



FORSCOM



3d Inf Div(m)

Soil Remedial Action Report

**Hunter Army Airfield Fire Training Center
(HAA-01)**

Hunter Army Airfield, Georgia

Prepared for:
U.S. Army Corps of Engineers
and
Fort Stewart Directorate of Public Works
Under
Contract # DACA21-97-C-0042

Prepared by:
Omega Environmental Services
Geosciences, Inc.

October 1998

Volume III of VI

APPENDIX IV

PRIMARY LABORATORY AND QA LABORATORY REPORTS

- SLUDGES
- DEMOLISHED MATERIALS
- EXCAVATED SOIL
- WASTEWATER

VOLUME III OF VI

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Appendix IV

- Section 1, Laboratory Analytical Reports for Sludges
- Section 2, Laboratory Analytical Reports for Demolished Materials
- Section 3, Laboratory Analytical Reports for Excavated Soil
- Section 4, Laboratory Analytical Reports for Wastewater

VOLUME III, SECTION 1:

**LABORATORY ANALYTICAL REPORTS FOR
SLUDGES EXISTING AND/OR GENERATED
DURING THE REMEDIAL ACTION CONDUCTED
AT HAAF FIRE TRAINING AREA (HAA-01)**



ACCURA ANALYTICAL LABORATORY, INC.

12782

Environmental Analytical Services

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

CHAIN OF CUSTODY

Company Name: Omega Environmental Services, Inc.

Billing address: same as below

Address: 4661 Hammermill Rd, Suite "B"

Client P.O. #

Report Sent to: (Client Contact): Doug Driver / Travis Shepard

Contact Phone # 770-621-9414 Fax #

Project Name: Hunter Army Airfield, Fire Training Area

Project Number: 97041 (contact # DACA21-57-C-0042)

For Laboratory Use Only

Custody Seal: Y N

Page 1 OF 1

QC Level: N 1 2 3 4

Init Temp: 40°C

Sample Condition: Good

AAAL Lab Project # 15006

Samplers: (signature)

Samplers: (printed)

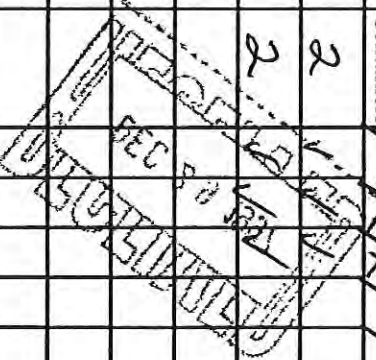
David Price

David Price

Sample ID #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Sample Location:	No. of Containers	Remarks	Accura Sample ID No. AB
-------------	--------------------	------	------	--------	-----------	------------------	-------------------	---------	-------------------------

001	12/11/97 10:30	X		S		Simulated aircraft	2		317307
-----	----------------	---	--	---	--	--------------------	---	--	--------

002	12/11/97 10:30	X		S		" "	2		317308
-----	----------------	---	--	---	--	-----	---	--	--------



Relinquished By:

Date / Time

Received By:

Date / Time

Special Requirements Or Remarks:

David Price

12/11/97 3:30

Fed-Ex

12/11/97

Relinquished By:

Date / Time

Received By:

Date / Time

Turnaround Time Requested:

20-24

12/12/97 0:30

Good

12/12/97 10:30

72 hours

Matrix (MS = Soil) (W = Water) (T = Tissue) (C = Cartridge) (SI = Solid) (A = Air Sample) (P = Powder) (M = Miscellaneous)

ACCURA ANALYTICAL LABORATORY, INC.
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770)449-8800

CASE NARRATIVE for Project Number: 15006

Client Project: Hunter Army Airfield, Fire Training Area / 97041

The following items were noted concerning this project:

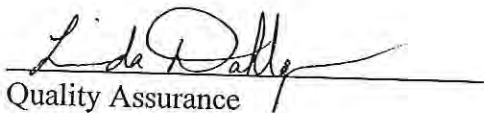
1. The following samples required dilution due to matrix interference, resulting in elevated detection limits:

BTEX - SW-846-8260A
001 002

PAH - SW-846-8270B
001 002

2. One surrogate was outside the method specified limit for the following sample due to matrix interference:

BTEX - SW-846-8260A
001 (4-Bromofluorobenzene)


Quality Assurance


Client Services Representative

ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429

NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB31307

Accura Project #: 15006

Client: Omega Env. Services - Tucker

Date Sampled: 12/11/97

Client Contact: D. DRIVER

Date Received: 12/12/97

Client Project Number: 97041

Date Reported: 12/20/97

Client Project Name: HUNTER ARMY AIRFIELD, FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: 001

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/19/97

Date Ext/Dig/Prep: 12/19/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	10
Ethyl benzene	<RDL	10
Toluene	<RDL	10
Xylenes	<RDL	10

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 12/17/97

Date Ext/Dig/Prep: 12/16/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	1600
2-Methylnaphthalene	<RDL	1600
Acenaphthene	<RDL	1600
Acenaphthylene	<RDL	1600
Anthracene	<RDL	1600
Benzo(a)anthracene	<RDL	1600
Benzo(a)pyrene	<RDL	1600
Benzo(b)fluoranthene	<RDL	1600
Benzo(g,h,i)perylene	<RDL	1600
Benzo(k)fluoranthene	<RDL	1600
Chrysene	<RDL	1600
Dibenzo(a,h)anthracene	<RDL	1600
Fluoranthene	<RDL	1600
Fluorene	<RDL	1600
Indeno(1,2,3-cd)pyrene	<RDL	1600
Naphthalene	<RDL	1600
Phenanthrene	<RDL	1600
Pyrene	<RDL	1600

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/15/97 Date Ext/Dig/Prep: 12/15/97 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/16/97 Date Ext/Dig/Prep: 12/16/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/16/97 Date Ext/Dig/Prep: 12/15/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 12/17/97 Date Ext/Dig/Prep: 12/16/97 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	65	0
Nitrobenzene-d5	59	0
p-Terphenyl-d14	77	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/19/97 Date Ext/Dig/Prep: 12/19/97 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	94	0
4-Bromofluorobenzene	122	0
Toluene-d8	95	0


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SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB31308

Accura Project #: 15006

Client: Omega Env. Services - Tucker

Date Sampled: 12/11/97

Client Contact: D. DRIVER

Date Received: 12/12/97

Client Project Number: 97041

Date Reported: 12/20/97

Client Project Name: HUNTER ARMY AIRFIELD, FIRE TRAINING AREA

Sample Matrix: SOLID

Client Sample ID: 002

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/18/97

Date Ext/Dig/Prep: 12/18/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	1000
Ethyl benzene	<RDL	1000
Toluene	<RDL	1000
Xylenes	<RDL	1000

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 12/17/97

Date Ext/Dig/Prep: 12/16/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	5600
2-Methylnaphthalene	<RDL	5600
Acenaphthene	<RDL	5600
Acenaphthylene	<RDL	5600
Anthracene	<RDL	5600
Benzo(a)anthracene	<RDL	5600
Benzo(a)pyrene	<RDL	5600
Benzo(b)fluoranthene	<RDL	5600
Benzo(g,h,i)perylene	<RDL	5600
Benzo(k)fluoranthene	<RDL	5600
Chrysene	<RDL	5600
Dibenzo(a,h)anthracene	<RDL	5600
Fluoranthene	<RDL	5600
Fluorene	<RDL	5600
Indeno(1,2,3-cd)pyrene	<RDL	5600
Naphthalene	<RDL	5600
Phenanthrene	<RDL	5600
Pyrene	<RDL	5600

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/15/97 Date Ext/Dig/Prep: 12/15/97 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/16/97 Date Ext/Dig/Prep: 12/16/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/16/97 Date Ext/Dig/Prep: 12/15/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 12/17/97 Date Ext/Dig/Prep: 12/16/97 Result Units: %

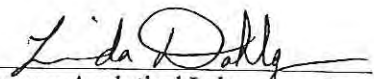
<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	42	0
Nitrobenzene-d5	32	0
p-Terphenyl-d14	47	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/18/97 Date Ext/Dig/Prep: 12/18/97 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	100	0
4-Bromofluorobenzene	107	0
Toluene-d8	99	0


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NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB31309

Accura Project #: 15006

Client: Omega Env. Services - Tucker

Date Sampled: 12/11/97

Client Contact: D. DRIVER

Date Received: 12/12/97

Client Project Number: 97041

Date Reported: 12/20/97

Client Project Name: HUNTER ARMY AIRFIELD, FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/18/97

Date Ext/Dig/Prep: 12/18/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 12/17/97

Date Ext/Dig/Prep: 12/16/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/15/97 Date Ext/Dig/Prep: 12/15/97 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/16/97 Date Ext/Dig/Prep: 12/16/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/16/97 Date Ext/Dig/Prep: 12/15/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 12/17/97 Date Ext/Dig/Prep: 12/16/97 Result Units: %

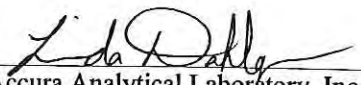
<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	91	0
Nitrobenzene-d5	94	0
p-Terphenyl-d14	106	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/18/97 Date Ext/Dig/Prep: 12/18/97 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	98	0
4-Bromofluorobenzene	105	0
Toluene-d8	102	0


Accura Analytical Laboratory, Inc.

APPROVED
DEC 14 13
LIDA DALLY



OMEGA ENVIRONMENTAL SERVICES, INC.

4661 Hammermill Rd. Suite B Tucker, GA 30084

Tel: (770) 621-9414 Fax: (770) 934-2451

DATE: 1/7/97

PAGES: _____

TO John Mount

FROM: David Perie

FAX NUMBER _____

SENDERS FAX: _____

MESSAGE OR COMMENTS-

Analytical Results which includes
the Drum that is Hazard Sample I.D. for Drum
is Alm Trk - SD - 001

ACCURA ANALYTICAL LABORATORY, INC.
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770)449-8800

CASE NARRATIVE for Project Number: 15096
Client Project: Hunter Fire Training Area / DACA21-97-C-0042

The following items were noted concerning this project:

1. The following samples required dilution due to high analyte concentration and matrix interference, resulting in elevated detection limits:

TPH - EPA 418.1

ConPad-ES-001

ConPad-DM-001

AlmTnk-SD-001

BTEX - SW-846-8260A

ConPad-DM-001

AlmTnk-SD-001

PAH - SW-846-8270B

AlmTnk-SD-001

2. One surrogate was outside the method specified limit for the following sample due to matrix interference:

BTEX - SW-846-8260A

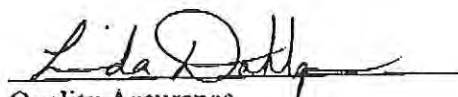
1,2-Dichloroethane-d4 -

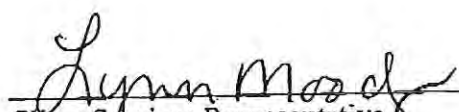
AlmTnk-SD-001

3. The surrogates were diluted out for the following sample analysis; therefore no recoveries could be reported:

PAH - SW-846-8270B

AlmTnk-SD-001


Quality Assurance


Client Services Representative

ACCURA ANALYTICAL LABORATORY, INC.

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NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB32522

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: CONPAD-ES-001

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/23/97

Date Ext/Dig/Prep: 12/23/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97 Date Ext/Dig/Prep: 12/22/97

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Result Units: pH Units

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Leachate Fluid pH

5.1

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/30/97

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

1.2

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Total Petroleum Hydrocarbons

800

200

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98 Date Ext/Dig/Prep: 12/29/97

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

2-Fluorobiphenyl

81

0

Nitrobenzene-d5

69

0

p-Terphenyl-d14

98

0

ANALYSIS: X VOC QC Surrogates (Soils)

Date Analyzed: 12/23/97

Date Ext/Dig/Prep: 12/23/97

Method Ref: 8260A

Result Units: %

Analyte Name

Analytical Results

Reported Detection Limits

1,2-Dichloroethane-d4

102

0

4-Bromofluorobenzene

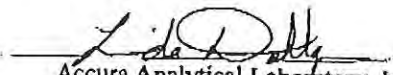
112

0

Toluene-d8

100

0


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NC Certification # 483

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USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB32523

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: CONPAD-DM-001

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Benzene	<RDL	25
Ethyl benzene	130	25
Toluene	75	25
Xylenes	640	25

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 12/31/97

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97 Date Ext/Dig/Prep: 12/22/97

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97 Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	11.7	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/30/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97 Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	410	100

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 12/31/97 Date Ext/Dig/Prep: 12/29/97 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	57	0
Nitrobenzene-d5	44	0
p-Terphenyl-d14	113	0

ANALYSIS: X VOC QC Surrogates (Soils)

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Method Ref: 8260A

Result Units: %

Analyte Name

Analytical Results

Reported Detection Limits

1,2-Dichloroethane-d4

115

0

4-Bromofluorobenzene

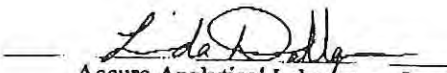
111

0

Toluene-d8

102

0


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LABORATORY REPORT

Accura Sample ID #: AB32524

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: ALMTNK-SD-001

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Benzene	<RDL	10
Ethyl benzene	<RDL	10
Toluene	20	10
Xylenes	<RDL	10

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
1-Methylnaphthalene	<RDL	16000
2-Methylnaphthalene	<RDL	16000
Acenaphthene	<RDL	16000
Acenaphthylene	<RDL	16000
Anthracene	<RDL	16000
Benzo(a)anthracene	<RDL	16000
Benzo(a)pyrene	<RDL	16000
Benzo(b)fluoranthene	<RDL	16000
Benzo(g,h,i)perylene	<RDL	16000
Benzo(k)fluoranthene	<RDL	16000
Chrysene	<RDL	16000
Dibenzo(a,h)anthracene	<RDL	16000
Fluoranthene	<RDL	16000
Fluorene	<RDL	16000
Indeno(1,2,3-cd)pyrene	<RDL	16000
Naphthalene	<RDL	16000
Phenanthrene	91,000	16000
Pyrene	18,000	16000

ANALYSIS: TCLP Extraction Procedure

Date Analyzed: 12/22/97 Date Ext/Dig/Prep: 12/22/97

Method Ref: 1311

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Method Ref: 1311

Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	5.0	0

ANALYSIS: TCLP Mercury

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/30/97

Method Ref: 7470A

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97

Method Ref: 3010A/6010A

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	2.0	1
Cadmium (Reg Limit = 1.0)	2.0	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	46	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Method Ref: 418.1

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	58,000	20000

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Date Analyzed: 1/2/98 Date Ext/Dig/Prep: 12/29/97

Method Ref: 3550A/8270B

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	See narrative	0
Nitrobenzene-d5	See narrative	0
p-Terphenyl-d14	See narrative	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: %

Analyte Name

Analytical Results

Reported Detection Limits

1,2-Dichloroethane-d4

135

0

4-Bromofluorobenzene

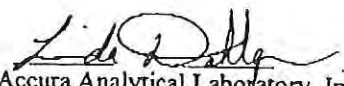
94

0

Toluene-d8

97

0


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LABORATORY REPORT

Accura Sample ID #: AB32525

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 12/30/97

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97 Date Ext/Dig/Prep: 12/22/97

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97 Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	5.1	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/30/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97 Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	<RDL	10

ANALYSIS: X PAH/BN OC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	48	0
Nitrobenzene-d5	42	0
p-Terphenyl-d14	97	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	98	0
4-Bromofluorobenzene	107	0
Toluene-d8	105	0


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Environmental Analytical Services

6017 Financial Drive, Norcross, GA 30071.
Phone # (770) 449-8800 Fax # (770) 449-5477

CHAIN OF CUSTODY

Billing address:

Company Name: Omega Environmental SVCS
Address: 4661 Hammermill Road Suite B Tucker 30084
Report Sent to: (Client Contact): Travis Shepherd GeoSciences Inc
Contact Phone # (927) 257-1606 Fax # (927) 257-1608
Project Name: Hunter Fire Training Area
Project Number: DACA21-97-C-0042

For Laboratory Use Only
Custody Seal: Y N Page: 1 of 1
QC Level: N 1 2 3 4 Int Temp: 6.0 C
Sample Condition: Ground ANAL Lab Project #: 15096

Sample ID #		Sample Date / Time		Sample Location:		No. of Containers	
Comp		Grab		Matrix		Preserved	
Confad-ES-00		12-18-97				2	
Confad-DM-00		12-18-97				2	
Alm Tank-SD-00		12-18-97				2	

VOLUME III, SECTION 2:

**LABORATORY ANALYTICAL REPORTS
FOR DEMOLISHED MATERIALS EXISTING
AND/OR GENERATED DURING THE REMEDIAL
ACTION CONDUCTED AT HAAF FIRE TRAINING
AREA (HAA-01)**



OMEGA ENVIRONMENTAL SERVICES, INC

4661 Hammermill Rd. Suite B Tucker, GA 3008

Tel: (770) 621-9414 Fax: (770) 934-245

DATE: 1/7/97

PAGES: _____

TO John Mount

FROM: David Price

FAX NUMBER _____

SENDERS FAX: _____

MESSAGE OR COMMENTS-

Analytical Results which includes
the Drum that is Haz. Sample I.D. for Drum
is Alm Trk - SD - 001

ACCURA ANALYTICAL LABORATORY, INC.
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770)449-8800

CASE NARRATIVE for Project Number: 15096
Client Project: Hunter Fire Training Area / DACA21-97-C-0042

The following items were noted concerning this project:

1. The following samples required dilution due to high analyte concentration and matrix interference, resulting in elevated detection limits:

TPH - EPA 418.1

ConPad-ES-001

ConPad-DM-001

AlmTnk-SD-001

BTEX - SW-846-8260A

ConPad-DM-001

AlmTnk-SD-001

PAH - SW-846-8270B

AlmTnk-SD-001

2. One surrogate was outside the method specified limit for the following sample due to matrix interference:

BTEX - SW-846-8260A

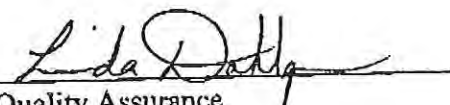
1,2-Dichloroethane-d4 -

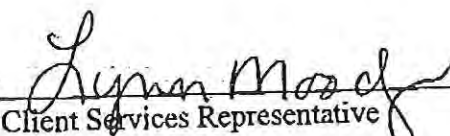
AlmTnk-SD-001

3. The surrogates were diluted out for the following sample analysis; therefore no recoveries could be reported:

PAH - SW-846-8270B

AlmTnk-SD-001


Quality Assurance


Client Services Representative

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NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB32522

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: CONPAD-ES-001

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/23/97

Date Ext/Dig/Prep: 12/23/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97 Date Ext/Dig/Prep: 12/22/97

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	5.1	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/30/97

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	1.2	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	800	200

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98 Date Ext/Dig/Prep: 12/29/97

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	81	0
Nitrobenzene-d5	69	0
p-Terphenyl-d14	98	0

ANALYSIS: X VOC QC Surrogates (Soils)

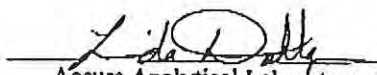
Method Ref: 8260A

Date Analyzed: 12/23/97

Date Ext/Dig/Prep: 12/23/97

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	102	0
4-Bromofluorobenzene	112	0
Toluene-d8	100	0


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LABORATORY REPORT

Accura Sample ID #: AB32523

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: CONPAD-DM-001

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Benzene	<RDL	25
Ethyl benzene	130	25
Toluene	75	25
Xylenes	640	25

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 12/31/97

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97 Date Ext/Dig/Prep: 12/22/97 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97 Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	11.7	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/30/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97 Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	410	100

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 12/31/97 Date Ext/Dig/Prep: 12/29/97 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	57	0
Nitrobenzene-d5	44	0
p-Terphenyl-d14	113	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: %

Analyte Name

Analytical Results

Reported Detection Limits

1,2-Dichloroethane-d4

115

0

4-Bromofluorobenzene

111

0

Toluene-d8

102

0


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NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB32524

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: ALMTNK-SD-001

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Benzene	<RDL	10
Ethyl benzene	<RDL	10
Toluene	20	10
Xylenes	<RDL	10

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
1-Methylnaphthalene	<RDL	16000
2-Methylnaphthalene	<RDL	16000
Acenaphthene	<RDL	16000
Acenaphthylene	<RDL	16000
Anthracene	<RDL	16000
Benzo(a)anthracene	<RDL	16000
Benzo(a)pyrene	<RDL	16000
Benzo(b)fluoranthene	<RDL	16000
Benzo(g,h,i)perylene	<RDL	16000
Benzo(k)fluoranthene	<RDL	16000
Chrysene	<RDL	16000
Dibenzo(a,h)anthracene	<RDL	16000
Fluoranthene	<RDL	16000
Fluorene	<RDL	16000
Indeno(1,2,3-cd)pyrene	<RDL	16000
Naphthalene	<RDL	16000
Phenanthrene	91,000	16000
Pyrene	18,000	16000

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97

Date Ext/Dig/Prep: 12/23/97

Result Units: pH Units

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Leachate Fluid pH

5.0

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97

Date Ext/Dig/Prep: 12/30/97

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97

Date Ext/Dig/Prep: 12/29/97

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

2.0

1

Cadmium (Reg Limit = 1.0)

2.0

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

46

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97

Date Ext/Dig/Prep: 12/23/97

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Total Petroleum Hydrocarbons

58,000

20000

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98

Date Ext/Dig/Prep: 12/29/97

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

2-Fluorobiphenyl

See narrative

0

Nitrobenzene-d5

See narrative

0

p-Terphenyl-d14

See narrative

0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	135	0
4-Bromofluorobenzene	94	0
Toluene-d8	97	0


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SC Certification # 98015

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LABORATORY REPORT

Accura Sample ID #: AB32525

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 12/30/97

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97 Date Ext/Dig/Prep: 12/22/97

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97 Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	5.1	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/30/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97 Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	<RDL	10

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	48	0
Nitrobenzene-d5	42	0
p-Terphenyl-d14	97	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	98	0
4-Bromofluorobenzene	107	0
Toluene-d8	105	0


Accura Analytical Laboratory, Inc.



