APPENDIX E

MAULSBY MARSH SEDIMENT RESULTS

Description: Provides a data report summarizing the results of the sediment sampling and characterization for Maulsby Marsh. It includes a summary of the field sampling collection performed, validated chemical analyses, and the salinity testing. This data is used to confirm that contaminants detected in the marsh sediments are not attributable to Site releases.

MAULSBY MARSH
SEDIMENT CHARACTERIZATION

Jeld-Wen, Inc.

Former Nord Door Site

300 West Marine View Drive

Everett, Washington 98201

Prepared for:

Jeld-Wen, Inc.

Klamath Fall, Oregon

and

Washington Department of Ecology

Olympia, Washington

Prepared by:

SLR International Corporation
1800 Blankenship Road, Suite 440
West Linn, OR 97206

and

Anchor QEA, LLC
1201 3rd Avenue, Suite 2600
Seattle, WA 98101

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1 Introduction

Maulsby Marsh is located immediately east of the JELD-WEN former Nord Door facility located at 300 West Marine View Drive, Everett, Washington, 98201 (JELD-WEN Site), on the other side of Marine View Drive and the Burlington Northern Santa Fe (BNSF) railroad tracks from the Site (Figure E-1). Evaluations of soil conditions adjacent to the marsh in the BNSF right-of-way are summarized in the main body of the 2020 Remedial Investigation/Feasibility Study (RI/FS) Report.

1.1 Overview of Sediment Characterization

As part of initial RI/FS activities at the JELD-WEN Site, sediment sampling in Maulsby Marsh was performed in 2012. Sampling locations are depicted in Figure E-2. Sediment samples were collected and analyzed in a tiered approach as described in the sampling and analysis plan (SAP) (Attachment 1 of the Quality Assurance Project Plan [QAPP]; Anchor QEA 2012). Chemical analyses included polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH; Dx [diesel range]), extractable petroleum hydrocarbons (EPH), metals, semivolatile organic compounds (SVOCs), organochlorine pesticides, and conventional sediment parameters as listed in the QAPP Tables 4 and 5 (Anchor QEA 2012). Tiered sample collection and analysis was performed as follows:

- Eighteen sediment samples were collected in May 2012 (Figure E-2).
- The nine surface sediment samples located closest to the BNSF railroad tracks (MS001 through MS009) were submitted to the laboratory for analysis of PCBs, pesticides, metals, SVOCs, TPH, and sediment conventional analyses including grain size, total solids, total organic carbon, ammonia, and total sulfides. Materials collected from the remaining sample locations were submitted to the laboratory as archive samples.
- A portion of each sample was archived for possible EPH testing. All TPH testing was initially conducted on the first tier of nine samples collected using Northwest TPH (NWTPH) methods. The four sediment samples with the highest NWTPH concentrations, (MS001, MS002, MS003, and MS006) were tested further for EPH to further characterize the nature of hydrocarbons in these samples.

Maulsby Marsh sediment sampling and analysis data were also uploaded to the Washington State Department of Ecology (Ecology) EIM system following validation.

This document provides a summary of results from the first tier of sediment characterization work and includes a summary of the field sampling collection performed, validated chemical analyses, and the salinity testing. The scope of the sampling and analysis effort is described in the SAP (Attachment 1 to the QAPP; Anchor QEA 2012). This document also contains the grab collection and

processing forms (Attachment E-1), summaries of the chemical analyses and the raw data from the chemical analyses (Attachment E-2), and results from the data validation (Attachment E-3).

Based on review of the data summarized below, chemicals detected in the marsh sediments were not attributable to releases from the JELD-WEN Site. Therefore, no additional analysis of this area was required for the RI/FS, and archived samples were disposed of in consultation with Ecology.

1.2 Maulsby Marsh Salinity Monitoring

Water quality monitoring to characterize the salinity levels was performed at three locations: 1) at the marsh inlet; 2) in the north portion of the marsh; and 3) in the south portion of the marsh. Sample locations were determined in the field and are shown in Figure E-2. Water quality measurements for salinity were collected during the outgoing tide, just after the beginning of the ebb on May 30, 2012, following procedures described in the SAP.

2 Sample Collection and Handling

This section summarizes sediment sampling and processing and salinity measurements in the Maulsby Marsh area. Sediment sampling and processing and salinity measurements were performed in accordance with the SAP (Anchor QEA 2012).

2.1 Sediment Grab Sample Collection and Processing

Surface sediment samples were collected and processed from 18 locations within the Maulsby Marsh area (Figure E-2). Samples were collected on May 15, 2012, and submitted for tiered analysis as described in Section 1.1. Target sample locations were located using a Differential Global Positioning System (DGPS). Sediment sampling locations are shown in Figure E-2; Table E-1 presents the coordinates for the sampling locations. Surface sediment samples were collected from the 0- to 10-centimeter (cm) sediment interval for chemical and physical testing using hand collection procedures where sediments were exposed and using an Ekman-type grab sampler at locations that were covered by water.

Sediments collected were placed into a decontaminated bowl and homogenized using a stainless-steel spoon until the sediment appeared uniform in color and texture. Samples for total sulfide analysis were collected prior to sample homogenization as described in the SAP. Homogenized sediment was placed into appropriate pre-labeled sample containers and immediately placed into a cooler equipped with ice for transport to the laboratory. Prior to processing, sediments collected were described on field log forms. Copies of the field log forms are presented in Attachment E-1.

2.2 Maulsby Marsh Salinity Monitoring

Salinity monitoring was performed following an average high tide event on May 15, 2013 at three stations, as described in Section 1.2. Monitoring locations were accessed on foot; monitoring locations were identified using DGPS. Monitoring locations are listed in Table E-2 and presented in Figure E-2. Measurements were collected using a YSI 556 multi-parameter probe to collect measurements of temperature, conductivity, pH, salinity, and dissolved oxygen at each location.

Salinity measurements were made at the inlet of Maulsby Marsh from the edge of a small pool with approximately 8 inches of water. Water depth at the northern and southern locations of the marsh was generally only 2 inches deep. Salinity measurements were made at mid-depth within the water column at each location. Water quality measurements were recorded twice for each location to confirm that readings had stabilized. An average value for each parameter is presented for each location in Table E-2. Field log forms for salinity measurements are included in Attachment E-1.

3 Chemical Analysis

All sediment samples collected for analysis were submitted to Analytical Resources, Inc. (ARI) in Tukwila, Washington, according to procedures specified in the QAPP. As described in Section 1.1, the samples collected for the first tier of chemical characterization were submitted for the analysis of PAHs, PCBs, TPH-Dx (diesel range), EPH, metals, SVOCs, organochlorine pesticides, and conventional sediment parameters. The four samples with the highest TPH results (MS001, MS002, MS003, and MS006) were triggered for the analysis of EPH to further distinguish the different hydrocarbons present in these samples. Sediment chemical results and screening against Sediment Management Standards freshwater criteria are summarized in Table E-3. Some conventional, metal, and semivolatile organic compounds exceed the criteria, but are not related to Site-related chemicals.

4 Data Quality Summary

A review of the validation reports indicated that the overall data quality of the chemistry data generated is acceptable for use in site characterization. Laboratory results and raw data are presented in Attachment E-2.

Detailed data quality objectives and quality assurance (QA) procedures are provided in the QAPP (Anchor QEA 2012). Laboratory data packages were validated by Laboratory Data Consultants, Inc. (LDC) in Carlsbad, California, following U.S. Environmental Protection Agency (EPA) National Functional Guidelines (EPA 1999, 2004, 2008) and using the data quality objectives described in the QAPP (Anchor QEA 2012). All data went through Stage 2B validation (EPA 2009). Any data qualifiers applied to the data during the final validation procedures have been incorporated into the final database for this project. Data qualifiers assigned as a result of the data validation and their definitions are shown on the analytical results tables. All data were considered useable as reported or as qualified, and no data were rejected. The data may have been qualified as estimated for a particular analysis or analyte based on method or technical criteria outlined in the QAPP or as stated in the functional guidelines (EPA 1999, 2004, 2008). Data qualified with a "J" indicate that the associated numerical value is the approximate concentration of the analyte. Data qualified with a "UJ" indicate the approximate Practical Quantitation Limit (PQL) below which the analyte was not detected. In some cases, PQLs were elevated due to variations in sample size, moisture content, method blank contamination, or dilutions required to quantitate target analytes or overcome matrix interference. Results detected between the PQL and the MDL or EDL were qualified "J" by the laboratory to indicate they are estimated. The LDC validation report is presented in Attachment E-3.

4.1 Maulsby Marsh Sediments

Maulsby Marsh sediment samples were collected on May 15, 2012. The analytical methods and laboratories, sample transport and custody, field quality control, and laboratory quality control are discussed below.

4.1.1 Analytical Methods and Laboratories

All analyses were conducted at ARI in Tukwila, Washington, which is Ecology and National Environmental Laboratory Accreditation Conference (NELAC) certified for the analyses conducted. ARI followed the methods outlined in QAPP Table E-4, with a few exceptions. These exceptions were either equivalent methods or more updated versions of methods current when the QAPP was written so data are not expected to be impacted.

4.1.2 Sample Transport and Holding Times

Samples were received at the laboratories in good condition and within the recommended temperature range of 0°C to 6°C. Samples were prepared and analyzed within hold times outlined in the QAPP (Anchor QEA 2012).

4.1.3 Field Quality Control

Field quality control samples consisted of homogenization duplicates, equipment rinsate blanks, and field blanks. Field quality control samples were collected at the required frequencies. Field quality control results are discussed in detail in the data validation reports.

Field duplicate samples were analyzed for the same parameters as the parent samples and no results were qualified based on field duplicate results. Field and rinsate blanks were analyzed for metals, TPH, pesticides, and PCB Aroclors. Results were below detection with the exceptions of the low-level detections of copper, dimethyl phthalate, and din-n-butyl phthalate in the field blank, and dimethyl phthalate in the rinse blank. Sample results are not expected to be impacted and no data were qualified based on field blank results.

4.1.4 Laboratory Quality Control

The validation report indicates the majority of the data results did not require qualification. Some data were qualified as estimated based on data quality objective or method exceedances. Some sample results were qualified as estimated due to calibration results outside of method control limits, or surrogate, matrix spike (MS) and/or matrix spike duplicate (MSD) recoveries, laboratory control sample (LCS), and/or laboratory control sample duplicate (LCSD) recoveries outside of the project-specified control limits. All data are usable as reported or as qualified.

5 References

Anchor QEA, LLC (Anchor QEA). 2012. *Quality Assurance Project Plan. Marine and Maulsby Marsh Sediment Characterization, Jeld-Wen Former Nord Door Site*. Prepared for Jeld-Wen, May 2012.

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EPA (U.S. Environmental Protection Agency). 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*. U.S. Environmental Protection Agency, Office of Emergency Response. EPA 540/R-99/008. October.

EPA. 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation (OSRTI). EPA 540-R-04-004. October 2004.

EPA. 2008. *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. USEPA 540-R-08-01. June.

EPA. 2009. Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use. U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response. USEPA 540-R-08-005. January.

TABLES

Table E-1
Maulsby Marsh Sediment Chemistry Sample Locations

Station Identification	Northing[a]	Easting[a]
MS001	373077.557	1303979.674
MS002	372978.109	1303931.353
MS003	372894.59	1303875.229
MS004	372775.783	1303796.663
MS005	372647.601	1303699.822
MS006	372548.969	1303630.144
MS007	372467.3	1303563.406
MS008	372385.608	1303502.082
MS009	372309.629	1303436.059
MS010	372354.634	1303529.918
MS011	372541.045	1303675.104
MS012	372696.533	1303809.033
MS013	372813.933	1303884.242
MS014	373006.503	1304013.117
MS015	372895.999	1303996.539
MS016	372732.842	1303887.004
MS017	372581.449	1303782.63
MS018	372428.014	1303640.711

Notes:

a. NAD 83 US State Plane, Washington North Zone

Table E-2

Maulsby Marsh Water Quality Sample Locations and Results Summary

Station Identification	Northing[a]	Easting[a]	Depth (in)	Temp (°C)	Sp. Cond (µS/ml)	pH (units)	Salinity (ppt)	DO (mg/L)
MM-SAL-North	372899.612	1303977.058	2	27.87	2785.50	7.88	1.35	7.45
MM-SAL-South	372109.391	1303374.751	2	28.28	5156.00	8.22	2.58	11.11
MM-SAL-Outlet	371628.675	1302936.102	8	20.90	3811.50	7.46	2.21	8.94

Notes:

a. North American Datum of 1983 (NAD 83) US State Plane, Washington North Zone

°C = degrees Celsius

DO= dissolved oxygen

in = inches

µS/ml = microsiemens per milliliter

mg/L = milligrams per liter

ppt = parts per thousand

Table E-3
Maulsby Marsh Surface Sediment Chemistry Results Summary

Task	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID	MS001	MS001	MS002	MS003	MS004	MS005	MS006	MS007	MS008	MS009
Sample ID	MS001-SS-120515	MS101-SS-120515	MS002-SS-120515	MS003-SS-120515	MS004-SS-120515	MS005-SS-120515	MS006-SS-120515	MS007-SS-120515	MS008-SS-120515	MS009-SS-120515
Sample Date	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012
Sample Depth	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
Sample Type	N	FD	N	N	N	N	N	N	N	N
Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Conventional Parameters (mg/kg)										
Ammonia	132	130	213	170	178	71.1	17.9	33.2	12.6	117
Sulfide	2960	3100	2350	3640	4070	1840	20.5	718	1770	1720
Conventional Parameters (pct)										
Total organic carbon	19.6	18.4	17.1	23.6	17.9	29	31.9	16.7	22.5	12.2
Total solids	10.2	10.2	10.4	9.3	10.3	9.2	9.8	16.8	10.7	10.1
Total solids (preserved)	9.7	9.7	10.5	10.9	10	8.3	6.9	19	8.1	10.6
Grain Size (pct)										
Gravel	0.1 U	11.8	0.4	7.5	4.6	19.1	16.2	1.2	44.1	5.5
Sand, very coarse	24.4	17.1	14.2	11.8	8.2	13.9	19	16.4	11.4	8.3
Sand, coarse	7.1	7.9	6	8.1	7.5	11.2	16.5	9.7	7.2	7
Sand, medium	4.5	4.8	4.4	5.7	6.7	9.5	12.6	8.2	5.4	6.3
Sand, fine	3	3.2	3	4	5.3	6.6	8	9.6	4.2	5.3
Sand, very fine	2.1	2.4	2.3	2.7	3.7	4.1	4.9	10.2	3.1	4.5
Silt, coarse	1.3	1	1.5	5.2	4.2	2.8	3.3	11.2	5.2	10.3
Silt, medium	13.1	11.5	18.8	24.5	25.2	4.1	2.4	9.7	2.6	12.2
Silt, fine	11.3	9.9	12.2	7.7	8.4	6.5	3.5	7.2	4.3	9
Silt, very fine	12.4	11.2	15.2	5.9	7.5	6	2.9	6.9	4.1	10.7
Clay, coarse	3.1	3.4	4.5	1.3	3.2	4.8	3.4	2.2	3	4.2
Clay, medium	3.3	3.4	5.4	2.5	3.7	2.3	2.3	2.2	2	4.1
Clay, fine	14.2	12.5	12.2	12.9	11.8	9.1	5	5.3	3.4	12.7
Metals (mg/kg)										
Antimony	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	3 J	5 J	1 UJ	2 UJ	2 UJ
Arsenic	33	33	27	19	24	55	80	28	27	8
Cadmium	3.2	3.4	2.9	2.2	3	3	3	3.7	3	2
Chromium	37	38	41	32	34	25	17	40	37	43
Copper	129	125	139	78	99	251	91	111	94	66
Lead	170	170	150	100	110	1180	360	350	160	60
Mercury	0.4	0.4	0.3	0.3	0.2	0.4	0.7	0.2	0.2	0.2
Nickel	50	42	46	30	40	40	33	44	37	38
Silver	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U
Zinc	400	374	330	210	260	500	217	594	251	162
Semivolatile Organics (µg/kg)										
4-Methylphenol (p-Cresol)	1200	1600	1400	1100	690	3300	270	1800 J	610	470
Benzoic acid	390 J	640 J	420 J	330 J	390 J	3100 J	3100 J	1300 J	740 J	410 J
bis(2-Ethylhexyl)phthalate	140	120	150	120	120	170	120	120	98	90
Butylbenzyl phthalate	60 U	60 U	59 U	60 U	60 U	59 U	60 U	59 U	60 U	60 U
Carbazole	42 J	57 J	56 J	60 U	69	130	95	62	63	60 U
Dibenzofuran	180	280	240	110	300	660	480	210	69	54 J
Dimethyl phthalate	60 U	60 U	59 U	60 U	60 U	59 U	60 U	59 U	60 U	60 U

Table E-3

Maulsby Marsh Surface Sediment Chemistry Results Summary

Task	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID	MS001	MS001	MS002	MS003	MS004	MS005	MS006	MS007	MS008	MS009
Sample ID	MS001-SS-120515	MS101-SS-120515	MS002-SS-120515	MS003-SS-120515	MS004-SS-120515	MS005-SS-120515	MS006-SS-120515	MS007-SS-120515	MS008-SS-120515	MS009-SS-120515
Sample Date	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012
Sample Depth	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
Sample Type	N	FD	N	N	N	N	N	N	N	N
Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Di-n-butyl phthalate	60 U	60 U	59 U	60 U	60 U	59 U	60 U	59 U	60 U	60 U
Di-n-octyl phthalate	60 UJ	60 UJ	59 UJ	60 UJ	60 UJ	59 UJ	60 UJ	59 UJ	60 UJ	60 UJ
Pentachlorophenol	600 U	**160 J**	590 U	600 U	600 U	590 U	600 U	590 U	600 U	600 U
Phenol	**300**	**400**	**260**	**180**	**200**	**1100**	**380**	**430 J**	**190**	**100**
Retene	**74**	**100**	**80**	**32 J**	**120**	**140**	**270**	**85**	60 U	60 U
Polycyclic Aromatic Hydrocarbons (µg/kg)										
2-Methylnaphthalene	**170**	**270**	**240**	**86**	**270**	**600**	**600**	**290 J**	**66**	**36 J**
Acenaphthene	**110**	**160**	**140**	**72**	**140**	**820**	**110**	**130**	**57 J**	60 U
Acenaphthylene	**74**	**130**	**86**	**60**	**78**	**250**	**220**	**140**	**39 J**	60 U
Anthracene	**140**	**180**	**170**	**120**	**180**	**350**	**220**	**170**	**110**	**51 J**
Benzo(a)anthracene	**160**	**170**	**280**	**130**	**240**	**300**	**230**	**180**	**190**	**57 J**
Benzo(a)pyrene	**260**	**270**	**470**	**250**	**380**	**330**	**250**	**270**	**220**	**80**
Benzo(b,j,k)fluoranthenes	**570**	**640**	**1000**	**580**	**970**	**970**	**650**	**540**	**420**	**180**
Benzo(g,h,i)perylene	**270**	**330**	**430**	**230**	**360**	**320**	**310**	**250**	**170**	**80**
Chrysene	**430**	**400**	**800**	**390**	**680**	**570**	**410**	**290**	**240**	**120**
Dibenzo(a,h)anthracene	**57 J**	**54 J**	**100**	**51 J**	**87**	**95**	**54 J**	**59**	**54 J**	60 U
Fluoranthene	**660**	**970**	**860**	**550**	**870**	**1900**	**1700**	**1100**	**600**	**290**
Fluorene	**120**	**170**	**160**	**74**	**170**	**450**	**130**	**120**	**66**	**42 J**
Indeno(1,2,3-c,d)pyrene	**200**	**230**	**340**	**180**	**280**	**240**	**220**	**190**	**140**	**63**
Naphthalene	**1100**	**1800**	**1300**	**550**	**1400**	**4400**	**6300**	**2200**	**460**	**290**
Phenanthrene	**690**	**1200**	**830**	**500**	**890**	**1800**	**2200**	**1100**	**480**	**250**
Pyrene	**580**	**910**	**860**	**510**	**790**	**1600**	**1400**	**960**	**460**	**240**
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2)	**363 J**	**383.4 J**	**650**	**348 J**	**544.5**	**496.2**	**369.5 J**	**369.8**	**302.8 J**	**114.2 J**
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0)	**363 J**	**383.4 J**	**650**	**348 J**	**544.5**	**496.2**	**369.5 J**	**369.8**	**302.8 J**	**111.2 J**
Total PAH (SMS Freshwater 2013) (U = 0)	**5591 J**	**7884 J**	**8066**	**4333 J**	**7785**	**14995**	**15004 J**	**7989 J**	**3772 J**	**1779 J**
Pesticides (µg/kg)										
4,4'-DDD (p,p'-DDD)	99 U	99 U	99 U	99 U	100 U	99 U	**40 J**	99 U	99 U	100 U
4,4'-DDE (p,p'-DDE)	99 U	99 U	99 U	99 U	100 U	99 U	9.9 UJ	99 UJ	99 UJ	100 UJ
4,4'-DDT (p,p'-DDT)	99 U	99 U	99 U	99 U	100 U	99 U	**19 J**	99 UJ	99 UJ	100 UJ
Dieldrin	99 U	99 U	99 U	99 U	100 U	99 U	9.9 U	99 U	99 U	100 U
Endrin ketone	99 U	99 U	99 U	99 U	100 U	99 U	28 U	99 U	99 U	100 U
Hexachlorocyclohexane, beta- (BHC)	50 U	50 U	50 U	50 U	50 U	49 U	12 U	50 U	50 U	50 U
Sum DDD (U = 0)	99 U	99 U	99 U	99 U	100 U	99 U	**40 J**	99 U	99 U	100 U
Sum DDE (U = 0)	99 U	99 U	99 U	99 U	100 U	99 U	9.9 UJ	99 UJ	99 UJ	100 UJ
Sum DDT (U = 0)	99 U	99 U	99 U	99 U	100 U	99 U	**19 J**	99 UJ	99 UJ	100 UJ
PCB Aroclors (µg/kg)										
Aroclor 1016	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Aroclor 1221	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Aroclor 1232	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Aroclor 1242	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U

Table E-3
Maulsby Marsh Surface Sediment Chemistry Results Summary

Task	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID	**MS001**	**MS001**	**MS002**	**MS003**	**MS004**	**MS005**	**MS006**	**MS007**	**MS008**	**MS009**
Sample ID	**MS001-SS-120515**	**MS101-SS-120515**	**MS002-SS-120515**	**MS003-SS-120515**	**MS004-SS-120515**	**MS005-SS-120515**	**MS006-SS-120515**	**MS007-SS-120515**	**MS008-SS-120515**	**MS009-SS-120515**
Sample Date	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**
Sample Depth	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**
Sample Type	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Matrix	**SE**	**SE**	**SE**	**SE**	**SE**	**SE**	**SE**	**SE**	**SE**	**SE**
Aroclor 1248	**22**	**17**	**17 J**	20 U	16 U	**12**	**16**	**15**	9.9 U	10 U
Aroclor 1254	**44**	**37**	**39**	**28**	**28 J**	**25**	**27**	**31**	**23**	**20**
Aroclor 1260	20 U	16 U	20 U	14 U	20 U	12 U	20 U	14 U	9.9 U	10 U
Aroclor 1262	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Aroclor 1268	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Total PCB aroclors (SMS Freshwater 2013) (U = 0)	**66**	**54**	**56 J**	**28**	**28 J**	**37**	**43**	**46**	**23**	**20**
Extractable Petroleum Hydrocarbons (µg/kg)										
C8-C10 Aliphatics	20000 U	--	**19000**	21000 U	--	--	**21000**	--	--	--
C10-C12 Aliphatics	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--
C12-C16 Aliphatics	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--
C16-C21 Aliphatics	20000 U	--	**29000**	**38000**	--	--	21000 U	--	--	--
C21-C34 Aliphatics	**180000**	--	**190000**	**160000**	--	--	**120000**	--	--	--
C8-C10 Aromatics	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--
C10-C12 Aromatics	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--
C12-C16 Aromatics	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--
C16-C21 Aromatics	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--
C21-C34 Aromatics	**31000**	--	**48000**	**53000**	--	--	**30000**	--	--	--
Total Petroleum Hydrocarbons (mg/kg)										
Diesel range hydrocarbons	**53**	**54**	**69**	**71**	52 U	54 U	**64**	**37**	45 U	50 U
Motor oil range	**150**	**140**	**180**	**170**	**110**	**160**	**190**	**120**	**120**	100 U

Table E-3
Maulsby Marsh Surface Sediment Chemistry Results Summary

Task	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID	MS010	MS010	MS011	MS012	MS013	MS014	MS015	MS016	MS017	MS018
Sample ID	MS010-SS-120515	MS110-SS-120515	MS011-SS-120515	MS012-SS-120515	MS013-SS-120515	MS014-SS-120515	MS015-SS-120515	MS016-SS-120515	MS017-SS-120515	MS018-SS-120515
Sample Date	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012
Sample Depth	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
Sample Type	N	FD	N	N	N	N	N	N	N	N
Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Conventional Parameters (mg/kg)										
Ammonia	100	95.6	20.8	155	107	204	121	129	117	130
Sulfide	2030	1750	8.88 U	2180	1520	4450	2130	702	2450	2960
Conventional Parameters (pct)										
Total organic carbon	11.8	15.7	31.5	22.6	18.8	16.9	14.3	19.6	21.8	18
Total solids	10.6	10.4	9.8	9.7	9.3	9.8	10.3	12.4	8.4	11.7
Total solids (preserved)	10.5	10.7	11	10.5	9.6	10.8	11	11	7.4	11.1
Grain Size (pct)										
Gravel	11.4	2.6	23.6	21.3	23.6	6.9	16.2	17.3	19.6	16.8
Sand, very coarse	9.5	14.2	17.8	11	11.6	13.4	11.3	14	14.3	8.7
Sand, coarse	7.1	9.4	14.5	5.9	7.1	10.3	7.5	10.4	11.5	4.6
Sand, medium	5.8	6.5	11.7	4.1	3.7	7	4.8	7.2	8.2	3.3
Sand, fine	4.7	5	7.4	2.8	4.2	4.9	2.7	4.5	5.3	2.8
Sand, very fine	3.8	3.8	4.6	1.9	1.8	3.2	1.5	2.8	3.4	2.1
Silt, coarse	8.1	2.4	0.2	4.9	4.2	1.9	2.1	0.2	0.7	1.8
Silt, medium	14.5	9.5	1.6	18.9	12.9	7.7	11.8	8.5	3.4	17.7
Silt, fine	8.1	9.5	3.7	6.5	11.6	11.9	11.9	12.9	9	12.9
Silt, very fine	8.7	15.4	4.2	4.1	6.9	12.8	12.8	9.3	8.3	7.1
Clay, coarse	2.9	5.5	3.2	1.2	2.2	4.7	4	2.1	2.4	4.6
Clay, medium	3.9	4.1	2.6	2.2	0.8	3.4	2.9	2.5	2.5	4.7
Clay, fine	11.6	12	5.1	15.2	9.3	11.8	10.5	8.2	11.4	12.9
Metals (mg/kg)										
Antimony	--	--	--	--	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--
Semivolatile Organics (µg/kg)										
4-Methylphenol (p-Cresol)	--	--	--	--	--	--	--	--	--	--
Benzoic acid	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--	--	--	--
Butylbenzyl phthalate	--	--	--	--	--	--	--	--	--	--
Carbazole	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--

Table E-3
Maulsby Marsh Surface Sediment Chemistry Results Summary

Task	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID	MS010	MS010	MS011	MS012	MS013	MS014	MS015	MS016	MS017	MS018
Sample ID	MS010-SS-120515	MS110-SS-120515	MS011-SS-120515	MS012-SS-120515	MS013-SS-120515	MS014-SS-120515	MS015-SS-120515	MS016-SS-120515	MS017-SS-120515	MS018-SS-120515
Sample Date	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012
Sample Depth	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
Sample Type	N	FD	N	N	N	N	N	N	N	N
Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Di-n-butyl phthalate	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--	--	--	--	--
Phenol	--	--	--	--	--	--	--	--	--	--
Retene	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)										
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--
Acenaphthene	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--
Benzo(b,j,k)fluoranthenes	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--
Phenanthrene	--	--	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	--	--	--	--	--	--
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2)	--	--	--	--	--	--	--	--	--	--
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0)	--	--	--	--	--	--	--	--	--	--
Total PAH (SMS Freshwater 2013) (U = 0)	--	--	--	--	--	--	--	--	--	--
Pesticides (µg/kg)										
4,4'-DDD (p,p'-DDD)	--	--	--	--	--	--	--	--	--	--
4,4'-DDE (p,p'-DDE)	--	--	--	--	--	--	--	--	--	--
4,4'-DDT (p,p'-DDT)	--	--	--	--	--	--	--	--	--	--
Dieldrin	--	--	--	--	--	--	--	--	--	--
Endrin ketone	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclohexane, beta- (BHC)	--	--	--	--	--	--	--	--	--	--
Sum DDD (U = 0)	--	--	--	--	--	--	--	--	--	--
Sum DDE (U = 0)	--	--	--	--	--	--	--	--	--	--
Sum DDT (U = 0)	--	--	--	--	--	--	--	--	--	--
PCB Aroclors (µg/kg)										
Aroclor 1016	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	--	--	--	--	--	--	--	--	--	--

Table E-3
Maulsby Marsh Surface Sediment Chemistry Results Summary

Task	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID	**MS010**	**MS010**	**MS011**	**MS012**	**MS013**	**MS014**	**MS015**	**MS016**	**MS017**	**MS018**
Sample ID	**MS010-SS-120515**	**MS110-SS-120515**	**MS011-SS-120515**	**MS012-SS-120515**	**MS013-SS-120515**	**MS014-SS-120515**	**MS015-SS-120515**	**MS016-SS-120515**	**MS017-SS-120515**	**MS018-SS-120515**
Sample Date	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**	**05/15/2012**
Sample Depth	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**	**0 - 10 cm**
Sample Type	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Matrix	**SE**	**SE**	**SE**	**SE**	**SE**	**SE**	**SE**	**SE**	**SE**	**SE**
Aroclor 1248	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	--	--	--	--	--	--	--	--	--	--
Aroclor 1262	--	--	--	--	--	--	--	--	--	--
Aroclor 1268	--	--	--	--	--	--	--	--	--	--
Total PCB aroclors (SMS Freshwater 2013) (U = 0)	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (µg/kg)										
C8-C10 Aliphatics	--	--	--	--	--	--	--	--	--	--
C10-C12 Aliphatics	--	--	--	--	--	--	--	--	--	--
C12-C16 Aliphatics	--	--	--	--	--	--	--	--	--	--
C16-C21 Aliphatics	--	--	--	--	--	--	--	--	--	--
C21-C34 Aliphatics	--	--	--	--	--	--	--	--	--	--
C8-C10 Aromatics	--	--	--	--	--	--	--	--	--	--
C10-C12 Aromatics	--	--	--	--	--	--	--	--	--	--
C12-C16 Aromatics	--	--	--	--	--	--	--	--	--	--
C16-C21 Aromatics	--	--	--	--	--	--	--	--	--	--
C21-C34 Aromatics	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)										
Diesel range hydrocarbons	--	--	--	--	--	--	--	--	--	--
Motor oil range	--	--	--	--	--	--	--	--	--	--

Table E-3
Maulsby Marsh Surface Sediment Chemistry Results Summary

Notes:
Bold = Detected result
J = Estimated value
U = Compound analyzed, but not detected above detection limit
UJ = Compound analyzed, but not detected above estimated detection limit
µg = microgram
CPAH = carcinogenic polycyclic aromatic hydrocarbon
HPAH = high-molecular-weight polycyclic aromatic hydrocarbon
kg = kilogram
LPAH = low-molecular-weight polycyclic aromatic hydrocarbon
mg = milligram
ng = nanogram
OC = organic carbon
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
pct = percent
TEQ = toxic equivalency quotient

Table E-4
Maulsby Marsh Freshwater Sediment Results

Task			Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID			MS001	MS001	MS002	MS003	MS004	MS005	MS006	MS007	MS008	MS009	MS010
Sample ID			MS001-SS-120515	MS101-SS-120515	MS002-SS-120515	MS003-SS-120515	MS004-SS-120515	MS005-SS-120515	MS006-SS-120515	MS007-SS-120515	MS008-SS-120515	MS009-SS-120515	MS010-SS-120515
Sample Date			05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012
Sample Depth			0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Matrix	SCO	CSL	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Conventional Parameters (mg/kg)													
Ammonia	230	300	**132**	**130**	**213**	**170**	**178**	**71.1**	**17.9**	**33.2**	**12.6**	**117**	**100**
Sulfide	39	61	**2960**	**3100**	**2350**	**3640**	**4070**	**1840**	**20.5**	**718**	**1770**	**1720**	**2030**
Conventional Parameters (pct)													
Total organic carbon	--	--	**19.6**	**18.4**	**17.1**	**23.6**	**17.9**	**29**	**31.9**	**16.7**	**22.5**	**12.2**	**11.8**
Total solids	--	--	**10.2**	**10.2**	**10.4**	**9.3**	**10.3**	**9.2**	**9.8**	**16.8**	**10.7**	**10.1**	**10.6**
Total solids (preserved)	--	--	**9.7**	**9.7**	**10.5**	**10.9**	**10**	**8.3**	**6.9**	**19**	**8.1**	**10.6**	**10.5**
Grain Size (pct)													
Gravel	--	--	0.1 U	**11.8**	**0.4**	**7.5**	**4.6**	**19.1**	**16.2**	**1.2**	**44.1**	**5.5**	**11.4**
Sand, very coarse	--	--	**24.4**	**17.1**	**14.2**	**11.8**	**8.2**	**13.9**	**19**	**16.4**	**11.4**	**8.3**	**9.5**
Sand, coarse	--	--	**7.1**	**7.9**	**6**	**8.1**	**7.5**	**11.2**	**16.5**	**9.7**	**7.2**	**7**	**7.1**
Sand, medium	--	--	**4.5**	**4.8**	**4.4**	**5.7**	**6.7**	**9.5**	**12.6**	**8.2**	**5.4**	**6.3**	**5.8**
Sand, fine	--	--	**3**	**3.2**	**3**	**4**	**5.3**	**6.6**	**8**	**9.6**	**4.2**	**5.3**	**4.7**
Sand, very fine	--	--	**2.1**	**2.4**	**2.3**	**2.7**	**3.7**	**4.1**	**4.9**	**10.2**	**3.1**	**4.5**	**3.8**
Silt, coarse	--	--	**1.3**	**1**	**1.5**	**5.2**	**4.2**	**2.8**	**3.3**	**11.2**	**5.2**	**10.3**	**8.1**
Silt, medium	--	--	**13.1**	**11.5**	**18.8**	**24.5**	**25.2**	**4.1**	**2.4**	**9.7**	**2.6**	**12.2**	**14.5**
Silt, fine	--	--	**11.3**	**9.9**	**12.2**	**7.7**	**8.4**	**6.5**	**3.5**	**7.2**	**4.3**	**9**	**8.1**
Silt, very fine	--	--	**12.4**	**11.2**	**15.2**	**5.9**	**7.5**	**6**	**2.9**	**6.9**	**4.1**	**10.7**	**8.7**
Clay, coarse	--	--	**3.1**	**3.4**	**4.5**	**1.3**	**3.2**	**4.8**	**3.4**	**2.2**	**3**	**4.2**	**2.9**
Clay, medium	--	--	**3.3**	**3.4**	**5.4**	**2.5**	**3.7**	**2.3**	**2.3**	**2.2**	**2**	**4.1**	**3.9**
Clay, fine	--	--	**14.2**	**12.5**	**12.2**	**12.9**	**11.8**	**9.1**	**5**	**5.3**	**3.4**	**12.7**	**11.6**
Metals (mg/kg)													
Antimony			2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	**3 J**	**5 J**	1 UJ	2 UJ	2 UJ	--
Arsenic	14	120	**33**	**33**	**27**	**19**	**24**	**55**	**80**	**28**	**27**	**8**	--
Cadmium	2.1	5.4	**3.2**	**3.4**	**2.9**	**2.2**	**3**	**3**	**3**	**3.7**	**3**	**2**	--
Chromium	72	88	**37**	**38**	**41**	**32**	**34**	**25**	**17**	**40**	**37**	**43**	--
Copper	400	1200	**129**	**125**	**139**	**78**	**99**	**251**	**91**	**111**	**94**	**66**	--
Lead	360	1300	**170**	**170**	**150**	**100**	**110**	**1180**	**360**	**350**	**160**	**60**	--
Mercury	0.66	0.8	**0.4**	**0.4**	**0.3**	**0.3**	**0.2**	**0.4**	**0.7**	**0.2**	**0.2**	**0.2**	--
Nickel	26	110	**50**	**42**	**46**	**30**	**40**	**40**	**33**	**44**	**37**	**38**	--
Silver	0.57	1.7	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	--
Zinc	3200	4200	**400**	**374**	**330**	**210**	**260**	**500**	**217**	**594**	**251**	**162**	--
Semivolatile Organics (µg/kg)													
4-Methylphenol (p-Cresol)	260	2000	**1200**	**1600**	**1400**	**1100**	**690**	**3300**	**270**	**1800 J**	**610**	**470**	--
Benzoic acid	2900	3800	**390 J**	**640 J**	**420 J**	**330 J**	**390 J**	**3100 J**	**3100 J**	**1300 J**	**740 J**	**410 J**	--
bis(2-Ethylhexyl)phthalate	500	22000	**140**	**120**	**150**	**120**	**120**	**170**	**120**	**120**	**98**	**90**	--
Butylbenzyl phthalate	--	--	60 U	60 U	59 U	60 U	60 U	59 U	60 U	59 U	60 U	60 U	--
Carbazole	900	1100	**42 J**	**57 J**	**56 J**	60 U	**69**	**130**	**95**	**62**	**63**	60 U	--
Dibenzofuran	200	680	**180**	**280**	**240**	**110**	**300**	**660**	**480**	**210**	**69**	**54 J**	--
Dimethyl phthalate	--	--	60 U	60 U	59 U	60 U	60 U	59 U	60 U	59 U	60 U	60 U	--
Di-n-butyl phthalate	380	1000	60 U	60 U	59 U	60 U	60 U	59 U	60 U	59 U	60 U	60 U	--
Di-n-octyl phthalate	39	1100	60 UJ	60 UJ	59 UJ	60 UJ	60 UJ	59 UJ	60 UJ	59 UJ	60 UJ	60 UJ	--
Pentachlorophenol	1200	1200	600 U	**160 J**	590 U	600 U	600 U	590 U	600 U	590 U	600 U	600 U	--
Phenol	120	210	**300**	**400**	**260**	**180**	**200**	**1100**	**380**	**430 J**	**190**	**100**	--
Retene	--	--	**74**	**100**	**80**	**32 J**	**120**	**140**	**270**	**85**	60 U	60 U	--

Table E-4
Maulsby Marsh Freshwater Sediment Results

Task			Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID			MS001	MS001	MS002	MS003	MS004	MS005	MS006	MS007	MS008	MS009	MS010
Sample ID			MS001-SS-120515	MS101-SS-120515	MS002-SS-120515	MS003-SS-120515	MS004-SS-120515	MS005-SS-120515	MS006-SS-120515	MS007-SS-120515	MS008-SS-120515	MS009-SS-120515	MS010-SS-120515
Sample Date			05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012
Sample Depth			0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Matrix	SCO	CSL	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
PAHs (µg/kg)													
2-Methylnaphthalene	--	--	**170**	**270**	**240**	**86**	**270**	**600**	**600**	**290 J**	**66**	**36 J**	--
Acenaphthene	--	--	**110**	**160**	**140**	**72**	**140**	**820**	**110**	**130**	**57 J**	60 U	--
Acenaphthylene	--	--	**74**	**130**	**86**	**60**	**78**	**250**	**220**	**140**	**39 J**	60 U	--
Anthracene	--	--	**140**	**180**	**170**	**120**	**180**	**350**	**220**	**170**	**110**	**51 J**	--
Benzo(a)anthracene	--	--	**160**	**170**	**280**	**130**	**240**	**300**	**230**	**180**	**190**	**57 J**	--
Benzo(a)pyrene	--	--	**260**	**270**	**470**	**250**	**380**	**330**	**250**	**270**	**220**	**80**	--
Benzo(b,j,k)fluoranthenes	--	--	**570**	**640**	**1000**	**580**	**970**	**970**	**650**	**540**	**420**	**180**	--
Benzo(g,h,i)perylene	--	--	**270**	**330**	**430**	**230**	**360**	**320**	**310**	**250**	**170**	**80**	--
Chrysene	--	--	**430**	**400**	**800**	**390**	**680**	**570**	**410**	**290**	**240**	**120**	--
Dibenzo(a,h)anthracene	--	--	**57 J**	**54 J**	**100**	**51 J**	**87**	**95**	**54 J**	**59**	**54 J**	60 U	--
Fluoranthene	--	--	**660**	**970**	**860**	**550**	**870**	**1900**	**1700**	**1100**	**600**	**290**	--
Fluorene	--	--	**120**	**170**	**160**	**74**	**170**	**450**	**130**	**120**	**66**	**42 J**	--
Indeno(1,2,3-c,d)pyrene	--	--	**200**	**230**	**340**	**180**	**280**	**240**	**220**	**190**	**140**	**63**	--
Naphthalene	--	--	**1100**	**1800**	**1300**	**550**	**1400**	**4400**	**6300**	**2200**	**460**	**290**	--
Phenanthrene	--	--	**690**	**1200**	**830**	**500**	**890**	**1800**	**2200**	**1100**	**480**	**250**	--
Pyrene	--	--	**580**	**910**	**860**	**510**	**790**	**1600**	**1400**	**960**	**460**	**240**	--
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2)	--	--	**363 J**	**383.4 J**	**650**	**348 J**	**544.5**	**496.2**	**369.5 J**	**369.8**	**302.8 J**	**114.2 J**	--
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0)	--	--	**363 J**	**383.4 J**	**650**	**348 J**	**544.5**	**496.2**	**369.5 J**	**369.8**	**302.8 J**	**111.2 J**	--
Total PAH (SMS Freshwater 2013) (U = 0)	17000	30000	**5591 J**	**7884 J**	**8066**	**4333 J**	**7785**	**14995**	**15004 J**	**7989 J**	**3772 J**	**1779 J**	--
Pesticides (µg/kg)													
4,4'-DDD (p,p'-DDD)	--	--	99 U	99 U	99 U	99 U	100 U	99 U	**40 J**	99 U	99 U	100 U	--
4,4'-DDE (p,p'-DDE)	--	--	99 U	99 U	99 U	99 U	100 U	99 U	9.9 UJ	99 UJ	99 UJ	100 UJ	--
4,4'-DDT (p,p'-DDT)	--	--	99 U	99 U	99 U	99 U	100 U	99 U	**19 J**	99 UJ	99 UJ	100 UJ	--
Dieldrin	4.9	9.3	99 U	99 U	99 U	99 U	100 U	99 U	9.9 U	99 U	99 U	100 U	--
Endrin ketone	8.5	8.5	99 U	99 U	99 U	99 U	100 U	99 U	28 U	99 U	99 U	100 U	--
Hexachlorocyclohexane, beta- (BHC)	7.2	11	50 U	50 U	50 U	50 U	50 U	49 U	12 U	50 U	50 U	50 U	--
Sum DDD (U = 0)	310	860	99 U	99 U	99 U	99 U	100 U	99 U	**40 J**	99 U	99 U	100 U	--
Sum DDE (U = 0)	21	33	99 U	99 U	99 U	99 U	100 U	99 U	9.9 UJ	99 UJ	99 UJ	100 UJ	--
Sum DDT (U = 0)	100	8100	99 U	99 U	99 U	99 U	100 U	99 U	**19 J**	99 UJ	99 UJ	100 UJ	--
PCB Aroclors (µg/kg)													
Aroclor 1016	--	--	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	--
Aroclor 1221	--	--	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	--
Aroclor 1232	--	--	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	--
Aroclor 1242	--	--	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	--
Aroclor 1248	--	--	**22**	**17**	**17 J**	20 U	16 U	**12**	**16**	**15**	9.9 U	10 U	--
Aroclor 1254	--	--	**44**	**37**	**39**	**28**	**28 J**	**25**	**27**	**31**	**23**	**20**	--
Aroclor 1260	--	--	20 U	16 U	20 U	14 U	20 U	12 U	20 U	14 U	9.9 U	10 U	--
Aroclor 1262	--	--	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	--
Aroclor 1268	--	--	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	--
Total PCB aroclors (SMS Freshwater 2013) (U = 0)	110	2500	**66**	**54**	**56 J**	**28**	**28 J**	**37**	**43**	**46**	**23**	**20**	--

Table E-4
Maulsby Marsh Freshwater Sediment Results

Task			Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID			MS001	MS001	MS002	MS003	MS004	MS005	MS006	MS007	MS008	MS009	MS010
Sample ID			MS001-SS-120515	MS101-SS-120515	MS002-SS-120515	MS003-SS-120515	MS004-SS-120515	MS005-SS-120515	MS006-SS-120515	MS007-SS-120515	MS008-SS-120515	MS009-SS-120515	MS010-SS-120515
Sample Date			05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012
Sample Depth			0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Matrix	SCO	CSL	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Extractable Petroleum Hydrocarbons (µg/kg)													
C8-C10 Aliphatics	--	--	20000 U	--	**19000**	21000 U	--	--	**21000**	--	--	--	--
C10-C12 Aliphatics	--	--	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--	--
C12-C16 Aliphatics	--	--	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--	--
C16-C21 Aliphatics	--	--	20000 U	--	**29000**	**38000**	--	--	21000 U	--	--	--	--
C21-C34 Aliphatics	--	--	**180000**	--	**190000**	**160000**	--	--	**120000**	--	--	--	--
C8-C10 Aromatics	--	--	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--	--
C10-C12 Aromatics	--	--	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--	--
C12-C16 Aromatics	--	--	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--	--
C16-C21 Aromatics	--	--	20000 U	--	19000 U	21000 U	--	--	21000 U	--	--	--	--
C21-C34 Aromatics	--	--	**31000**	--	**48000**	**53000**	--	--	**30000**	--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)													
Diesel range hydrocarbons	340	510	**53**	**54**	**69**	**71**	52 U	54 U	**64**	**37**	45 U	50 U	--
Motor oil range	--	--	**150**	**140**	**180**	**170**	**110**	**160**	**190**	**120**	**120**	100 U	--

Table E-4
Maulsby Marsh Freshwater Sediment Results

Task			Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID			MS010	MS011	MS012	MS013	MS014	MS015	MS016	MS017	MS018
Sample ID			MS110-SS-120515	MS011-SS-120515	MS012-SS-120515	MS013-SS-120515	MS014-SS-120515	MS015-SS-120515	MS016-SS-120515	MS017-SS-120515	MS018-SS-120515
Sample Date			05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012
Sample Depth			0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
Sample Type			FD	N	N	N	N	N	N	N	N
Matrix	SCO	CSL	SE	SE	SE	SE	SE	SE	SE	SE	SE
Conventional Parameters (mg/kg)											
Ammonia	230	300	95.6	20.8	155	107	204	121	129	117	130
Sulfide	39	61	1750	8.88 U	2180	1520	4450	2130	702	2450	2960
Conventional Parameters (pct)											
Total organic carbon	--	--	15.7	31.5	22.6	18.8	16.9	14.3	19.6	21.8	18
Total solids	--	--	10.4	9.8	9.7	9.3	9.8	10.3	12.4	8.4	11.7
Total solids (preserved)	--	--	10.7	11	10.5	9.6	10.8	11	11	7.4	11.1
Grain Size (pct)											
Gravel	--	--	2.6	23.6	21.3	23.6	6.9	16.2	17.3	19.6	16.8
Sand, very coarse	--	--	14.2	17.8	11	11.6	13.4	11.3	14	14.3	8.7
Sand, coarse	--	--	9.4	14.5	5.9	7.1	10.3	7.5	10.4	11.5	4.6
Sand, medium	--	--	6.5	11.7	4.1	3.7	7	4.8	7.2	8.2	3.3
Sand, fine	--	--	5	7.4	2.8	4.2	4.9	2.7	4.5	5.3	2.8
Sand, very fine	--	--	3.8	4.6	1.9	1.8	3.2	1.5	2.8	3.4	2.1
Silt, coarse	--	--	2.4	0.2	4.9	4.2	1.9	2.1	0.2	0.7	1.8
Silt, medium	--	--	9.5	1.6	18.9	12.9	7.7	11.8	8.5	3.4	17.7
Silt, fine	--	--	9.5	3.7	6.5	11.6	11.9	11.9	12.9	9	12.9
Silt, very fine	--	--	15.4	4.2	4.1	6.9	12.8	12.8	9.3	8.3	7.1
Clay, coarse	--	--	5.5	3.2	1.2	2.2	4.7	4	2.1	2.4	4.6
Clay, medium	--	--	4.1	2.6	2.2	0.8	3.4	2.9	2.5	2.5	4.7
Clay, fine	--	--	12	5.1	15.2	9.3	11.8	10.5	8.2	11.4	12.9
Metals (mg/kg)											
Antimony			--	--	--	--	--	--	--	--	--
Arsenic	14	120	--	--	--	--	--	--	--	--	--
Cadmium	2.1	5.4	--	--	--	--	--	--	--	--	--
Chromium	72	88	--	--	--	--	--	--	--	--	--
Copper	400	1200	--	--	--	--	--	--	--	--	--
Lead	360	1300	--	--	--	--	--	--	--	--	--
Mercury	0.66	0.8	--	--	--	--	--	--	--	--	--
Nickel	26	110	--	--	--	--	--	--	--	--	--
Silver	0.57	1.7	--	--	--	--	--	--	--	--	--
Zinc	3200	4200	--	--	--	--	--	--	--	--	--
Semivolatile Organics (µg/kg)											
4-Methylphenol (p-Cresol)	260	2000	--	--	--	--	--	--	--	--	--
Benzoic acid	2900	3800	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	500	22000	--	--	--	--	--	--	--	--	--
Butylbenzyl phthalate	--	--	--	--	--	--	--	--	--	--	--
Carbazole	900	1100	--	--	--	--	--	--	--	--	--
Dibenzofuran	200	680	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	380	1000	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	39	1100	--	--	--	--	--	--	--	--	--
Pentachlorophenol	1200	1200	--	--	--	--	--	--	--	--	--
Phenol	120	210	--	--	--	--	--	--	--	--	--
Retene	--	--	--	--	--	--	--	--	--	--	--

Table E-4
Maulsby Marsh Freshwater Sediment Results

Task			Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID			MS010	MS011	MS012	MS013	MS014	MS015	MS016	MS017	MS018
Sample ID			MS110-SS-120515	MS011-SS-120515	MS012-SS-120515	MS013-SS-120515	MS014-SS-120515	MS015-SS-120515	MS016-SS-120515	MS017-SS-120515	MS018-SS-120515
Sample Date			05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012
Sample Depth			0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
Sample Type			FD	N	N	N	N	N	N	N	N
Matrix	SCO	CSL	SE	SE	SE	SE	SE	SE	SE	SE	SE
PAHs (µg/kg)											
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--
Benzo(b,j,k)fluoranthenes	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	--	--	--	--	--	--	--
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2)	--	--	--	--	--	--	--	--	--	--	--
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0)	--	--	--	--	--	--	--	--	--	--	--
Total PAH (SMS Freshwater 2013) (U = 0)	17000	30000	--	--	--	--	--	--	--	--	--
Pesticides (µg/kg)											
4,4'-DDD (p,p'-DDD)	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDE (p,p'-DDE)	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDT (p,p'-DDT)	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	4.9	9.3	--	--	--	--	--	--	--	--	--
Endrin ketone	8.5	8.5	--	--	--	--	--	--	--	--	--
Hexachlorocyclohexane, beta- (BHC)	7.2	11	--	--	--	--	--	--	--	--	--
Sum DDD (U = 0)	310	860	--	--	--	--	--	--	--	--	--
Sum DDE (U = 0)	21	33	--	--	--	--	--	--	--	--	--
Sum DDT (U = 0)	100	8100	--	--	--	--	--	--	--	--	--
PCB Aroclors (µg/kg)											
Aroclor 1016	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1248	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1262	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1268	--	--	--	--	--	--	--	--	--	--	--
Total PCB aroclors (SMS Freshwater 2013) (U = 0)	110	2500	--	--	--	--	--	--	--	--	--

Table E-4
Maulsby Marsh Freshwater Sediment Results

Task			Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012	Maulsby Marsh 2012
Location ID			MS010	MS011	MS012	MS013	MS014	MS015	MS016	MS017	MS018
Sample ID			MS110-SS-120515	MS011-SS-120515	MS012-SS-120515	MS013-SS-120515	MS014-SS-120515	MS015-SS-120515	MS016-SS-120515	MS017-SS-120515	MS018-SS-120515
Sample Date			05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012	05/15/2012
Sample Depth			0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
Sample Type			FD	N	N	N	N	N	N	N	N
Matrix	SCO	CSL	SE	SE	SE	SE	SE	SE	SE	SE	SE
Extractable Petroleum Hydrocarbons (µg/kg)											
C8-C10 Aliphatics	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aliphatics	--	--	--	--	--	--	--	--	--	--	--
C12-C16 Aliphatics	--	--	--	--	--	--	--	--	--	--	--
C16-C21 Aliphatics	--	--	--	--	--	--	--	--	--	--	--
C21-C34 Aliphatics	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aromatics	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aromatics	--	--	--	--	--	--	--	--	--	--	--
C12-C16 Aromatics	--	--	--	--	--	--	--	--	--	--	--
C16-C21 Aromatics	--	--	--	--	--	--	--	--	--	--	--
C21-C34 Aromatics	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)											
Diesel range hydrocarbons	340	510	--	--	--	--	--	--	--	--	--
Motor oil range	--	--	--	--	--	--	--	--	--	--	--

Table E-4
Maulsby Marsh Freshwater Sediment Results

Notes:
Detected concentration is greater than freshwater SMS SCO
Detected concentration is greater than freshwater SMS CSL
Bold: Detected result
µg/kg: microgram per kilogram
CAEPA: California Environmental Protection Agency
cm: centimeter
cPAH: carcinogenic polycyclic aromatic hydrocarbon
CSL: cleanup screening level
FD: field duplicate
J: estimated value
mg/kg: milligram per kilogram
N: normal sample
PAH: polycyclic aromatic hydrocarbon
PCB: polychlorinated biphenyl
SCO: sediment cleanup objective
SE: sediment matrix
SMS: sediment management standard
TEQ: toxic equivalent level
U: Compound analyzed, but not detected above detection limit
UJ: Compound analyzed, but not detected above estimated detection limit

FIGURES

Q:\Jobs\100546-01_JELD-WEN\Maps\2013_12\Revised\Maulsby_Marsh_Vicinity.mxd jsfox 12/17/2013 9:45:57 AM

Figure E-1
Maulsby Marsh Vicinity Map
Remedial Investigation Feasibility Study
Jeld-Wen/ Former Nord Door Facility

Q:\Jobs\100546-01_JELD-WEN\Maps\2013_12\Revised\Maulsby_Marsh_Samples.mxd jsfox 12/17/2013 10:12:25 AM

LEGEND

- Salinity Sample Location
- Sediment Sample Location

Feet
0 40 80 120 160

ANCHOR QEA

SLR

Figure E-2
Maulsby Marsh Sample Locations
Remedial Imvestigation Feasibility Study
Jeld-Wen/ Former Nord Door Facility

ATTACHMENT E-1
SEDIMENT GRAB COLLECTION AND PROCESSING LOG FORMS

ANCHOR QEA

Surface Sediment Field Sample Record

MS-001

Project Name: Mailsby Marsh **Project No:** 120909-01.01 **Station ID:** 001

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: [illegible] ekman
Sampling Vessel: —
Subcontractor(s): — Weather: Sunny
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS001-SS-120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 1339
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	(none)	(H2S)	(none)	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
(silt clay)	(brown)	dense/stiff	strong		moderate	(Wet)
(organic matter)	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Coarse organics at 10 cm - very dark grey - At edge of 12' drainage, duck wading tracks. decanted surface water, surface layer has red, pink green & brown

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: maulsby marsh **Project No:** 120909-01.01 **Station ID:** MS-002

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: hand
Sampling Vessel: — —
Subcontractor(s): — Weather: sunny
Station Coordinates: N / Lat. —
E / Long. —
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS-002-SS-120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: —
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: —
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: — cm Time: 13:17
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / Chemistry Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: edge of open pond area - Thin brown surface

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

MS 003

Project Name: Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 003

Sampling Crew: DG JP AT

Sample Date: 5/15/12 Sampling Method: hand

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: MS003-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: — cm Time: 12:34

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / Chemistry Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 3" very soft very wet, silt 1/2 cm brown layer surface 3" dense reddish organic mat, thin channel near veg clumps

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** MS-004 (004)

Sampling Crew: DG, JP, AT

Sample Date: 5/15/12 Sampling Method: hand

Sampling Vessel: —

Subcontractor(s): — Weather: sunny

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: SM004-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 11:53

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	(slight)	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
(silt clay)	(brown)	dense/stiff	strong		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Sheen on surface following drainage patterns thin light brown surface, dark brown below, very soft gluey no coarse organics on top 10 cm, open silty area with no veg

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: **Project No:** **Station ID:** MS005

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: grab ekman
Sampling Vessel: — Subcontractor(s): — Weather: Sunny warm
Station Coordinates: N / Lat. E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS005-SS-1205-15
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: — Water Depth: — ft. Grab Recovery: 10 cm Time: 0855
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / Chemistry Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	~~Very soft/Loose~~	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Heavily organic - Sample taken from small pool within the sedges

Grab Number: — Water Depth: — ft. Grab Recovery: — cm Time: —
Tide Level: — ft. Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: — Water Depth: — ft. Grab Recovery: — cm Time: —
Tide Level: — ft. Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

MS-006

Project Name: Maulsby marsh **Project No:** 120909-01.01 **Station ID:** 0010

Sampling Crew: DG JP AT

Sample Date: 5/15/12 Sampling Method: bowl spoon

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: MS0010-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 9:10

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	(moderate)	other:	slight	Moist
(silt) clay	(brown)	dense/stiff	strong		moderate	(Wet)
(organic matter)	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 6-8 inch channels under veg - fine brown thin layer silt 4 inches organic matter

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: maulsby marsh **Project No:** 120909-01.01 **Station ID:** 007

Sampling Crew: DG JP AT

Sample Date: 5/15/12 Sampling Method: ekman

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny

Station Coordinates: N / Lat. —

E / Long. —

Datum: NAD 83 / WGS 84 zone:

Sample ID: MS007-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: —

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: —

(Circle Appropriate Analyses)

Grab Number: 007 Water Depth: — ft. Grab Recovery: 0-10 cm Time: 9:45

Tide Level: — ft. Sample Interval: 10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
(silt clay)	(brown)	dense/stiff	(strong)		moderate	(Wet)
(organic matter)	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Silty, 1 inch water over top - very wet - surface 2 inches very loose silt - below is denser wet with high organic material

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

MS-008

Project Name: Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 009

Sampling Crew: —

Sample Date: 5/15/12 Sampling Method: bowl / spoon

Sampling Vessel: — —

Subcontractor(s): — Weather: Sunny warm

Station Coordinates: N / Lat. —

E / Long. —

Datum: NAD 83 / WGS 84 zone:

Sample ID: SS MS008-SS-12015-15

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: —

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: —

(Circle Appropriate Analyses)

Grab Number: 009 Water Depth: — ft. Grab Recovery: 10 cm Time: 9:40

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	(moderate)	other:	slight	Moist
(silt/clay)	(brown)	dense/stiff	strong		moderate	(Wet)
(organic matter)	brown surface	very dense/stiff	overwhelming		heavy	

Comments: very vegetated, 2-4 inch drainage channels covered with fine silt over 2 inches of organic mat - silt

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AJT

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: maulsby marsh **Project No:** 120909-01.01 **Station ID:** MS-009 609

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: Ekman
Sampling Vessel: —
Subcontractor(s): — Weather: Sunny warm
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS 009 - 120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 10:10
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	(moderate)	other:	slight	Moist
silt clay	(brown) - lighter	dense/stiff	strong		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: below sample - more organic woody roots

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

MS-010

Project Name: maulsby marsh **Project No:** 120909-01.01 **Station ID:** 010 & 110

Sampling Crew: DG JP AT

Sample Date: 5/15/12 Sampling Method: Ekman

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: ~~MS010~~ MS010-SS-120515 & MS110-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 10:30

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	(moderate)	other:	slight	Moist
(silt clay)	(brown)	dense/stiff	strong		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Second grab collected for volume

Grab Number: 2 Water Depth: — ft. Grab Recovery: 10 cm Time: 10:35

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	(moderate)	other:	slight	Moist
(silt clay)	(brown)	dense/stiff	strong		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Thin brown layer on surface - about 10 cm abundant organic material

~~MS0~~ MS110-SS-120515 is dup. of MS010-SS-120515

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

MS-011

Project Name: Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 011

Sampling Crew: DG JP AT

Sample Date: 4/5/17 Sampling Method: hand (Bowl

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: SM011-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 11:15

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	(none)	H2S	(none)	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
(silt clay)	(brown) dark	dense/stiff	strong		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: thick organic layer 0-10 cm

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Maulsby marsh **Project No:** 120909-01.01 **Station ID:** 012

Sampling Crew: PG JP AT
Sample Date: 5/15/12 Sampling Method: hand
Sampling Vessel: —
Subcontractor(s): — Weather: Sunny
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: ~~BPM~~ 012-SS-120515 MS
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 11:59
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / Chemistry Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	~~Very soft/Loose~~	none	~~H2S~~	~~none~~	Dry
gravel	gray	soft/loose	~~slight~~	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
~~silt clay~~	~~brown~~	dense/stiff	~~strong~~		moderate	~~Wet~~
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: ~~Brown~~ on surface, 2-3" very soft wet brown silt 3-10 cm very dense organic mat, open small end of drainage channel No sheen

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Maulsby marsh **Project No:** 120909-01.01 **Station ID:** 013

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: hand
Sampling Vessel: —
Subcontractor(s): — Weather: Stormy
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS013-SS-[illegible]120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 12:22
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / Chemistry Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	(slight)	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	(brown)	dense/stiff	strong		moderate	(Wet)
(organic matter)	brown surface	very dense/stiff	overwhelming		heavy	

Comments: very soft silt, very wet, clusters of reg around drainage channels, brown layer on surface, very dark underneath

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Maulsby marsh **Project No:** 120909-01.01 **Station ID:** 014

Sampling Crew: DG JP AT

Sample Date: 5/15/12 Sampling Method: hand

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny ~60

Station Coordinates: N / Lat. —

E / Long. —

Datum: NAD 83 / WGS 84 zone:

Sample ID: MS014-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: —

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: —

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 1320

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	(slight)	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
(silt clay)	(brown)	dense/stiff	strong		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 9" of very soft wet silt, no surface, surface thin brown layer, no coarse organics, clustered clumps of veg, next to open area

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Maulsby marsh **Project No:** 120909-01.01 **Station ID:** 015

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: Hand Ekman
Sampling Vessel: —
Subcontractor(s): — Weather: sunny
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS015-SS-120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 12:51
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	(slight)	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
(silt clay)	(brown)	dense/stiff	strong		moderate	(Wet)
(organic matter)	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 2" standing water, very wet and soft, 3" silt dense organics @ 10 cm

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: KT

ANCHOR QEA

Surface Sediment Field Sample Record

MS-016

Project Name: Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 016

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: hand
Sampling Vessel: —
Subcontractor(s): — Weather: Sunny
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS 016 - SS - 120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 12:11
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / (Chemistry) Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	(moderate)	other:	slight	Moist
(silt clay)	(brown)	dense/stiff	strong		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 3" soft wet brownish layer over thick organic mat that was dark, strong H2S, clumby veg at edge of large pond

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

MS-017

Project Name: Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 017

Sampling Crew: DG JP AT

Sample Date: 5/15/12. Sampling Method: hand & Ponar bowl

Sampling Vessel: —

Subcontractor(s): — Weather:

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: SM017-SS-120415

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 11:25

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / Chemistry Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	~~Very soft/Loose~~	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Open pond no water on surface
very thin lighter brown on surface
highly organic - 4-6 inches silt over thick dense mat

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 018

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: bowl & hand
Sampling Vessel: —
Subcontractor(s): — Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS018-SS-120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 11:00
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / Chemistry Depth MLLW: — ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	none	(H2S)	(none)	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	(Moist)
(silt clay)	(brown) - dark	dense/stiff	(strong)		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:
surface was very brown organic silt
highly organic

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	mod dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287-9131
www.anchorqea.com

Water Collection Form: Water Quality Monitoring

Station ID: MM-Sal-outlet		**Date** 5/30/12	**Time** 1347
Project Name: Jeld Wen		**Project Number** 110909-01.01	
Coordinates			
Lat/Northing:	371631.8	Long/Easting	1302935.9

Weather Observations: Overcast

Param. ---Unit--- Time	Temp.	Sp.Cond	Cond.	pH	Salinity	DO		
1347	20.92	3794	4015	7.48	2.21	9.05		
1348	20.87	3829	4159	7.44	2.21	8.83		

Comments:
8" of water in 20' pond just upstream of culvert pipe. water observed flowing out at low rate.
no odor or sheen observed. water turbid

Recorded by: David Gillingham

ANCHOR QEA

720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287-9131
www.anchorqea.com

Water Collection Form: Water Quality Monitoring

Station ID: MM-Sal-South		**Date** 5/30/12	**Time** 1405
Project Name: Jeld Wen		**Project Number** 110909-01.01	
Coordinates			
Lat/Northing:	372108.1	Long/Easting	1303374.9

Weather Observations: overcast

Param. ---Unit--- Time	Temp. °C	Sp.Cond µS/cm	Cond. µS/cm	pH	Salinity ppt	DO mg/L		
1405	28.33	5797	4892	8.13	2.60	11.18		
1406	28.23	5715	4808	8.30	2.56	11.03		

Comments:
40' diameter pool just south of channel. 75' from tracks.
2 inches of water of silty pond
no movement of water

Recorded by: David Cellingham

ANCHOR QEA

720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287-9131
www.anchorqea.com

Water Collection Form: Water Quality Monitoring

Station ID: MM-Sal-North		**Date** 5/30/12	**Time** 1432
Project Name: Jeld Wen		**Project Number** 110909-01.01	
Coordinates			
Lat/Northing:	372900.3	Long/Easting	1303973.7

Weather Observations: overcast

Param. ---Unit--- Time	Temp.	Sp.Cond	Cond.	pH	Salinity	DO		
1432	28.49	2790	2646	7.92	1.35	7.66		
1433	28.24	2781	2615	7.84	1.35	7.24		

Comments:

150 ft from tracks - 2 inches of water in series of ponds - no odor or sheen
near 15 stake
no movement of water

Recorded by: David Billingham

ATTACHMENT E-2
CHEMISTRY LABORATORY REPORTS

Provided separately due to large file sizes.

Table of Contents: ARI Job UU52, UU62

Client: Anchor QEA, LLC.

Project: 120909-01.01 Jeld Wen - Maulsby Marsh

AV
Signature

May-25-2012
Date

Table of Contents: ARI Job UU52, UU62

Client: Anchor QEA, LLC.

Project: 120909-01.01 Jeld Wen - Maulsby Marsh

AV

Signature

May-25-2012

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

May 16, 2012

David Gillingham
Anchor QEA
720 Olive Way, Suite 1900
Seattle, WA 98101

RE: Client Project: Jeld Wen Maulsby Marsh, 120909-01.01
ARI Job Nos.: UU52 & UU62

Dear David:

Please find enclosed the Chain of Custody (COC) records, sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: UU52_UU62

Enclosures

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

Chain of Custody Documentation

ARI Job ID: UU52, UU62

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested: Std	Page: 1 of 3	
ARI Client Company: Anchor QEA	Phone: 206 287 9130	Date: 5/16/12	Ice Present? Yes
Client Contact: Nathan Soccorsy / David Gillingham		No. of Coolers:	Cooler Temps:
Client Project Name: Jeld wen Maulsby Marsh			
Client Project #: 120909-01.01	Samplers: DG		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: PCB / Pest	metals	SVOC	TPH	EPH Archive	Grainsize	TS / TOC Ammonia	Sulfides	Notes/Comments
MS001-SS-120515	5/15/12	1339	Sed	8	X	X	X	X	X	X	X	X	
MS002-SS-120515		1317		8	X	X	X	X	X	X	X	X	
MS003-SS-120515		1234		8	X	X	X	X	X	X	X	X	
MS004-SS-120515		1153		8	X	X	X	X	X	X	X	X	
MS005-SS-120515		855			X	X	X	X	X	X	X	X	
MS006-SS-120515		916			X	X	X	X	X	X	X	X	
MS007-SS-120515		945			X	X	X	X	X	X	X	X	
MS008-SS-120515		940			X	X	X	X	X	X	X	X	
MS009-SS-120515		1010			X	X	X	X	X	X	X	X	
MS010-SS-120515		1030	↓	↓					X	X	X	X	Hold Select Analysis

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
EPH - extract only & hold.	Printed Name: Cindy Fields	Printed Name: Chris Atwell	Printed Name:	Printed Name:
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 5/16/2012 10:05am	Date & Time: 5/16/12 10:05	Date & Time:	Date & Time:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: JW - maul sby Marsh

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: UU52

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 0.5 0.5 0.5 0.3 4.4 3.0 0.4

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877952

Cooler Accepted by: CA Date: 5/16/12 Time: 10:05

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI...	NA		_____

Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: TS Date: 5-16-12 Time: 1313

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

MS101-55 Added to ~~COC~~ JOB per client request.

By: TS Date: 5-16-12 Its a dupe taken from MS001-55

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm
		

Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 4462	Turn-around Requested:	Page: 2 of 3	
ARI Client Company: Anchor QEA	Phone: 206 287 9130	Date: 5/16/12	Ice Present? Y
Client Contact: Soccorsy / Gillingham		No. of Coolers: 7	Cooler Temps: 0.3 - 4.4
Client Project Name: Seld Wen - Maulsby Marsh			
Client Project #: 120909-01.01	Samplers: DB		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Archive	EPH Archive	Grain Size	TS/TOC - Ammonia	Total Sulfides				Notes/Comments
MS110-SS-120515	5/15/12	1035	Sed	8	X	X	X	X	X				
MS011-SS-120515		1115			X	X	X	X	X				
MS012-SS-120515		1159			X	X	X	X	X				
MS013-SS-120515		1222			X	X	X	X	X				
MS014-SS-120515		1326			X	X	X	X	X				
MS015-SS-120515		1251			X	X	X	X	X				
MS016-SS-120515		1211			X	X	X	X	X				
MS017-SS-120515		1125			X	X	X	X	X				
MS018-SS-120515		1100	↓	↓	X	X	X	X	X				

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Cindy Fields			
	Printed Name: Cindy Fields	Printed Name: Chris Atwell	Printed Name:	Printed Name:
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 5-16-2012 10:05	Date & Time: 5/16/12 10:05	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release 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 Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 11162	Turn-around Requested: Std	Page: 3 of 3	
ARI Client Company: Anchor QEA	Phone: 206-287-9130	Date: 5/16/12	Ice Present? yes
Client Contact: Soccorsy / Gillingham		No. of Coolers: 7	Cooler Temps: 0.3, 4.4
Client Project Name: SW - Maulsby Marsh			
Client Project #: 120909-01.01	Samplers: DG		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: PCB/Pest	metals	svoc	TPH					Notes/Comments
MS-SSRB-120515	5/15/12	1450	water	7	X	X	X	X					
MS-SSFB-120515	5/15/12	1500	water	7	X	X	X	X					

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Cindy Fields	Printed Name: Chris Atwell	Printed Name:	Printed Name:
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 5/16/2012 10:05am	Date & Time: 5/16/12 10:05	Date & Time:	Date & Time:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: JW - Maulsby Marsh

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: iiu62

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES (NO)

Were custody papers included with the cooler? (YES) NO

Were custody papers properly filled out (ink, signed, etc.) (YES) NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 0.5 0.5 0.5 0.3 4.4 3.0 0.4

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877952

Cooler Accepted by: CA Date: 5/16/12 Time: 10:05

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES (NO)

What kind of packing material was used? ... (Bubble Wrap) (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA (YES) NO

Were all bottles sealed in individual plastic bags? YES (NO)

Did all bottles arrive in good condition (unbroken)? (YES) NO

Were all bottle labels complete and legible? (YES) NO

Did the number of containers listed on COC match with the number of containers received? (YES) NO

Did all bottle labels and tags agree with custody papers? (YES) NO

Were all bottles used correct for the requested analyses? (YES) NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA (YES) NO

Were all VOC vials free of air bubbles? (NA) YES NO

Was sufficient amount of sample sent in each bottle? (YES) NO

Date VOC Trip Blank was made at ARI... (NA) _____

Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 5/17/12 Time: 752

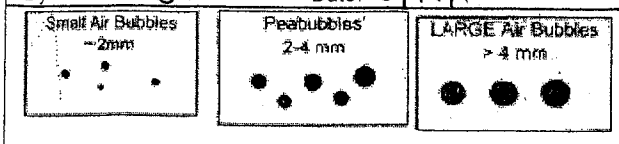
***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

One 4oz jar labeled for Hg analysis for sample MS013-SS-120515 arrived empty.

By: JM Date: 5/17/12



Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

PRESERVATION VERIFICATION 05/17/12
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **UU62**

PC: Cheronne
VTSR: 05/16/12

Inquiry Number: NONE
Analysis Requested: 05/16/12
Contact: Gillingham, David
Client: Anchor QEA, LLC.
Logged by: JM
Sample Set Used: Yes-491
Validatable Package: Lv4
Deliverables:

Project #: 120909-01.01
Project: Jeld Wen - Maulsby Marsh
Sample Site:
SDG No:
Analytical Protocol: PSDDA

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
12-8937 **UU62J**	MS-SSRB-120515						TOT pass															
12-8938 **UU62K**	MS-SSFB-120515						TOT pass															

Checked By JM Date 5/17/12

Subject: RE: UU52 Maulsby Marsh
From: Delaney Peterson <dpeterson@anchorqea.com>
Date: 3:10 PM
To: Cheronne Oreiro <cheronneo@arilabs.com>
CC: Cindy Fields <cfields@anchorqea.com>

Hi Delaney - To keep it simple, we'll create the duplicate from the first sample.
Thanks,
-Cheronne

On 5/16/2012 12:23 PM, Delaney Peterson wrote:

Hi Cheronne,
We need to create a field duplicate from one of the samples that is being analyzed for everything. The duplicate was accidentally taken on an archive sample. It doesn't matter which one so we can base it on volume. Will you check to see which sample would be the best one to split and create a field duplicate? Or just create one from the first sample and log it in for the same analyses of the parent sample? The id would be MS101-SS-120515.
Let me know if you have questions.
Thanks,
Delaney

Delaney Peterson

ANCHOR QEA, LLC
dpeterson@anchorqea.com
720 Olive Way, Suite 1900
Seattle, Washington 98101
T 206.287.9130
D 206.903.3396
F 206.287.9131

ANCHOR QEA, LLC
www.anchorqea.com

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: UU52, UU62

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: Anchor QEA
Project: Jeld Wen Maulsby Marsh, 120909-01.01
ARI Job Nos.: UU52 & UU62

Sample receipt

Twenty sediment samples and two water samples were received on May 16, 2012 under ARI jobs UU52 and UU62. Select sample containers archived upon receipt. The cooler temperatures measured by IR thermometer following ARI SOP were between 0.3 and 4.4°C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

Semivolatiles by SW8270

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial calibrations were within method requirements.

The continuing calibration (CCAL) on 5/30/12 fell outside the 20% control limit low for Benzoic Acid. All detected sample results associated with this CCAL have been flagged with a "Q" qualifier. No further corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits The LCS and LCSD percent recoveries were within control limits.

Several matrix spike and matrix spike duplicate percent recoveries were outside advisory control limits for sample **MS007-SS-120512**. No corrective action is required for matrix QC.

Pesticides by SW8081

The samples and associated laboratory were extracted and analyzed within the method recommended holding times.

The sediment samples were initially diluted at the instrument due to extract color and low total solids results. The samples were re-analyzed on 5/26/12 at lesser dilutions to obtain lower reporting limits. Both sets of data have been reported for review. No further corrective action was taken.

Initial calibrations were within method requirements

Several compounds were outside the 20% control limit on both columns for the continuing calibrations (CCALs) on 5/26/12 at 10:43 and 13:33. DDT breakdowns associated with these CCALs were outside the 15% control limit. All data have been reported as is. No corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

Both matrix spike and matrix spike duplicates could not be recovered for sample **MS002-SS-120515**. No corrective action is required for matrix QC.

Aroclor PCBs by SW8082

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial and continuing calibrations were within method requirements. Internal standard areas were within limits.

The surrogate percent recovery of Decachlorobiphenyl fell outside the control limits low for sample **MS-SSRB-120515**. All other percent recoveries were within control limits. No corrective action was taken.

The method blanks were clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

NWTPH-Dx

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

Metals and Mercury by SW6010C/200.8/7471A/7470

The samples and associated laboratory QC for ARI jobs were digested and analyzed within recommended holding times.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recovery of antimony fell outside the control limits low for sample **MS002-SS-120515**. A post digestion spike was performed and the recovery was within control limits. All relevant data have been flagged with an "N" qualifier on the appropriate Form V. No further corrective action was taken.

The duplicate RPDs were within control limits.

General Chemistry Parameters

The samples and associated laboratory QC were prepared and analyzed within the method recommended holding times.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The SRM percent recoveries were within limits.

The matrix spike percent recoveries and replicate RPD/RSDs were within control limits.

Geotechnical Parameters

A laboratory-specific case narrative follows this page.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Anchor QEA, LLC	**ARI Job No.:** UU52
Client Project: Jeld Wen Maulsby Marsh	**Client Project No.:** 120909-01.01

Case Narrative

1. Eleven samples were submitted for grain size analysis according to Puget Sound Estuary Protocol (PSEP) methodology on May 16, 2012.
2. The samples appeared to be composed almost entirely of organic debris and/or organic fine material. The total solids percentages for these samples were extremely low.
3. The samples were run in a single batch and one sample from this job was chosen for triplicate analysis. The triplicate data is reported on the QA summary.
4. Three samples did not contain the required 5 grams of fines for the pipette portion of the analysis. The analytical balance has a capacity of about 200 grams (by 0.0001 grams) and a sample that would yield 5 grams of fines could not be split and stay within the capacity of the balance. A full pipette was performed on the samples, because the percentage of fines was greater than 19%, but due to the low total solids percentages, these samples have been qualified on the QA summary.
5. One sample, MS008-SS-120515, had a QA percentage outside of the allowed range. A sample could not be resplit to come within the allowed QA range. The data has been qualified on the QA summary.
6. The samples contained woody or other organic matter which dried into a hard disk after the oven drying portion of the testing procedure. This material was extremely hard to break down and sieve. Individual organic particles may have broken down during the sieving process, also affecting grain size analysis.
7. The data is provided in summary tables and plots.
8. There were no other noted anomalies in this project.

Released by: Lucinda Curtis Date: 5/29/12
Title: *Geotechnical Laboratory Manager*

Reviewed by: [signature] Date: May 29, 2012
Title: *Lead Technician*

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Anchor QEA, LLC	**ARI Job No.:** UU62
Client Project: Jeld Wen Maulsby Marsh	**Client Project No.:** 120909-01.01

Case Narrative

1. Nine samples were submitted for grain size analysis according to Puget Sound Estuary Protocol (PSEP) methodology on May 16, 2012.
2. The samples appeared to be composed almost entirely of organic debris and/or organic fine material. The total solids percentages for these samples were extremely low.
3. The samples were run in a single batch and one sample from another job was chosen for triplicate analysis. The triplicate data is reported on the QA summary.
4. Two samples did not contain the required 5 grams of fines for the pipette portion of the analysis. The analytical balance has a capacity of about 200 grams (by 0.0001 grams) and a sample that would yield 5 grams of fines could not be split and stay within the capacity of the balance. A full pipette was performed on the samples, because the percentage of fines was greater than 15%, but due to the low total solids percentages, these samples have been qualified on the QA summary.
5. The samples contained woody or other organic matter which dried into a hard disk after the oven drying portion of the testing procedure. This material was extremely hard to break down and sieve. Individual organic particles may have broken down during the sieving process, also affecting grain size analysis.
6. The data is provided in summary tables and plots.
7. There were no other noted anomalies in this project.

Released by: Qiuana Curtis Date: 5/29/12
Title: *Geotechnical Laboratory Manager*

Reviewed by: Garrett Noble Date: May 29, 2012
Title: *Lead Technician*

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: UU52
Client: Anchor QEA, LLC.
Project Event: 120909-01.01
Project Name: Jeld Wen Maulsby Marsh

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	MS001-SS-120515	UU52A	12-8893	Sediment	05/15/12 13:39	05/16/12 10:05
2.	MS101-SS-120515	UU52B	12-8894	Sediment	05/15/12 13:39	05/16/12 10:05
3.	MS002-SS-120515	UU52C	12-8895	Sediment	05/15/12 13:17	05/16/12 10:05
4.	MS003-SS-120515	UU52D	12-8896	Sediment	05/15/12 12:34	05/16/12 10:05
5.	MS004-SS-120515	UU52E	12-8897	Sediment	05/15/12 11:53	05/16/12 10:05
6.	MS005-SS-120515	UU52F	12-8898	Sediment	05/15/12 08:55	05/16/12 10:05
7.	MS006-SS-120515	UU52G	12-8899	Sediment	05/15/12 09:16	05/16/12 10:05
8.	MS007-SS-120515	UU52H	12-8900	Sediment	05/15/12 09:45	05/16/12 10:05
9.	MS008-SS-120515	UU52I	12-8901	Sediment	05/15/12 09:40	05/16/12 10:05
10.	MS009-SS-120515	UU52J	12-8902	Sediment	05/15/12 10:10	05/16/12 10:05
11.	MS010-SS-120515	UU52K	12-8903	Sediment	05/15/12 10:30	05/16/12 10:05

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: UU62
Client: Anchor QEA, LLC.
Project Event: 120909-01.01
Project Name: Jeld Wen - Maulsby Marsh

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	MS110-SS-120515	UU62A	12-8928	Sediment	05/15/12 10:35	05/16/12 10:05
2.	MS011-SS-120515	UU62B	12-8929	Sediment	05/15/12 11:15	05/16/12 10:05
3.	MS012-SS-120515	UU62C	12-8930	Sediment	05/15/12 11:59	05/16/12 10:05
4.	MS013-SS-120515	UU62D	12-8931	Sediment	05/15/12 12:22	05/16/12 10:05
5.	MS014-SS-120515	UU62E	12-8932	Sediment	05/15/12 13:26	05/16/12 10:05
6.	MS015-SS-120515	UU62F	12-8933	Sediment	05/15/12 12:51	05/16/12 10:05
7.	MS016-SS-120515	UU62G	12-8934	Sediment	05/15/12 12:11	05/16/12 10:05
8.	MS017-SS-120515	UU62H	12-8935	Sediment	05/15/12 11:25	05/16/12 10:05
9.	MS018-SS-120515	UU62I	12-8936	Sediment	05/15/12 11:00	05/16/12 10:05
10.	MS-SSRB-120515	UU62J	12-8937	Water	05/15/12 14:50	05/16/12 10:05
11.	MS-SSFB-120515	UU62K	12-8938	Water	05/15/12 15:00	05/16/12 10:05

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
L	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

3/14/12

SURR SOLUTIONS

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1953-4	ABN	100/150	MEOH	07/05/12
B	1917-2	SIM PNA	15/75	ACETONE	05/30/12
C	NA	SIM ABN	25/37.5	MEOH	NA
D	1925-5	LOW PCB	0.2	ACETONE	05/28/12
E	1900-2	HERB	62.5	MEOH	10/06/12
F	1919-5	PCP	12.5	ACETONE	12/09/12
G	1906-3	d8-DIOXANE	100	MEOH	04/30/12
H	1847-2	OP-PEST	25	ACETONE	03/23/12
I	1896-3	LOW S. PNA	1.5	ACETONE	09/22/12
J	1915-4	TBT-PORE	0.125	MECL2	11/23/12
K	1925-4	MED PCB	20	ACETONE	05/28/12
L	1915-3	TBT	2.5	MECL2	11/23/12
M	1888-4	EPH	1500	MECL2	04/04/12
N	1914-2	PCB	2	ACETONE	05/28/12
O	1947-2	TPH	450	MECL2	09/28/12
P	1948-3	HCID	2250	MECL2	09/28/12
Q	NA	EDB	1	MEOH	NA
R	NA	RESIN ACID	250	ACETONE	NA
S	1864-1	PBDE	.5	MEOH	05/21/12
T	1884-2	ALKYL PNA	10	MEOH	07/15/12
U	NA	CONGENER	2.5	ACETONE	NA
V	1925-2	LOW PCP	1.25	ACETONE	12/09/12

3/14/12

LCS SOLUTIONS

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1907-1	PCB 1660	20	ACETONE	11/01/12
2#		BCOC PEST	10	ACETONE	NA
3	1922-2	PEST	01/02/10	ACETONE	12/13/12
4	1922-3	LOW PEST	.1/.2/1	ACETONE	12/13/12
5	1902-4	EPH	1500	MECL2	10/04/12
6	1919-2	PCP	12.5/125	ACETONE	10/15/12
7	1926-2	ABN	100	MEOH	05/31/12
8	1916-2	TBT	2.5	MECL2	11/23/12
9	1918-2	PORE TBT	.125/.25	MECL2	11/23/12
10					
11	1860-4	TPHD	15000	ACETONE	05/12/12
12					
13	1948-1	LOW PCB	2	ACETONE	11/01/12
14					
15	1929-1	SIM PNA	15/75	MEOH	06/21/12
16	1906-4	1,4-DIOXANE	100	MEOH	04/30/12
17	1869-4	1248 PCB	10	ACETONE	06/14/12
18	1927-2	LOW SIM PNA	1.5	ACETONE	06/20/12
19	1931-1	AK103	7500	ACETONE	05/17/12
20	1930-1	PNA	100	ACETONE	06/23/12
21	1943-2	SKY/BHT	100	MEOH	07/27/12
22	1957-1	HERB	04 to 5000	MEOH	04/22/12
23	1887-2	EXTRA PNA	15	ACETONE	08/25/12
24					
25#		DIPHENYL	100	MEOH	NA
26	1951-2	OP-PEST	25	MEOH	03/31/12
27		STEROLS	200	MEOH	NA
28#		ADD. PEST	2	ACETONE	NA
29#		DECANES	100	MEOH	NA

LCS SOLUTIONS

3/14/12

30		EDB/DBCP	0.2	MEOH	NA
31	1944-1	TERPINEOL	100	MEOH	07/27/12
32	NA	GUAIACOL	50-200	ACETONE	NA
33		RETENE	100	MEOH	NA
34	NA	CONGENERS	0.5	ACETONE	NA
35	1875-3	ALKYL PNA A	10	MEOH	07/18/12
36		ALKYL PNA B	10	MEOH	NA
37		CAR/PERY	100	ACETONE	NA
38	1926-3	ABN ACID	200-450	MEOH	06/19/12
39	1853-4	BENZIDINE	500	MEOH	04/30/12
40	1851-3	PBDE	0.5	MEOH	04/22/12
50	1900-1	FULL RESIN	250	ACETONE	08/12/12
51		DDTS	0.01	ACETONE	NA
52		1232 PCB	20	ACETONE	NA
53	1919-1	DALAPON	50	MEOH	08/22/12
54		T-CHLORDANE	10	ACETONE	NA
55		TOXAPHENE	50	ACETONE	NA
56	1952-3	ABN BASE	50-200	MEOH	08/14/12
#=PROJECT SPECIFIC SOLUTION					

LOD, LOQ and Control Limits Summary
GC - MS – SVOA Analysis of Aqueous Samples
EPA Method 8270D
ARI Analysis: BANWLI & BANWSI

Continuous Liquid-Liquid (EPA Method 3520C, Bench Sheet 3006F) or Separatory Funnel (EPA method 3510C, Bench Sheet 3010F) extraction using 500mL sample concentrated to 0.5 mL final extract volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	LCS, MS Recovery[2,3]	Replicate RPD[4]
Phenol	**0.445**	**0.5**	**1**	26 – 112	≤ 40
Bis(2-Chloroethyl)ether	**0.257**	**0.5**	**1**	51 – **100**	≤ 40
2-Chlorophenol	**0.246**	**0.5**	**1**	50 – **100**	≤ 40
1,3-Dichlorobenzene	**0.499**	**0.5**	**1**	27 – **100**	≤ 40
1,4-Dichlorobenzene	**0.470**	**0.5**	**1**	29 – **100**	≤ 40
1,2-Dichlorobenzene	**0.436**	**0.5**	**1**	32 – **100**	≤ 40
Benzyl alcohol	**0.409**	**1.0**	**2**	**10** - 128	≤ 40
2,2'-oxybis(1-Chloropropane)	**0.221**	**0.5**	**1**	39 - 101	≤ 40
2-Methylphenol	**0.329**	**0.5**	**1**	47 – **100**	≤ 40
Hexachloroethane	**0.610**	**1.0**	**2**	19 – **100**	≤ 40
N-Nitroso-di-n-propylamine	**0.365**	**0.5**	**1**	46 – **100**	≤ 40
4-Methylphenol	**0.536**	**1.0**	**2**	46 – **100**	≤ 40
Nitrobenzene	**0.490**	**0.5**	**1**	46 – 103	≤ 40
Isophorone	**0.258**	**0.5**	**1**	62 – 105	≤ 40
2-Nitrophenol	**0.979**	**1.5**	**3**	32 – 116	≤ 40
2,4-Dimethylphenol	**0.627**	**1.5**	**3**	15 – **100**	≤ 40
Bis(2-Chloroethoxy)methane	**0.252**	**0.5**	**1**	44 – **100**	≤ 40
2,4-Dichlorophenol	**1.109**	**1.5**	**3**	35 – 114	≤ 40
1,2,4-Trichlorobenzene	**0.495**	**0.5**	**1**	34 – **100**	≤ 40
Naphthalene	**0.326**	**0.5**	**1**	48 – **100**	≤ 40
Benzoic acid	**8.647**	**10**	**20**	**10** - 172	≤ 40
4-Chloroaniline	**1.733**	**2.5**	**5**	**10** - 153	≤ 40
2,6-Dinitrotoluene	**1.300**	**1.5**	**3**	32 – 129	≤ 40
Hexachlorobutadiene	**0.604**	**1.5**	**3**	22 – **100**	≤ 40
4-Chloro-3-methylphenol	**0.919**	**1.5**	**3**	33 – 123	≤ 40
Hexachlorocyclopentadiene	**1.862**	**2.5**	**5**	**10** – **100**	≤ 40
2,4,6-Trichlorophenol	**1.235**	**1.5**	**3**	37 – 120	≤ 40
2,4,5-Trichlorophenol	**1.706**	**2.5**	**5**	37 – 124	≤ 40
2-Chloronaphthalene	**0.340**	**0.5**	**1**	49 – **100**	≤ 40
2-Nitroaniline	**0.784**	**1.5**	**3**	18 – 140	≤ 40
Acenaphthylene	**0.274**	**0.5**	**1**	47 – 110	≤ 40
Dimethylphthalate	**0.264**	**0.5**	**1**	60 – 106	≤ 40
Acenaphthene	**0.347**	**0.5**	**1**	55 – 101	≤ 40

LOD, LOQ and Control Limits Summary
GC - MS – SVOA Analysis of Aqueous Samples
EPA Method 8270D
ARI Analysis: BANWLI & BANWSI

Continuous Liquid-Liquid (EPA Method 3520C, Bench Sheet 3006F) or Separatory Funnel (EPA method 3510C, Bench Sheet 3010F) extraction using 500mL sample concentrated to 0.5 mL final extract volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	LCS, MS Recovery[2,3]	Replicate RPD[4]
3-Nitroaniline	**1.140**	**1.5**	**3**	**10** – 208	≤ 40
2-Methylnaphthalene	**0.241**	**0.5**	**1**	38 – **100**	≤ 40
2,4-Dinitrophenol	**5.474**	**10**	**20**	**10** – 224	≤ 40
Dibenzofuran	**0.198**	**0.5**	**1**	46 – 108	≤ 40
4-Nitrophenol	**2.895**	**5.0**	**10**	**10** – 103	≤ 40
2,4-Dinitrotoluene	**1.277**	**1.5**	**3**	33 – 134	≤ 40
Fluorene	**0.266**	**0.5**	**1**	59 – 108	≤ 40
4-Chlorophenyl-phenylether	**0.342**	**0.5**	**1**	54 – 104	≤ 40
Diethylphthalate	**0.407**	**0.5**	**1**	60 - 108	≤ 40
4-Nitroaniline	**1.366**	**1.5**	**3**	13 – 144	≤ 40
4,6-Dinitro-2-methylphenol	**4.928**	**5.0**	**10**	**10** – 190	≤ 40
N-Nitrosodiphenylamine	**0.392**	**0.5**	**1**	39 – 100	≤ 40
4-Bromophenyl-phenylether	**0.262**	**0.5**	**1**	56 – 105	≤ 40
Hexachlorobenzene	**0.335**	**0.5**	**1**	54 – 108	≤ 40
Pentachlorophenol	**2.746**	**5.0**	**10**	25 – 144	≤ 40
Phenanthrene	**0.283**	**0.5**	**1**	64 – 115	≤ 40
Anthrcene	**0.303**	**0.5**	**1**	59 – 107	≤ 40
Carbazole	**0.251**	**0.5**	**1**	36 – 123	≤ 40
Di-n-butylphthalate	**0.304**	**0.5**	**1**	62 – 110	≤ 40
Fluoranthene	**0.290**	**0.5**	**1**	63 – 119	≤ 40
Pyrene	**0.379**	**0.5**	**1**	57 – 117	≤ 40
Butylbenzylphthalate	**0.402**	**0.5**	**1**	49 – 118	≤ 40
Benzo(a)anthracene	**0.373**	**0.5**	**1**	61 – 113	≤ 40
3,3'-Dichlorobenzidine	**1.553**	**2.5**	**5**	**10** – 151	≤ 40
Chrysene	**0.397**	**0.5**	**1**	62 – 115	≤ 40
bis(2-Ethylhexyl)phthalate	**1.050**	**1.5**	**3**	47 – 127	≤ 40
Di-n-octylphthalate	**0.331**	**0.5**	**1**	60 – 106	≤ 40
Benzo(b)fluoranthene	**0.298**	**0.5**	**1**	61 – 120	≤ 40
Benzo(k)fluoranthene	**0.487**	**0.5**	**1**	59 – 120	≤ 40
Benzo(a)pyrene	**0.425**	**0.5**	**1**	46 – 105	≤ 40
Indeno(1,2,3-cd)pyrene	**0.435**	**0.5**	**1**	42 – 134	≤ 40
Dibenzo(a,h)anthracene	**0.437**	**0.5**	**1**	46 – 132	≤ 40
Benzo(g,h,i)perylene	**0.464**	**0.5**	**1**	33 – 135	≤ 40
N-Nitrosodimethylamine	**1.209**	**1.5**	**3**	17 - 106	≤ 40

LOD, LOQ and Control Limits Summary
GC - MS – SVOA Analysis of Aqueous Samples
EPA Method 8270D
ARI Analysis: BANWLI & BANWSI

Continuous Liquid-Liquid (EPA Method 3520C, Bench Sheet 3006F) or Separatory Funnel (EPA method 3510C, Bench Sheet 3010F) extraction using 500mL sample concentrated to 0.5 mL final extract volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	LCS, MS Recovery[2,3]	Replicate RPD[4]
Aniline	**0.470**	**0.5**	**1**	**10** – 113	≤ 40
1-methylnaphthalene	**0.199**	**0.5**	**1**	43 – **100**	≤ 40
Azobenzene (1,2-DP-Hydrazine)	**0.214**	**0.5**	**1**	52 - 111	≤ 40
Benzofluoranthenes, Total	**2.317**	**2.5**	**5**		≤ 40
1,4-Dioxane[5]				13 – 114	≤ 40
Surrogate Standard Recovery			**MB / LCS**	**Samples**	**RPD**
2-Fluorophenol			33 – 100	23 – **100**	≤ 40
Phenol-d_5			15 - 121	16 – 106	≤ 40
2-Chlorophenol-d_4			46 – 102	33 – 100	≤ 40
1,2-Dichlorobenzene-d_4			40 – **100**	27 – **100**	≤ 40
Nitrobenzene-d_5			50 – **100**	34 – 101	≤ 40
2-Fluorobiphenyl			51 – **100**	38 – **100**	≤ 40
2,4,6-Tribromophenol			46 – 125	31 – 128	≤ 40
p-Terphenyl-d_{14}			54 – 117	27 – 122	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Control limits calculated using all data from 8/1/10 through 7/31/11.
(3) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(5) Sample extracts for 1,4-Dioxane analysis are concentrated to 1 mL.

DL[1] LOD[1], LOQ[1] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis			SIM Analysis			LCS,MS Control Limits	RPD[2]
	DL	LOD	LOQ	DL	LOD	LOQ		
Phenol	8.65	10	**20**	2.56	5	**5**	30 – 160	≤ 40
bis-(2-Chloroethyl)ether	3.35	10	**20**	--	--	--	30 – 160	≤ 40
2-Chlorophenol	2.39	10	**20**	--	--	--	30 – 160	≤ 40
1,3-Dichlorobenzene	2.63	10	**20**	1.31	2.5	**5**	30 – 160	≤ 40
1,4-Dichlorobenzene	2.86	10	**20**	1.19	2.5	**5**	30 – 160	≤ 40
1,2-Dichlorobenzene	2.50	10	**20**	1.10	2.5	**5**	30 – 160	≤ 40
Benzyl alcohol	6.09	10	**20**	7.04	10	**20**[3]	30 – 160	≤ 40
2,2'-oxy-*bis*-(1-Chloropropane)	3.76	10	**20**	--	--	--	30 – 160	≤ 40
2-Methylphenol	5.25	10	**20**	1.81	2.5	**5**	30 – 160	≤ 40
Hexachloroethane	2.94	10	**20**	--	--	--	30 – 160	≤ 40
N-Nitroso-di-n-propylamine	3.36	10	**20**	9.48	10	**12**[3]	30 – 160	≤ 40
4-Methylphenol[6]	6.63	20	**40**	2.52	5	**10**	30 – 160	≤ 40
Nitrobenzene	4.06	10	**20**	--	--	--	30 – 160	≤ 40
Isophorone	2.86	10	**20**	--	--	--	30 – 160	≤ 40
2-Nitrophenol	38.7	50	**100**	--	--	--	30 – 160	≤ 40
2,4-Dimethylphenol	3.46	20	**40**	2.89	10	**20**	30 – 160	≤ 40
bis-(2-Chloroethoxy)methane	2.00	10	**20**	--	--	--	30 – 160	≤ 40
2,4-Dichlorophenol	21.5	100	**200**	--	--	--	30 – 160	≤ 40
1,2,4-Trichlorobenzene	3.48	10	**20**	1.86	2.5	**5**	30 – 160	≤ 40
Naphthalene	2.76	10	**20**	--	--	--	30 – 160	≤ 40
Benzoic acid	101	200	**400**[5]	--	--	--	30 – 160	≤ 40
4-Chloroaniline	22.3	135	**270**[4]	--	--	--	30 – 160	≤ 40
Hexachlorobutadiene	4.57	50	**100**	0.96	2.5	**5**	30 – 160	≤ 40
4-Chloro-3-methylphenol	15.1	50	**100**	--	--	--	30 – 160	≤ 40
2-Methylnaphthalene	3.06	10	**20**	--	--	--	30 – 160	≤ 40
Hexachlorocyclopentadiene	66.4	200	**400**[4]	--	--	--	30 – 160	≤ 40
2,4,6-Trichlorophenol	22.4	50	**100**	--	--	--	30 – 160	≤ 40
2,4,5-Trichlorophenol	21.4	50	**100**	--	--	--	30 – 160	≤ 40
2-Chloronaphthalene	2.64	10	**20**	--	--	--	30 – 160	≤ 40
2-Nitroaniline	18.4	50	**100**	--	--	--	30 – 160	≤ 40
Acenaphthylene	5.71	10	**20**	--	--	--	30 – 160	≤ 40
Dimethylphthalate	2.90	10	**20**	1.34	2.5	**5**	30 – 160	≤ 40
2,6-Dinitrotoluene	30.6	50	**100**	--	--	--	30 – 160	≤ 40
Acenaphthene	3.28	10	**20**	--	--	--	30 – 160	≤ 40
3-Nitroaniline	22.5	50	**100**	--	--	--	30 – 160	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis			SIM Analysis			LCS,MS Control Limits	RPD[2]
	DL	LOD	LOQ	DL	LOD	LOQ		
2,4-Dinitrophenol	111	425	**850**[4]	--	--	--	30 – 160	≤ 40
Dibenzofuran	4.10	10	**20**	--	--	--	30 – 160	≤ 40
4-Nitrophenol	34.7	50	**100**	--	--	--	30 – 160	≤ 40
2,4-Dinitrotoluene	19.5	50	**100**	--	--	--	30 – 160	≤ 40
Fluorene	4.35	10	**20**	--	--	--	30 – 160	≤ 40
4-Chlorophenyl-phenylether	5.29	10	**20**	--	--	--	30 – 160	≤ 40
Diethylphthalate	36.6	50	**50**[3]	3.26	5.0	**5.0**	30 – 160	≤ 40
4-Nitroaniline	37.9	50	**100**	--	--	--	30 – 160	≤ 40
4,6-Dinitro-2-methylphenol	21.2	100	**200**	--	--	--	30 – 160	≤ 40
N-Nitrosodiphenylamine	5.39	10	**20**	1.38	10	**20**	30 – 160	≤ 40
4-Bromophenyl-phenylether	5.03	10	**20**	--	--	--	30 – 160	≤ 40
Hexachlorobenzene	4.29	10	**20**	1.26	2.5	**5**	30 – 160	≤ 40
Pentachlorophenol	48.5	100	**200**[4]	14.3	25	**50**	30 – 160	≤ 40
Phenanthrene	3.64	10	**20**	--	--	--	30 – 160	≤ 40
Anthracene	4.50	10	**20**	--	--	--	30 – 160	≤ 40
Carbazole	2.69	10	**20**	--	--	--	30 – 160	≤ 40
Di-n-butylphthalate	8.16	10	**20**	--	--	--	30 – 160	≤ 40
Fluoranthene	2.91	10	**20**	--	--	--	30 – 160	≤ 40
Pyrene	1.94	10	**20**	--	--	--	30 – 160	≤ 40
Butylbenzylphthalate	6.14	10	**20**	2.89	5.0	**5**	30 – 160	≤ 40
Benzo(a)anthracene	3.29	10	**20**	--	--	--	30 – 160	≤ 40
3,3'-Dichlorobenzidine	17.8	75	**150**[4]	--	--	--	30 – 160	≤ 40
Chrysene	3.75	10	**20**	--	--	--	30 – 160	≤ 40
bis-(2-Ethylhexyl)phthalate	14.6	20	**25**[3]	--	--	--	30 – 160	≤ 40
Di-n-octylphthalate	5.84	10	**20**	--	--	--	30 – 160	≤ 40
Benzo(b)fluoranthene[7]	3.47	10	**20**	--	--	--	30 – 160	≤ 40
Benzo(k)fluoranthene[7]	4.18	10	**20**	--	--	--	30 – 160	≤ 40
Benzofluoranthene-Total[8]	6.67	20	**40**	--	--	--	30 – 160	≤ 40
Benzo(a)pyrene	5.45	10	**20**	--	--	--	30 – 160	≤ 40
Indeno(1,2,3-cd)pyrene	4.68	10	**20**	--	--	--	30 – 160	≤ 40
Dibenzo(a,h)anthracene	4.31	10	**20**	2.02	2.5	**5**	30 – 160	≤ 40
Benzo(g,h,i)perylene	4.40	10	**20**	--	--	--	30 – 160	≤ 40
N-Nitrosodimethylamine	14.1	50	**100**	3.15	13	**25**	30 – 160	≤ 40
Aniline	40.0	270	**540**[4]	--	--	--	30 – 160	≤ 40
Pyridine	32.7	75	**150**[4]	--	--	--	30 – 160	≤ 40
1-Methylnaphthalene	2.68	10	**20**	--	--	--	30 – 160	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis			SIM Analysis			LCS,MS Control Limits	RPD[2]
	DL	LOD	LOQ	DL	LOD	LOQ		
Azobenzene (1,2-DP-Hydrazine)	2.98	10	**20**	--	--	--	30 – 160	≤ 40
Surrogate Standards						**MB / LCS**	**Samples**	**RPD**
2-Fluorophenol						30 – 160	30 – 160	≤ 40
Phenol-d_5						30 – 160	30 – 160	≤ 40
2-Chlorophenol-d_4						30 – 160	30 – 160	≤ 40
1,2-Dichlorobenzene-d_4						30 – 160	30 – 160	≤ 40
Nitrobenzene-d_5						30 – 160	30 – 160	≤ 40
2-Fluorobiphenyl						30 – 160	30 – 160	≤ 40
2,4,6-Tribromophenol						30 – 160	30 – 160	≤ 40
p-Terphenyl-d_{14}						30 – 160	30 – 160	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD), Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(3) Spiked at 5 ppb
(4) Spiked at 100 ppb
(5) Spiked at 200 ppb
(6) 3-Methylphenol (not calibrated) co-elutes with 4-Methylphennol (calibrated)
(7) Benzo(b)fluoranthene and Benzo(k)fluoranthene are reported as separate analytes only when the height of the valley between the isomer peaks is less than than 50% of the average of the two peak heights, otherwise total Benzofluoranthenes are reported.
(8) Benzo(b)fluoranthene + Benzo(j)fluoranthene + Benzo(k)fluoranthene (only the b & k isomers are calibrated)

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Spike Recovery Control Limits for Chlorinated Pesticides EPA Method SW-846-8081B Analysis of Aqueous Samples [1,5]

Effective 9/20/10

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Sample Volume / Final Volume	**500 mL to 5 mL**		**1000 / 1 mL**	
LCS Spike Recovery [4]	**Control Limits**	**ME Limits [2]**	**Control Limits**	**ME Limits [2]**
alpha-BHC	73 - 107	67 - 113	37 - 110	25 - 122
beta-BHC	68 - 116	60 - 124	33 - 112	20 - 125
delta-BHC	42 - 114	30 - 126	18 - 127	**10** - 145
gamma-BHC (Lindane)	75 - 111	69 - 117	36 - 120	22 - 134
Heptachlor	60 - 100	53 - 107	34 - 103	23 - 115
Aldrin	54 - 101	46 - 109	28 - 110	14 - 124
Hepachlor Epoxide	72 - 116	65 - 123	36 - 132	20 - 148
Endosulfan I	72 - 122	64 - 130	42 - 116	30 - 128
Dieldrin	75 - 124	67 - 132	46 - 117	34 - 129
4,4'-DDE	72 - 125	63 - 134	45 - 126	32 - 140
Endrin	66 - 116	58 - 124	34 - 131	18 - 147
Endosulfan II	73 - 107	67 - 113	36 - 128	21 - 143
4,4'-DDD	67 - 106	61 - 113	33 - 138	16 - 156
Endosulfan Sulfate	62 - 100	56 - 106	25 - 116	10 - 131
4,4'-DDT	69 - 108	63 - 115	24 - 148	**10** - 169
Methoxychlor	67 - 107	60 - 114	25 - 139	**10** - 158
Endrin Ketone	72 - 102	67 - 107	34 - 137	17 - 154
Endrin Aldehyde	43 - 108	32 - 119	**10** - 108	**10** - 126
trans-Chlordane (*beta*-Chlordane, *gamma*-Chlordane)	69 - 118	61 - 126	37 - 126	22 - 141
cis-Chlordane (*alpha*-chlordane)	71 - 118	63 - 126	44 - 116	32 - 128
Hexachlorobenzene	45 - **100**	38 - **100**	28 - **100**	17 - 107
Hexachlorobutadiene	19 - **100**	**10** - 104	21 - **100**	11 - **100**
MB / LCS Surrogate Recovery				
Tetrachloro-*m*-xylene (TCMX)	52 - **100**	(3)	25 - **100**	(3)
Decachlorobiphenyl	54 - **100**	(3)	34 - 115	(3)
Sample Surrogate Recovery				
Tetrachloro-xylene (TCMX)	43 - 106	(3)	11 - 110	(3)
Decachlorobiphenyl	32 - 116	(3)	13 - 133	(3)

(1) Control limits calculated using all recovery data from 9/1/09 through 8/31/10.
(2) **ME** = A **marginal exceedance** defined in the NELAC Standard [6] as beyond the LCS-CL but still within the ME limits. ME limits are between 3 and 4 standard deviations around the mean. A maximum of one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.
(3) Marginal Exceedances not allowed for a surrogate standard.
(4) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
(5) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(6) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.

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Spike Recovery Control Limits for Chlorinated Pesticides EPA Method SW-846-8081B Analysis of Soil / Sediment Samples [1,2]

Effective 10/25/11

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Sample Dry Weight / Final Vol.	12.5 g to 2.5 mL	
Extraction Method	**Microwave EPA Method 3546**	
LCS Spike Recovery [5]	**Control Limits**	**ME Limits[3]**
alpha-BHC	49 - 111	39 - 121
beta-BHC	54 - 107	45 - 116
delta-BHC	72 - 112	65 - 119
gamma-BHC (Lindane)	54 - 115	44 - 125
Heptachlor	45 - 133	30 - 148
Aldrin	53 - 114	43 - 124
Hepachlor Epoxide	60 - 121	50 - 131
Endosulfan I	40 - 129	25 - 144
Dieldrin	68 - 123	59 - 132
4,4'-DDE	66 - 124	56 - 134
Endrin	60 - 135	48 - 148
Endosulfan II	46 - 130	32 - 144
4,4'-DDD	54 - 129	42 - 142
Endosulfan Sulfate	36 - 110	24 - 122
4,4'-DDT	50 - 133	36 - 147
Methoxychlor	46 - 138	31 - 153
Endrin Ketone	45 - 131	31 - 145
Endrin Aldehyde	25 - **100**	13 - 113
trans-Chlordane (*beta*-Chlordane, *gamma*-Chlordane)	66 - 119	57 - 128
cis-Chlordane (*alpha*-chlordane)	62 - 119	53 - 129
Hexachlorobenzene	41 - 108	30 - 119
Hexachlorobutadiene	39 - **100**	29 - 110
MB / LCS Surrogate Recovery		
Tetrachloro-*m*-xylene (TCMX)	42 - 112	(4)
Decachlorobiphenyl	59 - 123	(4)
Sample Surrogate Recovery		
Tetrachloro-xylene (TCMX)	29 - 142	(4)
Decachlorobiphenyl	22 - 156	(4)

(1) Control limits calculated using all available spike recovery data from 1/1/11 to 10/1/11.
(2) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) **ME** = A **marginal exceedance** defined in the NELAC Standard [6] as beyond the LCS-CL but still within the ME limits. ME limits are between 3 and 4 standard deviations around the mean. A maximum of one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.
(4) Marginal Exceedances not allowed for a surrogate standard.
(5) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
(6) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.

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Quality Control Criteria for Analysis of Aqueous and Tissue Samples for Aroclors (Polychlorinated Biphenyls – PCB) EPA Method 8082B

Analysis Code	Extraction	DL[1]	LOD[1]	LOQ[1]	Analyte	Spike Recovery Control Limits (%)[2,3]			RPD[4]
						LCS	MB/LCS Surrogate	Sample Surrogate	
Aqueous Samples (Separatory Funnel Extraction – EPA Method 3510C)									
PCBWSI 01-3018F	500 to 5 mL	0.130 µg/L	0.5 µg/L	1 µg/L	Aroclor 1016	45 – 121	--	--	≤ 40
		0.147 µg/L	0.5 µg/L	1 µg/L	Aroclor 1260	54 – 129	--	--	
		--	--	--	TCMX	--	40 – 118	38 – 118	
		--	--	--	DCBP	--	41 – 111	29 – 118	
PCBWSM 02-3021F	500 to 1 mL	0.0175 µg/L	0.05 µg/L	0.1 µg/L	Aroclor 1016	36 – **100**	--	--	≤ 40
		0.0174 µg/L	0.05 µg/L	0.1 µg/L	Aroclor 1260	41 – 113	--	--	
		--	--	--	TCMX	--	29 – **100**	25 – **100**	
		--	--	--	DCBP	--	39 – 116	**10** – 128	
PCBWLS	1000 to 0.5 mL[5]	0.00248 µg/L	0.005 µg/L	0.01 µg/L	Aroclor 1016	44 – 117	--	--	≤ 40
		0.00276 µg/L	0.005 µg/L	0.01 µg/L	Aroclor 1260	46 – 131	--	--	
		--	--	--	TCMX	--	31 – **100**	21 – **100**	
		--	--	--	DCBP	--	32 – 108	19 – 111	
TCLP Extract (Separatory Funnel Extraction – EPA Method 3510C)									
PCBWST	100 to 10 mL	0.130 µg/L[8]	5 µg/L	10 µg/L	Aroclor 1016	30 – 160	--	--	≤ 40
		0.147 µg/L[8]	5 µg/L	10 µg/L	Aroclor 1260	30 – 160	--	--	
		--	--	--	TCMX	--	30 – 160	30 – 160	
		--	--	--	DCBP	--	30 – 160	30 – 160	
Tissue Samples (Tissuemizer / Blender Extraction – EPA Method 3550C Modified) – Concentrations in µg/kg as received (wet weight)									
PCBUZI 09-3029F	10 g to 5 mL	2.92 µg/kg[6]	25 µg/kg	50 µg/kg	Aroclor 1016	30 – 160			≤ 40
		3.91 µg/kg[6]	25 µg/kg	50 µg/kg	Aroclor 1260	30 – 160			
		--	--	--	TCMX		30 – 160	30 – 160	
		--	--	--	DCBP		30 – 160	30 – 160	
PCBUZM 10-3027F	25 g to 5 mL	2.37 µg/kg[7]	10 µg/kg	20 µg/kg	Aroclor 1016	30 – 160			≤ 40
		1.06 µg/kg[7]	10 µg/kg	20 µg/kg	Aroclor 1260	30 – 160			
		--	--	--	TCMX		30 – 160	30 – 160	
		--	--	--	DCBP		30 – 160	30 – 160	
PCBUZL 11-3030F	25 g to 1 mL	2.37[7] µg/kg	2 µg/kg	4 µg/kg	Aroclor 1016	30 – 160			≤ 40
		1.06[7] µg/kg	2 µg/kg	4 µg/kg	Aroclor 1260	30 – 160			
		--	--	--	TCMX		30 – 160	30 – 160	
		--	--	--	DCBP		30 – 160	30 – 160	

(1) Detection Limit (DL), Limit of Detection (LOD) & Limit of Quantitation (LOQ) are defined in ARI SOP 1018S.
(2) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) 30 – 160 are default limits used when there is insufficient data to calculate historic control limits
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(5) Low level extraction solvent is hexane instead of Methylene Chloride.
(6) LOD Study SM10
(7) MDL Study QZ25
(8) Based on PCBWSI until sufficient TCLP data is collected to calculate LOD.

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Quality Control Criteria for Analysis of Solid Matrix Samples for Aroclors (Polychlorinated Biphenyls – PCB) EPA Method 8082B

Analysis Code	Extraction	DL[1] (ppb)	LOD[1] (ppb)	LOQ[1] (ppb)	Analyte	Spike Recovery Control Limits (%)[2,3,8] LCS	MB/LCS Surrogate	Sample Surrogate	RPD[4]
Soil / Sediment Samples (Microwave Extraction – EPA Method 3546)									
PCBSMI 15-3067F	12g to 4 mL	9.83	17	33	Aroclor 1016	55 – 109	--	--	≤ 40
		7.06	17	33	Aroclor 1260	50 – 125	--	--	
PCBSCI 08-3025F		--	--	--	TCMX	--	53 – 108	39 – 122	
		--	--	--	DCBP	--	49 – 126	31 – 140	
PCBDMP20 05-3017F	12.5 g to 2.5 mL[6]	9.33	10	20[6]	Aroclor 1016	46 – 110	--	--	≤ 40
		10.82	15	20[6]	Aroclor 1260	47 – 124	--	--	
PCBDCP20 06-3026F		--	--	--	TCMX	--	43 – 107	34 – 109	
		--	--	--	DCBP	--	48 – 123	24 – 127	
PCBDMP10 05-3017F	12.5 g to 2.5 mL[6]	0.759	5	10[6]	Aroclor 1016	46 – 110	--	--	≤ 40
		1.066	5	10[6]	Aroclor 1260	47 – 124	--	--	
PCBDCP10 06-3026F		--	--	--	TCMX	--	43 – 107	34 – 109	
		--	--	--	DCBP	--	48 – 123	24 – 127	
PCBDMP4 05-3017F	12.5 g to 2.5 mL[6]	0.577	2	4[6]	Aroclor 1016	46 – 110	--	--	≤ 40
		0.610	2	4[6]	Aroclor 1260	47 – 124	--	--	
PCBDCP4 06-3026F		--	--	--	TCMX	--	43 – 107	34 – 109	
		--	--	--	DCBP	--	48 – 123	24 – 127	
Soil / Sediment Samples Medium Level (Vortex Extraction – EPA Method 3546)									
PCBSVX 12-3019F	5 g to 40 mL	109[7]	400	800	Aroclor 1016	30 – 160	--	--	≤ 40
		192[7]	400	800	Aroclor 1260	30 – 160	--	--	
		--	--	--	TCMX	--	30 – 160	30 – 160	
		--	--	--	DCBP	--	30 – 160	30 – 160	

(1) Detection Limit (DL), Limit of Detection (LOD) & Limit of Quantitation (LOQ) are defined in ARI SOP 1018S.
(2) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) 30 – 160 are default limits used when there is insufficient data to calculate historic control limits
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(6) LOQ determined by lowest concentration used to calibrate the GC-ECD instrument.
(7) MDL Study PC66 6/24/09
(8) Control Limits calculated using all data generated between 1/1/11 and 11/30/11

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Quality Control Criteria
Total Petroleum Hydrocarbons
(Diesel & Motor Oil)

Analysis Code	Analyte[5]	DL[1]	LOD[1]	LOQ[2] ppm	Spike % Recovery Control Limits[3]			RPD[4]
					LCS	MB/LCS Surrogate	Sample Surrogate	
HCIWVX	NWTPH-HCID – Water Samples	--	--	0.50 [7]	--	--	50-150	≤ 40
HCISVX	NWTPH-HCID – Solid Samples	--	--	50 [7]	--	--	50-150	
Aqueous Samples – No Extract Clean-up – Separatory Funnel Extraction – 500 to 1.0 mL								
DIESWI	DRO – NWTPH-Dext (C_{12}-C_{24})	0.022	0.05	0.1	64-112	50-150	50-150	≤ 40
AK2WSI	DRO – AK102 (C_{10}-C_{25})	0.022	0.05	0.1	75-125 [6]	60-120	50-150	
OILWSI	RRO – NWTPH-Dext (C_{24}-C_{38})	0.044	0.1	0.2	64-112	50-150	50-150	
AK3WSI	RRO – AK103 (C_{25}-C_{36})	0.030 [9]	0.1	0.2	60-120 [6]	60-120	50-150	
Aqueous Samples – With Acid and/or Silica Gel Clean-up – Separatory Funnel Extraction – 500 to 1.0 mL								
DIESWI	DRO – NWTPH-Dext (C_{12}-C_{24})	0.039	0.05	0.1	61-104	50-150	50-150	≤ 40
AK2WSI	DRO – AK102 (C_{10}-C_{25})	0.042	0.05	0.1	75-125 [6]	60-120	50-150	
OILWSI	RRO – NWTPH-Dext (C_{24}-C_{38})	0.010	0.1	0.2	61-104	50-150	50-150	
AK3WSI	RRO – AK103 (C_{25}-C_{36})	0.030 [8]	0.1	0.2	60-120 [6]	60-120	50-150	
Solid Matrix Samples – No Extract Clean-up – Microwave Extraction – 10 g to 1 mL								
DIESMI	DRO – NWTPH-Dext (C_{12}-C_{24})	1.35	2.5	5	62-119	50-150	50-150	≤ 40
DIESMI	DRO – NWTPH-Dext Jet A	2.22 [11]	2.5	5	60 – 130 [8]	50-150	50-150	
AK2SMI	DRO – AK102 (C_{10}-C_{25})	2.43	2.5	5	75-125 [6]	60-120	50-150	
OILSMI	RRO – NWTPH-Dext (C_{24}-C_{38})	2.48	5	10	62-119	50-150	50-150	
AK3SMI	RRO – AK103 (C_{25}-C_{36})	0.665 [9]	5	10	60-120 [6]	60-120	50-150	
Solid Matrix Samples – With Acid and/or Silica Gel Clean-up – Microwave Extraction – 10 g to 1 mL								
DIESMI	DRO – NWTPH-Dext (C_{12}-C_{24})	1.28	2.5	5	60-108	50-150	50-150	≤ 40
AK2SMI	DRO – AK102 (C_{10}-C_{25})	2.06	2.5	5	75-125 [6]	60-120	50-150	
OILSMI	RRO – NWTPH-Dext (C_{24}-C_{38})	1.57	5	10	60-108	50-150	50-150	
AK3SMI	RRO – AK103 (C_{25}-C_{36})	0.665 [10]	5	10	60-120 [6]	60-120	50-150	

(1) DL (Detection Limit) and LOD (Limit of Detection) as defined in ARI SOP 1018S.
(2) Limit of Quantitation as defined in ARI SOP 1018S. The spike concentration used to determine the DL and the concentration of the lowest standard used to calibrate the GC-FID instrument.
(3) All surrogate recovery limits are specified in the published methods (AK102, AK103 & NWTPH-Dext). The surrogate standard is o-Terphenyl.
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$
(5) DRO = Diesel Range Organics and RRO = Residual Range Organics as defined in the methods referenced in footnote 3.
(6) Method specified LCS acceptance limits.
(7) Method specified reporting limits
(8) Default LCS control limits pending calculation of historic limits
(9) MDL study QD55 completed 2/12/10
(10) MDL study QD35 completed 1/29/10
(11) LOD Study UI44 completed 2/28/12

Quality Control Parameters for Metals Analysis using ICP-OES

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(6) ARI does not analyze for Silicon in solids or tissue samples

Quality Control Parameters for Metals Analysis using ICP-MS

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[4]	Solids[3]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[5]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[5]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(5) ARI has no accreditation for these elements.

