Analytical Resources, Incorporated
Analytical Chemists and Consultants

1 November 2004

Stacy Pischer
Landau Associates, Inc.
130 Second Avenue South
Edmonds, WA 98020-9129

RE: Project: POA Uplands / 529009.311
ARI Job No: HA44

Dear Stacy:

Please find enclosed a copy revised cover letter for the samples from the project referenced above. Also enclosed is a re-issued report for the dissolved metals analysis of sample MW-202.

Analytical Resources, Inc. (ARI) accepted six water samples on September 1, 2004 in good condition. There were no discrepancies between the COC and the sample containers' labels. Data for these samples was sent previously under a separate cover letter.

The client observed that samples **MW-102** and **MW-202** were field duplicates and that the dissolved values for arsenic did not show good duplication. The total and dissolved analyses of samples **MW-102** and **MW-202** were re-checked and the "total" bottle for **MW-102**, which was potentially inadvertently switched with the dissolved metals bottle for **MW-102** in the field, and the dissolved bottle for **MW-202** were analyzed on the instrument without digestion. The two bottles showed good duplication of the arsenic values as well as the other elements, within the range of analytical variability.

All samples had been re-prepped and re-analyzed for nickel after the initial analysis of the samples on 9/9/03. The dissolved analysis of the re-prep from which only nickel had been reported was compared to the original analysis for the dissolved analysis of **MW-102**. All elements except arsenic showed good duplication. The value for arsenic was significantly higher in the re-prep. All QC for arsenic was good for the re-prep. The data, when evaluated in entirety, suggested that a problem had occurred with the initial dissolved arsenic analysis in sample **MW-202**.

The client was advised of the situation and the re-prep and analysis of sample **MW-202** was reported for the dissolved arsenic analysis of this sample. The sample report included here can replace the report in the initial data package for the dissolved metals for **MW-202** and the method blank and lab control sample included here can be added to the original package.

Landau Associates, Inc.
Client Project: POA Uplands / 529009.311
ARI Job No: HA44
Page 2

A copy of these reports and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Mary Lou Fox

Mary Lou Fox
Project Manager
206/695-6211
marylou@arilabs.com

Enclosures
cc: HA44
MLF/esj

SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 09\02\04

ANALYTICAL RESOURCES INCORPORATED

ARI Project: HA44

ARI096-61

Laboratory: Aquatic Research, Inc
Lab Contact: Steve Lazoff
Lab Address: 3927 Aurora Ave N.
Seattle, WA 98103
Phone: 206-632-2715
Fax: 206-632-2417

ARI Client: Landau Associates
Project ID: 529009
ARI PMgr: Mary Lou Fox
Phone: (206) 340-2866 Ext
Fax: (206) 695-6201

Analytical Protocol: In-house
Special Instructions:

Requested Turn Around:
Fax Results (Y/N): **Yes**

Limits of Liability. *Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI Sample ID	Client Sample ID/ Add'l Sample ID	Sampled	Matrix	Bottles	Analyses
04-14095-HA44A	MW-102	8/31/04	Water	1	Tannins & Lignins
Special Instructions: NONE					
04-14096-HA44B	MW-104	8/31/04	Water	1	Tannins & Lignins
Special Instructions: NONE					
04-14097-HA44C	MW-108	8/31/04	Water	1	Tannins & Lignins
Special Instructions: NONE					
04-14098-HA44D	MW-109	8/31/04	Water	1	Tannins & Lignins
Special Instructions: NONE					
04-14099-HA44E	MW-110	8/31/04	Water	1	Tannins & Lignins
Special Instructions: NONE					
04-14100-HA44F	MW-111	8/30/04	Water	2	Tannins & Lignins
Special Instructions: NONE					
04-14101-HA44G	MW-112	8/31/04	Water	1	Tannins & Lignins
Special Instructions: NONE					
04-14102-HA44H	MW-202	8/31/04	Water	1	Tannins & Lignins
Special Instructions: NONE					

Carrier	UPS	Airbill		Date	9/2/04
Relinquished by		Company	ARI	Date 9/2/04	Time 1530
Received by		Company		Date	Time

000245

☒ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Lake Oswego) (503) 443-6010
☐ _____

60/6.0/11.5/11.5/7.5/9.5/2.5/9.5/5.0

Landau Associates

Chain-of-Custody Record (a)

Date 9/1/04
Page 1 of 1

Project Name Port of Anacortes Uplands Project No. 529009
Project Location/Event Anacortes / Qtrly Sampling
Sampler's Name Gary Hutsing / Mario Lopez
Project Contact Stacy Pischer
Send Results To Stacy Pischer

Turnaround Time
☒ Standard
☐ Accelerated
☐ _____

Sample I.D.	Date	Time	Matrix	No. of Containers	cPAH	PCBs	NWTPH-Dx	Metals (Total + Dissolved)	NWTPH-Gx	VOC	Chloride	SVOC	Pesticides	Conventionals (b)	Other Organics (c)	Observations/Comments
MW-102	8/31	1015	H_2O	20	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	(a) Use Method 6020 for total & Dissolved metals
MW-104	8/31	0925		20	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	Metals include: antimony, arsenic, cadmium, copper, lead, Mercury Nickel, thallium.
MW-108	8/31	1135		22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
MW-109	8/31	1520		22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
MW-110	8/31	1300		22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
MW-111	8/30	1515		52	✓	✓	✓	✓	✓	✓	J	✓		✓	✓	
MW-112	8/31	1325		22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	(b) Conventionals: Nitrate, Nitrite Ammonia, Sulfate, Sulfide, tannins & Lignins, Phenol
MW-202	8/31	1015		20	✓	✓	✓	✓	✓	✓	✓	J		✓	✓	
Trip Blanks	8/31	—		9						✓						

* Note: Please check with Stacy Pischer or Kris Hendrickson at Landau prior to performing acid/Silica gel cleanup on any sample 425-778-0907

(c) Other organics include: resin acids, chlorinated guaiacols and guaiacol.

* Let samples settle prior to analysis

Special Shipment/Handling or Storage Requirements: On ice

Method of Shipment: ARI Courier

Relinquished by	Received by	Relinquished by	Received by
Signature: [signature]	Signature: [signature]	Signature:	Signature:
Printed Name: Mario Lopez	Printed Name: Erik Branson	Printed Name:	Printed Name:
Company: Landau Ass.	Company: ARI	Company:	Company:
Date: 9/1/04 Time: 1015	Date: 9/1/04 Time: 1715	Date: Time:	Date: Time:

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

Rev 4/01

100001

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANIC COMPOUND DATA REPORTING QUALIFIERS

U	Indicates the compound was undetected at the reported concentration. (Same as ND).
J	Indicates an estimated concentration when the value is less than the calculated reporting limit.
D	Indicates the surrogate/spike(s) was not detected, due to dilution of extract.
NR	Indicates the surrogate recovery cannot be reported due to matrix interference.
E	Indicates a value above the linear range of the detector. Sample dilution required.
S	Indicates no value reported due to saturation of the detector. Sample dilution required.
NA	Indicates compound not analyzed for.
M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match.
B	Indicates possible/probable blank contamination. Flagged when the analyte is detected in the blank as well as the sample.
Y	Indicates raised reporting limit due to background interference or to activity on the instrument. Compound is still not detected at or above the raised level.
C	Indicates a probable hit that cannot be confirmed due to matrix interference (GC).
P	Indicates a high RPD for dual column GC analyses without obvious interference.

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B
Sample ID: MB-090904
METHOD BLANK

Lab Sample ID: MB-090904
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Instrument/Analyst: FINN1/PAB
Date Analyzed: 09/09/04 12:38

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	Acetone	1.0	< 1.0 U
75-15-0	Carbon Disulfide	0.2	< 0.2 U
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	2-Butanone	1.0	< 1.0 U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B

Sample ID: MB-090904
METHOD BLANK

Lab Sample ID: MB-090904
LIMS ID: 04-14100
Matrix: Water
Date Analyzed: 09/09/04 12:38

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	4-Isopropyltoluene	0.2	< 0.2 U
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	95.4%
d8-Toluene	94.2%
Bromofluorobenzene	85.0%
d4-1,2-Dichlorobenzene	94.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B
Sample ID: MB-091004
METHOD BLANK

Lab Sample ID: MB-091004
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Instrument/Analyst: FINN3/PAB
Date Analyzed: 09/10/04 16:26

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	Acetone	1.0	< 1.0 U
75-15-0	Carbon Disulfide	0.2	< 0.2 U
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	2-Butanone	1.0	< 1.0 U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

Sample ID: MB-091004
METHOD BLANK

Lab Sample ID: MB-091004
LIMS ID: 04-14095
Matrix: Water
Date Analyzed: 09/10/04 16:26

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	4-Isopropyltoluene	0.2	< 0.2 U
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	101%
d8-Toluene	104%
Bromofluorobenzene	91.7%
d4-1,2-Dichlorobenzene	108%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: Trip Blank**
Page 1 of 2 **SAMPLE**

Lab Sample ID: HA44I
LIMS ID: 04-14103
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: FINN1/PAB
Date Analyzed: 09/09/04 21:20

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	**Acetone**	**1.0**	**1.8**
75-15-0	Carbon Disulfide	0.2	< 0.2 U
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	2-Butanone	1.0	< 1.0 U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: Trip Blank**
 SAMPLE

Lab Sample ID: HA44I
LIMS ID: 04-14103
Matrix: Water
Date Analyzed: 09/09/04 21:20

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	4-Isopropyltoluene	0.2	< 0.2 U
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.5%
d8-Toluene	97.8%
Bromofluorobenzene	84.8%
d4-1,2-Dichlorobenzene	94.0%

ANALYTICAL RESOURCES INCORPORATED

WATER VOLATILE SYSTEM MONITORING COMPOUND SUMMARY

Matrix: Water (Low Level) QC Report No: HA44

Lab ID	Client ID	DCE	TOL	BFB	DCB	TOT OUT
091004MB	Method Blank	101%	104%	91.7%	108%	0
HA44LCS	Lab Control	99.6%	102%	97.8%	97.8%	0
HA44LCD	LCDuplicate	120%	106%	103%	99.5%	0
HA44A	MW-102	105%	108%	94.2%	108%	0
HA44B	MW-104	94.8%	96.8%	83.5%	100%	0
HA44C	MW-108	110%	110%	97.0%	105%	0
HA44D	MW-109	97.8%	96.0%	84.5%	91.0%	0
HA44E	MW-110	108%	106%	94.8%	104%	0
090904MB	Method Blank	95.4%	94.2%	85.0%	94.6%	0
HA44LCS	Lab Control	87.6%	94.6%	93.4%	91.9%	0
HA44LCD	LCDuplicate	89.1%	95.0%	92.0%	90.8%	0
HA44F	MW-111	99.2%	98.5%	85.5%	96.8%	0
HA44FMS	MW-111	93.6%	96.2%	94.9%	89.8%	0
HA44FMSD	MW-111	89.6%	95.2%	94.7%	92.2%	0
HA44G	MW-112	121%	114%	101%	112%	0
HA44H	MW-202	95.8%	95.5%	84.2%	96.8%	0
HA44I	Trip Blank	98.5%	97.8%	84.8%	94.0%	0

SW8260B	LCS/MB LIMITS	QC LIMITS
(DCE) = 1,2-Dichloroethane-d4	(68-126)	(62-138)
(TOL) = Toluene-d8	(59-121)	(66-124)
(BFB) = Bromofluorobenzene	(62-117)	(60-111)
(DCB) = 1,2-Dichlorobenzene-d4	(77-122)	(77-127)

\# Column to be used to flag recovery values

* Values outside of required QC limits

D System Monitoring Compound diluted out

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-111**
 MATRIX SPIKE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Instrument/Analyst: FINN1/PAB
Date Analyzed: 09/09/04 21:50

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	---
74-83-9	Bromomethane	0.2	---
75-01-4	Vinyl Chloride	0.2	---
75-00-3	Chloroethane	0.2	---
75-09-2	Methylene Chloride	0.3	---
67-64-1	Acetone	1.0	---
75-15-0	Carbon Disulfide	0.2	---
75-35-4	1,1-Dichloroethene	0.2	---
75-34-3	1,1-Dichloroethane	0.2	---
156-60-5	trans-1,2-Dichloroethene	0.2	---
156-59-2	cis-1,2-Dichloroethene	0.2	---
67-66-3	Chloroform	0.2	---
107-06-2	1,2-Dichloroethane	0.2	---
78-93-3	2-Butanone	1.0	---
71-55-6	1,1,1-Trichloroethane	0.2	---
56-23-5	Carbon Tetrachloride	0.2	---
108-05-4	Vinyl Acetate	0.2	---
75-27-4	Bromodichloromethane	0.2	---
78-87-5	1,2-Dichloropropane	0.2	---
10061-01-5	cis-1,3-Dichloropropene	0.2	---
79-01-6	Trichloroethene	0.2	---
124-48-1	Dibromochloromethane	0.2	---
79-00-5	1,1,2-Trichloroethane	0.2	---
71-43-2	Benzene	0.2	---
10061-02-6	trans-1,3-Dichloropropene	0.2	---
110-75-8	2-Chloroethylvinylether	0.5	---
75-25-2	Bromoform	0.2	---
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	---
591-78-6	2-Hexanone	1.0	---
127-18-4	Tetrachloroethene	0.2	---
79-34-5	1,1,2,2-Tetrachloroethane	0.2	---
108-88-3	Toluene	0.2	---
108-90-7	Chlorobenzene	0.2	---
100-41-4	Ethylbenzene	0.2	---
100-42-5	Styrene	0.2	---
75-69-4	Trichlorofluoromethane	0.2	---
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	---
1330-20-7	m,p-Xylene	0.4	---
95-47-6	o-Xylene	0.2	---
95-50-1	1,2-Dichlorobenzene	0.2	---
541-73-1	1,3-Dichlorobenzene	0.2	---
106-46-7	1,4-Dichlorobenzene	0.2	---
107-02-8	Acrolein	5.0	---
74-88-4	Methyl Iodide	0.2	---
74-96-4	Bromoethane	0.2	---
107-13-1	Acrylonitrile	1.0	---
563-58-6	1,1-Dichloropropene	0.2	---
74-95-3	Dibromomethane	0.2	---
630-20-6	1,1,1,2-Tetrachloroethane	0.2	---
96-12-8	1,2-Dibromo-3-chloropropane	2.0	---

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B

Sample ID: MW-111
MATRIX SPIKE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Date Analyzed: 09/09/04 21:50

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	---
110-57-6	trans-1,4-Dichloro-2-butene	1.0	---
108-67-8	1,3,5-Trimethylbenzene	0.2	---
95-63-6	1,2,4-Trimethylbenzene	0.2	---
87-68-3	Hexachlorobutadiene	0.5	---
106-93-4	Ethylene Dibromide	0.2	---
74-97-5	Bromochloromethane	0.2	---
594-20-7	2,2-Dichloropropane	0.2	---
142-28-9	1,3-Dichloropropane	0.2	---
98-82-8	Isopropylbenzene	0.2	---
103-65-1	n-Propylbenzene	0.2	---
108-86-1	Bromobenzene	0.2	---
95-49-8	2-Chlorotoluene	0.2	---
106-43-4	4-Chlorotoluene	0.2	---
98-06-6	tert-Butylbenzene	0.2	---
135-98-8	sec-Butylbenzene	0.2	---
99-87-6	4-Isopropyltoluene	0.2	---
104-51-8	n-Butylbenzene	0.2	---
120-82-1	1,2,4-Trichlorobenzene	0.5	---
91-20-3	Naphthalene	0.5	---
87-61-6	1,2,3-Trichlorobenzene	0.5	---

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	93.6%
d8-Toluene	96.2%
Bromofluorobenzene	94.9%
d4-1,2-Dichlorobenzene	89.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-111**
Page 1 of 2 **MATRIX SPIKE DUPLICATE**

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Instrument/Analyst: FINN1/PAB
Date Analyzed: 09/09/04 22:20

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	---
74-83-9	Bromomethane	0.2	---
75-01-4	Vinyl Chloride	0.2	---
75-00-3	Chloroethane	0.2	---
75-09-2	Methylene Chloride	0.3	---
67-64-1	Acetone	1.0	---
75-15-0	Carbon Disulfide	0.2	---
75-35-4	1,1-Dichloroethene	0.2	---
75-34-3	1,1-Dichloroethane	0.2	---
156-60-5	trans-1,2-Dichloroethene	0.2	---
156-59-2	cis-1,2-Dichloroethene	0.2	---
67-66-3	Chloroform	0.2	---
107-06-2	1,2-Dichloroethane	0.2	---
78-93-3	2-Butanone	1.0	---
71-55-6	1,1,1-Trichloroethane	0.2	---
56-23-5	Carbon Tetrachloride	0.2	---
108-05-4	Vinyl Acetate	0.2	---
75-27-4	Bromodichloromethane	0.2	---
78-87-5	1,2-Dichloropropane	0.2	---
10061-01-5	cis-1,3-Dichloropropene	0.2	---
79-01-6	Trichloroethene	0.2	---
124-48-1	Dibromochloromethane	0.2	---
79-00-5	1,1,2-Trichloroethane	0.2	---
71-43-2	Benzene	0.2	---
10061-02-6	trans-1,3-Dichloropropene	0.2	---
110-75-8	2-Chloroethylvinylether	0.5	---
75-25-2	Bromoform	0.2	---
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	---
591-78-6	2-Hexanone	1.0	---
127-18-4	Tetrachloroethene	0.2	---
79-34-5	1,1,2,2-Tetrachloroethane	0.2	---
108-88-3	Toluene	0.2	---
108-90-7	Chlorobenzene	0.2	---
100-41-4	Ethylbenzene	0.2	---
100-42-5	Styrene	0.2	---
75-69-4	Trichlorofluoromethane	0.2	---
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	---
1330-20-7	m,p-Xylene	0.4	---
95-47-6	o-Xylene	0.2	---
95-50-1	1,2-Dichlorobenzene	0.2	---
541-73-1	1,3-Dichlorobenzene	0.2	---
106-46-7	1,4-Dichlorobenzene	0.2	---
107-02-8	Acrolein	5.0	---
74-88-4	Methyl Iodide	0.2	---
74-96-4	Bromoethane	0.2	---
107-13-1	Acrylonitrile	1.0	---
563-58-6	1,1-Dichloropropene	0.2	---
74-95-3	Dibromomethane	0.2	---
630-20-6	1,1,1,2-Tetrachloroethane	0.2	---
96-12-8	1,2-Dibromo-3-chloropropane	2.0	---

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B

Sample ID: MW-111
MATRIX SPIKE DUPLICATE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Date Analyzed: 09/09/04 22:20

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	---
110-57-6	trans-1,4-Dichloro-2-butene	1.0	---
108-67-8	1,3,5-Trimethylbenzene	0.2	---
95-63-6	1,2,4-Trimethylbenzene	0.2	---
87-68-3	Hexachlorobutadiene	0.5	---
106-93-4	Ethylene Dibromide	0.2	---
74-97-5	Bromochloromethane	0.2	---
594-20-7	2,2-Dichloropropane	0.2	---
142-28-9	1,3-Dichloropropane	0.2	---
98-82-8	Isopropylbenzene	0.2	---
103-65-1	n-Propylbenzene	0.2	---
108-86-1	Bromobenzene	0.2	---
95-49-8	2-Chlorotoluene	0.2	---
106-43-4	4-Chlorotoluene	0.2	---
98-06-6	tert-Butylbenzene	0.2	---
135-98-8	sec-Butylbenzene	0.2	---
99-87-6	4-Isopropyltoluene	0.2	---
104-51-8	n-Butylbenzene	0.2	---
120-82-1	1,2,4-Trichlorobenzene	0.5	---
91-20-3	Naphthalene	0.5	---
87-61-6	1,2,3-Trichlorobenzene	0.5	---

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	89.6%
d8-Toluene	95.2%
Bromofluorobenzene	94.7%
d4-1,2-Dichlorobenzene	92.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-111**
 MS/MSD

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Instrument/Analyst MS: FINN1/PAB
MSD: FINN1/PAB
Date Analyzed MS: 09/09/04 21:50
MSD: 09/09/04 22:20

Sample Amount MS: 20.0 mL
MSD: 20.0 mL
Purge Volume MS: 20.0 mL
MSD: 20.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Chloromethane	< 0.2	3.1	4.0	77.5%	2.9	4.0	72.5%	6.7%
Bromomethane	< 0.2	2.2	4.0	55.0%	2.0	4.0	50.0%	9.5%
Vinyl Chloride	< 0.2	3.1	4.0	77.5%	3.0	4.0	75.0%	3.3%
Chloroethane	< 0.2	3.5	4.0	87.5%	3.4	4.0	85.0%	2.9%
Methylene Chloride	< 0.3	4.1	4.0	102%	3.8	4.0	95.0%	7.6%
Acetone	10.5	30.8	20.0	102%	24.3	20.0	69.0%	23.6%
Carbon Disulfide	< 0.2	3.3	4.0	82.5%	3.2	4.0	80.0%	3.1%
1,1-Dichloroethene	< 0.2	3.6	4.0	90.0%	3.5	4.0	87.5%	2.8%
1,1-Dichloroethane	< 0.2	3.6	4.0	90.0%	3.5	4.0	87.5%	2.8%
trans-1,2-Dichloroethene	< 0.2	3.4	4.0	85.0%	3.4	4.0	85.0%	0.0%
cis-1,2-Dichloroethene	< 0.2	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
Chloroform	< 0.2	3.8	4.0	95.0%	3.7	4.0	92.5%	2.7%
1,2-Dichloroethane	< 0.2	3.7	4.0	92.5%	3.7	4.0	92.5%	0.0%
2-Butanone	1.3	18.4	20.0	85.5%	18.0	20.0	83.5%	2.2%
1,1,1-Trichloroethane	< 0.2	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
Carbon Tetrachloride	< 0.2	3.8	4.0	95.0%	3.7	4.0	92.5%	2.7%
Vinyl Acetate	< 0.2	3.3	4.0	82.5%	3.3	4.0	82.5%	0.0%
Bromodichloromethane	< 0.2	3.8	4.0	95.0%	3.6	4.0	90.0%	5.4%
1,2-Dichloropropane	< 0.2	3.8	4.0	95.0%	3.7	4.0	92.5%	2.7%
cis-1,3-Dichloropropene	< 0.2	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
Trichloroethene	< 0.2	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
Dibromochloromethane	< 0.2	3.1	4.0	77.5%	3.1	4.0	77.5%	0.0%
1,1,2-Trichloroethane	< 0.2	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%
Benzene	< 0.2	3.8	4.0	95.0%	3.9	4.0	97.5%	2.6%
trans-1,3-Dichloropropene	< 0.2	3.4	4.0	85.0%	3.4	4.0	85.0%	0.0%
2-Chloroethylvinylether	< 0.5	< 0.5	4.0	NA	< 0.5	4.0	NA	NA
Bromoform	< 0.2	3.7	4.0	92.5%	3.6	4.0	90.0%	2.7%
4-Methyl-2-Pentanone (MIBK)	< 1.0	19.2	20.0	96.0%	19.9	20.0	99.5%	3.6%
2-Hexanone	< 1.0	20.5	20.0	102%	21.8	20.0	109%	6.1%
Tetrachloroethene	< 0.2	3.8	4.0	95.0%	3.7	4.0	92.5%	2.7%
1,1,2,2-Tetrachloroethane	< 0.2	3.7	4.0	92.5%	3.7	4.0	92.5%	0.0%
Toluene	< 0.2	3.9	4.0	97.5%	3.8	4.0	95.0%	2.6%
Chlorobenzene	< 0.2	3.8	4.0	95.0%	3.9	4.0	97.5%	2.6%
Ethylbenzene	< 0.2	4.3	4.0	108%	4.3	4.0	108%	0.0%
Styrene	< 0.2	4.2	4.0	105%	4.2	4.0	105%	0.0%
Trichlorofluoromethane	< 0.2	3.6	4.0	90.0%	3.4	4.0	85.0%	5.7%
1,1,2-Trichloro-1,2,2-trifl	< 0.2	3.5	4.0	87.5%	3.4	4.0	85.0%	2.9%
m,p-Xylene	< 0.4	8.4	8.0	105%	8.6	8.0	108%	2.4%
o-Xylene	< 0.2	3.8	4.0	95.0%	3.9	4.0	97.5%	2.6%
1,2-Dichlorobenzene	< 0.2	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%
1,3-Dichlorobenzene	< 0.2	3.7	4.0	92.5%	3.7	4.0	92.5%	0.0%
1,4-Dichlorobenzene	< 0.2	3.7	4.0	92.5%	3.7	4.0	92.5%	0.0%
Acrolein	< 5.0	16.4	20.0	82.0%	14.9	20.0	74.5%	9.6%
Methyl Iodide	< 0.2	2.5	4.0	62.5%	2.5	4.0	62.5%	0.0%
Bromoethane	< 0.2	3.7	4.0	92.5%	3.6	4.0	90.0%	2.7%
Acrylonitrile	< 1.0	3.5	4.0	87.5%	3.8	4.0	95.0%	8.2%
1,1-Dichloropropene	< 0.2	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
Dibromomethane	< 0.2	3.7	4.0	92.5%	3.6	4.0	90.0%	2.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-111**
 MS/MSD

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Date Analyzed MS: 09/09/04 21:50
MSD: 09/09/04 22:20

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Purge Volume MS: 20.0 mL
MSD: 20.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
1,1,1,2-Tetrachloroethane	< 0.2	3.6	4.0	90.0%	3.8	4.0	95.0%	5.4%
1,2-Dibromo-3-chloropropane	< 2.0	3.4	4.0	85.0%	3.5	4.0	87.5%	2.9%
1,2,3-Trichloropropane	< 0.5	3.6	4.0	90.0%	3.5	4.0	87.5%	2.8%
trans-1,4-Dichloro-2-butene	< 1.0	3.4	4.0	85.0%	3.5	4.0	87.5%	2.9%
1,3,5-Trimethylbenzene	< 0.2	3.9	4.0	97.5%	4.0	4.0	100%	2.5%
1,2,4-Trimethylbenzene	< 0.2	4.1	4.0	102%	4.0	4.0	100%	2.5%
Hexachlorobutadiene	< 0.5	3.4	4.0	85.0%	3.4	4.0	85.0%	0.0%
Ethylene Dibromide	< 0.2	3.7	4.0	92.5%	3.7	4.0	92.5%	0.0%
Bromochloromethane	< 0.2	3.8	4.0	95.0%	3.6	4.0	90.0%	5.4%
2,2-Dichloropropane	< 0.2	3.1	4.0	77.5%	3.0	4.0	75.0%	3.3%
1,3-Dichloropropane	< 0.2	3.7	4.0	92.5%	3.7	4.0	92.5%	0.0%
Isopropylbenzene	< 0.2	3.9	4.0	97.5%	3.9	4.0	97.5%	0.0%
n-Propylbenzene	< 0.2	4.0	4.0	100%	4.0	4.0	100%	0.0%
Bromobenzene	< 0.2	3.6	4.0	90.0%	3.7	4.0	92.5%	2.7%
2-Chlorotoluene	< 0.2	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%
4-Chlorotoluene	< 0.2	4.0	4.0	100%	4.0	4.0	100%	0.0%
tert-Butylbenzene	< 0.2	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%
sec-Butylbenzene	< 0.2	4.0	4.0	100%	4.1	4.0	102%	2.5%
4-Isopropyltoluene	< 0.2	4.0	4.0	100%	4.0	4.0	100%	0.0%
n-Butylbenzene	< 0.2	3.8	4.0	95.0%	3.9	4.0	97.5%	2.6%
1,2,4-Trichlorobenzene	< 0.5	3.4	4.0	85.0%	3.7	4.0	92.5%	8.5%
Naphthalene	< 0.5	3.6	4.0	90.0%	3.7	4.0	92.5%	2.7%
1,2,3-Trichlorobenzene	< 0.5	3.5	4.0	87.5%	3.8	4.0	95.0%	8.2%

Results reported in µg/L
NA-No recovery due to high concentration of analyte in original sample, or calculated negative recovery, or undetected spike.
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: LCS-090904**
 LCS/LCSD

Lab Sample ID: LCS-090904 QC Report No: HA44-Landau Associates
LIMS ID: 04-14100 Project: Port of Anacortes Uplands
Matrix: Water 529009
Data Release Authorized: Date Sampled: NA
Reported: 09/15/04 Date Received: NA

Instrument/Analyst LCS: FINN1/PAB Sample Amount LCS: 20.0 mL
LCSD: FINN1/PAB LCSD: 20.0 mL
Date Analyzed LCS: 09/09/04 11:33 Purge Volume LCS: 20.0 mL
LCSD: 09/09/04 12:07 LCSD: 20.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	2.9	4.0	72.5%	3.0	4.0	75.0%	3.4%
Bromomethane	2.7	4.0	67.5%	2.9	4.0	72.5%	7.1%
Vinyl Chloride	3.0	4.0	75.0%	3.0	4.0	75.0%	0.0%
Chloroethane	3.2	4.0	80.0%	3.1	4.0	77.5%	3.2%
Methylene Chloride	3.6	4.0	90.0%	3.7	4.0	92.5%	2.7%
Acetone	17.7	20.0	88.5%	17.9	20.0	89.5%	1.1%
Carbon Disulfide	3.1	4.0	77.5%	3.2	4.0	80.0%	3.2%
1,1-Dichloroethene	3.5	4.0	87.5%	3.4	4.0	85.0%	2.9%
1,1-Dichloroethane	3.4	4.0	85.0%	3.5	4.0	87.5%	2.9%
trans-1,2-Dichloroethene	3.4	4.0	85.0%	3.4	4.0	85.0%	0.0%
cis-1,2-Dichloroethene	3.5	4.0	87.5%	3.6	4.0	90.0%	2.8%
Chloroform	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
1,2-Dichloroethane	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
2-Butanone	15.5	20.0	77.5%	15.3	20.0	76.5%	1.3%
1,1,1-Trichloroethane	3.5	4.0	87.5%	3.6	4.0	90.0%	2.8%
Carbon Tetrachloride	3.9	4.0	97.5%	3.8	4.0	95.0%	2.6%
Vinyl Acetate	3.2	4.0	80.0%	3.3	4.0	82.5%	3.1%
Bromodichloromethane	3.7	4.0	92.5%	3.5	4.0	87.5%	5.6%
1,2-Dichloropropane	3.6	4.0	90.0%	3.4	4.0	85.0%	5.7%
cis-1,3-Dichloropropene	3.7	4.0	92.5%	3.6	4.0	90.0%	2.7%
Trichloroethene	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
Dibromochloromethane	2.9	4.0	72.5%	3.1	4.0	77.5%	6.7%
1,1,2-Trichloroethane	3.5	4.0	87.5%	3.5	4.0	87.5%	0.0%
Benzene	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%
trans-1,3-Dichloropropene	3.5	4.0	87.5%	3.4	4.0	85.0%	2.9%
2-Chloroethylvinylether	2.9	4.0	72.5%	3.1	4.0	77.5%	6.7%
Bromoform	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
4-Methyl-2-Pentanone (MIBK)	17.3	20.0	86.5%	16.6	20.0	83.0%	4.1%
2-Hexanone	17.1	20.0	85.5%	17.6	20.0	88.0%	2.9%
Tetrachloroethene	3.8	4.0	95.0%	3.9	4.0	97.5%	2.6%
1,1,2,2-Tetrachloroethane	3.4	4.0	85.0%	3.5	4.0	87.5%	2.9%
Toluene	3.8	4.0	95.0%	3.7	4.0	92.5%	2.7%
Chlorobenzene	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%
Ethylbenzene	4.1	4.0	102%	4.3	4.0	108%	4.8%
Styrene	3.9	4.0	97.5%	4.0	4.0	100%	2.5%
Trichlorofluoromethane	3.4	4.0	85.0%	3.5	4.0	87.5%	2.9%
1,1,2-Trichloro-1,2,2-trifl	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
m,p-Xylene	8.2	8.0	102%	8.4	8.0	105%	2.4%
o-Xylene	3.6	4.0	90.0%	3.7	4.0	92.5%	2.7%
1,2-Dichlorobenzene	3.7	4.0	92.5%	3.7	4.0	92.5%	0.0%
1,3-Dichlorobenzene	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%
1,4-Dichlorobenzene	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
Acrolein	16.1	20.0	80.5%	16.9	20.0	84.5%	4.8%
Methyl Iodide	3.3	4.0	82.5%	3.5	4.0	87.5%	5.9%
Bromoethane	3.4	4.0	85.0%	3.5	4.0	87.5%	2.9%
Acrylonitrile	3.0	4.0	75.0%	3.3	4.0	82.5%	9.5%
1,1-Dichloropropene	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
Dibromomethane	3.5	4.0	87.5%	3.6	4.0	90.0%	2.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: LCS-090904**
 LCS/LCSD

Lab Sample ID: LCS-090904 QC Report No: HA44-Landau Associates
LIMS ID: 04-14100 Project: Port of Anacortes Uplands
Matrix: Water 529009
Date Analyzed: 09/09/04 11:33 Purge Volume: 20.0 mL
LCSD: 09/09/04 12:07 LCSD: 20.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,1,1,2-Tetrachloroethane	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
1,2-Dibromo-3-chloropropane	3.4	4.0	85.0%	3.1	4.0	77.5%	9.2%
1,2,3-Trichloropropane	3.4	4.0	85.0%	3.3	4.0	82.5%	3.0%
trans-1,4-Dichloro-2-butene	3.3	4.0	82.5%	3.4	4.0	85.0%	3.0%
1,3,5-Trimethylbenzene	4.0	4.0	100%	4.1	4.0	102%	2.5%
1,2,4-Trimethylbenzene	4.0	4.0	100%	4.2	4.0	105%	4.9%
Hexachlorobutadiene	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%
Ethylene Dibromide	3.7	4.0	92.5%	3.5	4.0	87.5%	5.6%
Bromochloromethane	3.5	4.0	87.5%	3.5	4.0	87.5%	0.0%
2,2-Dichloropropane	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
1,3-Dichloropropane	3.4	4.0	85.0%	3.6	4.0	90.0%	5.7%
Isopropylbenzene	3.9	4.0	97.5%	4.0	4.0	100%	2.5%
n-Propylbenzene	4.2	4.0	105%	4.2	4.0	105%	0.0%
Bromobenzene	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%
2-Chlorotoluene	3.8	4.0	95.0%	3.9	4.0	97.5%	2.6%
4-Chlorotoluene	3.9	4.0	97.5%	4.0	4.0	100%	2.5%
tert-Butylbenzene	3.8	4.0	95.0%	4.0	4.0	100%	5.1%
sec-Butylbenzene	4.1	4.0	102%	4.2	4.0	105%	2.4%
4-Isopropyltoluene	4.2	4.0	105%	4.2	4.0	105%	0.0%
n-Butylbenzene	4.2	4.0	105%	4.2	4.0	105%	0.0%
1,2,4-Trichlorobenzene	3.7	4.0	92.5%	3.5	4.0	87.5%	5.6%
Naphthalene	3.3	4.0	82.5%	3.4	4.0	85.0%	3.0%
1,2,3-Trichlorobenzene	3.6	4.0	90.0%	3.6	4.0	90.0%	0.0%

Results reported in µg/L
RPD calculated using sample concentrations per SW846.
LCS spike recovery is evaluated using only the nine regulated compounds noted in the ARI LQAP. The other LCS spike compound recoveries are advisory and used for analytical troubleshooting should any of the nine regulated compounds be out of control.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	87.6%	89.1%
d8-Toluene	94.6%	95.0%
Bromofluorobenzene	93.4%	92.0%
d4-1,2-Dichlorobenzene	91.9%	90.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: LCS-091004**
 LCS/LCSD

Lab Sample ID: LCS-091004
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: FINN3/PAB
LCSD: FINN3/PAB
Date Analyzed LCS: 09/10/04 15:39
LCSD: 09/10/04 17:16

Sample Amount LCS: 20.0 mL
LCSD: 20.0 mL
Purge Volume LCS: 20.0 mL
LCSD: 20.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	3.3	4.0	82.5%	3.3	4.0	82.5%	0.0%
Bromomethane	3.5	4.0	87.5%	3.9	4.0	97.5%	10.8%
Vinyl Chloride	3.6	4.0	90.0%	3.5	4.0	87.5%	2.8%
Chloroethane	3.7	4.0	92.5%	3.6	4.0	90.0%	2.7%
Methylene Chloride	3.9	4.0	97.5%	4.3	4.0	108%	9.8%
Acetone	17.5	20.0	87.5%	19.5	20.0	97.5%	10.8%
Carbon Disulfide	4.0	4.0	100%	4.1	4.0	102%	2.5%
1,1-Dichloroethene	3.9	4.0	97.5%	3.9	4.0	97.5%	0.0%
1,1-Dichloroethane	3.8	4.0	95.0%	4.0	4.0	100%	5.1%
trans-1,2-Dichloroethene	4.1	4.0	102%	4.2	4.0	105%	2.4%
cis-1,2-Dichloroethene	3.9	4.0	97.5%	4.1	4.0	102%	5.0%
Chloroform	3.8	4.0	95.0%	4.1	4.0	102%	7.6%
1,2-Dichloroethane	3.8	4.0	95.0%	4.3	4.0	108%	12.3%
2-Butanone	16.2	20.0	81.0%	19.8	20.0	99.0%	20.0%
1,1,1-Trichloroethane	3.8	4.0	95.0%	3.7	4.0	92.5%	2.7%
Carbon Tetrachloride	4.0	4.0	100%	3.8	4.0	95.0%	5.1%
Vinyl Acetate	3.7	4.0	92.5%	4.4	4.0	110%	17.3%
Bromodichloromethane	3.9	4.0	97.5%	4.3	4.0	108%	9.8%
1,2-Dichloropropane	3.9	4.0	97.5%	4.3	4.0	108%	9.8%
cis-1,3-Dichloropropene	3.4	4.0	85.0%	3.8	4.0	95.0%	11.1%
Trichloroethene	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%
Dibromochloromethane	3.2	4.0	80.0%	3.7	4.0	92.5%	14.5%
1,1,2-Trichloroethane	3.9	4.0	97.5%	4.7	4.0	118%	18.6%
Benzene	4.0	4.0	100%	4.1	4.0	102%	2.5%
trans-1,3-Dichloropropene	3.4	4.0	85.0%	4.0	4.0	100%	16.2%
2-Chloroethylvinylether	3.8	4.0	95.0%	4.5	4.0	112%	16.9%
Bromoform	3.6	4.0	90.0%	3.9	4.0	97.5%	8.0%
4-Methyl-2-Pentanone (MIBK)	16.0	20.0	80.0%	18.9	20.0	94.5%	16.6%
2-Hexanone	16.0	20.0	80.0%	18.9	20.0	94.5%	16.6%
Tetrachloroethene	4.0	4.0	100%	3.7	4.0	92.5%	7.8%
1,1,2,2-Tetrachloroethane	3.8	4.0	95.0%	4.3	4.0	108%	12.3%
Toluene	3.9	4.0	97.5%	3.9	4.0	97.5%	0.0%
Chlorobenzene	3.9	4.0	97.5%	3.9	4.0	97.5%	0.0%
Ethylbenzene	4.2	4.0	105%	3.9	4.0	97.5%	7.4%
Styrene	3.6	4.0	90.0%	3.7	4.0	92.5%	2.7%
Trichlorofluoromethane	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%
1,1,2-Trichloro-1,2,2-trifl	4.0	4.0	100%	4.0	4.0	100%	0.0%
m,p-Xylene	8.4	8.0	105%	7.9	8.0	98.8%	6.1%
o-Xylene	3.5	4.0	87.5%	3.4	4.0	85.0%	2.9%
1,2-Dichlorobenzene	3.9	4.0	97.5%	4.0	4.0	100%	2.5%
1,3-Dichlorobenzene	4.0	4.0	100%	3.8	4.0	95.0%	5.1%
1,4-Dichlorobenzene	3.9	4.0	97.5%	3.8	4.0	95.0%	2.6%
Acrolein	16.7	20.0	83.5%	23.4	20.0	117%	33.4%
Methyl Iodide	4.2	4.0	105%	4.2	4.0	105%	0.0%
Bromoethane	4.0	4.0	100%	4.1	4.0	102%	2.5%
Acrylonitrile	3.7	4.0	92.5%	4.7	4.0	118%	23.8%
1,1-Dichloropropene	3.8	4.0	95.0%	3.7	4.0	92.5%	2.7%
Dibromomethane	4.0	4.0	100%	4.7	4.0	118%	16.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: LCS-091004**
 LCS/LCSD

Lab Sample ID: LCS-091004 QC Report No: HA44-Landau Associates
LIMS ID: 04-14095 Project: Port of Anacortes Uplands
Matrix: Water 529009
Date Analyzed: 09/10/04 15:39 Purge Volume: 20.0 mL
LCSD: 09/10/04 17:16 LCSD: 20.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,1,1,2-Tetrachloroethane	3.4	4.0	85.0%	3.5	4.0	87.5%	2.9%
1,2-Dibromo-3-chloropropane	3.1	4.0	77.5%	3.3	4.0	82.5%	6.2%
1,2,3-Trichloropropane	3.6	4.0	90.0%	4.1	4.0	102%	13.0%
trans-1,4-Dichloro-2-butene	4.0	4.0	100%	4.3	4.0	108%	7.2%
1,3,5-Trimethylbenzene	3.8	4.0	95.0%	3.5	4.0	87.5%	8.2%
1,2,4-Trimethylbenzene	4.3	4.0	108%	3.9	4.0	97.5%	9.8%
Hexachlorobutadiene	4.2	4.0	105%	3.4	4.0	85.0%	21.1%
Ethylene Dibromide	3.8	4.0	95.0%	4.7	4.0	118%	21.2%
Bromochloromethane	3.9	4.0	97.5%	4.6	4.0	115%	16.5%
2,2-Dichloropropane	3.5	4.0	87.5%	3.5	4.0	87.5%	0.0%
1,3-Dichloropropane	3.8	4.0	95.0%	4.3	4.0	108%	12.3%
Isopropylbenzene	4.2	4.0	105%	3.8	4.0	95.0%	10.0%
n-Propylbenzene	4.5	4.0	112%	4.0	4.0	100%	11.8%
Bromobenzene	4.0	4.0	100%	4.0	4.0	100%	0.0%
2-Chlorotoluene	3.8	4.0	95.0%	3.5	4.0	87.5%	8.2%
4-Chlorotoluene	4.2	4.0	105%	4.0	4.0	100%	4.9%
tert-Butylbenzene	3.6	4.0	90.0%	3.1	4.0	77.5%	14.9%
sec-Butylbenzene	4.4	4.0	110%	3.8	4.0	95.0%	14.6%
4-Isopropyltoluene	4.0	4.0	100%	3.5	4.0	87.5%	13.3%
n-Butylbenzene	4.5	4.0	112%	3.8	4.0	95.0%	16.9%
1,2,4-Trichlorobenzene	3.8	4.0	95.0%	3.6	4.0	90.0%	5.4%
Naphthalene	3.4	4.0	85.0%	3.6	4.0	90.0%	5.7%
1,2,3-Trichlorobenzene	3.7	4.0	92.5%	3.6	4.0	90.0%	2.7%

Results reported in µg/L
RPD calculated using sample concentrations per SW846.
LCS spike recovery is evaluated using only the nine regulated compounds noted in the ARI LQAP. The other LCS spike compound recoveries are advisory and used for analytical troubleshooting should any of the nine regulated compounds be out of control.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	99.6%	120%
d8-Toluene	102%	106%
Bromofluorobenzene	97.8%	103%
d4-1,2-Dichlorobenzene	97.8%	99.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-102**
 SAMPLE

Lab Sample ID: HA44A
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: FINN3/PAB
Date Analyzed: 09/10/04 19:30

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	**Acetone**	**1.0**	**13**
75-15-0	**Carbon Disulfide**	**0.2**	**0.4**
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	**2-Butanone**	**1.0**	**3.2**
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B

Sample ID: MW-102
SAMPLE

Lab Sample ID: HA44A
LIMS ID: 04-14095
Matrix: Water
Date Analyzed: 09/10/04 19:30

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	4-Isopropyltoluene	0.2	< 0.2 U
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	108%
Bromofluorobenzene	94.2%
d4-1,2-Dichlorobenzene	108%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-104**
 SAMPLE

Lab Sample ID: HA44B
LIMS ID: 04-14096
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: FINN1/PAB
Date Analyzed: 09/09/04 19:20

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	**Acetone**	**1.0**	**5.6**
75-15-0	Carbon Disulfide	0.2	< 0.2 U
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	2-Butanone	1.0	< 1.0 U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-104**
Page 2 of 2 **SAMPLE**

Lab Sample ID: HA44B
LIMS ID: 04-14096
Matrix: Water
Date Analyzed: 09/09/04 19:20

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	4-Isopropyltoluene	0.2	< 0.2 U
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	94.8%
d8-Toluene	96.8%
Bromofluorobenzene	83.5%
d4-1,2-Dichlorobenzene	100%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-108**
Page 1 of 2 **SAMPLE**

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: FINN3/PAB
Date Analyzed: 09/10/04 19:59

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	Acetone	1.0	< 1.0 U
75-15-0	Carbon Disulfide	0.2	< 0.2 U
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	2-Butanone	1.0	< 1.0 U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B

Sample ID: MW-108
SAMPLE

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Date Analyzed: 09/10/04 19:59

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	4-Isopropyltoluene	0.2	< 0.2 U
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	110%
d8-Toluene	110%
Bromofluorobenzene	97.0%
d4-1,2-Dichlorobenzene	105%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-109**
 SAMPLE

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: FINN1/PAB
Date Analyzed: 09/09/04 19:50

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	**Acetone**	**1.0**	**53**
75-15-0	Carbon Disulfide	0.2	< 0.2 U
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	2-Butanone	1.0	< 1.0 U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B
Page 2 of 2

Sample ID: MW-109
SAMPLE

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Date Analyzed: 09/09/04 19:50

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	**4-Isopropyltoluene**	**0.2**	**16**
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	97.8%
d8-Toluene	96.0%
Bromofluorobenzene	84.5%
d4-1,2-Dichlorobenzene	91.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-110**
Page 1 of 2 **SAMPLE**

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: FINN3/PAB
Date Analyzed: 09/10/04 20:28

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	**Acetone**	**1.0**	**53**
75-15-0	Carbon Disulfide	0.2	< 0.2 U
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	2-Butanone	1.0	< 1.0 U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-110**
 SAMPLE

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Date Analyzed: 09/10/04 20:28

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	**4-Isopropyltoluene**	**0.2**	**15**
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	108%
d8-Toluene	106%
Bromofluorobenzene	94.8%
d4-1,2-Dichlorobenzene	104%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B
Sample ID: MW-111
SAMPLE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Instrument/Analyst: FINN1/PAB
Date Analyzed: 09/09/04 20:20

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	**Acetone**	**1.0**	**10**
75-15-0	Carbon Disulfide	0.2	< 0.2 U
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	**2-Butanone**	**1.0**	**1.3**
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B
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Sample ID: MW-111
SAMPLE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Date Analyzed: 09/09/04 20:20

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	4-Isopropyltoluene	0.2	< 0.2 U
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	99.2%
d8-Toluene	98.5%
Bromofluorobenzene	85.5%
d4-1,2-Dichlorobenzene	96.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-112**
 SAMPLE

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: FINN3/PAB
Date Analyzed: 09/10/04 20:57

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	**Acetone**	**1.0**	**7.1**
75-15-0	**Carbon Disulfide**	**0.2**	**0.2**
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	2-Butanone	1.0	< 1.0 U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B
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Sample ID: MW-112
SAMPLE

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Date Analyzed: 09/10/04 20:57

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	4-Isopropyltoluene	0.2	< 0.2 U
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery	
d4-1,2-Dichloroethane	121%
d8-Toluene	114%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	112%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B **Sample ID: MW-202**
 SAMPLE

Lab Sample ID: HA44H
LIMS ID: 04-14102
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: FINN1/PAB
Date Analyzed: 09/09/04 20:50

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result
74-87-3	Chloromethane	0.2	< 0.2 U
74-83-9	Bromomethane	0.2	< 0.2 U
75-01-4	Vinyl Chloride	0.2	< 0.2 U
75-00-3	Chloroethane	0.2	< 0.2 U
75-09-2	Methylene Chloride	0.3	< 0.3 U
67-64-1	**Acetone**	**1.0**	**12**
75-15-0	**Carbon Disulfide**	**0.2**	**0.3**
75-35-4	1,1-Dichloroethene	0.2	< 0.2 U
75-34-3	1,1-Dichloroethane	0.2	< 0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2 U
67-66-3	Chloroform	0.2	< 0.2 U
107-06-2	1,2-Dichloroethane	0.2	< 0.2 U
78-93-3	**2-Butanone**	**1.0**	**1.4**
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2 U
56-23-5	Carbon Tetrachloride	0.2	< 0.2 U
108-05-4	Vinyl Acetate	0.2	< 0.2 U
75-27-4	Bromodichloromethane	0.2	< 0.2 U
78-87-5	1,2-Dichloropropane	0.2	< 0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2 U
79-01-6	Trichloroethene	0.2	< 0.2 U
124-48-1	Dibromochloromethane	0.2	< 0.2 U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2 U
71-43-2	Benzene	0.2	< 0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2 U
110-75-8	2-Chloroethylvinylether	0.5	< 0.5 U
75-25-2	Bromoform	0.2	< 0.2 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1.0	< 1.0 U
591-78-6	2-Hexanone	1.0	< 1.0 U
127-18-4	Tetrachloroethene	0.2	< 0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2 U
108-88-3	Toluene	0.2	< 0.2 U
108-90-7	Chlorobenzene	0.2	< 0.2 U
100-41-4	Ethylbenzene	0.2	< 0.2 U
100-42-5	Styrene	0.2	< 0.2 U
75-69-4	Trichlorofluoromethane	0.2	< 0.2 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.2	< 0.2 U
1330-20-7	m,p-Xylene	0.4	< 0.4 U
95-47-6	o-Xylene	0.2	< 0.2 U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2 U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2 U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2 U
107-02-8	Acrolein	5.0	< 5.0 U
74-88-4	Methyl Iodide	0.2	< 0.2 U
74-96-4	Bromoethane	0.2	< 0.2 U
107-13-1	Acrylonitrile	1.0	< 1.0 U
563-58-6	1,1-Dichloropropene	0.2	< 0.2 U
74-95-3	Dibromomethane	0.2	< 0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	< 2.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method 8260B
Page 2 of 2

Sample ID: MW-202
SAMPLE

Lab Sample ID: HA44H
LIMS ID: 04-14102
Matrix: Water
Date Analyzed: 09/09/04 20:50

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5 U
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0 U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2 U
87-68-3	Hexachlorobutadiene	0.5	< 0.5 U
106-93-4	Ethylene Dibromide	0.2	< 0.2 U
74-97-5	Bromochloromethane	0.2	< 0.2 U
594-20-7	2,2-Dichloropropane	0.2	< 0.2 U
142-28-9	1,3-Dichloropropane	0.2	< 0.2 U
98-82-8	Isopropylbenzene	0.2	< 0.2 U
103-65-1	n-Propylbenzene	0.2	< 0.2 U
108-86-1	Bromobenzene	0.2	< 0.2 U
95-49-8	2-Chlorotoluene	0.2	< 0.2 U
106-43-4	4-Chlorotoluene	0.2	< 0.2 U
98-06-6	tert-Butylbenzene	0.2	< 0.2 U
135-98-8	sec-Butylbenzene	0.2	< 0.2 U
99-87-6	4-Isopropyltoluene	0.2	< 0.2 U
104-51-8	n-Butylbenzene	0.2	< 0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5 U
91-20-3	Naphthalene	0.5	< 0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	95.8%
d8-Toluene	95.5%
Bromofluorobenzene	84.2%
d4-1,2-Dichlorobenzene	96.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MB-091004**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-091004
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 13:21

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	114%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: Trip Blank**
Page 1 of 1 **SAMPLE**

Lab Sample ID: HA44I
LIMS ID: 04-14103
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 18:51

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	121%

ANALYTICAL RESOURCES INCORPORATED

SW8260-SIM SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Client ID	DCA	TOT OUT
MW-102	91.6%	0
MW-104	121%	0
MW-108	121%	0
MW-109	123%	0
MW-110	119%	0
MB-091004	114%	0
LCS-091004	102%	0
LCSD-091004	114%	0
MW-111	119%	0
MW-111-MS	119%	0
MW-111-MSD	107%	0
MW-112	114%	0
MW-202	114%	0
Trip Blank	121%	0

	LCS/MB LIMITS	QC LIMITS
(DCA) = d4-1,2-Dichloroethane	(78-122)	(67-138)

Prep Method: SW5030
Log Number Range: 04-14095 to 04-14103

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-111**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 16:52

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	---

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	119%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-111**
Page 1 of 1 **MATRIX SPIKE DUPLICATE**

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 17:22

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	---

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	107%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-111**
Page 1 of 1 **MS/MSD**

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Instrument/Analyst MS: NT5/JA
MSD: NT5/JA
Date Analyzed MS: 09/10/04 16:52
MSD: 09/10/04 17:22

Sample Amount MS: 10.0 mL
MSD: 10.0 mL
Purge Volume MS: 10.0 mL
MSD: 10.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Vinyl Chloride	< 0.020	0.393	0.500	78.6%	0.382	0.500	76.4%	2.8%

Results reported in μg/L
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS
Page 1 of 1

Sample ID: LCS-091004
LCS/LCSD

Lab Sample ID: LCS-091004
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT5/JA
LCSD: NT5/JA
Date Analyzed LCS: 09/10/04 12:21
LCSD: 09/10/04 12:51

Sample Amount LCS: 10.0 mL
LCSD: 10.0 mL
Purge Volume LCS: 10.0 mL
LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	0.406	0.500	81.2%	0.405	0.500	81.0%	0.2%

Results reported in µg/L
RPD calculated using sample concentrations per SW846.