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Environmental Analytical Services

CHAIN OF CUSTODY

Billing address:

Company Name: Omura Environmental SVCS

Address: 4661 Hammond Road Suite B Tucker 30084 Client P.O. #

Report Sent to: (Client Contact): Davis, Sheppard Geosciences Inc

Contact Phone # (912) 257-1606 Fax # (912) 257-1608

Project Name: Hunter Fire Training Area

Project Number: DACA21-97-C-0042

Sample ID #

Sample Date / Time

Comp

Grab

Matrix

Preserved

Sample Location:

No. of Containers

Sample ID

Remarks

Actura Sample ID No. AB

Special Requirements Or Remarks:

Date / Time

Received By:

Relinquished By:

Date / Time

Relinquished By:

Date / Time

Turnaround Time Requested:

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous)

VOLUME III, SECTION 3:

**LABORATORY ANALYTICAL REPORTS
FOR EXCAVATED SOIL EXISTING
AND/OR GENERATED DURING THE REMEDIAL
ACTION CONDUCTED AT HAAF FIRE TRAINING
AREA (HAA-01)**



OMEGA ENVIRONMENTAL SERVICES, INC

4661 Hammermill Rd. Suite B Tucker, GA 3008

Tel: (770) 621-9414 Fax: (770) 934-245

DATE: 1/7/97

PAGES: _____

TO John Mount

FROM: David Price

FAX NUMBER _____

SENDERS FAX: _____

MESSAGE OR COMMENTS-

Analytical Results which includes
the Drum that is Haz. Sample I.D. for Drum
is AlmtNK-SD-001

ACCURA ANALYTICAL LABORATORY, INC.
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770)449-8800

CASE NARRATIVE for Project Number: 15096
Client Project: Hunter Fire Training Area / DACA21-97-C-0042

The following items were noted concerning this project:

1. The following samples required dilution due to high analyte concentration and matrix interference, resulting in elevated detection limits:

TPH - EPA 418.1

ConPad-ES-001

ConPad-DM-001

AlmTnk-SD-001

BTEX - SW-846-8260A

ConPad-DM-001

AlmTnk-SD-001

PAH - SW-846-8270B

AlmTnk-SD-001

2. One surrogate was outside the method specified limit for the following sample due to matrix interference:

BTEX - SW-846-8260A

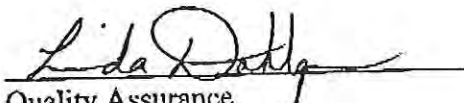
1,2-Dichloroethane-d4 -

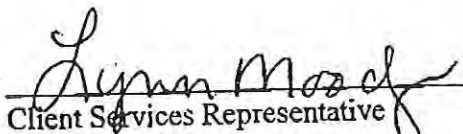
AlmTnk-SD-001

3. The surrogates were diluted out for the following sample analysis; therefore no recoveries could be reported:

PAH - SW-846-8270B

AlmTnk-SD-001


Quality Assurance


Client Services Representative

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NC Certification # 483

SC Certification # 98015

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LABORATORY REPORT

Accura Sample ID #: AB32522

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: CONPAD-ES-001

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/23/97

Date Ext/Dig/Prep: 12/23/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97 Date Ext/Dig/Prep: 12/22/97

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	5.1	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/30/97

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	1.2	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	800	200

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98 Date Ext/Dig/Prep: 12/29/97

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	81	0
Nitrobenzene-d5	69	0
p-Terphenyl-d14	98	0

ANALYSIS: X VOC OC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/23/97

Date Ext/Dig/Prep: 12/23/97

Result Units: %

Analyte Name

Analytical Results

Reported Detection Limits

1,2-Dichloroethane-d4

102

0

4-Bromofluorobenzene

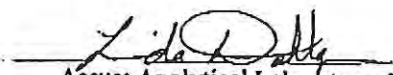
112

0

Toluene-d8

100

0


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USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB32523

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: CONPAD-DM-001

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Benzene	<RDL	25
Ethyl benzene	130	25
Toluene	75	25
Xylenes	640	25

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 12/31/97

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97

Date Ext/Dig/Prep: 12/23/97

Result Units: pH Units

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Leachate Fluid pH

11.7

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97

Date Ext/Dig/Prep: 12/30/97

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97

Date Ext/Dig/Prep: 12/29/97

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97

Date Ext/Dig/Prep: 12/23/97

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Total Petroleum Hydrocarbons

410

100

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 12/31/97

Date Ext/Dig/Prep: 12/29/97

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

2-Fluorobiphenyl

57

0

Nitrobenzene-d5

44

0

p-Terphenyl-d14

113

0

ANALYSIS: X VOC QC Surrogates (Soils)

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Method Ref: 8260A

Result Units: %

Analyte Name

Analytical Results

Reported Detection Limits

1,2-Dichloroethane-d4

115

0

4-Bromofluorobenzene

111

0

Toluene-d8

102

0


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SC Certification # 98015

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LABORATORY REPORT

Accura Sample ID #: AB32524

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: ALMTNK-SD-001

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Benzene	<RDL	10
Ethyl benzene	<RDL	10
Toluene	20	10
Xylenes	<RDL	10

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

Analyte Name	Analytical Results	Reported Detection Limits
1-Methylnaphthalene	<RDL	16000
2-Methylnaphthalene	<RDL	16000
Acenaphthene	<RDL	16000
Acenaphthylene	<RDL	16000
Anthracene	<RDL	16000
Benzo(a)anthracene	<RDL	16000
Benzo(a)pyrene	<RDL	16000
Benzo(b)fluoranthene	<RDL	16000
Benzo(g,h,i)perylene	<RDL	16000
Benzo(k)fluoranthene	<RDL	16000
Chrysene	<RDL	16000
Dibenzo(a,h)anthracene	<RDL	16000
Fluoranthene	<RDL	16000
Fluorene	<RDL	16000
Indeno(1,2,3-cd)pyrene	<RDL	16000
Naphthalene	<RDL	16000
Phenanthrene	91,000	16000
Pyrene	18,000	16000

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97 Date Ext/Dig/Prep: 12/22/97

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Result Units: pH Units

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Leachate Fluid pH

5.0

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/30/97

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

2.0

1

Cadmium (Reg Limit = 1.0)

2.0

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

46

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Total Petroleum Hydrocarbons

58,000

20000

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/2/98 Date Ext/Dig/Prep: 12/29/97

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

2-Fluorobiphenyl

See narrative

0

Nitrobenzene-d5

See narrative

0

p-Terphenyl-d14

See narrative

0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	135	0
4-Bromofluorobenzene	94	0
Toluene-d8	97	0


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LABORATORY REPORT

Accura Sample ID #: AB32525

Accura Project #: 15096

Client: Omega Env. Services - Tucker

Date Sampled: 12/18/97

Client Contact: T. SHEPPARD

Date Received: 12/19/97

Client Project Number: DACA21-97-C-0042

Date Reported: 1/5/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prp: 12/22/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 12/30/97

Date Ext/Dig/Prep: 12/29/97

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 12/22/97 Date Ext/Dig/Prep: 12/22/97

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	5.1	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/30/97

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 12/23/97 Date Ext/Dig/Prep: 12/23/97

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	<RDL	10

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 12/30/97 Date Ext/Dig/Prep: 12/29/97

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	48	0
Nitrobenzene-d5	42	0
p-Terphenyl-d14	97	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 12/22/97

Date Ext/Dig/Prep: 12/22/97

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	98	0
4-Bromofluorobenzene	107	0
Toluene-d8	105	0


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Environmental Analytical Services

CHAIN OF CUSTODY

Company Name: Omega Environmental SVCS

Address: 4661 Hammermill Road Suite B Tucker 30084 Client P.O. #

Report Sent to: (Client Contact): Travis Shepherd Geo Sciences Inc

Contact Phone # (902) 257-1606 Fax # (902) 257-1608

Project Name: Hunter Fire Training Area

Project Number: DACA 21-97-C-0042

Billing address:

For Laboratory Use Only

Custody Seal: Y N Page: 1 of 1

QC Level: N 2 3 4

Sample Condition: Good

Sample ID: 15096

Sample Location: ANALYSIS

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Samplers: (printed) David Price

Sample Location: 2

No. of Containers: 2

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Sample Comp: S

Sample Date / Time: 12-18-97

Sample Matrix: S

Sample Grab: S

Received By: Michael

Date / Time: 12-18-97

Received By:

Date / Time:

Relinquished By:

Date / Time:

Relinquished By:

Date / Time:

Special Requirements Or Remarks:

Turnaround Time Requested:

Remarks:

Accura Sample ID No. AB

32522

32523

32524

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CASE NARRATIVE for Project Number: 15314
Client Project: Hunter Army Airfield, Fire Training Area / 97-C-0042

The following items were noted concerning this project:

1. The following samples required dilution due to high analyte concentration, resulting in elevated detection limits:

TPH - EPA 418.1

Heap #1-ES-001

Heap #1-ES-002

BTEX - SW-846-8020A

Heap #1-ES-001

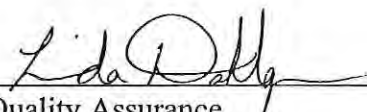
Heap #1-ES-002

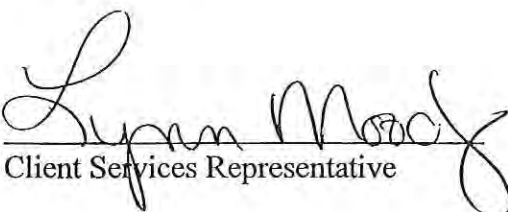
2. One surrogate was outside the method specified limit for the following sample:

PAH - SW-846-8270B

p-Terphenyl-d14 - Heap #1-ES-002

The remaining surrogates were within the acceptable limits; therefore the data satisfies the method requirements.


Quality Assurance


Client Services Representative

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LABORATORY REPORT

Accura Sample ID #: AB34160

Accura Project #: 15314

Client: Omega Env. Services - Tucker

Date Sampled: 1/12/98

Client Contact: JOHN MOUNT

Date Received: 1/13/98

Client Project Number: 97-C-0042

Date Reported: 1/16/98

Client Project Name: HUNTER ARMY AIRFIELD, FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HEAP # 1-ES-001

ANALYSIS: BTEX

Method Ref: 5030A/8020A

Date Analyzed: 1/13/98

Date Ext/Dig/Prep: 1/13/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	100
Ethyl benzene	860	100
Toluene	200	100
Xylenes	6,500	100

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/15/98

Date Ext/Dig/Prep: 1/14/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	1,400	330
2-Methylnaphthalene	1,700	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	1,200	330
Phenanthrene	540	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/13/98 Date Ext/Dig/Prep: 1/13/98

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 1/14/98 Date Ext/Dig/Prep: 1/14/98

Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	5.1	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/15/98 Date Ext/Dig/Prep: 1/15/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/15/98 Date Ext/Dig/Prep: 1/14/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 1/15/98 Date Ext/Dig/Prep: 1/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	2,800	500

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8020A

Date Analyzed: 1/13/98 Date Ext/Dig/Prep: 1/13/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,4-Difluorobenzene	76	0
4-Bromofluorobenzene	122	0

ANALYSIS: X PAH/BN QC Surrogates (Soils)

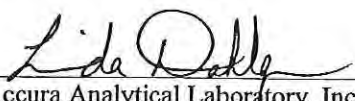
Method Ref: 3550A/8270B

Date Analyzed: 1/15/98

Date Ext/Dig/Prep: 1/14/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	71	0
Nitrobenzene-d5	82	0
p-Terphenyl-d14	21	0


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LABORATORY REPORT

Accura Sample ID #: AB34161

Accura Project #: 15314

Client: Omega Env. Services - Tucker

Date Sampled: 1/12/98

Client Contact: JOHN MOUNT

Date Received: 1/13/98

Client Project Number: 97-C-0042

Date Reported: 1/16/98

Client Project Name: HUNTER ARMY AIRFIELD, FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HEAP # 1-ES-002

ANALYSIS: BTEX

Method Ref: 5030A/8020A

Date Analyzed: 1/13/98

Date Ext/Dig/Prep: 1/13/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	100
Ethyl benzene	1,000	100
Toluene	260	100
Xylenes	8,600	100

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/15/98

Date Ext/Dig/Prep: 1/14/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	1,200	330
2-Methylnaphthalene	1,700	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	1,100	330
Phenanthrene	350	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/13/98 Date Ext/Dig/Prep: 1/13/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 1/14/98 Date Ext/Dig/Prep: 1/14/98 Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	5.1	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/15/98 Date Ext/Dig/Prep: 1/15/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/15/98 Date Ext/Dig/Prep: 1/14/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 1/15/98 Date Ext/Dig/Prep: 1/15/98 Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	2,800	500

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8020A

Date Analyzed: 1/13/98 Date Ext/Dig/Prep: 1/13/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,4-Difluorobenzene	78	0
4-Bromofluorobenzene	128	0

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/15/98

Date Ext/Dig/Prep: 1/14/98

Result Units: %

Analyte Name

Analytical Results

Reported Detection Limits

2-Fluorobiphenyl

64

0

Nitrobenzene-d5

80

0

p-Terphenyl-d14

12

0


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LABORATORY REPORT

Accura Sample ID #: AB34162

Accura Project #: 15314

Client: Omega Env. Services - Tucker

Date Sampled: 1/12/98

Client Contact: JOHN MOUNT

Date Received: 1/13/98

Client Project Number: 97-C-0042

Date Reported: 1/16/98

Client Project Name: HUNTER ARMY AIRFIELD, FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: TRIP BLANK

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/14/98

Date Ext/Dig/Prep: 1/14/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 1/14/98

Date Ext/Dig/Prep: 1/14/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	116	0
4-Bromofluorobenzene	102	0
Toluene-d8	104	0

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LABORATORY REPORT

Accura Sample ID #: AB34163

Accura Project #: 15314

Client: Omega Env. Services - Tucker

Date Sampled: 1/12/98

Client Contact: JOHN MOUNT

Date Received: 1/13/98

Client Project Number: 97-C-0042

Date Reported: 1/16/98

Client Project Name: HUNTER ARMY AIRFIELD, FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8020A

Date Analyzed: 1/13/98

Date Ext/Dig/Prep: 1/13/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/14/98

Date Ext/Dig/Prep: 1/14/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/13/98 Date Ext/Dig/Prep: 1/13/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Leachate Fluid pH

Method Ref: 1311

Date Analyzed: 1/14/98 Date Ext/Dig/Prep: 1/14/98 Result Units: pH Units

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Leachate Fluid pH	5.0	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/15/98 Date Ext/Dig/Prep: 1/15/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/15/98 Date Ext/Dig/Prep: 1/14/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 1/15/98 Date Ext/Dig/Prep: 1/15/98 Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	<RDL	10

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8020A

Date Analyzed: 1/13/98 Date Ext/Dig/Prep: 1/13/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,4-Difluorobenzene	102	0
4-Bromofluorobenzene	96	0

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/14/98

Date Ext/Dig/Prep: 1/14/98

Result Units: %

Analyte Name

Analytical Results

Reported Detection Limits

2-Fluorobiphenyl

54

0

Nitrobenzene-d5

48

0

p-Terphenyl-d14

94

0


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SC Certification # 98015

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LABORATORY REPORT

Accura Sample ID #: AB34164

Accura Project #: 15314

Client: Omega Env. Services - Tucker

Date Sampled: 1/12/98

Client Contact: JOHN MOUNT

Date Received: 1/13/98

Client Project Number: 97-C-0042

Date Reported: 1/16/98

Client Project Name: HUNTER ARMY AIRFIELD, FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/14/98

Date Ext/Dig/Prep: 1/14/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

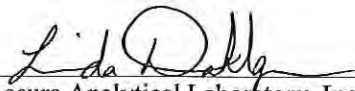
Method Ref: 8260A

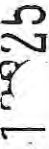
Date Analyzed: 1/14/98

Date Ext/Dig/Prep: 1/14/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	102	0
4-Bromofluorobenzene	95	0
Toluene-d8	95	0


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Environmental Analytical Services

CHAIN OF CUSTODY

CHAIN OF CUSTODY

075

Client P.O. #

Tree's Sparrow

8091-65

1000

1101

[illegible]

ACCURA ANALYTICAL LABORATORY, INC.
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CASE NARRATIVE for Project Number: 15408
Client Project: Hunter Fire Training Area / CO# DACA21-97-C-0042

The following item was noted concerning this project:

1. The following samples required dilution due to high analyte concentration and matrix interference, resulting in elevated detection limits:

PAH - SW-846-8270B

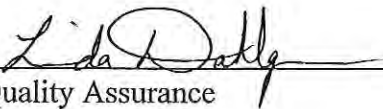
HP#2-ES-001-X

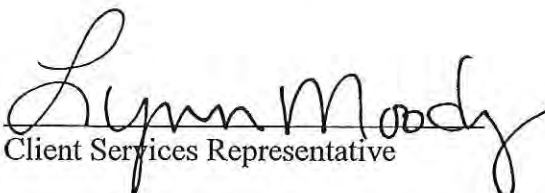
HP#2-ES-001-O

BTEX - SW-846-8020A

HP#2-ES-001-X

HP#2-ES-001-O


Quality Assurance


Client Services Representative

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LABORATORY REPORT

Accura Sample ID #: AB35577

Accura Project #: 15408

Client: Omega Env. Services - Tucker

Date Sampled: 1/20/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HP#2-ES-001-X

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	1,200	500
Ethyl benzene	3,000	500
Toluene	3,400	500
Xylenes	34,000	500

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	3,600	1700
2-Methylnaphthalene	4,300	1700
Acenaphthene	<RDL	1700
Acenaphthylene	<RDL	1700
Anthracene	<RDL	1700
Benzo(a)anthracene	<RDL	1700
Benzo(a)pyrene	<RDL	1700
Benzo(b)fluoranthene	<RDL	1700
Benzo(g,h,i)perylene	<RDL	1700
Benzo(k)fluoranthene	<RDL	1700
Chrysene	<RDL	1700
Dibenzo(a,h)anthracene	<RDL	1700
Fluoranthene	<RDL	1700
Fluorene	<RDL	1700
Indeno(1,2,3-cd)pyrene	<RDL	1700
Naphthalene	<RDL	1700
Phenanthrene	<RDL	1700
Pyrene	<RDL	1700

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/29/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/28/98 Date Ext/Dig/Prep: 1/27/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

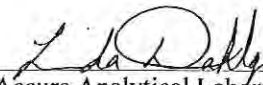
<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	71	0
Nitrobenzene-d5	81	0
p-Terphenyl-d14	82	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	115	0
4-Bromofluorobenzene	116	0
Toluene-d8	105	0


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LABORATORY REPORT

Accura Sample ID #: AB35578

Accura Project #: 15408

Client: Omega Env. Services - Tucker

Date Sampled: 1/20/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HP#2-ES-001-O

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	650	500
Ethyl benzene	<RDL	500
Toluene	1,900	500
Xylenes	28,000	500

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	3,000	1700
2-Methylnaphthalene	3,600	1700
Acenaphthene	<RDL	1700
Acenaphthylene	<RDL	1700
Anthracene	<RDL	1700
Benzo(a)anthracene	<RDL	1700
Benzo(a)pyrene	<RDL	1700
Benzo(b)fluoranthene	<RDL	1700
Benzo(g,h,i)perylene	<RDL	1700
Benzo(k)fluoranthene	<RDL	1700
Chrysene	<RDL	1700
Dibenzo(a,h)anthracene	<RDL	1700
Fluoranthene	<RDL	1700
Fluorene	<RDL	1700
Indeno(1,2,3-cd)pyrene	<RDL	1700
Naphthalene	<RDL	1700
Phenanthrene	<RDL	1700
Pyrene	<RDL	1700

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/29/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/28/98 Date Ext/Dig/Prep: 1/27/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	70	0
Nitrobenzene-d5	73	0
p-Terphenyl-d14	80	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	95	0
4-Bromofluorobenzene	115	0
Toluene-d8	98	0


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LABORATORY REPORT

Accura Sample ID #: AB35579

Accura Project #: 15408

Client: Omega Env. Services - Tucker

Date Sampled: 1/20/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: HP#2-X-TB

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	93	0
4-Bromofluorobenzene	98	0
Toluene-d8	95	0


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LABORATORY REPORT

Accura Sample ID #: AB35580

Accura Project #: 15408

Client: Omega Env. Services - Tucker

Date Sampled: 1/20/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/29/98

Date Ext/Dig/Prep: 1/29/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/28/98

Date Ext/Dig/Prep: 1/27/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

2-Fluorobiphenyl

60

0

Nitrobenzene-d5

53

0

p-Terphenyl-d14

96

0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,2-Dichloroethane-d4

94

0

4-Bromofluorobenzene

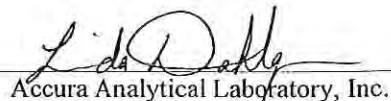
101

0

Toluene-d8

103

0


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LABORATORY REPORT

Accura Sample ID #: AB35581

Accura Project #: 15408

Client: Omega Env. Services - Tucker

Date Sampled: 1/20/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: %

Analyte Name

Analytical Results

Reported Detection Limits

1,2-Dichloroethane-d4

96

0

4-Bromofluorobenzene

99

0

Toluene-d8

99

0


Accura Analytical Laboratory, Inc.

