenyl-d14	1.075	1.040	0.964	0.952	0.894	0.966				0.982	6.645		Averaged
Phenol-d5	1.722	1.539	1.546	1.505	1.498	1.496				1.551	5.573		Averaged
2-Fluorophenol	1.494	1.426	1.343	1.289	1.244	1.235				1.339	7.754		Averaged
2,4,6-Tribromophenol	0.147	0.144	0.149	0.136	0.137	0.142				0.143	3.535		Averaged

# Column used to indicate that the required RRF or %RSD values is outside of QC limits

\* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Instrument ID: MSSV2Calibration Date: 06/12/03 Time: 1756Lab File ID: 2030612/S3231Init. Callb. Date 1: 05/28/03 Time 1: 1651GC Column: RTX-5MS-30 ID: .53 (mm)Init. Callb. Date 2: 05/28/03 Time 2: 1909Analytical Batch: 258632Method: 1311/8270C

COMPOUND	Avg RF	RRF	Min RRF	% D	Max D
Acenaphthylene	2.011	1.861	.01	-7.42	50
Anthracene	1.205	1.194	.01	-0.87	50
Benzo(a)anthracene	1.353	1.320	.01	-2.42	50
Benzidine	0.040	0.024	.01	-40.9	50
Benzo(b)fluoranthene	1.909	1.740	.01	-8.85	50
Benzo(k)fluoranthene	1.709	1.715	.01	0.341	50
Benzo(g,h,i)perylene	1.552	1.652	.01	6.427	50
Benzo(a)pyrene	1.574	1.500	.01	-4.64	20
Benzoic acid	0.764	0.759	.01	-0.65	50
Butylbenzylphthalate	0.965	0.962	.01	-0.30	50
Bis(2-Chloroethoxy)methane	0.369	0.336	.01	-8.98	50
Bis(2-Chloroethyl)ether	0.978	0.940	.01	-3.90	50
bis(2-Chloroisopropyl)ether	1.708	1.603	.01	-6.16	50
bis(2-ethylhexyl)phthalate	1.172	1.134	.01	-3.19	50
4-Bromophenyl-phenylether	0.191	0.198	.01	3.963	50
Carbazole	1.158	1.149	.01	-0.77	50
4-Chlorophenyl-phenylether	0.602	0.590	.01	-2.00	50
Chrysene	1.225	1.255	.01	2.503	50
Dibenz(a,h)anthracene	1.295	1.363	.01	5.243	50
Dibenzofuran	1.703	1.622	.01	-4.75	50
1,2-Dichlorobenzene	1.572	1.718	.01	9.307	50
1,3-Dichlorobenzene	1.725	1.666	.01	-3.37	50
3,3'-Dichlorobenzidine	0.309	0.394	.01	11.3	50
2,4-Dichlorophenol	0.301	0.282	.01	-6.28	20
Diethylphthalate	1.511	1.443	.01	-4.49	50
2,4-Dimethylphenol	0.461	0.450	.01	-2.33	50
Dimethyl-phthalate	1.456	1.424	.01	-2.25	50
Di-n-octylphthalate	1.958	1.972	.01	0.721	20
2,4-Dinitrophenol	0.245	0.246	.05	0.686	50
2,6-Dinitrotoluene	0.338	0.312	.01	-7.68	50
Fluoranthene	1.202	1.102	.01	-8.31	20
Fluorene	1.370	1.209	.01	-11.7	50
Hexachlorobenzene	0.201	0.207	.01	3.244	50
Hexachlorobutadiene	0.224	0.253	.01	12.8	20
Hexachlorocyclopentadiene	0.417	0.466	.05	11.6	50
Hexachloroethane	0.730	0.781	.01	6.950	50
Isophorone	0.677	0.662	.01	-2.32	50
Indeno(1,2,3-cd)pyrene	1.832	1.656	.01	-9.61	50
2-Methylnaphthalene	0.657	0.601	.01	-8.50	50

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Instrument ID: MSSV2Calibration Date: 06/12/03 Time: 1756Lab File ID: 2030612/S3231Init. Calib. Date 1: 05/28/03 Time 1: 1651GC Column: RTX-5MS-30 ID: .53 (mm)Init. Calib. Date 2: 05/28/03 Time 2: 1909Analytical Batch: 258632Method: 1311/8270C

<b>COMPOUND</b>	<b>Avg RF</b>	<b>RRF</b>	<b>Min RRF</b>	<b>% D</b>	<b>Max D</b>
o-Cresol	1.173	1.108	.01	-5.52	50
Naphthalene	1.037	1.130	.01	8.885	50
Nitrobenzene	0.362	0.405	.01	11.9	50
2-Nitrophenol	0.209	0.218	.01	4.142	20
N-Nitrosodimethylamine	0.922	0.971	.01	5.404	50
N-Nitrosodiphenylamine	0.584	0.597	.01	2.170	20
Phenanthrene	1.239	1.233	.01	-0.46	50
2,4,5-Trichlorophenol	0.454	0.461	.01	1.502	50
2,4,6-Trichlorophenol	0.439	0.434	.01	-1.14	20
Benzyl alcohol	0.895	0.871	.01	-2.69	50
Aniline	1.826	1.402	.01	-27.9	50
Pyridine	0.851	0.958	.01	12.6	50
Caprolactam	0.089	0.090	.01	0.757	50
Acetophenone	1.887	2.073	.01	9.880	50
3-Nitroaniline	0.410	0.332	.01	-18.9	50
4-Nitroaniline	0.348	0.329	.01	-5.65	50
Di-n-butylphthalate	1.508	1.557	.01	3.200	50
1,2-Diphenylhydrazine	2.821	2.585	.01	-8.35	50
2-Nitroaniline	0.508	0.485	.01	-4.58	50
2-Chloronaphthalene	1.238	1.282	.01	3.546	50
4-Chloroaniline	0.482	0.401	.01	-16.7	50
Atrazine (Aatrex)	0.220	0.156	.01	-29.3	50
Benzaldehyde	2.040	2.144	.01	5.108	50
Biphenyl	3.060	3.143	.01	2.714	50
Cresols	2.446	2.279	.01	86.4	50 *
m,p-Cresol	1.274	1.171	.01	-8.07	50
2-Methyl-4,6-dinitrophenol	0.196	0.216	.01	9.752	50
1-Methylnaphthalene	0.614	0.583	.01	-5.03	50
Phenol	1.587	1.318	.01	-16.9	20
2-Chlorophenol	1.407	1.404	.01	-0.23	50
1,4-Dichlorobenzene	1.740	1.588	.01	-8.73	20
N-Nitroso-dl-n-propylamine	1.012	0.987	.05	-2.41	50
1,2,4-Trichlorobenzene	0.362	0.362	.01	-0.03	50
4-Chloro-3-methylphenol	0.336	0.343	.01	1.880	20
Acenaphthene	1.186	1.129	.01	-4.81	20
4-Nitrophenol	0.271	0.301	.05	11.4	50
2,4-Dinitrotoluene	0.453	0.419	.01	-7.56	50
Pentachlorophenol	0.142	0.161	.01	13.1	20
Pyrene	1.805	1.785	.01	-1.10	50

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: MSSV2 Calibration Date: 06/12/03 Time: 1756  
 Lab File ID: 2030612/S3231 Init. Calib. Date 1: 05/28/03 Time 1: 1651  
 GC Column: RTX-5MS-30 ID: .53 (mm) Init. Calib. Date 2: 05/28/03 Time 2: 1909  
 Analytical Batch: 258632 Method: 1311/8270C

<b>COMPOUND</b>	<b>Avg RF</b>	<b>RRF</b>	<b>Min RRF</b>	<b>% D</b>	<b>Max D</b>
Nitrobenzene-d5	0.416	0.422	.01	1.493	50
2-Fluorobiphenyl	1.509	1.494	.01	-0.98	50
Terphenyl-d14	0.982	0.999	.01	1.712	50
Phenol-d5	1.551	1.387	.01	-10.5	50
2-Fluorophenol	1.339	1.298	.01	-3.06	50
2,4,6-Tribromophenol	0.143	0.137	.01	-4.15	50

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Lab File ID ( Standard ): 2030612/S3231Date Analyzed: 06/12/03 Time: 1756Instrument ID: MSSV2GC Column: RTX-5MS-30 ID: .53 (mm)Analytical Batch: 258632Method: 1311/8270C**IS 1 (ACE)****IS 2 (DCB)****IS 3(NPT)**

	Area	RT	Area	RT	Area #	RT
12 HOUR STD	339117	6.511	185193	3.076	682612	4.312
UPPER LIMIT	678234	7.011	370386	3.576	1365224	4.812
LOWER LIMIT	169558.5	6.011	92596.5	2.576	341306	3.812

EPA Sample No.	#	#	#	#	#
1. MB103592	336092	6.5	186336	3.08	661536
2. LCS103593	276124	6.51	150363	3.09	547092
3. 057-FL-S-0609-03	310930	6.5	171690	3.08	595460
4. 057-FL-S-0609-03MS	290446	6.51	158803	3.09	576583
5. 057-FL-S-0609-03MSD	306354	6.52	162406	3.08	590196

IS 1 ID : Acenaphthene-d10

IS 2 ID : 1,4-Dichlorobenzene-d4

IS 3 ID : Naphthalene-d8

AREA UPPER LIMIT = +100% of internal standard area

AREALOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Lab File ID ( Standard ): 2030612/S3231Date Analyzed: 06/12/03 Time: 1756Instrument ID: MSSV2GC Column: RTX-5MS-30 ID: .53 (mm)Method: 1311/8270C**IS 4(PHN)****IS 5(CRY)****IS 6(PRY)**

	Area	RT	Area	RT	Area	RT
12 HOUR STD	459318	8.531	299176	12.26	226796	14.14
UPPER LIMIT	918636	9.031	598352	12.76	453592	14.64
LOWER LIMIT	229659	8.031	149588	11.76	113398	13.64

# # # # # #

1.	MB103592	489947	8.53	236199	12.25	170543	14.13	
2.	LCS103593	395928	8.54	241129	12.26	192649	14.14	
3.	057-FL-S-0609-03	449112	8.53	252655	12.25	177820	14.13	
4.	057-FL-S-0609-03MS	430866	8.54	236384	12.26	172949	14.14	
5.	057-FL-S-0609-03MSD	409013	8.55	218611	12.27	166371	14.14	

IS 4 ID : Phenanthrene-d10

IS 5 ID : Chrysene-d12

IS 6 ID : Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREALOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard values with an asterisk.