SIM Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	102%	114%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-102**
Page 1 of 1 **SAMPLE**

Lab Sample ID: HA44A
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 13:54

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	91.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS

Sample ID: MW-104
SAMPLE

Lab Sample ID: HA44B
LIMS ID: 04-14096
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 14:24

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	121%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS
Page 1 of 1

Sample ID: MW-108
SAMPLE

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized: MW
Reported: 09/27/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 14:53

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.20	< 0.20 Y

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	121%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-109**
Page 1 of 1 **SAMPLE**

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 15:23

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	123%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS
Page 1 of 1

Sample ID: MW-110
SAMPLE

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 15:53

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	119%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS
Page 1 of 1

Sample ID: MW-111
SAMPLE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 16:23

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	119%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS **Sample ID: MW-112**
Page 1 of 1 **SAMPLE**

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 17:52

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	114%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS
Page 1 of 1

Sample ID: MW-202
SAMPLE

Lab Sample ID: HA44H
LIMS ID: 04-14102
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Instrument/Analyst: NT5/JA
Date Analyzed: 09/10/04 18:22

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result
75-01-4	Vinyl Chloride	0.020	< 0.020 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	114%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MB-090704
METHOD BLANK

Lab Sample ID: MB-090704
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Date Extracted: 09/07/04
Date Analyzed: 09/11/04 15:10
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MB-090704
METHOD BLANK

Lab Sample ID: MB-090704
LIMS ID: 04-14095
Matrix: Water
Date Analyzed: 09/11/04 15:10

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	82.2%	2-Fluorobiphenyl	79.6%
d14-p-Terphenyl	90.5%	d4-1,2-Dichlorobenzene	66.2%
d5-Phenol	79.0%	2-Fluorophenol	75.2%
2,4,6-Tribromophenol	86.6%	d4-2-Chlorophenol	82.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MB-090604
METHOD BLANK

Lab Sample ID: MB-090604
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Date Extracted: 09/06/04
Date Analyzed: 09/11/04 01:49
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MB-090604
METHOD BLANK

Lab Sample ID: MB-090604
LIMS ID: 04-14100
Matrix: Water
Date Analyzed: 09/11/04 01:49

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**1.0**	**2.2**
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	89.7%	2-Fluorobiphenyl	87.0%
d14-p-Terphenyl	94.0%	d4-1,2-Dichlorobenzene	82.3%
d5-Phenol	83.2%	2-Fluorophenol	82.7%
2,4,6-Tribromophenol	94.3%	d4-2-Chlorophenol	87.8%

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
MB-090704	82.2%	79.6%	90.5%	66.2%	79.0%	75.2%	86.6%	82.0%	0
LCS-090704	83.9%	82.9%	92.5%	70.9%	84.7%	79.6%	91.0%	83.7%	0
MW-102	79.2%	76.3%	78.8%	58.8%	77.1%	54.1%	92.6%	80.9%	0
MW-104	83.1%	77.6%	78.0%	62.6%	73.5%	73.4%	92.3%	82.3%	0
MW-108	84.3%	79.1%	71.6%	64.0%	78.5%	76.3%	91.7%	83.6%	0
MW-109	88.7%	82.0%	84.6%	67.6%	81.2%	81.6%	96.4%	88.5%	0
MW-110	82.8%	76.1%	49.9%	60.6%	75.9%	75.0%	94.4%	83.5%	0
MB-090604	89.7%	87.0%	94.0%	82.3%	83.2%	82.7%	94.3%	87.8%	0
LCS-090604	88.9%	87.4%	97.2%	82.4%	86.2%	84.3%	96.3%	87.6%	0
MW-111	84.3%	80.7%	77.8%	64.1%	75.2%	76.5%	89.3%	83.8%	0
MW-111 MS	83.2%	82.7%	68.5%	72.4%	79.7%	75.3%	89.3%	80.8%	0
MW-111 MSD	81.7%	80.5%	66.6%	72.8%	73.4%	71.7%	89.4%	79.5%	0
MW-112	85.1%	84.1%	90.3%	68.8%	81.8%	79.7%	94.1%	86.6%	0
MW-202	86.1%	86.8%	82.6%	77.2%	77.3%	75.5%	96.6%	86.3%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(44-107)	(38-111)
(FBP) = 2-Fluorobiphenyl	(43-99)	(30-109)
(TPH) = d14-p-Terphenyl	(44-123)	(37-113)
(DCB) = d4-1,2-Dichlorobenzene	(36-88)	(35-88)
(PHL) = d5-Phenol	(47-101)	(42-98)
(2FP) = 2-Fluorophenol	(44-102)	(40-99)
(TBP) = 2,4,6-Tribromophenol	(38-116)	(27-136)
(2CP) = d4-2-Chlorophenol	(50-102)	(47-101)

Prep Method: SW3520C
Log Number Range: 04-14095 to 04-14102

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-111
MATRIX SPIKE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/11/04 03:25
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	---
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	---
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	---
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	---
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	---
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	---
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	---
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	---
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	---
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-111
MATRIX SPIKE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Date Analyzed: 09/11/04 03:25

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	---
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	---
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	---
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	---
2668-24-8	4,5,6-Trichloroguaiacol	5.0	---
57057-83-7	3,4,5-Trichloroguaiacol	7.5	---
2539-17-5	Tetrachloroguaiacol	7.5	---

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	83.2%	2-Fluorobiphenyl	82.7%
d14-p-Terphenyl	68.5%	d4-1,2-Dichlorobenzene	72.4%
d5-Phenol	79.7%	2-Fluorophenol	75.3%
2,4,6-Tribromophenol	89.3%	d4-2-Chlorophenol	80.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-111
MATRIX SPIKE DUP

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/11/04 03:57
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	---
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	---
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	---
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	---
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	---
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	---
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	---
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	---
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	---
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-111
MATRIX SPIKE DUP

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Date Analyzed: 09/11/04 03:57

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	---
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	---
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**1.0**	**2.4 B**
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	---
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	---
2668-24-8	4,5,6-Trichloroguaiacol	5.0	---
57057-83-7	3,4,5-Trichloroguaiacol	7.5	---
2539-17-5	Tetrachloroguaiacol	7.5	---

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	81.7%	2-Fluorobiphenyl	80.5%
d14-p-Terphenyl	66.6%	d4-1,2-Dichlorobenzene	72.8%
d5-Phenol	73.4%	2-Fluorophenol	71.7%
2,4,6-Tribromophenol	89.4%	d4-2-Chlorophenol	79.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS
Page 1 of 1

Sample ID: MW-111
MS/MSD

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted MS/MSD: 09/06/04

Date Analyzed MS: 09/11/04 03:25
MSD: 09/11/04 03:57
Instrument/Analyst MS: NT6/LJR
MSD: NT6/LJR
GPC Cleanup: NO

Sample Amount MS: 500 mL
MSD: 500 mL
Final Extract Volume MS: 0.5 mL
MSD: 0.5 mL
Dilution Factor MS: 1.00
MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	< 2.0	28.4	37.5	75.7%	26.8	37.5	71.5%	5.8%
2-Chlorophenol	< 1.0	29.8	37.5	79.5%	29.6	37.5	78.9%	0.7%
1,4-Dichlorobenzene	< 1.0	16.0	25.0	64.0%	15.7	25.0	62.8%	1.9%
N-Nitroso-Di-N-Propylamine	< 2.0	17.0	25.0	68.0%	16.7	25.0	66.8%	1.8%
1,2,4-Trichlorobenzene	< 1.0	17.1	25.0	68.4%	16.8	25.0	67.2%	1.8%
4-Chloro-3-methylphenol	< 2.0	33.0	37.5	88.0%	32.8	37.5	87.5%	0.6%
Acenaphthene	< 1.0	20.6	25.0	82.4%	20.5	25.0	82.0%	0.5%
4-Nitrophenol	< 5.0	31.8	37.5	84.8%	31.7	37.5	84.5%	0.3%
2,4-Dinitrotoluene	< 5.0	20.7	25.0	82.8%	20.6	25.0	82.4%	0.5%
Pentachlorophenol	< 5.0	39.3	37.5	105%	40.0	37.5	107%	1.8%
Pyrene	< 1.0	20.0	25.0	80.0%	20.4	25.0	81.6%	2.0%
Guaiacol	< 2.0	34.1	37.5	90.9%	34.4	37.5	91.7%	0.9%
4,5-Dichloro-2-Methoxyphenol	< 5.0	31.9	37.5	85.1%	32.8	37.5	87.5%	2.8%
4,5,6-Trichloroguaiacol	< 5.0	32.4	37.5	86.4%	33.0	37.5	88.0%	1.8%
3,4,5-Trichloroguaiacol	< 7.5	31.4	37.5	83.7%	31.5	37.5	84.0%	0.3%
Tetrachloroguaiacol	< 7.5	65.4	75.0	87.2%	65.9	75.0	87.9%	0.8%

Results reported in µg/L
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS
Page 1 of 1

Sample ID: LCS-090604
LAB CONTROL

Lab Sample ID: LCS-090604
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/11/04 02:21
Instrument/Analyst: NT6/LJR
GPC Cleanup: NO

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Phenol	30.8	37.5	82.1%
2-Chlorophenol	31.7	37.5	84.5%
1,4-Dichlorobenzene	18.0	25.0	72.0%
N-Nitroso-Di-N-Propylamine	17.2	25.0	68.8%
1,2,4-Trichlorobenzene	18.7	25.0	74.8%
4-Chloro-3-methylphenol	34.3	37.5	91.5%
Acenaphthene	21.8	25.0	87.2%
4-Nitrophenol	33.2	37.5	88.5%
2,4-Dinitrotoluene	21.9	25.0	87.6%
Pentachlorophenol	41.0	37.5	109%
Pyrene	22.3	25.0	89.2%
Guaiacol	36.7	37.5	97.9%
4,5-Dichloro-2-Methoxyphenol	33.8	37.5	90.1%
4,5,6-Trichloroguaiacol	34.0	37.5	90.7%
3,4,5-Trichloroguaiacol	34.8	37.5	92.8%
Tetrachloroguaiacol	70.0	75.0	93.3%

Semivolatile Surrogate Recovery	
d5-Nitrobenzene	88.9%
2-Fluorobiphenyl	87.4%
d14-p-Terphenyl	97.2%
d4-1,2-Dichlorobenzene	82.4%
d5-Phenol	86.2%
2-Fluorophenol	84.3%
2,4,6-Tribromophenol	96.3%
d4-2-Chlorophenol	87.6%

Results reported in µg/L

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS
Page 1 of 1

Sample ID: LCS-090704
LAB CONTROL

Lab Sample ID: LCS-090704
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/11/04 15:43
Instrument/Analyst: NT6/LJR
GPC Cleanup: NO

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Phenol	30.1	37.5	80.3%
2-Chlorophenol	30.5	37.5	81.3%
1,4-Dichlorobenzene	15.0	25.0	60.0%
N-Nitroso-Di-N-Propylamine	17.8	25.0	71.2%
1,2,4-Trichlorobenzene	16.1	25.0	64.4%
4-Chloro-3-methylphenol	32.5	37.5	86.7%
Acenaphthene	21.2	25.0	84.8%
4-Nitrophenol	31.5	37.5	84.0%
2,4-Dinitrotoluene	21.0	25.0	84.0%
Pentachlorophenol	37.4	37.5	99.7%
Pyrene	22.0	25.0	88.0%
Guaiacol	35.5	37.5	94.7%
4,5-Dichloro-2-Methoxyphenol	33.9	37.5	90.4%
4,5,6-Trichloroguaiacol	32.6	37.5	86.9%
3,4,5-Trichloroguaiacol	32.3	37.5	86.1%
Tetrachloroguaiacol	65.6	75.0	87.5%

Semivolatile Surrogate Recovery	
d5-Nitrobenzene	83.9%
2-Fluorobiphenyl	82.9%
d14-p-Terphenyl	92.5%
d4-1,2-Dichlorobenzene	70.9%
d5-Phenol	84.7%
2-Fluorophenol	79.6%
2,4,6-Tribromophenol	91.0%
d4-2-Chlorophenol	83.7%

Results reported in µg/L

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-102
SAMPLE

Lab Sample ID: HA44A
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/11/04 16:16
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-102
SAMPLE

Lab Sample ID: HA44A
LIMS ID: 04-14095
Matrix: Water
Date Analyzed: 09/11/04 16:16

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	79.2%	2-Fluorobiphenyl	76.3%
d14-p-Terphenyl	78.8%	d4-1,2-Dichlorobenzene	58.8%
d5-Phenol	77.1%	2-Fluorophenol	54.1%
2,4,6-Tribromophenol	92.6%	d4-2-Chlorophenol	80.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS **Sample ID: MW-104**
 SAMPLE

Lab Sample ID: HA44B
LIMS ID: 04-14096
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/11/04 16:49
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS **Sample ID: MW-104**
Page 2 of 2 **SAMPLE**

Lab Sample ID: HA44B QC Report No: HA44-Landau Associates
LIMS ID: 04-14096 Project: Port of Anacortes Uplands
Matrix: Water 529009
Date Analyzed: 09/11/04 16:49

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	83.1%	2-Fluorobiphenyl	77.6%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	62.6%
d5-Phenol	73.5%	2-Fluorophenol	73.4%
2,4,6-Tribromophenol	92.3%	d4-2-Chlorophenol	82.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-108
SAMPLE

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/11/04 17:22
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-108
SAMPLE

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Date Analyzed: 09/11/04 17:22

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	84.3%	2-Fluorobiphenyl	79.1%
d14-p-Terphenyl	71.6%	d4-1,2-Dichlorobenzene	64.0%
d5-Phenol	78.5%	2-Fluorophenol	76.3%
2,4,6-Tribromophenol	91.7%	d4-2-Chlorophenol	83.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-109
SAMPLE

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/11/04 17:54
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	**4-Methylphenol**	**1.0**	**1.2**
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-109
SAMPLE

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Date Analyzed: 09/11/04 17:54

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	88.7%	2-Fluorobiphenyl	82.0%
d14-p-Terphenyl	84.6%	d4-1,2-Dichlorobenzene	67.6%
d5-Phenol	81.2%	2-Fluorophenol	81.6%
2,4,6-Tribromophenol	96.4%	d4-2-Chlorophenol	88.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-110
SAMPLE

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/11/04 18:26
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	**4-Methylphenol**	**1.0**	**43**
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS **Sample ID: MW-110**
 SAMPLE

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Date Analyzed: 09/11/04 18:26

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	82.8%	2-Fluorobiphenyl	76.1%
d14-p-Terphenyl	49.9%	d4-1,2-Dichlorobenzene	60.6%
d5-Phenol	75.9%	2-Fluorophenol	75.0%
2,4,6-Tribromophenol	94.4%	d4-2-Chlorophenol	83.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-111
SAMPLE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/11/04 02:54
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS **Sample ID: MW-111**
Page 2 of 2 **SAMPLE**

Lab Sample ID: HA44F QC Report No: HA44-Landau Associates
LIMS ID: 04-14100 Project: Port of Anacortes Uplands
Matrix: Water 529009
Date Analyzed: 09/11/04 02:54

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**1.0**	**1.0 B**
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	84.3%	2-Fluorobiphenyl	80.7%
d14-p-Terphenyl	77.8%	d4-1,2-Dichlorobenzene	64.1%
d5-Phenol	75.2%	2-Fluorophenol	76.5%
2,4,6-Tribromophenol	89.3%	d4-2-Chlorophenol	83.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-112
SAMPLE

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/11/04 18:58
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS **Sample ID: MW-112**
Page 2 of 2 **SAMPLE**

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Date Analyzed: 09/11/04 18:58

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	85.1%	2-Fluorobiphenyl	84.1%
d14-p-Terphenyl	90.3%	d4-1,2-Dichlorobenzene	68.8%
d5-Phenol	81.8%	2-Fluorophenol	79.7%
2,4,6-Tribromophenol	94.1%	d4-2-Chlorophenol	86.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-202
SAMPLE

Lab Sample ID: HA44H
LIMS ID: 04-14102
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/11/04 19:31
Instrument/Analyst: NT6/LJR

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	2.0	< 2.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	2.0	< 2.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	2.0	< 2.0 U
67-72-1	Hexachloroethane	2.0	< 2.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	3.0	< 3.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	3.0	< 3.0 U
87-68-3	Hexachlorobutadiene	2.0	< 2.0 U
59-50-7	4-Chloro-3-methylphenol	2.0	< 2.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	6.0	< 6.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	25	< 25 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270C GC/MS

Sample ID: MW-202
SAMPLE

Lab Sample ID: HA44H
LIMS ID: 04-14102
Matrix: Water
Date Analyzed: 09/11/04 19:31

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	15	< 15 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-05-1	Guaiacol	2.0	< 2.0 U
2460-49-3	4,5-Dichloro-2-Methoxyphenol	5.0	< 5.0 U
2668-24-8	4,5,6-Trichloroguaiacol	5.0	< 5.0 U
57057-83-7	3,4,5-Trichloroguaiacol	7.5	< 7.5 U
2539-17-5	Tetrachloroguaiacol	7.5	< 7.5 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	86.1%	2-Fluorobiphenyl	86.8%
d14-p-Terphenyl	82.6%	d4-1,2-Dichlorobenzene	77.2%
d5-Phenol	77.3%	2-Fluorophenol	75.5%
2,4,6-Tribromophenol	96.6%	d4-2-Chlorophenol	86.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS

Sample ID: MB-090704
METHOD BLANK

Lab Sample ID: MB-090704
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 13:41
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	71.3%
d14-Dibenzo(a,h)anthracene	85.7%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Client ID	MNP	DBA	TOT OUT
MB-090704	71.3%	85.7%	0
LCS-090704	66.7%	91.3%	0
MW-102	67.3%	98.0%	0
MW-104	65.7%	67.3%	0
MW-108	68.7%	50.3%	0
MW-109	71.3%	90.0%	0
MW-110	61.7%	28.3%	0
MW-111	73.3%	95.7%	0
MW-111 MS	88.0%	106%	0
MW-111 MSD	81.0%	107%	0
MW-112	74.3%	117%	0
MW-202	71.7%	95.7%	0

	LCS/MB LIMITS	QC LIMITS
(MNP) = d10-2-Methylnaphthalene	(48-107)	(34-120)
(DBA) = d14-Dibenzo(a,h)anthracene	(37-128)	(14-141)

Prep Method: SW3520C
Log Number Range: 04-14095 to 04-14102

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS
Page 1 of 1

Sample ID: MW-111
MATRIX SPIKE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 16:34
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	---
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	---
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery	
d10-2-Methylnaphthalene	88.0%
d14-Dibenzo(a,h)anthracene	106%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS

Sample ID: MW-111
MATRIX SPIKE DUP

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 16:55
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	---
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	---
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	81.0%
d14-Dibenzo(a,h)anthracene	107%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270C SIM GC/MS
Page 1 of 1

Sample ID: MW-111
MS/MSD

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted MS/MSD: 09/07/04

Date Analyzed MS: 09/15/04 16:34
MSD: 09/15/04 16:55
Instrument/Analyst MS: NT2/PK
MSD: NT2/PK

Sample Amount MS: 500 mL
MSD: 500 mL
Final Extract Volume MS: 0.5 mL
MSD: 0.5 mL
Dilution Factor MS: 1.00
MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Chrysene	< 0.010	0.219	0.300	73.0%	0.225	0.300	75.0%	2.7%
Benzo(k)fluoranthene	< 0.010	0.199	0.300	66.3%	0.203	0.300	67.7%	2.0%

Results reported in µg/L
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270C SIM GC/MS
Page 1 of 1

Sample ID: LCS-090704
LAB CONTROL

Lab Sample ID: LCS-090704
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 14:02
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Chrysene	0.199	0.300	66.3%
Benzo(k)fluoranthene	0.184	0.300	61.3%

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	66.7%
d14-Dibenzo(a,h)anthracen	91.3%

Results reported in µg/L

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS

Sample ID: MW-102
SAMPLE

Lab Sample ID: HA44A
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 14:24
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	67.3%
d14-Dibenzo(a,h)anthracene	98.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS

Sample ID: MW-104
SAMPLE

Lab Sample ID: HA44B
LIMS ID: 04-14096
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 14:46
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery	
d10-2-Methylnaphthalene	65.7%
d14-Dibenzo(a,h)anthracene	67.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS **Sample ID: MW-108**
Page 1 of 1 **SAMPLE**

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 15:07
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	68.7%
d14-Dibenzo(a,h)anthracene	50.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS

Sample ID: MW-109
SAMPLE

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 15:29
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	71.3%
d14-Dibenzo(a,h)anthracene	90.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS

Sample ID: MW-110
SAMPLE

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 15:50
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	**Chrysene**	**0.010**	**0.022**
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	61.7%
d14-Dibenzo(a,h)anthracene	28.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS

Sample ID: MW-111
SAMPLE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 16:12
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	73.3%
d14-Dibenzo(a,h)anthracene	95.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS

Sample ID: MW-112
SAMPLE

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 17:17
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	74.3%
d14-Dibenzo(a,h)anthracene	117%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
SW8270C SIM GC/MS

Sample ID: MW-202
SAMPLE

Lab Sample ID: HA44H
LIMS ID: 04-14102
Matrix: Water
Data Release Authorized:
Reported: 09/16/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/15/04 17:38
Instrument/Analyst: NT2/PK

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.010	< 0.010 U
218-01-9	Chrysene	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	71.7%
d14-Dibenzo(a,h)anthracene	95.7%

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

ANALYTICAL RESOURCES INCORPORATED

Sample No: Method Blank

Lab Sample ID: HA44MB
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: NA
Date Received: NA

Date extracted: 09/06/04
Date analyzed: 09/08/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 78.8%

ANALYTICAL RESOURCES INCORPORATED

WATER RESIN ACID SURROGATE SUMMARY

Matrix: Water

QC Report No: HA44
Project: Port of Anacortes Uplands
529009

LIMS ID	Lab ID	Client ID	OMPA #	TOT OUT
04-14095MB	090604MB	Method Blank	78.8%	0
04-14095SB	090604SB	Lab Control	82.6%	0
04-14095	HA44A	MW-102	85.4%	0
04-14096	HA44B	MW-104	71.4%	0
04-14097	HA44C	MW-108	72.6%	0
04-14098	HA44D	MW-109	80.4%	0
04-14099	HA44E	MW-110	83.4%	0
04-14100	HA44F	MW-111	76.4%	0
04-14100MS	HA44FMS	MW-111-MS	78.6%	0
04-14100MD	HA44FMSD	MW-111	72.0%	0
04-14101	HA44G	MW-112	65.6%	0
04-14102	HA44H	MW-202	76.8%	0

	QC LIMITS
(OMPA) = o-Methyl Podocarpic Acid	(30-150)

\# Column to be used to flag recovery values

* Values outside of required QC limits

D Surrogate Compound diluted out

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

ANALYTICAL RESOURCES INCORPORATED

Sample No: **MW-111 MATRIX SPIKE**

Lab Sample ID: HA44F-MS
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date extracted: 09/06/04
Date analyzed: 09/08/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	---
471-74-9	**Sandaracopimaric Acid**	**5.5**
5835-26-7	Isopimaric Acid	---
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	---
514-10-3	Abietic Acid	---
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 78.6%

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

ANALYTICAL RESOURCES INCORPORATED

Sample No: **MW-111 MS DUPLICATE**

Lab Sample ID: HA44F-MSD
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date extracted: 09/06/04
Date analyzed: 09/08/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	---
471-74-9	**Sandaracopimaric Acid**	**4.7**
5835-26-7	Isopimaric Acid	---
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	---
514-10-3	Abietic Acid	---
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 72.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water

Sample No: MW-111
QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Received: 09/01/04

Data Release Authorized:
Reported: 09/09/04

MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

CONSTITUENT	SAMPLE VALUE	SPIKE VALUE	SPIKE ADDED	% RECOVERY	RPD
MATRIX SPIKE					
Pimaric Acid	< 2.0	37.0	50.0	74.0%	
Isopimaric Acid	< 2.0	28.1	50.0	56.2%	
Dehydroabietic Acid	< 2.0	37.7	50.0	75.4%	
Abietic Acid	< 2.0	9.66	250	3.86%	
MATRIX SPIKE DUPLICATE					
Pimaric Acid	< 2.0	34.6	50.0	69.2%	6.7%
Isopimaric Acid	< 2.0	25.0	50.0	50.0%	12%
Dehydroabietic Acid	< 2.0	33.8	50.0	67.6%	11%
Abietic Acid	< 2.0	9.41	250	3.80%	1.7%

Values reported in ug/L

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

Lab Sample ID: HA44SB
LIMS ID: 04-14095
Matrix: Water

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Data Release Authorized:
Reported: 09/09/04

LABORATORY CONTROL SAMPLE CONSTITUENT	SPIKE VALUE	SPIKE ADDED	% RECOVERY
Pimaric Acid	41.1	50.0	82.2%
Isopimaric Acid	31.0	50.0	62.0%
Dehydroabietic Acid	39.5	50.0	79.0%
Abietic Acid	18.8	250	7.52%

Spike Blank Surrogate Recovery

O-Methyl Podocarpic Acid 82.6%

Values reported in ug/L

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

ANALYTICAL RESOURCES INCORPORATED

Sample No: MW-102

Lab Sample ID: HA44A
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date extracted: 09/06/04
Date analyzed: 09/08/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 85.4%

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

ANALYTICAL RESOURCES INCORPORATED

Sample No: MW-104

Lab Sample ID: HA44B
LIMS ID: 04-14096
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date extracted: 09/06/04
Date analyzed: 09/08/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 71.4%

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

ANALYTICAL RESOURCES INCORPORATED

Sample No: MW-108

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date extracted: 09/06/04
Date analyzed: 09/08/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 72.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

Sample No: MW-109

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date extracted: 09/06/04
Date analyzed: 09/08/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	**Dehydroabietic Acid**	**18**
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 80.4%

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

Sample No: MW-110

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date extracted: 09/06/04
Date analyzed: 09/08/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	**Dehydroabietic Acid**	**9.5**
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 83.4%

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

Sample No: MW-111

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date extracted: 09/06/04
Date analyzed: 09/08/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 76.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

Sample No: MW-112

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date extracted: 09/06/04
Date analyzed: 09/08/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 65.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Resin Acids by GC/MS

Sample No: MW-202

Lab Sample ID: HA44H
LIMS ID: 04-14102
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date extracted: 09/06/04
Date analyzed: 09/09/04
Instrument: NT1

Sample Amount: 500 mL
Final Extract Volume: 0.5 mL
Dilution Factor: 1:1

CAS Number	Analyte	ug/L
127-27-5	Pimaric Acid	2.0 U
471-74-9	Sandaracopimaric Acid	2.0 U
5835-26-7	Isopimaric Acid	2.0 U
1945-53-5	Palustric Acid	2.0 U
1740-19-8	Dehydroabietic Acid	2.0 U
514-10-3	Abietic Acid	2.0 U
471-77-2	Neoabietic Acid	2.0 U
	14-Chlorodehydroabietic Acid	2.0 U
	12-Chlorodehydroabietic Acid	2.0 U
57055-39-7	Dichlorodehydroabietic Acid	2.0 U

Resin Acids Surrogate Recovery

O-Methyl Podocarpic Acid 76.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A

Sample ID: MB-090704
METHOD BLANK

Lab Sample ID: MB-090704
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Date Extracted: 09/07/04
Date Analyzed: 09/10/04 00:12
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
pH: NA
Florisil Cleanup: No
Silica Gel: No

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.050	< 0.050 U
319-85-7	beta-BHC	0.050	< 0.050 U
319-86-8	delta-BHC	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.050	< 0.050 U
76-44-8	Heptachlor	0.050	< 0.050 U
309-00-2	Aldrin	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.050	< 0.050 U
959-98-8	Endosulfan I	0.050	< 0.050 U
60-57-1	Dieldrin	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.10	< 0.10 U
72-20-8	Endrin	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.10	< 0.10 U
72-43-5	Methoxychlor	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.10	< 0.10 U
5103-74-2	gamma Chlordane	0.050	< 0.050 U
5103-71-9	alpha Chlordane	0.050	< 0.050 U
8001-35-2	Toxaphene	5.0	< 5.0 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery	
Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	60.5%

ANALYTICAL RESOURCES INCORPORATED

SW8081/PESTICIDE WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Client ID	DCBP	TCMX	TOT OUT
MB-090704	88.5%	60.5%	0
LCS-090704	114%	62.8%	0
MW-108	78.5%	59.8%	0
MW-109	80.5%	58.2%	0
MW-110	42.8%	32.2%	0
MW-112	90.0%	58.5%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(45-121)	(10-133)
(TCMX) = Tetrachlorometaxylene	(29-93)	(17-110)

Prep Method: SW3510C
Log Number Range: 04-14097 to 04-14101

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A

Sample ID: LCS-090704
LAB CONTROL

Lab Sample ID: LCS-090704
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/10/04 00:46
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Florisil Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Sulfur Cleanup: No
Silica Gel: No

Analyte	Lab Control	Spike Added	Recovery
alpha-BHC	0.162	0.200	81.0%
beta-BHC	0.180	0.200	90.0%
delta-BHC	0.161	0.200	80.5%
gamma-BHC (Lindane)	0.165	0.200	82.5%
Heptachlor	0.169	0.200	84.5%
Aldrin	0.161	0.200	80.5%
Heptachlor Epoxide	0.197	0.200	98.5%
Endosulfan I	0.225	0.200	112%
Dieldrin	0.392	0.400	98.0%
4,4'-DDE	0.361	0.400	90.2%
Endrin	0.398	0.400	99.5%
Endosulfan II	0.459	0.400	115%
4,4'-DDD	0.384	0.400	96.0%
Endosulfan Sulfate	0.404	0.400	101%
4,4'-DDT	0.399	0.400	99.8%
Methoxychlor	1.96	2.00	98.0%
Endrin Ketone	0.407	0.400	102%
Endrin Aldehyde	0.412	0.400	103%
gamma Chlordane	0.196	0.200	98.0%
alpha Chlordane	0.190	0.200	95.0%

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	114%
Tetrachlorometaxylene	62.8%

Results reported in µg/L (ppb)

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A **Sample ID: MW-108**
 SAMPLE

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/10/04 01:20
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
pH: 6.8
Florisil Cleanup: No
Silica Gel: No

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.050	< 0.050 U
319-85-7	beta-BHC	0.050	< 0.050 U
319-86-8	delta-BHC	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.050	< 0.050 U
76-44-8	Heptachlor	0.050	< 0.050 U
309-00-2	Aldrin	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.050	< 0.050 U
959-98-8	Endosulfan I	0.050	< 0.050 U
60-57-1	Dieldrin	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.10	< 0.10 U
72-20-8	Endrin	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.10	< 0.10 U
72-43-5	Methoxychlor	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.10	< 0.10 U
5103-74-2	gamma Chlordane	0.050	< 0.050 U
5103-71-9	alpha Chlordane	0.050	< 0.050 U
8001-35-2	Toxaphene	5.0	< 5.0 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	78.5%
Tetrachlorometaxylene	59.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A **Sample ID: MW-109**
Page 1 of 1 **SAMPLE**

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/10/04 01:54
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
pH: 7.0
Florisil Cleanup: No
Silica Gel: No

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.050	< 0.050 U
319-85-7	beta-BHC	0.050	< 0.050 U
319-86-8	delta-BHC	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.050	< 0.050 U
76-44-8	Heptachlor	0.050	< 0.050 U
309-00-2	Aldrin	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.050	< 0.050 U
959-98-8	Endosulfan I	0.050	< 0.050 U
60-57-1	Dieldrin	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.10	< 0.10 U
72-20-8	Endrin	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.10	< 0.10 U
72-43-5	Methoxychlor	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.10	< 0.10 U
5103-74-2	gamma Chlordane	0.050	< 0.050 U
5103-71-9	alpha Chlordane	0.050	< 0.050 U
8001-35-2	Toxaphene	5.0	< 5.0 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	80.5%
Tetrachlorometaxylene	58.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A
Page 1 of 1

Sample ID: MW-110
SAMPLE

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/10/04 02:29
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
pH: 6.8
Florisil Cleanup: No
Silica Gel: No

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.050	< 0.050 U
319-85-7	beta-BHC	0.050	< 0.050 U
319-86-8	delta-BHC	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.050	< 0.050 U
76-44-8	Heptachlor	0.050	< 0.050 U
309-00-2	Aldrin	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.050	< 0.050 U
959-98-8	Endosulfan I	0.050	< 0.050 U
60-57-1	Dieldrin	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.10	< 0.10 U
72-20-8	Endrin	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.10	< 0.10 U
72-43-5	Methoxychlor	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.10	< 0.10 U
5103-74-2	gamma Chlordane	0.050	< 0.050 U
5103-71-9	alpha Chlordane	0.050	< 0.050 U
8001-35-2	Toxaphene	5.0	< 5.0 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery	
Decachlorobiphenyl	42.8%
Tetrachlorometaxylene	32.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method 8081A **Sample ID: MW-112**
Page 1 of 1 **SAMPLE**

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Data Release Authorized:
Reported: 09/14/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/07/04
Date Analyzed: 09/10/04 03:03
Instrument/Analyst: ECD3/YZ
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
pH: 7.3
Florisil Cleanup: No
Silica Gel: No

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.050	< 0.050 U
319-85-7	beta-BHC	0.050	< 0.050 U
319-86-8	delta-BHC	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.050	< 0.050 U
76-44-8	Heptachlor	0.050	< 0.050 U
309-00-2	Aldrin	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.050	< 0.050 U
959-98-8	Endosulfan I	0.050	< 0.050 U
60-57-1	Dieldrin	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.10	< 0.10 U
72-20-8	Endrin	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.10	< 0.10 U
72-43-5	Methoxychlor	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.10	< 0.10 U
5103-74-2	gamma Chlordane	0.050	< 0.050 U
5103-71-9	alpha Chlordane	0.050	< 0.050 U
8001-35-2	Toxaphene	5.0	< 5.0 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	90.0%
Tetrachlorometaxylene	58.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MB-090604
METHOD BLANK

Lab Sample ID: MB-090604
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: NA
Date Received: NA

Date Extracted: 09/06/04
Date Analyzed: 09/09/04 18:44
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.015	< 0.015 U
53469-21-9	Aroclor 1242	0.015	< 0.015 U
12672-29-6	Aroclor 1248	0.015	< 0.015 U
11097-69-1	Aroclor 1254	0.015	< 0.015 U
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.015	< 0.015 U
11141-16-5	Aroclor 1232	0.015	< 0.015 U

Reported in µg/L (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	74.8%
Tetrachlorometaxylene	41.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MB-091604
METHOD BLANK

Lab Sample ID: MB-091604
LIMS ID: 04-13882
Matrix: Water
Data Release Authorized:
Reported: 09/22/04

QC Report No: HA23-Landau Associates
Project: Port of Anacortes Uplands 529009
Date Sampled: NA
Date Received: NA

Date Extracted: 09/16/04
Date Analyzed: 09/20/04 15:12
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.015	< 0.015 U
53469-21-9	Aroclor 1242	0.015	< 0.015 U
12672-29-6	Aroclor 1248	0.015	< 0.015 U
11097-69-1	Aroclor 1254	0.015	< 0.015 U
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.015	< 0.015 U
11141-16-5	Aroclor 1232	0.015	< 0.015 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	97.8%
Tetrachlorometaxylene	47.5%

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Client ID	DCBP	TCMX	TOT OUT
MB-091604	74.8%	41.2%	0
LCS-091604	72.8%	39.2%	0
MW-102	37.5%	21.5%*	1
MW-102 RE	61.2%	46.8%	0
MW-104	40.0%	30.0%	0
MW-108	50.2%	30.2%	0
MW-108 RE	59.2%	33.5%	0
MW-109	64.5%	38.8%	0
MW-109 RE	60.2%	38.2%	0
MW-110	43.2%	20.5%*	1
MW-110 RE	38.5%	22.0%*	1
MW-111	70.2%	35.5%	0
MW-111 RE	66.0%	45.8%	0
MW-111 MS	78.5%	39.5%	0
MW-111 MSD	77.5%	36.2%	0
MW-112	82.5%	40.0%	0
MW-112 RE	63.2%	38.0%	0
MW-202	42.8%	30.8%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(42-138)	(25-134)
(TCMX) = Tetrachlorometaxylene	(32-117)	(25-118)

Prep Method: SW3510C
Log Number Range: 04-14095 to 04-14102

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: MW-111
MATRIX SPIKE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/09/04 23:27
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.015	---
53469-21-9	Aroclor 1242	0.050	< 0.050 Y
12672-29-6	Aroclor 1248	0.025	< 0.025 Y
11097-69-1	Aroclor 1254	0.025	< 0.025 Y
11096-82-5	Aroclor 1260	0.015	---
11104-28-2	Aroclor 1221	0.050	< 0.050 Y
11141-16-5	Aroclor 1232	0.050	< 0.050 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.5%
Tetrachlorometaxylene	39.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: MW-111
MATRIX SPIKE DUP

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/09/04 23:47
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.015	---
53469-21-9	Aroclor 1242	0.050	< 0.050 Y
12672-29-6	Aroclor 1248	0.025	< 0.025 Y
11097-69-1	Aroclor 1254	0.025	< 0.025 Y
11096-82-5	Aroclor 1260	0.015	---
11104-28-2	Aroclor 1221	0.050	< 0.050 Y
11141-16-5	Aroclor 1232	0.050	< 0.050 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	77.5%
Tetrachlorometaxylene	36.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: MW-111
MS/MSD

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted MS/MSD: 09/06/04

Date Analyzed MS: 09/09/04 23:27
MSD: 09/09/04 23:47
Instrument/Analyst MS: ECD5/PK
MSD: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount MS: 1000 mL
MSD: 1000 mL
Final Extract Volume MS: 0.5 mL
MSD: 0.5 mL
Dilution Factor MS: 1.00
MSD: 1.00
Silica Gel: No
Acid Cleanup: No

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 0.030	0.162	0.256	63.3%	0.150	0.256	58.6%	7.7%
Aroclor 1260	< 0.050	0.187	0.256	73.0%	0.181	0.256	70.7%	3.3%

Results reported in µg/L
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: LCS-090604
LAB CONTROL

Lab Sample ID: LCS-090604
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/09/04 19:04
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	0.137	0.256	53.5%
Aroclor 1260	0.162	0.256	63.3%

PCB Surrogate Recovery

Decachlorobiphenyl	72.8%
Tetrachlorometaxylene	39.2%

Results reported in µg/L

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: LCS-091604
LAB CONTROL

Lab Sample ID: LCS-091604
LIMS ID: 04-13882
Matrix: Water
Data Release Authorized:
Reported: 09/22/04

QC Report No: HA23-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Date Extracted: 09/16/04
Date Analyzed: 09/20/04 15:32
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	0.162	0.256	63.3%
Aroclor 1260	0.182	0.256	71.1%

PCB Surrogate Recovery

Decachlorobiphenyl	83.2%
Tetrachlorometaxylene	47.2%

Results reported in µg/L

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MW-102
SAMPLE

Lab Sample ID: HA44A
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/10/04 16:02
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.015	< 0.015 U
53469-21-9	Aroclor 1242	0.015	< 0.015 U
12672-29-6	Aroclor 1248	0.015	< 0.015 U
11097-69-1	Aroclor 1254	0.015	< 0.015 U
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.015	< 0.015 U
11141-16-5	Aroclor 1232	0.015	< 0.015 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	37.5%
Tetrachlorometaxylene	21.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: MW-102
REEXTRACT

Lab Sample ID: HA44A
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/22/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/16/04
Date Analyzed: 09/20/04 17:14
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 810 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.019	< 0.019 U
53469-21-9	Aroclor 1242	0.019	< 0.019 U
12672-29-6	Aroclor 1248	0.019	< 0.019 U
11097-69-1	Aroclor 1254	0.019	< 0.019 U
11096-82-5	Aroclor 1260	0.019	< 0.019 U
11104-28-2	Aroclor 1221	0.019	< 0.019 U
11141-16-5	Aroclor 1232	0.019	< 0.019 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	61.2%
Tetrachlorometaxylene	46.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MW-104
SAMPLE

Lab Sample ID: HA44B
LIMS ID: 04-14096
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/09/04 21:46
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.015	< 0.015 U
53469-21-9	Aroclor 1242	0.015	< 0.015 U
12672-29-6	Aroclor 1248	0.015	< 0.015 U
11097-69-1	Aroclor 1254	0.015	< 0.015 U
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.015	< 0.015 U
11141-16-5	Aroclor 1232	0.015	< 0.015 U

Reported in µg/L (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	40.0%
Tetrachlorometaxylene	30.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: MW-108
SAMPLE

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/10/04 17:24
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.10	< 0.10 Y
53469-21-9	Aroclor 1242	0.10	< 0.10 Y
12672-29-6	Aroclor 1248	0.25	< 0.25 Y
11097-69-1	Aroclor 1254	0.025	< 0.025 Y
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.10	< 0.10 Y
11141-16-5	Aroclor 1232	0.10	< 0.10 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	50.2%
Tetrachlorometaxylene	30.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MW-108
REEXTRACT

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized:
Reported: 09/22/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/16/04
Date Analyzed: 09/20/04 17:34
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 760 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.020	< 0.020 U
53469-21-9	Aroclor 1242	0.020	< 0.020 U
12672-29-6	Aroclor 1248	0.020	< 0.020 U
11097-69-1	Aroclor 1254	0.020	< 0.020 U
11096-82-5	Aroclor 1260	0.020	< 0.020 U
11104-28-2	Aroclor 1221	0.020	< 0.020 U
11141-16-5	Aroclor 1232	0.020	< 0.020 U

Reported in µg/L (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	59.2%
Tetrachlorometaxylene	33.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MW-109
SAMPLE

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/10/04 17:44
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.030	< 0.030 Y
53469-21-9	Aroclor 1242	0.050	< 0.050 Y
12672-29-6	Aroclor 1248	0.050	< 0.050 Y
11097-69-1	Aroclor 1254	0.050	< 0.050 Y
11096-82-5	Aroclor 1260	0.025	< 0.025 Y
11104-28-2	Aroclor 1221	0.10	< 0.10 Y
11141-16-5	Aroclor 1232	0.10	< 0.10 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	64.5%
Tetrachlorometaxylene	38.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MW-109
REEXTRACT

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Data Release Authorized:
Reported: 09/22/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/16/04
Date Analyzed: 09/20/04 17:55
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 780 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.019	< 0.019 U
53469-21-9	Aroclor 1242	0.019	< 0.019 U
12672-29-6	Aroclor 1248	0.019	< 0.019 U
11097-69-1	Aroclor 1254	0.019	< 0.019 U
11096-82-5	Aroclor 1260	0.019	< 0.019 U
11104-28-2	Aroclor 1221	0.019	< 0.019 U
11141-16-5	Aroclor 1232	0.019	< 0.019 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	60.2%
Tetrachlorometaxylene	38.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: MW-110
SAMPLE

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/10/04 18:04
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.10	< 0.10 Y
53469-21-9	Aroclor 1242	0.10	< 0.10 Y
12672-29-6	Aroclor 1248	0.25	< 0.25 Y
11097-69-1	Aroclor 1254	0.015	< 0.015 U
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.10	< 0.10 Y
11141-16-5	Aroclor 1232	0.10	< 0.10 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	43.2%
Tetrachlorometaxylene	20.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MW-110
REEXTRACT

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Data Release Authorized:
Reported: 09/22/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/16/04
Date Analyzed: 09/21/04 12:48
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 800 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.019	< 0.019 U
53469-21-9	Aroclor 1242	0.019	< 0.019 U
12672-29-6	Aroclor 1248	0.019	< 0.019 U
11097-69-1	Aroclor 1254	0.019	< 0.019 U
11096-82-5	Aroclor 1260	0.019	< 0.019 U
11104-28-2	Aroclor 1221	0.019	< 0.019 U
11141-16-5	Aroclor 1232	0.019	< 0.019 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	38.5%
Tetrachlorometaxylene	22.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: MW-111
SAMPLE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/09/04 23:07
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.030	< 0.030 Y
53469-21-9	Aroclor 1242	0.050	< 0.050 Y
12672-29-6	Aroclor 1248	0.025	< 0.025 Y
11097-69-1	Aroclor 1254	0.025	< 0.025 Y
11096-82-5	Aroclor 1260	0.050	< 0.050 Y
11104-28-2	Aroclor 1221	0.050	< 0.050 Y
11141-16-5	Aroclor 1232	0.050	< 0.050 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	70.2%
Tetrachlorometaxylene	35.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MW-111
REEXTRACT

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/22/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/16/04
Date Analyzed: 09/20/04 18:35
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 815 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.018	< 0.018 U
53469-21-9	Aroclor 1242	0.018	< 0.018 U
12672-29-6	Aroclor 1248	0.018	< 0.018 U
11097-69-1	Aroclor 1254	0.018	< 0.018 U
11096-82-5	Aroclor 1260	0.018	< 0.018 U
11104-28-2	Aroclor 1221	0.018	< 0.018 U
11141-16-5	Aroclor 1232	0.018	< 0.018 U

Reported in µg/L (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	66.0%
Tetrachlorometaxylene	45.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: MW-112
SAMPLE

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/10/04 00:08
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.025	< 0.025 Y
53469-21-9	Aroclor 1242	0.035	< 0.035 Y
12672-29-6	Aroclor 1248	0.015	< 0.015 U
11097-69-1	Aroclor 1254	0.015	< 0.015 U
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.035	< 0.035 Y
11141-16-5	Aroclor 1232	0.040	< 0.040 Y

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	82.5%
Tetrachlorometaxylene	40.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082

Sample ID: MW-112
REEXTRACT

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Data Release Authorized:
Reported: 09/22/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/16/04
Date Analyzed: 09/20/04 18:56
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 770 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.019	< 0.019 U
53469-21-9	Aroclor 1242	0.019	< 0.019 U
12672-29-6	Aroclor 1248	0.019	< 0.019 U
11097-69-1	Aroclor 1254	0.019	< 0.019 U
11096-82-5	Aroclor 1260	0.019	< 0.019 U
11104-28-2	Aroclor 1221	0.019	< 0.019 U
11141-16-5	Aroclor 1232	0.019	< 0.019 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	63.2%
Tetrachlorometaxylene	38.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: MW-202
SAMPLE

Lab Sample ID: HA44H
LIMS ID: 04-14102
Matrix: Water
Data Release Authorized:
Reported: 09/15/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/10/04 00:28
Instrument/Analyst: ECD5/PK
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 1000 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.015	< 0.015 U
53469-21-9	Aroclor 1242	0.015	< 0.015 U
12672-29-6	Aroclor 1248	0.015	< 0.015 U
11097-69-1	Aroclor 1254	0.015	< 0.015 U
11096-82-5	Aroclor 1260	0.015	< 0.015 U
11104-28-2	Aroclor 1221	0.015	< 0.015 U
11141-16-5	Aroclor 1232	0.015	< 0.015 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	42.8%
Tetrachlorometaxylene	30.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL GASOLINE RANGE HYDROCARBONS
NWTPHg Toluene to Naphthalene
Page 1 of 2
Matrix: Water

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Data Release Authorized:
Reported: 09/09/04

ARI ID	Client ID	Analysis Date	DL	Range	Result mg/L
MB-090304	Method Blank	09/03/04		Gasoline	< 0.25 U
04-14095		PID2		HC ID	---
				Trifluorotoluene	103%
				Bromobenzene	94.0%
HA44A	MW-102	09/03/04		Gasoline	< 0.25 U
04-14095		PID2		HC ID	---
				Trifluorotoluene	90.6%
				Bromobenzene	93.3%
HA44B	MW-104	09/03/04		Gasoline	< 0.25 U
04-14096		PID2		HC ID	---
				Trifluorotoluene	87.2%
				Bromobenzene	88.7%
HA44C	MW-108	09/03/04		Gasoline	< 0.25 U
04-14097		PID2		HC ID	---
				Trifluorotoluene	90.8%
				Bromobenzene	88.6%
HA44D	MW-109	09/03/04		Gasoline	< 0.25 U
04-14098		PID2		HC ID	---
				Trifluorotoluene	90.5%
				Bromobenzene	90.9%
HA44E	MW-110	09/03/04		Gasoline	< 0.25 U
04-14099		PID2		HC ID	---
				Trifluorotoluene	94.7%
				Bromobenzene	91.9%
HA44F	MW-111	09/03/04		Gasoline	< 0.25 U
04-14100		PID2		HC ID	---
				Trifluorotoluene	90.4%
				Bromobenzene	87.1%
HA44G	MW-112	09/03/04		Gasoline	< 0.25 U
04-14101		PID2		HC ID	---
				Trifluorotoluene	86.4%
				Bromobenzene	89.2%
HA44H	MW-202	09/03/04		Gasoline	< 0.25 U
04-14102		PID2		HC ID	---
				Trifluorotoluene	77.7%
				Bromobenzene	81.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL GASOLINE RANGE HYDROCARBONS
NWTPHg Toluene to Naphthalene
Page 2 of 2
Matrix: Water

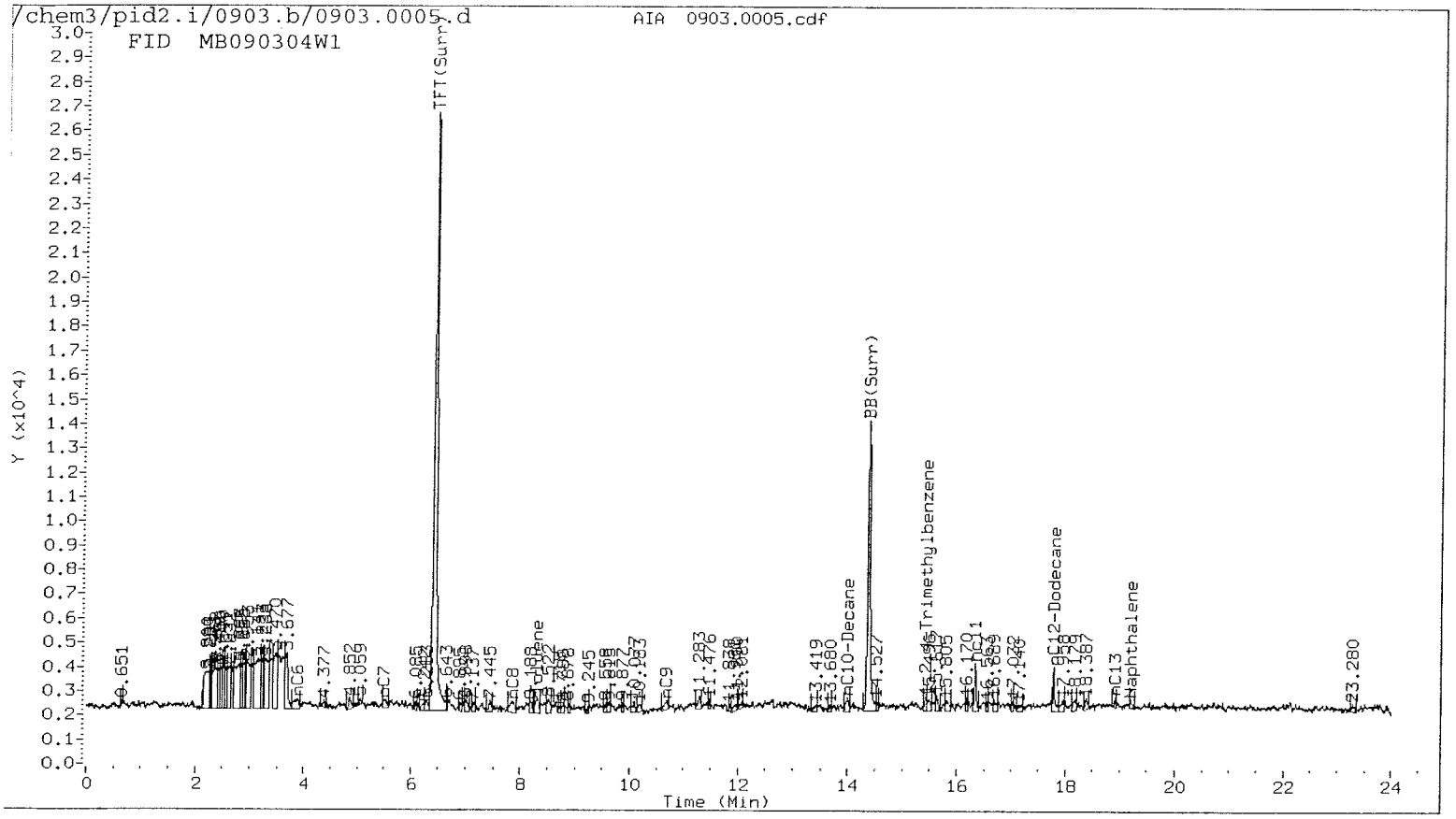
QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Data Release Authorized:
Reported: 09/09/04

ARI ID	Client ID	Analysis Date	DL	Range	Result mg/L
HA44I	Trip Blank	09/03/04		Gasoline	< 0.25 U
04-14103		PID2		HC ID	---
				Trifluorotoluene	90.1%
				Bromobenzene	92.5%

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.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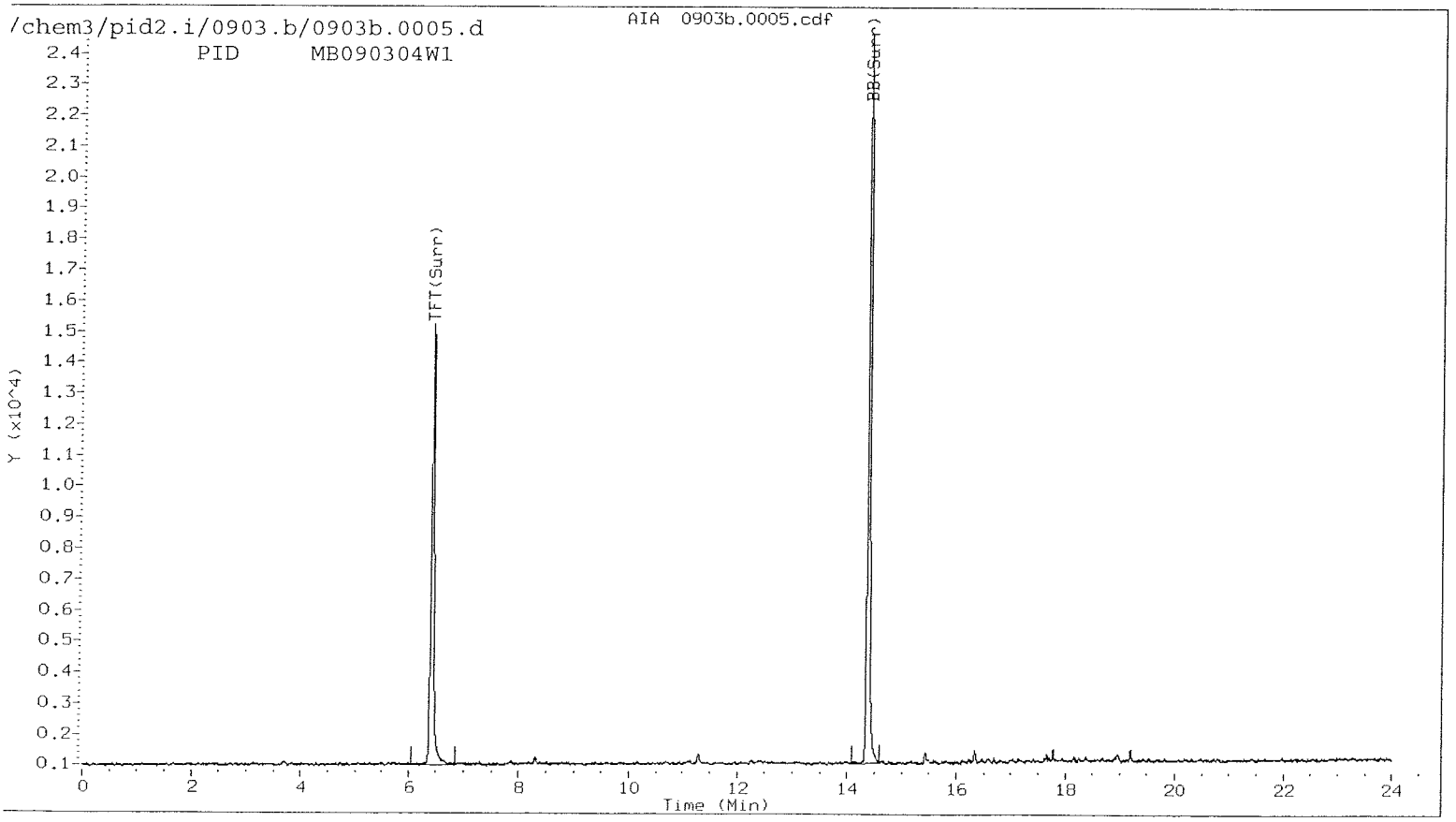
FID MB090304W1
AIA 0903.0005.cdf
TFT(Surr)
BB(Surr)
nC6
nC7
nC8
nC9
nC10-Decane
Trimethylbenzene
nC12-Dodecane
nC13
Naphthalene
0.651
4.377
7.445
13.419
13.680
14.527
23.280
Y (x10^4)
Time (Min)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PID MB090304W1
AIA 0903b.0005.cdf
TFT(Surr)
BB(Surr)
Y (x10^4)
Time (Min)