Company Name: Omega Environmental Services Inc
Address: 4661 Hammermill Rd. Suite B Tucker GA 30084
Report Sent to: (Client Contact): Corey Jewery Inc Travis Shypert
Contact Phone # (912) 757-1126 Fax # (912) 757-1608
Project Name: Hunter Fire Training Area
Project Number: PO # DACHA21-97-E-0042

Contact Phone # (917) 757-1608 Fax # (917) 757-1608

Project Name: Hamster Fire Taming Project

Project Number: CO # DAC421-97-E-0042

~~Samplers: (signature)~~

Samplers: (printed)

Tavis Sheppard

Sample	pp	p	Matrix	Received	No. of
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Sample ID #	Date / Time	Comments	Material	Pressure	Sample Location:	Containers
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HP#3-E-001-X 1-21-98 2

2	100-35-6701	100-35-6701
2	100-35-6701	100-35-6701

[illegible]

11#3-X-1B 1-2-48 ✓

[illegible][illegible][illegible]

[illegible][illegible][illegible]

Reinquished By: _____ Date / Time 121-00

Received By:	Date / Time	Received By:
	12-48	Vankar

Received by: _____

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Food)

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous)

000000-000000

ACCURA ANALYTICAL LABORATORY, INC.
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770)449-8800

CASE NARRATIVE for Project Number: 15404

Client Project: Hunter Fire Training Area / CO# DACA21-97-C-0042

The following item was noted concerning this project:

1. The following samples required dilution due to high analyte concentration and matrix interference, resulting in elevated detection limits:

PAH - SW-846-8270B

HP#3-ES-001-X

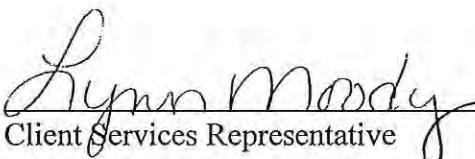
HP#3-ES-001-O

BTEX - SW-846-8020A

HP#3-ES-001-X

HP#3-ES-001-O


Quality Assurance


Client Services Representative

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429

NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB35563

Accura Project #: 15404

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HP#3-ES-001-X

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/23/98

Date Ext/Dig/Prep: 1/23/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	770	500
Ethyl benzene	900	500
Toluene	5,500	500
Xylenes	32,000	500

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	3,800	1700
2-Methylnaphthalene	4,700	1700
Acenaphthene	<RDL	1700
Acenaphthylene	<RDL	1700
Anthracene	<RDL	1700
Benzo(a)anthracene	<RDL	1700
Benzo(a)pyrene	<RDL	1700
Benzo(b)fluoranthene	<RDL	1700
Benzo(g,h,i)perylene	<RDL	1700
Benzo(k)fluoranthene	<RDL	1700
Chrysene	<RDL	1700
Dibenzo(a,h)anthracene	<RDL	1700
Fluoranthene	<RDL	1700
Fluorene	<RDL	1700
Indeno(1,2,3-cd)pyrene	<RDL	1700
Naphthalene	1,800	1700
Phenanthrene	<RDL	1700
Pyrene	<RDL	1700

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/29/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/28/98 Date Ext/Dig/Prep: 1/27/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	75	0
Nitrobenzene-d5	90	0
p-Terphenyl-d14	84	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/23/98 Date Ext/Dig/Prep: 1/23/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	120	0
4-Bromofluorobenzene	115	0
Toluene-d8	100	0


Accura Analytical Laboratory, Inc.

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NC Certification # 483

SC Certification # 98015

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LABORATORY REPORT

Accura Sample ID #: AB35564

Accura Project #: 15404

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/2/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HP#3-ES-001-O

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/23/98

Date Ext/Dig/Prep: 1/23/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	1000
Ethyl benzene	1,100	1000
Toluene	3,000	1000
Xylenes	17,000	1000

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	4,700	1700
2-Methylnaphthalene	5,800	1700
Acenaphthene	<RDL	1700
Acenaphthylene	<RDL	1700
Anthracene	<RDL	1700
Benzo(a)anthracene	<RDL	1700
Benzo(a)pyrene	<RDL	1700
Benzo(b)fluoranthene	<RDL	1700
Benzo(g,h,i)perylene	<RDL	1700
Benzo(k)fluoranthene	<RDL	1700
Chrysene	<RDL	1700
Dibenzo(a,h)anthracene	<RDL	1700
Fluoranthene	<RDL	1700
Fluorene	<RDL	1700
Indeno(1,2,3-cd)pyrene	<RDL	1700
Naphthalene	2,200	1700
Phenanthrene	<RDL	1700
Pyrene	<RDL	1700

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/29/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/28/98 Date Ext/Dig/Prep: 1/27/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	74	0
Nitrobenzene-d5	92	0
p-Terphenyl-d14	85	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/23/98 Date Ext/Dig/Prep: 1/23/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	91	0
4-Bromofluorobenzene	101	0
Toluene-d8	96	0


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LABORATORY REPORT

Accura Sample ID #: AB35565

Accura Project #: 15404

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/2/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: HP#3-X-TB

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	106	0
4-Bromofluorobenzene	108	0
Toluene-d8	106	0


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LABORATORY REPORT

Accura Sample ID #: AB35566

Accura Project #: 15404

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/23/98

Date Ext/Dig/Prep: 1/23/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/29/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/28/98 Date Ext/Dig/Prep: 1/27/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	60	0
Nitrobenzene-d5	53	0
p-Terphenyl-d14	96	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/23/98 Date Ext/Dig/Prep: 1/23/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	95	0
4-Bromofluorobenzene	104	0
Toluene-d8	101	0


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FL Certification # E87429

NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB35567

Accura Project #: 15404

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

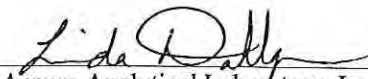
Method Ref: 8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	96	0
4-Bromofluorobenzene	99	0
Toluene-d8	99	0


Accura Analytical Laboratory, Inc.



CHAIN OF CUSTODY

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: Omega Environmental Services, Inc.
Address: 4461 Hammermill Rd Site B Tucker GA 30084
Report Sent to: (Client Contact): Cassionaries Inc. Travis Shapiro
Contact Phone #: (770) 757-1606 Fax #: (770) 757-1608
Project Name: Harbor Fire Training Area
Project Number: OES DHA 21-07-C-0092

Billing address:
Client P.O. #

For Laboratory Use Only					
Custody Seal:	Y	N	Page	1	OF 1
QC Level:	N	1	2	3	4
Sample Condition:	Good				
	Init Temp: 6°C				
	AAL Lab Project # 15405				

[illegible]

ACCURA ANALYTICAL LABORATORY, INC.
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770)449-8800

CASE NARRATIVE for Project Number: 15405
Client Project: Hunter Fire Training Area / CO# DACA21-97-C-0042

The following item was noted concerning this project:

1. The following samples required dilution due to high analyte concentration and matrix interference, resulting in elevated detection limits:

PAH - SW-846-8270B

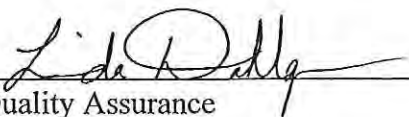
HP#4-ES-001-X

HP#4-ES-001-O

BTEX - SW-846-8020A

HP#4-ES-001-X

HP#4-ES-001-O


Quality Assurance


Client Services Representative

ACCURA ANALYTICAL LABORATORY, INC.

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FL Certification # E87429

NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB35568

Accura Project #: 15405

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HP#4-ES-001-X

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/23/98

Date Ext/Dig/Prep: 1/23/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	1,000	1000
Ethyl benzene	4,300	1000
Toluene	2,900	1000
Xylenes	35,000	1000

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	4,600	1700
2-Methylnaphthalene	6,100	1700
Acenaphthene	<RDL	1700
Acenaphthylene	<RDL	1700
Anthracene	<RDL	1700
Benzo(a)anthracene	<RDL	1700
Benzo(a)pyrene	<RDL	1700
Benzo(b)fluoranthene	<RDL	1700
Benzo(g,h,i)perylene	<RDL	1700
Benzo(k)fluoranthene	<RDL	1700
Chrysene	<RDL	1700
Dibenzo(a,h)anthracene	<RDL	1700
Fluoranthene	<RDL	1700
Fluorene	<RDL	1700
Indeno(1,2,3-cd)pyrene	<RDL	1700
Naphthalene	2,500	1700
Phenanthrene	<RDL	1700
Pyrene	<RDL	1700

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/29/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/28/98 Date Ext/Dig/Prep: 1/27/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	72	0
Nitrobenzene-d5	92	0
p-Terphenyl-d14	88	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/23/98 Date Ext/Dig/Prep: 1/23/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	110	0
4-Bromofluorobenzene	101	0
Toluene-d8	101	0


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USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB35569

Accura Project #: 15405

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HP#4-ES-001-O

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/23/98

Date Ext/Dig/Prep: 1/23/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	1000
Ethyl benzene	<RDL	1000
Toluene	1,500	1000
Xylenes	24,000	1000

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	3,000	1700
2-Methylnaphthalene	3,300	1700
Acenaphthene	<RDL	1700
Acenaphthylene	<RDL	1700
Anthracene	<RDL	1700
Benzo(a)anthracene	<RDL	1700
Benzo(a)pyrene	<RDL	1700
Benzo(b)fluoranthene	<RDL	1700
Benzo(g,h,i)perylene	<RDL	1700
Benzo(k)fluoranthene	<RDL	1700
Chrysene	<RDL	1700
Dibenzo(a,h)anthracene	<RDL	1700
Fluoranthene	<RDL	1700
Fluorene	<RDL	1700
Indeno(1,2,3-cd)pyrene	<RDL	1700
Naphthalene	<RDL	1700
Phenanthrene	<RDL	1700
Pyrene	<RDL	1700

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/29/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/28/98 Date Ext/Dig/Prep: 1/27/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	69	0
Nitrobenzene-d5	73	0
p-Terphenyl-d14	84	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/23/98 Date Ext/Dig/Prep: 1/23/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	92	0
4-Bromofluorobenzene	104	0
Toluene-d8	98	0


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LABORATORY REPORT

Accura Sample ID #: AB35570

Accura Project #: 15405

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/2/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: HP#4-X-TB

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

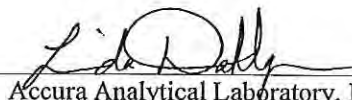
trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 1/22/98 Date Ext/Dig/Prep: 1/22/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	97	0
4-Bromofluorobenzene	104	0
Toluene-d8	99	0


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LABORATORY REPORT

Accura Sample ID #: AB35571

Accura Project #: 15405

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/23/98

Date Ext/Dig/Prep: 1/23/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/29/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/28/98 Date Ext/Dig/Prep: 1/27/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	60	0
Nitrobenzene-d5	53	0
p-Terphenyl-d14	96	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/23/98 Date Ext/Dig/Prep: 1/23/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	95	0
4-Bromofluorobenzene	104	0
Toluene-d8	101	0


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LABORATORY REPORT

Accura Sample ID #: AB35572

Accura Project #: 15405

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/22/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 1/29/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

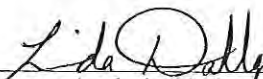
Method Ref: 8260A

Date Analyzed: 1/22/98

Date Ext/Dig/Prep: 1/22/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	96	0
4-Bromofluorobenzene	99	0
Toluene-d8	99	0


Accura Analytical Laboratory, Inc.



ACCURA ANALYTICAL LABORATORY, INC.

12822

Environmental Analytical Services

CHAIN OF CUSTODY

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: Delta Environmental Services Inc.

Billing address:

Address: 4661 Hammer Mill Road Suite B Tucker GA 30084

Client P.O. #

Report Sent to: (Client Contact): Geosciences Inc. Travis Shepard

For Laboratory Use Only

Contact Phone # 912-757-1606 Fax # 912-757-1608

Custody Seal: Y N

Page 1 OF 1

Project Name: Hunter Fire Training Area

QC Level: N 1 2 3 4

Init/Temp: 60°C

Project Number: Co # DHA21-57C-2012

Sample Condition: Good

AAI Lab Project # 15489

Samplers: (signature) David Price Samplers: (printed) David Price

Sample ID #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Sample Location:	No. of Containers	ANALYSIS	Remarks	Accura Sample ID No. AB
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106M-001-SW-X	1/29/98		✓	W		Stored water in fuel 106	3	BTEX-8260		36168
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106T-002-SW-X	1/29/98		✓	W		"	3	PAH-8270		36169
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106T-002-SW-D	1/29/98		✓	W		"	3	UACs 8260		36170
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106B-003-SW-X	1/29/98		✓	W		"	3	TCLP-metals		36171
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106-SW-TB	1/29/98		✓	W		"	2	TPH-418.1		36172
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Hag#5-ES001-X	1/29/98		✓	S			2			36173
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Hag#5-ES001-0	1/29/98		✓	S			2			36174
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Relinquished By: <u>David Price</u>	Date / Time: <u>1/29/98</u>	Received By: <u>Reeder</u>	Date / Time: <u>01/30/98 09:15</u>	Special Requirements Or Remarks:
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Relinquished By:	Date / Time:	Received By:	Date / Time:	Turnaround Time Requested: <u>48hr</u>
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ACCURA ANALYTICAL LABORATORY, INC.
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770)449-8800

CASE NARRATIVE for Project Number: 15489

Client Project: Hunter Fire Training Area / CO# DACA21-97-C-0042

The following items were noted concerning this project:

1. The following samples required dilution due to matrix interference and/or high analyte concentration, resulting in elevated detection limits:

TPH - EPA 418.1

Heap #5-ES001-X

Heap #5-ES001-O

BTEX - SW-846-8260A

106M-001-SWW-X

106T-002-SWW-X

106T-002-SWW-O

106B-003-SWW-X

Heap #5-ES001-X

Heap #5-ES001-O

PAH - SW-846-8270B

Heap #5-ES001-X

Heap #5-ES001-O

2. One surrogate was outside the method specified limit for the following samples, likely due to matrix interference:

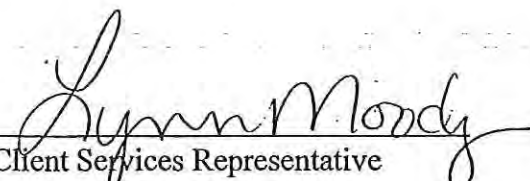
PAH - SW-846-8270B

Nitrobenzene-d5 - Heap #5-ES001-X

p-Terphenyl-d14 - 106M-001-SWW-X

The remaining surrogates were within the method specified limits.


Quality Assurance


Client Services Representative

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FL Certification # E87429

NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB36168

Accura Project #: 15489

Client: Omega Env. Services - Tucker

Date Sampled: 1/29/98

Client Contact: T. SHEPPARD

Date Received: 1/30/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/3/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: 106M-001-SWW-X

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/2/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	350	10
Ethyl benzene	20	10
Toluene	270	10
Xylenes	190	10

ANALYSIS: PAH's

Method Ref: 3520B/8270B

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/1/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	10
2-Methylnaphthalene	<RDL	10
Acenaphthene	<RDL	10
Acenaphthylene	<RDL	10
Anthracene	<RDL	10
Benzo(a)anthracene	<RDL	10
Benzo(a)pyrene	<RDL	10
Benzo(b)fluoranthene	<RDL	10
Benzo(g,h,i)perylene	<RDL	10
Benzo(k)fluoranthene	<RDL	10
Chrysene	<RDL	10
Dibenzo(a,h)anthracene	<RDL	10
Fluoranthene	<RDL	10
Fluorene	<RDL	10
Indeno(1,2,3-cd)pyrene	<RDL	10
Naphthalene	<RDL	10
Phenanthrene	<RDL	10
Pyrene	<RDL	10

ANALYSIS: X PAH/BN QC Surrogates (Waters)

Method Ref: 3520B/8270B

Date Analyzed: 2/2/98 Date Ext/Dig/Prep: 2/1/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	61	0
Nitrobenzene-d5	77	0
p-Terphenyl-d14	25	0

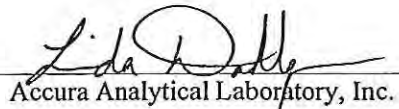
ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 2/2/98 Date Ext/Dig/Prep: 2/2/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	111	0
4-Bromofluorobenzene	108	0
Toluene-d8	101	0


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NC Certification # 483

SC Certification # 98015

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LABORATORY REPORT

Accura Sample ID #: AB36169

Accura Project #: 15489

Client: Omega Env. Services - Tucker

Date Sampled: 1/29/98

Client Contact: T. SHEPPARD

Date Received: 1/30/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/3/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: 106T-002-SWW-X

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/2/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	370	10
Ethyl benzene	21	10
Toluene	290	10
Xylenes	190	10

ANALYSIS: PAH's

Method Ref: 3520B/8270B

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/1/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	10
2-Methylnaphthalene	<RDL	10
Acenaphthene	<RDL	10
Acenaphthylene	<RDL	10
Anthracene	<RDL	10
Benzo(a)anthracene	<RDL	10
Benzo(a)pyrene	<RDL	10
Benzo(b)fluoranthene	<RDL	10
Benzo(g,h,i)perylene	<RDL	10
Benzo(k)fluoranthene	<RDL	10
Chrysene	<RDL	10
Dibenzo(a,h)anthracene	<RDL	10
Fluoranthene	<RDL	10
Fluorene	<RDL	10
Indeno(1,2,3-cd)pyrene	<RDL	10
Naphthalene	<RDL	10
Phenanthrene	<RDL	10
Pyrene	<RDL	10

ANALYSIS: X PAH/BN QC Surrogates (Waters)

Method Ref: 3520B/8270B

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/1/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

2-Fluorobiphenyl

80

0

Nitrobenzene-d5

90

0

p-Terphenyl-d14

59

0

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/2/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,2-Dichloroethane-d4

110

0

4-Bromofluorobenzene

113

0

Toluene-d8

105

0


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LABORATORY REPORT

Accura Sample ID #: AB36170

Accura Project #: 15489

Client: Omega Env. Services - Tucker

Date Sampled: 1/29/98

Client Contact: T. SHEPPARD

Date Received: 1/30/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/3/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: 106T-002-SWW-O

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/2/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	350	10
Ethyl benzene	22	10
Toluene	270	10
Xylenes	200	10

ANALYSIS: PAH's

Method Ref: 3520B/8270B

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/1/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	10
2-Methylnaphthalene	<RDL	10
Acenaphthene	<RDL	10
Acenaphthylene	<RDL	10
Anthracene	<RDL	10
Benzo(a)anthracene	<RDL	10
Benzo(a)pyrene	<RDL	10
Benzo(b)fluoranthene	<RDL	10
Benzo(g,h,i)perylene	<RDL	10
Benzo(k)fluoranthene	<RDL	10
Chrysene	<RDL	10
Dibenzo(a,h)anthracene	<RDL	10
Fluoranthene	<RDL	10
Fluorene	<RDL	10
Indeno(1,2,3-cd)pyrene	<RDL	10
Naphthalene	<RDL	10
Phenanthrene	<RDL	10
Pyrene	<RDL	10

ANALYSIS: X PAH/BN QC Surrogates (Waters)

Method Ref: 3520B/8270B

Date Analyzed: 2/2/98 Date Ext/Dig/Prep: 2/1/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	76	0
Nitrobenzene-d5	88	0
p-Terphenyl-d14	51	0

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 2/2/98 Date Ext/Dig/Prep: 2/2/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	102	0
4-Bromofluorobenzene	108	0
Toluene-d8	103	0


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LABORATORY REPORT

Accura Sample ID #: AB36171

Accura Project #: 15489

Client: Omega Env. Services - Tucker

Date Sampled: 1/29/98

Client Contact: T. SHEPPARD

Date Received: 1/30/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/4/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: 106B-003-SWW-X

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	330	10
Ethyl benzene	20	5
Toluene	240	10
Xylenes	190	5

ANALYSIS: PAH's

Method Ref: 3520B/8270B

Date Analyzed: 2/2/98 Date Ext/Dig/Prep: 2/1/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	10
2-Methylnaphthalene	<RDL	10
Acenaphthene	<RDL	10
Acenaphthylene	<RDL	10
Anthracene	<RDL	10
Benzo(a)anthracene	<RDL	10
Benzo(a)pyrene	<RDL	10
Benzo(b)fluoranthene	<RDL	10
Benzo(g,h,i)perylene	<RDL	10
Benzo(k)fluoranthene	<RDL	10
Chrysene	<RDL	10
Dibenzo(a,h)anthracene	<RDL	10
Fluoranthene	<RDL	10
Fluorene	<RDL	10
Indeno(1,2,3-cd)pyrene	<RDL	10
Naphthalene	<RDL	10
Phenanthrene	<RDL	10
Pyrene	<RDL	10

ANALYSIS: X PAH/BN QC Surrogates (Waters)

Method Ref: 3520B/8270B

Date Analyzed: 2/2/98 Date Ext/Dig/Prep: 2/1/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	84	0
Nitrobenzene-d5	95	0
p-Terphenyl-d14	65	0

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	93	0
4-Bromofluorobenzene	98	0
Toluene-d8	100	0


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LABORATORY REPORT

Accura Sample ID #: AB36172

Accura Project #: 15489

Client: Omega Env. Services - Tucker

Date Sampled: 1/29/98

Client Contact: T. SHEPPARD

Date Received: 1/30/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/3/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: 106-SWW-TB

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/30/98

Date Ext/Dig/Prep: 1/30/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,2-Dichloroethene	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5

Toluene	<RDL	5
trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	95	0
4-Bromofluorobenzene	107	0
Toluene-d8	99	0


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LABORATORY REPORT

Accura Sample ID #: AB36173

Accura Project #: 15489

Client: Omega Env. Services - Tucker

Date Sampled: 1/29/98

Client Contact: T. SHEPPARD

Date Received: 1/30/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/4/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HEAP # 5-ES001-X

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/30/98

Date Ext/Dig/Prep: 1/30/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	25
Ethyl benzene	200	25
Toluene	41	25
Xylenes	530	25