\* Values outside of QC limits.

1D  
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL  
 Lab Code: LA024 Case No.: \_\_\_\_\_  
 Matrix: Soil  
 Sample wt/vol: 100 Units: mL  
 Level: (low/med) LOW  
 % Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_  
 GC Column: RTX-1701 ID: .53 (mm)  
 Concentrated Extract Volume: 10000 (µL)  
 Soil Aliquot Volume: \_\_\_\_\_ (µL)  
 Injection Volume: 1 (µL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_  
 Prep Batch: 258535 Analytical Batch: 258651

Sample ID: 057-FL-S-0609-03  
 Contract: \_\_\_\_\_  
 SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab Sample ID: 20306100601  
 Date Collected: 06/09/03 Time: 0930  
 Date Received: 06/10/03  
 Date Extracted: 06/11/03  
 Date Analyzed: 06/12/03 Time: 1957  
 Dilution Factor: 1 Analyst: TLS  
 Prep Method: SW-846 3510  
 Analytical Method: 1311/8081A  
 Sulfur Cleanup: (Y/N) N Instrument ID: GCS3A  
 Lab File ID: 2030612/SV3019

CONCENTRATION UNITS: *mg/L*

**CAS NO. COMPOUND**

**RESULT Q MDL RL**

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
57-74-9	Chlordane	0.02500	U	0.00016	0.02500
72-20-8	Endrin	0.00100	U	0.00013	0.00100
76-44-8	Heptachlor	0.00050	U	0.00008	0.00050
1024-57-3	Heptachlor epoxide	0.00050	U	0.00010	0.00050
72-43-5	Methoxychlor	0.02500	U	0.00065	0.02500
8001-35-2	Toxaphene	0.25000	U	0.00050	0.25000
58-89-9	gamma-BHC (Lindane)	0.00050	U	0.00006	0.00050

1D  
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: MB103588  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 Matrix: Water SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Sample wt/vol: 1000 Units: mL Lab Sample ID: 103588  
 Level: (low/med) LOW Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_  
 GC Column: RTX-1701 ID: .53 (mm) Date Extracted: 06/11/03  
 Concentrated Extract Volume: 10000 (µL) Date Analyzed: 06/12/03 Time: 1858  
 Soil Allquot Volume: \_\_\_\_\_ (µL) Dilution Factor: 1 Analyst: TLS  
 Injection Volume: 1 (µL) Prep Method: 3510C  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Analytical Method: 1311/8081A  
 Prep Batch: 258535 Analytical Batch: 258651 Sulfur Cleanup: (Y/N) N Instrument ID: GCS3A  
 Lab File ID: 2030612/SV3017

CONCENTRATION UNITS: mg/L

**CAS NO. COMPOUND**

**RESULT Q MDL RL**

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
57-74-9	Chlordane	0.02500	U	0.00016	0.02500
72-20-8	Endrin	0.00100	U	0.00013	0.00100
76-44-8	Heptachlor	0.00050	U	0.00008	0.00050
1024-57-3	Heptachlor epoxide	0.00050	U	0.00010	0.00050
72-43-5	Methoxychlor	0.02500	U	0.00065	0.02500
8001-35-2	Toxaphene	0.25000	U	0.00050	0.25000
58-89-9	gamma-BHC (Lindane)	0.00050	U	0.00006	0.00050

## ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: LCS103589  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 Matrix: Water SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Sample wt/vol: 1000 Units: mL Lab Sample ID: 103589  
 Level: (low/med) LOW Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_  
 GC Column: RTX-1701 ID: .53 (mm) Date Extracted: 06/11/03  
 Concentrated Extract Volume: 10000 ( $\mu$ L) Date Analyzed: 06/12/03 Time: 1927  
 Soil Aliquot Volume: \_\_\_\_\_ ( $\mu$ L) Dilution Factor: 1 Analyst: TLS  
 Injection Volume: 1 ( $\mu$ L) Prep Method: 3510C  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Analytical Method: 1311/8081A  
 Prep Batch: 258535 Analytical Batch: 258651 Sulfur Cleanup: (Y/N) N Instrument ID: GCS3A

CONCENTRATION UNITS: mg/LLab File ID: 2030612/SV3018**CAS NO. COMPOUND****RESULT****Q****MDL****RL**

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
57-74-9	Chlordane	0.02500	U	0.00016	0.02500
72-20-8	Endrin	0.00059	J	0.00013	0.00100
76-44-8	Heptachlor	0.00057		0.00008	0.00050
1024-57-3	Heptachlor epoxide	0.00060		0.00010	0.00050
72-43-5	Methoxychlor	0.00071	J	0.00065	0.02500
8001-35-2	Toxaphene	0.25000	U	0.00050	0.25000
58-89-9	gamma-BHC (Lindane)	0.00062		0.00006	0.00050

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: 203061006

GC Column (1): RTX-1701 ID: .53 (mm)

GC Cloumn (2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

Method: 1311/8081A

EPA SAMPLE NO.	SMC1			SMC1			SMC2			SMC2			TOT OUT
	1-(1)	Lo	Hi	1-(2)	Lo	Hi	2-(1)	Lo	Hi	2-(2)	Lo	Hi	
1. MB103588	106	45	148				100	34	135				0
2. LCS103589	111	45	148				111	34	135				0

SMC 1 : Tetrachloro-m-xylene

SMC 2 : Decachlorobiphenyl

# Column to be used to flag recovery limits

\* Value outside of contract required limits

D Surrogate diluted out

## ORGANICS SURROGATE RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006GC Column (1): RTX-1701 ID: .53 (mm)

GC Cloumn (2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

Method: 1311/8081A

EPA SAMPLE NO.	SMC1		SMC2		TOT OUT
	1-(1) #	1-(2) #	2-(1) #	2-(2) #	
1. 057-FL-S-0609-03	106		113		0
2. 057-FL-S-0609-03MS	104		109		0
3. 057-FL-S-0609-03MSD	116		116		0

## CONTROL LIMITS

SMC 1 : Tetrachloro-m-xylene

45      148

SMC 2 : Decachlorobiphenyl

34      135

# Column to be used to flag recovery limits

\* Value outside of contract required limits

D Surrogate diluted out

3E  
WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: 203061006

Contract: \_\_\_\_\_

Method: 1311/8081A

SAMPLE NO : 103589

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS % REC	LCS % REC FLAG	QC. LIMITS
Endrin	mg/L	.0005	0	.00059	118		53 - 168
Heptachlor	mg/L	.0005	0	.00057	115		51 - 152
Heptachlor epoxide	mg/L	.0005	0	.0006	121		56 - 147
Methoxychlor	mg/L	.0005	0	.00071	143		29 - 179
gamma-BHC (Lindane)	mg/L	.0005	0	.00062	125		37 - 143

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 5 outside limits

## ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL Sample ID: MB103588  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 Lab Sample ID: 103588 SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Matrix: Water Sulfur Cleanup: (Y/N) N Date Extracted: 06/11/03  
 Date Analyzed (1): 06/12/03 Time (1): 1858 Date Analyzed (2): \_\_\_\_\_ Time (2): \_\_\_\_\_  
 Instrument ID (1): GCS3A Instrument ID (2): \_\_\_\_\_  
 GC Column (1): RTX-1701 ID: .53 (mm) GC Column (2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)  
 Method: 1311/8081A Prep Batch: 258535 Analytical Batch: 258651  
 Lab File ID: 2030612/SV3017

## THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	LCS103589	103589	06/12/03	1927		
2.	057-FL-S-0609-03	20306100601	06/12/03	1957		
3.	057-FL-S-0609-03MS	103590	06/12/03	2026		
4.	057-FL-S-0609-03MSD	103591	06/12/03	2056		

6E  
ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: GCS3A Calibration Date 1: 06/11/03 Time 1: 1759  
 GC Column: RTX-1701 ID: .53 (mm) Calibration Date 2: 06/12/03 Time 2: 0518  
 Analytical Batch: 258912 Method: 1311/8081A

Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203  
 Level 4: 1204 Level 5: 1205 Level 6: \_\_\_\_\_  
 Level 7: \_\_\_\_\_ Level 8: \_\_\_\_\_ Level 9: \_\_\_\_\_

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF	RSD
4,4'-DDD	64860.100	72991.475	79032.092	73639.800	79566.780				74018.049	8.021
4,4'-DDE	78356.600	96674.200	99794.600	03952.060	104367.538				96629	11.06
4,4'-DDT	34734.400	48714.825	56405.408	57544.250	60128.215				51505.42	19.98
Aldrin	109564.200	35711.850	147630.450	54870.138	155139.310				140583.19	13.55
Aroclor-1016	24772.671	25376.450	25678.965	26442.878	28035.890				26061.371	4.823
Aroclor-1221	8863.712								8863.712	0
Aroclor-1232	12350.640								12350.64	0
Aroclor-1242	20966.370								20966.37	0
Aroclor-1248	28181.718								28181.718	0
Aroclor-1254	16940.868								16940.868	0
Aroclor-1260	30809.213	32064.108	32467.220	33197.520	33700.980				32447.808	3.434
Chlordane	46977.395								46977.395	0
Decachlorobiphenyl	139170.000	29515.400	123325.008	21727.888	121118.060				126971.271	5.976
Dieldrin	116117.800	21421.350	136590.317	37016.944	137873.515				129803.985	7.901
Endosulfan I	151652.000	12737.250	126795.833	28391.625	129606.060				129836.554	10.75
Endosulfan II	90840.500	08316.625	111162.900	14872.830	115619.269				108162.425	9.357
Endosulfan sulfate	91188.500	95209.500	97544.592	00276.915	100950.462				97033.994	4.11
Endrin	102549.100	99298.500	109717.683	11403.394	112311.655				107056.066	5.408
Endrin aldehyde	67089.800	79518.658	80570.925	83759.375	84127.844				79013.32	8.803
Endrin ketone	95604.900	04039.600	106913.767	08628.765	110096.100				105056.626	5.468
Heptachlor	124562.000	23374.450	132535.683	32503.475	133321.450				129259.412	3.759
Heptachlor epoxide	109733.600	26717.000	132654.150	37197.620	137778.450				128816.164	8.968
Methoxychlor	29747.120	30005.195	30736.230	30580.446	30826.161				30379.03	1.568
Tetrachloro-m-xylene	151084.600	42502.700	147841.333	44944.350	144431.690				146160.935	2.293
Toxaphene	11182.717								11182.717	0
alpha-BHC	133676.200	54070.450	177847.983	79330.562	181399.910				165265.021	12.61
alpha-Chlordane	120387.600	32134.950	133485.600	37709.600	138895.862				132522.722	5.543
beta-BHC	64742.200	64813.067	65590.960	66560.875	68474.350				66036.29	2.345
delta-BHC	89857.400	10445.550	120327.567	27504.788	128106.270				115248.315	13.78
gamma-BHC (Lindane)	123814.600	35609.450	152586.317	53542.412	154791.840				144068.924	9.562
gamma-Chlordane	114792.000	27091.650	130929.817	36642.180	136890.225				129269.174	7.021