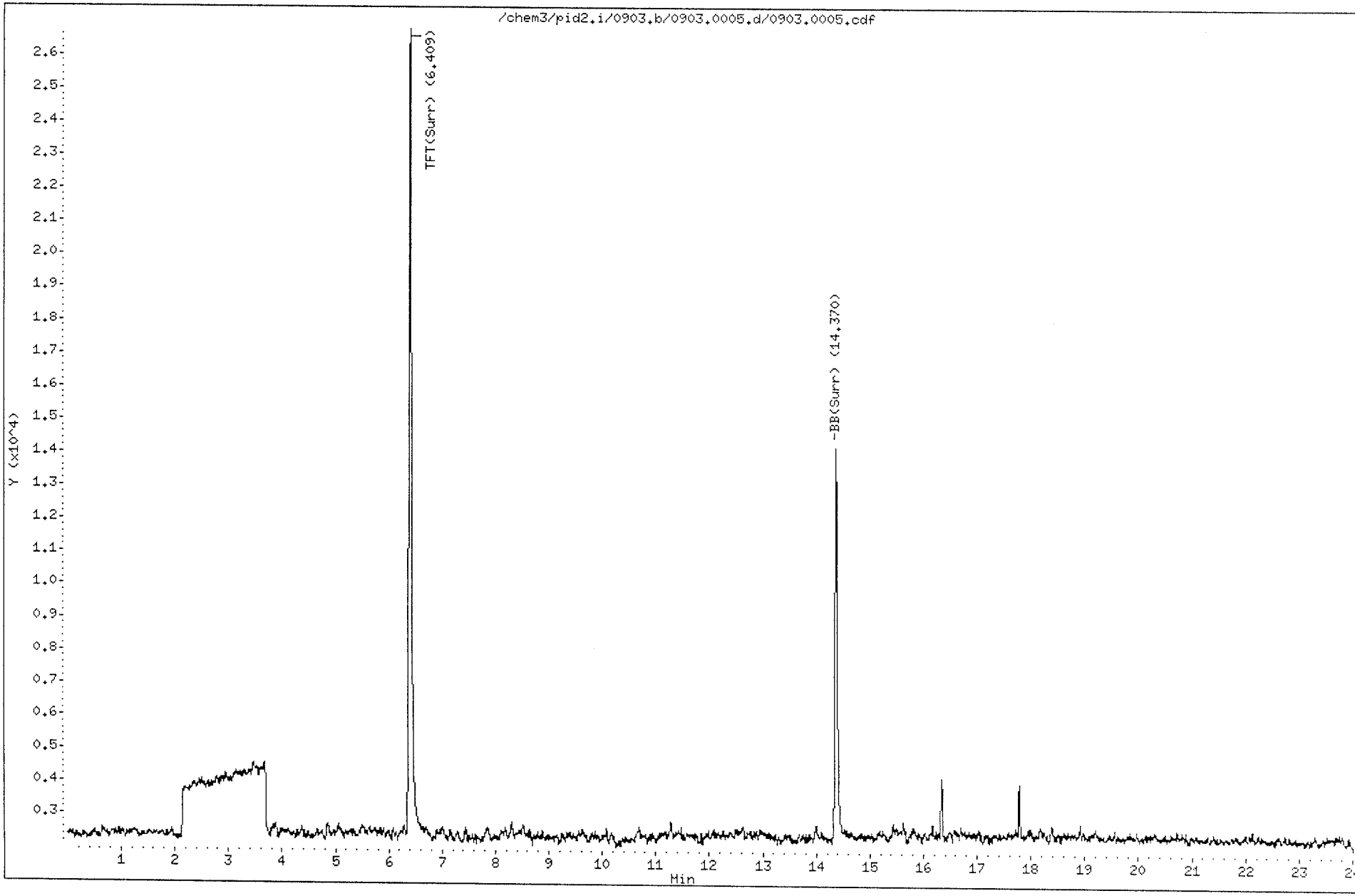
Data File: /chem3/pid2.i/0903.b/0903.0005.d
Date : 03-SEP-2004 14:08
Client ID:
Sample Info: MB090304W1

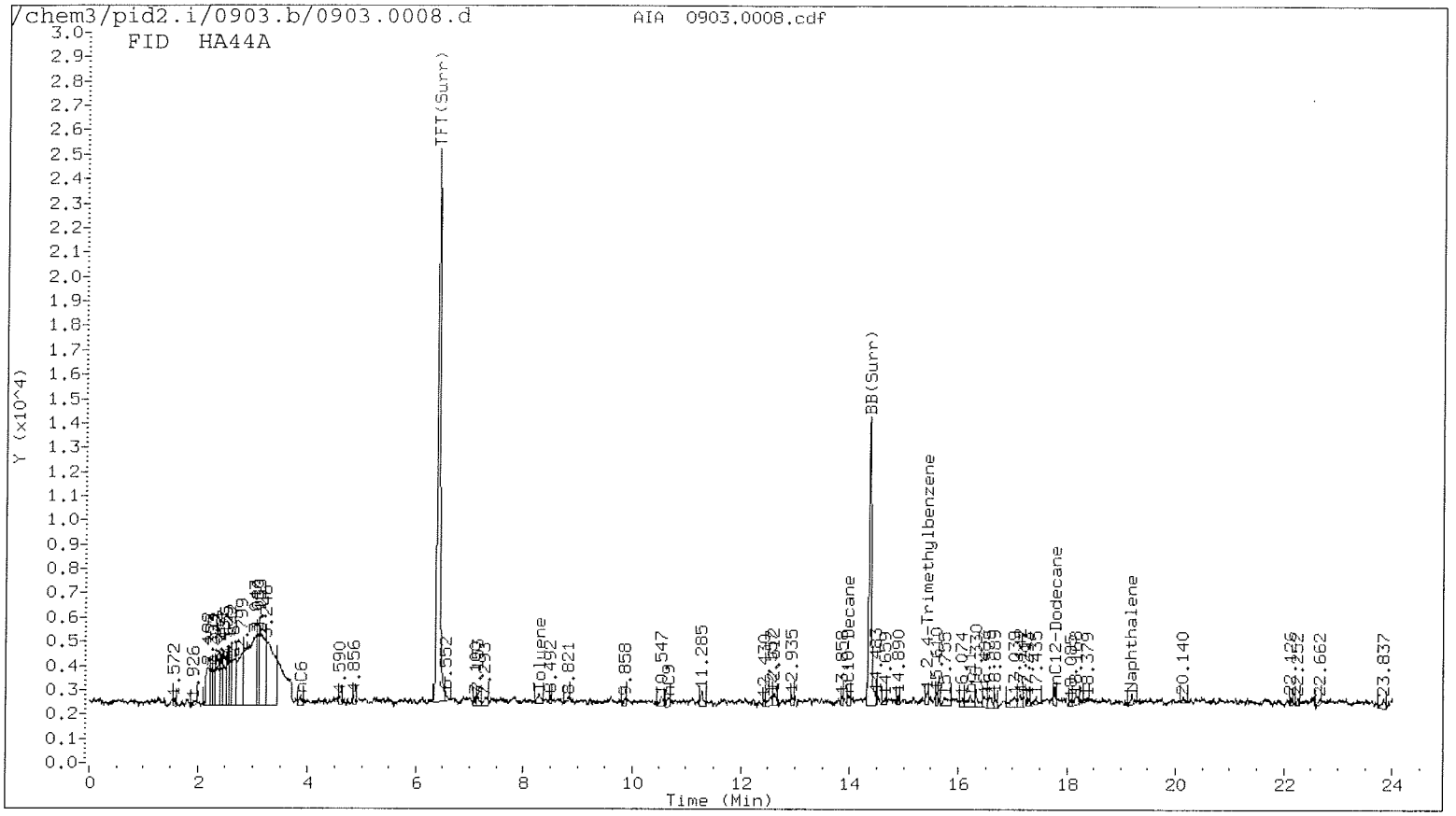
Column phase: FID

Instrument: pid2.i

Operator: PC
Column diameter: 2.00

000139

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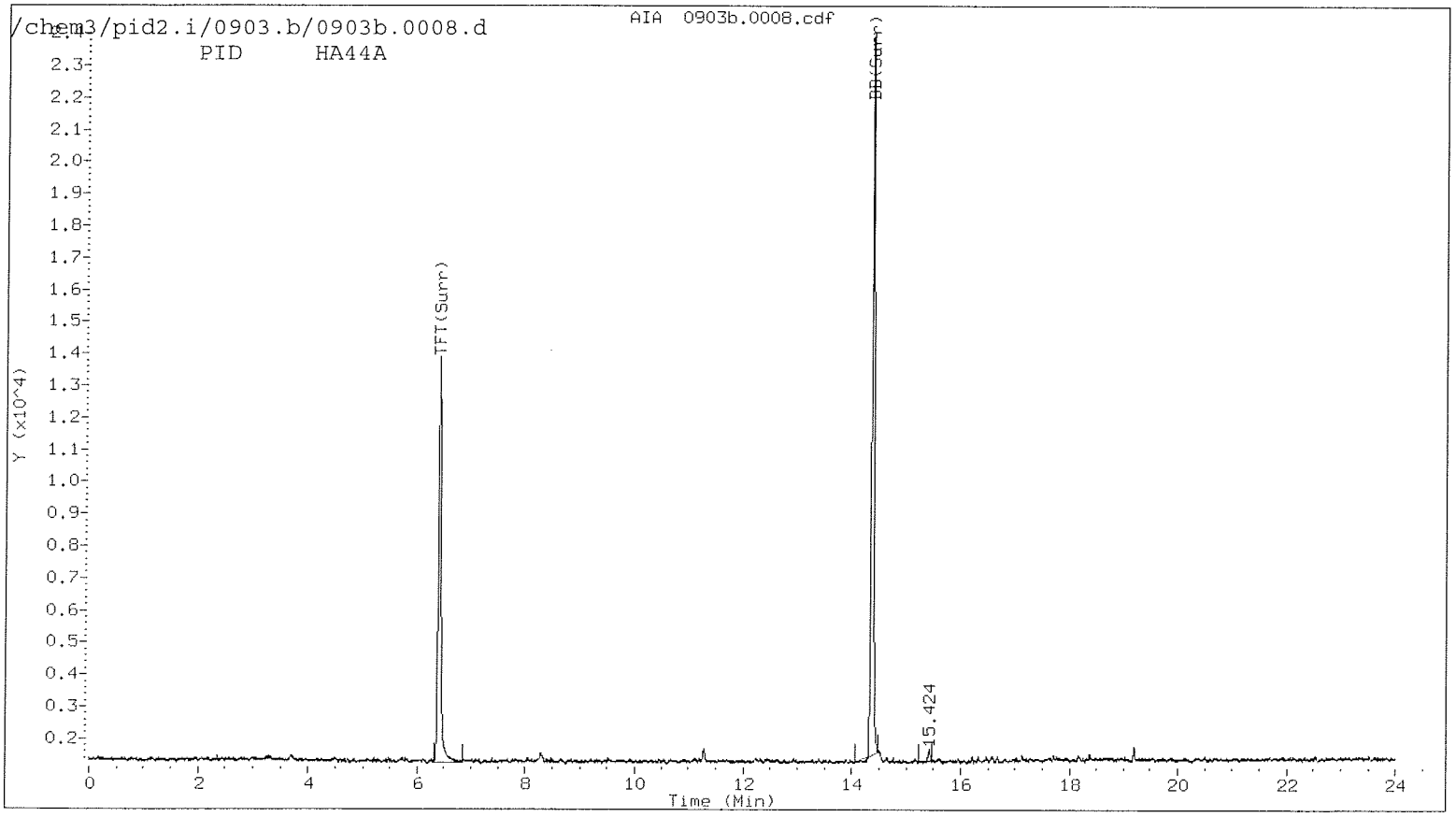
FID HA44A
AIA 0903.0008.cdf
Y (x10^4)
Time (Min)
TFT(Surr)
BB(Surr)
nC6
Toluene
nDecane
Trimethylbenzene
nC12-Dodecane
Naphthalene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PID HA44A
AIA 0903b.0008.cdf
Y (x10^4)
Time (Min)
TFT(Surr)
BB(Surr)
15.424

Data File: /chem3/pid2.i/0903.b/0903.0008.d

Date : 03-SEP-2004 15:31

Client ID:

Sample Info: HA44A

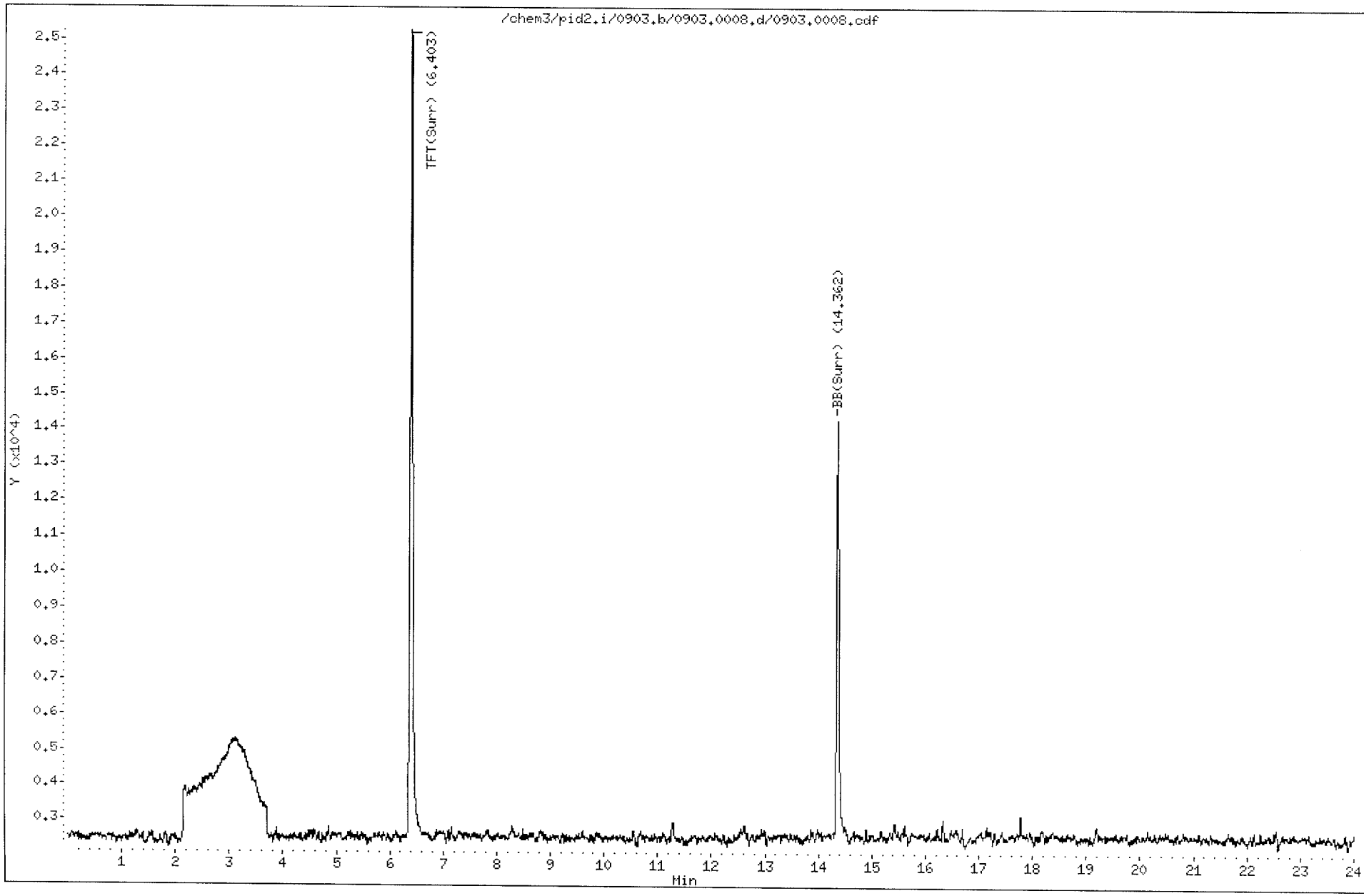
Column phase: FID

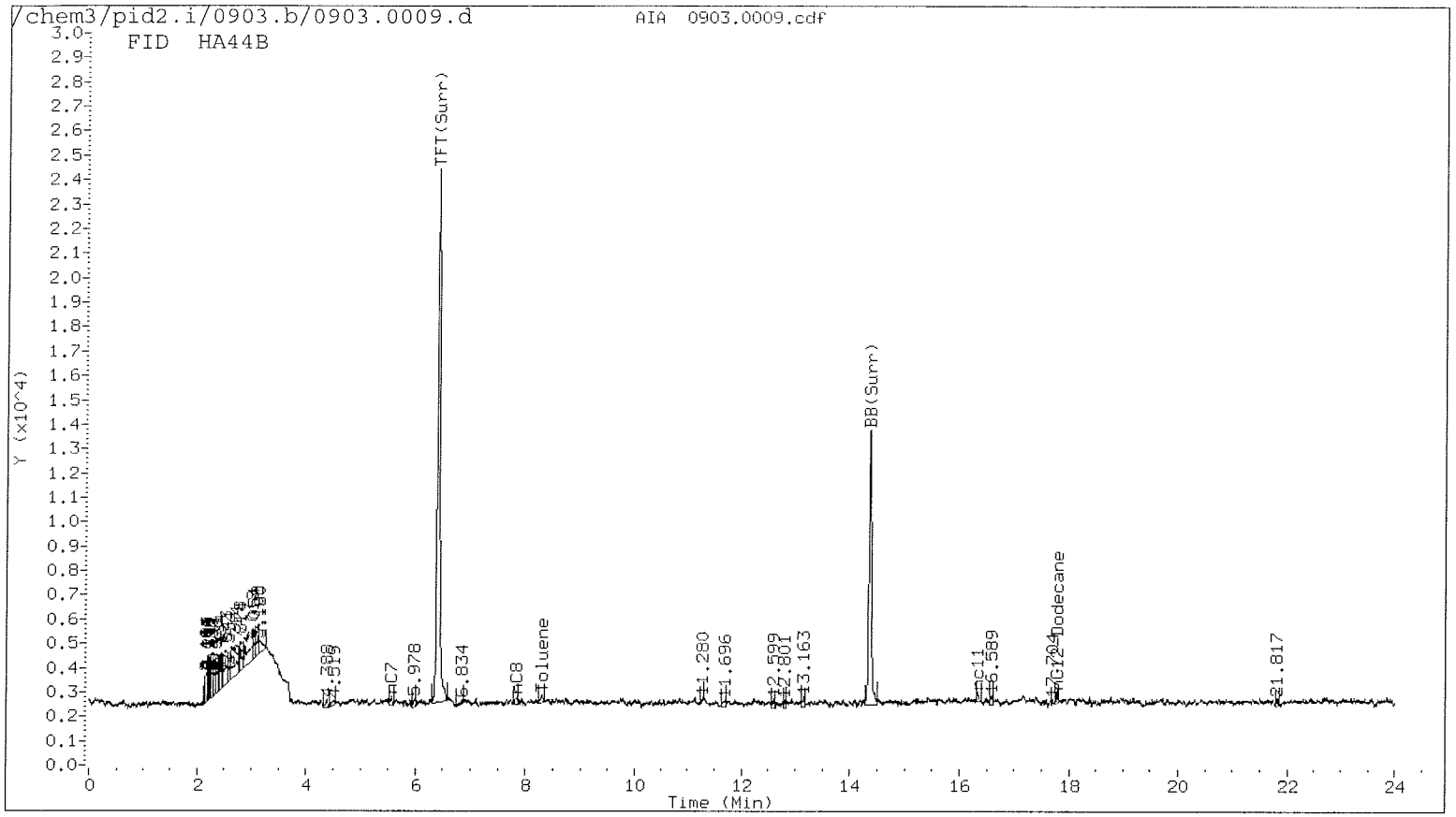
Instrument: pid2.i

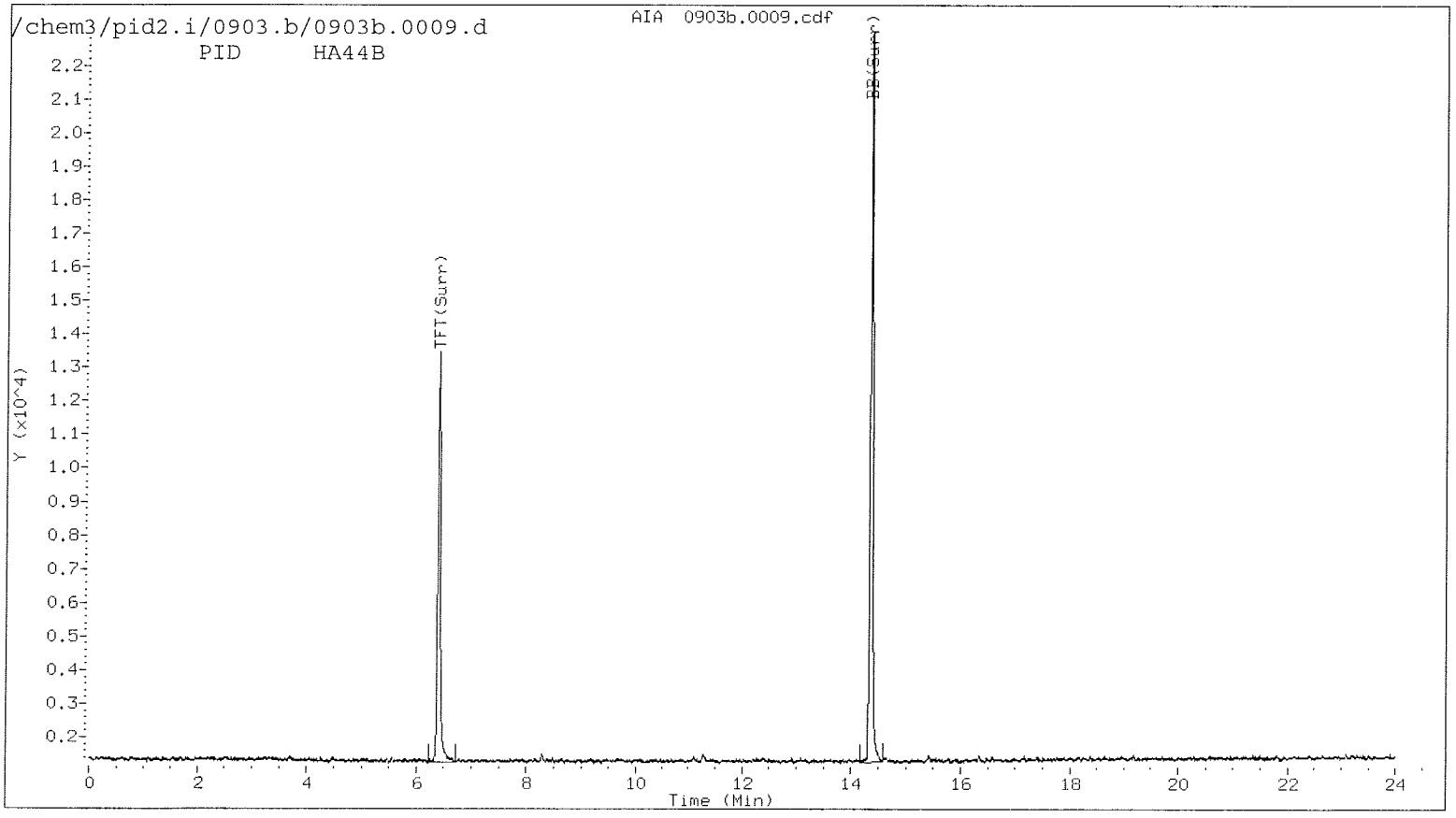
Operator: PC

Column diameter: 2.00

000141




/chem3/pid2.i/0903.b/0903.0009.d
AIA 0903.0009.cdf
FID HA44B
TFT(Surr)
BB(Surr)
nC7
nC8
Toluene
nC11
Dodecane
nC12
Y (x10^4)
Time (Min)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AIA 0903b.0009.cdf
PID HA44B
TFT(Surr)
BB(Surr)
Y (x10^4)
Time (Min)

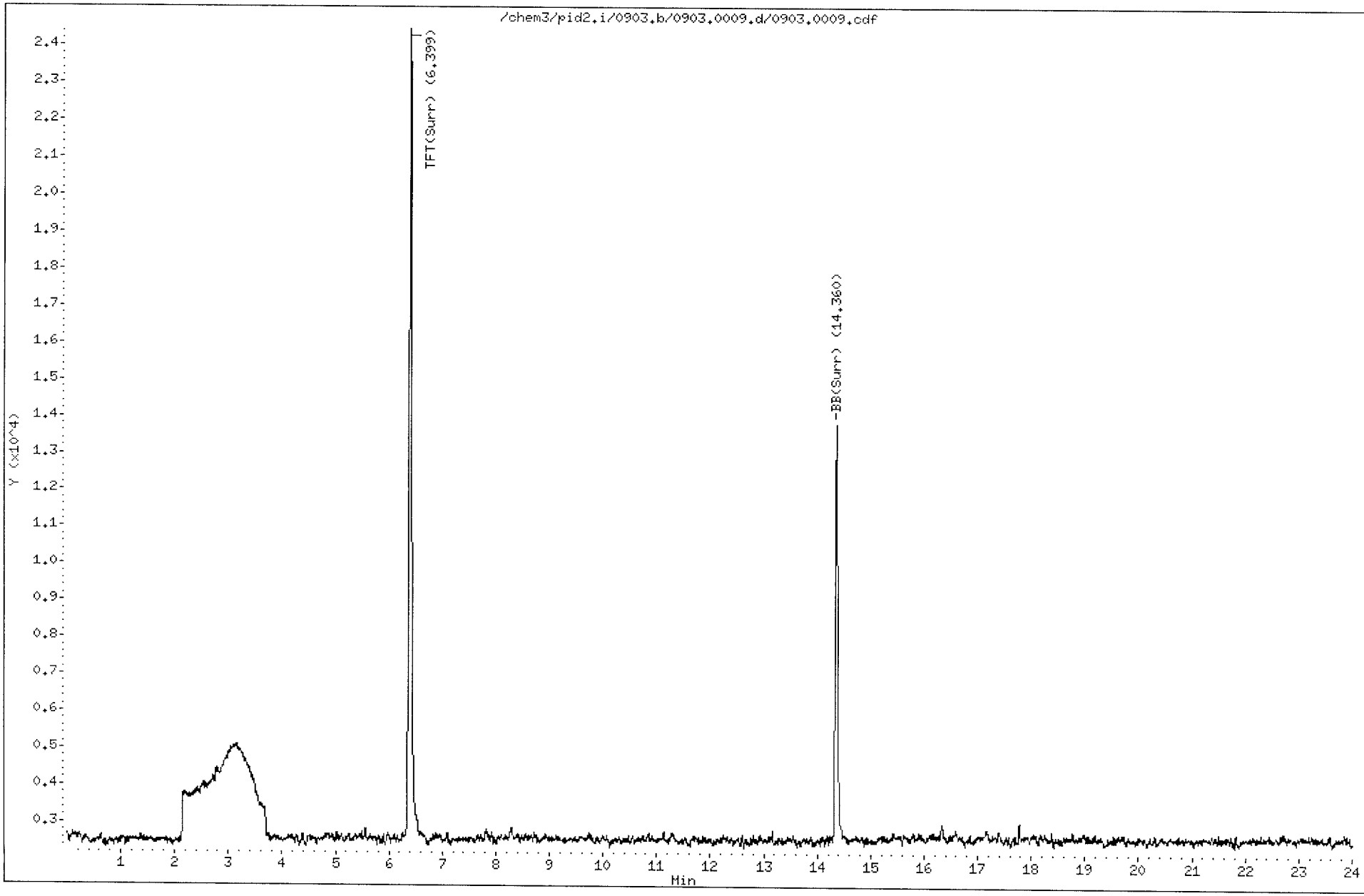
Data File: /chem3/pid2.i/0903.b/0903.0009.d
Date : 03-SEP-2004 15:58
Client ID:
Sample Info: HA44B

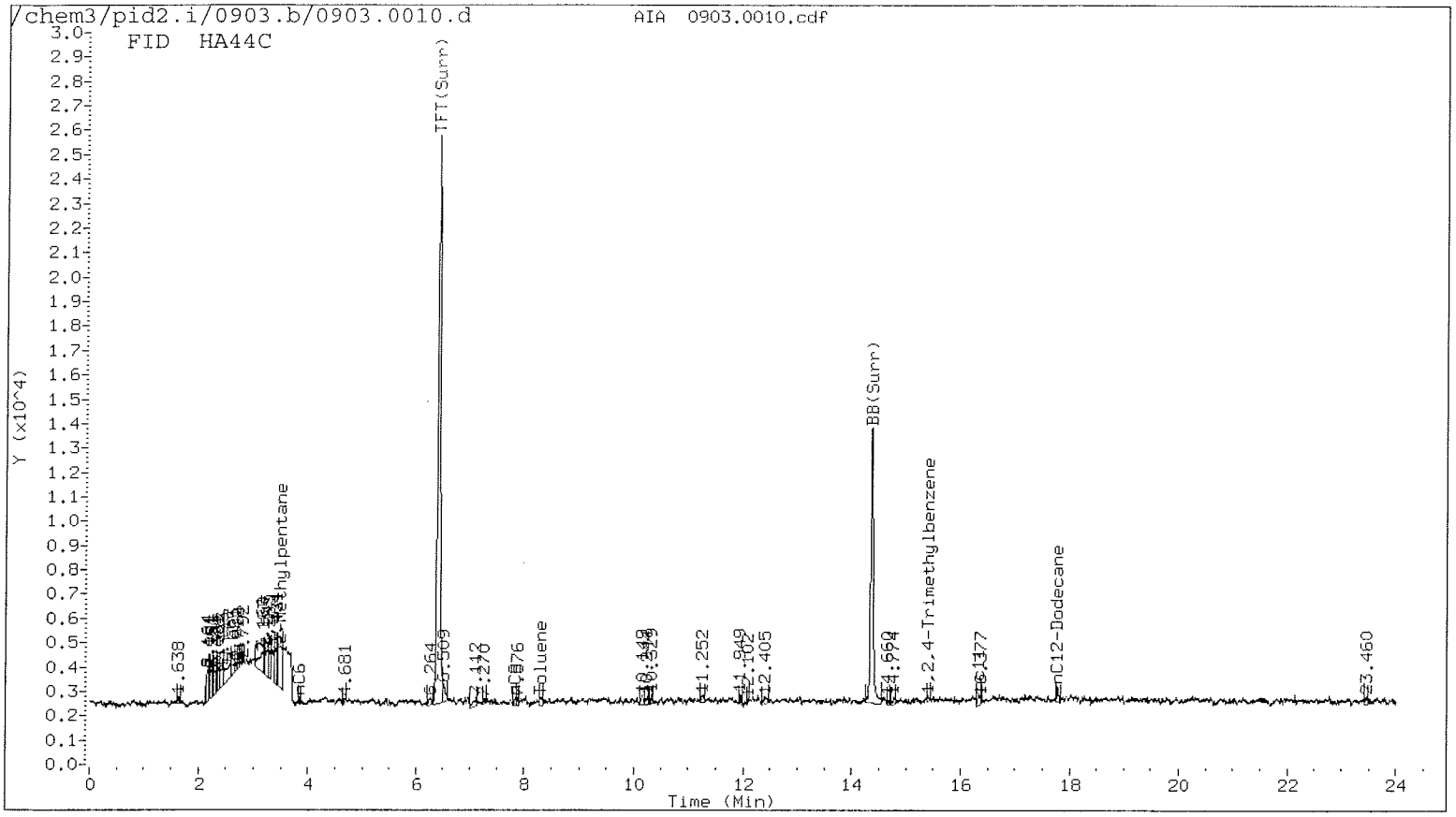
Column phase: FID

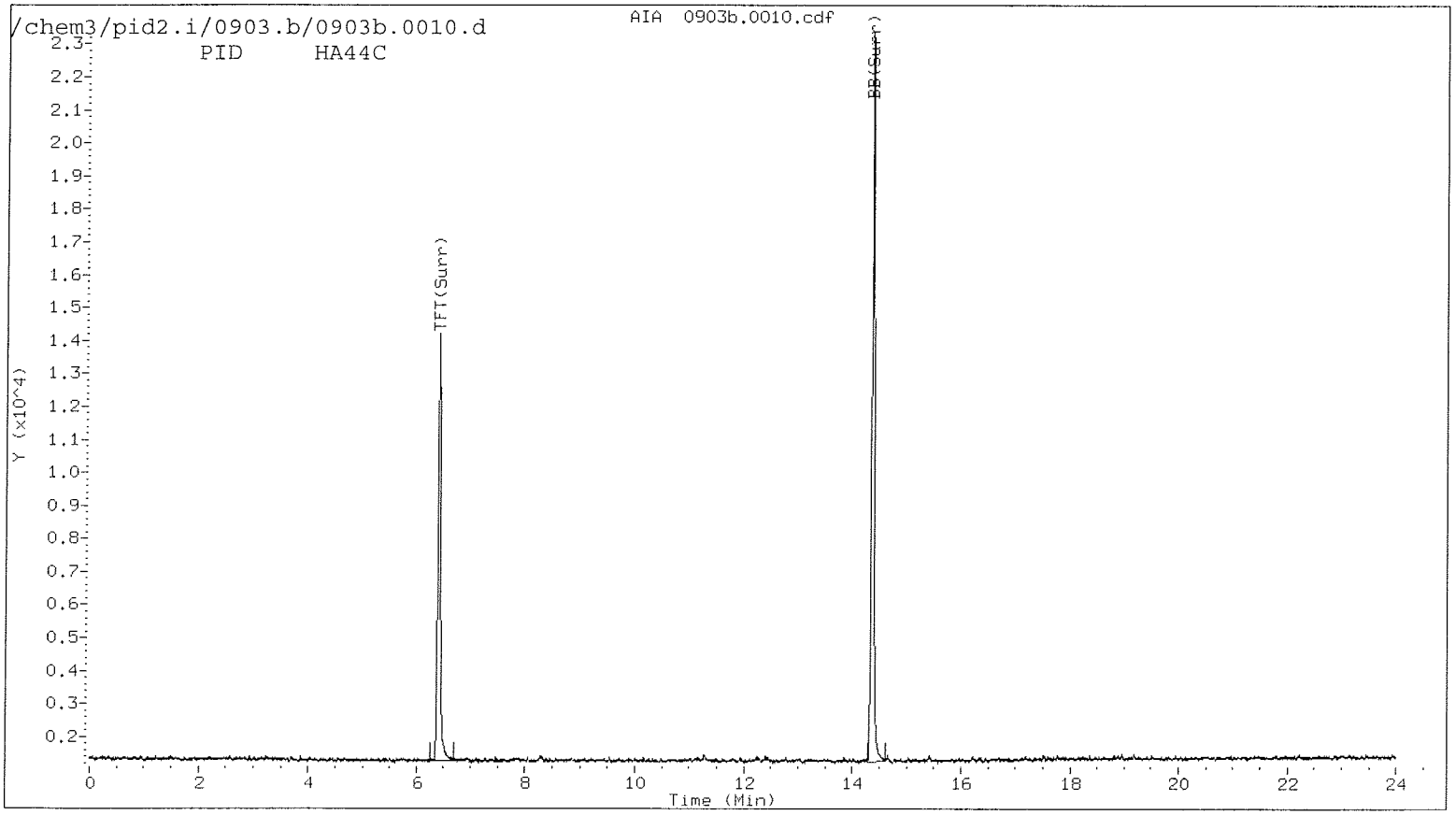
Instrument: pid2.i

Operator: PC
Column diameter: 2.00

000143




/chem3/pid2.i/0903.b/0903.0010.d
FID HA44C
AIA 0903.0010.cdf
TFT(Surr)
BB(Surr)
2-Methylpentane
nC6
Toluene
1,2,4-Trimethylbenzene
nC12-Dodecane
Y (x10^4)
Time (Min)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PID HA44C
AIA 0903b.0010.cdf
TFT(Surr)
BB(Surr)
Y (x10^4)
Time (Min)

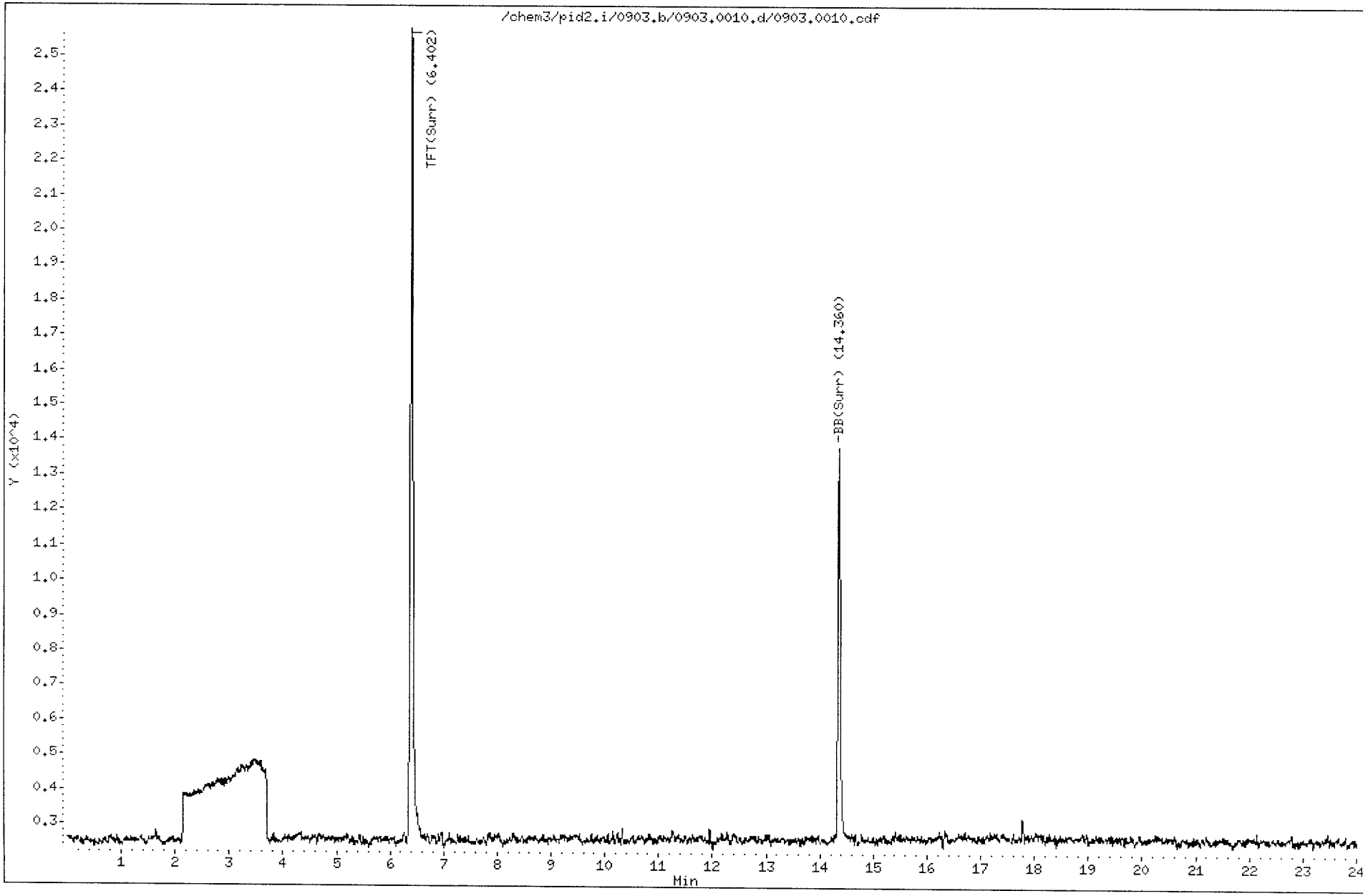
Data File: /chem3/pid2.i/0903.b/0903.0010.d
Date : 03-SEP-2004 16:28
Client ID:
Sample Info: HA44C

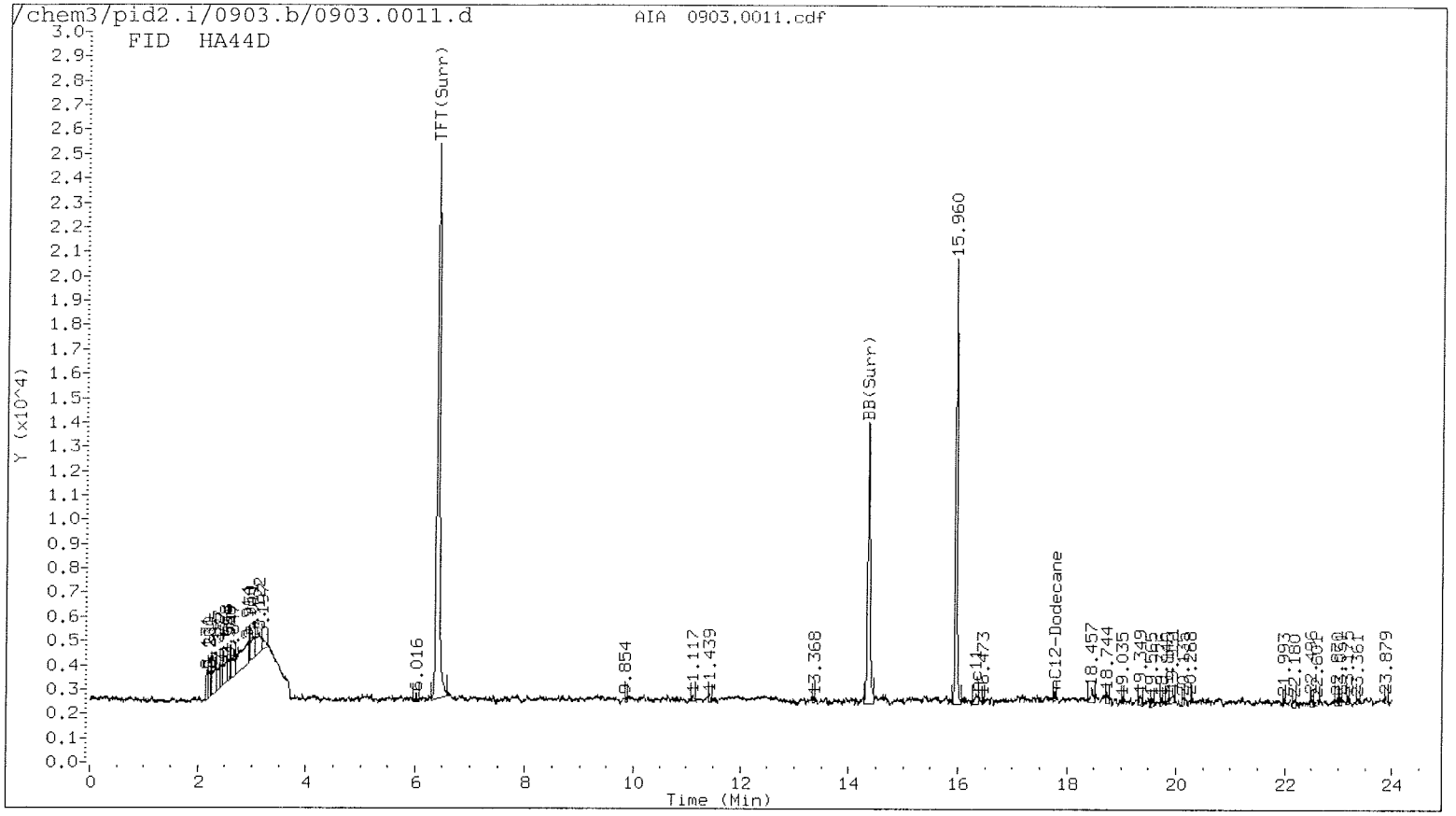
Column phase: FID

Instrument: pid2.i

Operator: PC
Column diameter: 2.00

000145

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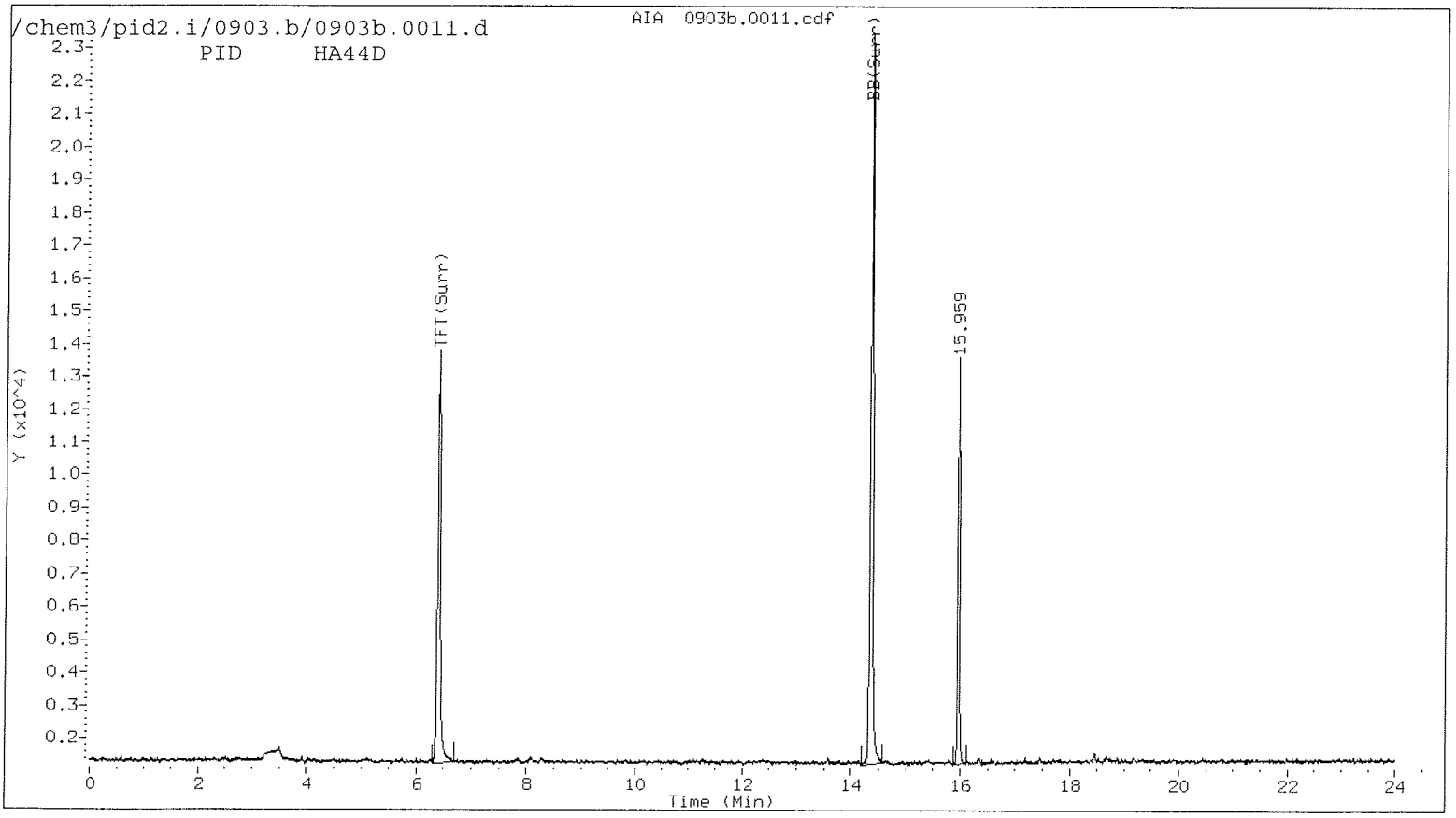
AIA 0903.0011.cdf
FID HA44D
TFT(Surr)
BB(Surr)
15.960
nC12-Dodecane
Y (x10^4)
Time (Min)


/chem3/pid2.i/0903.b/0903b.0011.d
AIA 0903b.0011.cdf
PID HA44D
TFT(Surr)
BB(Surr)
15.959
Y (x10^4)
Time (Min)

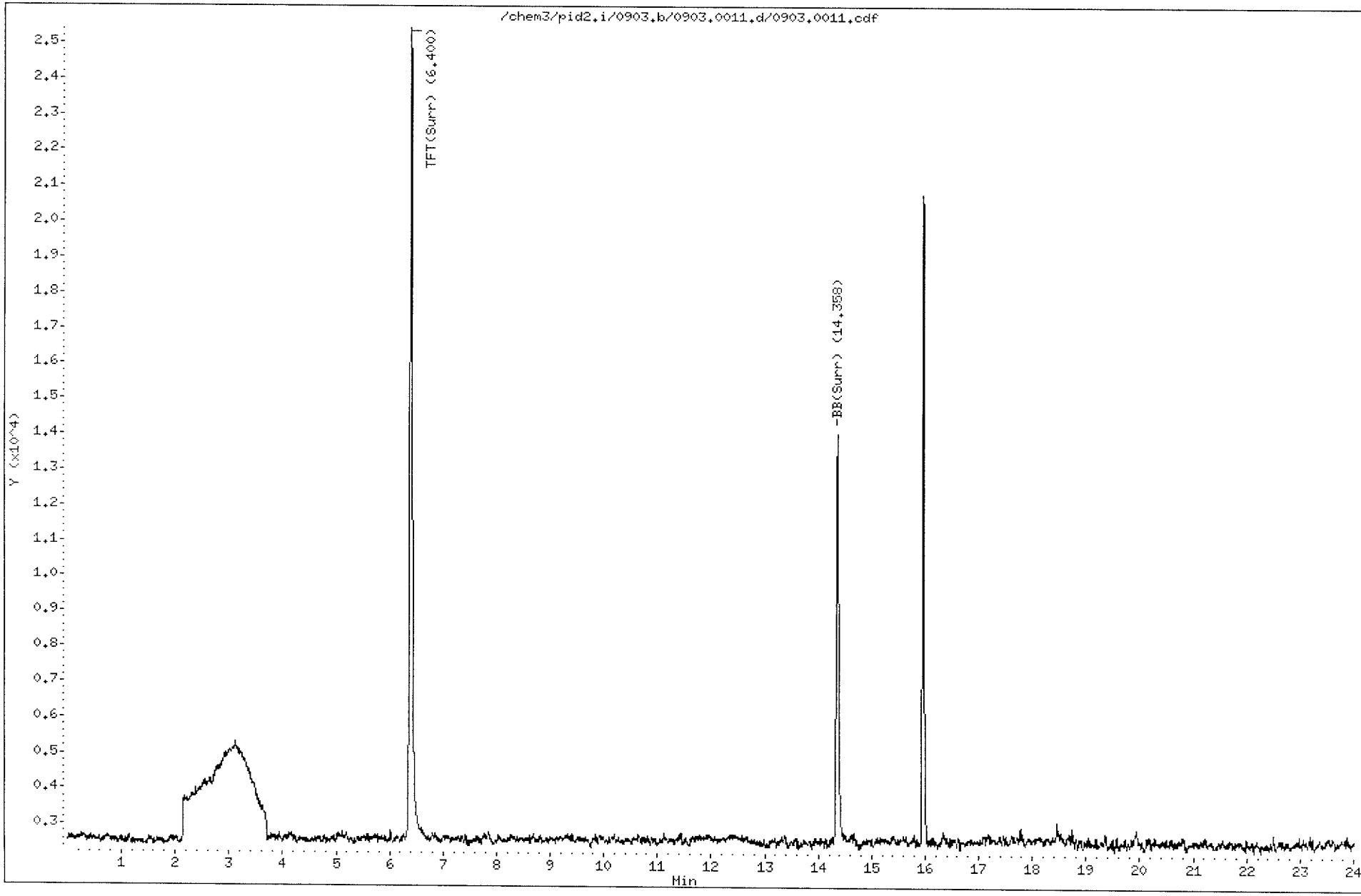
Data File: /chem3/pid2.i/0903.b/0903.0011.d
Date : 03-SEP-2004 16:55
Client ID:
Sample Info: HA44D