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/30/98

Date Ext/Dig/Prep: 1/30/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	23,000	3300
2-Methylnaphthalene	35,000	3300
Acenaphthene	<RDL	3300
Acenaphthylene	<RDL	3300
Anthracene	<RDL	3300
Benzo(a)anthracene	<RDL	3300
Benzo(a)pyrene	<RDL	3300
Benzo(b)fluoranthene	<RDL	3300
Benzo(g,h,i)perylene	<RDL	3300
Benzo(k)fluoranthene	<RDL	3300
Chrysene	<RDL	3300
Dibenzo(a,h)anthracene	<RDL	3300
Fluoranthene	<RDL	3300
Fluorene	<RDL	3300
Indeno(1,2,3-cd)pyrene	<RDL	3300
Naphthalene	20,000	3300
Phenanthrene	<RDL	3300
Pyrene	<RDL	3300

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/3/98 Date Ext/Dig/Prep: 2/3/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 2/3/98 Date Ext/Dig/Prep: 2/2/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 2/2/98 Date Ext/Dig/Prep: 2/2/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	18,000	2500

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	76	0
Nitrobenzene-d5	17	0
p-Terphenyl-d14	92	0

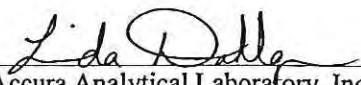
ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	100	0
4-Bromofluorobenzene	120	0


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LABORATORY REPORT

Accura Sample ID #: AB36174

Accura Project #: 15489

Client: Omega Env. Services - Tucker

Date Sampled: 1/29/98

Client Contact: T. SHEPPARD

Date Received: 1/30/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/4/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HEAP # 5-ES001-O

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/30/98

Date Ext/Dig/Prep: 1/30/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	10
Ethyl benzene	79	10
Toluene	20	10
Xylenes	270	10

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/30/98

Date Ext/Dig/Prep: 1/30/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	21,000	3300
2-Methylnaphthalene	33,000	3300
Acenaphthene	<RDL	3300
Acenaphthylene	<RDL	3300
Anthracene	<RDL	3300
Benzo(a)anthracene	<RDL	3300
Benzo(a)pyrene	<RDL	3300
Benzo(b)fluoranthene	<RDL	3300
Benzo(g,h,i)perylene	<RDL	3300
Benzo(k)fluoranthene	<RDL	3300
Chrysene	<RDL	3300
Dibenzo(a,h)anthracene	<RDL	3300
Fluoranthene	<RDL	3300
Fluorene	<RDL	3300
Indeno(1,2,3-cd)pyrene	<RDL	3300
Naphthalene	17,000	3300
Phenanthrene	<RDL	3300
Pyrene	<RDL	3300

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/3/98 Date Ext/Dig/Prep: 2/3/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 2/3/98 Date Ext/Dig/Prep: 2/2/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 2/2/98 Date Ext/Dig/Prep: 2/2/98 Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	14,000	2500

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98 Result Units: %

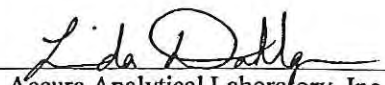
<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	72	0
Nitrobenzene-d5	52	0
p-Terphenyl-d14	91	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	95	0
4-Bromofluorobenzene	120	0


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LABORATORY REPORT

Accura Sample ID #: AB36175

Accura Project #: 15489

Client: Omega Env. Services - Tucker

Date Sampled: 1/29/98

Client Contact: T. SHEPPARD

Date Received: 1/30/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/3/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/2/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3520B/8270B

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/1/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	10
2-Methylnaphthalene	<RDL	10
Acenaphthene	<RDL	10
Acenaphthylene	<RDL	10
Anthracene	<RDL	10
Benzo(a)anthracene	<RDL	10
Benzo(a)pyrene	<RDL	10
Benzo(b)fluoranthene	<RDL	10
Benzo(g,h,i)perylene	<RDL	10
Benzo(k)fluoranthene	<RDL	10
Chrysene	<RDL	10
Dibenzo(a,h)anthracene	<RDL	10
Fluoranthene	<RDL	10
Fluorene	<RDL	10
Indeno(1,2,3-cd)pyrene	<RDL	10
Naphthalene	<RDL	10
Phenanthrene	<RDL	10
Pyrene	<RDL	10

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/30/98

Date Ext/Dig/Prep: 1/30/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,2-Dichloroethene	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5
trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X PAH/BN QC Surrogates (Waters)

Method Ref: 3520B/8270B

Date Analyzed: 2/2/98

Date Ext/Dig/Prep: 2/1/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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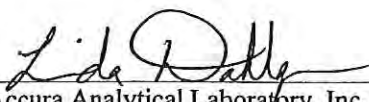
2-Fluorobiphenyl	92	0
Nitrobenzene-d5	81	0
p-Terphenyl-d14	100	0

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 2/2/98 Date, Ext/Dig/Prep: 2/2/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	109	0
4-Bromofluorobenzene	103	0
Toluene-d8	102	0


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NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB36176

Accura Project #: 15489

Client: Omega Env. Services - Tucker

Date Sampled: 1/29/98

Client Contact: T. SHEPPARD

Date Received: 1/30/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/3/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/30/98

Date Ext/Dig/Prep: 1/30/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/30/98

Date Ext/Dig/Prep: 1/30/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/3/98 Date Ext/Dig/Prep: 2/3/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 2/3/98 Date Ext/Dig/Prep: 2/2/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 2/2/98 Date Ext/Dig/Prep: 2/2/98 Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	<RDL	10

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98 Result Units: %

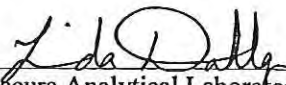
<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	66	0
Nitrobenzene-d5	57	0
p-Terphenyl-d14	97	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	97	0
4-Bromofluorobenzene	109	0


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CASE NARRATIVE for Project Number: 15635

Client Project: Hunter Fire Training Area

The following items were noted concerning this project:

1. The following surrogates were outside of the method specified limits due to matrix interference:

BTEX - SW-846-8260A

4-Bromofluorobenzene - Heap #6-ES-001-X, Heap #6-ES-001-O

Toluene - Heap #6-ES-001-O

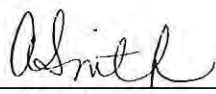
2. The following samples were diluted due to matrix interference, resulting in elevated detection limits:

Total Petroleum Hydrocarbons

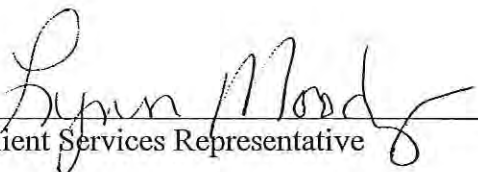
Heap #6-ES-001-X Heap #6-ES-001-O

PAH's - SW-846-8270B

Heap #6-ES-001-X Heap #6-ES-001-O



Quality Assurance



Client Services Representative

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NC Certification # 483

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LABORATORY REPORT

Accura Sample ID #: AB37402

Accura Project #: 15635

Client: Omega Env. Services - Tucker

Date Sampled: 2/12/98

Client Contact: T. SHEPPARD

Date Received: 2/12/98

Client Project Number: CO#PACA21-97-C-0042

Date Reported: 2/24/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HEAP #6-ES-001-X

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/17/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 2/19/98

Date Ext/Dig/Prep: 2/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	1600
2-Methylnaphthalene	<RDL	1600
Acenaphthene	<RDL	1600
Acenaphthylene	<RDL	1600
Anthracene	<RDL	1600
Benzo(a)anthracene	<RDL	1600
Benzo(a)pyrene	<RDL	1600
Benzo(b)fluoranthene	<RDL	1600
Benzo(g,h,i)perylene	<RDL	1600
Benzo(k)fluoranthene	<RDL	1600
Chrysene	<RDL	1600
Dibenzo(a,h)anthracene	<RDL	1600
Fluoranthene	<RDL	1600
Fluorene	<RDL	1600
Indeno(1,2,3-cd)pyrene	<RDL	1600
Naphthalene	<RDL	1600
Phenanthrene	<RDL	1600
Pyrene	<RDL	1600

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 2/16/98 Date Ext/Dig/Prep: 2/16/98

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/18/98 Date Ext/Dig/Prep: 2/18/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 2/18/98 Date Ext/Dig/Prep: 2/18/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	1.0	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 2/20/98 Date Ext/Dig/Prep: 2/20/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	410	125

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 2/19/98 Date Ext/Dig/Prep: 2/18/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	86	0
Nitrobenzene-d5	73	0
p-Terphenyl-d14	91	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 2/17/98 Date Ext/Dig/Prep: 2/17/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	109	0
4-Bromofluorobenzene	169	0



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LABORATORY REPORT

Accura Sample ID #: AB37403

Accura Project #: 15635

Client: Omega Env. Services - Tucker

Date Sampled: 2/12/98

Client Contact: T. SHEPPARD

Date Received: 2/12/98

Client Project Number: CO#PACA21-97-C-0042

Date Reported: 2/24/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HEAP #6-ES-001-O

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/17/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 2/19/98

Date Ext/Dig/Prep: 2/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	1600
2-Methylnaphthalene	<RDL	1600
Acenaphthene	<RDL	1600
Acenaphthylene	<RDL	1600
Anthracene	<RDL	1600
Benzo(a)anthracene	<RDL	1600
Benzo(a)pyrene	<RDL	1600
Benzo(b)fluoranthene	<RDL	1600
Benzo(g,h,i)perylene	<RDL	1600
Benzo(k)fluoranthene	<RDL	1600
Chrysene	<RDL	1600
Dibenzo(a,h)anthracene	<RDL	1600
Fluoranthene	<RDL	1600
Fluorene	<RDL	1600
Indeno(1,2,3-cd)pyrene	<RDL	1600
Naphthalene	<RDL	1600
Phenanthrene	<RDL	1600
Pyrene	<RDL	1600

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 2/16/98 Date Ext/Dig/Prep: 2/16/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/18/98 Date Ext/Dig/Prep: 2/18/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 2/18/98 Date Ext/Dig/Prep: 2/18/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	1.2	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 2/20/98 Date Ext/Dig/Prep: 2/20/98 Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Total Petroleum Hydrocarbons	280	83

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 2/19/98 Date Ext/Dig/Prep: 2/18/98 Result Units: %

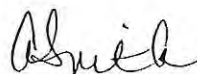
<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	84	0
Nitrobenzene-d5	72	0
p-Terphenyl-d14	93	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 2/17/98 Date Ext/Dig/Prep: 2/17/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	98	0
4-Bromofluorobenzene	181	0



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LABORATORY REPORT

Accura Sample ID #: AB37404

Accura Project #: 15635

Client: Omega Env. Services - Tucker

Date Sampled: 2/12/98

Client Contact: T. SHEPPARD

Date Received: 2/12/98

Client Project Number: CO#PACA21-97-C-0042

Date Reported: 2/24/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: HEAP #6-X-TB

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/17/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,2-Dichloroethene	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5

Toluene	<RDL	5
trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/17/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	89	0
4-Bromofluorobenzene	98	0
Toluene-d8	101	0



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SC Certification # 98015

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LABORATORY REPORT

Accura Sample ID #: AB37405

Accura Project #: 15635

Client: Omega Env. Services - Tucker

Date Sampled: 2/12/98

Client Contact: T. SHEPPARD

Date Received: 2/12/98

Client Project Number: CO#PACA21-97-C-0042

Date Reported: 2/24/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: HEAP #6-X-RA

ANALYSIS: PAH's

Method Ref: 3520B/8270B

Date Analyzed: 2/18/98

Date Ext/Dig/Prep: 2/16/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	10
2-Methylnaphthalene	<RDL	10
Acenaphthene	<RDL	10
Acenaphthylene	<RDL	10
Anthracene	<RDL	10
Benzo(a)anthracene	<RDL	10
Benzo(a)pyrene	<RDL	10
Benzo(b)fluoranthene	<RDL	10
Benzo(g,h,i)perylene	<RDL	10
Benzo(k)fluoranthene	<RDL	10
Chrysene	<RDL	10
Dibenzo(a,h)anthracene	<RDL	10
Fluoranthene	<RDL	10
Fluorene	<RDL	10
Indeno(1,2,3-cd)pyrene	<RDL	10
Naphthalene	<RDL	10
Phenanthrene	<RDL	10
Pyrene	<RDL	10

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/17/98

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/18/98

Date Ext/Dig/Prep: 2/18/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 2/18/98

Date Ext/Dig/Prep: 2/18/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/17/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,2-Dichloroethene	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X PAH/BN QC Surrogates (Waters)

Method Ref: 3520B/8270B

Date Analyzed: 2/18/98 Date Ext/Dig/Prep: 2/16/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	99	0
Nitrobenzene-d5	96	0
p-Terphenyl-d14	114	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 2/17/98 Date Ext/Dig/Prep: 2/17/98 Result Units: %

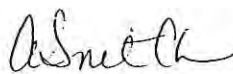
<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	95	0
4-Bromofluorobenzene	95	0
Toluene-d8	101	0

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 2/17/98 Date Ext/Dig/Prep: 2/17/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	95	0
4-Bromofluorobenzene	95	0
Toluene-d8	101	0



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NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB37406

Accura Project #: 15635

Client: Omega Env. Services - Tucker

Date Sampled: 2/12/98

Client Contact: T. SHEPPARD

Date Received: 2/12/98

Client Project Number: CO#PACA21-97-C-0042

Date Reported: 2/24/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/17/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 2/18/98

Date Ext/Dig/Prep: 2/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 2/16/98

Date Ext/Dig/Prep: 2/16/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/18/98

Date Ext/Dig/Prep: 2/18/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 2/18/98

Date Ext/Dig/Prep: 2/18/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

ANALYSIS: Total Petroleum Hydrocarbons

Method Ref: 418.1

Date Analyzed: 2/20/98

Date Ext/Dig/Prep: 2/20/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Total Petroleum Hydrocarbons

<RDL

10

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 2/18/98

Date Ext/Dig/Prep: 2/18/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

2-Fluorobiphenyl

75

0

Nitrobenzene-d5

71

0

p-Terphenyl-d14

93

0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/17/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,2-Dichloroethane-d4

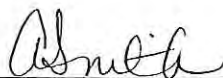
97

0

4-Bromofluorobenzene

107

0



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LABORATORY REPORT

Accura Sample ID #: AB37407

Accura Project #: 15635

Client: Omega Env. Services - Tucker

Date Sampled: 2/12/98

Client Contact: T. SHEPPARD

Date Received: 2/12/98

Client Project Number: CO#PACA21-97-C-0042

Date Reported: 2/24/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: PAH's

Method Ref: 3520B/8270B

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/16/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	10
2-Methylnaphthalene	<RDL	10
Acenaphthene	<RDL	10
Acenaphthylene	<RDL	10
Anthracene	<RDL	10
Benzo(a)anthracene	<RDL	10
Benzo(a)pyrene	<RDL	10
Benzo(b)fluoranthene	<RDL	10
Benzo(g,h,i)perylene	<RDL	10
Benzo(k)fluoranthene	<RDL	10
Chrysene	<RDL	10
Dibenzo(a,h)anthracene	<RDL	10
Fluoranthene	<RDL	10
Fluorene	<RDL	10
Indeno(1,2,3-cd)pyrene	<RDL	10
Naphthalene	<RDL	10
Phenanthrene	<RDL	10
Pyrene	<RDL	10

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/17/98

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/18/98

Date Ext/Dig/Prep: 2/18/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 2/18/98

Date Ext/Dig/Prep: 2/18/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 2/17/98

Date Ext/Dig/Prep: 2/17/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,2-Dichloroethene	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X PAH/BN QC Surrogates (Waters)

Method Ref: 3520B/8270B

Date Analyzed: 2/17/98 Date Ext/Dig/Prep: 2/16/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	98	0
Nitrobenzene-d5	102	0
p-Terphenyl-d14	117	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 2/17/98 Date Ext/Dig/Prep: 2/17/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	93	0
4-Bromofluorobenzene	98	0
Toluene-d8	109	0

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 2/17/98 Date Ext/Dig/Prep: 2/17/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	93	0
4-Bromofluorobenzene	98	0
Toluene-d8	109	0



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CASE NARRATIVE for Project Number: 15685

Client Project: Hunter Fire Training Area / CO# DACA 211-97-C-0042

The following items were noted concerning this project:

1. The following samples required dilution due to high analyte concentration and/or matrix interference, resulting in elevated detection limits:

BTEX - SW-846-8260A

Heap #7-ES001-X

Heap #7-ES001-O

PAH - SW-846-8270B

Heap #7-ES001-O

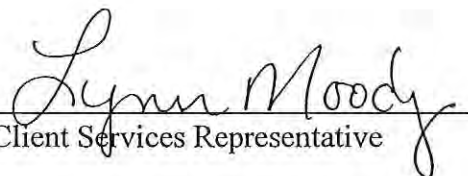
2. The following surrogate recovery was outside the method specified limit due to matrix interference:

BTEX - SW-846-8260A

4-Bromofluorobenzene -

Heap #7-ES001-O


Quality Assurance


Client Services Representative

ACCURA ANALYTICAL LABORATORY, INC.

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NC Certification # 483

SC Certification # 98015

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LABORATORY REPORT

Accura Sample ID #: AB37686

Accura Project #: 15685

Client: Omega Env. Services - Tucker

Date Sampled: 2/18/98

Client Contact: T. SHEPPARD

Date Received: 2/19/98

Client Project Number: CO#DACA 211-97-C-0042

Date Reported: 2/25/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HEAP #7-ES001-X

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 2/19/98

Date Ext/Dig/Prep: 2/19/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	35	25
Ethyl benzene	10,000	500
Toluene	<RDL	25
Xylenes	33,000	500

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 2/24/98

Date Ext/Dig/Prep: 2/23/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	1,700	330
2-Methylnaphthalene	2,000	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	620	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 2/19/98 Date Ext/Dig/Prep: 2/19/98

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/24/98 Date Ext/Dig/Prep: 2/24/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 2/23/98 Date Ext/Dig/Prep: 2/20/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	1.3	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 2/24/98 Date Ext/Dig/Prep: 2/23/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	89	0
Nitrobenzene-d5	85	0
p-Terphenyl-d14	112	0

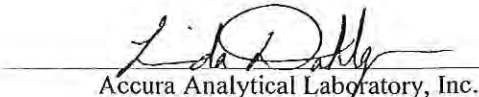
ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 2/19/98 Date Ext/Dig/Prep: 2/19/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	100	0
4-Bromofluorobenzene	104	0
Toluene-d8	107	0


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NC Certification # 483

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USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB37687

Accura Project #: 15685

Client: Omega Env. Services - Tucker

Date Sampled: 2/18/98

Client Contact: T. SHEPPARD

Date Received: 2/19/98

Client Project Number: CO#DACA 211-97-C-0042

Date Reported: 2/25/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HEAP #7-ES001-O

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 2/19/98

Date Ext/Dig/Prep: 2/19/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	1100	500
Ethyl benzene	13,000	500
Toluene	530	500
Xylenes	40,000	500

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 2/24/98

Date Ext/Dig/Prep: 2/23/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	4,200	1600
2-Methylnaphthalene	6,100	1600
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	3,400	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 2/19/98 Date Ext/Dig/Prep: 2/19/98

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/24/98 Date Ext/Dig/Prep: 2/24/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 2/23/98 Date Ext/Dig/Prep: 2/20/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	1.2	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 2/24/98 Date Ext/Dig/Prep: 2/23/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	78	0
Nitrobenzene-d5	79	0
p-Terphenyl-d14	104	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 2/19/98 Date Ext/Dig/Prep: 2/19/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	98	0
4-Bromofluorobenzene	136	0
Toluene-d8	98	0


Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429

NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB37688

Accura Project #: 15685

Client: Omega Env. Services - Tucker

Date Sampled: 2/18/98

Client Contact: T. SHEPPARD

Date Received: 2/19/98

Client Project Number: CO#DACA 211-97-C-0042

Date Reported: 2/25/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: HEAP #7-TB

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 2/19/98

Date Ext/Dig/Prep: 2/19/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,2-Dichloroethene	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5

Toluene	<RDL	5
trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

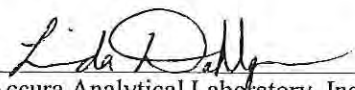
Method Ref: 8260A

Date Analyzed: 2/19/98

Date Ext/Dig/Prep: 2/19/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	96	0
4-Bromofluorobenzene	93	0
Toluene-d8	92	0


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USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB37689

Accura Project #: 15685

Client: Omega Env. Services - Tucker

Date Sampled: 2/18/98

Client Contact: T. SHEPPARD

Date Received: 2/19/98

Client Project Number: CO#DACA 211-97-C-0042

Date Reported: 2/25/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 2/19/98

Date Ext/Dig/Prep: 2/19/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 2/23/98

Date Ext/Dig/Prep: 2/23/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 2/19/98 Date Ext/Dig/Prep: 2/19/98

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 2/24/98 Date Ext/Dig/Prep: 2/24/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 2/23/98 Date Ext/Dig/Prep: 2/20/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 2/23/98 Date Ext/Dig/Prep: 2/23/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	61	0
Nitrobenzene-d5	52	0
p-Terphenyl-d14	105	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 2/19/98 Date Ext/Dig/Prep: 2/19/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	86	0
4-Bromofluorobenzene	102	0
Toluene-d8	97	0


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LABORATORY REPORT

Accura Sample ID #: AB37690

Accura Project #: 15685

Client: Omega Env. Services - Tucker

Date Sampled: 2/18/98

Client Contact: T. SHEPPARD

Date Received: 2/19/98

Client Project Number: CO#DACA 211-97-C-0042

Date Reported: 2/25/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 2/19/98

Date Ext/Dig/Prep: 2/19/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,2-Dichloroethene	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5

Toluene	<RDL	5
trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 2/19/98

Date Ext/Dig/Prep: 2/19/98

Result Units: %

Analyte Name

Analytical Results

Reported Detection Limits

1,2-Dichloroethane-d4
4-Bromofluorobenzene
Toluene-d8

93
97
96

0
0
0


Accura Analytical Laboratory, Inc.