## ORGANICS CONTINUING CALIBRATION CHECK

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: GCS3A Calibration Date: 06/12/03 Time: 1729  
 Lab File ID: 2030612/SV3014 Init. Calib. Date 1: 06/11/03 Time: 1759  
 GC Column: RTX-1701 ID: .53 (mm) Init. Calib. Date 2: 06/12/03 Time: 0518  
 Analytical Batch: 258912

COMPOUND	RRF	RRF50	% D
alpha-BHC	165265.021	193175.766	16.88
Endosulfan I	129836.553	129473.4	-.279
4,4'-DDD	74018.0493	87067.4333	17.63
Methoxychlor	30379.0304	37355.54	22.96
gamma-BHC (Lindane)	144068.923	168913.65	17.24
Heptachlor	129259.411	147796.5	14.34
Dieldrin	129803.985	139470.658	7.447
Endrin	107056.066	117744.45	9.983
4,4'-DDT	51505.4196	74648.825	44.93
Tetrachloro-m-xylene	146160.934	158008.283	8.105
Decachlorobiphenyl	126971.271	132673.583	4.491

## ORGANICS CONTINUING CALIBRATION CHECK

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: GCS3A Calibration Date: 06/12/03 Time: 1759  
 Lab File ID: 2030612/SV3015 Init. Calib. Date 1: 06/11/03 Time: 1759  
 GC Column: RTX-1701 ID: .53 (mm) Init. Calib. Date 2: 06/12/03 Time: 0518  
 Analytical Batch: 258912

COMPOUND	RRF	RRF50	% D
beta-BHC	66036.2903	75434.3166	14.23
delta-BHC	115248.314	136741.766	18.64
Heptachlor epoxide	128816.164	141693.55	9.996
4,4'-DDE	96628.9995	114125.808	18.10
Endosulfan II	108162.424	117053.875	8.220
Endosulfan sulfate	97033.9938	106351.791	9.602
Endrin ketone	105056.626	118766.416	13.04
Endrin aldehyde	79013.3204	91871.7416	16.27
alpha-Chlordane	132522.722	142789.2	7.746
gamma-Chlordane	129269.174	139920.35	8.239
Aldrin	140583.189	157340.7	11.92

## ORGANICS CONTINUING CALIBRATION CHECK

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: GCS3A Calibration Date: 06/12/03 Time: 2155  
 Lab File ID: 2030612/SV3023 Init. Calib. Date 1: 06/11/03 Time: 1759  
 GC Column: RTX-1701 ID: .53 (mm) Init. Calib. Date 2: 06/12/03 Time: 0518  
 Analytical Batch: 258912

COMPOUND	RRF	RRF50	% D
alpha-BHC	165265.021	211984.166	28.26
Endosulfan I	129836.553	141278.133	8.812
4,4'-DDD	74018.0493	98638.1083	33.26
Methoxychlor	30379.0304	43048.375	41.70
gamma-BHC (Lindane)	144068.923	185621.033	28.84
Heptachlor	129259.411	163364.766	26.38
Dieldrin	129803.985	151933.516	17.04
Endrin	107056.066	132817.483	24.06
4,4'-DDT	51505.4196	85315.8833	65.64
Tetrachloro-m-xylene	146160.934	166907.95	14.19
Decachlorobiphenyl	126971.271	136405.125	7.429

## ORGANICS CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Instrument ID: GCS3ACalibration Date: 06/12/03 Time: 2224Lab File ID: 2030612/SV3024Init. Callb. Date 1: 06/11/03 Time: 1759GC Column: RTX-1701 ID: .53 (mm)Init. Callb. Date 2: 06/12/03 Time: 0518Analytical Batch: 258912

COMPOUND	RRF	RRF50	% D
beta-BHC	66036.2903	84461.05	27.90
delta-BHC	115248.314	159095.4	38.04
Heptachlor epoxide	128816.164	152967.15	18.74
4,4'-DDE	96628.9995	129010.85	33.51
Endosulfan II	108162.424	130689.625	20.82
Endosulfan sulfate	97033.9938	116712.675	20.28
Endrin ketone	105056.626	129977.708	23.72
Endrin aldehyde	79013.3204	101802.333	28.84
alpha-Chlordane	132522.722	157418.9	18.78
gamma-Chlordane	129269.174	154848.533	19.78
Aldrin	140583.189	173689.366	23.54

1D  
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 057-FL-S-0609-03

Lab Code: LA024 Case No.: \_\_\_\_\_

Contract: \_\_\_\_\_

Matrix: Soil

SAS No.: \_\_\_\_\_ SDG No.: 203061006

Sample wt/vol: 100 Units: mL

Lab Sample ID: 20306100601

Level: (low/med) LOW

Date Collected: 06/09/03 Time: 0930

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: 06/10/03

GC Column: DB-608-30M ID: .53 (mm)

Date Extracted: 06/12/03

Concentrated Extract Volume: 10000 (µL)

Date Analyzed: 06/13/03 Time: 1250

Soil Allquot Volume: \_\_\_\_\_ (µL)

Dilution Factor: 1 Analyst: TLS

Injection Volume: 1 (µL)

Prep Method: SW-846 3510

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Analytical Method: 1311/8151

Prep Batch: 258537 Analytical Batch: 258672

Sulfur Cleanup: (Y/N) N Instrument ID: GCS6A

CONCENTRATION UNITS: mg/L

Lab File ID: 2030612/SV6013

**CAS NO. COMPOUND**

**RESULT Q MDL RL**

94-75-7	2,4'-D	0.00500	U	0.00270	0.00500
93-72-1	2,4,5-TP (SILVEX)	0.00500	U	0.00320	0.00500

1D  
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: MB103596

Lab Code: LA024 Case No.: \_\_\_\_\_

Contract: \_\_\_\_\_

Matrix: Water

SAS No.: \_\_\_\_\_ SDG No.: 203061006

Sample wt/vol: 1000 Units: mL

Lab Sample ID: 103596

Level: (low/med) LOW

Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: \_\_\_\_\_

GC Column: DB-608-30M ID: .53 (mm)

Date Extracted: 06/12/03

Concentrated Extract Volume: 10000 (µL)

Date Analyzed: 06/13/03 Time: 1148

Soil Aliquot Volume: \_\_\_\_\_ (µL)

Dilution Factor: 1 Analyst: TLS

Injection Volume: 1 (µL)

Prep Method: SW-846 3510

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Analytical Method: 1311/8151

Prep Batch: 258537 Analytical Batch: 258672

Sulfur Cleanup: (Y/N) N Instrument ID: GCS6A

CONCENTRATION UNITS: mg/L

Lab File ID: 2030612/SV6011

**CAS NO. COMPOUND**

**RESULT Q MDL RL**

94-75-7	2,4'-D	0.00500	U	0.00270	0.00500
93-72-1	2,4,5-TP (SILVEX)	0.00500	U	0.00320	0.00500

## ORGANICS ANALYSIS DATA SHEET

Lab Name: GCALSample ID: LCS103597Lab Code: LA024 Case No.: \_\_\_\_\_

Contract: \_\_\_\_\_

Matrix: WaterSAS No.: \_\_\_\_\_ SDG No.: 203061006Sample wt/vol: 1000 Units: mLLab Sample ID: 103597Level: (low/med) LOW

Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: \_\_\_\_\_

GC Column: DB-608-30M ID: .53 (mm)Date Extracted: 06/12/03Concentrated Extract Volume: 10000 ( $\mu\text{L}$ )Date Analyzed: 06/13/03 Time: 1317Soil Aliquot Volume: \_\_\_\_\_ ( $\mu\text{L}$ )Dilution Factor: 1 Analyst: TLSInjection Volume: 1 ( $\mu\text{L}$ )Prep Method: SW-846 3510GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Analytical Method: 1311/8151Prep Batch: 258537 Analytical Batch: 258672Sulfur Cleanup: (Y/N) N Instrument ID: GCS6ACONCENTRATION UNITS: mg/LLab File ID: 2030612/SV6014**CAS NO. COMPOUND****RESULT Q MDL RL**

94-75-7	2,4'-D	0.00406	J	0.00270	0.00500
93-72-1	2,4,5-TP (SILVEX)	0.00500	U	0.00320	0.00500

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 GC Column (1): DB-608-30M ID: .53 (mm) GC Column (2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)  
 Method: 1311/8151

EPA SAMPLE NO.	SMC1 1-(1)			SMC1 1-(2)			SMC2 2-(1)			SMC2 2-(2)			TOT OUT
	Lo	Hi	F	Lo	Hi	F	Lo	Hi	F	Lo	Hi	F	
1. MB103596	92	37	140										0
2. LCS103597	119	37	140										0

SMC 1 : DCAA

SMC 2 :

# Column to be used to flag recovery limits

\* Value outside of contract required limits

D Surrogate diluted out

2F  
ORGANICS SURROGATE RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: 203061006

GC Column (1): DB-608-30M ID: .53 (mm)

GC Cloumn (2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

Method: 1311/8151

EPA SAMPLE NO.	SMC1		SMC2		TOT OUT
	1-(1) #	1-(2) #	2-(1) #	2-(2) #	
1. 057-FL-S-0609-03	68				0
2. 057-FL-S-0609-03MS	117				0
3. 057-FL-S-0609-03MSD	70				0

CONTROL LIMITS

SMC 1 : DCAA

37      140

SMC 2 :

# Column to be used to flag recovery limits

\* Value outside of contract required limits

D Surrogate diluted out

3E  
WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: 203061006

Contract: \_\_\_\_\_

Method: 1311/8151

SAMPLE NO : 103597

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS % REC	LCS % REC FLAG	QC. LIMITS
2,4'-D	mg/L	.00404	0	.00406	100		10 - 126
2,4,5-TP (SILVEX)	mg/L	.00404	0	.00317	78		34 - 124