Quality Control Parameters for Mercury Analysis using CVAA

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[3]	75 – 125	80 – 120	≤ 20
	Soil / Sediment / Tissue[4] Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	**0.025**[3,4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Conventional Wet Chemistry

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Control Limits	
Sample Matrix:	Water	Soil / Sediment
Matrix Spike Recoveries	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 125	75 - 125
Chloride	75 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
Duplicate RPDs		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS001-SS-120515
SAMPLE

Lab Sample ID: UU52A
LIMS ID: 12-8893
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 17:11
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.3%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**26**	**60**	**300**
106-44-5	**4-Methylphenol**	**20**	**120**	**1,200**
65-85-0	**Benzoic Acid**	**300**	**1,200**	**390 J**
91-20-3	**Naphthalene**	**8.2**	**60**	**1,100**
91-57-6	**2-Methylnaphthalene**	**9.1**	**60**	**170**
131-11-3	Dimethylphthalate	8.6	60	< 60 U
208-96-8	**Acenaphthylene**	**17**	**60**	**74**
83-32-9	**Acenaphthene**	**9.8**	**60**	**110**
132-64-9	**Dibenzofuran**	**12**	**60**	**180**
86-73-7	**Fluorene**	**13**	**60**	**120**
87-86-5	Pentachlorophenol	140	600	< 600 U
85-01-8	**Phenanthrene**	**11**	**60**	**690**
86-74-8	**Carbazole**	**8.0**	**60**	**42 J**
120-12-7	**Anthracene**	**13**	**60**	**140**
84-74-2	Di-n-Butylphthalate	24	60	< 60 U
206-44-0	**Fluoranthene**	**8.7**	**60**	**660**
129-00-0	**Pyrene**	**5.8**	**60**	**580**
85-68-7	Butylbenzylphthalate	18	60	< 60 U
56-55-3	**Benzo(a)anthracene**	**9.8**	**60**	**160**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**43**	**74**	**140**
218-01-9	**Chrysene**	**11**	**60**	**430**
117-84-0	Di-n-Octyl phthalate	17	60	< 17 UJ
50-32-8	**Benzo(a)pyrene**	**16**	**60**	**260**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**14**	**60**	**200**
53-70-3	**Dibenz(a,h)anthracene**	**13**	**60**	**57 J**
191-24-2	**Benzo(g,h,i)perylene**	**13**	**60**	**270**
483-65-8	**Retene**	**60**	**60**	**74**
TOTBFA	**Total Benzofluoranthenes**	**8.2**	**60**	**570**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.0%	2-Fluorobiphenyl	69.6%
d14-p-Terphenyl	73.8%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	68.4%	2-Fluorophenol	66.0%
2,4,6-Tribromophenol	74.0%	d4-2-Chlorophenol	67.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
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Sample ID: MS101-SS-120515
SAMPLE

Lab Sample ID: UU52B
LIMS ID: 12-8894
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 17:48
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.2%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**26**	**60**	**400**
106-44-5	**4-Methylphenol**	**20**	**120**	**1,600**
65-85-0	**Benzoic Acid**	**300**	**1,200**	**640 J**
91-20-3	**Naphthalene**	**8.2**	**60**	**1,800**
91-57-6	**2-Methylnaphthalene**	**9.1**	**60**	**270**
131-11-3	Dimethylphthalate	8.6	60	< 60 U
208-96-8	**Acenaphthylene**	**17**	**60**	**130**
83-32-9	**Acenaphthene**	**9.8**	**60**	**160**
132-64-9	**Dibenzofuran**	**12**	**60**	**280**
86-73-7	**Fluorene**	**13**	**60**	**170**
87-86-5	**Pentachlorophenol**	**140**	**600**	**160 J**
85-01-8	**Phenanthrene**	**11**	**60**	**1,200**
86-74-8	**Carbazole**	**8.0**	**60**	**57 J**
120-12-7	**Anthracene**	**13**	**60**	**180**
84-74-2	Di-n-Butylphthalate	24	60	< 60 U
206-44-0	**Fluoranthene**	**8.7**	**60**	**970**
129-00-0	**Pyrene**	**5.8**	**60**	**910**
85-68-7	Butylbenzylphthalate	18	60	< 60 U
56-55-3	**Benzo(a)anthracene**	**9.8**	**60**	**170**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**43**	**74**	**120**
218-01-9	**Chrysene**	**11**	**60**	**400**
117-84-0	Di-n-Octyl phthalate	17	60	< 17 UJ
50-32-8	**Benzo(a)pyrene**	**16**	**60**	**270**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**14**	**60**	**230**
53-70-3	**Dibenz(a,h)anthracene**	**13**	**60**	**54 J**
191-24-2	**Benzo(g,h,i)perylene**	**13**	**60**	**330**
483-65-8	**Retene**	**60**	**60**	**100**
TOTBFA	**Total Benzofluoranthenes**	**8.2**	**60**	**640**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	59.4%	2-Fluorobiphenyl	65.4%
d14-p-Terphenyl	69.0%	d4-1,2-Dichlorobenzene	57.0%
d5-Phenol	65.2%	2-Fluorophenol	62.4%
2,4,6-Tribromophenol	70.4%	d4-2-Chlorophenol	64.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
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Sample ID: MS002-SS-120515
SAMPLE

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 18:25
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 89.8%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**26**	**59**	**260**
106-44-5	**4-Methylphenol**	**20**	**120**	**1,400**
65-85-0	**Benzoic Acid**	**300**	**1,200**	**420 J**
91-20-3	**Naphthalene**	**8.2**	**59**	**1,300**
91-57-6	**2-Methylnaphthalene**	**9.1**	**59**	**240**
131-11-3	Dimethylphthalate	8.6	59	< 59 U
208-96-8	**Acenaphthylene**	**17**	**59**	**86**
83-32-9	**Acenaphthene**	**9.7**	**59**	**140**
132-64-9	**Dibenzofuran**	**12**	**59**	**240**
86-73-7	**Fluorene**	**13**	**59**	**160**
87-86-5	Pentachlorophenol	140	590	< 590 U
85-01-8	**Phenanthrene**	**11**	**59**	**830**
86-74-8	**Carbazole**	**8.0**	**59**	**56 J**
120-12-7	**Anthracene**	**13**	**59**	**170**
84-74-2	Di-n-Butylphthalate	24	59	< 59 U
206-44-0	**Fluoranthene**	**8.6**	**59**	**860**
129-00-0	**Pyrene**	**5.8**	**59**	**860**
85-68-7	Butylbenzylphthalate	18	59	< 59 U
56-55-3	**Benzo(a)anthracene**	**9.8**	**59**	**280**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**43**	**74**	**150**
218-01-9	**Chrysene**	**11**	**59**	**800**
117-84-0	Di-n-Octyl phthalate	17	59	< 17 UJ
50-32-8	**Benzo(a)pyrene**	**16**	**59**	**470**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**14**	**59**	**340**
53-70-3	**Dibenz(a,h)anthracene**	**13**	**59**	**100**
191-24-2	**Benzo(g,h,i)perylene**	**13**	**59**	**430**
483-65-8	**Retene**	**59**	**59**	**80**
TOTBFA	**Total Benzofluoranthenes**	**8.2**	**59**	**1,000**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.6%	2-Fluorobiphenyl	69.6%
d14-p-Terphenyl	73.2%	d4-1,2-Dichlorobenzene	60.0%
d5-Phenol	69.6%	2-Fluorophenol	64.4%
2,4,6-Tribromophenol	74.4%	d4-2-Chlorophenol	66.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
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Sample ID: MS003-SS-120515
SAMPLE

Lab Sample ID: UU52D
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 19:02
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.7%

CAS Number	Analyte	MDL	RL	Result	
108-95-2	**Phenol**	**26**	**60**	**180**	
106-44-5	**4-Methylphenol**	**20**	**120**	**1,100**	
65-85-0	**Benzoic Acid**	**300**	**1,200**	**330**	**J**
91-20-3	**Naphthalene**	**8.2**	**60**	**550**	
91-57-6	**2-Methylnaphthalene**	**9.1**	**60**	**86**	
131-11-3	Dimethylphthalate	8.6	60	< 60	U
208-96-8	**Acenaphthylene**	**17**	**60**	**60**	
83-32-9	**Acenaphthene**	**9.8**	**60**	**72**	
132-64-9	**Dibenzofuran**	**12**	**60**	**110**	
86-73-7	**Fluorene**	**13**	**60**	**74**	
87-86-5	Pentachlorophenol	140	600	< 600	U
85-01-8	**Phenanthrene**	**11**	**60**	**500**	
86-74-8	Carbazole	8.0	60	< 60	U
120-12-7	**Anthracene**	**13**	**60**	**120**	
84-74-2	Di-n-Butylphthalate	24	60	< 60	U
206-44-0	**Fluoranthene**	**8.7**	**60**	**550**	
129-00-0	**Pyrene**	**5.8**	**60**	**510**	
85-68-7	Butylbenzylphthalate	18	60	< 60	U
56-55-3	**Benzo(a)anthracene**	**9.8**	**60**	**130**	
117-81-7	**bis(2-Ethylhexyl)phthalate**	**43**	**74**	**120**	
218-01-9	**Chrysene**	**11**	**60**	**390**	
117-84-0	Di-n-Octyl phthalate	17	60	< 17	UJ
50-32-8	**Benzo(a)pyrene**	**16**	**60**	**250**	
193-39-5	**Indeno(1,2,3-cd)pyrene**	**14**	**60**	**180**	
53-70-3	**Dibenz(a,h)anthracene**	**13**	**60**	**51**	**J**
191-24-2	**Benzo(g,h,i)perylene**	**13**	**60**	**230**	
483-65-8	**Retene**	**60**	**60**	**32**	**J**
TOTBFA	**Total Benzofluoranthenes**	**8.2**	**60**	**580**	

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.6%	2-Fluorobiphenyl	64.2%
d14-p-Terphenyl	66.6%	d4-1,2-Dichlorobenzene	55.8%
d5-Phenol	63.2%	2-Fluorophenol	58.4%
2,4,6-Tribromophenol	70.4%	d4-2-Chlorophenol	62.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
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Sample ID: MS004-SS-120515
SAMPLE

Lab Sample ID: UU52E
LIMS ID: 12-8897
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 19:39
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.4%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**26**	**60**	**200**
106-44-5	**4-Methylphenol**	**20**	**120**	**690**
65-85-0	**Benzoic Acid**	**300**	**1,200**	**390 J**
91-20-3	**Naphthalene**	**8.2**	**60**	**1,400**
91-57-6	**2-Methylnaphthalene**	**9.1**	**60**	**270**
131-11-3	Dimethylphthalate	8.7	60	< 60 U
208-96-8	**Acenaphthylene**	**17**	**60**	**78**
83-32-9	**Acenaphthene**	**9.8**	**60**	**140**
132-64-9	**Dibenzofuran**	**12**	**60**	**300**
86-73-7	**Fluorene**	**13**	**60**	**170**
87-86-5	Pentachlorophenol	140	600	< 600 U
85-01-8	**Phenanthrene**	**11**	**60**	**890**
86-74-8	**Carbazole**	**8.0**	**60**	**69**
120-12-7	**Anthracene**	**13**	**60**	**180**
84-74-2	Di-n-Butylphthalate	24	60	< 60 U
206-44-0	**Fluoranthene**	**8.7**	**60**	**870**
129-00-0	**Pyrene**	**5.8**	**60**	**790**
85-68-7	Butylbenzylphthalate	18	60	< 60 U
56-55-3	**Benzo(a)anthracene**	**9.8**	**60**	**240**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**44**	**75**	**120**
218-01-9	**Chrysene**	**11**	**60**	**680**
117-84-0	Di-n-Octyl phthalate	17	60	< 18 UJ
50-32-8	**Benzo(a)pyrene**	**16**	**60**	**380**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**14**	**60**	**280**
53-70-3	**Dibenz(a,h)anthracene**	**13**	**60**	**87**
191-24-2	**Benzo(g,h,i)perylene**	**13**	**60**	**360**
483-65-8	**Retene**	**60**	**60**	**120**
TOTBFA	**Total Benzofluoranthenes**	**8.2**	**60**	**970**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	61.8%	2-Fluorobiphenyl	69.0%
d14-p-Terphenyl	70.2%	d4-1,2-Dichlorobenzene	58.2%
d5-Phenol	64.0%	2-Fluorophenol	62.8%
2,4,6-Tribromophenol	71.6%	d4-2-Chlorophenol	65.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS005-SS-120515
SAMPLE

Lab Sample ID: UU52F
LIMS ID: 12-8898
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 20:16
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 91.1%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**26**	**59**	**1,100**
106-44-5	**4-Methylphenol**	**20**	**120**	**3,300**
65-85-0	**Benzoic Acid**	**300**	**1,200**	**3,100**
91-20-3	**Naphthalene**	**8.2**	**59**	**4,400**
91-57-6	**2-Methylnaphthalene**	**9.1**	**59**	**600**
131-11-3	Dimethylphthalate	8.6	59	< 59 U
208-96-8	**Acenaphthylene**	**17**	**59**	**250**
83-32-9	**Acenaphthene**	**9.7**	**59**	**820**
132-64-9	**Dibenzofuran**	**12**	**59**	**660**
86-73-7	**Fluorene**	**13**	**59**	**450**
87-86-5	Pentachlorophenol	140	590	< 590 U
85-01-8	**Phenanthrene**	**11**	**59**	**1,800**
86-74-8	**Carbazole**	**8.0**	**59**	**130**
120-12-7	**Anthracene**	**13**	**59**	**350**
84-74-2	Di-n-Butylphthalate	24	59	< 59 U
206-44-0	**Fluoranthene**	**8.6**	**59**	**1,900**
129-00-0	**Pyrene**	**5.7**	**59**	**1,600**
85-68-7	Butylbenzylphthalate	18	59	< 59 U
56-55-3	**Benzo(a)anthracene**	**9.7**	**59**	**300**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**43**	**74**	**170**
218-01-9	**Chrysene**	**11**	**59**	**570**
117-84-0	Di-n-Octyl phthalate	17	59	< 17 UJ
50-32-8	**Benzo(a)pyrene**	**16**	**59**	**330**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**14**	**59**	**240**
53-70-3	**Dibenz(a,h)anthracene**	**13**	**59**	**95**
191-24-2	**Benzo(g,h,i)perylene**	**13**	**59**	**320**
483-65-8	**Retene**	**59**	**59**	**140**
TOTBFA	**Total Benzofluoranthenes**	**8.1**	**59**	**970**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.6%	2-Fluorobiphenyl	68.4%
d14-p-Terphenyl	70.2%	d4-1,2-Dichlorobenzene	60.0%
d5-Phenol	82.4%	2-Fluorophenol	70.8%
2,4,6-Tribromophenol	76.4%	d4-2-Chlorophenol	67.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
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Sample ID: MS006-SS-120515
SAMPLE

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 20:54
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.8%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**26**	**60**	**380**
106-44-5	**4-Methylphenol**	**20**	**120**	**270**
65-85-0	**Benzoic Acid**	**300**	**1,200**	**3,100**
91-20-3	**Naphthalene**	**8.2**	**60**	**6,200 E**
91-57-6	**2-Methylnaphthalene**	**9.1**	**60**	**600**
131-11-3	Dimethylphthalate	8.6	60	< 60 U
208-96-8	**Acenaphthylene**	**17**	**60**	**220**
83-32-9	**Acenaphthene**	**9.8**	**60**	**110**
132-64-9	**Dibenzofuran**	**12**	**60**	**480**
86-73-7	**Fluorene**	**13**	**60**	**130**
87-86-5	Pentachlorophenol	140	600	< 600 U
85-01-8	**Phenanthrene**	**11**	**60**	**2,200**
86-74-8	**Carbazole**	**8.0**	**60**	**95**
120-12-7	**Anthracene**	**13**	**60**	**220**
84-74-2	Di-n-Butylphthalate	24	60	< 60 U
206-44-0	**Fluoranthene**	**8.7**	**60**	**1,700**
129-00-0	**Pyrene**	**5.8**	**60**	**1,400**
85-68-7	Butylbenzylphthalate	18	60	< 60 U
56-55-3	**Benzo(a)anthracene**	**9.8**	**60**	**230**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**43**	**74**	**120**
218-01-9	**Chrysene**	**11**	**60**	**410**
117-84-0	Di-n-Octyl phthalate	17	60	< 17 UJ
50-32-8	**Benzo(a)pyrene**	**16**	**60**	**250**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**14**	**60**	**220**
53-70-3	**Dibenz(a,h)anthracene**	**13**	**60**	**54 J**
191-24-2	**Benzo(g,h,i)perylene**	**13**	**60**	**310**
483-65-8	**Retene**	**60**	**60**	**270**
TOTBFA	**Total Benzofluoranthenes**	**8.2**	**60**	**650**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	67.2%	2-Fluorobiphenyl	71.4%
d14-p-Terphenyl	74.4%	d4-1,2-Dichlorobenzene	64.8%
d5-Phenol	67.2%	2-Fluorophenol	63.2%
2,4,6-Tribromophenol	87.6%	d4-2-Chlorophenol	69.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: MS006-SS-120515**
Extraction Method: SW3546 **DILUTION**
Page 1 of 1

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 06/08/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/30/12 13:04
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 6.00
Percent Moisture: 90.8%

CAS Number	Analyte	MDL	RL	Result	
108-95-2	**Phenol**	**51**	**120**	**490**	
106-44-5	**4-Methylphenol**	**39**	**240**	**280**	
65-85-0	**Benzoic Acid**	**600**	**2,400**	**5,200**	**Q**
91-20-3	**Naphthalene**	**16**	**120**	**6,300**	
91-57-6	**2-Methylnaphthalene**	**18**	**120**	**580**	
131-11-3	Dimethylphthalate	17	120	< 120	U
208-96-8	**Acenaphthylene**	**34**	**120**	**210**	
83-32-9	**Acenaphthene**	**20**	**120**	**89**	**J**
132-64-9	**Dibenzofuran**	**24**	**120**	**540**	
86-73-7	**Fluorene**	**26**	**120**	**130**	
87-86-5	Pentachlorophenol	290	1,200	< 1,200	U
85-01-8	**Phenanthrene**	**22**	**120**	**2,200**	
86-74-8	**Carbazole**	**16**	**120**	**110**	**J**
120-12-7	**Anthracene**	**27**	**120**	**200**	
84-74-2	Di-n-Butylphthalate	49	120	< 120	U
206-44-0	**Fluoranthene**	**17**	**120**	**1,800**	
129-00-0	**Pyrene**	**12**	**120**	**1,300**	
85-68-7	Butylbenzylphthalate	37	120	< 120	U
56-55-3	**Benzo(a)anthracene**	**20**	**120**	**210**	
117-81-7	**bis(2-Ethylhexyl)phthalate**	**87**	**150**	**130**	**J**
218-01-9	**Chrysene**	**22**	**120**	**400**	
117-84-0	Di-n-Octyl phthalate	35	120	< 35	UJ
50-32-8	**Benzo(a)pyrene**	**32**	**120**	**240**	
193-39-5	**Indeno(1,2,3-cd)pyrene**	**28**	**120**	**260**	
53-70-3	**Dibenz(a,h)anthracene**	**26**	**120**	**65**	**J**
191-24-2	**Benzo(g,h,i)perylene**	**26**	**120**	**380**	
483-65-8	**Retene**	**120**	**120**	**270**	
TOTBFA	**Total Benzofluoranthenes**	**16**	**120**	**640**	

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.4%	2-Fluorobiphenyl	72.0%
d14-p-Terphenyl	73.2%	d4-1,2-Dichlorobenzene	64.8%
d5-Phenol	69.6%	2-Fluorophenol	66.4%
2,4,6-Tribromophenol	78.4%	d4-2-Chlorophenol	70.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: MS007-SS-120515**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 21:31
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 83.9%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**25**	**59**	**430**
106-44-5	**4-Methylphenol**	**19**	**120**	**1,800**
65-85-0	**Benzoic Acid**	**300**	**1,200**	**1,300**
91-20-3	**Naphthalene**	**8.1**	**59**	**2,200**
91-57-6	**2-Methylnaphthalene**	**9.0**	**59**	**290**
131-11-3	Dimethylphthalate	8.5	59	< 59 U
208-96-8	**Acenaphthylene**	**17**	**59**	**140**
83-32-9	**Acenaphthene**	**9.6**	**59**	**130**
132-64-9	**Dibenzofuran**	**12**	**59**	**210**
86-73-7	**Fluorene**	**13**	**59**	**120**
87-86-5	Pentachlorophenol	140	590	< 590 U
85-01-8	**Phenanthrene**	**11**	**59**	**1,100**
86-74-8	**Carbazole**	**7.9**	**59**	**62**
120-12-7	**Anthracene**	**13**	**59**	**170**
84-74-2	Di-n-Butylphthalate	24	59	< 59 U
206-44-0	**Fluoranthene**	**8.6**	**59**	**1,100**
129-00-0	**Pyrene**	**5.7**	**59**	**960**
85-68-7	Butylbenzylphthalate	18	59	< 59 U
56-55-3	**Benzo(a)anthracene**	**9.7**	**59**	**180**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**43**	**74**	**120**
218-01-9	**Chrysene**	**11**	**59**	**290**
117-84-0	Di-n-Octyl phthalate	17	59	< 17 UJ
50-32-8	**Benzo(a)pyrene**	**16**	**59**	**270**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**14**	**59**	**190**
53-70-3	**Dibenz(a,h)anthracene**	**13**	**59**	**59**
191-24-2	**Benzo(g,h,i)perylene**	**13**	**59**	**250**
483-65-8	**Retene**	**59**	**59**	**85**
TOTBFA	**Total Benzofluoranthenes**	**8.1**	**59**	**540**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.6%	2-Fluorobiphenyl	67.8%
d14-p-Terphenyl	70.8%	d4-1,2-Dichlorobenzene	62.4%
d5-Phenol	65.6%	2-Fluorophenol	62.4%
2,4,6-Tribromophenol	74.4%	d4-2-Chlorophenol	68.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: MS008-SS-120515**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/29/12 12:56
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 89.0%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**26**	**60**	**190**
106-44-5	**4-Methylphenol**	**20**	**120**	**610**
65-85-0	**Benzoic Acid**	**300**	**1,200**	**740 J**
91-20-3	**Naphthalene**	**8.2**	**60**	**460**
91-57-6	**2-Methylnaphthalene**	**9.1**	**60**	**66**
131-11-3	Dimethylphthalate	8.7	60	< 60 U
208-96-8	**Acenaphthylene**	**17**	**60**	**39 J**
83-32-9	**Acenaphthene**	**9.8**	**60**	**57 J**
132-64-9	**Dibenzofuran**	**12**	**60**	**69**
86-73-7	**Fluorene**	**13**	**60**	**66**
87-86-5	Pentachlorophenol	140	600	< 600 U
85-01-8	**Phenanthrene**	**11**	**60**	**480**
86-74-8	**Carbazole**	**8.0**	**60**	**63**
120-12-7	**Anthracene**	**13**	**60**	**110**
84-74-2	Di-n-Butylphthalate	24	60	< 60 U
206-44-0	**Fluoranthene**	**8.7**	**60**	**600**
129-00-0	**Pyrene**	**5.8**	**60**	**460**
85-68-7	Butylbenzylphthalate	18	60	< 60 U
56-55-3	**Benzo(a)anthracene**	**9.8**	**60**	**190**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**44**	**75**	**98**
218-01-9	**Chrysene**	**11**	**60**	**240**
117-84-0	Di-n-Octyl phthalate	17	60	< 17 UJ
50-32-8	**Benzo(a)pyrene**	**16**	**60**	**220**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**14**	**60**	**140**
53-70-3	**Dibenz(a,h)anthracene**	**13**	**60**	**54 J**
191-24-2	**Benzo(g,h,i)perylene**	**13**	**60**	**170**
483-65-8	Retene	60	60	< 60 U
TOTBFA	**Total Benzofluoranthenes**	**8.2**	**60**	**420**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	51.0%	2-Fluorobiphenyl	59.4%
d14-p-Terphenyl	61.8%	d4-1,2-Dichlorobenzene	51.0%
d5-Phenol	53.6%	2-Fluorophenol	53.2%
2,4,6-Tribromophenol	65.2%	d4-2-Chlorophenol	56.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: MS009-SS-120515**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/29/12 13:33
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.2%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**26**	**60**	**100**
106-44-5	**4-Methylphenol**	**20**	**120**	**470**
65-85-0	**Benzoic Acid**	**300**	**1,200**	**410 J**
91-20-3	**Naphthalene**	**8.2**	**60**	**290**
91-57-6	**2-Methylnaphthalene**	**9.1**	**60**	**36 J**
131-11-3	Dimethylphthalate	8.6	60	< 60 U
208-96-8	Acenaphthylene	17	60	< 60 U
83-32-9	Acenaphthene	9.8	60	< 60 U
132-64-9	**Dibenzofuran**	**12**	**60**	**54 J**
86-73-7	**Fluorene**	**13**	**60**	**42 J**
87-86-5	Pentachlorophenol	140	600	< 600 U
85-01-8	**Phenanthrene**	**11**	**60**	**250**
86-74-8	Carbazole	8.0	60	< 60 U
120-12-7	**Anthracene**	**13**	**60**	**51 J**
84-74-2	Di-n-Butylphthalate	24	60	< 60 U
206-44-0	**Fluoranthene**	**8.7**	**60**	**290**
129-00-0	**Pyrene**	**5.8**	**60**	**240**
85-68-7	Butylbenzylphthalate	18	60	< 60 U
56-55-3	**Benzo(a)anthracene**	**9.8**	**60**	**57 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**44**	**75**	**90**
218-01-9	**Chrysene**	**11**	**60**	**120**
117-84-0	Di-n-Octyl phthalate	17	60	< 17 UJ
50-32-8	**Benzo(a)pyrene**	**16**	**60**	**80**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**14**	**60**	**63**
53-70-3	Dibenz(a,h)anthracene	13	60	< 60 U
191-24-2	**Benzo(g,h,i)perylene**	**13**	**60**	**80**
483-65-8	Retene	60	60	< 60 U
TOTBFA	**Total Benzofluoranthenes**	**8.2**	**60**	**180**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	61.2%	2-Fluorobiphenyl	67.8%
d14-p-Terphenyl	70.2%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	63.6%	2-Fluorophenol	62.8%
2,4,6-Tribromophenol	72.4%	d4-2-Chlorophenol	67.6%

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
MS001-SS-120515	63.0%	69.6%	73.8%	61.2%	68.4%	66.0%	74.0%	67.6%	0
MS101-SS-120515	59.4%	65.4%	69.0%	57.0%	65.2%	62.4%	70.4%	64.4%	0
MS002-SS-120515	63.6%	69.6%	73.2%	60.0%	69.6%	64.4%	74.4%	66.8%	0
MS003-SS-120515	57.6%	64.2%	66.6%	55.8%	63.2%	58.4%	70.4%	62.0%	0
MS004-SS-120515	61.8%	69.0%	70.2%	58.2%	64.0%	62.8%	71.6%	65.6%	0
MS005-SS-120515	63.6%	68.4%	70.2%	60.0%	82.4%	70.8%	76.4%	67.6%	0
MS006-SS-120515	67.2%	71.4%	74.4%	64.8%	67.2%	63.2%	87.6%	69.2%	0
MS006-SS-120515 DL	68.4%	72.0%	73.2%	64.8%	69.6%	66.4%	78.4%	70.4%	0
MB-052212	56.2%	55.8%	66.4%	55.4%	55.1%	53.3%	55.1%	56.0%	0
LCS-052212	72.6%	73.0%	83.2%	72.2%	76.8%	74.1%	82.8%	75.6%	0
MS007-SS-120515	63.6%	67.8%	70.8%	62.4%	65.6%	62.4%	74.4%	68.0%	0
MS007-SS-120515 MS	58.8%	64.2%	65.4%	58.2%	60.0%	59.6%	70.4%	62.8%	0
MS007-SS-120515 MSD	64.8%	69.6%	73.2%	61.2%	65.6%	64.0%	76.0%	66.0%	0
MS008-SS-120515	51.0%	59.4%	61.8%	51.0%	53.6%	53.2%	65.2%	56.4%	0
MS009-SS-120515	61.2%	67.8%	70.2%	61.2%	63.6%	62.8%	72.4%	67.6%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546
Log Number Range: 12-8893 to 12-8902

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS
Page 1 of 1

Sample ID: MS007-SS-120515
MS/MSD

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted MS/MSD: 05/22/12

Date Analyzed MS: 05/29/12 11:41
MSD: 05/29/12 12:19
Instrument/Analyst MS: NT10/YZ
MSD: NT10/YZ
GPC Cleanup: Yes

Sample Amount MS: 10.2 g-dry-wt
MSD: 10.2 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 3.00
MSD: 3.00
Percent Moisture: 83.9 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	432	564	492	26.8%	546	492	23.2%	3.2%
4-Methylphenol	1770	1850	984	8.1%	1740	983	NA	6.1%
Benzoic Acid	1280	2900	2710	59.8%	2550	2700	47.0%	12.8%
Naphthalene	2230	1930	492	NA	1470	492	NA	27.1%
2-Methylnaphthalene	291	529	492	48.4%	531	492	48.8%	0.4%
Dimethylphthalate	< 58.8 U	337	492	68.5%	375	492	76.2%	10.7%
Acenaphthylene	141	446	492	62.0%	460	492	64.8%	3.1%
Acenaphthene	126	458	492	67.5%	475	492	70.9%	3.6%
Dibenzofuran	209	517	492	62.6%	537	492	66.7%	3.8%
Fluorene	120	481	492	73.4%	504	492	78.0%	4.7%
Pentachlorophenol	< 588 U	1090	1480	73.6%	1230	1470	83.7%	12.1%
Phenanthrene	1060	1320	492	52.8%	1460	492	81.3%	10.1%
Carbazole	61.7	416	492	72.0%	510	492	91.1%	20.3%
Anthracene	170	490	492	65.0%	552	492	77.6%	11.9%
Di-n-Butylphthalate	< 58.8 U	407	492	82.7%	442	492	89.8%	8.2%
Fluoranthene	1070	1350	492	56.9%	1520	492	91.5%	11.8%
Pyrene	961	1210	492	50.6%	1330	492	75.0%	9.4%
Butylbenzylphthalate	< 58.8 U	413	492	83.9%	437	492	88.8%	5.6%
Benzo(a)anthracene	185	570	492	78.3%	640	492	92.5%	11.6%
bis(2-Ethylhexyl)phthalate	118	481	492	73.8%	513	492	80.3%	6.4%
Chrysene	288	688	492	81.3%	811	492	106%	16.4%
Di-n-Octyl phthalate	< 17.2 UJ	375	492	76.2%	416	492	84.6%	10.4%
Benzo(a)pyrene	270	611	492	69.3%	779	492	103%	24.2%
Indeno(1,2,3-cd)pyrene	194	546	492	71.5%	655	492	93.7%	18.2%
Dibenz(a,h)anthracene	58.8	387	492	66.7%	487	492	87.0%	22.9%
Benzo(g,h,i)perylene	250	638	492	78.9%	729	492	97.4%	13.3%
Total Benzofluoranthenes	541	1250	984	72.1%	1480	983	95.5%	16.8%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.
NA-No recovery due to high concentration of analyte in original sample and/or calculated negative recovery.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: MS007-SS-120515**
Extraction Method: SW3546 **MATRIX SPIKE**

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/29/12 11:41
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 83.9%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	26	59	---
106-44-5	4-Methylphenol	20	120	---
65-85-0	Benzoic Acid	300	1,200	---
91-20-3	Naphthalene	8.1	59	---
91-57-6	2-Methylnaphthalene	9.0	59	---
131-11-3	Dimethylphthalate	8.6	59	---
208-96-8	Acenaphthylene	17	59	---
83-32-9	Acenaphthene	9.7	59	---
132-64-9	Dibenzofuran	12	59	---
86-73-7	Fluorene	13	59	---
87-86-5	Pentachlorophenol	140	590	---
85-01-8	Phenanthrene	11	59	---
86-74-8	Carbazole	7.9	59	---
120-12-7	Anthracene	13	59	---
84-74-2	Di-n-Butylphthalate	24	59	---
206-44-0	Fluoranthene	8.6	59	---
129-00-0	Pyrene	5.7	59	---
85-68-7	Butylbenzylphthalate	18	59	---
56-55-3	Benzo(a)anthracene	9.7	59	---
117-81-7	bis(2-Ethylhexyl)phthalate	43	74	---
218-01-9	Chrysene	11	59	---
117-84-0	Di-n-Octyl phthalate	17	59	---
50-32-8	Benzo(a)pyrene	16	59	---
193-39-5	Indeno(1,2,3-cd)pyrene	14	59	---
53-70-3	Dibenz(a,h)anthracene	13	59	---
191-24-2	Benzo(g,h,i)perylene	13	59	---
483-65-8	**Retene**	**59**	**59**	**92**
TOTBFA	Total Benzofluoranthenes	8.1	59	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.8%	2-Fluorobiphenyl	64.2%
d14-p-Terphenyl	65.4%	d4-1,2-Dichlorobenzene	58.2%
d5-Phenol	60.0%	2-Fluorophenol	59.6%
2,4,6-Tribromophenol	70.4%	d4-2-Chlorophenol	62.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: MS007-SS-120515**
Extraction Method: SW3546 **MATRIX SPIKE DUPLICATE**

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/29/12 12:19
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 83.9%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	26	59	---
106-44-5	4-Methylphenol	20	120	---
65-85-0	Benzoic Acid	300	1,200	---
91-20-3	Naphthalene	8.1	59	---
91-57-6	2-Methylnaphthalene	9.0	59	---
131-11-3	Dimethylphthalate	8.6	59	---
208-96-8	Acenaphthylene	17	59	---
83-32-9	Acenaphthene	9.7	59	---
132-64-9	Dibenzofuran	12	59	---
86-73-7	Fluorene	13	59	---
87-86-5	Pentachlorophenol	140	590	---
85-01-8	Phenanthrene	11	59	---
86-74-8	Carbazole	7.9	59	---
120-12-7	Anthracene	13	59	---
84-74-2	Di-n-Butylphthalate	24	59	---
206-44-0	Fluoranthene	8.6	59	---
129-00-0	Pyrene	5.7	59	---
85-68-7	Butylbenzylphthalate	18	59	---
56-55-3	Benzo(a)anthracene	9.7	59	---
117-81-7	bis(2-Ethylhexyl)phthalate	43	74	---
218-01-9	Chrysene	11	59	---
117-84-0	Di-n-Octyl phthalate	17	59	---
50-32-8	Benzo(a)pyrene	16	59	---
193-39-5	Indeno(1,2,3-cd)pyrene	14	59	---
53-70-3	Dibenz(a,h)anthracene	13	59	---
191-24-2	Benzo(g,h,i)perylene	13	59	---
483-65-8	**Retene**	**59**	**59**	**94**
TOTBFA	Total Benzofluoranthenes	8.1	59	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.8%	2-Fluorobiphenyl	69.6%
d14-p-Terphenyl	73.2%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	65.6%	2-Fluorophenol	64.0%
2,4,6-Tribromophenol	76.0%	d4-2-Chlorophenol	66.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: LCS-052212**
Page 1 of 1 **LAB CONTROL**

Lab Sample ID: LCS-052212
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 16:34
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Phenol	418	500	83.6%
4-Methylphenol	656	1000	65.6%
Benzoic Acid	1330	2750	48.4%
Naphthalene	399	500	79.8%
2-Methylnaphthalene	384	500	76.8%
Dimethylphthalate	423	500	84.6%
Acenaphthylene	395	500	79.0%
Acenaphthene	407	500	81.4%
Dibenzofuran	394	500	78.8%
Fluorene	412	500	82.4%
Pentachlorophenol	1160	1500	77.3%
Phenanthrene	443	500	88.6%
Carbazole	461	500	92.2%
Anthracene	413	500	82.6%
Di-n-Butylphthalate	454	500	90.8%
Fluoranthene	464	500	92.8%
Pyrene	450	500	90.0%
Butylbenzylphthalate	460	500	92.0%
Benzo(a)anthracene	431	500	86.2%
bis(2-Ethylhexyl)phthalate	467	500	93.4%
Chrysene	440	500	88.0%
Di-n-Octyl phthalate	459	500	91.8%
Benzo(a)pyrene	402	500	80.4%
Indeno(1,2,3-cd)pyrene	445	500	89.0%
Dibenz(a,h)anthracene	449	500	89.8%
Benzo(g,h,i)perylene	452	500	90.4%
Total Benzofluoranthenes	888	1000	88.8%

Semivolatile Surrogate Recovery	
d5-Nitrobenzene	72.6%
2-Fluorobiphenyl	73.0%
d14-p-Terphenyl	83.2%
d4-1,2-Dichlorobenzene	72.2%
d5-Phenol	76.8%
2-Fluorophenol	74.1%
2,4,6-Tribromophenol	82.8%
d4-2-Chlorophenol	75.6%

Reported in µg/kg (ppb)

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

UU52MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No: UU52

Project: JELD WEN MAULSBY MAR

Lab File ID: UU52MB

Date Extracted: 05/22/12

Instrument ID: NT10

Date Analyzed: 05/26/12

Matrix: SOLID

Time Analyzed: 1556

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	UU52LCSS1	UU52LCSS1	UU52SB	05/26/12
02	MS001-SS-120515	UU52A	UU52A	05/26/12
03	MS101-SS-120515	UU52B	UU52B	05/26/12
04	MS002-SS-120515	UU52C	UU52C	05/26/12
05	MS003-SS-120515	UU52D	UU52D	05/26/12
06	MS004-SS-120515	UU52E	UU52E	05/26/12
07	MS005-SS-120515	UU52F	UU52F	05/26/12
08	MS006-SS-120515	UU52G	UU52G	05/26/12
09	MS007-SS-120515	UU52H	UU52H	05/26/12
10	MS007-SS-120515	UU52HMS	UU52HMS	05/29/12
11	MS007-SS-120515	UU52HMSD	UU52HMSD	05/29/12
12	MS008-SS-120515	UU52I	UU52I	05/29/12
13	MS009-SS-120515	UU52J	UU52J	05/29/12
14	MS006-SS-120515	UU52G	UU52G6	05/30/12
15				
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30				

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: MB-052212
METHOD BLANK

Lab Sample ID: MB-052212
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 15:56
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.6	20	< 20 U
106-44-5	4-Methylphenol	6.6	40	< 40 U
65-85-0	Benzoic Acid	100	400	< 400 U
91-20-3	Naphthalene	2.8	20	< 20 U
91-57-6	2-Methylnaphthalene	3.1	20	< 20 U
131-11-3	Dimethylphthalate	2.9	20	< 20 U
208-96-8	Acenaphthylene	5.7	20	< 20 U
83-32-9	Acenaphthene	3.3	20	< 20 U
132-64-9	Dibenzofuran	4.1	20	< 20 U
86-73-7	Fluorene	4.4	20	< 20 U
87-86-5	Pentachlorophenol	48	200	< 200 U
85-01-8	Phenanthrene	3.6	20	< 20 U
86-74-8	Carbazole	2.7	20	< 20 U
120-12-7	Anthracene	4.5	20	< 20 U
84-74-2	Di-n-Butylphthalate	8.2	20	< 20 U
206-44-0	Fluoranthene	2.9	20	< 20 U
129-00-0	Pyrene	1.9	20	< 20 U
85-68-7	Butylbenzylphthalate	6.1	20	< 20 U
56-55-3	Benzo(a)anthracene	3.3	20	< 20 U
117-81-7	bis(2-Ethylhexyl)phthalate	15	25	< 25 U
218-01-9	Chrysene	3.8	20	< 20 U
117-84-0	Di-n-Octyl phthalate	5.8	20	< 5.8 UJ
50-32-8	Benzo(a)pyrene	5.4	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	4.3	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	4.4	20	< 20 U
483-65-8	Retene	20	20	< 20 U
TOTBFA	Total Benzofluoranthenes	2.8	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	56.2%	2-Fluorobiphenyl	55.8%
d14-p-Terphenyl	66.4%	d4-1,2-Dichlorobenzene	55.4%
d5-Phenol	55.1%	2-Fluorophenol	53.3%
2,4,6-Tribromophenol	55.1%	d4-2-Chlorophenol	56.0%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: JELD WEN MAULSBY MARSH

DFTPP Injection Date: 05/26/12 DFTPP Injection Time: 1044

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	25.1
68	Less than 2.0% of mass 69	0.6 (1.5)1
69	Mass 69 relative abundance	41.3
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	10.0 - 80.0% of mass 198	51.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	24.4
365	Greater than 1.0% of mass 198	3.46
441	0.0 - 24.0% of mass 442	12.2 (15.8)2
442	50.0 - 200.0% of mass 198	77.1
443	15.0 - 24.0% of mass 442	15.4 (19.9)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		ABN5	IC0526A	05/26/12	1059
02		ABN20	IC0526B	05/26/12	1136
03		ABN.2	IC0526C	05/26/12	1213
04		ABN10	IC0526D	05/26/12	1250
05		ABN.5	IC0526E	05/26/12	1327
06		ABN2.5	IC0526F	05/26/12	1405
07		ABN1.0	IC0526G	05/26/12	1442
08	UU52MBS1	UU52MBS1	UU52MB	05/26/12	1556
09	UU52LCSS1	UU52LCSS1	UU52SB	05/26/12	1634
10	MS001-SS-120515	UU52A	UU52A	05/26/12	1711
11	MS101-SS-120515	UU52B	UU52B	05/26/12	1748
12	MS002-SS-120515	UU52C	UU52C	05/26/12	1825
13	MS003-SS-120515	UU52D	UU52D	05/26/12	1902
14	MS004-SS-120515	UU52E	UU52E	05/26/12	1939
15	MS005-SS-120515	UU52F	UU52F	05/26/12	2016
16	MS006-SS-120515	UU52G	UU52G	05/26/12	2054
17	MS007-SS-120515	UU52H	UU52H	05/26/12	2131
18					
19					
20					
21					
22					

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: JELD WEN MAULSBY MARSH

DFTPP Injection Date: 05/29/12 DFTPP Injection Time: 1046

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	25.1
68	Less than 2.0% of mass 69	0.6 (1.4)1
69	Mass 69 relative abundance	41.5
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	10.0 - 80.0% of mass 198	51.8
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	25.0
365	Greater than 1.0% of mass 198	3.38
441	0.0 - 24.0% of mass 442	12.1 (15.6)2
442	50.0 - 200.0% of mass 198	77.6
443	15.0 - 24.0% of mass 442	14.9 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		CC0529	CC0529	05/29/12	1101
02	MS007-SS-120515	UU52HMS	UU52HMS	05/29/12	1141
03	MS007-SS-120515	UU52HMSD	UU52HMSD	05/29/12	1219
04	MS008-SS-120515	UU52I	UU52I	05/29/12	1256
05	MS009-SS-120515	UU52J	UU52J	05/29/12	1333
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: JELD WEN MAULSBY MARSH

DFTPP Injection Date: 05/30/12 DFTPP Injection Time: 1212

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	25.9
68	Less than 2.0% of mass 69	0.6 (1.3)1
69	Mass 69 relative abundance	42.0
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	10.0 - 80.0% of mass 198	50.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	24.6
365	Greater than 1.0% of mass 198	3.34
441	0.0 - 24.0% of mass 442	12.0 (15.4)2
442	50.0 - 200.0% of mass 198	77.7
443	15.0 - 24.0% of mass 442	15.2 (19.6)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		CC0530	CC0530	05/30/12	1227
02	MS006-SS-120515	UU52G	UU52G6	05/30/12	1304
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V SV

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 Calibration Date: 05/26/12

LAB FILE ID: RRF0.2=IC0526C RRF0.5=IC0526E RRF1 =IC0526G
RRF2.5=IC0526F RRF5 =IC0526A RRF10 =IC0526D
RRF20 =IC0526B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	RRF	%RSD /R^2
Phenol	1.938	1.782	1.799	1.837	1.945	1.859	1.841	1.857	3.4
Bis(2-Chloroethyl)ether	1.460	1.387	1.409	1.379	1.359	1.357	1.328	1.383	3.1
2-Chlorophenol	1.591	1.562	1.601	1.599	1.641	1.749	1.736	1.640	4.5
1,3-Dichlorobenzene	1.720	1.648	1.662	1.652	1.657	1.607	1.548	1.642	3.2
1,4-Dichlorobenzene	1.670	1.614	1.602	1.614	1.592	1.585	1.542	1.603	2.4
1,2-Dichlorobenzene	1.584	1.569	1.616	1.560	1.570	1.542	1.506	1.564	2.2
Benzyl alcohol	0.791	0.754	0.686	0.756	0.807	0.835	0.832	0.780	6.7
2,2'-oxybis(1-Chloropropane)	0.531	0.522	0.510	0.499	0.515	0.497	0.491	0.509	2.8
2-Methylphenol	1.537	1.414	1.454	1.445	1.466	1.471	1.460	1.464	2.6
Hexachloroethane	0.616	0.617	0.615	0.618	0.624	0.631	0.637	0.622	1.4
N-Nitroso-di-n-propylamine	0.858	0.882	0.882	0.880	0.856	0.851	0.829	0.862	2.3
4-Methylphenol	1.520	1.518	1.520	1.549	1.532	1.541	1.508	1.527	0.9
Nitrobenzene	0.371	0.350	0.355	0.346	0.352	0.351	0.343	0.352	2.5
Isophorone	0.647	0.615	0.661	0.654	0.679	0.680	0.719	0.665	4.9
2-Nitrophenol	0.217	0.206	0.218	0.220	0.234	0.232	0.230	0.222	4.5
2,4-Dimethylphenol	0.347	0.340	0.366	0.356	0.364	0.351	0.342	0.352	2.9
Bis(2-Chloroethoxy)methane	0.413	0.391	0.409	0.387	0.398	0.390	0.384	0.396	2.9
2,4-Dichlorophenol	0.297	0.336	0.340	0.346	0.354	0.363	0.336	0.339	6.2
1,2,4-Trichlorobenzene	0.340	0.332	0.329	0.315	0.325	0.314	0.303	0.322	3.9
Naphthalene	1.019	0.990	1.020	0.987	1.023	1.022	0.998	1.008	1.6
Benzoic acid		0.094	0.130	0.188	0.236	0.253	0.270	0.195	0.999
4-Chloroaniline	0.423	0.404	0.470	0.485	0.453	0.455	0.454	0.449	6.1
Hexachlorobutadiene	0.171	0.174	0.173	0.173	0.181	0.175	0.166	0.173	2.6
4-Chloro-3-methylphenol	0.278	0.277	0.303	0.301	0.320	0.325	0.324	0.304	6.8
2-Methylnaphthalene	0.689	0.674	0.692	0.694	0.722	0.721	0.714	0.701	2.6
Hexachlorocyclopentadiene		0.114	0.171	0.233	0.279	0.320	0.341	0.243	0.998
2,4,6-Trichlorophenol	0.365	0.362	0.383	0.407	0.412	0.420	0.409	0.394	6.0
2,4,5-Trichlorophenol	0.373	0.372	0.415	0.429	0.458	0.460	0.447	0.422	8.9
2-Chloronaphthalene	1.186	1.155	1.214	1.192	1.183	1.206	1.161	1.185	1.8
2-Nitroaniline	0.277	0.270	0.280	0.288	0.285	0.296	0.288	0.283	2.9
Acenaphthylene	1.851	1.791	1.804	1.809	1.782	1.823	1.715	1.796	2.4
Dimethylphthalate	1.288	1.237	1.277	1.254	1.226	1.219	1.102	1.229	5.0
2,6-Dinitrotoluene	0.285	0.288	0.308	0.306	0.305	0.313	0.291	0.299	3.8
Acenaphthene	1.092	1.055	1.083	1.094	1.090	1.103	1.068	1.084	1.5
3-Nitroaniline	0.330	0.330	0.343	0.346	0.336	0.354	0.327	0.338	3.0
2,4-Dinitrophenol		0.034	0.077	0.138	0.187	0.217	0.224	0.146	0.998
Dibenzofuran	1.561	1.557	1.619	1.620	1.575	1.609	1.570	1.587	1.7

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-1

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 Calibration Date: 05/26/12

LAB FILE ID: RRF0.2=IC0526C RRF0.5=IC0526E RRF1 =IC0526G
RRF2.5=IC0526F RRF5 =IC0526A RRF10 =IC0526D
RRF20 =IC0526B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	RRF	%RSD /R^2
4-Nitrophenol	0.106	0.112	0.124	0.137	0.142	0.151	0.139	0.130	12.7
2,4-Dinitrotoluene	0.340	0.364	0.395	0.399	0.410	0.413	0.383	0.386	6.9
Fluorene	1.279	1.208	1.223	1.211	1.202	1.206	1.186	1.216	2.4
4-Chlorophenyl-phenylether	0.599	0.570	0.586	0.582	0.578	0.581	0.547	0.578	2.8
Diethylphthalate	1.238	1.230	1.219	1.235	1.209	1.170	1.086	1.198	4.6
4-Nitroaniline	0.301	0.358	0.377	0.355	0.339	0.338	0.350	0.345	6.8
4,6-Dinitro-2-methylphenol		0.107	0.139	0.162	0.179	0.186	0.180	0.159	19.4
N-Nitrosodiphenylamine (1)	0.564	0.550	0.561	0.536	0.537	0.527	0.492	0.538	4.5
4-Bromophenyl-phenylether	0.220	0.201	0.214	0.211	0.217	0.224	0.212	0.214	3.4
Hexachlorobenzene	0.246	0.253	0.252	0.249	0.242	0.245	0.241	0.247	1.9
Pentachlorophenol		0.052	0.078	0.098	0.130	0.138	0.143	0.106	0.998
Phenanthrene	1.060	0.976	1.036	1.008	1.023	1.041	1.075	1.031	3.2
Anthracene	1.070	1.030	1.068	1.054	1.113	1.103	1.104	1.077	2.8
Carbazole	1.025	1.038	1.070	0.995	0.948	0.890	1.012	0.997	6.0
Di-n-butylphthalate	1.334	1.278	1.384	1.371	1.471	1.486	1.498	1.403	6.0
Fluoranthene	1.154	1.110	1.131	1.139	1.202	1.218	1.242	1.171	4.3
Pyrene	1.206	1.159	1.236	1.209	1.245	1.233	1.231	1.217	2.4
Butylbenzylphthalate	0.577	0.555	0.571	0.562	0.584	0.554	0.549	0.564	2.3
Benzo(a)anthracene	1.207	1.091	1.119	1.099	1.111	1.116	1.134	1.125	3.4
3,3'-Dichlorobenzidine		0.634	0.646	0.639	0.586	0.537	0.654	0.616	7.4
Chrysene	0.989	0.952	0.998	0.965	1.006	1.010	1.009	0.990	2.3
bis(2-Ethylhexyl)phthalate	0.607	0.550	0.540	0.538	0.544	0.546	0.520	0.549	4.9
Di-n-octylphthalate	1.036	0.963	0.987	0.956	0.967	0.959	0.944	0.973	3.1
Benzo(b)fluoranthene	1.099	1.056	1.100	1.062	1.182	1.124	1.242	1.124	6.0
Benzo(k)fluoranthene	1.274	1.285	1.285	1.251	1.192	1.265	1.108	1.237	5.3
Benzo(a)pyrene	1.065	0.984	1.038	1.015	1.048	1.051	1.039	1.034	2.6
Indeno(1,2,3-cd)pyrene	1.121	1.119	1.177	1.212	1.249	1.259	1.237	1.196	4.9
Dibenzo(a,h)anthracene	0.850	0.866	0.936	0.958	0.992	1.004	0.989	0.942	6.6
Benzo(g,h,i)perylene	1.002	0.953	1.000	1.025	1.068	1.072	1.060	1.026	4.3
N-Nitrosodimethylamine	0.862	0.833	0.832	0.846	0.844	0.823	0.782	0.832	3.0
Aniline	4.087	3.968	4.063	3.997	3.987	3.874	3.718	3.956	3.2
Benzidine	0.470	0.467	0.476	0.425	0.340	0.441	0.579	0.457	15.6
Retene	0.551	0.538	0.552	0.560	0.588	0.585	0.592	0.566	3.8
Perylene	1.067	1.004	1.050	1.003	1.044	1.055	1.054	1.040	2.5
Pyridine	0.736	0.695	0.751	0.741	0.695	0.711	0.698	0.718	3.3
1-methylnaphthalene	0.690	0.690	0.700	0.710	0.740	0.738	0.735	0.715	3.2
Azobenzene (1,2-DP-Hydrazine	1.292	1.215	1.244	1.245	1.187	1.208	1.107	1.214	4.8

(1) Cannot be seperated from Diphenylamine

<- Outside QC limits: %RSD <20% or R^2 > 0.990

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 Calibration Date: 05/26/12

LAB FILE ID: RRF0.2=IC0526C RRF0.5=IC0526E RRF1 =IC0526G
RRF2.5=IC0526F RRF5 =IC0526A RRF10 =IC0526D
RRF20 =IC0526B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	RRF	%RSD /R^2
Total Benzofluoranthenes	1.124	1.091	1.124	1.083	1.118	1.124	1.104	1.110	1.6
2-Fluorophenol	1.380	1.389	1.397	1.401	1.417	1.437	1.369	1.398	1.6
Phenol-d5	1.676	1.697	1.709	1.740	1.776	1.808	1.791	1.742	2.9
2-Chlorophenol-d4	1.557	1.524	1.537	1.497	1.523	1.523	1.525	1.526	1.2
1,2-Dichlorobenzene-d4	1.006	0.973	1.017	0.997	1.013	1.007	0.997	1.001	1.4
Nitrobenzene-d5	0.357	0.347	0.362	0.360	0.366	0.361	0.356	0.358	1.7
2-Fluorobiphenyl	1.422	1.388	1.385	1.405	1.355	1.402	1.348	1.386	1.9
2,4,6-Tribromophenol	0.154	0.157	0.164	0.165	0.172	0.174	0.169	0.165	4.5
Terphenyl-d14	0.792	0.755	0.775	0.777	0.776	0.743	0.719	0.762	3.3

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-3

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 Cont. Calib. Date: 05/26/12

Init. Calib. Date: 05/26/12 Cont. Calib. Time: 1059

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Phenol	1.857	1.945	0.800	AVRG	4.7
Bis(2-Chloroethyl)ether	1.383	1.359	0.700	AVRG	-1.7
2-Chlorophenol	1.640	1.641	0.800	AVRG	0.1
1,3-Dichlorobenzene	1.642	1.657	0.010	AVRG	0.9
1,4-Dichlorobenzene	1.603	1.592	0.010	AVRG	-0.7
1,2-Dichlorobenzene	1.564	1.570	0.010	AVRG	0.4
Benzyl alcohol	0.780	0.807	0.010	AVRG	3.5
2,2'-oxybis(1-Chloropropane)	0.509	0.515	0.010	AVRG	1.2
2-Methylphenol	1.464	1.466	0.700	AVRG	0.1
Hexachloroethane	0.622	0.624	0.300	AVRG	0.3
N-Nitroso-di-n-propylamine	0.862	0.856	0.500	AVRG	-0.7
4-Methylphenol	1.527	1.532	0.600	AVRG	0.3
Nitrobenzene	0.352	0.352	0.200	AVRG	0.0
Isophorone	0.665	0.679	0.400	AVRG	2.1
2-Nitrophenol	0.222	0.234	0.100	AVRG	5.4
2,4-Dimethylphenol	0.352	0.364	0.200	AVRG	3.4
Bis(2-Chloroethoxy)methane	0.396	0.398	0.300	AVRG	0.5
2,4-Dichlorophenol	0.339	0.354	0.200	AVRG	4.4
1,2,4-Trichlorobenzene	0.322	0.325	0.010	AVRG	0.9
Naphthalene	1.008	1.023	0.700	AVRG	1.5
Benzoic acid	20.00	19.86	0.010	2ORDR	-0.7
4-Chloroaniline	0.449	0.453	0.010	AVRG	0.9
Hexachlorobutadiene	0.173	0.181	0.010	AVRG	4.6
4-Chloro-3-methylphenol	0.304	0.320	0.200	AVRG	5.3
2-Methylnaphthalene	0.701	0.722	0.400	AVRG	3.0
Hexachlorocyclopentadiene	10.00	9.487	0.050	2ORDR	-5.1
2,4,6-Trichlorophenol	0.394	0.412	0.200	AVRG	4.6
2,4,5-Trichlorophenol	0.422	0.458	0.200	AVRG	8.5
2-Chloronaphthalene	1.185	1.183	0.800	AVRG	-0.2
2-Nitroaniline	0.283	0.285	0.010	AVRG	0.7
Acenaphthylene	1.796	1.782	0.900	AVRG	-0.8
Dimethylphthalate	1.229	1.226	0.010	AVRG	-0.2
2,6-Dinitrotoluene	0.299	0.305	0.200	AVRG	2.0
Acenaphthene	1.084	1.090	0.900	AVRG	0.6
3-Nitroaniline	0.338	0.336	0.010	AVRG	-0.6
2,4-Dinitrophenol	20.00	18.77	0.010	2ORDR	-6.2
Dibenzofuran	1.587	1.575	0.800	AVRG	-0.8

<- Exceeds QC limit of 20% D
* RF less than minimum RF

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA

ARI Job No: UU52 | Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 | Cont. Calib. Date: 05/26/12

Init. Calib. Date: 05/26/12 | Cont. Calib. Time: 1059

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	0.130	0.142	0.010	AVRG	9.2	
2,4-Dinitrotoluene	0.386	0.410	0.200	AVRG	6.2	
Fluorene	1.216	1.202	0.900	AVRG	-1.2	
4-Chlorophenyl-phenylether	0.578	0.578	0.400	AVRG	0.0	
Diethylphthalate	1.198	1.209	0.010	AVRG	0.9	
4-Nitroaniline	0.345	0.339	0.010	AVRG	-1.7	
4,6-Dinitro-2-methylphenol	0.159	0.179	0.010	AVRG	12.6	
N-Nitrosodiphenylamine(1)	0.538	0.537	0.010	AVRG	-0.2	
4-Bromophenyl-phenylether	0.214	0.217	0.100	AVRG	1.4	
Hexachlorobenzene	0.247	0.242	0.100	AVRG	-2.0	
Pentachlorophenol	10.00	9.963	0.050	2ORDR	-0.4	
Phenanthrene	1.031	1.023	0.700	AVRG	-0.8	
Anthracene	1.077	1.113	0.700	AVRG	3.3	
Carbazole	0.997	0.948	0.010	AVRG	-4.9	
Di-n-butylphthalate	1.403	1.471	0.010	AVRG	4.8	
Fluoranthene	1.171	1.202	0.600	AVRG	2.6	
Pyrene	1.217	1.245	0.600	AVRG	2.3	
Butylbenzylphthalate	0.564	0.584	0.010	AVRG	3.5	
Benzo(a)anthracene	1.125	1.111	0.800	AVRG	-1.2	
3,3'-Dichlorobenzidine	0.616	0.586	0.010	AVRG	-4.9	
Chrysene	0.990	1.006	0.700	AVRG	1.6	
bis(2-Ethylhexyl)phthalate	0.549	0.544	0.010	AVRG	-0.9	
Di-n-octylphthalate	0.973	0.967	0.010	AVRG	-0.6	
Benzo(b)fluoranthene	1.124	1.182	0.700	AVRG	5.2	
Benzo(k)fluoranthene	1.237	1.192	0.700	AVRG	-3.6	
Benzo(a)pyrene	1.034	1.048	0.700	AVRG	1.4	
Indeno(1,2,3-cd)pyrene	1.196	1.249	0.500	AVRG	4.4	
Dibenzo(a,h)anthracene	0.942	0.992	0.400	AVRG	5.3	
Benzo(g,h,i)perylene	1.026	1.068	0.500	AVRG	4.1	
N-Nitrosodimethylamine	0.832	0.844	0.010	AVRG	1.4	
Aniline	3.956	3.987	0.010	AVRG	0.8	
Benzidine	0.457	0.340	0.010	AVRG	-25.6	<-
Retene	0.566	0.588	0.010	AVRG	3.9	
Perylene	1.040	1.044	0.010	AVRG	0.4	
Pyridine	0.718	0.695	0.010	AVRG	-3.2	
1-methylnaphthalene	0.715	0.740	0.010	AVRG	3.5	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 Cont. Calib. Date: 05/26/12

Init. Calib. Date: 05/26/12 Cont. Calib. Time: 1059

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Azobenzene (1,2-DP-Hydrazine	1.214	1.187	0.010	AVRG	-2.2
Total Benzofluoranthenes	1.110	1.118	0.010	AVRG	0.7
2-Fluorophenol	1.398	1.417	0.010	AVRG	1.4
Phenol-d5	1.742	1.776	0.010	AVRG	2.0
2-Chlorophenol-d4	1.526	1.523	0.010	AVRG	-0.2
1,2-Dichlorobenzene-d4	1.001	1.013	0.010	AVRG	1.2
Nitrobenzene-d5	0.358	0.366	0.010	AVRG	2.2
2-Fluorobiphenyl	1.386	1.355	0.010	AVRG	-2.2
2,4,6-Tribromophenol	0.165	0.172	0.010	AVRG	4.2
Terphenyl-d14	0.762	0.776	0.010	AVRG	1.8

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII SV-3

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 Cont. Calib. Date: 05/29/12

Init. Calib. Date: 05/26/12 Cont. Calib. Time: 1101

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.857	1.950	0.800	AVRG	5.0	
Bis(2-Chloroethyl)ether	1.383	1.329	0.700	AVRG	-3.9	
2-Chlorophenol	1.640	1.572	0.800	AVRG	-4.1	
1,3-Dichlorobenzene	1.642	1.651	0.010	AVRG	0.5	
1,4-Dichlorobenzene	1.603	1.586	0.010	AVRG	-1.1	
1,2-Dichlorobenzene	1.564	1.583	0.010	AVRG	1.2	
Benzyl alcohol	0.780	0.794	0.010	AVRG	1.8	
2,2'-oxybis(1-Chloropropane)	0.509	0.499	0.010	AVRG	-2.0	
2-Methylphenol	1.464	1.407	0.700	AVRG	-3.9	
Hexachloroethane	0.622	0.651	0.300	AVRG	4.7	
N-Nitroso-di-n-propylamine	0.862	0.806	0.500	AVRG	-6.5	
4-Methylphenol	1.527	1.407	0.600	AVRG	-7.8	
Nitrobenzene	0.352	0.333	0.200	AVRG	-5.4	
Isophorone	0.665	0.653	0.400	AVRG	-1.8	
2-Nitrophenol	0.222	0.222	0.100	AVRG	0.0	
2,4-Dimethylphenol	0.352	0.350	0.200	AVRG	-0.6	
Bis(2-Chloroethoxy)methane	0.396	0.378	0.300	AVRG	-4.5	
2,4-Dichlorophenol	0.339	0.339	0.200	AVRG	0.0	
1,2,4-Trichlorobenzene	0.322	0.327	0.010	AVRG	1.6	
Naphthalene	1.008	1.013	0.700	AVRG	0.5	
Benzoic acid	20.00	19.65	0.010	2ORDR	-1.8	
4-Chloroaniline	0.449	0.430	0.010	AVRG	-4.2	
Hexachlorobutadiene	0.173	0.179	0.010	AVRG	3.5	
4-Chloro-3-methylphenol	0.304	0.311	0.200	AVRG	2.3	
2-Methylnaphthalene	0.701	0.726	0.400	AVRG	3.6	
Hexachlorocyclopentadiene	10.00	7.483	0.050	2ORDR	-25.2	<-
2,4,6-Trichlorophenol	0.394	0.404	0.200	AVRG	2.5	
2,4,5-Trichlorophenol	0.422	0.445	0.200	AVRG	5.4	
2-Chloronaphthalene	1.185	1.153	0.800	AVRG	-2.7	
2-Nitroaniline	0.283	0.275	0.010	AVRG	-2.8	
Acenaphthylene	1.796	1.940	0.900	AVRG	8.0	
Dimethylphthalate	1.229	1.222	0.010	AVRG	-0.6	
2,6-Dinitrotoluene	0.299	0.304	0.200	AVRG	1.7	
Acenaphthene	1.084	1.071	0.900	AVRG	-1.2	
3-Nitroaniline	0.338	0.315	0.010	AVRG	-6.8	
2,4-Dinitrophenol	20.00	15.18	0.010	2ORDR	-24.1	<-
Dibenzofuran	1.587	1.594	0.800	AVRG	0.4	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 Cont. Calib. Date: 05/29/12

Init. Calib. Date: 05/26/12 Cont. Calib. Time: 1101

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
4-Nitrophenol	0.130		0.010	AVRG	
2,4-Dinitrotoluene	0.386	0.405	0.200	AVRG	4.9
Fluorene	1.216	1.388	0.900	AVRG	14.1
4-Chlorophenyl-phenylether	0.578	0.676	0.400	AVRG	17.0
Diethylphthalate	1.198	1.217	0.010	AVRG	1.6
4-Nitroaniline	0.345	0.296	0.010	AVRG	-14.2
4,6-Dinitro-2-methylphenol	0.159	0.168	0.010	AVRG	5.7
N-Nitrosodiphenylamine(1)	0.538	0.520	0.010	AVRG	-3.3
4-Bromophenyl-phenylether	0.214	0.213	0.100	AVRG	-0.5
Hexachlorobenzene	0.247	0.240	0.100	AVRG	-2.8
Pentachlorophenol	10.00	9.609	0.050	2ORDR	-3.9
Phenanthrene	1.031	1.017	0.700	AVRG	-1.4
Anthracene	1.077	1.095	0.700	AVRG	1.7
Carbazole	0.997	1.034	0.010	AVRG	3.7
Di-n-butylphthalate	1.403	1.460	0.010	AVRG	4.1
Fluoranthene	1.171	1.189	0.600	AVRG	1.5
Pyrene	1.217	1.244	0.600	AVRG	2.2
Butylbenzylphthalate	0.564	0.573	0.010	AVRG	1.6
Benzo(a)anthracene	1.125	1.114	0.800	AVRG	-1.0
3,3'-Dichlorobenzidine	0.616	0.650	0.010	AVRG	5.5
Chrysene	0.990	0.992	0.700	AVRG	0.2
bis(2-Ethylhexyl)phthalate	0.549	0.547	0.010	AVRG	-0.4
Di-n-octylphthalate	0.973	0.961	0.010	AVRG	-1.2
Benzo(b)fluoranthene	1.124	1.056	0.700	AVRG	-6.0
Benzo(k)fluoranthene	1.237	1.252	0.700	AVRG	1.2
Benzo(a)pyrene	1.034	1.016	0.700	AVRG	-1.7
Indeno(1,2,3-cd)pyrene	1.196	1.246	0.500	AVRG	4.2
Dibenzo(a,h)anthracene	0.942	0.999	0.400	AVRG	6.0
Benzo(g,h,i)perylene	1.026	1.061	0.500	AVRG	3.4
N-Nitrosodimethylamine	0.832	0.811	0.010	AVRG	-2.5
Aniline	3.956	3.504	0.010	AVRG	-11.4
Benzidine	0.457	0.426	0.010	AVRG	-6.8
Retene	0.566	0.579	0.010	AVRG	2.3
Perylene	1.040	1.014	0.010	AVRG	-2.5
Pyridine	0.718	0.661	0.010	AVRG	-7.9
1-methylnaphthalene	0.715	0.750	0.010	AVRG	4.9

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 Cont. Calib. Date: 05/29/12

Init. Calib. Date: 05/26/12 Cont. Calib. Time: 1101

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Azobenzene (1,2-DP-Hydrazine	1.214	1.179	0.010	AVRG	-2.9
Total Benzofluoranthenes	1.110	1.089	0.010	AVRG	-1.9
2-Fluorophenol	1.398	1.341	0.010	AVRG	-4.1
Phenol-d5	1.742	1.645	0.010	AVRG	-5.6
2-Chlorophenol-d4	1.526	1.482	0.010	AVRG	-2.9
1,2-Dichlorobenzene-d4	1.001	1.015	0.010	AVRG	1.4
Nitrobenzene-d5	0.358	0.344	0.010	AVRG	-3.9
2-Fluorobiphenyl	1.386	1.379	0.010	AVRG	-0.5
2,4,6-Tribromophenol	0.165	0.176	0.010	AVRG	6.7
Terphenyl-d14	0.762	0.749	0.010	AVRG	-1.7

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-3

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 Cont. Calib. Date: 05/30/12

Init. Calib. Date: 05/26/12 Cont. Calib. Time: 1227

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.857	1.912	0.800	AVRG	3.0	
Bis(2-Chloroethyl)ether	1.383	1.312	0.700	AVRG	-5.1	
2-Chlorophenol	1.640	1.555	0.800	AVRG	-5.2	
1,3-Dichlorobenzene	1.642	1.629	0.010	AVRG	-0.8	
1,4-Dichlorobenzene	1.603	1.584	0.010	AVRG	-1.2	
1,2-Dichlorobenzene	1.564	1.557	0.010	AVRG	-0.4	
Benzyl alcohol	0.780	0.799	0.010	AVRG	2.4	
2,2'-oxybis(1-Chloropropane)	0.509	0.506	0.010	AVRG	-0.6	
2-Methylphenol	1.464	1.374	0.700	AVRG	-6.1	
Hexachloroethane	0.622	0.638	0.300	AVRG	2.6	
N-Nitroso-di-n-propylamine	0.862	0.808	0.500	AVRG	-6.3	
4-Methylphenol	1.527	1.376	0.600	AVRG	-9.9	
Nitrobenzene	0.352	0.326	0.200	AVRG	-7.4	
Isophorone	0.665	0.715	0.400	AVRG	7.5	
2-Nitrophenol	0.222	0.221	0.100	AVRG	-0.4	
2,4-Dimethylphenol	0.352	0.340	0.200	AVRG	-3.4	
Bis(2-Chloroethoxy)methane	0.396	0.378	0.300	AVRG	-4.5	
2,4-Dichlorophenol	0.339	0.328	0.200	AVRG	-3.2	
1,2,4-Trichlorobenzene	0.322	0.318	0.010	AVRG	-1.2	
Naphthalene	1.008	1.009	0.700	AVRG	0.1	
Benzoic acid	20.00	10.23	0.010	2ORDR	-48.8	<-
4-Chloroaniline	0.449	0.435	0.010	AVRG	-3.1	
Hexachlorobutadiene	0.173	0.179	0.010	AVRG	3.5	
4-Chloro-3-methylphenol	0.304	0.312	0.200	AVRG	2.6	
2-Methylnaphthalene	0.701	0.714	0.400	AVRG	1.8	
Hexachlorocyclopentadiene	10.00	6.336	0.050	2ORDR	-36.6	<-
2,4,6-Trichlorophenol	0.394	0.414	0.200	AVRG	5.1	
2,4,5-Trichlorophenol	0.422	0.459	0.200	AVRG	8.8	
2-Chloronaphthalene	1.185	1.210	0.800	AVRG	2.1	
2-Nitroaniline	0.283	0.283	0.010	AVRG	0.0	
Acenaphthylene	1.796	1.952	0.900	AVRG	8.7	
Dimethylphthalate	1.229	1.247	0.010	AVRG	1.5	
2,6-Dinitrotoluene	0.299	0.312	0.200	AVRG	4.3	
Acenaphthene	1.084	1.106	0.900	AVRG	2.0	
3-Nitroaniline	0.338	0.329	0.010	AVRG	-2.7	
2,4-Dinitrophenol	20.00	5.842	0.010	2ORDR	-70.8	<-
Dibenzofuran	1.587	1.624	0.800	AVRG	2.3	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA

ARI Job No: UU52 | Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 | Cont. Calib. Date: 05/30/12

Init. Calib. Date: 05/26/12 | Cont. Calib. Time: 1227

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	0.130		0.010	AVRG		
2,4-Dinitrotoluene	0.386	0.416	0.200	AVRG	7.8	
Fluorene	1.216	1.361	0.900	AVRG	11.9	
4-Chlorophenyl-phenylether	0.578	0.693	0.400	AVRG	19.9	
Diethylphthalate	1.198	1.241	0.010	AVRG	3.6	
4-Nitroaniline	0.345	0.339	0.010	AVRG	-1.7	
4,6-Dinitro-2-methylphenol	0.159	0.116	0.010	AVRG	-27.0	<-
N-Nitrosodiphenylamine(1)	0.538	0.529	0.010	AVRG	-1.7	
4-Bromophenyl-phenylether	0.214	0.215	0.100	AVRG	0.5	
Hexachlorobenzene	0.247	0.240	0.100	AVRG	-2.8	
Pentachlorophenol	10.00	9.754	0.050	2ORDR	-2.5	
Phenanthrene	1.031	1.028	0.700	AVRG	-0.3	
Anthracene	1.077	1.135	0.700	AVRG	5.4	
Carbazole	0.997	1.083	0.010	AVRG	8.6	
Di-n-butylphthalate	1.403	1.492	0.010	AVRG	6.3	
Fluoranthene	1.171	1.255	0.600	AVRG	7.2	
Pyrene	1.217	1.220	0.600	AVRG	0.2	
Butylbenzylphthalate	0.564	0.582	0.010	AVRG	3.2	
Benzo(a)anthracene	1.125	1.093	0.800	AVRG	-2.8	
3,3'-Dichlorobenzidine	0.616	0.664	0.010	AVRG	7.8	
Chrysene	0.990	0.982	0.700	AVRG	-0.8	
bis(2-Ethylhexyl)phthalate	0.549	0.533	0.010	AVRG	-2.9	
Di-n-octylphthalate	0.973	0.958	0.010	AVRG	-1.5	
Benzo(b)fluoranthene	1.124	1.180	0.700	AVRG	5.0	
Benzo(k)fluoranthene	1.237	1.207	0.700	AVRG	-2.4	
Benzo(a)pyrene	1.034	1.041	0.700	AVRG	0.7	
Indeno(1,2,3-cd)pyrene	1.196	1.217	0.500	AVRG	1.8	
Dibenzo(a,h)anthracene	0.942	0.985	0.400	AVRG	4.6	
Benzo(g,h,i)perylene	1.026	1.029	0.500	AVRG	0.3	
N-Nitrosodimethylamine	0.832	0.815	0.010	AVRG	-2.0	
Aniline	3.956	3.518	0.010	AVRG	-11.1	
Benzidine	0.457	0.452	0.010	AVRG	-1.1	
Retene	0.566	0.563	0.010	AVRG	-0.5	
Perylene	1.040	1.043	0.010	AVRG	0.3	
Pyridine	0.718	0.674	0.010	AVRG	-6.1	
1-methylnaphthalene	0.715	0.746	0.010	AVRG	4.3	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 Cont. Calib. Date: 05/30/12

Init. Calib. Date: 05/26/12 Cont. Calib. Time: 1227

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Azobenzene (1,2-DP-Hydrazine	1.214	1.217	0.010	AVRG	0.2
Total Benzofluoranthenes	1.110	1.125	0.010	AVRG	1.4
2-Fluorophenol	1.398	1.316	0.010	AVRG	-5.9
Phenol-d5	1.742	1.596	0.010	AVRG	-8.4
2-Chlorophenol-d4	1.526	1.444	0.010	AVRG	-5.4
1,2-Dichlorobenzene-d4	1.001	1.024	0.010	AVRG	2.3
Nitrobenzene-d5	0.358	0.341	0.010	AVRG	-4.7
2-Fluorobiphenyl	1.386	1.400	0.010	AVRG	1.0
2,4,6-Tribromophenol	0.165	0.176	0.010	AVRG	6.7
Terphenyl-d14	0.762	0.746	0.010	AVRG	-2.1

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII SV-3

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A Ical Date: 05/26/12

Instrument ID: NT10 Cont. Cal Date: 05/26/12

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	189516	8.86	730932	11.50	420698	15.37
	UPPER LIMIT	379032		1461864		841396	
	LOWER LIMIT	94758		365466		210349	
	CCAL	189516	8.86	730932	11.50	420698	15.37
	UPPER LIMIT		9.36		12.00		15.87
	LOWER LIMIT		8.36		11.00		14.87
01	UU52MBS1	192270	8.86	755212	11.50	409923	15.36
02	UU52LCSS1	180960	8.86	713226	11.50	402827	15.37
03	MS001-SS-120	192479	8.86	766868	11.50	424558	15.37
04	MS101-SS-120	191331	8.86	774622	11.50	431955	15.38
05	MS002-SS-120	189793	8.86	762840	11.50	421087	15.38
06	MS003-SS-120	195684	8.86	781696	11.50	433584	15.38
07	MS004-SS-120	197248	8.86	788940	11.50	430674	15.38
08	MS005-SS-120	190373	8.86	742174	11.51	431594	15.39
09	MS006-SS-120	189614	8.86	736251	11.51	426687	15.38
10	MS007-SS-120	194227	8.86	756334	11.51	437900	15.39
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A Ical Date: 05/26/12

Instrument ID: NT10 Cont. Cal Date: 05/26/12

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	638950	18.63	645065	23.71	650033	26.10
	UPPER LIMIT	1277900		1290130		1300066	
	LOWER LIMIT	319475		322532		325016	
	CCAL	638950	18.63	645065	23.71	650033	26.10
	UPPER LIMIT		19.13		24.21		26.60
	LOWER LIMIT		18.13		23.21		25.60
01	UU52MBS1	652568	18.63	628746	23.70	575994	26.10
02	UU52LCSS1	613172	18.63	610564	23.70	601200	26.10
03	MS001-SS-120	586032	18.64	664578	23.71	673821	26.11
04	MS101-SS-120	601035	18.64	668327	23.72	667061	26.12
05	MS002-SS-120	644641	18.64	673614	23.72	665077	26.12
06	MS003-SS-120	608068	18.64	705866	23.72	688484	26.12
07	MS004-SS-120	660353	18.64	700903	23.72	683374	26.12
08	MS005-SS-120	643967	18.66	721119	23.73	669438	26.14
09	MS006-SS-120	605251	18.65	696152	23.72	658886	26.13
10	MS007-SS-120	626572	18.66	703620	23.73	665896	26.13
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A Ical Date: 05/26/12

Instrument ID: NT10 Cont. Cal Date: 05/26/12

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1016118	24.79				
	UPPER LIMIT	2032236					
	LOWER LIMIT	508059					
	CCAL	1016118	24.79				
	UPPER LIMIT		25.29				
	LOWER LIMIT		24.29				
01	UU52MBS1	911710	24.79				
02	UU52LCSS1	927500	24.79				
03	MS001-SS-120	1081857	24.79				
04	MS101-SS-120	1085453	24.80				
05	MS002-SS-120	1081717	24.80				
06	MS003-SS-120	1095300	24.80				
07	MS004-SS-120	1104559	24.80				
08	MS005-SS-120	1107167	24.81				
09	MS006-SS-120	1081407	24.81				
10	MS007-SS-120	1121633	24.81				
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A Ical Date: 05/26/12

Instrument ID: NT10 Cont. Cal Date: 05/29/12

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	189516	8.86	730932	11.50	420698	15.37
	UPPER LIMIT	379032		1461864		841396	
	LOWER LIMIT	94758		365466		210349	
	CCAL	201464	8.86	781105	11.51	450943	15.39
	UPPER LIMIT		9.36		12.01		15.89
	LOWER LIMIT		8.36		11.01		14.89
01	MS007-SS-120	194036	8.87	746578	11.51	430169	15.39
02	MS007-SS-120	198613	8.87	774430	11.51	446161	15.39
03	MS008-SS-120	197513	8.86	791554	11.51	435113	15.39
04	MS009-SS-120	192942	8.87	774858	11.51	438714	15.39
05							
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A Ical Date: 05/26/12

Instrument ID: NT10 Cont. Cal Date: 05/29/12

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	638950	18.63	645065	23.71	650033	26.10
	UPPER LIMIT	1277900		1290130		1300066	
	LOWER LIMIT	319475		322532		325016	
	CCAL	697664	18.65	705871	23.73	704858	26.13
	UPPER LIMIT		19.15		24.23		26.63
	LOWER LIMIT		18.15		23.23		25.63
01	MS007-SS-120	648205	18.66	694641	23.73	687334	26.13
02	MS007-SS-120	635278	18.66	714204	23.73	706143	26.13
03	MS008-SS-120	618705	18.66	705752	23.73	690654	26.13
04	MS009-SS-120	619554	18.66	704418	23.73	689542	26.13
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA

ARI Job No: UU52 | Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A | Ical Date: 05/26/12

Instrument ID: NT10 | Cont. Cal Date: 05/29/12

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1016118	24.79				
	UPPER LIMIT	2032236					
	LOWER LIMIT	508059					
	CCAL	1102875	24.80				
	UPPER LIMIT		25.30				
	LOWER LIMIT		24.30				
01	MS007-SS-120	1111139	24.81				
02	MS007-SS-120	1120932	24.81				
03	MS008-SS-120	1101771	24.81				
04	MS009-SS-120	1108887	24.81				
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A Ical Date: 05/26/12

Instrument ID: NT10 Cont. Cal Date: 05/30/12

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	189516	8.86	730932	11.50	420698	15.37
	UPPER LIMIT	379032		1461864		841396	
	LOWER LIMIT	94758		365466		210349	
	CCAL	191858	8.86	750130	11.51	423103	15.39
	UPPER LIMIT		9.36		12.01		15.89
	LOWER LIMIT		8.36		11.01		14.89
01	MS006-SS-120	186026	8.87	733531	11.51	426946	15.39
02							
03							
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25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A Ical Date: 05/26/12

Instrument ID: NT10 Cont. Cal Date: 05/30/12

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	638950	18.63	645065	23.71	650033	26.10
	UPPER LIMIT	1277900		1290130		1300066	
	LOWER LIMIT	319475		322532		325016	
	CCAL	662850	18.66	713203	23.73	700277	26.13
	UPPER LIMIT		19.16		24.23		26.63
	LOWER LIMIT		18.16		23.23		25.63
01	MS006-SS-120	591988	18.66	709441	23.73	662093	26.13
02							
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23							
24							
25							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: UU52 Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A Ical Date: 05/26/12

Instrument ID: NT10 Cont. Cal Date: 05/30/12

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1016118	24.79				
	UPPER LIMIT	2032236					
	LOWER LIMIT	508059					
	CCAL	1121736	24.81				
	UPPER LIMIT		25.31				
	LOWER LIMIT		24.31				
01	MS006-SS-120	1089932	24.81				
02							
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3520C
Page 1 of 1

Sample ID: MS-SSRB-120515
SAMPLE

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized: MW
Reported: 05/30/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/21/12
Date Analyzed: 05/24/12 13:40
Instrument/Analyst: NT6/JZ

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

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	0.52	1.0	< 1.0 U
106-44-5	4-Methylphenol	0.52	1.0	< 1.0 U
65-85-0	Benzoic Acid	5.1	10	< 10 U
91-20-3	Naphthalene	0.52	1.0	< 1.0 U
91-57-6	2-Methylnaphthalene	0.48	1.0	< 1.0 U
131-11-3	**Dimethylphthalate**	**0.53**	**1.0**	**0.9 J**
208-96-8	Acenaphthylene	0.48	1.0	< 1.0 U
83-32-9	Acenaphthene	0.55	1.0	< 1.0 U
132-64-9	Dibenzofuran	0.48	1.0	< 1.0 U
86-73-7	Fluorene	0.56	1.0	< 1.0 U
87-86-5	Pentachlorophenol	2.4	5.0	< 5.0 U
85-01-8	Phenanthrene	0.56	1.0	< 1.0 U
86-74-8	Carbazole	0.31	1.0	< 1.0 U
120-12-7	Anthracene	0.53	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	0.54	1.0	< 1.0 U
206-44-0	Fluoranthene	0.52	1.0	< 1.0 U
129-00-0	Pyrene	0.55	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	0.56	1.0	< 1.0 U
56-55-3	Benzo(a)anthracene	0.52	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.9	1.0	< 1.0 U
218-01-9	Chrysene	0.55	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	0.51	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	0.48	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.48	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	0.48	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	0.55	1.0	< 1.0 U
483-65-8	Retene	0.44	1.0	< 1.0 U
TOTBFA	Total Benzofluoranthenes	0.48	1.0	< 1.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	73.2%	2-Fluorobiphenyl	67.6%
d14-p-Terphenyl	82.8%	d4-1,2-Dichlorobenzene	60.0%
d5-Phenol	73.1%	2-Fluorophenol	76.3%
2,4,6-Tribromophenol	78.7%	d4-2-Chlorophenol	72.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3520C
Page 1 of 1

Sample ID: MS-SSFB-120515
SAMPLE

Lab Sample ID: UU62K
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized: MW
Reported: 05/30/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/21/12
Date Analyzed: 05/24/12 14:14
Instrument/Analyst: NT6/JZ

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

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	0.52	1.0	< 1.0 U
106-44-5	4-Methylphenol	0.52	1.0	< 1.0 U
65-85-0	Benzoic Acid	5.1	10	< 10 U
91-20-3	Naphthalene	0.52	1.0	< 1.0 U
91-57-6	2-Methylnaphthalene	0.48	1.0	< 1.0 U
131-11-3	**Dimethylphthalate**	**0.53**	**1.0**	**0.8 J**
208-96-8	Acenaphthylene	0.48	1.0	< 1.0 U
83-32-9	Acenaphthene	0.55	1.0	< 1.0 U
132-64-9	Dibenzofuran	0.48	1.0	< 1.0 U
86-73-7	Fluorene	0.56	1.0	< 1.0 U
87-86-5	Pentachlorophenol	2.4	5.0	< 5.0 U
85-01-8	Phenanthrene	0.56	1.0	< 1.0 U
86-74-8	Carbazole	0.31	1.0	< 1.0 U
120-12-7	Anthracene	0.53	1.0	< 1.0 U
84-74-2	**Di-n-Butylphthalate**	**0.54**	**1.0**	**3.7**
206-44-0	Fluoranthene	0.52	1.0	< 1.0 U
129-00-0	Pyrene	0.55	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	0.56	1.0	< 1.0 U
56-55-3	Benzo(a)anthracene	0.52	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.9	1.0	< 1.0 U
218-01-9	Chrysene	0.55	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	0.51	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	0.48	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.48	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	0.48	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	0.55	1.0	< 1.0 U
483-65-8	Retene	0.44	1.0	< 1.0 U
TOTBFA	Total Benzofluoranthenes	0.48	1.0	< 1.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	69.6%	2-Fluorobiphenyl	62.8%
d14-p-Terphenyl	79.2%	d4-1,2-Dichlorobenzene	57.2%
d5-Phenol	69.9%	2-Fluorophenol	68.5%
2,4,6-Tribromophenol	75.2%	d4-2-Chlorophenol	68.8%

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
MB-052112	72.8%	68.4%	80.8%	59.2%	73.3%	75.5%	72.3%	72.3%	0
LCS-052112	70.0%	70.0%	80.0%	55.6%	75.7%	69.1%	86.4%	69.9%	0
LCSD-052112	66.0%	66.4%	80.8%	53.2%	71.5%	65.6%	84.3%	65.9%	0
MS-SSRB-120515	73.2%	67.6%	82.8%	60.0%	73.1%	76.3%	78.7%	72.8%	0
MS-SSFB-120515	69.6%	62.8%	79.2%	57.2%	69.9%	68.5%	75.2%	68.8%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(50-100)	(34-101)
(FBP) = 2-Fluorobiphenyl	(51-100)	(38-100)
(TPH) = d14-p-Terphenyl	(54-117)	(27-122)
(DCB) = d4-1,2-Dichlorobenzene	(40-100)	(27-100)
(PHL) = d5-Phenol	(15-121)	(16-106)
(2FP) = 2-Fluorophenol	(33-100)	(23-100)
(TBP) = 2,4,6-Tribromophenol	(46-125)	(31-128)
(2CP) = d4-2-Chlorophenol	(46-102)	(33-100)

Prep Method: SW3520C
Log Number Range: 12-8937 to 12-8938

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 1

Sample ID: LCS-052112
LCS/LCSD

Lab Sample ID: LCS-052112
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized: MW
Reported: 05/30/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted LCS/LCSD: 05/21/12

Date Analyzed LCS: 05/24/12 11:59
LCSD: 05/24/12 12:33
Instrument/Analyst LCS: NT6/JZ
LCSD: NT6/JZ
GPC Cleanup: NO

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

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	16.6	25.0	66.4%	16.1	25.0	64.4%	3.1%
4-Methylphenol	32.1	50.0	64.2%	31.2	50.0	62.4%	2.8%
Benzoic Acid	102	138	73.9%	103	138	74.6%	1.0%
Naphthalene	15.2	25.0	60.8%	14.9	25.0	59.6%	2.0%
2-Methylnaphthalene	13.9	25.0	55.6%	14.0	25.0	56.0%	0.7%
Dimethylphthalate	21.8	25.0	87.2%	22.1	25.0	88.4%	1.4%
Acenaphthylene	18.3	25.0	73.2%	18.0	25.0	72.0%	1.7%
Acenaphthene	17.2	25.0	68.8%	17.0	25.0	68.0%	1.2%
Dibenzofuran	17.6	25.0	70.4%	17.2	25.0	68.8%	2.3%
Fluorene	18.6	25.0	74.4%	18.3	25.0	73.2%	1.6%
Pentachlorophenol	60.6	75.0	80.8%	62.5	75.0	83.3%	3.1%
Phenanthrene	19.8	25.0	79.2%	19.9	25.0	79.6%	0.5%
Carbazole	22.4	25.0	89.6%	22.1	25.0	88.4%	1.3%
Anthracene	19.2	25.0	76.8%	19.4	25.0	77.6%	1.0%
Di-n-Butylphthalate	23.2	25.0	92.8%	23.3	25.0	93.2%	0.4%
Fluoranthene	21.6	25.0	86.4%	21.3	25.0	85.2%	1.4%
Pyrene	19.3	25.0	77.2%	19.9	25.0	79.6%	3.1%
Butylbenzylphthalate	21.0	25.0	84.0%	21.6	25.0	86.4%	2.8%
Benzo(a)anthracene	18.4	25.0	73.6%	18.6	25.0	74.4%	1.1%
bis(2-Ethylhexyl)phthalate	21.3	25.0	85.2%	21.6	25.0	86.4%	1.4%
Chrysene	19.9	25.0	79.6%	20.0	25.0	80.0%	0.5%
Di-n-Octyl phthalate	21.6	25.0	86.4%	21.5	25.0	86.0%	0.5%
Benzo(a)pyrene	18.2	25.0	72.8%	18.1	25.0	72.4%	0.6%
Indeno(1,2,3-cd)pyrene	18.2	25.0	72.8%	18.9	25.0	75.6%	3.8%
Dibenz(a,h)anthracene	17.9	25.0	71.6%	19.2	25.0	76.8%	7.0%
Benzo(g,h,i)perylene	19.0	25.0	76.0%	19.4	25.0	77.6%	2.1%
Total Benzofluoranthenes	39.7	50.0	79.4%	39.2	50.0	78.4%	1.3%

Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	70.0%	66.0%
2-Fluorobiphenyl	70.0%	66.4%
d14-p-Terphenyl	80.0%	80.8%
d4-1,2-Dichlorobenzene	55.6%	53.2%
d5-Phenol	75.7%	71.5%
2-Fluorophenol	69.1%	65.6%
2,4,6-Tribromophenol	86.4%	84.3%
d4-2-Chlorophenol	69.9%	65.9%

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

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

UU62MBW1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No: UU62

Project: JELD WEN - MAULSBY M

Lab File ID: 05241202

Date Extracted: 05/21/12

Instrument ID: NT6

Date Analyzed: 05/24/12

Matrix: LIQUID

Time Analyzed: 1126

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	UU62LCSW1	UU62LCSW1	05241203	05/24/12
02	UU62LCSDW1	UU62LCSDW1	05241204	05/24/12
03	MS-SSRB-120515	UU62J	05241206	05/24/12
04	MS-SSFB-120515	UU62K	05241207	05/24/12
05				
06				
07				
08				
09				
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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3520C
Page 1 of 1

Sample ID: MB-052112
METHOD BLANK

Lab Sample ID: MB-052112
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized: MW
Reported: 05/30/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/21/12
Date Analyzed: 05/24/12 11:26
Instrument/Analyst: NT6/JZ

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

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	0.52	1.0	< 1.0 U
106-44-5	4-Methylphenol	0.52	1.0	< 1.0 U
65-85-0	Benzoic Acid	5.1	10	< 10 U
91-20-3	Naphthalene	0.52	1.0	< 1.0 U
91-57-6	2-Methylnaphthalene	0.48	1.0	< 1.0 U
131-11-3	Dimethylphthalate	0.53	1.0	< 1.0 U
208-96-8	Acenaphthylene	0.48	1.0	< 1.0 U
83-32-9	Acenaphthene	0.55	1.0	< 1.0 U
132-64-9	Dibenzofuran	0.48	1.0	< 1.0 U
86-73-7	Fluorene	0.56	1.0	< 1.0 U
87-86-5	Pentachlorophenol	2.4	5.0	< 5.0 U
85-01-8	Phenanthrene	0.56	1.0	< 1.0 U
86-74-8	Carbazole	0.31	1.0	< 1.0 U
120-12-7	Anthracene	0.53	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	0.54	1.0	< 1.0 U
206-44-0	Fluoranthene	0.52	1.0	< 1.0 U
129-00-0	Pyrene	0.55	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	0.56	1.0	< 1.0 U
56-55-3	Benzo(a)anthracene	0.52	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.9	1.0	< 1.0 U
218-01-9	Chrysene	0.55	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	0.51	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	0.48	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.48	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	0.48	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	0.55	1.0	< 1.0 U
483-65-8	Retene	0.44	1.0	< 1.0 U
TOTBFA	Total Benzofluoranthenes	0.48	1.0	< 1.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	72.8%	2-Fluorobiphenyl	68.4%
d14-p-Terphenyl	80.8%	d4-1,2-Dichlorobenzene	59.2%
d5-Phenol	73.3%	2-Fluorophenol	75.5%
2,4,6-Tribromophenol	72.3%	d4-2-Chlorophenol	72.3%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

Instrument ID: NT6 Project: JELD WEN-MAULSBY MARSH

DFTPP Injection Date: 05/23/12 DFTPP Injection Time: 1334

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	30.7
68	Less than 2.0% of mass 69	0.3 (0.9)1
69	Mass 69 relative abundance	33.2
70	Less than 2.0% of mass 69	0.3 (0.8)1
127	10.0 - 80.0% of mass 198	45.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 60.0% of mass 198	30.0
365	Greater than 1.0% of mass 198	4.02
441	0.0 - 24.0% of mass 442	26.0 (14.3)2
442	50.0 - 200.0% of mass 198	182.2
443	15.0 - 24.0% of mass 442	35.2 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	IC250523	IC250523	05231201	05/23/12	1334
02	IC50523	IC50523	05231203	05/23/12	1441
03	IC100523	IC100523	05231204	05/23/12	1515
04	IC400523	IC400523	05231205	05/23/12	1548
05	IC600523	IC600523	05231206	05/23/12	1622
06	IC800523	IC800523	05231207	05/23/12	1656
07	IC10523	IC10523	05231208	05/23/12	1846
08					
09					
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11					
12					
13					
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15					
16					
17					
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19					
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22					

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

Instrument ID: NT6 Project: JELD WEN-MAULSBY MARSH

DFTPP Injection Date: 05/24/12 DFTPP Injection Time: 1050

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	28.3
68	Less than 2.0% of mass 69	0.1 (0.4)1
69	Mass 69 relative abundance	32.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	10.0 - 80.0% of mass 198	45.2
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 60.0% of mass 198	30.2
365	Greater than 1.0% of mass 198	3.91
441	0.0 - 24.0% of mass 442	27.1 (14.6)2
442	50.0 - 200.0% of mass 198	185.7
443	15.0 - 24.0% of mass 442	35.8 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CC0524	CC0524	05241201	05/24/12	1050
02	UU62MBW1	UU62MBW1	05241202	05/24/12	1126
03	UU62LCSW1	UU62LCSW1	05241203	05/24/12	1159
04	UU62LCSDW1	UU62LCSDW1	05241204	05/24/12	1233
05	MS-SSRB-120515	UU62J	05241206	05/24/12	1340
06	MS-SSFB-120515	UU62K	05241207	05/24/12	1414
07					
08					
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22					

FORM V SV

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

ARI Job No: UU62 Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6 Calibration Date: 05/23/12

LAB FILE ID: RRF1 =05231208 RRF5 =05231203 RRF10 =05231204
RRF25 =05231201 RRF40 =05231205 RRF60 =05231206
RRF80 =05231207

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF	%RSD /R^2
Phenol	1.930	1.625	1.582	1.656	1.730	1.598	1.470	1.656	8.7
Bis(2-Chloroethyl)ether	1.138	1.120	1.169	1.107	1.250	1.176	1.089	1.150	4.7
2-Chlorophenol	1.798	1.494	1.433	1.491	1.557	1.465	1.343	1.512	9.4
1,3-Dichlorobenzene	1.596	1.581	1.586	1.463	1.646	1.558	1.417	1.550	5.2
1,4-Dichlorobenzene	1.596	1.622	1.573	1.470	1.631	1.547	1.400	1.548	5.5
1,2-Dichlorobenzene	1.512	1.518	1.502	1.414	1.581	1.492	1.358	1.482	5.0
Benzyl alcohol	0.594	0.890	0.877	0.839	1.006	0.944	0.902	0.864	15.1
2,2'-oxybis(1-Chloropropane)	1.332	1.344	1.303	1.216	1.374	1.277	1.180	1.289	5.4
2-Methylphenol	1.458	1.218	1.194	1.245	1.333	1.239	1.157	1.263	8.0
Hexachloroethane	0.535	0.548	0.549	0.525	0.597	0.584	0.545	0.555	4.7
N-Nitroso-di-n-propylamine	0.767	0.788	0.779	0.728	0.853	0.784	0.736	0.776	5.3
4-Methylphenol	1.391	1.270	1.255	1.319	1.401	1.295	1.201	1.304	5.5
Nitrobenzene	0.326	0.341	0.335	0.316	0.351	0.332	0.305	0.329	4.7
Isophorone	0.488	0.506	0.494	0.458	0.516	0.483	0.449	0.485	5.0
2-Nitrophenol	0.256	0.224	0.217	0.233	0.242	0.232	0.218	0.232	6.0
2,4-Dimethylphenol	0.382	0.341	0.334	0.353	0.364	0.342	0.314	0.347	6.3
Bis(2-Chloroethoxy)methane	0.362	0.378	0.372	0.347	0.387	0.363	0.336	0.364	4.9
2,4-Dichlorophenol	0.346	0.335	0.335	0.356	0.368	0.346	0.319	0.344	4.6
1,2,4-Trichlorobenzene	0.380	0.379	0.373	0.349	0.392	0.371	0.340	0.369	5.0
Naphthalene	1.167	1.180	1.137	0.990	1.009	0.880	0.754	1.017	15.6
Benzoic acid		0.122	0.146	0.194	0.228	0.218	0.212	0.187	0.993
4-Chloroaniline	0.472	0.517	0.493	0.462	0.491	0.444	0.407	0.469	7.7
Hexachlorobutadiene	0.232	0.229	0.225	0.213	0.238	0.227	0.213	0.225	4.2
4-Chloro-3-methylphenol	0.274	0.256	0.270	0.294	0.307	0.267	0.255	0.275	7.0
2-Methylnaphthalene	0.682	0.709	0.667	0.596	0.657	0.588	0.524	0.632	10.2
Hexachlorocyclopentadiene		0.219	0.283	0.307	0.371	0.375	0.335	0.315	18.7
2,4,6-Trichlorophenol	0.410	0.376	0.377	0.405	0.436	0.441	0.426	0.410	6.4
2,4,5-Trichlorophenol	0.330	0.376	0.373	0.422	0.442	0.431	0.400	0.396	10.0
2-Chloronaphthalene	1.077	1.106	1.096	0.971	1.075	1.067	0.915	1.044	6.9
2-Nitroaniline	0.179	0.281	0.280	0.242	0.279	0.275	0.258	0.256	14.4
Acenaphthylene	1.808	1.904	1.848	1.517	1.635	1.433	1.289	1.633	14.2
Dimethylphthalate	1.123	1.183	1.142	0.954	1.061	1.033	0.923	1.060	9.2
2,6-Dinitrotoluene	0.231	0.274	0.275	0.241	0.276	0.278	0.260	0.262	7.3
Acenaphthene	1.156	1.195	1.162	0.978	1.062	1.023		1.096	8.0
3-Nitroaniline	0.263	0.348	0.341	0.293	0.308	0.291	0.255	0.300	11.9
2,4-Dinitrophenol		0.033	0.080	0.144	0.174	0.197	0.192	0.137	0.993
Dibenzofuran	1.746	1.843	1.720	1.390	1.481	1.371	1.197	1.535	15.5

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-1

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

ARI Job No: UU62 Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6 Calibration Date: 05/23/12

LAB FILE ID: RRF1 =05231208 RRF5 =05231203 RRF10 =05231204
RRF25 =05231201 RRF40 =05231205 RRF60 =05231206
RRF80 =05231207

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF	%RSD /R^2	
4-Nitrophenol		0.062	0.078	0.090	0.102	0.112	0.104	0.091	0.990	
2,4-Dinitrotoluene	0.268	0.349	0.355	0.313	0.360	0.372	0.349	0.338	10.6	
Fluorene	1.296	1.408	1.369	1.158	1.256	1.189	1.034	1.244	10.4	
4-Chlorophenyl-phenylether	0.629	0.643	0.633	0.550	0.630	0.617	0.572	0.610	5.8	
Diethylphthalate	1.081	1.120	1.084	0.897	1.004	0.995	0.887	1.010	9.1	
4-Nitroaniline	0.232	0.311	0.288	0.254	0.292	0.309	0.290	0.282	10.2	
4,6-Dinitro-2-methylphenol		0.111	0.131	0.151	0.161	0.160	0.151	0.144	13.4	
N-Nitrosodiphenylamine (1)	0.506	0.543	0.550	0.476	0.538	0.484	0.432	0.504	8.5	
4-Bromophenyl-phenylether	0.258	0.266	0.261	0.232	0.271	0.246	0.230	0.252	6.4	
Hexachlorobenzene	0.327	0.330	0.328	0.291	0.336	0.308	0.284	0.315	6.5	
Pentachlorophenol		0.047	0.066	0.123	0.142	0.154	0.147	0.113	0.993	
Phenanthrene	1.163	1.220	1.179	0.990	1.039	0.907	0.780	1.040	15.4	
Anthracene	1.152	1.241	1.208	1.021	1.064	0.910	0.760	1.051	16.3	
Carbazole	0.882	0.932	0.891	0.764	0.824	0.762	0.653	0.815	11.8	
Di-n-butylphthalate	1.030	1.087	1.084	0.949	0.995	0.878	0.728	0.964	13.3	
Fluoranthene	1.247	1.280	1.261	1.086	1.107	0.990	0.816	1.112	15.2	
Pyrene	1.177	1.232	1.202	0.993	1.048	0.849	0.729	1.033	18.4	
Butylbenzylphthalate	0.362	0.408	0.412	0.372	0.432	0.398	0.361	0.392	7.0	
Benzo(a)anthracene	1.104	1.150	1.121	0.961	1.035	0.897		1.045	9.5	
3,3'-Dichlorobenzidine	0.402	0.454	0.418	0.374	0.413	0.370	0.333	0.395	10.0	
Chrysene	1.062	1.115	1.083	0.925	0.993	0.835	0.706	0.960	15.5	
bis(2-Ethylhexyl)phthalate	0.589	0.590	0.588	0.520	0.602	0.553	0.494	0.562	7.4	
Di-n-octylphthalate	1.048	1.054	1.035	0.884	0.962	0.838	0.720	0.934	13.5	
Benzo(b)fluoranthene	1.117	1.259	1.197	1.062	1.080	0.997	0.839	1.079	12.7	
Benzo(k)fluoranthene	1.091	1.176	1.195	0.963	1.110	0.809	0.839	1.026	15.3	
Benzo(a)pyrene	0.975	1.048	1.042	0.901	0.998	0.859	0.733	0.936	12.1	
Indeno(1,2,3-cd)pyrene	1.338	1.516	1.509	1.319	1.491	1.318	1.166	1.380	9.5	
Dibenzo(a,h)anthracene	1.098	1.270	1.261	1.100	1.197	1.002	0.836	1.109	13.9	
Benzo(g,h,i)perylene	1.145	1.306	1.290	1.116	1.257	1.097	0.935	1.164	11.3	
N-Nitrosodimethylamine	0.694	0.689	0.688	0.650	0.746	0.711	0.666	0.692	4.5	
Aniline	2.080	2.026	1.878	1.798	1.818	1.648	1.504	1.822	11.1	
1,2-Diphenylhydrazine										
Benzidine		0.299	0.233	0.315	0.176	0.159	0.143	0.221	33.2	<M
p-Cymene										
Caffeine										
Retene	0.360	0.399	0.380	0.341	0.404	0.372	0.339	0.371	7.0	
Perylene	1.047	1.061	0.983	0.836	0.928	0.801	0.683	0.906	15.4	

(1) Cannot be seperated from Diphenylamine

<- Outside QC limits: %RSD <20% or R^2 > 0.990

05/24/12

FORM VI SV-2

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

ARI Job No: UU62 Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6 Calibration Date: 05/23/12

LAB FILE ID: RRF1 =05231208 RRF5 =05231203 RRF10 =05231204
RRF25 =05231201 RRF40 =05231205 RRF60 =05231206
RRF80 =05231207

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF	%RSD /R^2
3-beta-Coprostanol									
Cholesterol									
beta-Sitosterol									
Pyridine	0.978	1.146	1.225	1.149	1.259	1.218	1.116	1.156	8.1
1-methylnaphthalene	0.531	0.533	0.497	0.445	0.506	0.462	0.424	0.485	8.8
Guaiacol	0.984	1.035	0.993	0.947	1.099	1.041	0.977	1.011	5.0
4,5-Dichloroguaiacol	0.260	0.313	0.294	0.256	0.288	0.287	0.268	0.281	7.3
4,5,6-Trichloroguaiacol	0.194	0.237	0.220	0.191	0.222	0.238	0.225	0.218	8.7
3,4,5-Trichloroguaiacol	0.111	0.144	0.136	0.122	0.140	0.137	0.130	0.131	8.8
Tetrachloroguaiacol	0.091	0.131	0.133	0.129	0.153	0.148	0.140	0.132	15.2
Azobenzene (1,2-DP-Hydrazine	0.945	0.999	0.986	0.884	0.965	0.936	0.837	0.936	6.2
Biphenyl	1.216	1.282	1.198	1.024	1.130	1.022	0.943	1.116	11.1
Diphenyl Oxide	0.748	0.806	0.739	0.657	0.766	0.722	0.683	0.732	6.9
Beta-Pinene									
Tributyl Phosphate	0.592	0.656	0.626	0.552	0.628	0.583	0.513	0.593	8.3
Dibutyl Phenyl Phosphate	0.456	0.496	0.486	0.441	0.514	0.501	0.460	0.479	5.6
Butyl Diphenyl Phosphate	0.109	0.126	0.121	0.111	0.133	0.126	0.116	0.120	7.1
Triphenyl Phosphate	0.222	0.237	0.230	0.213	0.254	0.242	0.223	0.232	6.0
7,12-Dimethylbenz(a)anthrace									
2,3,4,6-Tetrachlorophenol	0.224	0.245	0.274	0.288	0.314	0.328	0.309	0.283	13.4
Quinoline									
Furfuraldehyde									
Acetophenone	1.546	1.599	1.592	1.483	1.699	1.580	1.464	1.566	5.0
3,4-Dimethylphenol									
Safrole									
N-Tetradecane									
2-Isopropylnaphthalene									
N-Hexadecane									
1-Methylfluorene									
Dibenzothiophene									
1-Methylphenanthrene									
3,6-Dimethylphenanthrene									
Butylatedhydroxytoluene	0.866	0.810	0.781	0.731	0.796	0.784	0.698	0.781	7.0
2,3,5,6-Tetrachlorophenol									
2,3,4,5-tetrachlorophenol									
Chlorobenzilate									
Isodrin									

<- Outside QC limits: %RSD <20% or R^2 > 0.990

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

ARI Job No: UU62 Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6 Calibration Date: 05/23/12

LAB FILE ID: RRF1 =05231208 RRF5 =05231203 RRF10 =05231204
RRF25 =05231201 RRF40 =05231205 RRF60 =05231206
RRF80 =05231207

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF	%RSD /R^2
Diallate A									
Diallate B									
1,2-Dibromo-3-Chloropropane									
1,4-Dioxane	0.400	0.435	0.423	0.398	0.433	0.442	0.403	0.419	4.4
alpha-Terpineol	0.198	0.204	0.194	0.177	0.204	0.190	0.177	0.192	6.0
4,4'-DDE									
4,4'-DDD									
4,4'-DDT									
Dieldrin									
TCMX									
DCBP									
1,2,4,5-Tetrachlorobenzene	0.554	0.564	0.553	0.493	0.558	0.568	0.510	0.543	5.4
Benzo(e)pyrene									
Chlorpyrifos									
Diazinon									
Kelthane									
Methyl Parathion									
Ethyl Parathion									
Ethion									
4-Nonylphenol									
Tetraethyl Tin									
1,2,3-Trichloronaphthalene									
1,2,3,4-Tetrachloronapthalen									
1,2,3,5,8-Pentachloronaphtha									
1,2,3,4,6,7-Hexachloronaphth									
1,2,3,4,5,6,7-Heptachloronap									
Octachloronaphthalene									
2,2',4,4',5-Pentabromobiphen									
Pentachlorobenzene	0.527	0.541	0.533	0.473	0.549	0.522	0.484	0.518	5.6
4-tert-Butylphenol									
N,N-Dimethylaniline									
2,3-Dimethylaniline									
2,4-Dimethylaniline									
2,5-Dimethylaniline									
2,6-Dimethylaniline									
3,4-Dimethylaniline									
3,5-Dimethylaniline									

<- Outside QC limits: %RSD <20% or R^2 > 0.990

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

ARI Job No: UU62 Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6 Calibration Date: 05/23/12

LAB FILE ID: RRF1 =05231208 RRF5 =05231203 RRF10 =05231204
RRF25 =05231201 RRF40 =05231205 RRF60 =05231206
RRF80 =05231207

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF	%RSD /R^2
p-Benzoquinone		0.044	0.050	0.055	0.064	0.061	0.054	0.055	13.5
2-Benzyl-4-Chlorophenol	0.167	0.210	0.212	0.203	0.239	0.243	0.226	0.214	12.1
n-Decane									
n-Octadecane									
3,4,6-Trichloroguaiacol	0.482	0.602	0.572	0.532	0.644	0.584	0.596	0.573	9.2
4,6-Dichloroguaiacol	0.592	0.694	0.655	0.597	0.706	0.617	0.597	0.637	7.6
3,4-Dichloroguaiacol	0.435	0.543	0.517	0.490	0.566	0.510	0.502	0.509	8.2
4-Chloroguaiacol	0.440	0.514	0.491	0.470	0.558	0.480	0.500	0.493	7.5
Carbaryl	0.469	0.422	0.461	0.497	0.533	0.530	0.476	0.484	8.1
Total Benzofluoranthenes	1.052	1.132	1.129	0.951	1.029	0.851	0.703	0.978	16.0
2-Fluorophenol	1.036	1.150	1.208	1.092	1.286	1.203		1.162	7.7
Phenol-d5	1.292	1.407	1.410	1.308	1.517	1.383		1.386	5.9
2-Chlorophenol-d4	1.264	1.384	1.372	1.257	1.450	1.334		1.344	5.5
1,2-Dichlorobenzene-d4	1.016	0.997	0.981	0.894	1.034	0.957		0.980	5.1
Nitrobenzene-d5	0.306	0.332	0.330	0.302	0.341	0.312		0.320	4.9
2-Fluorobiphenyl	1.323	1.302	1.271	1.073	1.186	1.134		1.215	8.2
2,4,6-Tribromophenol	0.238	0.263	0.268	0.232	0.277	0.279		0.260	7.8
Terphenyl-d14	0.704	0.753	0.750	0.626	0.714	0.608		0.692	8.9
p-Cresol-d4									
Anthracene-d10									
Fluoranthene-d10									
Dibenz(a,h)anthracene-d14									
Diphenyl-d10									
D10-1-methylnaphthalene									
d8-1,4-Dioxane	0.471	0.454	0.447	0.420	0.457	0.461	0.422	0.447	4.4

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-5

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA, LLC

ARI Job No: UU62 | Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6 | Cont. Calib. Date: 05/24/12

Init. Calib. Date: 05/23/12 | Cont. Calib. Time: 1050

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Phenol	1.656	1.658	0.800	AVRG	0.1
Bis(2-Chloroethyl)ether	1.150	1.124	0.700	AVRG	-2.3
2-Chlorophenol	1.512	1.512	0.800	AVRG	0.0
1,3-Dichlorobenzene	1.550	1.486	0.010	AVRG	-4.1
1,4-Dichlorobenzene	1.548	1.485	0.010	AVRG	-4.1
1,2-Dichlorobenzene	1.482	1.433	0.010	AVRG	-3.3
Benzyl alcohol	0.864	0.754	0.010	AVRG	-12.7
2,2'-oxybis(1-Chloropropane)	1.289	1.262	0.010	AVRG	-2.1
2-Methylphenol	1.263	1.263	0.700	AVRG	0.0
Hexachloroethane	0.555	0.534	0.300	AVRG	-3.8
N-Nitroso-di-n-propylamine	0.776	0.762	0.500	AVRG	-1.8
4-Methylphenol	1.304	1.320	0.600	AVRG	1.2
Nitrobenzene	0.329	0.310	0.200	AVRG	-5.8
Isophorone	0.485	0.466	0.400	AVRG	-3.9
2-Nitrophenol	0.232	0.233	0.100	AVRG	0.4
2,4-Dimethylphenol	0.347	0.350	0.200	AVRG	0.9
Bis(2-Chloroethoxy)methane	0.364	0.344	0.300	AVRG	-5.5
2,4-Dichlorophenol	0.344	0.356	0.200	AVRG	3.5
1,2,4-Trichlorobenzene	0.369	0.349	0.010	AVRG	-5.4
Naphthalene	1.017	1.005	0.700	AVRG	-1.2
Benzoic acid	50.00	47.23	0.010	LINR	-5.5
4-Chloroaniline	0.469	0.449	0.010	AVRG	-4.3
Hexachlorobutadiene	0.225	0.212	0.010	AVRG	-5.8
4-Chloro-3-methylphenol	0.275	0.298	0.200	AVRG	8.4
2-Methylnaphthalene	0.632	0.605	0.400	AVRG	-4.3
Hexachlorocyclopentadiene	0.315	0.316	0.050	AVRG	0.3
2,4,6-Trichlorophenol	0.410	0.426	0.200	AVRG	3.9
2,4,5-Trichlorophenol	0.396	0.428	0.200	AVRG	8.1
2-Chloronaphthalene	1.044	1.017	0.800	AVRG	-2.6
2-Nitroaniline	0.256	0.247	0.010	AVRG	-3.5
Acenaphthylene	1.633	1.589	0.900	AVRG	-2.7
Dimethylphthalate	1.060	0.998	0.010	AVRG	-5.8
2,6-Dinitrotoluene	0.262	0.248	0.200	AVRG	-5.3
Acenaphthene	1.096	1.014	0.900	AVRG	-7.5
3-Nitroaniline	0.300	0.284	0.010	AVRG	-5.3
2,4-Dinitrophenol	50.00	49.26	0.010	2ORDR	-1.5
Dibenzofuran	1.535	1.446	0.800	AVRG	-5.8

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA, LLC

ARI Job No: UU62 | Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6 | Cont. Calib. Date: 05/24/12

Init. Calib. Date: 05/23/12 | Cont. Calib. Time: 1050

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
4-Nitrophenol	25.00	22.50	0.010	LINR	-10.0
2,4-Dinitrotoluene	0.338	0.324	0.200	AVRG	-4.1
Fluorene	1.244	1.200	0.900	AVRG	-3.5
4-Chlorophenyl-phenylether	0.610	0.568	0.400	AVRG	-6.9
Diethylphthalate	1.010	0.939	0.010	AVRG	-7.0
4-Nitroaniline	0.282	0.275	0.010	AVRG	-2.5
4,6-Dinitro-2-methylphenol	0.144	0.150	0.010	AVRG	4.2
N-Nitrosodiphenylamine(1)	0.504	0.465	0.010	AVRG	-7.7
4-Bromophenyl-phenylether	0.252	0.227	0.100	AVRG	-9.9
Hexachlorobenzene	0.315	0.286	0.100	AVRG	-9.2
Pentachlorophenol	25.00	22.68	0.050	2ORDR	-9.3
Phenanthrene	1.040	1.012	0.700	AVRG	-2.7
Anthracene	1.051	1.030	0.700	AVRG	-2.0
Carbazole	0.815	0.777	0.010	AVRG	-4.7
Di-n-butylphthalate	0.964	0.968	0.010	AVRG	0.4
Fluoranthene	1.112	1.128	0.600	AVRG	1.4
Pyrene	1.033	0.983	0.600	AVRG	-4.8
Butylbenzylphthalate	0.392	0.371	0.010	AVRG	-5.4
Benzo(a)anthracene	1.045	0.962	0.800	AVRG	-7.9
3,3'-Dichlorobenzidine	0.395	0.349	0.010	AVRG	-11.6
Chrysene	0.960	0.927	0.700	AVRG	-3.4
bis(2-Ethylhexyl)phthalate	0.562	0.525	0.010	AVRG	-6.6
Di-n-octylphthalate	0.934	0.894	0.010	AVRG	-4.3
Benzo(b)fluoranthene	1.079	1.049	0.700	AVRG	-2.8
Benzo(k)fluoranthene	1.026	0.994	0.700	AVRG	-3.1
Benzo(a)pyrene	0.936	0.906	0.700	AVRG	-3.2
Indeno(1,2,3-cd)pyrene	1.380	1.333	0.500	AVRG	-3.4
Dibenzo(a,h)anthracene	1.109	1.108	0.400	AVRG	-0.1
Benzo(g,h,i)perylene	1.164	1.132	0.500	AVRG	-2.7
N-Nitrosodimethylamine	0.692	0.648	0.010	AVRG	-6.4
Aniline	1.822	1.788	0.010	AVRG	-1.9
Benzidine	0.221	0.241	0.010	AVRG	9.0
Pyridine	1.156	1.157	0.010	AVRG	0.1
1-methylnaphthalene	0.485	0.453	0.010	AVRG	-6.6
Azobenzene (1,2-DP-Hydrazine	0.936	0.919	0.010	AVRG	-1.8
Total Benzofluoranthenes	0.978	0.958	0.010	AVRG	-2.0

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

ARI Job No: UU62 Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6 Cont. Calib. Date: 05/24/12

Init. Calib. Date: 05/23/12 Cont. Calib. Time: 1050

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Retene	0.371	0.341	0.010	AVRG	-8.1
2-Fluorophenol	1.162	1.102	0.010	AVRG	-5.2
Phenol-d5	1.386	1.314	0.010	AVRG	-5.2
2-Chlorophenol-d4	1.344	1.272	0.010	AVRG	-5.4
1,2-Dichlorobenzene-d4	0.980	0.916	0.010	AVRG	-6.5
Nitrobenzene-d5	0.320	0.305	0.010	AVRG	-4.7
2-Fluorobiphenyl	1.215	1.130	0.010	AVRG	-7.0
2,4,6-Tribromophenol	0.260	0.235	0.010	AVRG	-9.6
Terphenyl-d14	0.692	0.620	0.010	AVRG	-10.4

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-3

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

ARI Job No: UU62 Project: JELD WEN-MAULSBY MARSH

Ical Midpoint ID: 05231201 Ical Date: 05/23/12

Instrument ID: NT6 Cont. Cal Date: 05/24/12

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	963757	7.19	3430476	9.26	2259168	12.11
	UPPER LIMIT	1927514		6860952		4518336	
	LOWER LIMIT	481878		1715238		1129584	
	CCAL	841610	7.19	3091072	9.26	1981765	12.11
	UPPER LIMIT		7.69		9.76		12.61
	LOWER LIMIT		6.69		8.76		11.61
01	UU62MBW1	971489	7.19	3374983	9.25	2127525	12.10
02	UU62LCSW1	847652	7.19	3074341	9.26	1869892	12.11
03	UU62LCSDW1	912008	7.19	3381197	9.26	2121467	12.11
04	MS-SSRB-1205	896401	7.19	3178107	9.25	2016726	12.10
05	MS-SSFB-1205	948003	7.19	3347510	9.26	2141551	12.10
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA, LLC

ARI Job No: UU62 | Project: JELD WEN-MAULSBY MARSH

Ical Midpoint ID: 05231201 | Ical Date: 05/23/12

Instrument ID: NT6 | Cont. Cal Date: 05/24/12

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	3446677	14.46	3961525	18.73	4154109	20.87
	UPPER LIMIT	6893354		7923050		8308218	
	LOWER LIMIT	1723338		1980762		2077054	
	CCAL	3205322	14.46	3861093	18.73	4039539	20.87
	UPPER LIMIT		14.96		19.23		21.37
	LOWER LIMIT		13.96		18.23		20.37
01	UU62MBW1	3333166	14.45	3717834	18.73	4238968	20.87
02	UU62LCSW1	3057363	14.45	3736704	18.73	3942542	20.87
03	UU62LCSDW1	3414818	14.46	3963208	18.73	4232897	20.87
04	MS-SSRB-1205	3170811	14.45	3765318	18.73	4272719	20.86
05	MS-SSFB-1205	3383727	14.45	3983969	18.73	4429070	20.86
06							
07							
08							
09							
10							
11							
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15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA, LLC

ARI Job No: UU62 | Project: JELD WEN-MAULSBY MARSH

Ical Midpoint ID: 05231201 | Ical Date: 05/23/12

Instrument ID: NT6 | Cont. Cal Date: 05/24/12

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	3758743	19.96				
	UPPER LIMIT	7517486					
	LOWER LIMIT	1879372					
	CCAL	3655319	19.96				
	UPPER LIMIT		20.46				
	LOWER LIMIT		19.46				
01	UU62MBW1	3450320	19.96				
02	UU62LCSW1	3533231	19.96				
03	UU62LCSDW1	3774442	19.96				
04	MS-SSRB-1205	3520284	19.96				
05	MS-SSFB-1205	3747644	19.96				
06							
07							
08							
09							
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21							
22							
23							
24							
25							

IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

Pesticide Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS001-SS-120515
SAMPLE

Lab Sample ID: UU52A
LIMS ID: 12-8893
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 06:56
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.3%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	< 50 U
60-57-1	Dieldrin	9.9	99	< 99 U
72-55-9	4,4'-DDE	12	99	< 99 U
72-54-8	4,4'-DDD	13	99	< 99 U
50-29-3	4,4'-DDT	19	99	< 99 U
53494-70-5	Endrin Ketone	12	99	< 99 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS001-SS-120515
DILUTION

Lab Sample ID: UU52A
LIMS ID: 12-8893
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 04:10
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 90.3%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	140	500	< 500 U
60-57-1	Dieldrin	99	990	< 990 U
72-55-9	4,4'-DDE	120	990	< 990 U
72-54-8	4,4'-DDD	130	990	< 990 U
50-29-3	4,4'-DDT	190	990	< 990 U
53494-70-5	Endrin Ketone	120	990	< 990 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS101-SS-120515
SAMPLE

Lab Sample ID: UU52B
LIMS ID: 12-8894
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 07:15
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.2%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	< 50 U
60-57-1	Dieldrin	9.9	99	< 99 U
72-55-9	4,4'-DDE	12	99	< 99 U
72-54-8	4,4'-DDD	13	99	< 99 U
50-29-3	4,4'-DDT	19	99	< 99 U
53494-70-5	Endrin Ketone	12	99	< 99 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546

Sample ID: MS101-SS-120515
DILUTION

Lab Sample ID: UU52B
LIMS ID: 12-8894
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 04:28
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 90.2%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	140	500	< 500 U
60-57-1	Dieldrin	99	990	< 990 U
72-55-9	4,4'-DDE	120	990	< 990 U
72-54-8	4,4'-DDD	130	990	< 990 U
50-29-3	4,4'-DDT	190	990	< 990 U
53494-70-5	Endrin Ketone	120	990	< 990 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS002-SS-120515
SAMPLE

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 07:34
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 89.8%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	< 50 U
60-57-1	Dieldrin	9.9	99	< 99 U
72-55-9	4,4'-DDE	12	99	< 99 U
72-54-8	4,4'-DDD	13	99	< 99 U
50-29-3	4,4'-DDT	19	99	< 99 U
53494-70-5	Endrin Ketone	12	99	< 99 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS002-SS-120515
DILUTION

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 04:46
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5000
Silica Gel: Yes

Percent Moisture: 89.8%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	690	2500	< 2,500 U
60-57-1	Dieldrin	500	5000	< 5,000 U
72-55-9	4,4'-DDE	620	5000	< 5,000 U
72-54-8	4,4'-DDD	670	5000	< 5,000 U
50-29-3	4,4'-DDT	950	5000	< 5,000 U
53494-70-5	Endrin Ketone	590	5000	< 5,000 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS003-SS-120515
SAMPLE

Lab Sample ID: UU52D
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 08:31
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.7%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	< 50 U
60-57-1	Dieldrin	9.9	99	< 99 U
72-55-9	4,4'-DDE	12	99	< 99 U
72-54-8	4,4'-DDD	13	99	< 99 U
50-29-3	4,4'-DDT	19	99	< 99 U
53494-70-5	Endrin Ketone	12	99	< 99 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546

Sample ID: MS003-SS-120515
DILUTION

Lab Sample ID: UU52D
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 05:39
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 90.7%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	140	500	< 500 U
60-57-1	Dieldrin	99	990	< 990 U
72-55-9	4,4'-DDE	120	990	< 990 U
72-54-8	4,4'-DDD	130	990	< 990 U
50-29-3	4,4'-DDT	190	990	< 990 U
53494-70-5	Endrin Ketone	120	990	< 990 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS004-SS-120515
SAMPLE

Lab Sample ID: UU52E
LIMS ID: 12-8897
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 08:50
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.4%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	< 50 U
60-57-1	Dieldrin	9.9	100	< 100 U
72-55-9	4,4'-DDE	12	100	< 100 U
72-54-8	4,4'-DDD	13	100	< 100 U
50-29-3	4,4'-DDT	19	100	< 100 U
53494-70-5	Endrin Ketone	12	100	< 100 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS004-SS-120515
DILUTION

Lab Sample ID: UU52E
LIMS ID: 12-8897
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 05:57
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 90.4%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	140	500	< 500 U
60-57-1	Dieldrin	99	1000	< 1,000 U
72-55-9	4,4'-DDE	120	1000	< 1,000 U
72-54-8	4,4'-DDD	130	1000	< 1,000 U
50-29-3	4,4'-DDT	190	1000	< 1,000 U
53494-70-5	Endrin Ketone	120	1000	< 1,000 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546

Sample ID: MS005-SS-120515
SAMPLE

Lab Sample ID: UU52F
LIMS ID: 12-8898
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 09:09
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 91.1%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	49	< 49 U
60-57-1	Dieldrin	9.9	99	< 99 U
72-55-9	4,4'-DDE	12	99	< 99 U
72-54-8	4,4'-DDD	13	99	< 99 U
50-29-3	4,4'-DDT	19	99	< 99 U
53494-70-5	Endrin Ketone	12	99	< 99 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS005-SS-120515
DILUTION

Lab Sample ID: UU52F
LIMS ID: 12-8898
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 06:15
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 91.1%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	140	490	< 490 U
60-57-1	Dieldrin	99	990	< 990 U
72-55-9	4,4'-DDE	120	990	< 990 U
72-54-8	4,4'-DDD	130	990	< 990 U
50-29-3	4,4'-DDT	190	990	< 990 U
53494-70-5	Endrin Ketone	120	990	< 990 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS006-SS-120515
SAMPLE

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 11:02
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 90.8%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	1.4	12	< 12 Y
60-57-1	Dieldrin	0.99	9.9	< 9.9 U
72-55-9	4,4'-DDE	1.2	9.9	< 9.9 U
72-54-8	**4,4'-DDD**	**1.3**	**9.9**	**40 P**
50-29-3	**4,4'-DDT**	**1.9**	**9.9**	**19**
53494-70-5	Endrin Ketone	1.2	28	< 28 Y

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	64.2%
Tetrachlorometaxylene	54.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS006-SS-120515
DILUTION

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 08:19
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.8%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	< 50 U
60-57-1	Dieldrin	9.9	99	< 99 U
72-55-9	4,4'-DDE	12	99	< 99 U
72-54-8	4,4'-DDD	13	99	< 99 U
50-29-3	4,4'-DDT	19	99	< 99 U
53494-70-5	Endrin Ketone	12	99	< 99 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS007-SS-120515
SAMPLE

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 11:21
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 83.9%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	< 50 U
60-57-1	Dieldrin	9.9	99	< 99 U
72-55-9	4,4'-DDE	12	99	< 99 U
72-54-8	4,4'-DDD	13	99	< 99 U
50-29-3	4,4'-DDT	19	99	< 99 U
53494-70-5	Endrin Ketone	12	99	< 99 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546

Sample ID: MS007-SS-120515
DILUTION

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 08:37
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 83.9%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	140	500	< 500 U
60-57-1	Dieldrin	99	990	< 990 U
72-55-9	4,4'-DDE	120	990	< 990 U
72-54-8	4,4'-DDD	130	990	< 990 U
50-29-3	4,4'-DDT	190	990	< 990 U
53494-70-5	Endrin Ketone	120	990	< 990 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS008-SS-120515
SAMPLE

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 11:40
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 89.0%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	< 50 U
60-57-1	Dieldrin	9.9	99	< 99 U
72-55-9	4,4'-DDE	12	99	< 99 U
72-54-8	4,4'-DDD	13	99	< 99 U
50-29-3	4,4'-DDT	19	99	< 99 U
53494-70-5	Endrin Ketone	12	99	< 99 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS008-SS-120515
DILUTION

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 08:55
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5000
Silica Gel: Yes

Percent Moisture: 89.0%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	690	2500	< 2,500 U
60-57-1	Dieldrin	500	5000	< 5,000 U
72-55-9	4,4'-DDE	620	5000	< 5,000 U
72-54-8	4,4'-DDD	670	5000	< 5,000 U
50-29-3	4,4'-DDT	950	5000	< 5,000 U
53494-70-5	Endrin Ketone	590	5000	< 5,000 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS009-SS-120515
SAMPLE

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 11:59
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.2%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	< 50 U
60-57-1	Dieldrin	10	100	< 100 U
72-55-9	4,4'-DDE	12	100	< 100 U
72-54-8	4,4'-DDD	13	100	< 100 U
50-29-3	4,4'-DDT	19	100	< 100 U
53494-70-5	Endrin Ketone	12	100	< 100 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS009-SS-120515
DILUTION

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 09:31
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 90.2%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	140	500	< 500 U
60-57-1	Dieldrin	100	1000	< 1,000 U
72-55-9	4,4'-DDE	120	1000	< 1,000 U
72-54-8	4,4'-DDD	130	1000	< 1,000 U
50-29-3	4,4'-DDT	190	1000	< 1,000 U
53494-70-5	Endrin Ketone	120	1000	< 1,000 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8081 PESTICIDE SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

Client ID	DCBP	TCMX	TOT OUT
MS001-SS-120515	D	D	0
MS001-SS-120515 DL	D	D	0
MS101-SS-120515	D	D	0
MS101-SS-120515 DL	D	D	0
MB-052212	87.0%	77.8%	0
LCS-052212	81.8%	76.2%	0
MS002-SS-120515	D	D	0
MS002-SS-120515 DL	D	D	0
MS002-SS-120515 MS	D	D	0
MS002-SS-120515 MSD	D	D	0
MS003-SS-120515	D	D	0
MS003-SS-120515 DL	D	D	0
MS004-SS-120515	D	D	0
MS004-SS-120515 DL	D	D	0
MS005-SS-120515	D	D	0
MS005-SS-120515 DL	D	D	0
MS006-SS-120515	64.2%	54.0%	0
MS006-SS-120515 DL	D	D	0
MS007-SS-120515	D	D	0
MS007-SS-120515 DL	D	D	0
MS008-SS-120515	D	D	0
MS008-SS-120515 DL	D	D	0
MS009-SS-120515	D	D	0
MS009-SS-120515 DL	D	D	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(59-123)	(22-156)
(TCMX) = Tetrachlorometaxylene	(42-112)	(29-142)

Prep Method: SW3546
Log Number Range: 12-8893 to 12-8902

FORM-II SW8081

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: MS002-SS-120515
MS/MSD

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted MS/MSD: 05/22/12

Date Analyzed MS: 05/26/12 07:53
MSD: 05/26/12 08:12
Instrument/Analyst MS: ECD8/AAR
MSD: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount MS: 12.6 g-dry-wt
MSD: 12.6 g-dry-wt
Final Extract Volume MS: 2.5 mL
MSD: 2.5 mL
Dilution Factor MS: 100
MSD: 100
Silica Gel: Yes

Percent Moisture: 89.8%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
beta-BHC	< 49.7	< 49.5 U	3.96	NA	< 49.8 U	3.98	NA	NA
Dieldrin	< 99.3	< 99.0 U	7.92	NA	< 99.5 U	7.96	NA	NA
4,4'-DDE	< 99.3	< 99.0 U	7.92	NA	< 99.5 U	7.96	NA	NA
4,4'-DDD	< 99.3	< 99.0 U	7.92	NA	< 99.5 U	7.96	NA	NA
4,4'-DDT	< 99.3	< 99.0 U	7.92	NA	< 99.5 U	7.96	NA	NA
Endrin Ketone	< 99.3	< 99.0 U	7.92	NA	< 99.5 U	7.96	NA	NA

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546

Sample ID: MS002-SS-120515
MATRIX SPIKE

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 07:53
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 89.8%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	---
60-57-1	Dieldrin	9.9	99	---
72-55-9	4,4'-DDE	12	99	---
72-54-8	4,4'-DDD	13	99	---
50-29-3	4,4'-DDT	19	99	---
53494-70-5	Endrin Ketone	12	99	---

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS002-SS-120515
MATRIX SPIKE DUP

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 08:12
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 89.8%

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	14	50	---
60-57-1	Dieldrin	10	100	---
72-55-9	4,4'-DDE	12	100	---
72-54-8	4,4'-DDD	13	100	---
50-29-3	4,4'-DDT	19	100	---
53494-70-5	Endrin Ketone	12	100	---

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: LCS-052212
LAB CONTROL

Lab Sample ID: LCS-052212
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 03:52
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
beta-BHC	3.30	4.00	82.5%
Dieldrin	7.42	8.00	92.8%
4,4'-DDE	9.48	8.00	118%
4,4'-DDD	7.32	8.00	91.5%
4,4'-DDT	7.18	8.00	89.8%
Endrin Ketone	6.64	8.00	83.0%

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	81.8%
Tetrachlorometaxylene	76.2%

Reported in µg/kg (ppb)

FORM 4
PESTICIDE METHOD BLANK SUMMARY

BLANK NO.

UU52MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: ANCHOR QEA, LLC.

ARI Job No.: UU52
Project: JELD WEN MAULSBY MAR

Lab Sample ID: UU52MBS1
Lab File ID: 0523A131

Date Extracted: 05/22/12
Matrix: SOLID

Date Analyzed: 05/25/12
Instrument ID: ECD6 & ECD8

Time Analyzed: 0334
GC Columns: STX-CLP1/STX-CLP2

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

	CLIENT SAMPLE NO.		LAB SAMPLE ID	DATE ANALYZED
01	UU52LCSS1		UU52LCSS1	05/25/12
02	MS001-SS-120515		UU52A	05/25/12
03	MS101-SS-120515		UU52B	05/25/12
04	MS002-SS-120515		UU52C	05/25/12
05	MS002-SS-120515	MS	UU52CMS	05/25/12
06	MS002-SS-120515	MSD	UU52CMSD	05/25/12
07	MS003-SS-120515		UU52D	05/25/12
08	MS004-SS-120515		UU52E	05/25/12
09	MS005-SS-120515		UU52F	05/25/12
10	MS006-SS-120515		UU52G	05/25/12
11	MS007-SS-120515		UU52H	05/25/12
12	MS008-SS-120515		UU52I	05/25/12
13	MS009-SS-120515		UU52J	05/25/12
02	MS001-SS-120515		UU52A	05/26/12
03	MS101-SS-120515		UU52B	05/26/12
04	MS002-SS-120515		UU52C	05/26/12
05	MS002-SS-120515	MS	UU52CMS	05/26/12
06	MS002-SS-120515	MSD	UU52CMSD	05/26/12
07	MS003-SS-120515		UU52D	05/26/12
08	MS004-SS-120515		UU52E	05/26/12
09	MS005-SS-120515		UU52F	05/26/12
10	MS006-SS-120515		UU52G	05/26/12
11	MS007-SS-120515		UU52H	05/26/12
12	MS008-SS-120515		UU52I	05/26/12
13	MS009-SS-120515		UU52J	05/26/12

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MB-052212
METHOD BLANK

Lab Sample ID: MB-052212
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 03:34
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	0.14	0.50	< 0.50 U
60-57-1	Dieldrin	0.10	1.0	< 1.0 U
72-55-9	4,4'-DDE	0.12	1.0	< 1.0 U
72-54-8	4,4'-DDD	0.14	1.0	< 1.0 U
50-29-3	4,4'-DDT	0.19	1.0	< 1.0 U
53494-70-5	Endrin Ketone	0.12	1.0	< 1.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	87.0%
Tetrachlorometaxylene	77.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method SW8081B **Sample ID: MS-SSRB-120515**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/25/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/18/12
Date Analyzed: 05/24/12 18:23
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	0.0098	0.050	< 0.050 U
60-57-1	Dieldrin	0.017	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.018	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.019	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.017	0.10	< 0.10 U
53494-70-5	Endrin Ketone	0.015	0.10	< 0.10 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	64.5%
Tetrachlorometaxylene	85.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method SW8081B **Sample ID: MS-SSFB-120515**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UU62K
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized:
Reported: 05/25/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/18/12
Date Analyzed: 05/24/12 18:40
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	0.0098	0.050	< 0.050 U
60-57-1	Dieldrin	0.017	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.018	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.019	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.017	0.10	< 0.10 U
53494-70-5	Endrin Ketone	0.015	0.10	< 0.10 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	62.0%
Tetrachlorometaxylene	65.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8081/PESTICIDE WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01

Client ID	DCBP	TCMX	TOT OUT
MB-051812	75.5%	69.0%	0
LCS-051812	76.5%	66.2%	0
LCSD-051812	78.2%	60.8%	0
MS-SSRB-120515	64.5%	85.0%	0
MS-SSFB-120515	62.0%	65.0%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(54-100)	(32-116)
(TCMX) = Tetrachlorometaxylene	(52-100)	(43-106)

Prep Method: SW3510C
Log Number Range: 12-8937 to 12-8938

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method SW8081B **Sample ID: LCS-051812**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-051812
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/25/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted LCS/LCSD: 05/18/12

Date Analyzed LCS: 05/24/12 15:42
LCSD: 05/24/12 16:00
Instrument/Analyst LCS: ECD6/AAR
LCSD: ECD6/AAR
GPC Cleanup: No
Florisil Cleanup: No

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 5.0 mL
LCSD: 5.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Sulfur Cleanup: Yes
Silica Gel: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
beta-BHC	0.171	0.200	85.5%	0.164	0.200	82.0%	4.2%
Dieldrin	0.375	0.400	93.8%	0.368	0.400	92.0%	1.9%
4,4'-DDE	0.494	0.400	124%	0.481	0.400	120%	2.7%
4,4'-DDD	0.398	0.400	99.5%	0.384	0.400	96.0%	3.6%
4,4'-DDT	0.385	0.400	96.2%	0.375	0.400	93.8%	2.6%
Endrin Ketone	0.351	0.400	87.8%	0.347	0.400	86.8%	1.1%

Pest/PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	76.5%	78.2%
Tetrachlorometaxylene	66.2%	60.8%

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

FORM 4
PESTICIDE METHOD BLANK SUMMARY

BLANK NO.

UU37MBW1

Lab Name: ANALYTICAL RESOURCES INC
Client: DOF

ARI Job No.: UU62
Project: ARKEMA MFG.