TRANSMITTAL OF SAD LABORATORY REPORT(S)

TO: Commander, Savannah District
US Army Corps of Engineers
ATTN: CESAS-PM-H
Mr. Brent Rose
P.O. Box 889
Savannah, GA 31402-0889

FROM: Director (CESAS-EN-L)
SAD Laboratory
USACE
611 South Cobb Drive
Marietta, GA 30060-3112

PROJECT: Hunter AAF -
Fire Training Area

REQN NO: W33SJG80797577
W.O. NO: 8400

SUBJECT: Analytical Testing Results

1. Enclosed is our report of analytical test results and chain of custody forms for samples collected on 12 February 1998 from Hunter AAF.

2. If you have any questions, please call Mr. Blaise Willis at 770-919-5295 or me at 770-919-3990.

SUBMITTED BY:

SIGNATURE:

DATE:

WILLIAM L. TISON, P. E.
Director, SAD Laboratory



30 Mar 1998

South Atlantic Division Laboratory
U. S. Army Corps of Engineers
611 South Cobb Drive
Marietta, Georgia 30060-3112

District - SAVANNAH
Specimen Received - 98/02/13
Date Reported - 98/03/09 13:28:30

HUNTER ARMY AIRFIELD, GA
Requisition - W33SJG80283594
Work Order - 8379 Job Number - 5474

Lab #	Field ID	Date Sampled	Time Sampled
34918	HEAP #6-ES-001-QA	98/02/12	00:00

Test Performed	Result	Units	Tested By	Test Date
VOLATILE ORGANICS GC/MS	*		SPA	98/02/16
SEMIVOLATILE ORGANICS GC/MS	*		SPA	98/02/18
TRPH	1280.0	MG/KG	SPA	98/02/15
ARSENIC TCLP	< 0.100	PPM	SPA	98/02/18
BARIUM TCLP	< 1.000	PPM	SPA	98/02/18
CADMIUM TCLP	< 0.100	PPM	SPA	98/02/18
CHROMIUM TCLP	< 0.500	PPM	SPA	98/02/18
LEAD TCLP	< 0.500	PPM	SPA	98/02/18
MERCURY TCLP	< 0.0100	PPM	SPA	98/02/17
SELENIUM TCLP	< 0.100	PPM	SPA	98/02/18
SILVER TCLP	< 0.100	PPM	SPA	98/02/18
TCLP EXTRACTION	*		SPA	98/02/14
TOTAL SOLIDS, % OF WET	86.00	%	SPA	98/02/16

*NOTE: See Attached

Sampled by District Personnel

Checked by: JWS

Sheet 1 of 2

Signed by:

Blaise Willis

Blaise Willis
Chemist

Lab # Field ID

34919 HEAP #6-QA-TB

Date Sampled Time Sampled

98/02/12 00:00

Test Performed

VOLATILE ORGANICS GC/MS

Result	Units	Tested By	Test Date
-----	-----	-----	-----
*		SPA	98/02/16

*NOTE: See Attached

Sampled by District Personnel

Checked by: JWS

Sheet 2 of 2

Signed by:

Blaise Willis

Blaise Willis
Chemist

Army Corps of Engineers

Work Order #

Job #

Chain of Custody Reco

(ER 1110-1-263)

Hunter Army Airfield

Project Name Hunter Fire Training Area

Contract No. DACA 21-977-C-0042

Order: (Signature)

[Signature]

2/12/98
The 257-1606

Time Pres. Gr Cm Site Code/Sample Number

No. of Conts.

PTX-8260

PAH-8270

TCLP-metals

TPH-418.1

VOC-8260

TAT

Remarks:

[Signature]

SAD NO.

MATRIX

2/12/98

Heq #6-ES-001-QA

2

✓

✓

✓

✓

Heq #6-QA-TB

2

✓

✓

✓

✓

✓

Sampler Relinquisher by:

[Signature]

Date/Time

2/12/98

Received by: (Sig.)

[Signature]

Date/Time

2/13/98

Relinquished by: (Sig.)

Date/Time

Received by: (Sig.)

Date/Time

Relinquished by: (Sig.)

Date/Time

Received for Laboratory by: (Sig.)

Date/Time

Custody Seal N

Lab Case No.

Hazards Associated with Samples

Remarks at time of receipt.

Propor. t: CEMP-

Cooler Receipt Form

Job # 5474No. of Coolers 1

Return Cooler _____

Project: Hunter Army AirfieldDate Received: 2/13/98Date cooler opened: 2/13/98 by (print) B. Serbin
(sign) B. Sz1. Did cooler come with a shipping slip?
If yes, enter carrier & air bill number here: FE 801466199413☒ Yes ☐ No2. Were custody seals on outside of cooler:
How many & where: _____ seal date: _____ seal name: _____☒ Yes ☐ No

3. Were custody seals unbroken upon receipt?

☐ Yes ☐ No

4. Did you screen samples for radioactivity?

☒ Yes ☐ No

5. Were custody papers sealed in a plastic bag & taped to inside lid?

☒ Yes ☐ No

6. Were custody papers filled out properly (ink, signed, etc.)?

☒ Yes ☐ No

7. Did you sign custody papers in the appropriate place?

☒ Yes ☐ No8. Was project identifiable from custody papers? If yes enter project name
at the top of this form.☒ Yes ☐ No9. If required, was enough ice used? Yes Type: _____☐ Yes ☐ NoDate logged-in: 2/13/98 by (print) B. Serbin
(sign) B. Sz1. Describe cooler packing: bubble wrap☒ Yes ☐ No

2. Were all bottles sealed in separate plastic bags?

☒ Yes ☐ No

3. Did all bottles arrive unbroken & labels in good condition?

☒ Yes ☐ No

4. Were all bottle labels complete (ID, date, time, signature, pres., etc.)

☒ Yes ☐ No

5. Were all bottle labels agree with custody papers?

☒ Yes ☐ No

6. Were correct containers used for the tests indicated?

☒ Yes ☐ No

7. Were correct preservatives added to samples?

☒ Yes ☐ No

8. Was a sufficient amount of sample sent for tests?

☒ Yes ☐ No

9. Were bubbles absent in Volatile samples? If no, list Field ID: _____

☒ Yes ☐ No10. Number of days from sample date when received in the lab 111. Was project manager called & status discussed?
If yes, give details on the bottom of this form.

Who was called? _____ By whom? _____ Date: _____



SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

DIRECTOR, U.S. ARMY CORPS ENG. 5394
CESAD LABORATORY
511 SOUTH COBB DRIVE
MARIETTA, GA 30060-3172

Sample Location: 34918 HEAP #6-ES-001-GA Lab Number: 98-A15001
HUNTER ARMY AIRFIELD

Sampler: BOBBI THORN

Date Collected: 2/12/98

Date Received: 2/14/98

Time Collected:

Time Received: 9:00

Sample type: Soil

Physics Reference Data

QA Blank	UB0214
W Blank	212009BB
Cal Tune, VOA	3FB0216
C/MS Tune, BNA	DF0217B
Calibration Check, VOA	VS0216
Calibration Check, BNA	CC0217B

Percent solids: 56.

VOLATILE ORGANICS

Analyte	Result	Flag	DF	Units	Date	Time	Analyst	Method
Benzene	2.33	U	1	ug/kg	2/16/98	17:47	G. Norton	8260B
Ethylbenzene	11.3		1	ug/kg	2/16/98	17:47	G. Norton	8260B
Toluene	2.33	U	1	ug/kg	2/16/98	17:47	G. Norton	8260B
Xylenes	2.33	U	1	ug/kg	2/16/98	17:47	G. Norton	8260B

SEMI-VOLATILE ORGANICS and PESTICIDE/PCB's

Analyte	Result	Flag	DF	Units	Date	Time	Analyst	Method
Chalene	192.		1	ug/kg	2/18/98	7:42	Cornelius	8270
Acenaphthene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Anthracene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Fluoranthene	192.		1	ug/kg	2/18/98	7:42	Cornelius	8270
Pyrene	192.		1	ug/kg	2/18/98	7:42	Cornelius	8270
Benzo[a]pyrene	192.		1	ug/kg	2/18/98	7:42	Cornelius	8270



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ANALYTICAL REPORT

Laboratory Number: 98-A15001
Sample ID: 34918 HEAP #6-ES-001-QA

Page 2

SEMIVOLATILE ORGANICS and PESTICIDE/PCB's

Analyte	Result	Flag	OF	Units	Date	Time	Analyst	Method
Benzo(a)anthracene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Benzo(a)pyrene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Benzo(b)fluoranthene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Benzo(k)fluoranthene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Chrysene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Dibenzo(a,h)anthracene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Indeno(1,2,3-cd)pyrene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Acenaphthylene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Benzo(g,h,i)perylene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
Phenanthrene	192.	U	1	ug/kg	2/18/98	7:42	Cornelius	8270
1-Methylnapthalene	491.		1	ug/kg	2/18/98	7:42	Cornelius	8270
2-Methylnapthalene	492.		1	ug/kg	2/18/98	7:42	Cornelius	8270
Extraction, BNA's	Completed			ug/kg	2/14/98	15:46	A. Bufalino	3550

UNDERGROUND STORAGE TANK RESULTS

Analyte	Result	Units	PQL	Dil Factor	Date	Time	Analyst	Method
Petroleum Hydrocarbons	1280	mg/kg	11.6	1	2/15/98	14:28	Fitzwater	418.1

TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
Arsenic	< 0.10	mg/l	5.0	102	2/18/98	6010B
Barium	< 1.00	mg/l	100	93	2/18/98	6010B
Cadmium	< 0.10	mg/l	1.0	97	2/18/98	6010B
Chromium	< 0.50	mg/l	5.0	92	2/18/98	6010B
Lead	< 0.50	mg/l	5.0	97	2/18/98	6010B
Mercury	< 0.010	mg/l	0.20	96	2/17/98	7470A
Selenium	< 0.10	mg/l	1.0	108	2/18/98	6010B
Silver	< 0.10	mg/l	5.0	98	2/18/98	6010B
TCLP Extraction	Completed				2/14/98	1311



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ANALYTICAL REPORT

Laboratory Number: 98-A15001

Sample ID: 34918 HEAP #6-ES-001-QA

Page 3

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Analyst	Method
BHA's	30.0 gm	1.0 ml	2/14/98	A. Bufalino	3530

Surrogate	% Recovery	Target Range
VQA Surrogate, 1,2-Dichloroethane, d4	93.6	62. - 147.
VQA Surrogate, Toluene d8	91.0	84. - 117.
VQA Surrogate, 4-Bromofluorobenzene	111.	64. - 126.
VQA Surrogate, Dibromofluoromethane	105.	77. - 118.
BHA Surr., Nitrobenzene-d5	73.8	23. - 120.
QA Surr., 2-Fluorobiphenyl	67.4	30. - 115.
QA Surrogate, Terphenyl d14	83.4	18. - 140.

Report Approved By:

Michael H. Dunn

Report Date: 3/ 3/98

Theodore J. Duello, Ph.D., Q.A. Officer
Michael H. Dunn, M.S., Technical Director
Danny B. Hale, M.S., Laboratory Director

[illegible]

ACCURA ANALYTICAL LABORATORY, INC.
6017 Financial Drive, Norcross, Georgia, 30071, Phone (770)449-8800

CASE NARRATIVE for Project Number: 15427
Client Project: Hunter Fire Training Area / CO# DACA21-97-C-0042

The following item was noted concerning this project:

1. The following samples required dilution due to high analyte concentration and/or matrix interference, resulting in elevated detection limits:

PAH - SW-846-8270B

HP#2-ES-001-QA

HP#3-ES-001-QA

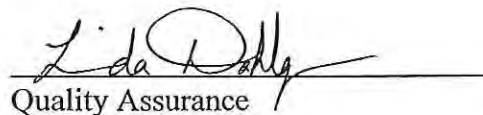
HP#4-ES-001-QA

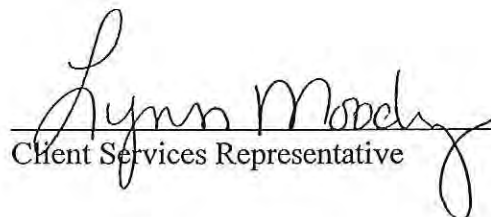
BTEX - SW-846-8260A

HP#2-ES-001-QA

HP#3-ES-001-QA

HP#4-ES-001-QA


Quality Assurance


Client Services Representative

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429

NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB35677

Accura Project #: 15427

Client: Omega Env. Services - Tucker

Date Sampled: 1/20/98

Client Contact: T. SHEPPARD

Date Received: 1/23/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/3/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HP#2-ES-001-QA

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	520	500
Ethyl benzene	3,200	500
Toluene	2,100	500
Xylenes	28,000	500

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/29/98

Date Ext/Dig/Prep: 1/27/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	3300
2-Methylnaphthalene	4,200	3300
Acenaphthene	<RDL	3300
Acenaphthylene	<RDL	3300
Anthracene	<RDL	3300
Benzo(a)anthracene	<RDL	3300
Benzo(a)pyrene	<RDL	3300
Benzo(b)fluoranthene	<RDL	3300
Benzo(g,h,i)perylene	<RDL	3300
Benzo(k)fluoranthene	<RDL	3300
Chrysene	<RDL	3300
Dibenzo(a,h)anthracene	<RDL	3300
Fluoranthene	<RDL	3300
Fluorene	<RDL	3300
Indeno(1,2,3-cd)pyrene	<RDL	3300
Naphthalene	<RDL	3300
Phenanthrene	<RDL	3300
Pyrene	<RDL	3300

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/27/98 Date Ext/Dig/Prep: 1/27/98

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/28/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	1.2	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/27/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	111	0
Nitrobenzene-d5	100	0
p-Terphenyl-d14	93	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	93	0
4-Bromofluorobenzene	110	0
Toluene-d8	98	0


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NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB35678

Accura Project #: 15427

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/23/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/2/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HP#3-ES-001-QA

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	500
Ethyl benzene	<RDL	500
Toluene	<RDL	500
Xylenes	9,000	500

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/29/98

Date Ext/Dig/Prep: 1/27/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	<RDL	3300
2-Methylnaphthalene	3,600	3300
Acenaphthene	<RDL	3300
Acenaphthylene	<RDL	3300
Anthracene	<RDL	3300
Benzo(a)anthracene	<RDL	3300
Benzo(a)pyrene	<RDL	3300
Benzo(b)fluoranthene	<RDL	3300
Benzo(g,h,i)perylene	<RDL	3300
Benzo(k)fluoranthene	<RDL	3300
Chrysene	<RDL	3300
Dibenzo(a,h)anthracene	<RDL	3300
Fluoranthene	<RDL	3300
Fluorene	<RDL	3300
Indeno(1,2,3-cd)pyrene	<RDL	3300
Naphthalene	<RDL	3300
Phenanthrene	<RDL	3300
Pyrene	<RDL	3300

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/27/98 Date Ext/Dig/Prep: 1/27/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/28/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	1.0	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/27/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	107	0
Nitrobenzene-d5	89	0
p-Terphenyl-d14	97	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	93	0
4-Bromofluorobenzene	108	0
Toluene-d8	95	0


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SC Certification # 98015

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LABORATORY REPORT

Accura Sample ID #: AB35679

Accura Project #: 15427

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/23/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/3/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: HP#4-ES-001-QA

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	500
Ethyl benzene	1,400	500
Toluene	1,900	500
Xylenes	31,000	500

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/29/98

Date Ext/Dig/Prep: 1/27/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1-Methylnaphthalene	3,700	3300
2-Methylnaphthalene	4,600	3300
Acenaphthene	<RDL	3300
Acenaphthylene	<RDL	3300
Anthracene	<RDL	3300
Benzo(a)anthracene	<RDL	3300
Benzo(a)pyrene	<RDL	3300
Benzo(b)fluoranthene	<RDL	3300
Benzo(g,h,i)perylene	<RDL	3300
Benzo(k)fluoranthene	<RDL	3300
Chrysene	<RDL	3300
Dibenzo(a,h)anthracene	<RDL	3300
Fluoranthene	<RDL	3300
Fluorene	<RDL	3300
Indeno(1,2,3-cd)pyrene	<RDL	3300
Naphthalene	<RDL	3300
Phenanthrene	<RDL	3300
Pyrene	<RDL	3300

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/27/98 Date Ext/Dig/Prep: 1/27/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/28/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	1.1	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/29/98 Date Ext/Dig/Prep: 1/27/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	94	0
Nitrobenzene-d5	100	0
p-Terphenyl-d14	88	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	96	0
4-Bromofluorobenzene	115	0
Toluene-d8	101	0


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LABORATORY REPORT

Accura Sample ID #: AB35680

Accura Project #: 15427

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/23/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/2/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: HP#2,3,4-QA-TB

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/27/98

Date Ext/Dig/Prep: 1/27/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

Method Ref: 8260A

Date Analyzed: 1/27/98

Date Ext/Dig/Prep: 1/27/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	96	0
4-Bromofluorobenzene	99	0
Toluene-d8	98	0


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LABORATORY REPORT

Accura Sample ID #: AB35681

Accura Project #: 15427

Client: Omega Env. Services - Tucker

Date Sampled: 1/20/98

Client Contact: T. SHEPPARD

Date Received: 1/23/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/2/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8260A

Date Analyzed: 1/26/98

Date Ext/Dig/Prep: 1/26/98

Result Units: ug/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: PAH's

Method Ref: 3550A/8270B

Date Analyzed: 1/27/98

Date Ext/Dig/Prep: 1/27/98

Result Units: ug/Kg

Analyte Name

Analytical Results

Reported Detection Limits

1-Methylnaphthalene	<RDL	330
2-Methylnaphthalene	<RDL	330
Acenaphthene	<RDL	330
Acenaphthylene	<RDL	330
Anthracene	<RDL	330
Benzo(a)anthracene	<RDL	330
Benzo(a)pyrene	<RDL	330
Benzo(b)fluoranthene	<RDL	330
Benzo(g,h,i)perylene	<RDL	330
Benzo(k)fluoranthene	<RDL	330
Chrysene	<RDL	330
Dibenzo(a,h)anthracene	<RDL	330
Fluoranthene	<RDL	330
Fluorene	<RDL	330
Indeno(1,2,3-cd)pyrene	<RDL	330
Naphthalene	<RDL	330
Phenanthrene	<RDL	330
Pyrene	<RDL	330

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 1/27/98 Date Ext/Dig/Prep: 1/27/98 Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/30/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010A

Date Analyzed: 1/30/98 Date Ext/Dig/Prep: 1/28/98 Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	<RDL	1
Barium (Reg Limit = 100.0)	<RDL	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1

ANALYSIS: X PAH/BN QC Surrogates (Soils)

Method Ref: 3550A/8270B

Date Analyzed: 1/27/98 Date Ext/Dig/Prep: 1/27/98 Result Units: %

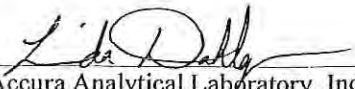
<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
2-Fluorobiphenyl	90	0
Nitrobenzene-d5	70	0
p-Terphenyl-d14	92	0

ANALYSIS: X VOC QC Surrogates (Soils)

Method Ref: 8260A

Date Analyzed: 1/26/98 Date Ext/Dig/Prep: 1/26/98 Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	94	0
4-Bromofluorobenzene	101	0
Toluene-d8	103	0


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LABORATORY REPORT

Accura Sample ID #: AB35682

Accura Project #: 15427

Client: Omega Env. Services - Tucker

Date Sampled: 1/21/98

Client Contact: T. SHEPPARD

Date Received: 1/23/98

Client Project Number: CO#DACA21-97-C-0042

Date Reported: 2/2/98

Client Project Name: HUNTER FIRE TRAINING AREA

Sample Matrix: WATER

Client Sample ID: METHOD BLANK

ANALYSIS: VOC's

Method Ref: 5030A/8260A

Date Analyzed: 1/27/98

Date Ext/Dig/Prep: 1/27/98

Result Units: ug/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,1,1-Trichloroethane	<RDL	5
1,1,2,2-Tetrachloroethane	<RDL	5
1,1,2-Trichloroethane	<RDL	5
1,1-Dichloroethane	<RDL	5
1,1-Dichloroethene	<RDL	5
1,2-Dichlorobenzene	<RDL	5
1,2-Dichloroethane	<RDL	5
1,2-Dichloropropane	<RDL	5
1,3-Dichlorobenzene	<RDL	5
1,4-Dichlorobenzene	<RDL	5
2-Butanone (MEK)	<RDL	50
2-Chloroethylvinyl ether	<RDL	10
2-Hexanone	<RDL	50
4-Methyl-2-pentanone (MIBK)	<RDL	50
Acetone	<RDL	50
Benzene	<RDL	5
Bromodichloromethane	<RDL	5
Bromoform	<RDL	5
Bromomethane	<RDL	5
Carbon disulfide	<RDL	5
Carbon tetrachloride	<RDL	5
Chlorobenzene	<RDL	5
Chloroethane	<RDL	5
Chloroform	<RDL	5
Chloromethane	<RDL	5
cis-1,3-Dichloropropene	<RDL	5
Dibromochloromethane	<RDL	5
Ethylbenzene	<RDL	5
Methylene chloride	<RDL	5
Styrene	<RDL	5
Tetrachloroethene	<RDL	5
Toluene	<RDL	5

trans-1,2-Dichloroethene	<RDL	5
trans-1,3-Dichloropropene	<RDL	5
Trichloroethene	<RDL	5
Trichlorofluoromethane	<RDL	5
Vinyl acetate	<RDL	100
Vinyl chloride	<RDL	2
Xylenes (Total)	<RDL	5

ANALYSIS: X VOC QC Surrogates (Waters)

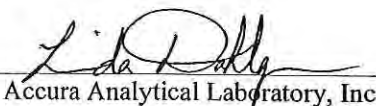
Method Ref: 8260A

Date Analyzed: 1/27/98

Date Ext/Dig/Prep: 1/27/98

Result Units: %

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
1,2-Dichloroethane-d4	92	0
4-Bromofluorobenzene	105	0
Toluene-d8	98	0


Accura Analytical Laboratory, Inc.