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 2 outside limits

## ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL Sample ID: MB103596  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 Lab Sample ID: 103596 SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Matrix: Water Sulfur Cleanup: (Y/N) N Date Extracted: 06/12/03  
 Date Analyzed (1): 06/13/03 Time (1): 1148 Date Analyzed (2): \_\_\_\_\_ Time (2): \_\_\_\_\_  
 Instrument ID (1): GCS6A Instrument ID (2): \_\_\_\_\_  
 GC Column (1): DB-608-30M ID: .53 (mm) GC Column (2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)  
 Method: 1311/8151 Prep Batch: 258537 Analytical Batch: 258672  
 Lab File ID: 2030612/SV6011

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

SAMPLE NO.	LAB		DATE		TIME	
	SAMPLE ID	ANALYZED	ANALYZED	ANALYZED	ANALYZED	ANALYZED
1.	057-FL-S-0609-03MS	103598	06/13/03	1224		
2.	057-FL-S-0609-03	20306100601	06/13/03	1250		
3.	LCS103597	103597	06/13/03	1317		
4.	057-FL-S-0609-03MSD	103599	06/13/03	1344		

6E  
ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: GCS6A Calibration Date 1: 06/12/03 Time 1: 1627  
 GC Column: DB-608-30M ID: .53 (mm) Calibration Date 2: 06/12/03 Time 2: 1842  
 Analytical Batch: 258672 Method: 1311/8151

Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203  
 Level 4: 1204 Level 5: 1205 Level 6: 1206  
 Level 7: \_\_\_\_\_ Level 8: \_\_\_\_\_ Level 9: \_\_\_\_\_

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF	RSD
2,4'-D	495022.400	43266.080	502002.440	19462.620	457273.125	30700.602			491287.878	8.369
2,4,5-T	1670000.00	800000.00	1670000.00	750000.00	1570000.00	320000.00			1630000	10.50
2,4,5-TP (SILVEX)	1780000.00	860000.00	1750000.00	840000.00	1650000.00	340000.00			1700000	11.28
DCAA	493369.520	40386.040	491038.580	01108.540	434400.360	03380.042			477280.514	10.39

## ORGANICS CONTINUING CALIBRATION CHECK

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: GCS6A Calibration Date: 06/13/03 Time: 1440  
 Lab File ID: 2030612/SV6017 Init. Calib. Date 1: 06/12/03 Time: 1627  
 GC Column: DB-608-30M ID: .53 (mm) Init. Calib. Date 2: 06/12/03 Time: 1842  
 Analytical Batch: 258672

COMPOUND	RRF	RRF50	% D
2,4-D	491287.877	569836.75	15.98
2,4,5-T	1630260.50	1914573.53	17.43
2,4,5-TP (SILVEX)	1703392.08	2000466.83	17.44
DCAA	477280.513	555020.35	16.28

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL Sample ID: 057-FL-S-0609-03  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 Matrix: ( soil / water ) Soil SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Level: ( low / med ) \_\_\_\_\_ % Solids: \_\_\_\_\_ Lab Sample ID: 20306100601  
 Date Received: 06/10/03 Time: 0920 Date Collected: 06/09/03 Time: 0930

<i>Analyte</i>	<i>Concentration</i>	<i>Units</i>	<i>C</i>	<i>MDL</i>	<i>PQL</i>	<i>Method</i>	<i>Type</i>
Arsenic	0.20	mg/L	U	0.0035	0.20	SW-846 1311/6010B	P
Barium	0.63	mg/L	B	0.00060	1.00	SW-846 1311/6010B	P
Cadmium	0.014	mg/L		0.00020	0.010	SW-846 1311/6010B	P
Chromium	0.075	mg/L		0.00050	0.050	SW-846 1311/6010B	P
Lead	0.17	mg/L		0.0024	0.10	SW-846 1311/6010B	P
Mercury	0.00013	mg/L	B	0.00008	0.00020	SW-846 1311/7470A	AV
Selenium	0.013	mg/L	B	0.0043	0.10	SW-846 1311/6010B	P
Silver	0.050	mg/L	U	0.00040	0.050	SW-846 1311/6010B	P

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Source: 106-15-2 CPI/EXAXOL Instrument ID: ICP2 ICAL ID: 2  
 Date Analyzed: 06/12/03 Time: 0854

INITIAL CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Antimony	1.00	0.960	96	mg/L	SW-846 1311/6010B	P
Arsenic	1.00	0.980	98	mg/L	SW-846 1311/6010B	P
Beryllium	1.00	0.960	96	mg/L	SW-846 1311/6010B	P
Cadmium	1.00	0.960	96	mg/L	SW-846 1311/6010B	P
Calcium	1.00	0.980	98	mg/L	SW-846 1311/6010B	P
Chromium	1.00	0.980	98	mg/L	SW-846 1311/6010B	P
Cobalt	1.00	0.990	99	mg/L	SW-846 1311/6010B	P
Copper	1.00	0.950	95	mg/L	SW-846 1311/6010B	P
Iron	1.00	0.960	96	mg/L	SW-846 1311/6010B	P
Lead	1.00	0.990	99	mg/L	SW-846 1311/6010B	P
Magnesium	1.00	1.01	101	mg/L	SW-846 1311/6010B	P
Manganese	1.00	0.980	98	mg/L	SW-846 1311/6010B	P
Molybdenum	1.00	0.980	98	mg/L	SW-846 1311/6010B	P
Nickel	1.00	0.980	98	mg/L	SW-846 1311/6010B	P
Selenium	1.00	0.980	98	mg/L	SW-846 1311/6010B	P
Silver	1.00	0.990	99	mg/L	SW-846 1311/6010B	P
Thallium	1.00	0.990	99	mg/L	SW-846 1311/6010B	P
Titanium	1.00	0.970	97	mg/L	SW-846 1311/6010B	P
Vanadium	1.00	0.960	96	mg/L	SW-846 1311/6010B	P
Zinc	1.00	0.950	95	mg/L	SW-846 1311/6010B	P

ICV CONTROL LIMITS EPA 6010B = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Source: 106-13-1 Instrument ID: ICP2 ICAL ID: 2  
 Date Analyzed: 06/12/03 Time: 0859

INITIAL CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	10.0	10.0	100	mg/L	SW-846 1311/6010B	P
Barium	1.00	1.02	102	mg/L	SW-846 1311/6010B	P
Boron	5.00	4.77	95	mg/L	SW-846 1311/6010B	P
Tin	1.00	1.00	100	mg/L	SW-846 1311/6010B	P
Zirconium	1.00	0.980	98	mg/L	SW-846 1311/6010B	P

ICV CONTROL LIMITS EPA 6010B = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Source: 106-15-4 INORGANIC VENTURES Instrument ID: ICP2 ICAL ID: 2  
 Date Analyzed: 06/12/03 Time: 0932

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	5.09	102	mg/L	SW-846 1311/6010B	P
Arsenic	0.500	0.530	105	mg/L	SW-846 1311/6010B	P
Barium	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Beryllium	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Cadmium	0.500	0.510	101	mg/L	SW-846 1311/6010B	P
Calcium	5.00	5.15	103	mg/L	SW-846 1311/6010B	P
Chromium	0.500	0.510	101	mg/L	SW-846 1311/6010B	P
Cobalt	0.500	0.510	101	mg/L	SW-846 1311/6010B	P
Copper	0.500	0.510	101	mg/L	SW-846 1311/6010B	P
Iron	5.00	5.12	102	mg/L	SW-846 1311/6010B	P
Lead	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Magnesium	5.00	5.13	103	mg/L	SW-846 1311/6010B	P
Manganese	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Nickel	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Selenium	0.500	0.520	105	mg/L	SW-846 1311/6010B	P
Silver	0.500	0.500	100	mg/L	SW-846 1311/6010B	P
Thallium	0.500	0.510	101	mg/L	SW-846 1311/6010B	P
Vanadium	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Zinc	0.500	0.500	101	mg/L	SW-846 1311/6010B	P
Zirconium	0.500	0.500	99	mg/L	SW-846 1311/6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-110 EPA 7470/7471 AND 7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Source: 106-15-4 INORGANIC VENTURES Instrument ID: ICP2 ICAL ID: 2  
 Date Analyzed: 06/12/03 Time: 1637

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	5.06	101	mg/L	SW-846 1311/6010B	P
Arsenic	0.500	0.520	105	mg/L	SW-846 1311/6010B	P
Barium	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Beryllium	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Cadmium	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Calcium	5.00	5.10	102	mg/L	SW-846 1311/6010B	P
Chromium	0.500	0.500	101	mg/L	SW-846 1311/6010B	P
Cobalt	0.500	0.510	101	mg/L	SW-846 1311/6010B	P
Copper	0.500	0.500	100	mg/L	SW-846 1311/6010B	P
Iron	5.00	5.09	102	mg/L	SW-846 1311/6010B	P
Lead	0.500	0.520	103	mg/L	SW-846 1311/6010B	P
Magnesium	5.00	5.07	101	mg/L	SW-846 1311/6010B	P
Manganese	0.500	0.510	101	mg/L	SW-846 1311/6010B	P
Nickel	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Selenium	0.500	0.520	104	mg/L	SW-846 1311/6010B	P
Silver	0.500	0.500	99	mg/L	SW-846 1311/6010B	P
Thallium	0.500	0.510	102	mg/L	SW-846 1311/6010B	P
Vanadium	0.500	0.500	101	mg/L	SW-846 1311/6010B	P
Zinc	0.500	0.500	101	mg/L	SW-846 1311/6010B	P
Zirconium	0.500	0.490	98	mg/L	SW-846 1311/6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-110 EPA 7470/7471 AND 7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Source: 106-15-4 INORGANIC VENTURES Instrument ID: ICP2 ICAL ID: 2  
 Date Analyzed: 06/12/03 Time: 1728

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	4.93	99	mg/L	SW-846 1311/6010B	P
Arsenic	0.500	0.490	98	mg/L	SW-846 1311/6010B	P
Barium	0.500	0.500	99	mg/L	SW-846 1311/6010B	P
Beryllium	0.500	0.500	99	mg/L	SW-846 1311/6010B	P
Cadmium	0.500	0.500	100	mg/L	SW-846 1311/6010B	P
Calcium	5.00	4.99	100	mg/L	SW-846 1311/6010B	P
Chromium	0.500	0.490	98	mg/L	SW-846 1311/6010B	P
Cobalt	0.500	0.490	97	mg/L	SW-846 1311/6010B	P
Copper	0.500	0.480	97	mg/L	SW-846 1311/6010B	P
Iron	5.00	4.96	99	mg/L	SW-846 1311/6010B	P
Lead	0.500	0.490	98	mg/L	SW-846 1311/6010B	P
Magnesium	5.00	4.94	99	mg/L	SW-846 1311/6010B	P
Manganese	0.500	0.490	99	mg/L	SW-846 1311/6010B	P
Nickel	0.500	0.500	100	mg/L	SW-846 1311/6010B	P
Selenium	0.500	0.510	101	mg/L	SW-846 1311/6010B	P
Silver	0.500	0.480	97	mg/L	SW-846 1311/6010B	P
Thallium	0.500	0.490	99	mg/L	SW-846 1311/6010B	P
Vanadium	0.500	0.490	98	mg/L	SW-846 1311/6010B	P
Zinc	0.500	0.490	98	mg/L	SW-846 1311/6010B	P
Zirconium	0.500	0.470	94	mg/L	SW-846 1311/6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-110 EPA 7470/7471 AND 7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Source: 106-11-6 CPI Instrument ID: FIMS1 ICAL ID: 1  
 Date Analyzed: 06/13/03 Time: 1034