Lab Sample ID: UU37MBW1
Lab File ID: 0523A090

Date Extracted: 05/18/12
Matrix: LIQUID

Date Analyzed: 05/24/12
Instrument ID: ECD6

Time Analyzed: 1524
GC Columns: STX-CLP1/STX-CLP2

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	UU37LCSW1	UU37LCSW1	05/24/12
02	UU37LCSDW1	UU37LCSDW1	05/24/12
03	MS-SSRB-120515	UU62J	05/24/12
04	MS-SSFB-120515	UU62K	05/24/12

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method SW8081B **Sample ID: MB-051812**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-051812
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/25/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/18/12
Date Analyzed: 05/24/12 15:24
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

CAS Number	Analyte	MDL	RL	Result
319-85-7	beta-BHC	0.0098	0.050	< 0.050 U
60-57-1	Dieldrin	0.017	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.018	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.019	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.017	0.10	< 0.10 U
53494-70-5	Endrin Ketone	0.015	0.10	< 0.10 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	75.5%
Tetrachlorometaxylene	69.0%

6D

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 05/23/12

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.80	3.90
beta-BHC	4.19	4.19	4.19	4.18	4.18	4.18	4.18	4.18	4.13	4.23
delta-BHC	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.29	4.39
gamma-BHC (Lindane)	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.06	4.16
Heptachlor	4.52	4.52	4.52	4.52	4.52	4.52	4.52	4.52	4.47	4.57
Aldrin	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.74	4.84
Heptachlor epoxide b	5.35	5.35	5.35	5.35	5.35	5.35	5.35	5.35	5.30	5.40
Endosulfan I	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.67	5.77
Dieldrin	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.90	6.00
4,4'-DDE	5.68	5.68	5.68	5.67	5.67	5.67	5.67	5.67	5.62	5.72
Endrin	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.11	6.21
Endosulfan II	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.32	6.42
4,4'-DDD	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.18	6.28
Endosulfan sulfate	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.09	7.19
4,4'-DDT	6.49	6.49	6.49	6.48	6.48	6.48	6.48	6.48	6.43	6.53
Methoxychlor	6.93	6.93	6.92	6.92	6.92	6.92	6.92	6.92	6.87	6.97
Endrin ketone	7.39	7.39	7.39	7.39	7.39	7.39	7.39	7.39	7.34	7.44
Endrin aldehyde	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.70	6.80
gamma-Chlordane	5.47	5.47	5.47	5.47	5.47	5.47	5.47	5.47	5.42	5.52
alpha-Chlordane	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.54	5.64
Hexachlorobutadiene	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.00	2.10
Hexachlorobenzene	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.67	3.77
Tetrachloro-m-xylene	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.36	3.46
Decachlorobiphenyl	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.20	8.30

6D

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 05/23/12

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.06	4.16
beta-BHC	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.45	4.55
delta-BHC	4.79	4.78	4.78	4.78	4.78	4.78	4.78	4.78	4.73	4.83
gamma-BHC (Lindane)	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.38	4.48
Heptachlor	4.85	4.85	4.85	4.85	4.85	4.85	4.85	4.85	4.80	4.90
Aldrin	5.17	5.17	5.17	5.17	5.17	5.17	5.17	5.17	5.12	5.22
Heptachlor epoxide b	5.73	5.73	5.73	5.73	5.73	5.73	5.73	5.73	5.68	5.78
Endosulfan I	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.07	6.17
Dieldrin	6.38	6.38	6.38	6.38	6.38	6.38	6.38	6.38	6.33	6.43
4,4'-DDE	6.21	6.21	6.21	6.21	6.21	6.21	6.21	6.21	6.16	6.26
Endrin	6.66	6.66	6.66	6.66	6.66	6.66	6.66	6.66	6.61	6.71
Endosulfan II	6.86	6.86	6.86	6.86	6.86	6.86	6.86	6.86	6.81	6.91
4,4'-DDD	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.70	6.80
Endosulfan sulfate	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.35	7.45
4,4'-DDT	7.04	7.04	7.04	7.04	7.03	7.03	7.03	7.04	6.98	7.08
Methoxychlor	7.63	7.63	7.63	7.63	7.63	7.63	7.63	7.63	7.58	7.68
Endrin ketone	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.83	7.93
Endrin aldehyde	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.11	7.21
gamma-Chlordane	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.87	5.97
alpha-Chlordane	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.01	6.11
Hexachlorobutadiene	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.06	2.16
Hexachlorobenzene	4.00	4.00	4.00	4.00	4.00	3.99	3.99	4.00	3.94	4.04
Tetrachloro-m-xylene	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.54	3.64
Decachlorobiphenyl	8.91	8.91	8.91	8.91	8.91	8.91	8.91	8.91	8.86	8.96

6E

8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 05/23/12

	CALIBRATION FACTORS								R^2
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
alpha-BHC	1.3961	1.5362	1.5052	1.6394	1.6886	1.7072	1.7006	1.5962	7.5
beta-BHC	0.6074	0.6114	0.5639	0.5839	0.5995	0.6023	0.5992	0.5954	2.7
delta-BHC	1.0852	1.0636	1.0330	1.1308	1.2320	1.2888	1.3184	1.1645	9.8
gamma-BHC (Lindane)	1.2631	1.2563	1.2345	1.3512	1.4062	1.4284	1.4330	1.3390	6.5
Heptachlor	1.4636	1.4409	1.3883	1.5050	1.5332	1.5278	1.4876	1.4780	3.5
Aldrin	1.3041	1.2760	1.2538	1.3809	1.4238	1.4381	1.4136	1.3558	5.6
Heptachlor epoxide b	1.2379	1.2162	1.1189	1.2088	1.2297	1.2301	1.2094	1.2073	3.4
Endosulfan I	1.7288	1.6336	1.5627	1.6835	1.6439	1.6263	1.5281	1.6296	4.2
Dieldrin	1.2797	1.2500	1.2400	1.3306	1.3459	1.3325	1.3034	1.2974	3.2
4,4'-DDE	0.7021	0.6787	0.7155	0.7867	0.9118	0.9521	0.9986	0.8208	16.0
Endrin	0.8563	0.8180	0.8493	0.8801	0.8952	0.8796	0.8432	0.8602	3.1
Endosulfan II	0.8510	0.8055	0.8249	0.8500	0.8626	0.8495	0.8170	0.8372	2.5
4,4'-DDD	0.6294	0.5967	0.6286	0.6644	0.7320	0.7473	0.7429	0.6773	9.2
Endosulfan sulfate	0.7733	0.7162	0.7256	0.7353	0.7482	0.7384	0.7154	0.7360	2.8
4,4'-DDT	0.6866	0.6578	0.7024	0.7409	0.7961	0.8159	0.8073	0.7438	8.6
Methoxychlor	0.3995	0.3922	0.3821	0.3766	0.3726	0.3709	0.3590	0.3790	3.6
Endrin ketone	1.0470	0.9403	0.9255	0.9186	0.9251	0.9021	0.8733	0.9331	5.9
Endrin aldehyde	0.7213	0.6630	0.6658	0.6741	0.6847	0.6714	0.6459	0.6752	3.5
gamma-Chlordane	1.3860	1.2528	1.2054	1.2938	1.3381	1.3514	1.3360	1.3091	4.8
alpha-Chlordane	1.3087	1.2015	1.1587	1.2448	1.2666	1.2741	1.2660	1.2458	4.0
Hexachlorobutadiene	1.8887	1.7760	1.6850	1.7896	1.7704	1.7361	1.7026	1.7640	3.8
Hexachlorobenzene	1.2023	1.1534	1.0481	1.0745	1.0829	1.0721	1.0690	1.1003	5.1
Tetrachloro-m-xylene	1.3485	1.2600	1.1514	1.1874	1.1820	1.1598	0.9972	1.1838	9.1
Decachlorobiphenyl	1.0782	0.9484	0.9010	0.8830	0.8549	0.8291	0.7963	0.8987	10.4

6E

8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 05/23/12

	CALIBRATION FACTORS								R^2
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
alpha-BHC	1.3295	1.2895	1.4006	1.3768	1.3838	1.3494	1.4062	1.3622	3.1
beta-BHC	0.6250	0.5153	0.5371	0.5049	0.5013	0.4827	0.5018	0.5240	9.1
delta-BHC	0.9615	0.8751	0.9581	0.9336	1.0036	1.0017	1.0729	0.9724	6.4
gamma-BHC (Lindane)	1.2389	1.1098	1.1798	1.1410	1.1569	1.1282	1.1816	1.1623	3.7
Heptachlor	1.3402	1.1973	1.2505	1.1806	1.1190	1.0573	1.0433	1.1697	9.1
Aldrin	1.1083	1.0144	1.0603	1.0079	0.9924	0.9498	0.9640	1.0139	5.4
Heptachlor epoxide b	1.1018	1.0473	1.0324	0.9676	0.9471	0.8931	0.8959	0.9836	8.1
Endosulfan I	1.0055	0.8787	0.8934	0.8353	0.8145	0.7771	0.7884	0.8561	9.2
Dieldrin	1.0056	0.9015	0.9326	0.8880	0.8592	0.8043	0.8042	0.8850	8.1
4,4'-DDE	0.8953	0.7868	0.8083	0.7531	0.7573	0.7280	0.7504	0.7827	7.2
Endrin	1.6139	1.4319	1.4062	1.3634	1.3502	1.2845	1.1634	1.3734	10.1
Endosulfan II	1.6366	1.4646	1.4296	1.3806	1.3552	1.2978	1.1760	1.3915	10.3
4,4'-DDD	1.3096	1.1537	1.1355	1.0924	1.1471	1.1234	1.0717	1.1476	6.7
Endosulfan sulfate	1.2046	1.1010	1.0906	1.0620	1.0531	1.0210	0.9513	1.0691	7.3
4,4'-DDT	1.2392	1.1135	1.1153	1.0970	1.1375	1.1286	1.0796	1.1301	4.6
Methoxychlor	0.5905	0.5399	0.5098	0.4790	0.4419	0.4008	0.3579	0.4742	13.8
Endrin ketone	1.5816	1.4470	1.4293	1.3670	1.3511	1.2822	1.1765	1.3764	9.4
Endrin aldehyde	1.2635	1.1160	1.0805	1.0377	1.0313	0.9824	0.9074	1.0598	10.6
gamma-Chlordane	0.9908	0.9083	0.9620	0.9002	0.8893	0.8570	0.8808	0.9126	5.2
alpha-Chlordane	0.9926	0.8840	0.9001	0.8439	0.8326	0.7992	0.8274	0.8685	7.4
Hexachlorobutadiene	1.6564	1.5016	1.5788	1.4707	1.4186	1.3278	1.3980	1.4788	7.6
Hexachlorobenzene	1.3572	1.2382	1.2912	1.2186	1.2172	1.1688	1.2165	1.2440	5.0
Tetrachloro-m-xylene	1.0605	0.9847	1.0412	0.9924	0.9771	0.9289	0.9643	0.9927	4.5
Decachlorobiphenyl	1.3344	1.1954	1.1305	1.0799	1.0375	1.0114	0.9637	1.1075	11.4

6D

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD8

Calibration Date: 05/25/12

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.40	4.50
beta-BHC	4.85	4.85	4.85	4.85	4.85	4.85	4.85	4.85	4.80	4.90
delta-BHC	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	4.96	5.06
gamma-BHC (Lindane)	4.75	4.76	4.76	4.75	4.75	4.76	4.76	4.76	4.71	4.81
Heptachlor	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.15	5.25
Aldrin	5.48	5.48	5.48	5.48	5.48	5.48	5.48	5.48	5.43	5.53
Heptachlor epoxide b	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	5.98	6.08
Endosulfan I	6.39	6.39	6.39	6.38	6.38	6.39	6.38	6.39	6.33	6.43
Dieldrin	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.55	6.65
4,4'-DDE	6.35	6.35	6.34	6.34	6.34	6.34	6.34	6.34	6.29	6.39
Endrin	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.76	6.86
Endosulfan II	7.02	7.02	7.02	7.02	7.01	7.02	7.02	7.02	6.97	7.07
4,4'-DDD	6.89	6.89	6.88	6.88	6.88	6.88	6.87	6.88	6.82	6.92
Endosulfan sulfate	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.75	7.85
4,4'-DDT	7.13	7.13	7.13	7.13	7.12	7.13	7.12	7.13	7.07	7.17
Methoxychlor	7.57	7.56	7.56	7.56	7.56	7.56	7.56	7.56	7.51	7.61
Endrin ketone	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.01	8.11
Endrin aldehyde	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.35	7.45
gamma-Chlordane	6.14	6.14	6.14	6.14	6.14	6.14	6.14	6.14	6.09	6.19
alpha-Chlordane	6.26	6.26	6.26	6.26	6.26	6.26	6.26	6.26	6.21	6.31
Hexachlorobutadiene	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.68	1.78
Hexachlorobenzene	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.24	4.34
Tetrachloro-m-xylene	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.85	3.95
Decachlorobiphenyl	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.93	9.03

6D

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD8

Calibration Date: 05/25/12

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	4.93	4.93	4.93	4.93	4.93	4.93	4.93	4.93	4.88	4.98
beta-BHC	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.32	5.42
delta-BHC	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.60	5.70
gamma-BHC (Lindane)	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.23	5.33
Heptachlor	5.71	5.71	5.71	5.71	5.71	5.71	5.71	5.71	5.66	5.76
Aldrin	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	5.98	6.08
Heptachlor epoxide b	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.52	6.62
Endosulfan I	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.89	6.99
Dieldrin	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.15	7.25
4,4'-DDE	7.03	7.03	7.03	7.03	7.02	7.03	7.02	7.03	6.97	7.07
Endrin	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.44	7.54
Endosulfan II	7.69	7.69	7.69	7.69	7.68	7.69	7.69	7.69	7.64	7.74
4,4'-DDD	7.57	7.57	7.57	7.57	7.57	7.57	7.56	7.57	7.51	7.61
Endosulfan sulfate	8.26	8.26	8.26	8.26	8.26	8.26	8.26	8.26	8.21	8.31
4,4'-DDT	7.86	7.86	7.86	7.86	7.86	7.86	7.86	7.86	7.81	7.91
Methoxychlor	8.49	8.49	8.49	8.49	8.49	8.49	8.49	8.49	8.44	8.54
Endrin ketone	8.78	8.78	8.78	8.78	8.78	8.78	8.78	8.78	8.73	8.83
Endrin aldehyde	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	7.95	8.05
gamma-Chlordane	6.75	6.75	6.75	6.75	6.74	6.75	6.75	6.75	6.70	6.80
alpha-Chlordane	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.83	6.93
Hexachlorobutadiene	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	1.99	2.09
Hexachlorobenzene	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.74	4.84
Tetrachloro-m-xylene	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.25	4.35
Decachlorobiphenyl	9.92	9.92	9.92	9.92	9.92	9.92	9.92	9.92	9.87	9.97

6E
8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD8

Calibration Date: 05/25/12

	CALIBRATION FACTORS								R^2
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
alpha-BHC	1.3333	1.3065	1.3561	1.4891	1.6958	1.7274	1.8451	1.5362	14.2
beta-BHC	0.7303	0.6503	0.5221	0.5728	0.5545	0.5484	0.5610	0.5913	12.4
delta-BHC	1.1032	1.0535	1.0389	1.1370	1.3213	1.3723	1.5227	1.2213	15.2
gamma-BHC (Lindane)	1.1874	1.1266	1.0984	1.1794	1.3484	1.3553	1.4450	1.2486	10.6
Heptachlor	1.1670	1.1208	1.1121	1.1992	1.3337	1.3142	1.3727	1.2314	8.7
Aldrin	1.3481	1.3007	1.3239	1.4168	1.5772	1.6002	1.6852	1.4646	10.5
Heptachlor epoxide b	1.3278	1.2310	1.2211	1.2711	1.3678	1.3561	1.4064	1.3116	5.5
Endosulfan I	2.0165	2.2801	2.1031	2.1292	2.1762	1.9534	1.8046	2.0662	7.6
Dieldrin	1.2856	1.3037	1.3194	1.4071	1.5346	1.4596	1.5037	1.4020	7.2
4,4'-DDE	0.7192	0.7154	0.8400	0.8683	1.1742	1.2564	1.4784	1.0074	0.9991
Endrin	0.8180	0.7802	0.7848	0.8281	0.9775	0.9118	0.9835	0.8691	10.1
Endosulfan II	0.9066	0.8470	0.8182	0.8560	0.9788	0.9002	0.9494	0.8937	6.4
4,4'-DDD	0.8544	0.7346	0.6333	0.6274	0.7160	0.6613	0.7256	0.7075	11.1
Endosulfan sulfate	0.7475	0.7004	0.6943	0.6940	0.8070	0.7619	0.8256	0.7472	7.3
4,4'-DDT	0.3895	0.4033	0.3904	0.4490	0.5487	0.5536	0.6230	0.4796	19.7
Methoxychlor	0.2607	0.2482	0.2521	0.2558	0.2871	0.2848	0.3170	0.2722	9.2
Endrin ketone	1.1371	0.9623	0.8789	0.8430	0.9205	0.8584	0.9040	0.9292	10.8
Endrin aldehyde	0.7450	0.6838	0.6599	0.6730	0.7567	0.7073	0.7533	0.7113	5.7
gamma-Chlordane	1.3054	1.2226	1.2034	1.2573	1.3816	1.3669	1.4525	1.3128	7.0
alpha-Chlordane	1.2912	1.2331	1.3452	1.3004	1.4230	1.3964	1.4853	1.3535	6.4
Hexachlorobutadiene	2.3488	2.2283	2.7224	2.2581	2.5279	2.3530	2.6456	2.4406	7.9
Hexachlorobenzene	1.5112	1.3748	1.3205	1.3327	1.4802	1.3608	1.4365	1.4024	5.3
Tetrachloro-m-xylene	1.1560	1.0735	1.0552	1.0854	1.2249	1.1434	1.1885	1.1324	5.6
Decachlorobiphenyl	1.5636	1.3534	1.2681	1.2454	1.4036	1.2781	1.3497	1.3517	8.1

6E

8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD8

Calibration Date: 05/25/12

	CALIBRATION FACTORS								R^2
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
alpha-BHC	1.6897	1.5651	1.5759	1.6186	1.7782	1.7155	1.7110	1.6648	4.8
beta-BHC	0.7765	0.7223	0.6933	0.6686	0.6901	0.6576	0.6512	0.6942	6.3
delta-BHC	1.2218	1.1299	1.1598	1.1513	1.3020	1.2999	1.3337	1.2283	6.8
gamma-BHC (Lindane)	1.4702	1.3473	1.3285	1.3368	1.4332	1.4079	1.4108	1.3907	3.9
Heptachlor	1.3276	1.2884	1.2113	1.2570	1.2984	1.2626	1.2149	1.2657	3.4
Aldrin	1.6265	1.4983	1.4918	1.5158	1.6501	1.5855	1.5708	1.5627	4.0
Heptachlor epoxide b	1.4701	1.3581	1.2848	1.2439	1.2993	1.2431	1.2184	1.3025	6.7
Endosulfan I	1.3767	1.2504	1.3172	1.2013	1.2718	1.2308	1.2117	1.2657	4.9
Dieldrin	1.4393	1.3250	1.3210	1.3164	1.4046	1.3249	1.2897	1.3458	4.0
4,4'-DDE	1.5093	1.3879	1.4761	1.4034	1.5902	1.5221	1.5058	1.4850	4.7
Endrin	1.0498	0.9429	0.9330	0.9324	1.0197	0.9055	0.8880	0.9530	6.2
Endosulfan II	1.1204	1.0030	1.0010	1.0107	1.0630	0.9733	0.9352	1.0152	5.9
4,4'-DDD	0.9882	0.8743	0.8629	0.8381	0.8904	0.8128	0.8020	0.8670	7.2
Endosulfan sulfate	0.9224	0.8380	0.8279	0.8308	0.8895	0.8295	0.8326	0.8530	4.4
4,4'-DDT	0.4783	0.4513	0.4925	0.5178	0.5834	0.6105	0.6507	0.5406	13.8
Methoxychlor	0.2775	0.2638	0.2716	0.2738	0.2880	0.2763	0.2814	0.2760	2.8
Endrin ketone	1.0070	0.9207	0.8984	0.9076	0.9483	0.8866	0.8798	0.9212	4.8
Endrin aldehyde	1.0053	0.8806	0.8438	0.8305	0.8790	0.7925	0.7781	0.8585	8.8
gamma-Chlordane	1.5144	1.3876	1.3445	1.3510	1.4119	1.3973	1.4026	1.4013	4.0
alpha-Chlordane	1.4947	1.3563	1.4595	1.3254	1.4251	1.3902	1.3934	1.4064	4.2
Hexachlorobutadiene	2.9191	2.5788	2.4523	2.3628	2.6336	2.3791	2.3713	2.5281	8.0
Hexachlorobenzene	1.7719	1.5566	1.4684	1.4238	1.6213	1.4275	1.4161	1.5265	8.7
Tetrachloro-m-xylene	2.0602	1.9043	1.8602	1.8581	2.1305	1.8544	1.7918	1.9228	6.5
Decachlorobiphenyl	1.6751	1.4341	1.3540	1.2589	1.3459	1.1860	1.1591	1.3447	13.0

7E
8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 24-MAY-2012 14:13 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	5.673	48669
Endrin	6.163	7553882
4,4'-DDD	6.230	267215
4,4'-DDT	6.484	6718434
Endrin ketone	7.388	340774
Endrin aldehyde	6.748	133821

DDT Percent Breakdown = 4.5 %
((48669+267215) * 100)/(48669+267215+6718434)

Endrin Percent Breakdown = 5.9 %
((133821+340774) * 100)/(133821+340774+7553882)

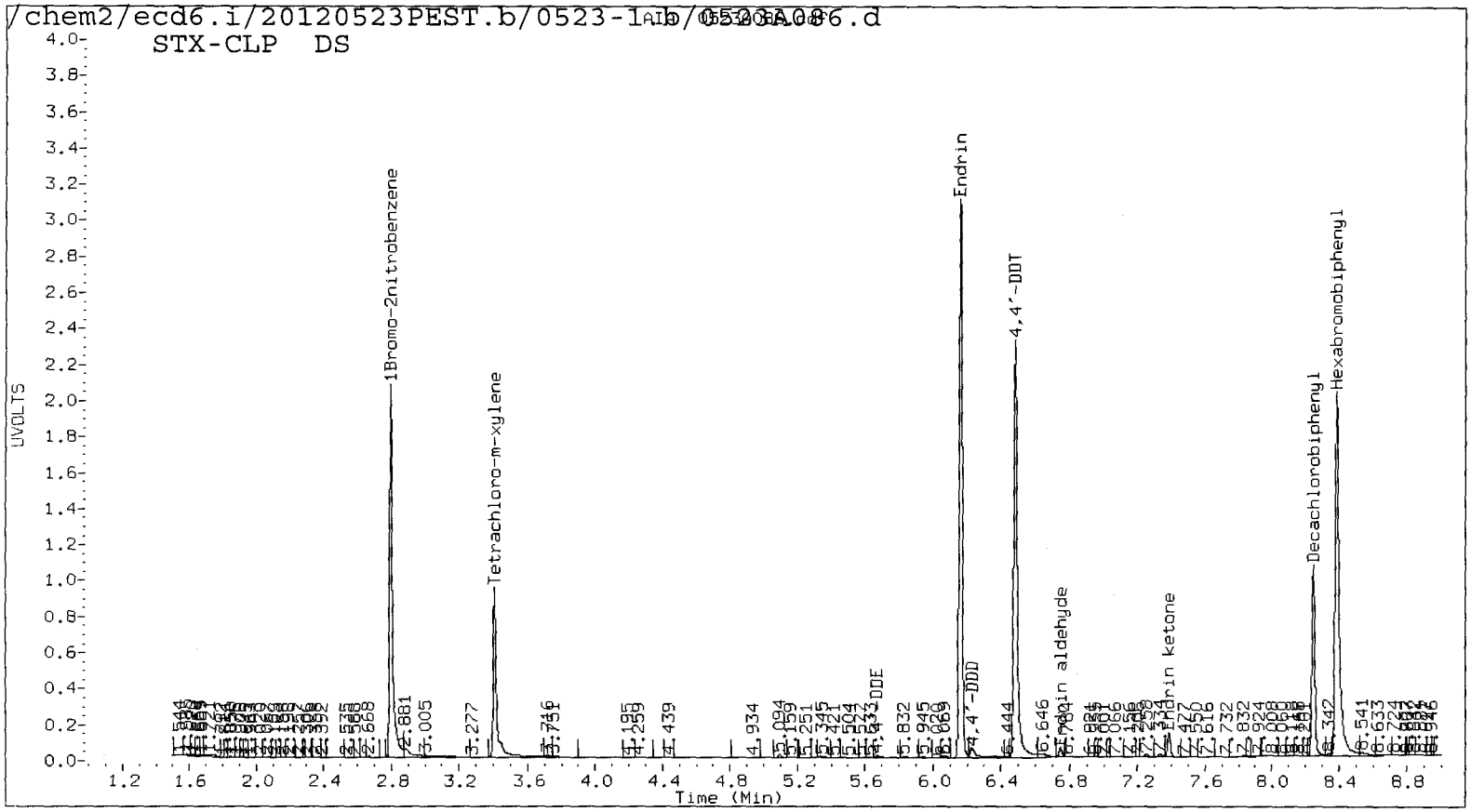
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.208	206052
Endrin	6.663	14721691
4,4'-DDD	6.748	672648
4,4'-DDT	7.033	12825820
Endrin ketone	7.879	708380
Endrin aldehyde	7.157	407513

DDT Percent Breakdown = 6.4 %
((206052+672648) * 100)/(206052+672648+12825820)

Endrin Percent Breakdown = 7.0 %
((407513+708380) * 100)/(407513+708380+14721691)

Form VII Pest-1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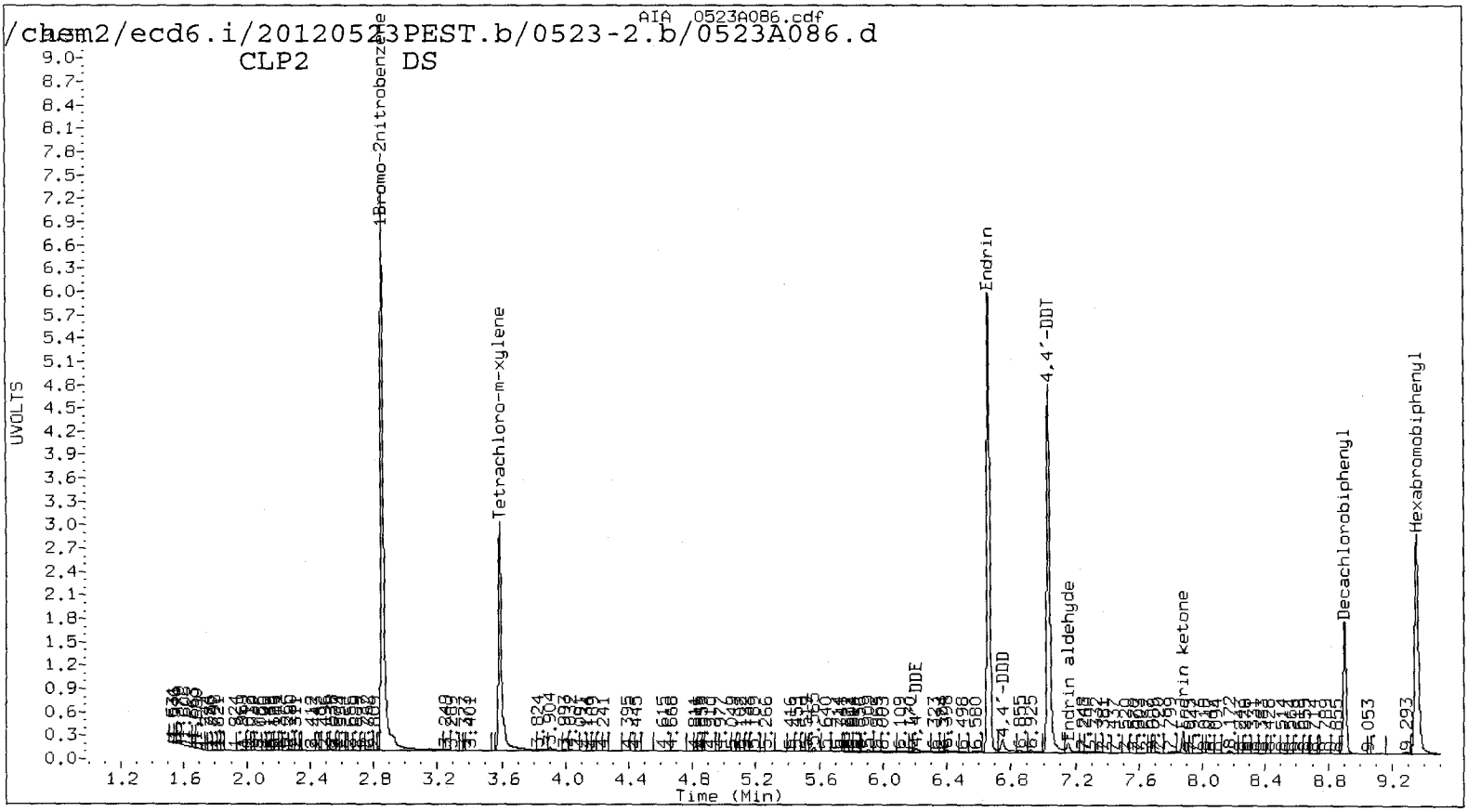
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
DDE
4,4'-DDD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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
DDE
4,4'-DDD

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/24/12,1431

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	3.85	3.80	3.90	21.0	20.0	5.0
beta-BHC	4.18	4.13	4.23	20.1	20.0	0.4
delta-BHC	4.34	4.29	4.39	21.0	20.0	5.1
gamma-BHC (Lindane)	4.11	4.06	4.16	20.8	20.0	4.1
Heptachlor	4.52	4.47	4.57	20.7	20.0	3.2
Aldrin	4.79	4.74	4.84	20.8	20.0	4.2
Heptachlor epoxide b	5.35	5.30	5.40	20.1	20.0	0.4
Endosulfan I	5.72	5.67	5.77	19.7	20.0	-1.5
Dieldrin	5.95	5.90	6.00	40.7	40.0	1.8
4,4'-DDE	5.67	5.62	5.72	44.8	40.0	12.0
Endrin	6.16	6.11	6.21	40.4	40.0	0.9
Endosulfan II	6.37	6.32	6.42	40.0	40.0	0.1
4,4'-DDD	6.23	6.18	6.28	42.3	40.0	5.8
Endosulfan sulfate	7.14	7.09	7.19	39.6	40.0	-0.9
4,4'-DDT	6.48	6.43	6.53	41.7	40.0	4.3
Methoxychlor	6.92	6.87	6.97	193.3	200.0	-3.3
Endrin ketone	7.39	7.34	7.44	38.5	40.0	-3.8
Endrin aldehyde	6.75	6.70	6.80	39.3	40.0	-1.6
gamma-Chlordane	5.47	5.42	5.52	20.2	20.0	1.2
alpha-Chlordane	5.59	5.54	5.64	19.3	20.0	-3.7
Hexachlorobutadiene	2.05	2.00	2.10	20.0	20.0	-0.0
Hexachlorobenzene	3.72	3.67	3.77	19.6	20.0	-2.0
Tetrachloro-m-xylene	3.41	3.36	3.46	39.6	40.0	-1.0
Decachlorobiphenyl	8.25	8.20	8.30	36.9	40.0	-7.7

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/24/12,1431

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
alpha-BHC	4.11	4.06	4.16	20.0	20.0	-0.2
beta-BHC	4.50	4.45	4.55	18.6	20.0	-7.0
delta-BHC	4.78	4.73	4.83	20.2	20.0	0.8
gamma-BHC (Lindane)	4.43	4.38	4.48	19.5	20.0	-2.6
Heptachlor	4.85	4.80	4.90	18.7	20.0	-6.4
Aldrin	5.17	5.12	5.22	19.1	20.0	-4.7
Heptachlor epoxide b	5.73	5.68	5.78	19.0	20.0	-5.0
Endosulfan I	6.12	6.07	6.17	18.8	20.0	-6.0
Dieldrin	6.38	6.33	6.43	38.3	40.0	-4.3
4,4'-DDE	6.21	6.16	6.26	38.5	40.0	-3.7
Endrin	6.66	6.61	6.71	37.0	40.0	-7.5
Endosulfan II	6.86	6.81	6.91	36.6	40.0	-8.5
4,4'-DDD	6.75	6.70	6.80	38.0	40.0	-5.0
Endosulfan sulfate	7.40	7.35	7.45	37.5	40.0	-6.2
4,4'-DDT	7.03	6.98	7.08	38.3	40.0	-4.4
Methoxychlor	7.63	7.58	7.68	169.6	200.0	-15.2
Endrin ketone	7.88	7.83	7.93	37.2	40.0	-7.0
Endrin aldehyde	7.16	7.11	7.21	36.7	40.0	-8.3
gamma-Chlordane	5.92	5.87	5.97	19.3	20.0	-3.5
alpha-Chlordane	6.06	6.01	6.11	19.0	20.0	-5.2
Hexachlorobutadiene	2.11	2.06	2.16	19.1	20.0	-4.7
Hexachlorobenzene	4.00	3.94	4.04	19.2	20.0	-4.2
Tetrachloro-m-xylene	3.59	3.54	3.64	39.1	40.0	-2.3
Decachlorobiphenyl	8.91	8.86	8.96	37.0	40.0	-7.4

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 24-MAY-2012 19:34 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	5.674	56397
Endrin	6.163	7372484
4,4'-DDD	6.231	222167
4,4'-DDT	6.485	6581180
Endrin ketone	7.388	353697
Endrin aldehyde	6.749	151404

DDT Percent Breakdown = 4.1 %
((56397+222167) * 100)/(56397+222167+6581180)

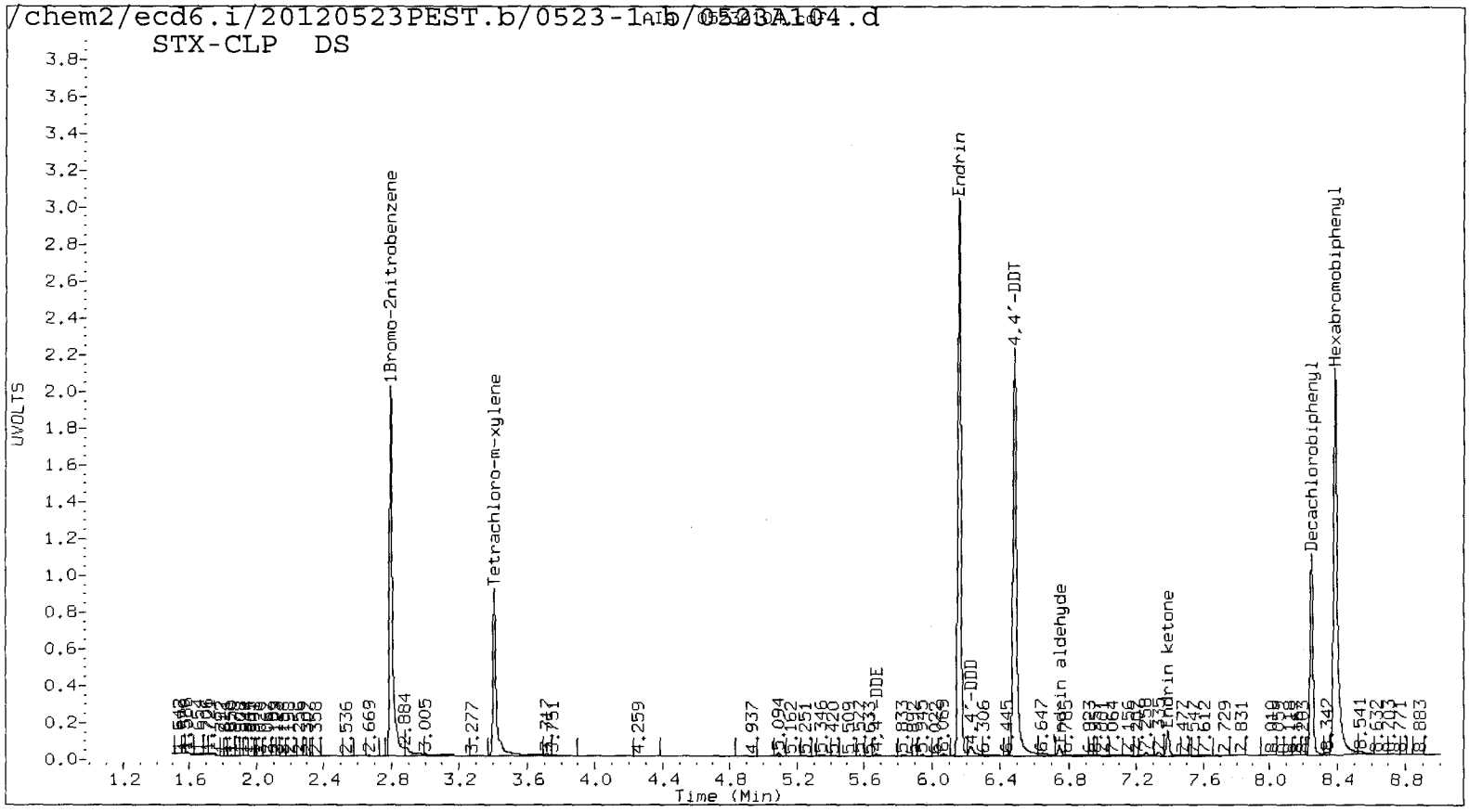
Endrin Percent Breakdown = 6.4 %
((151404+353697) * 100)/(151404+353697+7372484)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.209	242224
Endrin	6.663	15024594
4,4'-DDD	6.749	701823
4,4'-DDT	7.034	13167851
Endrin ketone	7.880	767688
Endrin aldehyde	7.157	466274

DDT Percent Breakdown = 6.7 %
((242224+701823) * 100)/(242224+701823+13167851)

Endrin Percent Breakdown = 7.6 %
((466274+767688) * 100)/(466274+767688+15024594)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UVOLTS
Time (Min)
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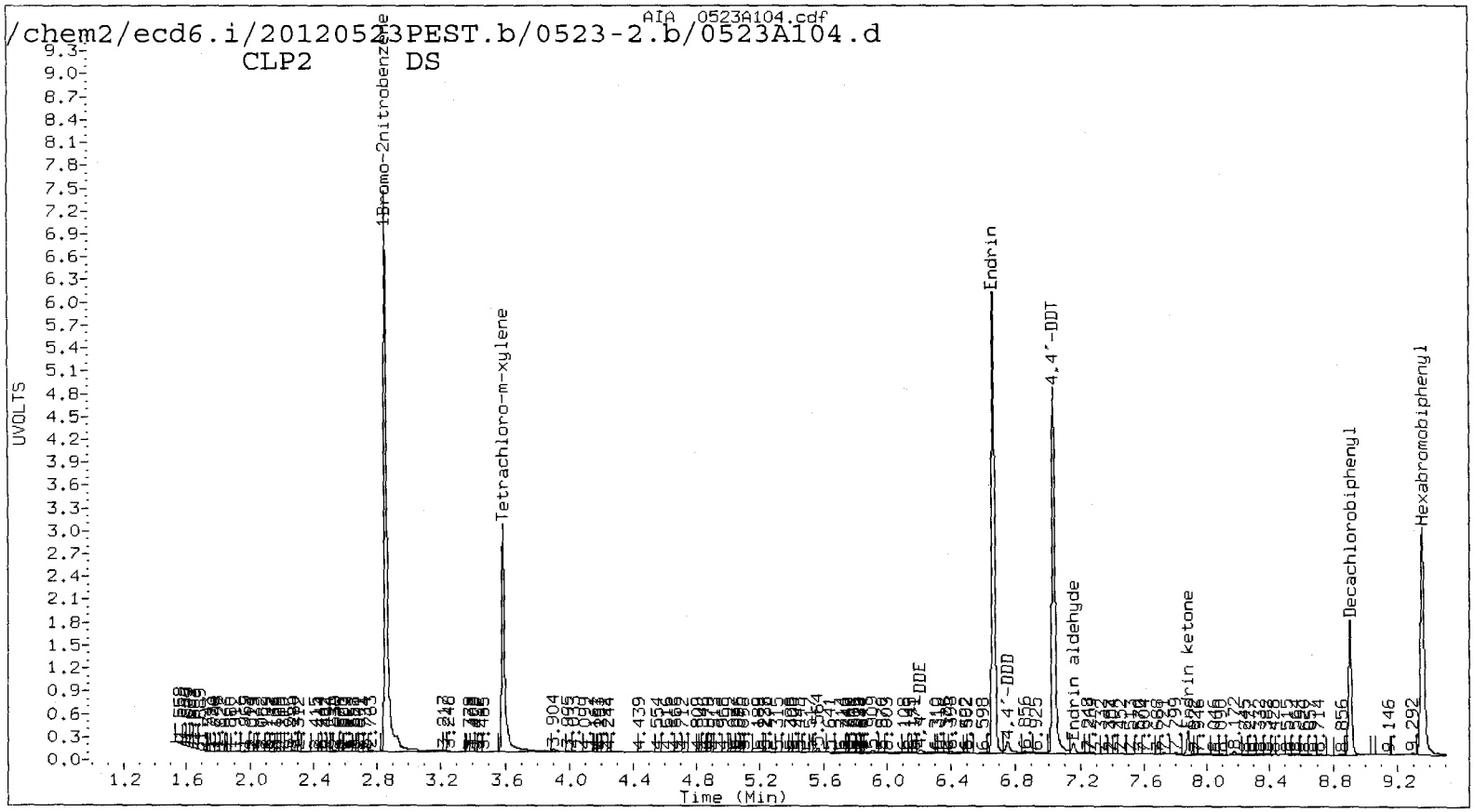
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD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AIB 0523A104.cdf
CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/24/12,1952

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	3.85	3.80	3.90	20.2	20.0	1.1
beta-BHC	4.18	4.13	4.23	19.3	20.0	-3.4
delta-BHC	4.34	4.29	4.39	20.2	20.0	1.1
gamma-BHC (Lindane)	4.11	4.06	4.16	20.0	20.0	-0.2
Heptachlor	4.52	4.47	4.57	19.9	20.0	-0.6
Aldrin	4.79	4.74	4.84	20.1	20.0	0.3
Heptachlor epoxide b	5.35	5.30	5.40	19.3	20.0	-3.6
Endosulfan I	5.72	5.67	5.77	18.9	20.0	-5.4
Dieldrin	5.95	5.90	6.00	39.2	40.0	-2.0
4,4'-DDE	5.67	5.62	5.72	43.3	40.0	8.2
Endrin	6.16	6.11	6.21	39.6	40.0	-1.0
Endosulfan II	6.37	6.32	6.42	39.2	40.0	-2.1
4,4'-DDD	6.23	6.18	6.28	41.6	40.0	3.9
Endosulfan sulfate	7.14	7.09	7.19	39.0	40.0	-2.5
4,4'-DDT	6.48	6.43	6.53	41.2	40.0	3.0
Methoxychlor	6.92	6.87	6.97	189.9	200.0	-5.1
Endrin ketone	7.39	7.34	7.44	38.0	40.0	-5.1
Endrin aldehyde	6.75	6.70	6.80	38.6	40.0	-3.4
gamma-Chlordane	5.47	5.42	5.52	19.5	20.0	-2.5
alpha-Chlordane	5.59	5.54	5.64	18.2	20.0	-9.0
Hexachlorobutadiene	2.05	2.00	2.10	19.2	20.0	-4.0
Hexachlorobenzene	3.72	3.67	3.77	18.8	20.0	-6.1
Tetrachloro-m-xylene	3.41	3.36	3.46	38.1	40.0	-4.8
Decachlorobiphenyl	8.25	8.20	8.30	37.0	40.0	-7.6

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/24/12,1952

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
alpha-BHC	4.11	4.06	4.16	20.2	20.0	1.0
beta-BHC	4.50	4.45	4.55	19.0	20.0	-5.2
delta-BHC	4.78	4.73	4.83	20.3	20.0	1.5
gamma-BHC (Lindane)	4.43	4.38	4.48	19.7	20.0	-1.6
Heptachlor	4.85	4.80	4.90	19.0	20.0	-4.8
Aldrin	5.17	5.12	5.22	19.4	20.0	-3.0
Heptachlor epoxide b	5.73	5.68	5.78	19.2	20.0	-3.8
Endosulfan I	6.12	6.07	6.17	19.1	20.0	-4.4
Dieldrin	6.38	6.33	6.43	38.7	40.0	-3.3
4,4'-DDE	6.21	6.16	6.26	39.2	40.0	-2.0
Endrin	6.66	6.61	6.71	36.3	40.0	-9.3
Endosulfan II	6.86	6.81	6.91	36.0	40.0	-10.1
4,4'-DDD	6.75	6.70	6.80	37.3	40.0	-6.7
Endosulfan sulfate	7.40	7.35	7.45	36.7	40.0	-8.1
4,4'-DDT	7.03	6.98	7.08	38.0	40.0	-5.0
Methoxychlor	7.63	7.58	7.68	165.9	200.0	-17.1
Endrin ketone	7.88	7.83	7.93	36.9	40.0	-7.7
Endrin aldehyde	7.16	7.11	7.21	35.9	40.0	-10.3
gamma-Chlordane	5.92	5.87	5.97	19.7	20.0	-1.4
alpha-Chlordane	6.06	6.01	6.11	19.3	20.0	-3.6
Hexachlorobutadiene	2.11	2.06	2.16	19.4	20.0	-3.0
Hexachlorobenzene	4.00	3.94	4.04	19.3	20.0	-3.5
Tetrachloro-m-xylene	3.59	3.54	3.64	39.1	40.0	-2.2
Decachlorobiphenyl	8.91	8.86	8.96	37.0	40.0	-7.6

ECD6

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 25-MAY-2012 02:23 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	5.675	57262
Endrin	6.163	7254760
4,4'-DDD	6.232	249394
4,4'-DDT	6.485	6485399
Endrin ketone	7.389	336450
Endrin aldehyde	6.749	139214

DDT Percent Breakdown = 4.5 %
((57262+249394) * 100)/(57262+249394+6485399)

Endrin Percent Breakdown = 6.2 %
((139214+336450) * 100)/(139214+336450+7254760)

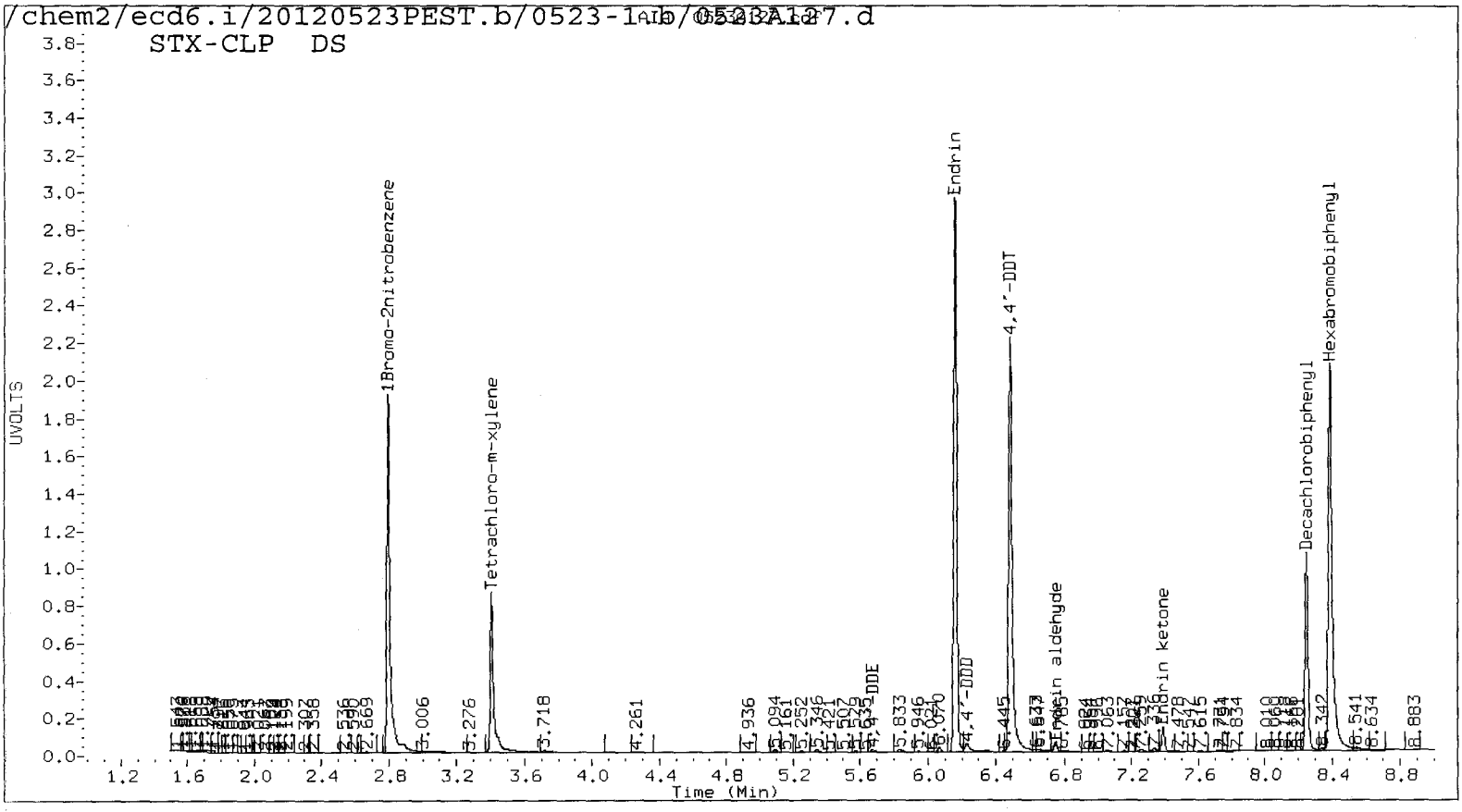
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.209	268703
Endrin	6.663	15667414
4,4'-DDD	6.749	728359
4,4'-DDT	7.034	13764969
Endrin ketone	7.880	797118
Endrin aldehyde	7.157	459948

DDT Percent Breakdown = 6.8 %
((268703+728359) * 100)/(268703+728359+13764969)

Endrin Percent Breakdown = 7.4 %
((459948+797118) * 100)/(459948+797118+15667414)

Form VII Pest-1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UVOLTS
Time (Min)
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Tetrachloro-m-xylene
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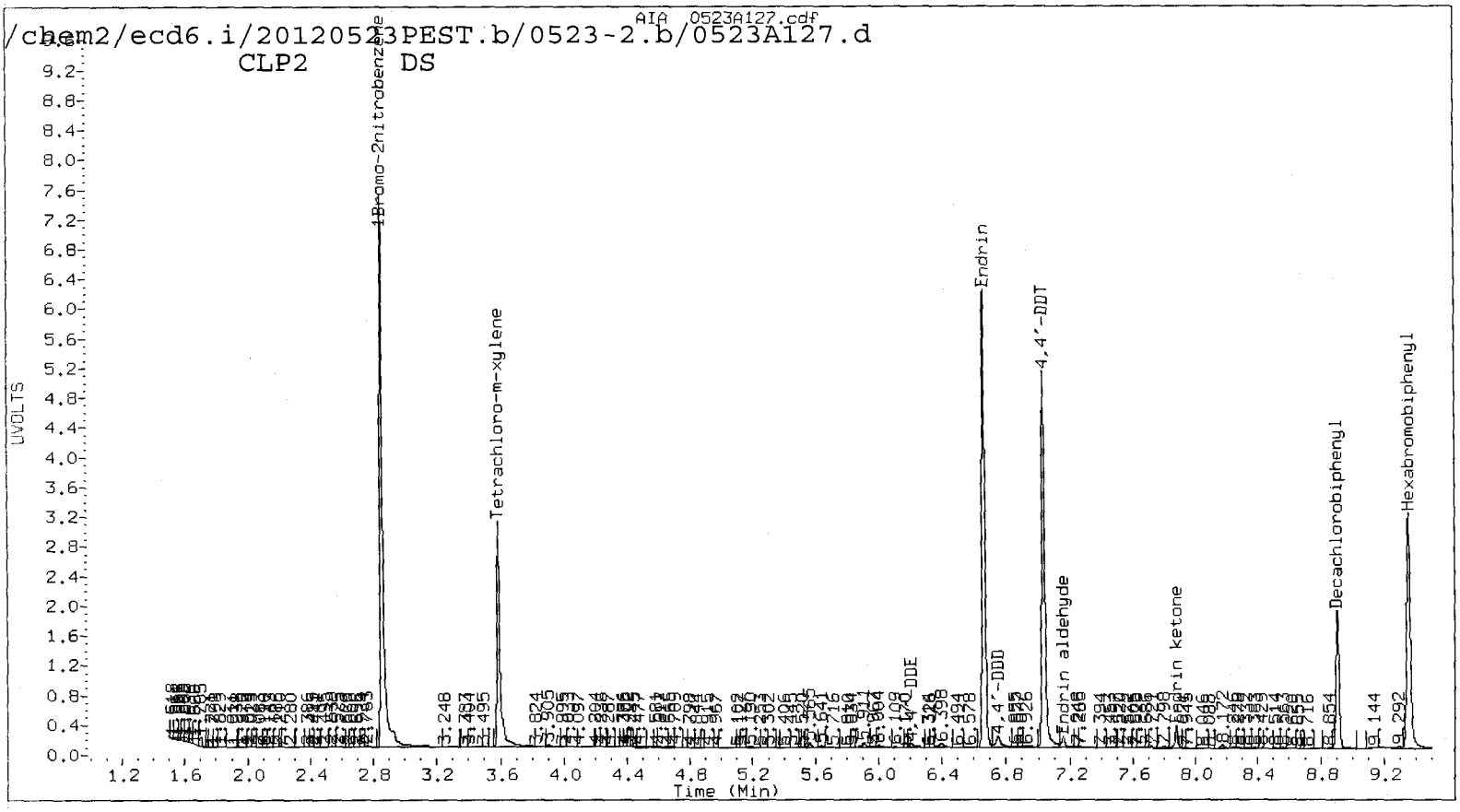
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
UVOLTS
Time (Min)
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Tetrachloro-m-xylene
4,4'-DDE
4,4'-DDD
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/25/12,0241

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	3.85	3.80	3.90	20.9	20.0	4.7
beta-BHC	4.18	4.13	4.23	20.0	20.0	-0.1
delta-BHC	4.34	4.29	4.39	20.9	20.0	4.3
gamma-BHC (Lindane)	4.11	4.06	4.16	20.7	20.0	3.4
Heptachlor	4.52	4.47	4.57	20.7	20.0	3.6
Aldrin	4.79	4.74	4.84	20.9	20.0	4.3
Heptachlor epoxide b	5.35	5.30	5.40	20.1	20.0	0.7
Endosulfan I	5.72	5.67	5.77	19.6	20.0	-1.9
Dieldrin	5.95	5.90	6.00	40.7	40.0	1.8
4,4'-DDE	5.67	5.62	5.72	45.1	40.0	12.7
Endrin	6.16	6.11	6.21	39.8	40.0	-0.4
Endosulfan II	6.37	6.32	6.42	39.1	40.0	-2.2
4,4'-DDD	6.23	6.18	6.28	41.6	40.0	3.9
Endosulfan sulfate	7.14	7.09	7.19	38.9	40.0	-2.7
4,4'-DDT	6.48	6.43	6.53	41.4	40.0	3.4
Methoxychlor	6.92	6.87	6.97	189.4	200.0	-5.3
Endrin ketone	7.39	7.34	7.44	38.0	40.0	-5.0
Endrin aldehyde	6.75	6.70	6.80	38.6	40.0	-3.6
gamma-Chlordane	5.47	5.42	5.52	20.3	20.0	1.3
alpha-Chlordane	5.59	5.54	5.64	18.6	20.0	-7.0
Hexachlorobutadiene	2.05	2.00	2.10	19.9	20.0	-0.6
Hexachlorobenzene	3.72	3.67	3.77	19.4	20.0	-2.8
Tetrachloro-m-xylene	3.41	3.36	3.46	39.5	40.0	-1.2
Decachlorobiphenyl	8.25	8.20	8.30	36.8	40.0	-8.1

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/25/12,0241

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
alpha-BHC	4.11	4.06	4.16	20.2	20.0	1.0
beta-BHC	4.50	4.45	4.55	18.9	20.0	-5.4
delta-BHC	4.78	4.73	4.83	20.1	20.0	0.3
gamma-BHC (Lindane)	4.43	4.38	4.48	19.6	20.0	-2.0
Heptachlor	4.85	4.80	4.90	19.1	20.0	-4.6
Aldrin	5.17	5.12	5.22	19.3	20.0	-3.5
Heptachlor epoxide b	5.73	5.68	5.78	19.3	20.0	-3.5
Endosulfan I	6.12	6.07	6.17	19.1	20.0	-4.5
Dieldrin	6.38	6.33	6.43	38.7	40.0	-3.2
4,4'-DDE	6.21	6.16	6.26	39.4	40.0	-1.6
Endrin	6.66	6.61	6.71	36.2	40.0	-9.5
Endosulfan II	6.86	6.81	6.91	35.6	40.0	-11.1
4,4'-DDD	6.75	6.70	6.80	37.0	40.0	-7.6
Endosulfan sulfate	7.40	7.35	7.45	36.4	40.0	-9.1
4,4'-DDT	7.03	6.98	7.08	37.8	40.0	-5.5
Methoxychlor	7.63	7.58	7.68	164.1	200.0	-17.9
Endrin ketone	7.88	7.83	7.93	36.6	40.0	-8.4
Endrin aldehyde	7.16	7.11	7.21	35.4	40.0	-11.6
gamma-Chlordane	5.92	5.87	5.97	19.7	20.0	-1.3
alpha-Chlordane	6.06	6.01	6.11	19.3	20.0	-3.7
Hexachlorobutadiene	2.11	2.06	2.16	19.0	20.0	-5.1
Hexachlorobenzene	4.00	3.94	4.04	19.3	20.0	-3.3
Tetrachloro-m-xylene	3.59	3.54	3.64	39.4	40.0	-1.6
Decachlorobiphenyl	8.91	8.86	8.96	37.0	40.0	-7.4

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 25-MAY-2012 07:08 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	5.674	61750
Endrin	6.163	7164509
4,4'-DDD	6.231	279308
4,4'-DDT	6.484	6331123
Endrin ketone	7.388	355397
Endrin aldehyde	6.749	152508

DDT Percent Breakdown = 5.1 %
((61750+279308) * 100)/(61750+279308+6331123)

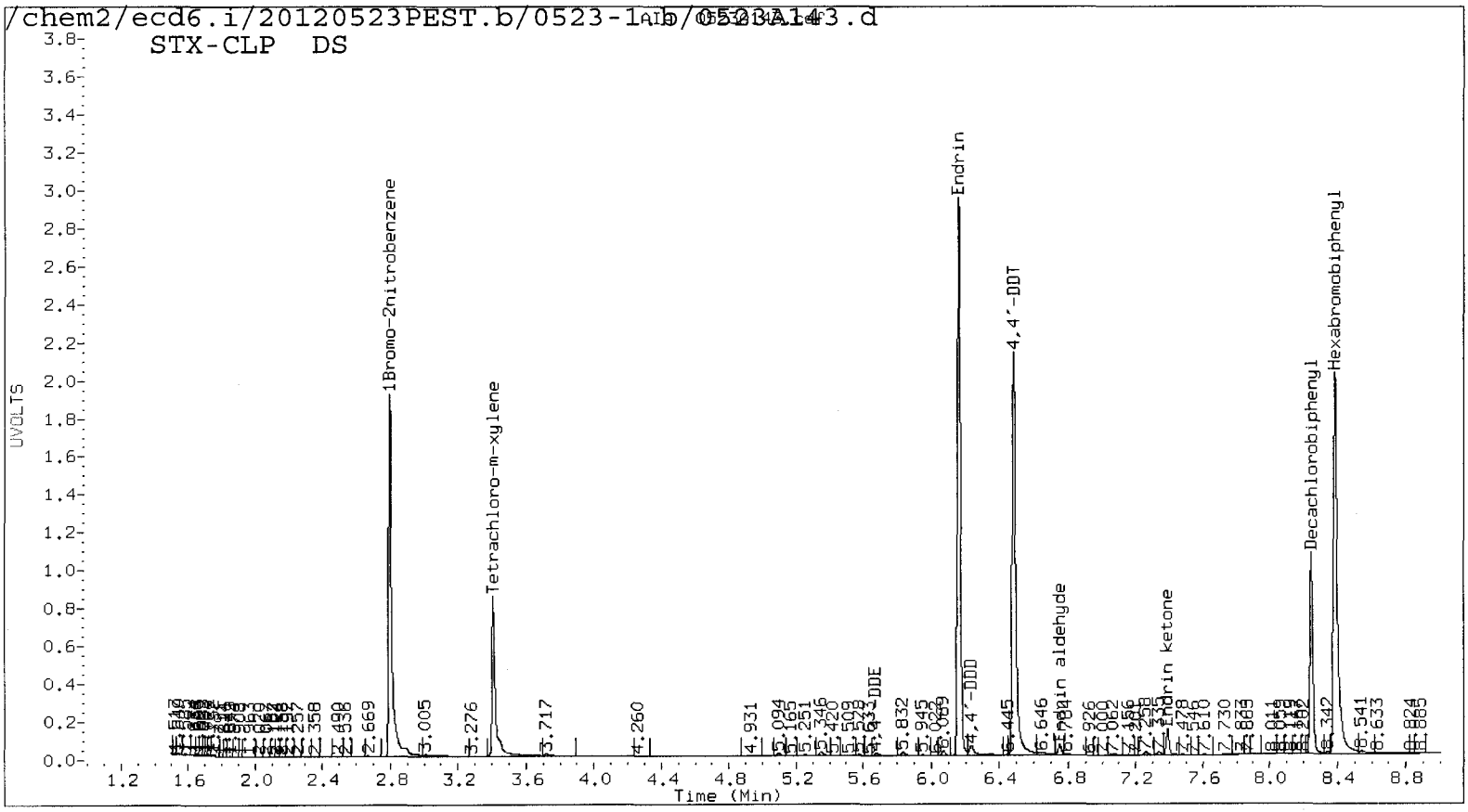
Endrin Percent Breakdown = 6.6 %
((152508+355397) * 100)/(152508+355397+7164509)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.209	290928
Endrin	6.662	15862156
4,4'-DDD	6.748	831899
4,4'-DDT	7.033	13787412
Endrin ketone	7.879	867868
Endrin aldehyde	7.157	499203

DDT Percent Breakdown = 7.5 %
((290928+831899) * 100)/(290928+831899+13787412)

Endrin Percent Breakdown = 7.9 %
((499203+867868) * 100)/(499203+867868+15862156)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STX-CLP DS
UVOLTS
Time (Min)
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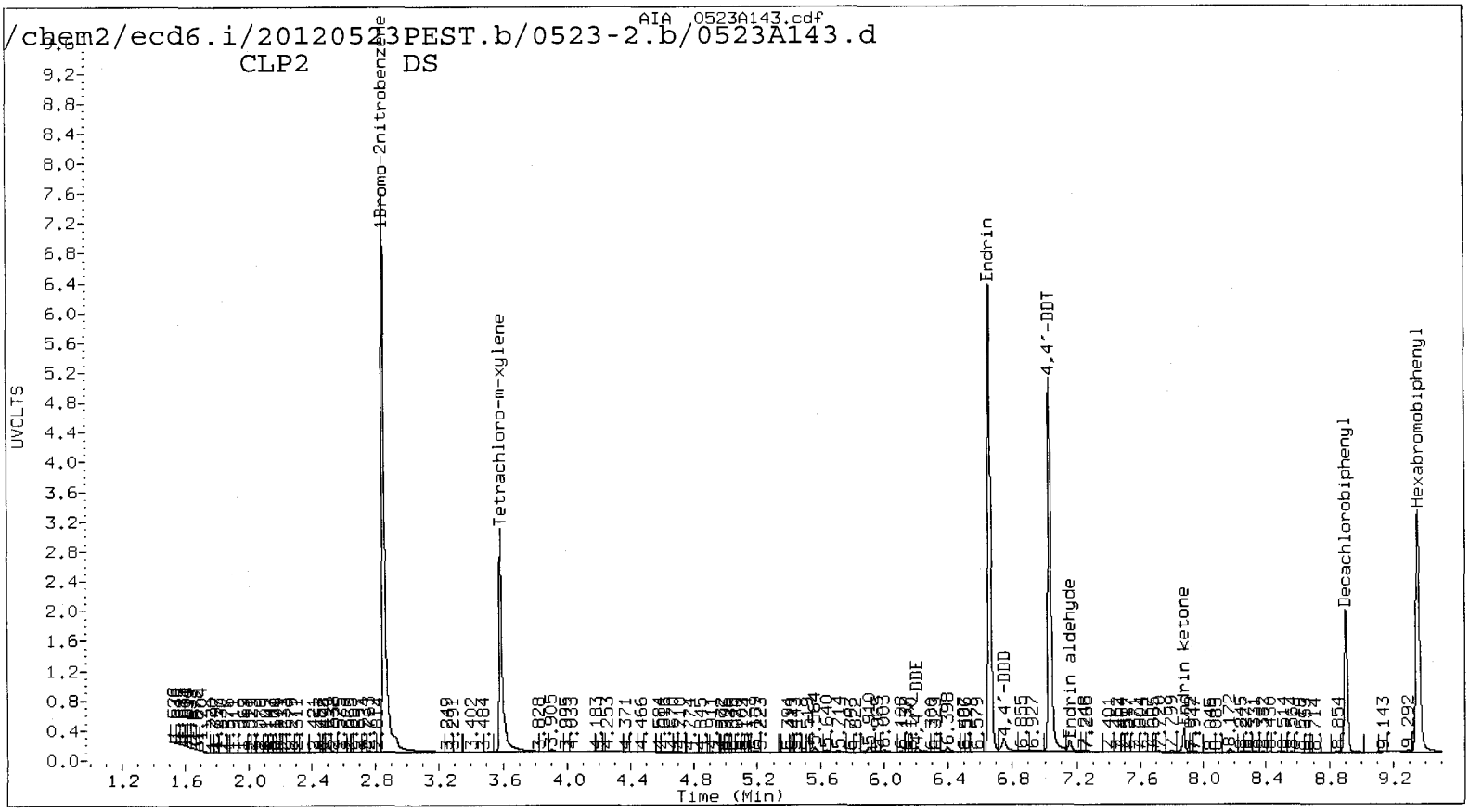
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/25/12,0726

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	3.85	3.80	3.90	21.1	20.0	5.5
beta-BHC	4.18	4.13	4.23	20.1	20.0	0.6
delta-BHC	4.34	4.29	4.39	21.1	20.0	5.4
gamma-BHC (Lindane)	4.11	4.06	4.16	20.8	20.0	4.0
Heptachlor	4.52	4.47	4.57	20.9	20.0	4.3
Aldrin	4.79	4.74	4.84	21.0	20.0	5.0
Heptachlor epoxide b	5.35	5.30	5.40	20.1	20.0	0.7
Endosulfan I	5.72	5.67	5.77	19.6	20.0	-2.0
Dieldrin	5.95	5.90	6.00	40.9	40.0	2.2
4,4'-DDE	5.67	5.62	5.72	46.0	40.0	15.0
Endrin	6.16	6.11	6.21	39.8	40.0	-0.5
Endosulfan II	6.37	6.32	6.42	38.9	40.0	-2.7
4,4'-DDD	6.23	6.18	6.28	41.5	40.0	3.6
Endosulfan sulfate	7.14	7.09	7.19	38.8	40.0	-2.9
4,4'-DDT	6.48	6.43	6.53	41.2	40.0	3.0
Methoxychlor	6.92	6.87	6.97	189.2	200.0	-5.4
Endrin ketone	7.39	7.34	7.44	37.7	40.0	-5.7
Endrin aldehyde	6.75	6.70	6.80	38.3	40.0	-4.2
gamma-Chlordane	5.47	5.42	5.52	20.4	20.0	1.9
alpha-Chlordane	5.59	5.54	5.64	18.4	20.0	-8.1
Hexachlorobutadiene	2.05	2.00	2.10	20.1	20.0	0.2
Hexachlorobenzene	3.72	3.67	3.77	19.5	20.0	-2.4
Tetrachloro-m-xylene	3.41	3.36	3.46	39.8	40.0	-0.6
Decachlorobiphenyl	8.25	8.20	8.30	36.8	40.0	-8.1

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/25/12,0726

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
alpha-BHC	4.11	4.06	4.16	20.3	20.0	1.3
beta-BHC	4.50	4.45	4.55	19.0	20.0	-5.2
delta-BHC	4.78	4.73	4.83	20.2	20.0	0.8
gamma-BHC (Lindane)	4.43	4.38	4.48	19.7	20.0	-1.3
Heptachlor	4.85	4.80	4.90	19.1	20.0	-4.6
Aldrin	5.17	5.12	5.22	19.3	20.0	-3.3
Heptachlor epoxide b	5.73	5.68	5.78	19.3	20.0	-3.3
Endosulfan I	6.12	6.07	6.17	19.2	20.0	-3.9
Dieldrin	6.37	6.33	6.43	38.8	40.0	-3.1
4,4'-DDE	6.21	6.16	6.26	39.8	40.0	-0.4
Endrin	6.66	6.61	6.71	36.1	40.0	-9.6
Endosulfan II	6.86	6.81	6.91	35.9	40.0	-10.4
4,4'-DDD	6.75	6.70	6.80	36.9	40.0	-7.8
Endosulfan sulfate	7.40	7.35	7.45	36.3	40.0	-9.3
4,4'-DDT	7.03	6.98	7.08	37.7	40.0	-5.8
Methoxychlor	7.63	7.58	7.68	162.9	200.0	-18.5
Endrin ketone	7.88	7.83	7.93	36.5	40.0	-8.8
Endrin aldehyde	7.16	7.11	7.21	35.1	40.0	-12.2
gamma-Chlordane	5.92	5.87	5.97	19.9	20.0	-0.6
alpha-Chlordane	6.06	6.01	6.11	19.4	20.0	-3.1
Hexachlorobutadiene	2.11	2.06	2.16	19.0	20.0	-5.0
Hexachlorobenzene	3.99	3.94	4.04	19.4	20.0	-3.2
Tetrachloro-m-xylene	3.59	3.54	3.64	39.4	40.0	-1.5
Decachlorobiphenyl	8.91	8.86	8.96	37.1	40.0	-7.3

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 25-MAY-2012 10:24 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	5.674	67411
Endrin	6.162	7786639
4,4'-DDD	6.230	311251
4,4'-DDT	6.484	6874710
Endrin ketone	7.388	377111
Endrin aldehyde	6.748	161016

DDT Percent Breakdown = 5.2 %
((67411+311251) * 100)/(67411+311251+6874710)

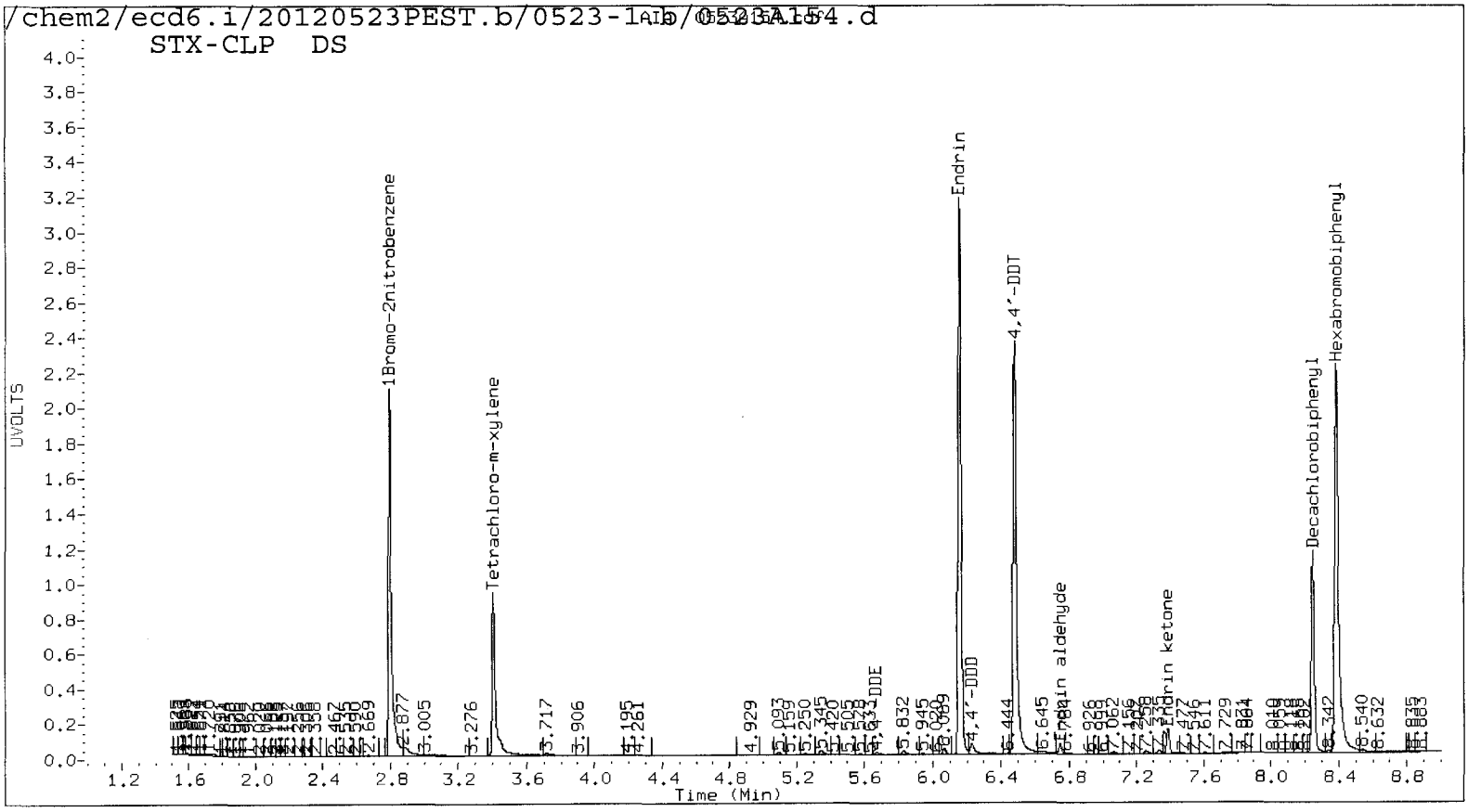
Endrin Percent Breakdown = 6.5 %
((161016+377111) * 100)/(161016+377111+7786639)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.207	303621
Endrin	6.662	16024257
4,4'-DDD	6.747	865792
4,4'-DDT	7.032	13823879
Endrin ketone	7.879	863471
Endrin aldehyde	7.156	487468

DDT Percent Breakdown = 7.8 %
((303621+865792) * 100)/(303621+865792+13823879)

Endrin Percent Breakdown = 7.8 %
((487468+863471) * 100)/(487468+863471+16024257)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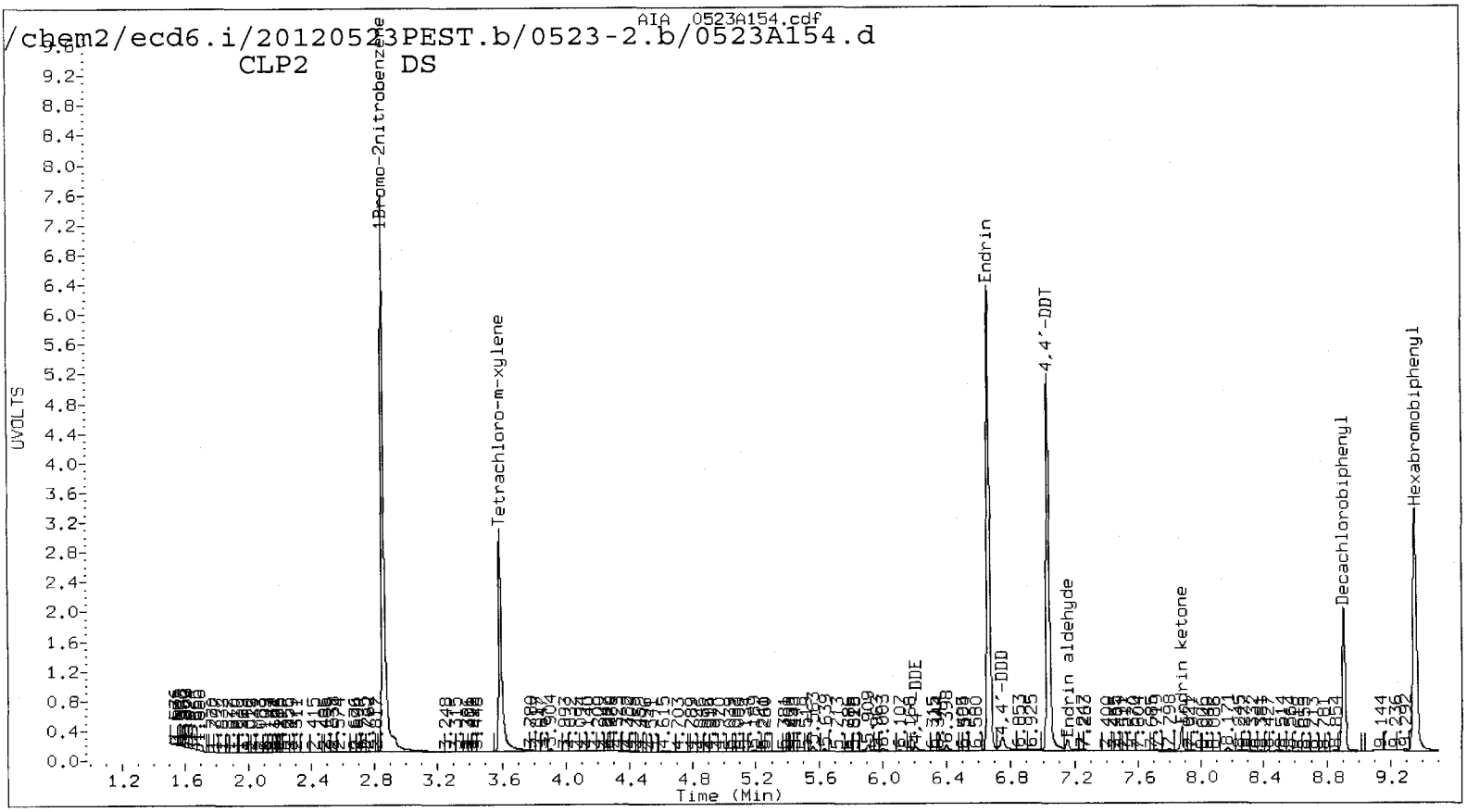
STX-CLP DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD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AIA 0523A154.cdf
CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/25/12,1042

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	3.85	3.80	3.90	21.0	20.0	4.8
beta-BHC	4.18	4.13	4.23	20.1	20.0	0.4
delta-BHC	4.34	4.29	4.39	20.9	20.0	4.7
gamma-BHC (Lindane)	4.11	4.06	4.16	20.7	20.0	3.4
Heptachlor	4.52	4.47	4.57	20.7	20.0	3.6
Aldrin	4.79	4.74	4.84	20.8	20.0	4.2
Heptachlor epoxide b	5.34	5.30	5.40	20.1	20.0	0.3
Endosulfan I	5.72	5.67	5.77	19.4	20.0	-2.8
Dieldrin	5.95	5.90	6.00	40.7	40.0	1.7
4,4'-DDE	5.67	5.62	5.72	46.6	40.0	16.4
Endrin	6.16	6.11	6.21	39.6	40.0	-1.0
Endosulfan II	6.37	6.32	6.42	38.6	40.0	-3.5
4,4'-DDD	6.23	6.18	6.28	41.6	40.0	4.1
Endosulfan sulfate	7.14	7.09	7.19	38.5	40.0	-3.8
4,4'-DDT	6.48	6.43	6.53	40.9	40.0	2.4
Methoxychlor	6.92	6.87	6.97	187.9	200.0	-6.0
Endrin ketone	7.39	7.34	7.44	37.4	40.0	-6.4
Endrin aldehyde	6.75	6.70	6.80	38.0	40.0	-5.0
gamma-Chlordane	5.47	5.42	5.52	20.3	20.0	1.6
alpha-Chlordane	5.59	5.54	5.64	18.1	20.0	-9.3
Hexachlorobutadiene	2.05	2.00	2.10	19.8	20.0	-1.1
Hexachlorobenzene	3.72	3.67	3.77	19.5	20.0	-2.5
Tetrachloro-m-xylene	3.41	3.36	3.46	39.6	40.0	-1.0
Decachlorobiphenyl	8.25	8.20	8.30	36.7	40.0	-8.4

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/25/12,1042

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	4.11	4.06	4.16	20.2	20.0	0.8
beta-BHC	4.50	4.45	4.55	19.0	20.0	-5.1
delta-BHC	4.78	4.73	4.83	20.2	20.0	1.0
gamma-BHC (Lindane)	4.43	4.38	4.48	19.7	20.0	-1.5
Heptachlor	4.85	4.80	4.90	19.3	20.0	-3.4
Aldrin	5.17	5.12	5.22	19.4	20.0	-3.1
Heptachlor epoxide b	5.73	5.68	5.78	19.5	20.0	-2.4
Endosulfan I	6.11	6.07	6.17	19.3	20.0	-3.5
Dieldrin	6.37	6.33	6.43	39.1	40.0	-2.2
4,4'-DDE	6.21	6.16	6.26	40.2	40.0	0.5
Endrin	6.66	6.61	6.71	36.9	40.0	-7.8
Endosulfan II	6.85	6.81	6.91	36.1	40.0	-9.8
4,4'-DDD	6.75	6.70	6.80	37.9	40.0	-5.4
Endosulfan sulfate	7.40	7.35	7.45	36.9	40.0	-7.6
4,4'-DDT	7.03	6.98	7.08	38.4	40.0	-4.1
Methoxychlor	7.63	7.58	7.68	165.6	200.0	-17.2
Endrin ketone	7.88	7.83	7.93	37.2	40.0	-6.9
Endrin aldehyde	7.16	7.11	7.21	35.6	40.0	-10.9
gamma-Chlordane	5.92	5.87	5.97	20.0	20.0	-0.1
alpha-Chlordane	6.05	6.01	6.11	19.5	20.0	-2.7
Hexachlorobutadiene	2.11	2.06	2.16	18.8	20.0	-6.1
Hexachlorobenzene	3.99	3.94	4.04	19.4	20.0	-2.8
Tetrachloro-m-xylene	3.59	3.54	3.64	39.7	40.0	-0.9
Decachlorobiphenyl	8.91	8.86	8.96	38.0	40.0	-4.9

ECD8

7E
8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120525PEST

Analysis Date: 26-MAY-2012 00:58 Init. Calib. Date: 25-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.349	19995
Endrin	6.814	1819185
4,4'-DDD	6.886	107049
4,4'-DDT	7.130	1027435
Endrin ketone	8.060	83939
Endrin aldehyde	7.400	45095

DDT Percent Breakdown = 11.0 %
((19995+107049) * 100)/(19995+107049+1027435)

Endrin Percent Breakdown = 6.6 %
((45095+83939) * 100)/(45095+83939+1819185)

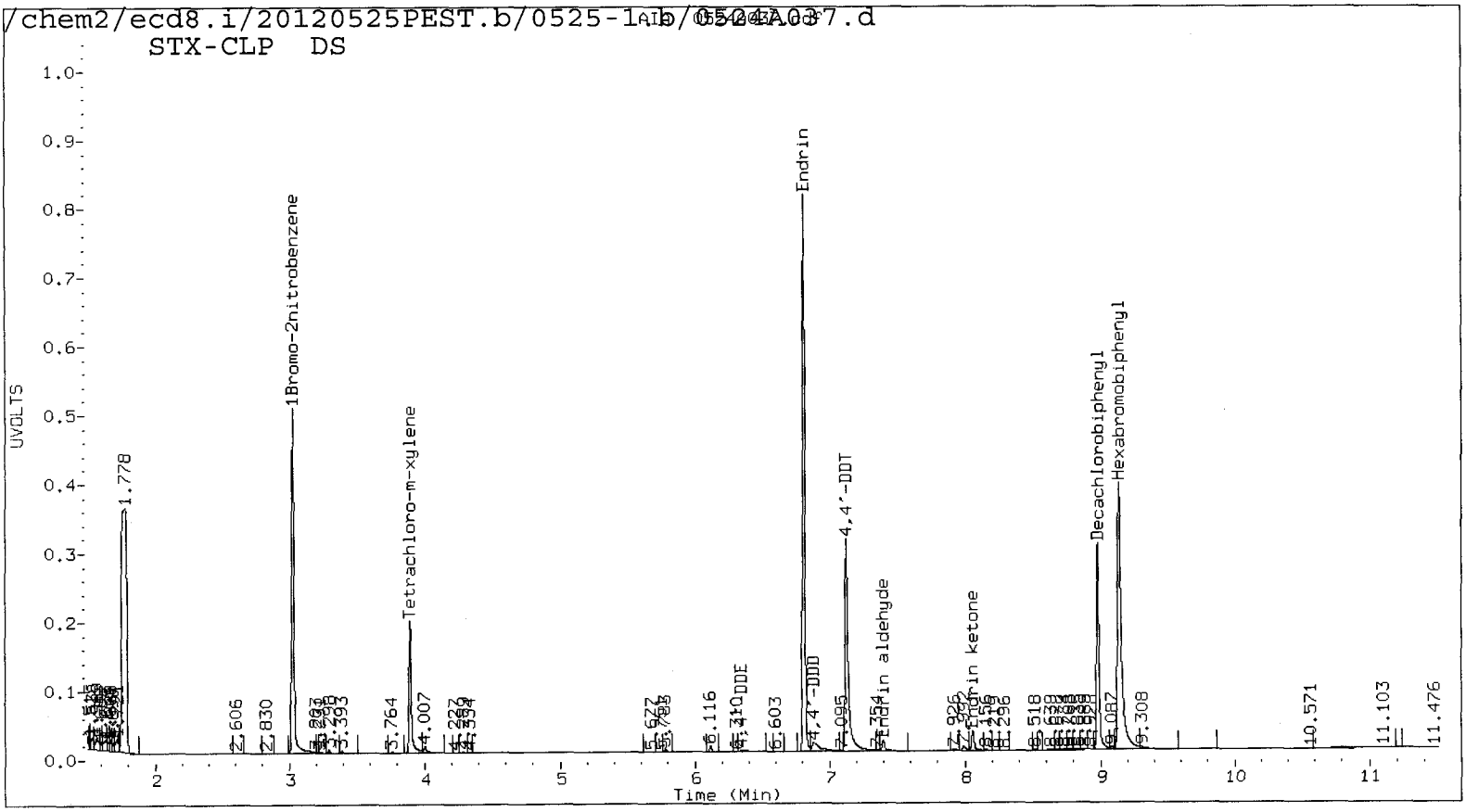
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	7.031	38650
Endrin	7.492	2327518
4,4'-DDD	7.572	172813
4,4'-DDT	7.863	1769991
Endrin ketone	8.784	132641
Endrin aldehyde	8.001	93851

DDT Percent Breakdown = 10.7 %
((38650+172813) * 100)/(38650+172813+1769991)

Endrin Percent Breakdown = 8.9 %
((93851+132641) * 100)/(93851+132641+2327518)

Form VII Pest-1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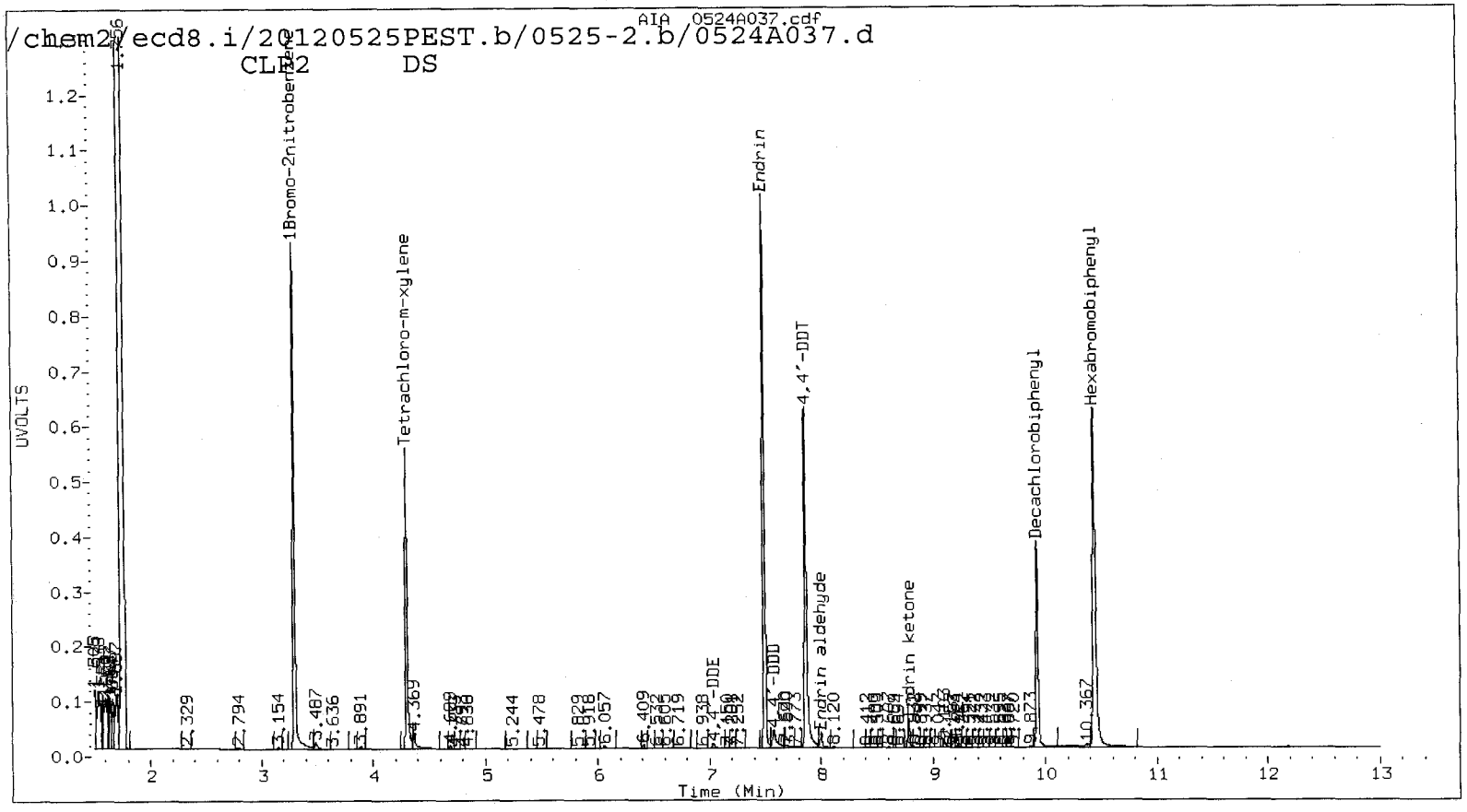
STX-CLP DS
UV0LTS
1.778
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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CLP2 DS
UV0LTS
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120525PEST

Analysis Date: 26-MAY-2012 05:41 Init. Calib. Date: 25-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.341	6865
Endrin	6.814	2185317
4,4'-DDD	6.880	108051
4,4'-DDT	7.127	1438504
Endrin ketone	8.059	118280
Endrin aldehyde	7.399	35526

DDT Percent Breakdown = 7.4 %
((6865+108051) * 100)/(6865+108051+1438504)

Endrin Percent Breakdown = 6.6 %
((35526+118280) * 100)/(35526+118280+2185317)

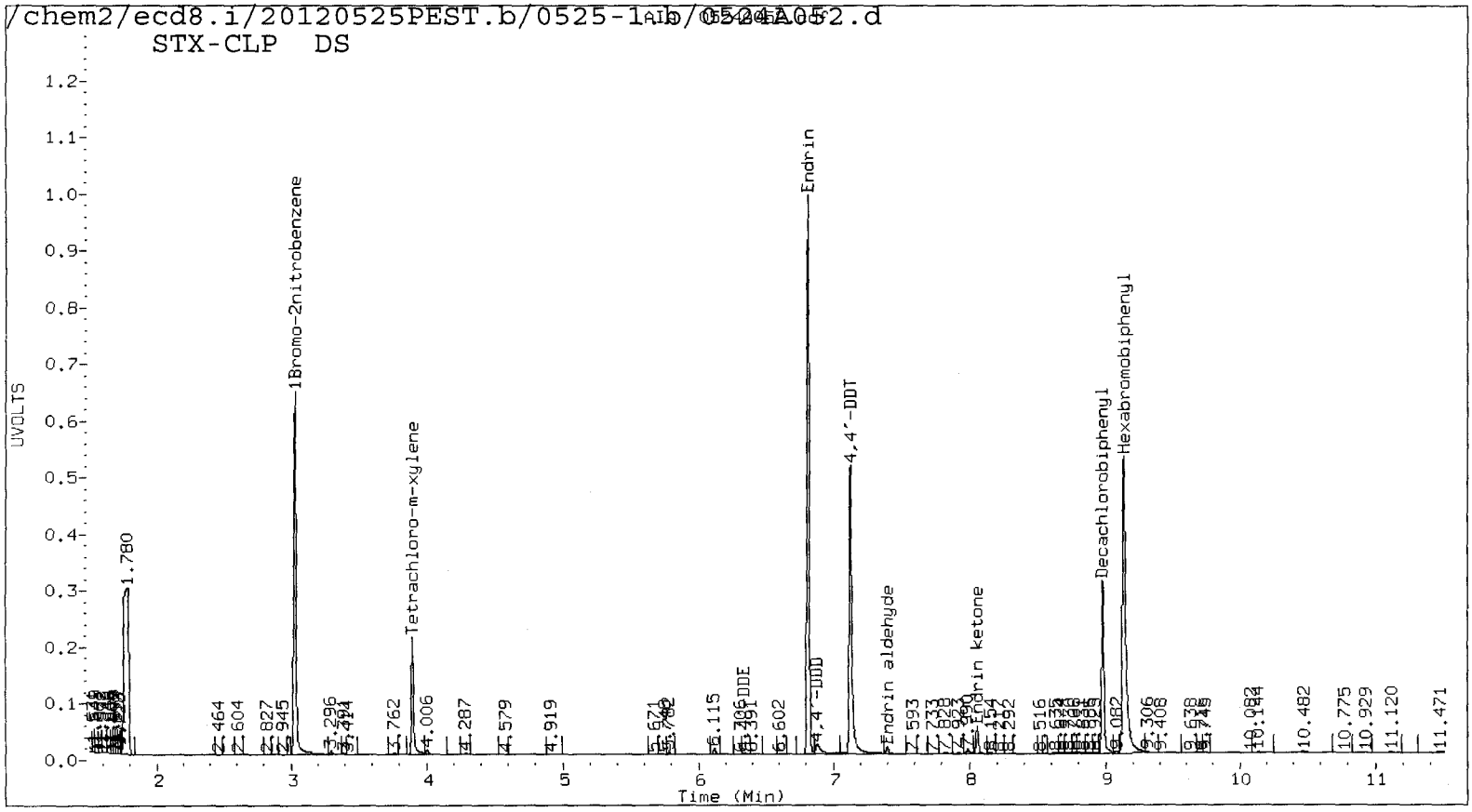
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	7.027	18118
Endrin	7.491	2038815
4,4'-DDD	7.569	136564
4,4'-DDT	7.860	1410778
Endrin ketone	8.783	118093
Endrin aldehyde	8.000	51598

DDT Percent Breakdown = 9.9 %
((18118+136564) * 100)/(18118+136564+1410778)

Endrin Percent Breakdown = 7.7 %
((51598+118093) * 100)/(51598+118093+2038815)

Form VII Pest-1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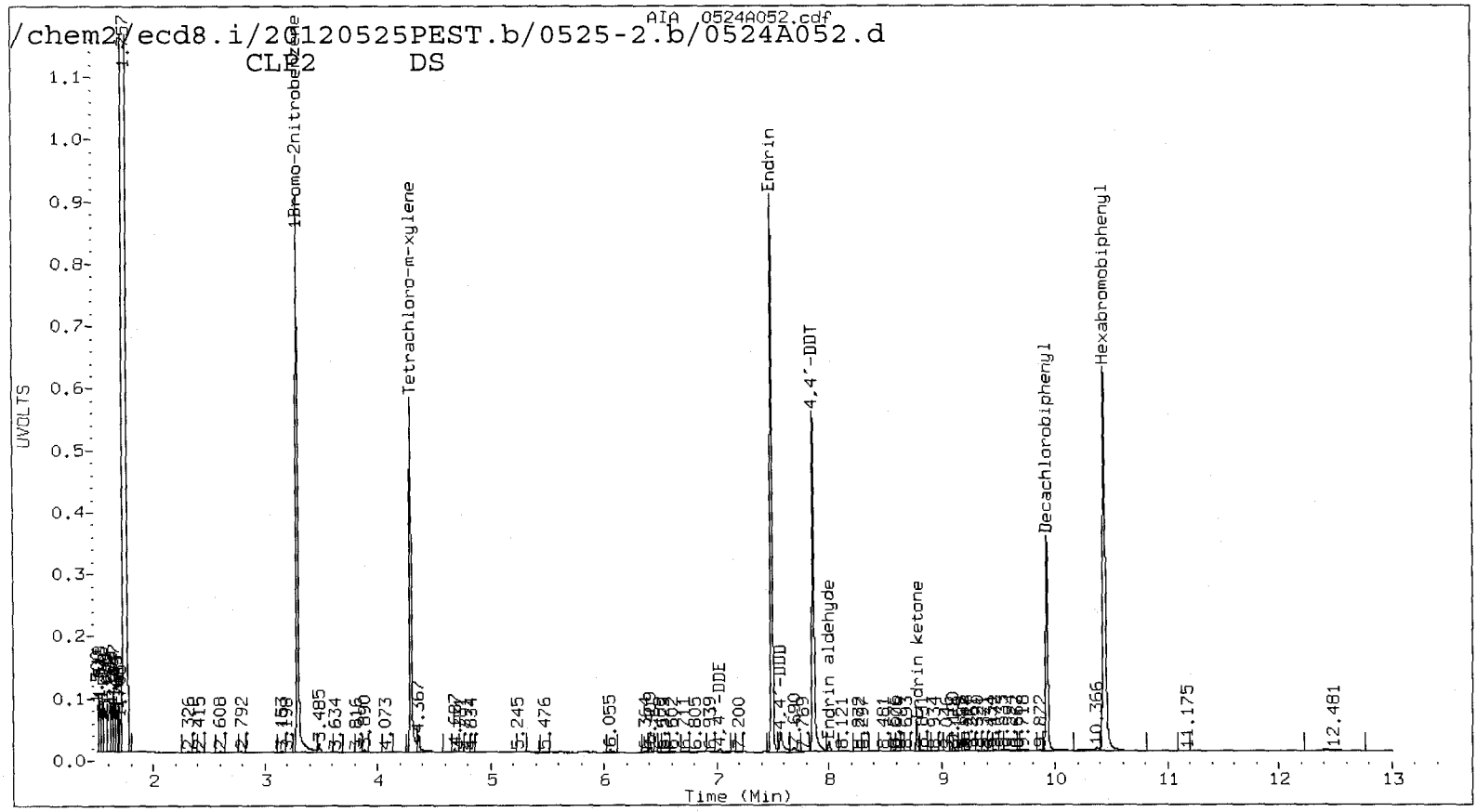
STX-CLP DS
UVOLTS
Time (Min)
1.780
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/26/12,0600

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
alpha-BHC	4.45	4.40	4.50	21.2	20.0	6.2	
beta-BHC	4.85	4.80	4.90	19.1	20.0	-4.4	
delta-BHC	5.01	4.96	5.06	21.3	20.0	6.7	
gamma-BHC (Lindane)	4.76	4.71	4.81	22.4	20.0	11.8	
Heptachlor	5.20	5.15	5.25	23.0	20.0	15.1	
Aldrin	5.48	5.43	5.53	20.9	20.0	4.7	
Heptachlor epoxide b	6.03	5.98	6.08	20.4	20.0	2.1	
Endosulfan I	6.39	6.33	6.43	17.9	20.0	-10.4	
Dieldrin	6.60	6.55	6.65	43.4	40.0	8.4	
4,4'-DDE	6.34	6.29	6.39	33.5	40.0	-16.3	
Endrin	6.81	6.76	6.86	47.4	40.0	18.5	
Endosulfan II	7.02	6.97	7.07	45.9	40.0	14.7	
4,4'-DDD	6.88	6.82	6.92	43.2	40.0	8.0	
Endosulfan sulfate	7.80	7.75	7.85	46.4	40.0	15.9	
4,4'-DDT	7.13	7.07	7.17	44.1	40.0	10.2	
Methoxychlor	7.57	7.51	7.61	225.6	200.0	12.8	
Endrin ketone	8.06	8.01	8.11	46.9	40.0	17.3	
Endrin aldehyde	7.40	7.35	7.45	44.0	40.0	10.0	
gamma-Chlordane	6.14	6.09	6.19	21.2	20.0	6.0	
alpha-Chlordane	6.26	6.21	6.31	19.9	20.0	-0.5	
Hexachlorobutadiene	1.73	1.68	1.78	16.9	20.0	-15.4	
Hexachlorobenzene	4.29	4.24	4.34	15.6	20.0	-22.1	<-
Tetrachloro-m-xylene	3.90	3.85	3.95	31.5	40.0	-21.4	<-
Decachlorobiphenyl	8.98	8.93	9.03	32.1	40.0	-19.9	

FORM VII PEST-2

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/26/12,0600

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	4.93	4.88	4.98	20.6	20.0	3.2
beta-BHC	5.37	5.32	5.42	19.0	20.0	-5.0
delta-BHC	5.65	5.60	5.70	21.7	20.0	8.4
gamma-BHC (Lindane)	5.28	5.23	5.33	20.6	20.0	2.8
Heptachlor	5.71	5.66	5.76	20.0	20.0	-0.0
Aldrin	6.03	5.98	6.08	19.6	20.0	-2.0
Heptachlor epoxide b	6.57	6.52	6.62	18.3	20.0	-8.4
Endosulfan I	6.94	6.89	6.99	18.1	20.0	-9.5
Dieldrin	7.20	7.15	7.25	36.6	40.0	-8.5
4,4'-DDE	7.03	6.97	7.07	37.1	40.0	-7.3
Endrin	7.49	7.44	7.54	36.4	40.0	-9.1
Endosulfan II	7.69	7.64	7.74	38.5	40.0	-3.8
4,4'-DDD	7.57	7.51	7.61	37.8	40.0	-5.4
Endosulfan sulfate	8.26	8.21	8.31	38.6	40.0	-3.6
4,4'-DDT	7.86	7.81	7.91	43.2	40.0	7.9
Methoxychlor	8.49	8.44	8.54	197.8	200.0	-1.1
Endrin ketone	8.78	8.73	8.83	36.8	40.0	-8.0
Endrin aldehyde	8.00	7.95	8.05	36.1	40.0	-9.8
gamma-Chlordane	6.75	6.70	6.80	19.0	20.0	-5.0
alpha-Chlordane	6.88	6.83	6.93	18.5	20.0	-7.4
Hexachlorobutadiene	2.04	1.99	2.09	16.7	20.0	-16.4
Hexachlorobenzene	4.79	4.74	4.84	16.6	20.0	-17.1
Tetrachloro-m-xylene	4.30	4.25	4.35	33.9	40.0	-15.4
Decachlorobiphenyl	9.92	9.87	9.97	33.1	40.0	-17.1

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120525PEST

Analysis Date: 26-MAY-2012 10:24 Init. Calib. Date: 25-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.343	14333
Endrin	6.815	2221952
4,4'-DDD	6.883	323880
4,4'-DDT	7.129	890499
Endrin ketone	8.060	124457
Endrin aldehyde	7.400	33019

DDT Percent Breakdown = 27.5 %
((14333+323880) * 100)/(14333+323880+890499)

Endrin Percent Breakdown = 6.6 %
((33019+124457) * 100)/(33019+124457+2221952)

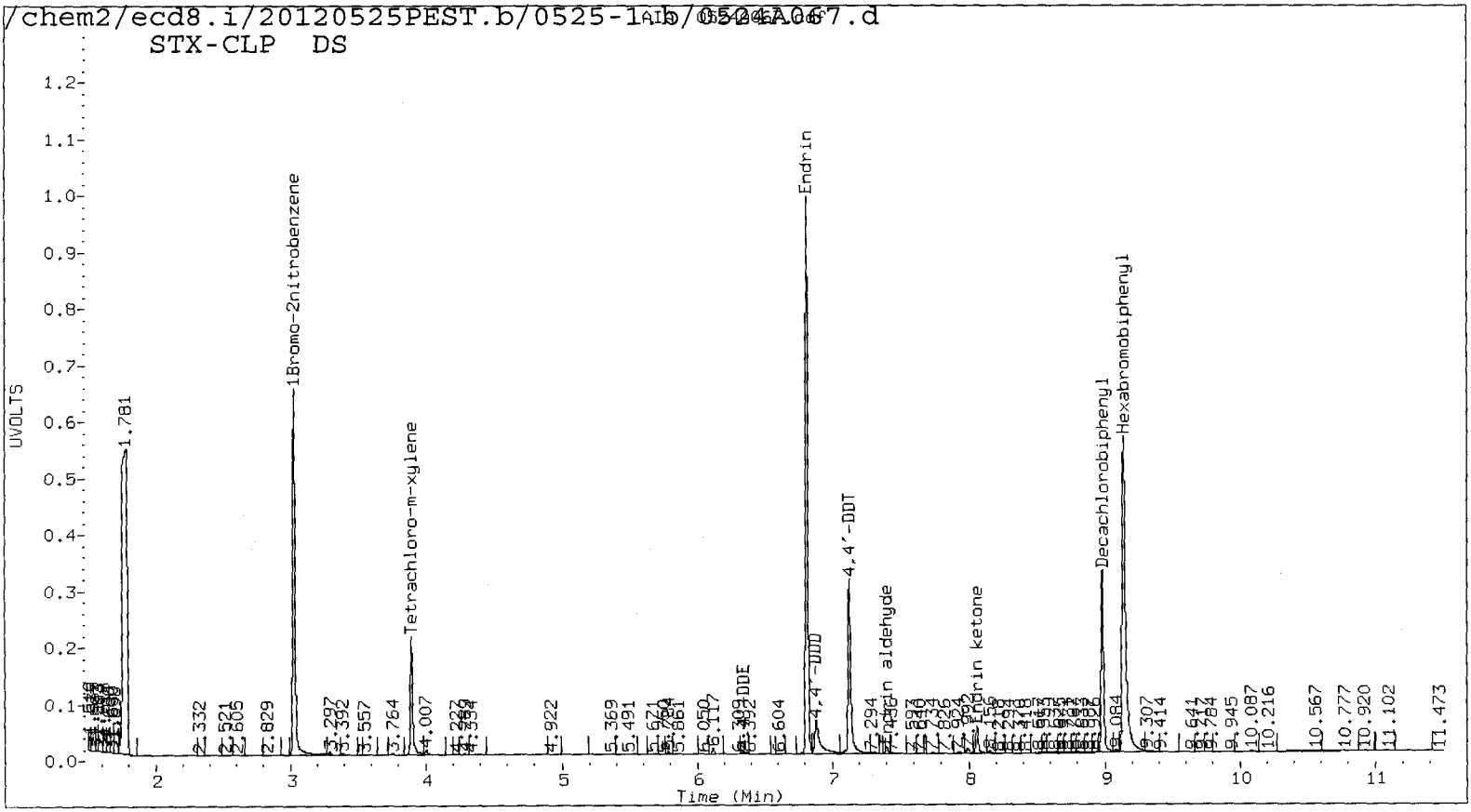
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	7.028	38103
Endrin	7.492	2227506
4,4'-DDD	7.570	502198
4,4'-DDT	7.862	789110
Endrin ketone	8.783	128470
Endrin aldehyde	8.002	51421

DDT Percent Breakdown = 40.6 %
((38103+502198) * 100)/(38103+502198+789110)

Endrin Percent Breakdown = 7.5 %
((51421+128470) * 100)/(51421+128470+2227506)

Form VII Pest-1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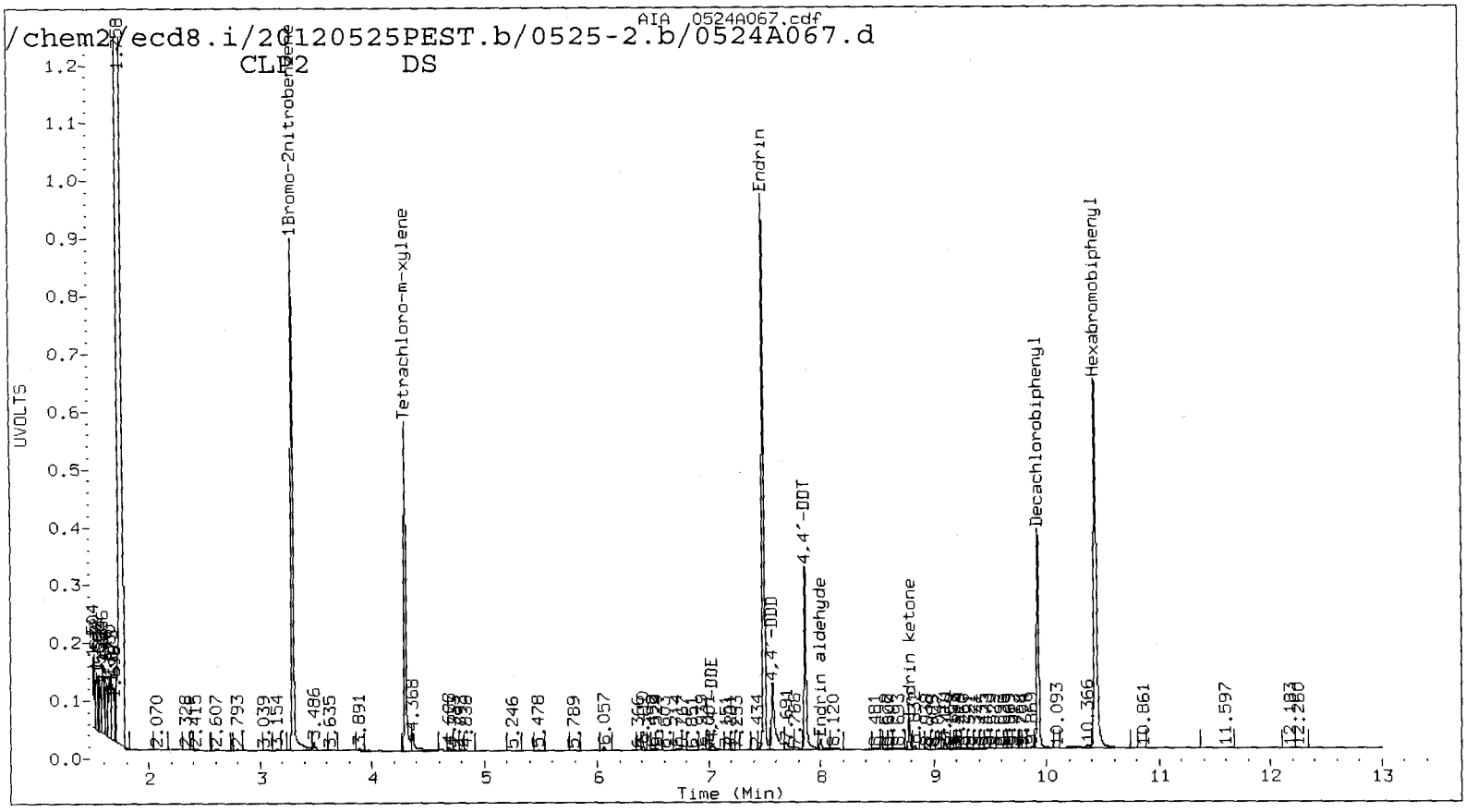
STX-CLP DS
UVOLTS
Time (Min)
1.781
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/26/12,1043

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
alpha-BHC	4.45	4.40	4.50	18.9	20.0	-5.6	
beta-BHC	4.85	4.80	4.90	16.2	20.0	-19.2	
delta-BHC	5.01	4.96	5.06	17.5	20.0	-12.4	
gamma-BHC (Lindane)	4.76	4.71	4.81	19.4	20.0	-3.2	
Heptachlor	5.20	5.15	5.25	19.7	20.0	-1.7	
Aldrin	5.48	5.43	5.53	18.5	20.0	-7.3	
Heptachlor epoxide b	6.03	5.98	6.08	18.2	20.0	-9.0	
Endosulfan I	6.39	6.33	6.43	16.0	20.0	-19.8	
Dieldrin	6.60	6.55	6.65	38.7	40.0	-3.2	
4,4'-DDE	6.34	6.29	6.39	29.4	40.0	-26.6	<-
Endrin	6.81	6.76	6.86	42.5	40.0	6.2	
Endosulfan II	7.02	6.97	7.07	41.8	40.0	4.6	
4,4'-DDD	6.88	6.82	6.92	44.3	40.0	10.7	
Endosulfan sulfate	7.80	7.75	7.85	41.6	40.0	4.0	
4,4'-DDT	7.13	7.07	7.17	32.4	40.0	-18.9	
Methoxychlor	7.56	7.51	7.61	186.3	200.0	-6.8	
Endrin ketone	8.06	8.01	8.11	39.9	40.0	-0.1	
Endrin aldehyde	7.40	7.35	7.45	38.7	40.0	-3.2	
gamma-Chlordane	6.14	6.09	6.19	18.8	20.0	-6.2	
alpha-Chlordane	6.26	6.21	6.31	17.7	20.0	-11.6	
Hexachlorobutadiene	1.73	1.68	1.78	14.8	20.0	-26.2	<-
Hexachlorobenzene	4.29	4.24	4.34	13.6	20.0	-31.9	<-
Tetrachloro-m-xylene	3.90	3.85	3.95	26.9	40.0	-32.8	<-
Decachlorobiphenyl	8.98	8.93	9.03	29.5	40.0	-26.3	<-

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/26/12,1043

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.93	4.88	4.98	19.7	20.0	-1.6	
beta-BHC	5.37	5.32	5.42	18.5	20.0	-7.7	
delta-BHC	5.66	5.60	5.70	19.7	20.0	-1.6	
gamma-BHC (Lindane)	5.28	5.23	5.33	19.5	20.0	-2.7	
Heptachlor	5.72	5.66	5.76	18.0	20.0	-9.8	
Aldrin	6.03	5.98	6.08	18.9	20.0	-5.7	
Heptachlor epoxide b	6.57	6.52	6.62	19.1	20.0	-4.7	
Endosulfan I	6.94	6.89	6.99	18.8	20.0	-5.9	
Dieldrin	7.20	7.15	7.25	38.9	40.0	-2.6	
4,4'-DDE	7.03	6.97	7.07	37.8	40.0	-5.4	
Endrin	7.49	7.44	7.54	39.3	40.0	-1.8	
Endosulfan II	7.69	7.64	7.74	41.7	40.0	4.3	
4,4'-DDD	7.57	7.51	7.61	45.2	40.0	13.0	
Endosulfan sulfate	8.26	8.21	8.31	39.3	40.0	-1.7	
4,4'-DDT	7.86	7.81	7.91	24.2	40.0	-39.6	<-
Methoxychlor	8.49	8.44	8.54	151.6	200.0	-24.2	<-
Endrin ketone	8.78	8.73	8.83	35.6	40.0	-10.9	
Endrin aldehyde	8.00	7.95	8.05	37.5	40.0	-6.2	
gamma-Chlordane	6.75	6.70	6.80	18.7	20.0	-6.5	
alpha-Chlordane	6.88	6.83	6.93	18.3	20.0	-8.3	
Hexachlorobutadiene	2.04	1.99	2.09	16.3	20.0	-18.7	
Hexachlorobenzene	4.79	4.74	4.84	15.9	20.0	-20.4	<-
Tetrachloro-m-xylene	4.30	4.25	4.35	32.7	40.0	-18.3	
Decachlorobiphenyl	9.93	9.87	9.97	34.3	40.0	-14.3	

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120525PEST

Analysis Date: 26-MAY-2012 13:14 Init. Calib. Date: 25-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.342	16399
Endrin	6.816	2205755
4,4'-DDD	6.882	433570
4,4'-DDT	7.129	484753
Endrin ketone	8.060	126240
Endrin aldehyde	7.400	26710

DDT Percent Breakdown = 48.1 %
((16399+433570) * 100)/(16399+433570+484753)

Endrin Percent Breakdown = 6.5 %
((26710+126240) * 100)/(26710+126240+2205755)

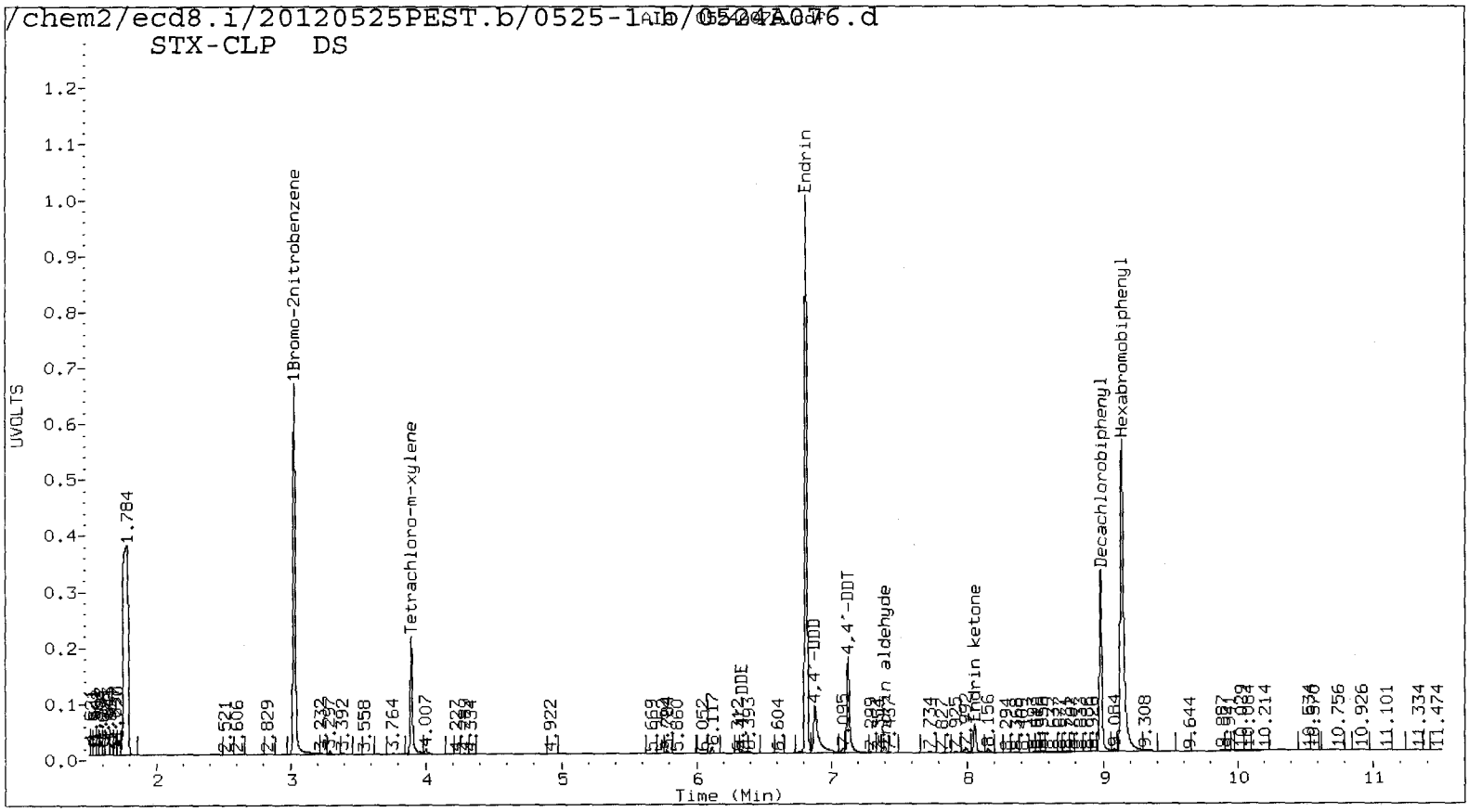
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	7.028	49065
Endrin	7.493	2272594
4,4'-DDD	7.571	665792
4,4'-DDT	7.863	371333
Endrin ketone	8.784	133410
Endrin aldehyde	8.002	44980

DDT Percent Breakdown = 65.8 %
((49065+665792) * 100)/(49065+665792+371333)

Endrin Percent Breakdown = 7.3 %
((44980+133410) * 100)/(44980+133410+2272594)

Form VII Pest-1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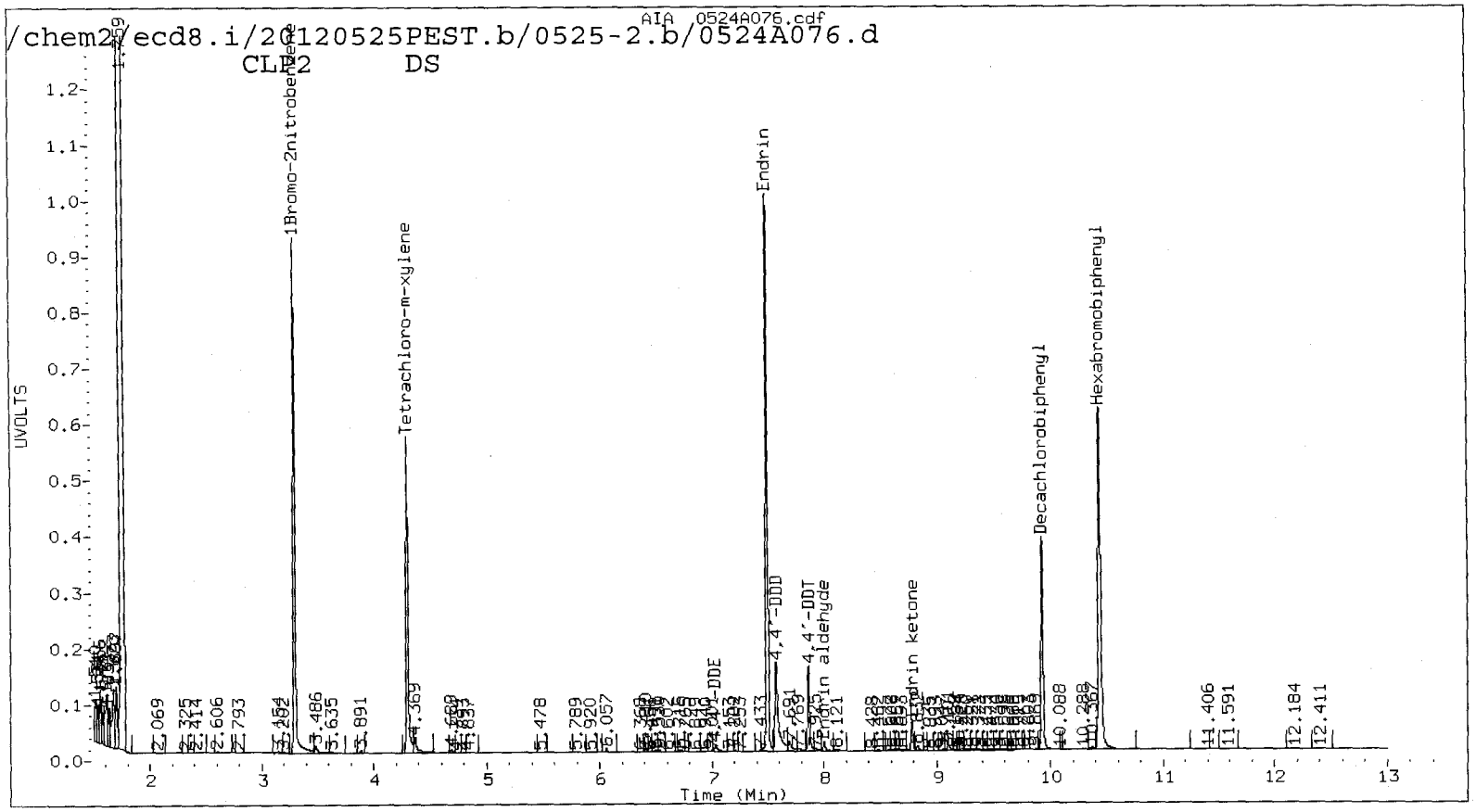
STX-CLP DS
UVOLTS
Time (Min)
1.784
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/26/12,1333

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
alpha-BHC	4.45	4.40	4.50	19.3	20.0	-3.6	
beta-BHC	4.85	4.80	4.90	17.1	20.0	-14.6	
delta-BHC	5.01	4.96	5.06	17.8	20.0	-11.1	
gamma-BHC (Lindane)	4.76	4.71	4.81	19.6	20.0	-2.0	
Heptachlor	5.20	5.15	5.25	19.7	20.0	-1.3	
Aldrin	5.48	5.43	5.53	19.3	20.0	-3.3	
Heptachlor epoxide b	6.03	5.98	6.08	19.0	20.0	-4.9	
Endosulfan I	6.39	6.33	6.43	16.7	20.0	-16.6	
Dieldrin	6.60	6.55	6.65	40.5	40.0	1.4	
4,4'-DDE	6.34	6.29	6.39	31.6	40.0	-21.0	<-
Endrin	6.81	6.76	6.86	42.0	40.0	4.9	
Endosulfan II	7.02	6.97	7.07	41.3	40.0	3.1	
4,4'-DDD	6.88	6.82	6.92	47.3	40.0	18.2	
Endosulfan sulfate	7.80	7.75	7.85	39.5	40.0	-1.3	
4,4'-DDT	7.13	7.07	7.17	18.7	40.0	-53.2	<-
Methoxychlor	7.57	7.51	7.61	134.8	200.0	-32.6	<-
Endrin ketone	8.06	8.01	8.11	35.1	40.0	-12.3	
Endrin aldehyde	7.40	7.35	7.45	37.8	40.0	-5.4	
gamma-Chlordane	6.14	6.09	6.19	19.7	20.0	-1.3	
alpha-Chlordane	6.26	6.21	6.31	18.5	20.0	-7.3	
Hexachlorobutadiene	1.73	1.68	1.78	15.4	20.0	-22.8	<-
Hexachlorobenzene	4.29	4.24	4.34	14.5	20.0	-27.4	<-
Tetrachloro-m-xylene	3.90	3.85	3.95	27.8	40.0	-30.4	<-
Decachlorobiphenyl	8.98	8.93	9.03	29.1	40.0	-27.2	<-

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE Date/Time Analyzed: 05/26/12,1333

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.93	4.88	4.98	19.5	20.0	-2.7	
beta-BHC	5.37	5.32	5.42	18.3	20.0	-8.5	
delta-BHC	5.66	5.60	5.70	18.9	20.0	-5.4	
gamma-BHC (Lindane)	5.28	5.23	5.33	18.9	20.0	-5.4	
Heptachlor	5.71	5.66	5.76	16.8	20.0	-16.1	
Aldrin	6.03	5.98	6.08	18.7	20.0	-6.4	
Heptachlor epoxide b	6.57	6.52	6.62	19.1	20.0	-4.4	
Endosulfan I	6.94	6.89	6.99	18.8	20.0	-6.2	
Dieldrin	7.20	7.15	7.25	39.3	40.0	-1.7	
4,4'-DDE	7.03	6.97	7.07	37.5	40.0	-6.2	
Endrin	7.49	7.44	7.54	38.7	40.0	-3.3	
Endosulfan II	7.69	7.64	7.74	42.6	40.0	6.5	
4,4'-DDD	7.57	7.51	7.61	48.1	40.0	20.2	<-
Endosulfan sulfate	8.26	8.21	8.31	37.4	40.0	-6.4	
4,4'-DDT	7.86	7.81	7.91	11.4	40.0	-71.4	<-
Methoxychlor	8.49	8.44	8.54	102.9	200.0	-48.6	<-
Endrin ketone	8.78	8.73	8.83	30.7	40.0	-23.2	<-
Endrin aldehyde	8.00	7.95	8.05	36.7	40.0	-8.2	
gamma-Chlordane	6.75	6.70	6.80	18.6	20.0	-6.8	
alpha-Chlordane	6.88	6.83	6.93	18.2	20.0	-9.2	
Hexachlorobutadiene	2.04	1.99	2.09	15.9	20.0	-20.3	<-
Hexachlorobenzene	4.79	4.74	4.84	15.6	20.0	-21.8	<-
Tetrachloro-m-xylene	4.30	4.25	4.35	32.0	40.0	-20.0	
Decachlorobiphenyl	9.93	9.87	9.97	33.3	40.0	-16.6	

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	4841592	2.797	6506091	8.390
	UPPER LIMIT	9683184	2.847	13012182	8.440
	LOWER LIMIT	2420796	2.747	3253046	8.340

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		DS	05/23/12	1354	4833957	2.796	6341334	8.389
02	ZZZZZ	ZZZZZ	05/23/12	1412	4843734	2.796	6419201	8.389
03		INDAE	05/23/12	1429	4841592	2.797	6506091	8.390
04		INDAA	05/23/12	1447	4662553	2.796	6288842	8.390
05		INDAB	05/23/12	1505	4901931	2.796	6700380	8.390
06		INDAC	05/23/12	1523	5097624	2.796	6671309	8.390
07		INDAD	05/23/12	1541	4846850	2.796	6537086	8.390
08		INDAF	05/23/12	1558	4867401	2.797	6610265	8.390
09		INDAG	05/23/12	1616	4944488	2.797	6853296	8.390
10	ZZZZZ	ZZZZZ	05/23/12	1634	4744837	2.796	6458219	8.388
11	ZZZZZ	ZZZZZ	05/23/12	1652	4813617	2.796	6719941	8.387
12		TOXAPH 2500	05/23/12	1710	4791619	2.796	6609775	8.391
13		WNDE	05/23/12	1727	4835108	2.797	6638127	8.390
14		WNDA	05/23/12	1745	4751592	2.796	6557663	8.390
15		WNDB	05/23/12	1803	4969001	2.796	6623328	8.390
16		WNDC	05/23/12	1821	5151057	2.796	6848602	8.390
17		WNDD	05/23/12	1839	5139758	2.796	6817214	8.389
18		WNDF	05/23/12	1856	4866835	2.796	6708266	8.390
19		WNDG	05/23/12	1914	4729578	2.796	6555048	8.389
20	ZZZZZ	ZZZZZ	05/23/12	1932	4525140	2.796	6284187	8.390
21	ZZZZZ	ZZZZZ	05/23/12	1950	4534400	2.796	6568755	8.387
22	ZZZZZ	ZZZZZ	05/23/12	2008	4602996	2.797	6326954	8.392
23	ZZZZZ	ZZZZZ	05/23/12	2025	4562991	2.796	6285326	8.393
24		DS	05/25/12	0223	5067401	2.797	6720149	8.389
25		INDAE	05/25/12	0241	4955560	2.797	6854371	8.391
26		TOXAPH 2500	05/25/12	0259	4636797	2.796	6709612	8.391
27		WNDE	05/25/12	0317	5180137	2.797	7007027	8.390
28	UU52MBS1	UU52MBS1	05/25/12	0334	4647725	2.794	6849218	8.387
29	UU52LCSS1	UU52LCSS1	05/25/12	0352	4684042	2.794	6674886	8.387
30	MS001-SS-120	UU52A	05/25/12	0410	4448672	2.796	6207764	8.387
31	MS101-SS-120	UU52B	05/25/12	0428	4445233	2.796	6264658	8.388
32	MS002-SS-120	UU52C	05/25/12	0446	4528822	2.796	6642351	8.389
33	MS002-SS-120	UU52CMS	05/25/12	0503	4545279	2.796	6683385	8.390
34	MS002-SS-120	UU52CMSD	05/25/12	0521	4553875	2.797	6751377	8.390
35	MS003-SS-120	UU52D	05/25/12	0539	4611525	2.796	6596017	8.388

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	4841592	2.797	6506091	8.390
				UPPER LIMIT	9683184	2.847	13012182	8.440
				LOWER LIMIT	2420796	2.747	3253046	8.340
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
36	MS004-SS-120	UU52E	05/25/12	0557	4552402	2.796	6562955	8.387
37	MS005-SS-120	UU52F	05/25/12	0615	4643697	2.796	6659647	8.387
38	ZZZZZ	ZZZZZ	05/25/12	0632	4577913	2.796	6465101	8.391
39	ZZZZZ	ZZZZZ	05/25/12	0650	4432627	2.796	6265518	8.390
40		DS	05/25/12	0708	5021107	2.796	6732865	8.389
41		INDAE	05/25/12	0726	5028638	2.796	7030803	8.389
42		TOXAPH 2500	05/25/12	0744	4747596	2.796	6884033	8.390
43		WNDE	05/25/12	0801	4983028	2.796	7160490	8.389
44	MS006-SS-120	UU52G	05/25/12	0819	4585680	2.794	6127046	8.384
45	MS007-SS-120	UU52H	05/25/12	0837	4472999	2.796	6150437	8.387
46	MS008-SS-120	UU52I	05/25/12	0855	4586393	2.796	6672960	8.389
47	MS009-SS-120	UU52J	05/25/12	0913	4922422	2.796	6706260	8.389
48	MS009-SS-120	UU52J	05/25/12	0931	4668866	2.796	6624396	8.387
49	ZZZZZ	ZZZZZ	05/25/12	0948	5079021	2.796	6849629	8.390
50	ZZZZZ	ZZZZZ	05/25/12	1006	4743284	2.796	6754121	8.389
51		DS	05/25/12	1024	5112143	2.796	7365911	8.389
52		INDAE	05/25/12	1042	5494582	2.797	7700454	8.389

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	16226991	2.855	8472750	9.355
				UPPER LIMIT	32453982	2.905	16945500	9.405
				LOWER LIMIT	8113496	2.805	4236375	9.305
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		DS	05/23/12	1354	15824122	2.854	8060309	9.355
02	ZZZZZ	ZZZZZ	05/23/12	1412	16148392	2.854	8335866	9.355
03		INDAE	05/23/12	1429	16226991	2.855	8472750	9.355
04		INDAA	05/23/12	1447	16229726	2.855	8157989	9.355
05		INDAB	05/23/12	1505	16989055	2.855	8678314	9.355
06		INDAC	05/23/12	1523	15963413	2.855	8650070	9.355
07		INDAD	05/23/12	1541	16200736	2.855	8616973	9.355
08		INDAF	05/23/12	1558	16682441	2.855	8629150	9.355
09		INDAG	05/23/12	1616	15540466	2.855	8844674	9.355
10	ZZZZZ	ZZZZZ	05/23/12	1634	15077669	2.854	8393228	9.354
11	ZZZZZ	ZZZZZ	05/23/12	1652	15147530	2.854	8680249	9.354
12		TOXAPH 2500	05/23/12	1710	16477086	2.855	8490411	9.356
13		WNDE	05/23/12	1727	16832865	2.855	8707514	9.355
14		WNDA	05/23/12	1745	16405407	2.854	8503685	9.355
15		WNDB	05/23/12	1803	16776826	2.855	8683498	9.355
16		WNDC	05/23/12	1821	17441474	2.855	9031272	9.355
17		WNDD	05/23/12	1839	16765159	2.855	8985763	9.355
18		WNDF	05/23/12	1856	17245332	2.855	8983150	9.355
19		WNDG	05/23/12	1914	15111899	2.855	8767543	9.355
20	ZZZZZ	ZZZZZ	05/23/12	1932	16193143	2.855	8526437	9.356
21	ZZZZZ	ZZZZZ	05/23/12	1950	15076973	2.855	8649007	9.354
22	ZZZZZ	ZZZZZ	05/23/12	2008	16499244	2.855	8801559	9.357
23	ZZZZZ	ZZZZZ	05/23/12	2025	15945583	2.855	8717161	9.357
24		DS	05/25/12	0223	18680732	2.855	10341957	9.353
25		INDAE	05/25/12	0241	18405466	2.854	10501931	9.354
26		TOXAPH 2500	05/25/12	0259	16731154	2.854	9993164	9.354
27		WNDE	05/25/12	0317	19009774	2.855	10683549	9.354
28	UU52MBS1	UU52MBS1	05/25/12	0334	15596280	2.852	9694026	9.351
29	UU52LCSS1	UU52LCSS1	05/25/12	0352	15002976	2.852	9418383	9.352
30	MS001-SS-120	UU52A	05/25/12	0410	15927983	2.854	9456432	9.352
31	MS101-SS-120	UU52B	05/25/12	0428	16124314	2.854	9599569	9.352
32	MS002-SS-120	UU52C	05/25/12	0446	17351744	2.854	10223208	9.353
33	MS002-SS-120	UU52CMS	05/25/12	0503	16507021	2.854	10340179	9.353
34	MS002-SS-120	UU52CMSD	05/25/12	0521	17532552	2.854	10481320	9.354
35	MS003-SS-120	UU52D	05/25/12	0539	16504915	2.853	10155427	9.351

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	16226991	2.855	8472750	9.355
				UPPER LIMIT	32453982	2.905	16945500	9.405
				LOWER LIMIT	8113496	2.805	4236375	9.305
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
36	MS004-SS-120	UU52E	05/25/12	0557	16594344	2.854	10154249	9.351
37	MS005-SS-120	UU52F	05/25/12	0615	16826089	2.853	10193857	9.352
38	ZZZZZ	ZZZZZ	05/25/12	0632	18159212	2.854	10310274	9.353
39	ZZZZZ	ZZZZZ	05/25/12	0650	17581405	2.854	9901467	9.353
40		DS	05/25/12	0708	18903117	2.854	10617170	9.353
41		INDAE	05/25/12	0726	19069062	2.854	10992494	9.353
42		TOXAPH 2500	05/25/12	0744	17227818	2.854	10349014	9.353
43		WNDE	05/25/12	0801	19228977	2.854	10987644	9.352
44	MS006-SS-120	UU52G	05/25/12	0819	14867921	2.851	8841689	9.350
45	MS007-SS-120	UU52H	05/25/12	0837	15828133	2.853	9340210	9.351
46	MS008-SS-120	UU52I	05/25/12	0855	16288145	2.854	9809409	9.352
47	MS009-SS-120	UU52J	05/25/12	0913	17116997	2.854	10340868	9.352
48	MS009-SS-120	UU52J	05/25/12	0931	16138891	2.853	9808477	9.351
49	ZZZZZ	ZZZZZ	05/25/12	0948	17828740	2.854	10261474	9.353
50	ZZZZZ	ZZZZZ	05/25/12	1006	16049918	2.854	9959865	9.352
51		DS	05/25/12	1024	18886232	2.853	10783171	9.351
52		INDAE	05/25/12	1042	18934934	2.854	10762965	9.352

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53(mm) Instrument ID: ECD8

Init. Calib. Date: 05/25/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			IS1 AREA	RT	IS2 AREA	RT
		ICAL MIDPT	836406	3.028	1091107	9.138
		UPPER LIMIT	1672812	3.078	2182214	9.188
		LOWER LIMIT	418203	2.978	545554	9.088

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		DS	05/25/12	1434	901464	3.029	1202286	9.136
02	ZZZZZ	ZZZZZ	05/25/12	1453	847392	3.028	1085236	9.137
03		INDAE	05/25/12	1512	836406	3.028	1091107	9.138
04		INDAA	05/25/12	1531	890226	3.029	1219330	9.138
05		INDAB	05/25/12	1550	893818	3.029	1236219	9.137
06		INDAC	05/25/12	1609	874235	3.029	1210916	9.137
07		INDAD	05/25/12	1628	860198	3.029	1188090	9.138
08		INDAF	05/25/12	1647	893087	3.029	1211217	9.138
09		IDNAG	05/25/12	1706	878201	3.029	1148660	9.137
10	ZZZZZ	ZZZZZ	05/25/12	1725	932869	3.028	1276127	9.135
11	ZZZZZ	ZZZZZ	05/25/12	1743	892508	3.029	1283811	9.132
12		TOXAPH 2500	05/25/12	1802	916675	3.028	1213703	9.139
13		WNDE	05/25/12	1821	834385	3.028	1140256	9.137
14		WNDA	05/25/12	1840	917368	3.029	1270740	9.135
15		WNDB	05/25/12	1859	954109	3.029	1337121	9.136
16		WNDC	05/25/12	1918	1016707	3.029	1441035	9.136
17		WNDD	05/25/12	1937	957727	3.030	1319523	9.139
18		WNDF	05/25/12	1956	978714	3.030	1335739	9.140
19		WNDG	05/25/12	2014	965763	3.030	1321879	9.138
20	ZZZZZ	ZZZZZ	05/25/12	2033	965292	3.031	1273565	9.140
21	ZZZZZ	ZZZZZ	05/25/12	2052	961204	3.029	1378461	9.135
22	ZZZZZ	ZZZZZ	05/25/12	2111	970671	3.030	1346689	9.142
23	ZZZZZ	ZZZZZ	05/25/12	2130	1032950	3.029	1375257	9.139
24		DS	05/26/12	0541	1571633	3.029	1886951	9.137
25		INDAE	05/26/12	0600	1236508	3.030	1519532	9.139
26	UU52MBS1	UU52MBS1	05/26/12	0619	1244861	3.032	1681868	9.133
27	UU52LCSS1	UU52LCSS1	05/26/12	0638	1615040	3.033	2179045	9.133
28	MS001-SS-120	UU52A	05/26/12	0656	1465559	3.031	1634931	9.132
29	MS101-SS-120	UU52B	05/26/12	0715	1509170	3.030	1715727	9.130
30	MS002-SS-120	UU52C	05/26/12	0734	1537602	3.030	1774891	9.130
31	MS002-SS-120	UU52CMS	05/26/12	0753	1542820	3.031	1764083	9.133
32	MS002-SS-120	UU52CMSD	05/26/12	0812	1496969	3.032	1748676	9.134
33	MS003-SS-120	UU52D	05/26/12	0831	1588078	3.031	1812949	9.131
34	MS004-SS-120	UU52E	05/26/12	0850	1590197	3.032	1789929	9.133
35	MS005-SS-120	UU52F	05/26/12	0909	1570030	3.031	1880039	9.133

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM VIII PEST

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53(mm) Instrument ID: ECD8

Init. Calib. Date: 05/25/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	836406	3.028	1091107	9.138
				UPPER LIMIT	1672812	3.078	2182214	9.188
				LOWER LIMIT	418203	2.978	545554	9.088
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
36	ZZZZZ	ZZZZZ	05/26/12	0927			11684*	9.145
37	ZZZZZ	ZZZZZ	05/26/12	0946	1380566	3.030	1726411	9.137
38	ZZZZZ	ZZZZZ	05/26/12	1005	1524912	3.030	1921328	9.136
39		DS	05/26/12	1024	1590828	3.031	2030288	9.139
40		INDAE	05/26/12	1043	1381366	3.030	1717350	9.140
41	MS006-SS-120	UU52G	05/26/12	1102	1403389	3.031	1599002	9.134
42	MS007-SS-120	UU52H	05/26/12	1121	1485976	3.032	1657319	9.132
43	MS008-SS-120	UU52I	05/26/12	1140	1468582	3.031	1761217	9.133
44	MS009-SS-120	UU52J	05/26/12	1159	1504730	3.031	1763076	9.133
45	ZZZZZ	ZZZZZ	05/26/12	1218			13382*	9.142
46	ZZZZZ	ZZZZZ	05/26/12	1236	1377891	3.030	1681139	9.136
47	ZZZZZ	ZZZZZ	05/26/12	1255	1522591	3.030	1953798	9.136
48		DS	05/26/12	1314	1592001	3.031	2036474	9.138
49		INDAE	05/26/12	1333	1321741	3.031	1733918	9.140

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53(mm) Instrument ID: ECD8

Init. Calib. Date: 05/25/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	1248621	3.295	1339634	10.431
	UPPER LIMIT	2497242	3.345	2679268	10.481
	LOWER LIMIT	624310	3.245	669817	10.381

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		DS	05/25/12	1434	1296044	3.295	1419721	10.432
02	ZZZZZ	ZZZZZ	05/25/12	1453	1216529	3.294	1332632	10.432
03		INDAE	05/25/12	1512	1248621	3.295	1339634	10.431
04		INDAA	05/25/12	1531	1353989	3.295	1476221	10.432
05		INDAB	05/25/12	1550	1375217	3.295	1509551	10.433
06		INDAC	05/25/12	1609	1357862	3.295	1497654	10.433
07		INDAD	05/25/12	1628	1348234	3.295	1464302	10.433
08		INDAF	05/25/12	1647	1357917	3.296	1544067	10.433
09		IDNAG	05/25/12	1706	1350929	3.296	1529548	10.432
10	ZZZZZ	ZZZZZ	05/25/12	1725	1487234	3.295	1625382	10.431
11	ZZZZZ	ZZZZZ	05/25/12	1743	1427760	3.295	1626638	10.429
12		TOXAPH 2500	05/25/12	1802	1457356	3.294	1606848	10.432
13		WNDE	05/25/12	1821	1356458	3.295	1506571	10.431
14		WNDA	05/25/12	1840	1508923	3.296	1657404	10.430
15		WNDB	05/25/12	1859	1572890	3.295	1737844	10.431
16		WNDC	05/25/12	1918	1666113	3.295	1817495	10.431
17		WNDD	05/25/12	1937	1586601	3.297	1734283	10.433
18		WNDF	05/25/12	1956	1573708	3.297	1779668	10.435
19		WNDG	05/25/12	2014	1560131	3.296	1740403	10.433
20	ZZZZZ	ZZZZZ	05/25/12	2033	1605656	3.297	1716700	10.434
21	ZZZZZ	ZZZZZ	05/25/12	2052	1621863	3.296	1793995	10.432
22	ZZZZZ	ZZZZZ	05/25/12	2111	1648261	3.296	1796277	10.436
23	ZZZZZ	ZZZZZ	05/25/12	2130	1750849	3.296	1860213	10.434
24		DS	05/26/12	0541	2005466	3.295	2046165	10.434
25		INDAE	05/26/12	0600	1702782	3.296	1824435	10.436
26	UU52MBS1	UU52MBS1	05/26/12	0619	1645708	3.298	1788951	10.432
27	UU52LCSS1	UU52LCSS1	05/26/12	0638	2077989	3.298	2282423	10.432
28	MS001-SS-120	UU52A	05/26/12	0656	1800758	3.297	2039779	10.431
29	MS101-SS-120	UU52B	05/26/12	0715	1864073	3.296	2110184	10.429
30	MS002-SS-120	UU52C	05/26/12	0734	1918734	3.296	2154033	10.429
31	MS002-SS-120	UU52CMS	05/26/12	0753	1933553	3.297	2152932	10.433
32	MS002-SS-120	UU52CMSD	05/26/12	0812	1900593	3.299	2129930	10.432
33	MS003-SS-120	UU52D	05/26/12	0831	2015578	3.297	2225921	10.431
34	MS004-SS-120	UU52E	05/26/12	0850	1990201	3.298	2219745	10.432
35	MS005-SS-120	UU52F	05/26/12	0909	1986131	3.297	2196333	10.434

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53(mm) Instrument ID: ECD8

Init. Calib. Date: 05/25/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	1248621	3.295	1339634	10.431
				UPPER LIMIT	2497242	3.345	2679268	10.481
				LOWER LIMIT	624310	3.245	669817	10.381
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
36	ZZZZZ	ZZZZZ	05/26/12	0927			9637*	10.439
37	ZZZZZ	ZZZZZ	05/26/12	0946	1731609	3.296	1872053	10.432
38	ZZZZZ	ZZZZZ	05/26/12	1005	1892309	3.296	2032283	10.432
39		DS	05/26/12	1024	1967623	3.296	2159064	10.435
40	ZZZZZ	ZZZZZ	05/26/12	1043	1734872	3.297	1860256	10.435
41	MS006-SS-120	UU52G	05/26/12	1102	1921460	3.297	2044331	10.433
42	MS007-SS-120	UU52H	05/26/12	1121	1948265	3.298	2023771	10.432
43	MS008-SS-120	UU52I	05/26/12	1140	1925279	3.298	2061329	10.432
44	MS009-SS-120	UU52J	05/26/12	1159	1970396	3.297	2169151	10.432
45	ZZZZZ	ZZZZZ	05/26/12	1218			10470*	10.439
46	ZZZZZ	ZZZZZ	05/26/12	1236	1704274	3.297	1837874	10.433
47	ZZZZZ	ZZZZZ	05/26/12	1255	1950819	3.297	2083775	10.432
48		DS	05/26/12	1314	2024513	3.297	2059232	10.435
49		INDAE	05/26/12	1333	1755648	3.297	1916442	10.436

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	4841592	2.797	6506091	8.390
	UPPER LIMIT	9683184	2.847	13012182	8.440
	LOWER LIMIT	2420796	2.747	3253046	8.340

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		DS	05/23/12	1354	4833957	2.796	6341334	8.389
02	ZZZZZ	ZZZZZ	05/23/12	1412	4843734	2.796	6419201	8.389
03		INDAE	05/23/12	1429	4841592	2.797	6506091	8.390
04		INDAA	05/23/12	1447	4662553	2.796	6288842	8.390
05		INDAB	05/23/12	1505	4901931	2.796	6700380	8.390
06		INDAC	05/23/12	1523	5097624	2.796	6671309	8.390
07		INDAD	05/23/12	1541	4846850	2.796	6537086	8.390
08		INDAF	05/23/12	1558	4867401	2.797	6610265	8.390
09		INDAG	05/23/12	1616	4944488	2.797	6853296	8.390
10	ZZZZZ	ZZZZZ	05/23/12	1634	4744837	2.796	6458219	8.388
11	ZZZZZ	ZZZZZ	05/23/12	1652	4813617	2.796	6719941	8.387
12		TOXAPH 2500	05/23/12	1710	4791619	2.796	6609775	8.391
13		WNDE	05/23/12	1727	4835108	2.797	6638127	8.390
14		WNDA	05/23/12	1745	4751592	2.796	6557663	8.390
15		WNDB	05/23/12	1803	4969001	2.796	6623328	8.390
16		WNDC	05/23/12	1821	5151057	2.796	6848602	8.390
17		WNDD	05/23/12	1839	5139758	2.796	6817214	8.389
18		WNDF	05/23/12	1856	4866835	2.796	6708266	8.390
19		WNDG	05/23/12	1914	4729578	2.796	6555048	8.389
20	ZZZZZ	ZZZZZ	05/23/12	1932	4525140	2.796	6284187	8.390
21	ZZZZZ	ZZZZZ	05/23/12	1950	4534400	2.796	6568755	8.387
22	ZZZZZ	ZZZZZ	05/23/12	2008	4602996	2.797	6326954	8.392
23	ZZZZZ	ZZZZZ	05/23/12	2025	4562991	2.796	6285326	8.393
24		DS	05/24/12	1413	5001681	2.796	6754331	8.388
25		INDAE	05/24/12	1431	5138026	2.796	6987948	8.389
26	UU37MBW1	UU37MBW1	05/24/12	1524	5071443	2.794	7166255	8.386
27	UU37LCSW1	UU37LCSW1	05/24/12	1542	5352442	2.794	7455456	8.386
28	UU37LCSDW1	UU37LCSDW1	05/24/12	1600	5188717	2.794	7272835	8.387
29	MS-SSRB-1205	UU62J	05/24/12	1823	5273774	2.794	7217767	8.387
30	MS-SSFB-1205	UU62K	05/24/12	1840	5100774	2.794	7241256	8.387
31		DS	05/24/12	1934	4908784	2.796	6876904	8.389
32		INDAE	05/24/12	1952	5328098	2.797	7126502	8.390

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	16226991	2.855	8472750	9.355
	UPPER LIMIT	32453982	2.905	16945500	9.405
	LOWER LIMIT	8113496	2.805	4236375	9.305

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		DS	05/23/12	1354	15824122	2.854	8060309	9.355
02	ZZZZZ	ZZZZZ	05/23/12	1412	16148392	2.854	8335866	9.355
03		INDAE	05/23/12	1429	16226991	2.855	8472750	9.355
04		INDAA	05/23/12	1447	16229726	2.855	8157989	9.355
05		INDAB	05/23/12	1505	16989055	2.855	8678314	9.355
06		INDAC	05/23/12	1523	15963413	2.855	8650070	9.355
07		INDAD	05/23/12	1541	16200736	2.855	8616973	9.355
08		INDAF	05/23/12	1558	16682441	2.855	8629150	9.355
09		INDAG	05/23/12	1616	15540466	2.855	8844674	9.355
10	ZZZZZ	ZZZZZ	05/23/12	1634	15077669	2.854	8393228	9.354
11	ZZZZZ	ZZZZZ	05/23/12	1652	15147530	2.854	8680249	9.354
12		TOXAPH 2500	05/23/12	1710	16477086	2.855	8490411	9.356
13		WNDE	05/23/12	1727	16832865	2.855	8707514	9.355
14		WNDA	05/23/12	1745	16405407	2.854	8503685	9.355
15		WNDB	05/23/12	1803	16776826	2.855	8683498	9.355
16		WNDC	05/23/12	1821	17441474	2.855	9031272	9.355
17		WNDD	05/23/12	1839	16765159	2.855	8985763	9.355
18		WNDF	05/23/12	1856	17245332	2.855	8983150	9.355
19		WNDG	05/23/12	1914	15111899	2.855	8767543	9.355
20	ZZZZZ	ZZZZZ	05/23/12	1932	16193143	2.855	8526437	9.356
21	ZZZZZ	ZZZZZ	05/23/12	1950	15076973	2.855	8649007	9.354
22	ZZZZZ	ZZZZZ	05/23/12	2008	16499244	2.855	8801559	9.357
23	ZZZZZ	ZZZZZ	05/23/12	2025	15945583	2.855	8717161	9.357
24		DS	05/24/12	1413	17666780	2.854	9318641	9.353
25		INDAE	05/24/12	1431	17460248	2.854	9570322	9.353
26	UU37MBW1	UU37MBW1	05/24/12	1524	15720442	2.853	9530794	9.352
27	UU37LCSW1	UU37LCSW1	05/24/12	1542	16498690	2.852	9917993	9.351
28	UU37LCSDW1	UU37LCSDW1	05/24/12	1600	16262258	2.852	9792052	9.352
29	MS-SSRB-1205	UU62J	05/24/12	1823	15899944	2.852	9649398	9.351
30	MS-SSFB-1205	UU62K	05/24/12	1840	16009521	2.852	9745131	9.352
31		DS	05/24/12	1934	18068667	2.854	9866692	9.353
32		INDAE	05/24/12	1952	18001293	2.854	10197850	9.353

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

PCB Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS001-SS-120515
SAMPLE

Lab Sample ID: UU52A
LIMS ID: 12-8893
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 22:50
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.3%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	**Aroclor 1248**	**1.4**	**4.0**	**22**
11097-69-1	**Aroclor 1254**	**1.4**	**4.0**	**44**
11096-82-5	Aroclor 1260	1.4	20	< 20 Y
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	98.2%
Tetrachlorometaxylene	84.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS101-SS-120515
SAMPLE

Lab Sample ID: UU52B
LIMS ID: 12-8894
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 23:09
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.2%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.3	4.0	< 4.0 U
12672-29-6	**Aroclor 1248**	**1.3**	**4.0**	**17**
11097-69-1	**Aroclor 1254**	**1.3**	**4.0**	**37**
11096-82-5	Aroclor 1260	1.3	16	< 16 Y
11104-28-2	Aroclor 1221	1.3	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.3	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.3	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.3	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	91.5%
Tetrachlorometaxylene	77.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS002-SS-120515
SAMPLE

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 23:28
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 89.8%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	**Aroclor 1248**	**1.4**	**4.0**	**17 P**
11097-69-1	**Aroclor 1254**	**1.4**	**4.0**	**39**
11096-82-5	Aroclor 1260	1.4	20	< 20 Y
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	103%
Tetrachlorometaxylene	85.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS003-SS-120515
SAMPLE

Lab Sample ID: UU52D
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 23:47
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.7%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	Aroclor 1248	1.4	20	< 20 Y
11097-69-1	**Aroclor 1254**	**1.4**	**4.0**	**28**
11096-82-5	Aroclor 1260	1.4	14	< 14 Y
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	97.2%
Tetrachlorometaxylene	81.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS004-SS-120515
SAMPLE

Lab Sample ID: UU52E
LIMS ID: 12-8897
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 00:06
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.4%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	Aroclor 1248	1.4	16	< 16 Y
11097-69-1	**Aroclor 1254**	**1.4**	**4.0**	**28 P**
11096-82-5	Aroclor 1260	1.4	20	< 20 Y
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	89.0%
Tetrachlorometaxylene	80.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS005-SS-120515
SAMPLE

Lab Sample ID: UU52F
LIMS ID: 12-8898
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 00:25
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 91.1%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.3	4.0	< 4.0 U
12672-29-6	**Aroclor 1248**	**1.3**	**4.0**	**12**
11097-69-1	**Aroclor 1254**	**1.3**	**4.0**	**25**
11096-82-5	Aroclor 1260	1.3	12	< 12 Y
11104-28-2	Aroclor 1221	1.3	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.3	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.3	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.3	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	87.0%
Tetrachlorometaxylene	67.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS006-SS-120515
SAMPLE

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 00:44
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.8%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	**Aroclor 1248**	**1.4**	**4.0**	**16**
11097-69-1	**Aroclor 1254**	**1.4**	**4.0**	**27**
11096-82-5	Aroclor 1260	1.4	20	< 20 Y
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	92.8%
Tetrachlorometaxylene	77.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS007-SS-120515
SAMPLE

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 01:41
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 83.9%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.3	4.0	< 4.0 U
12672-29-6	**Aroclor 1248**	**1.3**	**4.0**	**15**
11097-69-1	**Aroclor 1254**	**1.3**	**4.0**	**31**
11096-82-5	Aroclor 1260	1.3	14	< 14 Y
11104-28-2	Aroclor 1221	1.3	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.3	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.3	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.3	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	81.5%
Tetrachlorometaxylene	69.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546

Sample ID: MS008-SS-120515
SAMPLE

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 02:00
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 89.0%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	Aroclor 1248	1.4	9.9	< 9.9 Y
11097-69-1	**Aroclor 1254**	**1.4**	**4.0**	**23**
11096-82-5	Aroclor 1260	1.4	9.9	< 9.9 Y
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	97.8%
Tetrachlorometaxylene	65.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS009-SS-120515
SAMPLE

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 02:19
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.2%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	Aroclor 1248	1.4	10	< 10 Y
11097-69-1	**Aroclor 1254**	**1.4**	**4.0**	**20**
11096-82-5	Aroclor 1260	1.4	10	< 10 Y
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	92.0%
Tetrachlorometaxylene	69.5%

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MS001-SS-120515	98.2%	24-127	84.0%	34-109	0
MS101-SS-120515	91.5%	24-127	77.2%	34-109	0
MS002-SS-120515	103%	24-127	85.2%	34-109	0
MS003-SS-120515	97.2%	24-127	81.5%	34-109	0
MS004-SS-120515	89.0%	24-127	80.5%	34-109	0
MS005-SS-120515	87.0%	24-127	67.0%	34-109	0
MS006-SS-120515	92.8%	24-127	77.5%	34-109	0
MS007-SS-120515	81.5%	24-127	69.2%	34-109	0
MS008-SS-120515	97.8%	24-127	65.2%	34-109	0
MB-052212	95.8%	48-123	72.8%	43-107	0
LCS-052212	93.2%	48-123	70.5%	43-107	0
MS009-SS-120515	92.0%	24-127	69.5%	34-109	0
MS009-SS-120515 MS	88.5%	24-127	70.5%	34-109	0
MS009-SS-120515 MSD	88.5%	24-127	71.8%	34-109	0

Microwave (MARS) Control Limits PCBSMM
Prep Method: SW3546
Log Number Range: 12-8893 to 12-8902

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MS009-SS-120515
MS/MSD

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted MS/MSD: 05/22/12

Date Analyzed MS: 05/26/12 02:38
MSD: 05/26/12 02:57
Instrument/Analyst MS: ECD5/JGR
MSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 12.6 g-dry-wt
MSD: 12.5 g-dry-wt
Final Extract Volume MS: 2.5 mL
MSD: 2.5 mL
Dilution Factor MS: 1.00
MSD: 1.00
Silica Gel: Yes

Percent Moisture: 90.2%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 4.0 U	51.1	100	51.1%	53.6	101	53.1%	4.8%
Aroclor 1260	< 10.0 Y	64.5	100	64.5%	69.4	101	68.7%	7.3%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: MS009-SS-120515
MATRIX SPIKE

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 02:38
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.2%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	---
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	Aroclor 1248	1.4	24	< 24 Y
11097-69-1	**Aroclor 1254**	**1.4**	**4.0**	**39**
11096-82-5	Aroclor 1260	1.4	4.0	---
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	70.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MS009-SS-120515
MATRIX SPIKE DUP

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 02:57
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.2%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	---
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	Aroclor 1248	1.4	25	< 25 Y
11097-69-1	**Aroclor 1254**	**1.4**	**4.0**	**40**
11096-82-5	Aroclor 1260	1.4	4.0	---
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	71.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: LCS-052212
LAB CONTROL

Lab Sample ID: LCS-052212
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 22:31
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	77.7	101	76.9%
Aroclor 1260	90.8	101	89.9%

PCB Surrogate Recovery

Decachlorobiphenyl	93.2%
Tetrachlorometaxylene	70.5%

Results reported in µg/kg (ppb)

PCB METHOD BLANK SUMMARY

BLANK NO.