TRANSMITTAL OF SAD LABORATORY REPORT(S)

TO: Commander, Savannah District
US Army Corps of Engineers
ATTN: CESAS-PM-H
Mr. Brent Rose
P.O. Box 889
Savannah, GA 31402-0889

FROM: Director (CESAS-EN-L)
SAD Laboratory
USACE
611 South Cobb Drive
Marietta, GA 30060-3112

PROJECT: Hunter AAF -
Fire Training Area

REQN NO: W33SJG80797577
W.O. NO: 8400

SUBJECT: Analytical Testing Results

1. Enclosed is our report of analytical test results and chain of custody forms for samples collected on 29 January 1998 from Hunter AAF.
2. If you have any questions, please call Mr. Blaise Willis at 770-919-5295 or me at 770-919-3990.

SUBMITTED BY:

SIGNATURE:

DATE:

WILLIAM L. TISON, P. E.
Director, SAD Laboratory



30 Mar 1998

South Atlantic Division Laboratory
U. S. Army Corps of Engineers
611 South Cobb Drive
Marietta, Georgia 30060-3112

strict - SAVANNAH
Date Received - 98/01/30
Date Reported - 98/02/19 09:53:07

HUNTER ARMY AIRFIELD, GA
Requisition - W33SJG70930225
Work Order - 8211 Job Number - 5433

Lab #	Field ID	Date Sampled	Time Sampled	Tested By	Test Date
34777	106T-002-SWW-QA	98/01/29	00:00		
Test Performed		Result	Units		
VOLATILE ORGANICS GC/MS		*		SPA	98/02/05
SEMIVOLATILE ORGANICS GC/MS		*		SPA	98/02/03

*NOTE: See Attached

Sampled by District Personnel

Checked by: JW

Signed by:

Blaise Willis

Blaise Willis
Chemist

Sheet 1 of 3

Lab # Field ID

34778 106-SWW-QA-TB

Date Sampled Time Sampled

98/01/29 00:00

Test Performed

VOLATILE ORGANICS GC/MS

Result	Units	Tested By	Test Date
-----	-----	-----	-----
*		SPA	98/02/05

*NOTE: See Attached

Sampled by District Personnel

Checked by: JW

Signed by:

Blaise Willis

Blaise Willis
Chemist

Sheet 2 of 3

Lab # Field ID

34779 HEAP#5-ES001-QA

Date Sampled Time Sampled

98/01/29 00:00

Test Performed	Result	Units	Tested By	Test Date
-----	-----	-----	-----	-----
VOLATILE ORGANICS GC/MS	*		SPA	98/02/03
SEMIVOLATILE ORGANICS GC/MS	*		SPA	98/02/05
TRPH	20200.0	MG/KG	SPA	98/02/04
TOTAL SOLIDS, % OF WET	90.00	%	SPA	98/02/05
ARSENIC TCLP	< 0.100	PPM	SPA	98/02/06
BARIUM TCLP	< 1.000	PPM	SPA	98/02/06
CADMIUM TCLP	< 0.100	PPM	SPA	98/02/06
CHROMIUM TCLP	< 0.500	PPM	SPA	98/02/06
LEAD TCLP	< 0.500	PPM	SPA	98/02/06
MERCURY TCLP	< 0.0100	PPM	SPA	98/02/04
SELENIUM TCLP	< 0.100	PPM	SPA	98/02/06
SILVER TCLP	< 0.100	PPM	SPA	98/02/06
TCLP EXTRACTION	*		SPA	98/02/02

*NOTE: See Attached

Sampled by District Personnel

Signed by:

Checked by: WLS

Blaise Willis

Blaise Willis
Chemist

Proj. No.

Project Name : Hunter Army Five Training Area
Contract No. DAC1421-87-C-0042

Sampler: (Signature)

Alfred Davis 912-757-1606

TAT _____

Remarks:

SAD NO.

MATRIX

[illegible]

Hazards Associated with Samples

Sampler

Chlorine

Date/Time

Received by: (Sig.)

Date/Time
1/2/2016 1:10:10 PM

Relinquished by: (Sig.)

Date/Time

Received by: (Sig.)

Date/Time

Relinquished by: (Sig.)

Date/Time

Received for
Laboratory by: (Sig.)

Date/Time

Remarks at time of receipt.

Custody Seal No.

Lab Case No.

Cooler Receipt Form

Job # 5433No. of Coolers 1Return Cooler Project: HunterDate Received: 11/30/98Date cooler opened: 11/30/98 by (print) B. Serbin
(sign) B. Serbin1. Did cooler come with a shipping slip?
If yes, enter carrier & air bill number here: FE 801466199398Yes ☒ No2. Were custody seals on outside of cooler:
How many & where: seal date: seal name: Yes ☒ No

3. Were custody seals unbroken upon receipt?

Yes No

4. Did you screen samples for radioactivity?

Yes ☒ No

5. Were custody papers sealed in a plastic bag & taped to inside lid?

Yes ☒ No

6. Were custody papers filled out properly (ink, signed, etc.)?

Yes ☒ No

7. Did you sign custody papers in the appropriate place?

Yes ☒ No8. Was project identifiable from custody papers? If yes enter project name
at the top of this form.Yes ☒ No9. If required, was enough ice used: 4³ Type:

Yes No

Date logged-in: 11/30/98 by (print) B. Serbin
(sign) B. Serbin1. Describe cooler packing: bubble wrapYes ☒ No

2. Were all bottles sealed in separate plastic bags?

Yes ☒ No

3. Did all bottles arrive unbroken & labels in good condition?

Yes ☒ No

4. Were all bottle labels complete (ID, date, time, signature, pres., etc.)

Yes ☒ No

5. Were all bottle labels agree with custody papers?

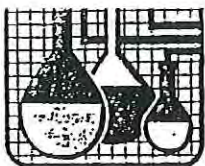
Yes ☒ No6. Were correct containers used for the tests indicated? needed septa lid for soil
BTEXYes ☒ No

7. Were correct preservatives added to samples?

Yes ☒ No

8. Was a sufficient amount of sample sent for tests?

Yes ☒ No9. Were bubbles absent in Volatile samples? If no, list Field ID: Yes ☒ No10. Number of days from sample date when received in the lab 1Yes ☒ No11. Was project manager called & status discussed?
If yes, give details on the bottom of this form.Who was called? By whom? Date:



2960 Foster Creighton Dr.
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Phone 1-615-726-0177

ANALYTICAL REPORT

DIRECTOR U.S. ARMY CORPS ENG. 5374
CESAD LABORATORY
611 SOUTH COBB DRIVE
MARIETTA, GA 30060-3172

Sample Location: 34777 106T-002-SWW-QA Lab Number: 98-A010070
HUNTER ARMY AIRFIELD

Date Collected: 1/29/98

Date Received: 1/31/98

Time Collected:

Time Received: 8:30

Sampler: BOBBI THORN

Sample type: Water

Organics Reference Data

VOA Blank	VB0205
Blank	20346WBB
GC Tune, VOA	BFB0205
GC/MS Tune, BNA	DF0203
Calibration Check, VOA	VS0205
Calibration Check, BNA	CC0203

VOLATILE ORGANICS

Analyte	Result	Flag	DF	Units	Date	Time	Analyst	Method
Benzene	384.		10	ug/l	2/11/98	10:47	J. Haley	8260B
Ethylbenzene	19.0		1	ug/l	2/ 5/98	20:28	J. Haley	8260B
Toluene	323.		10	ug/l	2/11/98	10:47	J. Haley	8260B
Xylenes	201.		1	ug/l	2/ 5/98	20:28	J. Haley	8260B

SEMIVOLATILE ORGANICS and PESTICIDE/PCB's

Analyte	Result	Flag	DF	Units	Date	Time	Analyst	Method
Naphthalene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Acenaphthene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Anthracene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Fluorene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Pyrene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Benzo(a)anthracene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Benzo(a)pyrene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Benzo(b)fluoranthene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270



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ANALYTICAL REPORT

Laboratory Number: 98-A010070
Sample ID: 34777 106T-002-SWW-QA

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SEMIVOLATILE ORGANICS and PESTICIDE/PCB's

Analyte	Result	Flag	DF	Units	Date	Time	Analyst	Method
Benzo(k)fluoranthene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Chrysene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Dibenzo(a,h)anthracene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Indeno(1,2,3-cd)pyrene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Acenaphthylene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Benzo(g,h,i)perylene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
Phenanthrene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
1-Methylnapthalene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270
2-Methylnapthalene	5.00	U	1	ug/l	2/ 3/98	23:32	Cornelius	8270

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Analyst	Method
BNA's	990. ml	1.0 ml	2/ 3/98	A. DuFalino	3510

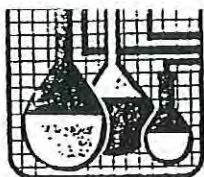
Surrogate	% Recovery	Target Range
VDA Surrogate, 1,2-Dichloroethane, d4	94.9	70. - 131.
VDA Surrogate, Toluene d8	103.	83. - 115.
VDA Surrogate, 4-Bromofluorobenzene	93.9	73. - 119.
VDA Surrogate, Dibromofluoromethane	95.2	72. - 130.
BNA Surr., Nitrobenzene-d5	62.4	35. - 115.
BNA Surrogate, 2-Fluorobiphenyl	49.3	43. - 116.
BNA Surrogate, Terphenyl d14	21.4	20. - 130.

Report Approved By:

Michael H. Dunn

Report Date: 2/17/98

Theodore J. Duello, Ph.D., Q.A. Officer
Michael H. Dunn, M.S., Technical Director
Danny B. Hale, M.S., Laboratory Director



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ANALYTICAL REPORT

DIRECTOR U.S. ARMY CORPS ENG. 5394
CESAD LABORATORY
611 SOUTH COBB DRIVE
MARIETTA, GA 30060-3172

Sample Location: 3477B 106-SWW-QA-TB
HUNTER ARMY AIRFIELD

Lab Number: 98-A010071

Date Collected: 1/29/98

Date Received: 1/31/98

Time Collected:

Time Received: 8:30

Sampler: BOBBY THORN

Sample type: Water

Organics Reference Data

VOA Blank
Tune, VOA
Calibration Check, VOA

VB0211
BFB0211
VS0211

VOLATILE ORGANICS

Analyte	Result	Flag	DF	Units	Date	Time	Analyst	Metho
Acetone	10.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Benzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Bromobenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Bromochloromethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Bromoform	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Bromomethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
2-Butanone	10.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
n-Butylbenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
sec-Butylbenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
t-Butylbenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Carbon disulfide	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Carbon tetrachloride	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Chlorobenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Chloroethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
2-Chloroethylvinylether	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Chloroform	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Bromomethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Chlorotoluene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
4-Chlorotoluene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,2-Dibromo-3-chloropropane	10.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Dibromochloromethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,2-Dibromoethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Bromomethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B



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ANALYTICAL REPORT

Laboratory Number: 98-A010071
Sample ID: 34778 106-SWW-GA-TB

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VOLATILE ORGANICS

Analyte	Result	Flag	DF	Units	Date	Time	Analyst	Method
1,2-Dichlorobenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,3-Dichlorobenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,4-Dichlorobenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Dichlorodifluoromethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,1-Dichloroethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,2-Dichloroethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,1-Dichloroethene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
cis-1,2-Dichloroethene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
trans-1,2-Dichloroethene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,2-Dichloropropane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,3-Dichloropropane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
2,2-Dichloropropane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,1-Dichloropropene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
trans-1,3-Dichloropropene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Ethylbenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Hexachlorobutadiene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
2-Hexanone	10.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Isopropylbenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
4-Isopropyltoluene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
4-Methyl-2-pentanone	10.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Methylene chloride	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Naphthalene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
n-Propylbenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Styrene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,1,1,2-Tetrachloroethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,1,2,2-Tetrachloroethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Tetrachloroethene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Toluene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,2,3-Trichlorobenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,2,4-Trichlorobenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,1,1-Trichloroethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,1,2-Trichloroethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Trichloroethene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,2,3-Trichloropropane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,2,4-Trimethylbenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
1,3,5-Trimethylbenzene	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Nyl chloride	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Alkenes	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Bromodichloromethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B
Trichlorofluoromethane	2.0	U	1	ug/l	2/ 5/98	21:05	J. Haley	8260B



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ANALYTICAL REPORT

Laboratory Number: 98-A010071
Sample ID: 34778 106-SWW-QA-TB

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<u>Surrogate</u>	<u>% Recovery</u>	<u>Target Range</u>
VQA Surrogate, 1,2-Dichloroethane, d4	99.2	70. - 131.
VQA Surrogate, Toluene d8	99.4	83. - 115.
VQA Surrogate, 4-Bromofluorobenzene	96.7	73. - 119.
VQA Surrogate, Dibromofluoromethane	98.2	72. - 130.

Report Approved By: Michael H. Dunn Report Date: 2/17/98

Theodore J. Duello, Ph.D., Q.A. Officer
Michael H. Dunn, M.S., Technical Director
Danny B. Hale, M.S., Laboratory Director



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ANALYTICAL REPORT

DIRECTOR U.S. ARMY CORPS ENG. 5394
CESAD LABORATORY
611 SOUTH COBB DRIVE
MARIETTA, GA 30060-3172

Sample Location: 34779 HEAP#5-ES001-QA Lab Number: 98-A010072
HUNTER ARMY AIRFIELD

Sampler: BOBBI THORN

Date Collected: 1/29/98

Date Received: 1/31/98

Time Collected:

Time Received: 8:30

Sample type: Soil

Organics Reference Data

VOA Blank	VR0203
Blank	203815BB
MS Tune, VOA	BFR0203
GC/MS Tune, BNA	DF0205
Calibration Check, VOA	VS0203
Calibration Check, BNA	CC0205

Percent solids: 90.

VOLATILE ORGANICS

Analyte	Result	Flag	DF	Units	Date	Time	Analyst	Method
Benzene	278.	U	125	ug/kg	2/ 3/98	20:02	G. Norton	8260B
Ethylbenzene	278.	U	125	ug/kg	2/ 3/98	20:02	G. Norton	8260B
Toluene	278.	U	125	ug/kg	2/ 3/98	20:02	G. Norton	8260B
Xylenes	278.	U	125	ug/kg	2/ 3/98	20:02	G. Norton	8260B

SEMIVOLATILE ORGANICS and PESTICIDE/PCB's

Analyte	Result	Flag	DF	Units	Date	Time	Analyst	Method
Phthalene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Acenaphthene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Anthracene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Fluoranthene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Fluorene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Pyrene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270



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ANALYTICAL REPORT

Laboratory Number: 98-A010072

Sample ID: 34779 HEAP#5-ES001-QA

Page 2

SEMIVOLATILE ORGANICS and PESTICIDE/PCB's

Analyte	Result	Flag	DF	Units	Date	Time	Analyst	Method
Benzo(a)anthracene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Benzo(a)pyrene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Benzo(b)fluoranthene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Benzo(k)fluoranthene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Chrysene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Dibenzo(a,h)anthracene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Indeno(1,2,3-cd)pyrene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Acenaphthylene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Benzo(g,h,i)perylene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Phenanthrene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
1-Methylnapthalene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
2-Methylnapthalene	1830	U	10	ug/kg	2/ 5/98	18:51	M. Goodrich	8270
Function, BNA's	Completed			ug/kg	2/ 3/98	14:21	A. Bufalino	3550

UNDERGROUND STORAGE TANK RESULTS

Analyte	Result	Units	PQL	Dil Factor	Date	Time	Analyst	Method
Petroleum Hydrocarbons	20200	mg/kg	11.1	1	2/ 4/98	14:53	Ciesielski	418.1M

TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
Arsenic	< 0.10	mg/l	5.0	111	2/ 6/98	6010B
Barium	< 1.00	mg/l	100	98	2/ 6/98	6010B
Cadmium	< 0.10	mg/l	1.0	107	2/ 6/98	6010B
Chromium	< 0.50	mg/l	5.0	101	2/ 6/98	6010B
Lead	< 0.50	mg/l	5.0	105	2/ 6/98	6010B
Mercury	< 0.010	mg/l	0.20	112	2/ 4/98	7470A
Selenium	< 0.10	mg/l	1.0	117	2/ 6/98	6010B
Silver	< 0.10	mg/l	5.0	94	2/ 6/98	6010B
Extraction	Completed				2/ 2/98	1311



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ANALYTICAL REPORT

Laboratory Number: 98-A010072
Sample ID: 34779 HEAP#5-ES001-QA

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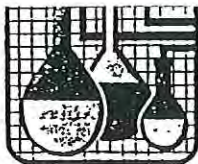
Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Analyst	Method
DNA's	30.0 gm	1.0 ml	2/ 3/98	A. Bufalino	3550

Surrogate	% Recovery	Target Range
VDA Surrogate, 1,2-Dichloroethane, d4	101.	62. - 147.
VDA Surrogate, Toluene d8	104.	84. - 117.
VDA Surrogate, 4-Fluorobenzene	86.7	64. - 126.
VDA Surrogate, Dibromofluoromethane	92.8	77. - 118.

Report Approved By: Michael A. Dunn Report Date: 2/17/98

Theodore J. Duello, Ph.D., Q.A. Officer
Michael H. Dunn, M.S., Technical Director
Danny B. Hale, M.S., Laboratory Director



2960 Foster Creighton Dr.
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Nashville, TN 37204-0566
Phone 1-615-726-0177

PROJECT QUALITY CONTROL DATA

DIRECTOR U.S. ARMY CORPS ENG. 5394

Report Number: 98-A010073

Sample I.D.: METHOD BLANK

Lab Project: 90627

Project: 303736 CALL#0672

Date Received: 1/31/98

** Organics Spike/Duplicate Results **

Compound	%Recovery	Target Range	Precision RPD	Target Range
1,1-Dichloroethene	140.	61 - 145	2.0	0 - 14
Trichloroethene	115.	71 - 120	11.0	0 - 14
Benzene	119.	76 - 127	10.0	0 - 11
Trichloroethene	120.	76 - 125	10.0	0 - 13
Chlorobenzene	105.	75 - 130	1.0	0 - 13
Phenol	77.	12 - 116	4.6	0 - 42
2-Chlorophenol	84.	48 - 121	3.9	0 - 40
1,4-Dichlorobenzene	79.	23 - 116	0.4	0 - 28
N-Nitroso-di-n-propylamine	107.	38 - 148	4.8	0 - 38
1,2,4-Trichlorobenzene	89.	27 - 121	7.0	0 - 28
4-Chloro-3-methylphenol	83.	50 - 124	2.1	0 - 42
Acenaphthene	85.	49 - 119	0.8	0 - 31
4-Nitrophenol	76.	24 - 127	2.2	0 - 50
2,4-Dinitrotoluene	72.	46 - 147	1.9	0 - 38
Pentachlorophenol	70.	26 - 137	2.6	0 - 50
Pyrene	86.	32 - 132	1.6	0 - 31

** Volatile Organics Method Blank Results ***

Compound	Result	Flag	Units	Method
Acetone	10.0	U	ug/l	8260B
Benzene	2.0	U	ug/l	8260B
Bromobenzene	2.0	U	ug/l	8260B
Bromochloromethane	2.0	U	ug/l	8260B
Bromoform	2.0	U	ug/l	8260B
Bromomethane	2.0	U	ug/l	8260B
2-Butanone	10.0	U	ug/l	8260B
n-Butylbenzene	2.0	U	ug/l	8260B
sec-Butylbenzene	2.0	U	ug/l	8260B
t-Butylbenzene	2.0	U	ug/l	8260B
Carbon disulfide	2.0	U	ug/l	8260B
Carbon tetrachloride	2.0	U	ug/l	8260B



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Report Number: 98-A010073

Sample I.D.: METHOD BLANK

Lab Project: 90627

Project: 303736 CALL#0672

Date Received: 1/31/98

** Volatile Organics Method Blank Results ***

Compound	Result	Flag	Units	Method
Chlorobenzene	2.0	U	ug/l	8260B
Chloroethane	2.0	U	ug/l	8260B
2-Chloroethylvinylether	2.0	U	ug/l	8260B
Chloroform	2.0	U	ug/l	8260B
Chloromethane	2.0	U	ug/l	8260B
Chlorotoluene	2.0	U	ug/l	8260B
Chlorotoluene	2.0	U	ug/l	8260B
1,2-Dibromo-3-chloropropane	10.0	U	ug/l	8260B
Dibromochloromethane	2.0	U	ug/l	8260B
1,2-Dibromoethane	2.0	U	ug/l	8260B
Dibromomethane	2.0	U	ug/l	8260B
1,2-Dichlorobenzene	2.0	U	ug/l	8260B
1,3-Dichlorobenzene	2.0	U	ug/l	8260B
1,4-Dichlorobenzene	2.0	U	ug/l	8260B
Dichlorodifluoromethane	2.0	U	ug/l	8260B
1,1-Dichloroethane	2.0	U	ug/l	8260B
1,2-Dichloroethane	2.0	U	ug/l	8260B
1,1-Dichloroethene	2.0	U	ug/l	8260B
cis-1,2-Dichloroethene	2.0	U	ug/l	8260B
trans-1,2-Dichloroethene	2.0	U	ug/l	8260B
1,2-Dichloropropane	2.0	U	ug/l	8260B
1,3-Dichloropropane	2.0	U	ug/l	8260B
2,2-Dichloropropane	2.0	U	ug/l	8260B
1,1-Dichloropropene	2.0	U	ug/l	8260B
cis-1,3-Dichloropropene	2.0	U	ug/l	8260B
trans-1,3-Dichloropropene	2.0	U	ug/l	8260B
Ethylbenzene	2.0	U	ug/l	8260B
Hexachlorobutadiene	2.0	U	ug/l	8260B
2-Hexanone	10.0	U	ug/l	8260B
propylbenzene	2.0	U	ug/l	8260B
isopropyltoluene	2.0	U	ug/l	8260B
4-methyl-2-pentanone	10.0	U	ug/l	8260B
Methylene chloride	2.0	U	ug/l	8260B
Naphthalene	2.0	U	ug/l	8260B
n-Propylbenzene	2.0	U	ug/l	8260B
Styrene	2.0	U	ug/l	8260B



SPECIALIZED ASSAYS, INC.