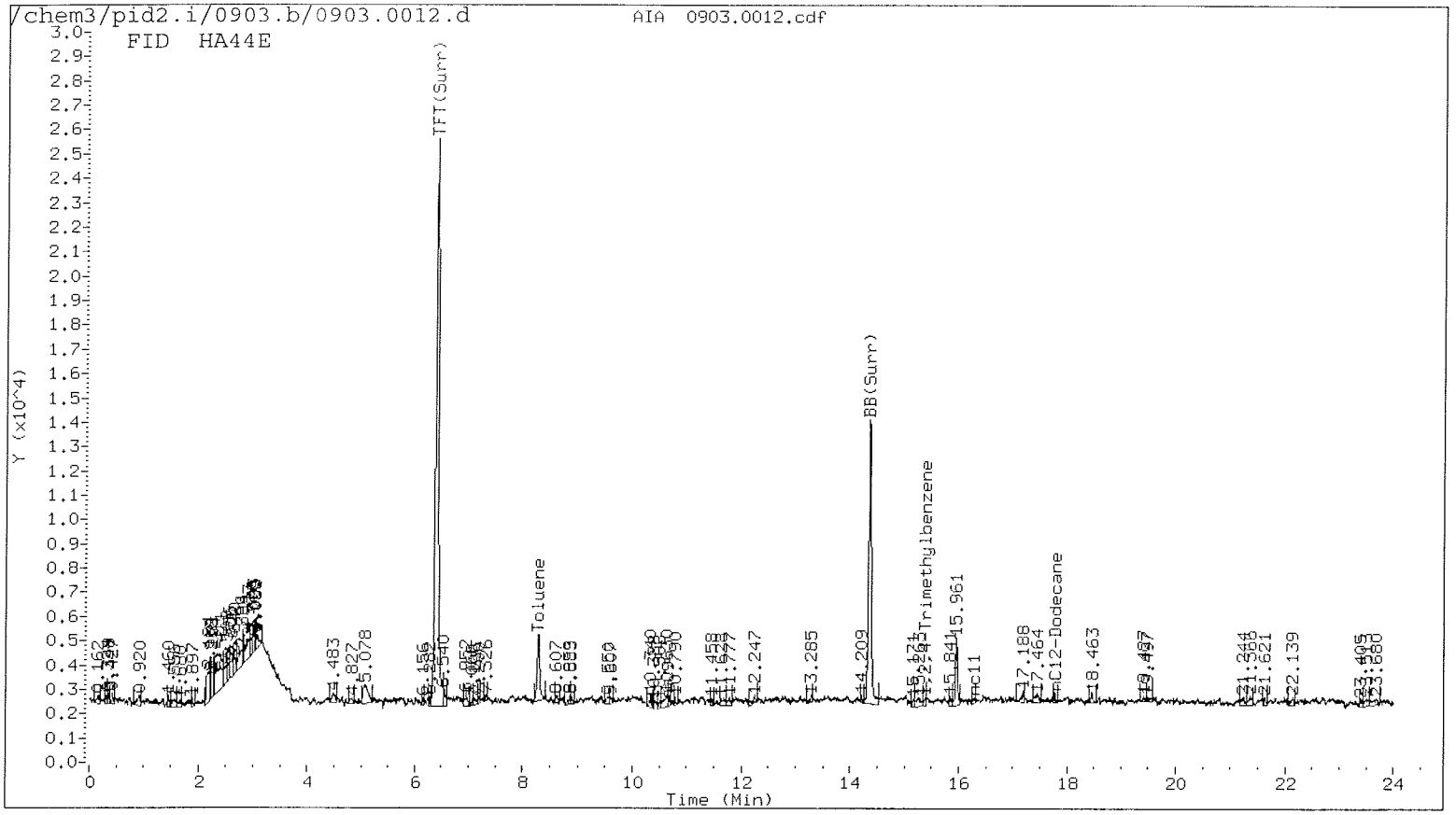
Column phase: FID

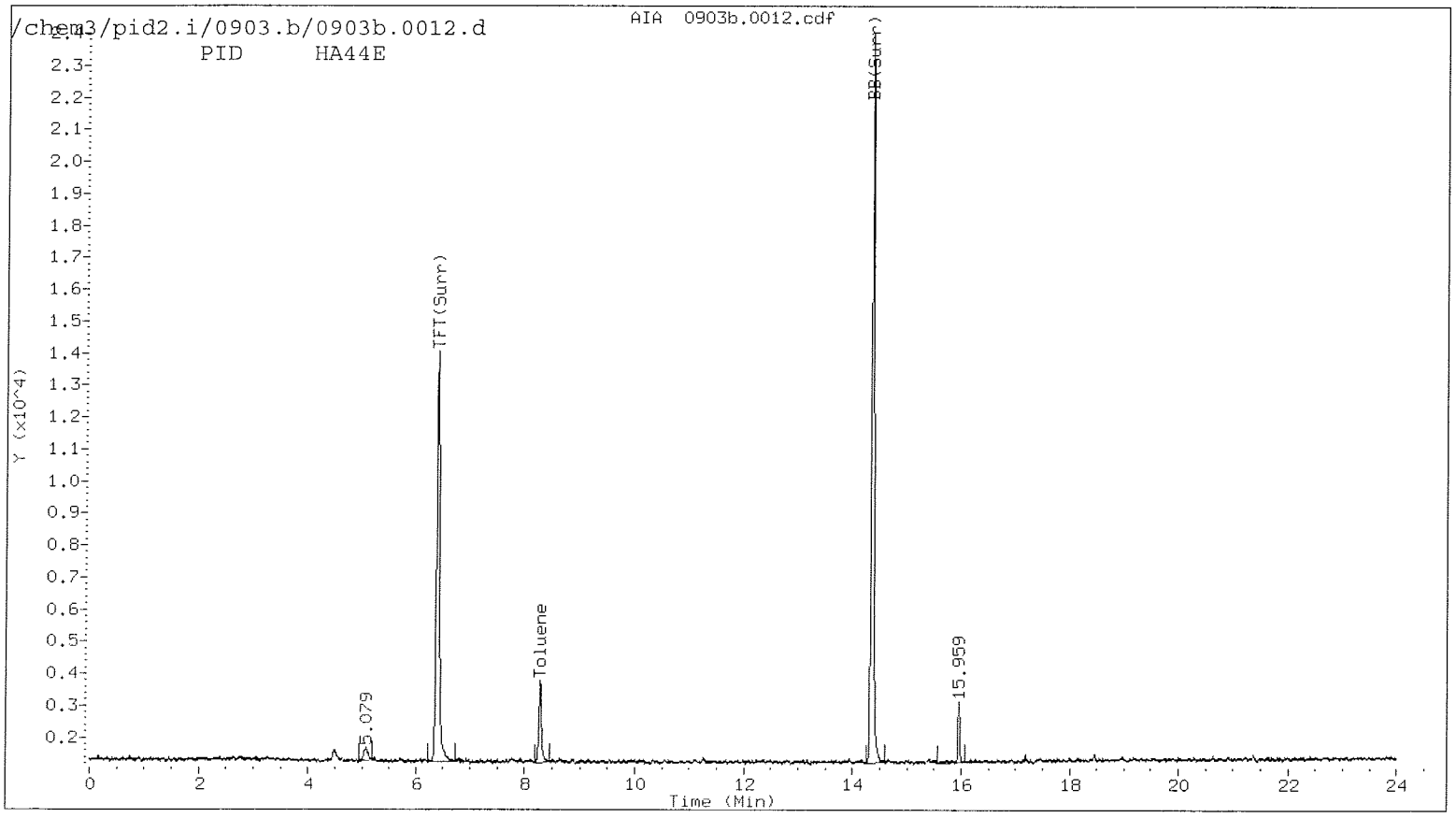
Instrument: pid2.i

Operator: PC
Column diameter: 2.00

000147




/chem3/pid2.i/0903.b/0903.0012.d
AIA 0903.0012.cdf
FID HA44E
TFT(Surr)
Toluene
BB(Surr)
1,3,5-Trimethylbenzene
nC11
nC12-Dodecane
Y (x10^4)
Time (Min)


/chem3/pid2.i/0903.b/0903b.0012.d
AIA 0903b.0012.cdf
PID HA44E
TFT(Surr)
Toluene
BB(Surr)
5.079
15.959
Y (x10^4)
Time (Min)

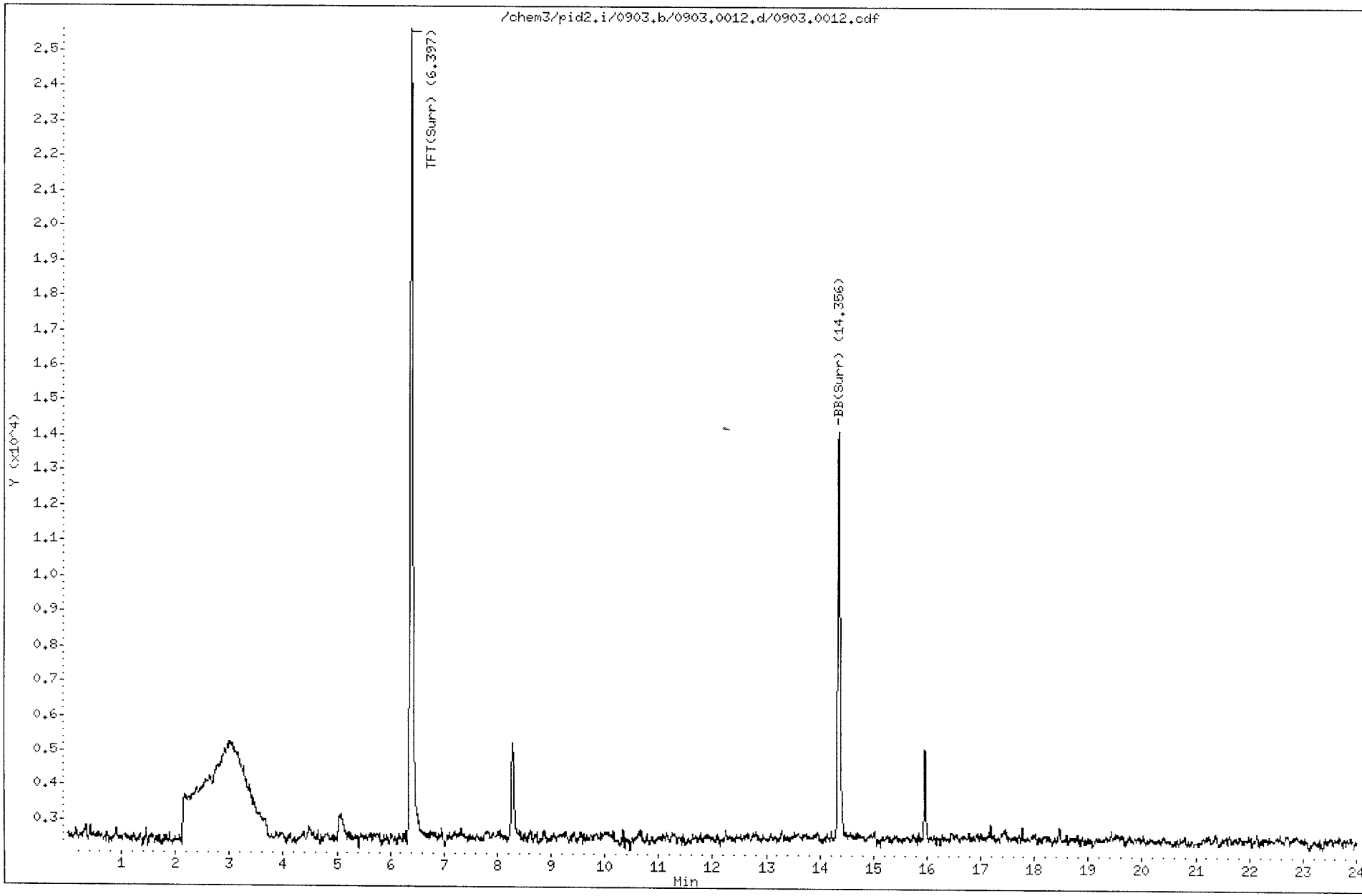
000149

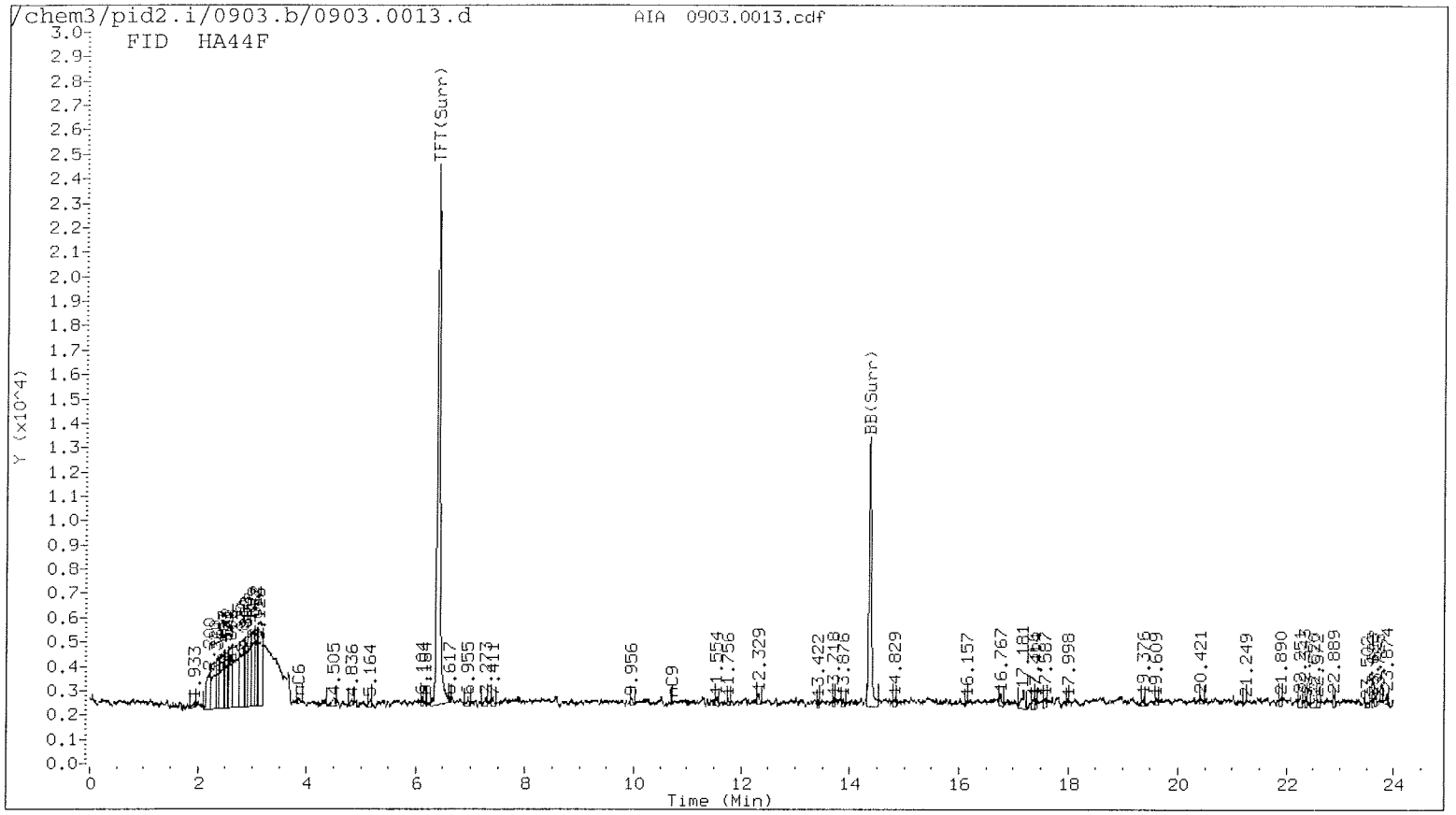
Data File: /chem3/pid2.i/0903.b/0903.0012.d
Date : 03-SEP-2004 17:23
Client ID:
Sample Info: HA44E

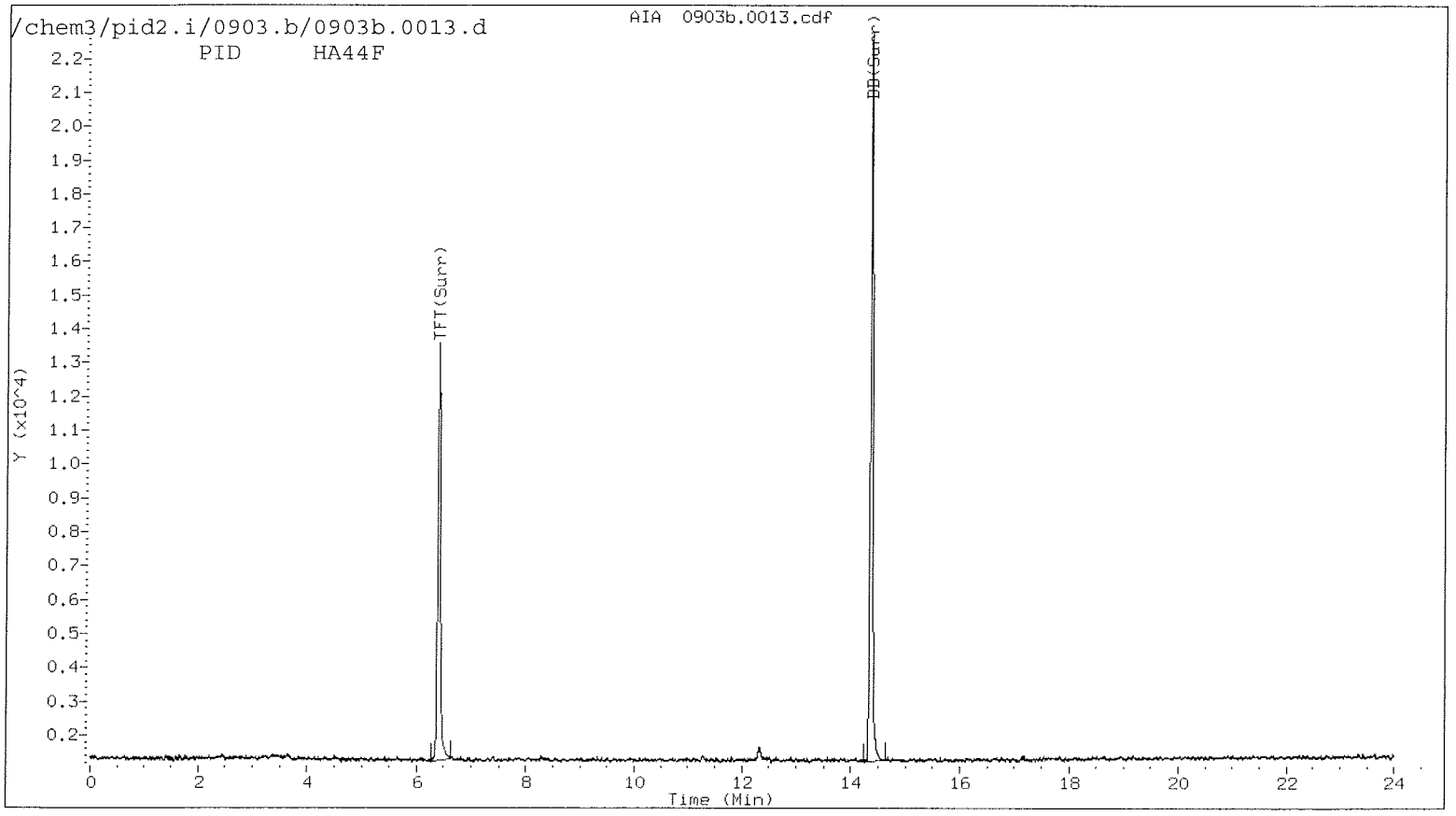
Column phase: FID

Instrument: pid2.i

Operator: PC
Column diameter: 2.00




/chem3/pid2.i/0903.b/0903.0013.d
AIA 0903.0013.cdf
FID HA44F
TFT(Surr)
BB(Surr)
Y (x10^4)
Time (Min)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AIA 0903b.0013.cdf
PID HA44F
TFT(Surr)
BB(Surr)
Y (x10^4)
Time (Min)

Data File: /chem3/pid2.i/0903.b/0903.0013.d

Date : 03-SEP-2004 17:50

Client ID:

Sample Info: HA44F

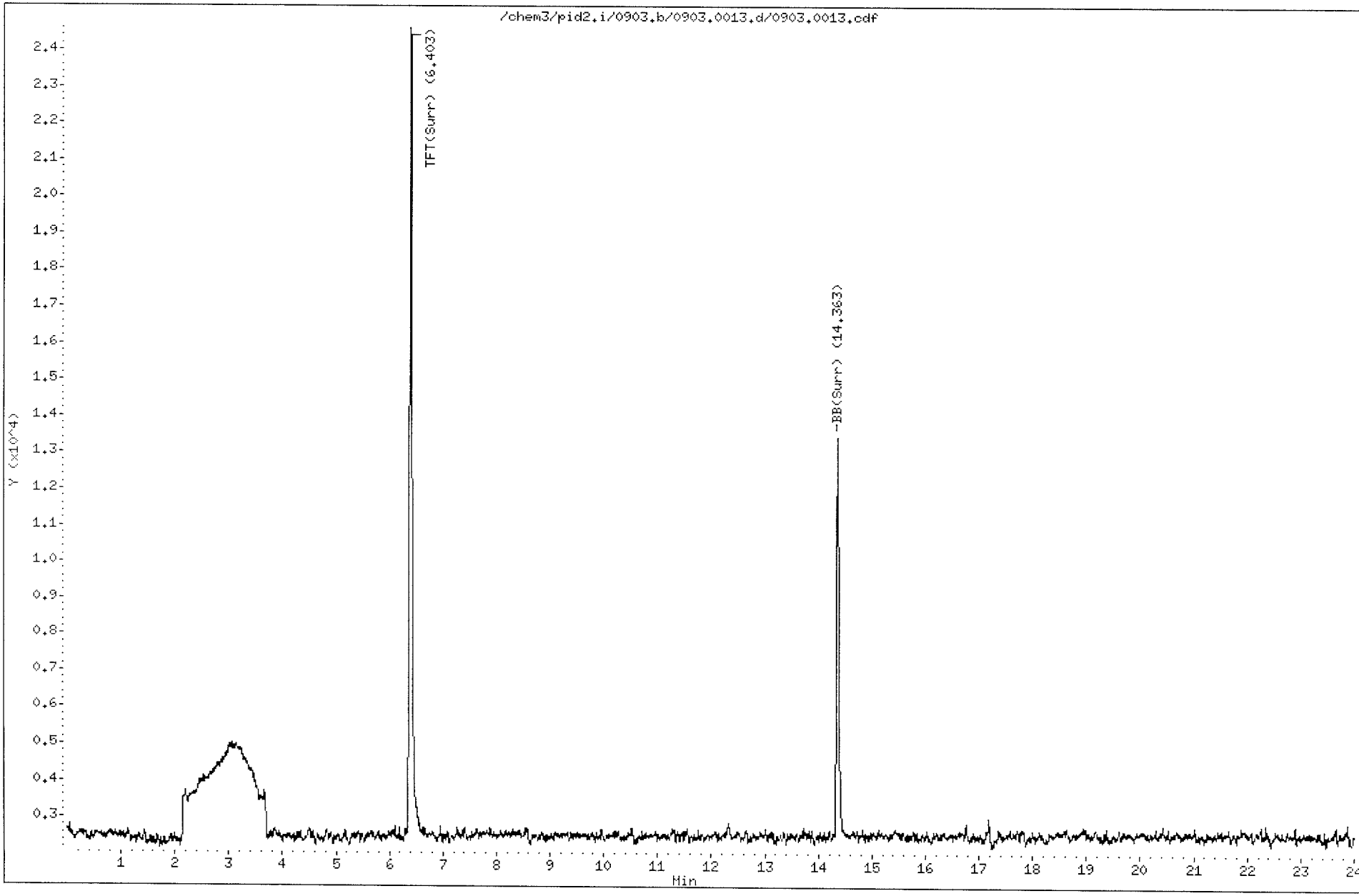
Column phase: FID

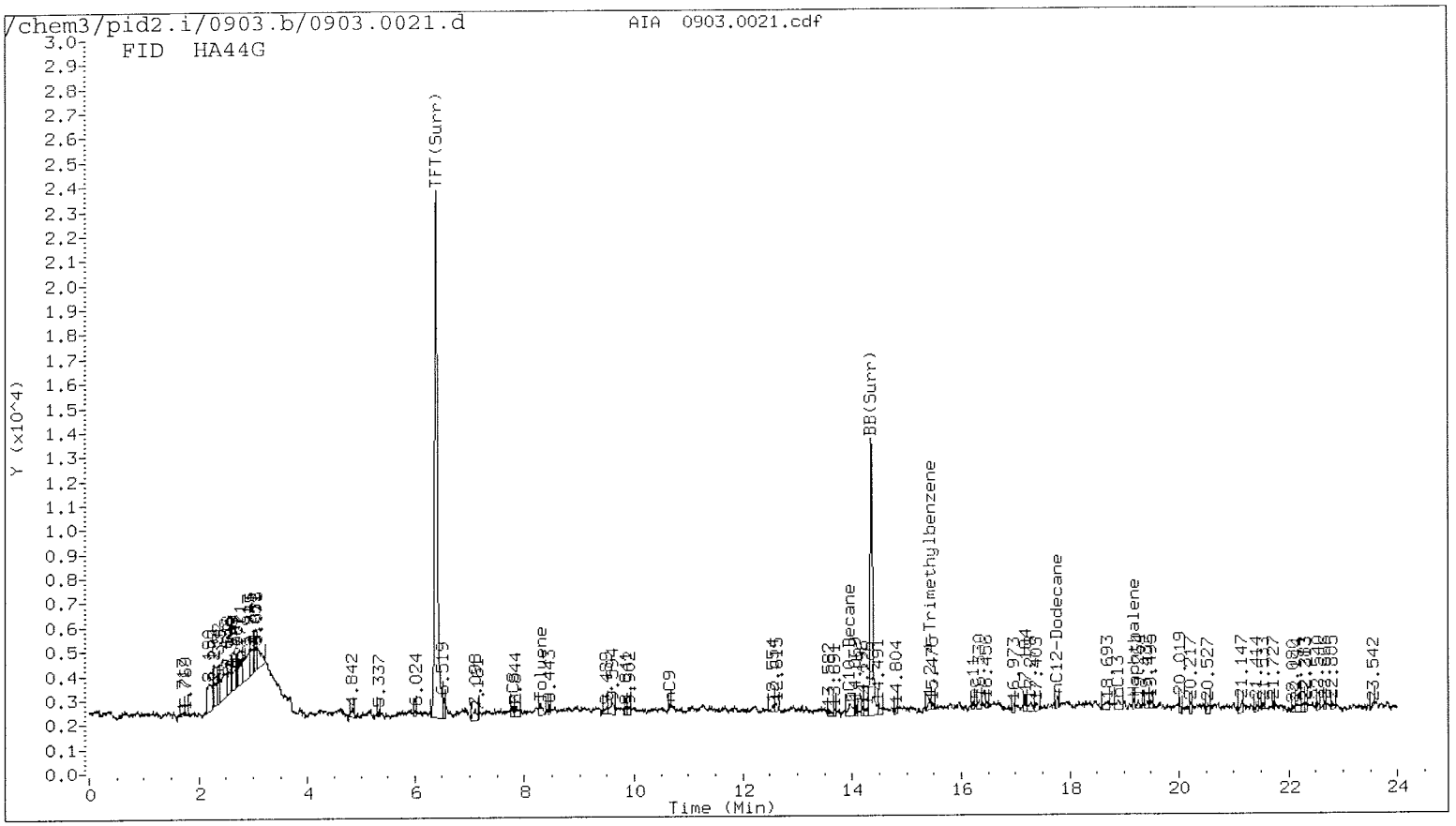
Instrument: pid2.i

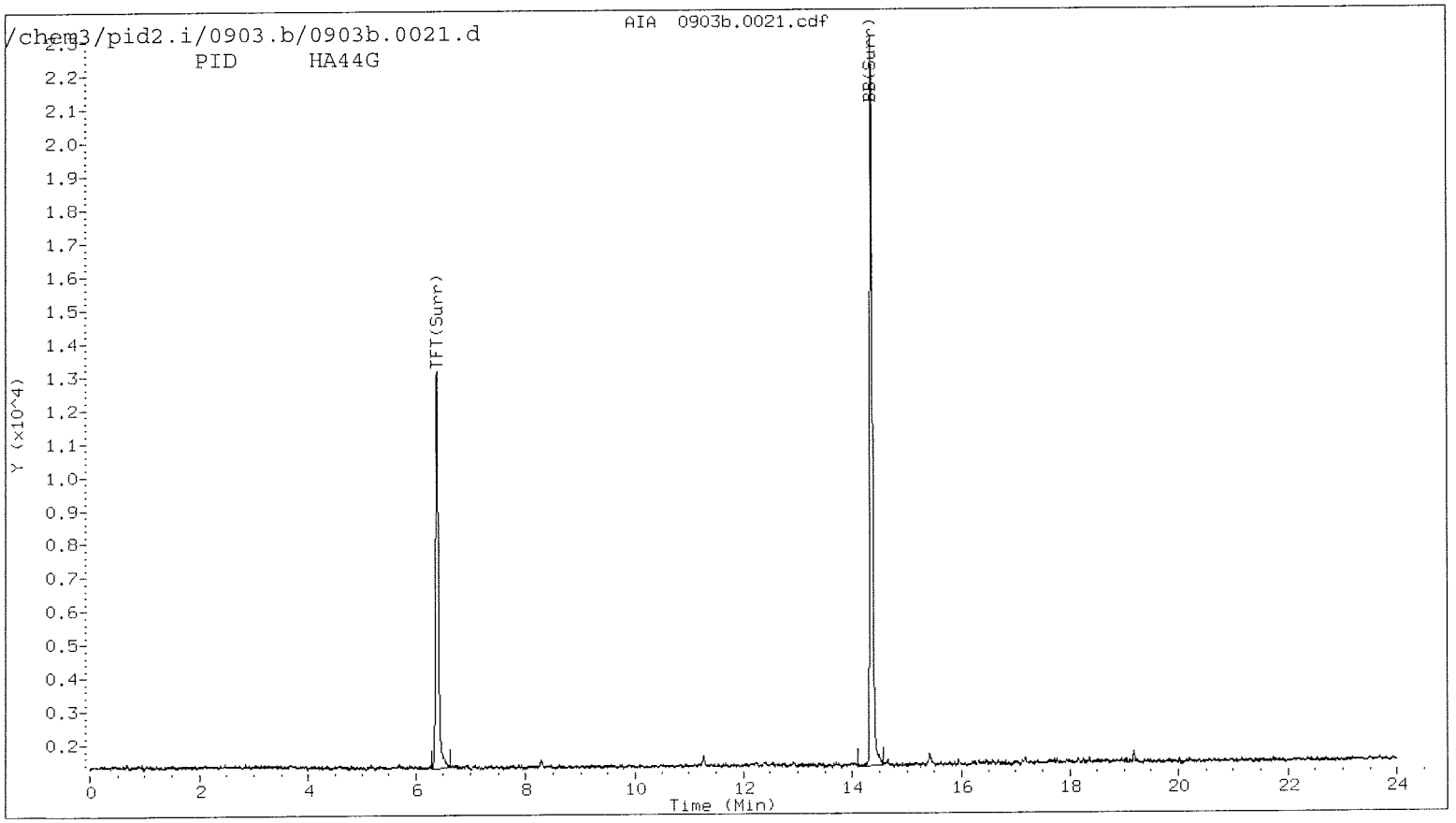
Operator: PC

Column diameter: 2.00

000151




/chem3/pid2.i/0903.b/0903.0021.d
AIA 0903.0021.cdf
FID HA44G
TFT(Surr)
BB(Surr)
Trimethylbenzene
Dodecane
Toluene
C12-Dodecane
Y (x10^4)
Time (Min)


/chem3/pid2.i/0903.b/0903b.0021.d
AIA 0903b.0021.cdf
PID HA44G
TFT(Surr)
BB(Surr)
Y (x10^4)
Time (Min)

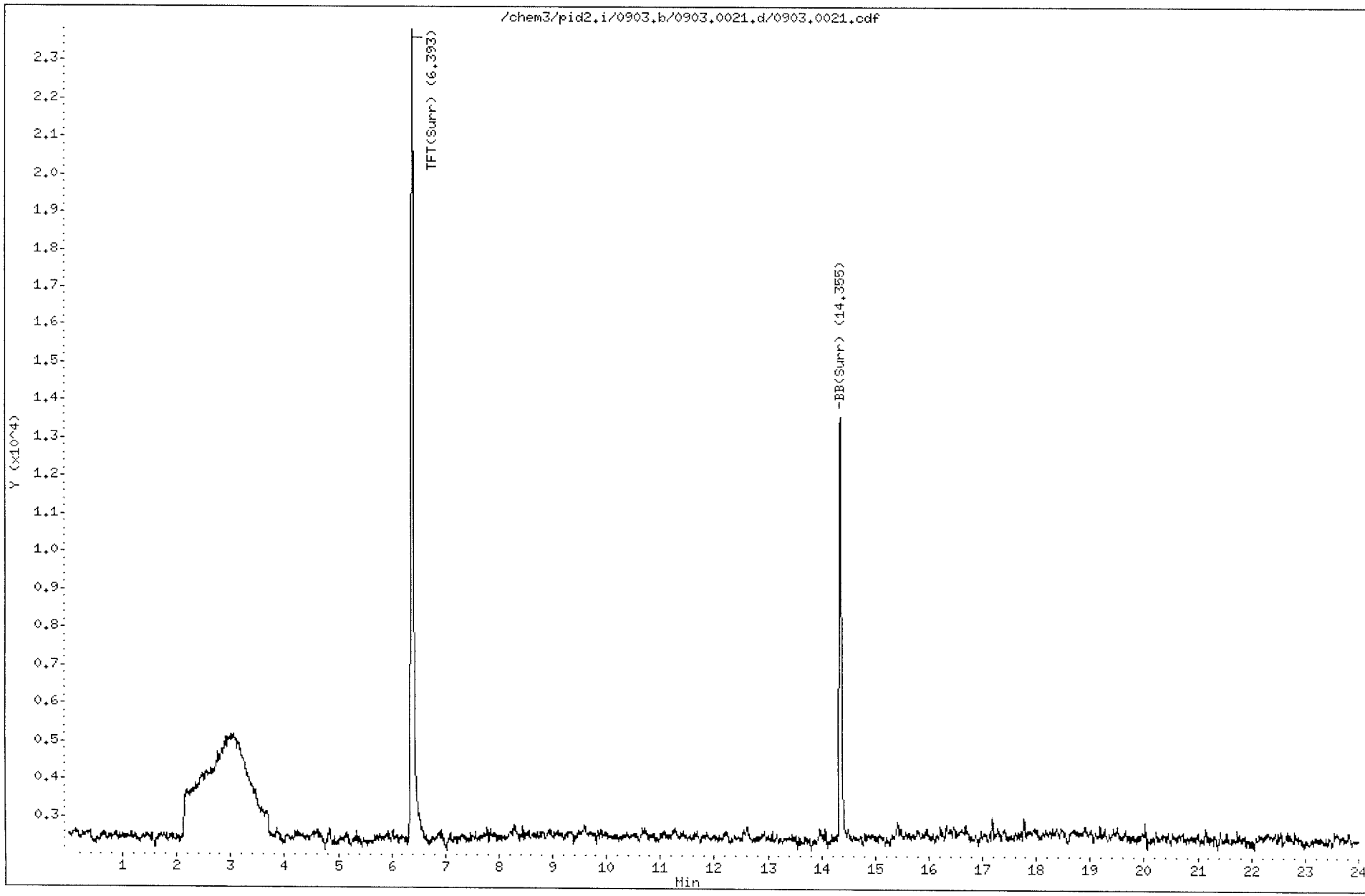
Data File: /chem3/pid2.i/0903.b/0903.0021.d
Date : 03-SEP-2004 21:30
Client ID:
Sample Info: HA44G

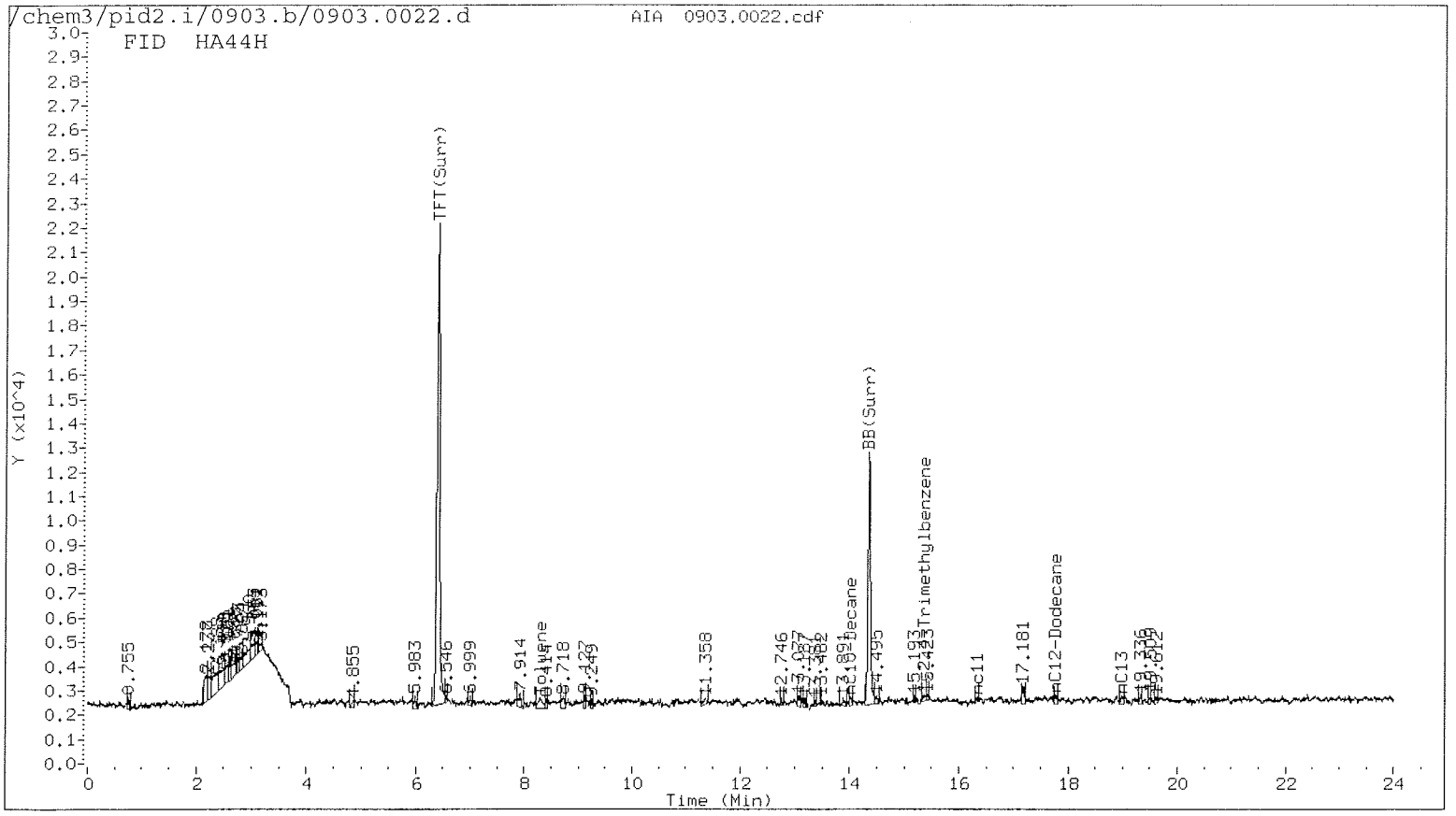
Column phase: FID

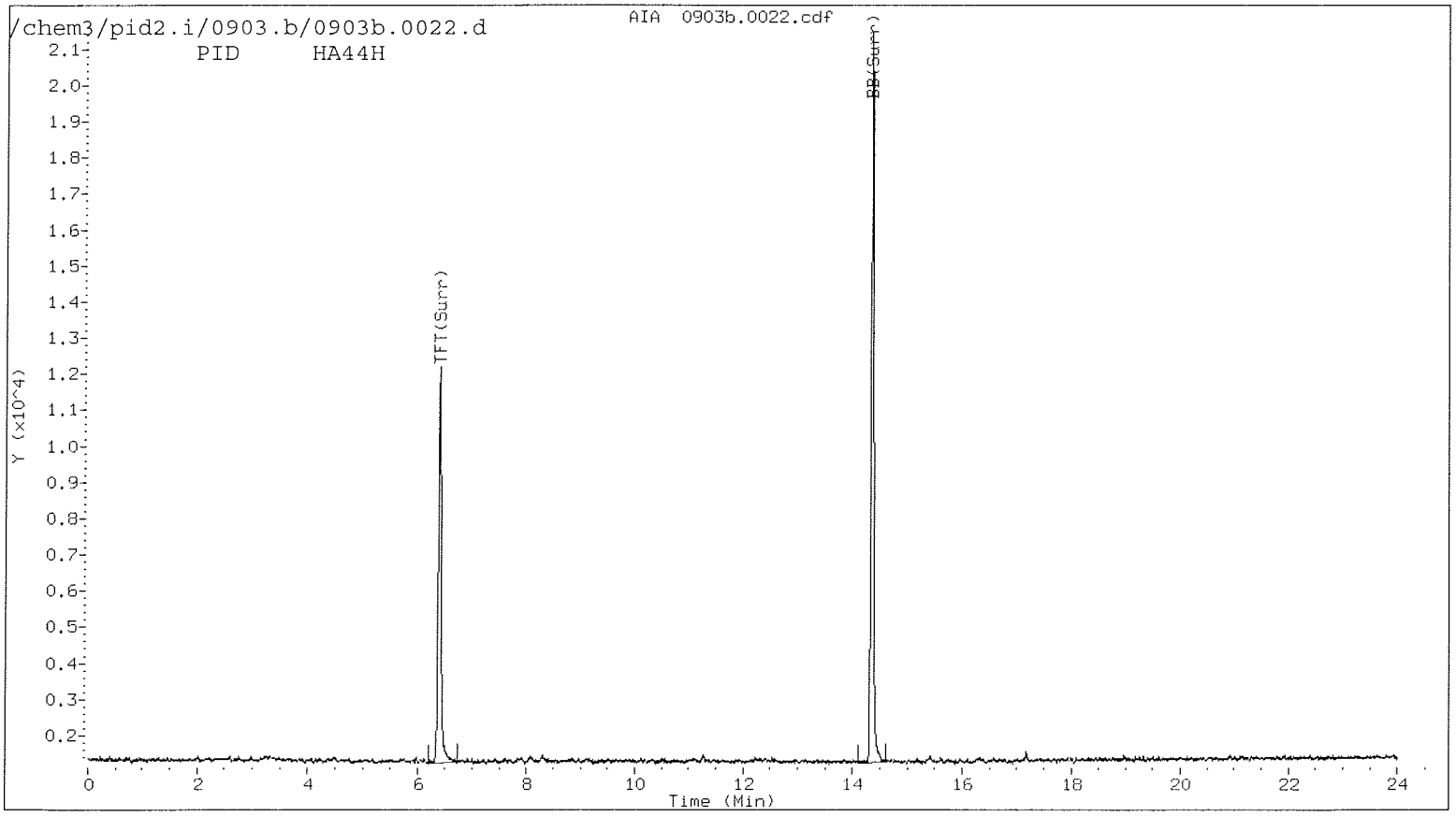
Instrument: pid2.i

Operator: PC
Column diameter: 2.00

000153




/chem3/pid2.i/0903.b/0903.0022.d
AIA 0903.0022.cdf
FID HA44H
TFT(Surr)
BB(Surr)
Trimethylbenzene
nC11
nC12-Dodecane
nC13
Y (x10^4)
Time (Min)


/chem3/pid2.i/0903.b/0903b.0022.d
AIA 0903b.0022.cdf
PID HA44H
TFT(Surr)
BB(Surr)
Y (x10^4)
Time (Min)

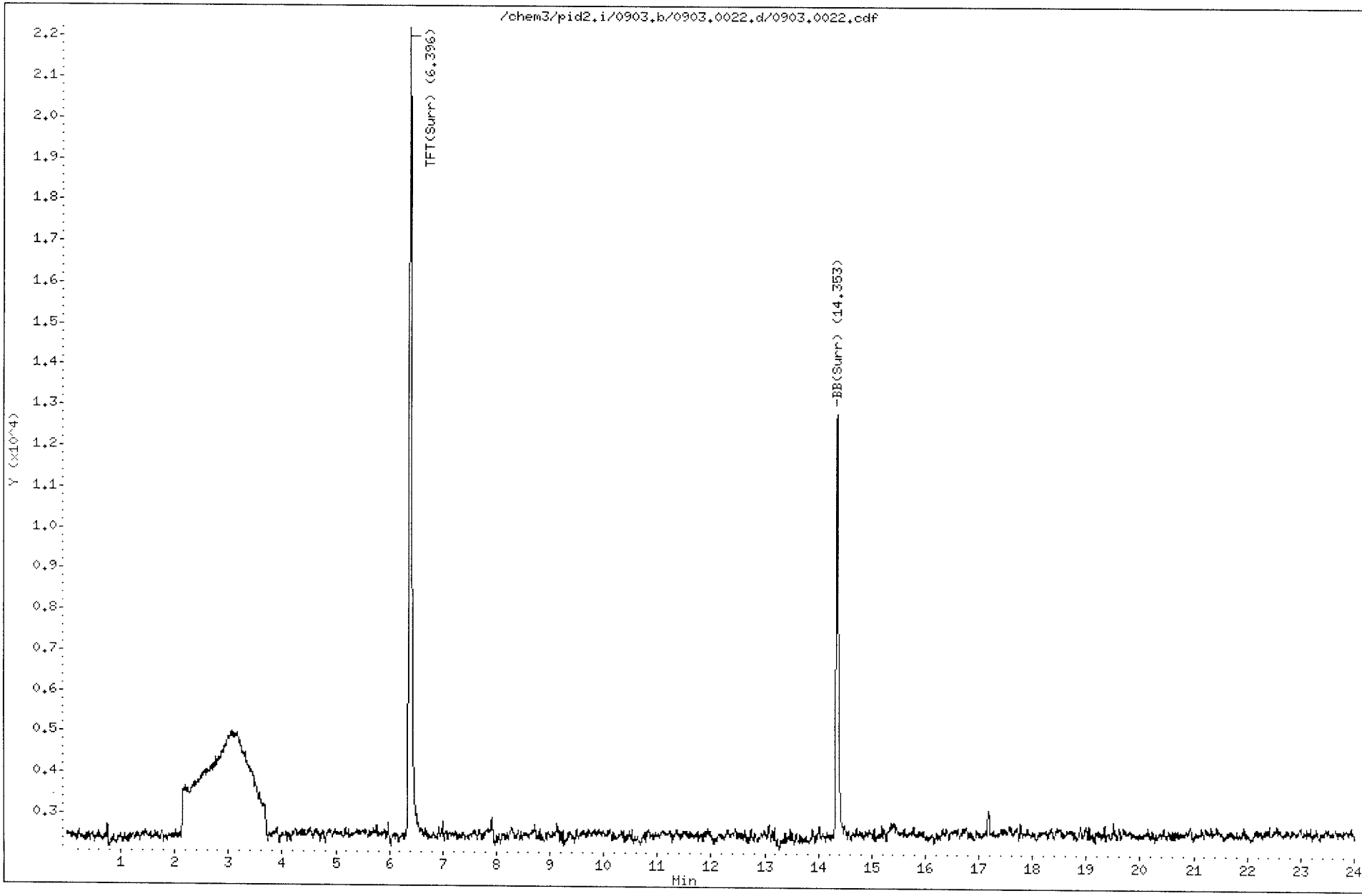
Data File: /chem3/pid2.i/0903.b/0903.0022.d
Date : 03-SEP-2004 21:57
Client ID:
Sample Info: HA44H

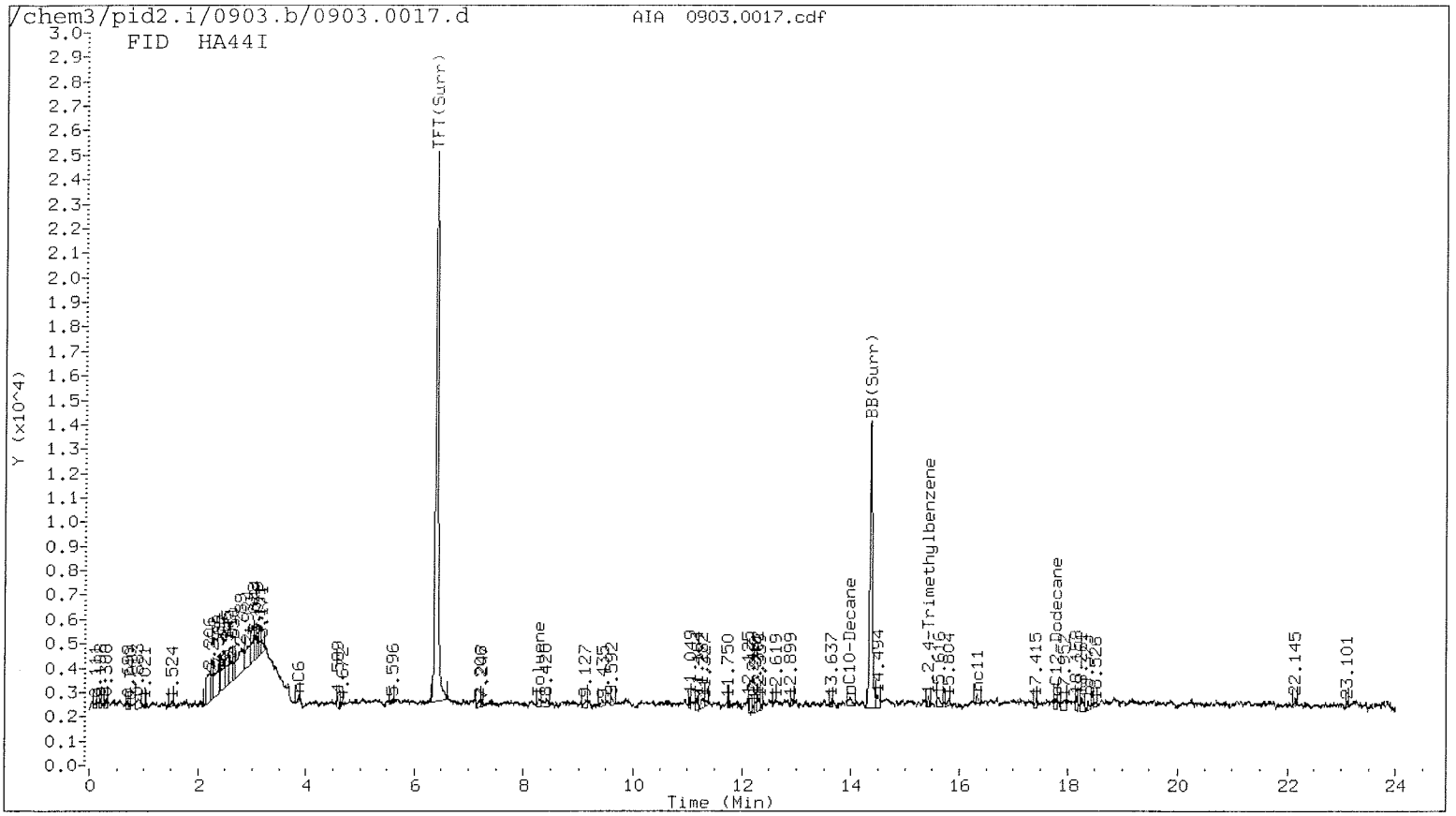
Column phase: FID

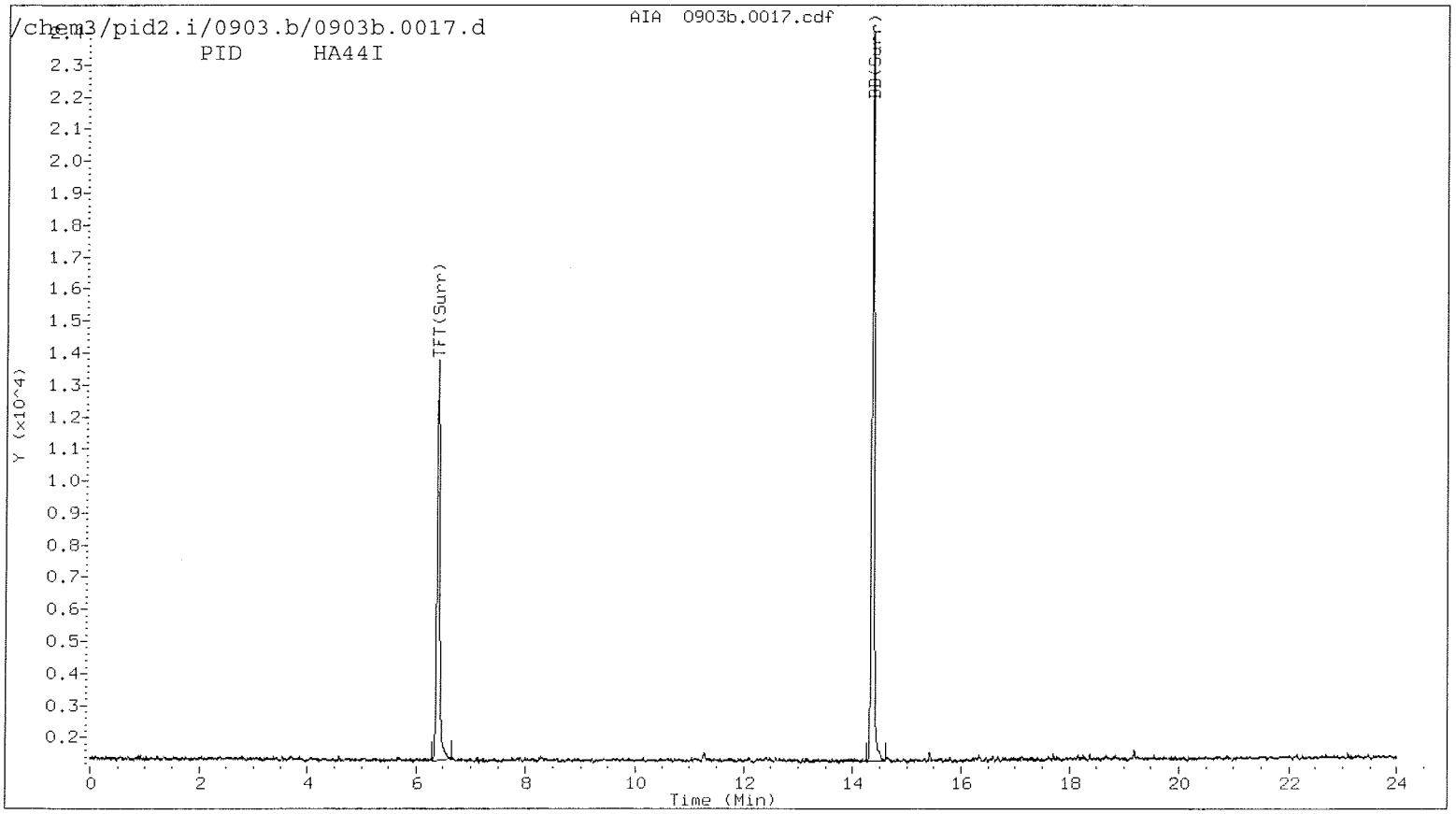
Instrument: pid2.i

Operator: PC
Column diameter: 2.00

000155




/chem3/pid2.i/0903.b/0903.0017.d
AIA 0903.0017.cdf
FID HA44I
TFT(Surr)
BB(Surr)
Toluene
1,2,4-Trimethylbenzene
nC10-Decane
nC11
nC12-Dodecane
Y (x10^4)
Time (Min)

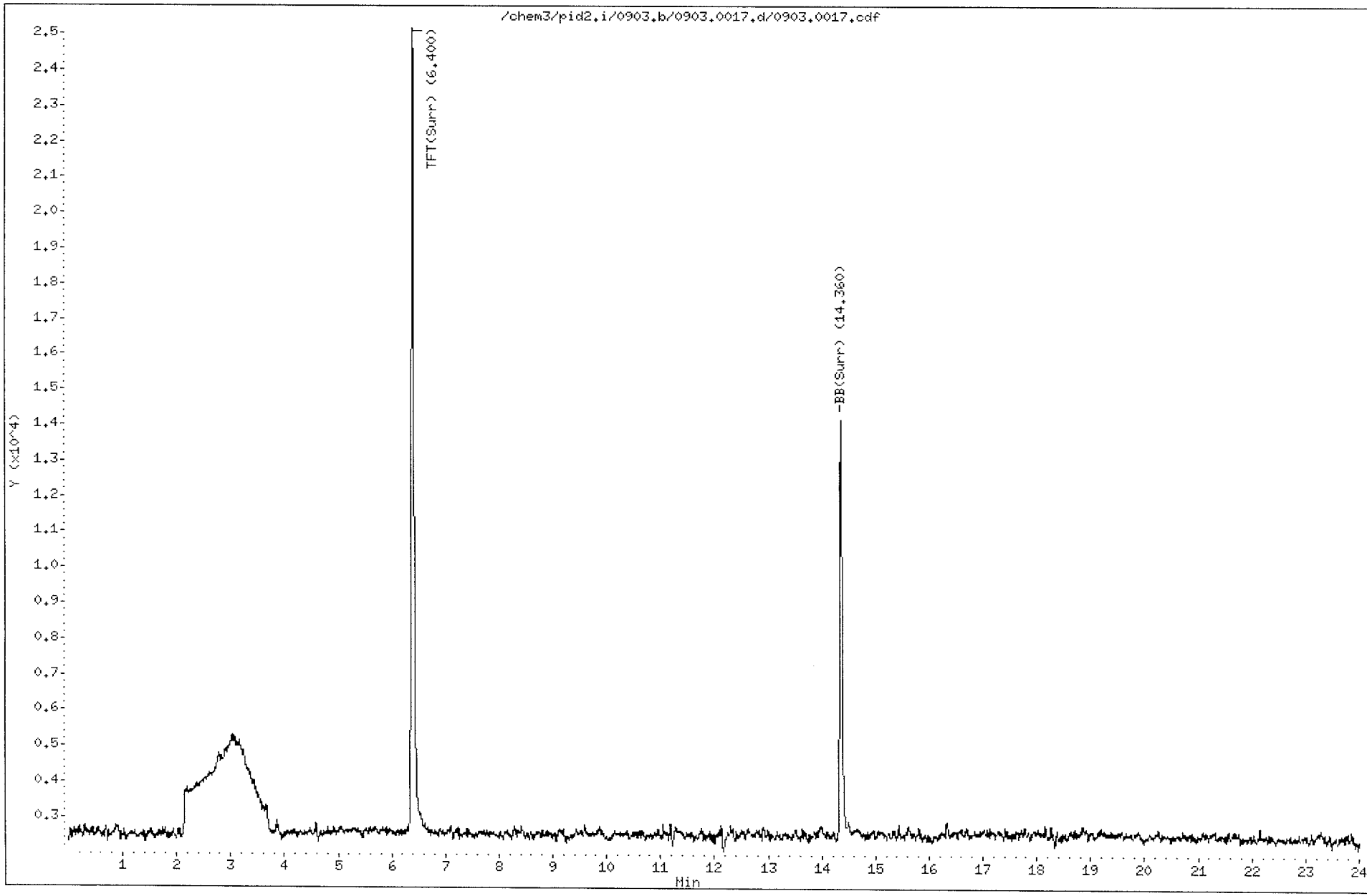

/chem3/pid2.i/0903.b/0903b.0017.d
AIA 0903b.0017.cdf
PID HA44I
TFT(Surr)
BB(Surr)
Y (x10^4)
Time (Min)