UU52MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: ANCHOR QEA, LLC.

ARI Job No.: UU52
Project: JELD WEN MAULSBY MAR

Lab Sample ID: UU52MBS1
Lab File ID: 0525A045

Date Extracted: 05/22/12
Matrix: SOLID

Date Analyzed: 05/25/12
Instrument ID: ECD5

Time Analyzed: 2212
GC Columns: ZB5/ZB35

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	UU52LCSS1	UU52LCSS1	05/25/12
02	MS001-SS-120515	UU52A	05/25/12
03	MS101-SS-120515	UU52B	05/25/12
04	MS002-SS-120515	UU52C	05/25/12
05	MS003-SS-120515	UU52D	05/25/12
06	MS004-SS-120515	UU52E	05/26/12
07	MS005-SS-120515	UU52F	05/26/12
08	MS006-SS-120515	UU52G	05/26/12
09	MS007-SS-120515	UU52H	05/26/12
10	MS008-SS-120515	UU52I	05/26/12
11	MS009-SS-120515	UU52J	05/26/12
12	MS009-SS-120515 MS	UU52JMS	05/26/12
13	MS009-SS-120515 MSD	UU52JMSD	05/26/12

ALL RUNS ARE DUAL COLUMN

FORM IV PCB

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MB-052212
METHOD BLANK

Lab Sample ID: MB-052212
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 22:12
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	Aroclor 1248	1.4	4.0	< 4.0 U
11097-69-1	Aroclor 1254	1.4	4.0	< 4.0 U
11096-82-5	Aroclor 1260	1.4	4.0	< 4.0 U
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	95.8%
Tetrachlorometaxylene	72.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MS-SSRB-120515
SAMPLE

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized: MW
Reported: 05/24/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/21/12
Date Analyzed: 05/23/12 23:27
Instrument/Analyst: ECD5/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

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

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	0.13	1.0	< 1.0 U
53469-21-9	Aroclor 1242	0.15	1.0	< 1.0 U
12672-29-6	Aroclor 1248	0.15	1.0	< 1.0 U
11097-69-1	Aroclor 1254	0.15	1.0	< 1.0 U
11096-82-5	Aroclor 1260	0.15	1.0	< 1.0 U
11104-28-2	Aroclor 1221	0.15	1.0	< 1.0 U
11141-16-5	Aroclor 1232	0.15	1.0	< 1.0 U
37324-23-5	Aroclor 1262	0.15	1.0	< 1.0 U
11100-14-4	Aroclor 1268	0.15	1.0	< 1.0 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	22.5%
Tetrachlorometaxylene	63.8%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MS-SSFB-120515
SAMPLE

Lab Sample ID: UU62K
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized:
Reported: 05/24/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/21/12
Date Analyzed: 05/23/12 23:46
Instrument/Analyst: ECD5/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

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

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	0.13	1.0	< 1.0 U
53469-21-9	Aroclor 1242	0.15	1.0	< 1.0 U
12672-29-6	Aroclor 1248	0.15	1.0	< 1.0 U
11097-69-1	Aroclor 1254	0.15	1.0	< 1.0 U
11096-82-5	Aroclor 1260	0.15	1.0	< 1.0 U
11104-28-2	Aroclor 1221	0.15	1.0	< 1.0 U
11141-16-5	Aroclor 1232	0.15	1.0	< 1.0 U
37324-23-5	Aroclor 1262	0.15	1.0	< 1.0 U
11100-14-4	Aroclor 1268	0.15	1.0	< 1.0 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.0%
Tetrachlorometaxylene	90.0%

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-052112	83.8%	41-111	78.0%	40-118	0
LCS-052112	85.0%	41-111	88.0%	40-118	0
LCSD-052112	81.0%	41-111	84.8%	40-118	0
MS-SSRB-120515	22.5%*	29-118	63.8%	38-118	1
MS-SSFB-120515	78.0%	29-118	90.0%	38-118	0

Prep Method: SW3510C
Log Number Range: 12-8937 to 12-8938

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: LCS-052112
LCS/LCSD

Lab Sample ID: LCS-052112
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/24/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 05/21/12

Date Analyzed LCS: 05/23/12 22:30
LCSD: 05/23/12 22:49
Instrument/Analyst LCS: ECD5/YZ
LCSD: ECD5/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 5.0 mL
LCSD: 5.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Silica Gel: No
Acid Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	4.60	5.00	92.0%	4.46	5.00	89.2%	3.1%
Aroclor 1260	4.08	5.00	81.6%	4.05	5.00	81.0%	0.7%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	85.0%	81.0%
Tetrachlorometaxylene	88.0%	84.8%

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

4

PCB METHOD BLANK SUMMARY

BLANK NO.

UU62MBW1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No.: UU62

Project: JELD WEN - MAULSBY M

Lab Sample ID: UU62MBW1

Lab File ID: 0523A038

Date Extracted: 05/21/12

Matrix: LIQUID

Date Analyzed: 05/23/12

Instrument ID: ECD5

Time Analyzed: 2211

GC Columns: ZB5/ZB35

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	UU62LCSW1	UU62LCSW1	05/23/12
02	UU62LCSDW1	UU62LCSDW1	05/23/12
03	MS-SSRB-120515	UU62J	05/23/12
04	MS-SSFB-120515	UU62K	05/23/12

ALL RUNS ARE DUAL COLUMN

FORM IV PCB

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MB-052112
METHOD BLANK

Lab Sample ID: MB-052112
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/24/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/21/12
Date Analyzed: 05/23/12 22:11
Instrument/Analyst: ECD5/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

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

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	0.13	1.0	< 1.0 U
53469-21-9	Aroclor 1242	0.15	1.0	< 1.0 U
12672-29-6	Aroclor 1248	0.15	1.0	< 1.0 U
11097-69-1	Aroclor 1254	0.15	1.0	< 1.0 U
11096-82-5	Aroclor 1260	0.15	1.0	< 1.0 U
11104-28-2	Aroclor 1221	0.15	1.0	< 1.0 U
11141-16-5	Aroclor 1232	0.15	1.0	< 1.0 U
37324-23-5	Aroclor 1262	0.15	1.0	< 1.0 U
11100-14-4	Aroclor 1268	0.15	1.0	< 1.0 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	83.8%
Tetrachlorometaxylene	78.0%

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 05/23/12

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.51- 4.71	1.3170	1.3646	1.3837	1.3019	1.2161	1.1301	1.2856	7.5
DCB	12.89-13.09	1.5532	1.4116	1.2892	1.1209	1.0329	0.9578	1.2276	18.8

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.14- 6.34	0.0417	0.0367	0.0354	0.0316	0.0282	0.0266	0.0334	16.9
2	6.54- 6.74	0.1232	0.1236	0.1188	0.1058	0.0941	0.0874	0.1088	14.3
3	6.69- 6.89	0.0437	0.0495	0.0477	0.0425	0.0378	0.0362	0.0429	12.2
4	6.80- 7.00	0.0435	0.0388	0.0344	0.0304	0.0275	0.0283	0.0338	18.8

AROCLOR AVERAGE %RSD = 15.6

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	10.35-10.55	0.0523	0.0482	0.0458	0.0418	0.0380	0.0343	0.0434	15.4
2	10.72-10.92	0.1294	0.1187	0.1125	0.1027	0.0942	0.0887	0.1077	14.3
3	11.12-11.32	0.0705	0.0661	0.0631	0.0579	0.0530	0.0486	0.0599	13.8
4	11.24-11.44	0.0306	0.0284	0.0271	0.0247	0.0227	0.0207	0.0257	14.4
5	11.31-11.51	0.0354	0.0336	0.0323	0.0298	0.0276	0.0252	0.0307	12.5

AROCLOR AVERAGE %RSD = 14.1

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 05/23/12

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.51- 4.71	1.1260	1.1449	1.1900	1.1549	1.1019	1.0349	1.1254	4.7
DCB	13.27-13.47	1.1570	1.1117	1.0852	1.0055	0.9520	0.8908	1.0337	9.8

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.25- 6.45	0.0494	0.0465	0.0456	0.0408	0.0365	0.0317	0.0418	16.0
2	6.87- 7.07	0.1060	0.1026	0.1017	0.0944	0.0866	0.0775	0.0948	11.6
3	7.26- 7.46	0.0271	0.0260	0.0260	0.0238	0.0227	0.0212	0.0245	9.3
4	7.36- 7.56	0.0300	0.0290	0.0288	0.0268	0.0252	0.0232	0.0272	9.6

AROCLOR AVERAGE %RSD = 11.6

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	10.32-10.52	0.0506	0.0489	0.0483	0.0452	0.0429	0.0394	0.0459	9.2
2	10.77-10.97	0.0635	0.0603	0.0595	0.0560	0.0534	0.0491	0.0570	9.1
3	11.04-11.24	0.1272	0.1225	0.1212	0.1139	0.1085	0.1009	0.1157	8.5
4	11.57-11.77	0.0384	0.0353	0.0348	0.0328	0.0317	0.0296	0.0338	9.1

AROCLOR AVERAGE %RSD = 9.0

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 05/23/12

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	4.884	4.78- 4.98	0.00600
2	5.153	5.05- 5.25	0.00966
3	5.258	5.16- 5.36	0.03163

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.238	6.14- 6.34	0.01394
2	6.639	6.54- 6.74	0.04636
3	6.788	6.69- 6.89	0.01880
4	7.980	7.88- 8.08	0.01806

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.242	6.14- 6.34	0.02518
2	6.642	6.54- 6.74	0.08396
3	6.791	6.69- 6.89	0.03350
4	7.983	7.88- 8.08	0.03120

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.640	6.54- 6.74	0.05616
2	7.438	7.34- 7.54	0.04243
3	7.984	7.88- 8.08	0.05435
4	8.274	8.17- 8.37	0.05485

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 05/23/12

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.357	8.26- 8.46	0.07344
2	8.728	8.63- 8.83	0.04727
3	8.863	8.76- 8.96	0.09126
4	9.213	9.11- 9.31	0.09827
5	9.574	9.47- 9.67	0.06112

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.128	10.03-10.23	0.06377
2	10.444	10.34-10.54	0.04872
3	10.818	10.72-10.92	0.13314
4	11.334	11.23-11.43	0.04866
5	11.408	11.31-11.51	0.05533

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.336	11.24-11.44	0.13622
2	11.407	11.31-11.51	0.13695
3	11.793	11.69-11.89	0.11433
4	12.585	12.48-12.68	0.33618

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 05/23/12

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.290	5.19- 5.39	0.01261
2	5.536	5.44- 5.64	0.00745
3	5.649	5.55- 5.75	0.02330
4	5.717	5.62- 5.82	0.00427

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.345	6.25- 6.45	0.01927
2	6.971	6.87- 7.07	0.04034
3	7.179	7.08- 7.28	0.01361
4	8.325	8.23- 8.43	0.01492

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.348	6.25- 6.45	0.03264
2	6.974	6.87- 7.07	0.07413
3	7.182	7.08- 7.28	0.03012
4	8.327	8.23- 8.43	0.02619

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.971	6.87- 7.07	0.04804
2	7.875	7.77- 7.97	0.03849
3	8.327	8.23- 8.43	0.04628
4	8.747	8.65- 8.85	0.05224

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 05/23/12

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.466	8.37- 8.57	0.03512
2	8.639	8.54- 8.74	0.04464
3	9.160	9.06- 9.26	0.03411
4	9.310	9.21- 9.41	0.07546
5	10.093	9.99-10.19	0.04423

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.419	10.32-10.52	0.07493
2	10.870	10.77-10.97	0.06463
3	11.142	11.04-11.24	0.14676
4	11.664	11.56-11.76	0.05904
5	12.463	12.36-12.56	0.05498

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.664	11.56-11.76	0.15273
2	11.730	11.63-11.83	0.14397
3	12.128	12.03-12.23	0.12090
4	12.950	12.85-13.05	0.34151

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/23/12

Lab Standard ID: AR1248 Time Analyzed :2017

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.64	6.54	6.74	245.6	250.0	-1.8
Aroclor-1248-2	7.44	7.34	7.54	238.7	250.0	-4.5
Aroclor-1248-3	7.98	7.88	8.08	244.5	250.0	-2.2
Aroclor-1248-4	8.27	8.17	8.37	242.4	250.0	-3.0

AVERAGE %D = 2.9

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/23/12

Lab Standard ID: AR1248 Time Analyzed :2017

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.97	6.87	7.07	241.9	250.0	-3.2
Aroclor-1248-2	7.87	7.77	7.97	229.1	250.0	-8.4
Aroclor-1248-3	8.33	8.23	8.43	231.0	250.0	-7.6
Aroclor-1248-4	8.75	8.65	8.85	240.1	250.0	-3.9

AVERAGE %D = 5.8

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/23/12

Lab Standard ID: AR1660 Time Analyzed :2037

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.24	6.14	6.34	232.8	250.0	-6.9
Aroclor-1016-2	6.64	6.54	6.74	241.7	250.0	-3.3
Aroclor-1016-3	6.79	6.69	6.89	244.3	250.0	-2.3
Aroclor-1016-4	6.90	6.80	7.00	223.0	250.0	-10.8

AVERAGE %D = 5.8

Date Analyzed :05/23/12

Lab Standard ID: AR1660 Time Analyzed :2037

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.45	10.35	10.55	252.7	250.0	1.1
Aroclor-1260-2	10.82	10.72	10.92	250.5	250.0	0.2
Aroclor-1260-3	11.22	11.12	11.32	253.0	250.0	1.2
Aroclor-1260-4	11.34	11.24	11.44	247.4	250.0	-1.0
Aroclor-1260-5	11.41	11.31	11.51	251.1	250.0	0.4

AVERAGE %D = 0.8

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/23/12

Lab Standard ID: AR1660 Time Analyzed :2037

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.35	6.25	6.45	244.5	250.0	-2.2
Aroclor-1016-2	6.97	6.87	7.07	249.0	250.0	-0.4
Aroclor-1016-3	7.36	7.26	7.46	253.7	250.0	1.5
Aroclor-1016-4	7.46	7.36	7.56	246.3	250.0	-1.5

AVERAGE %D = 1.4

Date Analyzed :05/23/12

Lab Standard ID: AR1660 Time Analyzed :2037

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.42	10.32	10.52	258.2	250.0	3.3
Aroclor-1260-2	10.87	10.77	10.97	262.8	250.0	5.1
Aroclor-1260-3	11.14	11.04	11.24	265.3	250.0	6.1
Aroclor-1260-4	11.66	11.57	11.77	258.8	250.0	3.5

AVERAGE %D = 4.5

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/24/12

Lab Standard ID: AR1254 Time Analyzed :0005

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.47	8.37	8.57	249.8	250.0	-0.1
Aroclor-1254-2	8.64	8.54	8.74	250.5	250.0	0.2
Aroclor-1254-3	9.16	9.06	9.26	250.3	250.0	0.1
Aroclor-1254-4	9.31	9.21	9.41	248.6	250.0	-0.5
Aroclor-1254-5	10.09	9.99	10.19	250.7	250.0	0.3

AVERAGE %D = 0.2

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/24/12

Lab Standard ID: AR1254 Time Analyzed :0005

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.36	8.26	8.46	252.8	250.0	1.1
Aroclor-1254-2	8.73	8.63	8.83	254.3	250.0	1.7
Aroclor-1254-3	8.86	8.76	8.96	254.2	250.0	1.7
Aroclor-1254-4	9.21	9.11	9.31	255.3	250.0	2.1
Aroclor-1254-5	9.57	9.47	9.67	255.9	250.0	2.4

AVERAGE %D = 1.8

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/24/12

Lab Standard ID: AR1660 Time Analyzed :0024

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.35	6.25	6.45	243.7	250.0	-2.5
Aroclor-1016-2	6.97	6.87	7.07	247.5	250.0	-1.0
Aroclor-1016-3	7.36	7.26	7.46	244.0	250.0	-2.4
Aroclor-1016-4	7.46	7.36	7.56	247.1	250.0	-1.1

AVERAGE %D = 1.8

Date Analyzed :05/24/12

Lab Standard ID: AR1660 Time Analyzed :0024

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.42	10.32	10.52	254.3	250.0	1.7
Aroclor-1260-2	10.87	10.77	10.97	254.7	250.0	1.9
Aroclor-1260-3	11.14	11.04	11.24	255.5	250.0	2.2
Aroclor-1260-4	11.67	11.57	11.77	252.1	250.0	0.8

AVERAGE %D = 1.6

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/24/12

Lab Standard ID: AR1660 Time Analyzed :0024

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.24	6.14	6.34	236.4	250.0	-5.4
Aroclor-1016-2	6.64	6.54	6.74	244.5	250.0	-2.2
Aroclor-1016-3	6.79	6.69	6.89	247.3	250.0	-1.1
Aroclor-1016-4	6.90	6.80	7.00	226.0	250.0	-9.6

AVERAGE %D = 4.6

Date Analyzed :05/24/12

Lab Standard ID: AR1660 Time Analyzed :0024

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.45	10.35	10.55	248.1	250.0	-0.7
Aroclor-1260-2	10.82	10.72	10.92	243.9	250.0	-2.4
Aroclor-1260-3	11.22	11.12	11.32	248.6	250.0	-0.5
Aroclor-1260-4	11.34	11.24	11.44	245.3	250.0	-1.9
Aroclor-1260-5	11.41	11.31	11.51	249.6	250.0	-0.2

AVERAGE %D = 1.1

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/25/12

Lab Standard ID: AR1254 Time Analyzed :2134

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.36	8.26	8.46	210.5	250.0	-15.8
Aroclor-1254-2	8.73	8.63	8.83	215.3	250.0	-13.9
Aroclor-1254-3	8.86	8.76	8.96	222.1	250.0	-11.2
Aroclor-1254-4	9.21	9.11	9.31	225.5	250.0	-9.8
Aroclor-1254-5	9.57	9.47	9.67	225.5	250.0	-9.8

AVERAGE %D = 12.1

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/25/12

Lab Standard ID: AR1254 Time Analyzed :2134

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.47	8.37	8.57	214.0	250.0	-14.4
Aroclor-1254-2	8.64	8.54	8.74	214.1	250.0	-14.3
Aroclor-1254-3	9.16	9.06	9.26	213.6	250.0	-14.6
Aroclor-1254-4	9.31	9.21	9.41	213.7	250.0	-14.5
Aroclor-1254-5	10.09	9.99	10.19	208.2	250.0	-16.7

AVERAGE %D = 14.9

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/25/12

Lab Standard ID: AR1660 Time Analyzed :2153

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.24	6.14	6.34	259.6	250.0	3.8
Aroclor-1016-2	6.64	6.54	6.74	258.6	250.0	3.4
Aroclor-1016-3	6.79	6.69	6.89	274.8	250.0	9.9
Aroclor-1016-4	6.90	6.80	7.00	267.4	250.0	6.9

AVERAGE %D = 6.0

Date Analyzed :05/25/12

Lab Standard ID: AR1660 Time Analyzed :2153

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.45	10.35	10.55	289.1	250.0	15.6
Aroclor-1260-2	10.82	10.72	10.92	266.7	250.0	6.7
Aroclor-1260-3	11.22	11.12	11.32	272.4	250.0	9.0
Aroclor-1260-4	11.34	11.24	11.44	273.3	250.0	9.3
Aroclor-1260-5	11.41	11.31	11.51	280.5	250.0	12.2

AVERAGE %D = 10.6

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/25/12

Lab Standard ID: AR1660 Time Analyzed :2153

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.35	6.25	6.45	243.0	250.0	-2.8
Aroclor-1016-2	6.97	6.87	7.07	248.5	250.0	-0.6
Aroclor-1016-3	7.36	7.26	7.46	257.9	250.0	3.2
Aroclor-1016-4	7.46	7.36	7.56	248.3	250.0	-0.7

AVERAGE %D = 1.8

Date Analyzed :05/25/12

Lab Standard ID: AR1660 Time Analyzed :2153

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.42	10.32	10.52	283.5	250.0	13.4
Aroclor-1260-2	10.87	10.77	10.97	286.2	250.0	14.5
Aroclor-1260-3	11.14	11.04	11.24	280.3	250.0	12.1
Aroclor-1260-4	11.67	11.57	11.77	261.5	250.0	4.6

AVERAGE %D = 11.2

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1242 Time Analyzed :0103

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.24	6.14	6.34	240.4	250.0	-3.8
Aroclor-1242-2	6.64	6.54	6.74	238.6	250.0	-4.5
Aroclor-1242-3	6.79	6.69	6.89	242.7	250.0	-2.9
Aroclor-1242-4	7.98	7.88	8.08	218.9	250.0	-12.4

AVERAGE %D = 5.9

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1242 Time Analyzed :0103

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.35	6.25	6.45	235.3	250.0	-5.9
Aroclor-1242-2	6.97	6.87	7.07	228.3	250.0	-8.7
Aroclor-1242-3	7.18	7.08	7.28	223.9	250.0	-10.4
Aroclor-1242-4	8.33	8.23	8.43	217.8	250.0	-12.9

AVERAGE %D = 9.5

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1660 Time Analyzed :0122

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.24	6.14	6.34	240.0	250.0	-4.0
Aroclor-1016-2	6.64	6.54	6.74	243.9	250.0	-2.4
Aroclor-1016-3	6.79	6.69	6.89	253.5	250.0	1.4
Aroclor-1016-4	6.90	6.80	7.00	244.3	250.0	-2.3

AVERAGE %D = 2.5

Date Analyzed :05/26/12

Lab Standard ID: AR1660 Time Analyzed :0122

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.45	10.35	10.55	273.0	250.0	9.2
Aroclor-1260-2	10.82	10.72	10.92	259.1	250.0	3.6
Aroclor-1260-3	11.22	11.12	11.32	238.4	250.0	-4.6
Aroclor-1260-4	11.34	11.24	11.44	234.5	250.0	-6.2
Aroclor-1260-5	11.41	11.31	11.51	241.4	250.0	-3.4

AVERAGE %D = 5.4

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1660 Time Analyzed :0122

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.35	6.25	6.45	236.3	250.0	-5.5
Aroclor-1016-2	6.97	6.87	7.07	238.0	250.0	-4.8
Aroclor-1016-3	7.36	7.26	7.46	229.6	250.0	-8.2
Aroclor-1016-4	7.46	7.36	7.56	229.5	250.0	-8.2

AVERAGE %D = 6.7

Date Analyzed :05/26/12

Lab Standard ID: AR1660 Time Analyzed :0122

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.42	10.32	10.52	219.8	250.0	-12.1
Aroclor-1260-2	10.87	10.77	10.97	264.6	250.0	5.8
Aroclor-1260-3	11.14	11.04	11.24	262.4	250.0	5.0
Aroclor-1260-4	11.66	11.57	11.77	231.7	250.0	-7.3

AVERAGE %D = 7.5

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No.: UU52

Project: JELD WEN MAULSBY MARSH

GC Column: ZB5

Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1248

Time Analyzed :0316

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.64	6.54	6.74	232.5	250.0	-7.0
Aroclor-1248-2	7.44	7.34	7.54	222.6	250.0	-10.9
Aroclor-1248-3	7.98	7.88	8.08	219.4	250.0	-12.2
Aroclor-1248-4	8.27	8.17	8.37	210.2	250.0	-15.9

AVERAGE %D = 11.5

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1248 Time Analyzed :0316

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.97	6.87	7.07	224.1	250.0	-10.4
Aroclor-1248-2	7.87	7.77	7.97	208.6	250.0	-16.6
Aroclor-1248-3	8.33	8.23	8.43	211.4	250.0	-15.4
Aroclor-1248-4	8.75	8.65	8.85	203.9	250.0	-18.4

AVERAGE %D = 15.2

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1660 Time Analyzed :0335

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.24	6.14	6.34	239.1	250.0	-4.4
Aroclor-1016-2	6.64	6.54	6.74	243.2	250.0	-2.7
Aroclor-1016-3	6.79	6.69	6.89	252.7	250.0	1.1
Aroclor-1016-4	6.90	6.80	7.00	242.3	250.0	-3.1

AVERAGE %D = 2.8

Date Analyzed :05/26/12

Lab Standard ID: AR1660 Time Analyzed :0335

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.45	10.35	10.55	265.0	250.0	6.0
Aroclor-1260-2	10.82	10.72	10.92	254.5	250.0	1.8
Aroclor-1260-3	11.22	11.12	11.32	236.7	250.0	-5.3
Aroclor-1260-4	11.34	11.24	11.44	231.0	250.0	-7.6
Aroclor-1260-5	11.41	11.31	11.51	237.8	250.0	-4.9

AVERAGE %D = 5.1

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1660 Time Analyzed :0335

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.35	6.25	6.45	237.7	250.0	-4.9
Aroclor-1016-2	6.97	6.87	7.07	238.7	250.0	-4.5
Aroclor-1016-3	7.36	7.26	7.46	227.4	250.0	-9.0
Aroclor-1016-4	7.46	7.36	7.56	224.6	250.0	-10.1

AVERAGE %D = 7.1

Date Analyzed :05/26/12

Lab Standard ID: AR1660 Time Analyzed :0335

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.42	10.32	10.52	233.8	250.0	-6.5
Aroclor-1260-2	10.87	10.77	10.97	269.9	250.0	7.9
Aroclor-1260-3	11.14	11.04	11.24	264.5	250.0	5.8
Aroclor-1260-4	11.67	11.57	11.77	237.2	250.0	-5.1

AVERAGE %D = 6.3

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	154228462	2.409	248602423	13.353
	UPPER LIMIT	308456924	2.509	497204846	13.453
	LOWER LIMIT	77114231	2.309	124301212	13.253

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	05/23/12	1125	151362399	2.409	242394135	13.352
02		0.25PPM AR16	05/23/12	1144	154228462	2.409	248602423	13.353
03		0.02 PPM AR1	05/23/12	1203	155920235	2.409	247239477	13.353
04		0.05 PPM AR1	05/23/12	1222	160667727	2.409	259094728	13.353
05		1 PPM AR1660	05/23/12	1241	151523547	2.408	250278423	13.352
06		0.1 PPM AR16	05/23/12	1301	160526987	2.408	260875166	13.352
07		0.5 PPM ARR1	05/23/12	1320	157116261	2.408	255504461	13.352
08		AR1242	05/23/12	1339	158724720	2.408	254953104	13.352
09		AR1248	05/23/12	1358	156181919	2.408	256386929	13.351
10		AR1254	05/23/12	1417	161042809	2.408	259540024	13.351
11		AR2162	05/23/12	1436	162569387	2.408	261988725	13.352
12		AR3268	05/23/12	1455	159979493	2.408	255983137	13.353
13	ZZZZZ	ZZZZZ	05/23/12	1514	159402616	2.409	257592431	13.351
14	ZZZZZ	ZZZZZ	05/23/12	1533	160396254	2.409	259869369	13.352
15	ZZZZZ	ZZZZZ	05/23/12	1552	162864330	2.409	264734547	13.353
16	ZZZZZ	ZZZZZ	05/23/12	1611	162740264	2.408	264518414	13.352
17	ZZZZZ	ZZZZZ	05/23/12	1630	163574544	2.407	271794659	13.351
18	ZZZZZ	ZZZZZ	05/23/12	1649	160640381	2.408	259555077	13.351
19		AR1254	05/25/12	2134	173442054	2.412	210335776	13.353
20		AR1660	05/25/12	2153	183205555	2.413	232118987	13.353
21	UU52MBS1	UU52MBS1	05/25/12	2212	151934719	2.411	203842677	13.354
22	UU52LCSS1	UU52LCSS1	05/25/12	2231	166230424	2.412	227742315	13.354
23	MS001-SS-120	UU52A	05/25/12	2250	137150739	2.413	187389119	13.355
24	MS101-SS-120	UU52B	05/25/12	2309	155679232	2.412	203740008	13.355
25	MS002-SS-120	UU52C	05/25/12	2328	148018037	2.412	201405366	13.356
26	MS003-SS-120	UU52D	05/25/12	2347	158091448	2.413	206785616	13.355
27	MS004-SS-120	UU52E	05/26/12	0006	155584352	2.414	186599931	13.354
28	MS005-SS-120	UU52F	05/26/12	0025	172898823	2.412	187722287	13.356
29	MS006-SS-120	UU52G	05/26/12	0044	186718284	2.412	189013662	13.355
30		AR1242	05/26/12	0103	176614782	2.412	193649204	13.354
31		AR1660	05/26/12	0122	186031488	2.413	214386625	13.352
32	MS007-SS-120	UU52H	05/26/12	0141	172760776	2.412	210736401	13.354

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	154228462	2.409	248602423	13.353
				UPPER LIMIT	308456924	2.509	497204846	13.453
				LOWER LIMIT	77114231	2.309	124301212	13.253
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
33	MS008-SS-120	UU52I	05/26/12	0200	170997221	2.413	204648375	13.355
34	MS009-SS-120	UU52J	05/26/12	0219	165312726	2.413	213969653	13.353
35	MS009-SS-120	UU52JMS	05/26/12	0238	170569379	2.414	215844910	13.353
36	MS009-SS-120	UU52JMSD	05/26/12	0257	158624279	2.414	200326069	13.354
37		AR1248	05/26/12	0316	180219526	2.413	206032453	13.353
38		AR1660	05/26/12	0335	186870454	2.412	221590214	13.353

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	110618229	2.893	108855531	14.232
	UPPER LIMIT	221236458	2.993	217711062	14.332
	LOWER LIMIT	55309114	2.793	54427766	14.132

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	05/23/12	1125	109883399	2.894	107569893	14.232
02		0.25PPM AR16	05/23/12	1144	110618229	2.893	108855531	14.232
03		0.02 PPM AR1	05/23/12	1203	110153498	2.893	108023463	14.232
04		0.05 PPM AR1	05/23/12	1222	114159374	2.893	112747731	14.231
05		1 PPM AR1660	05/23/12	1241	108018292	2.893	108555775	14.230
06		0.1 PPM AR16	05/23/12	1301	113263758	2.893	111845806	14.231
07		0.5 PPM ARR1	05/23/12	1320	111611648	2.893	109698277	14.232
08		AR1242	05/23/12	1339	111472971	2.893	109000932	14.232
09		AR1248	05/23/12	1358	110993433	2.894	110340661	14.232
10		AR1254	05/23/12	1417	113709110	2.893	111392465	14.231
11		AR2162	05/23/12	1436	110843806	2.894	112143757	14.232
12		AR3268	05/23/12	1455	110553251	2.894	110210828	14.232
13	ZZZZZ	ZZZZZ	05/23/12	1514	113559639	2.895	110023028	14.232
14	ZZZZZ	ZZZZZ	05/23/12	1533	113869542	2.894	110961202	14.231
15	ZZZZZ	ZZZZZ	05/23/12	1552	115475995	2.895	113328734	14.232
16	ZZZZZ	ZZZZZ	05/23/12	1611	114989370	2.895	113322609	14.232
17	ZZZZZ	ZZZZZ	05/23/12	1630	111586981	2.893	116428224	14.231
18	ZZZZZ	ZZZZZ	05/23/12	1649	112744652	2.893	112598173	14.231
19		AR1254	05/25/12	2134	117403542	2.898	87153825	14.233
20		AR1660	05/25/12	2153	129531011	2.898	96406184	14.233
21	UU52MBS1	UU52MBS1	05/25/12	2212	107842922	2.896	82401791	14.232
22	UU52LCSS1	UU52LCSS1	05/25/12	2231	118374711	2.897	91190750	14.234
23	MS001-SS-120	UU52A	05/25/12	2250	89256090	2.899	75797350	14.233
24	MS101-SS-120	UU52B	05/25/12	2309	97771108	2.899	82250498	14.233
25	MS002-SS-120	UU52C	05/25/12	2328	95290249	2.898	75841965	14.233
26	MS003-SS-120	UU52D	05/25/12	2347	103030460	2.900	76927516	14.233
27	MS004-SS-120	UU52E	05/26/12	0006	89134654	2.900	73010686	14.233
28	MS005-SS-120	UU52F	05/26/12	0025	100165112	2.898	76493069	14.234
29	MS006-SS-120	UU52G	05/26/12	0044	94995771	2.898	81349843	14.234
30		AR1242	05/26/12	0103	121560832	2.898	80152570	14.234
31		AR1660	05/26/12	0122	131165353	2.898	87667967	14.232
32	MS007-SS-120	UU52H	05/26/12	0141	103821331	2.899	85307879	14.233

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC.

ARI Job No.: UU52 Project: JELD WEN MAULSBY MARSH

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

				IS1 AREA	RT	IS2 AREA	RT
			ICAL MIDPT	110618229	2.893	108855531	14.232
			UPPER LIMIT	221236458	2.993	217711062	14.332
			LOWER LIMIT	55309114	2.793	54427766	14.132
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
33	MS008-SS-120	UU52I	05/26/12	0200	110753933	2.898	81238436	14.234
34	MS009-SS-120	UU52J	05/26/12	0219	114133347	2.899	79253731	14.233
35	MS009-SS-120	UU52JMS	05/26/12	0238	115176537	2.899	78007406	14.232
36	MS009-SS-120	UU52JMSD	05/26/12	0257	106578291	2.899	74927298	14.233
37		AR1248	05/26/12	0316	127736774	2.898	86154804	14.232
38		AR1660	05/26/12	0335	132614849	2.897	91835798	14.233

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	154228462	2.409	248602423	13.353
				UPPER LIMIT	308456924	2.509	497204846	13.453
				LOWER LIMIT	77114231	2.309	124301212	13.253
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		0.25PPM AR16	05/23/12	1144	154228462	2.409	248602423	13.353
02		0.02 PPM AR1	05/23/12	1203	155920235	2.409	247239477	13.353
03		0.05 PPM AR1	05/23/12	1222	160667727	2.409	259094728	13.353
04		1 PPM AR1660	05/23/12	1241	151523547	2.408	250278423	13.352
05		0.1 PPM AR16	05/23/12	1301	160526987	2.408	260875166	13.352
06		0.5 PPM ARR1	05/23/12	1320	157116261	2.408	255504461	13.352
07		AR1242	05/23/12	1339	158724720	2.408	254953104	13.352
08		AR1248	05/23/12	1358	156181919	2.408	256386929	13.351
09		AR1254	05/23/12	1417	161042809	2.408	259540024	13.351
10		AR2162	05/23/12	1436	162569387	2.408	261988725	13.352
11		AR3268	05/23/12	1455	159979493	2.408	255983137	13.353
12		AR1248	05/23/12	2017	157953737	2.412	233547465	13.354
13		AR1660	05/23/12	2037	163348755	2.411	243593184	13.354
14	UU62MBW1	UU62MBW1	05/23/12	2211	150139970	2.413	280007398	13.353
15	UU62LCSW1	UU62LCSW1	05/23/12	2230	146162804	2.413	278529213	13.354
16	UU62LCSDW1	UU62LCSDW1	05/23/12	2249	145934035	2.413	285560925	13.355
17	MS-SSRB-1205	UU62J	05/23/12	2327	145833693	2.414	274879722	13.354
18	MS-SSFB-1205	UU62K	05/23/12	2346	143187362	2.412	276489856	13.355
19		AR1254	05/24/12	0005	160327246	2.410	252246910	13.353
20		AR1660	05/24/12	0024	161663605	2.410	256774071	13.354

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UU62 Project: JELD WEN - MAULSBY MARSH

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	110618229	2.893	108855531	14.232
				UPPER LIMIT	221236458	2.993	217711062	14.332
				LOWER LIMIT	55309114	2.793	54427766	14.132
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		0.25PPM AR16	05/23/12	1144	110618229	2.893	108855531	14.232
02		0.02 PPM AR1	05/23/12	1203	110153498	2.893	108023463	14.232
03		0.05 PPM AR1	05/23/12	1222	114159374	2.893	112747731	14.231
04		1 PPM AR1660	05/23/12	1241	108018292	2.893	108555775	14.230
05		0.1 PPM AR16	05/23/12	1301	113263758	2.893	111845806	14.231
06		0.5 PPM ARR1	05/23/12	1320	111611648	2.893	109698277	14.232
07		AR1242	05/23/12	1339	111472971	2.893	109000932	14.232
08		AR1248	05/23/12	1358	110993433	2.894	110340661	14.232
09		AR1254	05/23/12	1417	113709110	2.893	111392465	14.231
10		AR2162	05/23/12	1436	110843806	2.894	112143757	14.232
11		AR3268	05/23/12	1455	110553251	2.894	110210828	14.232
12		AR1248	05/23/12	2017	112376967	2.897	103819809	14.232
13		AR1660	05/23/12	2037	115501356	2.895	106216352	14.233
14	UU62MBW1	UU62MBW1	05/23/12	2211	122436878	2.896	121592797	14.233
15	UU62LCSW1	UU62LCSW1	05/23/12	2230	120879756	2.897	120832932	14.233
16	UU62LCSDW1	UU62LCSDW1	05/23/12	2249	122645230	2.897	123839457	14.233
17	MS-SSRB-1205	UU62J	05/23/12	2327	120702373	2.898	119021355	14.231
18	MS-SSFB-1205	UU62K	05/23/12	2346	119881217	2.896	120505308	14.233
19		AR1254	05/24/12	0005	116212123	2.896	110664641	14.233
20		AR1660	05/24/12	0024	117932972	2.895	112374282	14.233

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

TPHD Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

ANALYTICAL RESOURCES INCORPORATED

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

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

Data Release Authorized:
Reported: 05/23/12

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	MDL	RL	Result
UU52A	MS001-SS-120515	05/21/12	05/22/12	1.00	**Diesel**	**13**	**51**	**53**
12-8893	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil**	**16**	**100**	**150**
					o-Terphenyl			92.8%
UU52B	MS101-SS-120515	05/21/12	05/22/12	1.00	**Diesel**	**13**	**50**	**54**
12-8894	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil**	**16**	**100**	**140**
					o-Terphenyl			103%
UU52C	MS002-SS-120515	05/21/12	05/22/12	1.00	**Diesel**	**12**	**48**	**69**
12-8895	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil**	**15**	**97**	**180**
					o-Terphenyl			101%
UU52D	MS003-SS-120515	05/21/12	05/22/12	1.00	**Diesel**	**14**	**53**	**71**
12-8896	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil**	**17**	**110**	**170**
					o-Terphenyl			103%
UU52E	MS004-SS-120515	05/21/12	05/22/12	1.00	Diesel	13	52	< 52 U
12-8897	HC ID: **MOTOR OIL**		FID4A	1.0	**Motor Oil**	**16**	**100**	**110**
					o-Terphenyl			103%
UU52F	MS005-SS-120515	05/21/12	05/22/12	1.00	Diesel	14	54	< 54 U
12-8898	HC ID: **MOTOR OIL**		FID4A	1.0	**Motor Oil**	**17**	**110**	**160**
					o-Terphenyl			103%
UU52G	MS006-SS-120515	05/21/12	05/22/12	1.00	**Diesel**	**14**	**53**	**64**
12-8899	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil**	**17**	**110**	**190**
					o-Terphenyl			101%
UU52H	MS007-SS-120515	05/21/12	05/22/12	1.00	**Diesel**	**7.9**	**31**	**37**
12-8900	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil**	**9.6**	**61**	**120**
					o-Terphenyl			104%
MB-052112	Method Blank	05/21/12	05/22/12	1.00	Diesel	1.3	5.0	< 5.0 U
12-8901	HC ID: ---		FID4A	1.0	Motor Oil	1.6	10	< 10 U
					o-Terphenyl			95.9%
UU52I	MS008-SS-120515	05/21/12	05/22/12	1.00	Diesel	12	45	< 45 U
12-8901	HC ID: **MOTOR OIL**		FID4A	1.0	**Motor Oil**	**14**	**90**	**120**
					o-Terphenyl			99.7%
UU52J	MS009-SS-120515	05/21/12	05/22/12	1.00	Diesel	13	50	< 50 U
12-8902	HC ID: ---		FID4A	1.0	Motor Oil	16	100	< 100 U
					o-Terphenyl			101%

ANALYTICAL RESOURCES INCORPORATED

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

Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

Data Release Authorized:
Reported: 05/23/12

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	MDL	RL	Result

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

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 INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

Client ID	OTER	TOT OUT
MS001-SS-120515	92.8%	0
MS101-SS-120515	103%	0
MS002-SS-120515	101%	0
MS003-SS-120515	103%	0
MS004-SS-120515	103%	0
MS005-SS-120515	103%	0
MS006-SS-120515	101%	0
MS007-SS-120515	104%	0
MB-052112	95.9%	0
LCS-052112	94.2%	0
MS008-SS-120515	99.7%	0
MS008-SS-120515 MS	100%	0
MS008-SS-120515 MSD	105%	0
MS009-SS-120515	101%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(50-150)	(50-150)

Prep Method: SW3546
Log Number Range: 12-8893 to 12-8902

FORM-II TPHD

ANALYTICAL RESOURCES INCORPORATED

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

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01

Data Release Authorized: MW
Reported: 05/22/12

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range/Surrogate	RL	Result
MB-051812	Method Blank	05/18/12	05/21/12	1.00	Diesel Range	0.10	< 0.10 U
12-8937	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		101%
UU62J	MS-SSRB-120515	05/18/12	05/21/12	1.00	Diesel Range	0.10	< 0.10 U
12-8937	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		105%
UU62K	MS-SSFB-120515	05/18/12	05/21/12	1.00	Diesel Range	0.10	< 0.10 U
12-8938	HC ID: ---		FID4A	1.0	Motor Oil Range	0.20	< 0.20 U
					o-Terphenyl		99.6%

Reported in mg/L (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel range quantitation on total peaks in the range from C12 to C24.
Motor Oil range 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 INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01

Client ID	OTER	TOT OUT
MB-051812	101%	0
LCS-051812	107%	0
LCSD-051812	108%	0
MS-SSRB-120515	105%	0
MS-SSFB-120515	99.6%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(50-150)	(50-150)

Prep Method: SW3510C
Log Number Range: 12-8937 to 12-8938

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: MS008-SS-120515**
Page 1 of 1 **MS/MSD**

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/23/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted MS/MSD: 05/21/12

Date Analyzed MS: 05/22/12 14:23
MSD: 05/22/12 14:48
Instrument/Analyst MS: FID/MH
MSD: FID/MH

Sample Amount MS: 1.11 g-dry-wt
MSD: 1.11 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 1.0
MSD: 1.0
Percent Moisture: 89.0%

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	< 45.0	984	1350	72.9%	1010	1350	74.8%	2.6%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	100%	105%

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-052112**
Page 1 of 1 **LAB CONTROL**

Lab Sample ID: LCS-052112
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/23/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/21/12
Date Analyzed: 05/22/12 08:45
Instrument/Analyst: FID/MH

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.0

Range	Lab Control	Spike Added	Recovery
Diesel	120	150	80.0%

TPHD Surrogate Recovery

o-Terphenyl	94.2%

Results reported in mg/kg

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-051812**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-051812
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/22/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted LCS/LCSD: 05/18/12

Date Analyzed LCS: 05/21/12 12:08
LCSD: 05/21/12 12:33
Instrument/Analyst LCS: FID/MH
LCSD: FID/MH

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	2.65	3.00	88.3%	2.68	3.00	89.3%	1.1%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	107%	108%

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

FORM III

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: UU52
Matrix: Sediment
Project: Jeld Wen Maulsby Marsh
Date Received: 05/16/12
120909-01.01

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
12-8893-UU52A	MS001-SS-120515	0.98 g	1.00 mL	D	05/21/12
12-8894-UU52B	MS101-SS-120515	0.99 g	1.00 mL	D	05/21/12
12-8895-UU52C	MS002-SS-120515	1.03 g	1.00 mL	D	05/21/12
12-8896-UU52D	MS003-SS-120515	0.94 g	1.00 mL	D	05/21/12
12-8897-UU52E	MS004-SS-120515	0.97 g	1.00 mL	D	05/21/12
12-8898-UU52F	MS005-SS-120515	0.92 g	1.00 mL	D	05/21/12
12-8899-UU52G	MS006-SS-120515	0.94 g	1.00 mL	D	05/21/12
12-8900-UU52H	MS007-SS-120515	1.63 g	1.00 mL	D	05/21/12
12-8901-052112MB1	Method Blank	10.0 g	1.00 mL	-	05/21/12
12-8901-052112LCS1	Lab Control	10.0 g	1.00 mL	-	05/21/12
12-8901-UU52I	MS008-SS-120515	1.11 g	1.00 mL	D	05/21/12
12-8901-UU52IMS	MS008-SS-120515	1.11 g	1.00 mL	D	05/21/12
12-8901-UU52IMSD	MS008-SS-120515	1.11 g	1.00 mL	D	05/21/12
12-8902-UU52J	MS009-SS-120515	1.00 g	1.00 mL	D	05/21/12

Basis: D=Dry Weight W=As Received

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: UU62
Matrix: Water
Project: Jeld Wen - Maulsby Marsh
Date Received: 05/16/12
120909-01.01

ARI ID	Client ID	Samp Amt	Final Vol	Prep Date
12-8937-051812MB1	Method Blank	500 mL	1.00 mL	05/18/12
12-8937-051812LCS1	Lab Control	500 mL	1.00 mL	05/18/12
12-8937-051812LCSD1	Lab Control Dup	500 mL	1.00 mL	05/18/12
12-8937-UU62J	MS-SSRB-120515	500 mL	1.00 mL	05/18/12
12-8938-UU62K	MS-SSFB-120515	500 mL	1.00 mL	05/18/12

4

TPH METHOD BLANK SUMMARY

BLANK NO.

UU52MBS1

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

SDG No.: UU52 Project No.: PSR 120909-01.01

Date Extracted: 05/21/12 Matrix: SOLID

Date Analyzed : 05/22/12 Instrument ID : FID4A

Time Analyzed : 0822

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	UU52LCSS1	UU52LCSS1	05/22/12
02	MS001-SS-120	UU52A	05/22/12
03	MS101-SS-120	UU52B	05/22/12
04	MS002-SS-120	UU52C	05/22/12
05	MS003-SS-120	UU52D	05/22/12
06	MS004-SS-120	UU52E	05/22/12
07	MS005-SS-120	UU52F	05/22/12
08	MS006-SS-120	UU52G	05/22/12
09	MS007-SS-120	UU52H	05/22/12
10	MS008-SS-120	UU52I	05/22/12
11	MS008-SS-120	UU52IMS	05/22/12
12	MS008-SS-120	UU52IMSD	05/22/12
13	MS009-SS-120	UU52J	05/22/12
14			
15			
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FORM IV TPH

4

TPH METHOD BLANK SUMMARY

BLANK NO.

UU62MBW1

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

SDG No.: UU62 Project No.: 120909-01.01

Date Extracted: 05/18/12 Matrix: LIQUID

Date Analyzed : 05/21/12 Instrument ID : FID4A

Time Analyzed : 1144

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	UU62LCSW1	UU62LCSW1	05/21/12
02	UU62LCSDW1	UU62LCSDW1	05/21/12
03	MS-SSRB-1205	UU62J	05/21/12
04	MS-SSFB-1205	UU62K	05/21/12
05			

FORM IV TPH

6a

DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

Instrument: FID4A.I Project: 120909-01.01

Calibration Date: 15-MAY-2012 SDG No.: UU62

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	13022	13848	14060	13795	13351	13694	13628	2.8
AK Diesel	15020	16298	16660	16557	16083	16540	16193	3.8
OR Diesel	15480	16499	16821	16683	16190	16621	16382	3.0
Cal Diesel	14927	16230	16597	16502	16048	16500	16134	3.9
o-Terph	18437	16300	16636	17165	17397	*****	17187	4.8

<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges : WA Diesel C12-C24 (4.163-7.782)
AK Diesel C10-C25 (3.126-8.028)
OR Diesel C10-C28 (3.126-8.726)
Cal Diesel C10-C24 (3.126-7.782)

Calibration Files	Analysis Time
0515a005a.d	15-MAY-2012 11:30
0515a005b.d	15-MAY-2012 11:53
0515a005c.d	15-MAY-2012 12:17
0515a005d.d	15-MAY-2012 12:41
0515a005e.d	15-MAY-2012 13:05
0515a006.d	15-MAY-2012 13:29

6a

NW MOTOR OIL RANGE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

Instrument: FID4A.I Project: 120909-01.01

Calibration Date: 14-MAY-2012 SDG No.: UU62

Product Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil C24-C38	9819	9803	9816	9634	9822	9604	9750	1.0
Triac Surr	15850	17196	17920	17089	17653	*****	17142	4.65

<- Indicates %RSD outside limits
Surrogate areas are not included in Motor Oil RF calculation.

Calibration Files	Analysis Time
0514a020.d	14-MAY-2012 13:51
0514a021.d	14-MAY-2012 14:15
0514a022.d	14-MAY-2012 14:39
0514a023.d	14-MAY-2012 15:03
0514a024.d	14-MAY-2012 15:27
0514a025.d	14-MAY-2012 15:51

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120521

ICal Date: 15-MAY-2012 Project:

CCal Date: 21-MAY-2012 SDG No.: 20120521

Analysis Time: 10:25 Lab ID: DIESEL #1

Instrument: FID4A.I Lab File Name: 0521a004.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3581267	262.8	250	5.1
AK102 (C10-C25)	4244941	262.1	250	4.9
Terphenyl	835976	48.6	45	8.1

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120521

ICal Date: 14-MAY-2012 Project:

CCal Date: 21-MAY-2012 SDG No.: 20120521

Analysis Time: 10:49 Lab ID: MOIL #1

Instrument: FID4A.I Lab File Name: 0521a005.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4834117	495.8	500	-0.8
AK103 (C25-C36)	4334601	558.6	500	11.7
OR. MOIL (C28-C40)	3386343	448.4	500	-10.3
CRUDE(Tol-C40)	5798539	767.7	500	53.5
n-Triacontane	764223	44.6	45	-0.9

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120521

ICal Date: 15-MAY-2012 Project:

CCal Date: 21-MAY-2012 SDG No.: 20120521

Analysis Time: 16:13 Lab ID: DIESEL #2

Instrument: FID4A.I Lab File Name: 0521a017.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3640149	267.1	250	6.8
AK102 (C10-C25)	4335684	267.8	250	7.1
Terphenyl	821721	47.8	45	6.2

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120521

ICal Date: 14-MAY-2012 Project:

CCal Date: 21-MAY-2012 SDG No.: 20120521

Analysis Time: 16:37 Lab ID: MOIL #2

Instrument: FID4A.I Lab File Name: 0521a018.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4694165	481.5	500	-3.7
AK103 (C25-C36)	4238035	546.2	500	9.2
OR. MOIL (C28-C40)	3216871	425.9	500	-14.8
CRUDE(Tol-C40)	5558563	736.0	500	47.2
n-Triacontane	744597	43.4	45	-3.5

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 15-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 07:13 Lab ID: DIESEL #1

Instrument: FID4A.I Lab File Name: 0522a004.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3701588	271.6	250	8.6
AK102 (C10-C25)	4416510	272.7	250	9.1
Terphenyl	830385	48.3	45	7.4

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 14-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 07:37 Lab ID: MOIL #1

Instrument: FID4A.I Lab File Name: 0522a005.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4707921	482.9	500	-3.4
AK103 (C25-C36)	4237450	546.1	500	9.2
OR. MOIL (C28-C40)	3228096	427.4	500	-14.5
CRUDE(Tol-C40)	5522743	731.2	500	46.2
n-Triacontane	756798	44.1	45	-1.9

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 15-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 11:33 Lab ID: DIESEL #2

Instrument: FID4A.I Lab File Name: 0522a014.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3484324	255.7	250	2.3
AK102 (C10-C25)	4164714	257.2	250	2.9
Terphenyl	773980	45.0	45	0.1

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 14-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 11:57 Lab ID: MOIL #2

Instrument: FID4A.I Lab File Name: 0522a015.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4703644	482.4	500	-3.5
AK103 (C25-C36)	4221468	544.1	500	8.8
OR. MOIL (C28-C40)	3160071	418.4	500	-16.3
CRUDE(Tol-C40)	5544308	734.1	500	46.8
n-Triacontane	774056	45.2	45	0.3

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 15-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 15:37 Lab ID: DIESEL #3

Instrument: FID4A.I Lab File Name: 0522a024.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	3577293	262.5	250	5.0
AK102 (C10-C25)	4275348	264.0	250	5.6
Terphenyl	796052	46.3	45	2.9

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 14-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 16:01 Lab ID: MOIL #3

Instrument: FID4A.I Lab File Name: 0522a025.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	4642811	476.2	500	-4.8
AK103 (C25-C36)	4213139	543.0	500	8.6
OR. MOIL (C28-C40)	3138606	415.6	500	-16.9
CRUDE(Tol-C40)	5488979	726.8	500	45.4
n-Triacontane	758370	44.2	45	-1.7

* Surrogate areas are subtracted from range areas

<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

SDG No.: UU52 Project: 120909-01.01

Instrument ID: FID4A GC Column: RTX-1

Run Date: 05/14/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 6.31 TRIAC: 9.20

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01		MOIL 100	05/14/12	1351	6.32	9.19
02		MOIL 250	05/14/12	1415	6.32	9.19
03		MOIL 500	05/14/12	1439	6.33	9.21
04		MOIL 1000	05/14/12	1503	6.32	9.24
05		MOIL 2500	05/14/12	1527	6.31	9.29*
06		MOIL 5000	05/14/12	1551	6.31	9.37*

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

SDG No.: UU52 Project: PSR 120909-01.01

Instrument ID: FID4A GC Column: RTX-1

Run Date: 05/22/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 6.31 TRIAC: 9.19

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	ZZZZZ	ZZZZZ	05/22/12	0603	6.31	9.20
02	RT	RT	05/22/12	0626	6.31	9.19
03	IB	IB	05/22/12	0650	6.31	9.18
04		DIESEL #1	05/22/12	0713	6.31	9.19
05		MOIL #1	05/22/12	0737	6.32	9.19
06	UU52MBS1	UU52MBS1	05/22/12	0822	6.31	9.19
07	UU52LCSS1	UU52LCSS1	05/22/12	0845	6.31	9.18
08	MS001-SS-120	UU52A	05/22/12	0909	6.31	9.18
09	MS101-SS-120	UU52B	05/22/12	0933	6.31	9.18
10	MS002-SS-120	UU52C	05/22/12	0957	6.31	9.19
11	MS003-SS-120	UU52D	05/22/12	1021	6.31	9.18
12	ZZZZZ	ZZZZZ	05/22/12	1045	6.32	9.17
13	ZZZZZ	ZZZZZ	05/22/12	1109	6.31	9.19
14		DIESEL #2	05/22/12	1133	6.31	9.18
15		MOIL #2	05/22/12	1157	6.32	9.19
16	MS004-SS-120	UU52E	05/22/12	1221	6.31	9.19
17	MS005-SS-120	UU52F	05/22/12	1245	6.31	9.18
18	MS006-SS-120	UU52G	05/22/12	1310	6.31	9.19
19	MS007-SS-120	UU52H	05/22/12	1334	6.31	9.19
20	MS008-SS-120	UU52I	05/22/12	1359	6.31	9.19
21	MS008-SS-120	UU52IMS	05/22/12	1423	6.31	9.19
22	MS008-SS-120	UU52IMSD	05/22/12	1448	6.32	9.19
23	MS009-SS-120	UU52J	05/22/12	1513	6.31	9.18
24		DIESEL #3	05/22/12	1537	6.31	9.20
25		MOIL #3	05/22/12	1601	6.32	9.19

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA, LLC

SDG No.: UU62 Project: 120909-01.01

Instrument ID: FID4A GC Column: RTX-1

Run Date: 05/21/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 6.31 TRIAC: 9.19

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	ZZZZZ	ZZZZZ	05/21/12	0913	6.32	9.20
02	RT	RT	05/21/12	0936	6.31	9.19
03	IB	IB	05/21/12	1001	6.31	9.19
04		DIESEL #1	05/21/12	1025	6.31	9.19
05		MOIL #1	05/21/12	1049	6.32	9.20
06	UU62MBW1	UU62MBW1	05/21/12	1144	6.31	9.20
07	UU62LCSW1	UU62LCSW1	05/21/12	1208	6.32	9.19
08	UU62LCSDW1	UU62LCSDW1	05/21/12	1233	6.32	9.19
09	ZZZZZ	ZZZZZ	05/21/12	1257	6.31	9.19
10	MS-SSRB-1205	UU62J	05/21/12	1322	6.31	9.19
11	MS-SSFB-1205	UU62K	05/21/12	1346	6.31	9.19
12	ZZZZZ	ZZZZZ	05/21/12	1411	6.32	9.20
13	ZZZZZ	ZZZZZ	05/21/12	1435	6.31	9.19
14	ZZZZZ	ZZZZZ	05/21/12	1500	6.31	9.19
15	ZZZZZ	ZZZZZ	05/21/12	1524	6.31	9.19
16	ZZZZZ	ZZZZZ	05/21/12	1549	6.31	9.19
17		DIESEL #2	05/21/12	1613	6.31	9.19
18		MOIL #2	05/21/12	1637	6.33	9.19

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

Metals Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

SDG: UU52

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
MS001-SS-120515	UU52A	12-8893	
MS101-SS-120515	UU52B	12-8894	
MS002-SS-120515	UU52C	12-8895	
MS002-SS-120515D	UU52CDUP	12-8895	
MS002-SS-120515S	UU52CSPK	12-8895	
MS003-SS-120515	UU52D	12-8896	
PBS	UU52MB1	12-8896	
LCSS	UU52MB1SPK	12-8896	
MS004-SS-120515	UU52E	12-8897	
MS005-SS-120515	UU52F	12-8898	
MS006-SS-120515	UU52G	12-8899	
MS007-SS-120515	UU52H	12-8900	
MS008-SS-120515	UU52I	12-8901	
MS009-SS-120515	UU52J	12-8902	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 5/31/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: MS001-SS-120515
SAMPLE

Lab Sample ID: UU52A
LIMS ID: 12-8893
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	7440-36-0	Antimony	0.12	2	2	U
3050B	05/18/12	200.8	05/23/12	**7440-38-2**	**Arsenic**	0.82	2	**33**	
3050B	05/18/12	200.8	05/23/12	**7440-43-9**	**Cadmium**	0.11	0.9	**3.2**	
3050B	05/18/12	6010C	05/29/12	**7440-47-3**	**Chromium**	2.6	5	**37**	
3050B	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.48	2	**129**	
3050B	05/18/12	6010C	05/29/12	**7439-92-1**	**Lead**	1.2	20	**170**	
CLP	05/18/12	7471A	05/21/12	**7439-97-6**	**Mercury**	0.011	0.2	**0.4**	
3050B	05/18/12	6010C	05/29/12	**7440-02-0**	**Nickel**	2.9	10	**50**	
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.076	2	2	U
3050B	05/18/12	6010C	05/29/12	**7440-66-6**	**Zinc**	1.2	10	**400**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: MS101-SS-120515
SAMPLE

Lab Sample ID: UU52B
LIMS ID: 12-8894
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	7440-36-0	Antimony	0.12	2	2	U
3050B	05/18/12	200.8	05/23/12	**7440-38-2**	**Arsenic**	0.81	2	**33**	
3050B	05/18/12	200.8	05/23/12	**7440-43-9**	**Cadmium**	0.11	0.9	**3.4**	
3050B	05/18/12	6010C	05/29/12	**7440-47-3**	**Chromium**	2.5	5	**38**	
3050B	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.47	2	**125**	
3050B	05/18/12	6010C	05/29/12	**7439-92-1**	**Lead**	1.2	20	**170**	
CLP	05/18/12	7471A	05/21/12	**7439-97-6**	**Mercury**	0.0093	0.2	**0.4**	
3050B	05/18/12	6010C	05/29/12	**7440-02-0**	**Nickel**	2.8	9	**42**	
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.074	2	2	U
3050B	05/18/12	6010C	05/29/12	**7440-66-6**	**Zinc**	1.1	9	**374**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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TOTAL METALS
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Sample ID: MS002-SS-120515
SAMPLE

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	7440-36-0	Antimony	0.12	2	2	U
3050B	05/18/12	200.8	05/23/12	**7440-38-2**	**Arsenic**	0.81	2	**27**	
3050B	05/18/12	200.8	05/23/12	**7440-43-9**	**Cadmium**	0.11	0.9	**2.9**	
3050B	05/18/12	6010C	05/29/12	**7440-47-3**	**Chromium**	2.4	5	**41**	
3050B	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.45	2	**139**	
3050B	05/18/12	6010C	05/29/12	**7439-92-1**	**Lead**	1.2	20	**150**	
CLP	05/18/12	7471A	05/21/12	**7439-97-6**	**Mercury**	0.0092	0.2	**0.3**	
3050B	05/18/12	6010C	05/29/12	**7440-02-0**	**Nickel**	2.7	9	**46**	
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.075	2	2	U
3050B	05/18/12	6010C	05/29/12	**7440-66-6**	**Zinc**	1.1	9	**330**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: MS003-SS-120515
SAMPLE

Lab Sample ID: UU52D
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	7440-36-0	Antimony	0.12	2	2	U
3050B	05/18/12	200.8	05/23/12	**7440-38-2**	**Arsenic**	0.81	2	**19**	
3050B	05/18/12	200.8	05/23/12	**7440-43-9**	**Cadmium**	0.11	0.9	**2.2**	
3050B	05/18/12	6010C	05/29/12	**7440-47-3**	**Chromium**	2.6	5	**32**	
3050B	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.49	2	**78**	
3050B	05/18/12	6010C	05/29/12	**7439-92-1**	**Lead**	1.3	20	**100**	
CLP	05/18/12	7471A	05/21/12	**7439-97-6**	**Mercury**	0.010	0.2	**0.3**	
3050B	05/18/12	6010C	05/29/12	**7440-02-0**	**Nickel**	2.9	10	**30**	
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.075	2	2	U
3050B	05/18/12	6010C	05/29/12	**7440-66-6**	**Zinc**	1.2	10	**210**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: MS004-SS-120515
SAMPLE

Lab Sample ID: UU52E
LIMS ID: 12-8897
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	7440-36-0	Antimony	0.13	2	2	U
3050B	05/18/12	200.8	05/23/12	**7440-38-2**	**Arsenic**	0.84	2	**24**	
3050B	05/18/12	200.8	05/23/12	**7440-43-9**	**Cadmium**	0.12	1	**3**	
3050B	05/18/12	6010C	05/29/12	**7440-47-3**	**Chromium**	2.6	5	**34**	
3050B	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.49	2	**99**	
3050B	05/18/12	6010C	05/29/12	**7439-92-1**	**Lead**	1.3	20	**110**	
CLP	05/18/12	7471A	05/21/12	**7439-97-6**	**Mercury**	0.0097	0.2	**0.2**	
3050B	05/18/12	6010C	05/29/12	**7440-02-0**	**Nickel**	2.9	10	**40**	
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.077	2	2	U
3050B	05/18/12	6010C	05/29/12	**7440-66-6**	**Zinc**	1.2	10	**260**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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TOTAL METALS
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Sample ID: MS005-SS-120515
SAMPLE

Lab Sample ID: UU52F
LIMS ID: 12-8898
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 7.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	**7440-36-0**	**Antimony**	0.15	2	**3**	
3050B	05/18/12	200.8	05/23/12	**7440-38-2**	**Arsenic**	1.0	2	**55**	
3050B	05/18/12	200.8	05/23/12	**7440-43-9**	**Cadmium**	0.14	1	**3**	
3050B	05/18/12	6010C	05/29/12	**7440-47-3**	**Chromium**	3.3	6	**25**	
3050B	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.61	2	**251**	
3050B	05/18/12	6010C	05/29/12	**7439-92-1**	**Lead**	1.6	20	**1,180**	
CLP	05/18/12	7471A	05/21/12	**7439-97-6**	**Mercury**	0.015	0.3	**0.4**	
3050B	05/18/12	6010C	05/29/12	**7440-02-0**	**Nickel**	3.6	10	**40**	
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.095	2	2	U
3050B	05/18/12	6010C	05/29/12	**7440-66-6**	**Zinc**	1.5	10	**500**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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TOTAL METALS
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Sample ID: MS006-SS-120515
SAMPLE

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 9.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	**7440-36-0**	**Antimony**	0.13	2	**5**	
3050B	05/18/12	200.8	05/23/12	**7440-38-2**	**Arsenic**	0.86	2	**80**	
3050B	05/18/12	200.8	05/23/12	**7440-43-9**	**Cadmium**	0.12	1	**3**	
3050B	05/18/12	6010C	05/29/12	**7440-47-3**	**Chromium**	2.6	5	**17**	
3050B	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.47	2	**91**	
3050B	05/18/12	6010C	05/29/12	**7439-92-1**	**Lead**	1.2	20	**360**	
CLP	05/18/12	7471A	05/21/12	**7439-97-6**	**Mercury**	0.012	0.2	**0.7**	
3050B	05/18/12	6010C	05/29/12	**7440-02-0**	**Nickel**	2.8	9	**33**	
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.079	2	2	U
3050B	05/18/12	6010C	05/29/12	**7440-66-6**	**Zinc**	1.1	9	**217**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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TOTAL METALS
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Sample ID: MS007-SS-120515
SAMPLE

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 16.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	7440-36-0	Antimony	0.077	1	1	U
3050B	05/18/12	200.8	05/23/12	**7440-38-2**	**Arsenic**	0.51	1	**28**	
3050B	05/18/12	200.8	05/23/12	**7440-43-9**	**Cadmium**	0.071	0.6	**3.7**	
3050B	05/18/12	6010C	05/29/12	**7440-47-3**	**Chromium**	1.5	3	**40**	
3050B	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.28	1	**111**	
3050B	05/18/12	6010C	05/29/12	**7439-92-1**	**Lead**	0.74	10	**350**	
CLP	05/18/12	7471A	05/21/12	**7439-97-6**	**Mercury**	0.0062	0.1	**0.2**	
3050B	05/18/12	6010C	05/29/12	**7440-02-0**	**Nickel**	1.7	6	**44**	
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.047	1	1	U
3050B	05/18/12	6010C	05/29/12	**7440-66-6**	**Zinc**	0.68	6	**594**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: MS008-SS-120515
SAMPLE

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	7440-36-0	Antimony	0.11	2	2	U
3050B	05/18/12	200.8	05/23/12	**7440-38-2**	**Arsenic**	0.75	2	**27**	
3050B	05/18/12	200.8	05/23/12	**7440-43-9**	**Cadmium**	0.10	0.9	**3.0**	
3050B	05/18/12	6010C	05/29/12	**7440-47-3**	**Chromium**	2.4	4	**37**	
3050B	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.44	2	**94**	
3050B	05/18/12	6010C	05/29/12	**7439-92-1**	**Lead**	1.2	20	**160**	
CLP	05/18/12	7471A	05/21/12	**7439-97-6**	**Mercury**	0.010	0.2	**0.2**	
3050B	05/18/12	6010C	05/29/12	**7440-02-0**	**Nickel**	2.7	9	**37**	
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.069	2	2	U
3050B	05/18/12	6010C	05/29/12	**7440-66-6**	**Zinc**	1.1	9	**251**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: MS009-SS-120515
SAMPLE

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	7440-36-0	Antimony	0.12	2	2	U
3050B	05/18/12	200.8	05/23/12	**7440-38-2**	**Arsenic**	0.83	2	**8**	
3050B	05/18/12	200.8	05/23/12	**7440-43-9**	**Cadmium**	0.11	1	**2**	
3050B	05/18/12	6010C	05/29/12	**7440-47-3**	**Chromium**	2.4	4	**43**	
3050B	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.45	2	**66**	
3050B	05/18/12	6010C	05/29/12	**7439-92-1**	**Lead**	1.2	20	**60**	
CLP	05/18/12	7471A	05/21/12	**7439-97-6**	**Mercury**	0.0088	0.2	**0.2**	
3050B	05/18/12	6010C	05/29/12	**7440-02-0**	**Nickel**	2.7	9	**38**	
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.076	2	2	U
3050B	05/18/12	6010C	05/29/12	**7440-66-6**	**Zinc**	1.1	9	**162**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: MS002-SS-120515
MATRIX SPIKE

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	2 U	23	234	9.8%	N
Arsenic	200.8	27	261	234	100%	
Cadmium	200.8	2.9	224	234	94.5%	
Chromium	6010C	41	473	448	96.4%	
Copper	6010C	139	588	448	100%	
Lead	6010C	150	1,930	1,790	99.4%	
Mercury	7471A	0.3	2.3	1.77	113%	
Nickel	6010C	46	477	448	96.2%	
Silver	200.8	2 U	222	234	94.9%	
Zinc	6010C	330	751	448	94.0%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

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TOTAL METALS
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Sample ID: MS002-SS-120515
DUPLICATE

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	2 U	2 U	0.0%	+/- 2	L
Arsenic	200.8	27	27	0.0%	+/- 20%	
Cadmium	200.8	2.9	3.0	3.4%	+/- 0.9	L
Chromium	6010C	41	40	2.5%	+/- 20%	
Copper	6010C	139	138	0.7%	+/- 20%	
Lead	6010C	150	150	0.0%	+/- 20%	
Mercury	7471A	0.3	0.3	0.0%	+/- 0.2	L
Nickel	6010C	46	46	0.0%	+/- 20%	
Silver	200.8	2 U	2 U	0.0%	+/- 2	L
Zinc	6010C	330	334	1.2%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: UU52LCS
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.8	25.0	99.2%	
Arsenic	200.8	25.5	25.0	102%	
Cadmium	200.8	24.1	25.0	96.4%	
Chromium	6010C	50.5	50.0	101%	
Copper	6010C	51.7	50.0	103%	
Lead	6010C	208	200	104%	
Mercury	7471A	0.53	0.50	106%	
Nickel	6010C	49	50	98.0%	
Silver	200.8	25.0	25.0	100%	
Zinc	6010C	50	50	100%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

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INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: METHOD BLANK

Lab Sample ID: UU52MB
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	05/18/12	200.8	05/23/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	05/18/12	200.8	05/23/12	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	05/18/12	200.8	05/23/12	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	05/18/12	6010C	05/29/12	7440-47-3	Chromium	0.27	0.5	0.5	U
3050B	05/18/12	6010C	05/29/12	7440-50-8	Copper	0.050	0.2	0.2	U
3050B	05/18/12	6010C	05/29/12	7439-92-1	Lead	0.13	2	2	U
CLP	05/18/12	7471A	05/21/12	7439-97-6	Mercury	0.0013	0.02	0.02	U
3050B	05/18/12	6010C	05/29/12	7440-02-0	Nickel	0.30	1	1	U
3050B	05/18/12	200.8	05/23/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	05/18/12	6010C	05/29/12	7440-66-6	Zinc	0.12	1	1	U

Reported in mg/kg (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

SDG: UU52

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS052381	50.0	48.94	**97.9**	50.0	49.55	**99.1**	49.92	**99.8**	50.56	**101.1**	50.08	**100.2**	50.66	**101.3**
Arsenic	AS	PMS	MS052381	50.0	49.58	**99.2**	50.0	50.39	**100.8**	50.54	**101.1**	50.38	**100.8**	50.74	**101.5**	50.17	**100.3**
Cadmium	CD	PMS	MS052381	50.0	49.26	**98.5**	50.0	49.93	**99.9**	51.05	**102.1**	50.01	**100.0**	49.82	**99.6**	49.69	**99.4**
Chromium	CR	ICP	IP052921	1000.0	952.21	**95.2**	1000.0	955.71	**95.6**	969.44	**96.9**	958.42	**95.8**	967.84	**96.8**	965.99	**96.6**
Copper	CU	ICP	IP052921	1000.0	1018.90	**101.9**	1000.0	1022.83	**102.3**	1026.48	**102.6**	1028.22	**102.8**	1032.55	**103.3**	1031.20	**103.1**
Lead	PB	ICP	IP052921	2000.0	1985.98	**99.3**	2000.0	1992.73	**99.6**	2005.36	**100.3**	1989.83	**99.5**	1965.06	**98.3**	2002.22	**100.1**
Mercury	HG	CVA	HG052102	8.0	8.26	**103.3**	4.0	4.18	**104.5**	4.21	**105.3**	4.19	**104.8**				
Nickel	NI	ICP	IP052921	1000.0	959.39	**95.9**	1000.0	969.42	**96.9**	987.90	**98.8**	978.45	**97.8**	993.21	**99.3**	983.21	**98.3**
Silver	AG	PMS	MS052381	50.0	49.85	**99.7**	50.0	50.32	**100.6**	50.65	**101.3**	49.79	**99.6**	50.39	**100.8**	50.33	**100.7**
Zinc	ZN	ICP	IP052921	1000.0	1002.35	**100.2**	1000.0	1011.70	**101.2**	1032.32	**103.2**	1020.62	**102.1**	1036.95	**103.7**	1028.11	**102.8**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

SDG: UU52

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS052381	50.0	49.61	**99.2**	49.48	**99.0**	49.82	**99.6**						
Arsenic	AS	PMS	MS052381	50.0	50.22	**100.4**	50.11	**100.2**	50.86	**101.7**						
Cadmium	CD	PMS	MS052381	50.0	48.99	**98.0**	49.97	**99.9**	50.16	**100.3**						
Chromium	CR	ICP	IP052921	1000.0												
Copper	CU	ICP	IP052921	1000.0												
Lead	PB	ICP	IP052921	2000.0												
Mercury	HG	CVA	HG052102	4.0												
Nickel	NI	ICP	IP052921	1000.0												
Silver	AG	PMS	MS052381	50.0	49.58	**99.2**	50.24	**100.5**	50.57	**101.1**						
Zinc	ZN	ICP	IP052921	1000.0												

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

SDG: UU52

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS052381	0.2	0.20	**100.0**										
Arsenic	AS	PMS	MS052381	0.2	0.28	**140.0**										
Cadmium	CD	PMS	MS052381	0.1	0.10	**100.0**										
Chromium	CR	ICP	IP052921	5.0	4.72	**94.4**										
Copper	CU	ICP	IP052921	2.0	2.11	**105.5**										
Lead	PB	ICP	IP052921	20.0	20.11	**100.6**										
Mercury	HG	CVA	HG052102	0.1	0.11	**110.0**										
Nickel	NI	ICP	IP052921	10.0	10.85	**108.5**										
Silver	AG	PMS	MS052381	0.2	0.19	**95.0**										
Zinc	ZN	ICP	IP052921	10.0	9.55	**95.5**										

Control Limits: *no control limits have been established by the EPA at this time.*

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

SDG: UU52

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS052381	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS052381	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS052381	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Chromium	CR	ICP	IP052921	10.0	5.0	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Copper	CU	ICP	IP052921	25.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Lead	PB	ICP	IP052921	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U
Mercury	HG	CVA	HG052102	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Nickel	NI	ICP	IP052921	40.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U
Silver	AG	PMS	MS052381	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	ICP	IP052921	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

SDG: UU52

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS052381	60.0	0.2	0.2	U	0.2	U	0.2	U						
Arsenic	AS	PMS	MS052381	10.0	0.2	0.2	U	0.2	U	0.2	U						
Cadmium	CD	PMS	MS052381	5.0	0.1	0.1	U	0.1	U	0.1	U						
Chromium	CR	ICP	IP052921	10.0	5.0												
Copper	CU	ICP	IP052921	25.0	2.0												
Lead	PB	ICP	IP052921	3.0	20.0												
Mercury	HG	CVA	HG052102	0.2	0.1												
Nickel	NI	ICP	IP052921	40.0	10.0												
Silver	AG	PMS	MS052381	10.0	0.2	0.2	U	0.2	U	0.2	U						
Zinc	ZN	ICP	IP052921	20.0	10.0												

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

ICS SOURCE: I.V.

PROJECT: Jeld Wen Maulsby Mar

RUNID: IP052921

SDG: UU52

INSTRUMENT ID: OPTIMA ICP 1

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	211269.8	206979.3	**103.5**						
Antimony		1000	-32.1	1032.0	**103.2**						
Arsenic		1000	-2.8	1046.1	**104.6**						
Barium		1000	1.8	956.5	**95.7**						
Beryllium		1000	0.0	1010.4	**101.0**						
Boron			-13.6	-19.0							
Cadmium		1000	1.0	1003.4	**100.3**						
Calcium	100000	100000	101025.3	102192.3	**102.2**						
Chromium		1000	2.1	963.1	**96.3**						
Cobalt		1000	0.9	925.6	**92.6**						
Copper		1000	2.6	1039.9	**104.0**						
Iron	200000	200000	205569.9	203892.9	**101.9**						
Lead		1000	4.8	965.0	**96.5**						
Magnesium	100000	100000	103325.9	104634.5	**104.6**						
Manganese		1000	0.1	961.7	**96.2**						
Molybdenum			7.3	8.2							
Nickel		1000	0.8	935.3	**93.5**						
Potassium			0.9	7.4							
Selenium		1000	-4.0	1009.8	**101.0**						
Silicon			-11.9	-9.6							
Silver		1000	2.1	1035.9	**103.6**						
Sodium			50.3	59.4							
Strontium			10.3	11.2							
Thallium		1000	-8.8	941.9	**94.2**						
Tin			-27.3	-29.3							
Titanium			0.7	-0.1							
Vanadium		1000	-5.6	1005.7	**100.6**						
Zinc		1000	-1.8	925.4	**92.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

ICS SOURCE: I.V.

PROJECT: Jeld Wen Maulsby Mar

RUNID: MS052381

SDG: UU52

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.0	0.1							
Cadmium		20	0.0	19.4	**97.0**						
Chromium		20	0.7	20.1	**100.5**						
Cobalt		20	0.0	19.3	**96.5**						
Copper		20	0.5	20.0	**100.0**						
Lead			0.1	0.1							
Manganese		20	0.0	19.6	**98.0**						
Molybdenum	400	400	401.6	403.3	**100.8**						
Nickel		20	0.6	19.2	**96.0**						
Selenium			-0.1	-0.1							
Silver		20	0.0	18.9	**94.5**						
Thorium			0.1	0.1							
Vanadium			0.0	-0.4							
Zinc		20	1.1	20.1	**100.5**						

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

ANALYSIS METHOD: PMS

SDG: UU52

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	MS002-SS-120515A	UU52CPOST	MS052381	503.10	B	4.00	U	500	Sediment	**100.6**

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

SDG: UU52 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	PE ELAN 6000 MS	0.00		60	0.2	4/1/2011		
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2011		
Cadmium	CD	PMS	PE ELAN 6000 MS	0.00		5	0.1	4/1/2011		
Chromium	CR	ICP	OPTIMA ICP 1	267.72		10	5.0	4/1/2011	100000.0	7/12/2010
Copper	CU	ICP	OPTIMA ICP 1	324.75		25	2.0	4/1/2011	40000.0	7/12/2010
Lead	PB	ICP	OPTIMA ICP 1	220.35		3	20.0	4/1/2011	300000.0	7/12/2010
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2011		
Nickel	NI	ICP	OPTIMA ICP 1	231.60		40	10.0	4/1/2011	100000.0	7/12/2010
Silver	AG	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2011		
Zinc	ZN	ICP	OPTIMA ICP 1	206.20		20	10.0	4/1/2011	100000.0	7/12/2010

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

IEC DATE: 5/29/2012

SDG: UU52

INSTRUMENT ID: OPTIMA ICP 1

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	-0.2671460	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	15.1857000	0.0000000	0.0000000
Arsenic	188.98	0.0968366	0.0000000	0.0000000	0.0000000	0.0278042	0.0000000	-1.2026700	0.9023870	0.0000000	0.0754059
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1888640	0.0000000	0.0000000	0.0355242
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	1.7599700	0.0000000	0.0000000	0.0000000	0.0000000	0.1139620	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0099375	0.0000000	-0.1609150	0.0000000	0.0000000	-0.0194781
Cobalt	228.62	0.0000000	0.0000000	0.3593720	0.0000000	0.0000000	0.0000000	0.0000000	-0.0383107	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.3423600	-0.0466820	0.0000000	-0.0878400
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.7651920	0.0000000	0.0000000
Lead	220.35	-0.3177780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-2.3759900	0.8342190	0.0000000
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.1612800	-1.0216800	0.0000000	0.6175170
Manganese	257.61	0.0084860	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0180771	0.0000000	0.0000000	0.0000000	0.0257018	0.0000000	0.0000000	0.0933245	0.0000000	0.0124101
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.3321560	0.0000000	0.0000000	-0.0599311
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.2679630	0.0000000	0.0000000	0.0000000	0.0589810	0.0000000	0.4514010	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.5681100	0.0000000	-1.0020900	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0403784
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	4.4818000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	9.0986000	0.3674950	0.0000000	-0.1085490
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0373290	0.0000000	0.0000000	0.2444290	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-7.0524000	0.0000000	0.1302620
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	-0.0165094	0.0000000	0.0000000	0.7289660	0.0000000	0.0000000

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

IEC DATE: 5/29/2012

SDG: UU52

INSTRUMENT ID: OPTIMA ICP 1

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	21.7825000	0.0000000	0.0000000	0.0000000	1.9524000	0.0000000	15.3881000	0.0000000
Antimony	206.84	-0.1041080	0.0000000	1.3316900	-0.3291700	0.0000000	0.0000000	-1.5094000	0.0000000	-3.7687600	0.9674010
Arsenic	188.98	0.0000000	0.0000000	2.0738500	0.0000000	0.0000000	0.0000000	-1.5162600	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1281830	0.0000000	0.0000000	0.0000000	0.0000000	0.4160660	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0160627	0.0000000	2.4958300	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.3045470	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0380258	0.2350890	0.1566040	0.0000000	0.0000000	0.0000000	0.0287539	0.0000000	0.1196170	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.2354060	0.0970896	0.0000000	0.0000000	1.6689900	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.2757360	0.0000000	0.0000000	0.0000000	0.2149870	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.2855620	0.1706620	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-2.0298600	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.2307900	0.0000000	0.0000000	0.0000000	-0.0231031	0.0000000
Molybdenum	202.03	0.0073210	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.1048000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.6505180	0.0000000	0.5517490	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	1.3045900	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	-0.1820250	0.0000000	-1.7127900	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.1800920	0.1409550	0.0000000	0.0000000	0.0000000	-0.0336215	0.0000000	-0.2541170	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	27.0360000	0.0000000	0.0000000	42.7190000
Thallium	190.80	0.0000000	1.9622100	-2.1053700	0.0000000	0.0000000	0.0000000	1.4997300	0.0000000	5.6218000	0.0000000
Tin	189.93	-0.0536731	0.0000000	0.0000000	0.0000000	0.0000000	-0.4036970	-0.4257350	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.9908490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1434250	-6.5129600	0.0000000	0.0000000	0.0000000	0.8061690	0.0000000	0.0000000	0.0000000
Zinc	206.20	-0.0199339	0.0000000	0.2750230	0.0000000	-0.0830846	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

SDG: UU52

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 5/18/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
MS001-SS-120515	UU52A	1.033	0.0	50.0
MS101-SS-120515	UU52B	1.024	0.0	50.0
MS002-SS-120515	UU52C	1.050	0.0	50.0
MS002-SS-120515D	UU52CDUP	1.051	0.0	50.0
MS002-SS-120515S	UU52CSPK	1.054	0.0	50.0
MS003-SS-120515	UU52D	1.017	0.0	50.0
MS004-SS-120515	UU52E	1.034	0.0	50.0
MS005-SS-120515	UU52F	1.049	0.0	50.0
MS006-SS-120515	UU52G	1.086	0.0	50.0
MS007-SS-120515	UU52H	1.057	0.0	50.0
MS008-SS-120515	UU52I	1.038	0.0	50.0
MS009-SS-120515	UU52J	1.082	0.0	50.0
PBS	UU52MB1	1.000	0.0	50.0
LCSS	UU52MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

SDG: UU52

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 5/18/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
MS001-SS-120515	UU52A	1.052	0.0	50.0
MS101-SS-120515	UU52B	1.039	0.0	50.0
MS002-SS-120515	UU52C	1.013	0.0	50.0
MS002-SS-120515D	UU52CDUP	1.012	0.0	50.0
MS002-SS-120515S	UU52CSPK	1.011	0.0	50.0
MS003-SS-120515	UU52D	1.063	0.0	50.0
MS004-SS-120515	UU52E	1.036	0.0	50.0
MS005-SS-120515	UU52F	1.070	0.0	50.0
MS006-SS-120515	UU52G	1.041	0.0	50.0
MS007-SS-120515	UU52H	1.014	0.0	50.0
MS008-SS-120515	UU52I	1.065	0.0	50.0
MS009-SS-120515	UU52J	1.019	0.0	50.0
PBS	UU52MB1	1.000	0.0	50.0
LCSS	UU52MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

SDG: UU52

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 5/18/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
MS001-SS-120515	UU52A	0.225	0.0	50.0
MS101-SS-120515	UU52B	0.269	0.0	50.0
MS002-SS-120515	UU52C	0.267	0.0	50.0
MS002-SS-120515D	UU52CDUP	0.268	0.0	50.0
MS002-SS-120515S	UU52CSPK	0.267	0.0	50.0
MS003-SS-120515	UU52D	0.247	0.0	50.0
MS004-SS-120515	UU52E	0.270	0.0	50.0
MS005-SS-120515	UU52F	0.216	0.0	50.0
MS006-SS-120515	UU52G	0.223	0.0	50.0
MS007-SS-120515	UU52H	0.253	0.0	50.0
MS008-SS-120515	UU52I	0.234	0.0	50.0
MS009-SS-120515	UU52J	0.286	0.0	50.0
PBS	UU52MB1	0.200	0.0	50.0
LCSW	UU52MB1SPK	0.200	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar | INSTRUMENT ID: OPTIMA ICP 1 | START DATE: 5/29/2012

SDG: UU52 | RUNID: IP052921 | METHOD: ICP | END DATE: 5/29/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	13225											X	X								X	X									X
S2	S2	1.00	13285											X	X																		
S3	S3	1.00	13324																				X	X									X
S4	S4	1.00	13370																														
S5	S5	1.00	13411																														
ICV	ICV	1.00	13552											X	X								X	X									X
ICB	ICB	1.00	14012											X	X								X	X									X
ZZZZZZ	ZZZZZZ	1.00	14072																														
S0	S0	1.00	14135											X	X								X	X									X
CCV	CCV1	1.00	14181											X	X								X	X									X
CCB	CCB1	1.00	14241											X	X								X	X									X
CRI	CRII	1.00	14301											X	X								X	X									X
ICSA	ICSAI	1.00	14361											X	X								X	X									X
ICSAB	ICSABI	1.00	14421											X	X								X	X									X
CCV	CCV2	1.00	14491											X	X								X	X									X
CCB	CCB2	1.00	14551											X	X								X	X									X
ZZZZZZ	DICHECK	1.00	15011																														
PBS	UU52MB1	2.00	15071											X	X								X	X									X
ZZZZZZ	QC21	1.00	15131																														
ZZZZZZ	QC7M	1.00	15193																														
MS001-SS-120515	UU52A	2.00	15253											X	X								X	X									X
MS101-SS-120515	UU52B	2.00	15313											X	X								X	X									X
MS002-SS-120515D	UU52CDUP	2.00	15373											X	X								X	X									X
MS002-SS-120515	UU52C	2.00	15434											X	X								X	X									X
MS002-SS-120515S	UU52CSPK	2.00	15494											X	X								X	X									X
LCSS	UU52MB1SPK	2.00	15554											X	X								X	X									X
CCV	CCV3	1.00	16015											X	X								X	X									X
CCB	CCB3	1.00	16075											X	X								X	X									X
ZZZZZZ	UU62MB1	1.00	16135																														
ZZZZZZ	UU62K	1.00	16195																														
ZZZZZZ	UU62JDUP	1.00	16255																														
ZZZZZZ	UU62J	1.00	16315																														
ZZZZZZ	UU62JSPK	1.00	16375																														
MS003-SS-120515	UU52D	2.00	16435											X	X								X	X									X
MS004-SS-120515	UU52E	2.00	16500											X	X								X	X									X

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar | INSTRUMENT ID: OPTIMA ICP 1 | START DATE: 5/29/2012

SDG: UU52 | RUNID: IP052921 | METHOD: ICP | END DATE: 5/29/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
MS005-SS-120515	UU52F	2.00	16560											X	X								X	X									X
MS006-SS-120515	UU52G	2.00	17020											X	X								X	X									X
ZZZZZZ	UU62MB1SPK	1.00	17080																														
CCV	CCV4	1.00	17140											X	X								X	X									X
CCB	CCB4	1.00	17195											X	X								X	X									X
ZZZZZZ	UU94MB	1.00	17255																														
ZZZZZZ	UU94B	1.00	17315																														
ZZZZZZ	UU94C	1.00	17381																														
ZZZZZZ	UU94ADUP	1.00	17442																														
ZZZZZZ	UU94A	1.00	17504																														
ZZZZZZ	UU94ASPK	1.00	17571																														
MS007-SS-120515	UU52H	2.00	18031											X	X								X	X									X
MS008-SS-120515	UU52I	2.00	18092											X	X								X	X									X
MS009-SS-120515	UU52J	2.00	18152											X	X								X	X									X
ZZZZZZ	UU94MBSPK	1.00	18212																														
CCV	CCV5	1.00	18272											X	X								X	X									X
CCB	CCB5	1.00	18333											X	X								X	X									X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 5/23/2012

SDG: UU52 | RUNID: MS052381 METHOD: PMS | END DATE: 5/24/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	16000		X		X					X													X								
S1	S1	1.00	16060		X		X					X													X								
S2	S2	1.00	16130		X		X					X													X								
S3	S3	1.00	16190		X		X					X													X								
S4	S4	1.00	16250		X		X					X													X								
ZZZZZZ	Rinse Sampl	1.00	16310																														
S0	S0	1.00	16440		X		X					X													X								
ICV	MICV	1.00	16510		X		X					X													X								
ICB	ICB	1.00	16580		X		X					X													X								
CCV	MCCV1	1.00	17040		X		X					X													X								
CCB	CCB1	1.00	17100		X		X					X													X								
CRI	MCRI	1.00	17160		X		X					X													X								
ICSA	ICSAI	1.00	17220		X		X					X													X								
ICSAB	ICSABI	1.00	17280		X		X					X													X								
ZZZZZZ	LR200	1.00	17350																														
ZZZZZZ	LR300	1.00	17410																														
CCV	MCCV2	1.00	17480		X		X					X													X								
CCB	CCB2	1.00	17540		X		X					X													X								
ZZZZZZ	NEW IS	1.00	18010																														
ZZZZZZ	UV05MB1	2.00	18070																														
ZZZZZZ	UV05MB2	2.00	18130																														
ZZZZZZ	UV06MB1	2.00	18190																														
ZZZZZZ	UV06MB2	2.00	18250																														
ZZZZZZ	UV06MB2SPK	2.00	18300																														
ZZZZZZ	UV06MB1SPK	2.00	18370																														
ZZZZZZ	UV05MB2SPK	2.00	18430																														
ZZZZZZ	UV05MB1SPK	2.00	18490																														
ZZZZZZ	UV05A	2.00	18560																														
CCV	MCCV3	1.00	19020		X		X					X													X								
CCB	CCB3	1.00	19080		X		X					X													X								
ZZZZZZ	UV14MB1	2.00	19140																														
ZZZZZZ	UV14MB2	2.00	19200																														
ZZZZZZ	UV14MB2SPK	2.00	19260																														
ZZZZZZ	UV14MB1SPK	2.00	19320																														
ZZZZZZ	UV14A	2.00	19380																														

FORM XIV

UU52 : 05/24

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 5/23/2012

SDG: UU52 | RUNID: MS052381 METHOD: PMS | END DATE: 5/24/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	UV14B	2.00	19450																														
ZZZZZZ	UV14C	2.00	19510																														
ZZZZZZ	UV05B	2.00	19570																														
ZZZZZZ	UV06A	2.00	20040																														
ZZZZZZ	UV06B	2.00	20100																														
CCV	MCCV4	1.00	20160		X		X					X													X								
CCB	CCB4	1.00	20230		X		X					X													X								
ZZZZZZ	UV16MB1	2.00	20290																														
ZZZZZZ	UV16MB2	2.00	20340																														
ZZZZZZ	UV16MB2SPK	2.00	20400																														
ZZZZZZ	UV16MB1SPK	2.00	20470																														
ZZZZZZ	UV16A	2.00	20530																														
ZZZZZZ	UV14D	2.00	20590																														
ZZZZZZ	UV14E	2.00	21050																														
ZZZZZZ	UV14F	2.00	21120																														
ZZZZZZ	UV14G	2.00	21180																														
ZZZZZZ	UV14H	2.00	21240																														
CCV	MCCV5	1.00	21310		X		X					X													X								
CCB	CCB5	1.00	21370		X		X					X													X								
ZZZZZZ	UU62MB1	2.00	21430																														
ZZZZZZ	UU62MB1SPK	2.00	21490																														
ZZZZZZ	UU62JDUP	2.00	21550																														
ZZZZZZ	UU62J	2.00	22010																														
ZZZZZZ	UU62JSPK	2.00	22080																														
ZZZZZZ	UU62K	2.00	22140																														
ZZZZZZ	UU27G	2.00	22200																														
ZZZZZZ	UV16B	2.00	22270																														
ZZZZZZ	UV16C	2.00	22330																														
ZZZZZZ	UV16D	2.00	22390																														
CCV	MCCV6	1.00	22450		X		X					X													X								
CCB	CCB6	1.00	22520		X		X					X													X								
PBS	UU52MB1	20.00	22580		X		X					X													X								
LCSS	UU52MB1SPK	20.00	23040		X		X					X													X								
MS002-SS-120515D	UU52CDUP	20.00	23100		X		X					X													X								
MS002-SS-120515	UU52C	20.00	23160		X		X					X													X								

FORM XIV

UU52:SS:SS

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 5/23/2012

SDG: UU52 | RUNID: MS052381 METHOD: PMS | END DATE: 5/24/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
MS002-SS-120515S	UU52CSPK	20.00	23230		X		X					X													X								
MS002-SS-120515A	UU52CPOST	20.00	23290																						X								
MS001-SS-120515	UU52A	20.00	23350		X		X					X													X								
MS101-SS-120515	UU52B	20.00	23420		X		X					X													X								
MS003-SS-120515	UU52D	20.00	23480		X		X					X													X								
MS004-SS-120515	UU52E	20.00	23540		X		X					X													X								
CCV	MCCV7	1.00	00000		X		X					X													X								
CCB	CCB7	1.00	00070		X		X					X													X								
ZZZZZZ	UU31MB	2.00	00130																														
ZZZZZZ	UU31MBSPK	2.00	00180																														
ZZZZZZ	UU31ADUP	2.00	00250																														
ZZZZZZ	UU31A	2.00	00310																														
ZZZZZZ	UU31ASPK	2.00	00370																														
MS005-SS-120515	UU52F	20.00	00440		X		X					X													X								
MS006-SS-120515	UU52G	20.00	00500		X		X					X													X								
MS007-SS-120515	UU52H	20.00	00560		X		X					X													X								
MS008-SS-120515	UU52I	20.00	01030		X		X					X													X								
MS009-SS-120515	UU52J	20.00	01090		X		X					X													X								
CCV	MCCV8	1.00	01150		X		X					X													X								
CCB	CCB8	1.00	01220		X		X					X													X								

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar | INSTRUMENT ID: CETAC MERCURY | START DATE: 5/21/2012

SDG: UU52 | RUNID: HG052102 | METHOD: CVA | END DATE: 5/21/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	14162														X																
S0.1	S0.1	1.00	14180														X																
S0.5	S0.5	1.00	14194														X																
S1	S1	1.00	14211														X																
S2	S2	1.00	14225														X																
S5	S5	1.00	14243														X																
S10	S10	1.00	14261														X																
ICV	AICV	1.00	14291														X																
ICB	ICB	1.00	14304														X																
CCV	ACCV1	1.00	14322														X																
CCB	CCB1	1.00	14340														X																
CRA	CRA	1.00	14354														X																
PBW	UU52MB1	1.00	14372														X																
LCSW	UU52MB1SPK	1.00	14385														X																
MS001-SS-120515	UU52A	1.00	14403														X																
MS101-SS-120515	UU52B	1.00	14420														X																
MS002-SS-120515	UU52C	1.00	14434														X																
MS002-SS-120515D	UU52CDUP	1.00	14452														X																
MS002-SS-120515S	UU52CSPK	1.00	14465														X																
MS003-SS-120515	UU52D	1.00	14483														X																
MS004-SS-120515	UU52E	1.00	14501														X																
CCV	ACCV2	1.00	14515														X																
CCB	CCB2	1.00	14533														X																
MS005-SS-120515	UU52F	1.00	14551														X																
MS006-SS-120515	UU52G	1.00	14564														X																
MS007-SS-120515	UU52H	1.00	14582														X																
MS008-SS-120515	UU52I	1.00	14595														X																
MS009-SS-120515	UU52J	1.00	15013														X																
ZZZZZZ	UU77MB1	1.00	15031																														
ZZZZZZ	UU77MB1SPK	1.00	15044																														
ZZZZZZ	UU77A	1.00	15062																														
ZZZZZZ	UU77B	1.00	15080																														
ZZZZZZ	UU77BDUP	1.00	15094																														
CCV	ACCV3	1.00	15112														X																
CCB	CCB3	1.00	15130														X																

FORM XIV

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

SDG: UU62

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
MS-SSRB-120515	UU62J	12-8937	
MS-SSRB-120515D	UU62JDUP	12-8937	
MS-SSRB-120515S	UU62JSPK	12-8937	
MS-SSFB-120515	UU62K	12-8938	
PBW	UU62MB1	12-8938	
LCSW	UU62MB1SPK	12-8938	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 6/3/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: MS-SSRB-120515
SAMPLE

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
200.8	05/21/12	200.8	05/23/12	7440-36-0	Antimony	0.010	0.2	0.2	U
200.8	05/21/12	200.8	05/23/12	7440-38-2	Arsenic	0.048	0.2	0.2	U
200.8	05/21/12	200.8	05/23/12	7440-43-9	Cadmium	0.010	0.1	0.1	U
3010A	05/18/12	6010C	05/29/12	7440-47-3	Chromium	1.24	5	5	U
3010A	05/18/12	6010C	05/29/12	7440-50-8	Copper	0.92	2	2	U
3010A	05/18/12	6010C	05/29/12	7439-92-1	Lead	1.6	20	20	U
7470A	05/18/12	7470A	05/21/12	7439-97-6	Mercury	0.007	0.1	0.1	U
3010A	05/18/12	6010C	05/29/12	7440-02-0	Nickel	3.9	10	10	U
200.8	05/21/12	200.8	05/23/12	7440-22-4	Silver	0.008	0.2	0.2	U
3010A	05/18/12	6010C	05/29/12	7440-66-6	Zinc	1.4	10	10	U

Reported in ug/L (ppb).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: MS-SSFB-120515
SAMPLE

Lab Sample ID: UU62K
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
200.8	05/21/12	200.8	05/23/12	7440-36-0	Antimony	0.010	0.2	0.2	U
200.8	05/21/12	200.8	05/23/12	7440-38-2	Arsenic	0.048	0.2	0.2	U
200.8	05/21/12	200.8	05/23/12	7440-43-9	Cadmium	0.010	0.1	0.1	U
3010A	05/18/12	6010C	05/29/12	7440-47-3	Chromium	1.24	5	5	U
3010A	05/18/12	6010C	05/29/12	**7440-50-8**	**Copper**	0.92	2	**7**	
3010A	05/18/12	6010C	05/29/12	7439-92-1	Lead	1.6	20	20	U
7470A	05/18/12	7470A	05/21/12	7439-97-6	Mercury	0.007	0.1	0.1	U
3010A	05/18/12	6010C	05/29/12	7440-02-0	Nickel	3.9	10	10	U
200.8	05/21/12	200.8	05/23/12	7440-22-4	Silver	0.008	0.2	0.2	U
3010A	05/18/12	6010C	05/29/12	7440-66-6	Zinc	1.4	10	10	U

Reported in ug/L (ppb).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: MS-SSRB-120515
MATRIX SPIKE

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.200 U	24.3	25.0	97.2%	
Arsenic	200.8	0.200 U	25.4	25.0	102%	
Cadmium	200.8	0.100 U	24.6	25.0	98.4%	
Chromium	6010C	5.00 U	510	500	102%	
Copper	6010C	2.00 U	508	500	102%	
Lead	6010C	20.0 U	2,040	2,000	102%	
Mercury	7470A	0.100 U	1.13	1.00	113%	
Nickel	6010C	10.0 U	485	500	97.0%	
Silver	200.8	0.200 U	25.1	25.0	100%	
Zinc	6010C	10.0 U	499	500	99.8%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MS-SSRB-120515
DUPLICATE

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Chromium	6010C	5 U	5 U	0.0%	+/- 5	L
Copper	6010C	2 U	2 U	0.0%	+/- 2	L
Lead	6010C	20 U	20 U	0.0%	+/- 20	L
Mercury	7470A	0.1 U	0.1 U	0.0%	+/- 0.1	L
Nickel	6010C	10 U	10 U	0.0%	+/- 10	L
Silver	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Zinc	6010C	10 U	10 U	0.0%	+/- 10	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: UU62LCS
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.5	25.0	98.0%	
Arsenic	200.8	25.7	25.0	103%	
Cadmium	200.8	24.1	25.0	96.4%	
Chromium	6010C	508	500	102%	
Copper	6010C	516	500	103%	
Lead	6010C	2080	2000	104%	
Mercury	7470A	2.21	2.00	110%	
Nickel	6010C	487	500	97.4%	
Silver	200.8	24.4	25.0	97.6%	
Zinc	6010C	497	500	99.4%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: UU62MB
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh 120909-01.01
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
200.8	05/21/12	200.8	05/23/12	7440-36-0	Antimony	0.010	0.2	0.2	U
200.8	05/21/12	200.8	05/23/12	7440-38-2	Arsenic	0.048	0.2	0.2	U
200.8	05/21/12	200.8	05/23/12	7440-43-9	Cadmium	0.010	0.1	0.1	U
3010A	05/18/12	6010C	05/29/12	7440-47-3	Chromium	1.24	5	5	U
3010A	05/18/12	6010C	05/29/12	7440-50-8	Copper	0.92	2	2	U
3010A	05/18/12	6010C	05/29/12	7439-92-1	Lead	1.6	20	20	U
7470A	05/18/12	7470A	05/21/12	7439-97-6	Mercury	0.007	0.1	0.1	U
3010A	05/18/12	6010C	05/29/12	7440-02-0	Nickel	3.9	10	10	U
200.8	05/21/12	200.8	05/23/12	7440-22-4	Silver	0.008	0.2	0.2	U
3010A	05/18/12	6010C	05/29/12	7440-66-6	Zinc	1.4	10	10	U

Reported in ug/L (ppb).
U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

SDG: UU62

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS052381	50.0	48.94	**97.9**	50.0	49.55	**99.1**	49.92	**99.8**	50.56	**101.1**	50.08	**100.2**	50.66	**101.3**
Arsenic	AS	PMS	MS052381	50.0	49.58	**99.2**	50.0	50.39	**100.8**	50.54	**101.1**	50.38	**100.8**	50.74	**101.5**	50.17	**100.3**
Cadmium	CD	PMS	MS052381	50.0	49.26	**98.5**	50.0	49.93	**99.9**	51.05	**102.1**	50.01	**100.0**	49.82	**99.6**	49.69	**99.4**
Chromium	CR	ICP	IP052921	1000.0	952.21	**95.2**	1000.0	955.71	**95.6**	969.44	**96.9**	958.42	**95.8**	967.84	**96.8**		
Copper	CU	ICP	IP052921	1000.0	1018.90	**101.9**	1000.0	1022.83	**102.3**	1026.48	**102.6**	1028.22	**102.8**	1032.55	**103.3**		
Lead	PB	ICP	IP052921	2000.0	1985.98	**99.3**	2000.0	1992.73	**99.6**	2005.36	**100.3**	1989.83	**99.5**	1965.06	**98.3**		
Mercury	HG	CVA	HG052101	8.0	8.42	**105.3**	4.0	4.17	**104.3**	4.14	**103.5**						
Nickel	NI	ICP	IP052921	1000.0	959.39	**95.9**	1000.0	969.42	**96.9**	987.90	**98.8**	978.45	**97.8**	993.21	**99.3**		
Silver	AG	PMS	MS052381	50.0	49.85	**99.7**	50.0	50.32	**100.6**	50.65	**101.3**	49.79	**99.6**	50.39	**100.8**	50.33	**100.7**
Zinc	ZN	ICP	IP052921	1000.0	1002.35	**100.2**	1000.0	1011.70	**101.2**	1032.32	**103.2**	1020.62	**102.1**	1036.95	**103.7**		

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

SDG: UU62

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS052381	50.0	49.61	**99.2**										
Arsenic	AS	PMS	MS052381	50.0	50.22	**100.4**										
Cadmium	CD	PMS	MS052381	50.0	48.99	**98.0**										
Chromium	CR	ICP	IP052921	1000.0												
Copper	CU	ICP	IP052921	1000.0												
Lead	PB	ICP	IP052921	2000.0												
Mercury	HG	CVA	HG052101	4.0												
Nickel	NI	ICP	IP052921	1000.0												
Silver	AG	PMS	MS052381	50.0	49.58	**99.2**										
Zinc	ZN	ICP	IP052921	1000.0												

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

SDG: UU62

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS052381	0.2	0.20	**100.0**										
Arsenic	AS	PMS	MS052381	0.2	0.28	**140.0**										
Cadmium	CD	PMS	MS052381	0.1	0.10	**100.0**										
Chromium	CR	ICP	IP052921	5.0	4.72	**94.4**										
Copper	CU	ICP	IP052921	2.0	2.11	**105.5**										
Lead	PB	ICP	IP052921	20.0	20.11	**100.6**										
Mercury	HG	CVA	HG052101	0.1	0.10	**100.0**										
Nickel	NI	ICP	IP052921	10.0	10.85	**108.5**										
Silver	AG	PMS	MS052381	0.2	0.19	**95.0**										
Zinc	ZN	ICP	IP052921	10.0	9.55	**95.5**										

Control Limits: no control limits have been established by the EPA at this time.

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

SDG: UU62

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS052381	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS052381	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS052381	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Chromium	CR	ICP	IP052921	10.0	5.0	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U		
Copper	CU	ICP	IP052921	25.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U		
Lead	PB	ICP	IP052921	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U		
Mercury	HG	CVA	HG052101	0.2	0.1	0.1	U	0.1	U	0.1	U						
Nickel	NI	ICP	IP052921	40.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U		
Silver	AG	PMS	MS052381	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	ICP	IP052921	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U		

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

SDG: UU62

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS052381	60.0	0.2	0.2	U										
Arsenic	AS	PMS	MS052381	10.0	0.2	0.2	U										
Cadmium	CD	PMS	MS052381	5.0	0.1	0.1	U										
Chromium	CR	ICP	IP052921	10.0	5.0												
Copper	CU	ICP	IP052921	25.0	2.0												
Lead	PB	ICP	IP052921	3.0	20.0												
Mercury	HG	CVA	HG052101	0.2	0.1												
Nickel	NI	ICP	IP052921	40.0	10.0												
Silver	AG	PMS	MS052381	10.0	0.2	0.2	U										
Zinc	ZN	ICP	IP052921	20.0	10.0												

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

ICS SOURCE: I.V.

PROJECT: Jeld Wen - Maulsby M

RUNID: IP052921

SDG: UU62

INSTRUMENT ID: OPTIMA ICP 1

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	211269.8	206979.3	**103.5**						
Antimony		1000	-32.1	1032.0	**103.2**						
Arsenic		1000	-2.8	1046.1	**104.6**						
Barium		1000	1.8	956.5	**95.7**						
Beryllium		1000	0.0	1010.4	**101.0**						
Boron			-13.6	-19.0							
Cadmium		1000	1.0	1003.4	**100.3**						
Calcium	100000	100000	101025.3	102192.3	**102.2**						
Chromium		1000	2.1	963.1	**96.3**						
Cobalt		1000	0.9	925.6	**92.6**						
Copper		1000	2.6	1039.9	**104.0**						
Iron	200000	200000	205569.9	203892.9	**101.9**						
Lead		1000	4.8	965.0	**96.5**						
Magnesium	100000	100000	103325.9	104634.5	**104.6**						
Manganese		1000	0.1	961.7	**96.2**						
Molybdenum			7.3	8.2							
Nickel		1000	0.8	935.3	**93.5**						
Potassium			0.9	7.4							
Selenium		1000	-4.0	1009.8	**101.0**						
Silicon			-11.9	-9.6							
Silver		1000	2.1	1035.9	**103.6**						
Sodium			50.3	59.4							
Strontium			10.3	11.2							
Thallium		1000	-8.8	941.9	**94.2**						
Tin			-27.3	-29.3							
Titanium			0.7	-0.1							
Vanadium		1000	-5.6	1005.7	**100.6**						
Zinc		1000	-1.8	925.4	**92.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

ICS SOURCE: I.V.