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PROJECT QUALITY CONTROL DATA

DIRECTOR U.S. ARMY CORPS ENG. 5394

Report Number: 98-A010073

Sample I.D.: METHOD BLANK

Lab Project: 90627

Project: 303736 CALL#0672

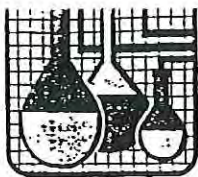
Date Received: 1/31/98

** Volatile Organics Method Blank Results ***

Compound	Result	Flag	Units	Method
1,1,1,2-Tetrachloroethane	2.0	U	ug/l	8260B
1,1,2,2-Tetrachloroethane	2.0	U	ug/l	8260B
Tetrachloroethene	2.0	U	ug/l	8260B
Toluene	2.0	U	ug/l	8260B
1,2,3-Trichlorobenzene	2.0	U	ug/l	8260B
1,2,4-Trichlorobenzene	2.0	U	ug/l	8260B
1,1,1-Trichloroethane	2.0	U	ug/l	8260B
1,1,2-Trichloroethane	2.0	U	ug/l	8260B
Trichloroethene	2.0	U	ug/l	8260B
1,2,3-Trichloropropane	2.0	U	ug/l	8260B
1,2,4-Trimethylbenzene	2.0	U	ug/l	8260B
1,3,5-Trimethylbenzene	2.0	U	ug/l	8260B
Vinyl chloride	2.0	U	ug/l	8260B
Xylenes	2.0	U	ug/l	8260B
Bromodichloromethane	2.0	U	ug/l	8260B
Trichlorofluoromethane	2.0	U	ug/l	8260B

** Semi-Volatile Organics Method Blank Results ***

Compound	Result	Flag	Units	Method
Naphthalene	5.0	U	ug/l	8270
Acenaphthene	5.0	U	ug/l	8270
Anthracene	5.0	U	ug/l	8270
Fluoranthene	5.0	U	ug/l	8270
Fluorene	5.0	U	ug/l	8270
Pyrene	5.0	U	ug/l	8270
Benzo(a)anthracene	5.0	U	ug/l	8270
Benzo(a)pyrene	5.0	U	ug/l	8270
Benzo(b)fluoranthene	5.0	U	ug/l	8270
Benzo(k)fluoranthene	5.0	U	ug/l	8270
Chrysene	5.0	U	ug/l	8270
Dibenzo(a,h)anthracene	5.0	U	ug/l	8270
Indeno(1,2,3-cd)pyrene	5.0	U	ug/l	8270
Acenaphthylene	5.0	U	ug/l	8270
Benzo(g,h,i)perylene	5.0	U	ug/l	8270



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PROJECT QUALITY CONTROL DATA

DIRECTOR U.S. ARMY CORPS ENG. 5394

Report Number: 98-A010073

Sample I.D.: METHOD BLANK

Lab Project: 90627

Project: 303736 CALL#0672

Date Received: 1/31/98

* Semi-Volatile Organics Method Blank Results ***

Compound	Result	Flag	Units	Method
benanthrene	5.0	U	ug/l	8270
-Methylnapthalene	5.0	U	ug/l	8270
-Methylnapthalene	5.0	U	ug/l	8270

Michael A. Rame



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PROJECT QUALITY CONTROL DATA

DIRECTOR U.S. ARMY CORPS ENG. 5394

Report Number: 98-A010074

Sample I.D.: METHOD BLANK

Lab Project: 90627

Project: 303736 CALL#0672

Date Received: 1/31/98

** UST Spike/Duplicate Results **

Compound	%Recovery	Target Range	Precision RPD	Target Range
TRPH, 418.1	99.	75 - 125	0.0	0 - 25.0

** Organics Spike/Duplicate Results **

Compound	%Recovery	Target Range	Precision RPD	Target Range
1,1-Dichloroethene	93.	59 - 172	5.0	0 - 22
Trichloroethene	120.	62 - 137	6.0	0 - 24
Benzene	121.	66 - 142	7.0	0 - 21
Toluene	112.	59 - 139	4.0	0 - 21
Chlorobenzene	99.	60 - 133	2.0	0 - 21
Phenol	60.	26 - 115	7.3	0 - 35
2-Chlorophenol	63.	25 - 102	9.0	0 - 50
1,4-Dichlorobenzene	53.	28 - 104	11.4	0 - 27
Nitroso-di-n-propylamine	61.	41 - 126	7.2	0 - 38
1,2,4-Trichlorobenzene	49.	38 - 107	12.4	0 - 23
4-Chloro-3-methylphenol	56.	26 - 103	4.4	0 - 33
Acenaphthene	62.	31 - 137	6.5	0 - 19
4-Nitrophenol	46.	11 - 125	11.8	0 - 50
2,4-Dinitrotoluene	54.	28 - 100	1.7	0 - 47
Pentachlorophenol	37.	17 - 109	10.1	0 - 47
Pyrene	69.	35 - 142	1.8	0 - 36

** Volatile Organics Method Blank Results ***

Compound	Result	Flag	Units	Method
Benzene	2.0	U	ug/kg	8260B
Ethylbenzene	2.0	U	ug/kg	8260B
Toluene	2.0	U	ug/kg	8260B
Xylenes	2.0	U	ug/kg	8260B



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PROJECT QUALITY CONTROL DATA

DIRECTOR U. S. ARMY CORPS ENG. 5394

Report Number: 98-A010074

Sample I.D.: METHOD BLANK

Lab Project: 90627

Project: 303736 CALL#0672

Date Received: 1/31/98

* Volatile Organics Method Blank Results ***

Compound	Result	Flag	Units	Method
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* Semi-Volatile Organics Method Blank Results ***

Compound	Result	Flag	Units	Method
halene	165.	U	ug/kg	8270
ac. apthene	165.	U	ug/kg	8270
anthracene	165.	U	ug/kg	8270
fluoranthene	165.	U	ug/kg	8270
fluorene	165.	U	ug/kg	8270
pyrene	165.	U	ug/kg	8270
benzo(a)anthracene	165.	U	ug/kg	8270
benzo(a)pyrene	165.	U	ug/kg	8270
benzo(b)fluoranthene	165.	U	ug/kg	8270
benzo(k)fluoranthene	165.	U	ug/kg	8270
chrysene	165.	U	ug/kg	8270
dibenzo(a,h)anthracene	165.	U	ug/kg	8270
indeno(1,2,3-cd)pyrene	165.	U	ug/kg	8270
acenaphthylene	165.	U	ug/kg	8270
benzo(g,h,i)perylene	165.	U	ug/kg	8270
phenanthrene	165.	U	ug/kg	8270
1-methylnapthalene	165.	U	ug/kg	8270
2-methylnapthalene	165.	U	ug/kg	8270

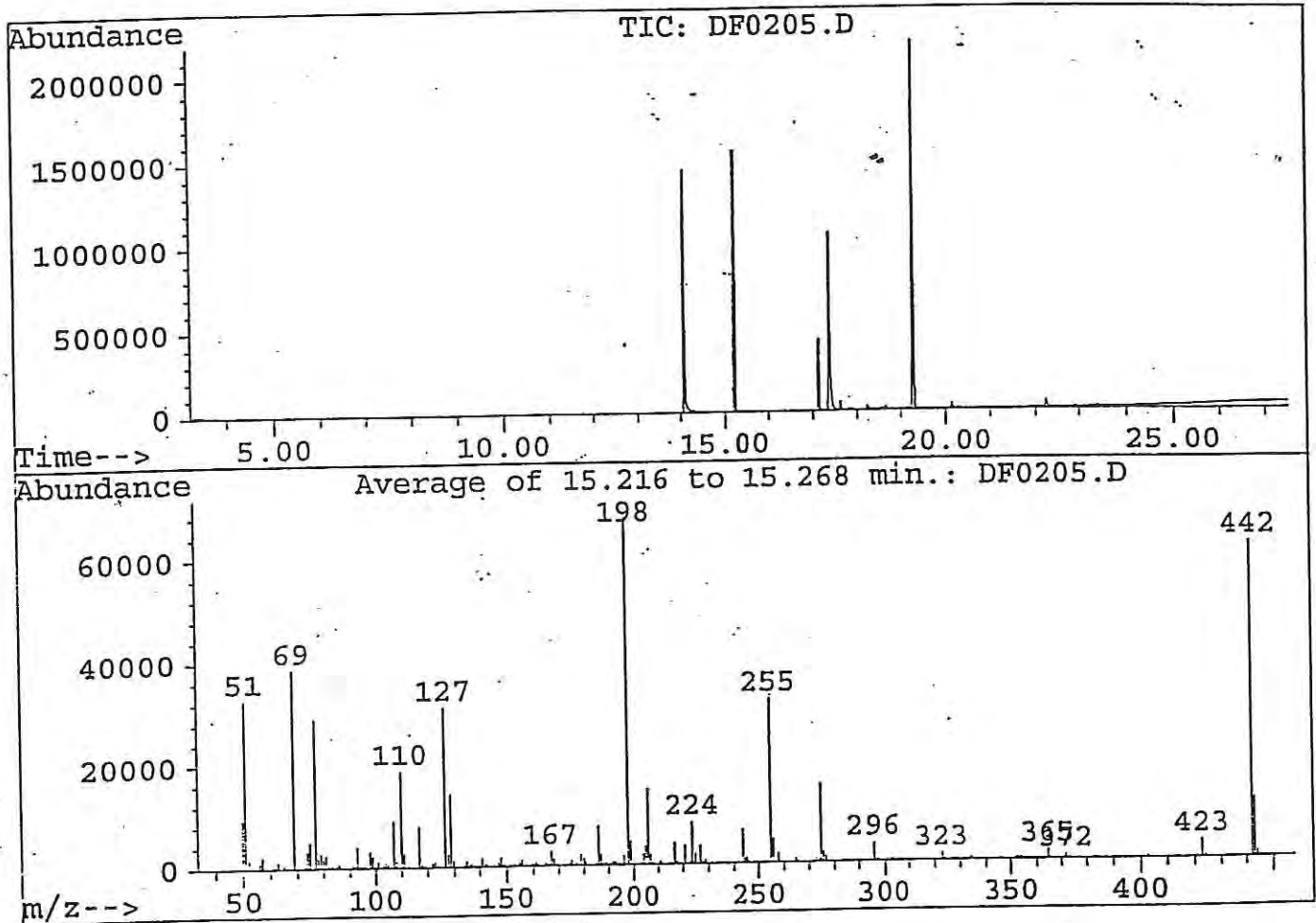
Michael A. Rame

DFTPP

Data File : C:\HPCHEM\1\DATA\DF0205.D
 Acq On : 5 Feb 98 5:02 pm
 Sample : tune
 Misc :

Vial: 2
 Operator: HP-5
 Inst : 5972 - I
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270.M
 Title : SW846 METHOD 8270



Peak Apex is scan: AVERAGE

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	47.9	32742	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	56.6	38627	PASS
70	69	0	2	0.0	13	PASS
127	198	30	60	45.6	31151	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	68284	PASS
199	198	5	9	6.7	4606	PASS
275	198	10	30	22.3	15257	PASS
365	198	1	100	2.6	1789	PASS
441	442	0	100	0.0	20	PASS
442	198	40	100	90.3	61647	PASS
443	442	17	23	19.0	11738	PASS

Data File : C:\HPCHEM\1\DATA\CC0205.D
 Acq On : 5 Feb 98 5:38 pm
 Sample : 50 ppm con cal
 Misc :

Vial: 3
 Operator: HP-5
 Inst : 5972 - In
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8270.M
 Title : SW846 METHOD 8270
 Last Update : Thu Feb 05 08:24:52 1998
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	91	-0.13
2 T	Pyridine	0.422	0.441	-4.5	88	-0.14
3 T	N-Nitroso-dimethylamine	0.248	0.259	-4.3	100	-0.13
4 S	2-Fluorophenol	0.582	0.606	-4.1	95	-0.11
5	Aniline	1.130	1.127	0.3	93	-0.13
6	Bis-(2-Chloroethyl) ether	0.921	0.912	1.0	95	-0.14
7 S	Phenol-d5	0.997	1.053	-5.6	101	-0.12
8 MC	Phenol	1.094	1.063	2.8	94	-0.13
9 S	2-Chlorophenol-d4	0.752	0.810	-7.6	105	-0.13
10 M	2-Chlorophenol	0.810	0.872	-7.6	105	-0.13
11	1,3-Dichlorobenzene	0.866	0.872	-0.6	97	-0.13
12 MC	1,4-Dichlorobenzene	0.896	0.899	-0.4	95	-0.13
13 S	1,2-Dichlorobenzene-d4	0.990	0.865	12.6	86	-0.13
4	1,2-Dichlorobenzene	0.877	0.810	7.7	91	-0.13
15	Benzyl Alcohol	0.720	0.755	-4.8	94	-0.14
16	Bis-(2-chloroisopropyl) ethe	0.127	0.122	3.7	96	0.07
17	2-Methylphenol	0.847	0.824	2.7	94	-0.12
18	Hexachloroethane	0.450	0.395	12.3	86	-0.13
19 MP	N-Nitroso-di-n-propylamine	0.687	0.645	6.1	91	-0.14
20	3,4-Methylphenol	1.115	1.086	2.6	92	-0.13
21 I	Naphthalene-d8	1.000	1.000	0.0	81	-0.13
22 S	Nitrobenzene-d5	0.462	0.427	7.5	77	-0.13
23	Nitrobenzene	0.454	0.453	0.3	84	-0.14
24	Isophorone	0.883	0.876	0.8	85	-0.15
25 C	2-Nitrophenol	0.213	0.238	-11.6	92	-0.13
26	2,4-Dimethylphenol	0.437	0.477	-9.1	91	-0.13
27	Bis-(2-chloroethoxy) methane	0.529	0.484	8.5	78	-0.13
28 C	2,4-Dichlorophenol	0.300	0.306	-1.9	84	-0.13
29	Benzoic acid	0.162	0.183	-12.6	71	-0.13
30 M	1,2,4-Trichlorobenzene	0.355	0.337	5.1	80	-0.13
31	Naphthalene	1.080	1.093	-1.2	90	-0.14
32	4-chloroaniline	0.435	0.326	25.0	61	-0.31
33 C	Hexachlorobutadiene	0.211	0.231	-9.3	92	-0.13
34	4-Chloro-3-methylphenol	0.358	0.379	-5.6	86	-0.13
35	2-Methylnaphthalene	0.661	0.704	-6.5	92	-0.13
36	1-Methylnaphthalene	0.676	0.672	0.7	87	-0.13
37 I	Acenaphthene-d10	1.000	1.000	0.0	79	-0.15
38 P	Hexachlorocyclopentadiene	0.118	0.115	2.6	70	-0.13
39 C	2,4,6-Trichlorophenol	0.415	0.435	-4.9	86	-0.13
40	2,4,5-Trichlorophenol	0.417	0.447	-7.3	85	-0.13
41 S	2-fluorobiphenyl	1.348	1.266	6.1	79	-0.14
42	2-Chloronaphthalene	1.164	1.148	1.4	82	-0.15
	2-Nitroaniline	0.444	0.477	-7.6	84	-0.15

45		Dimethylphenol	0.347	0.353	-1.8	82	-0.15
46		2,6-Dinitrotoluene	0.340	0.291	14.4	68	-0.17
47		3-Nitroaniline	1.082	1.096	-1.4	86	-0.15
48	MC	Acenaphthene	0.171	0.231	-35.4	88	-0.15
49	P	2,4-dinitrophenol	1.600	1.584	1.0	84	-0.16
50		Dibenzofuran	0.449	0.472	-5.1	85	-0.17
1	M	2,4-Dinitrotoluene	0.238	0.266	-11.8	88	-0.15
52	MP	4-Nitrophenol	1.255	1.229	2.1	81	-0.17
53		Fluorene	0.676	0.700	-3.6	84	-0.16
54		4-Chlorophenyl phenylether	1.412	1.470	-4.1	86	-0.17
55		Diethylphthalate	0.337	0.383	-13.6	84	-0.19
56		4-Nitroaniline	1.724	1.645	4.5	77	-0.16
57		1,2-Diphenylhydrazine					
58	I	Phenanthrene-d10	1.000	1.000	0.0	75	-0.18
59		4,6-Dinitro-2-methylphenol	0.147	0.174	-18.3	84	-0.17
60	C	N-Nitroso-diphenylamine	0.449	0.454	-1.1	82	-0.17
61	S	Tribromophenol	0.114	0.123	-7.4	83	-0.17
62		4-Bromophenyl phenyl ether	0.163	0.190	-16.0	92	-0.17
63		Hexachlorobenzene	0.225	0.248	-10.0	88	-0.17
64	MC	Pentachlorophenol	0.094	0.108	-15.0	84	-0.17
65		Phenanthrene	0.925	0.922	0.3	79	-0.08
66		Anthracene	0.934	0.918	1.7	77	-0.18
67		Carbazole	0.816	0.823	-0.9	81	-0.18
68		Di-n-butyl phthalate	1.136	1.217	-7.1	86	-0.17
69	C	Fluoranthene	1.022	1.095	-7.2	86	-0.19
70	I	Chrysene-d12	1.000	1.000	0.0	81	-0.18
71		Benzidine	0.267	0.272	-1.6	73	-0.17
72	M	Pyrene	1.299	1.263	2.8	83	-0.19
73	S	Terphenyl-d14	0.845	0.882	-4.4	89	-0.18
74		Butylbenzylphthalate	0.625	0.655	-4.8	84	-0.18
75		3,3'-Dichlorobenzidine	0.361	0.363	-0.7	74	-0.19
76		Benzo(a)anthracene	1.100	1.204	-9.4	90	-0.19
77		Chrysene	0.927	0.988	-6.6	97	-0.19
78		Bis-(2-ethylhexyl)phthalate	0.881	0.876	0.5	81	-0.17
79	I	Perylene-d12	1.000	1.000	0.0	91	-0.17
80	C	Di-n-octylphthalate	1.871	1.733	7.4	82	-0.17
81		Benzo(b)fluoranthene	1.504	1.315	12.6	87	-0.22
82		Benzo(k)fluoranthene	1.172	1.131	3.5	79	-0.20
83	C	Benzo(a)pyrene	1.243	1.127	9.4	85	-0.19
84		Indeno(1,2,3-cd)pyrene	1.457	1.316	9.7	81	-0.20
85		Dibenz(a,h)anthracene	1.068	1.074	-0.5	93	-0.20
86		Benzo(g,h,i)perylene	1.295	1.131	12.7	80	-0.19