000157

Data File: /chem3/pid2.i/0903.b/0903.0017.d
Date : 03-SEP-2004 19:40
Client ID:
Sample Info: HA44I

Instrument: pid2.i

Operator: PC
Column phase: FID
Column diameter: 2.00



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHg - Toluene to Naphthalene **Sample ID: MW-111**
Page 1 of 1 **MS/MSD**

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Instrument/Analyst MS: PID2/PKC
MSD: PID2/PKC
Date Analyzed MS: 09/03/04 20:35
MSD: 09/03/04 21:02

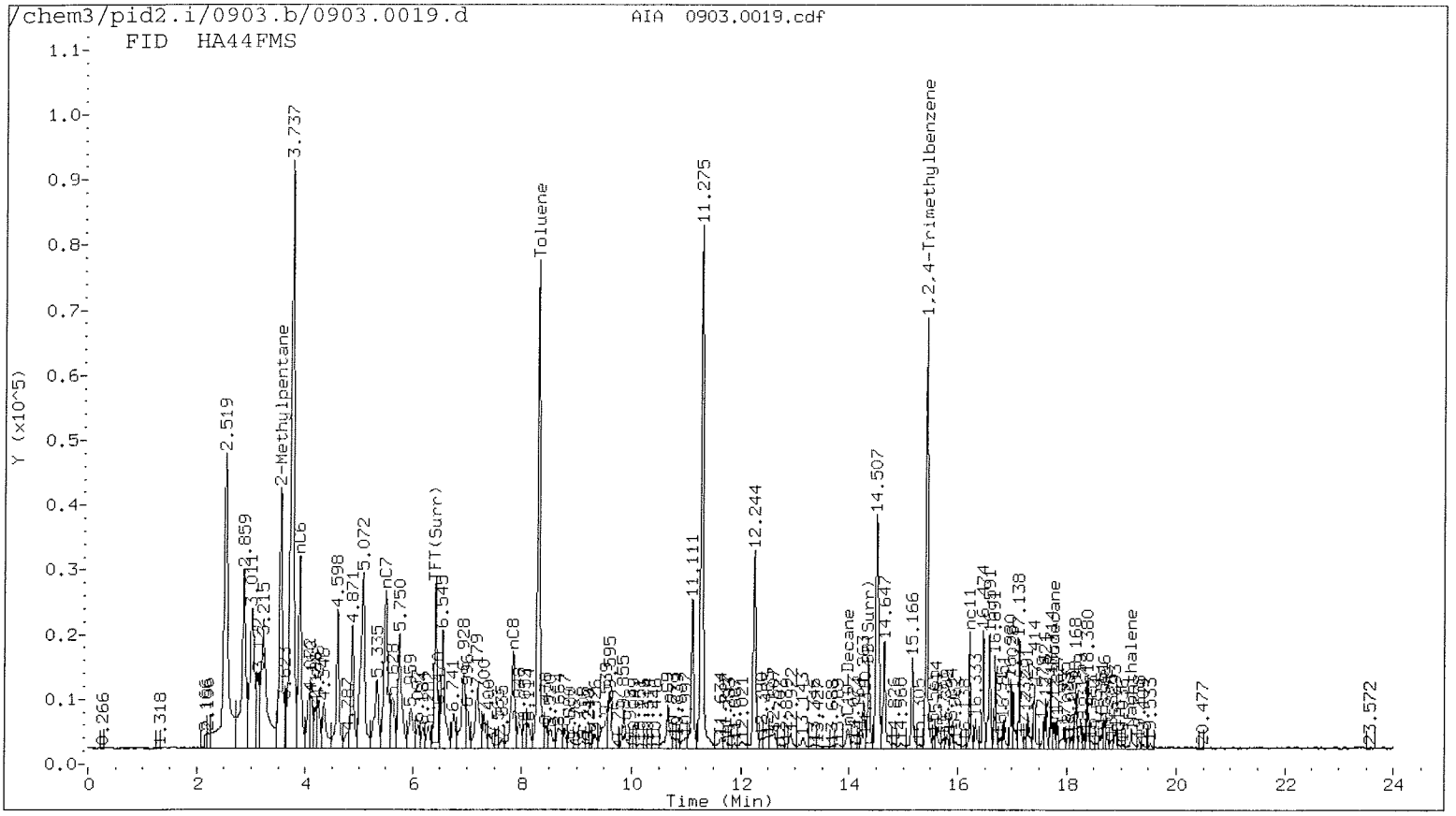
Sample Amount MS: 5.0 mL
MSD: 5.0 mL

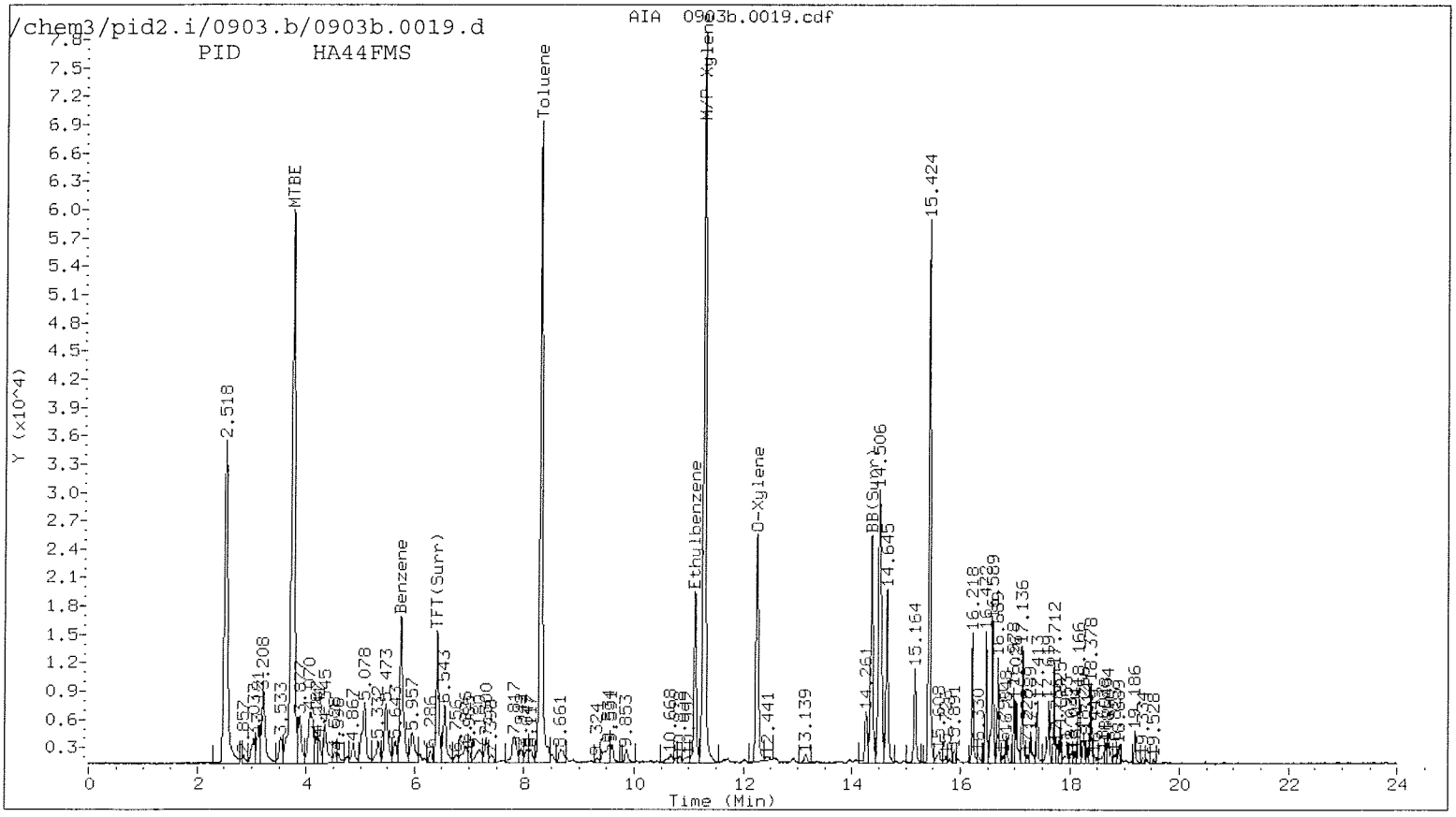
Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Gasoline Range Hydrocarbons	< 0.25 U	2.18	2.50	87.2%	2.07	2.50	82.8%	5.2%

Results reported in mg/L (ppm).
RPD calculated using sample concentrations per SW846.

Gasoline Surrogate Recovery

	MS	MSD
Trifluorotoluene	93.2%	87.7%
Bromobenzene	94.4%	87.0%


/chem3/pid2.i/0903.b/0903.0019.d
AIA 0903.0019.cdf
FID HA44FMS
Y (x10^5)
Time (Min)
2.519
2-Methylpentane
3.737
nC6
4.598
4.871
5.072
nC7
5.750
TFT(Surr)
6.545
Toluene
nC8
11.111
11.275
12.244
14.507
1.2,4-Trimethylbenzene
Decane
14.647
15.166
Naphthalene
20.477
23.572


/chem3/pid2.i/0903.b/0903b.0019.d
AIA 0903b.0019.cdf
PID HA44FMS
Y (x10^4)
Time (Min)
2.518
MTBE
Benzene
TFT(Surr)
Toluene
M/P Xylene
Ethylbenzene
O-Xylene
BB(Surr)
14.645
15.424
15.164

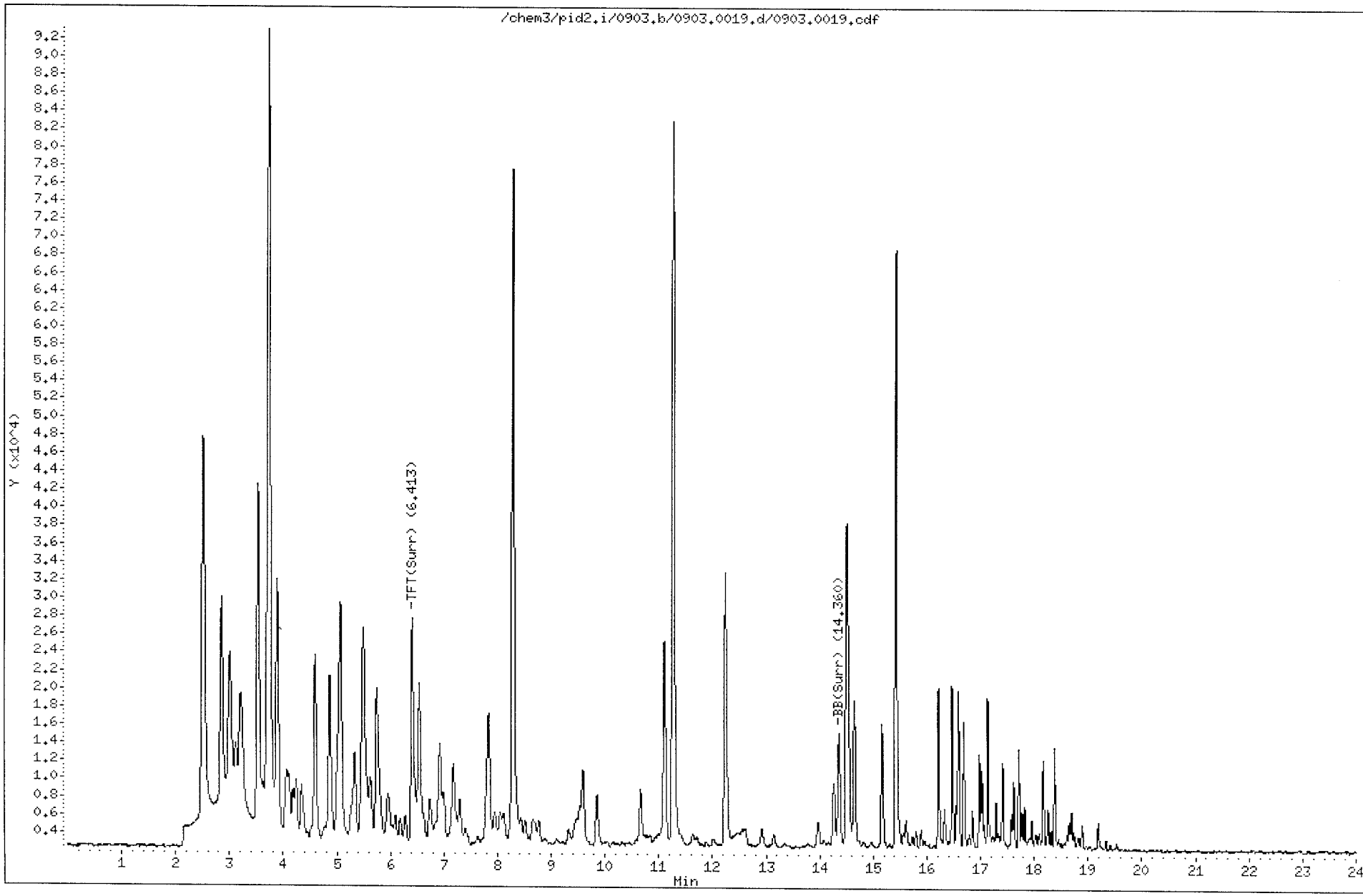
Data File: /chem3/pid2.i/0903.b/0903.0019.d
Date : 03-SEP-2004 20:35
Client ID:
Sample Info: HA44FMS

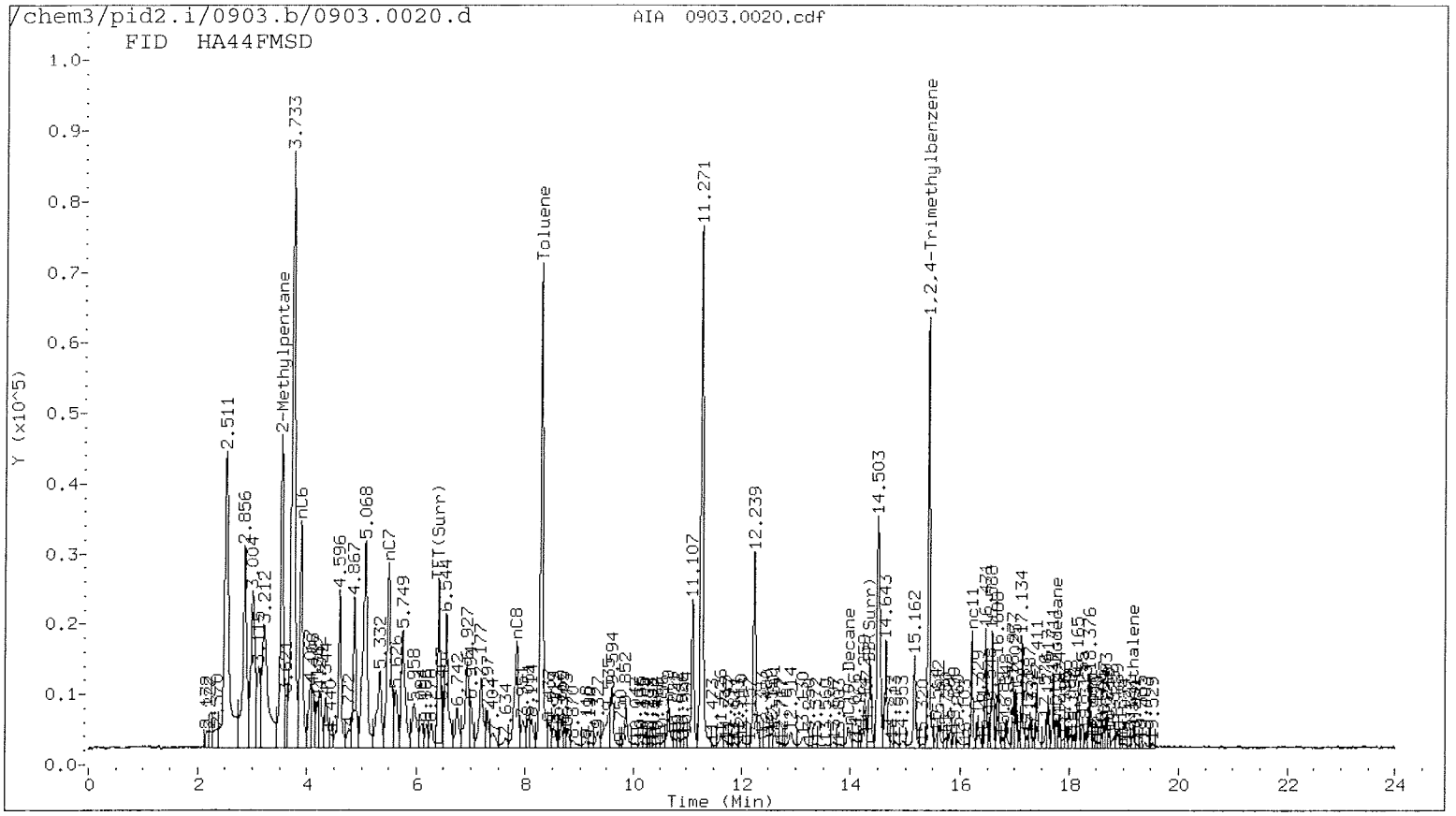
Column phase: FID

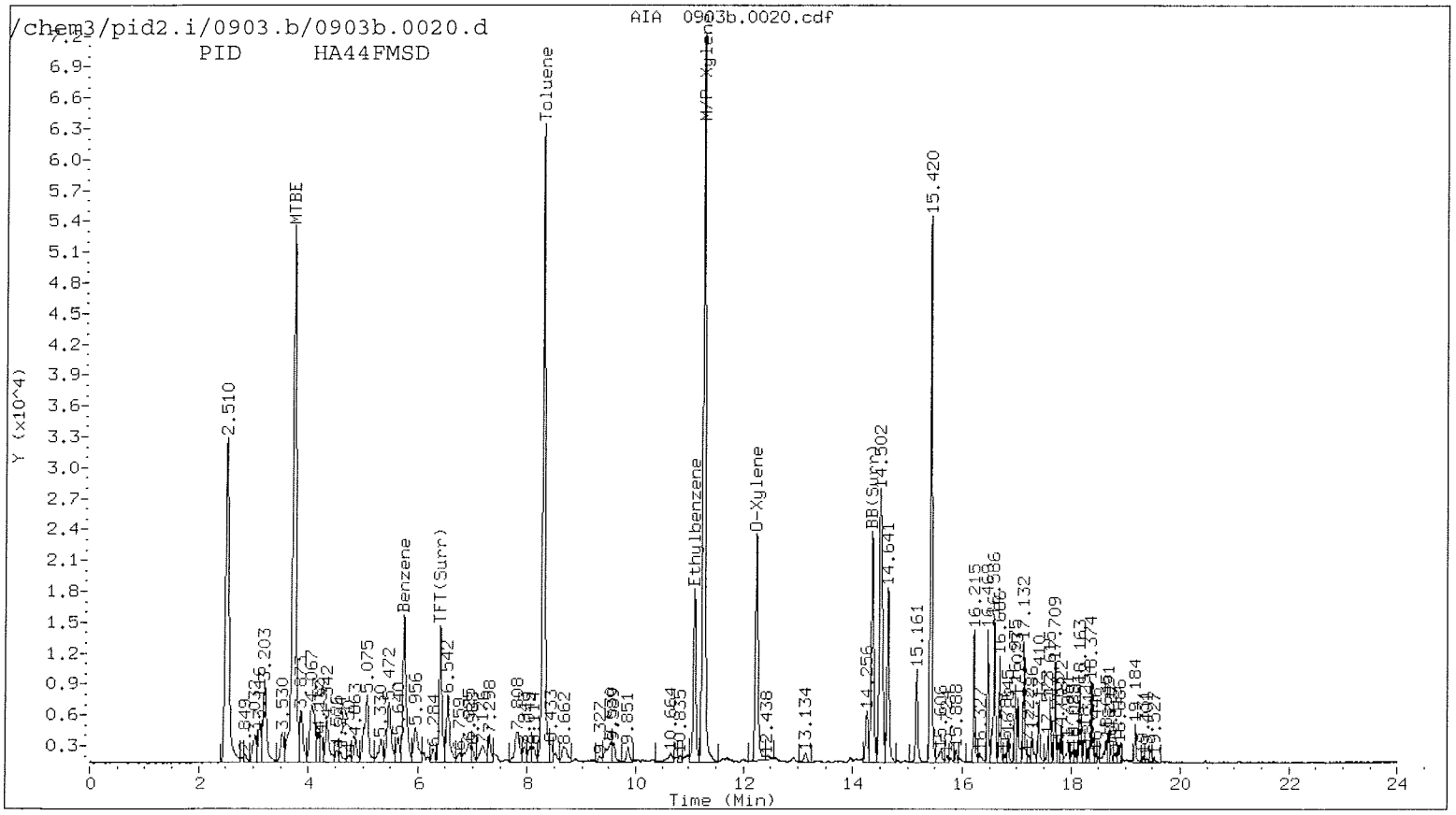
Instrument: pid2.i

Operator: PC
Column diameter: 2.00

000160




/chem3/pid2.i/0903.b/0903.0020.d
AIA 0903.0020.cdf
FID HA44FMSD
Y (x10^5)
Time (Min)
2.511
2.856
2-Methylpentane
3.733
nC6
4.596
4.867
5.068
nC7
5.749
TFT(Surr)
nC8
Toluene
11.107
11.271
12.239
14.503
15.162
1,2,4-Trimethylbenzene
Decane
nC11
Ethylbenzene

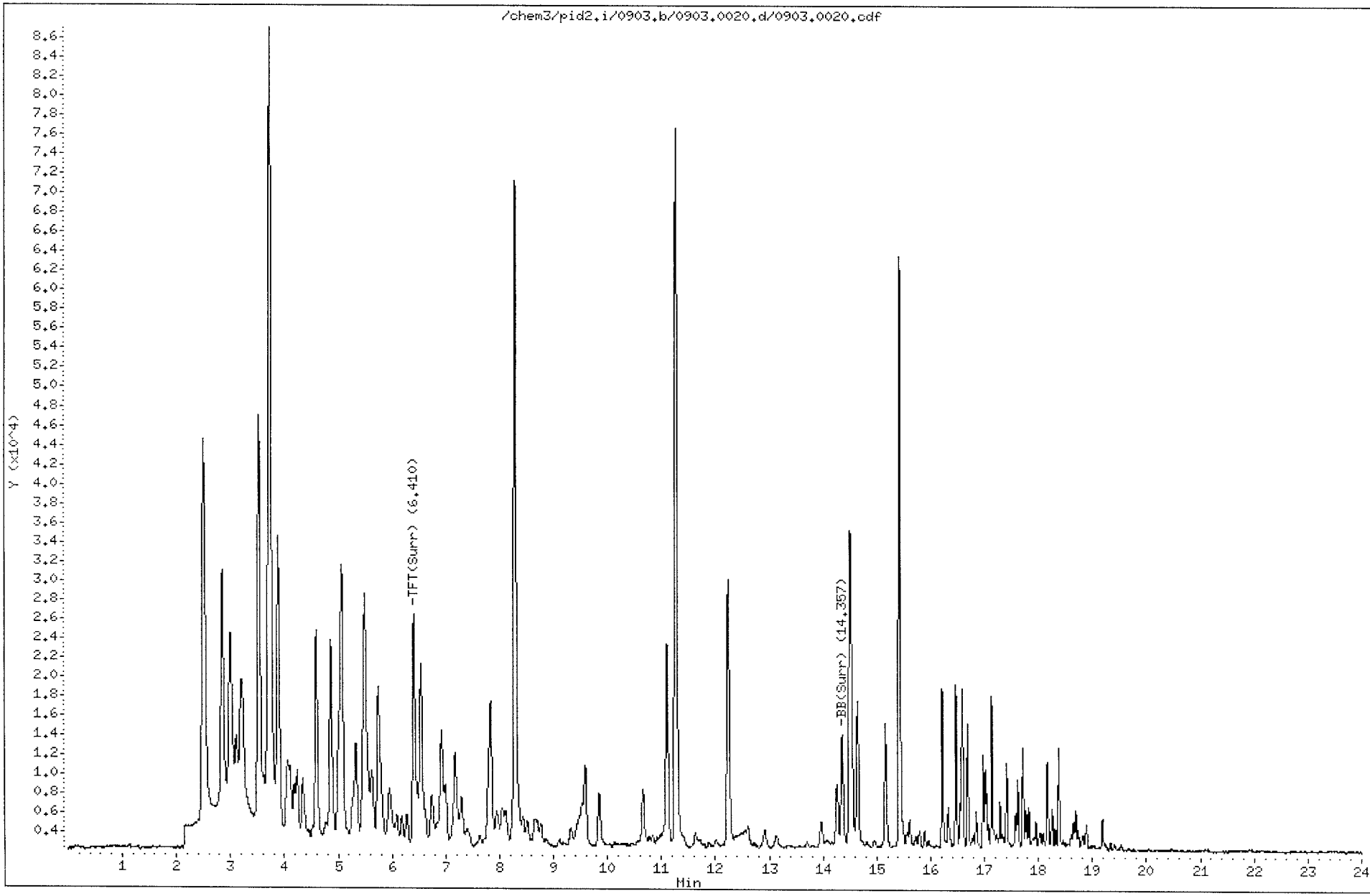

/chem3/pid2.i/0903.b/0903b.0020.d
AIA 0903b.0020.cdf
PID HA44FMSD
Y (x10^4)
Time (Min)
2.510
MTBE
Benzene
TFT(Surr)
Toluene
Ethylbenzene
M/P Xylene
O-Xylene
BB(Surr)
14.502
14.641
15.161
15.420
16.215

000162

Data File: /chem3/pid2.i/0903.b/0903.0020.d
Date : 03-SEP-2004 21:02
Client ID:
Sample Info: HA44FMSD

Instrument: pid2.i
Operator: PC
Column diameter: 2.00

Column phase: FID



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHg - Toluene to Naphthalene
Page 1 of 1

Sample ID: LCS-090304
LCS/LCSD

Lab Sample ID: LCS-090304
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/09/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: PID2/PKC
LCSD: PID2/PKC
Date Analyzed LCS: 09/03/04 14:36
LCSD: 09/03/04 15:03

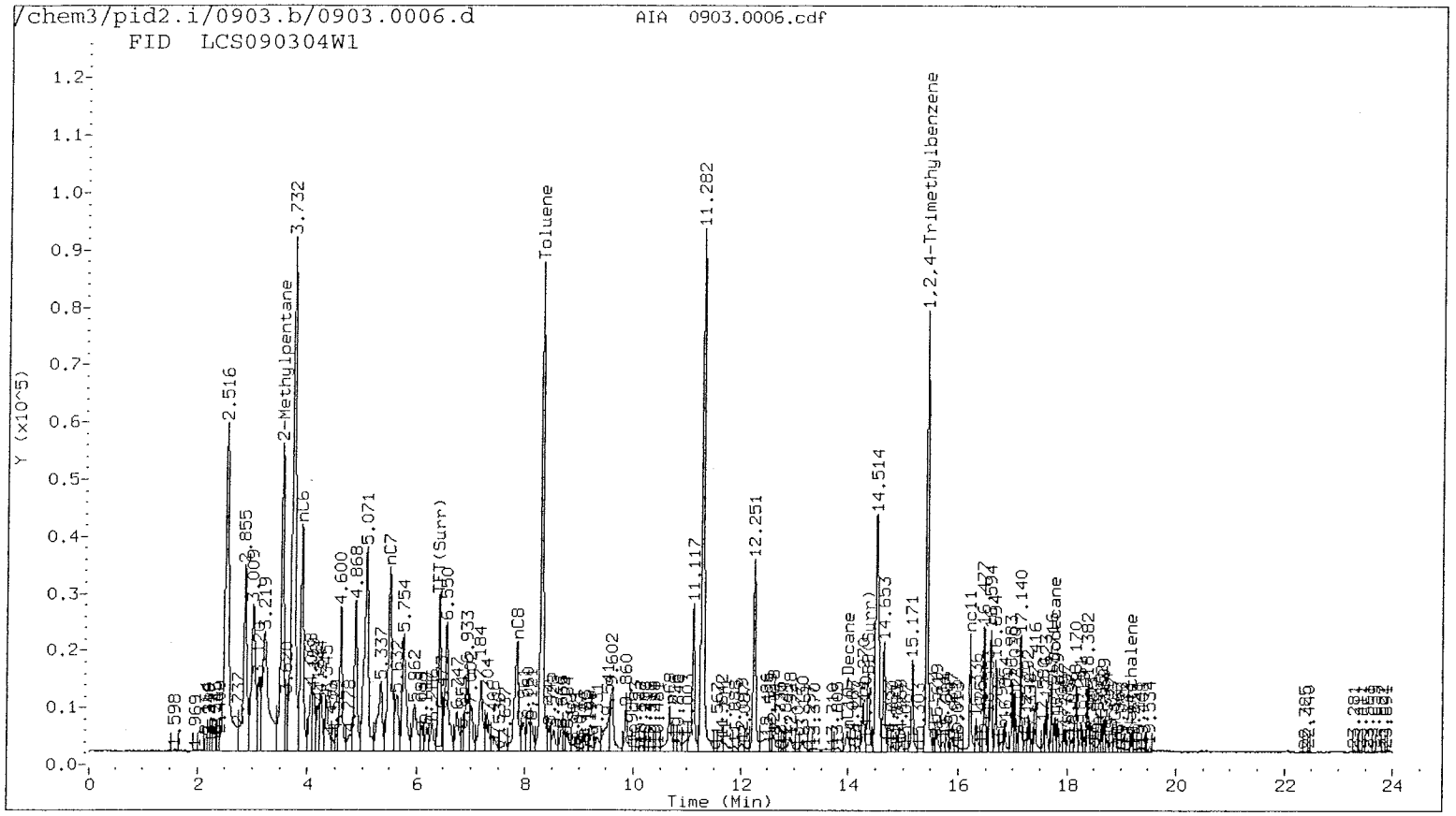
Sample Amount LCS: 5.0 mL
LCSD: 5.0 mL

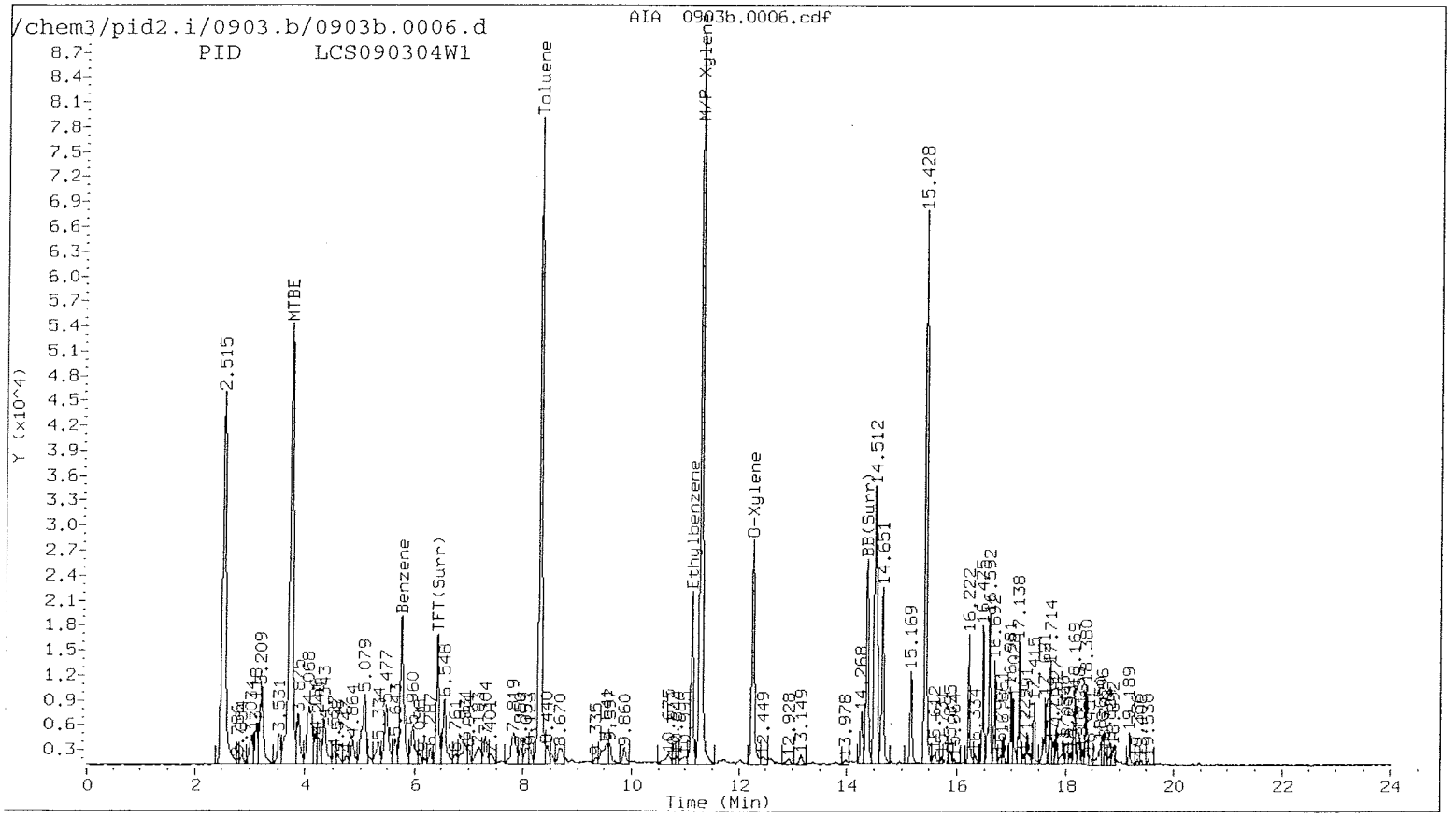
Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	2.56	2.50	102%	2.62	2.50	105%	2.3%

Results reported in mg/L (ppm).
RPD calculated using sample concentrations per SW846.

Gasoline Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	100%	98.7%
Bromobenzene	94.7%	99.0%


/chem3/pid2.i/0903.b/0903.0006.d
AIA 0903.0006.cdf
FID LCS090304W1
Y (x10^5)
Time (Min)
2.516
3.732
Toluene
11.282
1,2,4-Trimethylbenzene
14.514
12.251
11.117
nC6
nC7
nC8
TFT(Surr)
BB(Surr)
Decane
Naphthalene


/chem3/pid2.i/0903.b/0903b.0006.d
AIA 0903b.0006.cdf
PID LCS090304W1
Y (x10^4)
Time (Min)
2.515
MTBE
Toluene
M/P Xylene
15.428
Benzene
TFT(Surr)
Ethylbenzene
O-Xylene
BB(Surr)
14.512
14.651
15.169

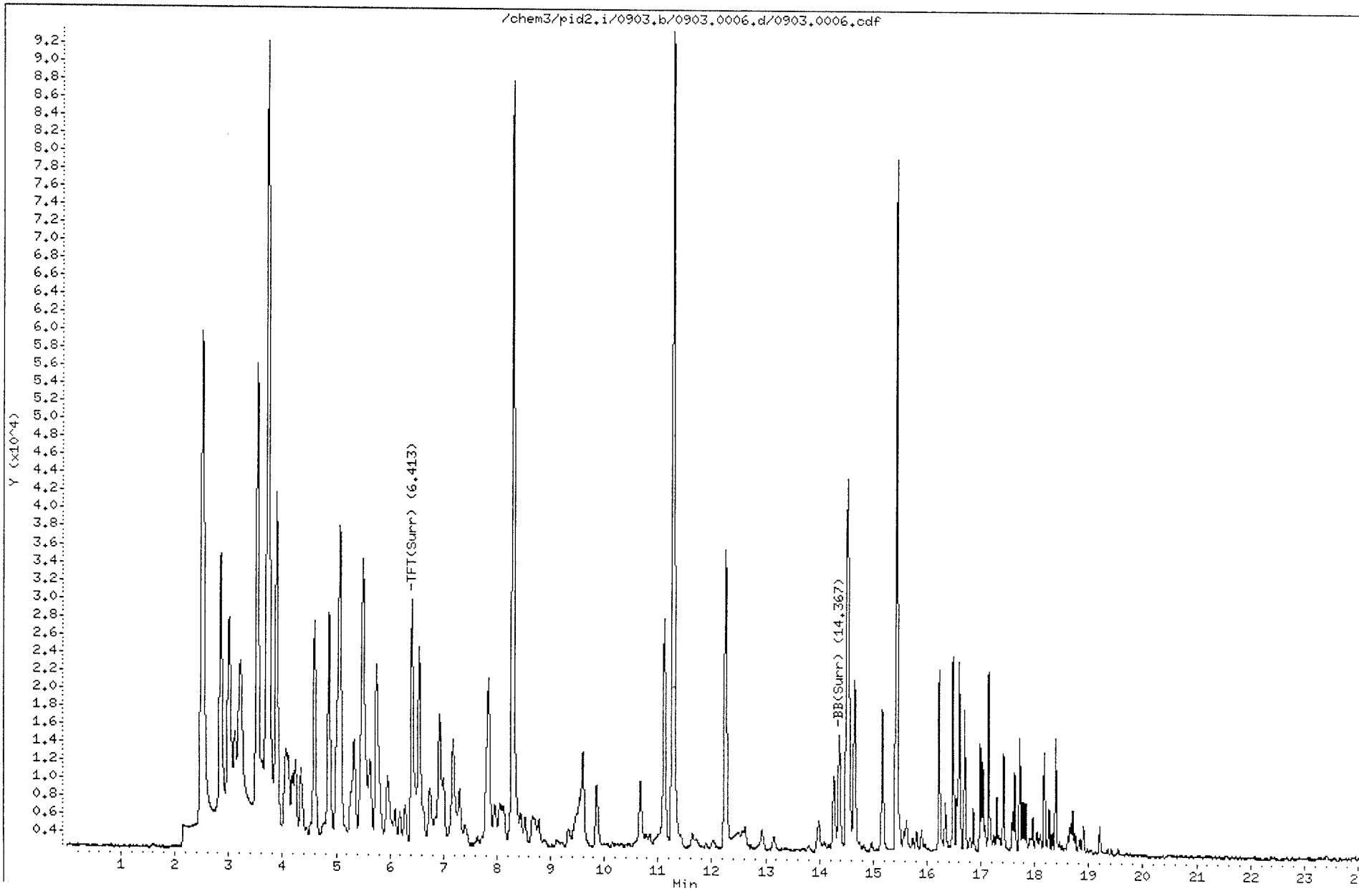
000165

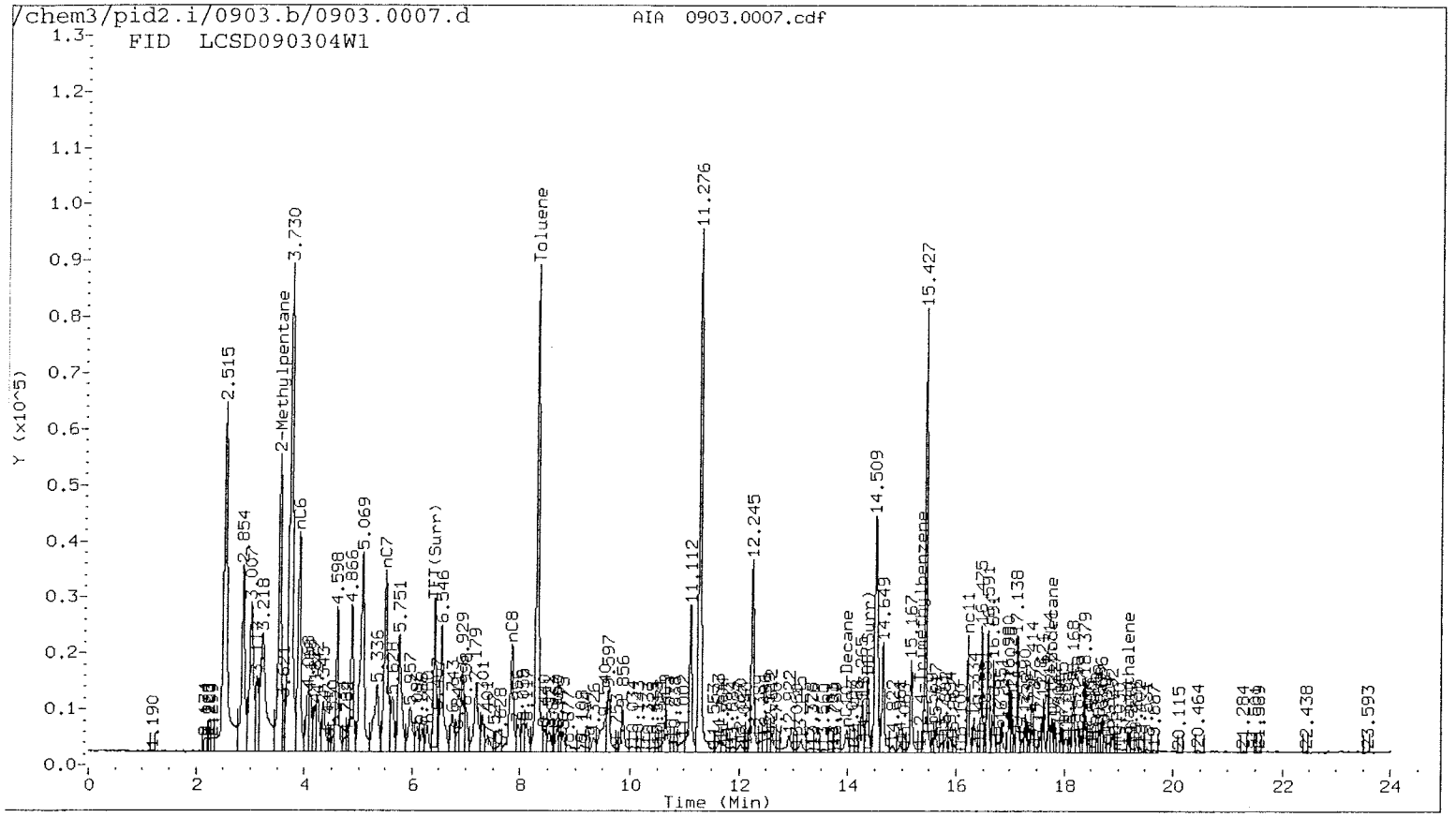
Data File: /chem3/pid2.i/0903.b/0903.0006.d
Date : 03-SEP-2004 14:36
Client ID:
Sample Info: LCS090304W1

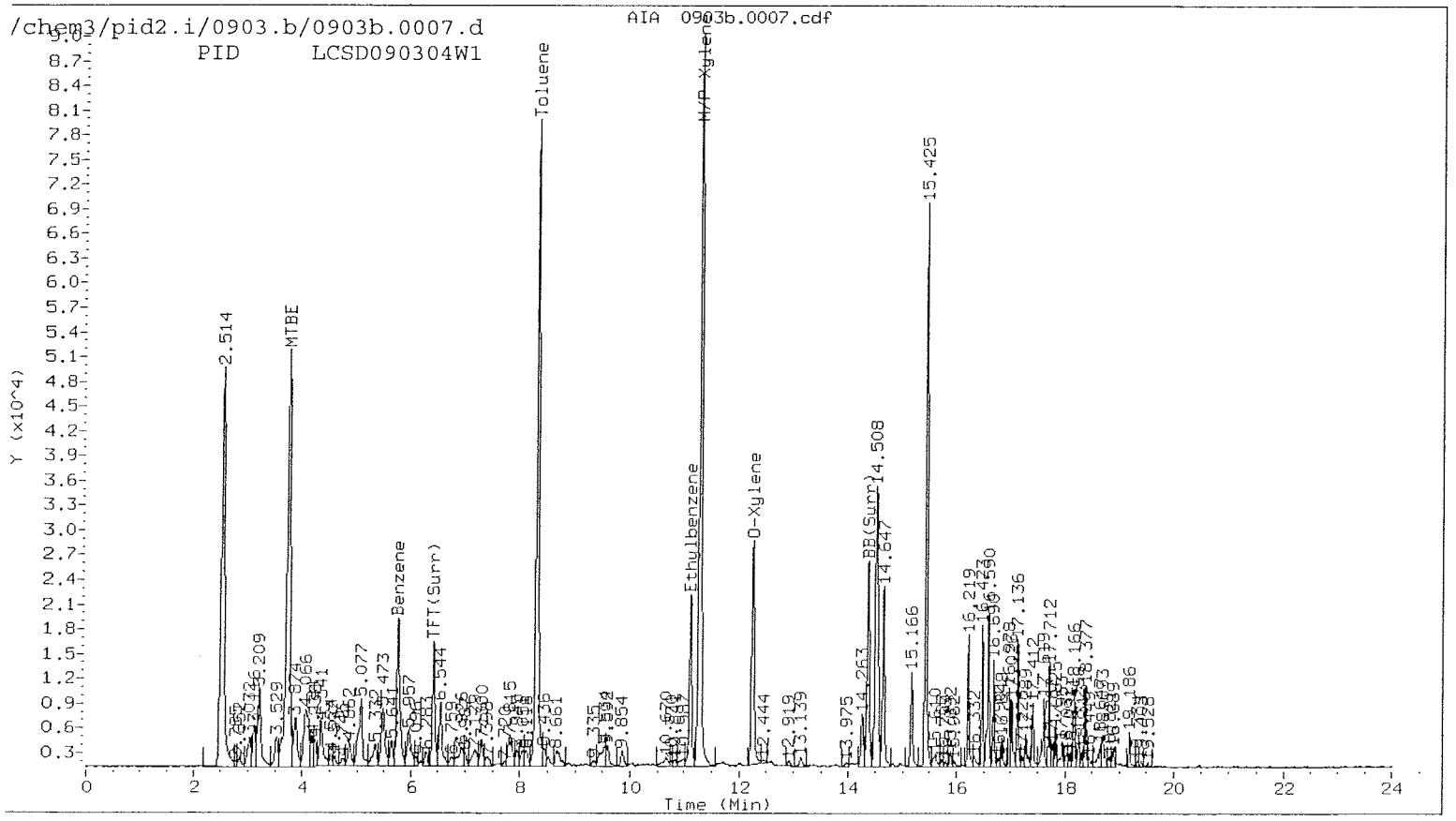
Column phase: FID

Instrument: pid2.i

Operator: PC
Column diameter: 2.00




/chem3/pid2.i/0903.b/0903.0007.d
FID LCSD090304W1
AIA 0903.0007.cdf
Y (x10^5)
Time (Min)
2.515
3.730
Toluene
11.276
15.427
14.509
12.245
11.112
nC6
nC7
nC8
TFT(Surr)
BB(Surr)
Decane
Trimethylbenzene
Naphthalene


/chem3/pid2.i/0903.b/0903b.0007.d
PID LCSD090304W1
AIA 0903b.0007.cdf
Y (x10^4)
Time (Min)
2.514
MTBE
Toluene
M/P-Xylene
15.425
14.508
BB(Surr)
Benzene
TFT(Surr)
Ethylbenzene
O-Xylene

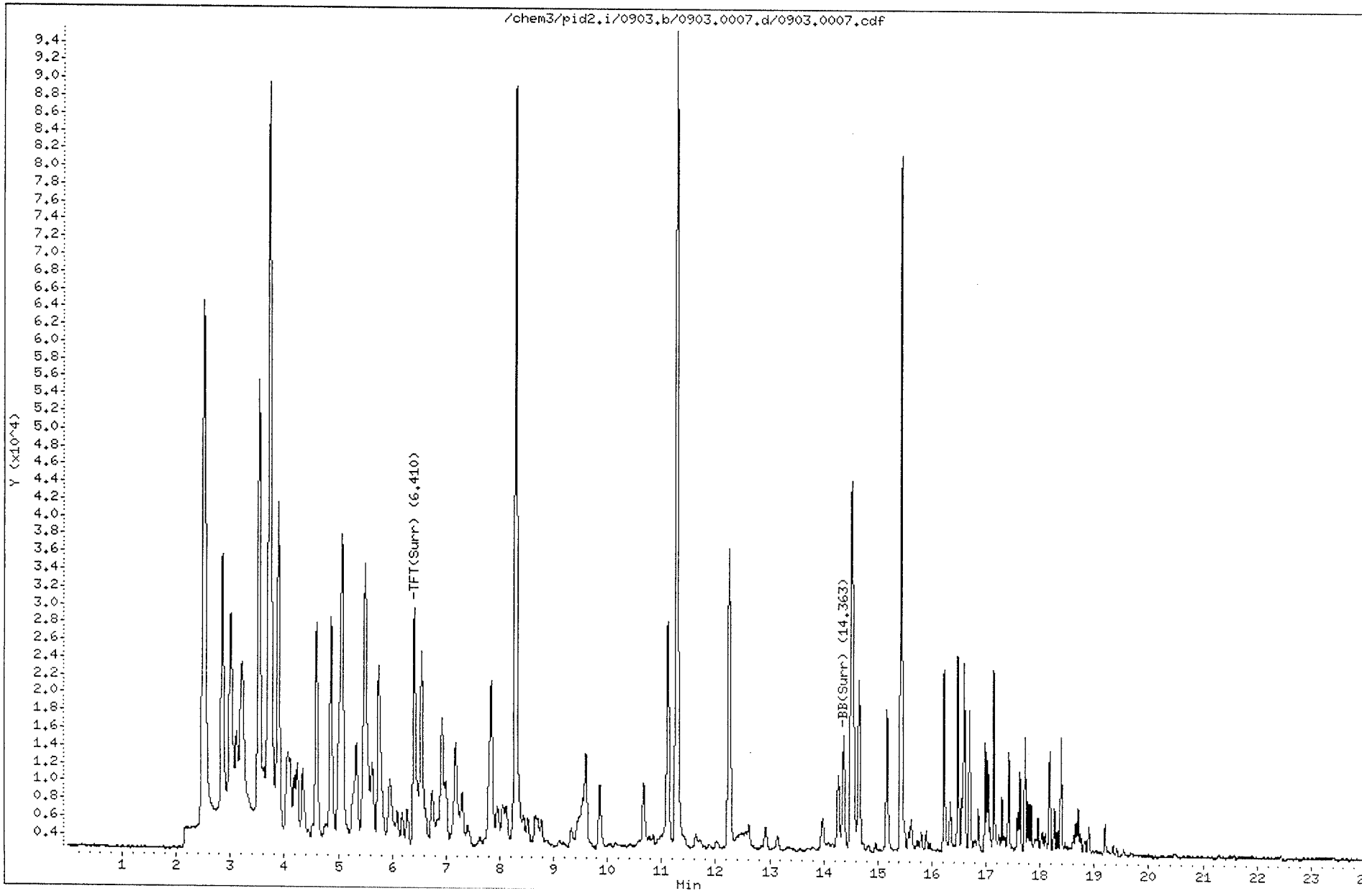
000167

Data File: /chem3/pid2.i/0903.b/0903.0007.d
Date : 03-SEP-2004 15:03
Client ID:
Sample Info: LCSD090304W1

Column phase: FID

Instrument: pid2.i

Operator: PC
Column diameter: 2.00



ANALYTICAL RESOURCES INCORPORATED

WATER TPHg SYSTEM MONITORING COMPOUND SUMMARY

Matrix: Water

QC Report No: HA44

LIMS ID	Lab ID	Client ID	TFT	BB	TOT OUT
04-14095MB	090304MB	Method Blank	103%	94.0%	0
04-14095LC	090304LC	Lab Control	100%	94.7%	0
04-14095LCD	090304LCD	Lab Control Dup	98.7%	99.0%	0
04-14095	HA44A	MW-102	90.6%	93.3%	0
04-14096	HA44B	MW-104	87.2%	88.7%	0
04-14097	HA44C	MW-108	90.8%	88.6%	0
04-14098	HA44D	MW-109	90.5%	90.9%	0
04-14099	HA44E	MW-110	94.7%	91.9%	0
04-14100	HA44F	MW-111	90.4%	87.1%	0
04-14100	HA44F-MS	MW-111	93.2%	94.4%	0
04-14100	HA44F-MSD	MW-111	87.7%	87.0%	0
04-14101	HA44G	MW-112	86.4%	89.2%	0
04-14102	HA44H	MW-202	77.7%	81.5%	0
04-14103	HA44I	Trip Blank	90.1%	92.5%	0

	MB/LCS QC LIMITS	SAMPLE QC LIMITS
(TFT) = Trifluorotoluene	(66-129)	(31-139)
(BB) = Bromobenzene	(72-118)	(38-141)

Limits Updated - 04/26/04

\# Column to be used to flag recovery values

* Values outside of required QC limits

D System Monitoring Compound diluted out

FORM-II TPHg

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 2
Matrix: Water

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Data Release Authorized:
Reported: 09/20/04

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result mg/L
MB-090704	Method Blank	09/07/04	09/15/04	1.0	Diesel	< 0.25 U
04-14095					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	89.6%
HA44A	MW-102	09/07/04	09/15/04	1.0	Diesel	< 0.25 U
04-14095					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	93.6%
HA44B	MW-104	09/07/04	09/15/04	1.0	Diesel	< 0.25 U
04-14096					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	94.7%
HA44C	MW-108	09/07/04	09/15/04	1.0	Diesel	< 0.25 U
04-14097					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	97.3%
HA44D	MW-109	09/07/04	09/15/04	1.0	Diesel	< 0.25 U
04-14098					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	86.4%
HA44E	MW-110	09/07/04	09/15/04	1.0	Diesel	< 0.25 U
04-14099					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	84.0%
MB-090604	Method Blank	09/06/04	09/11/04	1.0	Diesel	< 0.25 U
04-14100					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	92.7%
HA44F	MW-111	09/06/04	09/11/04	1.0	Diesel	< 0.25 U
04-14100					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	77.6%
HA44G	MW-112	09/07/04	09/15/04	1.0	Diesel	< 0.25 U
04-14101					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	96.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID-Silica and Acid Cleaned