INITIAL CALIBRATION VERIFICATION

<i>Analyte</i>	<i>True</i>	<i>Found</i>	<i>CAL %R</i>	<i>Units</i>	<i>Method</i>	<i>Type</i>
Mercury	0.00500	0.00473	95	mg/L	SW-846 1311/7470A	AV

ICV CONTROL LIMITS EPA 6010B = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Source: 106-11-5 EXAXOL Instrument ID: FIMS1 ICAL ID: 1  
 Date Analyzed: 06/13/03 Time: 1038

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Mercury	0.00500	0.00492	98	mg/L	SW-846 1311/7470A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-110 EPA 7470/7471 AND 7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Source: 106-11-5 EXAXOL Instrument ID: FIMS1 ICAL ID: 1  
 Date Analyzed: 06/13/03 Time: 1119

CONTINUING CALIBRATION VERIFICATION

<i>Analyte</i>	<i>True</i>	<i>Found</i>	<i>CAL %R</i>	<i>Units</i>	<i>Method</i>	<i>Type</i>
Mercury	0.00500	0.00463	93	mg/L	SW-846 1311/7470A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-110 EPA 7470/7471 AND 7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Calibration Source: 106-11-5 EXAXOL Instrument ID: FIMS1 ICAL ID: 1  
 Date Analyzed: 06/13/03 Time: 1124

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Mercury	0.00500	0.00462	92	mg/L	SW-846 1311/7470A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-110 EPA 7470/7471 AND 7XXX = 80-120

BLANKS

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab Sample ID: ICB ICAL ID: 2  
 Lab Sample DESC: ICB FOR HBN 258571 [ICP/1935] Preparation Blank Matrix: (soil / water) \_\_\_\_\_  
 Instrument ID: ICP2 Date Analyzed: 06/12/03 Time: 0904

INITIAL CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Arsenic	0.040	U	mg/L	0.0015	0.040	SW-846 1311/6010B	P
Barium	0.010	U	mg/L	0.00050	0.010	SW-846 1311/6010B	P
Cadmium	0.00045	B	mg/L	0.00020	0.0050	SW-846 1311/6010B	P
Chromium	0.010	U	mg/L	0.00050	0.010	SW-846 1311/6010B	P
Lead	0.015	U	mg/L	0.0016	0.015	SW-846 1311/6010B	P
Selenium	0.0062	B	mg/L	0.0047	0.040	SW-846 1311/6010B	P
Silver	0.0016	B	mg/L	0.00040	0.010	SW-846 1311/6010B	P

BLANKS

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab Sample ID: CCB ICAL ID: 2  
 Lab Sample DESC: CCB FOR HBN 258571 [ICP/1935] Preparation Blank Matrix: (soil / water) \_\_\_\_\_  
 Instrument ID: ICP2 Date Analyzed: 06/12/03 Time: 0942

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Arsenic	0.0080	B	mg/L	0.0015	0.040	SW-846 1311/6010B	P
Barium	0.010	U	mg/L	0.00050	0.010	SW-846 1311/6010B	P
Cadmium	0.0012	B	mg/L	0.00020	0.0050	SW-846 1311/6010B	P
Chromium	0.00095	B	mg/L	0.00050	0.010	SW-846 1311/6010B	P
Lead	0.015	U	mg/L	0.0016	0.015	SW-846 1311/6010B	P
Selenium	0.040	U	mg/L	0.0047	0.040	SW-846 1311/6010B	P
Silver	0.010	U	mg/L	0.00040	0.010	SW-846 1311/6010B	P

BLANKS

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab Sample ID: CCB ICAL ID: 2  
 Lab Sample DESC: CCB FOR HBN 258571 [ICP/1935] Preparation Blank Matrix: (soil / water) \_\_\_\_\_  
 Instrument ID: ICP2 Date Analyzed: 06/12/03 Time: 1648

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Arsenic	0.0036	B	mg/L	0.0015	0.040	SW-846 1311/6010B	P
Barium	0.010	U	mg/L	0.00050	0.010	SW-846 1311/6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 1311/6010B	P
Chromium	0.010	U	mg/L	0.00050	0.010	SW-846 1311/6010B	P
Lead	0.015	U	mg/L	0.0016	0.015	SW-846 1311/6010B	P
Selenium	0.0082	B	mg/L	0.0047	0.040	SW-846 1311/6010B	P
Silver	0.00045	B	mg/L	0.00040	0.010	SW-846 1311/6010B	P

BLANKS

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab Sample ID: 103878 ICAL ID: 2  
 Lab Sample DESC: MB103878 Preparation Blank Matrix: (soil / water) Water  
 Instrument ID: ICP2 Date Analyzed: 06/12/03 Time: 1653

PREPARATION BLANK

<i>Analyte</i>	<i>Conc.</i>	<i>C</i>	<i>Units</i>	<i>MDL</i>	<i>PQL</i>	<i>Method</i>	<i>Type</i>
Arsenic	0.20	U	mg/L	0.0035	0.20	SW-846 1311/6010B	P
Barium	0.20	B	mg/L	0.00060	1.00	SW-846 1311/6010B	P
Cadmium	0.010	U	mg/L	0.00020	0.010	SW-846 1311/6010B	P
Chromium	0.0017	B	mg/L	0.00050	0.050	SW-846 1311/6010B	P
Lead	0.10	U	mg/L	0.0024	0.10	SW-846 1311/6010B	P
Selenium	0.020	B	mg/L	0.0043	0.10	SW-846 1311/6010B	P
Silver	0.050	U	mg/L	0.00040	0.050	SW-846 1311/6010B	P

BLANKS

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab Sample ID: CCB ICAL ID: 2  
 Lab Sample DESC: CCB FOR HBN 258571 [ICP/1935] Preparation Blank Matrix: (soil / water) \_\_\_\_\_  
 Instrument ID: ICP2 Date Analyzed: 06/12/03 Time: 1738

**CONTINUING CALIBRATION BLANK**

<i>Analyte</i>	<i>Conc.</i>	<i>C</i>	<i>Units</i>	<i>MDL</i>	<i>PQL</i>	<i>Method</i>	<i>Type</i>
Arsenic	0.040	U	mg/L	0.0015	0.040	SW-846 1311/6010B	P
Barium	0.010	U	mg/L	0.00050	0.010	SW-846 1311/6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 1311/6010B	P
Chromium	0.010	U	mg/L	0.00050	0.010	SW-846 1311/6010B	P
Lead	0.015	U	mg/L	0.0016	0.015	SW-846 1311/6010B	P
Selenium	0.0085	B	mg/L	0.0047	0.040	SW-846 1311/6010B	P
Silver	0.00092	B	mg/L	0.00040	0.010	SW-846 1311/6010B	P

BLANKS

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab Sample ID: ICB ICAL ID: 1  
 Lab Sample DESC: ICB FOR HBN 258648 [HG/1573] Preparation Blank Matrix: (soil / water) \_\_\_\_\_  
 Instrument ID: FIMS1 Date Analyzed: 06/13/03 Time: 1036

**INITIAL CALIBRATION BLANK**

<i>Analyte</i>	<i>Conc.</i>	<i>C</i>	<i>Units</i>	<i>MDL</i>	<i>PQL</i>	<i>Method</i>	<i>Type</i>
Mercury	0.00020	U	mg/L	0.00003	0.00020	SW-846 1311/7470A	AV

BLANKS

Lab Name: GCAL Contract: \_\_\_\_\_  
Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
Lab Sample ID: CCB ICAL ID: 1  
Lab Sample DESC: CCB FOR HBN 258648 [HG/1573] Preparation Blank Matrix: (soil / water) \_\_\_\_\_  
Instrument ID: FIMS1 Date Analyzed: 06/13/03 Time: 1039

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Mercury	0.00020	U	mg/L	0.00003	0.00020	SW-846 1311/7470A	AV

BLANKS

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab Sample ID: 103882 ICAL ID: 1  
 Lab Sample DESC: MB103882 Preparation Blank Matrix: (soil / water) Water  
 Instrument ID: FIMS1 Date Analyzed: 06/13/03 Time: 1110

PREPARATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Mercury	0.00009	B	mg/L	0.00008	0.00020	SW-846 1311/7470A	AV

BLANKS

Lab Name: GCAL Contract: \_\_\_\_\_  
Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
Lab Sample ID: CCB ICAL ID: 1  
Lab Sample DESC: CCB FOR HBN 258648 [HG/1573] Preparation Blank Matrix: (soil / water) \_\_\_\_\_  
Instrument ID: FIMS1 Date Analyzed: 06/13/03 Time: 1121

**CONTINUING CALIBRATION BLANK**

<i>Analyte</i>	<i>Conc.</i>	<i>C</i>	<i>Units</i>	<i>MDL</i>	<i>PQL</i>	<i>Method</i>	<i>Type</i>
Mercury	0.00020	U	mg/L	0.00003	0.00020	SW-846 1311/7470A	AV

BLANKS

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab Sample ID: CCB ICAL ID: 1  
 Lab Sample DESC: CCB FOR HBN 258648 [HG/1573] Preparation Blank Matrix: (soil / water) \_\_\_\_\_  
 Instrument ID: FIMS1 Date Analyzed: 06/13/03 Time: 1126

CONTINUING CALIBRATION BLANK

<i>Analyte</i>	<i>Conc.</i>	<i>C</i>	<i>Units</i>	<i>MDL</i>	<i>PQL</i>	<i>Method</i>	<i>Type</i>
Mercury	0.00020	U	mg/L	0.00003	0.00020	SW-846 1311/7470A	AV