PROJECT: Jeld Wen - Maulsby M

RUNID: MS052381

SDG: UU62

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.0	0.1							
Cadmium		20	0.0	19.4	**97.0**						
Chromium		20	0.7	20.1	**100.5**						
Cobalt		20	0.0	19.3	**96.5**						
Copper		20	0.5	20.0	**100.0**						
Lead			0.1	0.1							
Manganese		20	0.0	19.6	**98.0**						
Molybdenum	400	400	401.6	403.3	**100.8**						
Nickel		20	0.6	19.2	**96.0**						
Selenium			-0.1	-0.1							
Silver		20	0.0	18.9	**94.5**						
Thorium			0.1	0.1							
Vanadium			0.0	-0.4							
Zinc		20	1.1	20.1	**100.5**						

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

SDG: UU62 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	PE ELAN 6000 MS	0.00		60	0.2	4/1/2011		
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2011		
Cadmium	CD	PMS	PE ELAN 6000 MS	0.00		5	0.1	4/1/2011		
Chromium	CR	ICP	OPTIMA ICP 1	267.72		10	5.0	4/1/2011	100000.0	7/12/2010
Copper	CU	ICP	OPTIMA ICP 1	324.75		25	2.0	4/1/2011	40000.0	7/12/2010
Lead	PB	ICP	OPTIMA ICP 1	220.35		3	20.0	4/1/2011	300000.0	7/12/2010
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2011		
Nickel	NI	ICP	OPTIMA ICP 1	231.60		40	10.0	4/1/2011	100000.0	7/12/2010
Silver	AG	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2011		
Zinc	ZN	ICP	OPTIMA ICP 1	206.20		20	10.0	4/1/2011	100000.0	7/12/2010

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

IEC DATE: 5/29/2012

SDG: UU62

INSTRUMENT ID: OPTIMA ICP 1

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	-0.2671460	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	15.1857000	0.0000000	0.0000000
Arsenic	188.98	0.0968366	0.0000000	0.0000000	0.0000000	0.0278042	0.0000000	-1.2026700	0.9023870	0.0000000	0.0754059
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1888640	0.0000000	0.0000000	0.0355242
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	1.7599700	0.0000000	0.0000000	0.0000000	0.0000000	0.1139620	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0099375	0.0000000	-0.1609150	0.0000000	0.0000000	-0.0194781
Cobalt	228.62	0.0000000	0.0000000	0.3593720	0.0000000	0.0000000	0.0000000	0.0000000	-0.0383107	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.3423600	-0.0466820	0.0000000	-0.0878400
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.7651920	0.0000000	0.0000000
Lead	220.35	-0.3177780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-2.3759900	0.8342190	0.0000000
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.1612800	-1.0216800	0.0000000	0.6175170
Manganese	257.61	0.0084860	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0180771	0.0000000	0.0000000	0.0000000	0.0257018	0.0000000	0.0000000	0.0933245	0.0000000	0.0124101
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.3321560	0.0000000	0.0000000	-0.0599311
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.2679630	0.0000000	0.0000000	0.0000000	0.0589810	0.0000000	0.4514010	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.5681100	0.0000000	-1.0020900	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0403784
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	4.4818000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	9.0986000	0.3674950	0.0000000	-0.1085490
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0373290	0.0000000	0.0000000	0.2444290	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-7.0524000	0.0000000	0.1302620
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	-0.0165094	0.0000000	0.0000000	0.7289660	0.0000000	0.0000000

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

IEC DATE: 5/29/2012

SDG: UU62

INSTRUMENT ID: OPTIMA ICP 1

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	21.7825000	0.0000000	0.0000000	0.0000000	1.9524000	0.0000000	15.3881000	0.0000000
Antimony	206.84	-0.1041080	0.0000000	1.3316900	-0.3291700	0.0000000	0.0000000	-1.5094000	0.0000000	-3.7687600	0.9674010
Arsenic	188.98	0.0000000	0.0000000	2.0738500	0.0000000	0.0000000	0.0000000	-1.5162600	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1281830	0.0000000	0.0000000	0.0000000	0.0000000	0.4160660	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0160627	0.0000000	2.4958300	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.3045470	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0380258	0.2350890	0.1566040	0.0000000	0.0000000	0.0000000	0.0287539	0.0000000	0.1196170	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.2354060	0.0970896	0.0000000	0.0000000	1.6689900	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.2757360	0.0000000	0.0000000	0.0000000	0.2149870	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.2855620	0.1706620	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-2.0298600	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.2307900	0.0000000	0.0000000	0.0000000	-0.0231031	0.0000000
Molybdenum	202.03	0.0073210	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.1048000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.6505180	0.0000000	0.5517490	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	1.3045900	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	-0.1820250	0.0000000	-1.7127900	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.1800920	0.1409550	0.0000000	0.0000000	0.0000000	-0.0336215	0.0000000	-0.2541170	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	27.0360000	0.0000000	0.0000000	42.7190000
Thallium	190.80	0.0000000	1.9622100	-2.1053700	0.0000000	0.0000000	0.0000000	1.4997300	0.0000000	5.6218000	0.0000000
Tin	189.93	-0.0536731	0.0000000	0.0000000	0.0000000	0.0000000	-0.4036970	-0.4257350	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.9908490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1434250	-6.5129600	0.0000000	0.0000000	0.0000000	0.8061690	0.0000000	0.0000000	0.0000000
Zinc	206.20	-0.0199339	0.0000000	0.2750230	0.0000000	-0.0830846	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

SDG: UU62

ANALYSIS METHOD: ICP

ARI PREP CODE: TWC

PREPDATE: 5/18/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
MS-SSRB-120515	UU62J	0.000	50.0	50.0
MS-SSRB-120515D	UU62JDUP	0.000	50.0	50.0
MS-SSRB-120515S	UU62JSPK	0.000	50.0	50.0
MS-SSFB-120515	UU62K	0.000	50.0	50.0
PBW	UU62MB1	0.000	50.0	50.0
LCSW	UU62MB1SPK	0.000	50.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

SDG: UU62

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 5/21/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
MS-SSRB-120515	UU62J	0.000	50.0	25.0
MS-SSRB-120515D	UU62JDUP	0.000	50.0	25.0
MS-SSRB-120515S	UU62JSPK	0.000	50.0	25.0
MS-SSFB-120515	UU62K	0.000	50.0	25.0
PBW	UU62MB1	0.000	50.0	25.0
LCSW	UU62MB1SPK	0.000	50.0	25.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

ANALYSIS METHOD: CVA

PROJECT: Jeld Wen - Maulsby M

ARI PREP CODE: TWM

SDG: UU62

PREPDATE: 5/18/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
MS-SSRB-120515	UU62J	0.000	20.0	20.0
MS-SSRB-120515D	UU62JDUP	0.000	20.0	20.0
MS-SSRB-120515S	UU62JSPK	0.000	20.0	20.0
MS-SSFB-120515	UU62K	0.000	20.0	20.0
PBW	UU62MB1	0.000	20.0	20.0
LCSW	UU62MB1SPK	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M | INSTRUMENT ID: OPTIMA ICP 1 | START DATE: 5/29/2012

SDG: UU62 | RUNID: IP052921 | METHOD: ICP | END DATE: 5/29/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	13225											X	X								X	X									X
S2	S2	1.00	13285											X	X																		
S3	S3	1.00	13324																				X	X									X
S4	S4	1.00	13370																														
S5	S5	1.00	13411																														
ICV	ICV	1.00	13552											X	X								X	X									X
ICB	ICB	1.00	14012											X	X								X	X									X
ZZZZZZ	ZZZZZZ	1.00	14072																														
S0	S0	1.00	14135											X	X								X	X									X
CCV	CCV1	1.00	14181											X	X								X	X									X
CCB	CCB1	1.00	14241											X	X								X	X									X
CRI	CRII	1.00	14301											X	X								X	X									X
ICSA	ICSAI	1.00	14361											X	X								X	X									X
ICSAB	ICSABI	1.00	14421											X	X								X	X									X
CCV	CCV2	1.00	14491											X	X								X	X									X
CCB	CCB2	1.00	14551											X	X								X	X									X
ZZZZZZ	DICHECK	1.00	15011																														
ZZZZZZ	UU52MB1	2.00	15071																														
ZZZZZZ	QC21	1.00	15131																														
ZZZZZZ	QC7M	1.00	15193																														
ZZZZZZ	UU52A	2.00	15253																														
ZZZZZZ	UU52B	2.00	15313																														
ZZZZZZ	UU52CDUP	2.00	15373																														
ZZZZZZ	UU52C	2.00	15434																														
ZZZZZZ	UU52CSPK	2.00	15494																														
ZZZZZZ	UU52MB1SPK	2.00	15554																														
CCV	CCV3	1.00	16015											X	X								X	X									X
CCB	CCB3	1.00	16075											X	X								X	X									X
PBW	UU62MB1	1.00	16135											X	X								X	X									X
MS-SSFB-120515	UU62K	1.00	16195											X	X								X	X									X
MS-SSRB-120515D	UU62JDUP	1.00	16255											X	X								X	X									X
MS-SSRB-120515	UU62J	1.00	16315											X	X								X	X									X
MS-SSRB-120515S	UU62JSPK	1.00	16375											X	X								X	X									X
ZZZZZZ	UU52D	2.00	16435																														
ZZZZZZ	UU52E	2.00	16500																														

FORM XIV

UU52 5/29/12

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M | INSTRUMENT ID: OPTIMA ICP 1 | START DATE: 5/29/2012

SDG: UU62 | RUNID: IP052921 | METHOD: ICP | END DATE: 5/29/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	UU52F	2.00	16560																														
ZZZZZZ	UU52G	2.00	17020																														
LCSW	UU62MB1SPK	1.00	17080											X	X								X	X									X
CCV	CCV4	1.00	17140											X	X								X	X									X
CCB	CCB4	1.00	17195											X	X								X	X									X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 5/23/2012

SDG: UU62 | RUNID: MS052381 | METHOD: PMS | END DATE: 5/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	16000		X		X					X													X								
S1	S1	1.00	16060		X		X					X													X								
S2	S2	1.00	16130		X		X					X													X								
S3	S3	1.00	16190		X		X					X													X								
S4	S4	1.00	16250		X		X					X													X								
ZZZZZZ	Rinse Sampl	1.00	16310																														
S0	S0	1.00	16440		X		X					X													X								
ICV	MICV	1.00	16510		X		X					X													X								
ICB	ICB	1.00	16580		X		X					X													X								
CCV	MCCV1	1.00	17040		X		X					X													X								
CCB	CCB1	1.00	17100		X		X					X													X								
CRI	MCRI	1.00	17160		X		X					X													X								
ICSA	ICSAI	1.00	17220		X		X					X													X								
ICSAB	ICSABI	1.00	17280		X		X					X													X								
ZZZZZZ	LR200	1.00	17350																														
ZZZZZZ	LR300	1.00	17410																														
CCV	MCCV2	1.00	17480		X		X					X													X								
CCB	CCB2	1.00	17540		X		X					X													X								
ZZZZZZ	NEW IS	1.00	18010																														
ZZZZZZ	UV05MB1	2.00	18070																														
ZZZZZZ	UV05MB2	2.00	18130																														
ZZZZZZ	UV06MB1	2.00	18190																														
ZZZZZZ	UV06MB2	2.00	18250																														
ZZZZZZ	UV06MB2SPK	2.00	18300																														
ZZZZZZ	UV06MB1SPK	2.00	18370																														
ZZZZZZ	UV05MB2SPK	2.00	18430																														
ZZZZZZ	UV05MB1SPK	2.00	18490																														
ZZZZZZ	UV05A	2.00	18560																														
CCV	MCCV3	1.00	19020		X		X					X													X								
CCB	CCB3	1.00	19080		X		X					X													X								
ZZZZZZ	UV14MB1	2.00	19140																														
ZZZZZZ	UV14MB2	2.00	19200																														
ZZZZZZ	UV14MB2SPK	2.00	19260																														
ZZZZZZ	UV14MB1SPK	2.00	19320																														
ZZZZZZ	UV14A	2.00	19380																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 5/23/2012

SDG: UU62 | RUNID: MS052381 METHOD: PMS | END DATE: 5/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	UV14B	2.00	19450																														
ZZZZZZ	UV14C	2.00	19510																														
ZZZZZZ	UV05B	2.00	19570																														
ZZZZZZ	UV06A	2.00	20040																														
ZZZZZZ	UV06B	2.00	20100																														
CCV	MCCV4	1.00	20160		X		X					X													X								
CCB	CCB4	1.00	20230		X		X					X													X								
ZZZZZZ	UV16MB1	2.00	20290																														
ZZZZZZ	UV16MB2	2.00	20340																														
ZZZZZZ	UV16MB2SPK	2.00	20400																														
ZZZZZZ	UV16MB1SPK	2.00	20470																														
ZZZZZZ	UV16A	2.00	20530																														
ZZZZZZ	UV14D	2.00	20590																														
ZZZZZZ	UV14E	2.00	21050																														
ZZZZZZ	UV14F	2.00	21120																														
ZZZZZZ	UV14G	2.00	21180																														
ZZZZZZ	UV14H	2.00	21240																														
CCV	MCCV5	1.00	21310		X		X					X													X								
CCB	CCB5	1.00	21370		X		X					X													X								
PBW	UU62MB1	2.00	21430		X		X					X													X								
LCSW	UU62MB1SPK	2.00	21490		X		X					X													X								
MS-SSRB-120515D	UU62JDUP	2.00	21550		X		X					X													X								
MS-SSRB-120515	UU62J	2.00	22010		X		X					X													X								
MS-SSRB-120515S	UU62JSPK	2.00	22080		X		X					X													X								
MS-SSFB-120515	UU62K	2.00	22140		X		X					X													X								
ZZZZZZ	UU27G	2.00	22200																														
ZZZZZZ	UV16B	2.00	22270																														
ZZZZZZ	UV16C	2.00	22330																														
ZZZZZZ	UV16D	2.00	22390																														
CCV	MCCV6	1.00	22450		X		X					X													X								
CCB	CCB6	1.00	22520		X		X					X													X								

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M | INSTRUMENT ID: CETAC MERCURY | START DATE: 5/21/2012

SDG: UU62 | RUNID: HG052101 | METHOD: CVA | END DATE: 5/21/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	13145														X																
S0.1	S0.1	1.00	13162														X																
S0.5	S0.5	1.00	13180														X																
S1	S1	1.00	13193														X																
S2	S2	1.00	13211														X																
S5	S5	1.00	13225														X																
S10	S10	1.00	13243														X																
ICV	AICV	1.00	13273														X																
ICB	ICB	1.00	13290														X																
CCV	ACCV1	1.00	13304														X																
CCB	CCB1	1.00	13322														X																
CRA	CRA	1.00	13340														X																
PBW	UU62MB1	1.00	13353														X																
LCSW	UU62MB1SPK	1.00	13371														X																
MS-SSRB-120515	UU62J	1.00	13384														X																
MS-SSRB-120515D	UU62JDUP	1.00	13402														X																
MS-SSRB-120515S	UU62JSPK	1.00	13420														X																
MS-SSFB-120515	UU62K	1.00	13433														X																
CCV	ACCV2	1.00	13451														X																
CCB	CCB2	1.00	13465														X																

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS001-SS-120515
ARI ID: 12-8893 UU52A

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	10.20
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	9.70
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	1.94	132
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	207	2,960
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.194	19.6

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS101-SS-120515
ARI ID: 12-8894 UU52B

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	10.20
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	9.70
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	1.99	130
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	206	3,100
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.186	18.4

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS002-SS-120515
ARI ID: 12-8895 UU52C

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	10.40
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	10.50
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	5.02	213
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	197	2,350
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.194	17.1

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS003-SS-120515
ARI ID: 12-8896 UU52D

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	9.30
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	10.90
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	2.28	170
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	201	3,640
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.200	23.6

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS004-SS-120515
ARI ID: 12-8897 UU52E

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	10.30
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	10.00
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	4.85	178
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	207	4,070
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.184	17.9

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS005-SS-120515
ARI ID: 12-8898 UU52F

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	9.20
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	8.30
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	1.15	71.1
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	118	1,840
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.192	29.0

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS006-SS-120515
ARI ID: 12-8899 UU52G

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	9.80
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	6.90
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	1.02	17.9
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	14.1	20.5
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.208	31.9

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS007-SS-120515
ARI ID: 12-8900 UU52H

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	16.80
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	19.00
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	0.59	33.2
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	52.6	718
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.196	16.7

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS008-SS-120515
ARI ID: 12-8901 UU52I

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	10.70
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	8.10
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	0.99	12.6
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	113	1,770
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.200	22.5

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS009-SS-120515
ARI ID: 12-8902 UU52J

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	10.10
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	10.60
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	2.06	117
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	89.8	1,720
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.190	12.2

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS010-SS-120515
ARI ID: 12-8903 UU52K

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	10.60
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	10.50
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	1.76	100
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	177	2,030
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.164	11.8

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

LAB CONTROL RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Sulfide EPA 376.2	PREP	05/18/12	mg/kg	125	127	98.3%
Total Organic Carbon EPA 9060M	ICVL	05/24/12	Percent	0.097	0.100	97.0%

METHOD BLANK RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	05/22/12	Percent	< 0.01 U
Preserved Total Solids	05/21/12	Percent	< 0.01 U
N-Ammonia	05/21/12	mg-N/kg	< 0.10 U
Sulfide	05/18/12	mg/kg	< 1.00 U
Total Organic Carbon	05/24/12	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
UU52-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
N-Ammonia ERA 160510	05/21/12	mg-N/kg	101	100	101.0%
Total Organic Carbon NIST 1941B	05/24/12	Percent	2.74	2.99	91.6%

SAMPLE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS110-SS-120515
ARI ID: 12-8928 UU62A

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	10.40
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	10.70
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	0.97	95.6
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	91.4	1,750
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.200	15.7

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS011-SS-120515
ARI ID: 12-8929 UU62B

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	9.80
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	11.00
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	0.96	20.8
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	8.88	< 8.88 U
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.198	31.5

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS012-SS-120515
ARI ID: 12-8930 UU62C

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	9.70
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	10.50
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	2.02	155
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	189	2,180
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.200	22.6

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS013-SS-120515
ARI ID: 12-8931 UU62D

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	9.30
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	9.60
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	2.01	107
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	103	1,520
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.194	18.8

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS014-SS-120515
ARI ID: 12-8932 UU62E

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	9.80
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	10.80
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	5.27	204
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	441	4,450
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.192	16.9

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS015-SS-120515
ARI ID: 12-8933 UU62F

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	10.30
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	11.00
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	1.89	121
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	178	2,130
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.200	14.3

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS016-SS-120515
ARI ID: 12-8934 UU62G

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	12.40
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	11.00
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	1.70	129
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	89.5	702
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.194	19.6

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS017-SS-120515
ARI ID: 12-8935 UU62H

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	8.40
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	7.40
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	1.23	117
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	131	2,450
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.198	21.8

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

SAMPLE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Client ID: MS018-SS-120515
ARI ID: 12-8936 UU62I

Analyte	Date	Method	Units	RL	Sample
Total Solids	05/22/12 052212#1	SM2540B	Percent	0.01	11.70
Preserved Total Solids	05/21/12 052112#1	SM2540B	Percent	0.01	11.10
N-Ammonia	05/21/12 052112#1	EPA 350.1M	mg-N/kg	1.80	130
Sulfide	05/18/12 051812#1	EPA 376.2	mg/kg	190	2,960
Total Organic Carbon	05/24/12 052412#1	EPA 9060M	Percent	0.198	18.0

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

MS/MSD RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: UU62A Client ID: MS110-SS-120515						
N-Ammonia	05/21/12	mg-N/kg	95.6	1,040	1,000	94.3%
Sulfide	05/18/12	mg/kg	1,750	4,240	2,300	108.3%
Total Organic Carbon	05/24/12	Percent	15.7	38.1	18.7	120.0%

REPLICATE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: UU62A Client ID: MS110-SS-120515					
Total Solids	05/22/12	Percent	10.40	10.30 10.40	0.6%
Preserved Total Solids	05/21/12	Percent	10.70	10.70	0.0%
N-Ammonia	05/21/12	mg-N/kg	95.6	98.5	3.0%
Sulfide	05/18/12	mg/kg	1,750	1,520	14.1%
Total Organic Carbon	05/24/12	Percent	15.7	14.9 15.9	3.4%

LAB CONTROL RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Sulfide EPA 376.2	PREP	05/18/12	mg/kg	125	127	98.3%
Total Organic Carbon EPA 9060M	ICVL	05/24/12	Percent	0.097	0.100	97.0%

METHOD BLANK RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	05/22/12	Percent	< 0.01 U
Preserved Total Solids	05/21/12	Percent	< 0.01 U
N-Ammonia	05/21/12	mg-N/kg	< 0.10 U
Sulfide	05/18/12	mg/kg	< 1.00 U
Total Organic Carbon	05/24/12	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
UU62-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
N-Ammonia ERA 160510	05/21/12	mg-N/kg	101	100	101.0%
Total Organic Carbon NIST 1941B	05/24/12	Percent	2.74	2.99	91.6%

Geotechnical Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

Anchor QEA, LLC
120909-01.01
Jeld Wen Maulsby Marsh

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
MS002-SS-120515	100.0	100.0	99.6	85.4	79.4	75.0	72.0	69.8	68.3	49.5	37.3	22.1	17.6	12.2
	100.0	99.4	99.1	89.0	83.1	78.9	75.9	73.3	72.3	52.9	39.1	22.6	18.2	13.0
	100.0	100.0	97.3	81.9	74.8	69.8	66.3	63.5	62.7	49.2	35.7	20.6	16.5	11.7
MS001-SS-120515	100.0	100.0	100.0	75.6	68.4	63.9	60.9	58.8	57.5	44.4	33.1	20.6	17.6	14.2
MS101-SS-120515	100.0	100.0	88.2	71.2	63.3	58.5	55.3	52.9	51.8	40.3	30.4	19.2	15.9	12.5
MS003-SS-120515	100.0	99.3	92.5	80.7	72.6	66.9	62.9	60.1	54.9	30.3	22.7	16.8	15.5	12.9
MS004-SS-120515	100.0	100.0	95.4	87.2	79.7	73.0	67.7	64.1	59.9	34.7	26.3	18.8	15.6	11.8
MS005-SS-120515	100.0	97.4	80.9	67.0	55.7	46.3	39.6	35.6	32.8	28.7	22.2	16.2	11.4	9.1
MS006-SS-120515	100.0	99.6	83.8	64.8	48.2	35.6	27.7	22.7	19.5	17.1	13.6	10.7	7.3	5.0
MS007-SS-120515	100.0	99.7	98.8	82.4	72.7	64.6	55.0	44.8	33.6	23.8	16.6	9.7	7.5	5.3
MS008-SS-120515	100.0	64.4	55.9	44.5	37.3	31.9	27.7	24.6	19.4	16.8	12.6	8.5	5.5	3.4
MS009-SS-120515	100.0	99.7	94.5	86.2	79.2	72.9	67.6	63.2	52.9	40.7	31.7	21.0	16.8	12.7
MS010-SS-120515	100.0	97.3	88.6	79.1	72.1	66.3	61.6	57.9	49.8	35.3	27.2	18.4	15.5	11.6

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

UU52

Anchor QEA, LLC
120909-01.01
Jeld Wen Maulsby Marsh

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
MS002-SS-120515	0.4	14.2	6.0	4.4	3.0	2.3	1.5	18.8	12.2	15.2	4.5	5.4	12.2	69.8
	0.9	10.1	5.9	4.2	3.1	2.6	1.0	19.5	13.8	16.4	4.5	5.1	13.0	73.3
	2.7	15.5	7.1	5.0	3.5	2.7	0.9	13.5	13.5	15.1	4.1	4.7	11.7	63.5
MS001-SS-120515	0.0	24.4	7.1	4.5	3.0	2.1	1.3	13.1	11.3	12.4	3.1	3.3	14.2	58.8
MS101-SS-120515	11.8	17.1	7.9	4.8	3.2	2.4	1.0	11.5	9.9	11.2	3.4	3.4	12.5	52.9
MS003-SS-120515	7.5	11.8	8.1	5.7	4.0	2.7	5.2	24.5	7.7	5.9	1.3	2.5	12.9	60.1
MS004-SS-120515	4.6	8.2	7.5	6.7	5.3	3.7	4.2	25.2	8.4	7.5	3.2	3.7	11.8	64.1
MS005-SS-120515	19.1	13.9	11.2	9.5	6.6	4.1	2.8	4.1	6.5	6.0	4.8	2.3	9.1	35.6
MS006-SS-120515	16.2	19.0	16.5	12.6	8.0	4.9	3.3	2.4	3.5	2.9	3.4	2.3	5.0	22.7
MS007-SS-120515	1.2	16.4	9.7	8.2	9.6	10.2	11.2	9.7	7.2	6.9	2.2	2.2	5.3	44.8
MS008-SS-120515	44.1	11.4	7.2	5.4	4.2	3.1	5.2	2.6	4.3	4.1	3.0	2.0	3.4	24.6
MS009-SS-120515	5.5	8.3	7.0	6.3	5.3	4.5	10.3	12.2	9.0	10.7	4.2	4.1	12.7	63.2
MS010-SS-120515	11.4	9.5	7.1	5.8	4.7	3.8	8.1	14.5	8.1	8.7	2.9	3.9	11.6	57.9

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

UU52

QA SUMMARY

Client:	Anchor QEA, LLC	Client Project No.:	120909-01.01
		Client Project:	Jeld Wen Maulsby Marsh
ARI Trip. Sample ID:	UU52C	Batch No.:	UU52-1
Client Trip. Sample ID:	MS002-SS-120515	Page:	1 of 1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
MS002-SS-120515	100.0	100.0	99.6	85.4	79.4	75.0	72.0	69.8	68.3	49.5	37.3	22.1	17.6	12.2
	100.0	99.4	99.1	89.0	83.1	78.9	75.9	73.3	72.3	52.9	39.1	22.6	18.2	13.0
	100.0	100.0	97.3	81.9	74.8	69.8	66.3	63.5	62.7	49.2	35.7	20.6	16.5	11.7
AVE	NA	99.80	98.68	85.44	79.12	74.58	71.39	68.87	67.78	50.54	37.37	21.80	17.42	12.32
STDEV	NA	0.35	1.20	3.58	4.19	4.61	4.82	4.94	4.85	2.04	1.69	1.07	0.87	0.65
%RSD	NA	0.35	1.22	4.19	5.30	6.18	6.76	7.17	7.15	4.04	4.51	4.89	4.97	5.28

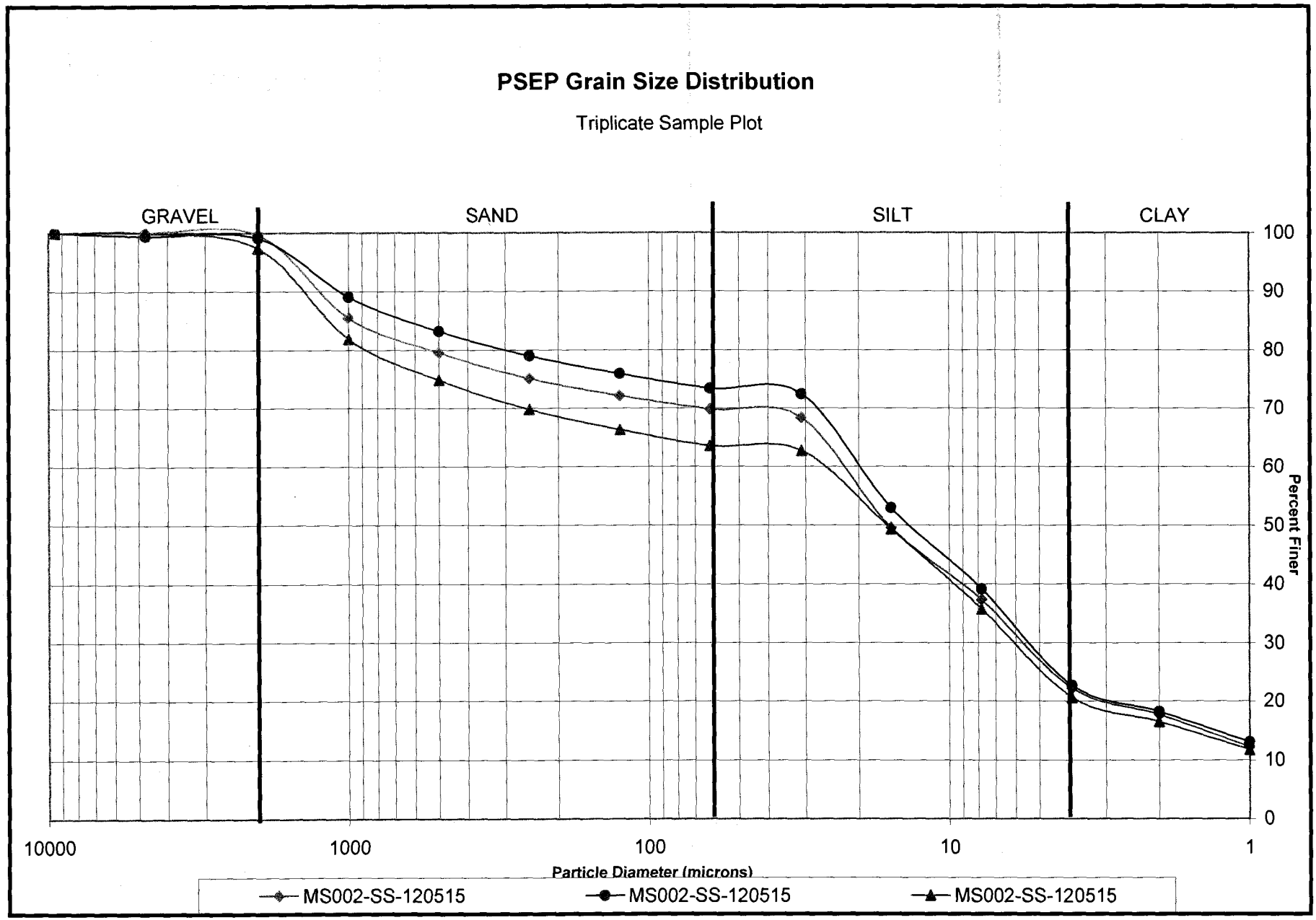
The Triplicate Applies To The Following Samples

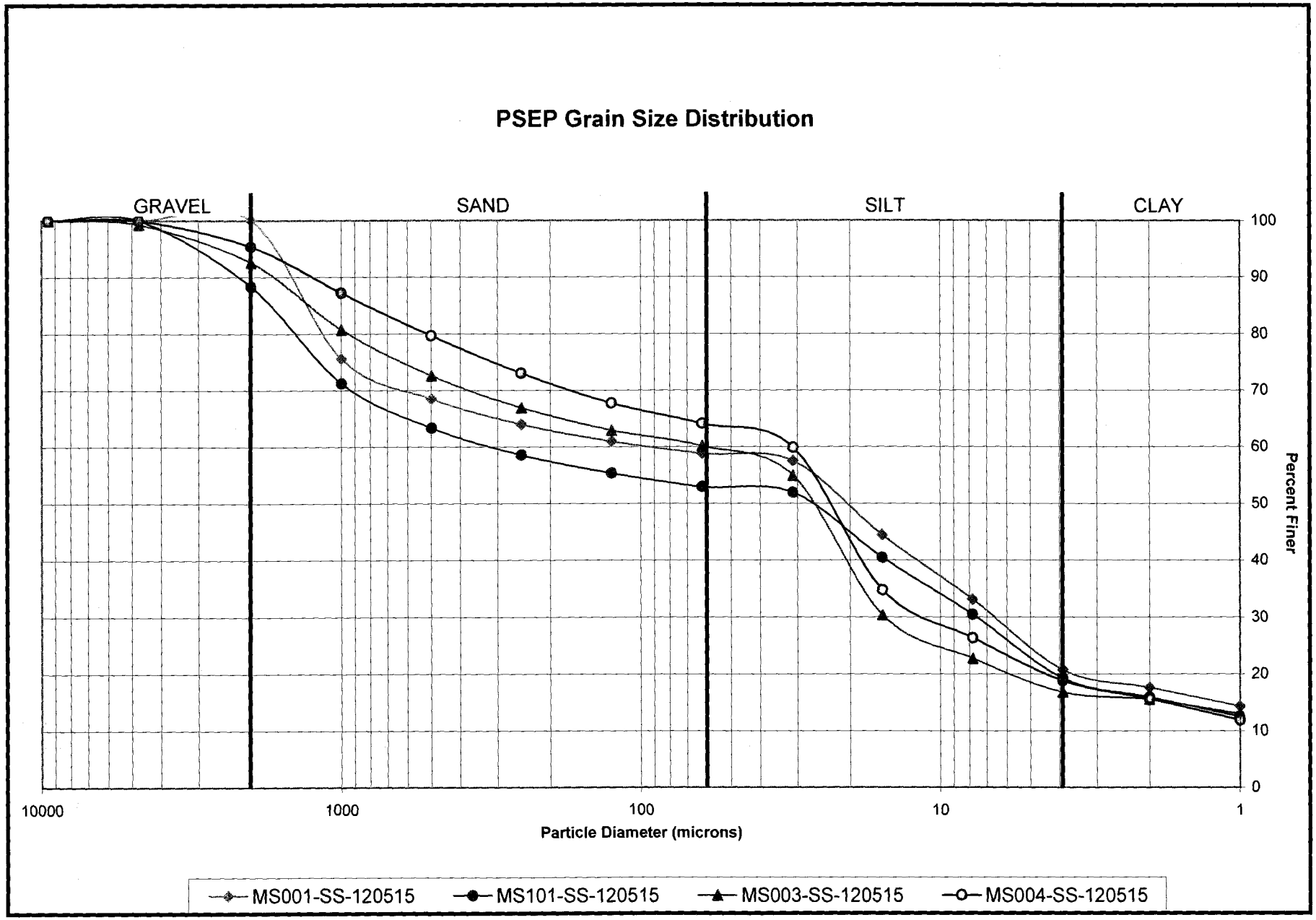
Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
MS002-SS-120515	5/15/2012	5/18/2012	5/25/2012	96.8		6.6
	5/15/2012	5/18/2012	5/25/2012	97.7		7.0
	5/15/2012	5/18/2012	5/25/2012	98.6		6.1
MS001-SS-120515	5/15/2012	5/18/2012	5/25/2012	97.9		5.4
MS101-SS-120515	5/15/2012	5/18/2012	5/25/2012	99.9		5.0
MS003-SS-120515	5/15/2012	5/22/2012	5/25/2012	99.3		8.4
MS004-SS-120515	5/15/2012	5/22/2012	5/25/2012	99.5		9.5
MS005-SS-120515	5/15/2012	5/18/2012	5/25/2012	103.1	SS, W	3.4
MS006-SS-120515	5/15/2012	5/18/2012	5/25/2012	103.5	SS, W	2.8
MS007-SS-120515	5/15/2012	5/18/2012	5/25/2012	100.7		9.3
MS008-SS-120515	5/15/2012	5/18/2012	5/25/2012	106.0	SS,SM,W	4.1
MS009-SS-120515	5/15/2012	5/22/2012	5/25/2012	100.1		9.5
MS010-SS-120515	5/15/2012	5/22/2012	5/25/2012	98.2		8.9

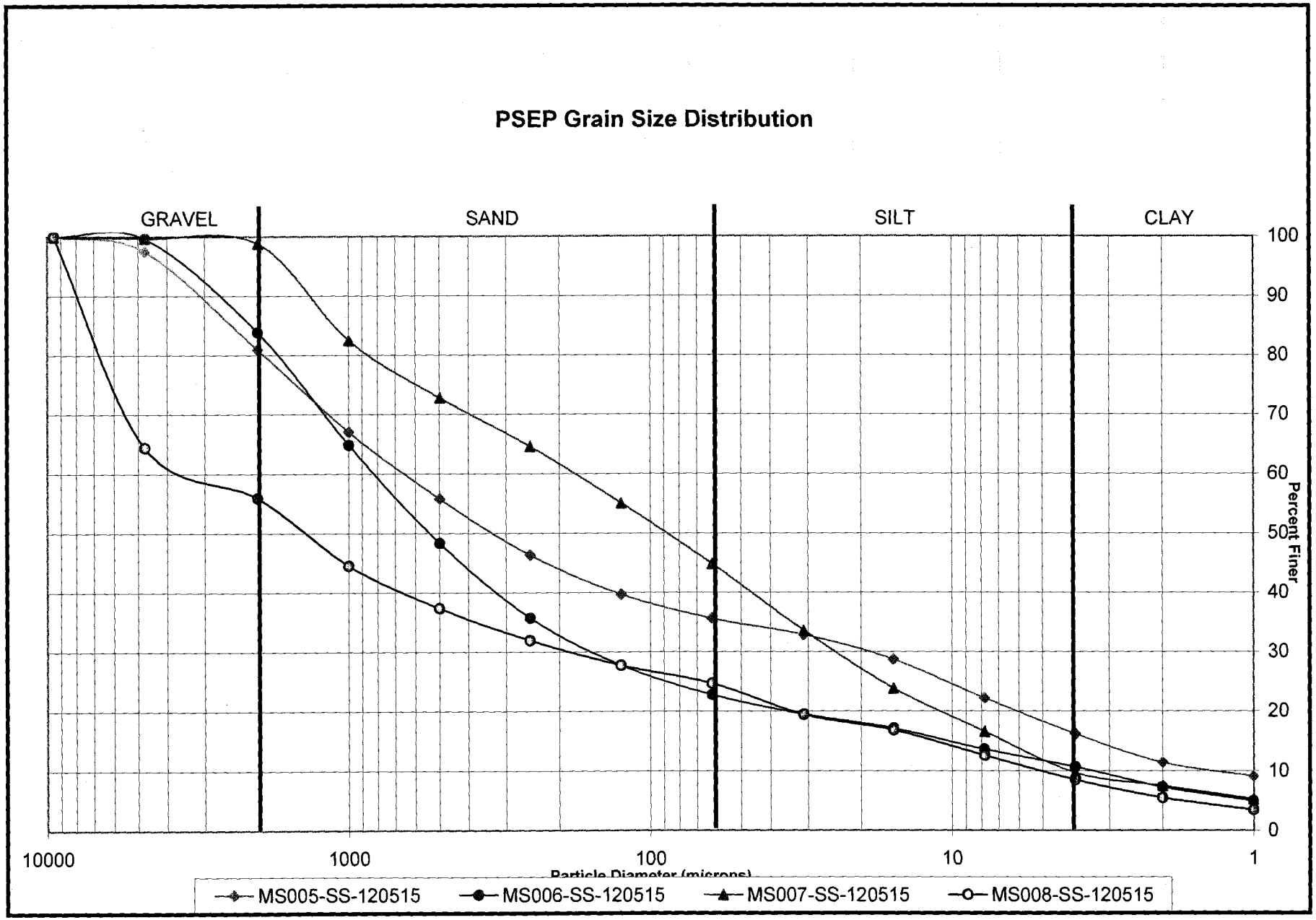
* ARI Internal QA limits = 95-105%

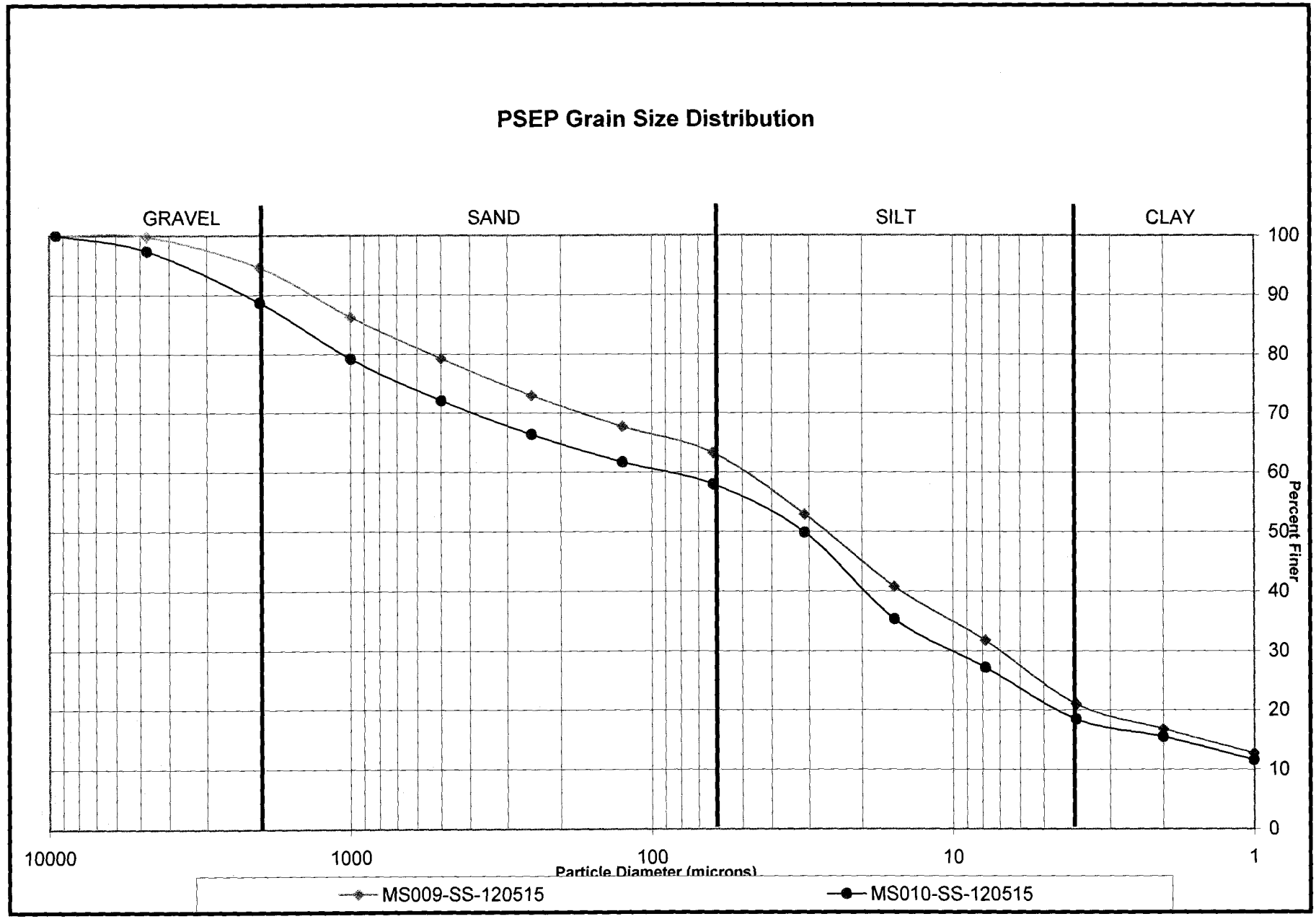
Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.


PSEP Grain Size Distribution
Triplicate Sample Plot
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS002-SS-120515
MS002-SS-120515
MS002-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS001-SS-120515
MS101-SS-120515
MS003-SS-120515
MS004-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS005-SS-120515
MS006-SS-120515
MS007-SS-120515
MS008-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS009-SS-120515
MS010-SS-120515

Anchor QEA, LLC
120909-01.01
Jeld Wen Maulsby Marsh

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
MS002-SS-120515	100.0	100.0	99.6	85.4	79.4	75.0	72.0	69.8	68.3	49.5	37.3	22.1	17.6	12.2
	100.0	99.4	99.1	89.0	83.1	78.9	75.9	73.3	72.3	52.9	39.1	22.6	18.2	13.0
	100.0	100.0	97.3	81.9	74.8	69.8	66.3	63.5	62.7	49.2	35.7	20.6	16.5	11.7
MS110-SS-120515	100.0	100.0	97.4	83.2	73.8	67.4	62.3	58.5	56.1	46.6	37.1	21.7	16.1	12.0
MS011-SS-120515	100.0	95.6	76.4	58.6	44.1	32.4	25.0	20.4	20.3	18.7	15.1	10.9	7.7	5.1
MS012-SS-120515	100.0	99.3	78.7	67.7	61.8	57.7	54.9	53.0	48.1	29.2	22.7	18.5	17.4	15.2
MS013-SS-120515	100.0	99.7	76.4	64.8	57.8	54.1	49.8	48.0	43.8	30.9	19.3	12.4	10.2	9.3
MS014-SS-120515	100.0	100.0	93.1	79.7	69.4	62.4	57.5	54.3	52.4	44.6	32.7	19.9	15.2	11.8
MS015-SS-120515	100.0	96.0	83.8	72.5	65.0	60.2	57.5	56.0	53.9	42.1	30.1	17.4	13.4	10.5
MS016-SS-120515	100.0	93.4	82.7	68.7	58.3	51.1	46.6	43.8	43.6	35.0	22.1	12.8	10.7	8.2
MS017-SS-120515	100.0	97.4	80.4	66.1	54.6	46.4	41.1	37.7	37.0	33.6	24.7	16.4	14.0	11.4
MS018-SS-120515	100.0	100.0	83.2	74.5	69.9	66.6	63.8	61.7	59.9	42.2	29.3	22.2	17.6	12.9

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

UU62

Anchor QEA, LLC
120909-01.01
Jeld Wen Maulsby Marsh

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10	<4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
MS002-SS-120515	0.4	14.2	6.0	4.4	3.0	2.3	1.5	18.8	12.2	15.2	4.5	5.4	12.2	69.8
	0.9	10.1	5.9	4.2	3.1	2.6	1.0	19.5	13.8	16.4	4.5	5.1	13.0	73.3
	2.7	15.5	7.1	5.0	3.5	2.7	0.9	13.5	13.5	15.1	4.1	4.7	11.7	63.5
MS110-SS-120515	2.6	14.2	9.4	6.5	5.0	3.8	2.4	9.5	9.5	15.4	5.5	4.1	12.0	58.5
MS011-SS-120515	23.6	17.8	14.5	11.7	7.4	4.6	0.2	1.6	3.7	4.2	3.2	2.6	5.1	20.4
MS012-SS-120515	21.3	11.0	5.9	4.1	2.8	1.9	4.9	18.9	6.5	4.1	1.2	2.2	15.2	53.0
MS013-SS-120515	23.6	11.6	7.1	3.7	4.2	1.8	4.2	12.9	11.6	6.9	2.2	0.8	9.3	48.0
MS014-SS-120515	6.9	13.4	10.3	7.0	4.9	3.2	1.9	7.7	11.9	12.8	4.7	3.4	11.8	54.3
MS015-SS-120515	16.2	11.3	7.5	4.8	2.7	1.5	2.1	11.8	11.9	12.8	4.0	2.9	10.5	56.0
MS016-SS-120515	17.3	14.0	10.4	7.2	4.5	2.8	0.2	8.5	12.9	9.3	2.1	2.5	8.2	43.8
MS017-SS-120515	19.6	14.3	11.5	8.2	5.3	3.4	0.7	3.4	9.0	8.3	2.4	2.5	11.4	37.7
MS018-SS-120515	16.8	8.7	4.6	3.3	2.8	2.1	1.8	17.7	12.9	7.1	4.6	4.7	12.9	61.7

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

UU62

QA SUMMARY

Client:	Anchor QEA, LLC	Client Project No.:	120909-01.01
		Client Project:	Jeld Wen Maulsby Marsh
ARI Trip. Sample ID:	UU52 C	Batch No.:	UU62-1
Client Trip. Sample ID:	MS002-SS-120515	Page:	1 of 1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
MS002-SS-120515	100.0	100.0	99.6	85.4	79.4	75.0	72.0	69.8	68.3	49.5	37.3	22.1	17.6	12.2
	100.0	99.4	99.1	89.0	83.1	78.9	75.9	73.3	72.3	52.9	39.1	22.6	18.2	13.0
	100.0	100.0	97.3	81.9	74.8	69.8	66.3	63.5	62.7	49.2	35.7	20.6	16.5	11.7
AVE	NA	99.80	98.68	85.44	79.12	74.58	71.39	68.87	67.78	50.54	37.37	21.80	17.42	12.32
STDEV	NA	0.35	1.20	3.58	4.19	4.61	4.82	4.94	4.85	2.04	1.69	1.07	0.87	0.65
%RSD	NA	0.35	1.22	4.19	5.30	6.18	6.76	7.17	7.15	4.04	4.51	4.89	4.97	5.28

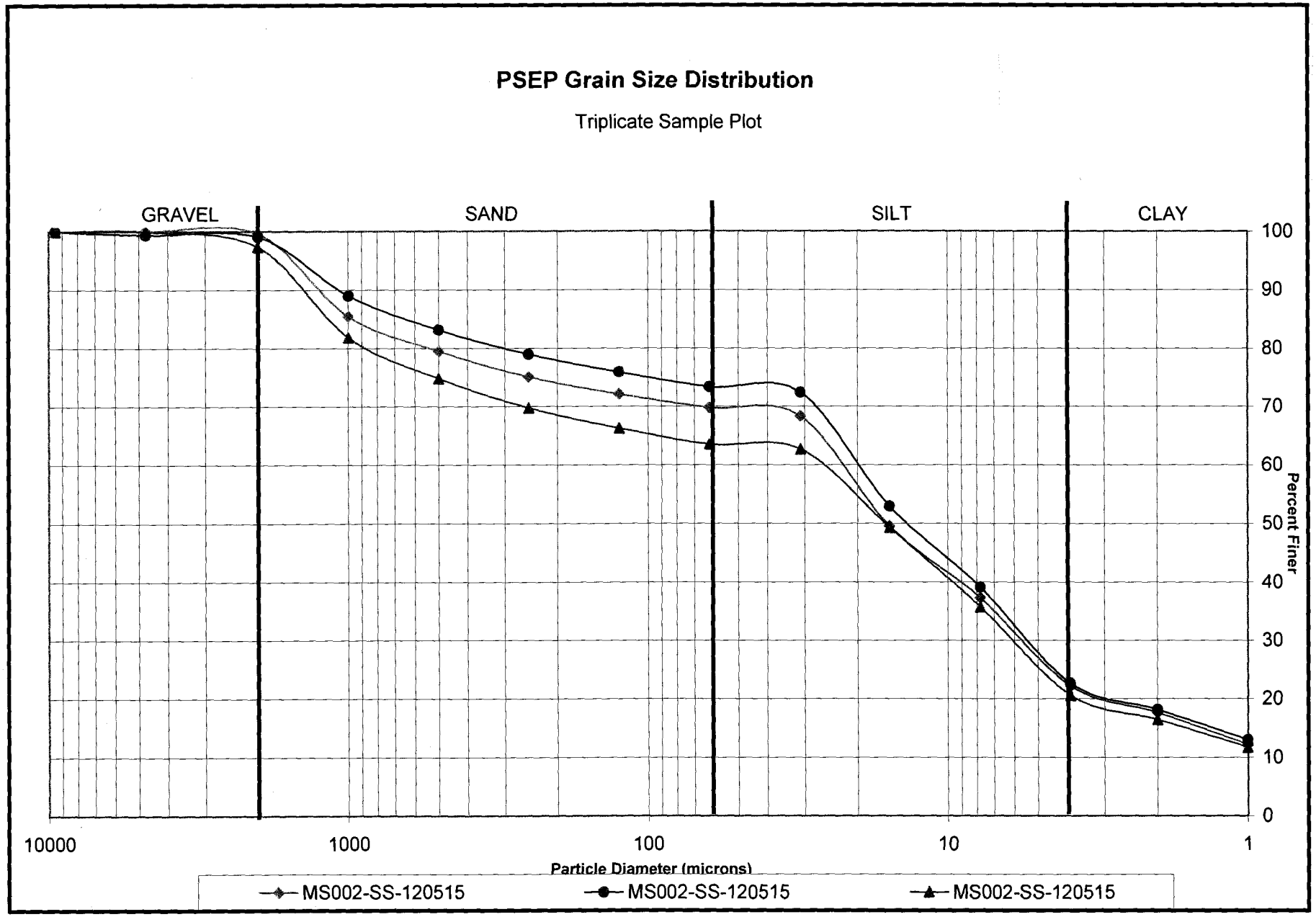
The Triplicate Applies To The Following Samples

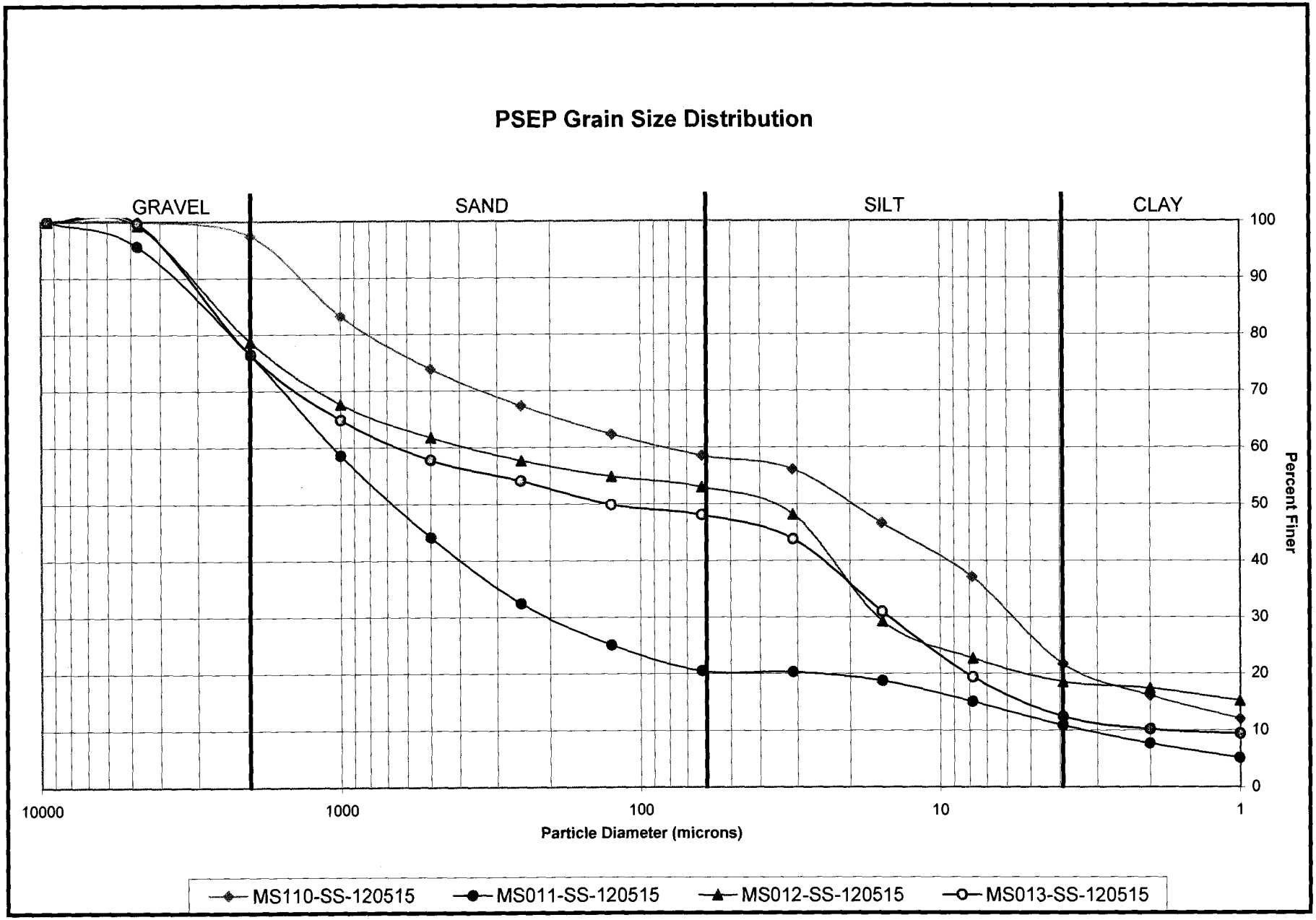
Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
MS002-SS-120515	5/15/2012	5/18/2012	5/25/2012	96.8		6.6
	5/15/2012	5/18/2012	5/25/2012	97.7		7.0
	5/15/2012	5/18/2012	5/25/2012	98.6		6.1
MS110-SS-120515	5/15/2012	5/18/2012	5/25/2012	100.8		5.4
MS011-SS-120515	5/15/2012	5/18/2012	5/25/2012	98.8	SS	2.5
MS012-SS-120515	5/15/2012	5/18/2012	5/25/2012	99.1		7.5
MS013-SS-120515	5/15/2012	5/18/2012	5/25/2012	100.5		6.7
MS014-SS-120515	5/15/2012	5/18/2012	5/25/2012	102.0		5.0
MS015-SS-120515	5/15/2012	5/18/2012	5/25/2012	101.3		6.0
MS016-SS-120515	5/15/2012	5/18/2012	5/25/2012	98.5		5.9
MS017-SS-120515	5/15/2012	5/18/2012	5/25/2012	99.9	SS	3.1
MS018-SS-120515	5/15/2012	5/18/2012	5/25/2012	98.6		10.5

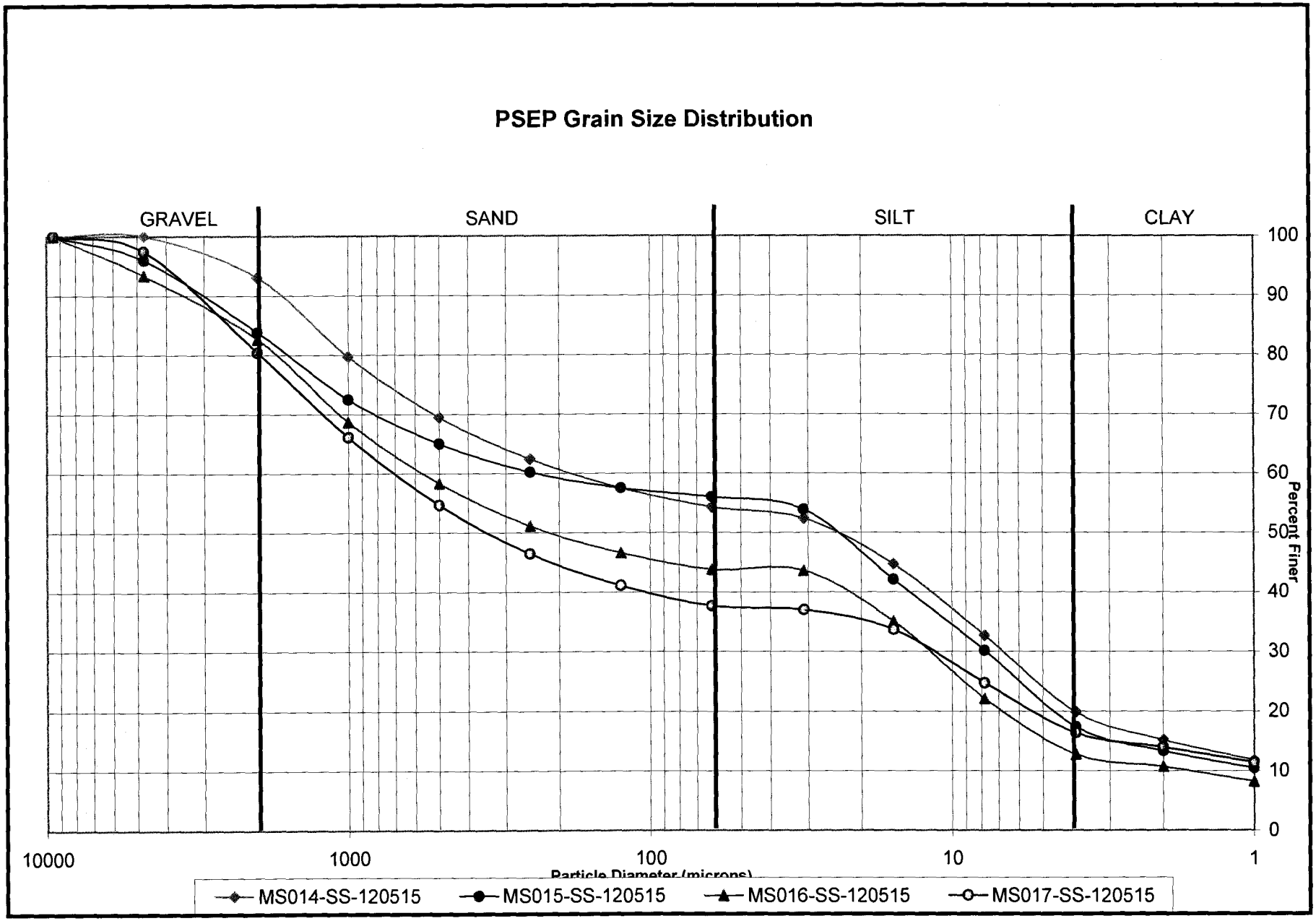
* ARI Internal QA limits = 95-105%

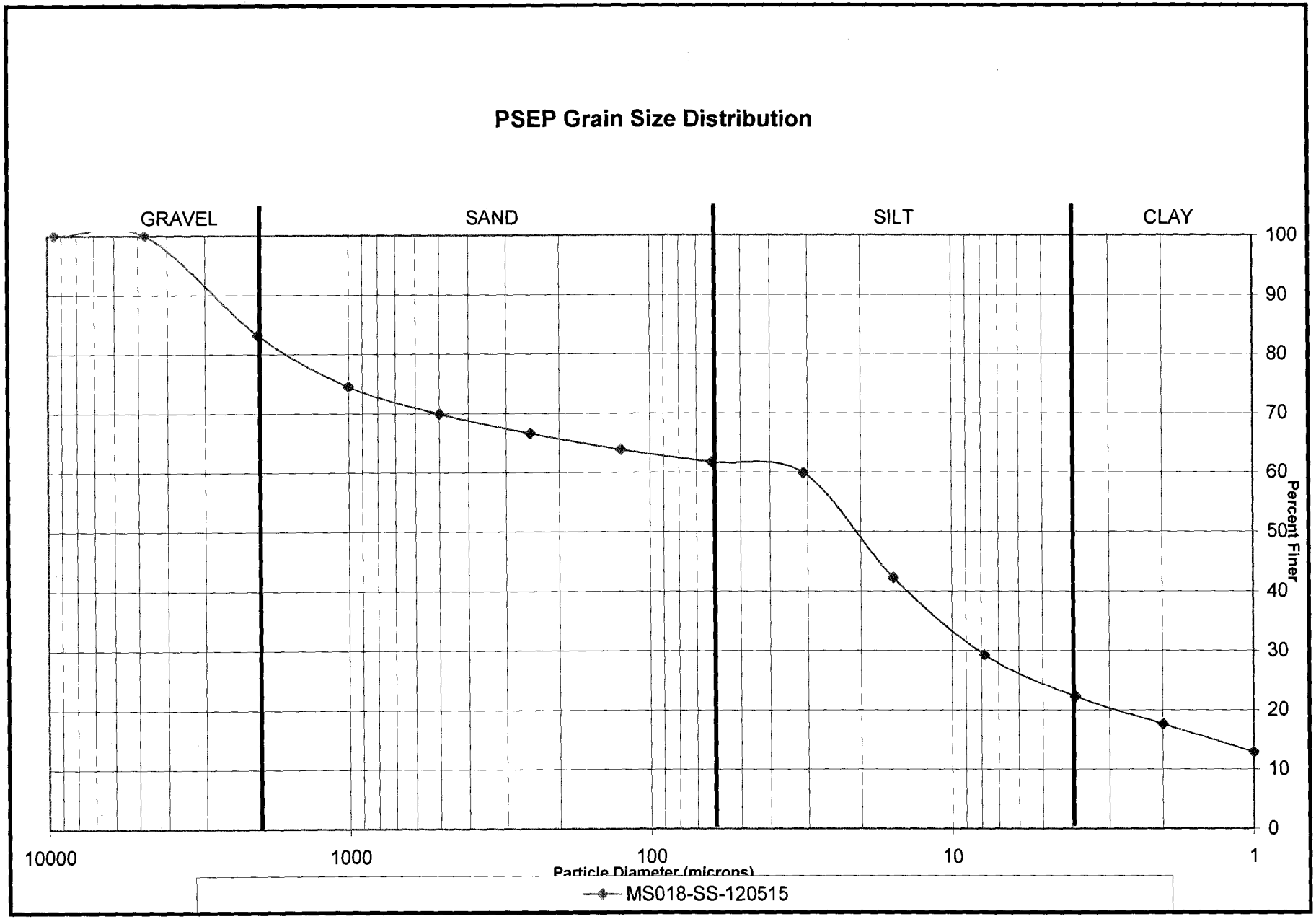
Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.


PSEP Grain Size Distribution
Triplicate Sample Plot
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS002-SS-120515
MS002-SS-120515
MS002-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS110-SS-120515
MS011-SS-120515
MS012-SS-120515
MS013-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS014-SS-120515
MS015-SS-120515
MS016-SS-120515
MS017-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS018-SS-120515

Total Solids

ARI Job ID: UU52, UU62

Extractions Total Solids-extts
Data By: Alex Choeng
Created: 5/16/12

Worklist: 1682
Analyst: AC
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	UU52B 12-8894 MS101-SS-120515	1.13	11.68	2.16	9.76	NR
2.	UU52C 12-8895 MS002-SS-120515	1.14	12.09	2.26	10.2	NR
3.	UU52D 12-8896 MS003-SS-120515	1.14	11.81	2.13	9.28	NR
4.	UU52E 12-8897 MS004-SS-120515	1.13	12.65	2.23	9.55	NR
5.	UU52F 12-8898 MS005-SS-120515	1.14	11.67	2.08	8.93	NR
6.	UU52G 12-8899 MS006-SS-120515	1.14	11.99	2.14	9.22	NR
7.	UU52H 12-8900 MS007-SS-120515	1.12	13.33	3.09	16.1	NR
8.	UU52I 12-8901 MS008-SS-120515	1.14	11.32	2.26	11.0	NR
9.	UU52J 12-8902 MS009-SS-120515	1.13	12.50	2.25	9.85	NR

Extractions Total Solids-extts
Data By: Alex Choeng
Created: 5/16/12

Worklist: 1682
Analyst: AC
Comments:

Oven ID: ϕ15

Balance ID: B13798002

Samples In: Date: 5-16-12 Time: _____ Temp: _____ Analyst: AC

Samples Out: Date: 5/17/12 Time: 0724 Temp: 10.2°C Analyst: _____

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	UU52B 12-8894 MS101-SS-120515	1.13	11.68	2.16g		NR
2.	UU52C 12-8895 MS002-SS-120515	1.14	12.09	2.26g		NR
3.	UU52D 12-8896 MS003-SS-120515	1.14	11.81	2.13g		NR
4.	UU52E 12-8897 MS004-SS-120515	1.13	12.65	2.23g		NR
5.	UU52F 12-8898 MS005-SS-120515	1.14	11.67	2.18g		NR
6.	UU52G 12-8899 MS006-SS-120515	1.14	11.99	2.14g		NR
7.	UU52H 12-8900 MS007-SS-120515	1.12	13.33	3.49g		NR
8.	UU52I 12-8901 MS008-SS-120515	1.14	11.32	2.26g		NR
9.	UU52J 12-8902 MS009-SS-120515	1.13	12.59	2.25g		NR
10.	~~UU52K~~ 12-8903 MS010-SS-120515					NR

NOT For QE
SP 5/17/12

Extractions Total Solids-extts
Data By: Warren P. Woodard
Created: 5/17/12

Worklist: 2060
Analyst: WPW
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	UU52A 12-8893 MS001-SS-120515	1.15	13.57	2.35	9.66	NR

Extractions Total Solids-extts
Data By: Warren P. Woodard
Created: 5/17/12

Worklist: 2060
Analyst: WPW
Comments:

Oven ID: 015

Balance ID: B139298042

Samples In: Date: 5/17/12 Time: ~~1106~~ mw 5/17/12 15:55 Temp: 106°C Analyst: WW

Samples Out: Date: 5/18/12 Time: 0714 Temp: rd2 Analyst: AC

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	UU52A 12-8893 MS001-SS-120515	1.15g	13.57g	2.35g		NR

Semivolatile Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8270 BAN PSDDA–Soil/(Sediment) Microwave (3546) (SOP # 3304S)

Preparation Test BAN PSDDA # 6 (BANSDMP) PSDDA (20ppb)

ARI Job No(s) UU52 Page 1 of 1 Batch set up by: ~~SH~~

Bottle #	Extraction Requirements	Weight Extracted (eq. to 10g dry wt)	(Opt/REQ) GPC (1:1) 1 or 2 Y / N	Final Effective Volume	Volume to Lab	Comments	Verifty Client ID / Analyst/Date
	UU52 MBS	10g	(1:1) Y / N 5/24/12	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	Microwave NL 5/23/12 Analyst/Date
	↓ SBS	10g	(1:1) Y / N 5/24/12	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	
	~~SBS Dup.~~	~~10g~~	(1:1) Y / N	~~1mL~~	~~1mL~~	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	
5	UU52 ~~Client~~ A	~~10g~~ 104.26	(1:1) Y / N 5/24/12	1mL	1mL	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	KD 80-85°C
5	B	103.22	(1:1) Y / N 5/24/12	1mL	1mL		YL 5/23/12 Analyst/Date
5	C	99.09	(1:1) Y / N 5/24/12	1mL	1mL		
5	D	108.47	(1:1) Y / N 5/24/12	1mL	1mL		TurboVap 1 (2) 3
5	E	105.11	(1:1) Y / N 5/24/12	1mL	1mL		Analyst/Date
5	F	113.54	(1:1) Y / N	1mL	1mL		GPC Prep Filter (1:1)
5	G	109.43	(1:1) Y / N	1mL	1mL		Analyst/Date
5	H	63.41	(1:1) Y / N	1mL	1mL		
5	Hms	63.10	(1:1) Y / N	1mL	1mL		Post GPC KD 80-85°C
5	Hmsd	63.14	(1:1) Y / N	1mL	1mL		5/25/12 Analyst/Date
5	I	91.40	(1:1) Y / N	1mL	1mL		
5	↓ J	102.09	(1:1) Y / N	1mL	1mL		TurboVap 1 2 3
Analyst/Date	Weighed ER 5/22/12 Microwaved 5/22/12		WW 5/24/12	SC 5/25/12	SC 5/25/12		Analyst/Date SC 5/25/12

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	A (1975-1)	100/150µg/mL	50µL	7/05/12	WW	TH
Full List Spike (Freezer)	7 (1926-2)	100µg/mL	50µL	5/31/12	WW	TH
Base Spike	56(1952-3)	200µg/mL	50µL	8/14/12	WW	TH
Acid Spike	38(1926-3)	100/200µg/mL	50µL	6/19/12	WW	TH
~~QLS Spike (14 in freezer)~~	~~14( )~~	~~10-100µg/mL~~	~~20µL~~			

Extraction Time: 20:55 Balance ID: B1392 [illegible]

SPECIAL INSTRUCTIONS: Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require two vessels). → or more
3. Add 1:1 DCM/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike.
5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 10-15 min in cold water. 7. Decant 1:1 DCM/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using DCM only (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM.
11. KD ([redacted]/large drying column with pre-deactivated glasswool-Blanks=5g of sulfate)) to 5mL at 80- 85°C.
12. GPC Optional. 13. TurboVap. 14. IF NO GPC: TurboVap to 3mL add 2mL Hexane. TurboVap to Final Volume and vial in DCM. 15. (After GPC): KD at 80-85°. 16. TurboVap. 17. Vial in DCM.

A. Need Total Solids Y / (N) B. Archive/Freeze Y / (N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU52 Client ID: Anchor QEA, LLC

Parameter: BAN PSDDA Client Project: Jeld Wen Maulsby Marsh

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	AC 5-16-12
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)= B < 5% sticks D= 30% grass/sticks E=10% grass h=30% i=50% F=60% grass/sticks g=50% grass/sticks	AC 5-16-12
☐ Oily, obvious fuel/sulfur odors= B-	
☒ Other (Details)= UU52 - A-J samples + surrogates + Spikes then 2D Splitted into multi vessels Prior to microwaved see samples Combined after microwaved.	NCS 5/23/12
Microwave #01 Samples A ~~CE~~ MCS 5/23/12 Microwave #02 samples F-J	NS 5/23/12
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8270 BAN –Water
Liquid/Liquid (3520C) (SOP # 3311S)

Preparation Test BAN # 2 (BANWLI) In-House (1.0-10.0ppb)

ARI Job No(s) UU62, UU68, UU66 Page 1 of 1 Batch set up by: SP

Bottle #	Extraction Requirements	Volume Extracted	Disassemble Liq/Liq (Mantle #)	DryVap Module # Y / N	Final Effective Volume	Volume to Lab	Comments	Verifty Client ID
	UU62 MBW	500mL	21	# Y / N	0.5mL	0.5mL		AC
	SBW	500mL	22	# Y / N	0.5mL	0.5mL		
	SBW Dup	500mL	23	# Y / N	0.5mL	0.5mL		
	QLS	500mL	25	# Y / N	0.5mL	0.5mL		5-21-12
	J	500mL	26	# Y / N	0.5mL	0.5mL		
	K	500mL	27	# Y / N	0.5mL	0.5mL		Analyst/Date
12	UU68 A	500mL	28	# Y / N	0.5mL	0.5mL		KD 80-85°C (Y) N
11	UU66 A	500mL	29	# Y / N	0.5mL	0.5mL		
9	B	500mL	30	# Y / N	0.5mL	0.5mL		
		500mL		# Y / N	0.5mL	0.5mL		YL
		500mL		# Y / N	0.5mL	0.5mL		
		500mL		# Y / N	0.5mL	0.5mL		5/22/12
		500mL		# Y / N	0.5mL	0.5mL		
		500mL		# Y / N	0.5mL	0.5mL		Analyst/Date
		500mL		# Y / N	0.5mL	0.5mL		TurboVap (1) 2 3
		500mL		# Y / N	0.5mL	0.5mL		
		500mL		# Y / N	0.5mL	0.5mL		AC
		500mL		# Y / N	0.5mL	0.5mL		5-23-12
		500mL		# Y / N	0.5mL	0.5mL		
Analyst/Date	AC 5-21-12		MC 5/22/12		AC 5-23-12	AC 5-23-12		Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	A (1975-1)	100/150µg/mL	125µL	7/5/12	AR	AC
Full List Spike (Freezer)	7 (1926-2)	100µg/mL	125µL	5/31/12	AR	AC
Base Spike	56(1952-3)	200µg/mL	125µL	8/14/12	AR	AC
Acid Spike	38(1926-3)	100/200µg/mL	125µL	6/19/12	AR	AC
QLS Spike (Freezer)	14(1901-1)	10-100µg/mL	50µL	6/21/12	AR	AC
Extraction Time: 1548		Liq/Liq Start: 16:20			Liq/Liq Stop: 15:58	

SPECIAL INSTRUCTIONS: 1. Add ~200mL DCM to Liq/Liq. 2. Add 500mL sample. 3. Add surr/spk. 4. Adjust Acid (pH <2) using 1:1 Sulfuric Acid. (1/4 pipet for blanks & 1/2 pipet for samples). Stir to mix. Verify pH! Let sit 10 minutes. Verify pH again. 5. Extract minimum 8 hrs. 6. DryVap to 0.5mL or KD (NO drying column) to 8mL at 80°. 7. (If KD)=TurboVap to 0.5mL. 8. Vial in DCM.

A. Archive Y / (N) SP 5/21/SP

UU52 : 00385

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: uu62

Client ID: Anchor QEA, LLC

Parameter: BAN

Client Project: Jeld Wen - Maulsby Mar

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☑ No Anomalies J, K	AC 5-21-12
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

Semivolatile Raw Data
Initial Calibration

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Initial Calibration Notes GC/MS SVOA

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date(s): 5/26/12 Internal Standard ID 1875-1 Expiration 7/15/12

DFTPP Tune Meets Criteria?	YES / NO	Minimum Response Factors Met/	YES / NO
DDT Breakdown <20%?	YES / NO	ICV Exceeding ±20%?	YES / NO
Peak Tailing Factor ≤2?	YES / NO	ICV Exceeding ±30%?	YES / NO
ICal acceptable?	YES / NO	Linear Fits Used?	YES / NO
Q flag applied?	YES / NO	Quadratic Fits Used?	YES / NO
Manual Integrations for ICal?	YES / NO	Calibration Points Dropped?	YES / NO
Spectral Library Updated?	YES / NO		

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Supelco	1949-2	12/19/12	Ultra	1941-1	7/27/12
	1950-1	10/31/12		1940-1	7/27/12
	1891-2	6/1/12		1932-2	7/6/12
	1892-1	7/5/12			

Detail problems, corrective actions and/or other pertinent information below:

Benzoic Acid
Hexachlorocyclopentadiene
2,4 Dinitrophenol
PCP
} Quadratic fit. Low point dropped.

ICV: Benzyl alcohol, 2,4 Dinitrophenol, 3,3 Dichlorobenzidine, N-Nitrosodiphenylamine, Benzidine above 30%

Analyst: YZ **Date:** 5/30/12

Reviewer: _____ **Date:** _____

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 5/26/12 Analysis: ABN Analyst: VS / YZ

GC Program: ABN2 Column No: 227815 Column Type: ZB5 msi

Instrument Tune (.U or .CT.): 112164 EM Voltage: 1800

Calibration File: DF0514 Curve Date: 5/26/12 Injection Vol.: 1.ul

IS/SS	Ical/Ccal		LCS/ICV
1875-1	1949-2	1891-2	1941-1
	1950-1	1892-1	1940-1
			1932-2.

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20120526.b

	Time	Filename	LabID	ClientId	DF											
1	1044	df0526.d	DFTPP	DFTPP	1	NO ISTDS FOUND										
2	1059	ic0526a.d	ABN5		1	8.86	189516	11.50	730932	15.37	420698	18.63	638950	23.71	645065	26.10	650033	24.79	1016118
3	1136	ic0526b.d	ABN20		1	8.86	184424	11.50	732078	15.38	416049	18.64	604660	23.71	638131	26.11	642084	24.80	1045968
4	1213	ic0526c.d	ABN.2		1	8.86	196685	11.50	765616	15.37	413229	18.63	646258	23.70	644080	26.10	645156	24.79	952925
5	1250	ic0526d.d	ABN10		1	8.86	182402	11.50	714951	15.38	396335	18.64	598080	23.71	620456	26.10	621376	24.79	977954
6	1327	ic0526e.d	ABN.5		1	8.86	190457	11.50	743799	15.37	404393	18.63	632241	23.70	634764	26.10	624951	24.79	934301
7	1405	ic0526f.d	ABN2.5		1	8.86	187226	11.50	736534	15.37	398626	18.63	624933	23.70	619154	26.10	625787	24.79	927369
8	1442	ic0526g.d	ABN1.0		1	8.86	193887	11.50	750391	15.37	411692	18.63	635080	23.70	638910	26.10	628310	24.79	937949
9	1519	icv0526.d	ICV-5		1	8.86	249364	11.50	989810	15.37	545323	18.63	840695	23.71	872921	26.10	859333	24.79	1354341
10	1556	uu52mb.d	UU52MBS1	UU52MBS1	1	8.86	192270	11.50	755212	15.36	409923	18.63	652568	23.70	628746	24.79	911710	26.10	575994
11	1634	uu52sb.d	UU52LCSS1	UU52LCSS1	1	8.86	180960	11.50	713226	15.37	402827	18.63	613172	23.70	610564	24.79	927500	26.10	601200
12	1711	uu52a.d	UU52A	MS001-SS-120	3	8.86	192479	11.50	766868	15.37	424558	18.64	586032	23.71	664578	24.79	1081857	26.11	673821
13	1748	uu52b.d	UU52B	MS101-SS-120	3	8.86	191331	11.50	774622	15.38	431955	18.64	601035	23.72	668327	24.80	1085453	26.12	667061
14	1825	uu52c.d	UU52C	MS002-SS-120	3	8.86	189793	11.50	762840	15.38	421087	18.64	644641	23.72	673614	24.80	1081717	26.12	665077
15	1902	uu52d.d	UU52D	MS003-SS-120	3	8.86	195684	11.50	781696	15.38	433584	18.64	608068	23.72	705866	24.80	1095300	26.12	688484
16	1939	uu52e.d	UU52E	MS004-SS-120	3	8.86	197248	11.50	788940	15.38	430674	18.64	660353	23.72	700903	24.80	1104559	26.12	683374
17	2016	uu52f.d	UU52F	MS005-SS-120	3	8.86	190373	11.51	742174	15.39	431594	18.66	643967	23.73	721119	24.81	1107167	26.14	669438
18	2054	uu52g.d	UU52G	MS006-SS-120	3	8.86	189614	11.51	736251	15.38	426687	18.65	605251	23.72	696152	24.81	1081407	26.13	658886
19	2131	uu52h.d	UU52H	MS007-SS-120	3	8.86	194227	11.51	756334	15.39	437900	18.66	626572	23.73	703620	24.81	1121633	26.13	665896
20	2208	uu52hms.d	UU52HMS	MS007-SS-120	3	8.86	189708	11.51	749764	15.39	426739	18.66	614981	23.73	691706	24.81	1104162	26.13	671591
21	2245	uu52hmsd.d	UU52HMSD	MS007-SS-120	3	8.86	190489	11.50	741504	15.39	417132	18.66	622626	23.73	711179	24.81	1127612	26.13	667595

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

YZ 5/31/12

Report Date : 30-May-2012 11:39

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	ic0526a	ic0526b	ic0526c	ic0526d	ic0526e	ic0526f	ic0526g
INJ.DATE:	26-MAY-2012	26-MAY-2012	26-MAY-2012	26-MAY-2012	26-MAY-2012	26-MAY-2012	26-MAY-2012
INJ.TIME:	10:59	11:36	12:13	12:50	13:27	14:05	14:42

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.537	6.544	6.537	6.537	6.537	6.537	6.537	6.537	3.537-9.537	6.538	0.003
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.620	15.620-21.620	+++++	+++++
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.672	5.673-11.672	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.599	14.599-20.599	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.120	18.120-24.120	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.015	16.015-22.015	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.090	17.090-23.090	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.317	16.317-22.317	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.482	20.482-26.482	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.348	16.348-22.348	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.090	17.090-23.090	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.967	16.967-22.967	+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.790	4.790-10.790	+++++	+++++
168 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.914	12.914-18.914	+++++	+++++
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

Reviewer 1 _____ Date: 5/30/12
Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.767	12.767-18.767	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.445	0.000-5.445	+++++	+++++
* 134 Di-n-octylphthalate-d4	24.794	24.802	24.794	24.794	24.794	24.794	24.794	24.794	21.794-27.794	24.795	0.003
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.397	12.397-18.397	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.799	8.799-14.799	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.308	7.308-13.308	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.697	0.000-5.697	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.541	10.541-16.541	+++++	+++++
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.644	15.644-21.644	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.283	18.283-24.283	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.750	13.750-19.750	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.520	15.520-21.520	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.732	13.732-19.732	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.438	11.438-17.438	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.368	11.368-17.368	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	16.926	16.941	16.926	16.934	16.926	16.926	16.926	16.926	13.926-19.926	16.929	0.006
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.564	13.564-19.564	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.525	11.525-17.525	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.680	11.680-17.680	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.829	12.829-18.829	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.599	9.599-15.599	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.574	10.574-16.574	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.605	10.605-16.605	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.261	8.261-14.261	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.231	6.231-12.231	+++++	+++++
105 1-methylnaphthalene	13.275	13.283	13.275	13.283	13.275	13.275	13.275	13.275	10.275-16.275	13.278	0.004
151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.466	24.466-30.466	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.712	22.712-28.712	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.505	24.505-30.505	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.783	23.783-29.783	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.451	24.451-30.451	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.952	21.952-27.952	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.480	22.480-28.480	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.346	17.346-23.346	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
$ 2 Phenol-d5	8.237	8.244	8.237	8.237	8.237	8.237	8.229	8.237	5.237-11.237	8.237	0.004
3 Phenol	8.260	8.268	8.260	8.260	8.252	8.252	8.252	8.260	5.260-11.260	8.258	0.006
4 Bis(2-Chloroethyl)ethe	8.399	8.407	8.399	8.407	8.399	8.399	8.399	8.399	5.399-11.399	8.401	0.004
$ 5 2-Chlorophenol-d4	8.476	8.484	8.476	8.484	8.476	8.476	8.476	8.476	5.476-11.476	8.478	0.004

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	6 2-Chlorophenol	8.507	8.515	8.507	8.515	8.507	8.507	8.507	8.507	5.507-11.507	8.509	0.004
*	8 1,4-Dichlorobenzene-d4	8.855	8.863	8.855	8.855	8.856	8.855	8.856	8.855	5.855-11.855	8.857	0.003
	9 1,4-Dichlorobenzene	8.886	8.894	8.886	8.894	8.887	8.886	8.887	8.886	5.886-11.886	8.889	0.004
$	10 1,2-Dichlorobenzene-d4	9.236	9.243	9.236	9.236	9.236	9.236	9.236	9.236	6.236-12.236	9.237	0.003
	11 Benzyl alcohol	9.166	9.181	9.166	9.174	9.166	9.166	9.166	9.166	6.166-12.166	9.169	0.006
	12 1,2-Dichlorobenzene	9.267	9.267	9.259	9.267	9.267	9.267	9.267	9.267	6.267-12.267	9.266	0.003
	13 2-Methylphenol	9.430	9.438	9.430	9.438	9.430	9.430	9.430	9.430	6.430-12.430	9.432	0.004
	14 2,2'-oxybis(1-Chloropr	9.492	9.500	9.492	9.492	9.492	9.492	9.492	9.492	6.492-12.492	9.493	0.003
	15 4-Methylphenol	9.725	9.740	9.725	9.733	9.725	9.725	9.725	9.725	6.725-12.725	9.728	0.006
	16 N-Nitroso-di-n-propyla	9.764	9.779	9.764	9.771	9.764	9.764	9.756	9.764	6.764-12.764	9.766	0.007
	17 Hexachloroethane	9.888	9.888	9.888	9.888	9.888	9.888	9.888	9.888	6.888-12.888	9.888	0.000
$	18 Nitrobenzene-d5	10.027	10.035	10.020	10.028	10.020	10.027	10.020	10.027	7.027-13.027	10.025	0.006
	19 Nitrobenzene	10.058	10.074	10.059	10.066	10.059	10.059	10.059	10.058	7.058-13.058	10.062	0.006
	20 Isophorone	10.547	10.563	10.547	10.555	10.540	10.547	10.540	10.547	7.547-13.547	10.549	0.008
	21 2-Nitrophenol	10.733	10.741	10.733	10.741	10.733	10.733	10.733	10.733	7.733-13.733	10.735	0.004
	22 2,4-Dimethylphenol	10.833	10.849	10.833	10.841	10.833	10.833	10.833	10.833	7.833-13.833	10.837	0.006
	23 Bis(2-Chloroethoxy)met	11.033	11.041	11.034	11.034	11.034	11.034	11.034	11.033	8.033-14.033	11.035	0.003
	24 Benzoic acid	11.087	11.249	10.972	11.157	10.972	11.041	10.995	11.087	8.087-14.087	11.068	0.105
	25 2,4-Dichlorophenol	11.234	11.242	11.234	11.234	11.226	11.234	11.226	11.234	8.234-14.234	11.233	0.005
	26 1,2,4-Trichlorobenzene	11.419	11.419	11.411	11.419	11.411	11.419	11.411	11.419	8.419-14.419	11.416	0.004
*	27 Naphthalene-d8	11.504	11.504	11.496	11.504	11.496	11.496	11.496	11.504	8.504-14.504	11.500	0.004
	28 Naphthalene	11.542	11.550	11.543	11.543	11.543	11.543	11.543	11.542	8.542-14.542	11.544	0.003
	29 4-Chloroaniline	11.705	11.720	11.705	11.712	11.705	11.705	11.705	11.705	8.705-14.705	11.708	0.006

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	30 Hexachlorobutadiene	11.952	11.952	11.944	11.952	11.952	11.952	11.944	11.952	8.952-14.952	11.950	0.004
	31 4-Chloro-3-methylpheno	12.780	12.788	12.780	12.780	12.780	12.772	12.772	12.780	9.780-15.780	12.779	0.005
	32 2-Methylnaphthalene	13.043	13.051	13.043	13.043	13.043	13.043	13.043	13.043	10.043-16.043	13.044	0.003
	33 Hexachlorocyclopentadi	13.554	13.554	13.554	13.554	13.546	13.554	13.554	13.554	10.554-16.554	13.553	0.003
	34 2,4,6-Trichlorophenol	13.732	13.740	13.732	13.732	13.724	13.724	13.724	13.732	10.732-16.732	13.730	0.006
	35 2,4,5-Trichlorophenol	13.809	13.817	13.817	13.809	13.809	13.809	13.809	13.809	10.809-16.809	13.812	0.004
$	36 2-Fluorobiphenyl	13.902	13.910	13.895	13.902	13.902	13.902	13.902	13.902	10.902-16.902	13.902	0.004
	37 2-Chloronaphthalene	14.103	14.111	14.104	14.104	14.104	14.103	14.104	14.103	11.103-17.103	14.105	0.003
	38 2-Nitroaniline	14.405	14.421	14.398	14.413	14.398	14.398	14.398	14.405	11.405-17.405	14.404	0.009
	39 Dimethylphthalate	14.893	14.908	14.885	14.893	14.885	14.893	14.885	14.893	11.893-17.893	14.892	0.008
	40 Acenaphthylene	15.032	15.040	15.032	15.032	15.032	15.032	15.032	15.032	12.032-18.032	15.033	0.003
	41 2,6-Dinitrotoluene	15.032	15.048	15.025	15.032	15.025	15.025	15.025	15.032	12.032-18.032	15.030	0.009
*	42 Acenaphthene-d10	15.373	15.380	15.373	15.380	15.373	15.373	15.373	15.373	12.373-18.373	15.375	0.004
	43 3-Nitroaniline	15.326	15.342	15.319	15.334	15.319	15.326	15.319	15.326	12.326-18.326	15.326	0.009
	44 Acenaphthene	15.442	15.450	15.442	15.450	15.442	15.442	15.442	15.442	12.442-18.442	15.444	0.004
	45 2,4-Dinitrophenol	15.558	15.581	15.605	15.566	15.566	15.550	15.558	15.558	12.558-18.558	15.569	0.018
	46 Dibenzofuran	15.798	15.813	15.798	15.806	15.798	15.798	15.798	15.798	12.798-18.798	15.801	0.006
	47 4-Nitrophenol	15.728	15.751	15.759	15.736	15.752	15.728	15.736	15.728	12.728-18.728	15.742	0.012
	48 2,4-Dinitrotoluene	15.898	15.914	15.891	15.906	15.891	15.891	15.891	15.898	12.898-18.898	15.897	0.009
	49 Fluorene	16.563	16.571	16.563	16.571	16.563	16.563	16.563	16.563	13.563-19.563	16.566	0.004
	50 Diethylphthalate	16.470	16.494	16.463	16.478	16.463	16.470	16.463	16.470	13.470-19.470	16.472	0.011
	51 4-Chlorophenyl-phenyle	16.579	16.586	16.579	16.587	16.579	16.579	16.579	16.579	13.579-19.579	16.581	0.004
	52 4-Nitroaniline	16.687	16.725	16.687	16.702	16.687	16.687	16.687	16.687	13.687-19.687	16.695	0.015
	53 4,6-Dinitro-2-methylph	16.802	16.826	16.803	16.810	16.795	16.795	16.795	16.802	13.802-19.802	16.804	0.011

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	54 N-Nitrosodiphenylamine	16.856	16.872	16.857	16.864	16.857	16.857	16.857	16.856	13.856-19.856	16.860	0.006
$	55 2,4,6-Tribromophenol	17.142	17.149	17.142	17.150	17.142	17.142	17.142	17.142	14.142-20.142	17.144	0.004
	56 4-Bromophenyl-phenylet	17.658	17.666	17.651	17.658	17.659	17.658	17.659	17.658	14.658-20.658	17.658	0.004
	57 Hexachlorobenzene	17.975	17.983	17.975	17.975	17.976	17.975	17.976	17.975	14.975-20.975	17.977	0.003
	58 Pentachlorophenol	18.378	18.386	18.394	18.378	18.386	18.378	18.386	18.378	15.378-21.378	18.384	0.006
*	59 Phenanthrene-d10	18.633	18.641	18.633	18.641	18.633	18.633	18.633	18.633	15.633-21.633	18.636	0.004
	60 Phenanthrene	18.687	18.695	18.680	18.688	18.680	18.680	18.680	18.687	15.687-21.687	18.684	0.006
	61 Anthracene	18.780	18.788	18.780	18.788	18.780	18.780	18.780	18.780	15.780-21.780	18.783	0.004
	62 Carbazole	19.144	19.152	19.144	19.144	19.144	19.144	19.144	19.144	16.144-22.144	19.145	0.003
	63 Di-n-butylphthalate	20.010	20.011	20.011	20.011	20.011	20.011	20.003	20.010	17.010-23.010	20.009	0.003
	64 Fluoranthene	21.101	21.109	21.101	21.109	21.102	21.101	21.102	21.101	18.101-24.101	21.104	0.004
	65 Pyrene	21.519	21.527	21.519	21.527	21.519	21.519	21.519	21.519	18.519-24.519	21.521	0.004
$	66 Terphenyl-d14	21.844	21.844	21.844	21.844	21.837	21.844	21.837	21.844	18.844-24.844	21.842	0.004
	67 Butylbenzylphthalate	22.781	22.789	22.781	22.789	22.781	22.781	22.781	22.781	19.781-25.781	22.783	0.004
	68 Benzo(a)anthracene	23.679	23.687	23.679	23.679	23.679	23.679	23.679	23.679	20.679-26.679	23.680	0.003
*	69 Chrysene-d12	23.710	23.710	23.702	23.710	23.703	23.702	23.703	23.710	20.710-26.710	23.706	0.004
	70 3,3'-Dichlorobenzidine	23.656	23.671	23.656	23.664	23.656	23.656	23.656	23.656	20.656-26.656	23.659	0.006
	71 Chrysene	23.749	23.764	23.749	23.757	23.749	23.749	23.749	23.749	20.749-26.749	23.752	0.006
	72 bis(2-Ethylhexyl)phtha	23.818	23.826	23.819	23.826	23.819	23.819	23.819	23.818	20.818-26.818	23.821	0.004
	73 Di-n-octylphthalate	24.802	24.809	24.802	24.802	24.802	24.802	24.802	24.802	21.802-27.802	24.803	0.003
	74 Benzo(b)fluoranthene	25.452	25.460	25.444	25.452	25.444	25.444	25.444	25.452	22.452-28.452	25.449	0.006
	75 Benzo(k)fluoranthene	25.483	25.498	25.483	25.491	25.483	25.483	25.483	25.483	22.483-28.483	25.486	0.006
	187 Total Benzofluoranthen	25.483	25.498	25.483	25.491	25.483	25.483	25.483	25.483	22.483-28.483	25.486	0.006
	76 Benzo(a)pyrene	26.002	26.017	26.002	26.002	26.002	26.002	26.002	26.002	23.002-29.002	26.004	0.006

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20120526.b

ARI Job No.: ABN5 Method: ABN.m Instrument: nt10.i Date: 26-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1059	ic0526a.d	ABN5		1	NO MANUAL INTEGRATION
1136	ic0526b.d	ABN20		1	NO MANUAL INTEGRATION
1213	ic0526c.d	ABN.2		1	Benzyl alcohol, Benzoic acid, 2,4-Dinitrophenol, 4-Nitrophenol,
1250	ic0526d.d	ABN10		1	NO MANUAL INTEGRATION
1327	ic0526e.d	ABN.5		1	Benzyl alcohol, 2,4-Dinitrophenol,
1405	ic0526f.d	ABN2.5		1	NO MANUAL INTEGRATION
1442	ic0526g.d	ABN1.0		1	NO MANUAL INTEGRATION

Averaged

Report Date : 26-May-2012 15:50

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

Calibration File Names:
Level 1: /chem1/nt10.i/20120526.b/ic0526c.d
Level 2: /chem1/nt10.i/20120526.b/ic0526e.d
Level 3: /chem1/nt10.i/20120526.b/ic0526g.d
Level 4: /chem1/nt10.i/20120526.b/ic0526f.d
Level 5: /chem1/nt10.i/20120526.b/ic0526a.d
Level 6: /chem1/nt10.i/20120526.b/ic0526d.d
Level 7: /chem1/nt10.i/20120526.b/ic0526b.d

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	RRF	% RSD	
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD	
	20.000 Level 7								
111 Azobenzene (1,2-DP-Hydrazine)	1.29168	1.21488	1.24456	1.24502	1.18683	1.20842			
	1.10678						1.21402	4.779	
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
181 3,4,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	RRF	% RSD	
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
105 1-methylnaphthalene	0.69053	0.69006	0.69964	0.71032	0.74060	0.73836	0.73504	0.71493	3.170	
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD
	20.000 Level 7							
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
3 Phenol	1.93782	1.78241	1.79890	1.83686	1.94466	1.85875		
	1.84111						1.85722	3.392
4 Bis(2-Chloroethyl)ether	1.46051	1.38677	1.40901	1.37934	1.35886	1.35721		
	1.32810						1.38283	3.093
6 2-Chlorophenol	1.59117	1.56214	1.60149	1.59927	1.64063	1.74942		
	1.73628						1.64006	4.510
7 1,3-Dichlorobenzene	1.71981	1.64778	1.66204	1.65240	1.65734	1.60670		
	1.54816						1.64203	3.231
9 1,4-Dichlorobenzene	1.67008	1.61418	1.60209	1.61372	1.59176	1.58483		
	1.54228						1.60271	2.401
11 Benzyl alcohol	0.79060	0.75427	0.68638	0.75631	0.80699	0.83518		
	0.83216						0.78027	6.740
12 1,2-Dichlorobenzene	1.58456	1.56907	1.61577	1.55958	1.56974	1.54243		
	1.50567						1.56383	2.192
13 2-Methylphenol	1.53698	1.41390	1.45396	1.44476	1.46574	1.47126		
	1.45988						1.46378	2.553

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	RRF	% RSD
14 2,2'-oxybis(1-Chloropropane)	0.53070	0.52169	0.50970	0.49884	0.51514	0.49675	0.49076	0.50908	2.842
15 4-Methylphenol	1.51979	1.51828	1.52051	1.54947	1.53207	1.54139	1.50849	1.52714	0.945
16 N-Nitroso-di-n-propylamine	0.85751	0.88217	0.88208	0.88036	0.85602	0.85073	0.82905	0.86256	2.325
17 Hexachloroethane	0.61611	0.61683	0.61533	0.61819	0.62403	0.63110	0.63717	0.62268	1.366
19 Nitrobenzene	0.37089	0.35013	0.35505	0.34631	0.35216	0.35110	0.34346	0.35273	2.515
20 Isophorone	0.64743	0.61491	0.66071	0.65386	0.67901	0.68000	0.71877	0.66495	4.862
21 2-Nitrophenol	0.21671	0.20611	0.21765	0.22034	0.23433	0.23211	0.22968	0.22242	4.548
22 2,4-Dimethylphenol	0.34704	0.34026	0.36562	0.35606	0.36445	0.35120	0.34185	0.35235	2.890
23 Bis(2-Chloroethoxy)methane	0.41334	0.39088	0.40919	0.38692	0.39819	0.38969	0.38389	0.39601	2.869

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD	
	20.000 Level 7								
24 Benzoic acid	+++++	0.09377	0.13003	0.18809	0.23596	0.25300			
	0.27005						0.19515	36.371	<-- Qual
25 2,4-Dichlorophenol	0.29664	0.33637	0.34059	0.34593	0.35431	0.36260			
	0.33599						0.33892	6.204	
26 1,2,4-Trichlorobenzene	0.34022	0.33179	0.32911	0.31462	0.32535	0.31448			
	0.30297						0.32265	3.920	
28 Naphthalene	1.01892	0.98976	1.02001	0.98738	1.02274	1.02205			
	0.99794						1.00840	1.587	
29 4-Chloroaniline	0.42321	0.40373	0.46985	0.48491	0.45332	0.45549			
	0.45438						0.44927	6.114	
30 Hexachlorobutadiene	0.17092	0.17389	0.17330	0.17339	0.18139	0.17507			
	0.16653						0.17350	2.580	
31 4-Chloro-3-methylphenol	0.27800	0.27685	0.30318	0.30088	0.32058	0.32488			
	0.32433						0.30410	6.776	
32 2-Methylnaphthalene	0.68928	0.67454	0.69249	0.69355	0.72209	0.72089			
	0.71436						0.70103	2.594	
33 Hexachlorocyclopentadiene	+++++	0.11438	0.17125	0.23350	0.27883	0.31960			
	0.34105						0.24310	36.117	<-- Qual

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	RRF	% RSD
34 2,4,6-Trichlorophenol	0.36549	0.36162	0.38350	0.40696	0.41230	0.42053	0.40888	0.39418	6.039
35 2,4,5-Trichlorophenol	0.37272	0.37175	0.41544	0.42942	0.45764	0.45956	0.44725	0.42197	8.851
37 2-Chloronaphthalene	1.18617	1.15537	1.21364	1.19177	1.18318	1.20605	1.16137	1.18536	1.806
38 2-Nitroaniline	0.27665	0.27060	0.28017	0.28833	0.28524	0.29564	0.28790	0.28350	2.943
39 Dimethylphthalate	1.28781	1.23703	1.27665	1.25445	1.22652	1.21880	1.10195	1.22903	5.004
40 Acenaphthylene	1.85098	1.79087	1.80389	1.80942	1.78241	1.82303	1.71476	1.79648	2.362
41 2,6-Dinitrotoluene	0.28468	0.28754	0.30858	0.30612	0.30537	0.31266	0.29106	0.29943	3.778
43 3-Nitroaniline	0.33023	0.33054	0.34327	0.34560	0.33584	0.35434	0.32669	0.33807	2.961
44 Acenaphthene	1.09150	1.05515	1.08275	1.09356	1.09053	1.10299	1.06860	1.08358	1.517

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD
	20.000 Level 7							
45 2,4-Dinitrophenol	+++++	0.03405	0.07702	0.13789	0.18678	0.21686		
	0.22394						0.14609	53.124
46 Dibenzofuran	1.56097	1.55749	1.61928	1.61975	1.57536	1.60948		
	1.57012						1.58749	1.742
47 4-Nitrophenol	0.10653	0.11184	0.12375	0.13675	0.14215	0.15101		
	0.13872						0.13011	12.670
48 2,4-Dinitrotoluene	0.33964	0.36432	0.39526	0.39871	0.41047	0.41320		
	0.38262						0.38632	6.861
49 Fluorene	1.27900	1.20760	1.22333	1.21133	1.20161	1.20576		
	1.18598						1.21637	2.450
50 Diethylphthalate	1.23815	1.22983	1.21878	1.23534	1.20929	1.16965		
	1.08612						1.19817	4.559
51 4-Chlorophenyl-phenylether	0.59904	0.57024	0.58557	0.58172	0.57842	0.58070		
	0.54735						0.57758	2.756
52 4-Nitroaniline	0.30121	0.35825	0.37660	0.35473	0.33940	0.33793		
	0.34993						0.34544	6.779
53 4,6-Dinitro-2-methylphenol	+++++	0.10673	0.13877	0.16176	0.17907	0.18626		
	0.17970						0.15872	19.364

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	RRF	% RSD	
54 N-Nitrosodiphenylamine	0.56377	0.55022	0.56120	0.53574	0.53680	0.52692	0.49201	0.53809	4.550	
56 4-Bromophenyl-phenylether	0.21951	0.20081	0.21443	0.21141	0.21685	0.22361	0.21231	0.21413	3.381	
57 Hexachlorobenzene	0.24619	0.25325	0.25223	0.24875	0.24201	0.24485	0.24098	0.24689	1.927	
58 Pentachlorophenol	+++++	0.05177	0.07801	0.09799	0.12954	0.13754	0.14340	0.10637	34.505	<- Qnc
60 Phenanthrene	1.06051	0.97569	1.03599	1.00825	1.02336	1.04091	1.07540	1.03144	3.215	
61 Anthracene	1.06960	1.03049	1.06853	1.05383	1.11319	1.10262	1.10413	1.07748	2.817	
62 Carbazole	1.02492	1.03777	1.07002	0.99487	0.94857	0.89007	1.01254	0.99697	6.046	
63 Di-n-butylphthalate	1.33414	1.27773	1.38366	1.37095	1.47098	1.48637	1.49795	1.40311	5.993	
64 Fluoranthene	1.15455	1.11006	1.13082	1.13925	1.20211	1.21842	1.24253	1.17111	4.261	

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD
	20.000 Level 7							
65 Pyrene	1.20581	1.15940	1.23562	1.20914	1.24483	1.23328		
	1.23141						1.21707	2.395
67 Butylbenzylphthalate	0.57732	0.55533	0.57114	0.56183	0.58390	0.55369		
	0.54876						0.56457	2.333
68 Benzo(a)anthracene	1.20699	1.09061	1.11889	1.09881	1.11070	1.11657		
	1.13357						1.12516	3.438
70 3,3'-Dichlorobenzidine	+++++	0.63372	0.64623	0.63929	0.58563	0.53713		
	0.65445						0.61607	7.400
71 Chrysene	0.98916	0.95229	0.99774	0.96476	1.00552	1.00986		
	1.00931						0.98981	2.307
72 bis(2-Ethylhexyl)phthalate	0.60670	0.55059	0.53958	0.53786	0.54429	0.54605		
	0.52007						0.54931	4.937
73 Di-n-octylphthalate	1.03576	0.96337	0.98665	0.95638	0.96678	0.95873		
	0.94454						0.97317	3.124
74 Benzo(b)fluoranthene	1.09905	1.05571	1.10041	1.06208	1.18164	1.12420		
	1.24247						1.12365	5.974
75 Benzo(k)fluoranthene	1.27389	1.28509	1.28535	1.25133	1.19165	1.26526		
	1.10821						1.23726	5.286

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD
	20.000 Level 7							
187 Total Benzofluoranthenes	1.12458	1.09115	1.12381	1.08314	1.11851	1.12409		
	1.10396						1.10989	1.555
76 Benzo(a)pyrene	1.06539	0.98413	1.03837	1.01500	1.04753	1.05076		
	1.03871						1.03427	2.600
78 Indeno(1,2,3-cd)pyrene	1.12137	1.11892	1.17740	1.21207	1.24880	1.25883		
	1.23722						1.19637	4.892
79 Dibenzo(a,h)anthracene	0.84993	0.86647	0.93647	0.95859	0.99213	1.00399		
	0.98932						0.94241	6.581
80 Benzo(g,h,i)perylene	1.00242	0.95348	0.99998	1.02510	1.06812	1.07231		
	1.05992						1.02591	4.279
90 N-Nitrosodimethylamine	0.86183	0.83324	0.83206	0.84563	0.84431	0.82304		
	0.78150						0.83166	3.049
91 Aniline	4.08674	3.96856	4.06292	3.99679	3.98672	3.87415		
	3.71782						3.95624	3.176
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
93 Benzidine	0.47016	0.46697	0.47552	0.42523	0.33981	0.44103		
	0.57927						0.45686	15.622

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	20.000 Level 7								
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
98 Retene	0.55139	0.53775	0.55210	0.55985	0.58856	0.58501			
	0.59254						0.56674	3.821	
99 Perylene	1.06737	1.00429	1.04991	1.00327	1.04442	1.05530			
	1.05357						1.03973	2.455	
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
103 Pyridine	0.73569	0.69513	0.75065	0.74068	0.69537	0.71095			
	0.69810						0.71808	3.303	
$ 1 2-Fluorophenol	1.37967	1.38916	1.39694	1.40122	1.41730	1.43750			
	1.36950						1.39876	1.642	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD	
	20.000 Level 7								
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
$ 2 Phenol-d5	1.67567	1.69701	1.70877	1.73959	1.77639	1.80843			
	1.79085						1.74239	2.918	
$ 5 2-Chlorophenol-d4	1.55701	1.52354	1.53700	1.49714	1.52331	1.52306			
	1.52463						1.52653	1.177	
$ 10 1,2-Dichlorobenzene-d4	1.00618	0.97328	1.01684	0.99736	1.01271	1.00671			
	0.99684						1.00142	1.438	
$ 18 Nitrobenzene-d5	0.35681	0.34705	0.36221	0.35991	0.36634	0.36081			
	0.35564						0.35840	1.707	
$ 36 2-Fluorobiphenyl	1.42231	1.38804	1.38526	1.40503	1.35546	1.40214			
	1.34814						1.38663	1.933	
$ 55 2,4,6-Tribromophenol	0.15415	0.15709	0.16428	0.16515	0.17168	0.17449			
	0.16886						0.16510	4.494	
$ 66 Terphenyl-d14	0.79176	0.75544	0.77467	0.77718	0.77623	0.74269			
	0.71899						0.76242	3.277	
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	

" The curve "

Report Date : 26-May-2012 15:53

U1552 : 69141

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

Calibration File Names:
Level 1: /chem1/nt10.i/20120526.b/ic0526c.d
Level 2: /chem1/nt10.i/20120526.b/ic0526e.d
Level 3: /chem1/nt10.i/20120526.b/ic0526g.d
Level 4: /chem1/nt10.i/20120526.b/ic0526f.d
Level 5: /chem1/nt10.i/20120526.b/ic0526a.d
Level 6: /chem1/nt10.i/20120526.b/ic0526d.d
Level 7: /chem1/nt10.i/20120526.b/ic0526b.d

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	

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Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
111 Azobenzene (1,2-DP-Hydrazine)	1.29168	1.21488	1.24456	1.24502	1.18683	1.20842						
	1.10678						AVRG		1.21402		4.77901	
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
105 1-methylnaphthalene	0.69053	0.69006	0.69964	0.71032	0.74060	0.73836	0.73504	AVRG		0.000e+00		0.000e+00	<-
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.71493		3.16988	
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
								AVRG		0.000e+00		0.000e+00	

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Integrator : HP RTE
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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
3 Phenol	1.93782	1.78241	1.79890	1.83686	1.94466	1.85875					
	1.84111						AVRG		1.85722		3.39231
4 Bis(2-Chloroethyl)ether	1.46051	1.38677	1.40901	1.37934	1.35886	1.35721					
	1.32810						AVRG		1.38283		3.09264

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Integrator : HP RTE
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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
6 2-Chlorophenol	1.59117	1.56214	1.60149	1.59927	1.64063	1.74942	1.73628	AVRG		1.64006		4.51030
7 1,3-Dichlorobenzene	1.71981	1.64778	1.66204	1.65240	1.65734	1.60670	1.54816	AVRG		1.64203		3.23056
9 1,4-Dichlorobenzene	1.67008	1.61418	1.60209	1.61372	1.59176	1.58483	1.54228	AVRG		1.60271		2.40082
11 Benzyl alcohol	0.79060	0.75427	0.68638	0.75631	0.80699	0.83518	0.83216	AVRG		0.78027		6.73992
12 1,2-Dichlorobenzene	1.58456	1.56907	1.61577	1.55958	1.56974	1.54243	1.50567	AVRG		1.56383		2.19174
13 2-Methylphenol	1.53698	1.41390	1.45396	1.44476	1.46574	1.47126	1.45988	AVRG		1.46378		2.55288
14 2,2'-oxybis(1-Chloropropane)	0.53070	0.52169	0.50970	0.49884	0.51514	0.49675	0.49076	AVRG		0.50908		2.84196

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
15 4-Methylphenol	1.51979	1.51828	1.52051	1.54947	1.53207	1.54139					
	1.50849						AVRG		1.52714		0.94515
16 N-Nitroso-di-n-propylamine	0.85751	0.88217	0.88208	0.88036	0.85602	0.85073					
	0.82905						AVRG		0.86256		2.32546
17 Hexachloroethane	0.61611	0.61683	0.61533	0.61819	0.62403	0.63110					
	0.63717						AVRG		0.62268		1.36641
19 Nitrobenzene	0.37089	0.35013	0.35505	0.34631	0.35216	0.35110					
	0.34346						AVRG		0.35273		2.51451
20 Isophorone	0.64743	0.61491	0.66071	0.65386	0.67901	0.68000					
	0.71877						AVRG		0.66495		4.86239
21 2-Nitrophenol	0.21671	0.20611	0.21765	0.22034	0.23433	0.23211					
	0.22968						AVRG		0.22242		4.54831
22 2,4-Dimethylphenol	0.34704	0.34026	0.36562	0.35606	0.36445	0.35120					
	0.34185						AVRG		0.35235		2.89029

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
23 Bis(2-Chloroethoxy)methane	0.41334	0.39088	0.40919	0.38692	0.39819	0.38969	0.38389	AVRG		0.39601		2.86933
24 Benzoic acid	+++++	34874	97576	346329	862339	1808839	3954019	QUAD	0.000e+00	4.35066	-0.12146	0.99921
25 2,4-Dichlorophenol	0.29664	0.33637	0.34059	0.34593	0.35431	0.36260	0.33599	AVRG		0.33892		6.20399
26 1,2,4-Trichlorobenzene	0.34022	0.33179	0.32911	0.31462	0.32535	0.31448	0.30297	AVRG		0.32265		3.92022
28 Naphthalene	1.01892	0.98976	1.02001	0.98738	1.02274	1.02205	0.99794	AVRG		1.00840		1.58668
29 4-Chloroaniline	0.42321	0.40373	0.46985	0.48491	0.45332	0.45549	0.45438	AVRG		0.44927		6.11437
30 Hexachlorobutadiene	0.17092	0.17389	0.17330	0.17339	0.18139	0.17507	0.16653	AVRG		0.17350		2.58021

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
31 4-Chloro-3-methylphenol	0.27800	0.27685	0.30318	0.30088	0.32058	0.32488					
	0.32433						AVRG		0.30410		6.77614
32 2-Methylnaphthalene	0.68928	0.67454	0.69249	0.69355	0.72209	0.72089					
	0.71436						AVRG		0.70103		2.59425
33 Hexachlorocyclopentadiene	+++++	11564	35252	116347	293255	633343					
	1418921						QUAD	0.000e+00	3.52578	-0.17688	0.99896
34 2,4,6-Trichlorophenol	0.36549	0.36162	0.38350	0.40696	0.41230	0.42053					
	0.40888						AVRG		0.39418		6.03893
35 2,4,5-Trichlorophenol	0.37272	0.37175	0.41544	0.42942	0.45764	0.45956					
	0.44725						AVRG		0.42197		8.85120
37 2-Chloronaphthalene	1.18617	1.15537	1.21364	1.19177	1.18318	1.20605					
	1.16137						AVRG		1.18536		1.80578
38 2-Nitroaniline	0.27665	0.27060	0.28017	0.28833	0.28524	0.29564					
	0.28790						AVRG		0.28350		2.94270

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
39 Dimethylphthalate	1.28781	1.23703	1.27665	1.25445	1.22652	1.21880					
	1.10195						AVRG		1.22903		5.00399
40 Acenaphthylene	1.85098	1.79087	1.80389	1.80942	1.78241	1.82303					
	1.71476						AVRG		1.79648		2.36222
41 2,6-Dinitrotoluene	0.28468	0.28754	0.30858	0.30612	0.30537	0.31266					
	0.29106						AVRG		0.29943		3.77761
43 3-Nitroaniline	0.33023	0.33054	0.34327	0.34560	0.33584	0.35434					
	0.32669						AVRG		0.33807		2.96080
44 Acenaphthene	1.09150	1.05515	1.08275	1.09356	1.09053	1.10299					
	1.06860						AVRG		1.08358		1.51680
45 2,4-Dinitrophenol	+++++	6885	31710	137413	392895	859509					
	1863407						QUAD	0.000e+00	5.17724	-0.16339	0.99805
46 Dibenzofuran	1.56097	1.55749	1.61928	1.61975	1.57536	1.60948					
	1.57012						AVRG		1.58749		1.74156

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
47 4-Nitrophenol	0.10653	0.11184	0.12375	0.13675	0.14215	0.15101					
	0.13872						AVRG		0.13011		12.67018
48 2,4-Dinitrotoluene	0.33964	0.36432	0.39526	0.39871	0.41047	0.41320					
	0.38262						AVRG		0.38632		6.86139
49 Fluorene	1.27900	1.20760	1.22333	1.21133	1.20161	1.20576					
	1.18598						AVRG		1.21637		2.44972
50 Diethylphthalate	1.23815	1.22983	1.21878	1.23534	1.20929	1.16965					
	1.08612						AVRG		1.19817		4.55852
51 4-Chlorophenyl-phenylether	0.59904	0.57024	0.58557	0.58172	0.57842	0.58070					
	0.54735						AVRG		0.57758		2.75565
52 4-Nitroaniline	0.30121	0.35825	0.37660	0.35473	0.33940	0.33793					
	0.34993						AVRG		0.34544		6.77926
53 4,6-Dinitro-2-methylphenol	+++++	0.10673	0.13877	0.16176	0.17907	0.18626					
	0.17970						AVRG		0.15872		19.36391

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	20 Level 7										
54 N-Nitrosodiphenylamine	0.56377	0.55022	0.56120	0.53574	0.53680	0.52692					
	0.49201						AVRG		0.53809		4.54957
56 4-Bromophenyl-phenylether	0.21951	0.20081	0.21443	0.21141	0.21685	0.22361					
	0.21231						AVRG		0.21413		3.38083
57 Hexachlorobenzene	0.24619	0.25325	0.25223	0.24875	0.24201	0.24485					
	0.24098						AVRG		0.24689		1.92672
58 Pentachlorophenol	+++++	8182	24770	76549	206931	411314					
	867054						QUAD	0.000e+00	7.90524	-0.66208	0.99899
60 Phenanthrene	1.06051	0.97569	1.03599	1.00825	1.02336	1.04091					
	1.07540						AVRG		1.03144		3.21523
61 Anthracene	1.06960	1.03049	1.06853	1.05383	1.11319	1.10262					
	1.10413						AVRG		1.07748		2.81670
62 Carbazole	1.02492	1.03777	1.07002	0.99487	0.94857	0.89007					
	1.01254						AVRG		0.99697		6.04596

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Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Di-n-butylphthalate	1.33414 / 1.49795	1.27773	1.38366	1.37095	1.47098	1.48637	AVRG		1.40311		5.99287
64 Fluoranthene	1.15455 / 1.24253	1.11006	1.13082	1.13925	1.20211	1.21842	AVRG		1.17111		4.26094
65 Pyrene	1.20581 / 1.23141	1.15940	1.23562	1.20914	1.24483	1.23328	AVRG		1.21707		2.39516
67 Butylbenzylphthalate	0.57732 / 0.54876	0.55533	0.57114	0.56183	0.58390	0.55369	AVRG		0.56457		2.33295
68 Benzo(a)anthracene	1.20699 / 1.13357	1.09061	1.11889	1.09881	1.11070	1.11657	AVRG		1.12516		3.43783
70 3,3'-Dichlorobenzidine	+++++ / 0.65445	0.63372	0.64623	0.63929	0.58563	0.53713	AVRG		0.61607		7.39980
71 Chrysene	0.98916 / 1.00931	0.95229	0.99774	0.96476	1.00552	1.00986	AVRG		0.98981		2.30658

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
72 bis(2-Ethylhexyl)phthalate	0.60670	0.55059	0.53958	0.53786	0.54429	0.54605					
	0.52007						AVRG		0.54931		4.93651
73 Di-n-octylphthalate	1.03576	0.96337	0.98665	0.95638	0.96678	0.95873					
	0.94454						AVRG		0.97317		3.12405
74 Benzo(b)fluoranthene	1.09905	1.05571	1.10041	1.06208	1.18164	1.12420					
	1.24247						AVRG		1.12365		5.97365
75 Benzo(k)fluoranthene	1.27389	1.28509	1.28535	1.25133	1.19165	1.26526					
	1.10821						AVRG		1.23726		5.28550
187 Total Benzofluoranthenes	1.12458	1.09115	1.12381	1.08314	1.11851	1.12409					
	1.10396						AVRG		1.10989		1.55494
76 Benzo(a)pyrene	1.06539	0.98413	1.03837	1.01500	1.04753	1.05076					
	1.03871						AVRG		1.03427		2.59978
78 Indeno(1,2,3-cd)pyrene	1.12137	1.11892	1.17740	1.21207	1.24880	1.25883					
	1.23722						AVRG		1.19637		4.89151

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
79 Dibenzo(a,h)anthracene	0.84993	0.86647	0.93647	0.95859	0.99213	1.00399					
	0.98932						AVRG		0.94241		6.58108
80 Benzo(g,h,i)perylene	1.00242	0.95348	0.99998	1.02510	1.06812	1.07231					
	1.05992						AVRG		1.02591		4.27892
90 N-Nitrosodimethylamine	0.86183	0.83324	0.83206	0.84563	0.84431	0.82304					
	0.78150						AVRG		0.83166		3.04924
91 Aniline	4.08674	3.96856	4.06292	3.99679	3.98672	3.87415					
	3.71782						AVRG		3.95624		3.17588
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
93 Benzidine	0.47016	0.46697	0.47552	0.42523	0.33981	0.44103					
	0.57927						AVRG		0.45686		15.62231
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
98 Retene	0.55139	0.53775	0.55210	0.55985	0.58856	0.58501	0.59254	AVRG		0.56674		3.82090	
99 Perylene	1.06737	1.00429	1.04991	1.00327	1.04442	1.05530	1.05357	AVRG		1.03973		2.45482	
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
103 Pyridine	0.73569	0.69513	0.75065	0.74068	0.69537	0.71095	0.69810	AVRG		0.71808		3.30261	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
$ 1 2-Fluorophenol	1.37967	1.38916	1.39694	1.40122	1.41730	1.43750						
	1.36950						AVRG		1.39876		1.64242	
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 2 Phenol-d5	1.67567	1.69701	1.70877	1.73959	1.77639	1.80843						
	1.79085						AVRG		1.74239		2.91839	
$ 5 2-Chlorophenol-d4	1.55701	1.52354	1.53700	1.49714	1.52331	1.52306						
	1.52463						AVRG		1.52653		1.17704	
$ 10 1,2-Dichlorobenzene-d4	1.00618	0.97328	1.01684	0.99736	1.01271	1.00671						
	0.99684						AVRG		1.00142		1.43849	
$ 18 Nitrobenzene-d5	0.35681	0.34705	0.36221	0.35991	0.36634	0.36081						
	0.35564						AVRG		0.35840		1.70700	
$ 36 2-Fluorobiphenyl	1.42231	1.38804	1.38526	1.40503	1.35546	1.40214						
	1.34814						AVRG		1.38663		1.93263	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 55 2,4,6-Tribromophenol	0.15415	0.15709	0.16428	0.16515	0.17168	0.17449	0.16886					
								AVRG		0.16510		4.49377
$ 66 Terphenyl-d14	0.79176	0.75544	0.77467	0.77718	0.77623	0.74269	0.71899					
								AVRG		0.76242		3.27653
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++					
								AVRG		0.000e+00		0.000e+00
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++					
								AVRG		0.000e+00		0.000e+00
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++					
								AVRG		0.000e+00		0.000e+00
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++	+++++					
								AVRG		0.000e+00		0.000e+00
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++					
								AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

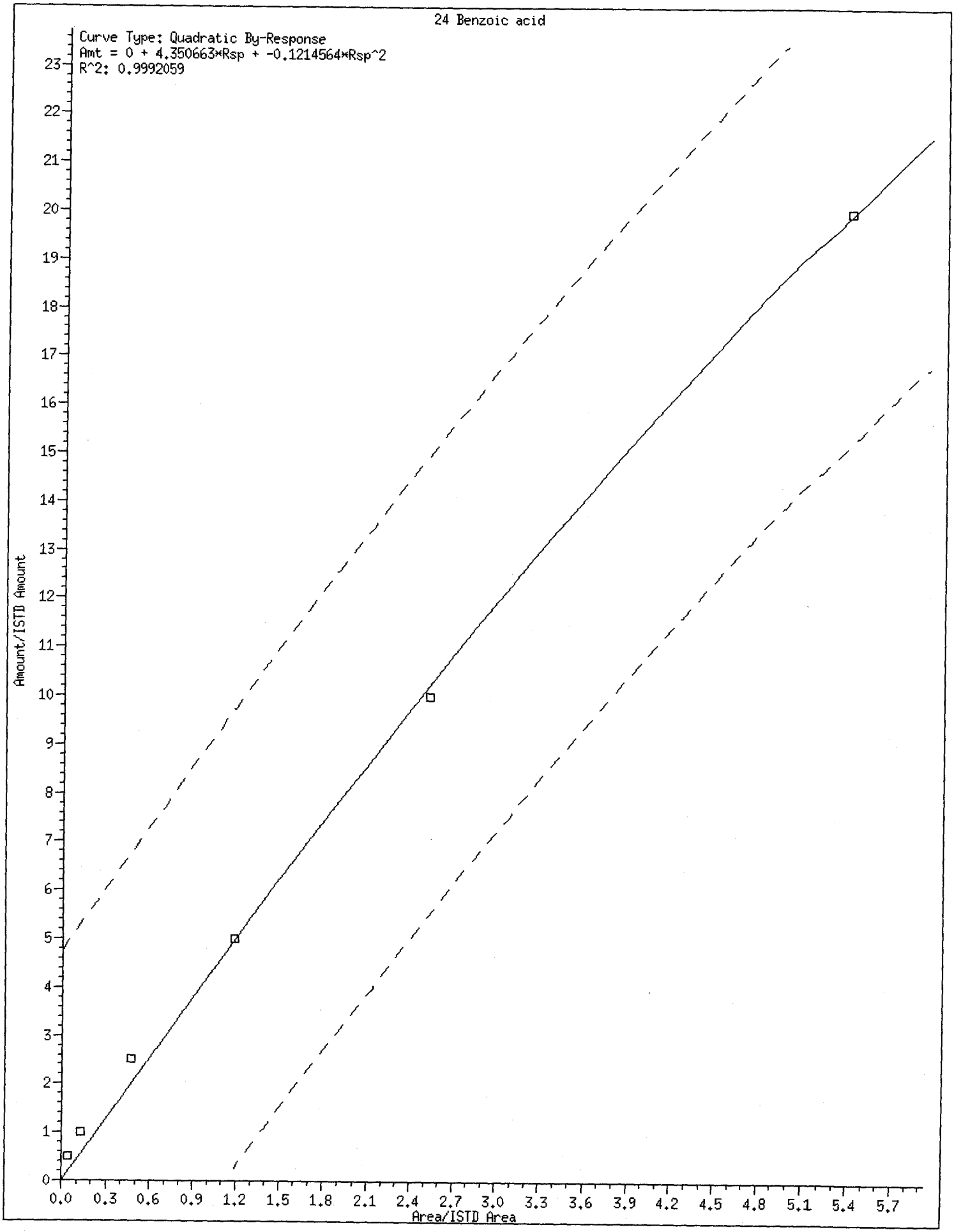
Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

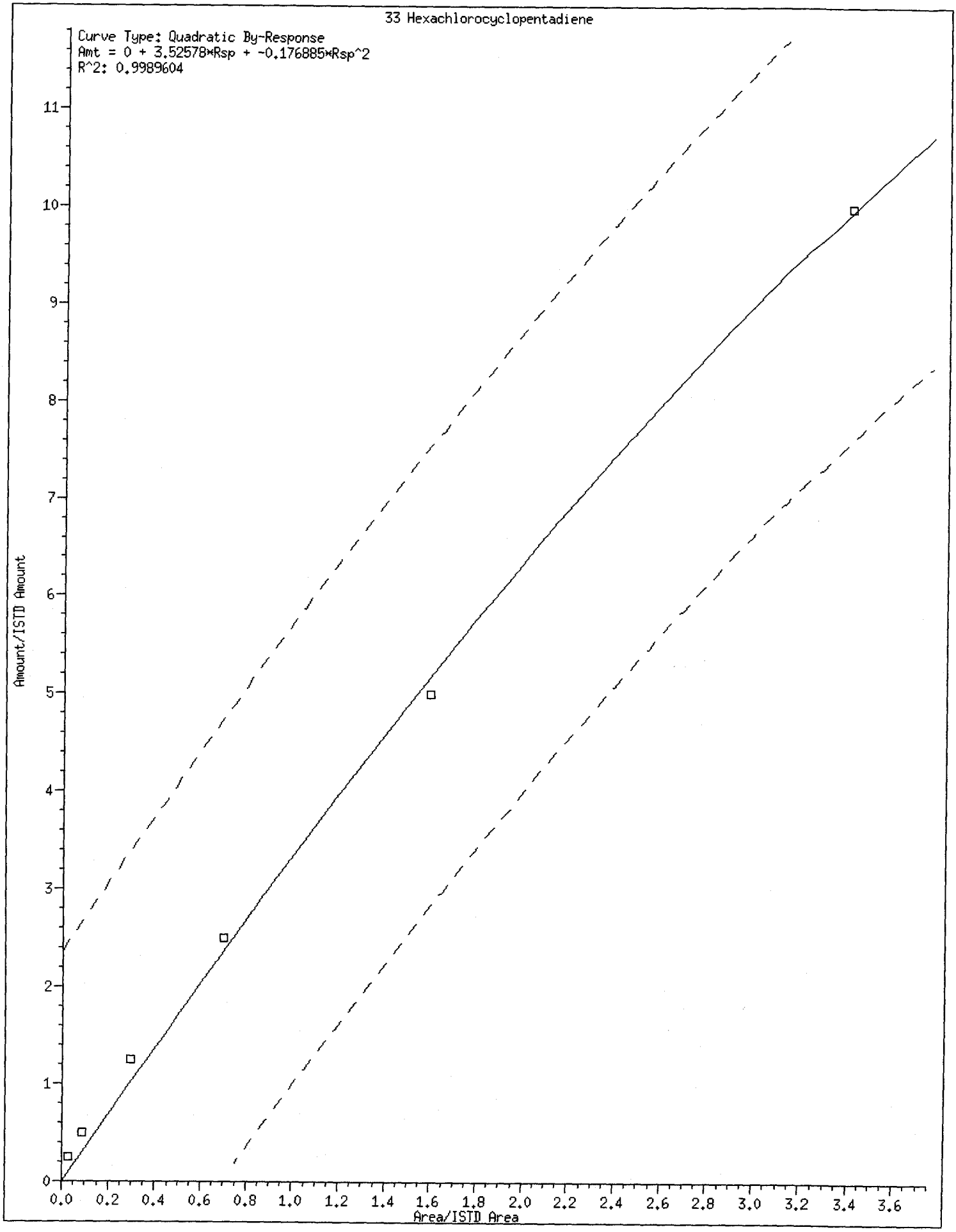
Analytical Resources, Inc.

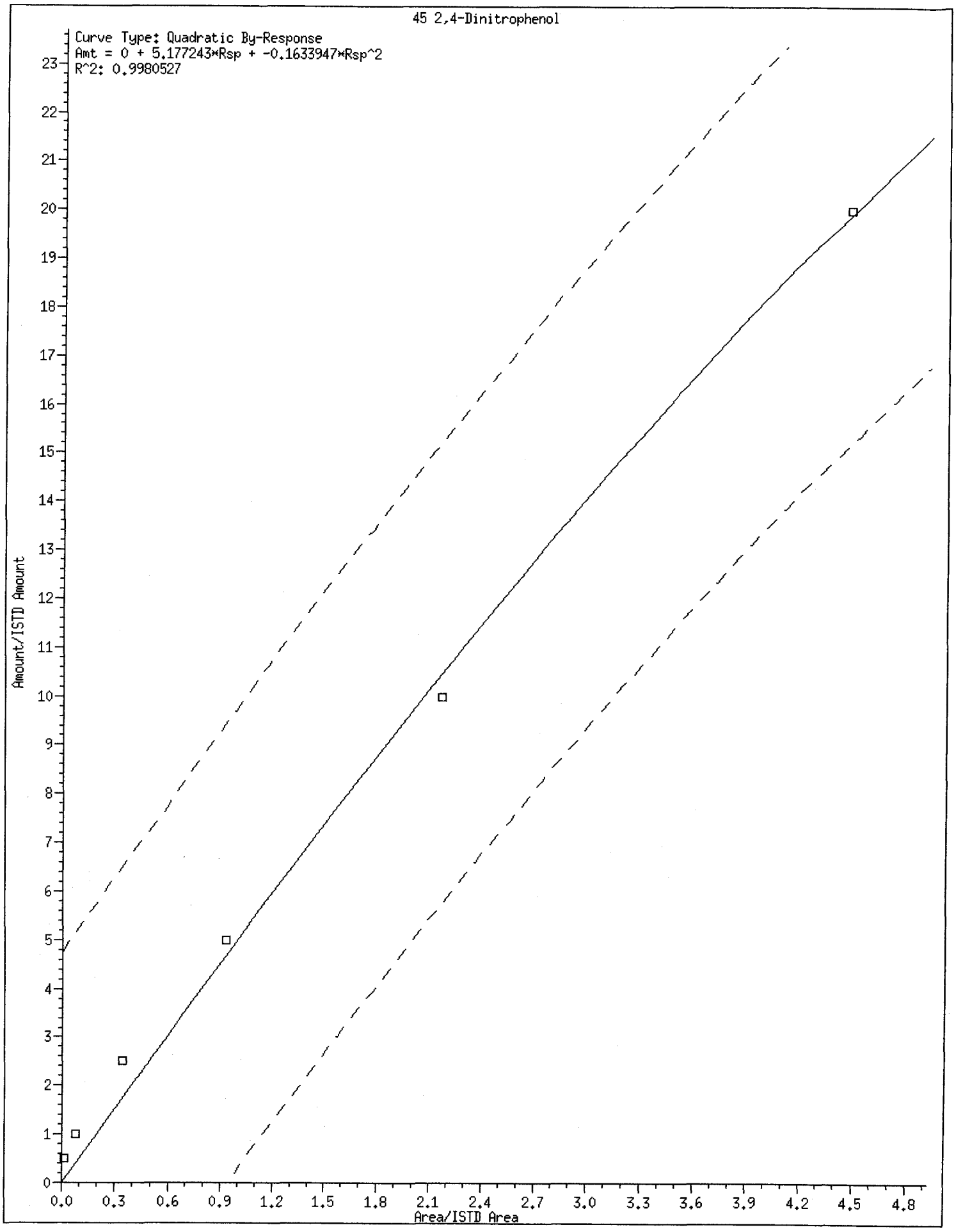
INITIAL CALIBRATION DATA

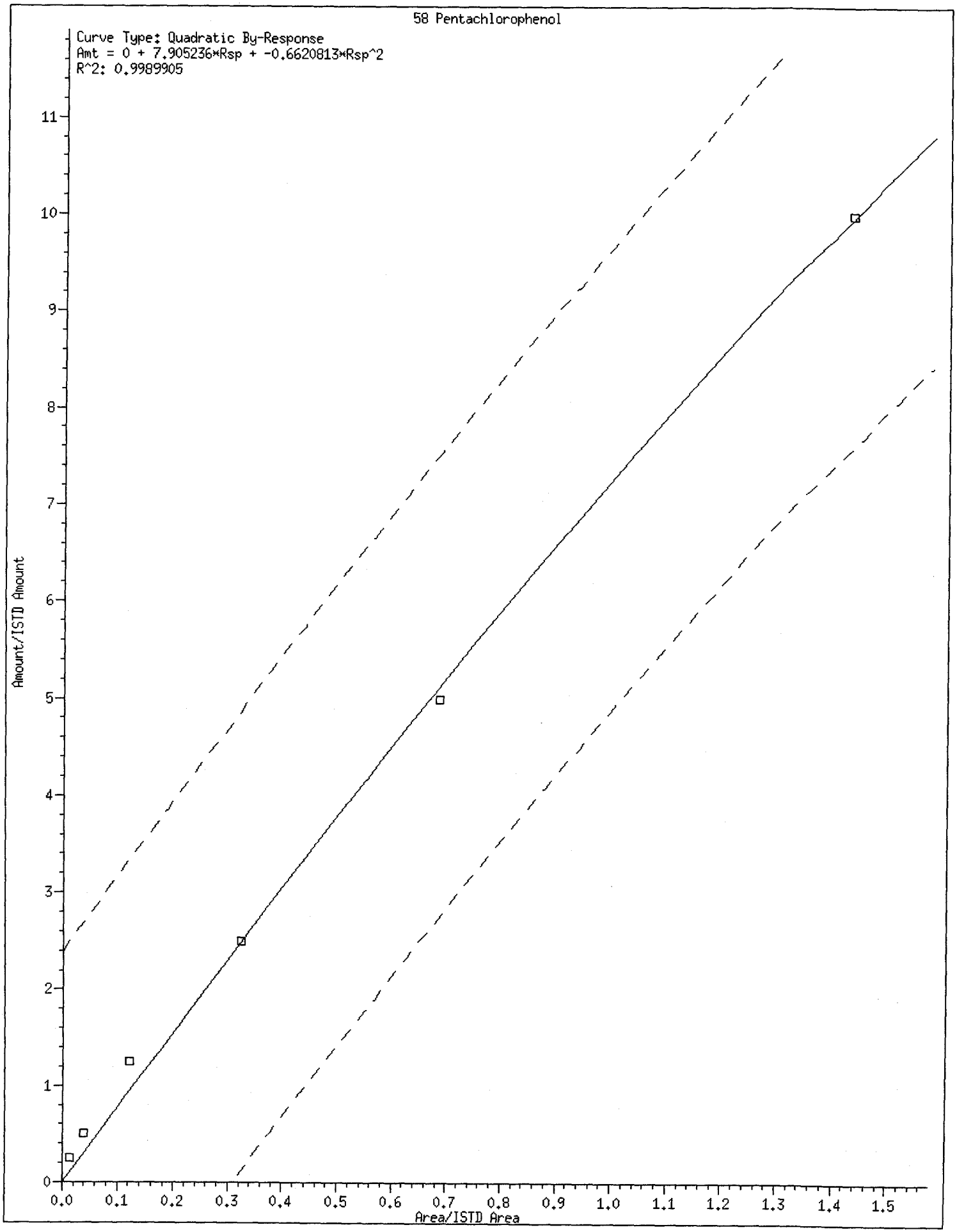
Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response


24 Benzoic acid
Curve Type: Quadratic By-Response
Amt = 0 + 4.350663*Rsp + -0.1214564*Rsp^2
R^2: 0.9992059
Amount/ISTD Amount
Area/ISTD Area
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7


33 Hexachlorocyclopentadiene
Curve Type: Quadratic By-Response
Amt = 0 + 3.52578*Rsp + -0.176885*Rsp^2
R^2: 0.9989604
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6


45 2,4-Dinitrophenol
Curve Type: Quadratic By-Response
Amt = 0 + 5.177243*Rsp + -0.1633947*Rsp^2
R^2: 0.9980527
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8


58 Pentachlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 7.905236*Rsp + -0.6620813*Rsp^2
R^2: 0.9989905
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5

Analytical Resources, Inc.

YZ 5/30/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526a.d
Lab Smp Id: ABN5
Inj Date : 26-MAY-2012 10:59
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : ABN5
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 10:59 Cal File: ic0526a.d
Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.537	6.537	(0.738)	335752	5.00000	5.000
$	2 Phenol-d5	99	8.237	8.229	(0.930)	420818	5.00000	5.000
	3 Phenol	94	8.260	8.252	(0.933)	460680	5.00000	5.000
$	5 2-Chlorophenol-d4	132	8.476	8.476	(0.957)	360864	5.00000	5.000
	4 Bis(2-Chloroethyl)ether	93	8.399	8.399	(0.948)	321908	5.00000	5.000
	6 2-Chlorophenol	128	8.507	8.507	(0.961)	388656	5.00000	5.000
	7 1,3-Dichlorobenzene	146	8.786	8.786	(0.992)	392615	5.00000	5.000
*	8 1,4-Dichlorobenzene-d4	152	8.855	8.856	(1.000)	189516	4.00000	
	9 1,4-Dichlorobenzene	146	8.886	8.887	(1.004)	377080	5.00000	5.000
$	10 1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	239905	5.00000	5.000
	12 1,2-Dichlorobenzene	146	9.267	9.267	(1.046)	371864	5.00000	5.000
	11 Benzyl alcohol	108	9.166	9.166	(1.035)	191171	5.00000	5.000
	14 2,2'-oxybis(1-Chloropropane)	121	9.492	9.492	(1.072)	122034	5.00000	5.000
	13 2-Methylphenol	108	9.430	9.430	(1.065)	347227	5.00000	5.000
	17 Hexachloroethane	117	9.888	9.888	(1.117)	147829	5.00000	5.000
	16 N-Nitroso-di-n-propylamine	70	9.764	9.756	(1.103)	202786	5.00000	5.000
	15 4-Methylphenol	108	9.725	9.725	(1.098)	362939	5.00000	5.000
$	18 Nitrobenzene-d5	82	10.027	10.020	(0.872)	334709	5.00000	5.000
	19 Nitrobenzene	77	10.058	10.059	(0.874)	321756	5.00000	5.000
	20 Isophorone	82	10.547	10.540	(0.917)	620384	5.00000	5.000
	21 2-Nitrophenol	139	10.733	10.733	(0.933)	214097	5.00000	5.000
	22 2,4-Dimethylphenol	107	10.833	10.833	(0.942)	665979	10.0000	10.00
	23 Bis(2-Chloroethoxy)methane	93	11.033	11.034	(0.959)	363814	5.00000	5.000
	24 Benzoic acid	105	11.087	10.995	(0.964)	862339	20.0000	20.00
	25 2,4-Dichlorophenol	162	11.234	11.226	(0.977)	647444	10.0000	10.00
	26 1,2,4-Trichlorobenzene	180	11.419	11.411	(0.993)	297260	5.00000	5.000
*	27 Naphthalene-d8	136	11.504	11.496	(1.000)	730932	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.542	11.543	(1.003)	934446	5.00000	5.000
	29 4-Chloroaniline	127	11.705	11.705	(1.017)	828363	10.0000	10.00
	30 Hexachlorobutadiene	225	11.952	11.944	(1.039)	165733	5.00000	5.000
	31 4-Chloro-3-methylphenol	107	12.780	12.772	(1.111)	585802	10.0000	10.00
	32 2-Methylnaphthalene	142	13.043	13.043	(1.134)	659745	5.00000	5.000
	33 Hexachlorocyclopentadiene	237	13.554	13.554	(0.882)	293255	10.0000	10.00
	34 2,4,6-Trichlorophenol	196	13.732	13.724	(0.893)	433637	10.0000	10.00
	35 2,4,5-Trichlorophenol	196	13.809	13.809	(0.898)	481317	10.0000	10.00
$	36 2-Fluorobiphenyl	172	13.902	13.902	(0.904)	712799	5.00000	5.000
	37 2-Chloronaphthalene	162	14.103	14.104	(0.917)	622202	5.00000	5.000
	38 2-Nitroaniline	65	14.405	14.398	(0.937)	300000	10.0000	10.00
	39 Dimethylphthalate	163	14.893	14.885	(0.969)	644991	5.00000	5.000
	40 Acenaphthylene	152	15.032	15.032	(0.978)	937321	5.00000	5.000
	41 2,6-Dinitrotoluene	165	15.032	15.025	(0.978)	321175	10.0000	10.00
*	42 Acenaphthene-d10	164	15.373	15.373	(1.000)	420698	4.00000	
	43 3-Nitroaniline	138	15.326	15.319	(0.997)	353215	10.0000	10.00
	44 Acenaphthene	153	15.442	15.442	(1.005)	573481	5.00000	5.000
	45 2,4-Dinitrophenol	184	15.558	15.558	(1.012)	392895	20.0000	20.00
	46 Dibenzofuran	168	15.798	15.798	(1.028)	828440	5.00000	5.000
	47 4-Nitrophenol	109	15.728	15.736	(1.023)	149508	10.0000	10.00
	48 2,4-Dinitrotoluene	165	15.898	15.891	(1.034)	431707	10.0000	10.00
	50 Diethylphthalate	149	16.470	16.463	(1.071)	635932	5.00000	5.000
	49 Fluorene	166	16.563	16.563	(1.077)	631894	5.00000	5.000
	51 4-Chlorophenyl-phenylether	204	16.579	16.579	(1.078)	304176	5.00000	5.000
	52 4-Nitroaniline	138	16.687	16.687	(1.085)	356961	10.0000	10.00
	53 4,6-Dinitro-2-methylphenol	198	16.802	16.795	(0.902)	572088	20.0000	20.00
	54 N-Nitrosodiphenylamine	169	16.856	16.857	(0.905)	428732	5.00000	5.000
$	55 2,4,6-Tribromophenol	330	17.142	17.142	(1.115)	90284	5.00000	5.000
	56 4-Bromophenyl-phenylether	248	17.658	17.659	(0.948)	173197	5.00000	5.000
	57 Hexachlorobenzene	284	17.975	17.976	(0.965)	193291	5.00000	5.000
	58 Pentachlorophenol	266	18.378	18.386	(0.986)	206931	10.0000	10.00
*	59 Phenanthrene-d10	188	18.633	18.633	(1.000)	638950	4.00000	
	60 Phenanthrene	178	18.687	18.680	(1.003)	817342	5.00000	5.000
	61 Anthracene	178	18.780	18.780	(1.008)	889087	5.00000	5.000
	62 Carbazole	167	19.144	19.144	(1.027)	757613	5.00000	5.000
	63 Di-n-butylphthalate	149	20.010	20.003	(1.074)	1174853	5.00000	5.000
	64 Fluoranthene	202	21.101	21.102	(1.132)	960108	5.00000	5.000
	65 Pyrene	202	21.519	21.519	(0.908)	1003743	5.00000	5.000
$	66 Terphenyl-d14	244	21.844	21.837	(0.921)	625901	5.00000	5.000
	67 Butylbenzylphthalate	149	22.781	22.781	(0.961)	470820	5.00000	5.000
	68 Benzo(a)anthracene	228	23.679	23.679	(0.999)	895593	5.00000	5.000
*	69 Chrysene-d12	240	23.710	23.703	(1.000)	645065	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.656	23.656	(0.998)	944422	10.0000	10.00
	71 Chrysene	228	23.749	23.749	(1.002)	810779	5.00000	5.000
	72 bis(2-Ethylhexyl)phthalate	149	23.818	23.819	(0.961)	691334	5.00000	5.000
*	134 Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	1016118	4.00000	
	73 Di-n-octylphthalate	149	24.802	24.802	(1.000)	1227950	5.00000	5.000

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74 Benzo(b)fluoranthene	252	25.452	25.444	(0.975)	960134	5.00000	5.000
75 Benzo(k)fluoranthene	252	25.483	25.483	(0.976)	968264	5.00000	5.000
76 Benzo(a)pyrene	252	26.002	26.002	(0.996)	851161	5.00000	5.000
* 77 Perylene-d12	264	26.102	26.103	(1.000)	650033	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.342	28.334	(1.086)	1014701	5.00000	5.000
79 Dibenzo(a,h)anthracene	278	28.365	28.357	(1.087)	806147	5.00000	5.000
80 Benzo(g,h,i)perylene	276	29.002	28.987	(1.111)	867892	5.00000	5.000
90 N-Nitrosodimethylamine	74	4.266	4.266	(0.482)	400028	10.0000	10.00
91 Aniline	93	8.291	8.291	(0.936)	944435	5.00000	5.000
93 Benzidine	184	21.364	21.365	(0.901)	548000	10.0000	10.00
103 Pyridine	79	4.282	4.290	(0.484)	329458	10.0000	10.00
105 1-methylnaphthalene	142	13.275	13.275	(1.154)	676659	5.00000	5.000
111 Azobenzene (1,2-DP-Hydrazine)	77	16.926	16.926	(1.101)	624121	5.00000	5.000
187 Total Benzofluoranthenes	252	25.483	25.483	(0.976)	1817664	10.0000	10.00
99 Perylene	252	26.149	26.149	(1.002)	848638	5.00000	5.000
98 Retene	219	22.131	22.131	(0.933)	474577	5.00000	5.000

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526a.d
Lab Smp Id: ABN5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	189516	0.00
27 Naphthalene-d8	730932	365466	1461864	730932	0.00
42 Acenaphthene-d10	420698	210349	841396	420698	0.00
59 Phenanthrene-d10	638950	319475	1277900	638950	0.00
69 Chrysene-d12	645065	322532	1290130	645065	0.00
134 Di-n-octylphthala	1016118	508059	2032236	1016118	0.00
77 Perylene-d12	650033	325016	1300066	650033	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	0.00
42 Acenaphthene-d10	15.37	14.87	15.87	15.37	0.00
59 Phenanthrene-d10	18.63	18.13	19.13	18.63	0.00
69 Chrysene-d12	23.71	23.21	24.21	23.71	0.00
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

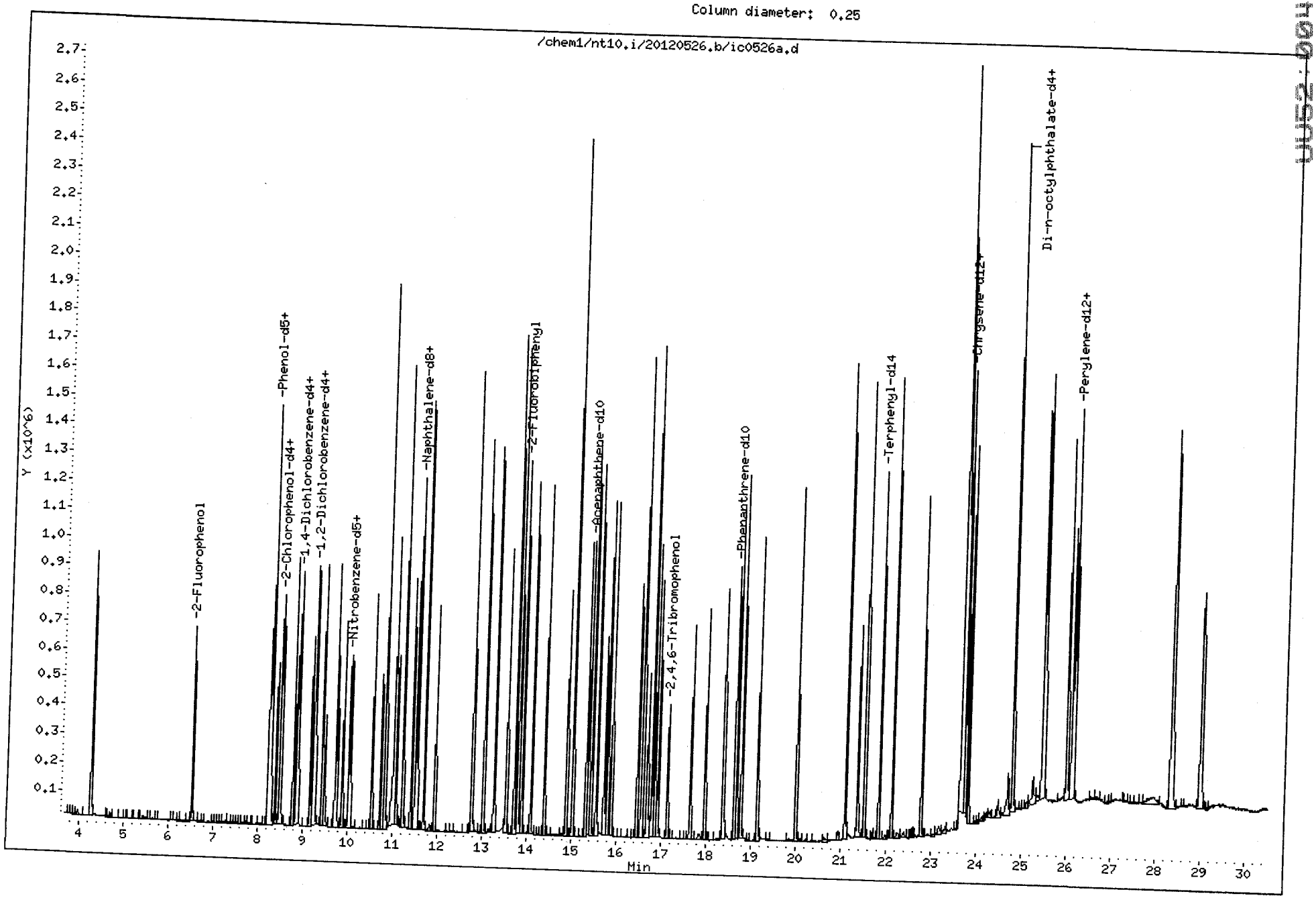
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120526.b/ic0526a.d
Date : 26-MAY-2012 10:59
Client ID:
Sample Info: ABN5

Instrument: nt10.i

Column phase: ZB-5msi

Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - ic0526a.d

Lab ID: ABN5, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS
15.032	Acenaphthylene and 2,6-Dinitrotoluene

Analytical Resources, Inc.