Matrix: Water

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Data Release Authorized:
Reported: 09/20/04

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result mg/L
HA44H 04-14102	MW-202	09/07/04	09/15/04	1.0	Diesel	< 0.25 U
					Motor Oil	< 0.50 U
					HC ID	---
					o-Terphenyl	85.8%

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

Analytical Resources Inc.
TPH Quantitation Report

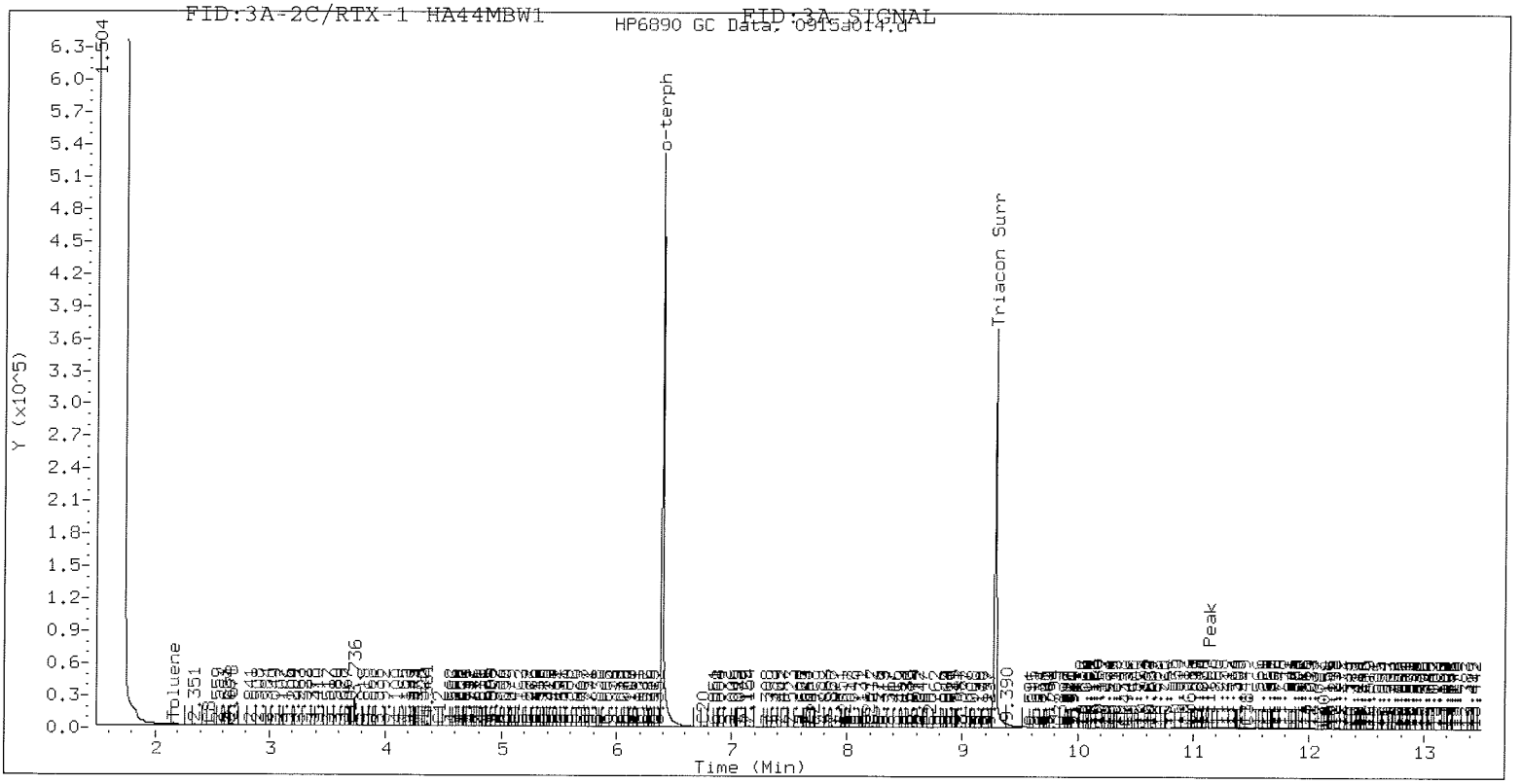
Data file: /chem3/fid3a.i/20040915.b/0915a014.d
Method: /chem3/fid3a.i/20040915.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: AR
Report Date: 09/20/2004
Macro: 15-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:15-SEP-2004
OR.MOIL:15-SEP-2004

ARI ID: HA44MBW1
Client ID:
Injection: 15-SEP-2004 16:00
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.165	0.021	2180	9379	GAS (Tol-C12)	61268	8
C8	2.479	0.016	520	1763	DIESEL (C12-C24)	26341	2
C10	3.708	0.009	310	205	M.OIL (C24-C38)	150479	22
C12	4.469	-0.010	37	68			
C14	5.103	0.011	111	174			
C16	5.669	0.004	254	532			
C18	6.215	-0.002	220	353	OR.MOIL (C28-C40)	174644	27
C20	6.761	0.020	1651	2387			
C22	----						
C24	7.716	-0.017	224	138			
C25	7.982	0.011	203	133			
C26	8.186	-0.013	239	420			
C28	8.723	0.018	357	675			
C32	9.849	-0.006	714	1649			
C34	10.415	-0.001	887	981			
Filter Peak	11.142	0.019	1043	1435			
C36	10.975	0.020	1071.0	1060	o-Terph Surrogate Rec = 89.6%		(548280)
C38	11.467	-0.024	1442.0	6989	Triacon Surrogate Rec = 83.2%		(458410)
C40	12.136	0.009	953	869			
o-terph	6.393	-0.002	530745	548280			
Triacon Surr	9.288	-0.003	369279	458410			

Range Times: NW Diesel(4.479 - 7.734) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.73 - 11.49) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



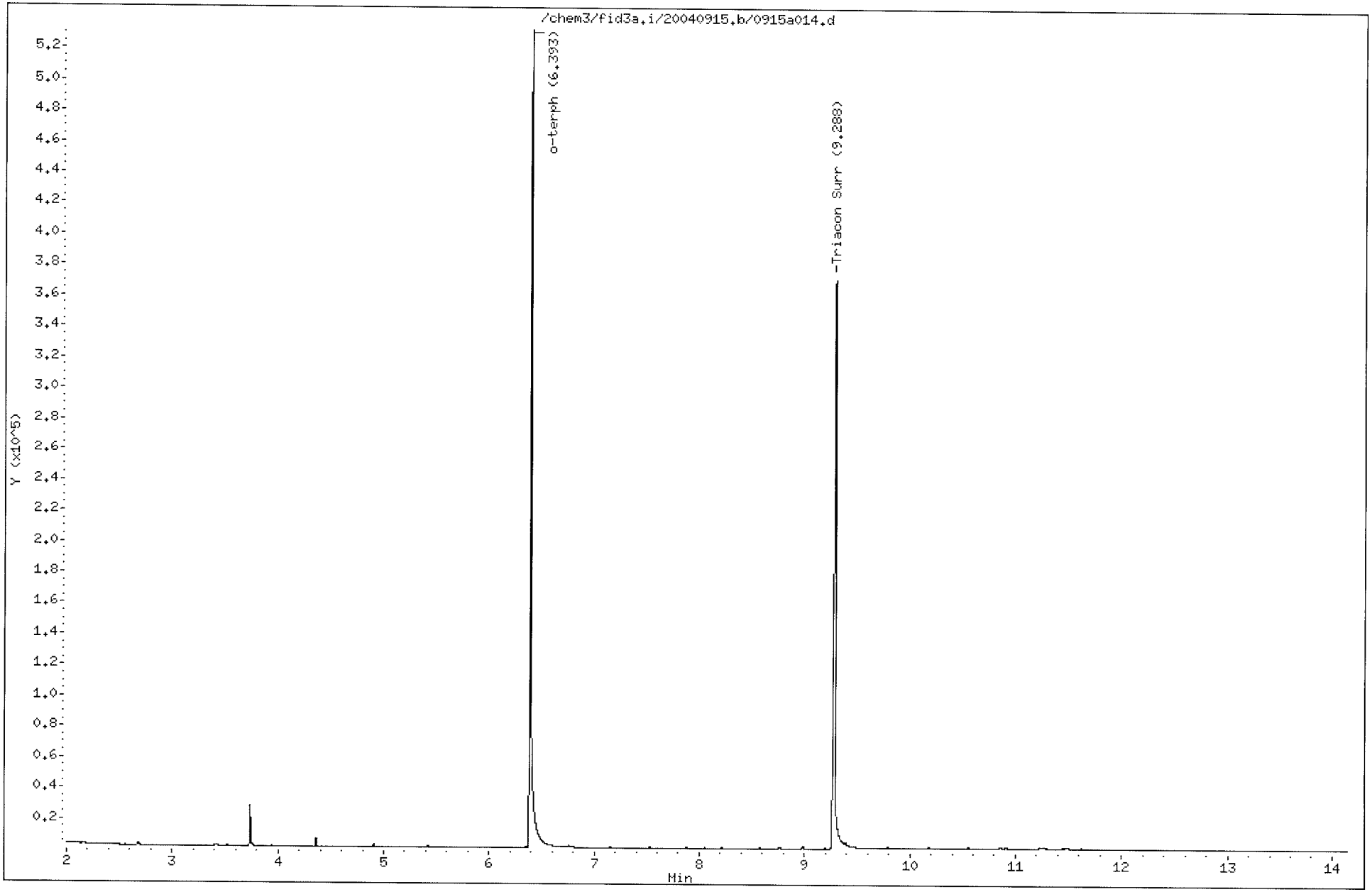
Data File: /chem3/fid3a.i/20040915.b/0915a014.d
Date : 15-SEP-2004 16:00
Client ID:
Sample Info: HA44MBW1

Column phase: RTX-1

Instrument: fid3a.i

Operator: AR
Column diameter: 2.00

000172



Analytical Resources Inc.
TPH Quantitation Report

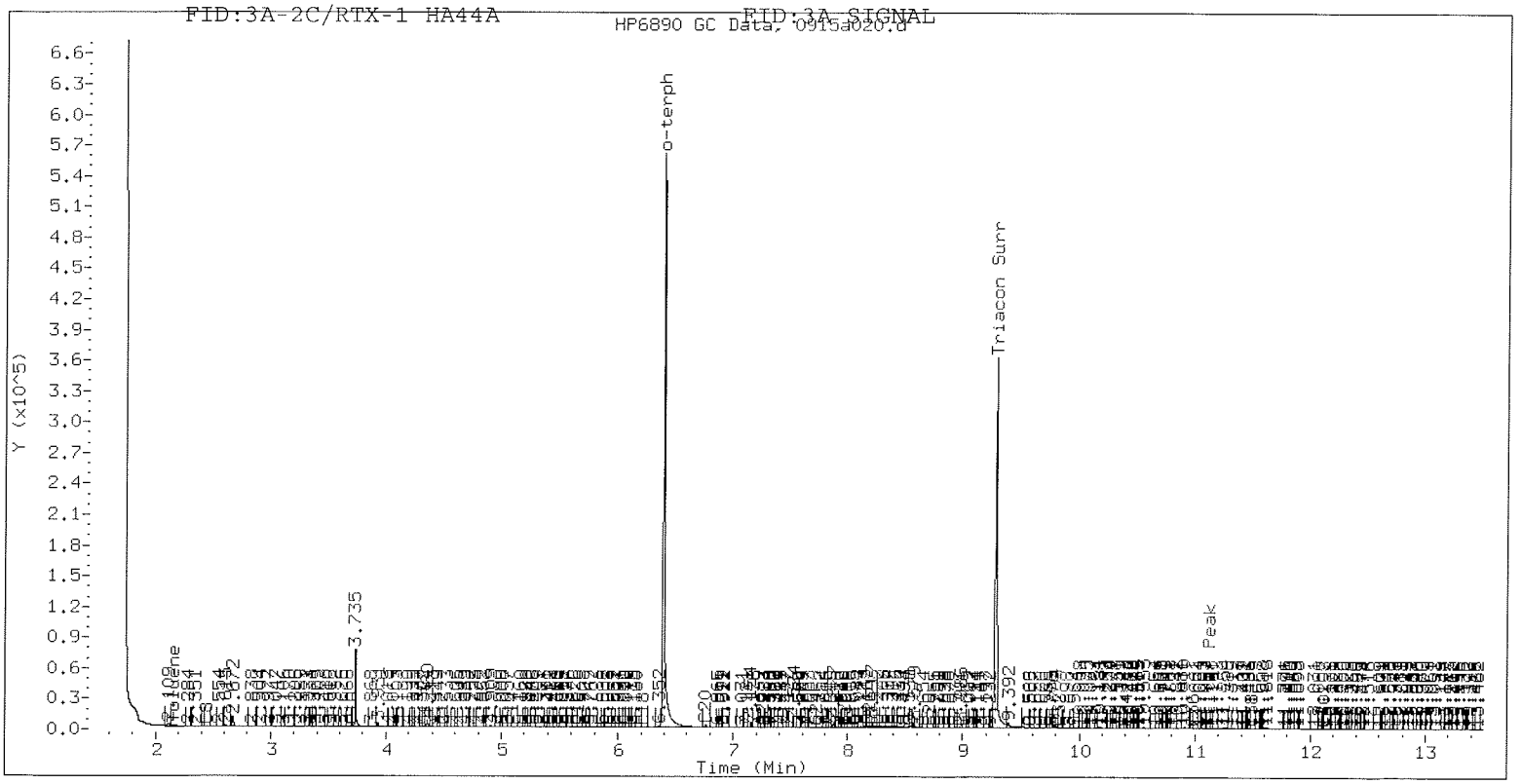
Data file: /chem3/fid3a.i/20040915.b/0915a020.d
Method: /chem3/fid3a.i/20040915.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: AR
Report Date: 09/20/2004
Macro: 15-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:15-SEP-2004
OR.MOIL:15-SEP-2004

ARI ID: HA44A
Client ID:
Injection: 15-SEP-2004 18:14
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.159	0.014	2210	9296	GAS (Tol-C12)	116252	16
C8	2.444	-0.019	466	1507	DIESEL (C12-C24)	50905	4
C10	3.702	0.003	239	121	M.OIL (C24-C38)	179693	26 LDL
C12	4.491	0.012	48	93			
C14	5.103	0.010	275	558			
C16	5.663	-0.002	255	513			
C18	6.214	-0.003	160	340	OR.MOIL (C28-C40)	139916	21
C20	6.762	0.021	3216	3805			
C22	7.255	0.009	427	718			
C24	7.723	-0.011	729	2480			
C25	7.973	0.002	891	986			
C26	8.189	-0.011	1086	1316			
C28	8.717	0.012	1034	3367			
C32	9.830	-0.026	651	1234			
C34	10.408	-0.008	563	692			
Filter Peak	11.118	-0.005	908	1612			
C36	10.977	0.021	845.0	1052	o-Terph Surrogate Rec = 93.6% ✓		(572831)
C38	11.496	0.004	992.0	2098	Triacon Surrogate Rec = 82.0%		(451784)
C40	12.124	-0.004	677	615			
o-terph	6.394	-0.001	560543	572831			
Triacon Surr	9.287	-0.004	361581	451784			

Range Times: NW Diesel(4.479 - 7.734) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.73 - 11.49) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



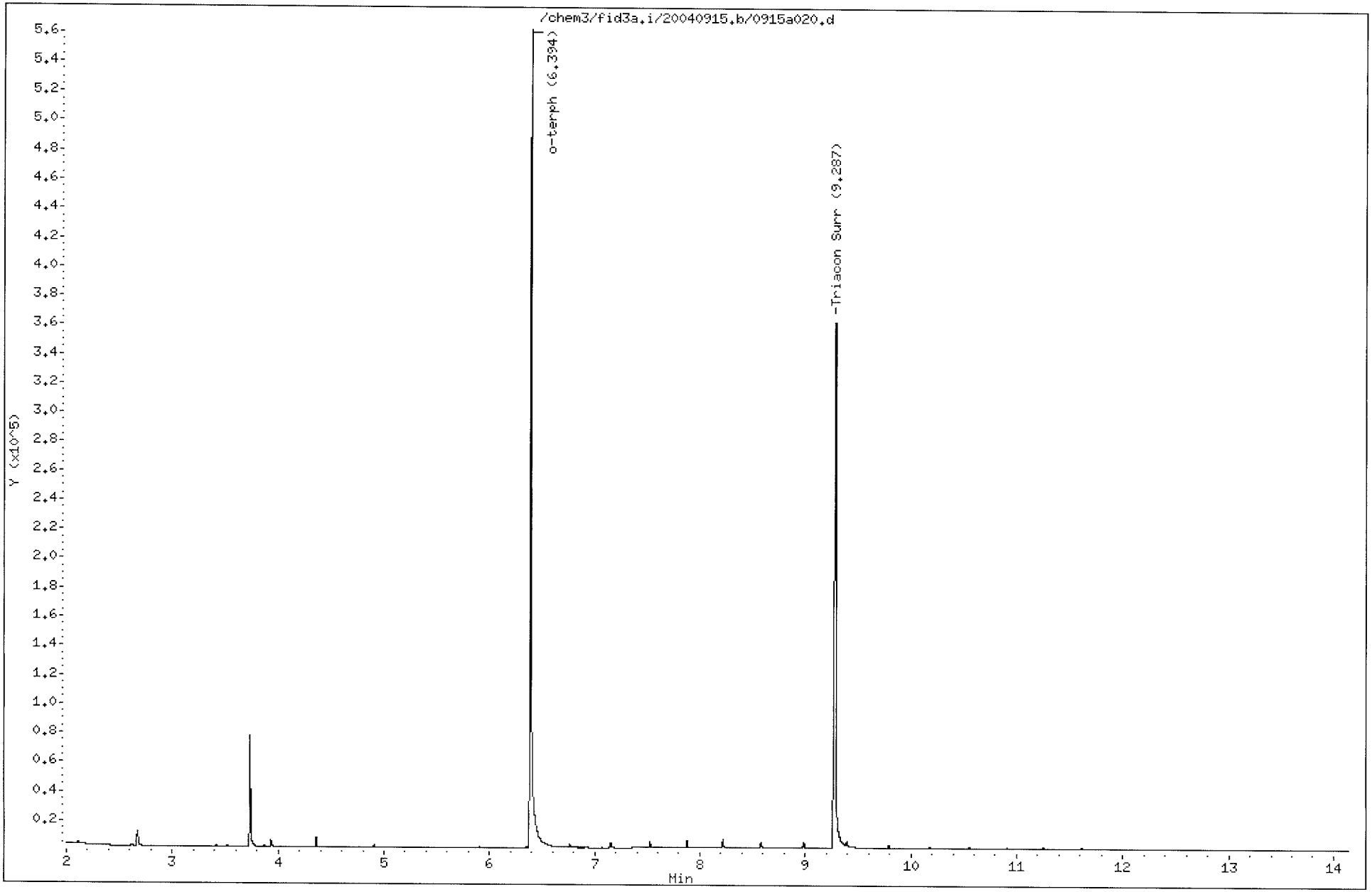
Data File: /chem3/fid3a.i/20040915.b/0915a020.d
Date : 15-SEP-2004 18:14
Client ID:
Sample Info: HA44A

Column phase: RTX-1

Instrument: fid3a.i

Operator: AR
Column diameter: 2.00

000174



Analytical Resources Inc.
TPH Quantitation Report

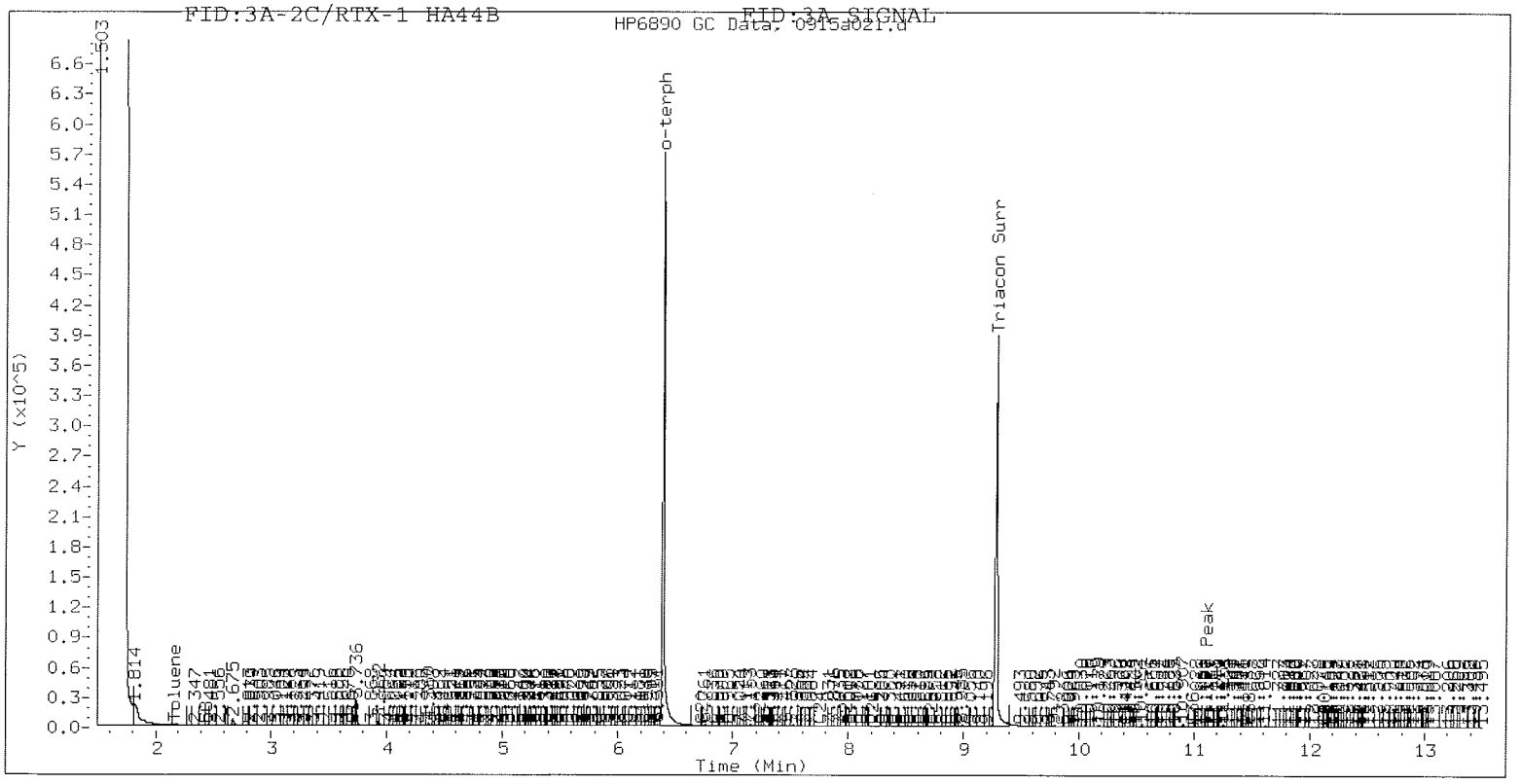
Data file: /chem3/fid3a.i/20040915.b/0915a021.d
Method: /chem3/fid3a.i/20040915.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: AR
Report Date: 09/20/2004
Macro: 15-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:15-SEP-2004
OR.MOIL:15-SEP-2004

ARI ID: HA44B
Client ID:
Injection: 15-SEP-2004 18:37
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.163	0.019	2279	9796	GAS (Tol-C12)	63854	9
C8	2.448	-0.015	491	857	DIESEL (C12-C24)	49199	4
C10	3.705	0.006	229	204	M.OIL (C24-C38)	58660	9
C12	4.478	-0.001	50	81			
C14	5.114	0.021	192	459			
C16	5.662	-0.003	484	1027			
C18	6.214	-0.003	390	623	OR.MOIL (C28-C40)	63204	10
C20	6.731	-0.010	794	418			
C22	7.236	-0.010	394	430			
C24	7.752	0.019	442	2550			
C25	7.982	0.011	238	251			
C26	8.215	0.016	1070	1713			
C28	8.719	0.014	293	551			
C32	9.862	0.006	224	149			
C34	10.417	0.001	194	507			
Filter Peak	11.113	-0.009	386	432			
C36	10.990	0.035	350.0	706	o-Terph Surrogate Rec = 94.7%		(579216)
C38	11.486	-0.006	470.0	938	Triacon Surrogate Rec = 93.2%		(513844)
C40	12.127	-0.001	454	592			
o-terph	6.393	-0.001	569914	579216			
Triacon Surr	9.288	-0.003	389132	513844			

Range Times: NW Diesel(4.479 - 7.734) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.73 - 11.49) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



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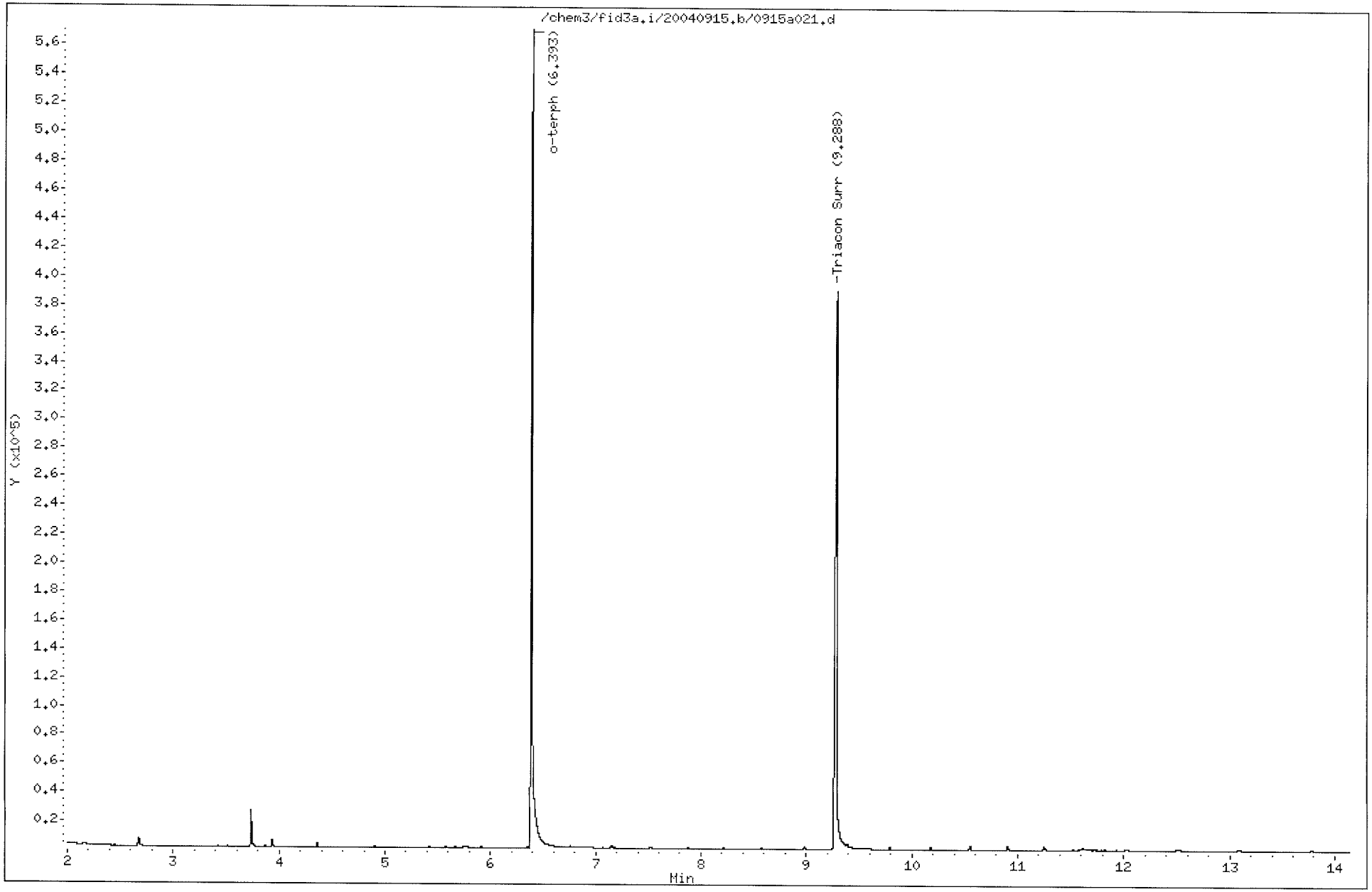
Date : 15-SEP-2004 18:37
Client ID:
Sample Info: HA44B

Column phase: RTX-1

Instrument: fid3a.i

Operator: AR
Column diameter: 2.00

000176



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20040915.b/0915a022.d
Method: /chem3/fid3a.i/20040915.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: AR
Report Date: 09/20/2004
Macro: 15-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:15-SEP-2004
OR.MOIL:15-SEP-2004

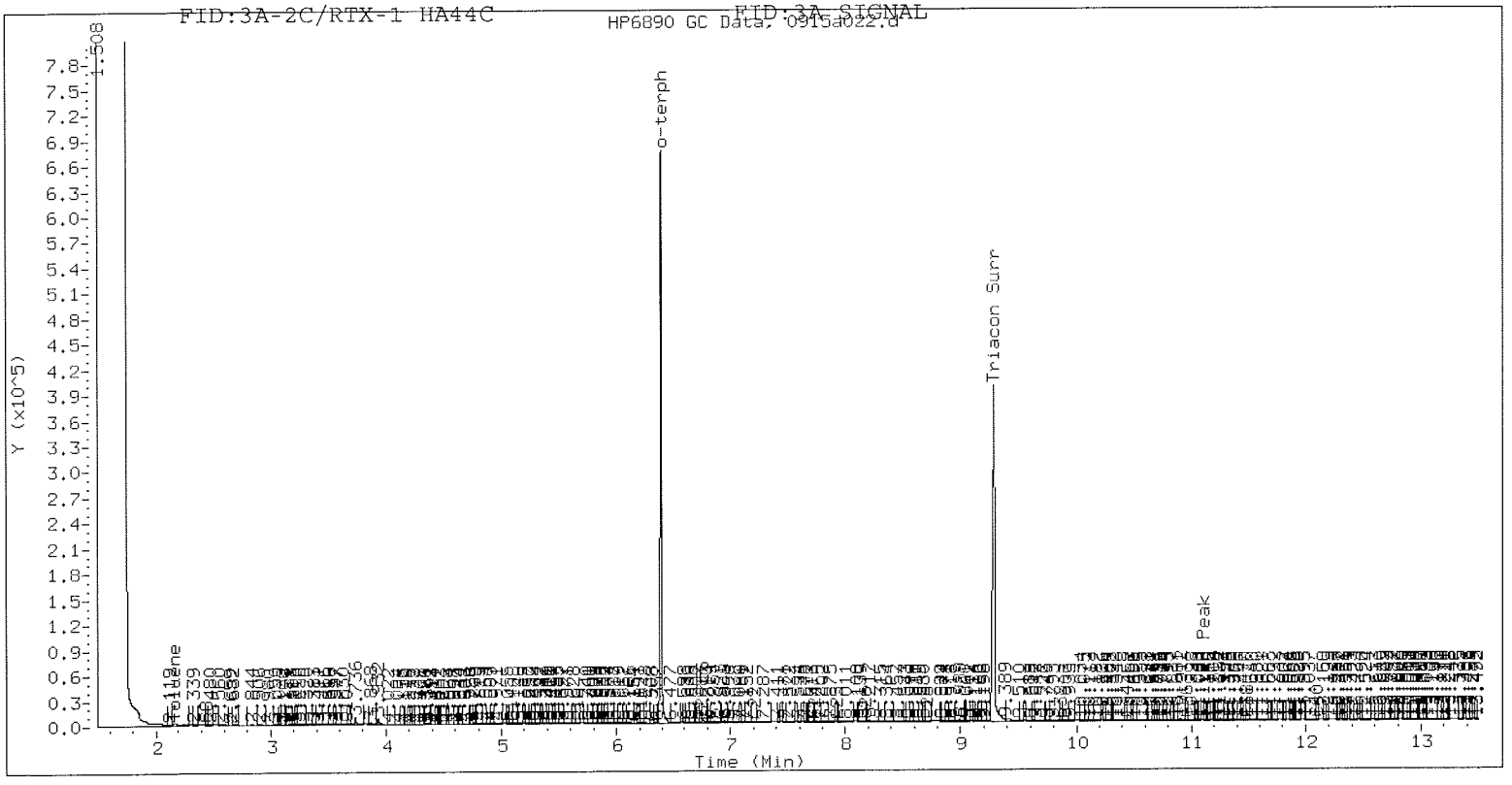
ARI ID: HA44C
Client ID:
Injection: 15-SEP-2004 18:59

Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.167	0.023	2688	10724	GAS (Tol-C12)	49459	7
C8	2.447	-0.016	369	414	DIESEL (C12-C24)	63018	5
C10	3.666	-0.034	258	561	M.OIL (C24-C38)	111772	16
C12	4.495	0.016	111	217			
C14	5.085	-0.007	262	320			
C16	5.657	-0.007	597	1419			
C18	6.213	-0.004	588	622	OR.MOIL (C28-C40)	95251	15
C20	6.745	0.004	585	451			
C22	7.212	-0.034	231	487			
C24	7.731	-0.003	509	408			
C25	7.932	-0.039	455	444			
C26	8.184	-0.016	517	341			
C28	8.718	0.013	1238	2483			
C32	9.862	0.006	383	451			
C34	10.435	0.019	397	456			
Filter Peak	11.115	-0.008	528	660			
C36	10.964	0.008	483.0	634	o-Terph Surrogate Rec = 97.3%		(595188)
C38	11.494	0.002	582.0	1008	Triacon Surrogate Rec = 93.5%		(515363)
C40	12.105	-0.023	511	581			
o-terph	6.396	0.001	673584	595188			
Triacon Surr	9.290	-0.001	395837	515363			

Range Times: NW Diesel(4.479 - 7.734) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.73 - 11.49) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



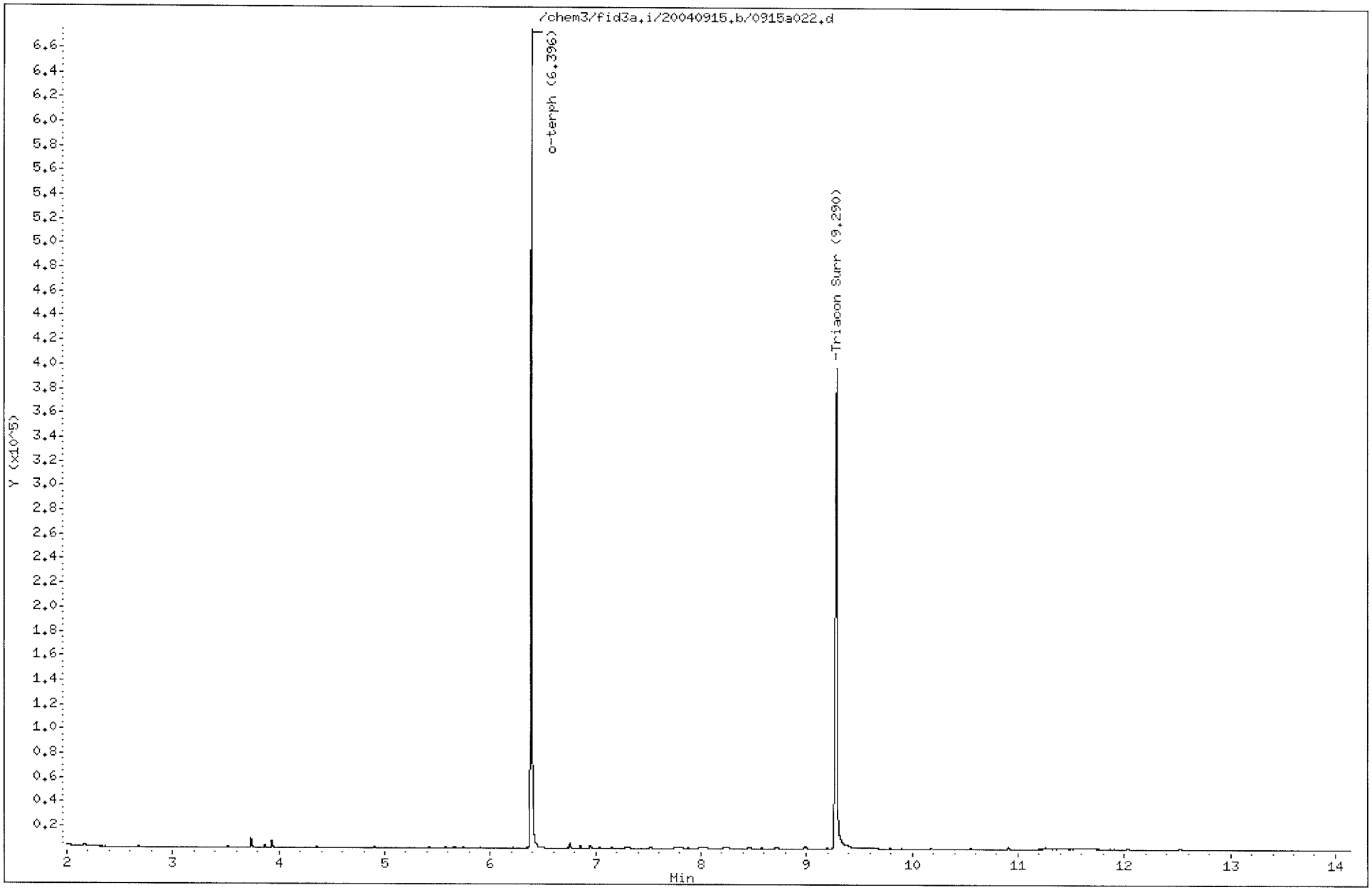
Data File: /chem3/fid3a.i/20040915.b/0915a022.d
Date : 15-SEP-2004 18:59
Client ID:
Sample Info: HA44C

Column phase: RTX-1

Instrument: fid3a.i

Operator: AR
Column diameter: 2.00

000178



Analytical Resources Inc.
TPH Quantitation Report

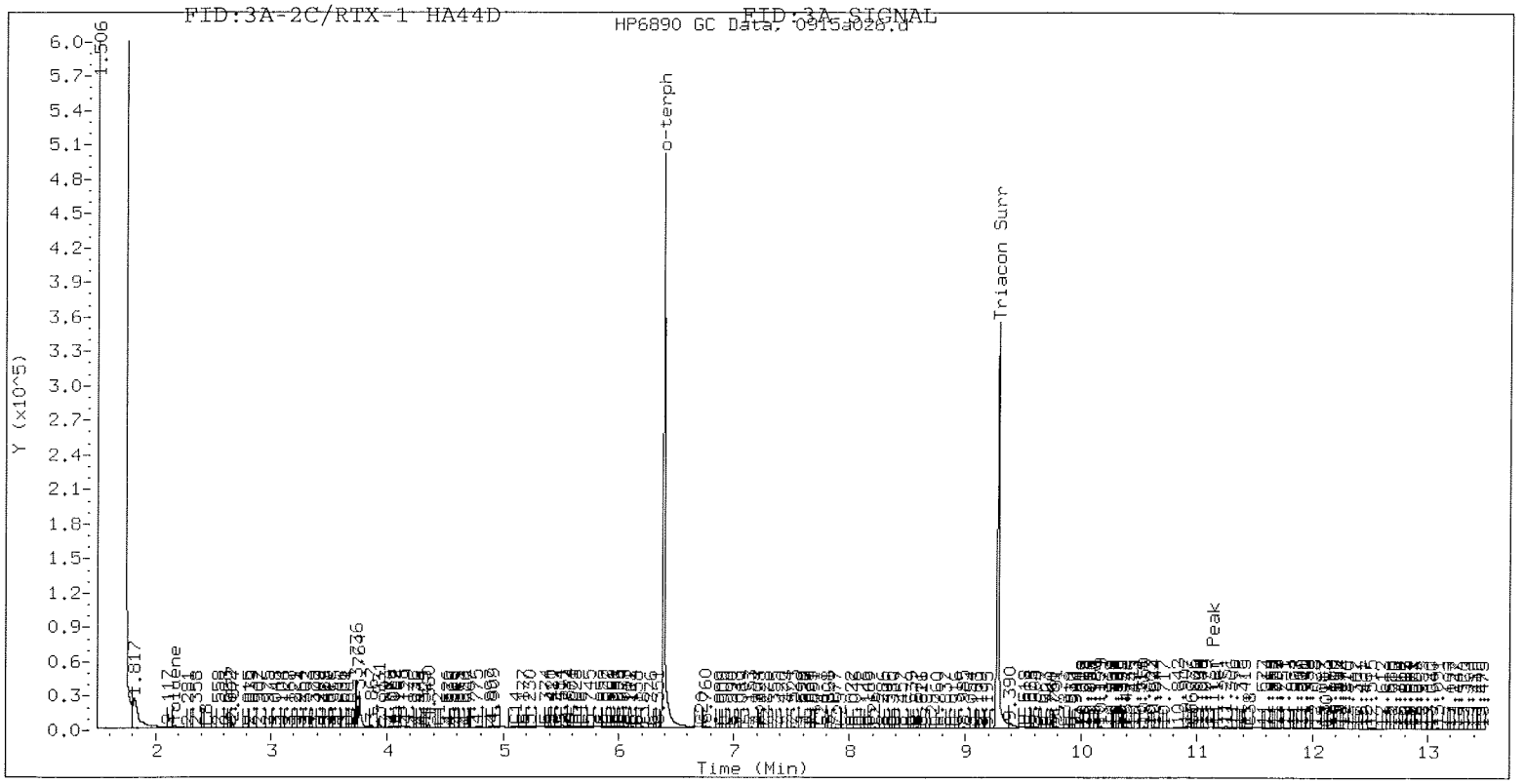
Data file: /chem3/fid3a.i/20040915.b/0915a026.d
Method: /chem3/fid3a.i/20040915.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: AR
Report Date: 09/20/2004
Macro: 15-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:15-SEP-2004
OR.MOIL:15-SEP-2004

ARI ID: HA44D
Client ID:
Injection: 15-SEP-2004 20:27
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.162	0.018	2472	9122	GAS (Tol-C12)	134691	19
C8	2.449	-0.014	551	1602	DIESEL (C12-C24)	112633	10
C10	3.711	0.012	352	388	M.OIL (C24-C38)	114201	17
C12	4.448	-0.031	390	317			
C14	5.104	0.012	909	4142			
C16	5.677	0.012	1556	4656			
C18	6.214	-0.003	795	2172	OR.MOIL (C28-C40)	128511	20
C20	6.723	-0.018	813	543			
C22	7.256	0.010	313	400			
C24	7.757	0.023	503	1752			
C25	7.924	-0.047	274	121			
C26	8.216	0.016	1045	1625			
C28	8.721	0.015	310	556			
C32	9.861	0.005	526	1313			
C34	10.400	-0.016	723	1653			
Filter Peak	11.146	0.023	744	570			
C36	10.959	0.003	824.0	781	o-Terph Surrogate Rec = 86.4%		(528715)
C38	11.461	-0.031	1172.0	4129	Triacon Surrogate Rec = 80.1%		(441685)
C40	12.125	-0.003	694	639			
o-terph	6.392	-0.003	500525	528715			
Triacon Surr	9.285	-0.007	353354	441685			

Range Times: NW Diesel(4.479 - 7.734) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.73 - 11.49) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



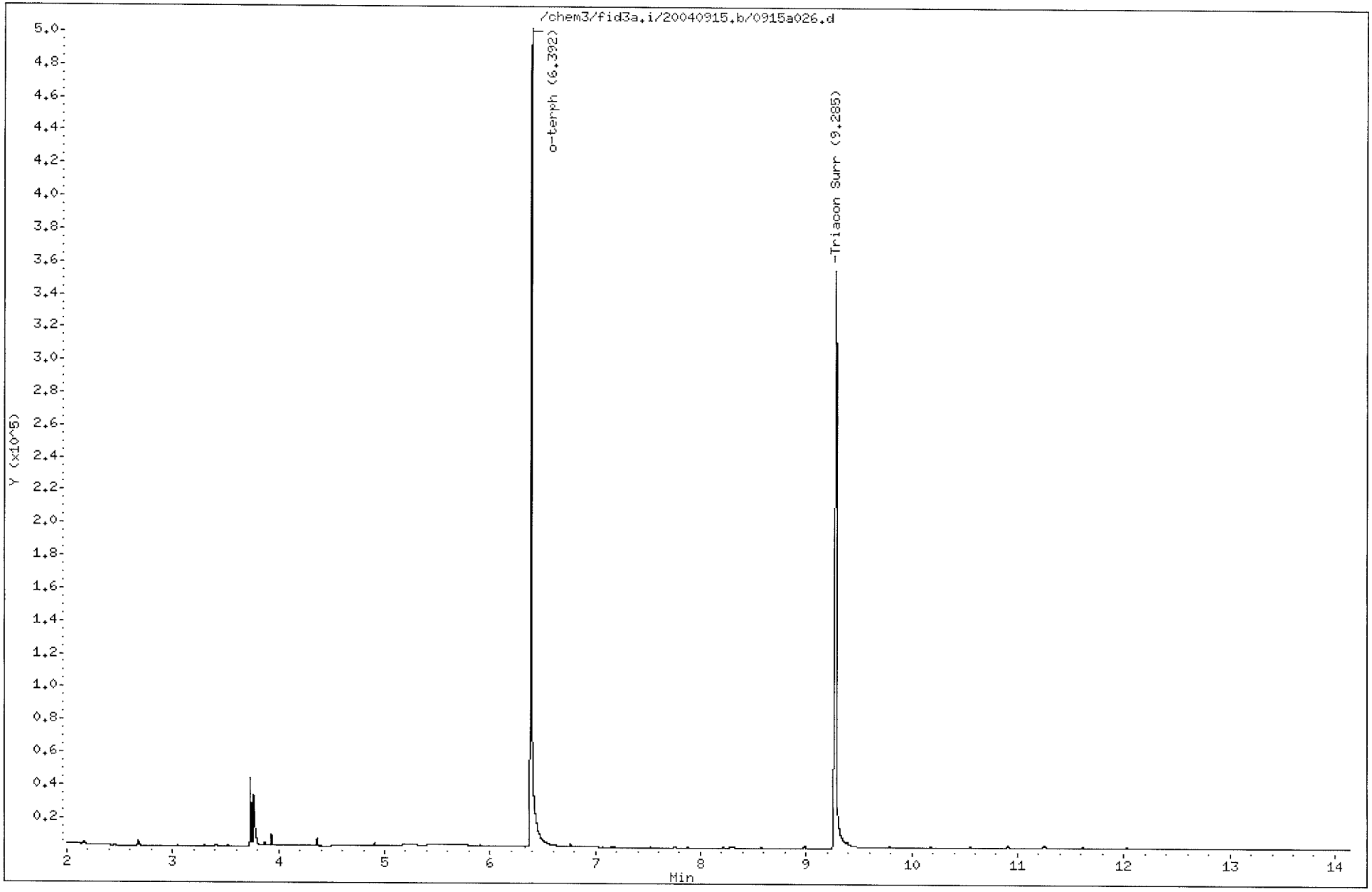
Data File: /chem3/fid3a.i/20040915.b/0915a026.d
Date : 15-SEP-2004 20:27
Client ID:
Sample Info: HA44D

Column phase: RTX-1

Instrument: fid3a.i

Operator: AR
Column diameter: 2.00

000180



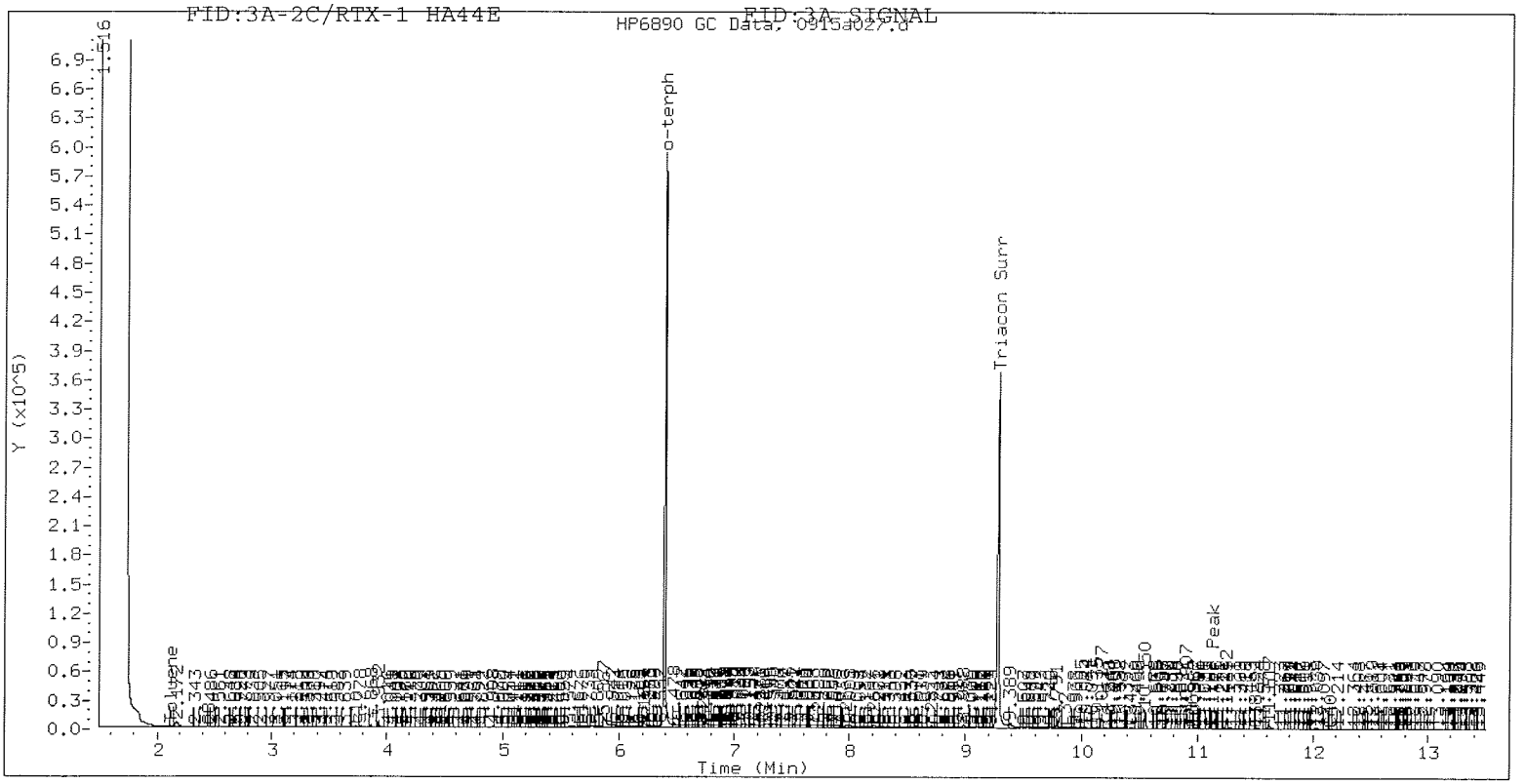
Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20040915.b/0915a027.d ARI ID: HA44E
Method: /chem3/fid3a.i/20040915.b/acidsilfid3a.m Client ID:
Instrument: fid3a.i Injection: 15-SEP-2004 20:49
Operator: AR
Report Date: 09/20/2004 Dilution Factor: 1
Macro: 15-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:15-SEP-2004
OR.MOIL:15-SEP-2004

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.125	-0.019	1350	2485	GAS (Tol-C12)	57264	8
C8	2.454	-0.009	360	525	DIESEL (C12-C24)	389523	34 ~~DRO~~
C10	3.737	0.038	1911	2056	M.OIL (C24-C38)	394768	58 RRO
C12	4.472	-0.007	292	367			
C14	5.091	-0.002	367	351			
C16	5.655	-0.010	1285	1666			
C18	6.213	-0.004	6534	9141	OR.MOIL (C28-C40)	305723	47
C20	6.738	-0.003	5070	5440			
C22	7.251	0.005	3617	5738			
C24	7.740	0.006	3206	8356			
C25	7.980	0.009	2648	6709			
C26	8.215	0.016	3042	9309			
C28	8.711	0.006	2630	7698			
C32	9.867	0.011	1553	6948			
C34	10.427	0.011	1291	4781			
Filter Peak	11.133	0.010	1150	1970			
C36	10.957	0.001	1140.0	1256	o-Terph Surrogate Rec = 84.1% ✓		(514327)
C38	11.498	0.006	1068.0	1058	Triacon Surrogate Rec = 84.8% ✓		(467551)
C40	12.150	0.022	793	1039			
o-terph	6.394	-0.001	592065	514327			
Triacon Surr	9.285	-0.006	367049	467551			

Range Times: NW Diesel(4.479 - 7.734) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.73 - 11.49) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



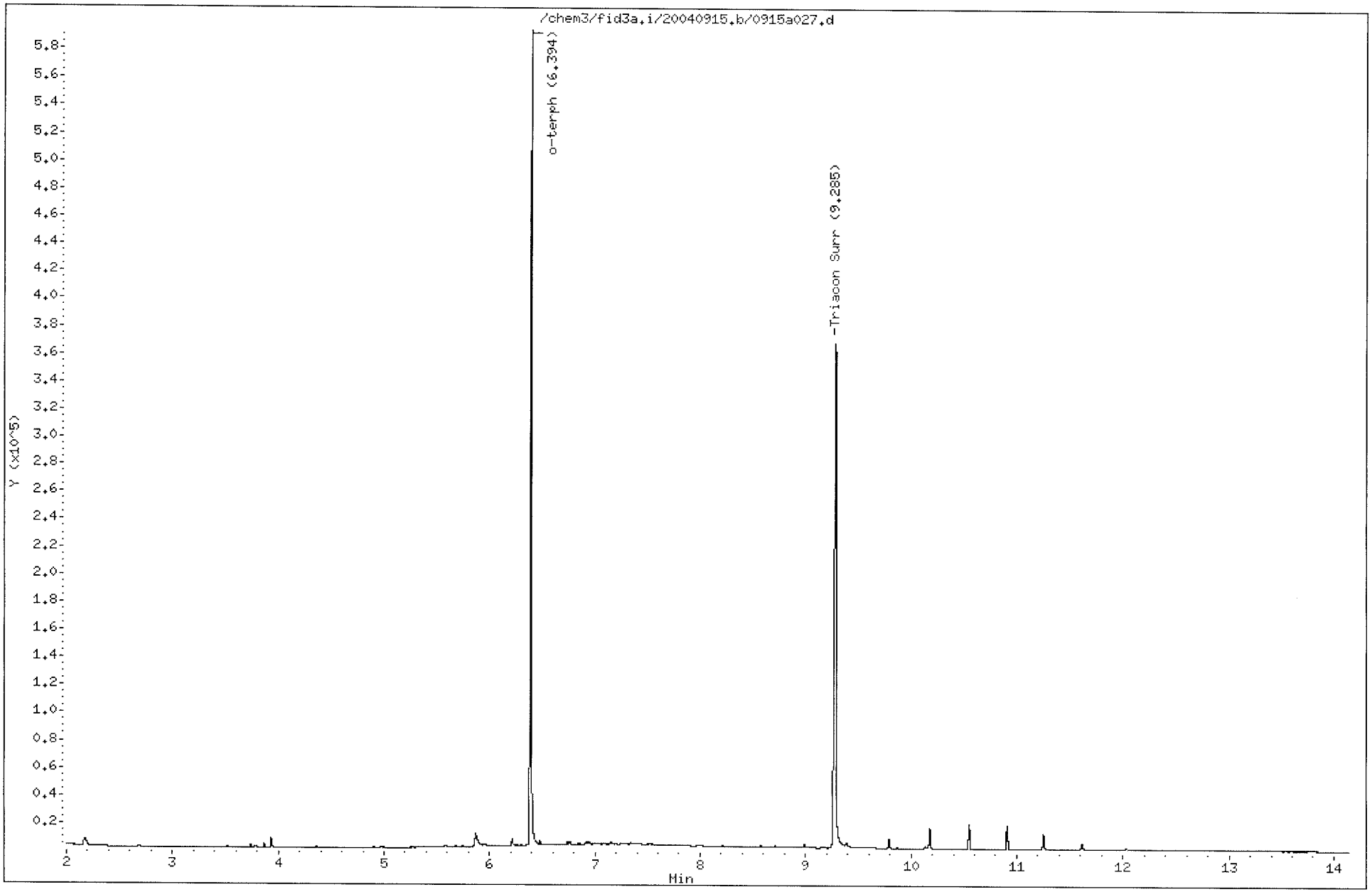
Data File: /chem3/fid3a.i/20040915.b/0915a027.d
Date : 15-SEP-2004 20:49
Client ID:
Sample Info: HA44E