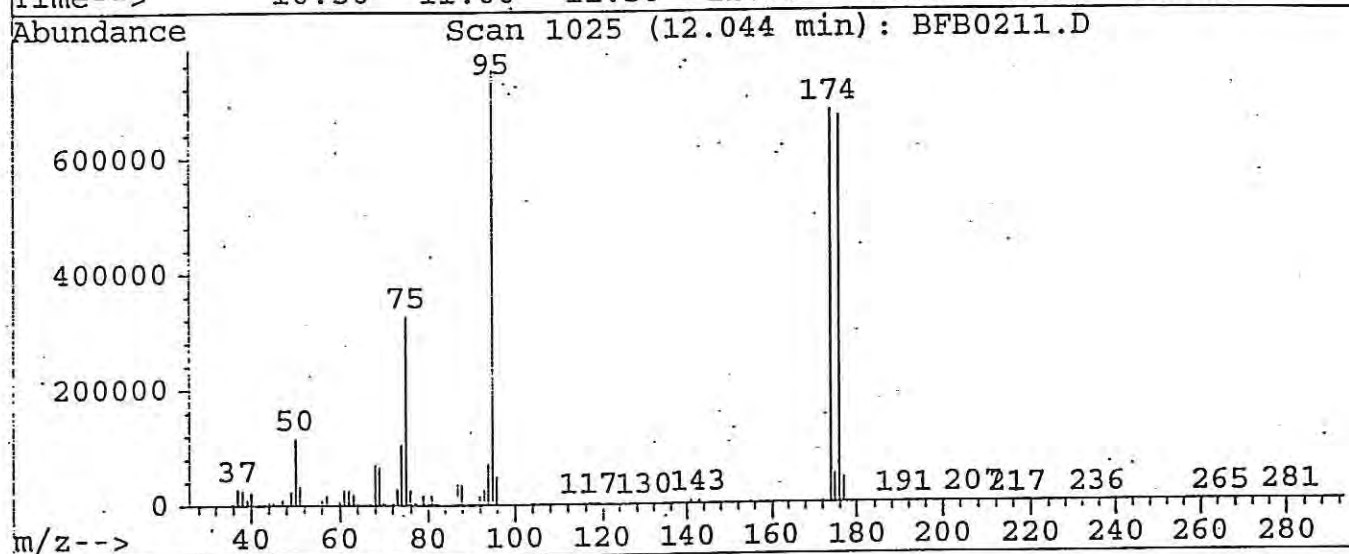
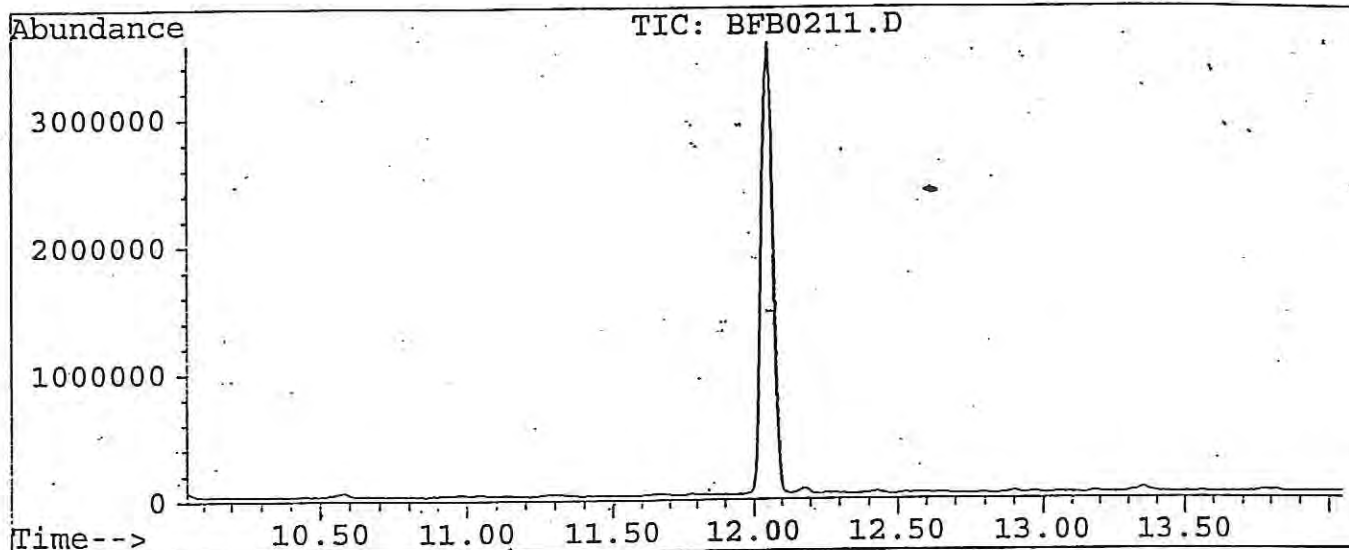
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0500128.D 8270.M

SPCC's out = 0 CCC's out = 0
Fri Feb 06 09:11:36 1998

Data File : C:\HPCHEM\1\DATA\BFB0211.D
 Acq On : 11 Feb 98 9:13 am
 Sample : tune hp-2
 Misc :

Vial: 1
 Operator: hp-2
 Inst : 5972 - Ir
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8260.M
 Title : 8260 volatile organics PLUS



Peak Apex is scan: 1025

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	115720	PASS
75	95	30	60	43.3	326208	PASS
95	95	100	100	100.0	752704	PASS
96	95	5	9	6.6	49824	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	90.4	680320	PASS
175	174	5	9	7.4	50216	PASS
176	174	95	101	98.6	670592	PASS
177	176	5	9	6.5	43376	PASS

Data File : C:\HPCHEM\1\DATA\VS0211.D
 Acq On : 11 Feb 98 9:37 am
 Sample : con cal
 Misc :
 Quant Time: Feb 11 10:11 1998

Vial: 25
 Operator: hp-2
 Inst : 5972 - In
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8260.M
 Title : 8260 volatile organics PLUS
 Last Update : Fri Feb 06 10:55:54 1998
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	11.30	99	237540	30.00	ug/L	0.03
31) 1,4-Difluorobenzene	12.59	63	117566	30.00	ug/L	0.03
49) Chlorobenzene-d5	17.32	119	208658	30.00	ug/L	0.02
63) 1,4-Dichlorobenzene-d4	20.93	152	379919	30.00	ug/L	0.02
64) Ethylbenzene-d10	17.53	98	891032	30.00	ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
26) 1,2-Dichloroethane-d4	11.32	65	256520	25.09	ug/L	83.64%
27) Dibromofluoromethane	10.61	111	263690	25.00	ug/L	83.32%
44) Toluene-d8	15.25	98	647278	32.28	ug/L	107.60%
66) Bromofluorobenzene	19.06	95	289939	31.60	ug/L	105.32%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.07	85	424971	56.61	ug/L	100
3) Chloromethane	4.34	50	368760	51.82	ug/L	99
4) Vinyl Chloride	4.62	62	369075	62.60	ug/L	99
5) Bromomethane	5.23	96	175260	35.89	ug/L	96
6) Chloroethane	5.46	64	208716	54.38	ug/L	98
7) Trichlorofluoromethane	6.43	101	599062	49.55	ug/L	98
8) Acrolein	6.42	56	22764	52.03	ug/L	# 97
9) Acetone	6.65	58	25077	56.79	ug/L	# 58
10) Diethyl Ether	6.86	59	281619	59.57	ug/L	94
11) 1,1-Dichloroethene	7.35	96	382947	54.71	ug/L	97
12) Iodomethane	7.41	142	154777	27.32	ug/L	m 93
13) Acrylonitrile	7.47	53	203204	54.02	ug/L	97
14) Methylene Chloride	7.61	84	415682	50.05	ug/L	99
15) Carbon Disulfide	7.97	76	1085726	49.40	ug/L	100
16) trans-1,2-Dichloroethene	8.75	61	496514	47.79	ug/L	94
17) Methyl-t-butyl ether	8.95	73	859084	55.10	ug/L	# 89
18) 1,1-Dichloroethane	9.16	63	647602	49.12	ug/L	98
19) Vinyl Acetate	9.41	43	614690	65.51	ug/L	96
20) 2-Butanone	9.89	72	34581	49.91	ug/L	# 1
21) Diisopropyl ether	9.92	45	1002237	47.52	ug/L	99
22) cis-1,2-Dichloroethene	10.09	61	491353	48.56	ug/L	97
23) Bromochloromethane	10.34	130	340652	54.37	ug/L	99
24) Chloroform	10.42	83	773564	51.38	ug/L	97
25) 2,2-Dichloropropane	10.54	77	560216	53.87	ug/L	98
28) 1,2-Dichloroethane	11.44	62	517649	50.07	ug/L	99
29) 1,1,1-Trichloroethane	11.59	97	622421	51.04	ug/L	98
30) 1,1-Dichloropropene	11.88	75	546293	53.88	ug/L	97
32) Carbon Tetrachloride	12.15	117	588998	57.88	ug/L	99
33) Benzene	12.21	78	1451426	61.36	ug/L	# 87
34) Dibromomethane	13.06	93	288519	57.06	ug/L	92
35) 2,3-Dichloro-1-Propene	13.16	39	462345	76.96	ug/L	# 77

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\VS0211.D
 Acq On : 11 Feb 98 9:37 am
 Sample : con cal
 Misc :
 Quant Time: Feb 11 10:11 1998

Vial: 25
 Operator: hp-2
 Inst : 5972 - In
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8260.M
 Title : 8260 volatile organics PLUS
 Last Update : Fri Feb 06 10:55:54 1998
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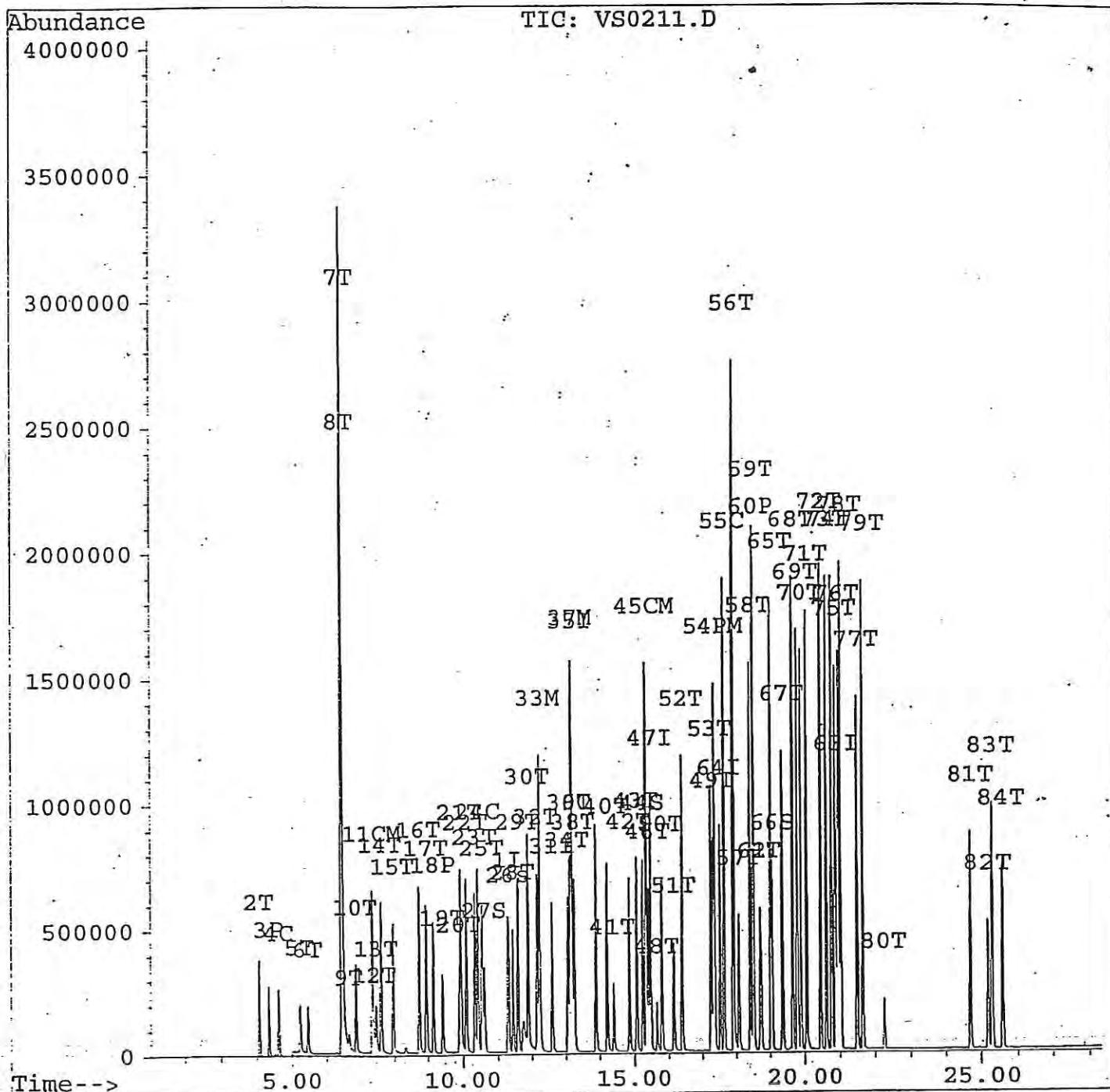
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) 1,2-Dichloropropane	13.12	63	375607	58.35	ug/L #	84
37) Trichloroethene	13.18	130	494819	64.13	ug/L	91
38) Bromodichloromethane	13.24	83	560119	56.50	ug/L	100
39) 2-Chloroethyl vinyl ether	13.12	63	375607	583.51	ug/L #	57
40) cis-1,3-Dichloropropene	14.20	75	575718	58.41	ug/L	95
41) 4-Methyl-2-pentanone	14.39	58	96331	57.08	ug/L #	75
42) trans-1,3-Dichloropropene	14.84	75	502634	58.54	ug/L	97
43) 1,1,2-Trichloroethane	15.07	97	333580	59.33	ug/L	99
45) Toluene	15.35	91	1482780	61.84	ug/L	98
46) 1,3-Dichloropropane	15.41	76	518382	56.51	ug/L #	72
47) Ethyl Methacrylate	15.48	69	679242	58.62	ug/L #	90
48) 2-Hexanone	15.66	58	89269	53.57	ug/L #	77
50) Dibromochloromethane	15.79	127	402872	55.60	ug/L	99
51) 1,2-Dibromoethane	16.15	107	396392	55.19	ug/L	99
52) Tetrachloroethene	16.40	166	476699	58.99	ug/L	95
53) 1,1,1,2-Tetrachloroethane	17.25	131	432520	56.68	ug/L	95
54) Chlorobenzene	17.37	112	1080249	56.00	ug/L	93
55) Ethylbenzene	17.65	91	1749216	57.68	ug/L	99
56) m,p-Xylene	17.93	91	2654765	117.01	ug/L	97
57) Bromoform	18.07	173	366189	57.16	ug/L #	1
58) Styrene	18.39	104	1005251	55.09	ug/L	100
59) o-Xylene	18.49	91	1339603	55.37	ug/L	99
60) 1,1,2,2-Tetrachloroethane	18.47	83	456377	57.76	ug/L #	98
61) 1,2,3-Trichloropropane	18.68	75	468838	53.30	ug/L	92
62) trans-1,4-Dichloro-2-buten	18.68	75	468513	52.49	ug/L #	49
65) Isopropylbenzene	19.01	105	1640800	55.24	ug/L	99
67) Bromobenzene	19.35	77	667147	55.25	ug/L #	72
68) Propylbenzene	19.63	91	2020837	56.03	ug/L	93
69) 2-Chlorotoluene	19.77	91	1244881	57.32	ug/L #	88
70) 4-Chlorotoluene	19.88	91	1186696	53.39	ug/L #	86
71) 1,3,5-Trimethylbenzene	20.05	105	1298176	54.17	ug/L	98
72) t-Butylbenzene	20.45	119	1224098	57.74	ug/L	93
73) 1,2,4-trimethylbenzene	20.60	105	1406688	56.45	ug/L	97
74) sec-Butylbenzene	20.76	105	1821286	57.87	ug/L	97
75) 1,3-Dichlorobenzene	20.87	146	977979	60.84	ug/L	98
76) 1,4-Dichlorobenzene	20.97	146	998468	62.88	ug/L	95
77) 1,2-Dichlorobenzene	21.50	146	895374	59.45	ug/L #	88
78) p-Isopropyltoluene	21.03	119	1540816	59.09	ug/L	97
79) Butylbenzene	21.65	91	1438750	58.66	ug/L #	96
80) 1,2-Dibromo-3-chloropropan	22.25	157	93946	56.93	ug/L #	88
81) 1,2,4-Trichlorobenzene	24.71	180	432654	58.76	ug/L	98
82) Naphthalene	25.18	128	647204	52.86	ug/L	100
83) Hexachlorobutadiene	25.30	225	339976	69.15	ug/L	97
84) 1,2,3-Trichlorobenzene	25.57	180	397327	62.55	ug/L	96

(#) = qualifier out of range (m) = manual integration

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Vial: 25
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Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8260.M
Title : 8260 volatile organics PLUS
Last Update : Fri Feb 06 10:55:54 1998
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Method : C:\HPCHEM\1\METHODS\8260.M
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Min. RRF : 0.010 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 400%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	125	0.03
2 T	Dichlorodifluoromethane	0.980	1.073	-9.5	135	0.02
3 P	Chloromethane	1.090	0.931	14.5	122	0.02
4 C	Vinyl Chloride	0.880	0.932	-5.9	128	0.05
5 T	Bromomethane	0.690	0.443	35.9	100	0.03
6 T	Chloroethane	0.568	0.527	7.3	122	0.03
7 T	Trichlorofluoromethane	1.617	1.513	6.4	120	0.03
8 T	Acrolein	0.052	0.057	-9.6	133	0.02
9 T	Acetone	0.073	0.063	13.3	109	0.01
10 T	Diethyl Ether	0.601	0.711	-18.4	162	0.03
11 CM	1,1-Dichloroethene	0.885	0.967	-9.3	150	0.03
12 T	Iodomethane	0.627	0.391	37.7	73	0.03
13 T	Acrylonitrile	0.453	0.513	-13.3	150	0.02
14 T	Methylene Chloride	1.294	1.050	18.9	118	0.03
15 T	Carbon Disulfide	3.051	2.742	10.1	123	0.03
16 T	trans-1,2-Dichloroethene	1.382	1.254	9.3	117	0.03
17 T	Methyl-t-butyl ether	1.863	2.170	-16.5	147	0.03
18 P	1,1-Dichloroethane	1.775	1.636	7.9	121	0.03
19 T	Vinyl Acetate	1.087	1.553	-42.8	171	0.02
20 T	2-Butanone	0.101	0.087	13.4	126	0.01
21 T	Diisopropyl ether	2.437	2.532	-3.9	124	0.02
22 T	cis-1,2-Dichloroethene	1.319	1.241	5.9	121	0.03
23 T	Bromochloromethane	0.808	0.860	-6.5	138	0.03
24 C	Chloroform	2.166	1.954	9.8	123	0.03
25 T	2,2-Dichloropropane	1.336	1.415	-5.9	134	0.03
26 S	1,2-Dichloroethane-d4	1.291	1.080	16.4	107	0.03
27 S	Dibromofluoromethane	1.332	1.110	16.7	103	0.02
28 T	1,2-Dichloroethane	1.406	1.308	7.0	119	0.02
29 T	1,1,1-Trichloroethane	1.578	1.572	0.4	130	0.03
30 T	1,1-Dichloropropene	1.256	1.380	-9.9	132	0.03
31 I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.03
32 T	Carbon Tetrachloride	2.725	3.006	-10.3	123	0.03
33 M	Benzene	6.268	7.407	-18.2	128	0.02
34 T	Dibromomethane	1.341	1.472	-9.8	125	0.03
35 I	2,3-Dichloro-1-Propene	1.743	2.360	-35.3	120	0.03
36 C	1,2-Dichloropropane	1.650	1.917	-16.1	126	0.02
37 M	Trichloroethene	2.360	2.525	-7.0	130	0.03
38 T	Bromodichloromethane	2.651	2.859	-7.8	121	0.02
39 T	2-Chloroethyl vinyl ether	0.165	0.192	-16.1	126	0.02
40 T	cis-1,3-Dichloropropene	2.289	2.938	-28.3	133	0.02
41 T	4-Methyl-2-pentanone	0.424	0.492	-16.0	136	0.01
42 T	trans-1,3-Dichloropropene	1.928	2.565	-33.0	143	0.02
43 T	1,1,2-Trichloroethane	1.451	1.702	-17.3	128	0.03
44 S	Toluene-d8	5.117	5.506	-7.6	115	0.03
		6.607	7.567	-14.5	128	0.02

47	I	Ethyl Methacrylate	2.811	3.467	-23.3	127	0.02
48	T	2-Hexanone	0.407	0.456	-12.0	135	0.01
49	I	Chlorobenzene-d5	1.000	1.000	0.0	123	0.02
50	T	Dibromochloromethane	1.106	1.158	-4.7	123	0.02
51	T	1,2-Dibromoethane	1.070	1.140	-6.6	132	0.03
52	T	Tetrachloroethene	1.214	1.371	-12.9	136	0.03
53	T	1,1,1,2-Tetrachloroethane	1.199	1.244	-3.7	129	0.03
54	PM	Chlorobenzene	2.985	3.106	-4.1	130	0.02
55	C	Ethylbenzene	4.682	5.030	-7.4	132	0.02
56	T	m,p-Xylene	3.439	3.817	-11.0	128	0.02
57	T	Bromoform	0.972	1.053	-8.3	132	0.02
58	T	Styrene	2.364	2.891	-22.3	136	0.01
59	T	o-Xylene	3.599	3.852	-7.0	123	0.01
60	P	1,1,2,2-Tetrachloroethane	1.304	1.312	-0.7	126	0.01
61	T	1,2,3-Trichloropropane	1.244	1.348	-8.4	130	0.01
62	T	trans-1,4-Dichloro-2-butene	1.244	1.347	-8.3	130	0.01
63	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	124	0.02
64	I	Ethylbenzene-d10	1.000	1.000	0.0	112	0.02
65	T	Isopropylbenzene	0.913	1.105	-21.0	126	0.02
66	S	Bromofluorobenzene	0.309	0.325	-5.3	112	0.02
67	T	Bromobenzene	0.400	0.449	-12.3	123	0.01
68	T	Propylbenzene	1.128	1.361	-20.6	128	0.02
69	T	2-Chlorotoluene	0.705	0.838	-18.9	123	0.01
70	T	4-Chlorotoluene	0.695	0.799	-14.9	121	0.02
71	T	1,3,5-Trimethylbenzene	0.745	0.874	-17.3	120	0.02
72	T	t-Butylbenzene	0.654	0.824	-26.0	129	0.02
73	T	1,2,4-trimethylbenzene	0.758	0.947	-24.9	129	0.01
74	T	sec-Butylbenzene	1.003	1.226	-22.3	129	0.01
75	T	1,3-Dichlorobenzene	0.534	0.659	-23.3	133	0.02
76	T	1,4-Dichlorobenzene	0.532	0.672	-26.3	140	0.02
77	T	1,2-Dichlorobenzene	0.487	0.603	-23.9	139	0.01
78	T	p-Isopropyltoluene	0.835	1.038	-24.2	132	0.01
79	T	Butylbenzene	0.723	0.969	-34.0	139	0.02
80	T	1,2-Dibromo-3-chloropropane	0.047	0.063	-35.2	135	0.01
81	T	1,2,4-Trichlorobenzene	0.191	0.291	-52.7	178	0.02
82	T	Naphthalene	0.320	0.436	-36.1	167	0.01
83	T	Hexachlorobutadiene	0.168	0.229	-36.4	148	0.02
84	T	1,2,3-Trichlorobenzene	0.174	0.268	-54.1	161	0.02

(#) = Out of Range
V0500205.D 8260.M

SPCC's out = 0 CCC's out = 0
Wed Feb 11 10:12:58 1998