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: 203061006

ICP ID Number: ICP2

ICS Source: 106-13-2 SPEX-

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	200	200	210	215	108			
Antimony	0	1.00		1.04	104			
Arsenic	0	1.00		1.03	103			
Barium	0	0.50		0.51	102			
Beryllium	0	0.50		0.52	104			
Boron	0	1.00		1.09	109			
Cadmium	0	1.00		1.00	100			
Calcium	200	200	198	201	100			
Chromium	0	0.50		0.51	102			
Cobalt	0	0.50		0.49	98			
Copper	0	0.50		0.52	104			
Iron	80.0	80.0	77.8	79.4	99			
Lead	0	1.00		1.01	101			
Magnesium	200	200	207	211	106			
Manganese	0	0.50		0.52	104			
Molybdenum	0	1.00		1.06	106			
Nickel	0	1.00		0.96	96			
Selenium	0	1.00		1.04	104			
Silver	0	1.00		1.06	106			
Thallium	0	1.00		1.04	104			
Vanadium	0	0.50		0.51	102			
Zinc	0	1.00		1.01	101			

LABORATORY CONTROL SAMPLE

Lab Name: GCAL

Sample ID: LCS103879

Lab Code: LA024 Case No.: \_\_\_\_\_

Contract: \_\_\_\_\_

Matrix: ( soil / water ) Water

SAS No.: \_\_\_\_\_ SDG No.: 203061006

Lab Sample ID: 103879

LCS Source: 334-13-17 INORGANIC VENTURES

<i>Analyte</i>	<i>True</i>	<i>Found</i>	<i>% R</i>	<i>LL</i>	<i>UL</i>	<i>Units</i>	<i>Method</i>	<i>Type</i>
Arsenic	1.00	1.13	113	80	120	mg/L	SW-846 1311/6010B	P
Barium	1.00	1.19	119	80	120	mg/L	SW-846 1311/6010B	P
Cadmium	1.00	1.03	103	80	120	mg/L	SW-846 1311/6010B	P
Chromium	1.00	1.00	100	80	120	mg/L	SW-846 1311/6010B	P
Lead	1.00	1.00	100	80	120	mg/L	SW-846 1311/6010B	P
Selenium	1.00	1.20	120	80	120	mg/L	SW-846 1311/6010B	P
Silver	1.00	1.05	105	80	120	mg/L	SW-846 1311/6010B	P

LABORATORY CONTROL SAMPLE

Lab Name: GCAL Sample ID: LCS103883  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 Matrix: ( soil / water ) Water SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Lab Sample ID: 103883 LCS Source: 106-11-5 EXAXOL

<i>Analyte</i>	<i>True</i>	<i>Found</i>	<i>% R</i>	<i>LL</i>	<i>UL</i>	<i>Units</i>	<i>Method</i>	<i>Type</i>
Mercury	0.00500	0.00488	98	80	120	mg/L	SW-B46 1311/7470A	AV

## ORGANICS ANALYSIS DATA SHEET

Lab Name: GCALSample ID: 057-FL-S-0609-03 (TOTAL)Lab Code: LA024 Case No.: \_\_\_\_\_

Contract: \_\_\_\_\_

Matrix: SoilSAS No.: \_\_\_\_\_ SDG No.: 203061006Sample wt/vol: 30 Units: gLab Sample ID: 20306100603Level: (low/med) LOWDate Collected: 06/09/03 Time: 0930% Moisture: 12 decanted: (Y/N) \_\_\_\_\_Date Received: 06/10/03GC Column: RTX-1701 ID: .53 (mm)Date Extracted: 06/11/03Concentrated Extract Volume: 10000 ( $\mu\text{L}$ )Date Analyzed: 06/12/03 Time: 1426Soil Aliquot Volume: \_\_\_\_\_ ( $\mu\text{L}$ )Dilution Factor: 1 Analyst: TLSInjection Volume: 1 ( $\mu\text{L}$ )Prep Method: 3550BGPC Cleanup: (Y/N) N pH: \_\_\_\_\_Analytical Method: SW-846 8082Prep Batch: 258530 Analytical Batch: 258650Sulfur Cleanup: (Y/N) N Instrument ID: GCS3ACONCENTRATION UNITS: ug/kgLab File ID: 2030612/SV3011**CAS NO. COMPOUND****RESULT Q MDL RL**

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
12674-11-2	Aroclor-1016	45.9	U	3.46	45.9
11104-28-2	Aroclor-1221	45.9	U	10.5	45.9
11141-16-5	Aroclor-1232	45.9	U	11.5	45.9
53469-21-9	Aroclor-1242	45.9	U	13.5	45.9
12672-29-6	Aroclor-1248	45.9	U	8.96	45.9
11097-69-1	Aroclor-1254	45.9	U	7.44	45.9
11096-82-5	Aroclor-1260	45.9	U	3.46	45.9

1D  
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: MB103579

Lab Code: LA024 Case No.: \_\_\_\_\_

Contract: \_\_\_\_\_

Matrix: Soil

SAS No.: \_\_\_\_\_ SDG No.: 203061006

Sample wt/vol: 30 Units: g

Lab Sample ID: 103579

Level: (low/med) LOW

Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: \_\_\_\_\_

GC Column: RTX-1701 ID: .53 (mm)

Date Extracted: 06/11/03

Concentrated Extract Volume: 10000 (µL)

Date Analyzed: 06/12/03 Time: 1327

Soil Allquot Volume: \_\_\_\_\_ (µL)

Dilution Factor: 1 Analyst: TLS

Injection Volume: 1 (µL)

Prep Method: 3550B

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Analytical Method: SW-846 8082

Prep Batch: 258530 Analytical Batch: 258650

Sulfur Cleanup: (Y/N) N Instrument ID: GCS3A

CONCENTRATION UNITS: ug/kg

Lab File ID: 2030612/SV3009

**CAS NO. COMPOUND**

**RESULT Q MDL RL**

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
12674-11-2	Aroclor-1016	40.0	U	3.02	40.0
11104-28-2	Aroclor-1221	40.0	U	9.17	40.0
11141-16-5	Aroclor-1232	40.0	U	10.1	40.0
53469-21-9	Aroclor-1242	40.0	U	11.7	40.0
12672-29-6	Aroclor-1248	40.0	U	7.81	40.0
11097-69-1	Aroclor-1254	40.0	U	6.49	40.0
11096-82-5	Aroclor-1260	40.0	U	3.02	40.0

## ORGANICS ANALYSIS DATA SHEET

Lab Name: GCALSample ID: LCS103580Lab Code: LA024 Case No.: \_\_\_\_\_

Contract: \_\_\_\_\_

Matrix: SoilSAS No.: \_\_\_\_\_ SDG No.: 203061006Sample wt/vol: 30 Units: gLab Sample ID: 103580Level: (low/med) LOW

Date Collected: \_\_\_\_\_ Time: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: \_\_\_\_\_

GC Column: RTX-1701 ID: .53 (mm)Date Extracted: 06/11/03Concentrated Extract Volume: 10000 ( $\mu\text{L}$ )Date Analyzed: 06/12/03 Time: 1357Soil Aliquot Volume: \_\_\_\_\_ ( $\mu\text{L}$ )Dilution Factor: 1 Analyst: TLSInjection Volume: 1 ( $\mu\text{L}$ )Prep Method: 3550BGPC Cleanup: (Y/N) N pH: \_\_\_\_\_Analytical Method: SW-846 8082Prep Batch: 258530 Analytical Batch: 258650Sulfur Cleanup: (Y/N) N Instrument ID: GCS3ACONCENTRATION UNITS: ug/kgLab File ID: 2030612/SV3010**CAS NO. COMPOUND****RESULT Q MDL RL**

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
12674-11-2	Aroclor-1016	115		3.02	40.0
11104-28-2	Aroclor-1221	40.0	U	9.17	40.0
11141-16-5	Aroclor-1232	40.0	U	10.1	40.0
53469-21-9	Aroclor-1242	40.0	U	11.7	40.0
12672-29-6	Aroclor-1248	40.0	U	7.81	40.0
11097-69-1	Aroclor-1254	40.0	U	6.49	40.0
11096-82-5	Aroclor-1260	116		3.02	40.0

## ORGANICS SURROGATE RECOVERY

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006GC Column (1): RTX-1701 ID: .53 (mm)

GC Cloumn (2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

Method: SW-846 8082

EPA SAMPLE NO.	SMC1		SMC2		TOT OUT
	1-(1) #	1-(2) #	2-(1) #	2-(2) #	
1. 057-FL-S-0609-03 (TOTAL)	121				0
2. MB103579	99				0
3. LCS103580	101				0
4. 057-FL-S-0609-03 ...MS	128				0
5. 057-FL-S-0609-03...MSD	106				0

## CONTROL LIMITS

SMC 1: Decachlorobiphenyl

60          150

SMC 2:

# Column to be used to flag recovery limits

\* Value outside of contract required limits

D Surrogate diluted out

3F  
SOIL ORGANIC LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006

Contract: \_\_\_\_\_ Method: SW-846 8082

Prep Batch: 258530 Analytical Batch: 258650

Spike HSN : 103580

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS % REC	LCS %	QC. LIMITS
						REC FLAG	
Aroclor-1016	ug/kg	133	0	115	86		62 - 124
Aroclor-1260	ug/kg	133	0	116	87		62 - 129

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 2 outside limits

## ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL Sample ID: MB103579  
 Lab Code: LA024 Case No.: \_\_\_\_\_ Contract: \_\_\_\_\_  
 Lab Sample ID: 103579 SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Matrix: Soil Sulfur Cleanup: (Y/N) N Date Extracted: 06/11/03  
 Date Analyzed (1): 06/12/03 Time (1): 1327 Date Analyzed (2): \_\_\_\_\_ Time (2): \_\_\_\_\_  
 Instrument ID (1): GCS3A Instrument ID (2): \_\_\_\_\_  
 GC Column (1): RTX-1701 ID: .53 (mm) GC Column (2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)  
 Method: SW-846 8082 Prep Batch: 258530 Analytical Batch: 258650  
 Lab File ID: 2030612/SV3009

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>
1.	LCS103580	103580	06/12/03	1357		
2.	057-FL-S-0609-03 (TOTAL)	20306100603	06/12/03	1426		
3.	057-FL-S-0609-03 ...MS	103581	06/12/03	1456		
4.	057-FL-S-0609-03...MSD	103582	06/12/03	1525		

## ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: GCS3A Calibration Date 1: 06/11/03 Time 1: 1759  
 GC Column: RTX-1701 ID: .53 (mm) Calibration Date 2: 06/12/03 Time 2: 0518  
 Analytical Batch: 258912 Method: SW-846 8082

Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203  
 Level 4: 1204 Level 5: 1205 Level 6: \_\_\_\_\_  
 Level 7: \_\_\_\_\_ Level 8: \_\_\_\_\_ Level 9: \_\_\_\_\_

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF	RSD
4,4'-DDD	64860.100	72991.475	79032.092	73639.800	79566.780				74018.049	8.021
4,4'-DDE	78356.600	96674.200	99794.600	03952.060	104367.538				96629	11.06
4,4'-DDT	34734.400	48714.825	56405.408	57544.250	60128.215				51505.42	19.98
Aldrin	109564.200	35711.850	147630.450	54870.138	155139.310				140583.19	13.55
Aroclor-1016	24772.671	25376.450	25678.965	26442.878	28035.890				26061.371	4.823
Aroclor-1221	8863.712								8863.712	0
Aroclor-1232	12350.640								12350.64	0
Aroclor-1242	20966.370								20966.37	0
Aroclor-1248	28181.718								28181.718	0
Aroclor-1254	16940.868								16940.868	0
Aroclor-1260	30809.213	32064.108	32467.220	33197.520	33700.980				32447.808	3.434
Chlordane	46977.395								46977.395	0
Decachlorobiphenyl	139170.000	29515.400	123325.008	21727.888	121118.060				126971.271	5.976
Dieldrin	116117.800	21421.350	136590.317	37016.944	137873.515				129803.985	7.901
Endosulfan I	151652.000	12737.250	126795.833	28391.625	129606.060				129836.554	10.75
Endosulfan II	90840.500	08316.625	111162.900	14872.830	115619.269				108162.425	9.357
Endosulfan sulfate	91188.500	95209.500	97544.592	00276.915	100950.462				97033.994	4.11
Endrin	102549.100	99298.500	109717.683	11403.394	112311.655				107056.066	5.408
Endrin aldehyde	67089.800	79518.658	80570.925	83759.375	84127.844				79013.32	8.803
Endrin ketone	95604.900	04039.600	106913.767	08628.765	110096.100				105056.626	5.468
Heptachlor	124562.000	23374.450	132535.683	32503.475	133321.450				129259.412	3.759
Heptachlor epoxide	109733.600	26717.000	132654.150	37197.620	137778.450				128816.164	8.968
Methoxychlor	29747.120	30005.195	30736.230	30580.446	30826.161				30379.03	1.568
Tetrachloro-m-xylene	151084.600	42502.700	147841.333	44944.350	144431.690				146160.935	2.293
Toxaphene	11182.717								11182.717	0
alpha-BHC	133676.200	54070.450	177847.983	79330.562	181399.910				165265.021	12.61
alpha-Chlordane	120387.600	32134.950	133485.600	37709.600	138895.862				132522.722	5.543
beta-BHC	64742.200	64813.067	65590.960	66560.875	68474.350				66036.29	2.345
delta-BHC	89857.400	10445.550	120327.567	27504.788	128106.270				115248.315	13.78
gamma-BHC (Lindane)	123814.600	35609.450	152586.317	53542.412	154791.840				144068.924	9.562
gamma-Chlordane	114792.000	27091.650	130929.817	36642.180	136890.225				129269.174	7.021

## ORGANICS CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract: \_\_\_\_\_

Lab Code: LA024 Case No.: \_\_\_\_\_SAS No.: \_\_\_\_\_ SDG No.: 203061006Instrument ID: GCS3ACalibration Date: 06/12/03 Time: 1046Lab File ID: 2030612/SV3004Init. Calib. Date 1: 06/11/03 Time: 1759GC Column: RTX-1701 ID: .53 (mm)Init. Calib. Date 2: 06/12/03 Time: 0518Analytical Batch: 258912

COMPOUND	RRF	RRF50	% D
Aroclor-1016	26061.3706	24482.2225	-6.05
Aroclor-1260	32447.8081	30538.075	-5.88

## ORGANICS CONTINUING CALIBRATION CHECK

Lab Name: GCAL Contract: \_\_\_\_\_  
 Lab Code: LA024 Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 203061006  
 Instrument ID: GCS3A Calibration Date: 06/12/03 Time: 1828  
 Lab File ID: 2030612/SV3016 Init. Calib. Date 1: 06/11/03 Time: 1759  
 GC Column: RTX-1701 ID: .53 (mm) Init. Calib. Date 2: 06/12/03 Time: 0518  
 Analytical Batch: 258912

COMPOUND	RRF	RRF50	% D
Aroclor-1016	26061.3706	28354.205	8.797
Aroclor-1260	32447.8081	34502.7625	6.333

**CHAIN-OF-CUSTODY RECORD**

**CH2M Hill Constructors, Inc.**  
115 Perimeter Center Place, Suite 700  
Atlanta, GA 30346-1278  
Tel No (770) 604-9282; Fax No (770) 604-9282

**PROJECT NUMBER:** 163231  
**LAB NAME AND CONTACT:** Gulf Const Labs.  
**RECIPIENT 1 (Name and Company):** Mike Hall  
**FAX AND MAIL REPORTS/EDD TO:** 6219 Authority Ave. Building 1 Jacksonville, FL 32221  
**Ph:** (904) 7774812 **Fax:** (904) 7774262  
**RECIPIENT 2 (Address, Tel No., and Fax No.):**  
6219 Authority Ave. Building 1 Jacksonville, FL 32221  
**Ph:** (904) 7774812 **Fax:** (904) 7774262  
**RECIPIENT 3 (Address, Tel No., and Fax No.):**  
115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346  
**Ph:** (770) 604-9182 **Ext:** 561 **Fax:** 604-9282  
**RECIPIENT 3 (Address, Tel No., and Fax No.):**

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on back)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on back)	TAT (calendar days)	TCLP Volatiles by 1311/8270	C, TCLP pesticides (1311/808	IA, TCLP herbicides (1311/815A), TCLP metals (1311/6010B, 7470A)	TCB's by 1311/8082	Reactivity by Chapter 7.3	Corrosivity by 9045A, Ignitability by 1030	SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	057-FL-S-0609-03	Flight Line Soil Waste Characterization	S	06/09/03	9:30	III/B	3 Day	1	1	1	1	1	1	Composite	TCLP volatile sample is a GRAB	6/10/03, 02
2	057-TB-W-0609-03	Trip Blank	W	06/09/03	NA	III/B	3 Day	3	3	3	3	3	3	Prepared by Lab		
3																
4																
5																
6																
7																
8																
9																
10																

**ANALYSES REQUIRED (include Method Numbers)**

**COURIER AND SHIPPING NUMBER:** Federal Express Tracking # 7903 1253 6324.

**SAMPLER(S) AND COMPANY:** (please print)  
Randy Dumaop / Sean Smith  
J.A. Jones Environmental Services

**RELINQUISHED BY:** [Signature]  
**DATE:** 6/9/2003  
**TIME:** 13:00

**RECEIVED BY:** [Signature]  
**DATE:** 6-10-03  
**TIME:** 0920

**Printed Name and Signature:** Randy Dumaop  
**Printed Name and Signature:** David Huxford  
**Printed Name and Signature:** David Huxford

**SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT:** 5°C Good

000122

# PRESERVATION CHECKLIST / COOLER RECEIPT

**Gulf Coast Analytical Laboratories, Inc.**

WO: 203061006	Type: D
Desc:	Report: REVIEW_RPT
Work ID: Flight Line	Status: WP
Project Seq: 13131	Created: 6/10/03 10:43
Client: 4380 - CH2M HILL Constructors Inc.	QA:
Profile: 55807 - CTO 57 - Flight Line	PO: 163231

## WORKORDER SAMPLES

Container ID	Type	Preservative	pH PRESERVATIVE			VOA HEADSPACE			CONTAINER CONDITION
			A	U	N/A	A	U	N/A	
20306100601-1	16	NONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	OK
20306100601-2	4	NONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	OK
20306100601-3	16	NONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	OK
Container ID	Type	Preservative	A	U	N/A	A	U	N/A	CONTAINER CONDITION
20306100602-1	40	HCL+SS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	OK
Container ID	Type	Preservative	A	U	N/A	A	U	N/A	CONTAINER CONDITION
20306100603-1	16	NONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	OK

A = ACCEPTABLE  
 U = UNACCEPTABLE  
 N/A = NOT APPLICABLE

COOLER (S) TEMPERATURE A U LIMIT = 4C + \ - 2C  
 MAXIMUM VOLATILE HEADSPACE BUBBLE 6MM

<b>Custody Seal</b>	
used	[ ] Yes [ ] No
in tact	[ ] Yes [ ] No

CUSTODIAN \_\_\_\_\_

# Enclosure 3

## Waste Disposal Profile

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**SPECIAL WASTE ACCEPTANCE APPLICATION**

**A. GENERATOR INFORMATION**

1. Generator Name US NAVY  
 2. Site Location Cecil Field  
 3. City Jacksonville  
 State FL Zip Code 32221  
 4. Phone (504) 542-5979  
 5. Fax (804) 542-4315  
 6. Contact Mitch McPherson  
 7. Title Env Tech

**B. CUSTOMER INFORMATION**

1. Customer Name CPM HILL/LA JONES  
 2. Address 115 Perimeter Ctr NE Suite 700  
 3. City Atlanta  
 State GA Zip Code 30346  
 4. Phone (770) 604-9182 ext. 561  
 5. Fax (770) 604-9262  
 6. Contact Lisa Schwan or Gwen Jordan  
 7. Title T&D Coordinators

**C. WASTE STREAM INFORMATION**

1. Common Name of Waste Petroleum-contaminated Soil  
 2. Detailed description of process generating waste and material Utility Trenching  
 3. Industrial Generator: Yes  No  If yes please list the SIC Code \_\_\_\_\_  
 4. Municipal Generator: Yes  No   
 5. Physical State at 70 degrees: Solid  Semisolid  Liquid  Powder  Combination   
 6. Odor: None  Mild (describe) \_\_\_\_\_  
 7. Color: Gray/Brown 8. Flash Point N/A 9. Viscosity Solid  
 10. Reactive: Yes  No  With \_\_\_\_\_ 11. pH Range 7.21  
 12. Free Liquid: Yes  No  13. Water Content \_\_\_\_\_ % Water  
 14. Is the analytical attached derived from testing a representative sample in accordance with USEPA SW-846?  
 Yes  No  N/A  
 15. Does the waste contain radioactive or U.S. D.O.I. hazardous materials? Yes  No

**D. SUPPLEMENTAL INFORMATION**

None  MSDS  Analytical Data  Memo letter  Process Knowledge  No. of Pages \_\_\_\_\_

**E. SHIPPING INFORMATION**

1. Packaging: Bulk Solid  Bulk Liq  Drum  Roll-off  Dump Truck  Tank Truck   
 2. Estimated Volume \_\_\_\_\_ Tons 55 Cubic Yards \_\_\_\_\_ Gallons \_\_\_\_\_ Other \_\_\_\_\_  
 3. Shipping Frequency: Once Designated Landfill  Bigdahlurst

**F. GENERATOR / CUSTOMER CERTIFICATION**

I hereby certify that all information submitted and all attached documents contain true and accurate descriptions of this waste. No deliberate or willful omissions of composition or properties exist, and all known or suspected hazards have been disclosed. I further certify that the waste is not designated a Hazardous Waste defined by the USEPA in 40 CFR 261, nor does it contain PCB's regulated under TSCA 40 CFR 761.