YZ 5/31/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526b.d
Lab Smp Id: ABN20
Inj Date : 26-MAY-2012 11:36
Operator : VTS/YZ
Smp Info : ABN20
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev
Cal Date : 26-MAY-2012 11:36
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i

Quant Type: ISTD
Cal File: ic0526b.d
Calibration Sample, Level: 7

Compound Sublist: PSDDAICAL.sub

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.544	6.537	(0.738)	1262839	20.0000	19.66
$	2 Phenol-d5	99	8.244	8.229	(0.930)	1651383	20.0000	20.08
	3 Phenol	94	8.268	8.252	(0.933)	1697721	20.0000	19.45
$	5 2-Chlorophenol-d4	132	8.484	8.476	(0.957)	1405893	20.0000	20.01
	4 Bis(2-Chloroethyl)ether	93	8.407	8.399	(0.948)	1224663	20.0000	19.77
	6 2-Chlorophenol	128	8.515	8.507	(0.961)	1601054	20.0000	20.57
	7 1,3-Dichlorobenzene	146	8.793	8.786	(0.992)	1427592	20.0000	19.32
*	8 1,4-Dichlorobenzene-d4	152	8.863	8.856	(1.000)	184424	4.00000	
	9 1,4-Dichlorobenzene	146	8.894	8.887	(1.004)	1422168	20.0000	19.68
$	10 1,2-Dichlorobenzene-d4	152	9.243	9.236	(1.043)	919210	20.0000	19.84
	12 1,2-Dichlorobenzene	146	9.267	9.267	(1.046)	1388404	20.0000	19.58
	11 Benzyl alcohol	108	9.181	9.166	(1.036)	767351	20.0000	20.31
	14 2,2'-oxybis(1-Chloropropane)	121	9.500	9.492	(1.072)	452540	20.0000	19.52
	13 2-Methylphenol	108	9.438	9.430	(1.065)	1346182	20.0000	19.96
	17 Hexachloroethane	117	9.888	9.888	(1.116)	587548	20.0000	20.21
	16 N-Nitroso-di-n-propylamine	70	9.779	9.756	(1.103)	764483	20.0000	19.68
	15 4-Methylphenol	108	9.740	9.725	(1.099)	1391012	20.0000	19.84
$	18 Nitrobenzene-d5	82	10.035	10.020	(0.872)	1301788	20.0000	19.70
	19 Nitrobenzene	77	10.074	10.059	(0.876)	1257209	20.0000	19.75
	20 Isophorone	82	10.563	10.540	(0.918)	2630962	20.0000	20.57
	21 2-Nitrophenol	139	10.741	10.733	(0.934)	840731	20.0000	19.80
	22 2,4-Dimethylphenol	107	10.849	10.833	(0.943)	2502613	40.0000	38.72
	23 Bis(2-Chloroethoxy)methane	93	11.041	11.034	(0.960)	1405177	20.0000	19.63
	24 Benzoic acid	105	11.249	10.995	(0.978)	3954019	80.0000	85.39
	25 2,4-Dichlorophenol	162	11.242	11.226	(0.977)	2459708	40.0000	38.94
	26 1,2,4-Trichlorobenzene	180	11.419	11.411	(0.993)	1108979	20.0000	19.29
*	27 Naphthalene-d8	136	11.504	11.496	(1.000)	732078	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.550	11.543	(1.004)	3652849	20.0000	19.75
	29 4-Chloroaniline	127	11.720	11.705	(1.019)	3326411	40.0000	40.05
	30 Hexachlorobutadiene	225	11.952	11.944	(1.039)	609557	20.0000	19.15
	31 4-Chloro-3-methylphenol	107	12.788	12.772	(1.112)	2374372	40.0000	40.23
	32 2-Methylnaphthalene	142	13.051	13.043	(1.134)	2614854	20.0000	19.89
	33 Hexachlorocyclopentadiene	237	13.554	13.554	(0.881)	1418921	40.0000	44.01
	34 2,4,6-Trichlorophenol	196	13.740	13.724	(0.893)	1701140	40.0000	39.83
	35 2,4,5-Trichlorophenol	196	13.817	13.809	(0.898)	1860763	40.0000	39.54
$	36 2-Fluorobiphenyl	172	13.910	13.902	(0.904)	2804466	20.0000	19.95
	37 2-Chloronaphthalene	162	14.111	14.104	(0.917)	2415928	20.0000	19.81
	38 2-Nitroaniline	65	14.421	14.398	(0.938)	1197823	40.0000	40.19
	39 Dimethylphthalate	163	14.908	14.885	(0.969)	2292323	20.0000	18.93
	40 Acenaphthylene	152	15.040	15.032	(0.978)	3567122	20.0000	19.61
	41 2,6-Dinitrotoluene	165	15.048	15.025	(0.978)	1210937	40.0000	39.04
*	42 Acenaphthene-d10	164	15.380	15.373	(1.000)	416049	4.00000	
	43 3-Nitroaniline	138	15.342	15.319	(0.997)	1359172	40.0000	39.45
	44 Acenaphthene	153	15.450	15.442	(1.005)	2222947	20.0000	19.80
	45 2,4-Dinitrophenol	184	15.581	15.558	(1.013)	1863407	80.0000	80.66
	46 Dibenzofuran	168	15.813	15.798	(1.028)	3266234	20.0000	19.97
	47 4-Nitrophenol	109	15.751	15.736	(1.024)	577134	40.0000	39.51
	48 2,4-Dinitrotoluene	165	15.914	15.891	(1.035)	1591873	40.0000	38.60
	50 Diethylphthalate	149	16.494	16.463	(1.072)	2259396	20.0000	18.93
	49 Fluorene	166	16.571	16.563	(1.077)	2467121	20.0000	19.87
	51 4-Chlorophenyl-phenylether	204	16.586	16.579	(1.078)	1138615	20.0000	19.45
	52 4-Nitroaniline	138	16.725	16.687	(1.087)	1455861	40.0000	40.61
	53 4,6-Dinitro-2-methylphenol	198	16.826	16.795	(0.903)	2173122	80.0000	80.14
	54 N-Nitrosodiphenylamine	169	16.872	16.857	(0.905)	1487492	20.0000	19.13
$	55 2,4,6-Tribromophenol	330	17.149	17.142	(1.115)	351267	20.0000	19.83
	56 4-Bromophenyl-phenylether	248	17.666	17.659	(0.948)	641886	20.0000	19.79
	57 Hexachlorobenzene	284	17.983	17.976	(0.965)	728562	20.0000	19.96
	58 Pentachlorophenol	266	18.386	18.386	(0.986)	867054	40.0000	42.03
*	59 Phenanthrene-d10	188	18.641	18.633	(1.000)	604660	4.00000	
	60 Phenanthrene	178	18.695	18.680	(1.003)	3251269	20.0000	20.50
	61 Anthracene	178	18.788	18.780	(1.008)	3338115	20.0000	19.92
	62 Carbazole	167	19.152	19.144	(1.027)	3061226	20.0000	20.65
	63 Di-n-butylphthalate	149	20.011	20.003	(1.073)	4528763	20.0000	20.18
	64 Fluoranthene	202	21.109	21.102	(1.132)	3756545	20.0000	20.33
	65 Pyrene	202	21.527	21.519	(0.908)	3928999	20.0000	19.89
$	66 Terphenyl-d14	244	21.844	21.837	(0.921)	2294042	20.0000	19.23
	67 Butylbenzylphthalate	149	22.789	22.781	(0.961)	1750894	20.0000	19.38
	68 Benzo(a)anthracene	228	23.687	23.679	(0.999)	3616838	20.0000	20.20
*	69 Chrysene-d12	240	23.710	23.703	(1.000)	638131	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.671	23.656	(0.998)	4176265	40.0000	42.22
	71 Chrysene	228	23.764	23.749	(1.002)	3220367	20.0000	20.04
	72 bis(2-Ethylhexyl)phthalate	149	23.826	23.819	(0.961)	2719894	20.0000	19.54
*	134 Di-n-octylphthalate-d4	153	24.802	24.794	(1.000)	1045968	4.00000	
	73 Di-n-octylphthalate	149	24.809	24.802	(1.000)	4939797	20.0000	19.77

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	74 Benzo(b)fluoranthene	252	25.460	25.444	(0.975)	3988850	20.0000	20.50
	75 Benzo(k)fluoranthene	252	25.498	25.483	(0.977)	3557823	20.0000	19.27
	76 Benzo(a)pyrene	252	26.017	26.002	(0.996)	3334687	20.0000	19.92
*	77 Perylene-d12	264	26.110	26.103	(1.000)	642084	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.373	28.334	(1.087)	3972006	20.0000	19.91
	79 Dibenzo(a,h)anthracene	278	28.388	28.357	(1.087)	3176130	20.0000	19.97
	80 Benzo(g,h,i)perylene	276	29.033	28.987	(1.112)	3402803	20.0000	19.92
	90 N-Nitrosodimethylamine	74	4.282	4.266	(0.483)	1441278	40.0000	38.45
	91 Aniline	93	8.306	8.291	(0.937)	3428272	20.0000	19.30
	93 Benzidine	184	21.380	21.365	(0.902)	3696511	40.0000	40.59
	103 Pyridine	79	4.274	4.290	(0.482)	1287473	40.0000	40.08
	105 1-methylnaphthalene	142	13.283	13.275	(1.155)	2690522	20.0000	19.92
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.941	16.926	(1.101)	2302372	20.0000	19.30
	187 Total Benzofluoranthenes	252	25.498	25.483	(0.977)	7088364	40.0000	39.74
	99 Perylene	252	26.164	26.149	(1.002)	3382398	20.0000	20.09
	98 Retene	219	22.138	22.131	(0.934)	1890598	20.0000	20.07

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526b.d
Lab Smp Id: ABN20
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	184424	-2.69
27 Naphthalene-d8	730932	365466	1461864	732078	0.16
42 Acenaphthene-d10	420698	210349	841396	416049	-1.11
59 Phenanthrene-d10	638950	319475	1277900	604660	-5.37
69 Chrysene-d12	645065	322532	1290130	638131	-1.07
134 Di-n-octylphthala	1016118	508059	2032236	1045968	2.94
77 Perylene-d12	650033	325016	1300066	642084	-1.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.09
27 Naphthalene-d8	11.50	11.00	12.00	11.50	0.00
42 Acenaphthene-d10	15.37	14.87	15.87	15.38	0.05
59 Phenanthrene-d10	18.63	18.13	19.13	18.64	0.04
69 Chrysene-d12	23.71	23.21	24.21	23.71	0.00
134 Di-n-octylphthala	24.79	24.29	25.29	24.80	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

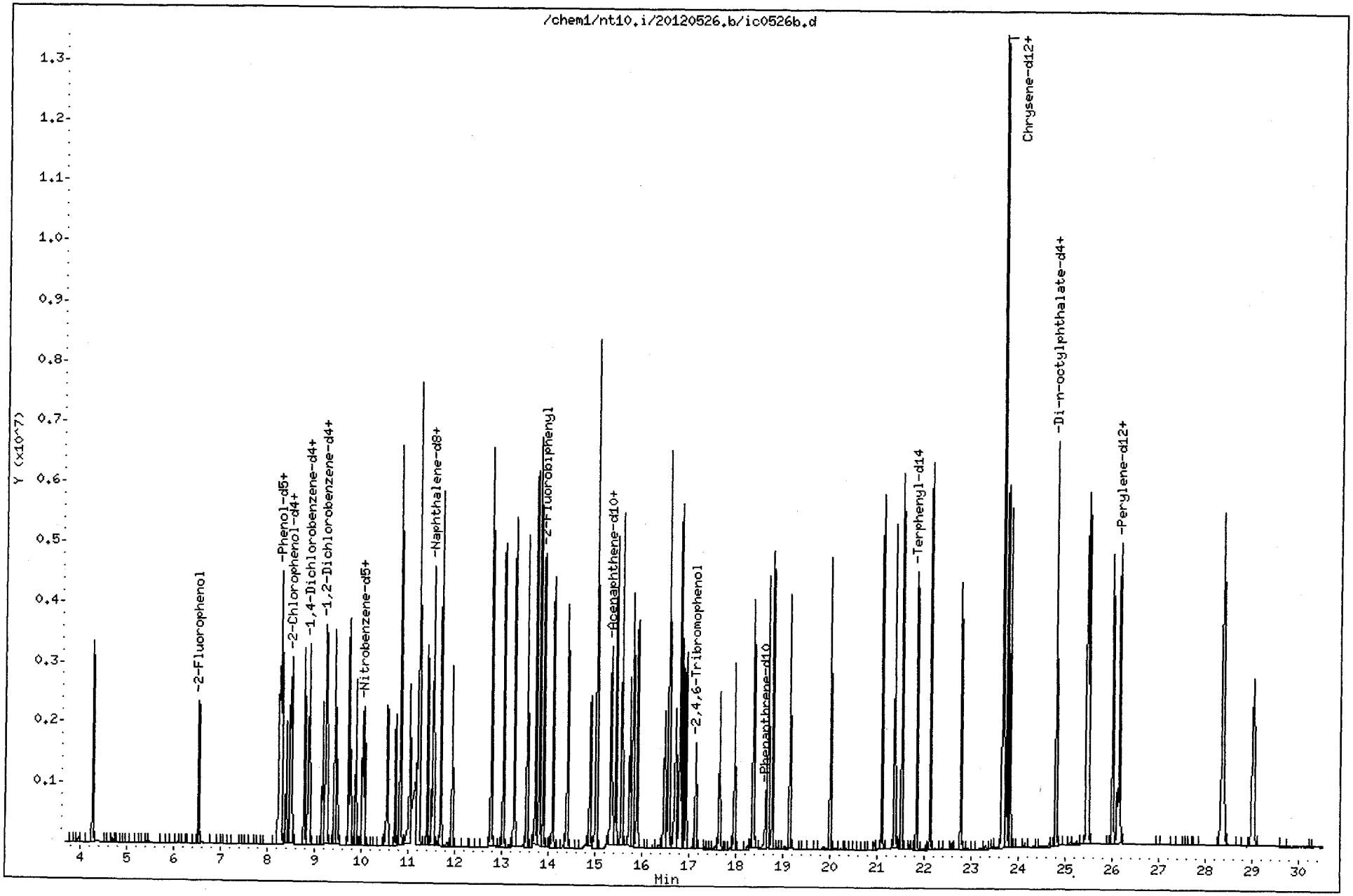
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120526.b/ic0526b.d
Date : 26-MAY-2012 11:36
Client ID:
Sample Info: ABN20

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0526b.d

Lab ID: ABN20, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Y2 5/30/12

Data file : /chem1/nt10.i/20120526.b/ic0526c.d
Lab Smp Id: ABN.2
Inj Date : 26-MAY-2012 12:13
Operator : VTS/YZ
Smp Info : ABN.2
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev
Cal Date : 26-MAY-2012 12:13
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i

Quant Type: ISTD
Cal File: ic0526c.d
Calibration Sample, Level: 1

Compound Sublist: PSDDAICAL.sub

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.537	6.537	(0.738)	13568	0.20000	0.1987
$	2 Phenol-d5	99	8.237	8.229	(0.930)	16479	0.20000	0.1918
	3 Phenol	94	8.260	8.252	(0.933)	19057	0.20000	0.2031
$	5 2-Chlorophenol-d4	132	8.476	8.476	(0.957)	15312	0.20000	0.2029
	4 Bis(2-Chloroethyl)ether	93	8.399	8.399	(0.948)	14363	0.20000	0.2113
	6 2-Chlorophenol	128	8.507	8.507	(0.961)	15648	0.20000	0.1922
	7 1,3-Dichlorobenzene	146	8.786	8.786	(0.992)	16913	0.20000	0.2095
*	8 1,4-Dichlorobenzene-d4	152	8.855	8.856	(1.000)	196685	4.00000	
	9 1,4-Dichlorobenzene	146	8.886	8.887	(1.004)	16424	0.20000	0.2086
$	10 1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	9895	0.20000	0.2002
	12 1,2-Dichlorobenzene	146	9.259	9.267	(1.046)	15583	0.20000	0.2040
	11 Benzyl alcohol	108	9.166	9.166	(1.035)	7775	0.20000	0.1952(M)
	14 2,2'-oxybis(1-Chloropropane)	121	9.492	9.492	(1.072)	5219	0.20000	0.2072
	13 2-Methylphenol	108	9.430	9.430	(1.065)	15115	0.20000	0.2066
	17 Hexachloroethane	117	9.888	9.888	(1.117)	6059	0.20000	0.1969
	16 N-Nitroso-di-n-propylamine	70	9.764	9.756	(1.103)	8433	0.20000	0.2024
	15 4-Methylphenol	108	9.725	9.725	(1.098)	14946	0.20000	0.2000
$	18 Nitrobenzene-d5	82	10.020	10.020	(0.872)	13659	0.20000	0.1985
	19 Nitrobenzene	77	10.059	10.059	(0.875)	14198	0.20000	0.2087
	20 Isophorone	82	10.547	10.540	(0.917)	24784	0.20000	0.1899
	21 2-Nitrophenol	139	10.733	10.733	(0.934)	8296	0.20000	0.1910
	22 2,4-Dimethylphenol	107	10.833	10.833	(0.942)	26570	0.40000	0.3954
	23 Bis(2-Chloroethoxy)methane	93	11.034	11.034	(0.960)	15823	0.20000	0.2075
	24 Benzoic acid	105	10.972	10.995	(0.954)	12487	0.80000	0.3331(M)
	25 2,4-Dichlorophenol	162	11.234	11.226	(0.977)	22711	0.40000	0.3607
	26 1,2,4-Trichlorobenzene	180	11.411	11.411	(0.993)	13024	0.20000	0.2108
*	27 Naphthalene-d8	136	11.496	11.496	(1.000)	765616	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
28	Naphthalene	128	11.543	11.543	(1.004)	39005	0.20000	0.2011
29	4-Chloroaniline	127	11.705	11.705	(1.018)	32402	0.40000	0.3816
30	Hexachlorobutadiene	225	11.944	11.944	(1.039)	6543	0.20000	0.1977
31	4-Chloro-3-methylphenol	107	12.780	12.772	(1.112)	21284	0.40000	0.3615
32	2-Methylnaphthalene	142	13.043	13.043	(1.135)	26386	0.20000	0.1946
33	Hexachlorocyclopentadiene	237	13.554	13.554	(0.882)	2706	0.40000	0.08451
34	2,4,6-Trichlorophenol	196	13.732	13.724	(0.893)	15103	0.40000	0.3696
35	2,4,5-Trichlorophenol	196	13.817	13.809	(0.899)	15402	0.40000	0.3501
$ 36	2-Fluorobiphenyl	172	13.895	13.902	(0.904)	29387	0.20000	0.2068
37	2-Chloronaphthalene	162	14.104	14.104	(0.917)	24508	0.20000	0.2016
38	2-Nitroaniline	65	14.398	14.398	(0.937)	11432	0.40000	0.3907
39	Dimethylphthalate	163	14.885	14.885	(0.968)	26608	0.20000	0.2137
40	Acenaphthylene	152	15.032	15.032	(0.978)	38244	0.20000	0.2077
41	2,6-Dinitrotoluene	165	15.025	15.025	(0.977)	11764	0.40000	0.3877
* 42	Acenaphthene-d10	164	15.373	15.373	(1.000)	413229	4.00000	
43	3-Nitroaniline	138	15.319	15.319	(0.996)	13646	0.40000	0.3992
44	Acenaphthene	153	15.442	15.442	(1.005)	22552	0.20000	0.2015
45	2,4-Dinitrophenol	184	15.605	15.558	(1.015)	615	0.80000	0.02680 (M)
46	Dibenzofuran	168	15.798	15.798	(1.028)	32252	0.20000	0.1990
47	4-Nitrophenol	109	15.759	15.736	(1.025)	4402	0.40000	0.3300 (M)
48	2,4-Dinitrotoluene	165	15.891	15.891	(1.034)	14035	0.40000	0.3598
50	Diethylphthalate	149	16.463	16.463	(1.071)	25582	0.20000	0.2102
49	Fluorene	166	16.563	16.563	(1.077)	26426	0.20000	0.2093
51	4-Chlorophenyl-phenylether	204	16.579	16.579	(1.078)	12377	0.20000	0.2084
52	4-Nitroaniline	138	16.687	16.687	(1.085)	12447	0.40000	0.3649
53	4,6-Dinitro-2-methylphenol	198	16.803	16.795	(0.902)	8258	0.80000	0.3628
54	N-Nitrosodiphenylamine	169	16.857	16.857	(0.905)	18217	0.20000	0.2124
$ 55	2,4,6-Tribromophenol	330	17.142	17.142	(1.115)	3185	0.20000	0.1870
56	4-Bromophenyl-phenylether	248	17.651	17.659	(0.947)	7093	0.20000	0.2030
57	Hexachlorobenzene	284	17.975	17.976	(0.965)	7955	0.20000	0.2026
58	Pentachlorophenol	266	18.394	18.386	(0.987)	2577	0.40000	0.1530
* 59	Phenanthrene-d10	188	18.633	18.633	(1.000)	646258	4.00000	
60	Phenanthrene	178	18.680	18.680	(1.002)	34268	0.20000	0.2014
61	Anthracene	178	18.780	18.780	(1.008)	34562	0.20000	0.1952
62	Carbazole	167	19.144	19.144	(1.027)	33118	0.20000	0.2059
63	Di-n-butylphthalate	149	20.011	20.003	(1.074)	43110	0.20000	0.1860
64	Fluoranthene	202	21.101	21.102	(1.132)	37307	0.20000	0.1925
65	Pyrene	202	21.519	21.519	(0.908)	38832	0.20000	0.1965
$ 66	Terphenyl-d14	244	21.844	21.837	(0.922)	25498	0.20000	0.2077
67	Butylbenzylphthalate	149	22.781	22.781	(0.961)	18592	0.20000	0.2026
68	Benzo(a)anthracene	228	23.679	23.679	(0.999)	38870	0.20000	0.2098
* 69	Chrysene-d12	240	23.702	23.703	(1.000)	644080	4.00000	
70	3,3'-Dichlorobenzidine	252	23.656	23.656	(0.998)	42897	0.40000	0.4297
71	Chrysene	228	23.749	23.749	(1.002)	31855	0.20000	0.1976
72	bis(2-Ethylhexyl)phthalate	149	23.819	23.819	(0.961)	28907	0.20000	0.2178
* 134	Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	952925	4.00000	
73	Di-n-octylphthalate	149	24.802	24.802	(1.000)	49350	0.20000	0.2109

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.444	25.444	(0.975)	35453	0.20000	0.1872
75	Benzo(k)fluoranthene	252	25.483	25.483	(0.976)	41093	0.20000	0.2139
76	Benzo(a)pyrene	252	26.002	26.002	(0.996)	34367	0.20000	0.2028
* 77	Perylene-d12	264	26.102	26.103	(1.000)	645156	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.342	28.334	(1.086)	36173	0.20000	0.1865
79	Dibenzo(a,h)anthracene	278	28.357	28.357	(1.086)	27417	0.20000	0.1801
80	Benzo(g,h,i)perylene	276	28.986	28.987	(1.110)	32336	0.20000	0.1921
90	N-Nitrosodimethylamine	74	4.274	4.266	(0.483)	16951	0.40000	0.4157
91	Aniline	93	8.291	8.291	(0.936)	40190	0.20000	0.2080
93	Benzidine	184	21.365	21.365	(0.901)	30282	0.40000	0.5898
103	Pyridine	79	4.305	4.290	(0.486)	14470	0.40000	0.4146
105	1-methylnaphthalene	142	13.275	13.275	(1.155)	26434	0.20000	0.1913
111	Azobenzene (1,2-DP-Hydrazine)	77	16.926	16.926	(1.101)	26688	0.20000	0.2162
187	Total Benzofluoranthenes	252	25.483	25.483	(0.976)	72553	0.40000	0.4032
99	Perylene	252	26.141	26.149	(1.001)	34431	0.20000	0.2023
98	Retene	219	22.131	22.131	(0.934)	17757	0.20000	0.1910

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526c.d
Lab Smp Id: ABN.2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	196685	3.78
27 Naphthalene-d8	730932	365466	1461864	765616	4.75
42 Acenaphthene-d10	420698	210349	841396	413229	-1.78
59 Phenanthrene-d10	638950	319475	1277900	646258	1.14
69 Chrysene-d12	645065	322532	1290130	644080	-0.15
134 Di-n-octylphthala	1016118	508059	2032236	952925	-6.22
77 Perylene-d12	650033	325016	1300066	645156	-0.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	-0.07
42 Acenaphthene-d10	15.37	14.87	15.87	15.37	0.00
59 Phenanthrene-d10	18.63	18.13	19.13	18.63	0.00
69 Chrysene-d12	23.71	23.21	24.21	23.70	-0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

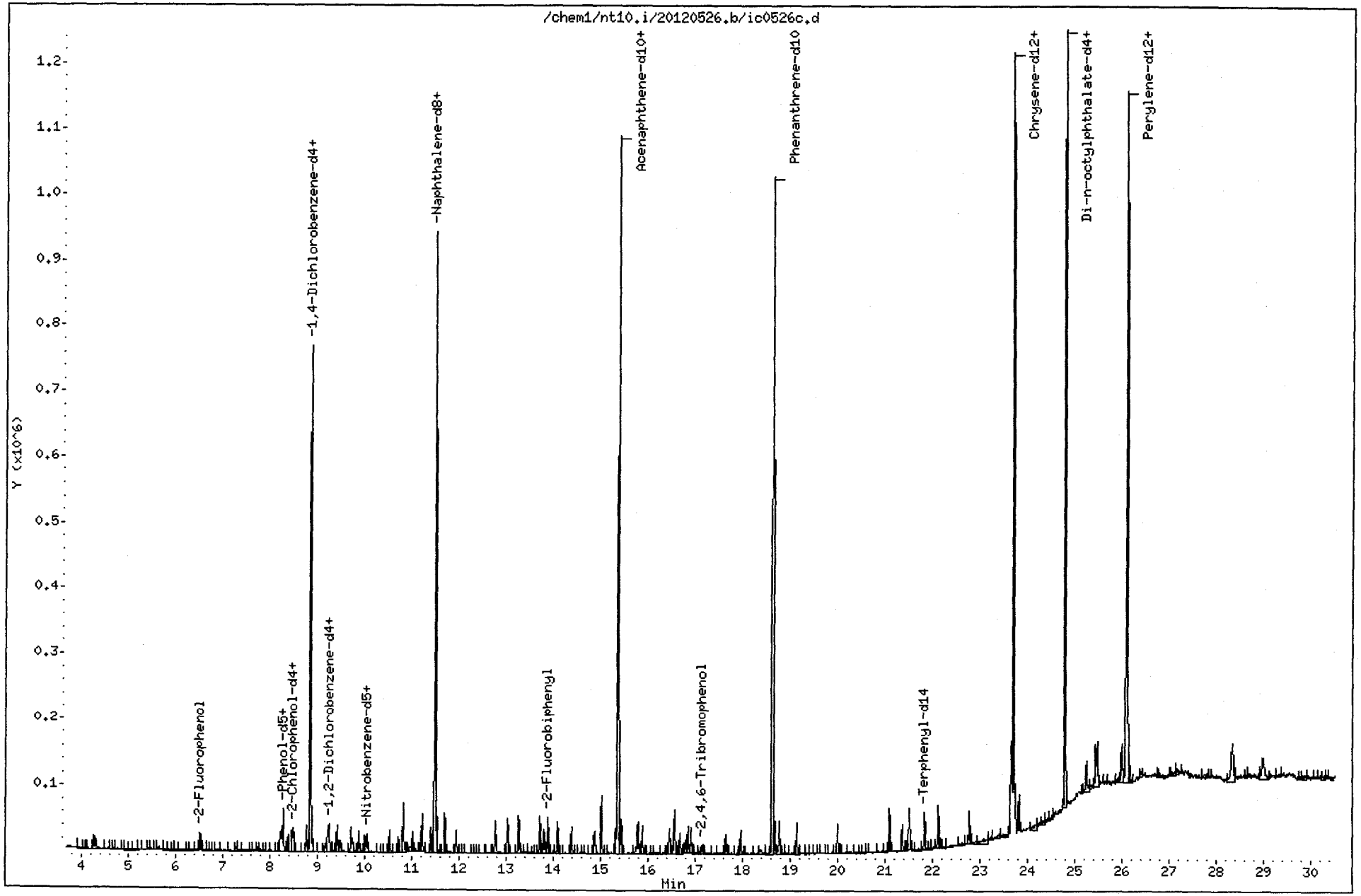
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120526.b/ic0526c.d
Date : 26-MAY-2012 12:13
Client ID:
Sample Info: ABN.2

Column phase: ZB-5msi

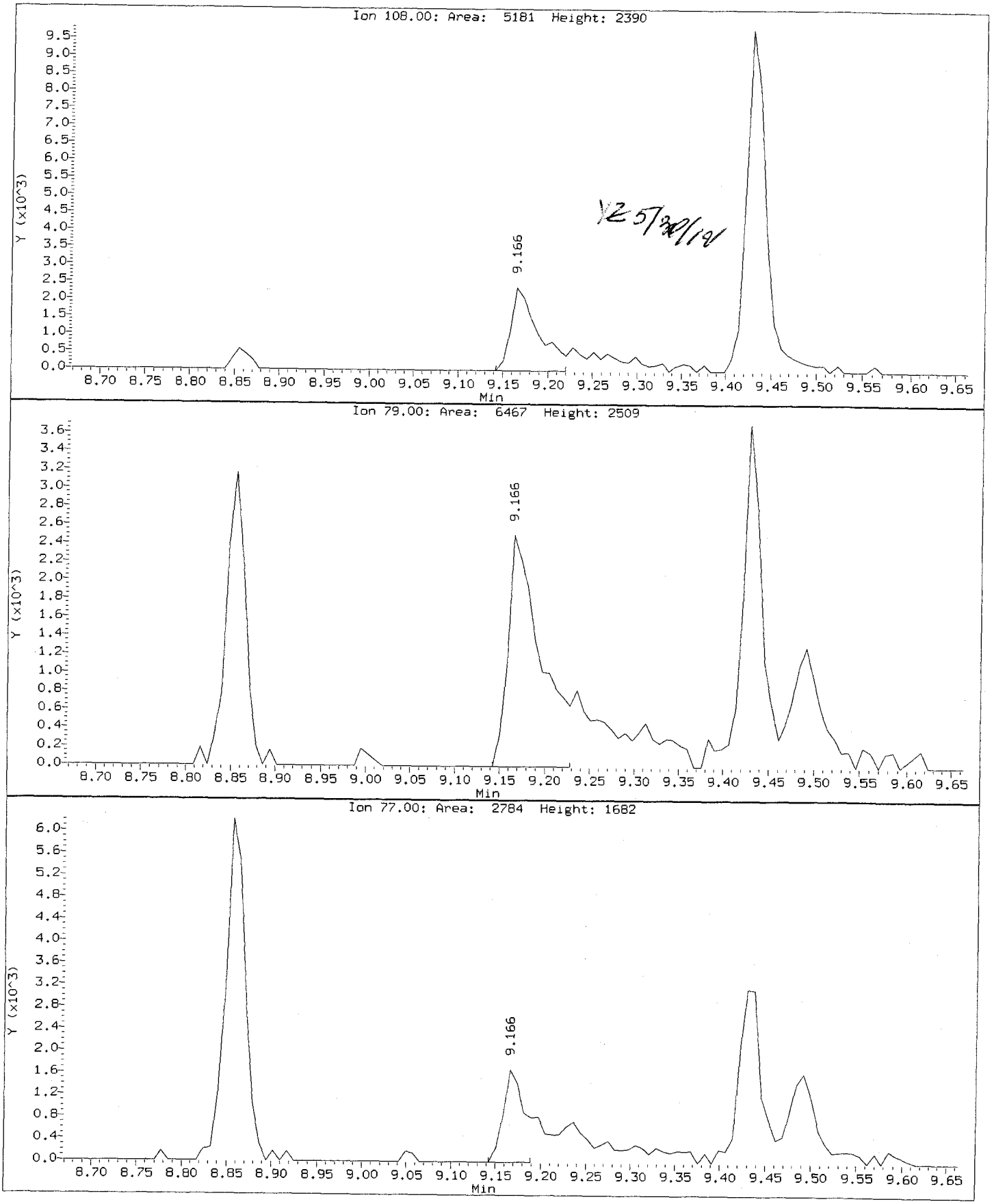
Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



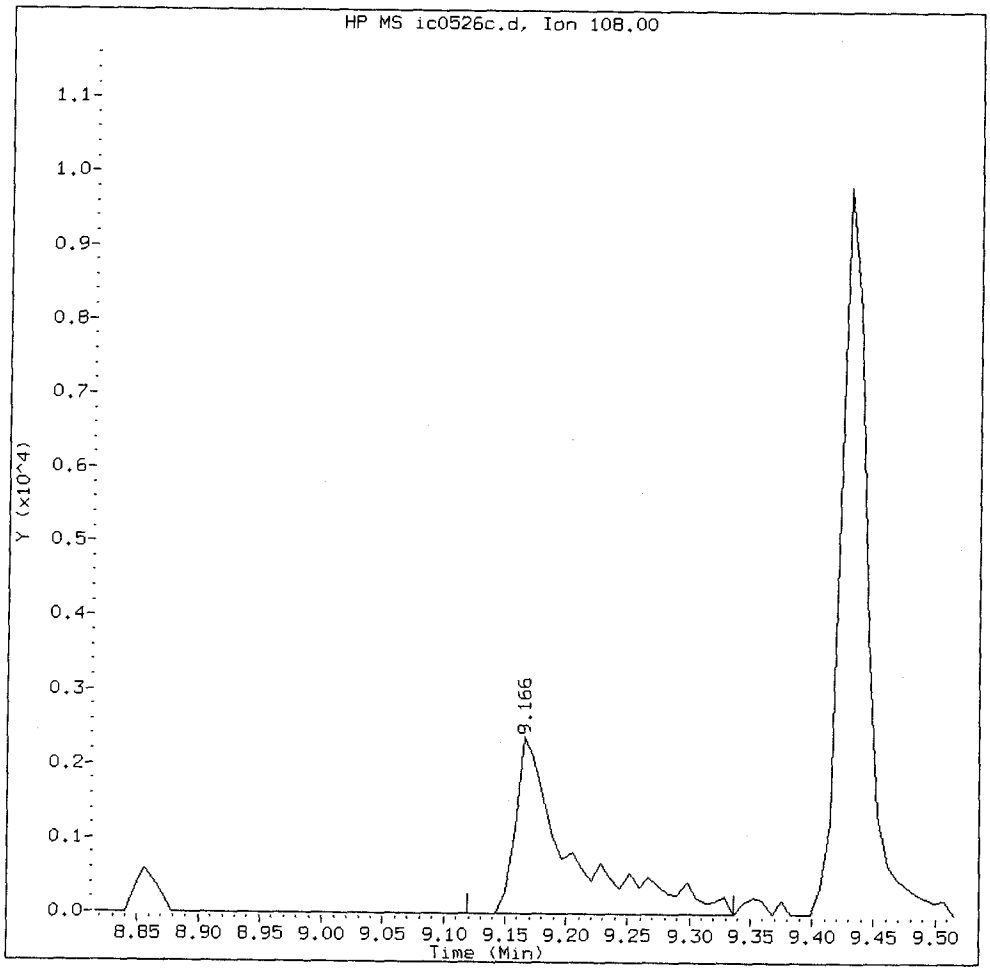
Data File: /chem1/nt10.i/20120526.b/ic0526c.d
Injection Date: 26-MAY-2012 12:13
Instrument: nt10.i
Client Sample ID:

Compound: Benzyl alcohol
CAS Number: 100-51-6



ABN.2, /chem1/nt10.i/20120526.b/ic0526c.d

Benzyl alcohol Amount: 0.20 Area: 7775



MANUAL INTEGRATION for Benzyl alcohol

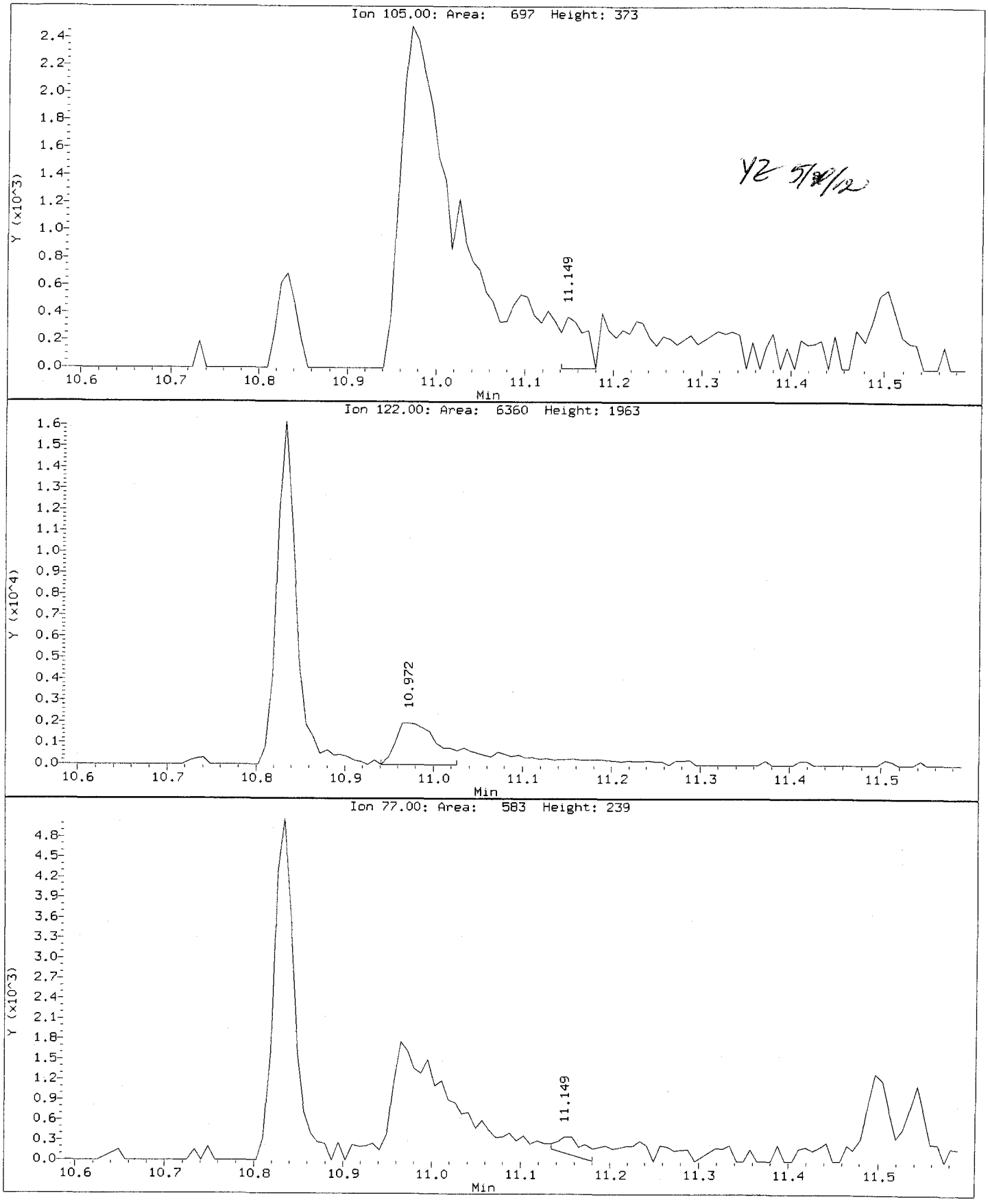
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YB Date: 5/30/12

Data File: /chem1/nt10.i/20120526.b/ic0526c.d
Injection Date: 26-MAY-2012 12:13
Instrument: nt10.i
Client Sample ID:

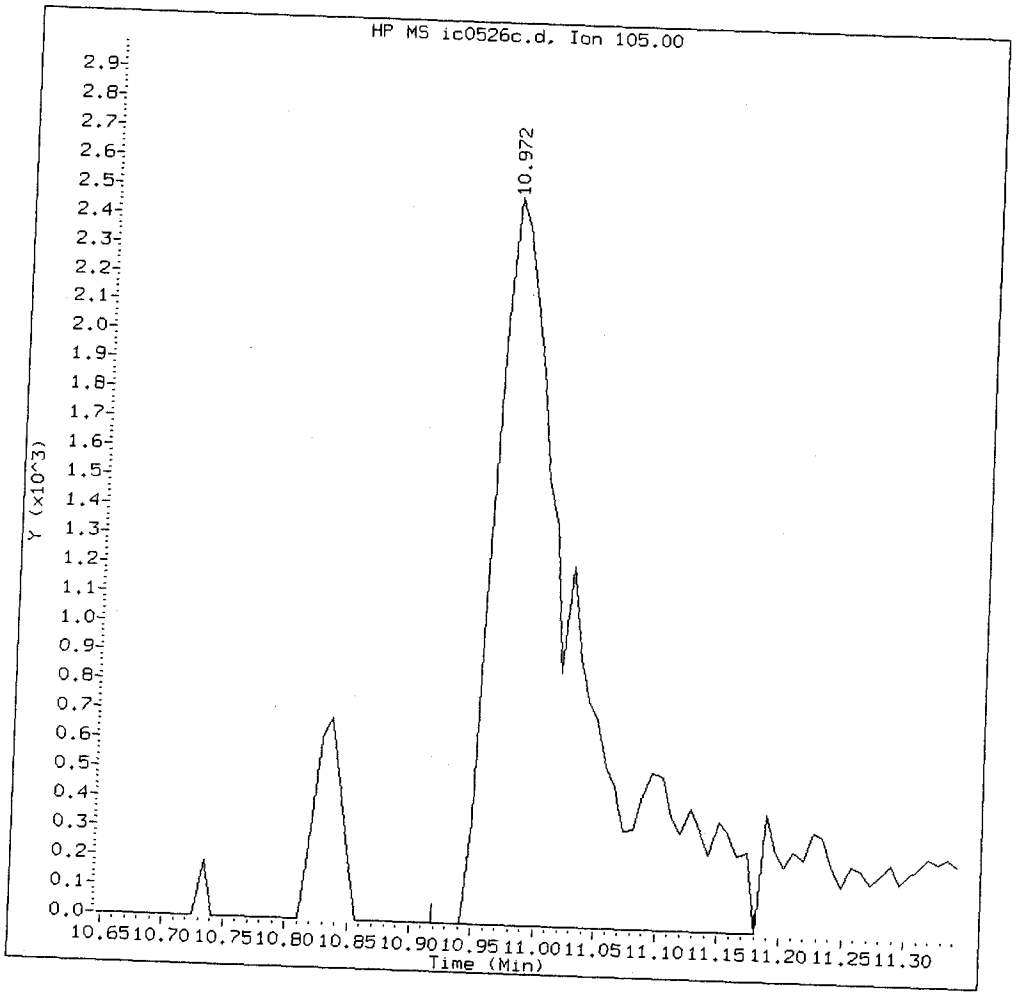
Compound: Benzoic acid
CAS Number: 65-85-0



YZ 5/31/12

ABN.2, /chem1/nt10.i/20120526.b/ic0526c.d

Benzoic acid Amount: 0.33 Area: 12487



MANUAL INTEGRATION for Benzoic acid

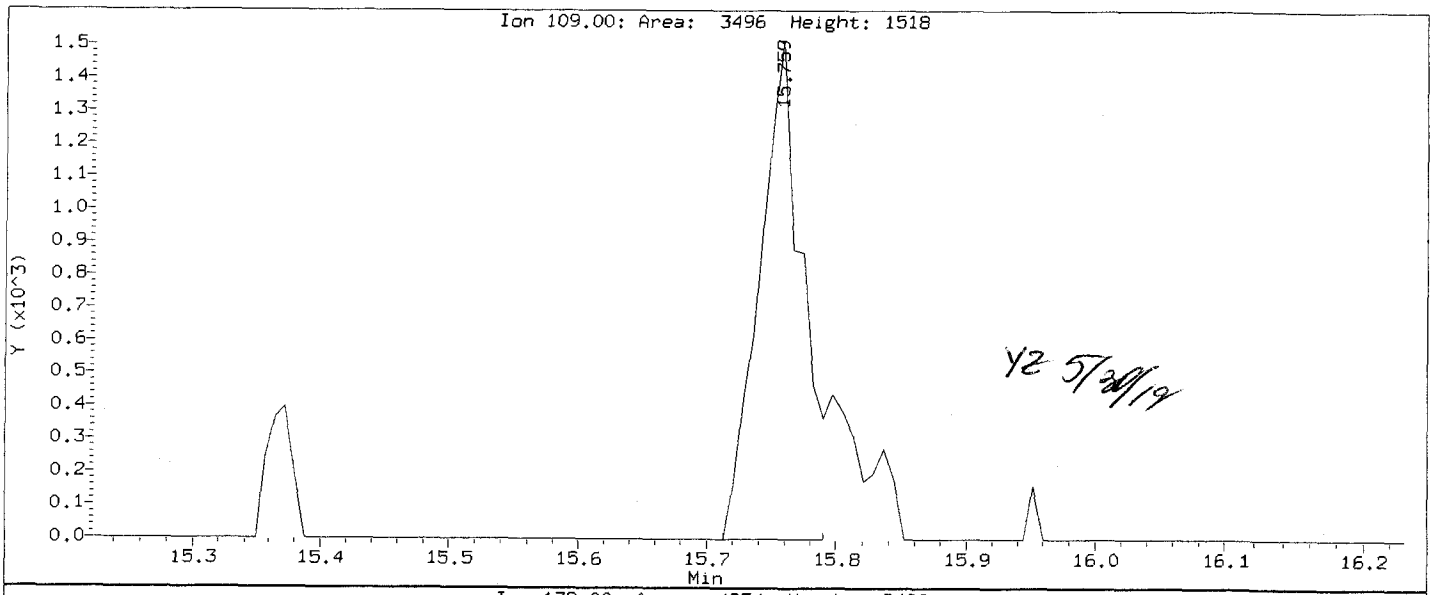
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

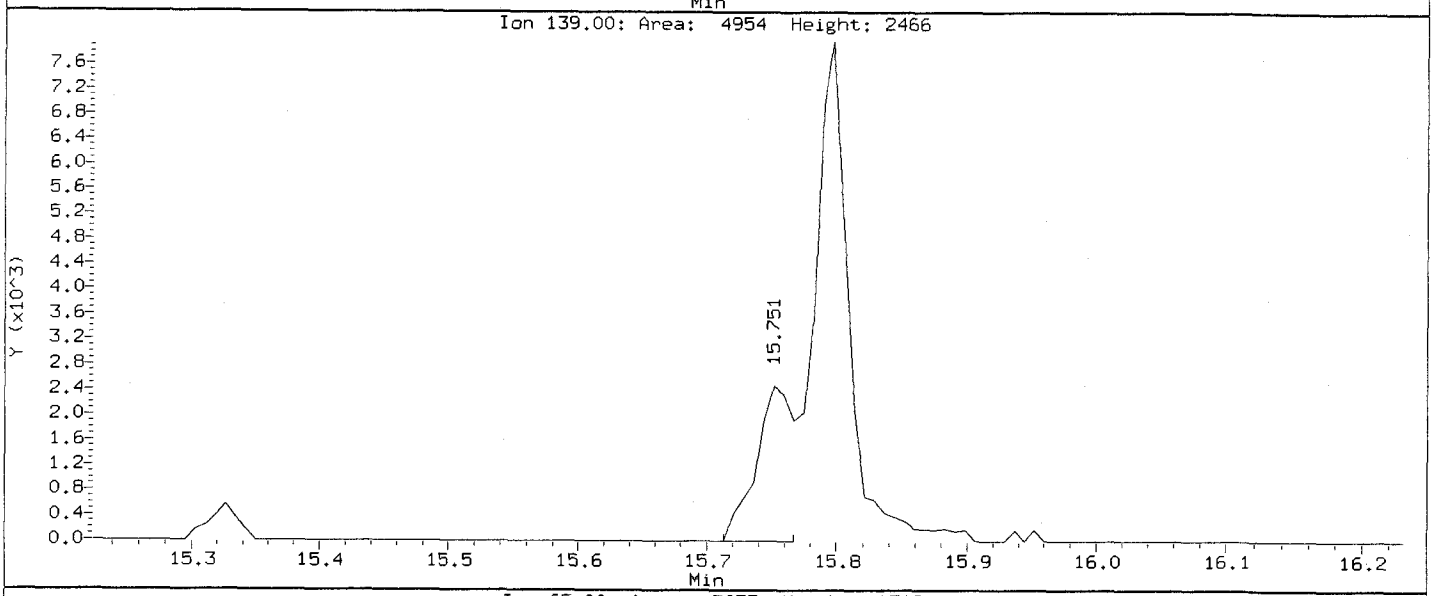
5. Other _____

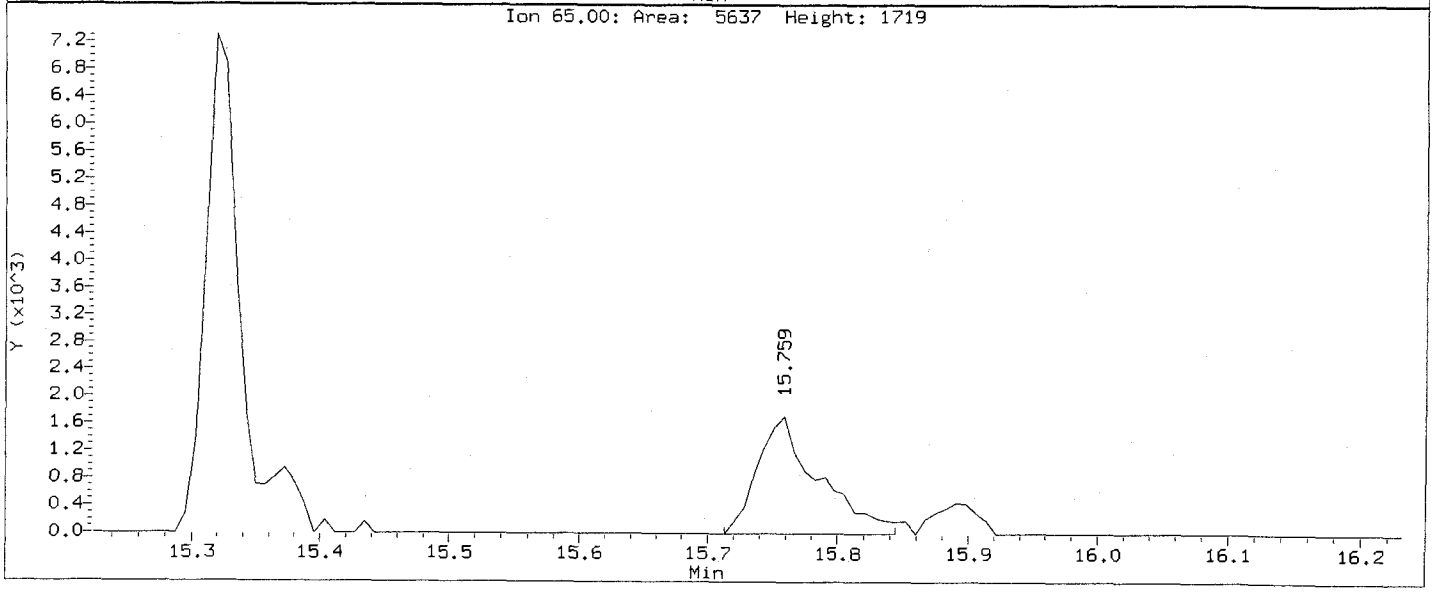
Analyst: _____ Date: _____

Data File: /chem1/nt10.i/20120526.b/ic0526c.d
Injection Date: 26-MAY-2012 12:13
Instrument: nt10.i
Client Sample ID:

Compound: 4-Nitrophenol
CAS Number: 100-02-7

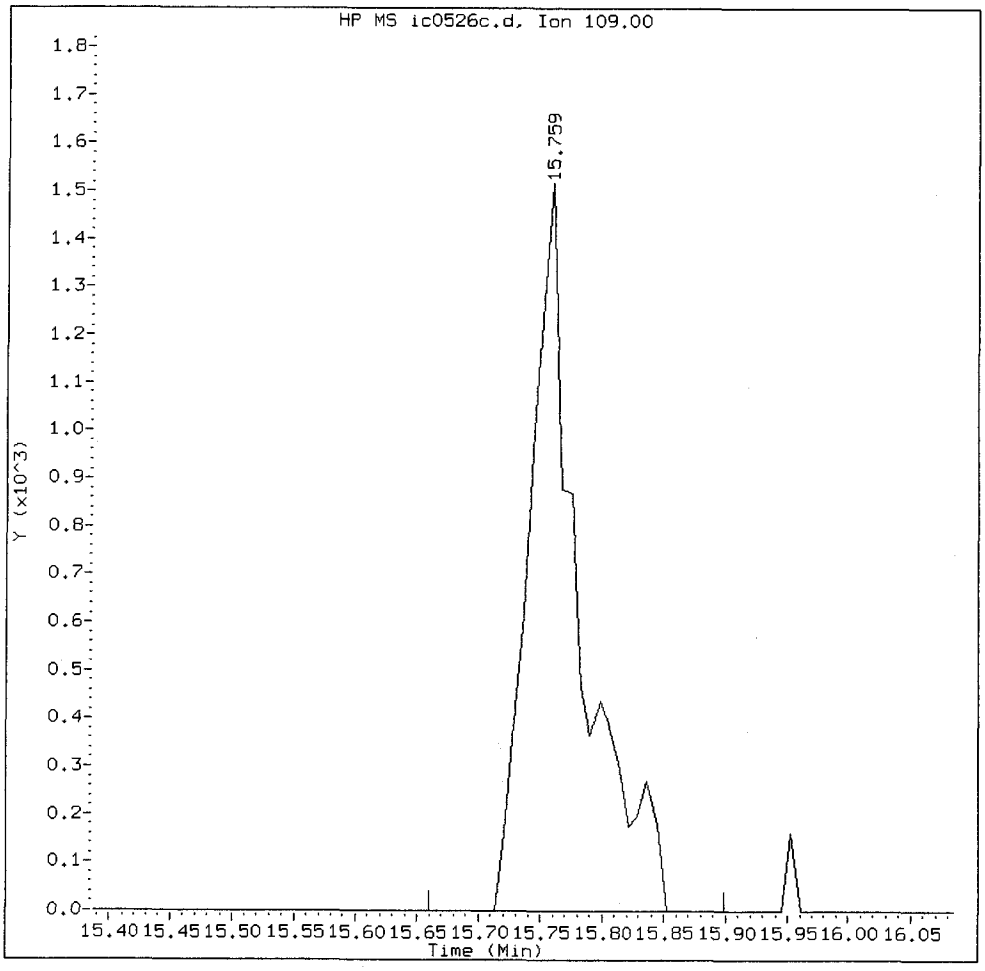






ABN.2, /chem1/nt10.i/20120526.b/ic0526c.d

4-Nitrophenol Amount: 0.33 Area: 4402



MANUAL INTEGRATION for 4-Nitrophenol

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/30/12

CO-ELUTION SUMMARY FOR FILE - ic0526c.d

Lab ID: ABN.2, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

YZ 5/30/12

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526d.d
Lab Smp Id: ABN10
Inj Date : 26-MAY-2012 12:50
Operator : VTS/YZ
Inst ID: nt10.i
Smp Info : ABN10
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev
Quant Type: ISTD
Cal Date : 26-MAY-2012 12:50
Cal File: ic0526d.d
Als bottle: 7
Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE
Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.537	6.537	(0.738)	655505	10.0000	10.26
$	2 Phenol-d5	99	8.237	8.229	(0.930)	824652	10.0000	10.26
	3 Phenol	94	8.260	8.252	(0.933)	847599	10.0000	9.806
$	5 2-Chlorophenol-d4	132	8.484	8.476	(0.958)	694525	10.0000	9.942
	4 Bis(2-Chloroethyl)ether	93	8.407	8.399	(0.949)	618894	10.0000	9.862
	6 2-Chlorophenol	128	8.515	8.507	(0.962)	797745	10.0000	10.42
	7 1,3-Dichlorobenzene	146	8.786	8.786	(0.992)	732663	10.0000	9.839
*	8 1,4-Dichlorobenzene-d4	152	8.855	8.856	(1.000)	182402	4.00000	
	9 1,4-Dichlorobenzene	146	8.894	8.887	(1.004)	722690	10.0000	9.922
$	10 1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	459065	10.0000	10.01
	12 1,2-Dichlorobenzene	146	9.267	9.267	(1.046)	703357	10.0000	9.947
	11 Benzyl alcohol	108	9.174	9.166	(1.036)	380848	10.0000	10.23
	14 2,2'-oxybis(1-Chloropropane)	121	9.492	9.492	(1.072)	226522	10.0000	9.772
	13 2-Methylphenol	108	9.438	9.430	(1.066)	670901	10.0000	9.918
	17 Hexachloroethane	117	9.888	9.888	(1.117)	287787	10.0000	10.06
	16 N-Nitroso-di-n-propylamine	70	9.771	9.756	(1.103)	387935	10.0000	10.03
	15 4-Methylphenol	108	9.733	9.725	(1.099)	702883	10.0000	10.10
$	18 Nitrobenzene-d5	82	10.028	10.020	(0.872)	644910	10.0000	10.03
	19 Nitrobenzene	77	10.066	10.059	(0.875)	627554	10.0000	9.907
	20 Isophorone	82	10.555	10.540	(0.918)	1215421	10.0000	9.981
	21 2-Nitrophenol	139	10.741	10.733	(0.934)	414864	10.0000	10.17
	22 2,4-Dimethylphenol	107	10.841	10.833	(0.942)	1255466	20.0000	20.00
	23 Bis(2-Chloroethoxy)methane	93	11.034	11.034	(0.959)	696518	10.0000	9.834
	24 Benzoic acid	105	11.157	10.995	(0.970)	1808839	40.0000	48.16
	25 2,4-Dichlorophenol	162	11.234	11.226	(0.977)	1296217	20.0000	21.49
	26 1,2,4-Trichlorobenzene	180	11.419	11.411	(0.993)	562098	10.0000	9.804
*	27 Naphthalene-d8	136	11.504	11.496	(1.000)	714951	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.543	11.543	(1.003)	1826784	10.0000	10.07
	29 4-Chloroaniline	127	11.712	11.705	(1.018)	1628277	20.0000	20.40
	30 Hexachlorobutadiene	225	11.952	11.944	(1.039)	312917	10.0000	10.09
	31 4-Chloro-3-methylphenol	107	12.780	12.772	(1.111)	1161378	20.0000	20.83
	32 2-Methylnaphthalene	142	13.043	13.043	(1.134)	1288499	10.0000	10.13
	33 Hexachlorocyclopentadiene	237	13.554	13.554	(0.881)	633343	20.0000	20.41
	34 2,4,6-Trichlorophenol	196	13.732	13.724	(0.893)	833358	20.0000	20.93
	35 2,4,5-Trichlorophenol	196	13.809	13.809	(0.898)	910701	20.0000	21.16
$	36 2-Fluorobiphenyl	172	13.902	13.902	(0.904)	1389295	10.0000	10.15
	37 2-Chloronaphthalene	162	14.104	14.104	(0.917)	1195001	10.0000	10.18
	38 2-Nitroaniline	65	14.413	14.398	(0.937)	585866	20.0000	20.65
	39 Dimethylphthalate	163	14.893	14.885	(0.968)	1207636	10.0000	10.08
	40 Acenaphthylene	152	15.032	15.032	(0.977)	1806327	10.0000	10.17
	41 2,6-Dinitrotoluene	165	15.032	15.025	(0.977)	619587	20.0000	20.95
*	42 Acenaphthene-d10	164	15.380	15.373	(1.000)	396335	4.00000	
	43 3-Nitroaniline	138	15.334	15.319	(0.997)	702183	20.0000	21.04
	44 Acenaphthene	153	15.450	15.442	(1.005)	1092888	10.0000	10.13
	45 2,4-Dinitrophenol	184	15.566	15.558	(1.012)	859509	40.0000	41.13
	46 Dibenzofuran	168	15.806	15.798	(1.028)	1594733	10.0000	10.19
	47 4-Nitrophenol	109	15.736	15.736	(1.023)	299258	20.0000	22.44
	48 2,4-Dinitrotoluene	165	15.906	15.891	(1.034)	818828	20.0000	21.38
	50 Diethylphthalate	149	16.478	16.463	(1.071)	1158937	10.0000	9.948
	49 Fluorene	166	16.571	16.563	(1.077)	1194717	10.0000	9.899
	51 4-Chlorophenyl-phenylether	204	16.587	16.579	(1.078)	575381	10.0000	10.08
	52 4-Nitroaniline	138	16.702	16.687	(1.086)	669670	20.0000	20.35
	53 4,6-Dinitro-2-methylphenol	198	16.810	16.795	(0.902)	1114006	40.0000	48.94
	54 N-Nitrosodiphenylamine	169	16.864	16.857	(0.905)	787846	10.0000	9.944
$	55 2,4,6-Tribromophenol	330	17.150	17.142	(1.115)	172891	10.0000	10.43
	56 4-Bromophenyl-phenylether	248	17.658	17.659	(0.947)	334345	10.0000	10.25
	57 Hexachlorobenzene	284	17.975	17.976	(0.964)	366099	10.0000	10.06
	58 Pentachlorophenol	266	18.378	18.386	(0.986)	411314	20.0000	24.43
*	59 Phenanthrene-d10	188	18.641	18.633	(1.000)	598080	4.00000	
	60 Phenanthrene	178	18.688	18.680	(1.002)	1556366	10.0000	9.913
	61 Anthracene	178	18.788	18.780	(1.008)	1648643	10.0000	10.05
	62 Carbazole	167	19.144	19.144	(1.027)	1330828	10.0000	9.185
	63 Di-n-butylphthalate	149	20.011	20.003	(1.073)	2222416	10.0000	10.27
	64 Fluoranthene	202	21.109	21.102	(1.132)	1821789	10.0000	10.12
	65 Pyrene	202	21.527	21.519	(0.908)	1912993	10.0000	10.04
$	66 Terphenyl-d14	244	21.844	21.837	(0.921)	1152011	10.0000	9.806
	67 Butylbenzylphthalate	149	22.789	22.781	(0.961)	858848	10.0000	9.784
	68 Benzo(a)anthracene	228	23.679	23.679	(0.999)	1731963	10.0000	9.778
*	69 Chrysene-d12	240	23.710	23.703	(1.000)	620456	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.664	23.656	(0.998)	1666326	20.0000	18.13
	71 Chrysene	228	23.757	23.749	(1.002)	1566433	10.0000	10.06
	72 bis(2-Ethylhexyl)phthalate	149	23.826	23.819	(0.961)	1335029	10.0000	9.852
*	134 Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	977954	4.00000	
	73 Di-n-octylphthalate	149	24.802	24.802	(1.000)	2343993	10.0000	9.819

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	74 Benzo(b)fluoranthene	252	25.452	25.444	(0.975)	1746381	10.0000	9.676
	75 Benzo(k)fluoranthene	252	25.491	25.483	(0.977)	1965512	10.0000	10.46
	76 Benzo(a)pyrene	252	26.002	26.002	(0.996)	1632289	10.0000	10.00
*	77 Perylene-d12	264	26.102	26.103	(1.000)	621376	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.350	28.334	(1.086)	1955515	10.0000	10.35
	79 Dibenzo(a,h)anthracene	278	28.365	28.357	(1.087)	1559638	10.0000	10.47
	80 Benzo(g,h,i)perylene	276	29.010	28.987	(1.111)	1665774	10.0000	10.21
	90 N-Nitrosodimethylamine	74	4.274	4.266	(0.483)	750621	20.0000	19.89
	91 Aniline	93	8.299	8.291	(0.937)	1766633	10.0000	9.892
	93 Benzidine	184	21.372	21.365	(0.901)	1368200	20.0000	20.66
	103 Pyridine	79	4.274	4.290	(0.483)	648393	20.0000	20.03
	105 1-methylnaphthalene	142	13.283	13.275	(1.155)	1319734	10.0000	10.17
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.934	16.926	(1.101)	1197352	10.0000	10.08
	187 Total Benzofluoranthenes	252	25.491	25.483	(0.977)	3492403	20.0000	20.11
	99 Perylene	252	26.157	26.149	(1.002)	1639350	10.0000	10.00
	98 Retene	219	22.131	22.131	(0.933)	907426	10.0000	10.10

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526d.d
Lab Smp Id: ABN10
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	182402	-3.75
27 Naphthalene-d8	730932	365466	1461864	714951	-2.19
42 Acenaphthene-d10	420698	210349	841396	396335	-5.79
59 Phenanthrene-d10	638950	319475	1277900	598080	-6.40
69 Chrysene-d12	645065	322532	1290130	620456	-3.81
134 Di-n-octylphthala	1016118	508059	2032236	977954	-3.76
77 Perylene-d12	650033	325016	1300066	621376	-4.41

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	0.00
42 Acenaphthene-d10	15.37	14.87	15.87	15.38	0.05
59 Phenanthrene-d10	18.63	18.13	19.13	18.64	0.04
69 Chrysene-d12	23.71	23.21	24.21	23.71	0.00
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

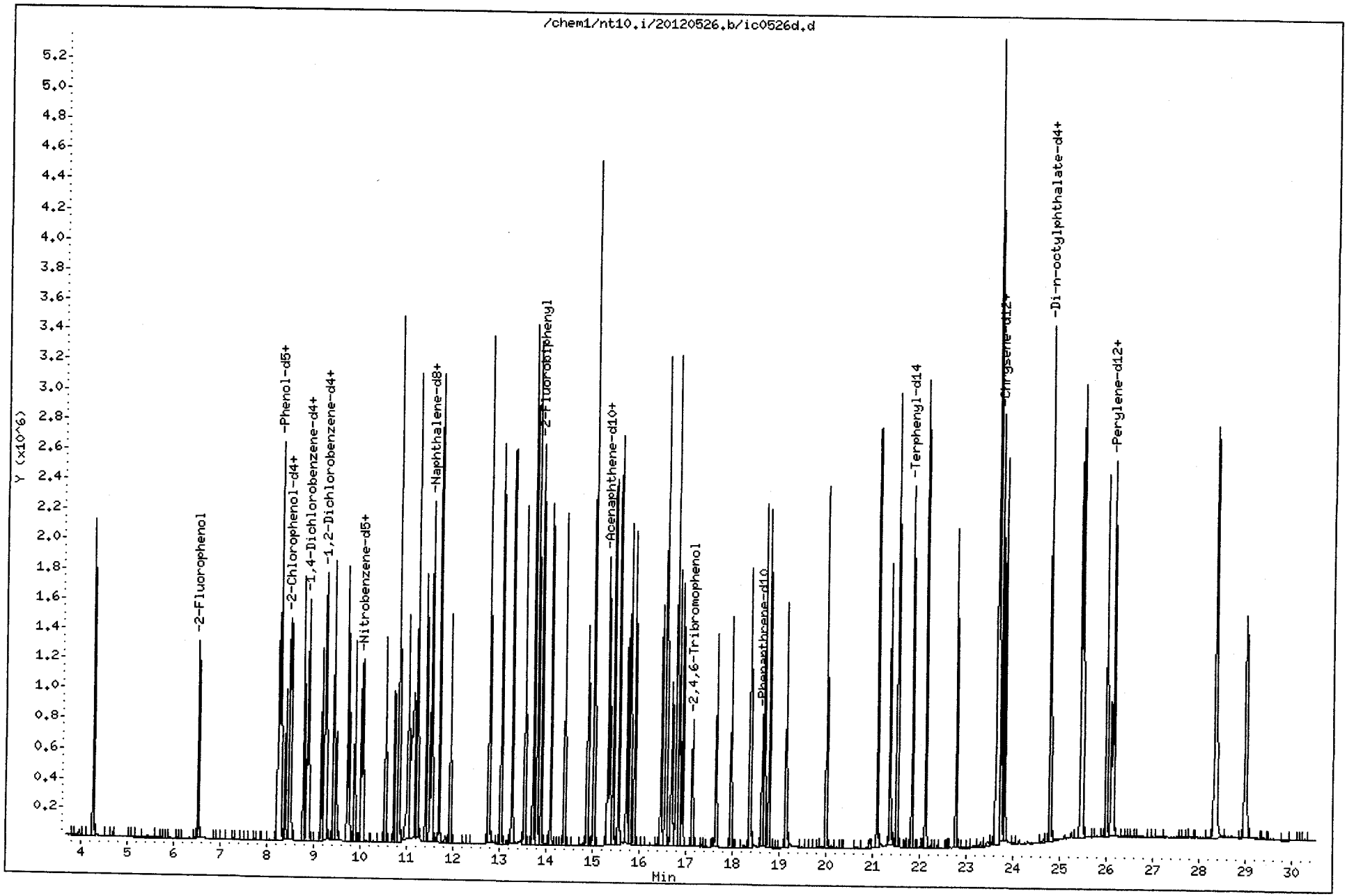
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120526.b/ic0526d.d
Date : 26-MAY-2012 12:50
Client ID:
Sample Info: ABN10

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - ic0526d.d

Lab ID: ABN10, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS
15.032	Acenaphthylene and 2,6-Dinitrotoluene

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526e.d
Lab Smp Id: ABN.5
Inj Date : 26-MAY-2012 13:27
Operator : VTS/YZ
Smp Info : ABN.5
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev
Cal Date : 26-MAY-2012 13:27
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i

Quant Type: ISTD
Cal File: ic0526e.d
Calibration Sample, Level: 2

Compound Sublist: PSDDAICAL.sub

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.537	6.537	(0.738)	33072	0.50000	0.4966
$	2 Phenol-d5	99	8.237	8.229	(0.930)	40401	0.50000	0.4850
	3 Phenol	94	8.252	8.252	(0.932)	42434	0.50000	0.4758
$	5 2-Chlorophenol-d4	132	8.476	8.476	(0.957)	36271	0.50000	0.4978
	4 Bis(2-Chloroethyl)ether	93	8.399	8.399	(0.948)	33015	0.50000	0.5031
	6 2-Chlorophenol	128	8.507	8.507	(0.961)	37190	0.50000	0.4717
	7 1,3-Dichlorobenzene	146	8.786	8.786	(0.992)	39229	0.50000	0.5036
*	8 1,4-Dichlorobenzene-d4	152	8.856	8.856	(1.000)	190457	4.00000	
	9 1,4-Dichlorobenzene	146	8.887	8.887	(1.004)	38429	0.50000	0.5042
$	10 1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	23171	0.50000	0.4871
	12 1,2-Dichlorobenzene	146	9.267	9.267	(1.046)	37355	0.50000	0.5048
	11 Benzyl alcohol	108	9.166	9.166	(1.035)	17957	0.50000	0.4692(M)
	14 2,2'-oxybis(1-Chloropropane)	121	9.492	9.492	(1.072)	12420	0.50000	0.5105
	13 2-Methylphenol	108	9.430	9.430	(1.065)	33661	0.50000	0.4811
	17 Hexachloroethane	117	9.888	9.888	(1.117)	14685	0.50000	0.4934
	16 N-Nitroso-di-n-propylamine	70	9.764	9.756	(1.103)	21002	0.50000	0.5158
	15 4-Methylphenol	108	9.725	9.725	(1.098)	36146	0.50000	0.4981
$	18 Nitrobenzene-d5	82	10.020	10.020	(0.872)	32267	0.50000	0.4856
	19 Nitrobenzene	77	10.059	10.059	(0.875)	32553	0.50000	0.4952
	20 Isophorone	82	10.540	10.540	(0.917)	57171	0.50000	0.4602
	21 2-Nitrophenol	139	10.733	10.733	(0.934)	19163	0.50000	0.4605
	22 2,4-Dimethylphenol	107	10.833	10.833	(0.942)	63271	1.00000	0.9751
	23 Bis(2-Chloroethoxy)methane	93	11.034	11.034	(0.960)	36342	0.50000	0.4945
	24 Benzoic acid	105	10.972	10.995	(0.954)	34874	2.00000	1.004
	25 2,4-Dichlorophenol	162	11.226	11.226	(0.976)	62547	1.00000	0.9976
	26 1,2,4-Trichlorobenzene	180	11.411	11.411	(0.993)	30848	0.50000	0.5137
*	27 Naphthalene-d8	136	11.496	11.496	(1.000)	743799	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.543	11.543	(1.004)	92023	0.50000	0.4898
	29 4-Chloroaniline	127	11.705	11.705	(1.018)	75074	1.00000	0.9217
	30 Hexachlorobutadiene	225	11.952	11.944	(1.040)	16167	0.50000	0.5009
	31 4-Chloro-3-methylphenol	107	12.780	12.772	(1.112)	51481	1.00000	0.9079
	32 2-Methylnaphthalene	142	13.043	13.043	(1.135)	62715	0.50000	0.4789
	33 Hexachlorocyclopentadiene	237	13.546	13.554	(0.881)	11564	1.00000	0.4342
	34 2,4,6-Trichlorophenol	196	13.724	13.724	(0.893)	36559	1.00000	0.9184
	35 2,4,5-Trichlorophenol	196	13.809	13.809	(0.898)	37583	1.00000	0.8814
$	36 2-Fluorobiphenyl	172	13.902	13.902	(0.904)	70164	0.50000	0.5017
	37 2-Chloronaphthalene	162	14.104	14.104	(0.917)	58403	0.50000	0.4902
	38 2-Nitroaniline	65	14.398	14.398	(0.937)	27357	1.00000	0.9555
	39 Dimethylphthalate	163	14.885	14.885	(0.968)	62531	0.50000	0.5093
	40 Acenaphthylene	152	15.032	15.032	(0.978)	90527	0.50000	0.4996
	41 2,6-Dinitrotoluene	165	15.025	15.025	(0.977)	29070	1.00000	0.9706
*	42 Acenaphthene-d10	164	15.373	15.373	(1.000)	404393	4.00000	
	43 3-Nitroaniline	138	15.319	15.319	(0.996)	33417	1.00000	0.9851
	44 Acenaphthene	153	15.442	15.442	(1.005)	53337	0.50000	0.4877
	45 2,4-Dinitrophenol	184	15.566	15.558	(1.013)	6885	2.00000	0.3414 (M)
	46 Dibenzofuran	168	15.798	15.798	(1.028)	78730	0.50000	0.4945
	47 4-Nitrophenol	109	15.752	15.736	(1.025)	11307	1.00000	0.8600
	48 2,4-Dinitrotoluene	165	15.891	15.891	(1.034)	36832	1.00000	0.9536
	50 Diethylphthalate	149	16.463	16.463	(1.071)	62167	0.50000	0.5182
	49 Fluorene	166	16.563	16.563	(1.077)	61043	0.50000	0.4965
	51 4-Chlorophenyl-phenylether	204	16.579	16.579	(1.078)	28825	0.50000	0.4957
	52 4-Nitroaniline	138	16.687	16.687	(1.085)	36218	1.00000	1.062
	53 4,6-Dinitro-2-methylphenol	198	16.795	16.795	(0.901)	33741	2.00000	1.491
	54 N-Nitrosodiphenylamine	169	16.857	16.857	(0.905)	43484	0.50000	0.5152
$	55 2,4,6-Tribromophenol	330	17.142	17.142	(1.115)	7941	0.50000	0.4753
	56 4-Bromophenyl-phenylether	248	17.659	17.659	(0.948)	15870	0.50000	0.4678
	57 Hexachlorobenzene	284	17.976	17.976	(0.965)	20014	0.50000	0.5159
	58 Pentachlorophenol	266	18.386	18.386	(0.987)	8182	1.00000	0.5155
*	59 Phenanthrene-d10	188	18.633	18.633	(1.000)	632241	4.00000	
	60 Phenanthrene	178	18.680	18.680	(1.002)	77109	0.50000	0.4713
	61 Anthracene	178	18.780	18.780	(1.008)	81440	0.50000	0.4753
	62 Carbazole	167	19.144	19.144	(1.027)	82015	0.50000	0.5280
	63 Di-n-butylphthalate	149	20.011	20.003	(1.074)	100979	0.50000	0.4520
	64 Fluoranthene	202	21.102	21.102	(1.132)	87728	0.50000	0.4682
	65 Pyrene	202	21.519	21.519	(0.908)	91993	0.50000	0.4771
$	66 Terphenyl-d14	244	21.837	21.837	(0.921)	59941	0.50000	0.4990
	67 Butylbenzylphthalate	149	22.781	22.781	(0.961)	44063	0.50000	0.4925
	68 Benzo(a)anthracene	228	23.679	23.679	(0.999)	86535	0.50000	0.4819
*	69 Chrysene-d12	240	23.703	23.703	(1.000)	634764	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.656	23.656	(0.998)	100566	1.00000	1.051
	71 Chrysene	228	23.749	23.749	(1.002)	75560	0.50000	0.4794
	72 bis(2-Ethylhexyl)phthalate	149	23.819	23.819	(0.961)	64302	0.50000	0.4973
*	134 Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	934301	4.00000	
	73 Di-n-octylphthalate	149	24.802	24.802	(1.000)	112510	0.50000	0.4946

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	74 Benzo(b)fluoranthene	252	25.444	25.444	(0.975)	82471	0.50000	0.4628
	75 Benzo(k)fluoranthene	252	25.483	25.483	(0.976)	100390	0.50000	0.5246
*	77 Perylene-d12	252	26.002	26.002	(0.996)	76879	0.50000	0.4744
	78 Indeno(1,2,3-cd)pyrene	264	26.103	26.103	(1.000)	624951	4.00000	
	79 Dibenzo(a,h)anthracene	276	28.342	28.334	(1.086)	87409	0.50000	0.4674
	80 Benzo(g,h,i)perylene	278	28.357	28.357	(1.086)	67688	0.50000	0.4607
	90 N-Nitrosodimethylamine	276	28.987	28.987	(1.110)	74485	0.50000	0.4623
	91 Aniline	74	4.266	4.266	(0.482)	39674	1.00000	1.005
	93 Benzidine	93	8.291	8.291	(0.936)	94480	0.50000	0.5053
	103 Pyridine	184	21.365	21.365	(0.901)	74104	1.00000	1.260
	105 1-methylnaphthalene	79	4.290	4.290	(0.484)	33098	1.00000	0.9831
	111 Azobenzene (1,2-DP-Hydrazine)	142	13.275	13.275	(1.155)	64158	0.50000	0.4799
	187 Total Benzofluoranthenes	77	16.926	16.926	(1.101)	61411	0.50000	0.5055
	99 Perylene	252	25.483	25.483	(0.976)	170479	1.00000	0.9808
	98 Retene	252	26.149	26.149	(1.002)	78454	0.50000	0.4805
		219	22.131	22.131	(0.934)	42668	0.50000	0.4708

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526e.d
Lab Smp Id: ABN.5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	190457	0.50
27 Naphthalene-d8	730932	365466	1461864	743799	1.76
42 Acenaphthene-d10	420698	210349	841396	404393	-3.88
59 Phenanthrene-d10	638950	319475	1277900	632241	-1.05
69 Chrysene-d12	645065	322532	1290130	634764	-1.60
134 Di-n-octylphthala	1016118	508059	2032236	934301	-8.05
77 Perylene-d12	650033	325016	1300066	624951	-3.86

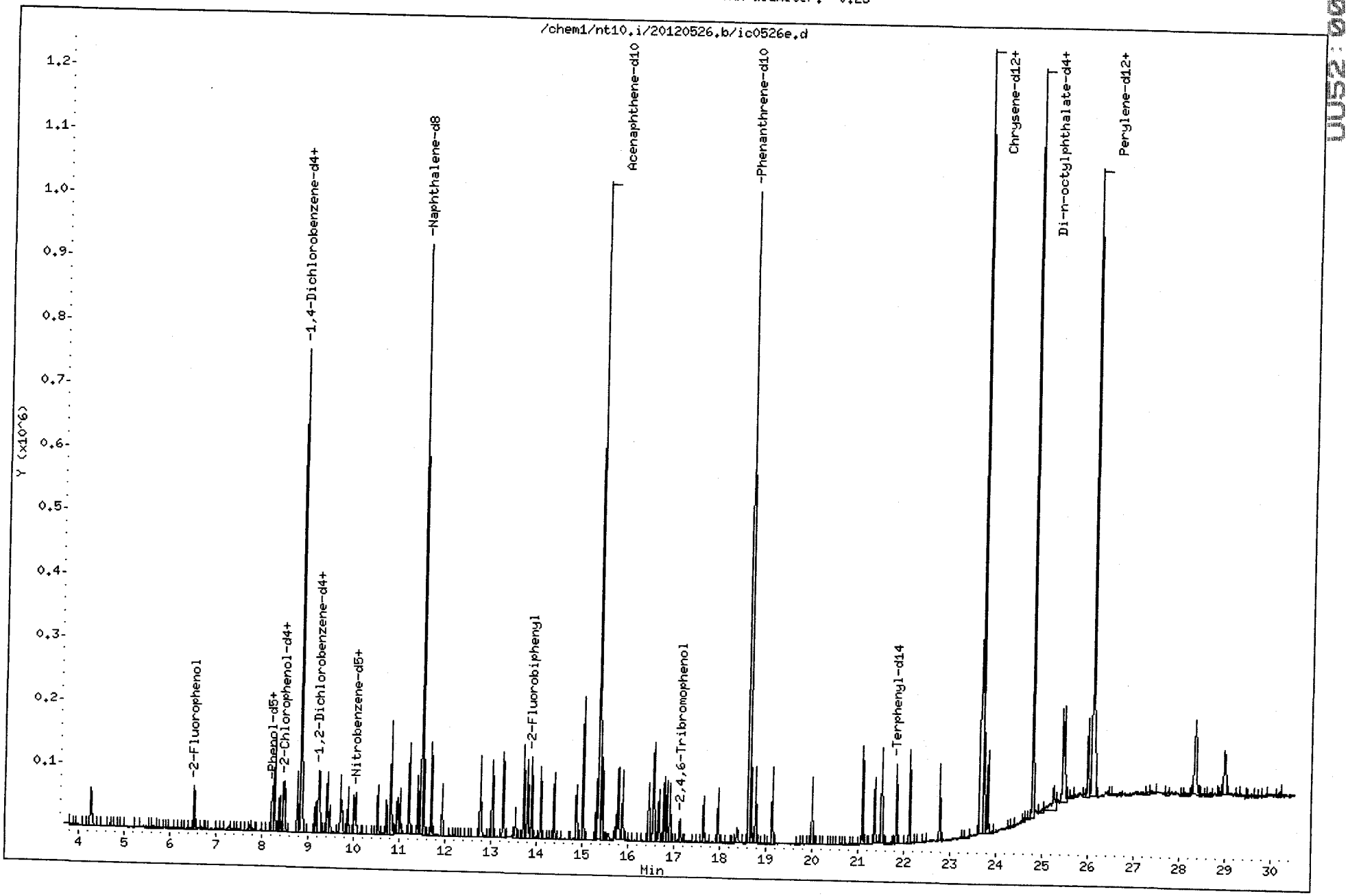
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	-0.07
42 Acenaphthene-d10	15.37	14.87	15.87	15.37	0.00
59 Phenanthrene-d10	18.63	18.13	19.13	18.63	0.00
69 Chrysene-d12	23.71	23.21	24.21	23.70	-0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

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

Data File: /chem1/nt10.i/20120526.b/ic0526e.d
Date : 26-MAY-2012 13:27
Client ID:
Sample Info: ABN.5

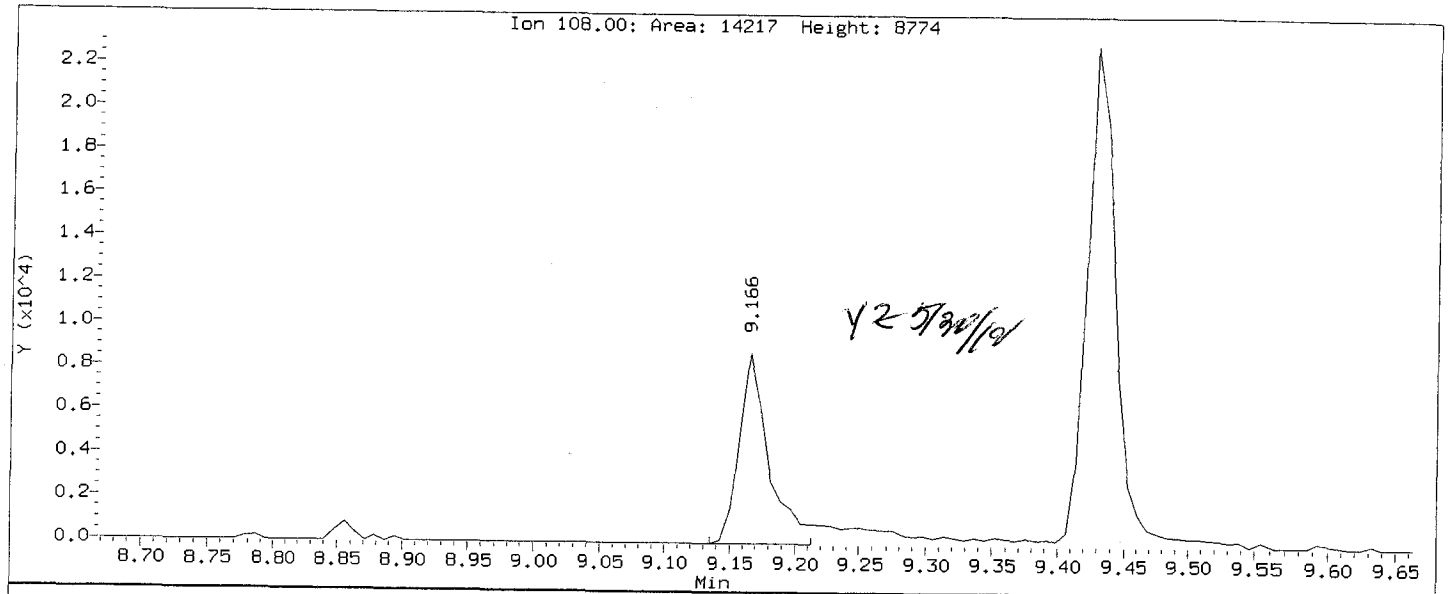
Instrument: nt10.i

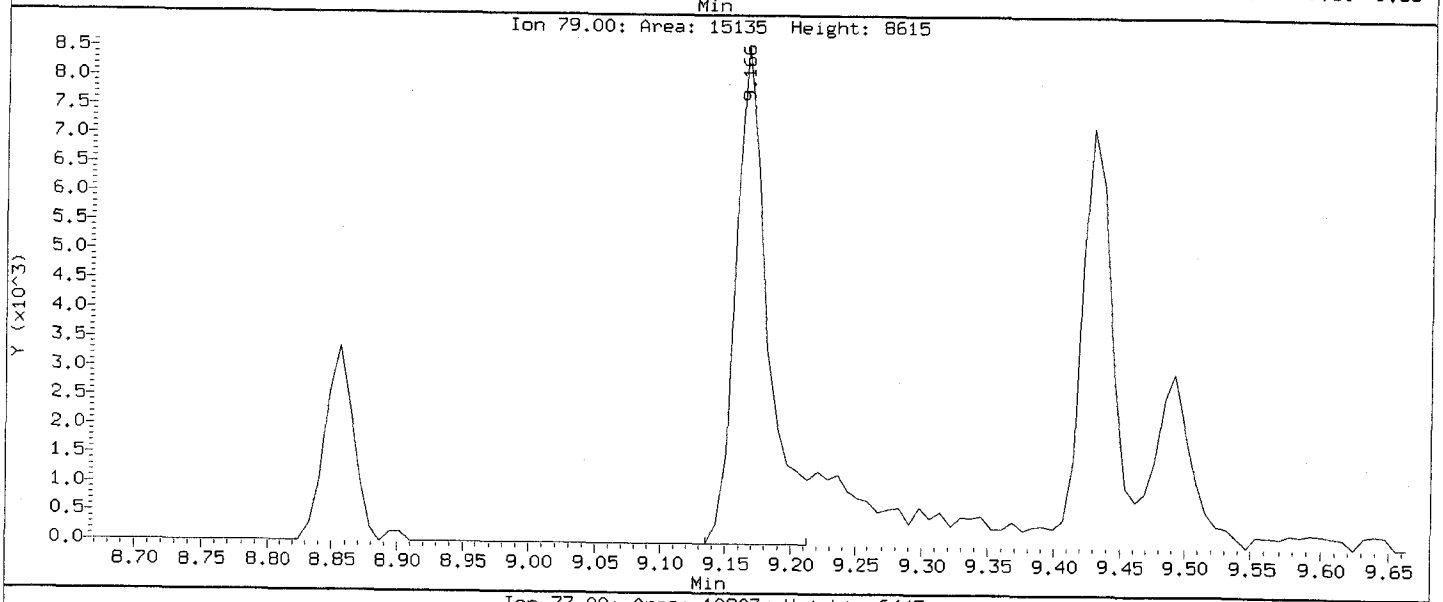
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25

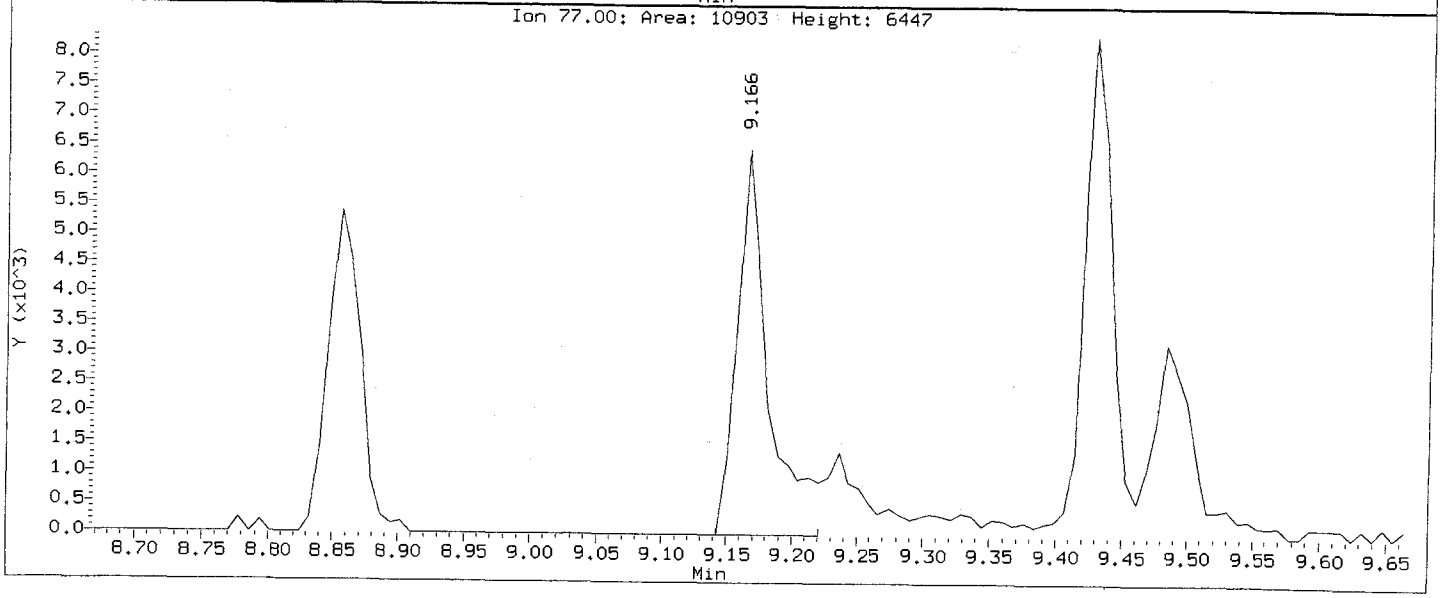


Data File: /chem1/nt10.i/20120526.b/ic0526e.d
Injection Date: 26-MAY-2012 13:27
Instrument: nt10.i
Client Sample ID:

Compound: Benzyl alcohol
CAS Number: 100-51-6

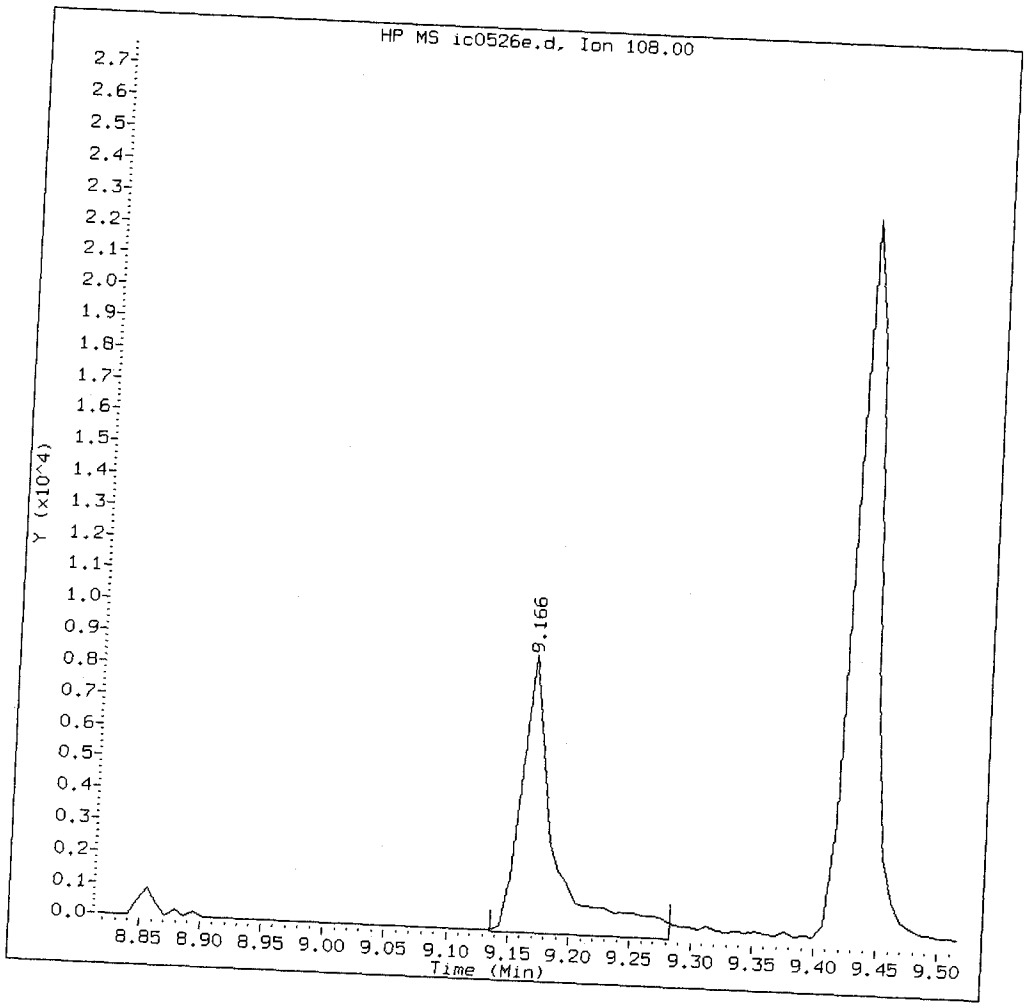






ABN.5, /chem1/nt10.i/20120526.b/ic0526e.d

Benzyl alcohol Amount: 0.47 Area: 17957



MANUAL INTEGRATION for Benzyl alcohol

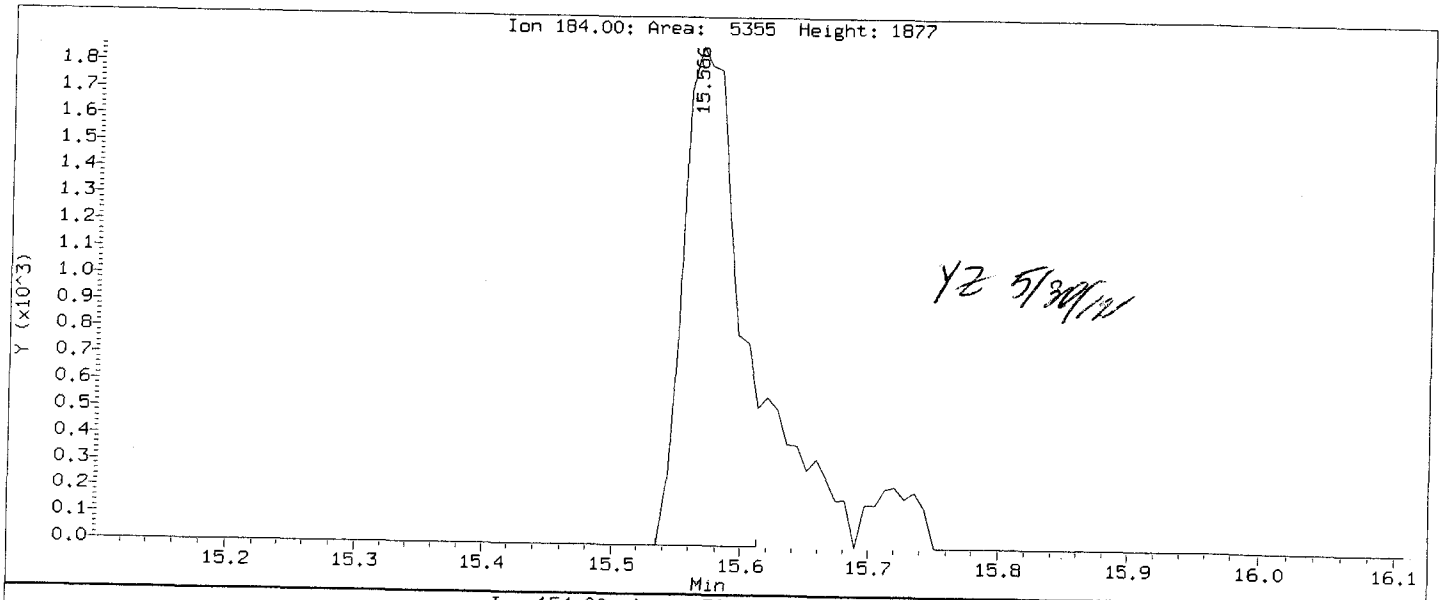
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

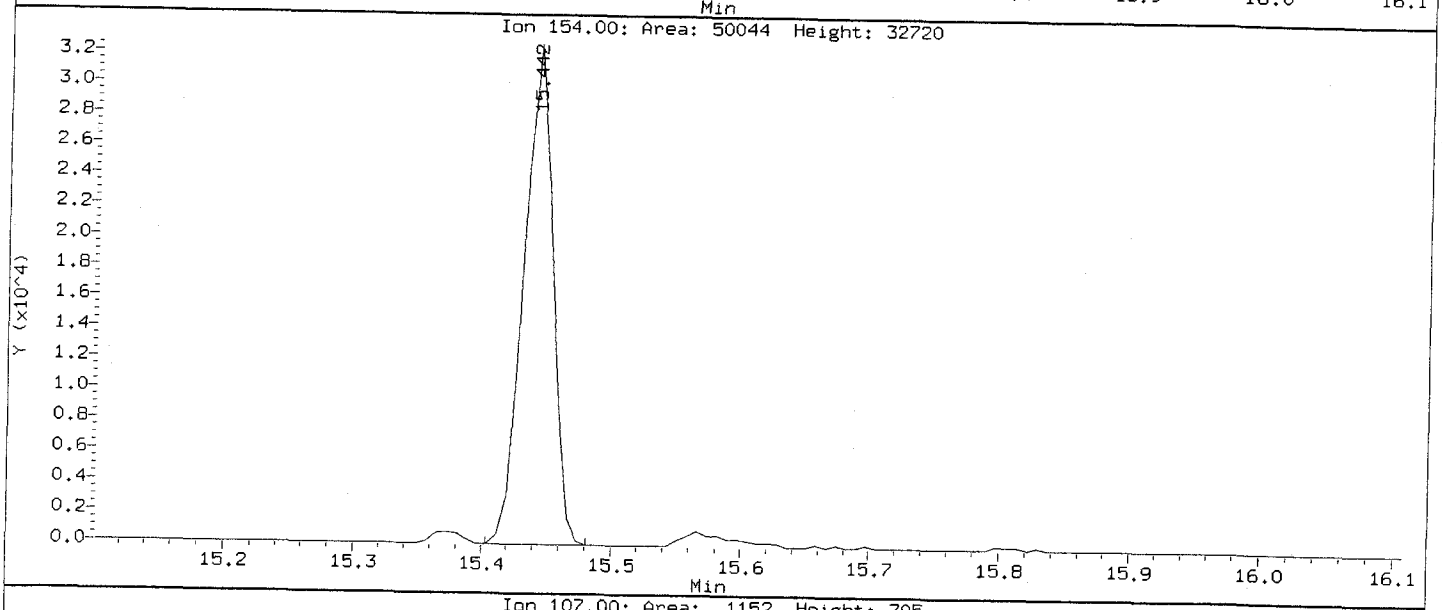
5. Other _____

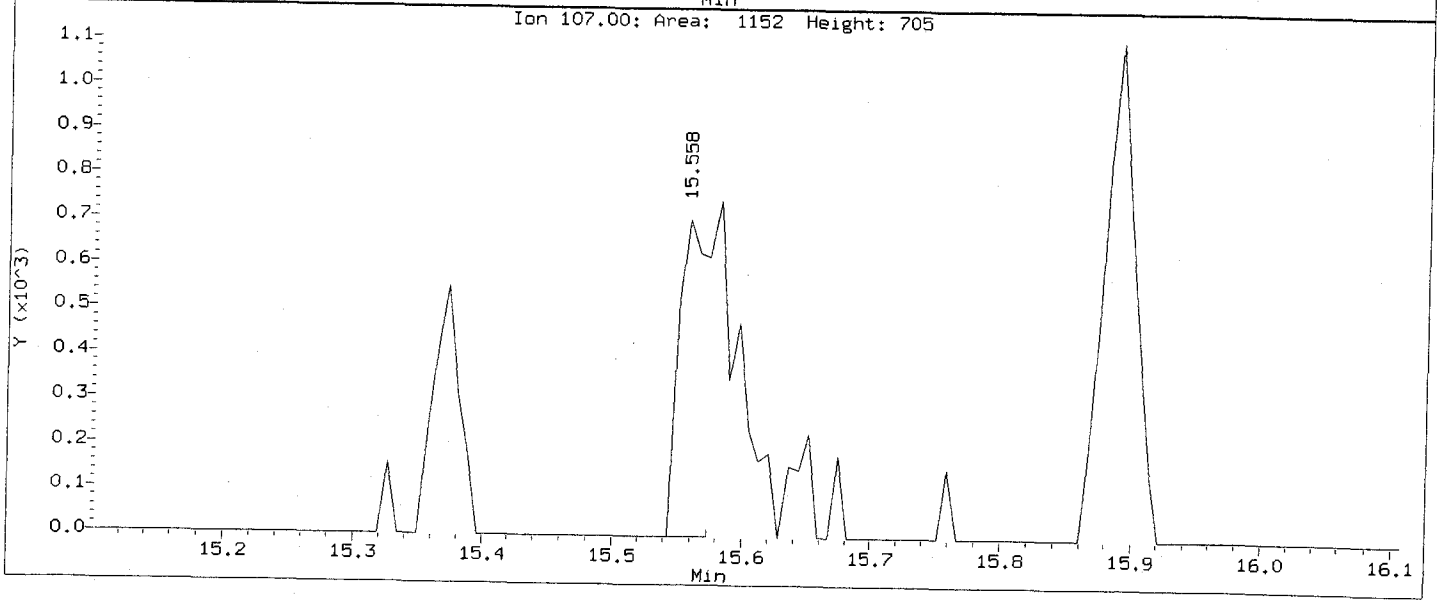
Analyst: YZ Date: 5/22/12

Data File: /chem1/nt10.i/20120526.b/ic0526e.d
Injection Date: 26-MAY-2012 13:27
Instrument: nt10.i
Client Sample ID:

Compound: 2,4-Dinitrophenol
CAS Number: 51-28-5

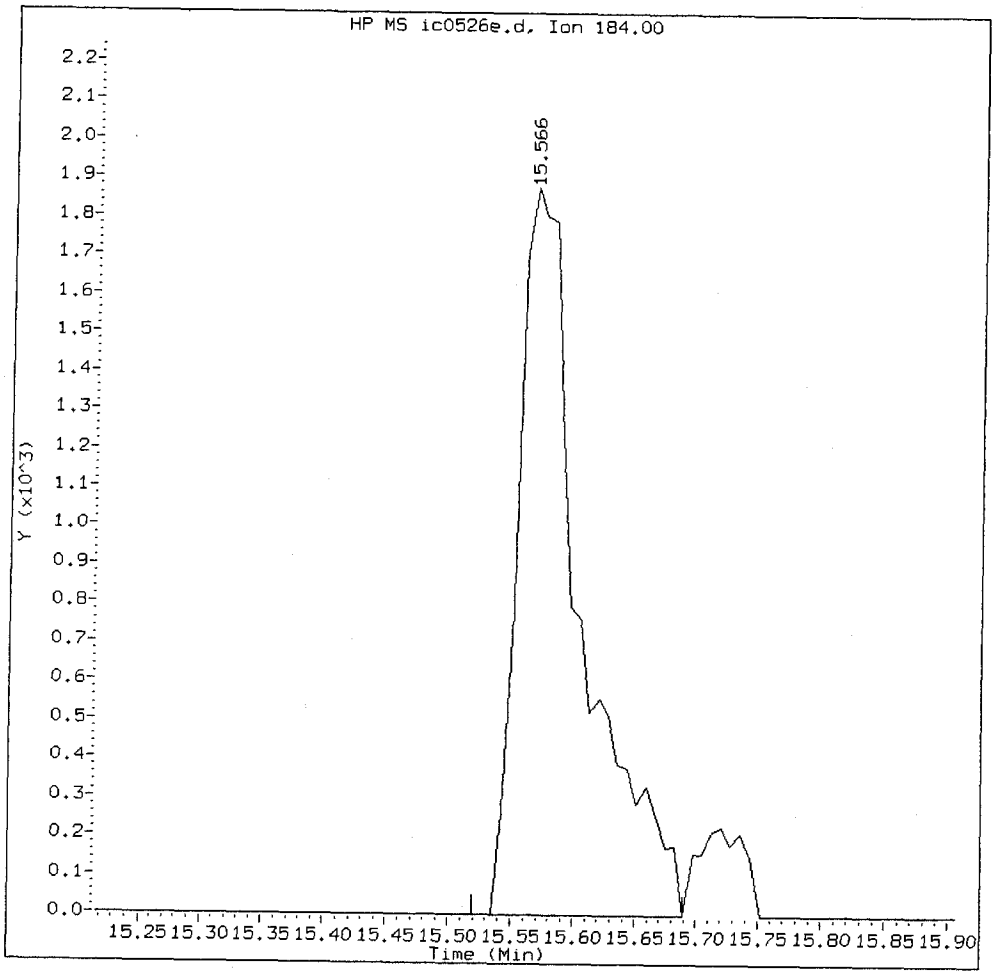






ABN.5, /chem1/nt10.i/20120526.b/ic0526e.d

2,4-Dinitrophenol Amount: 0.34 Area: 6885



MANUAL INTEGRATION for 2,4-Dinitrophenol

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/8/12

CO-ELUTION SUMMARY FOR FILE - ic0526e.d

Lab ID: ABN.5, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526f.d
Lab Smp Id: ABN2.5
Inj Date : 26-MAY-2012 14:05
Operator : VTS/YZ
Smp Info : ABN2.5 Inst ID: nt10.i
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:05 Cal File: ic0526f.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50 Compound Sublist: PSDDAICAL.sub

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.537	6.537	(0.738)	163966	2.50000	2.504
$	2 Phenol-d5	99	8.237	8.229	(0.930)	203560	2.50000	2.488
	3 Phenol	94	8.252	8.252	(0.932)	214943	2.50000	2.460
$	5 2-Chlorophenol-d4	132	8.476	8.476	(0.957)	175190	2.50000	2.455
	4 Bis(2-Chloroethyl)ether	93	8.399	8.399	(0.948)	161405	2.50000	2.502
	6 2-Chlorophenol	128	8.507	8.507	(0.961)	187141	2.50000	2.428
*	8 1,4-Dichlorobenzene-d4	146	8.786	8.786	(0.992)	193358	2.50000	2.521
	9 1,4-Dichlorobenzene	152	8.855	8.856	(1.000)	187226	4.00000	
$	10 1,2-Dichlorobenzene-d4	146	8.886	8.887	(1.004)	188831	2.50000	2.517
	12 1,2-Dichlorobenzene	152	9.236	9.236	(1.043)	116707	2.50000	2.496
	11 Benzyl alcohol	146	9.267	9.267	(1.046)	182496	2.50000	2.507
	14 2,2'-oxybis(1-Chloropropane)	108	9.166	9.166	(1.035)	88501	2.50000	2.376
	13 2-Methylphenol	121	9.492	9.492	(1.072)	58372	2.50000	2.450
	17 Hexachloroethane	108	9.430	9.430	(1.065)	169060	2.50000	2.465
	16 N-Nitroso-di-n-propylamine	117	9.888	9.888	(1.117)	72338	2.50000	2.477
	15 4-Methylphenol	70	9.764	9.756	(1.103)	103017	2.50000	2.561
$	18 Nitrobenzene-d5	108	9.725	9.725	(1.098)	181313	2.50000	2.535
	19 Nitrobenzene	82	10.027	10.020	(0.872)	165680	2.50000	2.515
	20 Isophorone	77	10.059	10.059	(0.875)	159420	2.50000	2.457
	21 2-Nitrophenol	82	10.547	10.540	(0.917)	300995	2.50000	2.456
	22 2,4-Dimethylphenol	139	10.733	10.733	(0.934)	101431	2.50000	2.468
	23 Bis(2-Chloroethoxy)methane	107	10.833	10.833	(0.942)	327809	5.00000	5.084
	24 Benzoic acid	93	11.034	11.034	(0.960)	178112	2.50000	2.456
	25 2,4-Dichlorophenol	105	11.041	10.995	(0.960)	346329	10.0000	10.05
	26 1,2,4-Trichlorobenzene	162	11.234	11.226	(0.977)	318485	5.00000	5.108
*	27 Naphthalene-d8	180	11.419	11.411	(0.993)	144832	2.50000	2.446
		136	11.496	11.496	(1.000)	736534	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.543	11.543	(1.004)	454524	2.50000	2.453
	29 4-Chloroaniline	127	11.705	11.705	(1.018)	446445	5.00000	5.438
	30 Hexachlorobutadiene	225	11.952	11.944	(1.040)	79815	2.50000	2.498
	31 4-Chloro-3-methylphenol	107	12.772	12.772	(1.111)	277006	5.00000	4.944
	32 2-Methylnaphthalene	142	13.043	13.043	(1.135)	319263	2.50000	2.468
	33 Hexachlorocyclopentadiene	237	13.554	13.554	(0.882)	116347	5.00000	4.534
	34 2,4,6-Trichlorophenol	196	13.724	13.724	(0.893)	202780	5.00000	5.139
	35 2,4,5-Trichlorophenol	196	13.809	13.809	(0.898)	213973	5.00000	5.075
$	36 2-Fluorobiphenyl	172	13.902	13.902	(0.904)	350050	2.50000	2.533
	37 2-Chloronaphthalene	162	14.103	14.104	(0.917)	296918	2.50000	2.524
	38 2-Nitroaniline	65	14.398	14.398	(0.937)	143668	5.00000	5.075
	39 Dimethylphthalate	163	14.893	14.885	(0.969)	312536	2.50000	2.568
	40 Acenaphthylene	152	15.032	15.032	(0.978)	450800	2.50000	2.520
	41 2,6-Dinitrotoluene	165	15.025	15.025	(0.977)	152535	5.00000	5.138
*	42 Acenaphthene-d10	164	15.373	15.373	(1.000)	398626	4.00000	
	43 3-Nitroaniline	138	15.326	15.319	(0.997)	172207	5.00000	5.124
	44 Acenaphthene	153	15.442	15.442	(1.005)	272450	2.50000	2.523
	45 2,4-Dinitrophenol	184	15.550	15.558	(1.012)	137413	10.0000	8.623
	46 Dibenzofuran	168	15.798	15.798	(1.028)	403546	2.50000	2.559
	47 4-Nitrophenol	109	15.728	15.736	(1.023)	68140	5.00000	5.213
	48 2,4-Dinitrotoluene	165	15.891	15.891	(1.034)	198671	5.00000	5.180
	50 Diethylphthalate	149	16.470	16.463	(1.071)	307774	2.50000	2.585
	49 Fluorene	166	16.563	16.563	(1.077)	301793	2.50000	2.492
	51 4-Chlorophenyl-phenylether	204	16.579	16.579	(1.078)	144930	2.50000	2.524
	52 4-Nitroaniline	138	16.687	16.687	(1.085)	176757	5.00000	5.213
	53 4,6-Dinitro-2-methylphenol	198	16.795	16.795	(0.901)	252721	10.0000	9.942
	54 N-Nitrosodiphenylamine	169	16.857	16.857	(0.905)	209250	2.50000	2.507
$	55 2,4,6-Tribromophenol	330	17.142	17.142	(1.115)	41145	2.50000	2.499
	56 4-Bromophenyl-phenylether	248	17.658	17.659	(0.948)	82575	2.50000	2.469
	57 Hexachlorobenzene	284	17.975	17.976	(0.965)	97159	2.50000	2.528
	58 Pentachlorophenol	266	18.378	18.386	(0.986)	76549	5.00000	4.373
*	59 Phenanthrene-d10	188	18.633	18.633	(1.000)	624933	4.00000	
	60 Phenanthrene	178	18.680	18.680	(1.002)	393807	2.50000	2.446
	61 Anthracene	178	18.780	18.780	(1.008)	411608	2.50000	2.442
	62 Carbazole	167	19.144	19.144	(1.027)	388580	2.50000	2.526
	63 Di-n-butylphthalate	149	20.011	20.003	(1.074)	535468	2.50000	2.437
	64 Fluoranthene	202	21.101	21.102	(1.132)	444971	2.50000	2.418
	65 Pyrene	202	21.519	21.519	(0.908)	467901	2.50000	2.490
$	66 Terphenyl-d14	244	21.844	21.837	(0.922)	300747	2.50000	2.555
	67 Butylbenzylphthalate	149	22.781	22.781	(0.961)	217413	2.50000	2.493
	68 Benzo(a)anthracene	228	23.679	23.679	(0.999)	425208	2.50000	2.439
*	69 Chrysene-d12	240	23.702	23.703	(1.000)	619154	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.656	23.656	(0.998)	494771	5.00000	5.240
	71 Chrysene	228	23.749	23.749	(1.002)	373335	2.50000	2.440
	72 bis(2-Ethylhexyl)phthalate	149	23.819	23.819	(0.961)	311745	2.50000	2.441
*	134 Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	927369	4.00000	
	73 Di-n-octylphthalate	149	24.802	24.802	(1.000)	554323	2.50000	2.463

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	74 Benzo(b)fluoranthene	252	25.444	25.444	(0.975)	415398	2.50000	2.355
	75 Benzo(k)fluoranthene	252	25.483	25.483	(0.976)	489418	2.50000	2.545
	76 Benzo(a)pyrene	252	26.002	26.002	(0.996)	396982	2.50000	2.455
*	77 Perylene-d12	264	26.102	26.103	(1.000)	625787	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.334	28.334	(1.085)	474062	2.50000	2.526
	79 Dibenzo(a,h)anthracene	278	28.357	28.357	(1.086)	374919	2.50000	2.540
	80 Benzo(g,h,i)perylene	276	28.986	28.987	(1.110)	400932	2.50000	2.488
	90 N-Nitrosodimethylamine	74	4.266	4.266	(0.482)	197905	5.00000	5.084
	91 Aniline	93	8.291	8.291	(0.936)	467689	2.50000	2.537
	93 Benzidine	184	21.364	21.365	(0.901)	329105	5.00000	4.686
	103 Pyridine	79	4.282	4.290	(0.484)	173343	5.00000	5.197
	105 1-methylnaphthalene	142	13.275	13.275	(1.155)	326983	2.50000	2.475
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.926	16.926	(1.101)	310185	2.50000	2.575
	187 Total Benzofluoranthenes	252	25.483	25.483	(0.976)	847269	5.00000	4.890
	99 Perylene	252	26.149	26.149	(1.002)	392397	2.50000	2.416
	98 Retene	219	22.131	22.131	(0.934)	216647	2.50000	2.459

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526f.d
Lab Smp Id: ABN2.5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:

Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	187226	-1.21
27 Naphthalene-d8	730932	365466	1461864	736534	0.77
42 Acenaphthene-d10	420698	210349	841396	398626	-5.25
59 Phenanthrene-d10	638950	319475	1277900	624933	-2.19
69 Chrysene-d12	645065	322532	1290130	619154	-4.02
134 Di-n-octylphthala	1016118	508059	2032236	927369	-8.73
77 Perylene-d12	650033	325016	1300066	625787	-3.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	-0.07
42 Acenaphthene-d10	15.37	14.87	15.87	15.37	0.00
59 Phenanthrene-d10	18.63	18.13	19.13	18.63	0.00
69 Chrysene-d12	23.71	23.21	24.21	23.70	-0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

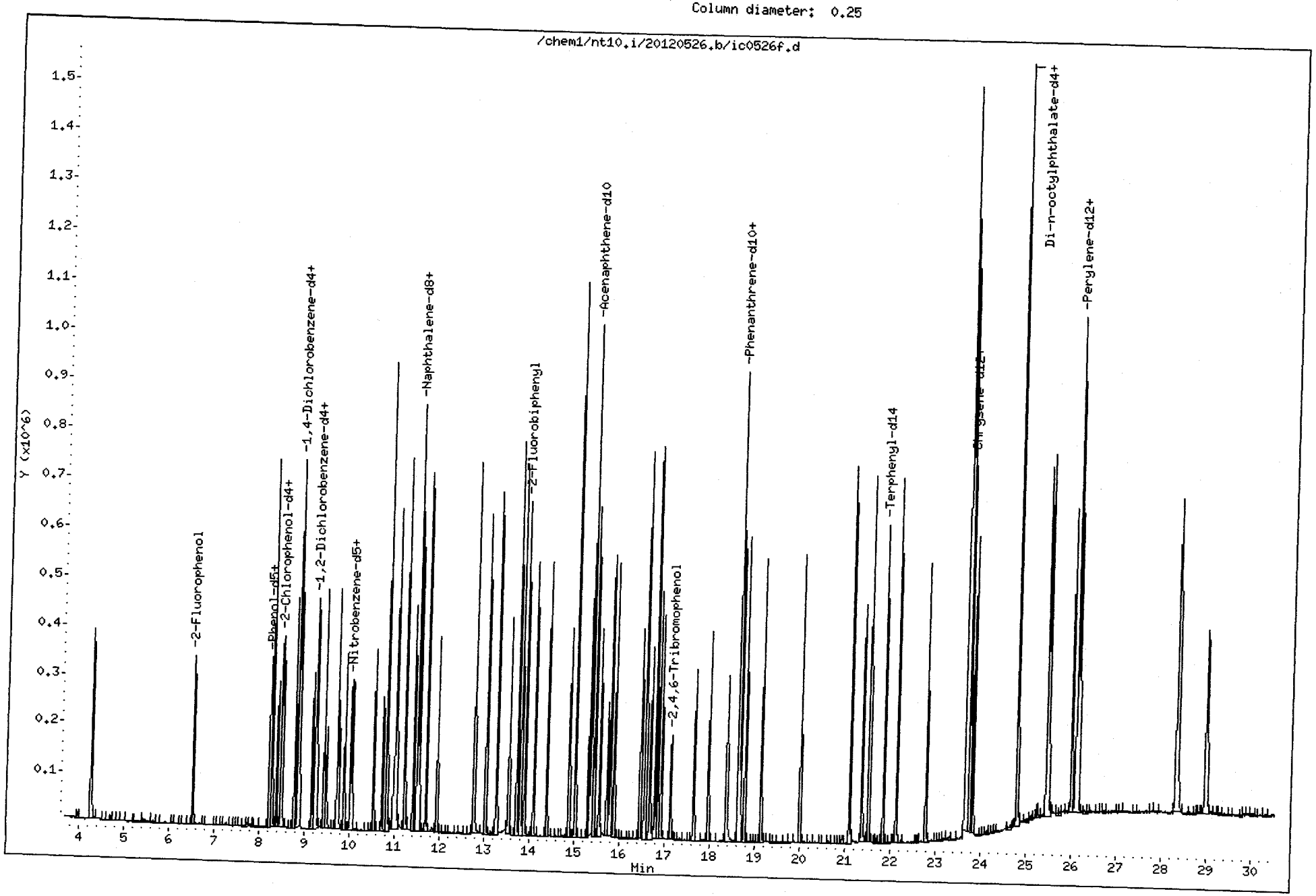
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120526.b/ic0526f.d
Date : 26-MAY-2012 14:05
Client ID:
Sample Info: ABN2.5

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - ic0526f.d

Lab ID: ABN2.5, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526g.d
Lab Smp Id: ABN1.0
Inj Date : 26-MAY-2012 14:42
Operator : VTS/YZ
Smp Info : ABN1.0
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev
Cal Date : 26-MAY-2012 14:42
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i

Quant Type: ISTD
Cal File: ic0526g.d
Calibration Sample, Level: 3

Compound Sublist: PSDDAICAL.sub

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.537	6.537	(0.738)	67712	1.00000	0.9987
$	2 Phenol-d5	99	8.229	8.229	(0.929)	82827	1.00000	0.9807
	3 Phenol	94	8.252	8.252	(0.932)	87196	1.00000	0.9686
$	5 2-Chlorophenol-d4	132	8.476	8.476	(0.957)	74501	1.00000	1.007
	4 Bis(2-Chloroethyl)ether	93	8.399	8.399	(0.948)	68297	1.00000	1.019
	6 2-Chlorophenol	128	8.507	8.507	(0.961)	77627	1.00000	0.9765
	7 1,3-Dichlorobenzene	146	8.786	8.786	(0.992)	80562	1.00000	1.012
*	8 1,4-Dichlorobenzene-d4	152	8.856	8.856	(1.000)	193887	4.00000	
	9 1,4-Dichlorobenzene	146	8.887	8.887	(1.004)	77656	1.00000	0.9996
$	10 1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	49288	1.00000	1.015
	12 1,2-Dichlorobenzene	146	9.267	9.267	(1.046)	78319	1.00000	1.033
	11 Benzyl alcohol	108	9.166	9.166	(1.035)	33270	1.00000	0.8797
	14 2,2'-oxybis(1-Chloropropane)	121	9.492	9.492	(1.072)	24706	1.00000	1.001
	13 2-Methylphenol	108	9.430	9.430	(1.065)	70476	1.00000	0.9933
	17 Hexachloroethane	117	9.888	9.888	(1.117)	29826	1.00000	0.9882
	16 N-Nitroso-di-n-propylamine	70	9.756	9.756	(1.102)	42756	1.00000	1.023
	15 4-Methylphenol	108	9.725	9.725	(1.098)	73702	1.00000	0.9957
$	18 Nitrobenzene-d5	82	10.020	10.020	(0.872)	67950	1.00000	1.011
	19 Nitrobenzene	77	10.059	10.059	(0.875)	66607	1.00000	1.007
	20 Isophorone	82	10.540	10.540	(0.917)	123948	1.00000	0.9936
	21 2-Nitrophenol	139	10.733	10.733	(0.934)	40831	1.00000	0.9786
	22 2,4-Dimethylphenol	107	10.833	10.833	(0.942)	137179	2.00000	2.075
	23 Bis(2-Chloroethoxy)methane	93	11.034	11.034	(0.960)	76763	1.00000	1.033
	24 Benzoic acid	105	10.995	10.995	(0.956)	97576	4.00000	2.907
	25 2,4-Dichlorophenol	162	11.226	11.226	(0.976)	127789	2.00000	2.010
	26 1,2,4-Trichlorobenzene	180	11.411	11.411	(0.993)	61741	1.00000	1.020
*	27 Naphthalene-d8	136	11.496	11.496	(1.000)	750391	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.543	11.543	(1.004)	191351	1.00000	1.012
	29 4-Chloroaniline	127	11.705	11.705	(1.018)	176284	2.00000	2.092
	30 Hexachlorobutadiene	225	11.944	11.944	(1.039)	32510	1.00000	0.9988
	31 4-Chloro-3-methylphenol	107	12.772	12.772	(1.111)	113753	2.00000	1.994
	32 2-Methylnaphthalene	142	13.043	13.043	(1.135)	129910	1.00000	0.9878
	33 Hexachlorocyclopentadiene	237	13.554	13.554	(0.882)	35252	2.00000	1.409
	34 2,4,6-Trichlorophenol	196	13.724	13.724	(0.893)	78941	2.00000	1.946
	35 2,4,5-Trichlorophenol	196	13.809	13.809	(0.898)	85517	2.00000	1.969
$	36 2-Fluorobiphenyl	172	13.902	13.902	(0.904)	142575	1.00000	0.9990
	37 2-Chloronaphthalene	162	14.104	14.104	(0.917)	124911	1.00000	1.024
	38 2-Nitroaniline	65	14.398	14.398	(0.937)	57672	2.00000	1.976
	39 Dimethylphthalate	163	14.885	14.885	(0.968)	131397	1.00000	1.039
	40 Acenaphthylene	152	15.032	15.032	(0.978)	185662	1.00000	1.004
	41 2,6-Dinitrotoluene	165	15.025	15.025	(0.977)	63520	2.00000	2.061
*	42 Acenaphthene-d10	164	15.373	15.373	(1.000)	411692	4.00000	
	43 3-Nitroaniline	138	15.319	15.319	(0.996)	70660	2.00000	2.031
	44 Acenaphthene	153	15.442	15.442	(1.005)	111440	1.00000	0.9992
	45 2,4-Dinitrophenol	184	15.558	15.558	(1.012)	31710	4.00000	2.109
	46 Dibenzofuran	168	15.798	15.798	(1.028)	166661	1.00000	1.020
	47 4-Nitrophenol	109	15.736	15.736	(1.024)	25473	2.00000	1.902
	48 2,4-Dinitrotoluene	165	15.891	15.891	(1.034)	81362	2.00000	2.046
	50 Diethylphthalate	149	16.463	16.463	(1.071)	125440	1.00000	1.017
	49 Fluorene	166	16.563	16.563	(1.077)	125909	1.00000	1.006
	51 4-Chlorophenyl-phenylether	204	16.579	16.579	(1.078)	60269	1.00000	1.014
	52 4-Nitroaniline	138	16.687	16.687	(1.085)	77522	2.00000	2.180
	53 4,6-Dinitro-2-methylphenol	198	16.795	16.795	(0.901)	88128	4.00000	3.497
	54 N-Nitrosodiphenylamine	169	16.857	16.857	(0.905)	89101	1.00000	1.043
$	55 2,4,6-Tribromophenol	330	17.142	17.142	(1.115)	16908	1.00000	0.9950
	56 4-Bromophenyl-phenylether	248	17.659	17.659	(0.948)	34045	1.00000	1.001
	57 Hexachlorobenzene	284	17.976	17.976	(0.965)	40047	1.00000	1.022
	58 Pentachlorophenol	266	18.386	18.386	(0.987)	24770	2.00000	1.467
*	59 Phenanthrene-d10	188	18.633	18.633	(1.000)	635080	4.00000	
	60 Phenanthrene	178	18.680	18.680	(1.002)	164484	1.00000	1.004
	61 Anthracene	178	18.780	18.780	(1.008)	169650	1.00000	0.9917
	62 Carbazole	167	19.144	19.144	(1.027)	169887	1.00000	1.073
	63 Di-n-butylphthalate	149	20.003	20.003	(1.073)	219684	1.00000	0.9861
	64 Fluoranthene	202	21.102	21.102	(1.132)	179541	1.00000	0.9656
	65 Pyrene	202	21.519	21.519	(0.908)	197362	1.00000	1.015
$	66 Terphenyl-d14	244	21.837	21.837	(0.921)	123736	1.00000	1.016
	67 Butylbenzylphthalate	149	22.781	22.781	(0.961)	91227	1.00000	1.012
	68 Benzo(a)anthracene	228	23.679	23.679	(0.999)	178718	1.00000	0.9944
*	69 Chrysene-d12	240	23.703	23.703	(1.000)	638910	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.656	23.656	(0.998)	206440	2.00000	2.098
	71 Chrysene	228	23.749	23.749	(1.002)	159367	1.00000	1.008
	72 bis(2-Ethylhexyl)phthalate	149	23.819	23.819	(0.961)	126524	1.00000	0.9823
*	134 Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	937949	4.00000	
	73 Di-n-octylphthalate	149	24.802	24.802	(1.000)	231357	1.00000	1.014

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.444	25.444	(0.975)	172850	1.00000	0.9793
75	Benzo(k)fluoranthene	252	25.483	25.483	(0.976)	201900	1.00000	1.039
76	Benzo(a)pyrene	252	26.002	26.002	(0.996)	163104	1.00000	1.004
* 77	Perylene-d12	264	26.103	26.103	(1.000)	628310	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.334	28.334	(1.085)	184943	1.00000	0.9841
79	Dibenzo(a,h)anthracene	278	28.357	28.357	(1.086)	147098	1.00000	0.9937
80	Benzo(g,h,i)perylene	276	28.987	28.987	(1.110)	157075	1.00000	0.9747
90	N-Nitrosodimethylamine	74	4.266	4.266	(0.482)	80663	2.00000	2.001
91	Aniline	93	8.291	8.291	(0.936)	196937	1.00000	1.027
93	Benzidine	184	21.365	21.365	(0.901)	151908	2.00000	2.082
103	Pyridine	79	4.290	4.290	(0.484)	72771	2.00000	2.091
105	1-methylnaphthalene	142	13.275	13.275	(1.155)	131250	1.00000	0.9786
111	Azobenzene (1,2-DP-Hydrazine)	77	16.926	16.926	(1.101)	128094	1.00000	1.025
187	Total Benzofluoranthenes	252	25.483	25.483	(0.976)	353049	2.00000	2.025
99	Perylene	252	26.149	26.149	(1.002)	164917	1.00000	1.010
98	Retene	219	22.131	22.131	(0.934)	88185	1.00000	0.9742

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526g.d
Lab Smp Id: ABN1.0
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	193887	2.31
27 Naphthalene-d8	730932	365466	1461864	750391	2.66
42 Acenaphthene-d10	420698	210349	841396	411692	-2.14
59 Phenanthrene-d10	638950	319475	1277900	635080	-0.61
69 Chrysene-d12	645065	322532	1290130	638910	-0.95
134 Di-n-octylphthala	1016118	508059	2032236	937949	-7.69
77 Perylene-d12	650033	325016	1300066	628310	-3.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	-0.07
42 Acenaphthene-d10	15.37	14.87	15.87	15.37	0.00
59 Phenanthrene-d10	18.63	18.13	19.13	18.63	0.00
69 Chrysene-d12	23.71	23.21	24.21	23.70	-0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

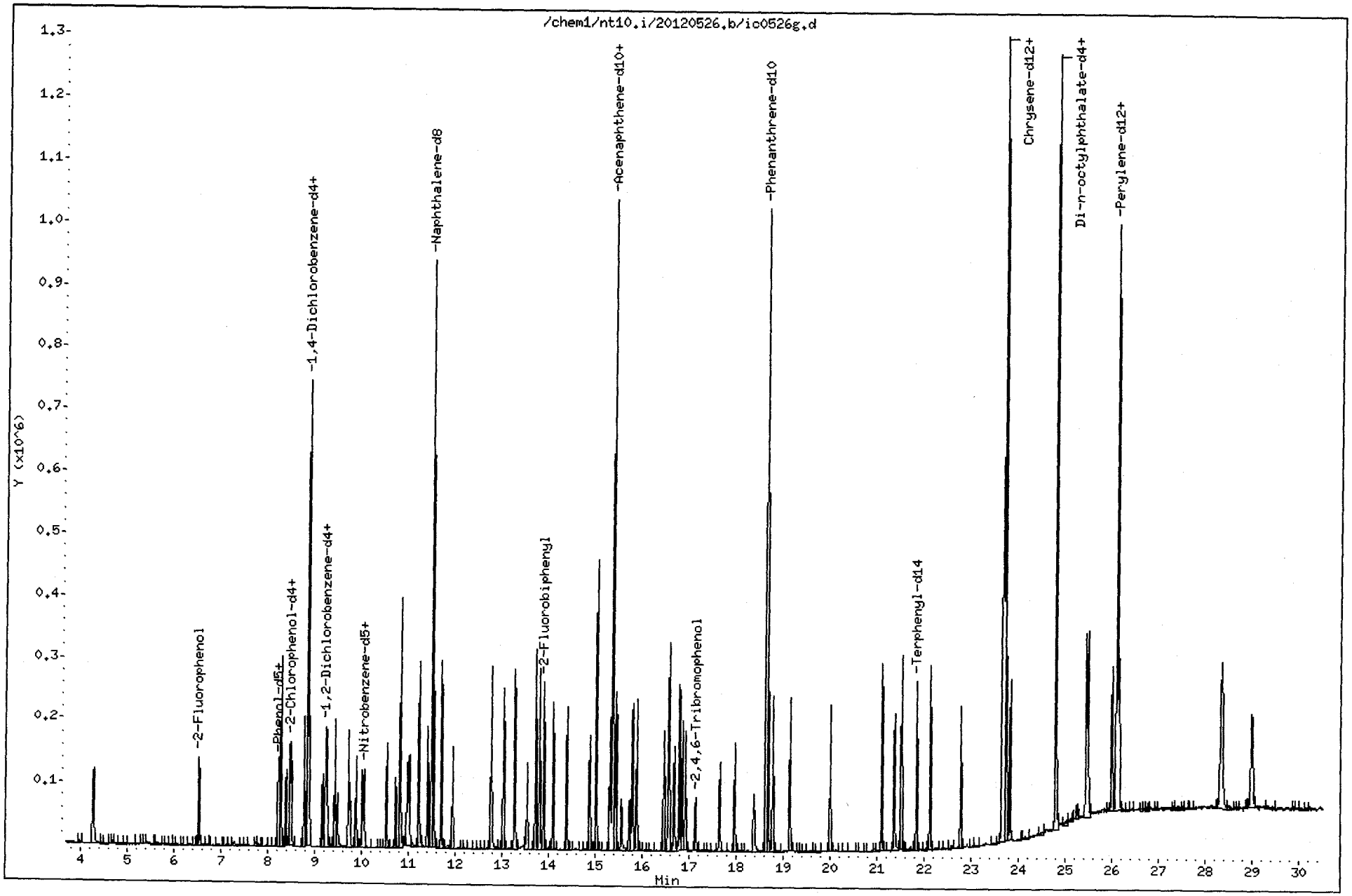
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120526.b/ic0526g.d
Date : 26-MAY-2012 14:42
Client ID:
Sample Info: ABN1.0

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0526g.d

Lab ID: ABN1.0, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt10.i/20120526.b/icv0526.d
Report Date: 30-May-2012 11:39

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/icv0526.d
Lab Smp Id: ICV-5
Inj Date : 26-MAY-2012 15:19
Operator : VTS/YZ
Smp Info : ICV-5
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 11:37 yev
Cal Date : 26-MAY-2012 14:42
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i
Quant Type: ISTD
Cal File: ic0526g.d
QC Sample: LCS
Compound Sublist: PSDDAICAL.sub