Column phase: RTX-1

Instrument: fid3a.i

Operator: AR
Column diameter: 2.00

000182



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20040910.b/0910a053.d
Method: /chem3/fid3a.i/20040910.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: ESJ
Report Date: 09/11/2004
Macro: 01-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:01-SEP-2004
OR.MOIL:01-SEP-2004

ARI ID: HA44MBW1
Client ID:
Injection: 11-SEP-2004 09:13

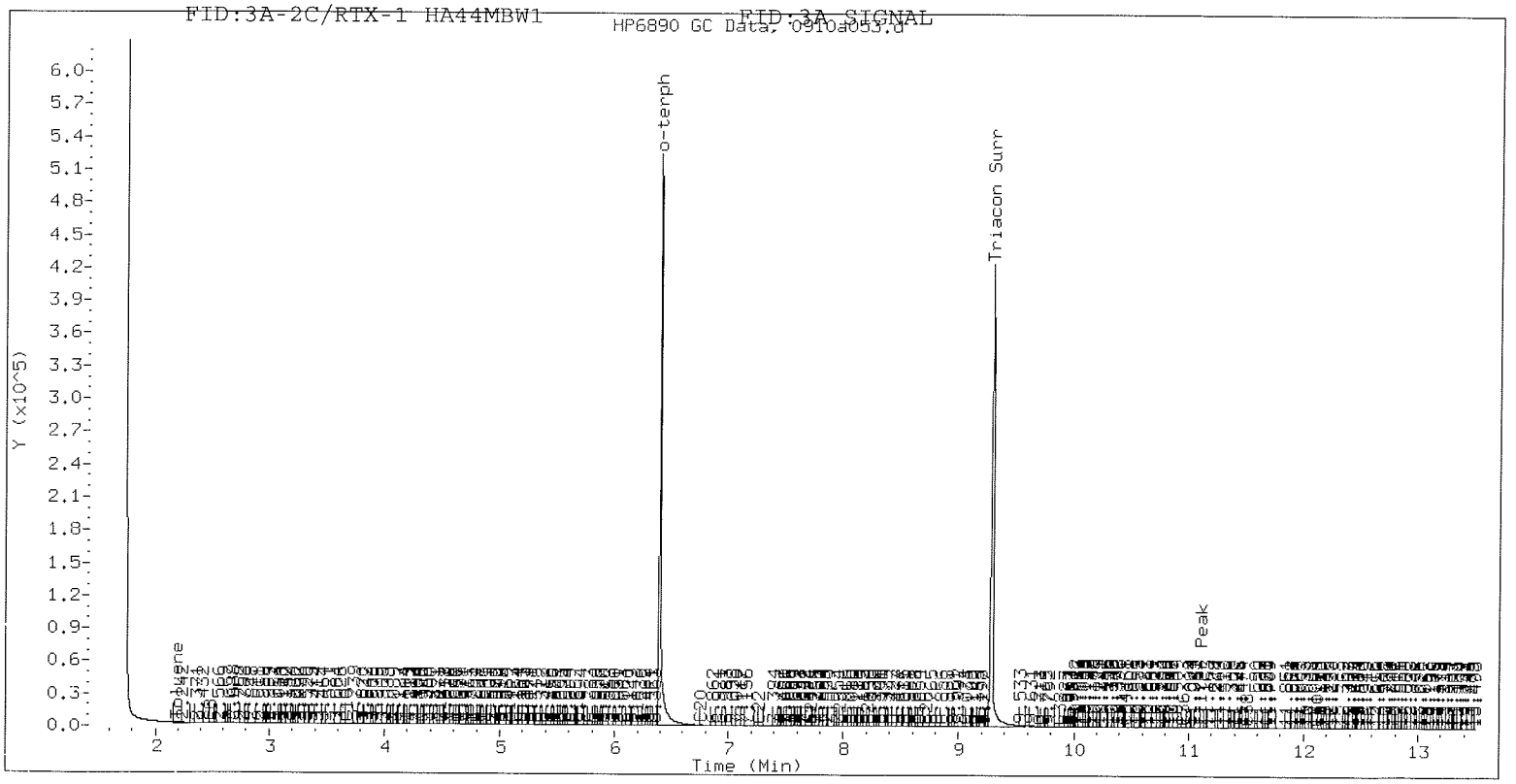
Dilution Factor: 1

9/11/04

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.183	0.016	2034	6464	GAS (Tol-C12)	41137	6
C8	2.491	0.011	449	1241	DIESEL (C12-C24)	23828	2
C10	3.679	-0.026	331	1107	M.OIL (C24-C38)	81553	9
C12	4.490	0.007	30	23			
C14	5.091	-0.004	55	36			
C16	5.673	0.004	118	76			
C18	6.209	-0.011	87	126	OR.MOIL (C28-C40)	91251	11
C20	6.762	0.018	1221	4281			
C22	7.272	0.024	247	551			
C24	7.729	-0.007	228	160			
C25	7.970	-0.003	175	348			
C26	8.218	0.017	336	382			
C28	8.724	0.015	314	621			
C32	9.882	0.020	583	1368			
C34	10.447	0.024	491	356			
Filter Peak	11.107	-0.020	673	995			
C36	10.955	-0.008	617.0	1410	o-Terph Surrogate Rec = 92.7%		(567137)
C38	11.508	0.010	734.0	936	Triacon Surrogate Rec = 105.3%		(580400)
C40	12.125	-0.006	592	1152			
o-terph	6.393	-0.005	523872	567137			
Triacon Surr	9.291	-0.009	423844	580400			

Range Times: NW Diesel(4.483 - 7.737) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.74 - 11.50) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



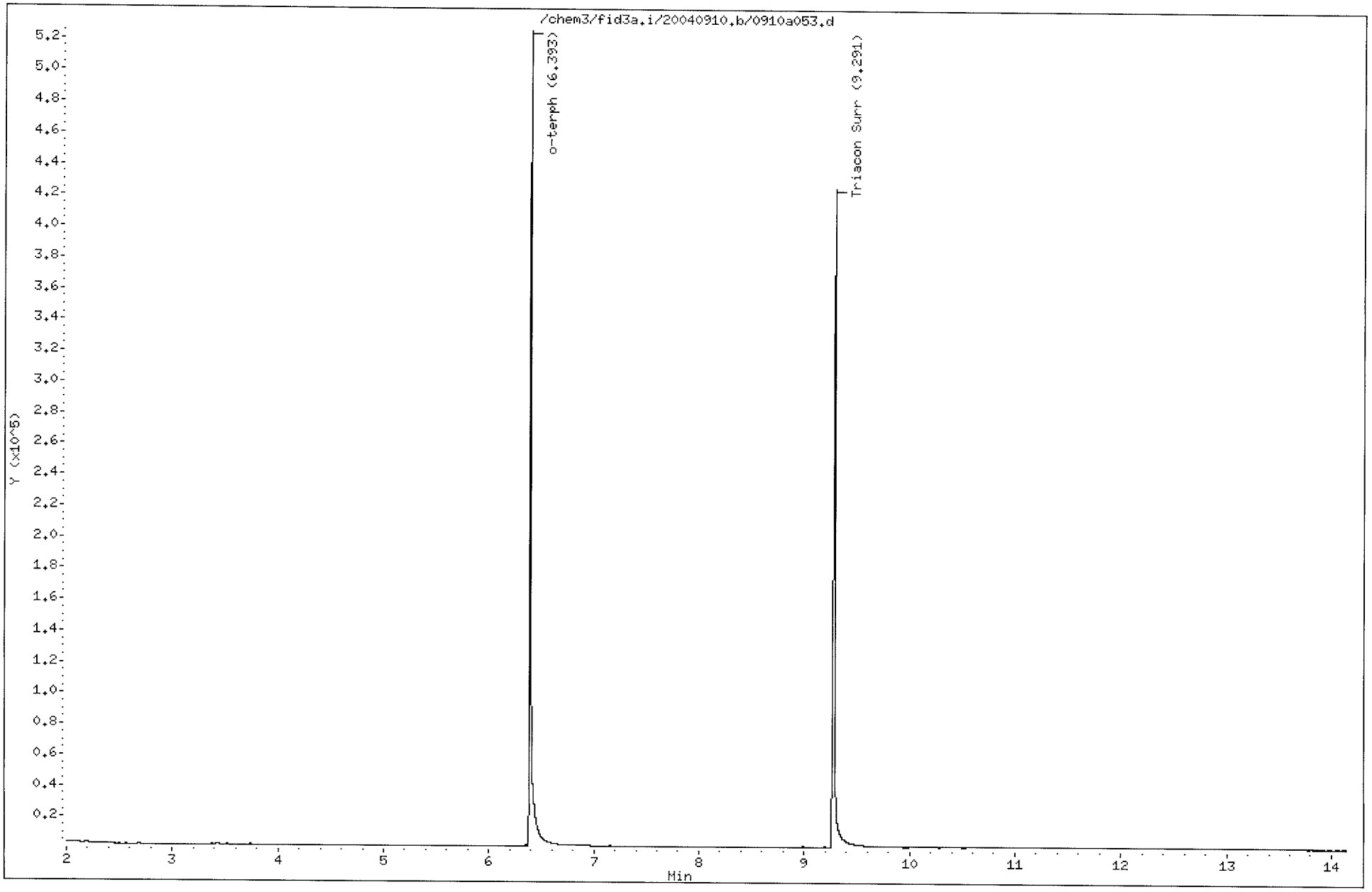
Data File: /chem3/fid3a.i/20040910.b/0910a053.d
Date : 11-SEP-2004 09:13
Client ID:
Sample Info: HA44MBW1

Column phase: RTX-1

Instrument: fid3a.i

Operator: ESJ
Column diameter: 2.00

000184



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20040910.b/0910a055.d
Method: /chem3/fid3a.i/20040910.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: ESJ
Report Date: 09/11/2004
Macro: 01-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:01-SEP-2004
OR.MOIL:01-SEP-2004

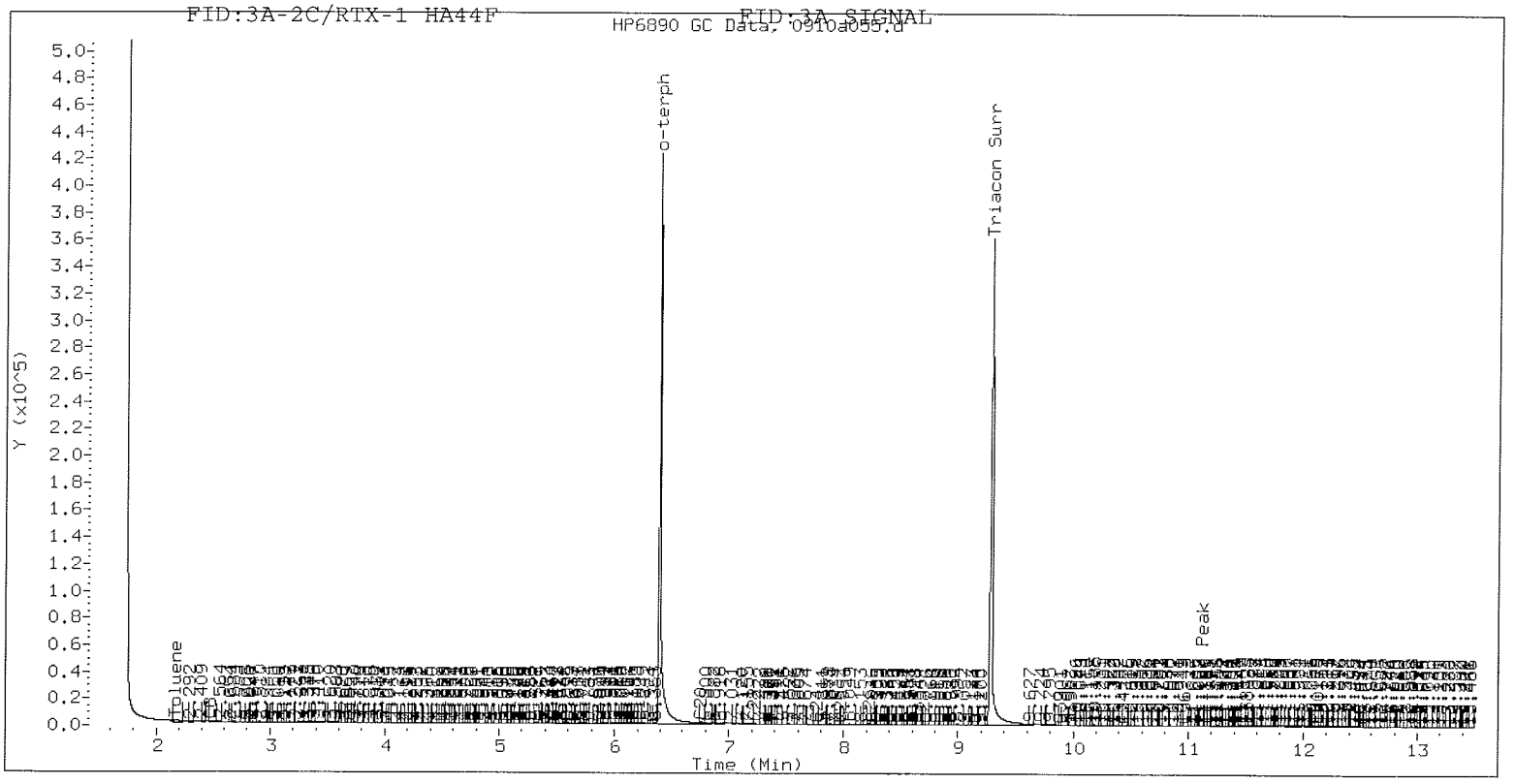
ARI ID: HA44F
Client ID:
Injection: 11-SEP-2004 09:57
Dilution Factor: 1

9/11/04

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.171	0.004	2103	7494	GAS (Tol-C12)	32881	5
C8	2.485	0.005	484	1616	DIESEL (C12-C24)	41522	4
C10	3.693	-0.012	280	426	M.OIL (C24-C38)	33568	4
C12	4.489	0.006	46	43			
C14	5.098	0.002	206	224			
C16	5.661	-0.008	283	180			
C18	6.218	-0.003	403	703	OR.MOIL (C28-C40)	36707	4
C20	6.763	0.019	1407	2234			
C22	7.230	-0.018	338	956			
C24	7.766	0.029	189	443			
C25	7.972	-0.002	118	94			
C26	8.219	0.018	330	360			
C28	8.704	-0.006	94	55			
C32	9.883	0.020	279	320			
C34	10.440	0.016	195	338			
Filter Peak	11.124	-0.003	287	494			
C36	10.974	0.010	261.0	604	o-Terph Surrogate Rec = 77.5%		(473922)
C38	11.512	0.014	339.0	380	Triacon Surrogate Rec = 85.6%		(471850)
C40	12.137	0.006	332	361			
o-terph	6.392	-0.006	423263	473922			
Triacon Surr	9.291	-0.010	360510	471850			

Range Times: NW Diesel(4.483 - 7.737) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.74 - 11.50) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



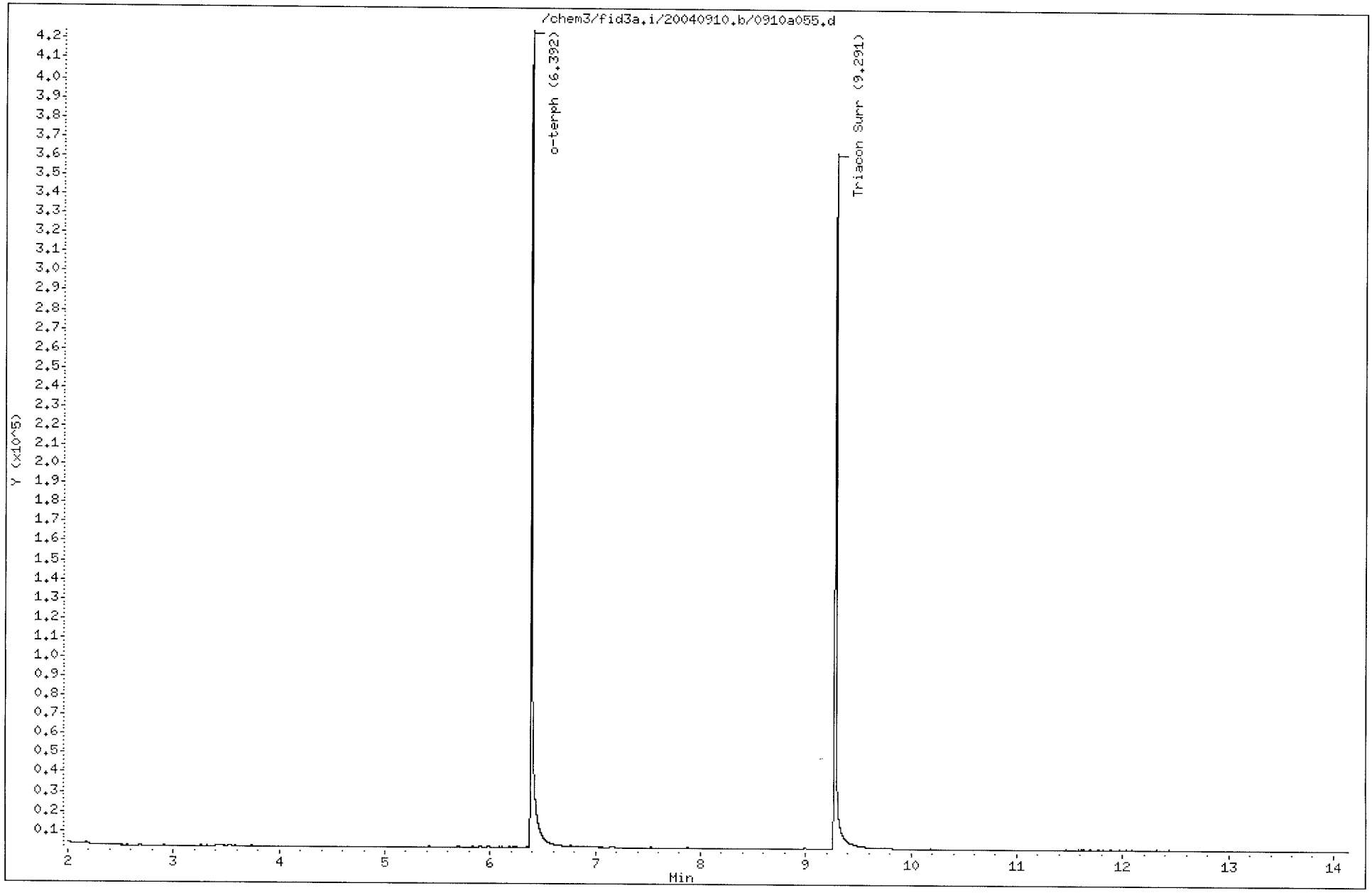
Data File: /chem3/fid3a.i/20040910.b/0910a055.d
Date : 11-SEP-2004 09:57
Client ID:
Sample Info: HA44F

Column phase: RTX-1

Instrument: fid3a.i

Operator: ESJ
Column diameter: 2.00

000186



Analytical Resources Inc.
TPH Quantitation Report

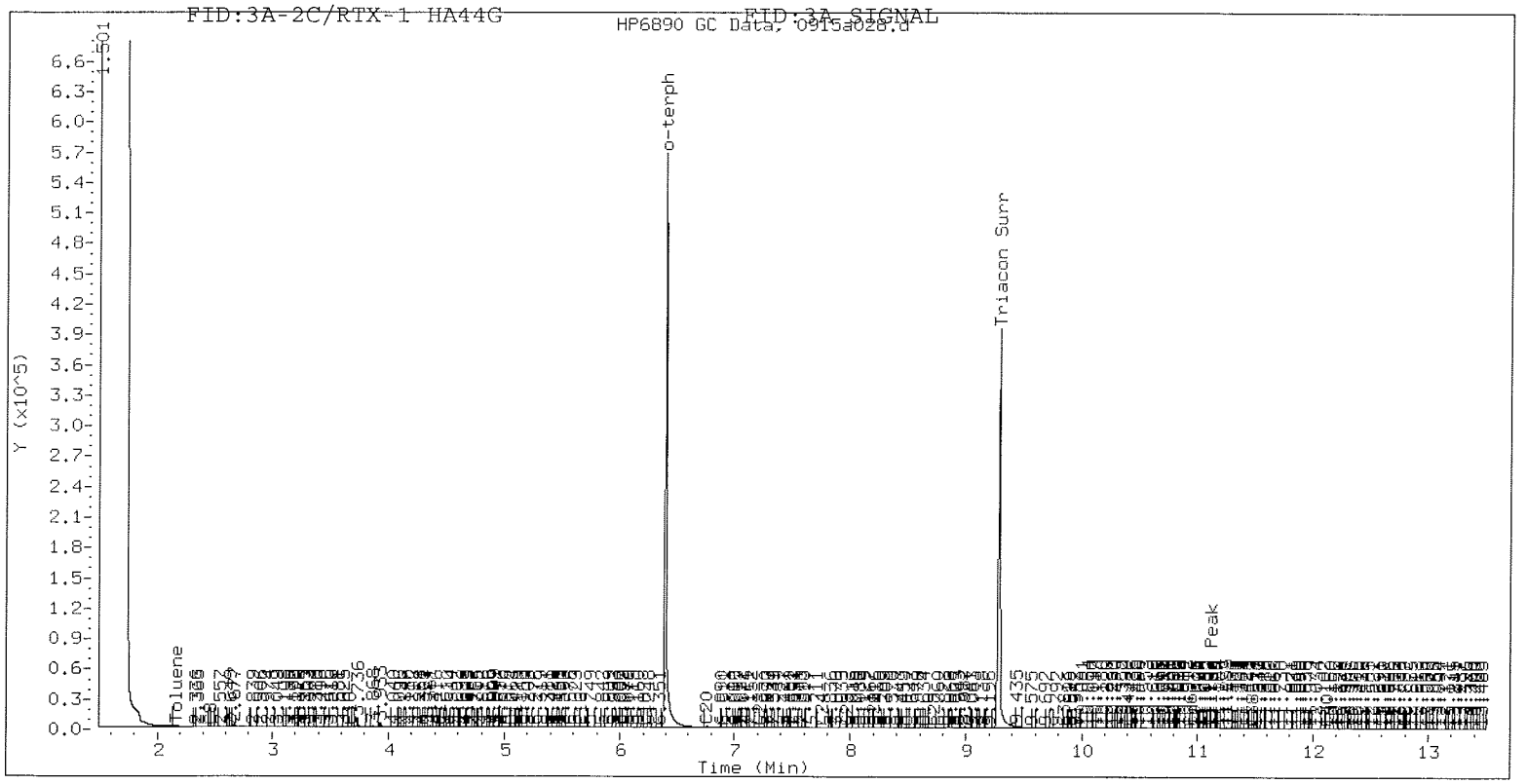
Data file: /chem3/fid3a.i/20040915.b/0915a028.d
Method: /chem3/fid3a.i/20040915.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: AR
Report Date: 09/20/2004
Macro: 15-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:15-SEP-2004
OR.MOIL:15-SEP-2004

ARI ID: HA44G
Client ID:
Injection: 15-SEP-2004 21:11
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.163	0.019	2163	12144	GAS (Tol-C12)	59603	8
C8	2.475	0.011	461	887	DIESEL (C12-C24)	29056	3
C10	3.671	-0.028	327	522	M.OIL (C24-C38)	47398	7
C12	4.449	-0.030	66	98			
C14	5.102	0.009	98	84			
C16	5.665	0.000	368	1093			
C18	6.214	-0.003	201	301	OR.MOIL (C28-C40)	61048	9
C20	6.761	0.019	2100	5973			
C22	7.230	-0.016	156	316			
C24	7.756	0.022	265	834			
C25	7.969	-0.002	52	26			
C26	8.199	0.000	64	31			
C28	8.721	0.015	233	300			
C32	9.848	-0.008	268	470			
C34	10.406	-0.010	230	353			
Filter Peak	11.126	0.003	433	475			
C36	10.947	-0.009	376.0	538	o-Terph Surrogate Rec = 96.8%		(592089)
C38	11.481	-0.010	537.0	547	Triacon Surrogate Rec = 95.7%		(527246)
C40	12.125	-0.003	516	887			
o-terph	6.393	-0.002	567175	592089			
Triacon Surr	9.288	-0.004	394699	527246			

Range Times: NW Diesel(4.479 - 7.734) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.73 - 11.49) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



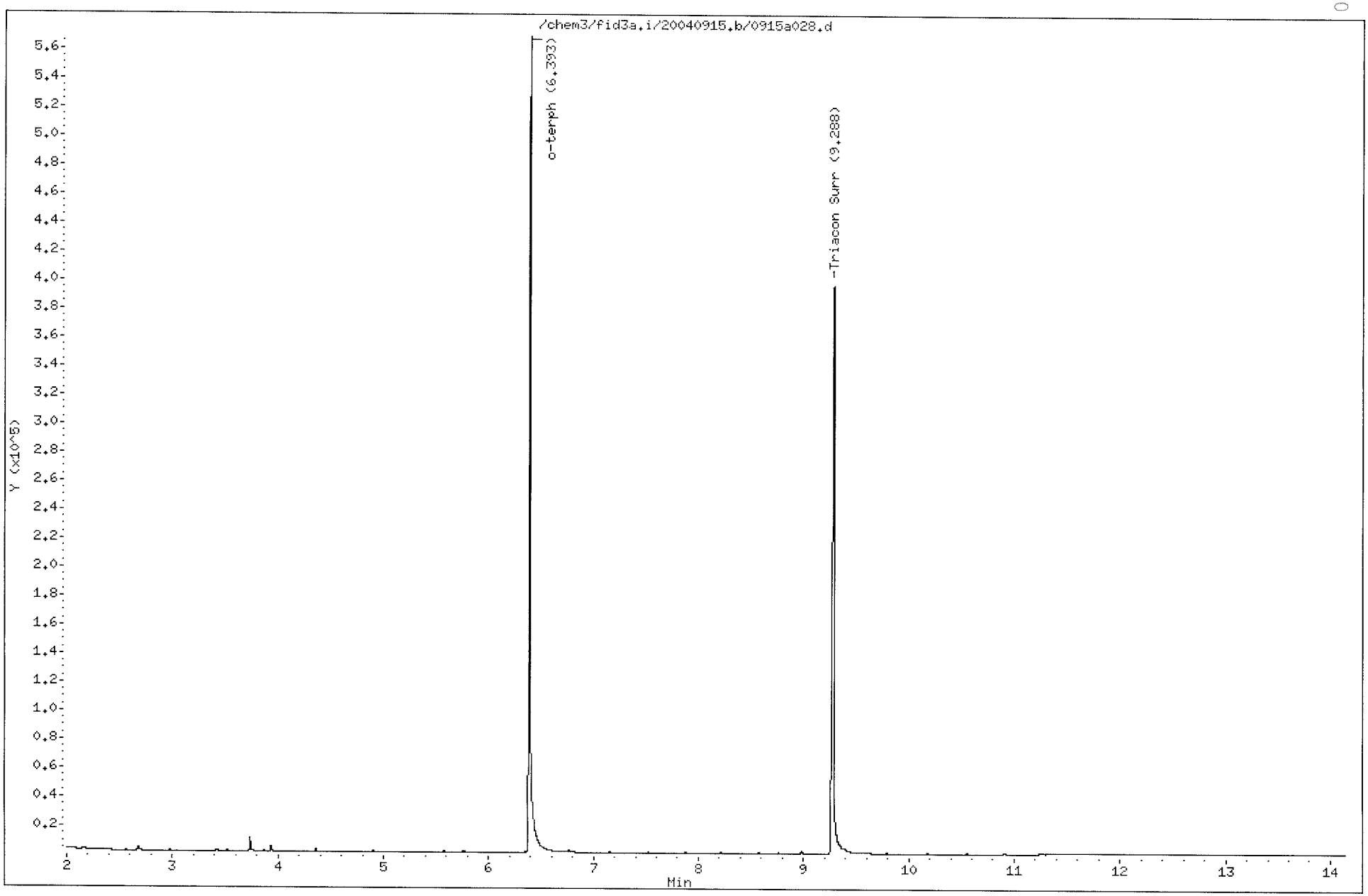
Data File: /chem3/fid3a.i/20040915.b/0915a028.d
Date : 15-SEP-2004 21:11
Client ID:
Sample Info: HA44G

Column phase: RTX-1

Instrument: fid3a.i

Operator: AR
Column diameter: 2.00

000188



Analytical Resources Inc.
TPH Quantitation Report

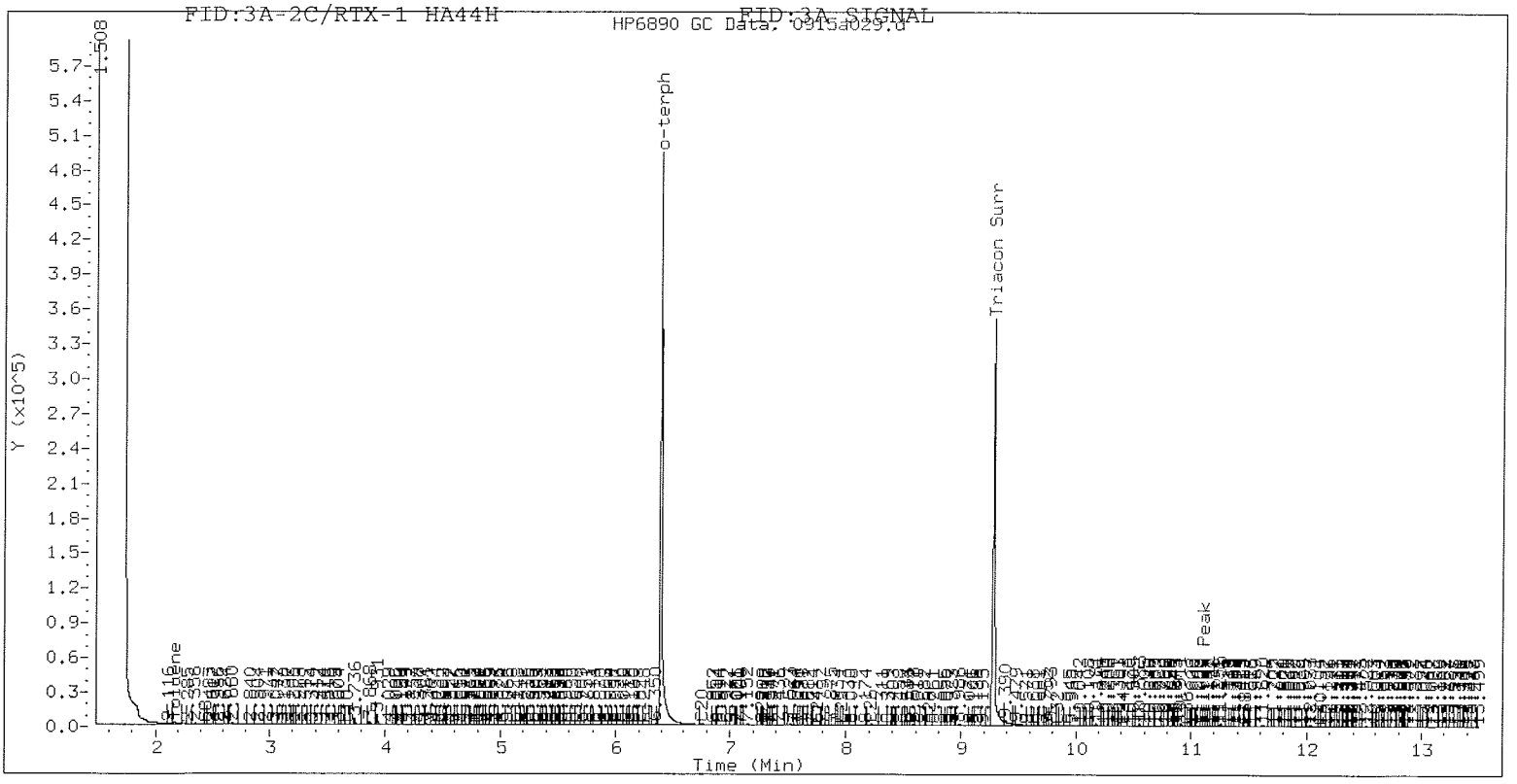
Data file: /chem3/fid3a.i/20040915.b/0915a029.d
Method: /chem3/fid3a.i/20040915.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: AR
Report Date: 09/20/2004
Macro: 15-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:15-SEP-2004
OR.MOIL:15-SEP-2004

ARI ID: HA44H
Client ID:
Injection: 15-SEP-2004 21:34
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.165	0.021	2797	8153	GAS (Tol-C12)	64836	9
C8	2.445	-0.018	517	844	DIESEL (C12-C24)	40457	3
C10	3.672	-0.027	363	883	M.OIL (C24-C38)	71988	11
C12	4.470	-0.009	120	242			
C14	5.115	0.023	225	332			
C16	5.666	0.001	393	927			
C18	6.214	-0.002	268	478	OR.MOIL (C28-C40)	86388	13
C20	6.760	0.019	1685	4164			
C22	7.276	0.031	230	179			
C24	7.753	0.019	315	852			
C25	7.962	-0.008	103	70			
C26	8.216	0.017	1145	1339			
C28	8.721	0.016	250	364			
C32	9.839	-0.016	282	381			
C34	10.422	0.006	240	715			
Filter Peak	11.115	-0.008	431	510			
C36	10.975	0.019	381.0	464	o-Terph Surrogate Rec = 85.8%		(525141)
C38	11.474	-0.018	550.0	1168	Triacon Surrogate Rec = 82.7%		(455767)
C40	12.125	-0.002	555	1502			
o-terph	6.391	-0.003	493695	525141			
Triacon Surr	9.287	-0.004	350965	455767			

Range Times: NW Diesel(4.479 - 7.734) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.73 - 11.49) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



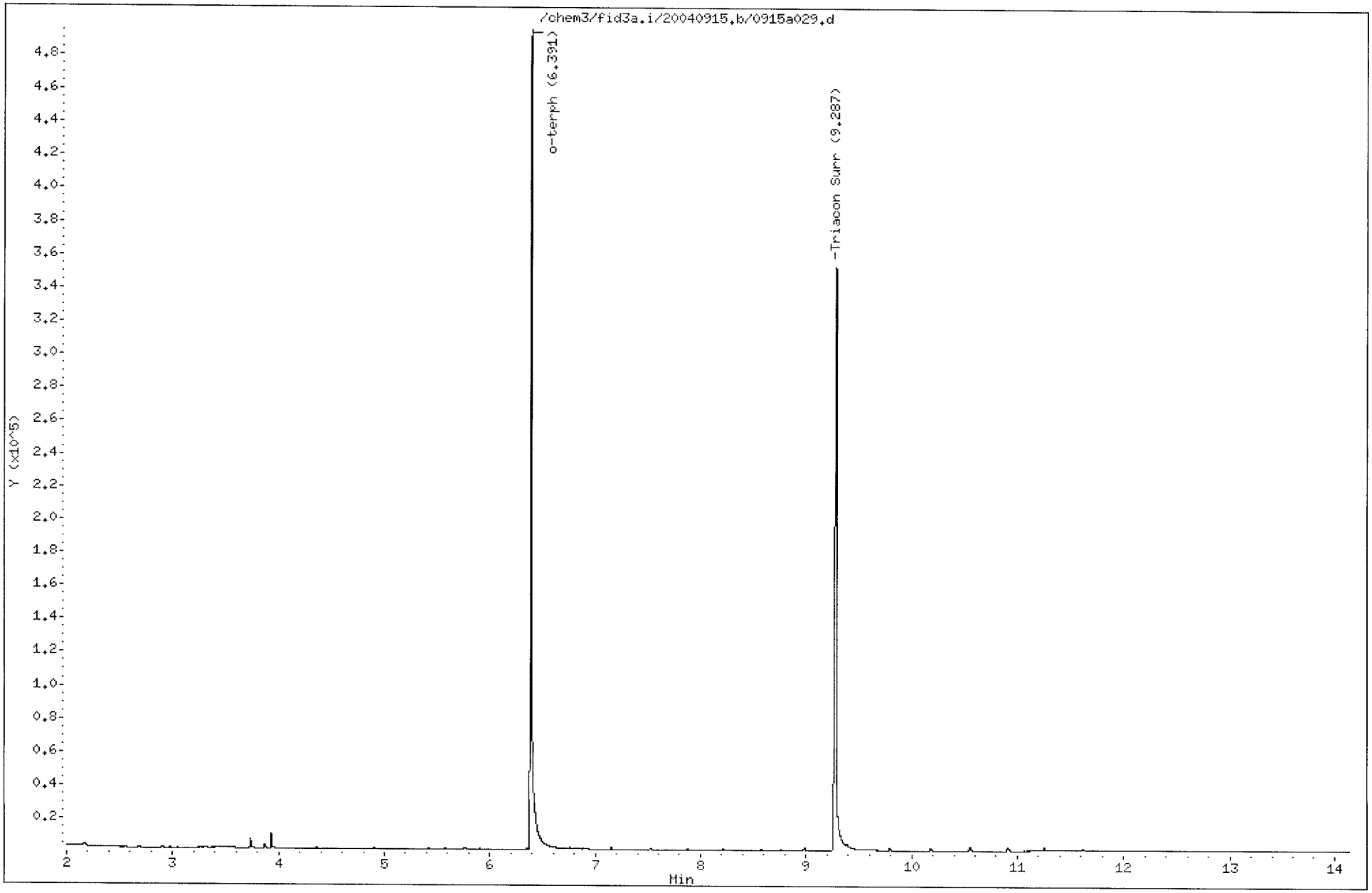
Data File: /chem3/fid3a.i/20040915.b/0915a029.d
Date : 15-SEP-2004 21:34
Client ID:
Sample Info: HA44H

Instrument: fid3a.i

Operator: AR
Column diameter: 2.00

Column phase: RTX-1

000190



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20040910.b/0910a056.d
Method: /chem3/fid3a.i/20040910.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: ESJ
Report Date: 09/11/2004
Macro: 01-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:01-SEP-2004
OR.MOIL:01-SEP-2004

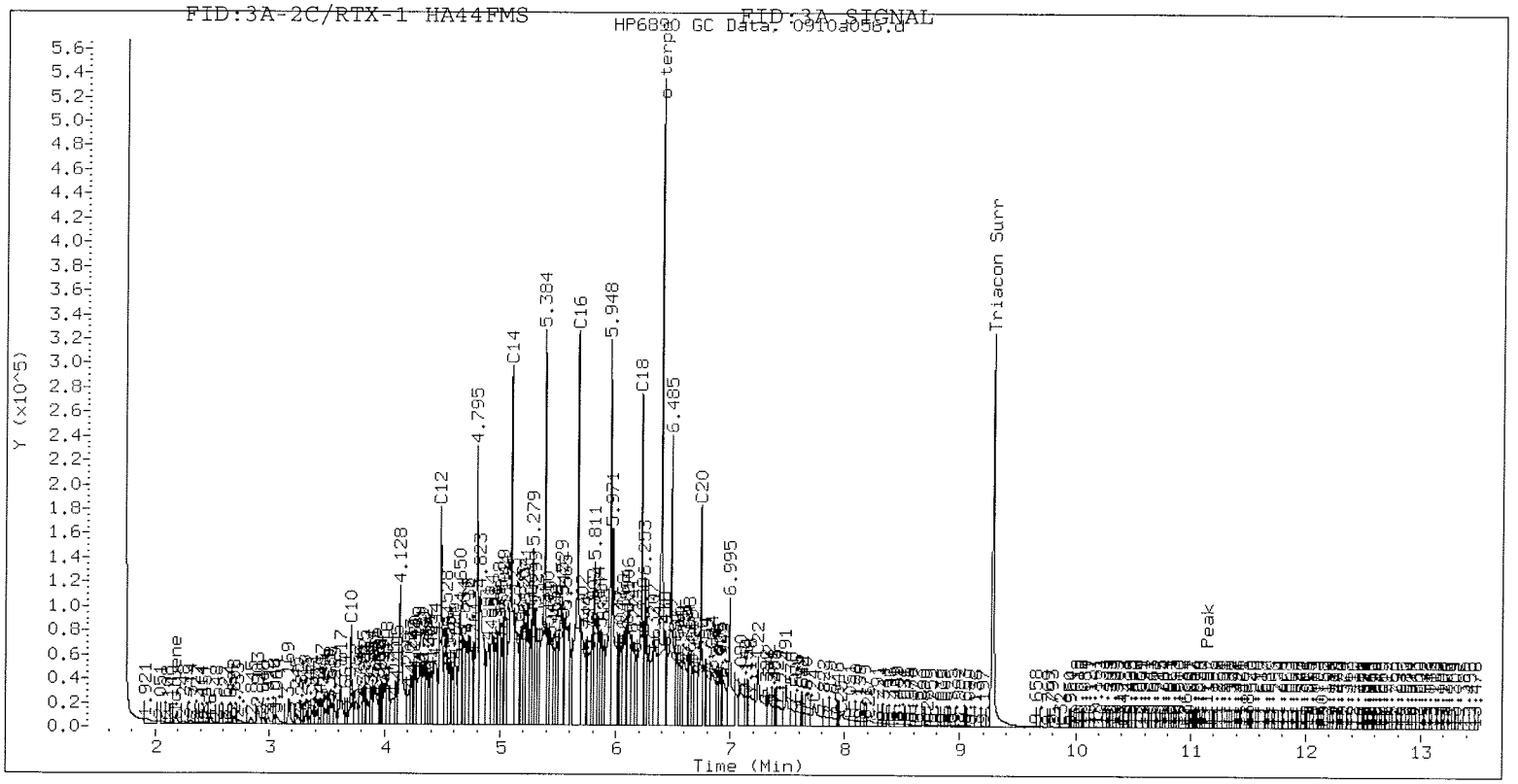
ARI ID: HA44FMS
Client ID:
Injection: 11-SEP-2004 10:19
Dilution Factor: 1

9/11/04

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.183	0.015	6832	12581	GAS (Tol-C12)	2171935	301
C8	2.492	0.012	5207	7483	DIESEL (C12-C24)	11058859	955 / 63.7%
C10	3.705	0.000	82488	89949	M.OIL (C24-C38)	207751	24
C12	4.480	-0.003	179623	238291			
C14	5.093	-0.003	295980	392089			
C16	5.668	-0.001	324872	526499			
C18	6.221	0.001	273959	311894	OR.MOIL (C28-C40)	22413	3
C20	6.743	-0.001	182176	200689			
C22	7.245	-0.003	57155	143365			
C24	7.734	-0.003	18077	62273			
C25	7.973	-0.001	9527	33684			
C26	8.217	0.015	4881	21401			
C28	8.720	0.010	1537	2973			
C32	9.869	0.007	178	606			
C34	10.416	-0.007	38	15			
Filter Peak	11.140	0.012	101	239			
C36	10.964	0.001	54.0	50	o-Terph Surrogate Rec = 66.5% /		(406870)
C38	11.501	0.002	117.0	127	Triacon Surrogate Rec = 79.4%		(437602)
C40	12.143	0.012	103	101			
o-terph	6.397	-0.002	472429	406870			
Triacon Surr	9.285	-0.016	323932	437602			

Range Times: NW Diesel(4.483 - 7.737) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.74 - 11.50) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



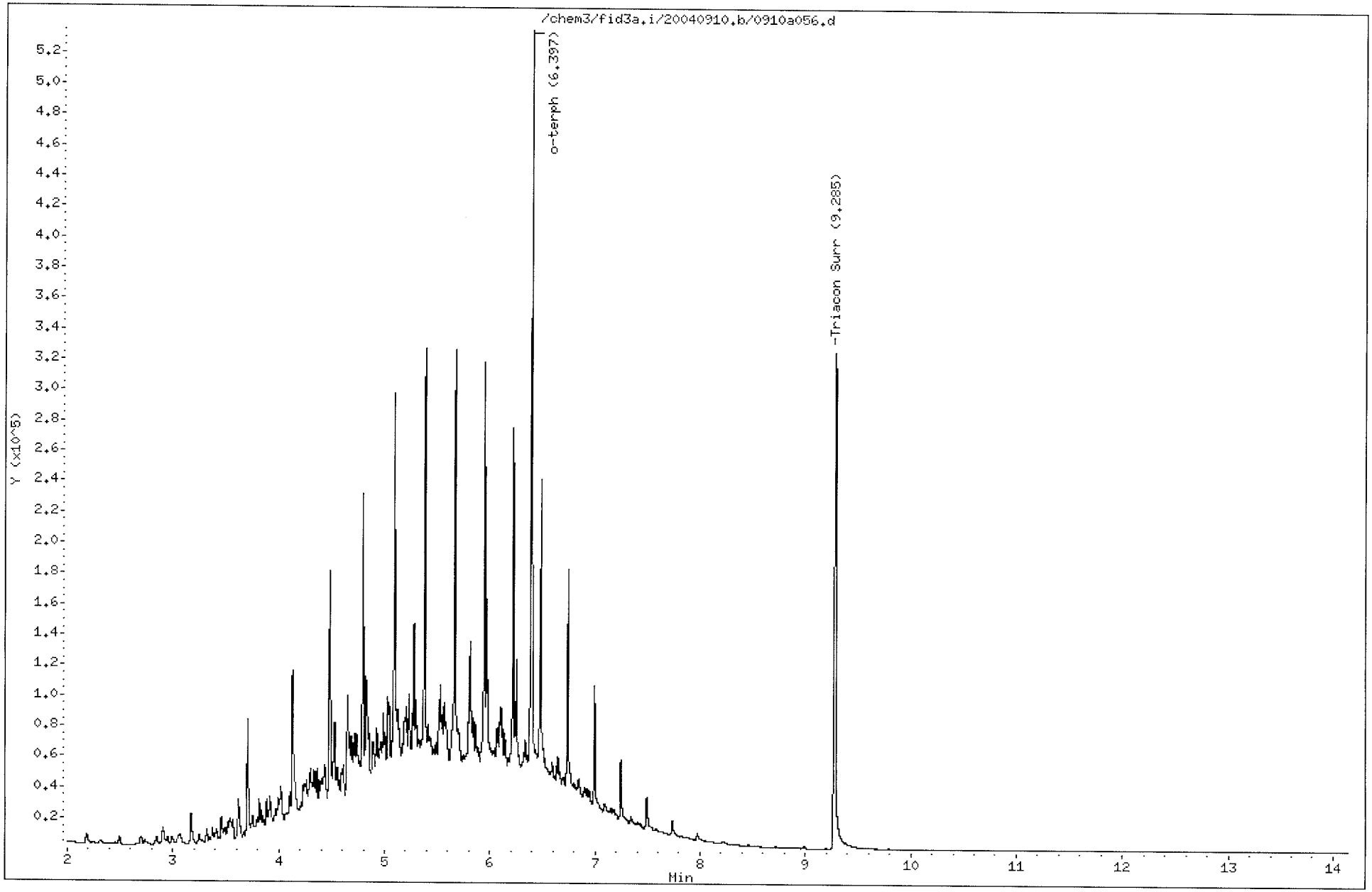
Data File: /chem3/fid3a.i/20040910.b/0910a056.d
Date : 11-SEP-2004 10:19
Client ID:
Sample Info: HA44FMS

Column phase: RTX-1

Instrument: fid3a.i

Operator: ESJ
Column diameter: 2.00

000193



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20040910.b/0910a057.d
Method: /chem3/fid3a.i/20040910.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: ESJ
Report Date: 09/11/2004
Macro: 01-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:01-SEP-2004
OR.MOIL:01-SEP-2004

ARI ID: HA44FMSD
Client ID:
Injection: 11-SEP-2004 10:41

Dilution Factor: 1

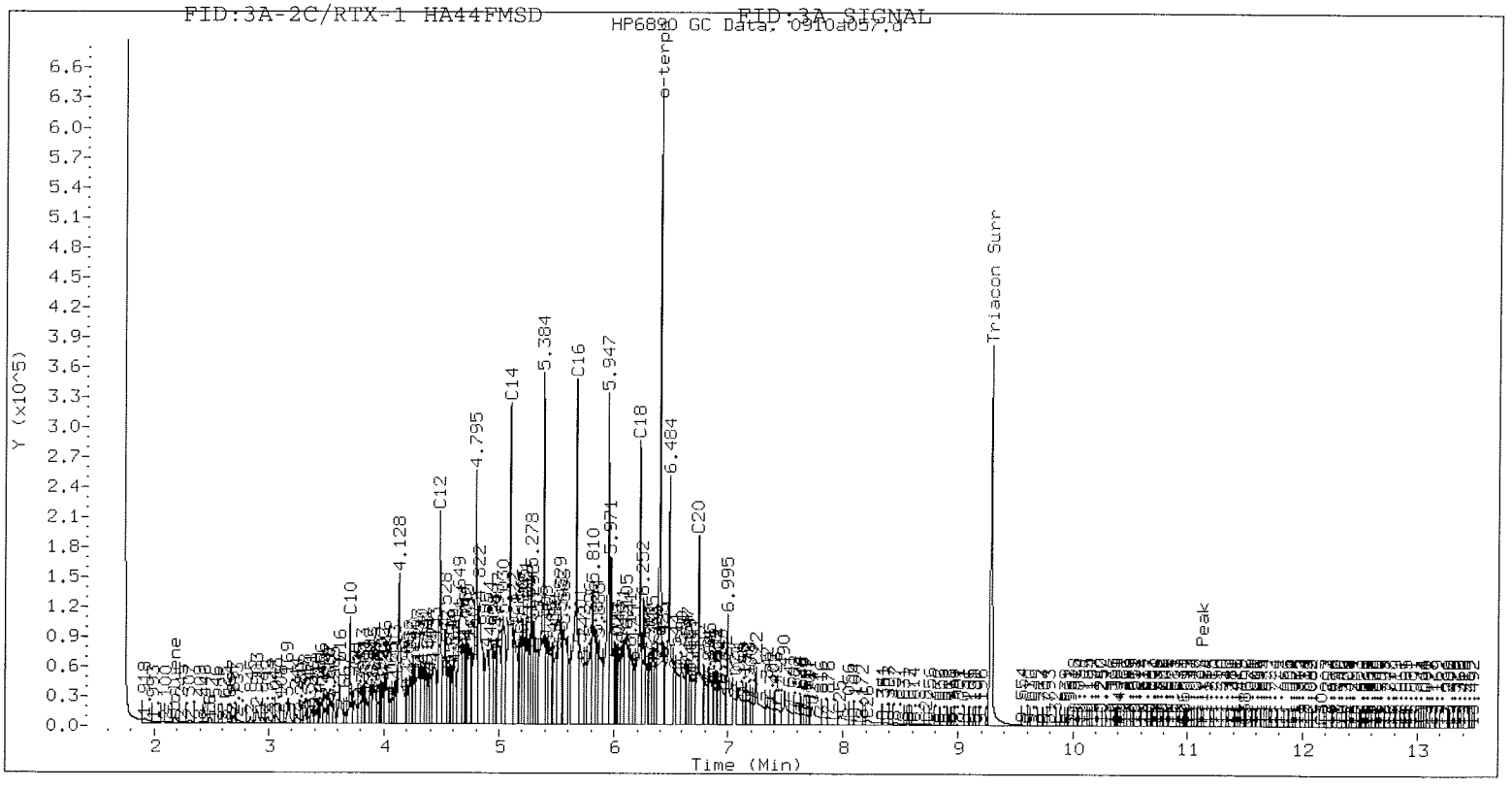
09/11/04

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.181	0.014	6218	13885	GAS (Tol-C12)	2603608	361
C8	2.490	0.010	5685	9461	DIESEL (C12-C24)	11680405	1009
C10	3.704	0.000	107276	115501	M.OIL (C24-C38)	235514	27
C12	4.480	-0.003	213826	274633			
C14	5.093	-0.003	322085	431052			
C16	5.668	-0.001	346132	546556			
C18	6.220	0.000	284978	327226	OR.MOIL (C28-C40)	30548	4
C20	6.742	-0.002	190573	258656			
C22	7.244	-0.004	59503	153631			
C24	7.733	-0.003	19484	60759			
C25	7.972	-0.001	9974	36788			
C26	8.215	0.014	5022	29113			
C28	8.719	0.010	1703	3481			
C32	9.856	-0.007	257	432			
C34	10.404	-0.019	50	40			
Filter Peak	11.136	0.009	94	86			
C36	10.972	0.008	58.0	41	o-Terph Surrogate Rec = 80.3%		(491007)
C38	11.500	0.002	119.0	47	Triacon Surrogate Rec = 93.3%		(513978)
C40	12.164	0.033	122	282			
o-terph	6.398	-0.001	573376	491007			
Triacon Surr	9.288	-0.013	380904	513978			

67.3%

Range Times: NW Diesel(4.483 - 7.737) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.74 - 11.50) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