I Mitchell B. McPherson am employed by NAVY Public Works Center JAX and am authorized to sign this request for  
U.S. NAVY (Company name) [Signature] (Signature) 6/18/03 (Date)

Enclosure 4  
Transportation and Disposal Log  
Non-Hazardous Manifest  
Weight Tickets

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Manifest Number: 9656

## NON-HAZARDOUS WASTE MANIFEST

13023

## GENERATOR

Generator Name: U.S. NAVY US EPA ID#: NOT REQUIRED  
 Billing Address: CH2M HILL 6219 AUTHORITY AVE JACKSONVILLE, FL 32211  
 Site Address: FLIGHT LINE REIL COMMERCIAL CENTER JACKSONVILLE, FL 32211  
 County of Origin: DUVAL Phone: 904.542.5979

Description of Waste	Total Quantity	Profile Number	Unit of Measure	Container Type
PETROLEUM-CONTAMINATED SOIL	36,120	33393		TRUCK
			17.76	

## Special Handling Instructions

EMERGENCY CONTACT: 904.237.3037  
 CTO: 0057  
 PROJECT #: 163231

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Mitchell B. McPherson  
 Generator Authorized Agent Name

[Signature] 6-19-03  
 Signature Date Shipped

## TRANSPORTER

Transporter Name: BAR-K DOT#: 527540  
 Address: BRISTOL WAY WAYNESVILLE, GA Truck Number: 108  
[Signature] 6-19-03  
 Name of Authorized Agent Signature Date Delivered

## DISPOSAL FACILITY

Site Name: Broadhurst Environmental, Inc. Phone Number: 012-530-7060  
 Address: 4800 Broadhurst Rd. W., Jones, Georgia 31545

I hereby acknowledge receipt of the above described materials.

[Signature]  
 Name of Authorized Agent

[Signature] 6-19-03  
 Signature Date Received

**NON-HAZARDOUS WASTE MANIFEST**

**13024**

**GENERATOR**

Generator Name: U.S. NAVY US EPA ID#: NOT REQUIRED  
 Billing Address: CHRYM HILL 0219 AUTHORITY AVE JACKSONVILLE FL 32211  
 Site Address: FLIGHT LINE REGAL COMMERCE CENTER JACKSONVILLE FL 32211  
 County of Origin: DUVAL Phone: 904.542.5779

Description of Waste	Total Quantity	Profile Number	Unit of Measure	Container Type
PETROLEUM-CONTAMINATED SOIL	47960	33393		TRUCK
			22.66	

**Special Handling Instructions**

EMERGENCY CONTACT: 904.237.3037  
 CTO: 0057  
 PROJECT # 143231

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

MITCHELL B McPherson [Signature] 6-19-03  
 Generator Authorized Agent Name Signature Date Shipped

**TRANSPORTER**

Transporter Name: Bar K Eats Tr DOT#: 527040  
 Address: 412 Christy Way Jacksonville GA 31566 Truck Number: 103  
C. B. McPherson [Signature] 6-19-03  
 Name of Authorized Agent Signature Date Delivered

**DISPOSAL FACILITY**

Site Name: Broadhurst Environmental, Inc. Phone Number: 912-830-7060  
 Address: 4800 Broadhurst Rd. W., Joop, Georgia 31845

I hereby acknowledge receipt of the above described materials

[Signature] [Signature] 6-19-03  
 Name of Authorized Agent Signature Date Received



Manifest Number: 9658

## NON-HAZARDOUS WASTE MANIFEST

13025

## GENERATOR

Generator Name: U.S. NAVY US EPA ID#: NOT REQUIRED  
 Billing Address: LHM HILL 6219 AUTHORITY AVE JACKSONVILLE, FL 32211  
 Site Address: FLIGHT LINE CREW FORMERLY CENTER JACKSONVILLE FL 32211  
 County of Origin: DUVAL Phone: 904.542.5979

Description of Waste	Total Quantity	Profile Number	Unit of Measure	Container Type
PETROLEUM-CONTAMINATED SOIL	38260	33393		TRUCK
			1904	

## Special Handling Instructions

EMERGENCY CONTACT 904.237.5037  
 CTO: 0057  
 PROJECT #163231

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR Part 201 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

MICHAEL B. McPherson  
 Generator Authorized Agent Name

[Signature]  
 Signature

6-19-03  
 Date Shipped

## TRANSPORTER

Transporter Name: Doc-k

DOT#: \_\_\_\_\_

Address: \_\_\_\_\_

Truck Number: 101

Alan Yates / 2h Darts  
 Name of Authorized Agent

Alan Yates  
 Signature

6-19-03  
 Date Delivered

## DISPOSAL FACILITY

Site Name: Broadhurst Environmental, Inc.

Phone Number: 912-630-7050

Address: 4800 Broadhurst Rd. W., Jasper, Georgia 31545

I hereby acknowledge receipt of the above described materials.

[Signature]  
 Name of Authorized Agent

[Signature]  
 Signature

6-19-03  
 Date Received

Broadhurst Environmental  
4800 Broadhurst Rd W  
Screven GA 31560  
Phone (912) 538-7050

Ticket: 223601  
Date/Time In: 19 June 2003 2:52 pm  
Vehicle: CCI  
Origin: Duval Co., FL  
Reference: 108 BAR K  
Contract: 33393

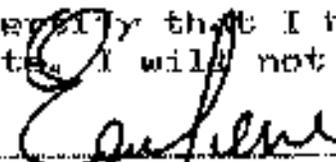
000128  
CCI /CH2M HILL CONSTRUCTORS, INC.  
115 PERIMETER CENTER PLACE NE, SUITE 700 Inbound -  
ATLANTA, GA 30346

00 Gross Weight 67,880.00 LB  
Stored Tare Weight 32,360.00 LB  
Net Weight 35,520.00 LB 17.76 TN

Quantity	Unit	Description	Rate	Total
17.76	TN	Contaminated Soil	\$24.40	\$433.34

Net Amounts: \$433.34  
Tendered: \$0.00  
Change:

I certify that I have not disposed of any liquid or hazardous waste. I will not exceed the posted speed limit of 15 mph.

  
Weighmaster: Earlene

  
Driver

Broadhurst Environmental  
4800 Broadhurst Rd W  
Screven GA 31560  
Phone (912) 530-7050

Tickets: 223609  
Date/Time In: 19 June 2008 2:57 pm  
Vehicle: CCI  
Origin: Duval Co., FL  
Reference: 103 BAR K  
Contract: 3339J

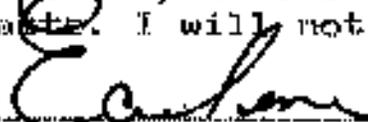
000128  
CCI /CH2M HILL CONSTRUCTORS, INC.  
115 PERIMETER CENTER PLACE NE, SUITE 700 Inbound -  
ATLANTA, GA 30346

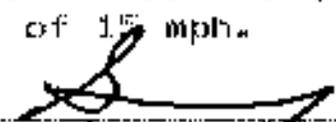
00 Gross Weight 75,700.00 LB  
Stored Tare Weight 28,460.00 LB  
Net Weight 47,320.00 LB 23.66 TN

Quantity	Unit	Description	Rate	Total
23.66	TN	Contaminated Soil	\$24.40	\$577.30

Net Amount: \$577.30  
Tendered: \$0.00  
Change:

I certify that I have not disposed of any liquid or hazardous waste. I will not exceed the posted speed limit of 15 mph.

  
Weighmaster Earlene

  
Driver

Broadhurst Environmental  
4800 Broadhurst Rd W  
Screven GA 31560  
Phone (912) 530-7050

Ticket: 223610  
Date/Time In: 19 June 2003 3:01 pm  
Vehicles: CCI  
Origin: Duval Co., FL  
Reference: 101 BAR K  
Contract#: 33373

000128

CCI /CHEN HILL CONSTRUCTORS, INC.  
115 PERIMETER CENTER PLACE NE, SUITE 700 Inbound -

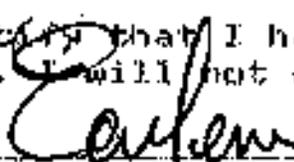
ATLANTA, GA 30346

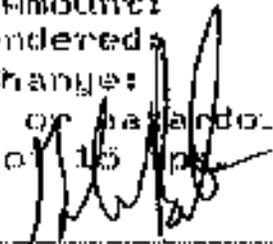
20 Gross Weight 65,400.00 LB  
Stored Tare Weight 27,400.00 LB  
Net Weight 38,000.00 LB 19.04 TN

Quantity	Unit	Description	Rate	Total
19.04	TN	Contaminated Soil	\$24.40	\$464.58

Net Amount: \$464.58  
Tendered: \$0.00  
Change:

I certify that I have not disposed of any liquid or hazardous waste. I will not exceed the posted speed limit of 15 mph.

  
Weighmaster: Earlene

  
Driver

Enclosure 5  
Certificate of Disposal

---



# Broadhurst

Environmental, Inc.

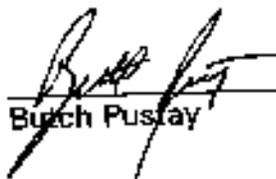
## CERTIFICATE OF DISPOSAL

This letter is to certify that all wastes received from Ch2Mhill, on behalf of CCI/US Navy on the following dates were landfilled in accordance with all state and federal regulations.

Manifest Numbers	Tonnage	Dates
9656-9658	60.46	6/19/03

Disposal Method was D-81 (Subtitle D Landfill)

BROADHURST ENVIRONMENTAL, INC.

  
Burch Pusray

8/8/03  
Date