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	Compound Not Detected.					
$	2 Phenol-d5	99	8.507	8.229	(0.961)	24638	0.22682	0.2268(R)
	3 Phenol	94	8.260	8.252	(0.933)	612543	5.29055	5.291
$	5 2-Chlorophenol-d4	132	Compound Not Detected.					
	4 Bis(2-Chloroethyl)ether	93	8.399	8.399	(0.948)	440342	5.10797	5.108
	6 2-Chlorophenol	128	8.507	8.507	(0.961)	524588	5.13081	5.131
*	7 1,3-Dichlorobenzene	146	8.786	8.786	(0.992)	519359	5.07355	5.074
	8 1,4-Dichlorobenzene-d4	152	8.855	8.856	(1.000)	249364	4.00000	
	9 1,4-Dichlorobenzene	146	8.886	8.887	(1.004)	494897	4.95322	4.953
$	10 1,2-Dichlorobenzene-d4	152	Compound Not Detected.					
	12 1,2-Dichlorobenzene	146	9.267	9.267	(1.046)	486192	4.98706	4.987
	11 Benzyl alcohol	108	9.166	9.166	(1.035)	318906	6.55607	6.556(R)
	14 2,2'-oxybis(1-Chloropropane)	121	9.492	9.492	(1.072)	158721	5.00118	5.001
	13 2-Methylphenol	108	9.438	9.430	(1.066)	446731	4.89549	4.895
	17 Hexachloroethane	117	9.888	9.888	(1.117)	199927	5.15030	5.150
	16 N-Nitroso-di-n-propylamine	70	9.764	9.756	(1.103)	284120	5.28370	5.284
	15 4-Methylphenol	108	9.725	9.725	(1.098)	469429	4.93078	4.931
$	18 Nitrobenzene-d5	82	Compound Not Detected.					
	19 Nitrobenzene	77	10.066	10.059	(0.875)	449174	5.14613	5.146
	20 Isophorone	82	10.547	10.540	(0.917)	833349	5.06458	5.065
	21 2-Nitrophenol	139	10.733	10.733	(0.933)	296118	5.38022	5.380
	22 2,4-Dimethylphenol	107	10.833	10.833	(0.942)	431706	4.95126	4.951
	23 Bis(2-Chloroethoxy)methane	93	11.034	11.034	(0.959)	521674	5.32350	5.324
	24 Benzoic acid	105	11.057	10.995	(0.961)	487276	8.44945	8.449
	25 2,4-Dichlorophenol	162	11.234	11.226	(0.977)	459357	5.47726	5.477
	26 1,2,4-Trichlorobenzene	180	11.419	11.411	(0.993)	399924	5.00904	5.009
*	27 Naphthalene-d8	136	11.504	11.496	(1.000)	989810	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	28 Naphthalene	128	11.543	11.543	(1.003)	1452947	5.82271	5.823
	29 4-Chloroaniline	127	11.705	11.705	(1.017)	715126	6.43253	6.433
	30 Hexachlorobutadiene	225	11.952	11.944	(1.039)	220886	5.14498	5.145
	31 4-Chloro-3-methylphenol	107	12.772	12.772	(1.110)	406012	5.39547	5.395
	32 2-Methylnaphthalene	142	13.043	13.043	(1.134)	1037080	5.97841	5.978
	33 Hexachlorocyclopentadiene	237	13.554	13.554	(0.882)	183705	4.67068	4.671
	34 2,4,6-Trichlorophenol	196	13.732	13.724	(0.893)	285210	5.30731	5.307
	35 2,4,5-Trichlorophenol	196	13.809	13.809	(0.898)	299729	5.21021	5.210
$	36 2-Fluorobiphenyl	172	13.802	13.902	(0.898)	489	0.00259	0.002587 (R)
	37 2-Chloronaphthalene	162	14.103	14.104	(0.917)	860466	5.32462	5.325
	38 2-Nitroaniline	65	14.405	14.398	(0.937)	240031	6.21031	6.210
	39 Dimethylphthalate	163	14.893	14.885	(0.969)	869716	5.19064	5.191
	40 Acenaphthylene	152	15.032	15.032	(0.978)	1464431	5.97933	5.979
	41 2,6-Dinitrotoluene	165	15.032	15.025	(0.978)	211930	5.19161	5.192
*	42 Acenaphthene-d10	164	15.373	15.373	(1.000)	545323	4.00000	
	43 3-Nitroaniline	138	15.326	15.319	(0.997)	271136	5.88282	5.883
	44 Acenaphthene	153	15.442	15.442	(1.005)	894186	6.05301	6.053
	45 2,4-Dinitrophenol	184	15.558	15.558	(1.012)	218245	8.18330	8.183 (R)
	46 Dibenzofuran	168	15.798	15.798	(1.028)	1286067	5.94234	5.942
	47 4-Nitrophenol	109	15.728	15.736	(1.023)	99971	5.63611	5.636
	48 2,4-Dinitrotoluene	165	15.891	15.891	(1.034)	280475	5.32546	5.325
	50 Diethylphthalate	149	16.470	16.463	(1.071)	847615	5.18905	5.189
	49 Fluorene	166	16.563	16.563	(1.077)	996290	6.00793	6.008
	51 4-Chlorophenyl-phenylether	204	16.579	16.579	(1.078)	420476	5.33996	5.340
	52 4-Nitroaniline	138	16.687	16.687	(1.085)	246381	5.23174	5.232
	53 4,6-Dinitro-2-methylphenol	198	16.795	16.795	(0.901)	354119	10.6158	10.62
	54 N-Nitrosodiphenylamine	169	16.857	16.857	(0.905)	589653	5.21389	5.214
$	55 2,4,6-Tribromophenol	330	Compound Not Detected.					
	56 4-Bromophenyl-phenylether	248	17.658	17.659	(0.948)	236862	5.26296	5.263
	57 Hexachlorobenzene	284	17.975	17.976	(0.965)	262810	5.06468	5.065
	58 Pentachlorophenol	266	18.378	18.386	(0.986)	122932	4.56720	4.567
*	59 Phenanthrene-d10	188	18.633	18.633	(1.000)	840695	4.00000	
	60 Phenanthrene	178	18.688	18.680	(1.003)	1321406	6.09554	6.096
	61 Anthracene	178	18.780	18.780	(1.008)	1383648	6.10993	6.110
	62 Carbazole	167	19.144	19.144	(1.027)	1030370	4.91739	4.917
	63 Di-n-butylphthalate	149	20.011	20.003	(1.074)	1644680	5.57713	5.577
	64 Fluoranthene	202	21.101	21.102	(1.132)	1505236	6.11547	6.115
	65 Pyrene	202	21.519	21.519	(0.908)	1556744	5.86121	5.861
$	66 Terphenyl-d14	244	Compound Not Detected.					
	67 Butylbenzylphthalate	149	22.781	22.781	(0.961)	642627	5.21589	5.216
	68 Benzo(a)anthracene	228	23.679	23.679	(0.999)	1435464	5.84603	5.846
*	69 Chrysene-d12	240	23.710	23.703	(1.000)	872921	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.656	23.656	(0.998)	418178	3.11038	3.110 (R)
	71 Chrysene	228	23.749	23.749	(1.002)	1272933	5.89305	5.893
	72 bis(2-Ethylhexyl)phthalate	149	23.819	23.819	(0.961)	941422	5.06177	5.062
*	134 Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	1354341	4.00000	
	73 Di-n-octylphthalate	149	24.802	24.802	(1.000)	1768809	5.36813	5.368

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	74 Benzo(b)fluoranthene	252	25.452	25.444	(0.975)	1497096	6.20177	6.202
	75 Benzo(k)fluoranthene	252	25.491	25.483	(0.977)	1570470	5.90838	5.908
	76 Benzo(a)pyrene	252	26.002	26.002	(0.996)	1323802	5.95784	5.958
*	77 Perylene-d12	264	26.102	26.103	(1.000)	859333	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.350	28.334	(1.086)	1603345	6.23819	6.238
	79 Dibenzo(a,h)anthracene	278	28.365	28.357	(1.087)	1278734	6.31592	6.316
	80 Benzo(g,h,i)perylene	276	29.002	28.987	(1.111)	1376066	6.24353	6.244
	90 N-Nitrosodimethylamine	74	4.266	4.266	(0.482)	270769	5.22251	5.223
	91 Aniline	93	8.291	8.291	(0.936)	665451	2.69811	2.698(R)
	93 Benzidine	184	21.364	21.365	(0.901)	129616	1.30006	1.300(R)
	103 Pyridine	79	4.274	4.290	(0.483)	431672	9.64286	9.643
	105 1-methylnaphthalene	142	13.275	13.275	(1.154)	765476	4.32687	4.327
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.926	16.926	(1.101)	848874	5.12887	5.129
	187 Total Benzofluoranthenes	252	25.491	25.483	(0.977)	2896118	12.1460	12.15
	~~99 Perylene~~	~~252~~	~~26.002~~	~~26.149~~	~~(0.996)~~	~~1323802~~	~~5.92651~~	~~5.927~~
	98 Retene	219	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: icv0526.d
Lab Smp Id: ICV-5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	249364	31.58
27 Naphthalene-d8	730932	365466	1461864	989810	35.42
42 Acenaphthene-d10	420698	210349	841396	545323	29.62
59 Phenanthrene-d10	638950	319475	1277900	840695	31.57
69 Chrysene-d12	645065	322532	1290130	872921	35.32
134 Di-n-octylphthala	1016118	508059	2032236	1354341	33.29
77 Perylene-d12	650033	325016	1300066	859333	32.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	0.00
42 Acenaphthene-d10	15.37	14.87	15.87	15.37	0.00
59 Phenanthrene-d10	18.63	18.13	19.13	18.63	0.00
69 Chrysene-d12	23.71	23.21	24.21	23.71	0.00
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

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

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Client SDG:
Sample Matrix: NONE
Fraction: SV
Lab Smp Id: ICV-5
Level:
Operator: VTS/YZ
Data Type: MS DATA
SampleType: LCS
SpikeList File: ICV.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

SPIKE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
3 Phenol	5.000	5.291	105.81	
4 Bis(2-Chloroethyl)	5.000	5.108	102.16	
6 2-Chlorophenol	5.000	5.131	102.62	
7 1,3-Dichlorobenzen	5.000	5.074	101.47	
9 1,4-Dichlorobenzen	5.000	4.953	99.06	
11 Benzyl alcohol	5.000	6.556	131.12*	
12 1,2-Dichlorobenzen	5.000	4.987	99.74	
13 2-Methylphenol	5.000	4.895	97.91	
14 2,2'-oxybis(1-Chlo	5.000	5.001	100.02	
15 4-Methylphenol	5.000	4.931	98.62	
16 N-Nitroso-di-n-pro	5.000	5.284	105.67	
17 Hexachloroethane	5.000	5.150	103.01	
19 Nitrobenzene	5.000	5.146	102.92	
20 Isophorone	5.000	5.065	101.29	
21 2-Nitrophenol	5.000	5.380	107.60	
22 2,4-Dimethylphenol	5.000	4.951	99.03	
23 Bis(2-Chloroethoxy	5.000	5.324	106.47	
24 Benzoic acid	10.00	8.449	84.49	
25 2,4-Dichlorophenol	5.000	5.477	109.55	
26 1,2,4-Trichloroben	5.000	5.009	100.18	
28 Naphthalene	5.000	5.823	116.45	
29 4-Chloroaniline	5.000	6.433	128.65	
30 Hexachlorobutadien	5.000	5.145	102.90	
31 4-Chloro-3-methylp	5.000	5.395	107.91	
32 2-Methylnaphthalen	5.000	5.978	119.57	
33 Hexachlorocyclopen	5.000	4.671	93.41	
34 2,4,6-Trichlorophe	5.000	5.307	106.15	
35 2,4,5-Trichlorophe	5.000	5.210	104.20	
37 2-Chloronaphthalen	5.000	5.325	106.49	
38 2-Nitroaniline	5.000	6.210	124.21	
39 Dimethylphthalate	5.000	5.191	103.81	
40 Acenaphthylene	5.000	5.979	119.59	
41 2,6-Dinitrotoluene	5.000	5.192	103.83	

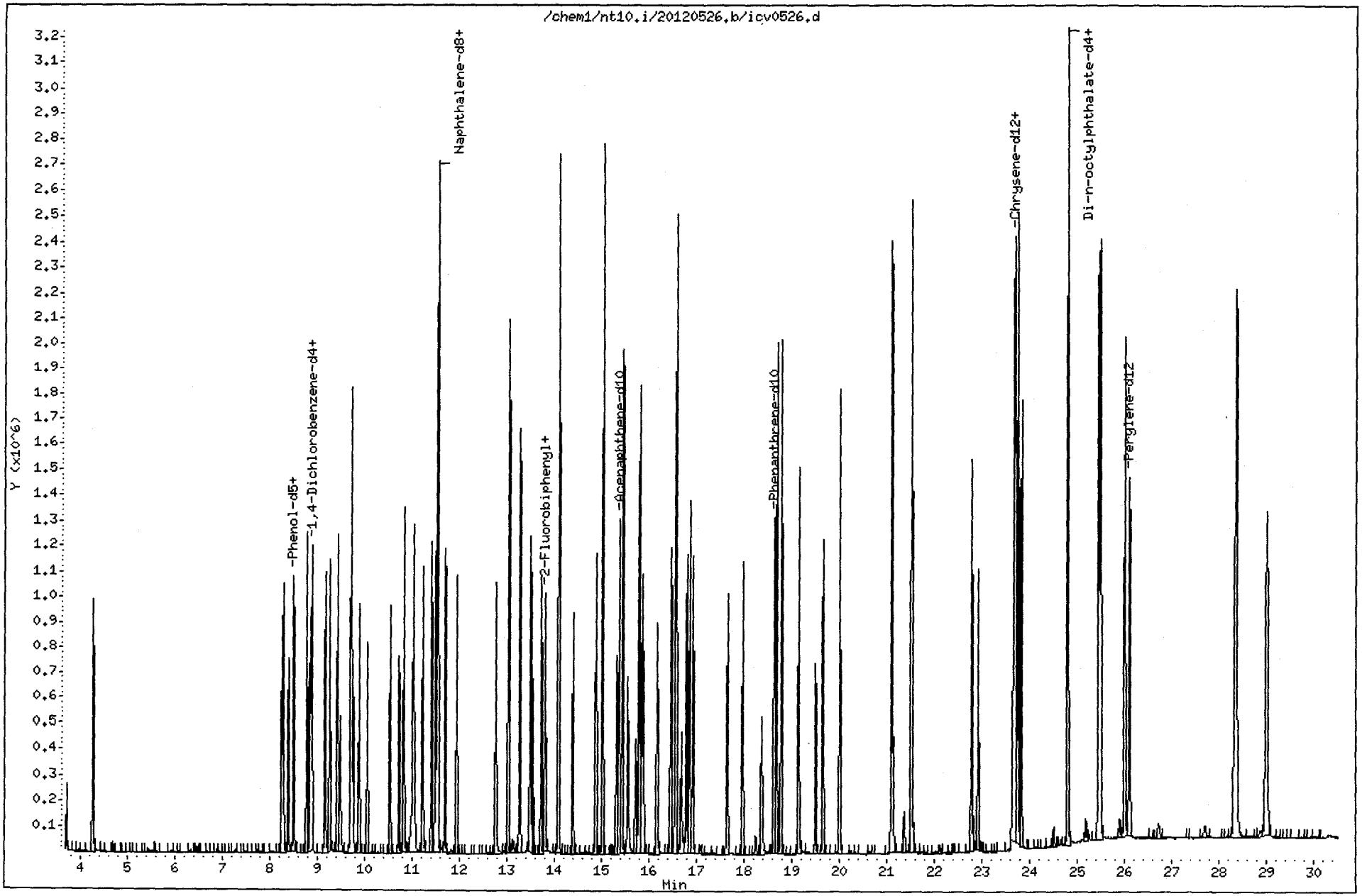
SPIKE	COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
43	3-Nitroaniline	5.000	5.883	117.66	
44	Acenaphthene	5.000	6.053	121.06	
45	2,4-Dinitrophenol	5.000	8.183	163.67*	
46	Dibenzofuran	5.000	5.942	118.85	
47	4-Nitrophenol	5.000	5.636	112.72	
48	2,4-Dinitrotoluene	5.000	5.325	106.51	
49	Fluorene	5.000	6.008	120.16	
50	Diethylphthalate	5.000	5.189	103.78	
51	4-Chlorophenyl-phe	5.000	5.340	106.80	
52	4-Nitroaniline	5.000	5.232	104.63	
53	4,6-Dinitro-2-meth	10.00	10.62	106.16	
54	N-Nitrosodiphenyla	5.000	5.214	104.28	
56	4-Bromophenyl-phen	5.000	5.263	105.26	
57	Hexachlorobenzene	5.000	5.065	101.29	
58	Pentachlorophenol	5.000	4.567	91.34	
60	Phenanthrene	5.000	6.096	121.91	
61	Anthracene	5.000	6.110	122.20	
62	Carbazole	5.000	4.917	98.35	
63	Di-n-butylphthalat	5.000	5.577	111.54	
64	Fluoranthene	5.000	6.115	122.31	
65	Pyrene	5.000	5.861	117.22	
67	Butylbenzylphthala	5.000	5.216	104.32	
68	Benzo(a)anthracene	5.000	5.846	116.92	
70	3,3'-Dichlorobenzi	5.000	3.110	62.21*	
71	Chrysene	5.000	5.893	117.86	
72	bis(2-Ethylhexyl)p	5.000	5.062	101.24	
73	Di-n-octylphthalat	5.000	5.368	107.36	
74	Benzo(b)fluoranthe	5.000	6.202	124.04	
75	Benzo(k)fluoranthe	5.000	5.908	118.17	
187	Total Benzofluoran	10.00	12.15	121.46	
76	Benzo(a)pyrene	5.000	5.958	119.16	
78	Indeno(1,2,3-cd)py	5.000	6.238	124.76	
79	Dibenzo(a,h)anthra	5.000	6.316	126.32	
80	Benzo(g,h,i)peryle	5.000	6.244	124.87	
90	N-Nitrosodimethyla	5.000	5.223	104.45	
103	Pyridine	10.00	9.643	96.43	
91	Aniline	5.000	2.698	53.96*	
105	1-methylnaphthalen	5.000	4.327	86.54	
93	Benzidine	5.000	1.300	26.00*	
111	Azobenzene (1,2-DP	5.000	5.129	102.58	
143	1,4-Dioxane	5.000	0.000	*	
144	alpha-Terpineol	5.000	0.000	*	
177	p-Benzoquinone	5.000	0.000	*	
98	Retene	5.000	0.000	*	
133	Butylatedhydroxyt	5.000	0.000	*	
115	Tributyl Phosphate	5.000	0.000	*	
116	Dibutyl Phenyl Ph	5.000	0.000	*	

Data File: /chem1/nt10.i/20120526.b/icv0526.d
Date : 26-MAY-2012 15:19
Client ID:
Sample Info: ICV-5

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - icv0526.d

Lab ID: ICV-5, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS
15.032	Acenaphthylene and 2,6-Dinitrotoluene
26.002	~~Perylene~~ and Benzo(a)pyrene

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

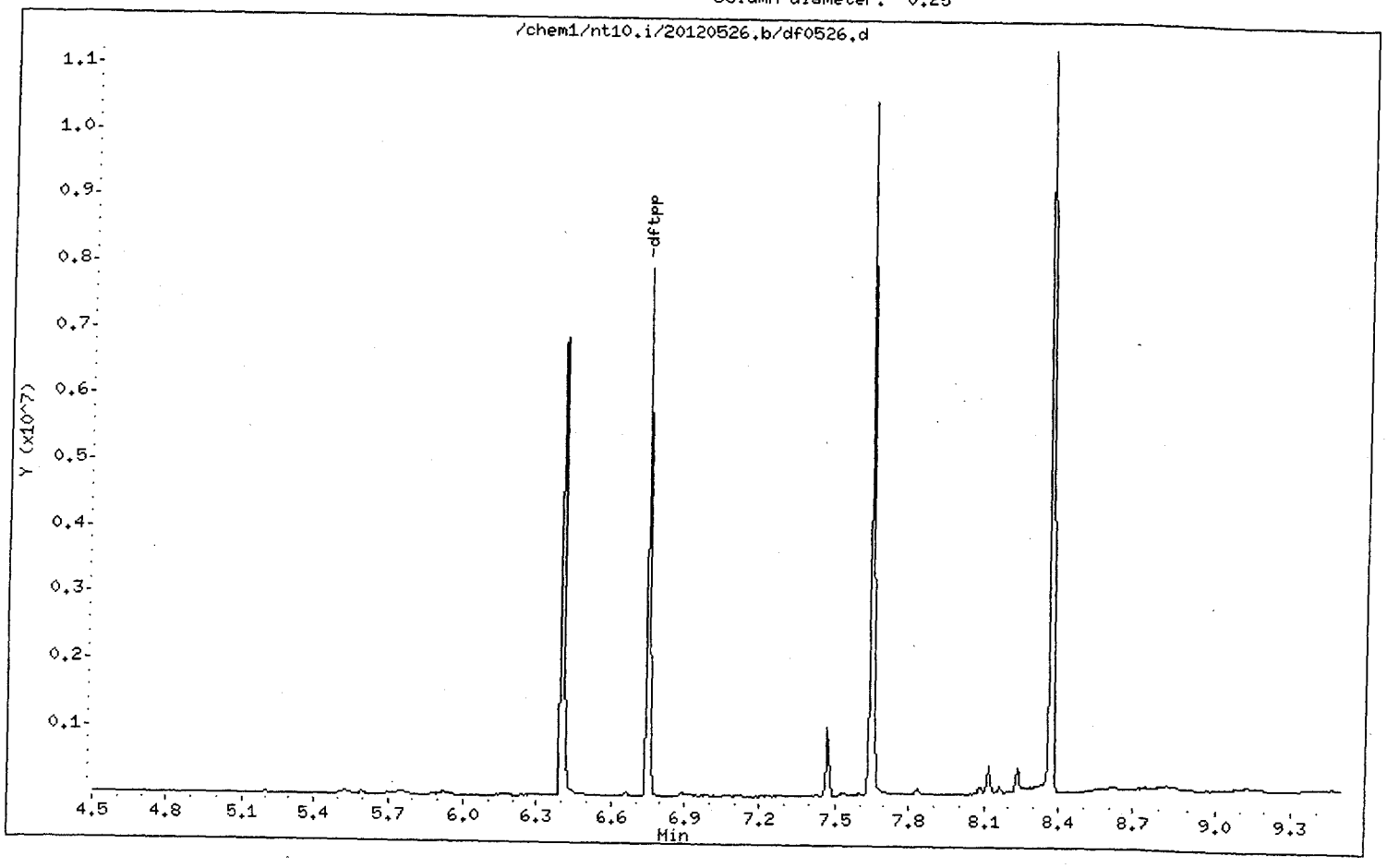
Sample Info: DFTPP

Instrument: nt10.i

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

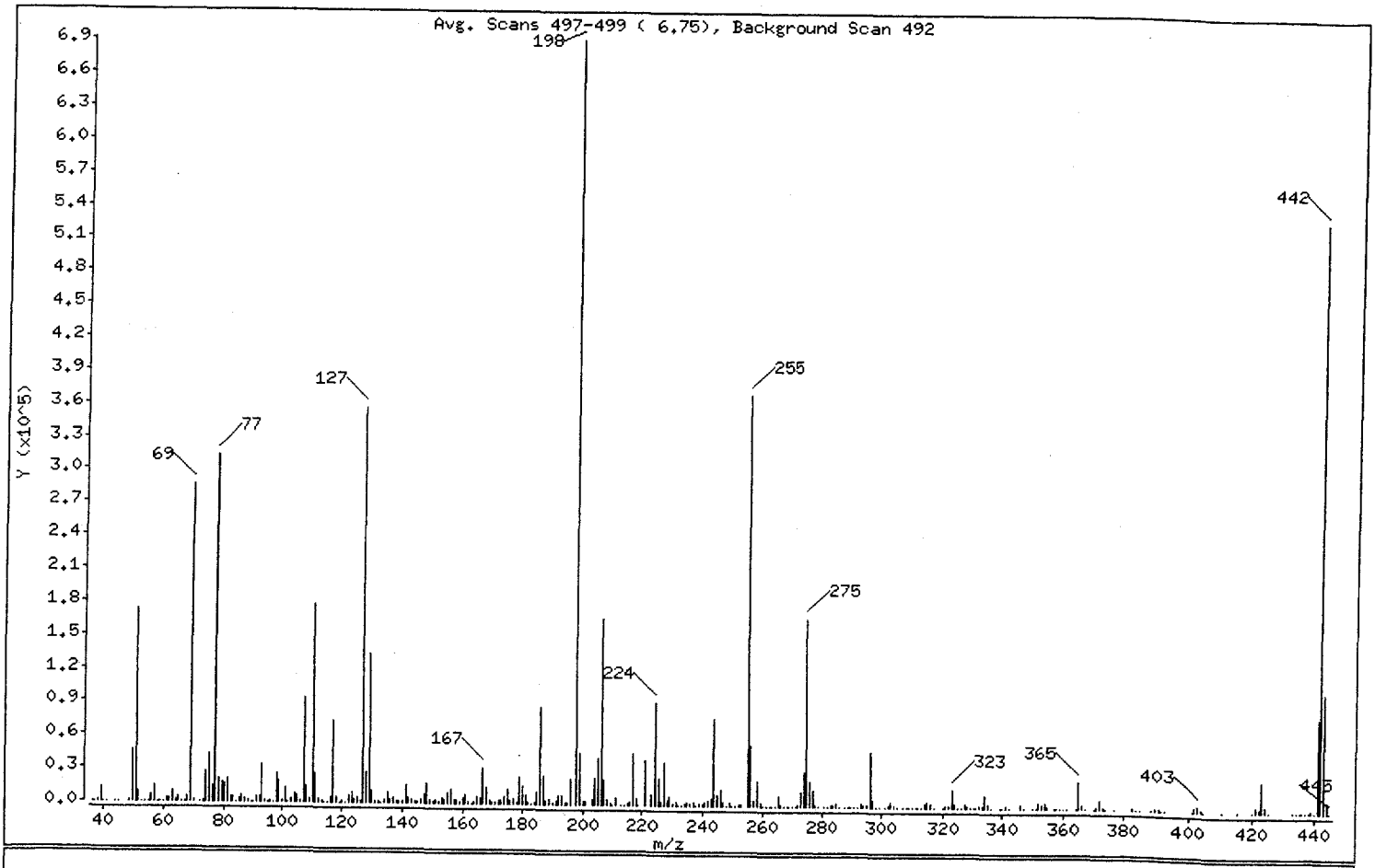
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	25.07
68	Less than 2.00% of mass 69	0.60 (1.45)
69	Mass 69 relative abundance	41.32
70	Less than 2.00% of mass 69	0.16 (0.40)
127	10.00 - 80.00% of mass 198	51.51
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 60.00% of mass 198	24.35
365	Greater than 1.00% of mass 198	3.46
441	0.01 - 24.00% of mass 442	12.16 (15.78)
442	50.00 - 200.00% of mass 198	77.09
443	15.00 - 24.00% of mass 442	15.36 (19.93)

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d

Spectrum: Avg. Scans 497-499 (6.75), Background Scan 492

Location of Maximum: 198.00

Number of points: 344

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	26	129.00	133888	219.00	609	313.00	521
37.00	738	130.00	10870	221.00	40088	314.00	2625
38.00	2259	131.00	2053	223.00	10237	315.00	5121
39.00	13341	132.00	1262	224.00	92880	316.00	2893
40.00	569	133.00	466	225.00	23296	317.00	637
41.00	216	134.00	3414	226.00	2573	320.00	235
44.00	149	135.00	9909	227.00	38288	321.00	1663
45.00	367	136.00	3935	228.00	5304	322.00	1109
49.00	1189	137.00	4873	229.00	7998	323.00	15465
50.00	46176	138.00	1128	230.00	1358	324.00	2751
51.00	173504	139.00	805	231.00	3474	325.00	323
52.00	9398	140.00	1603	232.00	716	326.00	455
53.00	300	141.00	15489	233.00	661	327.00	3101
54.00	229	142.00	5414	234.00	2342	328.00	1494
55.00	448	143.00	3720	235.00	2777	329.00	370
56.00	6014	144.00	1136	236.00	2141	330.00	56
57.00	13761	145.00	942	237.00	3010	331.00	197
58.00	408	146.00	2786	238.00	564	332.00	1250
59.00	179	147.00	8163	239.00	1494	333.00	1705
60.00	272	148.00	18016	240.00	1176	334.00	10488
61.00	2630	149.00	3469	241.00	2531	335.00	2517
62.00	3433	150.00	842	242.00	5295	336.00	303
63.00	9251	151.00	2529	243.00	6077	339.00	186
64.00	1297	152.00	1040	244.00	78016	340.00	284
65.00	4742	153.00	4885	245.00	9692	341.00	2021
66.00	167	154.00	3744	246.00	14024	342.00	519
67.00	487	155.00	9049	247.00	2921	346.00	3558
68.00	4159	156.00	13247	248.00	765	347.00	600
69.00	285952	157.00	2827	249.00	2660	350.00	271
70.00	1139	158.00	2845	250.00	607	351.00	343
72.00	190	159.00	2353	251.00	678	352.00	4486
73.00	1995	160.00	5145	252.00	867	353.00	3227
74.00	27632	161.00	7274	253.00	1909	354.00	4155
75.00	43448	162.00	2140	255.00	370304	355.00	808
76.00	14823	163.00	679	256.00	54880	357.00	121

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d

Spectrum: Avg. Scans 497-499 (6.75), Background Scan 492

Location of Maximum: 198.00

Number of points: 344

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	313792	164.00	1059	257.00	4329	358.00	52
78.00	20888	165.00	5892	258.00	21480	359.00	426
79.00	18144	166.00	5005	259.00	3568	360.00	59
80.00	15251	167.00	32544	260.00	602	361.00	119
81.00	20912	168.00	13737	261.00	620	364.00	104
82.00	5239	169.00	2539	262.00	127	365.00	23944
83.00	4808	170.00	1075	263.00	188	366.00	3294
84.00	129	171.00	1308	264.00	584	367.00	152
85.00	3163	172.00	2874	265.00	8905	370.00	494
86.00	5793	173.00	3665	266.00	1076	371.00	1374
87.00	2776	174.00	6643	267.00	74	372.00	7891
88.00	1151	175.00	12622	268.00	51	373.00	1946
89.00	520	176.00	3756	269.00	229	374.00	236
90.00	65	177.00	5429	270.00	372	377.00	229
91.00	4623	178.00	1805	271.00	793	383.00	2132
92.00	5132	179.00	23488	272.00	1269	384.00	670
93.00	33360	180.00	15572	273.00	12611	385.00	117
94.00	2216	181.00	7701	274.00	29880	389.00	52
95.00	380	182.00	1110	275.00	168512	390.00	1125
96.00	1107	183.00	491	276.00	22000	391.00	839
97.00	21	184.00	1883	277.00	13717	392.00	587
98.00	25000	185.00	11629	278.00	2058	393.00	55
99.00	19064	186.00	88272	279.00	511	401.00	443
100.00	1716	187.00	24768	281.00	116	402.00	2867
101.00	12840	188.00	2490	282.00	481	403.00	4359
102.00	537	189.00	5139	283.00	1659	404.00	1567
103.00	3931	190.00	951	284.00	1165	405.00	170
104.00	7795	191.00	2619	285.00	2561	410.00	58
105.00	6943	192.00	7480	286.00	616	415.00	299
106.00	2109	193.00	8529	288.00	167	420.00	73
107.00	94312	194.00	1572	289.00	565	421.00	4081
108.00	14776	195.00	1022	290.00	563	422.00	3772
109.00	2699	196.00	22624	291.00	337	423.00	27824
110.00	178432	198.00	692096	292.00	692	424.00	5405
111.00	26104	199.00	46376	293.00	3255	425.00	517

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d

Spectrum: Avg. Scans 497-499 (6.75), Background Scan 492

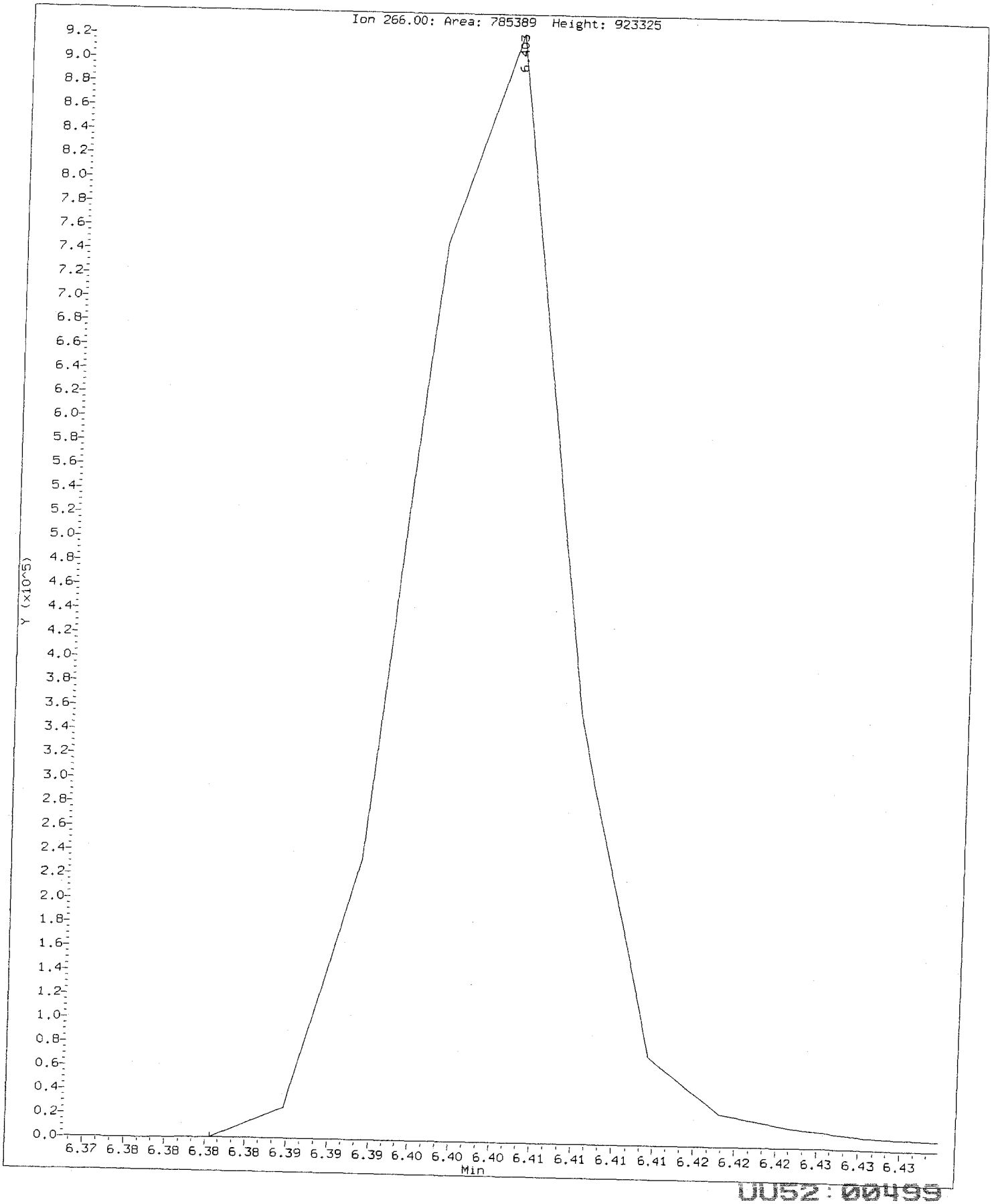
Location of Maximum: 198.00

Number of points: 344

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	2941	200.00	3155	294.00	851	433.00	182
113.00	925	201.00	3528	295.00	1364	434.00	330
114.00	293	203.00	4862	296.00	49064	435.00	384
115.00	582	204.00	24424	297.00	6873	436.00	524
116.00	4751	205.00	40776	298.00	480	437.00	742
117.00	73120	206.00	166848	299.00	121	438.00	378
118.00	5224	207.00	21712	301.00	760	439.00	1052
119.00	711	208.00	5262	302.00	851	440.00	757
120.00	1191	209.00	1631	303.00	5451	441.00	84168
121.00	537	210.00	634	304.00	1399	442.00	533504
122.00	5952	211.00	6697	305.00	61	443.00	106320
123.00	9239	213.00	451	307.00	73	444.00	9542
124.00	3620	214.00	166	308.00	672	445.00	638
125.00	4068	215.00	1855	309.00	579		
126.00	1464	216.00	3870	310.00	726		
127.00	356480	217.00	45744	311.00	93		
128.00	26776	218.00	5952	312.00	210		

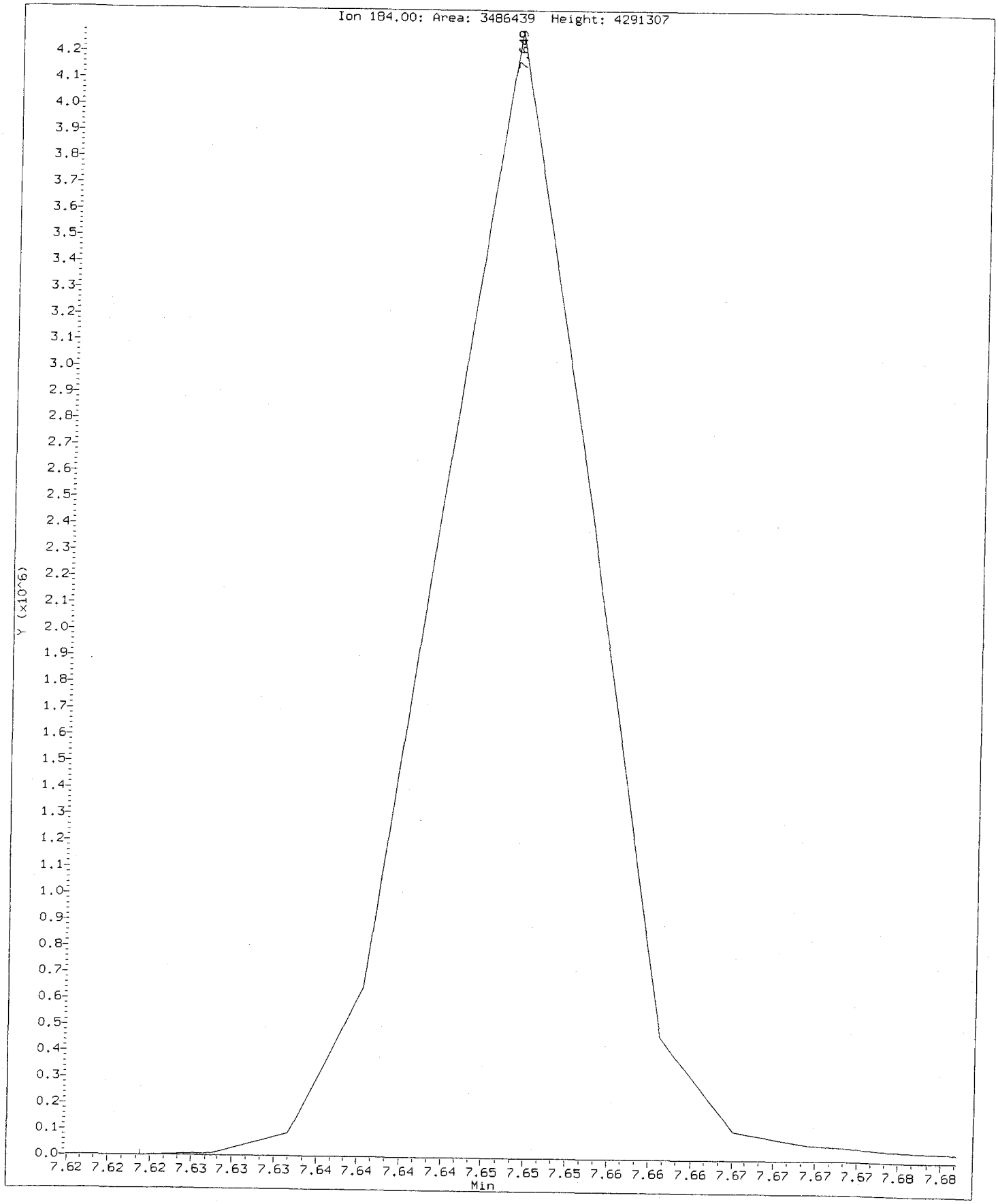
Data File: /chem1/nt10.i/20120526.b/ddt.b/df0526.d
Injection Date: 26-MAY-2012 10:44
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20120526.b/ddt.b/df0526.d
Injection Date: 26-MAY-2012 10:44
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20120526.b/ddt.b/df0526.d
Method: /chem1/nt10.i/20120526.b/ddt.b/sw846ddt.m
Analysis Date: 26-MAY-2012 10:44

ARI ID: DFTPP
Misc: 11-
Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.403	785389
Benzidine	7.649	3486439
4,4'-DDE	7.831	8080
4,4'-DDD	8.120	77952
4,4'-DDT	8.371	1823281

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 8080 + 77952) * 100}{(\ 8080 + 77952 + 1823281)}$$

DDT Percent Breakdown = 4.5 %

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS,SVOA Initial Calibration Notes

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Instrument: NT-4 (NT-6) NT-8 NT-10 NT11 NT12

Curve Date(s): 5/23/12 Internal Standard ID 1874-1 Expiration 7/16/12

DFTPP Tune Meets Criteria?	(YES) / NO	Minimum Response Factors Met/	(YES) / NO
DDT Breakdown <20%?	(YES) / NO	ICV Exceeding ±20%?	YES / (NO)
Peak Tailing Factor ≤2?	(YES) / NO	ICV Exceeding ±30%?	(YES) / NO
ICal Meets %RSD & r^2 Criteria?	(YES) / NO	Linear Fits Used?	(YES) / NO
Q flag applied?	YES / (NO) (NA)	Quadratic Fits Used?	(YES) / NO
Manual Integrations for ICal?	(YES) / NO	Calibration Points Dropped?	(YES) / NO
Spectral Library Updated?	(YES) / NO		

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Ultra	1932-2	7/6/12	ReTek	1972-2	11/7/12
↓	1940-1	7/27/12	↓	1973-2	↓
↓	1941-1	7/27/12	↓	1974-1	↓
in house stock	1947-1	7/27/12	in house stock	1947-1	7/27/12
Cambridge	1644	12/7/12	Cambridge	1644	12/12/12
in house stock	1934-1	7/5/12	in house stock	1934-1	7/5/12
in house stock	1939-3	7/4/12	in house stock	1939-3	7/4/12

Detail problems, corrective actions and/or other pertinent information below:

1) first point dropped: P-Benzoquinone, Benzoic Acid, Hexachlorocyclopentadiene, 2,4-Dinitrophenol, 4-Nitrophenol, 4,6-Dinitro-2-methylphenol Pentachlorophenol. Benzidine. (< RL)
2) highest point dropped. Acenaphthene
3) linear fit used: Benzoic Acid. 4-Nitrophenol
4) Quadratic fit used: 2,4-Dinitrophenol, Pentachlorophenol
5) out of QC: Benzidine ICV: Pentachlorophenol recovery @ 62.4%

Analyst: _____ **Date:** 05/24/12

Reviewer: BB **Date:** 5/24/12

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Calibration File Names:
Level 1: /chem2/nt6.i/20120523.b/05231208.D
Level 2: /chem2/nt6.i/20120523.b/05231203.D
Level 3: /chem2/nt6.i/20120523.b/05231204.D
Level 4: /chem2/nt6.i/20120523.b/05231201.D
Level 5: /chem2/nt6.i/20120523.b/05231205.D
Level 6: /chem2/nt6.i/20120523.b/05231206.D
Level 7: /chem2/nt6.i/20120523.b/05231207.D

05/24/12

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7							
186 Carbaryl	0.46950	0.42243	0.46109	0.49745	0.53299	0.53003		
	0.47576						0.48418	8.128
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7							
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
177 p-Benzoquinone	+++++	0.04373	0.05055	0.05531	0.06435	0.06137		
	0.05395						0.05488	13.536
168 Pentachlorobenzene	0.52732	0.54115	0.53345	0.47304	0.54899	0.52254		
	0.48440						0.51870	5.560
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Butylatedhydroxytoluene	0.86563	0.81023	0.78080	0.73108	0.79563	0.78377	0.69753	0.78067	6.957
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 alpha-Terpineol	0.19827	0.20423	0.19388	0.17728	0.20427	0.18970	0.17712	0.19211	5.959
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 Acetophenone	1.54576	1.59930	1.59162	1.48273	1.69950	1.57969	1.46424	1.56612	5.046
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 1,4-Dioxane	0.40017	0.43500	0.42326	0.39836	0.43319	0.44257	0.40323	0.41940	4.418
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2,3,4,6-Tetrachlorophenol	0.22434	0.24497	0.27459	0.28797	0.31371	0.32787	0.30877	0.28317	13.373

Analytical Resources, Inc.

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Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
178 2-Benzyl-4-Chlorophenol	0.16663	0.20991	0.21213	0.20331	0.23946	0.24309	0.22648	0.21443	12.082
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Triphenyl Phosphate	0.22170	0.23708	0.22956	0.21333	0.25414	0.24165	0.22320	0.23152	5.968
117 Butyl Diphenyl Phosphate	0.10893	0.12584	0.12096	0.11110	0.13284	0.12550	0.11660	0.12025	7.145
116 Dibutyl Phenyl Phosphate	0.45619	0.49578	0.48610	0.44083	0.51396	0.50070	0.46004	0.47909	5.628
115 Tributyl Phosphate	0.59163	0.65651	0.62577	0.55218	0.62792	0.58310	0.51320	0.59290	8.280
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Diphenyl Oxide	0.74844	0.80615	0.73863	0.65689	0.76636	0.72227	0.68305	0.73168	6.862
112 Biphenyl	1.21605	1.28175	1.19808	1.02414	1.13029	1.02190	0.94279	1.11643	11.074

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
111 Azobenzene (1,2-DP-Hydrazine)	0.94504	0.99949	0.98658	0.88434	0.96467	0.93596	0.83714	0.93617	6.157
110 Tetrachloroguaiacol	0.09149	0.13114	0.13285	0.12932	0.15348	0.14814	0.14001	0.13235	15.222
109 3,4,5-Trichloroguaiacol	0.11113	0.14446	0.13562	0.12207	0.14057	0.13717	0.13010	0.13159	8.803
181 3,4,6-Trichloroguaiacol	0.48187	0.60208	0.57213	0.53194	0.64447	0.58383	0.59579	0.57316	9.172
108 4,5,6-Trichloroguaiacol	0.19402	0.23701	0.22039	0.19065	0.22179	0.23854	0.22476	0.21817	8.720
184 3,4-Dichloroguaiacol	0.43499	0.54329	0.51665	0.49002	0.56601	0.51020	0.50225	0.50906	8.166
107 4,5-Dichloroguaiacol	0.25984	0.31329	0.29351	0.25553	0.28797	0.28676	0.26791	0.28069	7.341
182 4,6-Dichloroguaiacol	0.59178	0.69377	0.65539	0.59720	0.70601	0.61673	0.59733	0.63689	7.567
185 4-Chloroguaiacol	0.43952	0.51354	0.49135	0.46976	0.55788	0.48049	0.49993	0.49321	7.513

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
106 Guaiacol	0.98433	1.03539	0.99268	0.94677	1.09868	1.04134	0.97686	1.01087	5.035
105 1-methylnaphthalene	0.53141	0.53308	0.49711	0.44508	0.50623	0.46253	0.42367	0.48559	8.786
151 1,2,4,5-Tetrachlorobenzene	0.55383	0.56438	0.55319	0.49278	0.55838	0.56850	0.51039	0.54306	5.395
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

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Quant Method : ISTD
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Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Phenol	1.92993	1.62487	1.58215	1.65615	1.72984	1.59809	1.46984	1.65584	8.714
4 Bis(2-Chloroethyl)ether	1.13762	1.12021	1.16884	1.10675	1.25030	1.17611	1.08900	1.14983	4.727
6 2-Chlorophenol	1.79852	1.49416	1.43286	1.49085	1.55701	1.46464	1.34280	1.51155	9.434
7 1,3-Dichlorobenzene	1.59595	1.58123	1.58596	1.46286	1.64635	1.55763	1.41736	1.54962	5.197
9 1,4-Dichlorobenzene	1.59602	1.62198	1.57342	1.47047	1.63146	1.54728	1.40058	1.54874	5.474
11 Benzyl alcohol	0.59418	0.88976	0.87732	0.83934	1.00640	0.94399	0.90161	0.86466	15.104
12 1,2-Dichlorobenzene	1.51205	1.51784	1.50187	1.41416	1.58130	1.49221	1.35855	1.48257	4.956
13 2-Methylphenol	1.45829	1.21832	1.19364	1.24491	1.33301	1.23914	1.15706	1.26348	8.043

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	___ RRF	% RSD
14 2,2'-oxybis(1-Chloropropane)	1.33225	1.34383	1.30332	1.21652	1.37390	1.27718	1.18052	1.28965	5.432
15 4-Methylphenol	1.39090	1.27057	1.25476	1.31867	1.40141	1.29508	1.20142	1.30469	5.544
16 N-Nitroso-di-n-propylamine	0.76694	0.78778	0.77892	0.72821	0.85350	0.78416	0.73578	0.77647	5.311
17 Hexachloroethane	0.53543	0.54778	0.54927	0.52465	0.59688	0.58356	0.54507	0.55466	4.688
19 Nitrobenzene	0.32645	0.34107	0.33464	0.31609	0.35100	0.33242	0.30517	0.32955	4.655
20 Isophorone	0.48783	0.50562	0.49353	0.45825	0.51596	0.48331	0.44881	0.48476	4.977
21 2-Nitrophenol	0.25611	0.22424	0.21701	0.23307	0.24206	0.23259	0.21855	0.23195	5.968
22 2,4-Dimethylphenol	0.38221	0.34106	0.33424	0.35265	0.36378	0.34161	0.31403	0.34708	6.298
23 Bis(2-Chloroethoxy)methane	0.36192	0.37782	0.37158	0.34727	0.38734	0.36293	0.33583	0.36353	4.857

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD	
24 Benzoic acid	+++++	0.12242	0.14609	0.19379	0.22838	0.21826	0.21184	0.18679	22.959	<-
25 2,4-Dichlorophenol	0.34552	0.33495	0.33539	0.35612	0.36847	0.34630	0.31905	0.34369	4.648	
26 1,2,4-Trichlorobenzene	0.37969	0.37905	0.37271	0.34903	0.39234	0.37083	0.34005	0.36910	4.964	
28 Naphthalene	1.16662	1.18044	1.13660	0.98989	1.00922	0.88046	0.75453	1.01682	15.639	
29 4-Chloroaniline	0.47200	0.51712	0.49305	0.46256	0.49132	0.44412	0.40674	0.46956	7.745	
30 Hexachlorobutadiene	0.23182	0.22869	0.22528	0.21331	0.23839	0.22744	0.21270	0.22538	4.181	
31 4-Chloro-3-methylphenol	0.27431	0.25607	0.27013	0.29350	0.30742	0.26749	0.25492	0.27483	7.023	
32 2-Methylnaphthalene	0.68207	0.70914	0.66671	0.59638	0.65732	0.58857	0.52444	0.63209	10.218	
33 Hexachlorocyclopentadiene	+++++	0.21941	0.28311	0.30684	0.37121	0.37521	0.33512	0.31515	18.724	

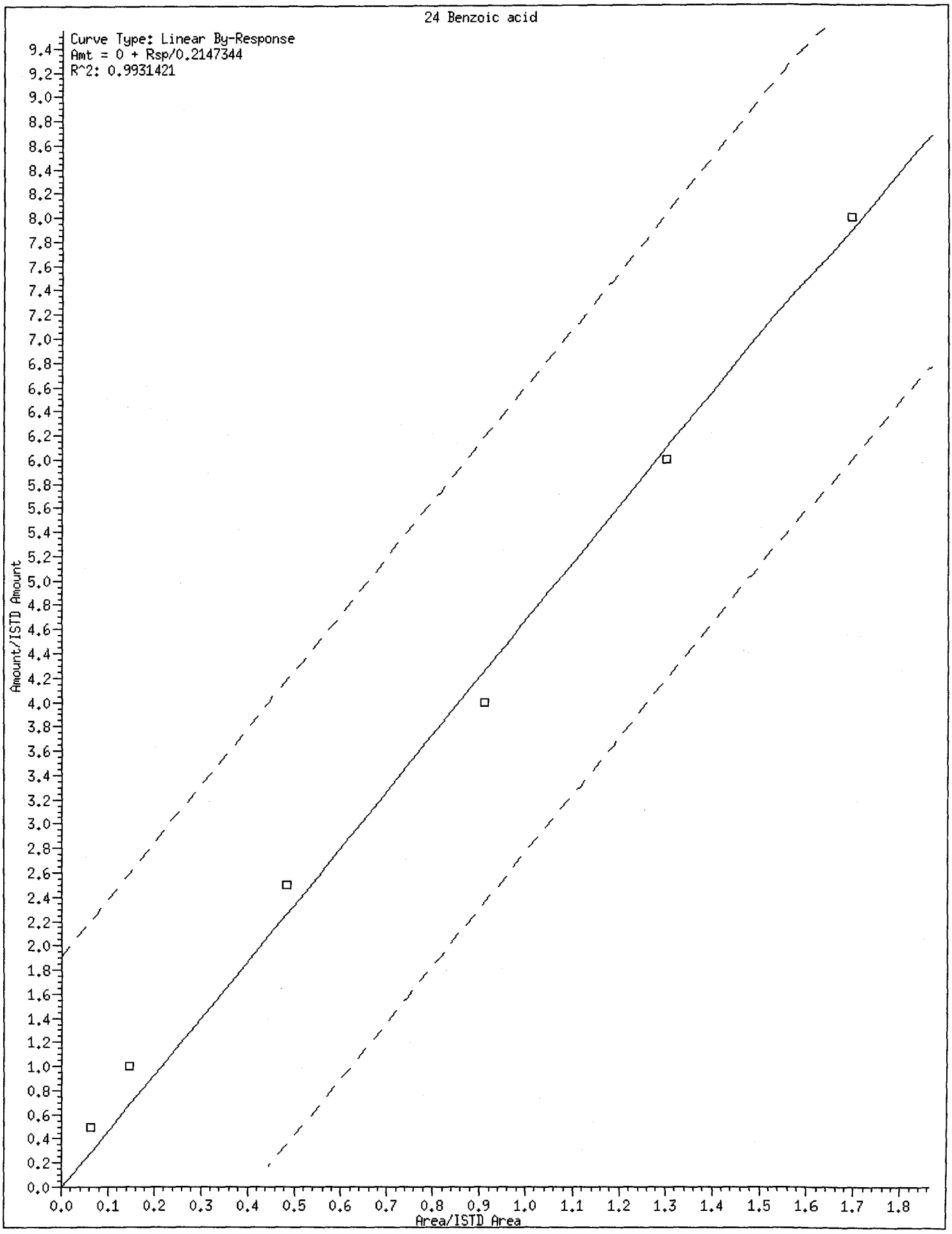
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing

05/24/12

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7										
23 Bis(2-Chloroethoxy)methane	0.36192	0.37782	0.37158	0.34727	0.38734	0.36293					
	0.33583						AVRG		0.36353		4.85707
24 Benzoic acid	+++++	180212	446422	1661998	2853914	3886060					
	5209192						LINR	0.000e+00	0.21473		0.99314
25 2,4-Dichlorophenol	0.34552	0.33495	0.33539	0.35612	0.36847	0.34630					
	0.31905						AVRG		0.34369		4.64801
26 1,2,4-Trichlorobenzene	0.37969	0.37905	0.37271	0.34903	0.39234	0.37083					
	0.34005						AVRG		0.36910		4.96380
28 Naphthalene	1.16662	1.18044	1.13660	0.98989	1.00922	0.88046					
	0.75453						AVRG		1.01682		15.63932
29 4-Chloroaniline	0.47200	0.51712	0.49305	0.46256	0.49132	0.44412					
	0.40674						AVRG		0.46956		7.74533
30 Hexachlorobutadiene	0.23182	0.22869	0.22528	0.21331	0.23839	0.22744					
	0.21270						AVRG		0.22538		4.18053


24 Benzoic acid
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.2147344
R^2: 0.9931421
Amount/ISTD Amount
Area/ISTD Area

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7							
34 2,4,6-Trichlorophenol	0.40976	0.37616	0.37678	0.40467	0.43617	0.44071		
	0.42589						0.41002	6.421
35 2,4,5-Trichlorophenol	0.32989	0.37587	0.37262	0.42219	0.44166	0.43089		
	0.39957						0.39610	9.952
37 2-Chloronaphthalene	1.07746	1.10551	1.09648	0.97141	1.07501	1.06718		
	0.91502						1.04401	6.892
38 2-Nitroaniline	0.17914	0.28077	0.28056	0.24170	0.27939	0.27473		
	0.25786						0.25631	14.450
39 Dimethylphthalate	1.12332	1.18336	1.14162	0.95371	1.06114	1.03279		
	0.92331						1.05989	9.165
40 Acenaphthylene	1.80859	1.90384	1.84837	1.51741	1.63487	1.43335		
	1.28874						1.63360	14.188
41 2,6-Dinitrotoluene	0.23083	0.27405	0.27496	0.24089	0.27628	0.27802		
	0.26043						0.26221	7.291
43 3-Nitroaniline	0.26276	0.34815	0.34126	0.29322	0.30796	0.29118		
	0.25516						0.29996	11.869
44 Acenaphthene	1.15555	1.19475	1.16257	0.97821	1.06233	1.02276		
	+++++						1.09603	7.965

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	80.000 Level 7	RRF	% RSD	
45 2,4-Dinitrophenol	+++++	0.03261	0.07992	0.14373	0.17354	0.19720	0.19187	0.13648	48.791	<-
46 Dibenzofuran	1.74589	1.84329	1.71964	1.38960	1.48096	1.37073	1.19695	1.53529	15.481	
47 4-Nitrophenol	+++++	0.06240	0.07800	0.09051	0.10226	0.11191	0.10426	0.09156	20.289	<-
48 2,4-Dinitrotoluene	0.26774	0.34924	0.35502	0.31303	0.35994	0.37177	0.34861	0.33791	10.608	
49 Fluorene	1.29581	1.40825	1.36934	1.15829	1.25583	1.18902	1.03386	1.24434	10.377	
50 Diethylphthalate	1.08145	1.11962	1.08409	0.89709	1.00368	0.99525	0.88702	1.00974	9.107	
51 4-Chlorophenyl-phenylether	0.62864	0.64262	0.63267	0.54965	0.62993	0.61708	0.57151	0.61030	5.792	
52 4-Nitroaniline	0.23247	0.31063	0.28777	0.25425	0.29211	0.30866	0.28988	0.28225	10.177	
53 4,6-Dinitro-2-methylphenol	+++++	0.11147	0.13071	0.15115	0.16092	0.15996	0.15087	0.14418	13.426	

Analytical Resources, Inc.

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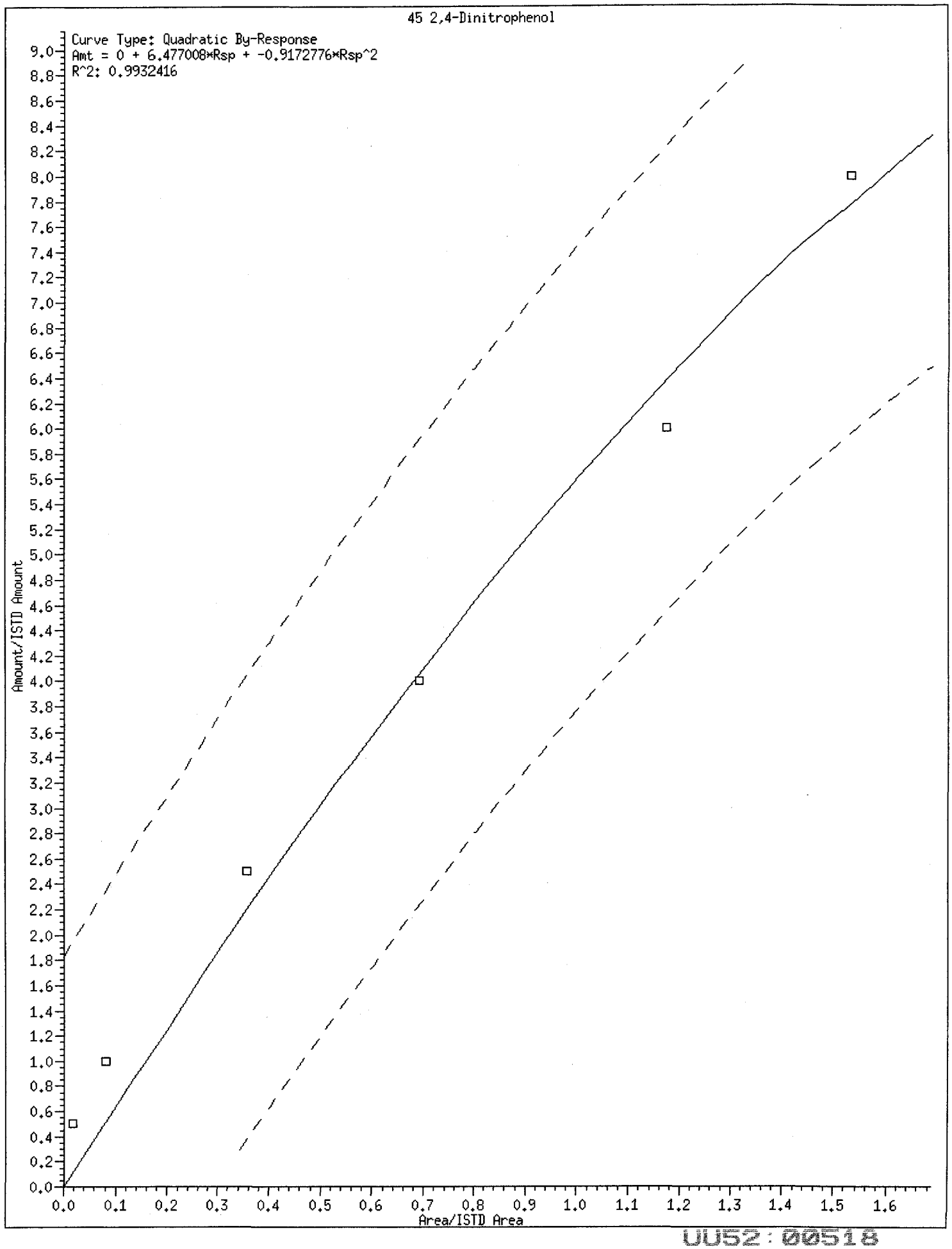
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing

D 05/24/12

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	80 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
39 Dimethylphthalate	1.12332	1.18336	1.14162	0.95371	1.06114	1.03279	0.92331	AVRG		1.05989		9.16459
40 Acenaphthylene	1.80859	1.90384	1.84837	1.51741	1.63487	1.43335	1.28874	AVRG		1.63360		14.18782
41 2,6-Dinitrotoluene	0.23083	0.27405	0.27496	0.24089	0.27628	0.27802	0.26043	AVRG		0.26221		7.29085
43 3-Nitroaniline	0.26276	0.34815	0.34126	0.29322	0.30796	0.29118	0.25516	AVRG		0.29996		11.86906
44 Acenaphthene	1.15555	1.19475	1.16257	0.97821	1.06233	1.02276	+++++	AVRG		1.09603		7.96460
45 2,4-Dinitrophenol	+++++	30032	153493	811764	1428791	2115908	2924612	QUAD	0.000e+00	6.47701	-0.91728	0.99324
46 Dibenzofuran	1.74589	1.84329	1.71964	1.38960	1.48096	1.37073	1.19695	AVRG		1.53529		15.48073


45 2,4-Dinitrophenol
Curve Type: Quadratic By-Response
Amt = 0 + 6.477008*Rsp + -0.9172776*Rsp^2
R^2: 0.9932416
Amount/ISTD Amount
Area/ISTD Area
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2 4.4 4.6 4.8 5.0 5.2 5.4 5.6 5.8 6.0 6.2 6.4 6.6 6.8 7.0 7.2 7.4 7.6 7.8 8.0 8.2 8.4 8.6 8.8 9.0
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

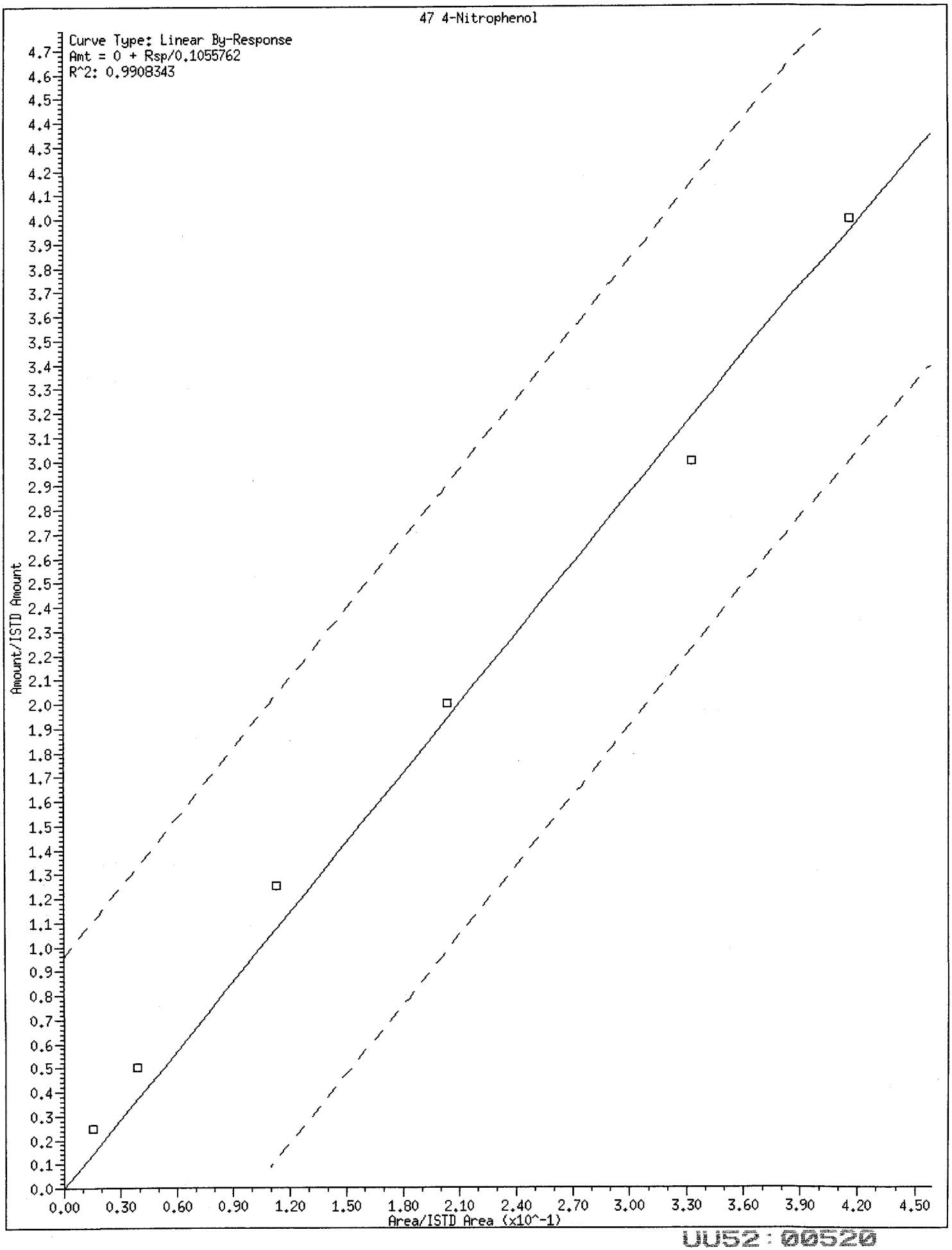
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing

5/24/12

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7										
47 4-Nitrophenol	+++++	28736	74902	255596	420980	600385					
	794628						LINR	0.000e+00	0.10558		0.99083
48 2,4-Dinitrotoluene	0.26774	0.34924	0.35502	0.31303	0.35994	0.37177					
	0.34861						AVRG		0.33791		10.60842
49 Fluorene	1.29581	1.40825	1.36934	1.15829	1.25583	1.18902					
	1.03386						AVRG		1.24434		10.37706
50 Diethylphthalate	1.08145	1.11962	1.08409	0.89709	1.00368	0.99525					
	0.88702						AVRG		1.00974		9.10745
51 4-Chlorophenyl-phenylether	0.62864	0.64262	0.63267	0.54965	0.62993	0.61708					
	0.57151						AVRG		0.61030		5.79156
52 4-Nitroaniline	0.23247	0.31063	0.28777	0.25425	0.29211	0.30866					
	0.28988						AVRG		0.28225		10.17657
53 4,6-Dinitro-2-methylphenol	+++++	0.11147	0.13071	0.15115	0.16092	0.15996					
	0.15087						AVRG		0.14418		13.42599


47 4-Nitrophenol
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.1055762
R^2: 0.9908343
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
3.6
3.7
3.8
3.9
4.0
4.1
4.2
4.3
4.4
4.5
4.6
4.7
0.00
0.30
0.60
0.90
1.20
1.50
1.80
2.10
2.40
2.70
3.00
3.30
3.60
3.90
4.20
4.50

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD	
	80.000 Level 7								
54 N-Nitrosodiphenylamine	0.50603	0.54286	0.54955	0.47562	0.53754	0.48438			
	0.43226						0.50404	8.515	
56 4-Bromophenyl-phenylether	0.25794	0.26608	0.26115	0.23208	0.27112	0.24654			
	0.23046						0.25220	6.421	
57 Hexachlorobenzene	0.32744	0.33011	0.32784	0.29142	0.33623	0.30836			
	0.28419						0.31508	6.540	
58 Pentachlorophenol	+++++	0.04738	0.06649	0.12319	0.14221	0.15459			
	0.14719						0.11351	40.030	<-
60 Phenanthrene	1.16316	1.22001	1.17881	0.99031	1.03862	0.90708			
	0.78046						1.03978	15.425	
61 Anthracene	1.15161	1.24102	1.20802	1.02069	1.06373	0.90965			
	0.75966						1.05063	16.340	
62 Carbazole	0.88223	0.93238	0.89150	0.76375	0.82373	0.76217			
	0.65329						0.81558	11.823	
63 Di-n-butylphthalate	1.03028	1.08687	1.08393	0.94874	0.99493	0.87853			
	0.72791						0.96446	13.258	
64 Fluoranthene	1.24687	1.27986	1.26062	1.08631	1.10729	0.98994			
	0.81640						1.11247	15.194	

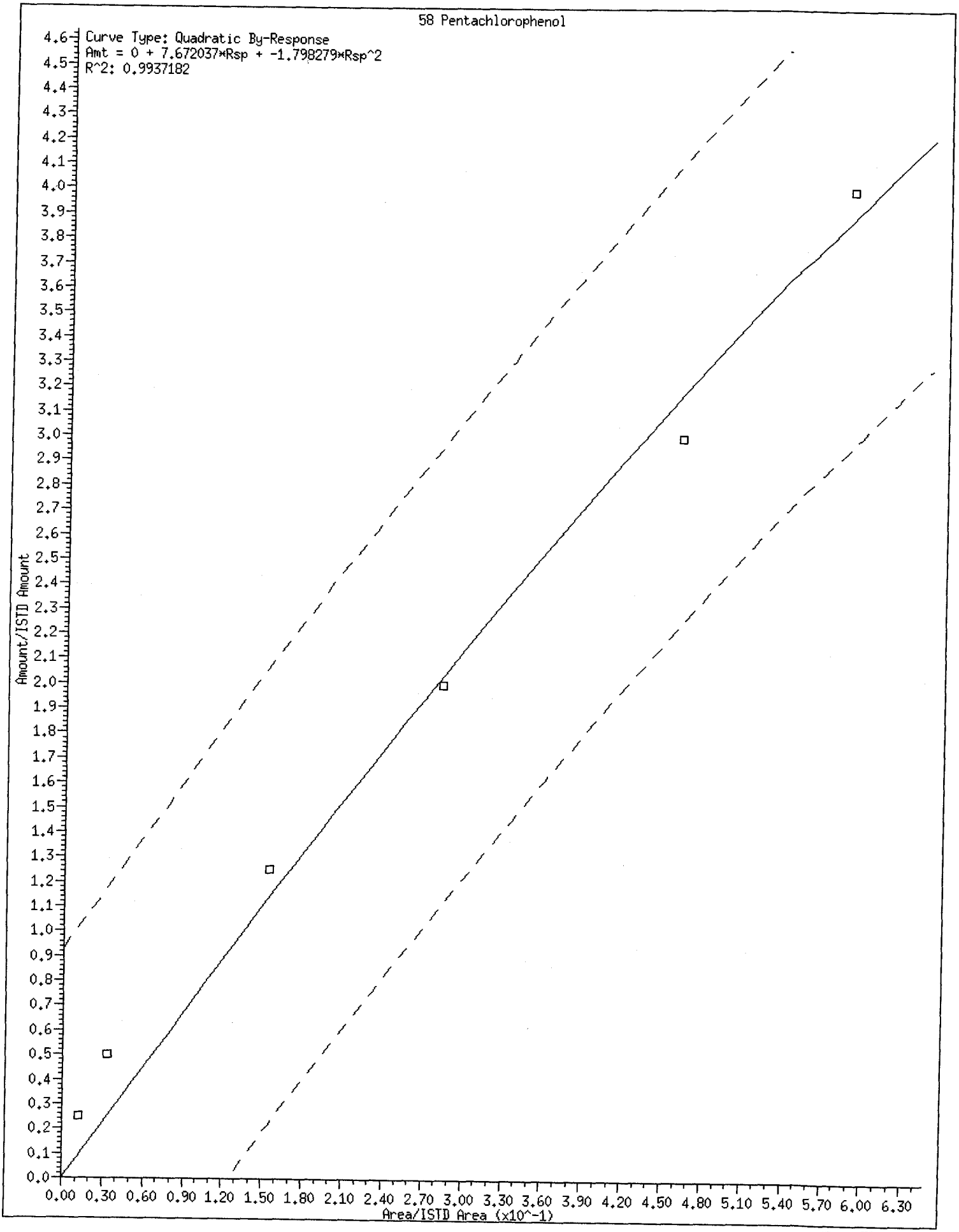
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing

D 05/24/12

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	80 Level 7											
54 N-Nitrosodiphenylamine	0.50603	0.54286	0.54955	0.47562	0.53754	0.48438						
	0.43226						AVRG		0.50404		8.51499	
56 4-Bromophenyl-phenylether	0.25794	0.26608	0.26115	0.23208	0.27112	0.24654						
	0.23046						AVRG		0.25220		6.42112	
57 Hexachlorobenzene	0.32744	0.33011	0.32784	0.29142	0.33623	0.30836						
	0.28419						AVRG		0.31508		6.54035	
58 Pentachlorophenol	+++++	34405	100161	530749	885434	1388607						
	1862334						QUAD	0.000e+00	7.67204	-1.79828	0.99372	<-
60 Phenanthrene	1.16316	1.22001	1.17881	0.99031	1.03862	0.90708						
	0.78046						AVRG		1.03978		15.42489	
61 Anthracene	1.15161	1.24102	1.20802	1.02069	1.06373	0.90965						
	0.75966						AVRG		1.05063		16.33985	
62 Carbazole	0.88223	0.93238	0.89150	0.76375	0.82373	0.76217						
	0.65329						AVRG		0.81558		11.82318	


58 Pentachlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 7.672037*Rsp + -1.798279*Rsp^2
R^2: 0.9937182
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6
0.00 0.30 0.60 0.90 1.20 1.50 1.80 2.10 2.40 2.70 3.00 3.30 3.60 3.90 4.20 4.50 4.80 5.10 5.40 5.70 6.00 6.30

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7							
65 Pyrene	1.17667	1.23169	1.20166	0.99269	1.04852	0.84932		
	0.72904						1.03280	18.395
67 Butylbenzylphthalate	0.36258	0.40812	0.41200	0.37216	0.43191	0.39789		
	0.36149						0.39231	6.963
68 Benzo(a)anthracene	1.10422	1.14968	1.12090	0.96113	1.03514	0.89686		
	+++++						1.04465	9.506
70 3,3'-Dichlorobenzidine	0.40249	0.45417	0.41779	0.37377	0.41274	0.36975		
	0.33271						0.39477	10.005
71 Chrysene	1.06232	1.11471	1.08286	0.92490	0.99307	0.83467		
	0.70611						0.95981	15.453
72 bis(2-Ethylhexyl)phthalate	0.58869	0.58965	0.58841	0.51977	0.60221	0.55320		
	0.49404						0.56228	7.358
73 Di-n-octylphthalate	1.04858	1.05429	1.03506	0.88423	0.96236	0.83818		
	0.72017						0.93469	13.532
74 Benzo(b)fluoranthene	1.11738	1.25875	1.19686	1.06195	1.08053	0.99731		
	0.83887						1.07881	12.682
75 Benzo(k)fluoranthene	1.09148	1.17579	1.19529	0.96313	1.11004	0.80866		
	0.83887						1.02618	15.339

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7							
$ 137 d8-1,4-Dioxane	0.47115	0.45377	0.44709	0.41964	0.45744	0.46134		
	0.42188						0.44747	4.396
$ 2 Phenol-d5	1.29233	1.40720	1.41014	1.30752	1.51690	1.38348		
	+++++						1.38626	5.870
$ 5 2-Chlorophenol-d4	1.26430	1.38386	1.37219	1.25712	1.45000	1.33366		
	+++++						1.34352	5.532
$ 10 1,2-Dichlorobenzene-d4	1.01613	0.99725	0.98074	0.89391	1.03429	0.95666		
	+++++						0.97983	5.104
$ 18 Nitrobenzene-d5	0.30652	0.33165	0.33015	0.30227	0.34083	0.31181		
	+++++						0.32054	4.901
$ 36 2-Fluorobiphenyl	1.32265	1.30199	1.27097	1.07338	1.18593	1.13421		
	+++++						1.21486	8.208
$ 55 2,4,6-Tribromophenol	0.23768	0.26284	0.26853	0.23197	0.27698	0.27944		
	+++++						0.25957	7.762
$ 66 Terphenyl-d14	0.70363	0.75269	0.74977	0.62587	0.71361	0.60811		
	+++++						0.69228	8.912
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	05231201	05231203	05231204	05231205	05231206	05231207	05231208
INJ.DATE:	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012
INJ.TIME:	13:34	14:41	15:15	15:48	16:22	16:56	18:46

05/24/12

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	5.187	5.194	5.190	5.189	5.194	0.000	5.205	5.187	2.187-8.187	4.451	1.963
186 Carbaryl	15.300	15.291	15.292	15.307	15.312	15.324	15.291	15.300	12.300-18.300	15.302	0.013
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.061	5.061-11.061	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.369	11.369-17.369	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.531	15.531-21.531	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.634	13.634-19.634	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.609	14.609-20.609	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.863	13.863-19.863	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.605	17.605-23.605	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.015	14.015-20.015	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.609	14.609-20.609	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.562	14.562-20.562	+++++	+++++
177 p-Benzoquinone	5.834	5.836	5.831	5.835	5.841	5.836	+++++	5.834	2.834-8.834	5.835	0.003
168 Pentachlorobenzene	12.463	12.454	12.460	12.465	12.465	12.471	12.454	12.463	9.463-15.463	12.462	0.006
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: 5/24/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.677	10.677-16.677	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
$ 137 d8-1,4-Dioxane	1.774	1.770	1.771	1.775	1.781	1.781	1.781	1.774	0.000-4.774	1.776	0.005
* 134 Di-n-octylphthalate-d4	19.964	19.960	19.961	19.965	19.971	19.971	19.960	19.964	16.964-22.964	19.964	0.005
133 Butylatedhydroxytoluen	12.330	12.326	12.327	12.331	12.331	12.337	12.326	12.330	9.330-15.330	12.330	0.004
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	9.354	9.345	9.346	9.356	9.361	9.362	9.345	9.354	6.354-12.354	9.353	0.007
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	7.922	7.919	7.919	7.929	7.930	7.935	7.924	7.922	4.922-10.922	7.926	0.006
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	1.806	1.802	1.803	1.807	1.813	1.819	1.818	1.806	0.000-4.806	1.810	0.007
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	12.725	12.722	12.727	12.727	12.732	12.733	12.727	12.725	9.725-15.725	12.727	0.004
178 2-Benzyl-4-Chloropheno	15.273	15.270	15.265	15.280	15.286	15.297	15.270	15.273	12.273-18.273	15.277	0.011
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	18.318	18.315	18.315	18.320	18.325	18.326	18.315	18.318	15.318-21.318	18.319	0.005
117 Butyl Diphenyl Phospha	16.737	16.733	16.734	16.739	16.744	16.745	16.733	16.737	13.737-19.737	16.738	0.005
116 Dibutyl Phenyl Phospha	15.086	15.072	15.078	15.088	15.093	15.105	15.072	15.086	12.086-18.086	15.085	0.012
115 Tributyl Phosphate	13.382	13.368	13.374	13.389	13.400	13.411	13.368	13.382	10.382-16.382	13.385	0.017
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	11.395	11.391	11.392	11.402	11.402	11.403	11.396	11.395	8.395-14.395	11.397	0.005
112 Biphenyl	11.197	11.199	11.199	11.199	11.204	11.205	11.199	11.197	8.197-14.197	11.200	0.003
111 Azobenzene (1,2-DP-Hyd	13.265	13.256	13.262	13.272	13.272	13.278	13.256	13.265	10.265-16.265	13.265	0.008
110 Tetrachloroguaiacol	14.440	14.431	14.431	14.441	14.447	14.453	14.436	14.440	11.440-17.440	14.440	0.008
109 3,4,5-Trichloroguaiaco	12.832	12.823	12.823	12.833	12.834	12.840	12.828	12.832	9.832-15.832	12.830	0.006
181 3,4,6-Trichloroguaiaco	12.944	12.941	12.941	12.946	12.951	12.952	12.946	12.944	9.944-15.944	12.946	0.004
108 4,5,6-Trichloroguaiaco	13.858	13.854	13.855	13.859	13.865	13.871	13.854	13.858	10.858-16.858	13.859	0.006
184 3,4-Dichloroguaiacol	11.299	11.295	11.296	11.300	11.300	11.306	11.300	11.299	8.299-14.299	11.300	0.004
107 4,5-Dichloroguaiacol	12.095	12.091	12.092	12.102	12.102	12.108	12.096	12.095	9.095-15.095	12.098	0.006
182 4,6-Dichloroguaiacol	12.095	12.091	12.092	12.102	12.102	12.108	12.096	12.095	9.095-15.095	12.098	0.006
185 4-Chloroguaiacol	10.225	10.221	10.227	10.227	10.232	10.233	10.232	10.225	7.225-13.225	10.228	0.004

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106	Guaiacol	8.206	8.202	8.203	8.207	8.213	8.213	8.207	8.206	5.206-11.206	8.207	0.004
105	1-methylnaphthalene	10.583	10.579	10.580	10.584	10.585	10.585	10.579	10.583	7.583-13.583	10.582	0.003
151	1,2,4,5-Tetrachloroben	10.754	10.750	10.751	10.755	10.755	10.756	10.755	10.754	7.754-13.754	10.754	0.002
152	Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153	Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.442	20.442-26.442	+++++	+++++
154	Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.968	18.968-24.968	+++++	+++++
155	Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.466	20.466-26.466	+++++	+++++
156	Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.866	19.866-25.866	+++++	+++++
157	Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.413	20.413-26.413	+++++	+++++
158	Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.952	21.952-27.952	+++++	+++++
159	4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.721	18.721-24.721	+++++	+++++
160	Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.159	15.159-21.159	+++++	+++++
161	1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162	1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163	1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164	1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165	1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166	Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167	2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
$ 2	Phenol-d5	6.870	6.867	6.862	6.872	6.877	0.000	6.872	6.870	3.870-9.870	5.888	2.597
3	Phenol	6.886	6.883	6.883	6.888	6.893	6.894	6.888	6.886	3.886-9.886	6.888	0.004
4	Bis(2-Chloroethyl)ethe	6.897	6.888	6.894	6.898	6.904	6.899	6.898	6.897	3.897-9.897	6.897	0.005
5	2-Chlorophenol-d4	6.907	6.904	6.904	6.909	6.909	0.000	6.914	6.907	3.907-9.907	5.921	2.611

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	6 2-Chlorophenol	6.934	6.931	6.931	6.936	6.936	6.936	6.936	6.934	3.934-9.934	6.934	0.002
	7 1,3-Dichlorobenzene	7.121	7.123	7.123	7.128	7.128	7.129	7.128	7.121	4.121-10.121	7.126	0.003
*	8 1,4-Dichlorobenzene-d4	7.191	7.187	7.193	7.192	7.198	7.193	7.192	7.191	4.191-10.191	7.192	0.003
	9 1,4-Dichlorobenzene	7.217	7.214	7.214	7.219	7.219	7.220	7.219	7.217	4.217-10.217	7.217	0.002
$	10 1,2-Dichlorobenzene-d4	7.495	7.492	7.492	7.497	7.497	0.000	7.497	7.495	4.495-10.495	6.424	2.833
	11 Benzyl alcohol	7.532	7.529	7.524	7.534	7.540	7.545	7.534	7.532	4.532-10.532	7.534	0.007
	12 1,2-Dichlorobenzene	7.516	7.513	7.513	7.518	7.518	7.519	7.518	7.516	4.516-10.516	7.517	0.002
	13 2-Methylphenol	7.816	7.812	7.813	7.817	7.823	7.823	7.817	7.816	4.816-10.816	7.817	0.004
	14 2,2'-oxybis(1-Chloropr	7.784	7.785	7.786	7.785	7.785	7.791	7.785	7.784	4.784-10.784	7.786	0.002
	15 4-Methylphenol	8.056	8.053	8.053	8.063	8.068	8.069	8.058	8.056	5.056-11.056	8.060	0.007
	16 N-Nitroso-di-n-propyla	8.008	7.999	8.000	8.015	8.026	8.026	7.999	8.008	5.008-11.008	8.010	0.012
	17 Hexachloroethane	8.003	7.999	8.000	8.004	8.004	8.005	8.004	8.003	5.003-11.003	8.003	0.002
$	18 Nitrobenzene-d5	8.152	8.143	8.149	8.154	8.159	0.000	8.148	8.152	5.152-11.152	6.987	3.081
	19 Nitrobenzene	8.179	8.170	8.176	8.186	8.186	8.187	8.181	8.179	5.179-11.179	8.181	0.006
	20 Isophorone	8.574	8.565	8.566	8.581	8.587	8.593	8.570	8.574	5.574-11.574	8.577	0.010
	21 2-Nitrophenol	8.702	8.699	8.699	8.704	8.704	8.710	8.704	8.702	5.702-11.702	8.703	0.004
	22 2,4-Dimethylphenol	8.879	8.875	8.876	8.886	8.886	8.892	8.880	8.879	5.879-11.879	8.882	0.006
	23 Bis(2-Chloroethoxy)met	9.002	8.993	8.999	9.003	9.009	9.009	8.998	9.002	6.002-12.002	9.002	0.006
	24 Benzoic acid	9.188	9.084	9.116	9.233	9.265	9.303	9.067	9.188	6.189-12.188	9.179	0.093
	25 2,4-Dichlorophenol	9.114	9.110	9.111	9.115	9.121	9.121	9.121	9.114	6.114-12.114	9.116	0.005
	26 1,2,4-Trichlorobenzene	9.210	9.206	9.207	9.212	9.212	9.218	9.206	9.210	6.210-12.210	9.210	0.004
*	27 Naphthalene-d8	9.258	9.255	9.255	9.260	9.260	9.266	9.254	9.258	6.258-12.258	9.258	0.004
	28 Naphthalene	9.290	9.281	9.287	9.292	9.292	9.298	9.286	9.290	6.290-12.290	9.289	0.005
	29 4-Chloroaniline	9.466	9.463	9.463	9.468	9.473	9.479	9.468	9.466	6.466-12.466	9.469	0.006

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	30 Hexachlorobutadiene	9.627	9.623	9.624	9.628	9.628	9.629	9.628	9.627	6.627-12.627	9.627	0.002
	31 4-Chloro-3-methylpheno	10.337	10.339	10.339	10.339	10.344	10.345	10.344	10.337	7.337-13.337	10.341	0.003
	32 2-Methylnaphthalene	10.412	10.408	10.414	10.419	10.419	10.420	10.414	10.412	7.412-13.412	10.415	0.004
	33 Hexachlorocyclopentadi	10.796	10.798	10.799	10.798	10.798	10.799	10.803	10.796	7.796-13.796	10.799	0.002
	34 2,4,6-Trichlorophenol	10.957	10.953	10.954	10.958	10.964	10.964	10.958	10.957	7.957-13.957	10.958	0.004
	35 2,4,5-Trichlorophenol	11.026	11.023	11.023	11.023	11.028	11.029	11.028	11.026	8.026-14.026	11.026	0.003
$	36 2-Fluorobiphenyl	11.074	11.071	11.071	11.076	11.076	0.000	11.071	11.074	8.074-14.074	9.491	4.185
	37 2-Chloronaphthalene	11.186	11.178	11.183	11.188	11.188	11.189	11.183	11.186	8.186-14.186	11.185	0.004
	38 2-Nitroaniline	11.448	11.439	11.445	11.455	11.455	11.461	11.445	11.448	8.448-14.448	11.450	0.008
	39 Dimethylphthalate	11.838	11.829	11.830	11.845	11.845	11.857	11.829	11.838	8.838-14.838	11.839	0.010
	40 Acenaphthylene	11.854	11.845	11.851	11.856	11.856	11.862	11.851	11.854	8.854-14.854	11.854	0.005
	41 2,6-Dinitrotoluene	11.918	11.910	11.915	11.925	11.931	11.937	11.915	11.918	8.918-14.918	11.922	0.010
*	42 Acenaphthene-d10	12.105	12.102	12.102	12.107	12.107	12.108	12.102	12.105	9.105-15.105	12.105	0.003
	43 3-Nitroaniline	12.127	12.118	12.118	12.134	12.144	12.150	12.123	12.127	9.127-15.127	12.131	0.013
	44 Acenaphthene	12.153	12.150	12.150	12.160	12.160	12.166	12.150	12.153	9.153-15.153	12.156	0.007
	45 2,4-Dinitrophenol	12.298	12.294	12.289	12.299	12.310	12.316	0.000	12.298	9.298-15.298	10.544	4.649
	46 Dibenzofuran	12.420	12.412	12.418	12.422	12.428	12.434	12.411	12.420	9.420-15.420	12.421	0.008
	47 4-Nitrophenol	12.517	12.524	12.519	12.524	12.524	12.530	0.000	12.517	9.517-15.517	10.734	4.733
	48 2,4-Dinitrotoluene	12.538	12.535	12.535	12.545	12.550	12.556	12.534	12.538	9.538-15.538	12.542	0.009
	49 Fluorene	12.971	12.962	12.962	12.978	12.978	12.984	12.967	12.971	9.971-15.971	12.972	0.008
	50 Diethylphthalate	12.992	12.978	12.984	12.994	12.999	13.000	12.978	12.992	9.992-15.992	12.989	0.009
	51 4-Chlorophenyl-phenyle	13.019	13.015	13.016	13.020	13.021	13.027	13.015	13.019	10.019-16.019	13.019	0.004
	52 4-Nitroaniline	13.120	13.101	13.107	13.127	13.138	13.149	13.111	13.120	10.120-16.120	13.122	0.018
	53 4,6-Dinitro-2-methylph	13.190	13.176	13.181	13.197	13.208	13.214	13.181	13.190	10.190-16.190	13.192	0.014

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	54 N-Nitrosodiphenylamine	13.232	13.224	13.229	13.239	13.245	13.251	13.223	13.232	10.232-16.233	13.235	0.011
$	55 2,4,6-Tribromophenol	13.398	13.389	13.395	13.400	13.405	0.000	13.394	13.398	10.398-16.398	11.483	5.064
	56 4-Bromophenyl-phenylet	13.788	13.785	13.785	13.790	13.790	13.790	13.784	13.788	10.788-16.788	13.787	0.003
	57 Hexachlorobenzene	13.986	13.982	13.983	13.987	13.993	13.993	13.982	13.986	10.986-16.986	13.987	0.005
	58 Pentachlorophenol	14.306	14.303	14.303	14.308	14.313	14.319	0.000	14.306	11.306-17.306	12.265	5.408
*	59 Phenanthrene-d10	14.456	14.452	14.453	14.457	14.463	14.464	14.452	14.456	11.456-17.456	14.457	0.005
	60 Phenanthrene	14.493	14.484	14.485	14.495	14.500	14.506	14.484	14.493	11.493-17.493	14.493	0.009
	61 Anthracene	14.563	14.559	14.560	14.570	14.575	14.581	14.559	14.563	11.563-17.563	14.567	0.009
	62 Carbazole	14.873	14.869	14.870	14.874	14.880	14.886	14.869	14.873	11.873-17.873	14.874	0.006
	63 Di-n-butylphthalate	15.626	15.622	15.623	15.627	15.633	15.633	15.622	15.626	12.626-18.626	15.627	0.005
	64 Fluoranthene	16.411	16.402	16.408	16.413	16.418	16.419	16.407	16.411	13.411-19.411	16.411	0.006
	65 Pyrene	16.753	16.750	16.750	16.755	16.760	16.766	16.749	16.753	13.753-19.753	16.755	0.006
$	66 Terphenyl-d14	17.106	17.102	17.103	17.113	17.113	0.000	17.107	17.106	14.106-20.106	14.663	6.466
	67 Butylbenzylphthalate	18.019	18.010	18.016	18.021	18.021	18.027	18.015	18.019	15.019-21.019	18.018	0.005
	68 Benzo(a)anthracene	18.708	18.705	18.705	18.715	18.715	18.721	18.704	18.708	15.708-21.708	18.711	0.007
*	69 Chrysene-d12	18.735	18.726	18.727	18.737	18.742	18.743	18.731	18.735	15.735-21.735	18.734	0.007
	70 3,3'-Dichlorobenzidine	18.751	18.747	18.748	18.753	18.758	18.759	18.753	18.751	15.751-21.751	18.753	0.004
	71 Chrysene	18.772	18.763	18.764	18.779	18.785	18.791	18.763	18.772	15.772-21.772	18.774	0.011
	72 bis(2-Ethylhexyl)phtha	19.034	19.031	19.031	19.036	19.036	19.036	19.036	19.034	16.034-22.034	19.034	0.002
	73 Di-n-octylphthalate	19.974	19.965	19.971	19.976	19.976	19.982	19.971	19.974	16.974-22.974	19.974	0.005
	74 Benzo(b)fluoranthene	20.354	20.339	20.340	20.355	20.366	20.377	20.345	20.354	17.354-23.354	20.354	0.014
	75 Benzo(k)fluoranthene	20.386	20.371	20.377	20.393	20.398	20.377	20.377	20.386	17.386-23.386	20.383	0.010
	76 Benzo(a)pyrene	20.786	20.783	20.783	20.793	20.804	20.810	20.783	20.786	17.786-23.786	20.792	0.011
	77 Perylene-d12	20.872	20.863	20.869	20.868	20.879	20.879	20.868	20.872	17.872-23.872	20.871	0.006

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	78 Indeno(1,2,3-cd)pyrene	22.218	22.209	22.210	22.225	22.236	22.242	22.209	22.218	19.218-25.218	22.221	0.013
	79 Dibenzo(a,h)anthracene	22.245	22.236	22.236	22.252	22.262	22.274	22.241	22.245	19.245-25.245	22.249	0.014
	80 Benzo(g,h,i)perylene	22.528	22.514	22.514	22.540	22.551	22.562	22.513	22.528	19.528-25.528	22.532	0.020
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
	90 N-Nitrosodimethylamine	2.276	2.272	2.273	2.288	2.294	2.305	2.288	2.276	0.000-5.276	2.285	0.012
	91 Aniline	6.758	6.754	6.755	6.759	6.765	6.760	6.760	6.758	3.758-9.758	6.759	0.004
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
	93 Benzidine	16.700	16.696	16.697	16.701	16.701	16.702	16.707	16.700	13.700-19.700	16.700	0.004
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
	98 Retene	17.341	17.337	17.338	17.342	17.342	17.348	17.337	17.341	14.341-20.341	17.341	0.004
	99 Perylene	20.904	20.895	20.895	20.911	20.922	20.928	20.900	20.904	17.904-23.904	20.908	0.013
	100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.074	19.074-25.074	+++++	+++++
	101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.255	19.255-25.255	+++++	+++++
	102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.369	18.369-24.369	+++++	+++++
	103 Pyridine	2.254	2.256	2.251	2.256	2.261	2.267	2.277	2.254	0.000-5.254	2.261	0.009
	187 Total Benzofluoranthen	20.386	20.339	20.377	20.393	20.398	20.409	20.377	20.386	17.386-23.386	20.383	0.022

Analytical Resources Inc.: Organics Instrument Log

NT-6 Serial No.:GC=US00036167, MS=US81221575

Date: 5/23/12 Analysis: 8270 Analyst: KB

GC Program: 60/4/4/280 Column No: 208282 Column Type: ZB-5MS

Instrument Tune (.U or .CT.): 170106 EM Voltage: 1741

Calibration File: 052312.1 Curve Date: 5/23/12 Injection Vol.: 1µl

IS/SS	Ical/Ccal	LCS/ICV
1875-1	1932-2, 1940-1	1972-2, 1973-2
	1941-1 1942-1	1974-1 1963-1
	~~3614~~, 1934-1	~~3614~~, 1934-1
	1939-3	1939-3

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem2/nt6.i/20120523.b

	Time	Filename	LabID	ClientId	DF													
1	1334	05231201.D	IC250523	IC250523	1	7.19	963757	9.26	3430476	12.11	2259168	14.46	3446677	18.73	3961525	20.87	4154109	19.96	3758743
2	1408	05231202.D	IC10523	IC10523	1	7.19	947973	9.26	3384544	12.10	2179035	14.45	3573875	18.73	4171257	20.87	4420280	19.96	3899382
3	1441	05231203.D	IC50523	IC50523	1	7.19	830650	9.25	2944206	12.10	1841983	14.45	2904487	18.73	3176606	20.86	3450025	19.96	2976173
4	1515	05231204.D	IC100523	IC100523	1	7.19	859474	9.25	3055832	12.10	1920679	14.45	3012715	18.73	3283977	20.87	3490837	19.96	3087098
5	1548	05231205.D	IC400523	IC400523	1	7.19	850778	9.26	3124146	12.11	2058292	14.46	3113173	18.74	3455807	20.87	3546130	19.97	3287975
6	1622	05231206.D	IC600523	IC600523	1	7.20	819323	9.26	2967520	12.11	1788274	14.46	2994128	18.74	3573040	20.88	3676255	19.97	3341643
7	1656	05231207.D	IC800523	IC800523	1	7.19	842934	9.27	3073829	12.11	1905330	14.46	3163164	18.74	3670223	20.88	3891837	19.97	3425170
8	1846	05231208.D	IC10523	IC10523	1	7.19	963048	9.25	3427252	12.10	2193308	14.45	3489577	18.73	4014583	20.87	4374350	19.96	3756026
9	2029	05231209.D	ICV0523	ICV0523	1	7.19	828280	9.26	3017500	12.11	1915567	14.46	3113458	18.73	3829511	20.87	3997364	19.96	3649186
10	2102	05231210.D	US34MBS1	US34MBS1	1	7.18	866540	9.25	3111766	12.10	2004728	14.45	3197002	18.73	3774029	20.87	3971963	19.96	3527969
11	2135	05231211.D	US34LCSS1	US34LCSS1	1	7.19	902732	9.26	3322440	12.11	2147384	14.45	3350241	18.73	4025667	20.87	4126364	19.96	3791957
12	2208	05231212.D	US34D	SPE003-40G	1	7.19	900545	9.26	3307171	12.11	2101870	14.45	3172152	18.73	3804986	20.87	4196693	19.97	3821610
13	2241	05231213.D	US34MBS1	US34MBS1	1	9.25	3298137	12.10	2159201	14.45	3465129	18.72	4029912	20.87	4294639				
14	2314	05231214.D	US34LCSS1	US34LCSS1	1	9.25	3302261	12.10	2145101	14.45	3510071	18.73	4040161	20.87	4247740				
15	2347	05231215.D	US34O	SPE017-40G	1	9.25	3402100	12.10	2160485	14.45	3494992	18.73	3855707	20.86	4134435				

wrong dad IR

P/A

5/24/12

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/nt6.i/20120523.b

ARI Job No.: IC25 Method: SW846052312.m Instrument: nt6.i Date: 23-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1334	05231201.D	IC250523	IC250523	1	NO MANUAL INTEGRATION
1441	05231203.D	IC50523	IC50523	1	Benzoic acid, 4,6-Dinitro-2-methylphenol, Pentachlorophenol, Benzidine, Total Benzofluoranthenes,
1515	05231204.D	IC100523	IC100523	1	Pentachlorophenol, Benzidine,
1548	05231205.D	IC400523	IC400523	1	NO MANUAL INTEGRATION
1622	05231206.D	IC600523	IC600523	1	Benzoic acid,
1656	05231207.D	IC800523	IC800523	1	Benzoic acid,
1846	05231208.D	IC10523	IC10523	1	Total Benzofluoranthenes,

05/24/12

Data File: /chem2/nt6.i/20120523.b/tune.b/05231201.D

Date : 23-MAY-2012 13:34

Client ID: DFTPP0523

Instrument: nt6.i

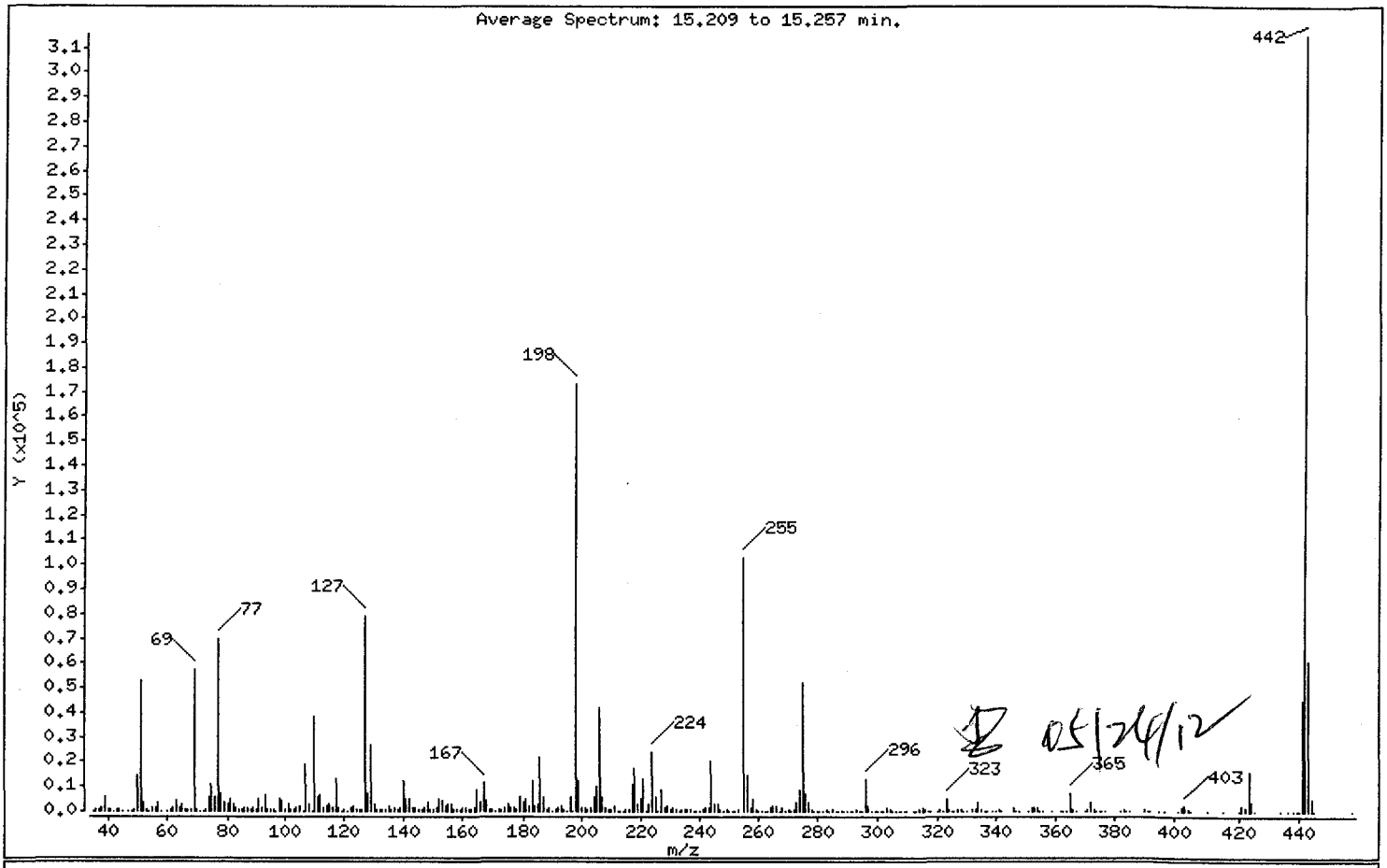
Sample Info: DFTPP0523

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	30.67
68	Less than 2.00% of mass 69	0.31 (0.94)
69	Mass 69 relative abundance	33.21
70	Less than 2.00% of mass 69	0.27 (0.81)
127	10.00 - 80.00% of mass 198	45.67
197	Less than 2.00% of mass 198	0.03
199	5.00 - 9.00% of mass 198	6.95
275	10.00 - 60.00% of mass 198	29.99
365	Greater than 1.00% of mass 198	4.02
441	0.01 - 24.00% of mass 442	26.04 (14.30)
442	50.00 - 200.00% of mass 198	182.18
443	15.00 - 24.00% of mass 442	35.24 (19.34)

Data File: /chem2/nt6.i/20120523.b/tune.b/05231201.D

Date : 23-MAY-2012 13:34

Client ID: DFTPP0523 Instrument: nt6.i

Sample Info: DFTPP0523

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.32

Data File: 05231201.D
Spectrum: Average Spectrum: 15.209 to 15.257 min.
Location of Maximum: 442.00
Number of points: 358

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	77	127.00	79120	217.00	11231	308.00	230
36.00	650	128.00	6966	218.00	17304	309.00	63
37.00	452	129.00	27040	219.00	2806	310.00	146
38.00	1148	130.00	2598	220.00	5351	312.00	35
39.00	5460	131.00	873	221.00	12739	313.00	185
40.00	538	132.00	515	222.00	94	314.00	637
41.00	646	133.00	416	223.00	2797	315.00	1506
42.00	120	134.00	808	224.00	24168	316.00	971
43.00	374	135.00	2348	225.00	5734	317.00	153
44.00	480	136.00	964	226.00	333	318.00	36
45.00	215	137.00	1404	227.00	8589	320.00	49
47.00	140	138.00	608	228.00	1469	321.00	544
48.00	70	139.00	1445	229.00	1986	322.00	274
49.00	608	140.00	12523	230.00	584	323.00	4949
50.00	14187	141.00	5309	231.00	1135	324.00	938
51.00	53136	142.00	5078	232.00	407	325.00	57
52.00	3347	143.00	1579	233.00	232	326.00	144
53.00	800	144.00	1673	234.00	651	327.00	988
54.00	90	145.00	523	235.00	653	328.00	495
55.00	1153	146.00	684	236.00	478	329.00	102
56.00	1679	147.00	1769	237.00	929	330.00	34
57.00	3821	148.00	3565	238.00	153	332.00	412
58.00	299	149.00	1006	239.00	330	333.00	573
60.00	241	150.00	779	240.00	277	334.00	3369
61.00	1021	151.00	1792	241.00	753	335.00	824
62.00	1580	152.00	5150	242.00	1525	336.00	73
63.00	4254	153.00	4424	243.00	1444	337.00	20
64.00	1135	154.00	2251	244.00	20264	339.00	51
65.00	3175	155.00	2935	245.00	2840	340.00	91
66.00	408	156.00	3200	246.00	3211	341.00	609
67.00	380	157.00	900	247.00	981	342.00	163
68.00	538	158.00	757	248.00	249	346.00	1107
69.00	57528	159.00	766	249.00	916	347.00	181
70.00	464	160.00	1190	250.00	168	348.00	19
71.00	276	161.00	1614	251.00	202	351.00	69

Data File: /chem2/nt6.i/20120523.b/tune.b/05231201.D

Date : 23-MAY-2012 13:34

Client ID: DFTPP0523 Instrument: nt6.i

Sample Info: DFTPP0523

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.32

Data File: 05231201.D
Spectrum: Average Spectrum: 15.209 to 15.257 min.
Location of Maximum: 442.00
Number of points: 358

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	52	162.00	700	252.00	249	352.00	1772
73.00	1008	163.00	1062	253.00	471	353.00	1209
74.00	5976	164.00	1242	255.00	102888	354.00	1641
75.00	10841	165.00	8498	256.00	14849	355.00	317
76.00	6029	166.00	3524	257.00	1168	356.00	41
77.00	69696	167.00	11334	258.00	5127	359.00	154
78.00	7381	168.00	4195	259.00	869	362.00	22
79.00	3938	169.00	1022	260.00	257	363.00	26
80.00	3011	170.00	391	261.00	228	364.00	36
81.00	5035	171.00	262	262.00	117	365.00	6971
82.00	3043	172.00	740	263.00	77	366.00	1016
83.00	1353	173.00	867	264.00	1439	367.00	21
84.00	540	174.00	1525	265.00	2166	370.00	209
85.00	951	175.00	3096	266.00	2069	371.00	464
86.00	1578	176.00	1134	267.00	283	372.00	3298
87.00	1179	177.00	1291	268.00	1155	373.00	861
88.00	443	178.00	538	269.00	200	374.00	66
89.00	1598	179.00	5516	270.00	364	375.00	23
90.00	901	180.00	3937	271.00	304	376.00	16
91.00	5097	181.00	4793	272.00	428	377.00	32
92.00	1333	182.00	2174	273.00	3380	382.00	43
93.00	6660	183.00	12325	274.00	8757	383.00	951
94.00	643	184.00	2515	275.00	51952	384.00	281
95.00	557	185.00	2714	276.00	6931	385.00	72
96.00	632	186.00	22000	277.00	3421	390.00	390
97.00	358	187.00	5988	278.00	621	391.00	261
98.00	5018	188.00	764	279.00	87	392.00	325
99.00	4266	189.00	1264	280.00	16	395.00	20
100.00	715	190.00	337	281.00	136	397.00	32
101.00	3113	191.00	718	282.00	115	401.00	267
102.00	804	192.00	1736	283.00	534	402.00	1268
103.00	1005	193.00	1988	284.00	278	403.00	2265
104.00	1562	194.00	491	285.00	727	404.00	767
105.00	2002	195.00	288	286.00	104	405.00	149
106.00	317	196.00	5634	287.00	48	410.00	61

Data File: /chem2/nt6.i/20120523.b/tune.b/05231201.D

Date : 23-MAY-2012 13:34

Client ID: DFTPP0523

Instrument: nt6.i

Sample Info: DFTPP0523

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 05231201.D
Spectrum: Average Spectrum: 15.209 to 15.257 min.
Location of Maximum: 442.00
Number of points: 358

m/z	Y	m/z	Y	m/z	Y	m/z	Y
107.00	19008	197.00	60	288.00	88	415.00	119
108.00	3091	198.00	173248	289.00	168	420.00	19
109.00	240	199.00	12047	290.00	156	421.00	1920
110.00	38104	200.00	1289	291.00	39	422.00	1715
111.00	5768	201.00	1463	292.00	179	423.00	15703
112.00	6648	202.00	364	293.00	968	424.00	3274
113.00	1107	203.00	1401	294.00	325	425.00	296
114.00	2059	204.00	5798	295.00	62	434.00	18
115.00	2691	205.00	10059	296.00	12846	436.00	26
116.00	1682	206.00	41832	297.00	1820	438.00	56
117.00	12846	207.00	5486	298.00	93	439.00	75
118.00	1203	208.00	1228	299.00	16	440.00	110
119.00	248	209.00	498	300.00	24	441.00	45120
120.00	400	210.00	679	301.00	215	442.00	315584
121.00	273	211.00	2126	302.00	275	443.00	61048
122.00	1422	212.00	177	303.00	1718	444.00	5295
123.00	2017	213.00	296	304.00	418	445.00	301
124.00	967	214.00	52	305.00	65	458.00	19
125.00	980	215.00	889	306.00	16		
126.00	400	216.00	782	307.00	17		

Data File: /chem2/nt6.i/20120523.b/tune.b/05231201.D

Date : 23-MAY-2012 13:34

Client ID: DFTPP0523

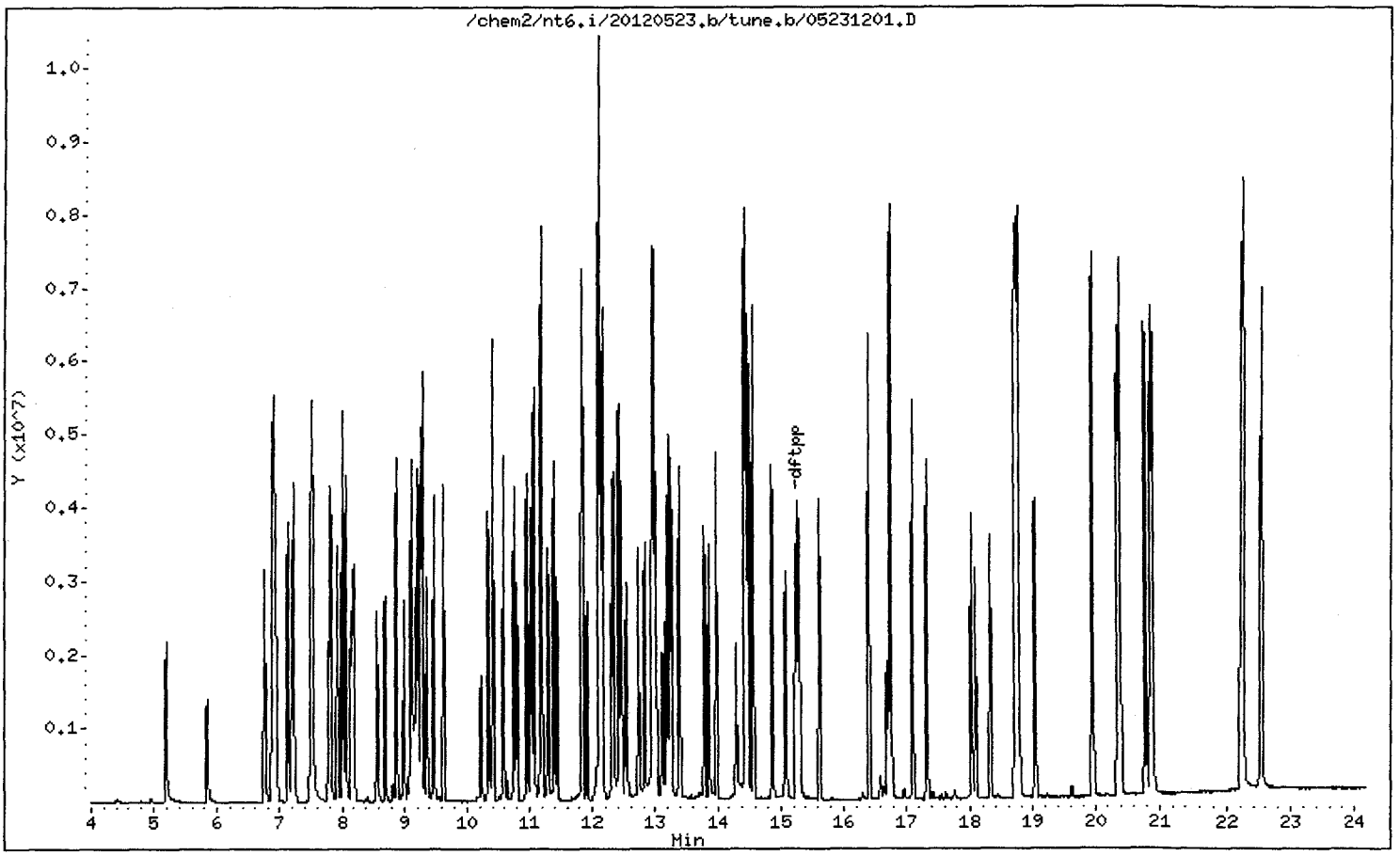
Instrument: nt6.i

Sample Info: DFTPP0523

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem2/nt6.i/20120523.b/ddt.b/05231201.D ARI ID: DDT0523
Method: /chem2/nt6.i/20120523.b/ddt.b/sw846ddt.m Misc: 12-
Analysis Date: 23-MAY-2012 13:34 Instrument: nt6.i

COMPOUND	RT	AREA
Pentachlorophenol	14.306	530749
Benzidine	16.700	1550104
4,4'-DDE	----	----
4,4'-DDD	17.618	31465
4,4'-DDT	18.083	1147384

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

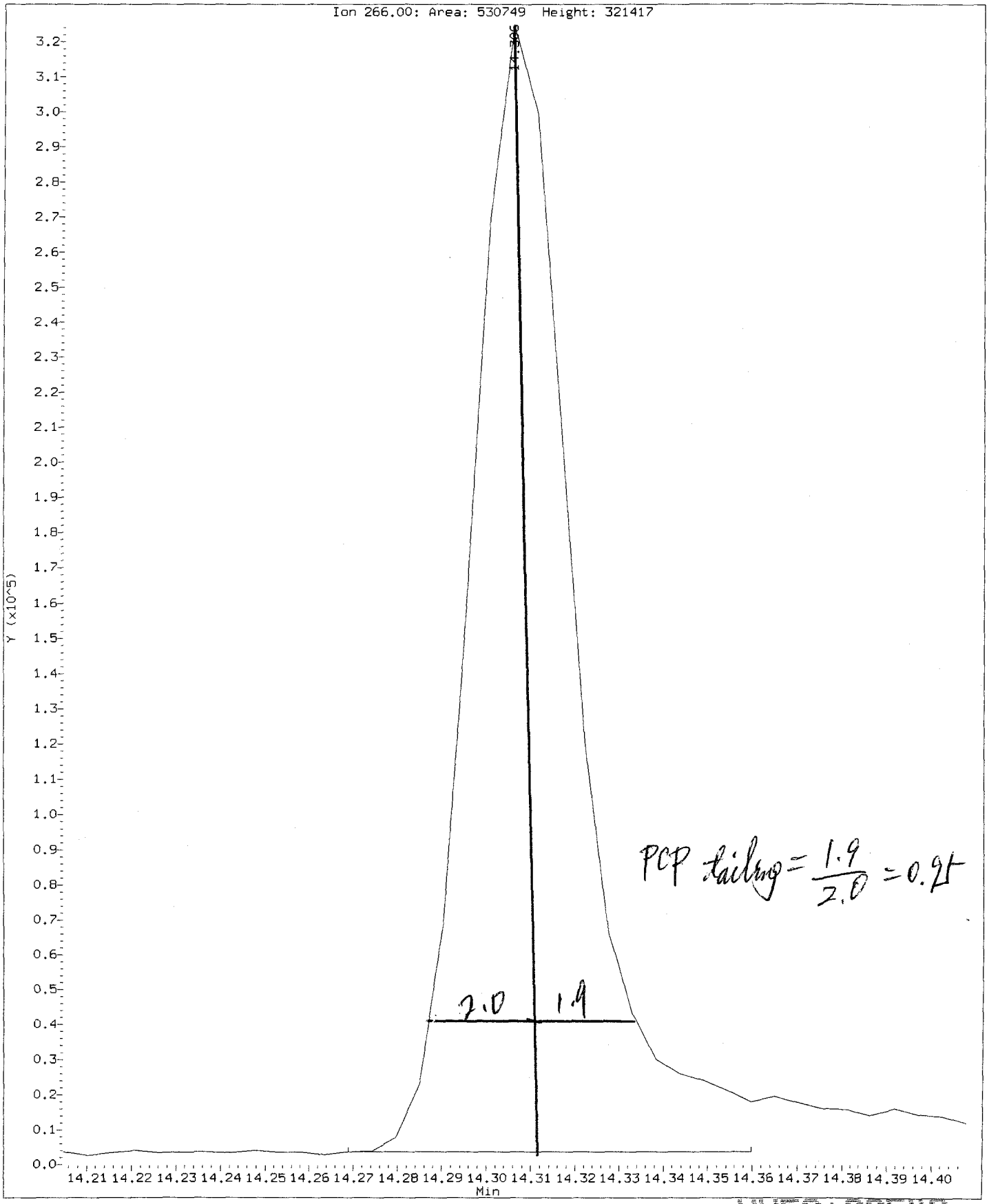
$$\text{DDT Percent Breakdown} = \frac{(\ 0 + 31465) * 100}{(\ 0 + 31465 + 1147384)}$$

DDT Percent Breakdown = 2.7 %

05/24/12

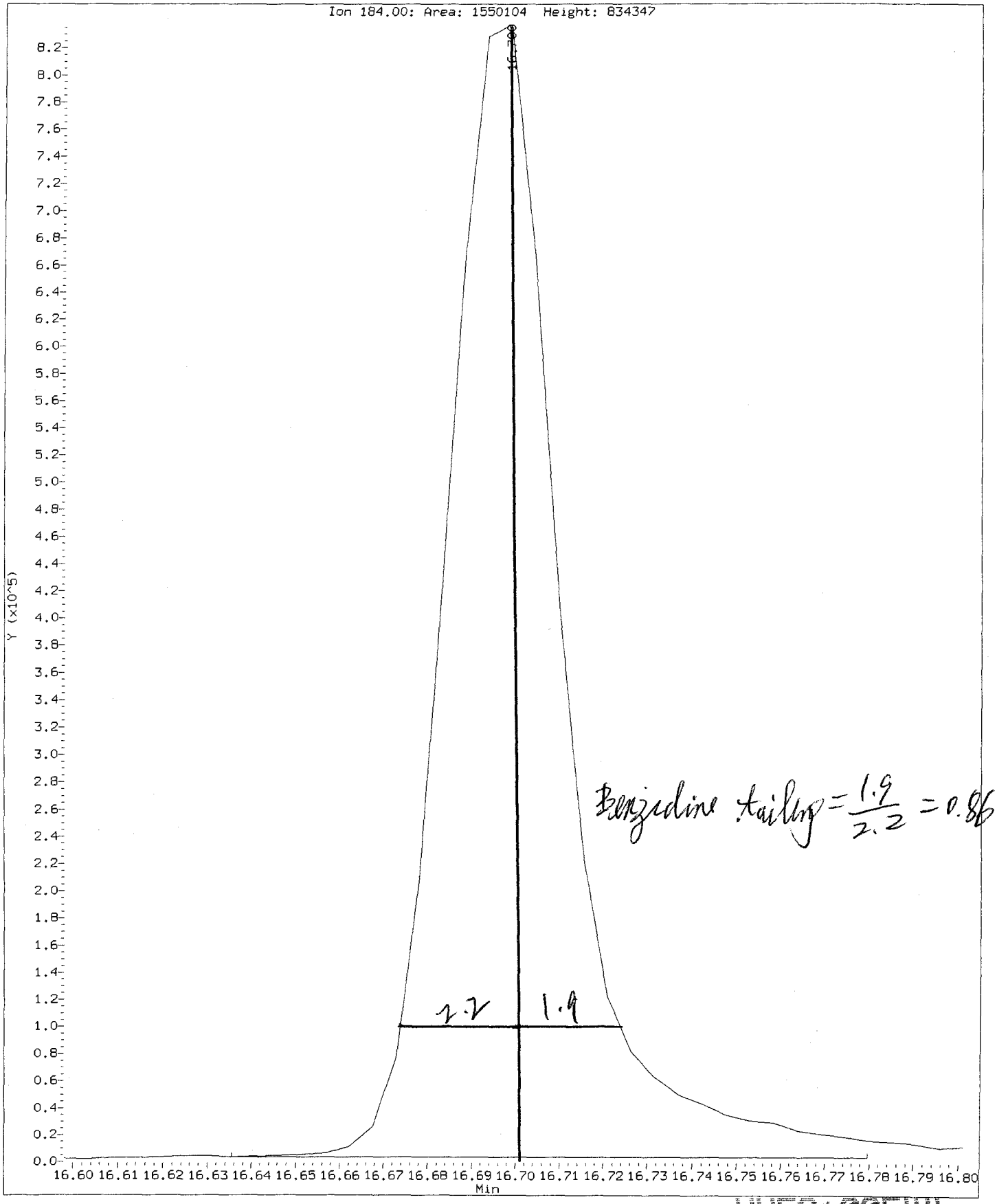
Data File: /chem2/nt6.i/20120523.b/ddt.b/05231201.D
Injection Date: 23-MAY-2012 13:34
Instrument: nt6.i
Client Sample ID: DDT0523

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem2/nt6.i/20120523.b/ddt.b/05231201.D
Injection Date: 23-MAY-2012 13:34
Instrument: nt6.i
Client Sample ID: DDT0523

Compound: Benzidine
CAS Number:



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231208.D
Lab Smp Id: IC10523
Inj Date : 23-MAY-2012 18:46
Operator : JZ Inst ID: nt6.i
Smp Info : IC10523
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 18:46 Cal File: 05231208.D
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

05/24/12

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.205	5.194	(0.724)	49864	1.00000	1.000
$	2 Phenol-d5	99	6.872	6.877	(0.955)	62229	1.00000	1.000
	3 Phenol	94	6.888	6.894	(0.958)	92931	1.00000	1.000
$	5 2-Chlorophenol-d4	132	6.914	6.909	(0.961)	60879	1.00000	1.000
	4 Bis(2-Chloroethyl)ether	93	6.898	6.899	(0.959)	54779	1.00000	1.000
	6 2-Chlorophenol	128	6.936	6.936	(0.964)	86603	1.00000	1.000
	7 1,3-Dichlorobenzene	146	7.128	7.129	(0.991)	76849	1.00000	1.000
*	8 1,4-Dichlorobenzene-d4	152	7.192	7.193	(1.000)	963048	20.0000	
	9 1,4-Dichlorobenzene	146	7.219	7.220	(1.004)	76852	1.00000	1.000
$	10 1,2-Dichlorobenzene-d4	152	7.497	7.497	(1.042)	48929	1.00000	1.000
	12 1,2-Dichlorobenzene	146	7.518	7.519	(1.045)	72809	1.00000	1.000
	11 Benzyl alcohol	108	7.534	7.545	(1.048)	28611	1.00000	1.000
	14 2,2'-oxybis(1-Chloropropane)	45	7.785	7.791	(1.082)	64151	1.00000	1.000
	13 2-Methylphenol	108	7.817	7.823	(1.087)	70220	1.00000	1.000
	17 Hexachloroethane	117	8.004	8.005	(1.113)	25782	1.00000	1.000
	16 N-Nitroso-di-n-propylamine	70	7.999	8.026	(1.112)	36930	1.00000	1.000
	15 4-Methylphenol	108	8.058	8.069	(1.120)	66975	1.00000	1.000
$	18 Nitrobenzene-d5	82	8.148	8.159	(0.880)	52526	1.00000	1.000
	19 Nitrobenzene	77	8.181	8.187	(0.884)	55941	1.00000	1.000
	20 Isophorone	82	8.570	8.593	(0.926)	83595	1.00000	1.000
	21 2-Nitrophenol	139	8.704	8.710	(0.941)	43888	1.00000	1.000
	22 2,4-Dimethylphenol	107	8.880	8.892	(0.960)	65496	1.00000	1.000
	23 Bis(2-Chloroethoxy)methane	93	8.998	9.009	(0.972)	62019	1.00000	1.000
	25 2,4-Dichlorophenol	162	9.121	9.121	(0.986)	59209	1.00000	1.000
	26 1,2,4-Trichlorobenzene	180	9.206	9.218	(0.995)	65064	1.00000	1.000
*	27 Naphthalene-d8	136	9.254	9.266	(1.000)	3427252	20.0000	
	28 Naphthalene	128	9.286	9.298	(1.003)	199915	1.00000	1.000

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	29 4-Chloroaniline	127	9.468	9.479	(1.023)	80884	1.00000	1.000
	30 Hexachlorobutadiene	225	9.628	9.629	(1.040)	39726	1.00000	1.000
	31 4-Chloro-3-methylphenol	107	10.344	10.345	(1.118)	47007	1.00000	1.000
	32 2-Methylnaphthalene	141	10.414	10.420	(1.125)	116882	1.00000	1.000
	34 2,4,6-Trichlorophenol	196	10.958	10.964	(0.906)	44936	1.00000	1.000
	35 2,4,5-Trichlorophenol	196	11.028	11.029	(0.911)	36177	1.00000	1.000
$	36 2-Fluorobiphenyl	172	11.071	11.076	(0.915)	145049	1.00000	1.000
	37 2-Chloronaphthalene	162	11.183	11.189	(0.924)	118160	1.00000	1.000
	38 2-Nitroaniline	65	11.445	11.461	(0.946)	19645	1.00000	1.000
	39 Dimethylphthalate	163	11.829	11.857	(0.977)	123189	1.00000	1.000
	40 Acenaphthylene	152	11.851	11.862	(0.979)	198340	1.00000	1.000
	41 2,6-Dinitrotoluene	165	11.915	11.937	(0.985)	25314	1.00000	1.000
*	42 Acenaphthene-d10	164	12.102	12.108	(1.000)	2193308	20.0000	
	43 3-Nitroaniline	138	12.123	12.150	(1.002)	28816	1.00000	1.000
	44 Acenaphthene	153	12.150	12.166	(1.004)	126724	1.00000	1.000
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	12.411	12.434	(1.026)	191464	1.00000	1.000
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	12.534	12.556	(1.036)	29362	1.00000	1.000
	50 Diethylphthalate	149	12.978	13.000	(1.072)	118598	1.00000	1.000
	49 Fluorene	166	12.967	12.984	(1.071)	142105	1.00000	1.000
	51 4-Chlorophenyl-phenylether	204	13.015	13.027	(1.075)	68940	1.00000	1.000
	52 4-Nitroaniline	138	13.111	13.149	(1.083)	25494	1.00000	1.000
	54 N-Nitrosodiphenylamine	169	13.223	13.251	(0.915)	88292	1.00000	1.000
$	55 2,4,6-Tribromophenol	330	13.394	13.405	(1.107)	26065	1.00000	1.000
	56 4-Bromophenyl-phenylether	248	13.784	13.790	(0.954)	45005	1.00000	1.000
	57 Hexachlorobenzene	284	13.982	13.993	(0.967)	57132	1.00000	1.000
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	14.452	14.464	(1.000)	3489577	20.0000	
	60 Phenanthrene	178	14.484	14.506	(1.002)	202947	1.00000	1.000
	61 Anthracene	178	14.559	14.581	(1.007)	200932	1.00000	1.000
	62 Carbazole	167	14.869	14.886	(1.029)	153930	1.00000	1.000
	63 Di-n-butylphthalate	149	15.622	15.633	(1.081)	179762	1.00000	1.000
	64 Fluoranthene	202	16.407	16.419	(1.135)	217553	1.00000	1.000
	65 Pyrene	202	16.749	16.766	(0.894)	236191	1.00000	1.000
$	66 Terphenyl-d14	244	17.107	17.113	(0.913)	141240	1.00000	1.000
	67 Butylbenzylphthalate	149	18.015	18.027	(0.962)	72780	1.00000	1.000
	68 Benzo(a)anthracene	228	18.704	18.721	(0.999)	221650	1.00000	1.000
*	69 Chrysene-d12	240	18.731	18.743	(1.000)	4014583	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.753	18.759	(1.001)	80791	1.00000	1.000
	71 Chrysene	228	18.763	18.791	(1.002)	213238	1.00000	1.000
	72 bis(2-Ethylhexyl)phthalate	149	19.036	19.036	(0.954)	110556	1.00000	1.000
*	134 Di-n-octylphthalate-d4	153	19.960	19.971	(1.000)	3756026	20.0000	
	73 Di-n-octylphthalate	149	19.971	19.982	(1.001)	196924	1.00000	1.000
	74 Benzo(b)fluoranthene	252	20.345	20.377	(0.975)	244390	1.00000	1.000
	75 Benzo(k)fluoranthene	252	20.377	20.377	(0.976)	238725	1.00000	1.000
	187 Total Benzofluoranthenes	252	20.377	20.409	(0.976)	460318	2.00000	2.000 (M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
76	Benzo(a)pyrene	252	20.783	20.810	(0.996)	213202	1.00000	1.000
* 77	Perylene-d12	264	20.868	20.879	(1.000)	4374350	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	22.209	22.242	(1.064)	292755	1.00000	1.000
79	Dibenzo(a,h)anthracene	278	22.241	22.274	(1.066)	240155	1.00000	1.000
80	Benzo(g,h,i)perylene	276	22.513	22.562	(1.079)	250409	1.00000	1.000
90	N-Nitrosodimethylamine	74	2.288	2.305	(0.318)	33399	1.00000	1.000
103	Pyridine	79	2.277	2.267	(0.317)	47078	1.00000	1.000
91	Aniline	93	6.760	6.760	(0.940)	100185	1.00000	1.000
105	1-methylnaphthalene	141	10.579	10.585	(1.143)	91064	1.00000	1.000
111	Azobenzene (1,2-DP-Hydrazine)	77	13.256	13.278	(1.095)	103638	1.00000	1.000
143	1,4-Dioxane	88	1.818	1.819	(0.253)	19269	1.00000	1.000
$ 137	d8-1,4-Dioxane	96	1.781	1.781	(0.248)	22687	1.00000	1.000
144	alpha-Terpineol	59	9.345	9.362	(1.010)	33976	1.00000	1.000
177	p-Benzoquinone	82	Compound Not Detected.					
98	Retene	219	17.337	17.348	(0.926)	72312	1.00000	1.000
99	Perylene	252	20.900	20.928	(1.002)	229077	1.00000	1.000
133	Butylatedhydroxytoluene	205	12.326	12.337	(1.019)	94930	1.00000	1.000
115	Tributyl Phosphate	99	13.368	13.411	(0.925)	103227	1.00000	1.000
116	Dibutyl Phenyl Phosphate	175	15.072	15.105	(1.043)	79595	1.00000	1.000
117	Butyl Diphenyl Phosphate	94	16.733	16.745	(0.893)	21866	1.00000	1.000
118	Triphenyl Phosphate	326	18.315	18.326	(0.978)	44502	1.00000	1.000
123	Acetophenone	105	7.924	7.935	(1.102)	74432	1.00000	1.000
168	Pentachlorobenzene	250	12.454	12.471	(1.029)	57829	1.00000	1.000
113	Diphenyl Oxide	170	11.396	11.403	(0.942)	82078	1.00000	1.000
112	Biphenyl	154	11.199	11.205	(0.925)	133359	1.00000	1.000
120	2,3,4,6-Tetrachlorophenol	232	12.727	12.733	(1.052)	24602	1.00000	1.000
151	1,2,4,5-Tetrachlorobenzene	216	10.755	10.756	(0.889)	60736	1.00000	1.000
110	Tetrachloroguaiacol	247	14.436	14.453	(0.999)	31926	2.00000	2.000
109	3,4,5-Trichloroguaiacol	213	12.828	12.840	(0.888)	19390	1.00000	1.000
181	3,4,6-Trichloroguaiacol	211	12.946	12.952	(1.800)	23203	1.00000	1.000
108	4,5,6-Trichloroguaiacol	213	13.854	13.871	(1.145)	21277	1.00000	1.000
184	3,4-Dichloroguaiacol	192	11.300	11.306	(1.571)	20946	1.00000	1.000
107	4,5-Dichloroguaiacol	192	12.096	12.108	(1.000)	56991	2.00000	2.000
182	4,6-Dichloroguaiacol	192	12.096	12.108	(1.682)	56991	2.00000	2.000
185	4-Chloroguaiacol	115	10.232	10.233	(1.423)	10582	0.50000	0.5000
186	Carbaryl	144	15.291	15.324	(1.058)	81917	1.00000	1.000
178	2-Benzyl-4-Chlorophenol	218	15.270	15.297	(1.057)	29074	1.00000	1.000
106	Guaiacol	124	8.207	8.213	(1.141)	47398	1.00000	1.000

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231208.D
Lab Smp Id: IC10523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	963048	-0.07
27 Naphthalene-d8	3430476	1715238	6860952	3427252	-0.09
42 Acenaphthene-d10	2259168	1129584	4518336	2193308	-2.92
59 Phenanthrene-d10	3446677	1723338	6893354	3489577	1.24
69 Chrysene-d12	3961525	1980762	7923050	4014583	1.34
134 Di-n-octylphthala	3758743	1879372	7517486	3756026	-0.07
77 Perylene-d12	4154109	2077054	8308218	4374350	5.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.02
27 Naphthalene-d8	9.26	8.76	9.76	9.25	-0.04
42 Acenaphthene-d10	12.11	11.61	12.61	12.10	-0.03
59 Phenanthrene-d10	14.46	13.96	14.96	14.45	-0.03
69 Chrysene-d12	18.73	18.23	19.23	18.73	-0.02
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	-0.02
77 Perylene-d12	20.87	20.37	21.37	20.87	-0.02

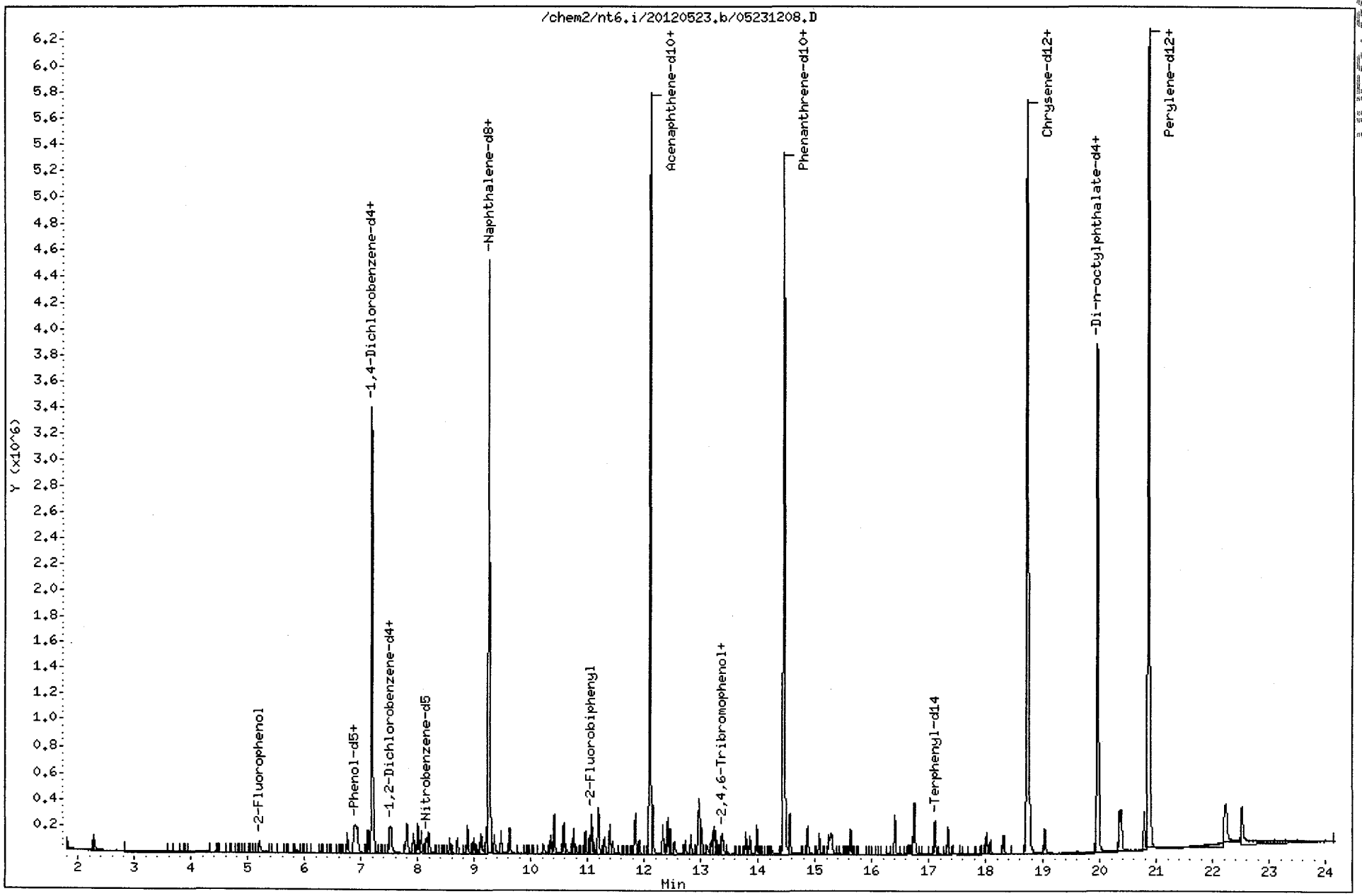
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120523.b/05231208.D
Date : 23-MAY-2012 18:46
Client ID:
Sample Info: IC10523