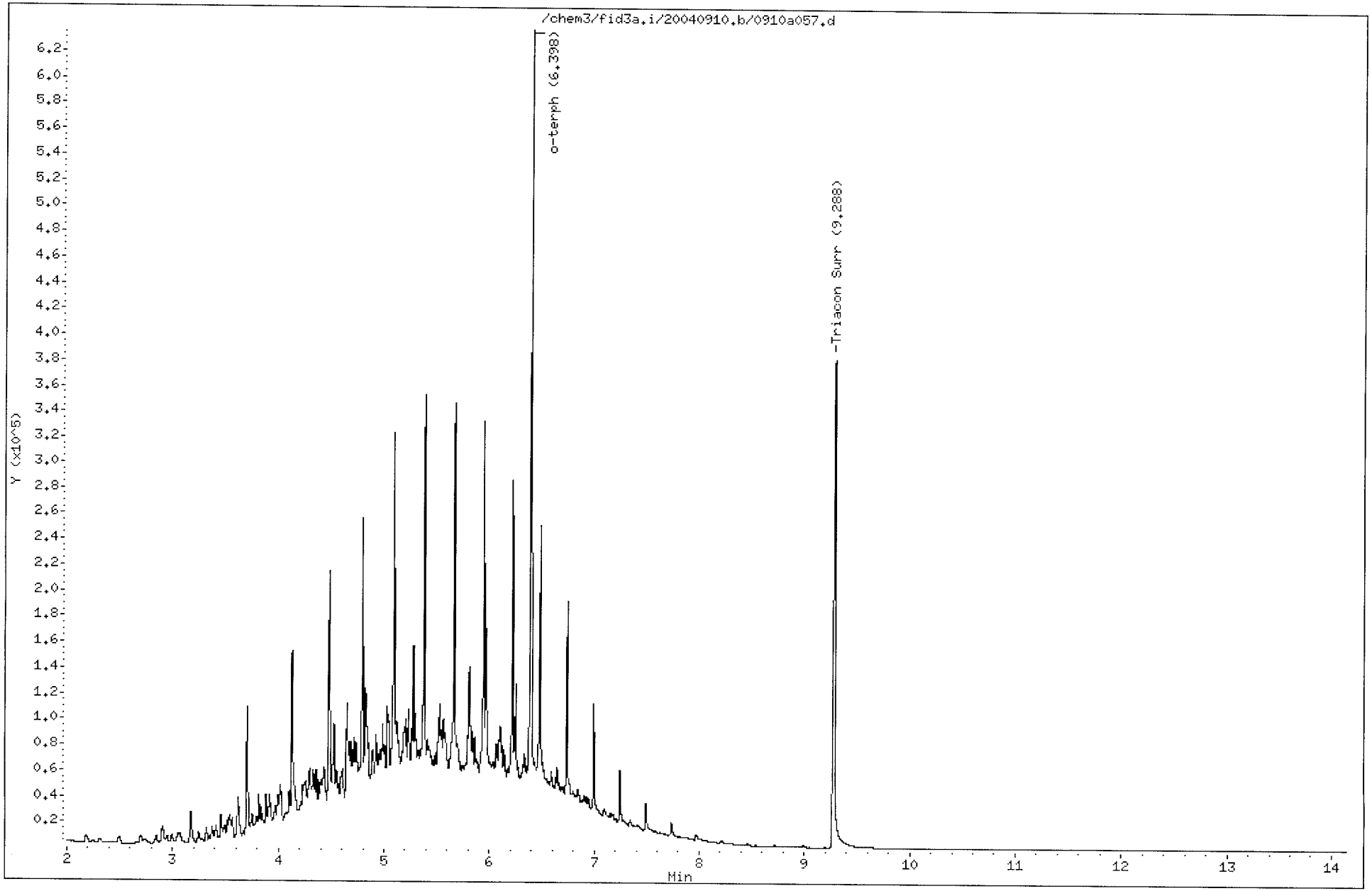
Data File: /chem3/fid3a.i/20040910.b/0910a057.d
Date : 11-SEP-2004 10:41
Client ID:
Sample Info: HA44FMSD

Column phase: RTX-1

Instrument: fid3a.i

Operator: ESJ
Column diameter: 2.00

000195



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20040915.b/0915a015.d
Method: /chem3/fid3a.i/20040915.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: AR
Report Date: 09/20/2004
Macro: 15-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:15-SEP-2004
OR.MOIL:15-SEP-2004

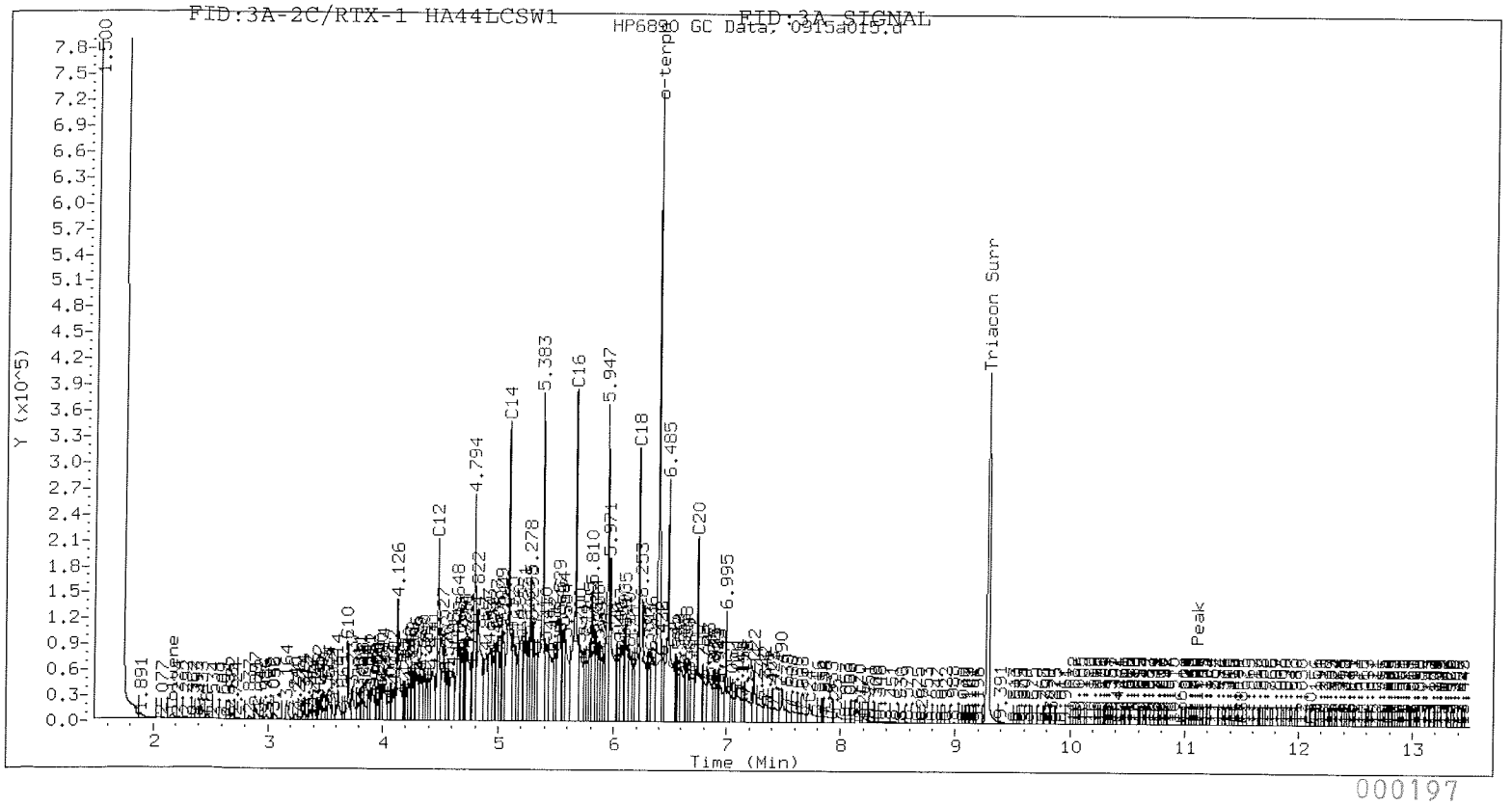
ARI ID: HA44LCSW1
Client ID:
Injection: 15-SEP-2004 16:22

Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.168	0.024	5602	13621	GAS (Tol-C12)	2401061	333
C8	2.481	0.017	4019	7741	DIESEL (C12-C24)	13005163	1124 74.9%
C10	3.701	0.002	92049	98026	M.OIL (C24-C38)	224463	33
C12	4.479	0.000	211740	256799			
C14	5.093	0.001	347088	461056			
C16	5.668	0.003	385413	599057			
C18	6.221	0.004	318303	361239	OR.MOIL (C28-C40)	55031	8
C20	6.743	0.002	215491	301793			
C22	7.245	-0.001	68858	95680			
C24	7.731	-0.003	22676	67820			
C25	7.968	-0.002	11898	39849			
C26	8.202	0.003	5724	12814			
C28	8.716	0.011	1356	2819			
C32	9.841	-0.014	104	159			
C34	10.420	0.004	111	218			
Filter Peak	11.113	-0.010	362	683			
C36	10.975	0.019	293.0	295	o-Terph Surrogate Rec = 98.0% ✓		(599512)
C38	11.502	0.010	429.0	1011	Triacon Surrogate Rec = 97.9%		(539410)
C40	12.109	-0.018	369	289			
o-terph	6.399	0.005	658617	599512			
Triacon Surr	9.290	-0.001	406227	539410			

Range Times: NW Diesel(4.479 - 7.734) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.73 - 11.49) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



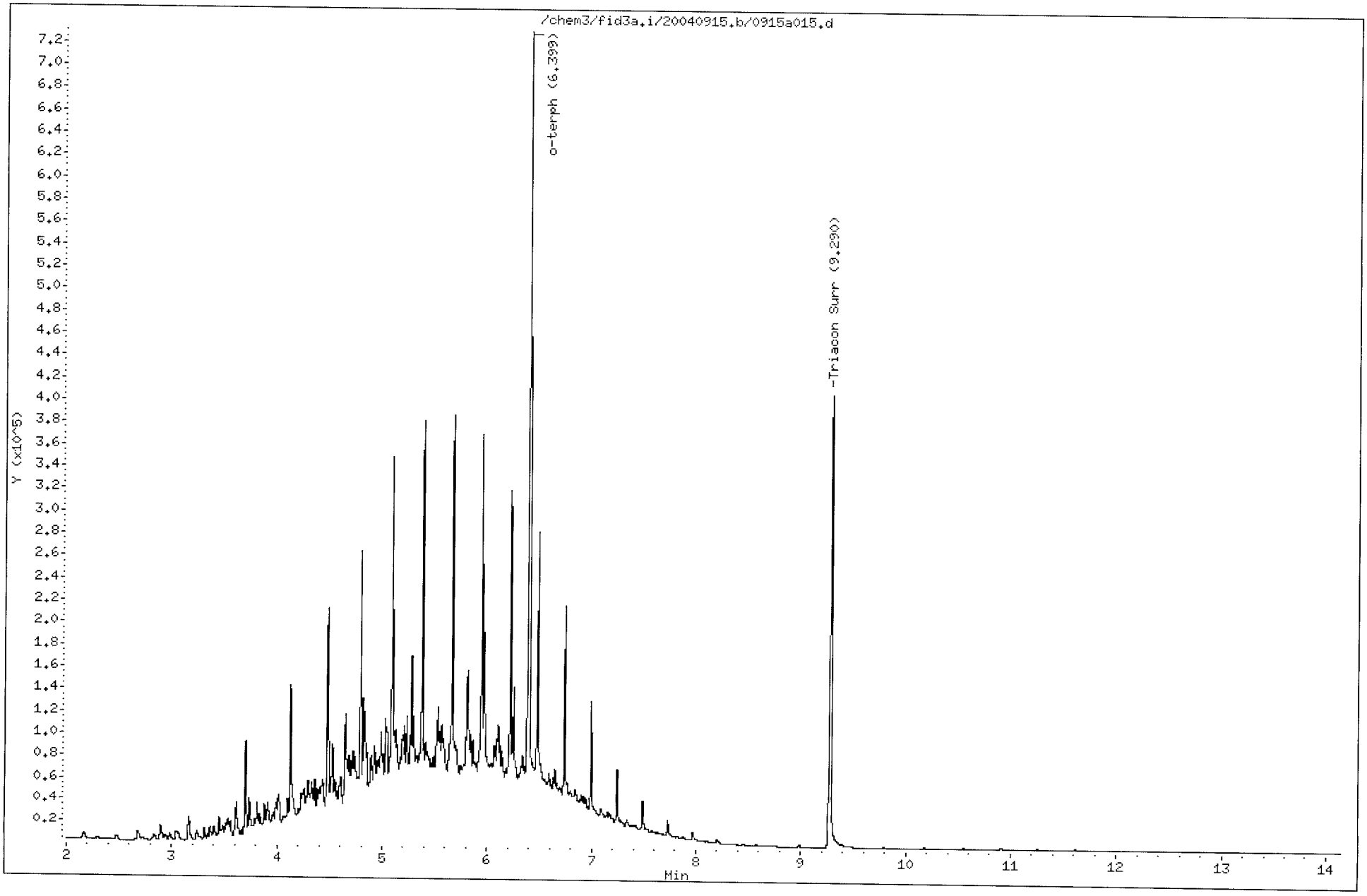
Data File: /chem3/fid3a.i/20040915.b/0915a015.d
Date : 15-SEP-2004 16:22
Client ID:
Sample Info: HA44LCSW1

Column phase: RTX-1

Instrument: fid3a.i

Operator: AR
Column diameter: 2.00

000198



Analytical Resources Inc.
TPH Quantitation Report

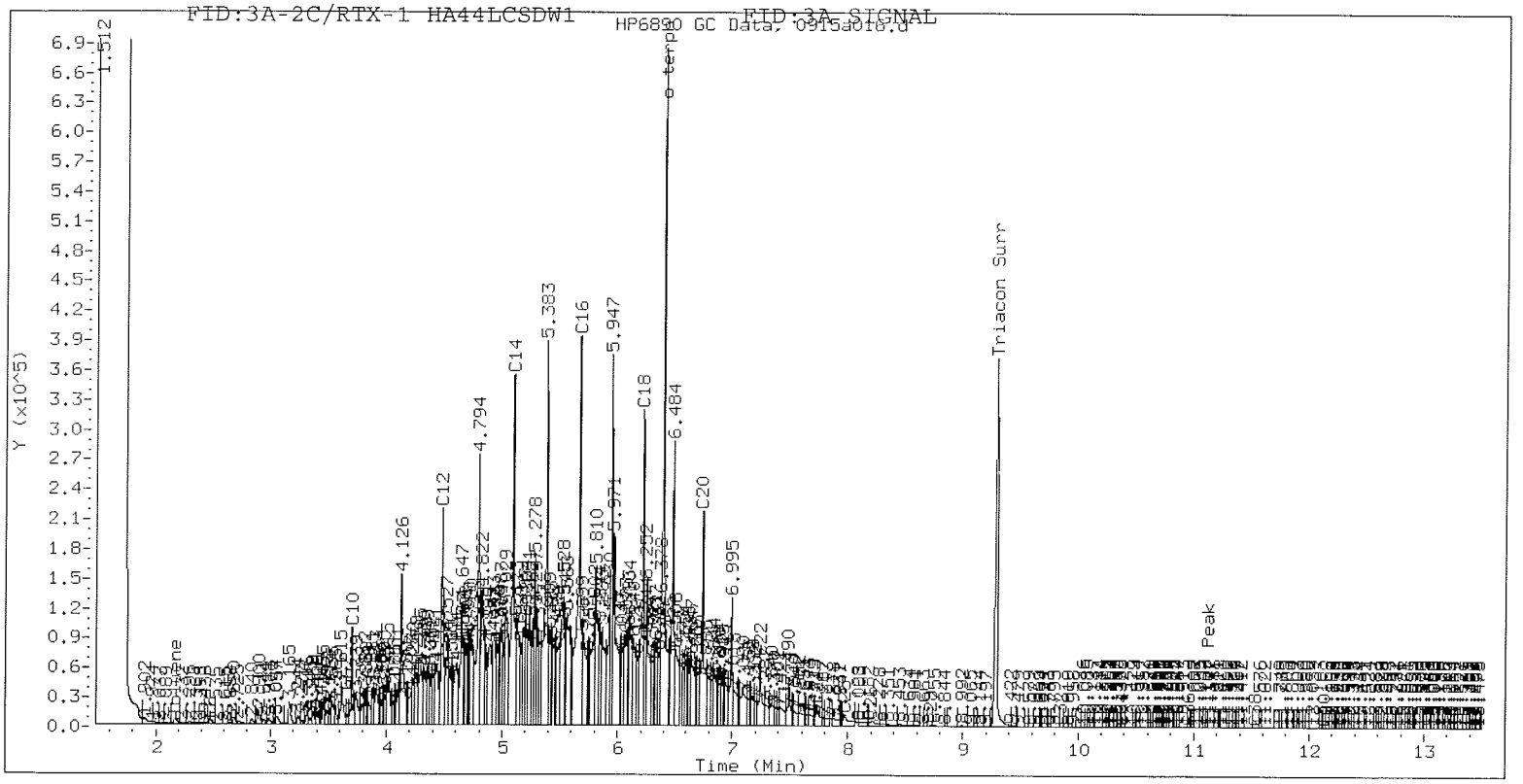
Data file: /chem3/fid3a.i/20040915.b/0915a016.d
Method: /chem3/fid3a.i/20040915.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: AR
Report Date: 09/20/2004
Macro: 15-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:15-SEP-2004
OR.MOIL:15-SEP-2004

ARI ID: HA44LCSDW1
Client ID:
Injection: 15-SEP-2004 16:45
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.171	0.027	5552	14076	GAS (Tol-C12)	2536957	351
C8	2.480	0.017	4670	8420	DIESEL (C12-C24)	13459274	1163 77.5%
C10	3.703	0.004	98757	106431	M.OIL (C24-C38)	228641	34
C12	4.478	-0.001	219113	272574			
C14	5.092	0.000	353839	485189			
C16	5.668	0.003	393353	635970			
C18	6.220	0.003	318865	386254	OR.MOIL (C28-C40)	41463	6
C20	6.742	0.001	216784	310080			
C22	7.244	-0.001	69057	122293			
C24	7.732	-0.002	22202	47406			
C25	7.969	-0.002	11568	43060			
C26	8.203	0.004	5693	19467			
C28	8.721	0.016	1292	2462			
C32	9.849	-0.007	92	124			
C34	10.389	-0.027	151	248			
Filter Peak	11.120	-0.002	390	341			
C36	10.961	0.006	335.0	411	o-Terph Surrogate Rec = 73.5% ✓		(449657)
C38	11.539	0.048	385.0	1198	Triacon Surrogate Rec = 88.3%		(486828)
C40	12.128	0.000	321	420			
o-terph	6.398	0.003	577894	449657			
Triacon Surr	9.291	0.000	371235	486828			

Range Times: NW Diesel(4.479 - 7.734) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.73 - 11.49) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



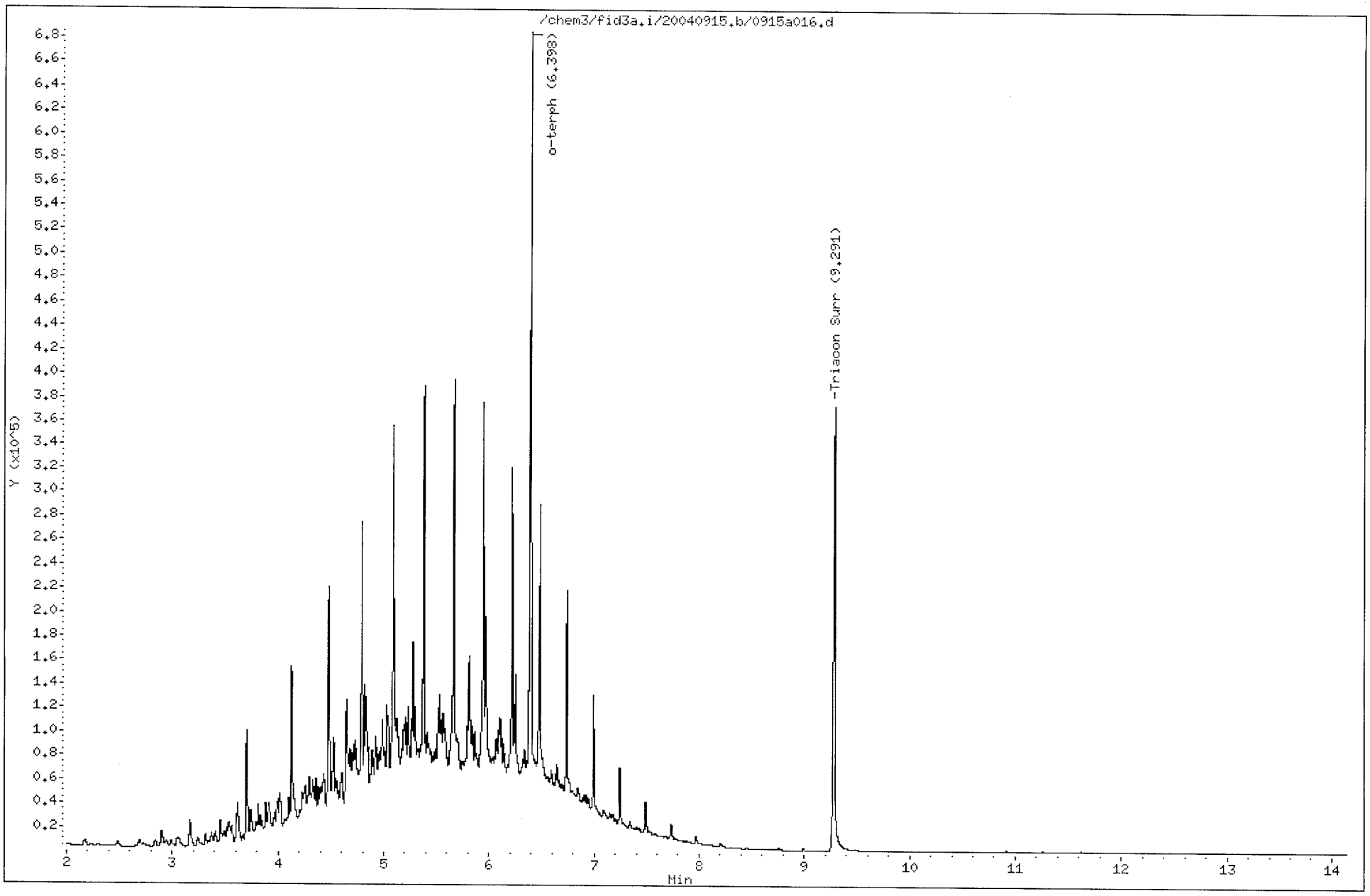
Data File: /chem3/fid3a.i/20040915.b/0915a016.d
Date : 15-SEP-2004 16:45
Client ID:
Sample Info: HA44LCSDW1

Column phase: RTX-1

Instrument: fid3a.i

Operator: AR
Column diameter: 2.00

000200



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid3a.i/20040910.b/0910a054.d
Method: /chem3/fid3a.i/20040910.b/acidsilfid3a.m
Instrument: fid3a.i
Operator: ESJ
Report Date: 09/11/2004
Macro: 01-SEP-2004
Calibration Dates: Gas:11-JUN-2004 Diesel:04-AUG-2004 M.Oil:01-SEP-2004
OR.MOIL:01-SEP-2004

ARI ID: HA44LCSW1
Client ID:
Injection: 11-SEP-2004 09:35

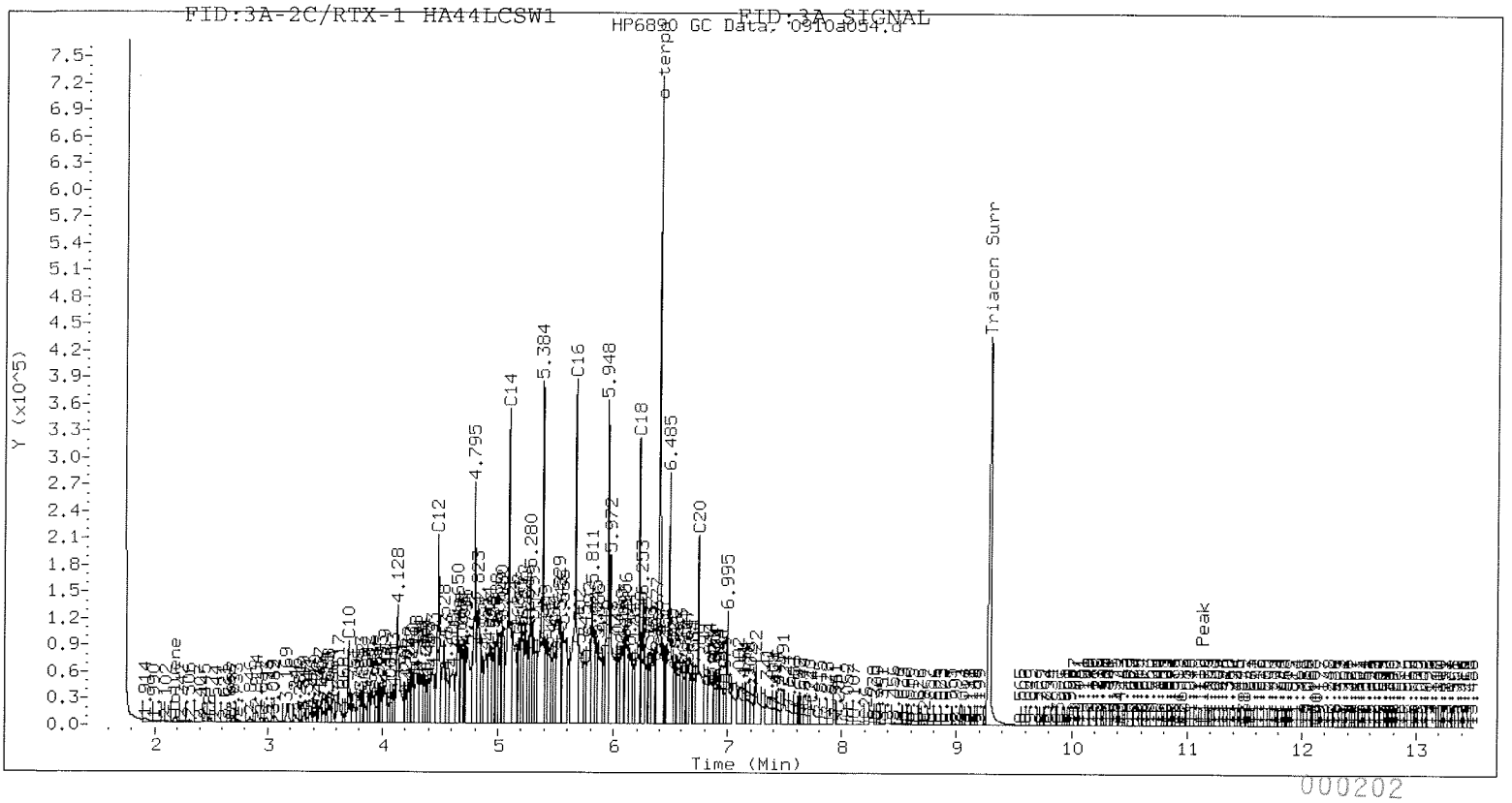
Dilution Factor: 1

9/11/04

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	2.179	0.011	5750	14030	GAS (Tol-C12)	2426369	336
C8	2.489	0.009	4689	8325	DIESEL (C12-C24)	12933029	1117 74.5%
C10	3.705	0.000	92647	101346	M.OIL (C24-C38)	221419	26
C12	4.480	-0.003	212526	268298			
C14	5.094	-0.002	352994	465350			
C16	5.669	0.000	386877	603251			
C18	6.221	0.001	320952	355853	OR.MOIL (C28-C40)	28243	3
C20	6.743	-0.001	212060	316315			
C22	7.244	-0.004	67861	123733			
C24	7.733	-0.004	22261	61187			
C25	7.972	-0.001	11186	38735			
C26	8.208	0.007	5335	12621			
C28	8.718	0.009	1671	3374			
C32	9.885	0.022	135	263			
C34	10.416	-0.008	26	20			
Filter Peak	11.138	0.011	140	178			
C36	10.948	-0.015	101.0	220	o-Terph Surrogate Rec = 84.8%		(518991)
C38	11.507	0.009	163.0	163	Triacon Surrogate Rec = 110.7%		(609951)
C40	12.129	-0.002	132	159			
o-terph	6.400	0.001	640516	518991			
Triacon Surr	9.293	-0.008	435991	609951			

Range Times: NW Diesel(4.483 - 7.737) AK102(3.70 - 7.97) Jet A(3.70 - 6.22)
NW M.Oil(7.74 - 11.50) AK103(7.97 - 10.96) OR Diesel(3.70 - 8.71)



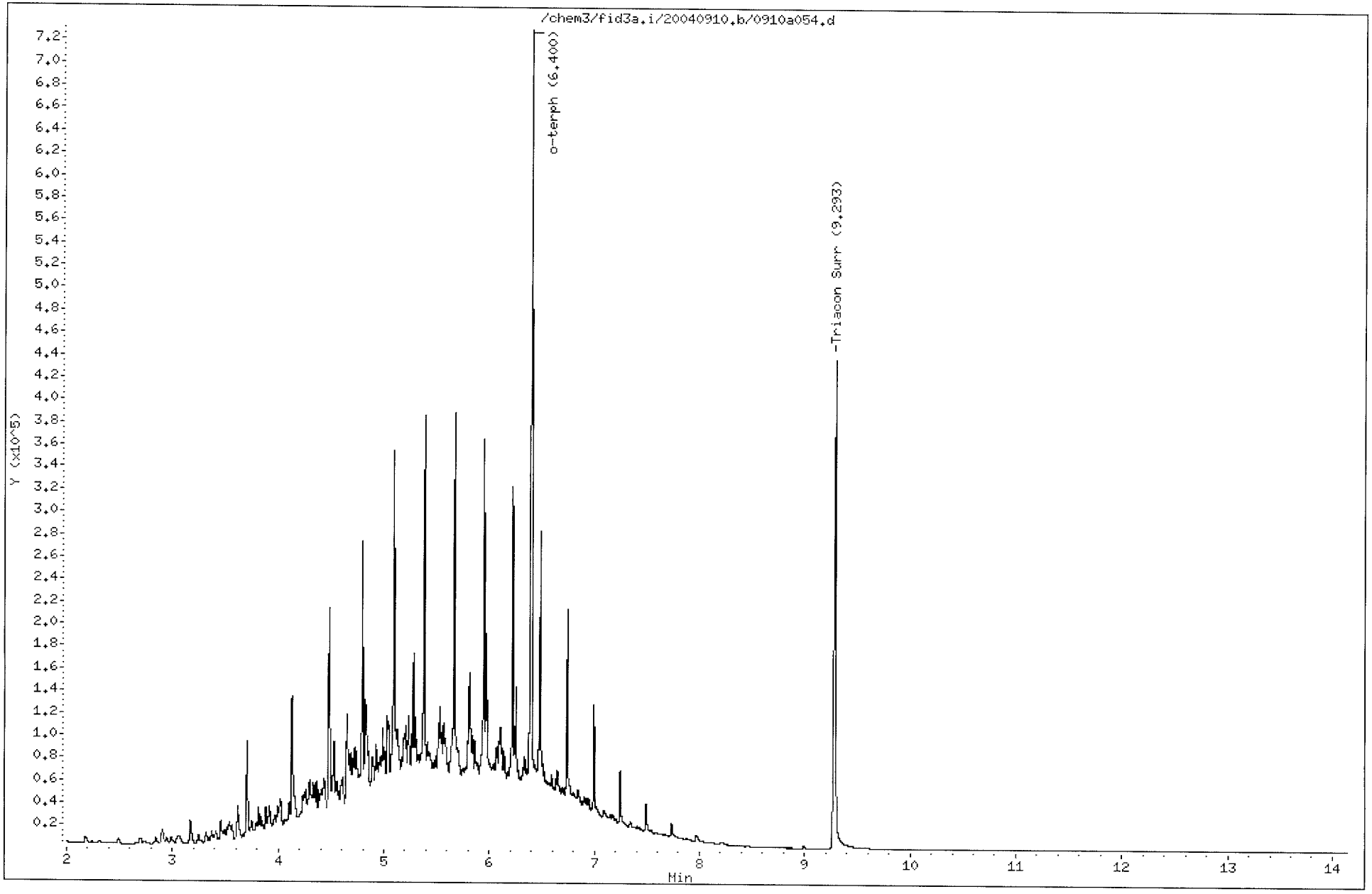
Data File: /chem3/fid3a.i/20040910.b/0910a054.d
Date : 11-SEP-2004 09:35
Client ID:
Sample Info: HA44LCSW1

Column phase: RTX-1

Instrument: fid3a.i

Operator: ESJ
Column diameter: 2.00

000203



ANALYTICAL RESOURCES INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009

Client ID	O-TER	TOT OUT
MB-090704	89.6%	0
LCS-090704	98.0%	0
LCSD-090704	73.6%	0
MW-102	93.6%	0
MW-104	94.7%	0
MW-108	97.3%	0
MW-109	86.4%	0
MW-110	84.0%	0
MB-090604	92.7%	0
LCS-090604	84.9%	0
MW-111	77.6%	0
MW-111 MS	66.4%	0
MW-111 MSD	80.2%	0
MW-112	96.9%	0
MW-202	85.8%	0

	LCS/MB LIMITS	QC LIMITS
(O-TER) = o-Terphenyl	(55-110)	(32-116)

Prep Method: SW3510C
Log Number Range: 04-14095 to 04-14102

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water
Date Received: 09/01/04

ARI Job: HA44
Project: Port of Anacortes Uplands 529009

ARI ID	Client ID	Client Amt	Final Vol	Prep Date
04-14095-090704MB1	Method Blank	500 mL	1.00 mL	09/07/04
04-14095-090704LCS1	Lab Control	500 mL	1.00 mL	09/07/04
04-14095-090704LCSD1	Lab Control Dup	500 mL	1.00 mL	09/07/04
04-14095-HA44A	MW-102	465 mL	1.00 mL	09/07/04
04-14096-HA44B	MW-104	460 mL	1.00 mL	09/07/04
04-14097-HA44C	MW-108	485 mL	1.00 mL	09/07/04
04-14098-HA44D	MW-109	460 mL	1.00 mL	09/07/04
04-14099-HA44E	MW-110	435 mL	1.00 mL	09/07/04
04-14100-090604MB1	Method Blank	500 mL	1.00 mL	09/06/04
04-14100-090604LCS1	Lab Control	500 mL	1.00 mL	09/06/04
04-14100-HA44F	MW-111	500 mL	1.00 mL	09/06/04
04-14100-HA44FMS	MW-111	500 mL	1.00 mL	09/06/04
04-14100-HA44FMSD	MW-111	500 mL	1.00 mL	09/06/04
04-14101-HA44G	MW-112	480 mL	1.00 mL	09/07/04
04-14102-HA44H	MW-202	465 mL	1.00 mL	09/07/04

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1

Sample ID: MW-111
MS/MSD

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/20/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted MS/MSD: 09/06/04

Date Analyzed MS: 09/11/04 10:19
MSD: 09/11/04 10:41
Instrument/Analyst MS: FID/AAR
MSD: FID/AAR

Sample Amount MS: 500 mL
MSD: 500 mL
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 1.00
MSD: 1.00

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	< 0.25	1.91	3.00	63.7%	2.02	3.00	67.3%	5.6%

Results reported in mg/L
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1

Sample ID: LCS-090704
LCS/LCSD

Lab Sample ID: LCS-090704
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/20/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Date Extracted LCS/LCSD: 09/07/04
Date Analyzed LCS: 09/15/04 16:22
LCSD: 09/15/04 16:45
Instrument/Analyst LCS: FID/AAR
LCSD: FID/AAR

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.25	3.00	75.0%	2.33	3.00	77.7%	3.5%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	98.0%	73.6%

Results reported in mg/L
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1

Sample ID: LCS-090604
LAB CONTROL

Lab Sample ID: LCS-090604
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/20/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Date Extracted: 09/06/04
Date Analyzed: 09/11/04 09:35
Instrument/Analyst: FID/AAR

Sample Amount: 500 mL
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00

Range	Lab Control	Spike Added	Recovery
Diesel	2.23	3.00	74.3%

TPHD Surrogate Recovery

o-Terphenyl	84.9%

Results reported in mg/L

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: HA44MB
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.2	0.2	U
200.8	09/06/04	200.8	09/09/04	7440-38-2	Arsenic	0.2	0.2	U
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.2	0.2	U
200.8	09/06/04	200.8	09/09/04	7440-50-8	Copper	0.5	0.5	U
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	7440-02-0	Nickel	0.5	0.5	U
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-111
MATRIX SPIKE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.500 U	23.8	25.0	95.2%	
Arsenic	200.8	6.88	31.5	25.0	98.5%	
Cadmium	200.8	0.500 U	22.4	25.0	89.6%	
Copper	200.8	2.38	24.1	25.0	86.9%	
Lead	200.8	1.00 U	20.5	25.0	82.0%	
Mercury	7470A	0.100 U	0.880	1.00	88.0%	
Nickel	200.8	6.42	29.3	25.0	91.5%	
Thallium	200.8	0.200 U	20.3	25.0	81.2%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: HA44LCS
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	23.4	25.0	93.6%	
Arsenic	200.8	25.9	25.0	104%	
Cadmium	200.8	25.1	25.0	100%	
Copper	200.8	27.0	25.0	108%	
Lead	200.8	23.2	25.0	92.8%	
Mercury	7470A	2.09	2.00	104%	
Nickel	200.8	24.7	25.0	98.8%	
Thallium	200.8	23.0	25.0	92.0%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-102
SAMPLE

Lab Sample ID: HA44A
LIMS ID: 04-14095
Matrix: Water
Data Release Authorized: BK
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	1	**46**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	**2**	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	**15.6**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-202
SAMPLE

Lab Sample ID: HA44H
LIMS ID: 04-14102
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	7440-38-2	Arsenic	1	63	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	7440-50-8	Copper	1	2	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	7440-02-0	Nickel	0.5	18.7	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-104
SAMPLE

Lab Sample ID: HA44B
LIMS ID: 04-14096
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	0.5	**2.1**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	**1**	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/16/04	**7440-02-0**	**Nickel**	0.5	**9.4**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-108
SAMPLE

Lab Sample ID: HA44C
LIMS ID: 04-14097
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	7440-38-2	Arsenic	1	1	U
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	7440-50-8	Copper	1	4	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	7440-02-0	Nickel	0.5	2.9	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-109
SAMPLE

Lab Sample ID: HA44D
LIMS ID: 04-14098
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	0.5	**1.8**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	**1**	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	**14.7**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-110
SAMPLE

Lab Sample ID: HA44E
LIMS ID: 04-14099
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	1	7	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	5	
200.8	09/06/04	200.8	09/08/04	**7439-92-1**	**Lead**	1	2	
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	15.6	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-111
SAMPLE

Lab Sample ID: HA44F
LIMS ID: 04-14100
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	1	**7**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	**2**	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	**6.4**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW-112
SAMPLE

Lab Sample ID: HA44G
LIMS ID: 04-14101
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	0.5	**7.6**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	**8**	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	**5.8**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: HA44MB
LIMS ID: 04-14104
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.2	0.2	U
200.8	09/06/04	200.8	09/09/04	7440-38-2	Arsenic	0.2	0.2	U
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.2	0.2	U
200.8	09/06/04	200.8	09/09/04	7440-50-8	Copper	0.5	0.5	U
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	7440-02-0	Nickel	0.5	0.5	U
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: HA44MB
LIMS ID: 04-14104
Matrix: Water
Data Release Authorized:
Reported: 10/29/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.2	0.2	U
200.8	09/13/04	200.8	09/15/04	7440-38-2	Arsenic	0.2	0.2	U
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.2	0.2	U
200.8	09/06/04	200.8	09/09/04	7440-50-8	Copper	0.5	0.5	U
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	7440-02-0	Nickel	0.5	0.5	U
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-111
MATRIX SPIKE

Lab Sample ID: HA44O
LIMS ID: 04-14109
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.5 U	23.8	25.0	95.2%	
Arsenic	200.8	7.9	32.7	25.0	99.2%	
Cadmium	200.8	0.5 U	22.1	25.0	88.4%	
Copper	200.8	2	24	25	88.0%	
Lead	200.8	1 U	22	25	88.0%	
Mercury	7470A	0.1 U	0.8	1.0	80.0%	
Nickel	200.8	6.2	30.5	25.0	97.2%	
Thallium	200.8	0.2 U	21.3	25.0	85.2%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-111
DUPLICATE

Lab Sample ID: HA44O
LIMS ID: 04-14109
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Arsenic	200.8	7.9	7.5	5.2%	+/- 20%	
Cadmium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Copper	200.8	2	1	66.7%	+/- 1	L
Lead	200.8	1 U	1 U	0.0%	+/- 1	L
Mercury	7470A	0.1 U	0.1 U	0.0%	+/- 0.1	L
Nickel	200.8	6.2	6.0	3.3%	+/- 20%	
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: HA44LCS
LIMS ID: 04-14104
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.1	25.0	96.4%	
Arsenic	200.8	24.5	25.0	98.0%	
Cadmium	200.8	23.9	25.0	95.6%	
Copper	200.8	25.4	25.0	102%	
Lead	200.8	26	25	104%	
Mercury	7470A	2.1	2.0	105%	
Nickel	200.8	25.4	25.0	102%	
Thallium	200.8	25.7	25.0	103%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: HA44LCS
LIMS ID: 04-14104
Matrix: Water
Data Release Authorized:
Reported: 10/29/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.1	25.0	96.4%	
Arsenic	200.8	24.6	25.0	98.4%	
Cadmium	200.8	23.9	25.0	95.6%	
Copper	200.8	25.4	25.0	102%	
Lead	200.8	26	25	104%	
Mercury	7470A	2.1	2.0	105%	
Nickel	200.8	25.4	25.0	102%	
Thallium	200.8	25.7	25.0	103%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-102
SAMPLE

Lab Sample ID: HA44J
LIMS ID: 04-14104
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	1	**67**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	**1**	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	**19.1**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-202
SAMPLE

Lab Sample ID: HA44Q
LIMS ID: 04-14111
Matrix: Water
Data Release Authorized:
Reported: 10/29/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/13/04	200.8	09/15/04	**7440-38-2**	**Arsenic**	0.2	**38.9**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	**2**	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	**15.6**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-104
SAMPLE

Lab Sample ID: HA44K
LIMS ID: 04-14105
Matrix: Water
Data Release Authorized: BL
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	0.5	**2.0**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	7440-50-8	Copper	1	1	U
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	**9.4**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: MW-108
SAMPLE

Lab Sample ID: HA44L
LIMS ID: 04-14106
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	7440-38-2	Arsenic	1	1	U
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	7440-50-8	Copper	1	1	U
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	7440-02-0	Nickel	0.5	2.8	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-109
SAMPLE

Lab Sample ID: HA44M
LIMS ID: 04-14107
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	7440-38-2	Arsenic	1	1	U
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	7440-50-8	Copper	1	1	U
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/16/04	**7440-02-0**	**Nickel**	0.5	**14.2**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-110
SAMPLE

Lab Sample ID: HA44N
LIMS ID: 04-14108
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	1	**4**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	**1**	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	**12.6**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-111
SAMPLE

Lab Sample ID: HA44O
LIMS ID: 04-14109
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	0.5	**7.9**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	**2**	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	**6.2**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-112
SAMPLE

Lab Sample ID: HA44P
LIMS ID: 04-14110
Matrix: Water
Data Release Authorized:
Reported: 09/17/04

QC Report No: HA44-Landau Associates
Project: Port of Anacortes Uplands
529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	09/06/04	200.8	09/09/04	7440-36-0	Antimony	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-38-2**	**Arsenic**	0.5	**7.5**	
200.8	09/06/04	200.8	09/09/04	7440-43-9	Cadmium	0.5	0.5	U
200.8	09/06/04	200.8	09/09/04	**7440-50-8**	**Copper**	1	**2**	
200.8	09/06/04	200.8	09/08/04	7439-92-1	Lead	1	1	U
7470	09/06/04	7470A	09/10/04	7439-97-6	Mercury	0.1	0.1	U
200.8	09/13/04	200.8	09/15/04	**7440-02-0**	**Nickel**	0.5	**6.6**	
200.8	09/06/04	200.8	09/08/04	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

METHOD BLANK RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	Blank
Chloride	09/16/04 12:31	mg/L	< 1.0 U
N-Ammonia	09/07/04 16:28	mg-N/L	< 0.010 U
N-Nitrite	09/02/04 07:30	mg-N/L	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	09/02/04 07:30	mg-N/L	< 0.010 U
Sulfate	09/10/04 17:45	mg/L	< 2.0 U
	09/15/04 16:11		< 2.0 U
Sulfide	09/04/04 17:00	mg/L	< 0.05 U
Phenol	09/20/04 16:00	mg/L	< 0.04 U

MS/MSD RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix; Water
Data Release Authorized: OK
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: HA44F Client ID: MW-111						
Chloride	09/16/04	mg/L	1,130	3,560	2,500	97.2%
N-Ammonia	09/07/04	mg-N/L	3.89	8.95	5.00	101.2%
N-Nitrite	09/02/04	mg-N/L	< 0.010	0.507	0.500	101.4%
Nitrate + Nitrite (NO3+NO2)	09/02/04	mg-N/L	< 0.010	0.494	0.500	98.8%
Sulfate	09/10/04	mg/L	249	1,170	1,000	92.1%
Sulfide	09/04/04	mg/L	< 0.05	5.07	6.53	77.6%
Phenol	09/20/04	mg/L	< 0.04	0.39	0.40	97.5%

REPLICATE RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: [signature]
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: HA44F Client ID: MW-111					
Chloride	09/16/04	mg/L	1,130	1,120	0.9%
N-Ammonia	09/07/04	mg-N/L	3.89	3.87	0.5%
N-Nitrite	09/02/04	mg-N/L	< 0.010	< 0.010	NA
Nitrate + Nitrite (NO3+NO2)	09/02/04	mg-N/L	< 0.010	< 0.010	NA
Sulfate	09/10/04	mg/L	249	253	1.6%
Sulfide	09/04/04	mg/L	< 0.05	< 0.05	NA
Phenol	09/20/04	mg/L	< 0.04	0.07	NA

STANDARD REFERENCE RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date/Time	Units	SRM	True Value	Recovery
Chloride ERA #22013	09/16/04 12:31	mg/L	5.0	5.0	100.0%
N-Ammonia ERA #03043	09/07/04 16:28	mg-N/L	0.492	0.500	98.4%
N-Nitrite ERA #23034	09/02/04 07:30	mg-N/L	0.500	0.500	100.0%
Nitrate + Nitrite (NO3+NO2) ERA #20034	09/02/04 07:30	mg-N/L	0.495	0.500	99.0%
Sulfate ERA #08116	09/10/04 17:45 09/15/04 16:11	mg/L	26.1 26.7	25.0 25.0	104.4% 106.8%
Phenol ERA 23073.2	09/20/04 16:00	mg/L	0.49	0.50	98.0%

LAB CONTROL RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: DAT
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	LCS	Spike Added	Recovery
Sulfide	09/04/04 17:00	mg/L	5.69	6.53	87.1%

SAMPLE RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: AH
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Client ID: MW-102
ARI ID: 04-14095 HA44A

Analyte	Date/Time Batch	Method	Units	RL	Sample
Chloride	09/16/04 12:31 091604#1	EPA 325.2	mg/L	500	2,680
N-Ammonia	09/07/04 16:28 090704#2	EPA 350.1M	mg-N/L	0.250	14.4
N-Nitrate	09/02/04 07:30	Calculated	mg-N/L	0.020	< 0.010 U
N-Nitrite	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.020	0.049
Nitrate + Nitrite (NO3+NO2)	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.020	0.042
Sulfate	09/15/04 16:11 091504#1	EPA 375.2	mg/L	10.0	118
Sulfide	09/04/04 17:00 090404#1	EPA 376.2	mg/L	0.05	< 0.05 U
Phenol	09/20/04 16:00 092004#1	EPA 420.1	mg/L	0.04	< 0.04 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: 04
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Client ID: MW-202
ARI ID: 04-14102 HA44H

Analyte	Date/Time Batch	Method	Units	RL	Sample
Chloride	09/16/04 12:31 091604#1	EPA 325.2	mg/L	200	1,780
N-Ammonia	09/07/04 16:28 090704#2	EPA 350.1M	mg-N/L	0.250	14.8
N-Nitrate	09/02/04 07:30	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Sulfate	09/10/04 17:45 091004#1	EPA 375.2	mg/L	10.0	108
Sulfide	09/04/04 17:00 090404#1	EPA 376.2	mg/L	0.05	< 0.05 U
Phenol	09/20/04 16:00 092004#1	EPA 420.1	mg/L	0.04	0.09

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: QA
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Client ID: MW-104
ARI ID: 04-14096 HA44B

Analyte	Date/Time Batch	Method	Units	RL	Sample
Chloride	09/16/04 12:31 091604#1	EPA 325.2	mg/L	5.0	42.9
N-Ammonia	09/07/04 16:28 090704#2	EPA 350.1M	mg-N/L	0.100	6.55
N-Nitrate	09/02/04 07:30	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Sulfate	09/15/04 16:11 091504#1	EPA 375.2	mg/L	2.0	9.2
Sulfide	09/04/04 17:00 090404#1	EPA 376.2	mg/L	0.05	< 0.05 U
Phenol	09/20/04 16:00 092004#1	EPA 420.1	mg/L	0.04	< 0.04 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Client ID: MW-108
ARI ID: 04-14097 HA44C

Analyte	Date/Time Batch	Method	Units	RL	Sample
Chloride	09/16/04 12:31 091604#1	EPA 325.2	mg/L	100	361
N-Ammonia	09/07/04 16:28 090704#2	EPA 350.1M	mg-N/L	0.050	2.35
N-Nitrate	09/02/04 07:30	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	0.022
Nitrate + Nitrite (NO3+NO2)	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	0.017
Sulfate	09/10/04 17:45 091004#1	EPA 375.2	mg/L	10.0	38.5
Sulfide	09/04/04 17:00 090404#1	EPA 376.2	mg/L	1.00	4.48
Phenol	09/20/04 16:00 092004#1	EPA 420.1	mg/L	0.04	< 0.04 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Client ID: MW-109
ARI ID: 04-14098 HA44D

Analyte	Date/Time Batch	Method	Units	RL	Sample
Chloride	09/16/04 12:31 091604#1	EPA 325.2	mg/L	100	739
N-Ammonia	09/07/04 16:28 090704#2	EPA 350.1M	mg-N/L	0.100	7.03
N-Nitrate	09/02/04 07:30	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Sulfate	09/10/04 17:45 091004#1	EPA 375.2	mg/L	2.0	21.7
Sulfide	09/04/04 17:00 090404#1	EPA 376.2	mg/L	0.05	0.07
Phenol	09/20/04 16:00 092004#1	EPA 420.1	mg/L	0.04	< 0.04 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Client ID: MW-110
ARI ID: 04-14099 HA44E

Analyte	Date/Time Batch	Method	Units	RL	Sample
Chloride	09/16/04 12:31 091604#1	EPA 325.2	mg/L	200	1,680
N-Ammonia	09/07/04 16:28 090704#2	EPA 350.1M	mg-N/L	0.500	26.4
N-Nitrate	09/02/04 07:30	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	0.021
Nitrate + Nitrite (NO3+NO2)	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	0.016
Sulfate	09/10/04 17:45 091004#1	EPA 375.2	mg/L	10.0	49.0
Sulfide	09/04/04 17:00 090404#1	EPA 376.2	mg/L	0.50	3.81
Phenol	09/20/04 16:00 092004#1	EPA 420.1	mg/L	0.04	0.09

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: 08/30/04
Date Received: 09/01/04

Client ID: MW-111
ARI ID: 04-14100 HA44F

Analyte	Date/Time Batch	Method	Units	RL	Sample
Chloride	09/16/04 12:31 091604#1	EPA 325.2	mg/L	200	1,130
N-Ammonia	09/07/04 16:28 090704#2	EPA 350.1M	mg-N/L	0.050	3.89
N-Nitrate	09/02/04 07:30	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Sulfate	09/10/04 17:45 091004#1	EPA 375.2	mg/L	20.0	249
Sulfide	09/04/04 17:00 090404#1	EPA 376.2	mg/L	0.05	< 0.05 U
Phenol	09/20/04 16:00 092004#1	EPA 420.1	mg/L	0.04	< 0.04 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
HA44-Landau Associates

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 09/21/04

Project: Port of Anacortes Uplands
Event: 529009
Date Sampled: 08/31/04
Date Received: 09/01/04

Client ID: MW-112
ARI ID: 04-14101 HA44G

Analyte	Date/Time Batch	Method	Units	RL	Sample
Chloride	09/16/04 12:31 091604#1	EPA 325.2	mg/L	100	293
N-Ammonia	09/07/04 16:28 090704#2	EPA 350.1M	mg-N/L	0.050	3.01
N-Nitrate	09/02/04 07:30	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite (NO3+NO2)	09/02/04 07:30 090204#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Sulfate	09/10/04 17:45 091004#1	EPA 375.2	mg/L	2.0	16.8
Sulfide	09/04/04 17:00 090404#1	EPA 376.2	mg/L	0.05	< 0.05 U
Phenol	09/20/04 16:00 092004#1	EPA 420.1	mg/L	0.04	< 0.04 U

RL Analytical reporting limit
U Undetected at reported detection limit

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES

3927 AURORA AVENUE NORTH, SEATTLE, WA 98103

PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER: ARI096-60,61 **PAGE 1**

REPORT DATE: 09/09/04

DATE SAMPLED: 08/30,31/04 **DATE RECEIVED:** 09/02/04

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM ANALYTICAL RESOURCES / HA23,HA44

CASE NARRATIVE

Thirteen water samples were received by the laboratory in good condition. The samples were analyzed according to the chain-of-custody. The matrix spike sample was diluted to bring it into the analytical range resultting in less than optimal recovery. No other difficulties were encountered in the preparation or analysis of these samples. Sample data'follows while QA/QC data is contained on the subsequent page.

SAMPLE DATA

SAMPLE ID	LAB ID	TANNINS/LIGNINS (mg/l)
MW-101	04-13881-HA23A	21.6
MW-103	04-13882-HA23B	6.47
MW-105	04-13883-HA23C	1.81
MW-106	04-13884-HA23D	2.96
MW-107	04-13885-HA23E	1.88
MW-102	04-14095-HA44A	12.3
MW-104	04-14096-HA44B	4.03
MW-108	04-14097-HA44C	7.40
MW-109	04-14098-HA44D	6.58
MW-110	04-14099-HA44E	17.2
MW-111	04-14100-HA44F	5.86
MW-112	04-14101-HA44G	2.67
MW-202	04-14102-HA44H	12.1

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES

3927 AURORA AVENUE NORTH, SEATTLE, WA 98103

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CASE FILE NUMBER:	**ARI096-60,61**	**PAGE 2**	
REPORT DATE:	**09/09/04**		
DATE SAMPLED:	**08/30,31/04**	**DATE RECEIVED:**	**09/02/04**

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM ANALYTICAL RESOURCES / HA23,HA44

QA/QC DATA

QC PARAMETER	TANNINS/LIGNINS (mg/l)
METHOD	SM18 5550B
DATE ANALYZED	09/08/04
DETECTION LIMIT	0.010
DUPLICATE	
SAMPLE ID	BATCH
ORIGINAL	1.40
DUPLICATE	1.43
RPD	2.48%
SPIKE SAMPLE	
SAMPLE ID	BATCH
ORIGINAL	1.40
SPIKED SAMPLE	2.19
SPIKE ADDED	1.00
% RECOVERY	79.13%
QC CHECK	
FOUND	1.07
TRUE	1.00
% RECOVERY	106.59%
BLANK	<0.010

RPD = RELATIVE PERCENT DIFFERENCE.
NA = NOT APPLICABLE OR NOT AVAILABLE.
NC = NOT CALCULABLE DUE TO ONE OR MORE VALUES BEING BELOW THE DETECTION LIMIT.
OR = RECOVERY NOT CALCULABLE DUE TO SPIKE SAMPLE OUT OF RANGE OR SPIKE TO LOW RELATIVE TO SAMPLE CONCENTRATION.

SUBMITTED BY:

Steven Lazoff

Laboratory Director