Instrument: nt6.i

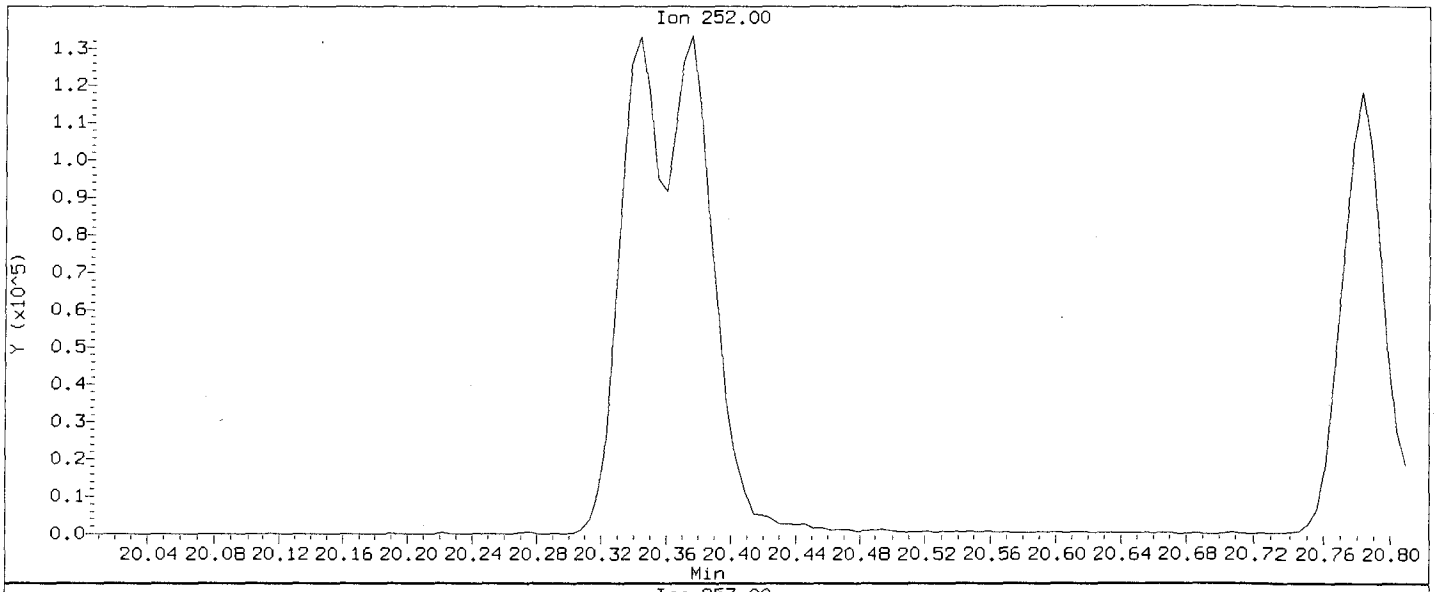
Operator: JZ
Column diameter: 0.32

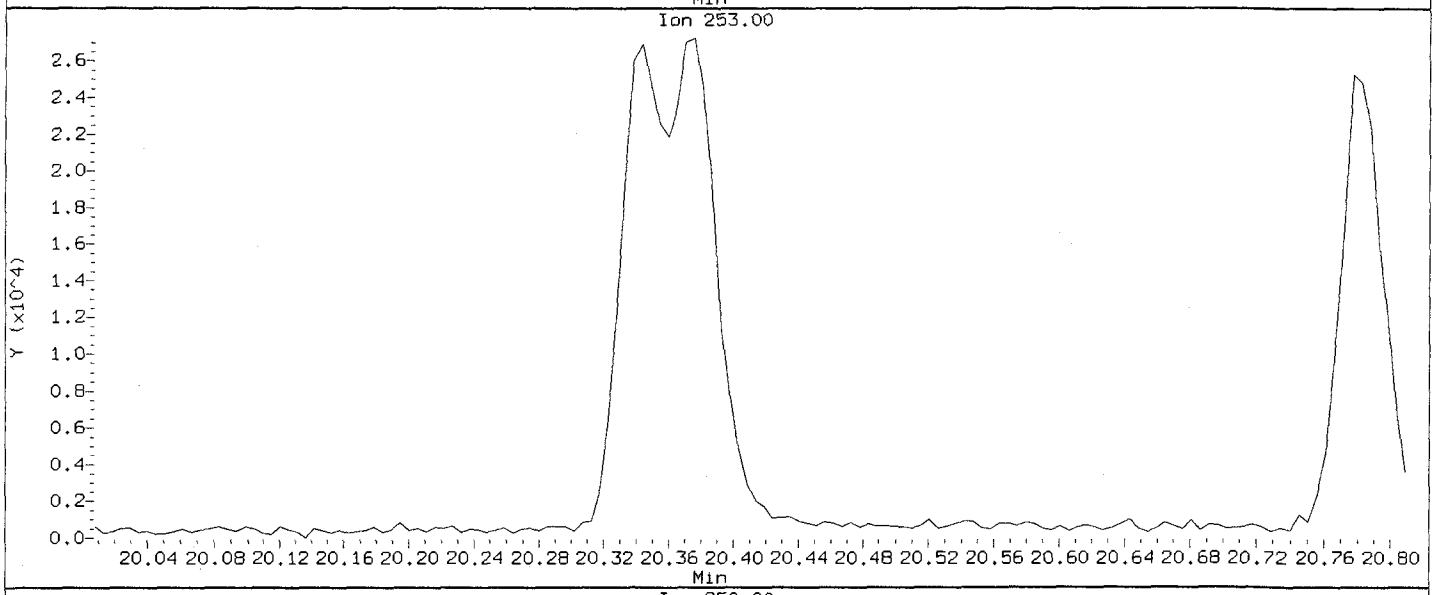
Column phase: ZB-5msi

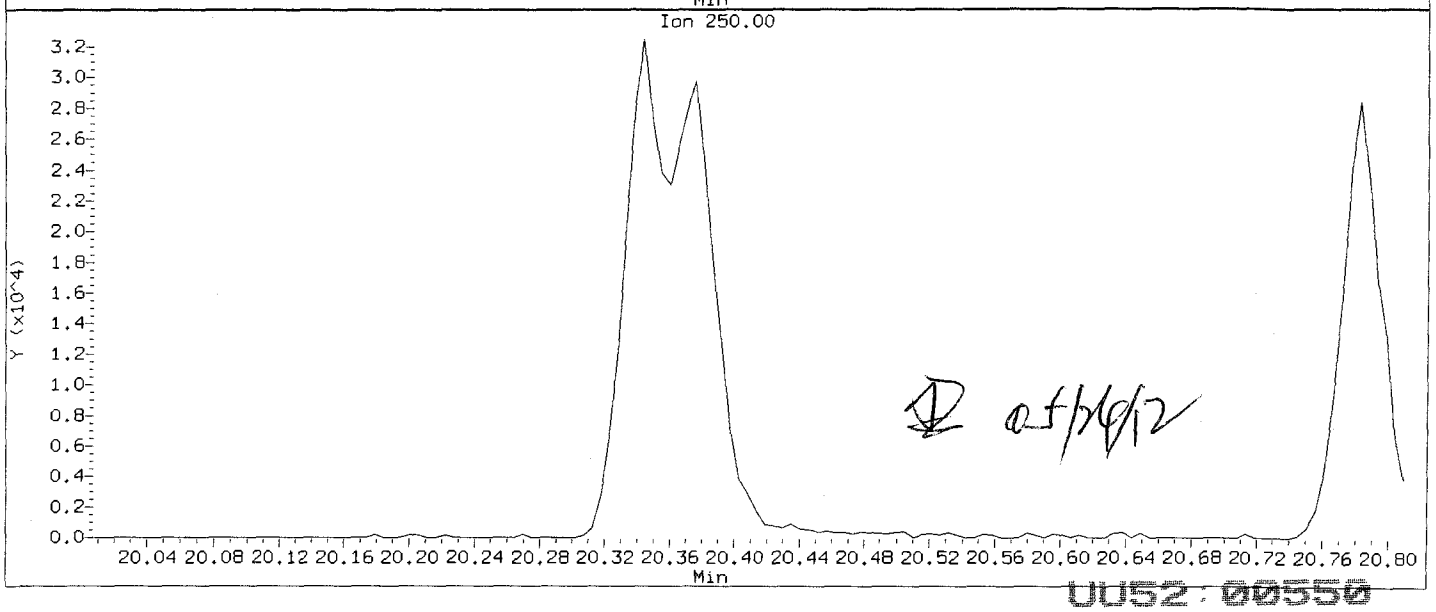


Data File: /chem2/nt6.i/20120523.b/05231208.D
Injection Date: 23-MAY-2012 18:46
Instrument: nt6.i
Client Sample ID: IC10523

Compound: Total Benzofluoranthenes
CAS Number:



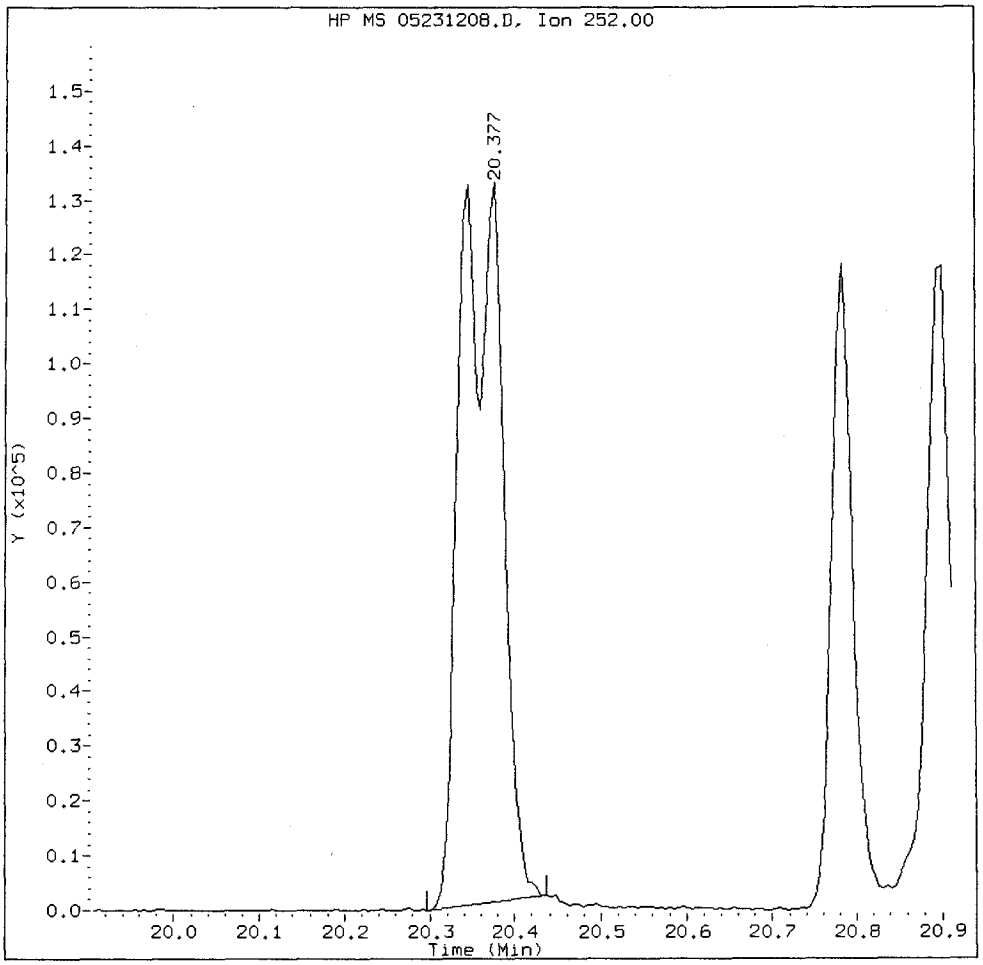




D 6/14/12

IC10523, /chem2/nt6.i/20120523.b/05231208.D

Total Benzofluoranthenes Amount: 2.00 Area: 460318



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: [signature] Date: 05/24/12

CO-ELUTION SUMMARY FOR FILE - 05231208.D

Lab ID: IC10523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231203.D
Lab Smp Id: IC50523 Client Smp ID: IC50523
Inj Date : 23-MAY-2012 14:41
Operator : JZ Inst ID: nt6.i
Smp Info : IC50523,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 14:41 Cal File: 05231203.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

JZ 05/24/12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.194	5.194	(0.723)	238869	5.00000	5.262
$	2 Phenol-d5	99	6.867	6.877	(0.955)	292223	5.00000	5.213
	3 Phenol	94	6.883	6.894	(0.958)	337424	5.00000	4.571
$	5 2-Chlorophenol-d4	132	6.904	6.909	(0.961)	287376	5.00000	5.226
	4 Bis(2-Chloroethyl)ether	93	6.888	6.899	(0.958)	232626	5.00000	4.961
	6 2-Chlorophenol	128	6.931	6.936	(0.964)	310282	5.00000	4.538
	7 1,3-Dichlorobenzene	146	7.123	7.129	(0.991)	328362	5.00000	4.977
*	8 1,4-Dichlorobenzene-d4	152	7.187	7.193	(1.000)	830650	20.0000	
	9 1,4-Dichlorobenzene	146	7.214	7.220	(1.004)	336824	5.00000	5.040
$	10 1,2-Dichlorobenzene-d4	152	7.492	7.497	(1.042)	207091	5.00000	4.953
	12 1,2-Dichlorobenzene	146	7.513	7.519	(1.045)	315199	5.00000	5.010
	11 Benzyl alcohol	108	7.529	7.545	(1.048)	184770	5.00000	5.996
	14 2,2'-oxybis(1-Chloropropane)	45	7.785	7.791	(1.083)	279063	5.00000	5.022
	13 2-Methylphenol	108	7.812	7.823	(1.087)	253000	5.00000	4.552
	17 Hexachloroethane	117	7.999	8.005	(1.113)	113754	5.00000	5.057
	16 N-Nitroso-di-n-propylamine	70	7.999	8.026	(1.113)	163593	5.00000	5.067
	15 4-Methylphenol	108	8.053	8.069	(1.120)	263850	5.00000	4.774
$	18 Nitrobenzene-d5	82	8.143	8.159	(0.880)	244111	5.00000	5.197
	19 Nitrobenzene	77	8.170	8.187	(0.883)	251042	5.00000	5.109
	20 Isophorone	82	8.565	8.593	(0.926)	372160	5.00000	5.090
	21 2-Nitrophenol	139	8.699	8.710	(0.940)	165054	5.00000	4.668
	22 2,4-Dimethylphenol	107	8.875	8.892	(0.959)	251036	5.00000	4.716
	23 Bis(2-Chloroethoxy)methane	93	8.993	9.009	(0.972)	278092	5.00000	5.107
	24 Benzoic acid	105	9.084	9.303	(0.982)	180212	10.0000	10.00(MH)
	25 2,4-Dichlorophenol	162	9.110	9.121	(0.984)	246540	5.00000	4.922
	26 1,2,4-Trichlorobenzene	180	9.206	9.218	(0.995)	279004	5.00000	4.996
*	27 Naphthalene-d8	136	9.255	9.266	(1.000)	2944206	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	9.281	9.298	(1.003)	868861	5.00000	5.029
	29 4-Chloroaniline	127	9.463	9.479	(1.022)	380630	5.00000	5.228
	30 Hexachlorobutadiene	225	9.623	9.629	(1.040)	168330	5.00000	4.966
	31 4-Chloro-3-methylphenol	107	10.339	10.345	(1.117)	188478	5.00000	4.828
	32 2-Methylnaphthalene	141	10.408	10.420	(1.125)	521965	5.00000	5.097
	33 Hexachlorocyclopentadiene	237	10.798	10.799	(0.892)	101037	5.00000	5.000
	34 2,4,6-Trichlorophenol	196	10.953	10.964	(0.905)	173220	5.00000	4.786
	35 2,4,5-Trichlorophenol	196	11.023	11.029	(0.911)	173087	5.00000	5.326
$	36 2-Fluorobiphenyl	172	11.071	11.076	(0.915)	599561	5.00000	4.961
	37 2-Chloronaphthalene	162	11.178	11.189	(0.924)	509083	5.00000	5.064
	38 2-Nitroaniline	65	11.439	11.461	(0.945)	129295	5.00000	6.105
	39 Dimethylphthalate	163	11.829	11.857	(0.977)	544932	5.00000	5.130
	40 Acenaphthylene	152	11.845	11.862	(0.979)	876710	5.00000	5.128
	41 2,6-Dinitrotoluene	165	11.910	11.937	(0.984)	126200	5.00000	5.428
*	42 Acenaphthene-d10	164	12.102	12.108	(1.000)	1841983	20.0000	
	43 3-Nitroaniline	138	12.118	12.150	(1.001)	160320	5.00000	5.699
	44 Acenaphthene	153	12.150	12.166	(1.004)	550179	5.00000	5.083
	45 2,4-Dinitrophenol	184	12.294	12.316	(1.016)	30032	10.0000	10.00
	46 Dibenzofuran	168	12.412	12.434	(1.026)	848828	5.00000	5.136
	47 4-Nitrophenol	109	12.524	12.530	(1.035)	28736	5.00000	5.000
	48 2,4-Dinitrotoluene	165	12.535	12.556	(1.036)	160822	5.00000	5.660
	50 Diethylphthalate	149	12.978	13.000	(1.072)	515579	5.00000	5.087
	49 Fluorene	166	12.962	12.984	(1.071)	648494	5.00000	5.208
	51 4-Chlorophenyl-phenylether	204	13.015	13.027	(1.075)	295925	5.00000	5.055
	52 4-Nitroaniline	138	13.101	13.149	(1.083)	143042	5.00000	5.720
	53 4,6-Dinitro-2-methylphenol	198	13.176	13.214	(0.912)	161884	10.0000	10.00 (M)
	54 N-Nitrosodiphenylamine	169	13.224	13.251	(0.915)	394186	5.00000	5.176
$	55 2,4,6-Tribromophenol	330	13.389	13.405	(1.106)	121035	5.00000	5.251
	56 4-Bromophenyl-phenylether	248	13.785	13.790	(0.954)	193209	5.00000	5.078
	57 Hexachlorobenzene	284	13.982	13.993	(0.967)	239701	5.00000	5.020
	58 Pentachlorophenol	266	14.303	14.319	(0.990)	34405	5.00000	5.000 (M)
*	59 Phenanthrene-d10	188	14.452	14.464	(1.000)	2904487	20.0000	
	60 Phenanthrene	178	14.484	14.506	(1.002)	885877	5.00000	5.119
	61 Anthracene	178	14.559	14.581	(1.007)	901129	5.00000	5.187
	62 Carbazole	167	14.869	14.886	(1.029)	677020	5.00000	5.138
	63 Di-n-butylphthalate	149	15.622	15.633	(1.081)	789203	5.00000	5.134
	64 Fluoranthene	202	16.402	16.419	(1.135)	929333	5.00000	5.065
	65 Pyrene	202	16.750	16.766	(0.894)	978152	5.00000	5.114
$	66 Terphenyl-d14	244	17.102	17.113	(0.913)	597749	5.00000	5.168
	67 Butylbenzylphthalate	149	18.010	18.027	(0.962)	324113	5.00000	5.295
	68 Benzo(a)anthracene	228	18.705	18.721	(0.999)	913018	5.00000	5.101
*	69 Chrysene-d12	240	18.726	18.743	(1.000)	3176606	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.747	18.759	(1.001)	360680	5.00000	5.302
	71 Chrysene	228	18.763	18.791	(1.002)	885250	5.00000	5.120
	72 bis(2-Ethylhexyl)phthalate	149	19.031	19.036	(0.953)	438725	5.00000	5.004
*	134 Di-n-octylphthalate-d4	153	19.960	19.971	(1.000)	2976173	20.0000	
	73 Di-n-octylphthalate	149	19.965	19.982	(1.000)	784439	5.00000	5.014

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	20.339	20.377	(0.975)	1085679	5.00000	5.297
75	Benzo(k)fluoranthene	252	20.371	20.377	(0.976)	1014130	5.00000	5.186
187	Total Benzofluoranthenes	252	20.339	20.409	(0.975)	1953479	10.0000	10.37(M)
76	Benzo(a)pyrene	252	20.783	20.810	(0.996)	903560	5.00000	5.180
* 77	Perylene-d12	264	20.863	20.879	(1.000)	3450025	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	22.209	22.242	(1.065)	1307169	5.00000	5.310
79	Dibenzo(a,h)anthracene	278	22.236	22.274	(1.066)	1095188	5.00000	5.363
80	Benzo(g,h,i)perylene	276	22.514	22.562	(1.079)	1126133	5.00000	5.328
90	N-Nitrosodimethylamine	74	2.272	2.305	(0.316)	143181	5.00000	4.985
103	Pyridine	79	2.256	2.267	(0.314)	238066	5.00000	5.397
91	Aniline	93	6.754	6.760	(0.940)	420699	5.00000	4.933
105	1-methylnaphthalene	141	10.579	10.585	(1.143)	392376	5.00000	5.008
93	Benzidine	184	16.696	16.702	(0.892)	237549	5.00000	5.000(M)
111	Azobenzene (1,2-DP-Hydrazine)	77	13.256	13.278	(1.095)	460259	5.00000	5.140
143	1,4-Dioxane	88	1.802	1.819	(0.251)	90333	5.00000	5.209
$ 137	d8-1,4-Dioxane	96	1.770	1.781	(0.246)	94230	5.00000	4.906
144	alpha-Terpineol	59	9.345	9.362	(1.010)	150325	5.00000	5.074
177	p-Benzoquinone	82	5.836	5.836	(0.631)	32189	5.00000	5.000
98	Retene	219	17.337	17.348	(0.926)	317055	5.00000	5.257
99	Perylene	252	20.895	20.928	(1.002)	915281	5.00000	5.033
133	Butylatedhydroxytoluene	205	12.326	12.337	(1.019)	373108	5.00000	4.835
115	Tributyl Phosphate	99	13.368	13.411	(0.925)	476707	5.00000	5.260
116	Dibutyl Phenyl Phosphate	175	15.072	15.105	(1.043)	359996	5.00000	5.208
117	Butyl Diphenyl Phosphate	94	16.733	16.745	(0.894)	99939	5.00000	5.360
118	Triphenyl Phosphate	326	18.315	18.326	(0.978)	188276	5.00000	5.168
123	Acetophenone	105	7.919	7.935	(1.102)	332114	5.00000	5.085
168	Pentachlorobenzene	250	12.454	12.471	(1.029)	249199	5.00000	5.065
113	Diphenyl Oxide	170	11.391	11.403	(0.941)	371227	5.00000	5.186
112	Biphenyl	154	11.199	11.205	(0.925)	590240	5.00000	5.132
120	2,3,4,6-Tetrachlorophenol	232	12.722	12.733	(1.051)	112806	5.00000	5.220
151	1,2,4,5-Tetrachlorobenzene	216	10.750	10.756	(0.888)	259895	5.00000	5.047
110	Tetrachloroguaiacol	247	14.431	14.453	(0.999)	190450	10.0000	11.78
109	3,4,5-Trichloroguaiacol	213	12.823	12.840	(0.887)	104893	5.00000	5.652
181	3,4,6-Trichloroguaiacol	211	12.941	12.952	(1.801)	125029	5.00000	5.555
108	4,5,6-Trichloroguaiacol	213	13.854	13.871	(1.145)	109142	5.00000	5.499
184	3,4-Dichloroguaiacol	192	11.295	11.306	(1.572)	112821	5.00000	5.554
107	4,5-Dichloroguaiacol	192	12.091	12.108	(0.999)	288534	10.0000	10.93
182	4,6-Dichloroguaiacol	192	12.091	12.108	(1.682)	288139	10.0000	10.79
185	4-Chloroguaiacol	115	10.221	10.233	(1.422)	53321	2.50000	2.694
186	Carbaryl	144	15.291	15.324	(1.058)	306739	5.00000	4.736
178	2-Benzyl-4-Chlorophenol	218	15.270	15.297	(1.057)	152417	5.00000	5.575
106	Guaiacol	124	8.202	8.213	(1.141)	215012	5.00000	5.126

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231203.D
Lab Smp Id: IC50523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC50523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	830650	-13.81
27 Naphthalene-d8	3430476	1715238	6860952	2944206	-14.18
42 Acenaphthene-d10	2259168	1129584	4518336	1841983	-18.47
59 Phenanthrene-d10	3446677	1723338	6893354	2904487	-15.73
69 Chrysene-d12	3961525	1980762	7923050	3176606	-19.81
134 Di-n-octylphthala	3758743	1879372	7517486	2976173	-20.82
77 Perylene-d12	4154109	2077054	8308218	3450025	-16.95

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	-0.05
27 Naphthalene-d8	9.26	8.76	9.76	9.25	-0.04
42 Acenaphthene-d10	12.11	11.61	12.61	12.10	-0.03
59 Phenanthrene-d10	14.46	13.96	14.96	14.45	-0.02
69 Chrysene-d12	18.73	18.23	19.23	18.73	-0.05
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	-0.02
77 Perylene-d12	20.87	20.37	21.37	20.86	-0.04

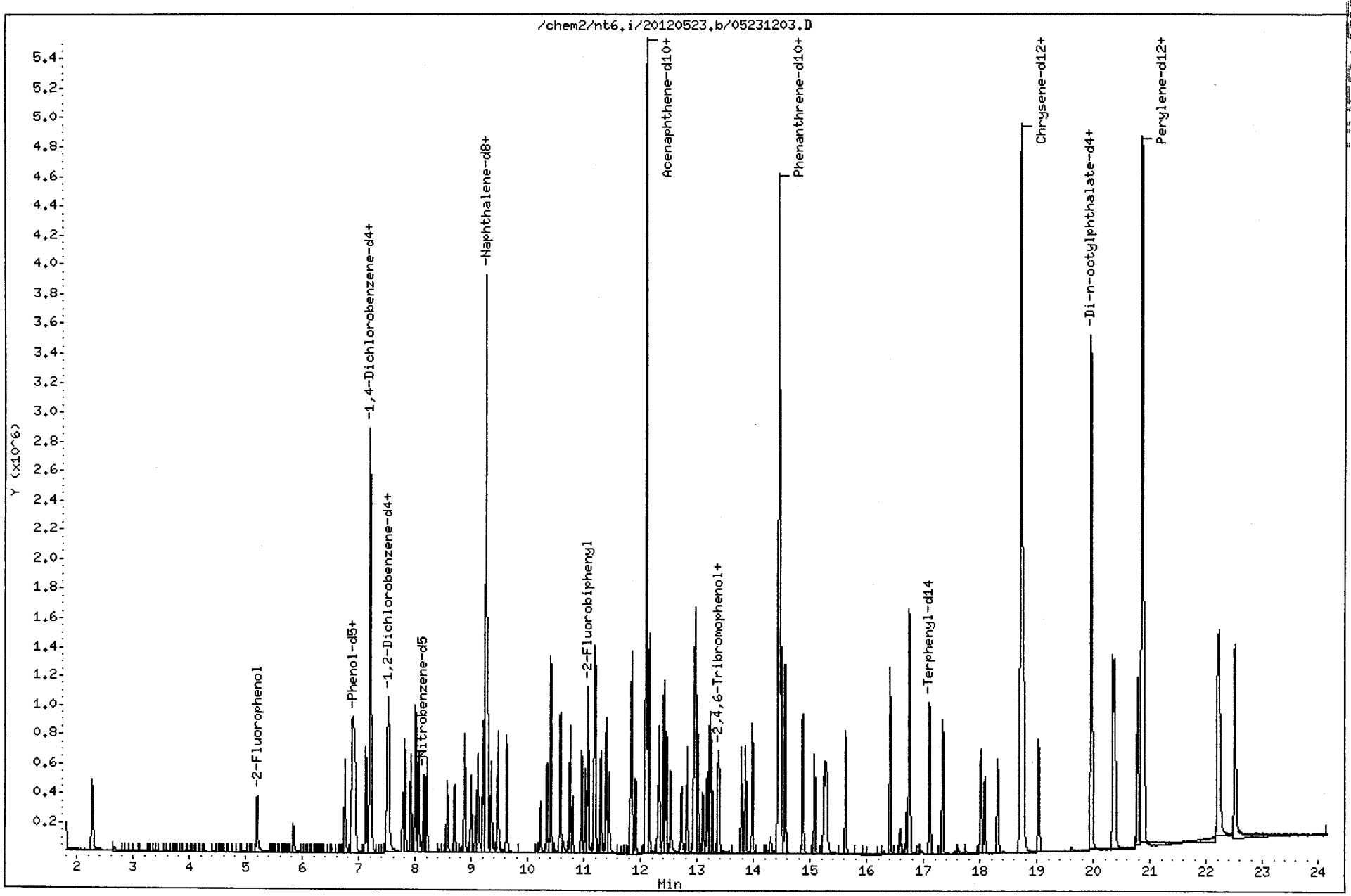
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120523.b/05231203.D
Date : 23-MAY-2012 14:41
Client ID: IC50523
Sample Info: IC50523,

Instrument: nt6.i

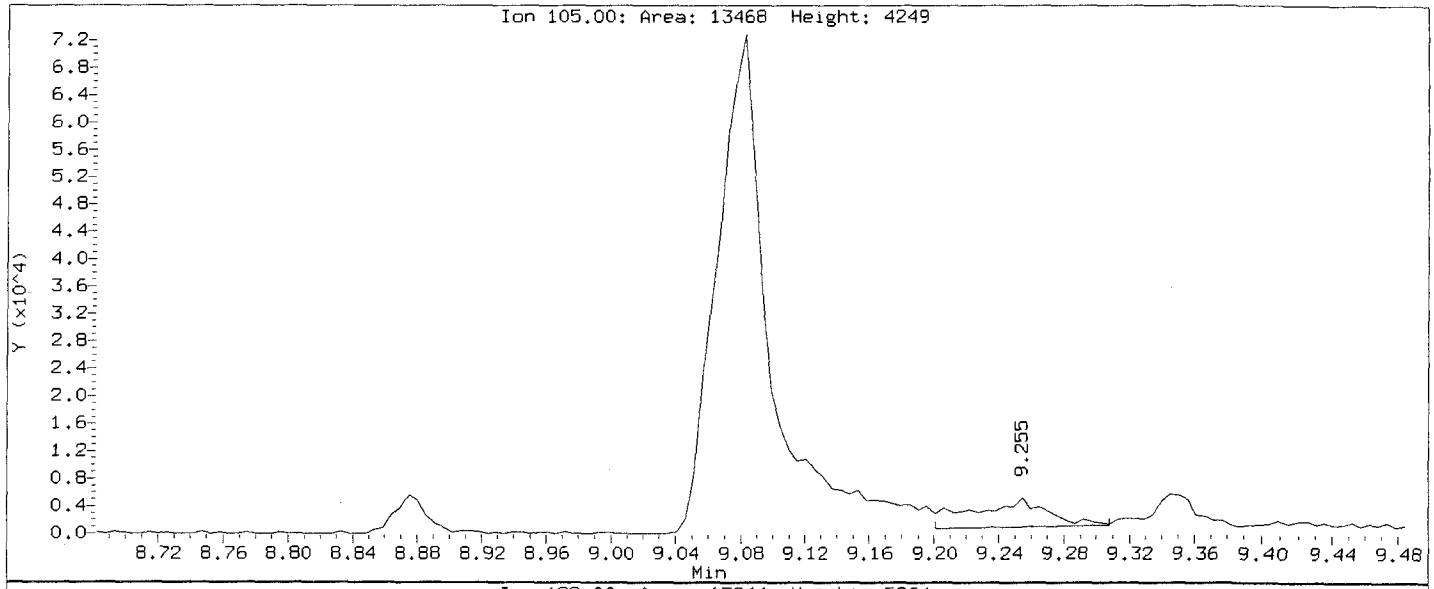
Operator: JZ
Column diameter: 0.32

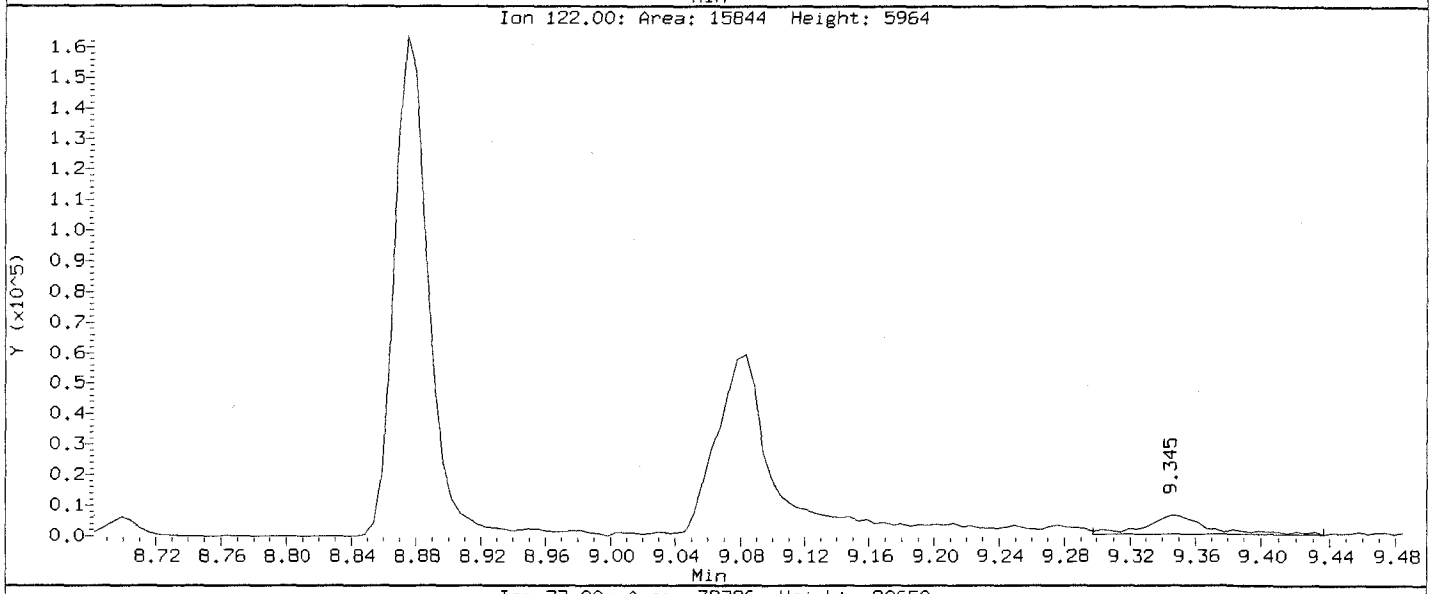
Column phase: ZB-5msi

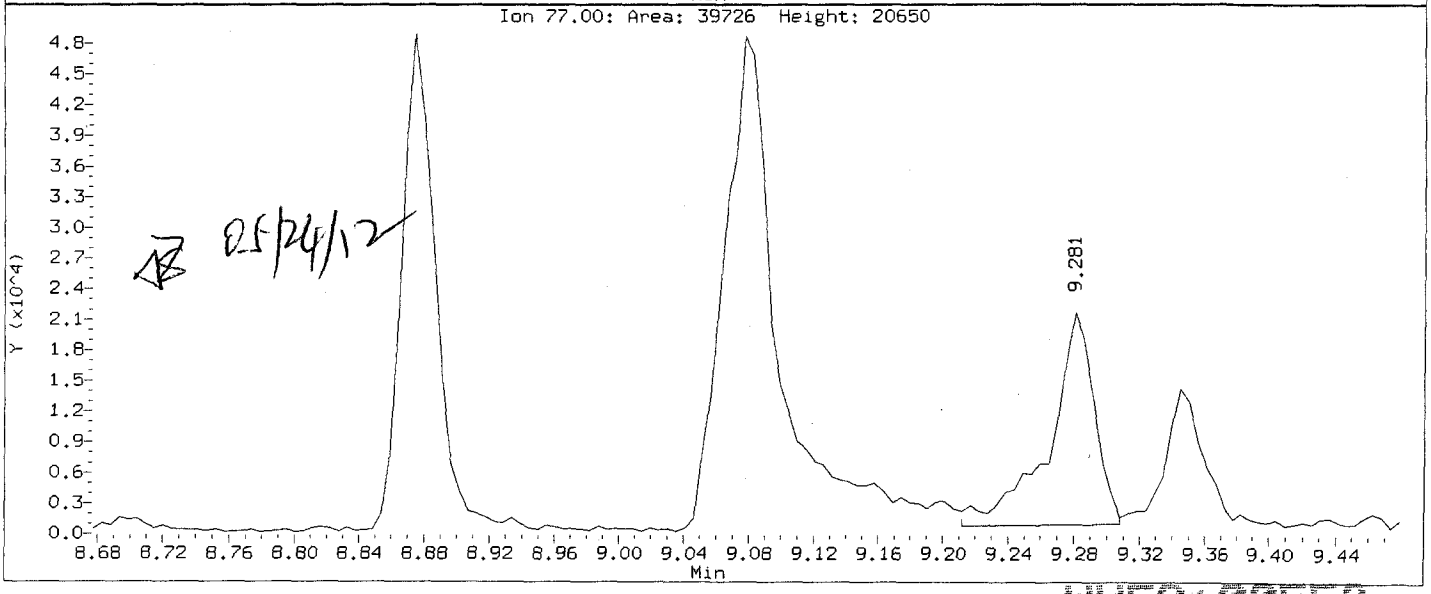


Data File: /chem2/nt6.i/20120523.b/05231203.D
Injection Date: 23-MAY-2012 14:41
Instrument: nt6.i
Client Sample ID: IC50523

Compound: Benzoic acid
CAS Number: 65-85-0





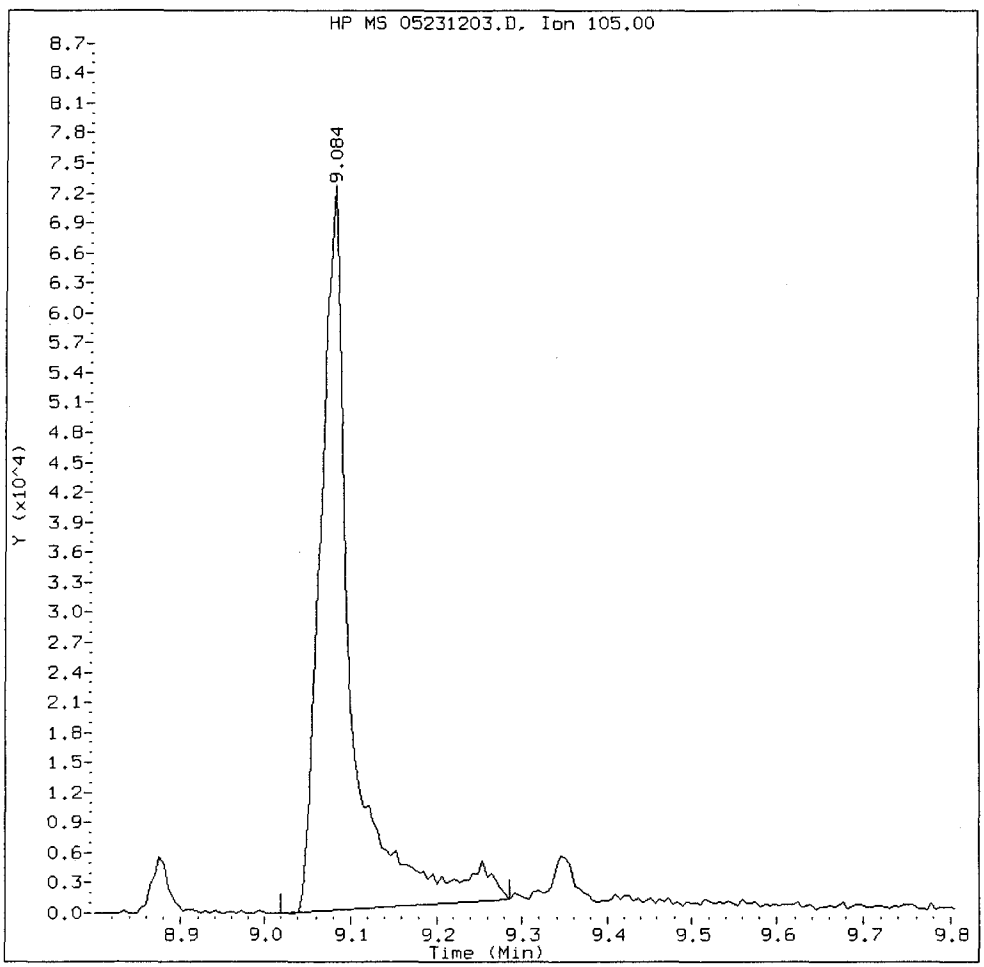


02/24/12

UU52: 00558

IC50523, /chem2/nt6.i/20120523.b/05231203.D

Benzoic acid Amount: 10.00 Area: 180212



MANUAL INTEGRATION for Benzoic acid

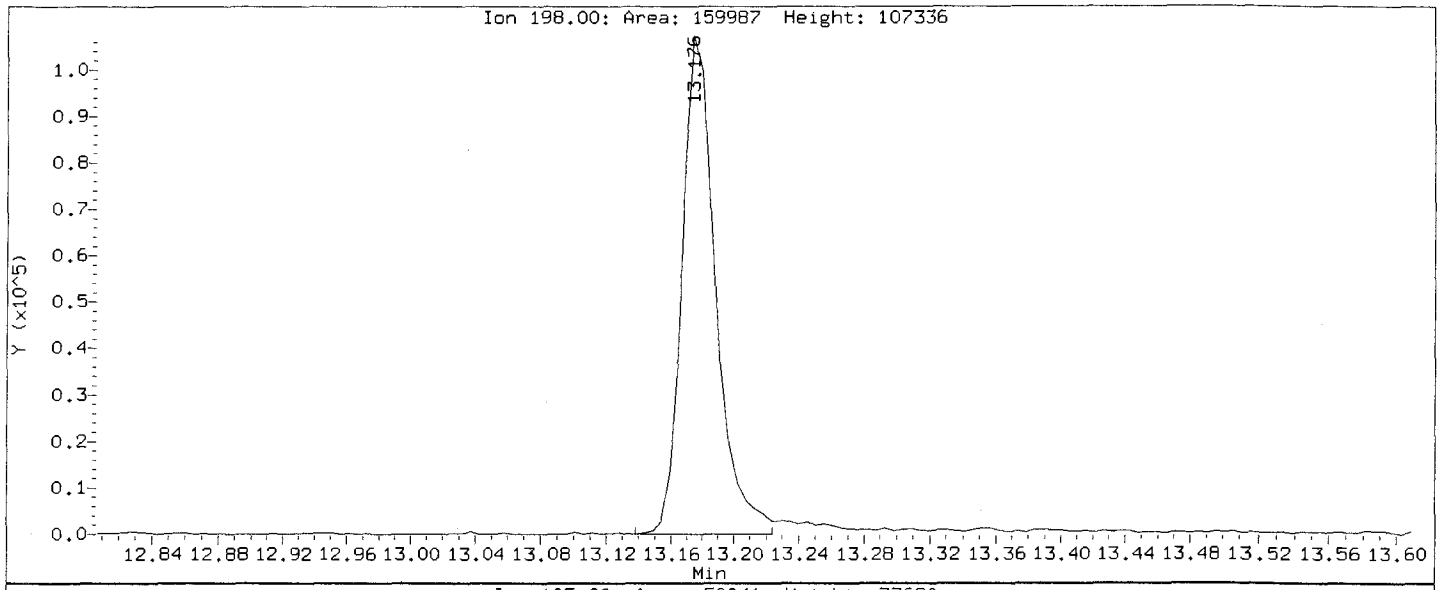
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

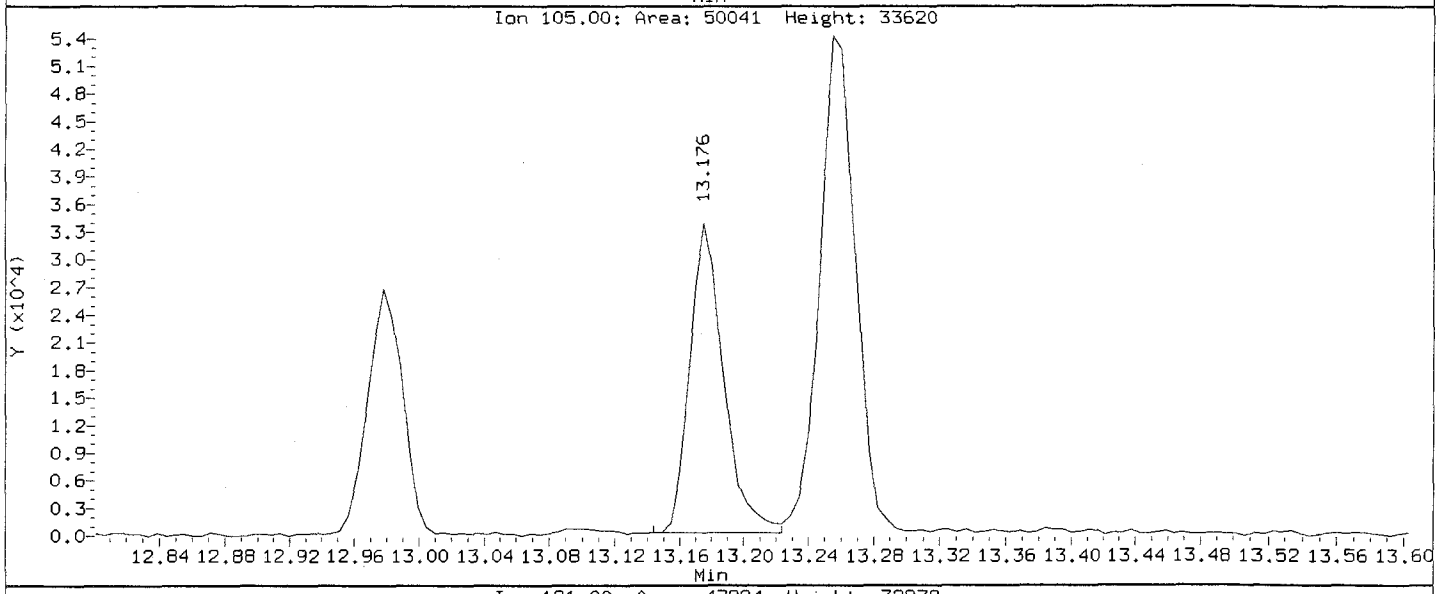
5. Other _____

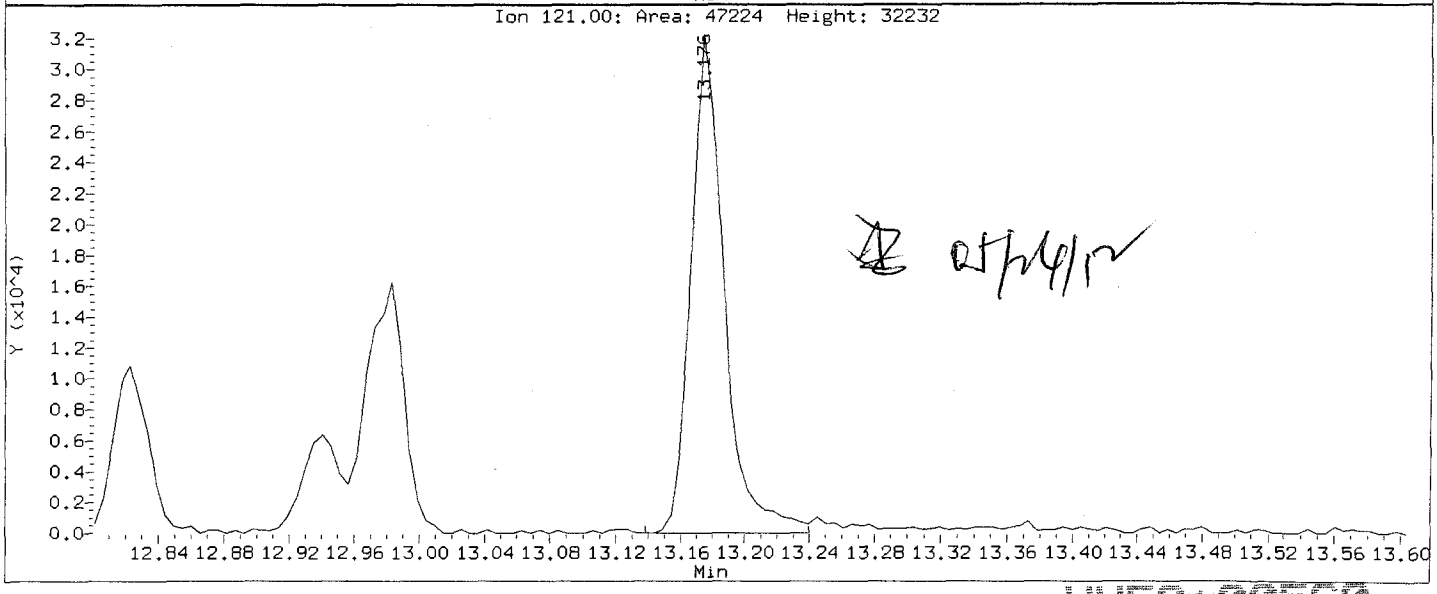
Analyst: _____ Date: 05/14/12

Data File: /chem2/nt6.i/20120523.b/05231203.D
Injection Date: 23-MAY-2012 14:41
Instrument: nt6.i
Client Sample ID: IC50523

Compound: 4,6-Dinitro-2-methylphenol
CAS Number: 534-52-1



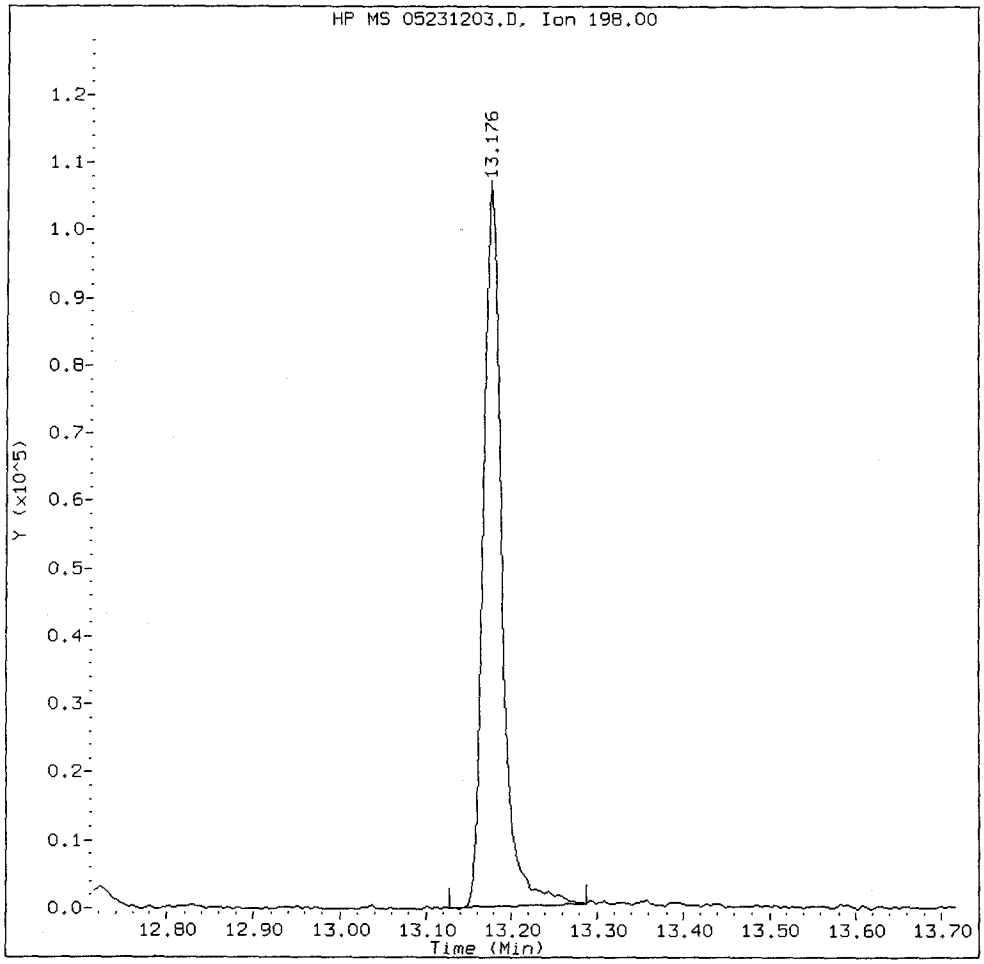




UU52: 00560

IC50523, /chem2/nt6.i/20120523.b/05231203.D

4,6-Dinitro-2-methylphenol Amount: 10.00 Area: 161884



MANUAL INTEGRATION for 4,6-Dinitro-2-methylphenol

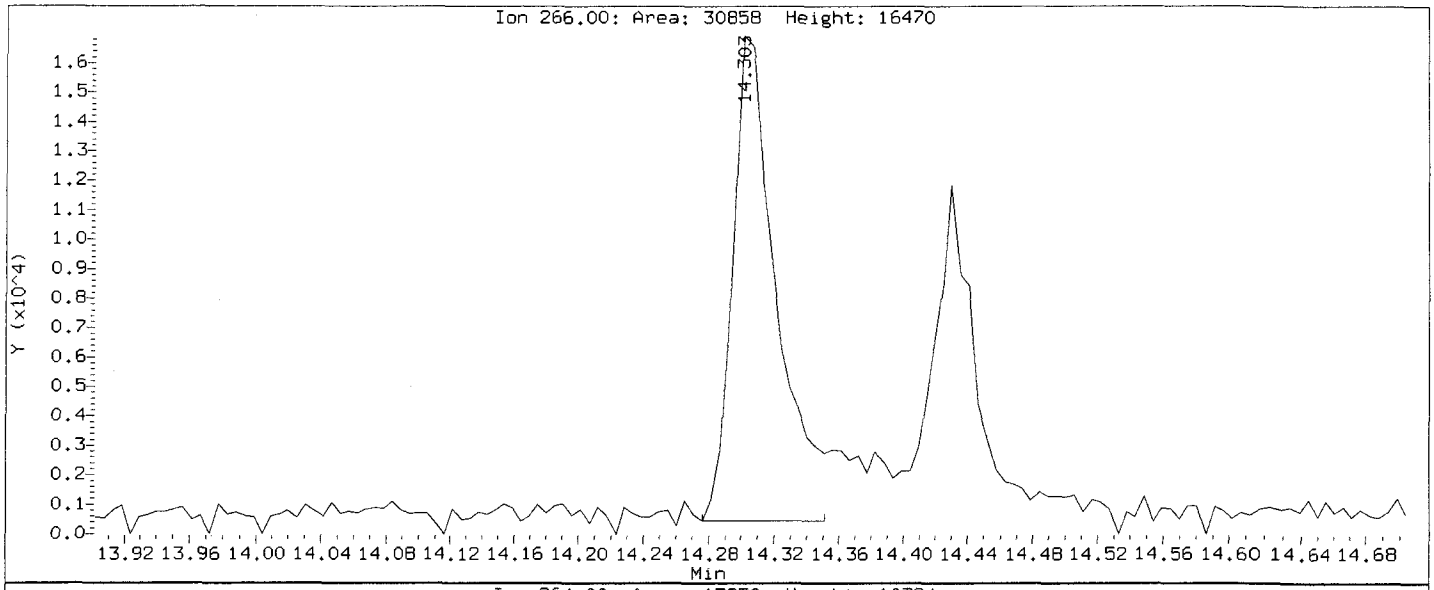
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

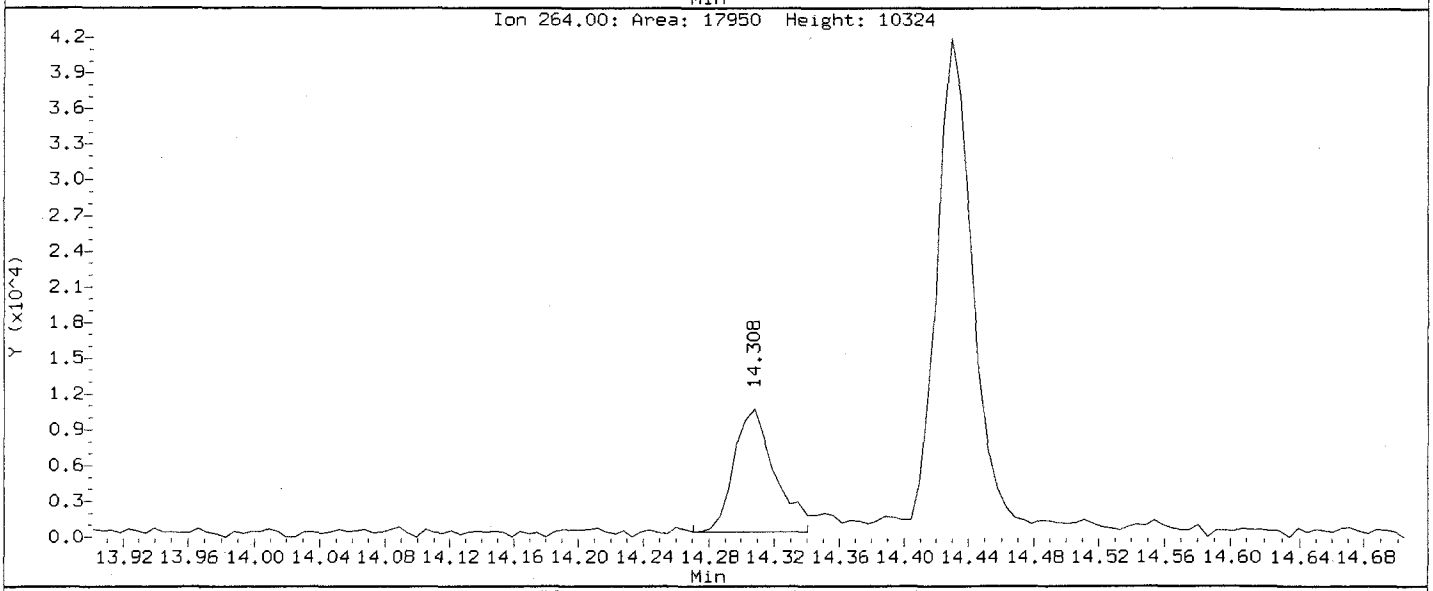
5. Other _____

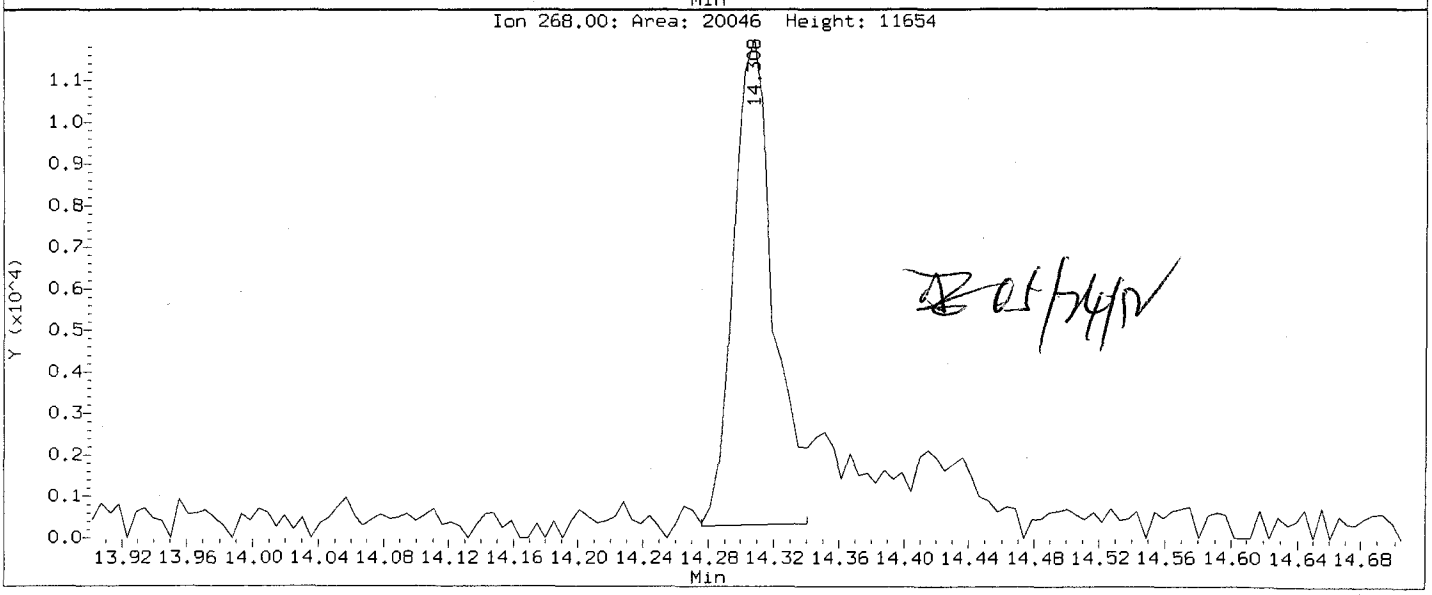
Analyst: _____ Date: 6/14/12

Data File: /chem2/nt6.i/20120523.b/05231203.D
Injection Date: 23-MAY-2012 14:41
Instrument: nt6.i
Client Sample ID: IC50523

Compound: Pentachlorophenol
CAS Number: 87-86-5

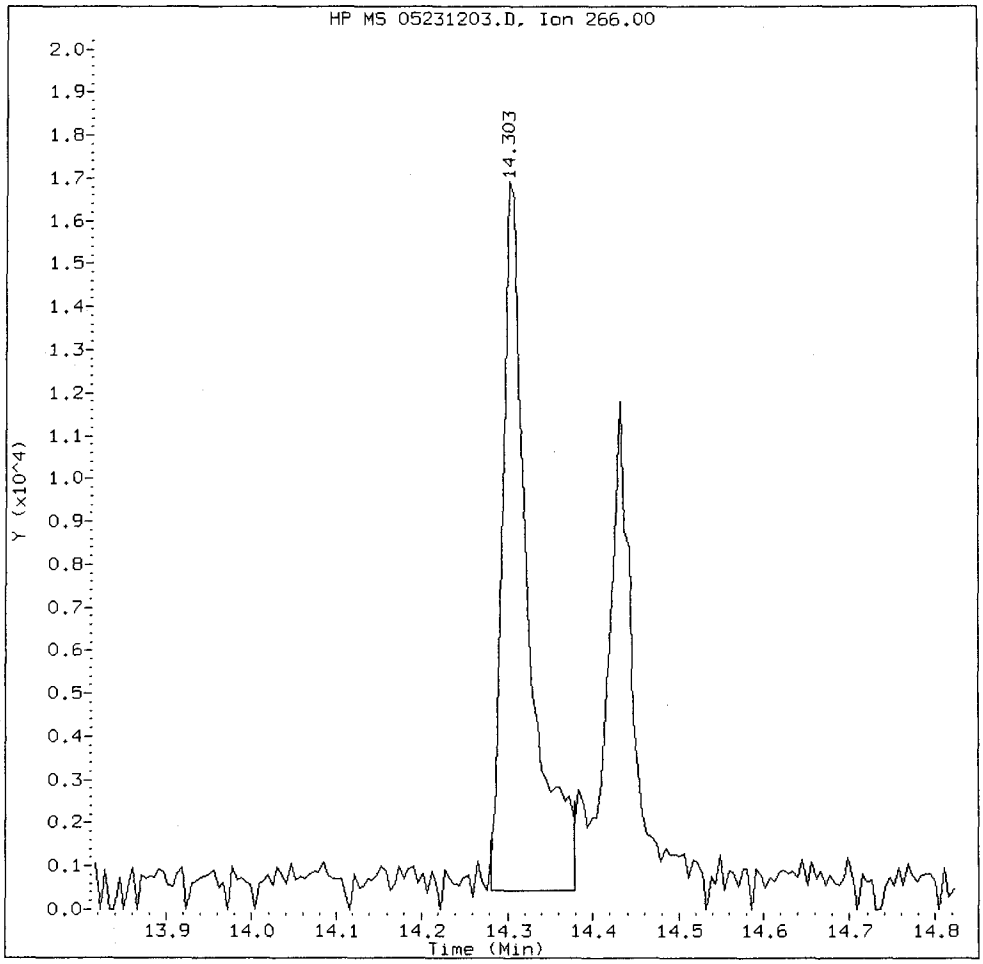






IC50523, /chem2/nt6.i/20120523.b/05231203.D

Pentachlorophenol Amount: 5.00 Area: 34405



MANUAL INTEGRATION for Pentachlorophenol

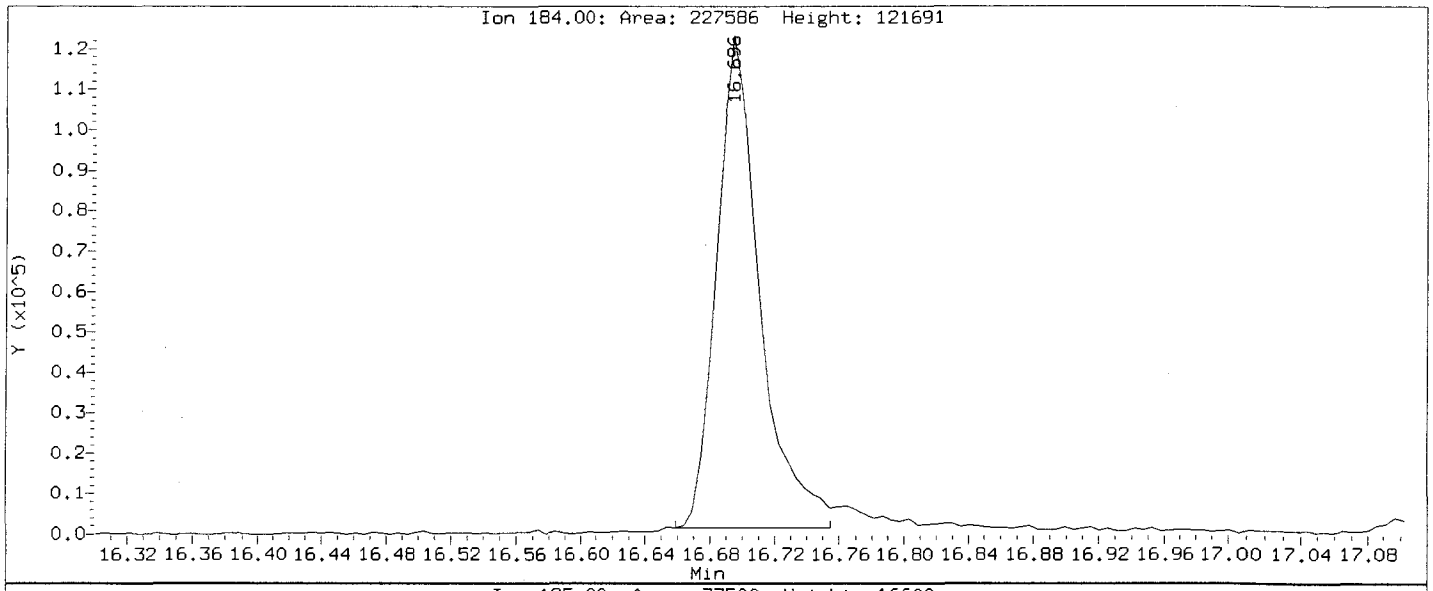
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

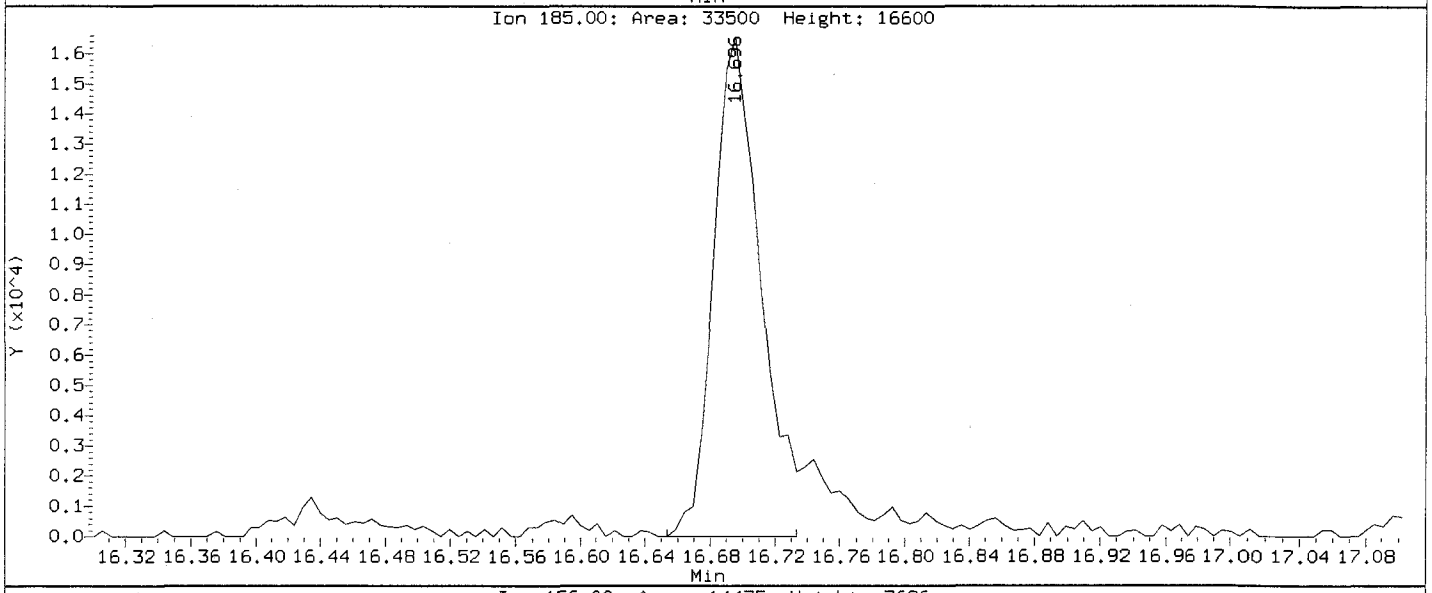
5. Other _____

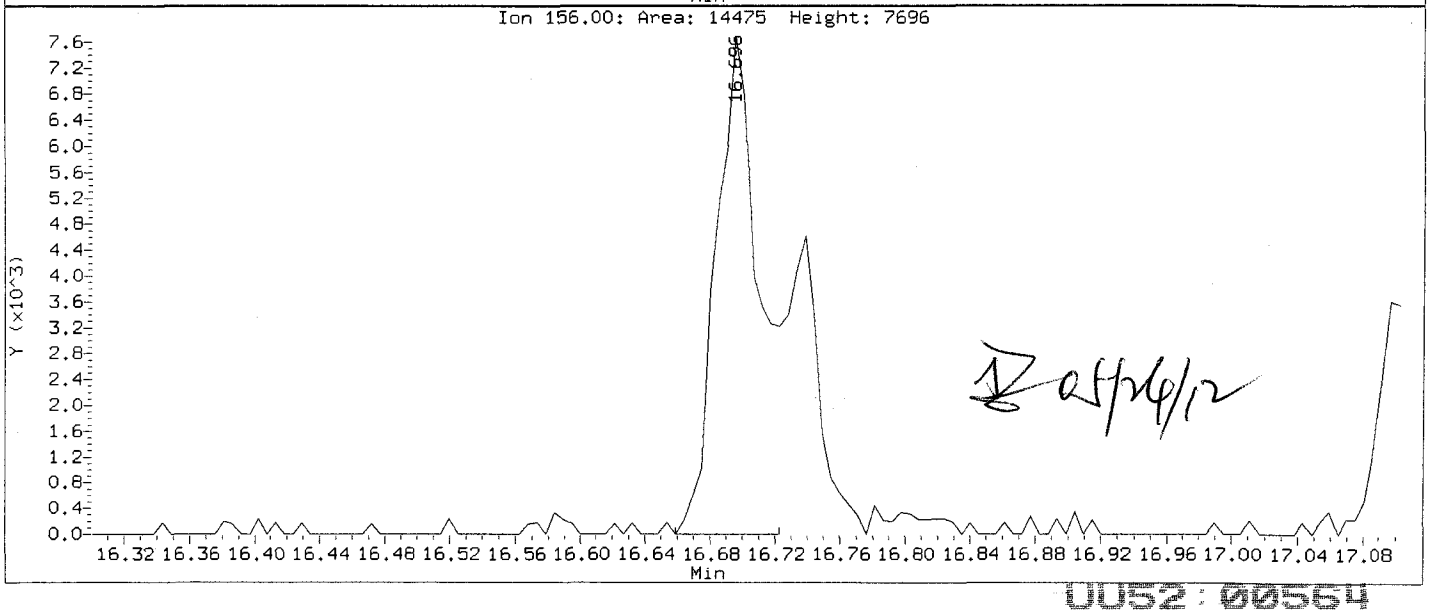
Analyst: _____ Date: 04/24/12

Data File: /chem2/nt6.i/20120523.b/05231203.D
Injection Date: 23-MAY-2012 14:41
Instrument: nt6.i
Client Sample ID: IC50523

Compound: Benzidine
CAS Number:



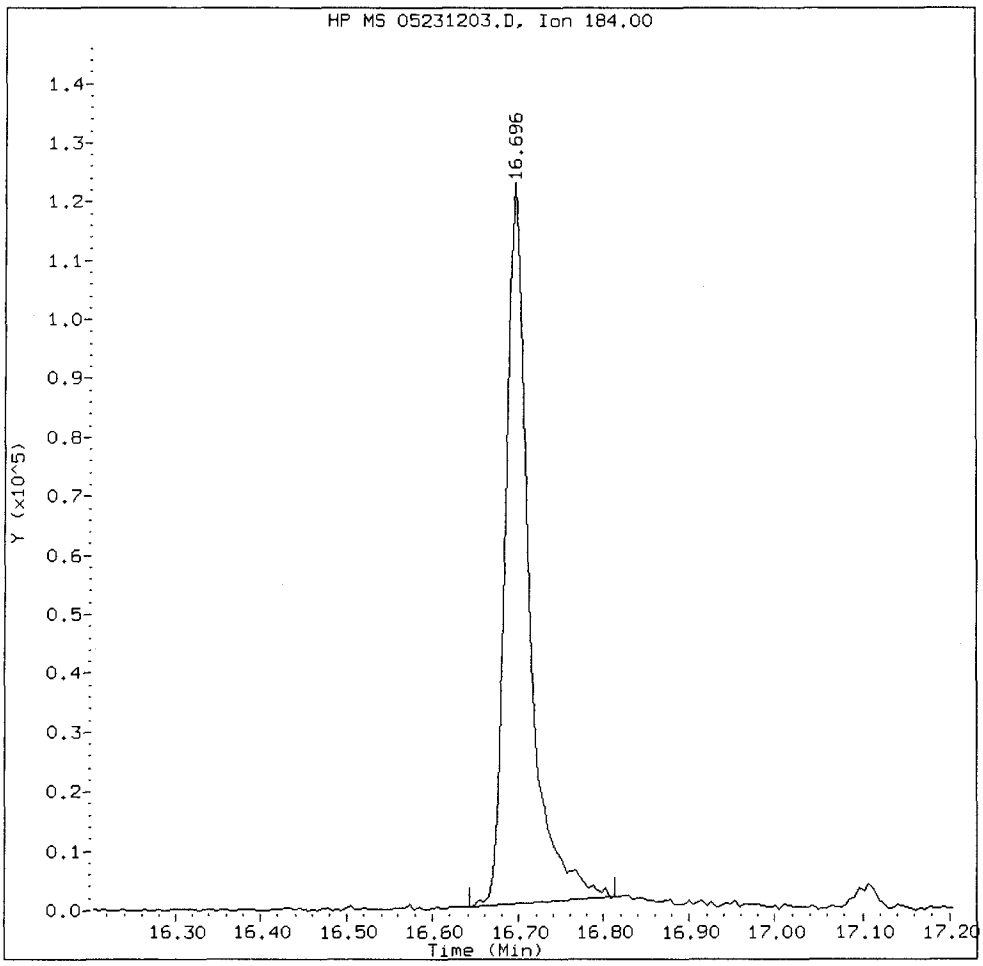




05/24/12

IC50523, /chem2/nt6.i/20120523.b/05231203.D

Benzidine Amount: 5.00 Area: 237549



MANUAL INTEGRATION for Benzidine

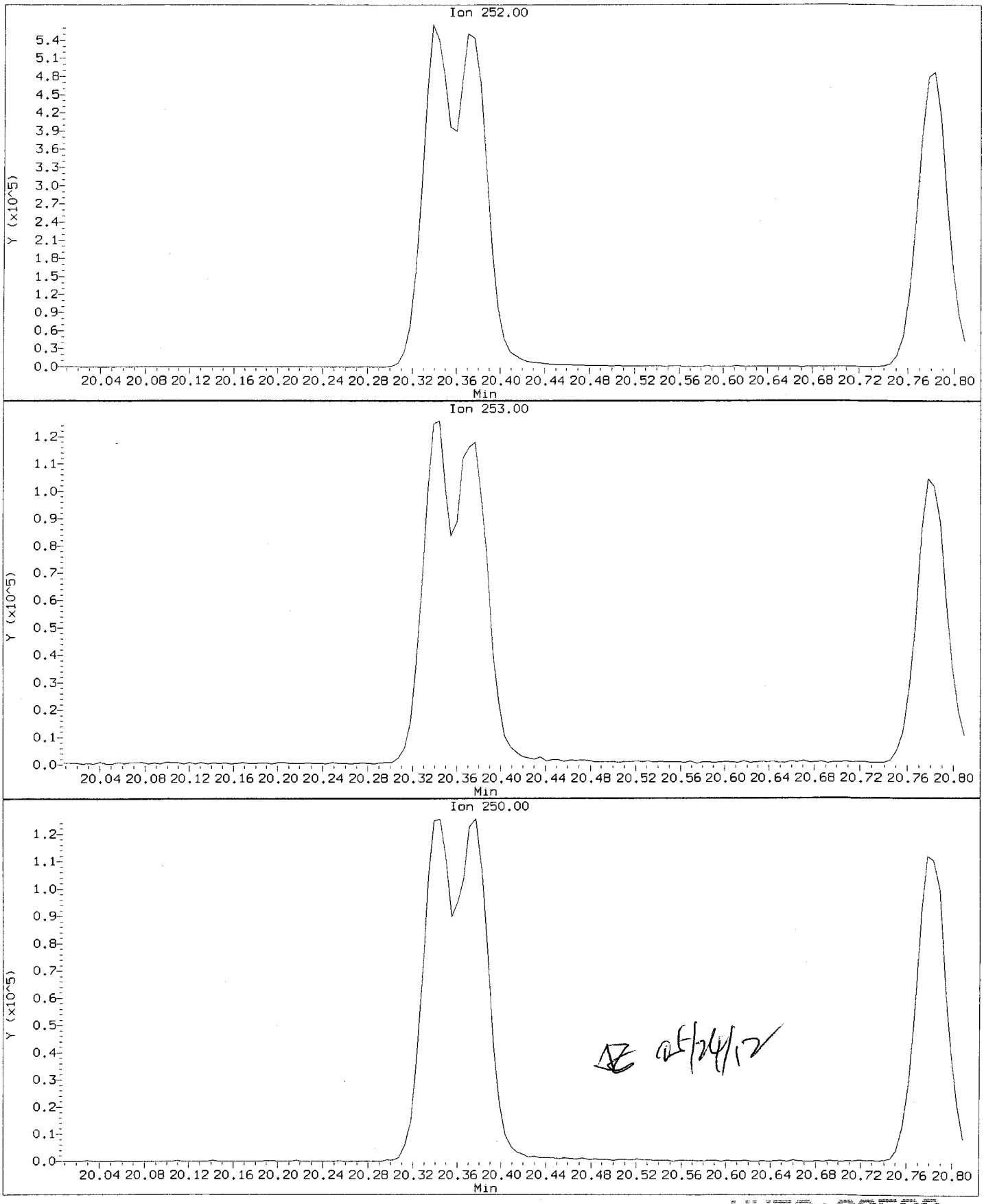
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/29/12

Data File: /chem2/nt6.i/20120523A.b/05231203.D
Injection Date: 23-MAY-2012 14:41
Instrument: nt6.i
Client Sample ID: IC50523

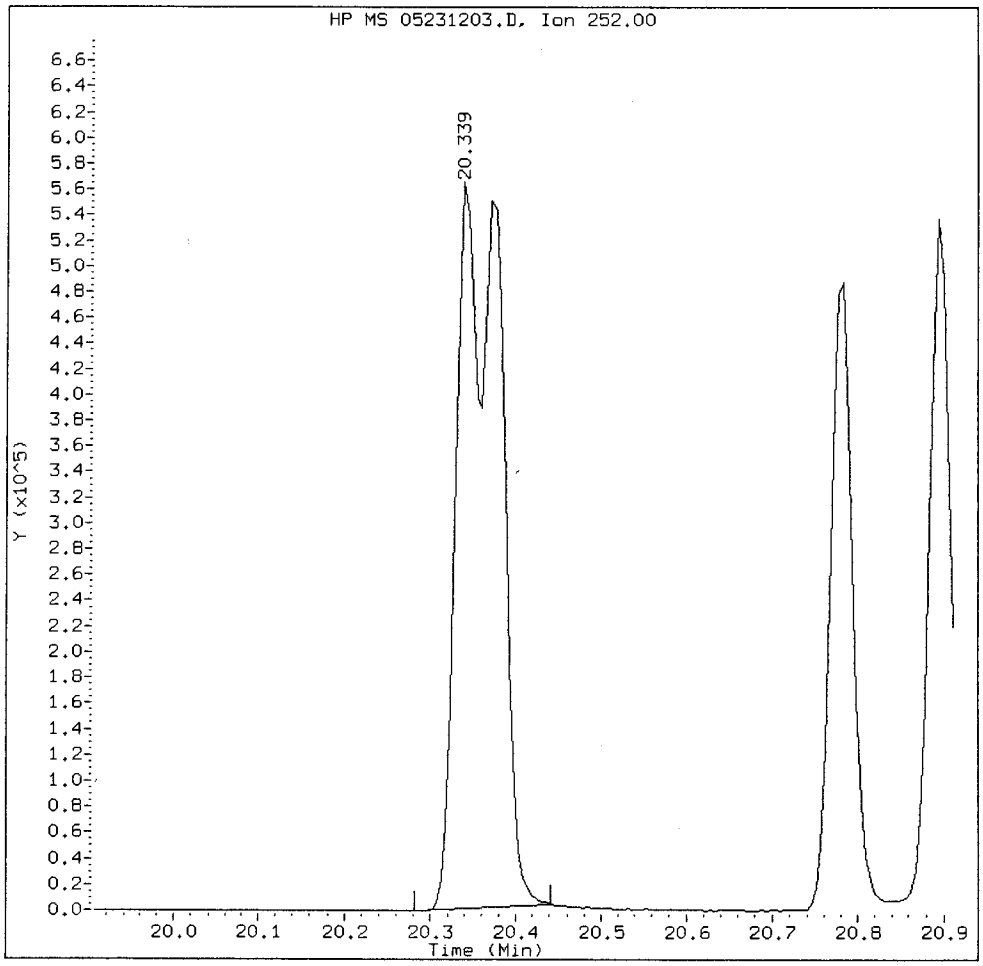
Compound: Total Benzofluoranthenes
CAS Number:



@ 6/24/12

IC50523, /chem2/nt6.i/20120523.b/05231203.D

Total Benzofluoranthenes Amount: 10.37 Area: 1953479



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 8/24/12

CO-ELUTION SUMMARY FOR FILE - 05231203.D

Lab ID: IC50523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231204.D
Lab Smp Id: IC100523 Client Smp ID: IC100523
Inj Date : 23-MAY-2012 15:15
Operator : JZ Inst ID: nt6.i
Smp Info : IC100523,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 15:15 Cal File: 05231204.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

JZ 05/24/12

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.190	5.194	(0.721)	518915	10.0000	10.68
$	2 Phenol-d5	99	6.862	6.877	(0.954)	605991	10.0000	10.29
	3 Phenol	94	6.883	6.894	(0.957)	679909	10.0000	9.240
$	5 2-Chlorophenol-d4	132	6.904	6.909	(0.960)	589682	10.0000	10.24
	4 Bis(2-Chloroethyl)ether	93	6.894	6.899	(0.958)	502292	10.0000	10.23
	6 2-Chlorophenol	128	6.931	6.936	(0.964)	615752	10.0000	9.096
	7 1,3-Dichlorobenzene	146	7.123	7.129	(0.990)	681545	10.0000	9.989
*	8 1,4-Dichlorobenzene-d4	152	7.193	7.193	(1.000)	859474	20.0000	
	9 1,4-Dichlorobenzene	146	7.214	7.220	(1.003)	676158	10.0000	9.852
$	10 1,2-Dichlorobenzene-d4	152	7.492	7.497	(1.042)	421461	10.0000	9.827
	12 1,2-Dichlorobenzene	146	7.513	7.519	(1.045)	645408	10.0000	9.942
	11 Benzyl alcohol	108	7.524	7.545	(1.046)	377017	10.0000	11.15
	14 2,2'-oxybis(1-Chloropropane)	45	7.786	7.791	(1.082)	560085	10.0000	9.826
	13 2-Methylphenol	108	7.813	7.823	(1.086)	512953	10.0000	9.252
	17 Hexachloroethane	117	8.000	8.005	(1.112)	236040	10.0000	10.09
	16 N-Nitroso-di-n-propylamine	70	8.000	8.026	(1.112)	334729	10.0000	10.01
	15 4-Methylphenol	108	8.053	8.069	(1.120)	539215	10.0000	9.612
$	18 Nitrobenzene-d5	82	8.149	8.159	(0.880)	504443	10.0000	10.23
	19 Nitrobenzene	77	8.176	8.187	(0.883)	511298	10.0000	10.02
	20 Isophorone	82	8.566	8.593	(0.926)	754071	10.0000	9.957
	21 2-Nitrophenol	139	8.699	8.710	(0.940)	331572	10.0000	9.336
	22 2,4-Dimethylphenol	107	8.876	8.892	(0.959)	510689	10.0000	9.482
	23 Bis(2-Chloroethoxy)methane	93	8.999	9.009	(0.972)	567748	10.0000	10.03
	24 Benzoic acid	105	9.116	9.303	(0.985)	446422	20.0000	21.76
	25 2,4-Dichlorophenol	162	9.111	9.121	(0.984)	512453	10.0000	9.905
	26 1,2,4-Trichlorobenzene	180	9.207	9.218	(0.995)	569462	10.0000	9.882
*	27 Naphthalene-d8	136	9.255	9.266	(1.000)	3055832	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	9.287	9.298	(1.003)	1736633	10.0000	9.788
	29 4-Chloroaniline	127	9.463	9.479	(1.022)	753338	10.0000	9.980
	30 Hexachlorobutadiene	225	9.624	9.629	(1.040)	344214	10.0000	9.855
	31 4-Chloro-3-methylphenol	107	10.339	10.345	(1.117)	412736	10.0000	10.12
	32 2-Methylnaphthalene	141	10.414	10.420	(1.125)	1018671	10.0000	9.719
	33 Hexachlorocyclopentadiene	237	10.799	10.799	(0.892)	271883	10.0000	11.27
	34 2,4,6-Trichlorophenol	196	10.954	10.964	(0.905)	361832	10.0000	9.722
	35 2,4,5-Trichlorophenol	196	11.023	11.029	(0.911)	357845	10.0000	10.37
$	36 2-Fluorobiphenyl	172	11.071	11.076	(0.915)	1220560	10.0000	9.788
	37 2-Chloronaphthalene	162	11.183	11.189	(0.924)	1052994	10.0000	10.03
	38 2-Nitroaniline	65	11.445	11.461	(0.946)	269432	10.0000	11.37
	39 Dimethylphthalate	163	11.830	11.857	(0.977)	1096347	10.0000	9.932
	40 Acenaphthylene	152	11.851	11.862	(0.979)	1775062	10.0000	9.972
	41 2,6-Dinitrotoluene	165	11.915	11.937	(0.985)	264053	10.0000	10.58
*	42 Acenaphthene-d10	164	12.102	12.108	(1.000)	1920679	20.0000	
	43 3-Nitroaniline	138	12.118	12.150	(1.001)	327726	10.0000	10.75
	44 Acenaphthene	153	12.150	12.166	(1.004)	1116465	10.0000	9.928
	45 2,4-Dinitrophenol	184	12.289	12.316	(1.015)	153493	20.0000	28.41
	46 Dibenzofuran	168	12.418	12.434	(1.026)	1651438	10.0000	9.718
	47 4-Nitrophenol	109	12.519	12.530	(1.034)	74902	10.0000	11.11
	48 2,4-Dinitrotoluene	165	12.535	12.556	(1.036)	340937	10.0000	10.96
	50 Diethylphthalate	149	12.984	13.000	(1.073)	1041091	10.0000	9.900
	49 Fluorene	166	12.962	12.984	(1.071)	1315035	10.0000	10.09
	51 4-Chlorophenyl-phenylether	204	13.016	13.027	(1.075)	607582	10.0000	9.969
	52 4-Nitroaniline	138	13.107	13.149	(1.083)	276359	10.0000	10.39
	53 4,6-Dinitro-2-methylphenol	198	13.181	13.214	(0.912)	393806	20.0000	21.59
	54 N-Nitrosodiphenylamine	169	13.229	13.251	(0.915)	827825	10.0000	10.31
$	55 2,4,6-Tribromophenol	330	13.395	13.405	(1.107)	257884	10.0000	10.48
	56 4-Bromophenyl-phenylether	248	13.785	13.790	(0.954)	393391	10.0000	9.978
	57 Hexachlorobenzene	284	13.983	13.993	(0.967)	493841	10.0000	9.981
	58 Pentachlorophenol	266	14.303	14.319	(0.990)	100161	10.0000	11.68 (M)
*	59 Phenanthrene-d10	188	14.453	14.464	(1.000)	3012715	20.0000	
	60 Phenanthrene	178	14.485	14.506	(1.002)	1775716	10.0000	9.928
	61 Anthracene	178	14.560	14.581	(1.007)	1819707	10.0000	10.07
	62 Carbazole	167	14.870	14.886	(1.029)	1342911	10.0000	9.883
	63 Di-n-butylphthalate	149	15.623	15.633	(1.081)	1632786	10.0000	10.16
	64 Fluoranthene	202	16.408	16.419	(1.135)	1898951	10.0000	9.986
	65 Pyrene	202	16.750	16.766	(0.894)	1973115	10.0000	9.986
$	66 Terphenyl-d14	244	17.103	17.113	(0.913)	1231106	10.0000	10.20
	67 Butylbenzylphthalate	149	18.016	18.027	(0.962)	676501	10.0000	10.45
	68 Benzo(a)anthracene	228	18.705	18.721	(0.999)	1840502	10.0000	9.964
*	69 Chrysene-d12	240	18.727	18.743	(1.000)	3283977	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.748	18.759	(1.001)	686007	10.0000	9.835
	71 Chrysene	228	18.764	18.791	(1.002)	1778051	10.0000	9.965
	72 bis(2-Ethylhexyl)phthalate	149	19.031	19.036	(0.953)	908243	10.0000	9.991
*	134 Di-n-octylphthalate-d4	153	19.961	19.971	(1.000)	3087098	20.0000	
	73 Di-n-octylphthalate	149	19.971	19.982	(1.001)	1597660	10.0000	9.896

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	20.340	20.377	(0.975)	2089028	10.0000	10.05
75	Benzo(k)fluoranthene	252	20.377	20.377	(0.976)	2086289	10.0000	10.36
187	Total Benzofluoranthenes	252	20.377	20.409	(0.976)	3940835	20.0000	20.44
76	Benzo(a)pyrene	252	20.783	20.810	(0.996)	1819152	10.0000	10.20
* 77	Perylene-d12	264	20.869	20.879	(1.000)	3490837	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	22.210	22.242	(1.064)	2633850	10.0000	10.38
79	Dibenzo(a,h)anthracene	278	22.236	22.274	(1.066)	2201491	10.0000	10.43
80	Benzo(g,h,i)perylene	276	22.514	22.562	(1.079)	2251972	10.0000	10.35
90	N-Nitrosodimethylamine	74	2.273	2.305	(0.316)	295463	10.0000	9.961
103	Pyridine	79	2.251	2.267	(0.313)	526462	10.0000	10.97
91	Aniline	93	6.755	6.760	(0.939)	806868	10.0000	9.413
105	1-methylnaphthalene	141	10.580	10.585	(1.143)	759545	10.0000	9.550
93	Benzidine	184	16.697	16.702	(0.892)	381998	10.0000	8.750(M)
111	Azobenzene (1,2-DP-Hydrazine)	77	13.262	13.278	(1.096)	947447	10.0000	10.10
143	1,4-Dioxane	88	1.803	1.819	(0.251)	181890	10.0000	10.09
$ 137	d8-1,4-Dioxane	96	1.771	1.781	(0.246)	192132	10.0000	9.776
144	alpha-Terpineol	59	9.346	9.362	(1.010)	296230	10.0000	9.753
177	p-Benzoquinone	82	5.831	5.836	(0.630)	77236	10.0000	10.72
98	Retene	219	17.338	17.348	(0.926)	623659	10.0000	10.00
99	Perylene	252	20.895	20.928	(1.001)	1716344	10.0000	9.541
133	Butylatedhydroxytoluene	205	12.327	12.337	(1.019)	749829	10.0000	9.535
115	Tributyl Phosphate	99	13.374	13.411	(0.925)	942634	10.0000	10.02
116	Dibutyl Phenyl Phosphate	175	15.078	15.105	(1.043)	732243	10.0000	10.14
117	Butyl Diphenyl Phosphate	94	16.734	16.745	(0.894)	198609	10.0000	10.20
118	Triphenyl Phosphate	326	18.315	18.326	(0.978)	376942	10.0000	10.01
123	Acetophenone	105	7.919	7.935	(1.101)	683980	10.0000	10.08
168	Pentachlorobenzene	250	12.460	12.471	(1.030)	512290	10.0000	9.990
113	Diphenyl Oxide	170	11.392	11.403	(0.941)	709337	10.0000	9.663
112	Biphenyl	154	11.199	11.205	(0.925)	1150564	10.0000	9.725
120	2,3,4,6-Tetrachlorophenol	232	12.727	12.733	(1.052)	263701	10.0000	11.07
151	1,2,4,5-Tetrachlorobenzene	216	10.751	10.756	(0.888)	531246	10.0000	9.929
110	Tetrachloroguaiacol	247	14.431	14.453	(0.999)	400245	20.0000	22.42
109	3,4,5-Trichloroguaiacol	213	12.823	12.840	(0.887)	204293	10.0000	10.40
181	3,4,6-Trichloroguaiacol	211	12.941	12.952	(1.799)	245866	10.0000	10.36
108	4,5,6-Trichloroguaiacol	213	13.855	13.871	(1.145)	211647	10.0000	10.15
184	3,4-Dichloroguaiacol	192	11.296	11.306	(1.570)	222024	10.0000	10.37
107	4,5-Dichloroguaiacol	192	12.092	12.108	(0.999)	563729	20.0000	20.32
182	4,6-Dichloroguaiacol	192	12.092	12.108	(1.681)	563288	20.0000	20.26
185	4-Chloroguaiacol	115	10.227	10.233	(1.422)	105575	5.00000	5.103
186	Carbaryl	144	15.292	15.324	(1.058)	694562	10.0000	10.22
178	2-Benzyl-4-Chlorophenol	218	15.265	15.297	(1.056)	319540	10.0000	10.81
106	Guaiacol	124	8.203	8.213	(1.140)	426590	10.0000	9.886

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231204.D
Lab Smp Id: IC100523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC100523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	859474	-10.82
27 Naphthalene-d8	3430476	1715238	6860952	3055832	-10.92
42 Acenaphthene-d10	2259168	1129584	4518336	1920679	-14.98
59 Phenanthrene-d10	3446677	1723338	6893354	3012715	-12.59
69 Chrysene-d12	3961525	1980762	7923050	3283977	-17.10
134 Di-n-octylphthala	3758743	1879372	7517486	3087098	-17.87
77 Perylene-d12	4154109	2077054	8308218	3490837	-15.97

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.03
27 Naphthalene-d8	9.26	8.76	9.76	9.25	-0.03
42 Acenaphthene-d10	12.11	11.61	12.61	12.10	-0.02
59 Phenanthrene-d10	14.46	13.96	14.96	14.45	-0.02
69 Chrysene-d12	18.73	18.23	19.23	18.73	-0.04
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	-0.02
77 Perylene-d12	20.87	20.37	21.37	20.87	-0.01

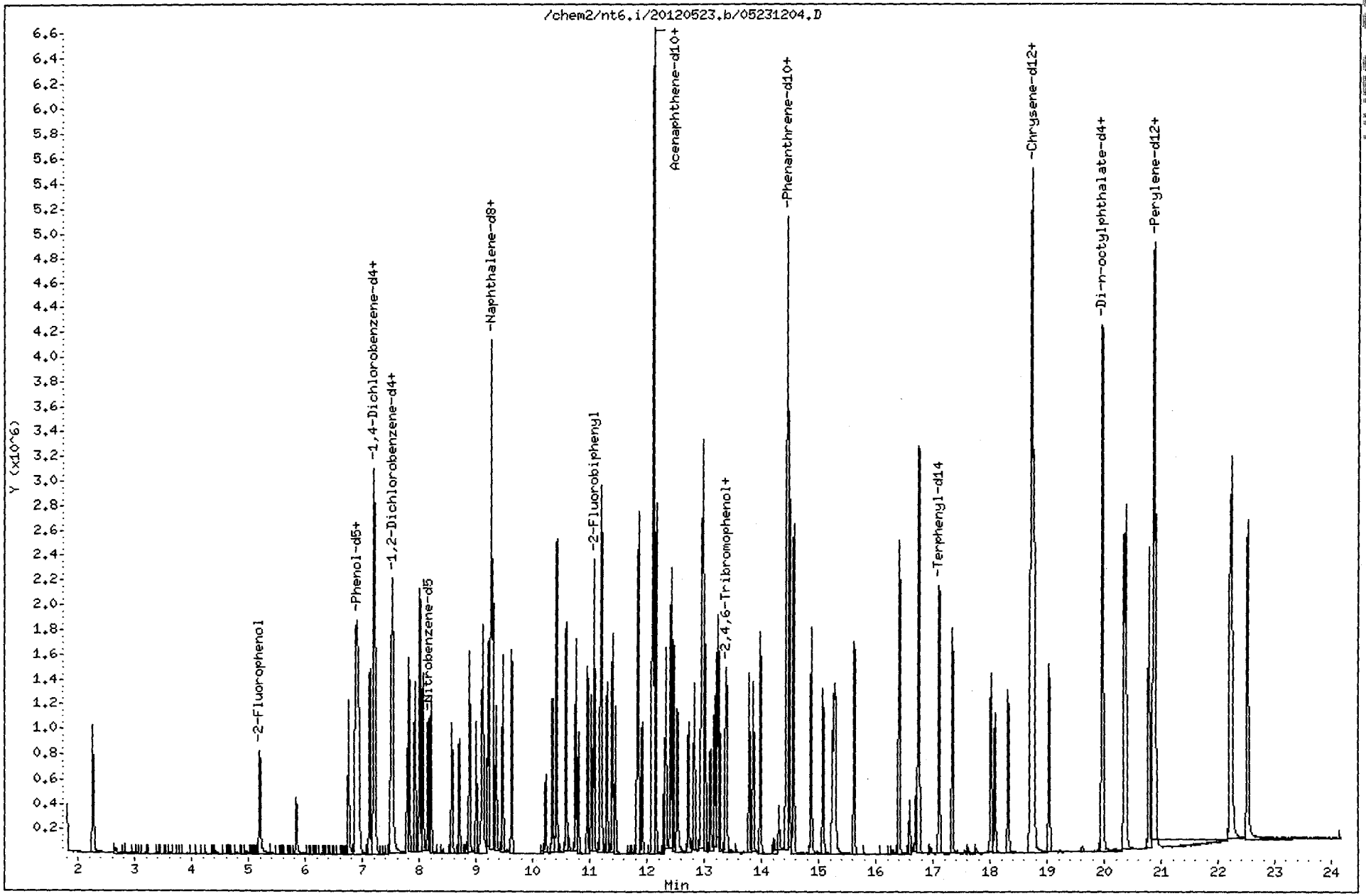
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120523.b/05231204.D
Date : 23-MAY-2012 15:15
Client ID: IC100523
Sample Info: IC100523,

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

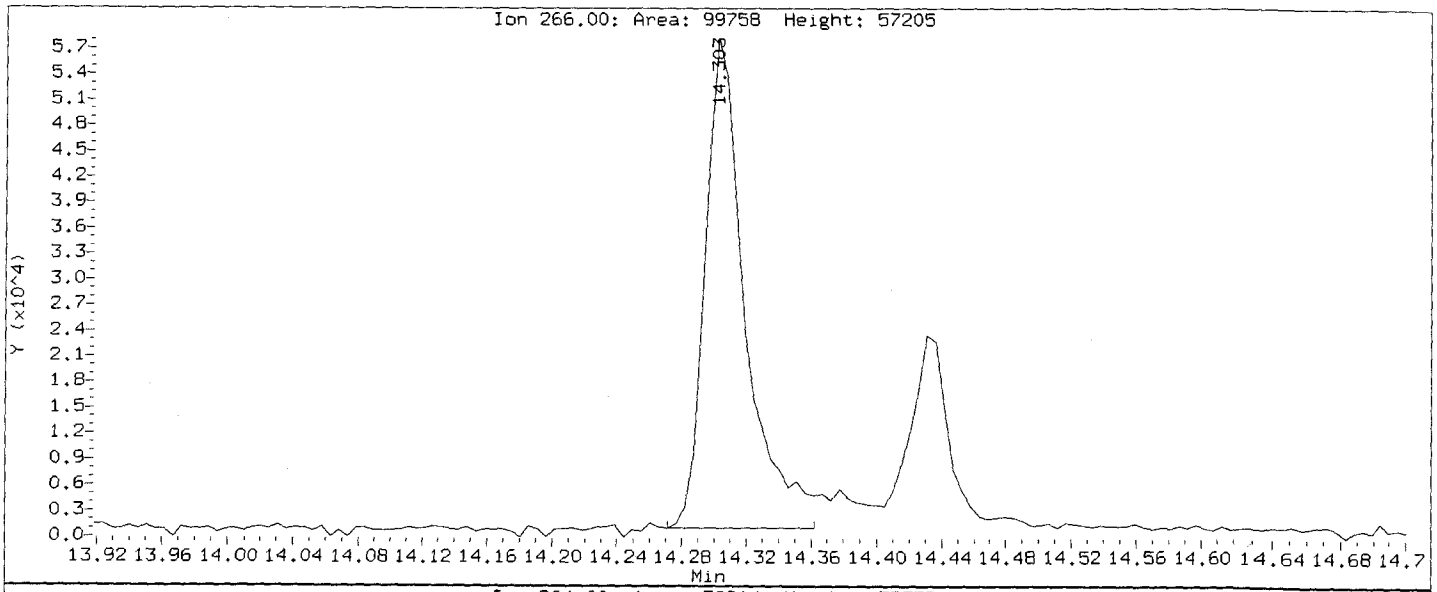
Column phase: ZB-5msi

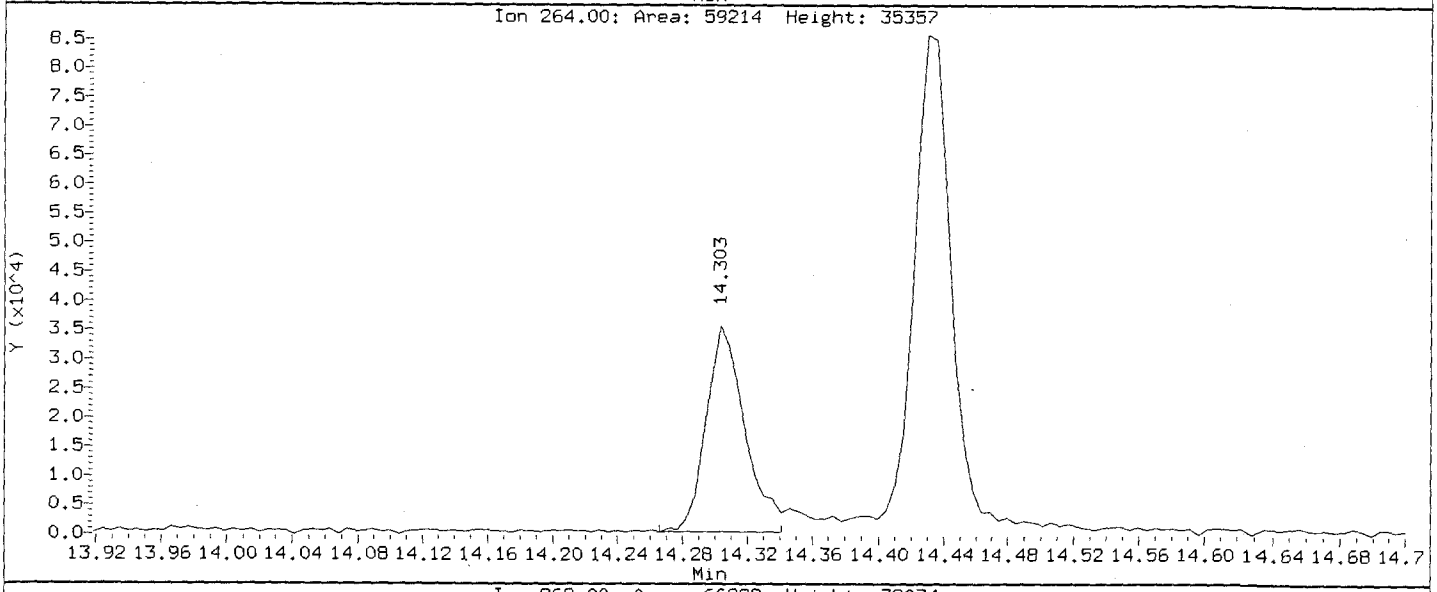


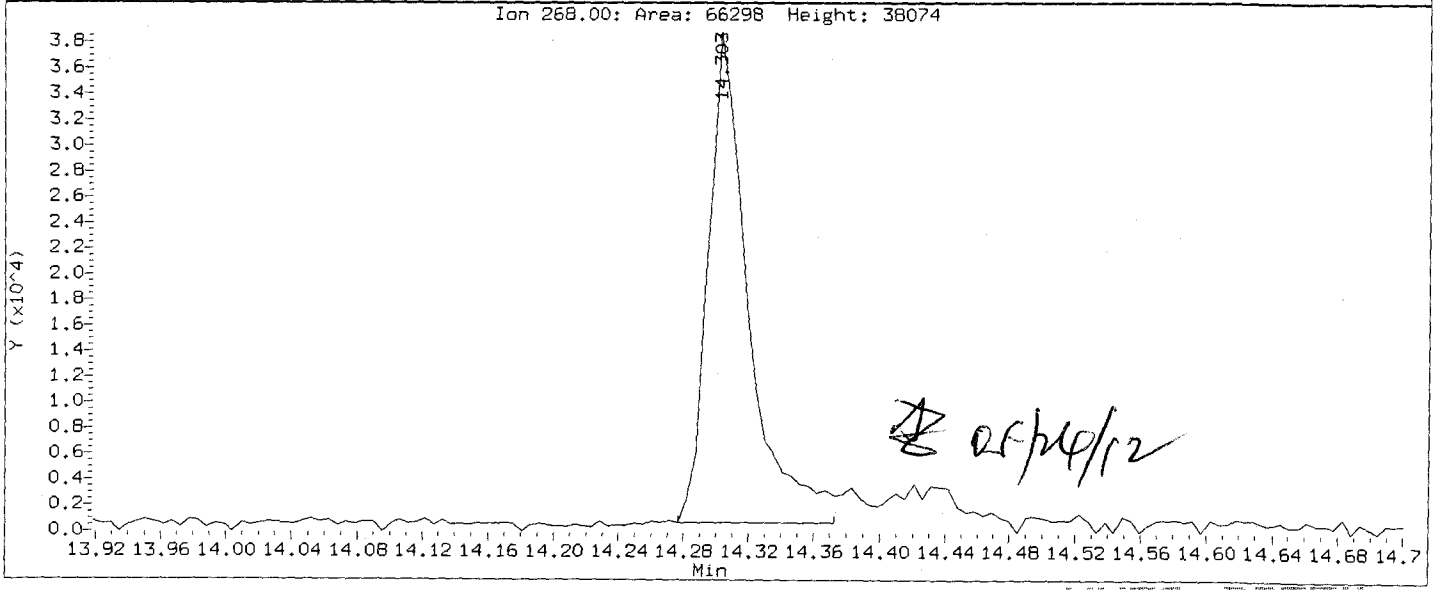
05523:05573

Data File: /chem2/nt6.i/20120523.b/05231204.D
Injection Date: 23-MAY-2012 15:15
Instrument: nt6.i
Client Sample ID: IC100523

Compound: Pentachlorophenol
CAS Number: 87-86-5



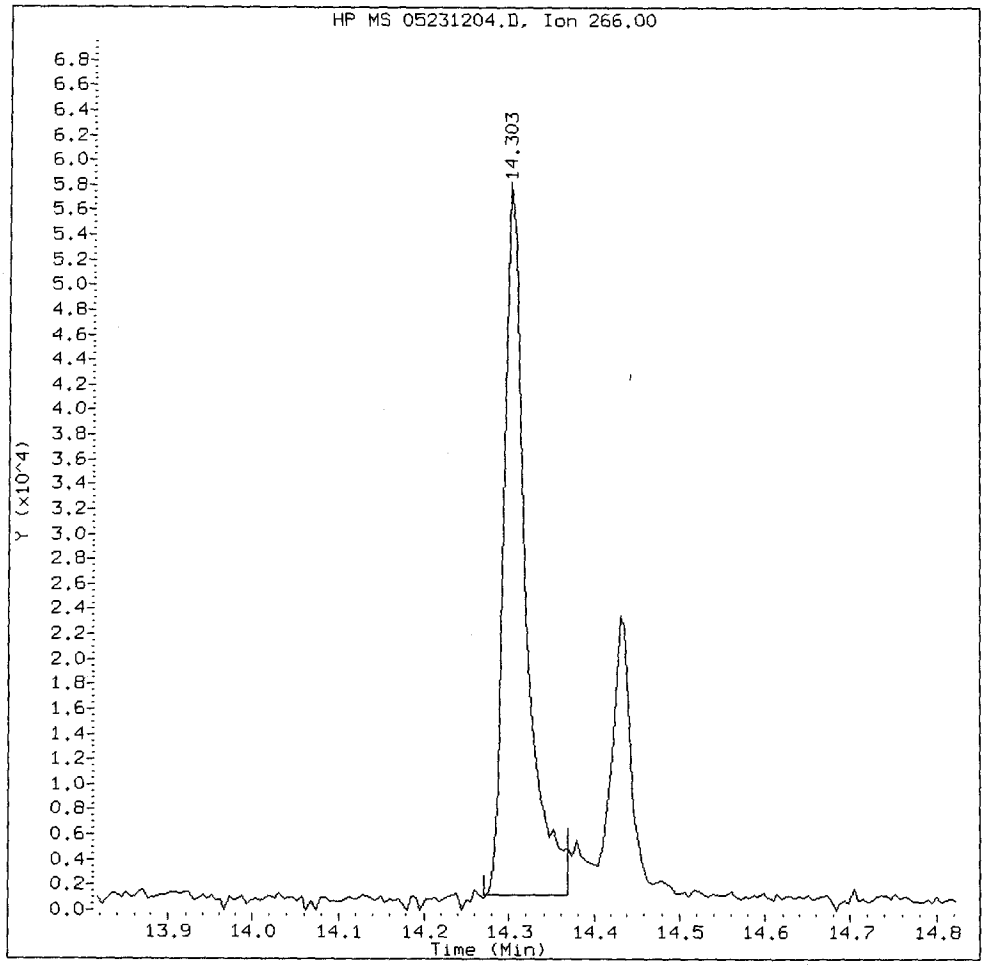




05/24/12

IC100523, /chem2/nt6.i/20120523.b/05231204.D

Pentachlorophenol Amount: 11.68 Area: 100161



MANUAL INTEGRATION for Pentachlorophenol

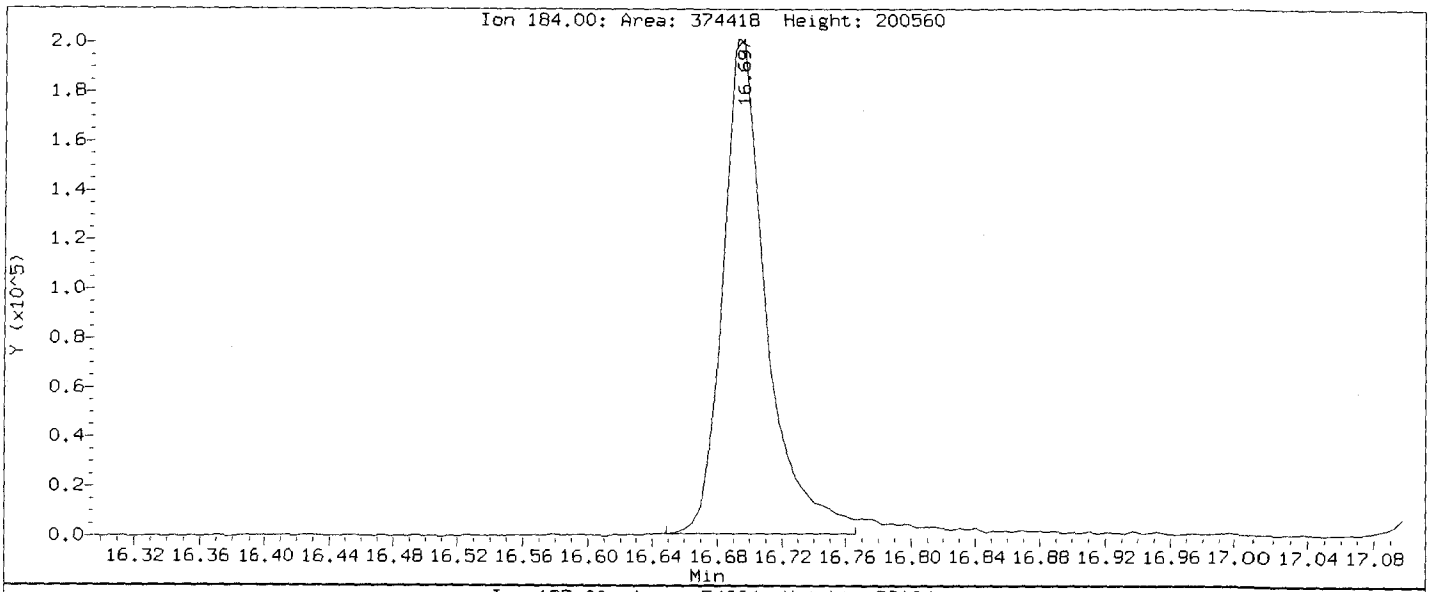
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

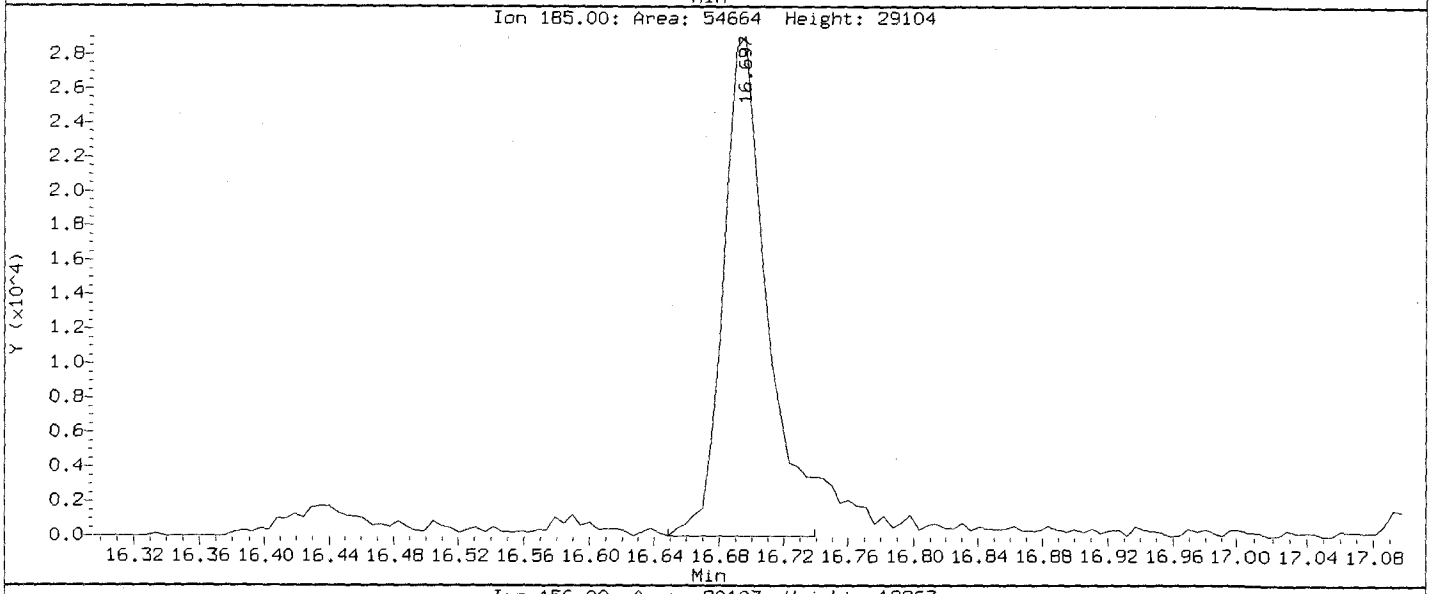
5. Other _____

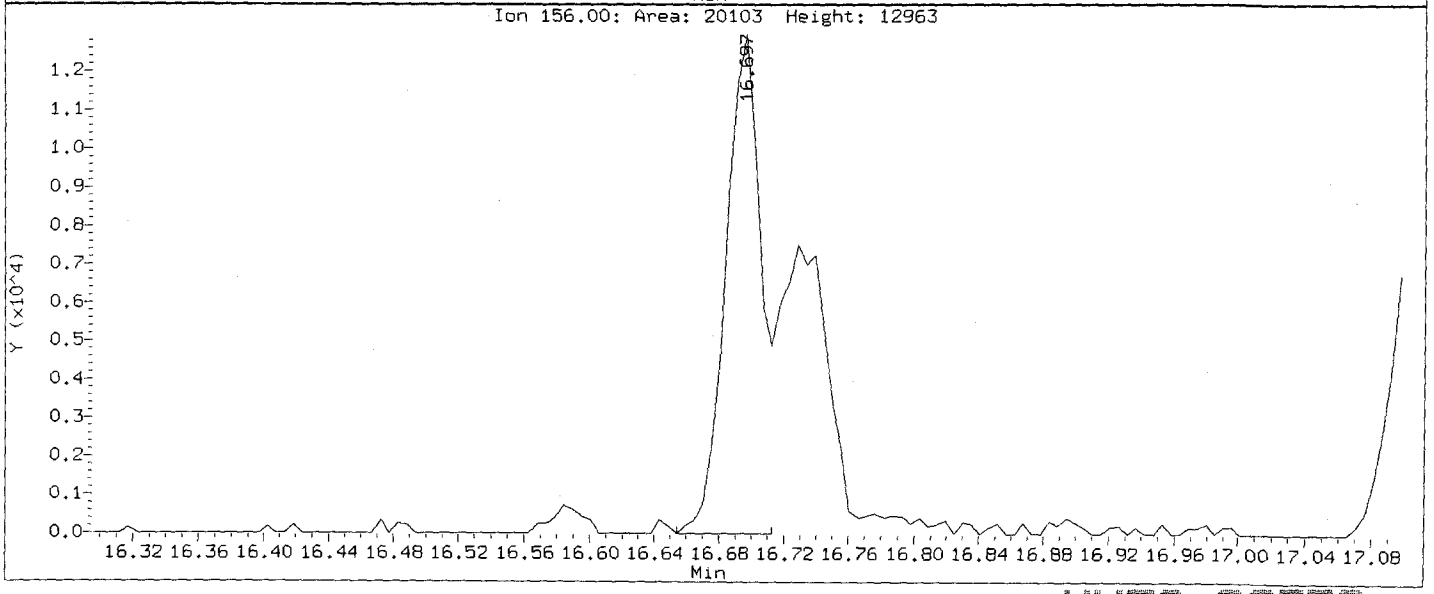
Analyst: _____ Date: 05/24/12

Data File: /chem2/nt6.i/20120523.b/05231204.D
Injection Date: 23-MAY-2012 15:15
Instrument: nt6.i
Client Sample ID: IC100523

Compound: Benzidine
CAS Number:

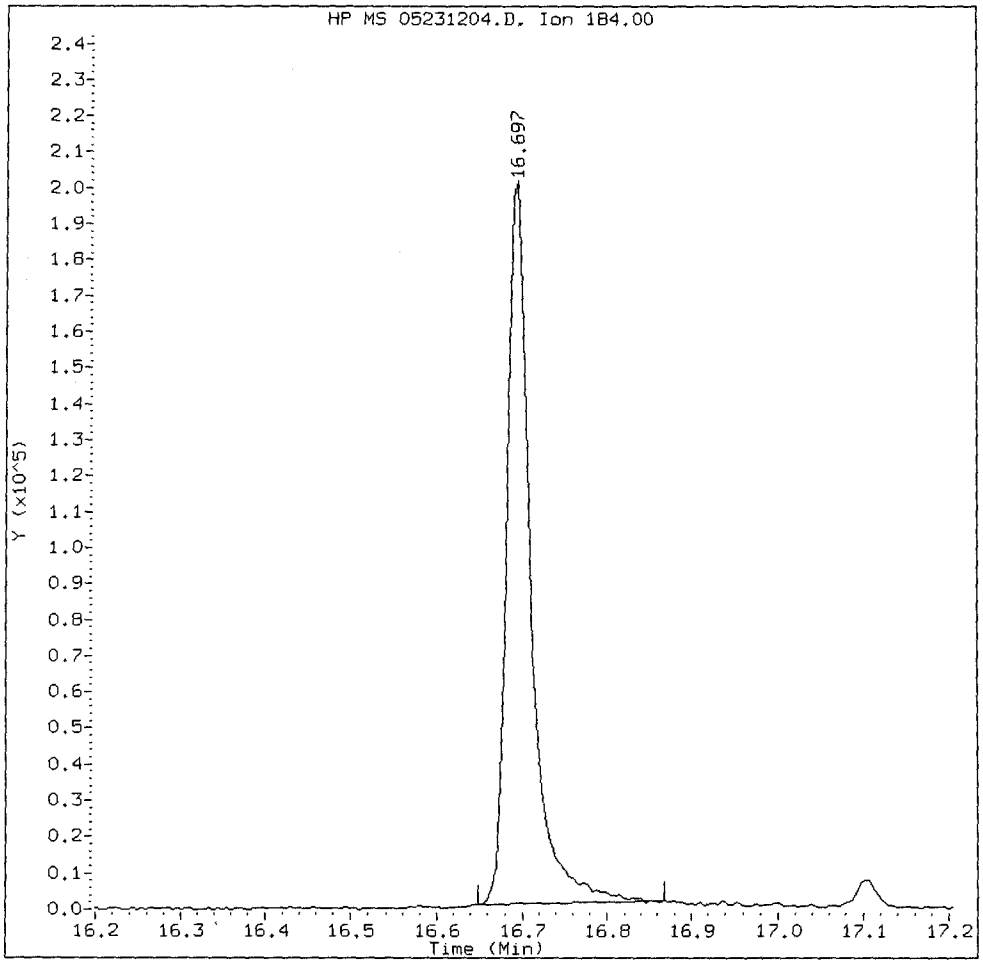






IC100523, /chem2/nt6.i/20120523.b/05231204.D

Benzidine Amount: 8.75 Area: 381998



MANUAL INTEGRATION for Benzidine

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - 05231204.D

Lab ID: IC100523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231201.D
Lab Smp Id: IC250523 Client Smp ID: IC250523
Inj Date : 23-MAY-2012 13:34
Operator : JZ Inst ID: nt6.i
Smp Info : IC250523,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 13:34 Cal File: 05231201.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

05/23 24/12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.187	5.194	(0.721)	1315160	25.0000	24.34
$	2 Phenol-d5	99	6.870	6.877	(0.955)	1575166	25.0000	24.14
	3 Phenol	94	6.886	6.894	(0.958)	1995153	25.0000	24.38
$	5 2-Chlorophenol-d4	132	6.907	6.909	(0.961)	1514451	25.0000	23.82
	4 Bis(2-Chloroethyl)ether	93	6.897	6.899	(0.959)	1333301	25.0000	24.41
	6 2-Chlorophenol	128	6.934	6.936	(0.964)	1796022	25.0000	23.98
	7 1,3-Dichlorobenzene	146	7.121	7.129	(0.990)	1762297	25.0000	23.50
*	8 1,4-Dichlorobenzene-d4	152	7.191	7.193	(1.000)	963757	20.0000	
	9 1,4-Dichlorobenzene	146	7.217	7.220	(1.004)	1771473	25.0000	23.48
$	10 1,2-Dichlorobenzene-d4	152	7.495	7.497	(1.042)	1076886	25.0000	22.99
	12 1,2-Dichlorobenzene	146	7.516	7.519	(1.045)	1703628	25.0000	23.78
	11 Benzyl alcohol	108	7.532	7.545	(1.048)	1011150	25.0000	26.22
	14 2,2'-oxybis(1-Chloropropane)	45	7.784	7.791	(1.082)	1465533	25.0000	23.41
	13 2-Methylphenol	108	7.816	7.823	(1.087)	1499738	25.0000	24.34
	17 Hexachloroethane	117	8.003	8.005	(1.113)	632038	25.0000	24.32
	16 N-Nitroso-di-n-propylamine	70	8.008	8.026	(1.114)	877266	25.0000	23.78
	15 4-Methylphenol	108	8.056	8.069	(1.120)	1588598	25.0000	25.19
$	18 Nitrobenzene-d5	82	8.152	8.159	(0.881)	1296148	25.0000	23.79
	19 Nitrobenzene	77	8.179	8.187	(0.883)	1355408	25.0000	23.98
	20 Isophorone	82	8.574	8.593	(0.926)	1965007	25.0000	23.56
	21 2-Nitrophenol	139	8.702	8.710	(0.940)	999440	25.0000	25.05
	22 2,4-Dimethylphenol	107	8.879	8.892	(0.959)	1512176	25.0000	25.01
	23 Bis(2-Chloroethoxy)methane	93	9.002	9.009	(0.972)	1489111	25.0000	23.81
	24 Benzoic acid	105	9.188	9.303	(0.992)	1661998	50.0000	62.88
	25 2,4-Dichlorophenol	162	9.114	9.121	(0.984)	1527091	25.0000	25.96
	26 1,2,4-Trichlorobenzene	180	9.210	9.218	(0.995)	1496674	25.0000	23.58
*	27 Naphthalene-d8	136	9.258	9.266	(1.000)	3430476	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	9.290	9.298	(1.003)	4244756	25.0000	22.13
	29 4-Chloroaniline	127	9.466	9.479	(1.022)	1983504	25.0000	23.79
	30 Hexachlorobutadiene	225	9.627	9.629	(1.040)	914673	25.0000	23.72
	31 4-Chloro-3-methylphenol	107	10.337	10.345	(1.117)	1258577	25.0000	26.83
	32 2-Methylnaphthalene	141	10.412	10.420	(1.125)	2557354	25.0000	22.47
	33 Hexachlorocyclopentadiene	237	10.796	10.799	(0.892)	866501	25.0000	28.43
	34 2,4,6-Trichlorophenol	196	10.957	10.964	(0.905)	1142760	25.0000	25.82
	35 2,4,5-Trichlorophenol	196	11.026	11.029	(0.911)	1192248	25.0000	28.14
$	36 2-Fluorobiphenyl	172	11.074	11.076	(0.915)	3031186	25.0000	21.60
	37 2-Chloronaphthalene	162	11.186	11.189	(0.924)	2743232	25.0000	22.85
	38 2-Nitroaniline	65	11.448	11.461	(0.946)	682563	25.0000	24.61
	39 Dimethylphthalate	163	11.838	11.857	(0.978)	2693238	25.0000	21.67
	40 Acenaphthylene	152	11.854	11.862	(0.979)	4285095	25.0000	21.44
	41 2,6-Dinitrotoluene	165	11.918	11.937	(0.985)	680270	25.0000	23.60
*	42 Acenaphthene-d10	164	12.105	12.108	(1.000)	2259168	20.0000	
	43 3-Nitroaniline	138	12.127	12.150	(1.002)	828045	25.0000	23.54
	44 Acenaphthene	153	12.153	12.166	(1.004)	2762439	25.0000	21.78
	45 2,4-Dinitrophenol	184	12.298	12.316	(1.016)	811764	50.0000	84.13
	46 Dibenzofuran	168	12.420	12.434	(1.026)	3924162	25.0000	20.75
	47 4-Nitrophenol	109	12.517	12.530	(1.034)	255596	25.0000	29.40
	48 2,4-Dinitrotoluene	165	12.538	12.556	(1.036)	883997	25.0000	24.36
	50 Diethylphthalate	149	12.992	13.000	(1.073)	2533333	25.0000	21.45
	49 Fluorene	166	12.971	12.984	(1.071)	3270965	25.0000	22.14
	51 4-Chlorophenyl-phenylether	204	13.019	13.027	(1.075)	1552188	25.0000	22.40
	52 4-Nitroaniline	138	13.120	13.149	(1.084)	718003	25.0000	23.43
	53 4,6-Dinitro-2-methylphenol	198	13.190	13.214	(0.912)	1302430	50.0000	57.64
	54 N-Nitrosodiphenylamine	169	13.232	13.251	(0.915)	2049146	25.0000	22.93
$	55 2,4,6-Tribromophenol	330	13.398	13.405	(1.107)	655080	25.0000	23.17
	56 4-Bromophenyl-phenylether	248	13.788	13.790	(0.954)	999870	25.0000	22.81
	57 Hexachlorobenzene	284	13.986	13.993	(0.967)	1255518	25.0000	22.82
	58 Pentachlorophenol	266	14.306	14.319	(0.990)	530749	25.0000	38.97
*	59 Phenanthrene-d10	188	14.456	14.464	(1.000)	3446677	20.0000	
	60 Phenanthrene	178	14.493	14.506	(1.003)	4266599	25.0000	21.75
	61 Anthracene	178	14.563	14.581	(1.007)	4397490	25.0000	22.09
	62 Carbazole	167	14.873	14.886	(1.029)	3290501	25.0000	22.01
	63 Di-n-butylphthalate	149	15.626	15.633	(1.081)	4087520	25.0000	22.86
	64 Fluoranthene	202	16.411	16.419	(1.135)	4680185	25.0000	22.29
	65 Pyrene	202	16.753	16.766	(0.894)	4915730	25.0000	21.57
$	66 Terphenyl-d14	244	17.106	17.113	(0.913)	3099271	25.0000	22.10
	67 Butylbenzylphthalate	149	18.019	18.027	(0.962)	1842894	25.0000	23.94
	68 Benzo(a)anthracene	228	18.708	18.721	(0.999)	4759419	25.0000	22.17
*	69 Chrysene-d12	240	18.735	18.743	(1.000)	3961525	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.751	18.759	(1.001)	1850856	25.0000	22.68
	71 Chrysene	228	18.772	18.791	(1.002)	4580014	25.0000	22.10
	72 bis(2-Ethylhexyl)phthalate	149	19.034	19.036	(0.953)	2442106	25.0000	22.73
*	134 Di-n-octylphthalate-d4	153	19.964	19.971	(1.000)	3758743	20.0000	
	73 Di-n-octylphthalate	149	19.974	19.982	(1.001)	4154486	25.0000	21.98

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	20.354	20.377	(0.975)	5514302	25.0000	22.91
75	Benzo(k)fluoranthene	252	20.386	20.377	(0.977)	5001160	25.0000	21.76
187	Total Benzofluoranthenes	252	20.386	20.409	(0.977)	9877514	50.0000	44.60
76	Benzo(a)pyrene	252	20.786	20.810	(0.996)	4679844	25.0000	22.73
* 77	Perylene-d12	264	20.872	20.879	(1.000)	4154109	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	22.218	22.242	(1.064)	6847369	25.0000	23.21
79	Dibenzo(a,h)anthracene	278	22.245	22.274	(1.066)	5714466	25.0000	23.27
80	Benzo(g,h,i)perylene	276	22.528	22.562	(1.079)	5793700	25.0000	22.97
90	N-Nitrosodimethylamine	74	2.276	2.305	(0.316)	782520	25.0000	23.88
103	Pyridine	79	2.254	2.267	(0.314)	1384362	25.0000	25.55
91	Aniline	93	6.758	6.760	(0.940)	2166689	25.0000	23.11
105	1-methylnaphthalene	141	10.583	10.585	(1.143)	1908529	25.0000	22.18
93	Benzidine	184	16.700	16.702	(0.891)	1559409	25.0000	27.90
111	Azobenzene (1,2-DP-Hydrazine)	77	13.265	13.278	(1.096)	2497336	25.0000	23.18
143	1,4-Dioxane	88	1.806	1.819	(0.251)	479900	25.0000	24.04
$ 137	d8-1,4-Dioxane	96	1.774	1.781	(0.247)	505541	25.0000	23.42
144	alpha-Terpineol	59	9.354	9.362	(1.010)	760206	25.0000	22.91
177	p-Benzoquinone	82	5.834	5.836	(0.630)	237191	25.0000	27.73
98	Retene	219	17.341	17.348	(0.926)	1690121	25.0000	23.05
99	Perylene	252	20.904	20.928	(1.002)	4343754	25.0000	21.29
133	Butylatedhydroxytoluene	205	12.330	12.337	(1.019)	2064529	25.0000	22.93
115	Tributyl Phosphate	99	13.382	13.411	(0.926)	2378963	25.0000	22.76
116	Dibutyl Phenyl Phosphate	175	15.086	15.105	(1.044)	1899261	25.0000	23.46
117	Butyl Diphenyl Phosphate	94	16.737	16.745	(0.893)	550165	25.0000	23.80
118	Triphenyl Phosphate	326	18.318	18.326	(0.978)	1056385	25.0000	23.66
123	Acetophenone	105	7.922	7.935	(1.102)	1786242	25.0000	23.84
168	Pentachlorobenzene	250	12.463	12.471	(1.030)	1335834	25.0000	22.80
113	Diphenyl Oxide	170	11.395	11.403	(0.941)	1855023	25.0000	22.27
112	Biphenyl	154	11.197	11.205	(0.925)	2892135	25.0000	21.70
120	2,3,4,6-Tetrachlorophenol	232	12.725	12.733	(1.051)	813226	25.0000	27.91
151	1,2,4,5-Tetrachlorobenzene	216	10.754	10.756	(0.888)	1391605	25.0000	22.77
110	Tetrachloroguaiacol	247	14.440	14.453	(0.999)	1114343	50.0000	53.35
109	3,4,5-Trichloroguaiacol	213	12.832	12.840	(0.888)	525905	25.0000	23.78
181	3,4,6-Trichloroguaiacol	211	12.944	12.952	(1.800)	640830	25.0000	24.31
108	4,5,6-Trichloroguaiacol	213	13.858	13.871	(1.145)	538400	25.0000	22.64
184	3,4-Dichloroguaiacol	192	11.299	11.306	(1.571)	590327	25.0000	24.69
107	4,5-Dichloroguaiacol	192	12.095	12.108	(0.999)	1443225	50.0000	45.54
182	4,6-Dichloroguaiacol	192	12.095	12.108	(1.682)	1438898	50.0000	47.06
185	4-Chloroguaiacol	115	10.225	10.233	(1.422)	282957	12.5000	12.27
186	Carbaryl	144	15.300	15.324	(1.058)	2143169	25.0000	26.88
178	2-Benzyl-4-Chlorophenol	218	15.273	15.297	(1.057)	875943	25.0000	25.67
106	Guaiacol	124	8.206	8.213	(1.141)	1140575	25.0000	23.91

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231201.D
Lab Smp Id: IC250523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC250523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	963757	0.00
27 Naphthalene-d8	3430476	1715238	6860952	3430476	0.00
42 Acenaphthene-d10	2259168	1129584	4518336	2259168	0.00
59 Phenanthrene-d10	3446677	1723338	6893354	3446677	0.00
69 Chrysene-d12	3961525	1980762	7923050	3961525	0.00
134 Di-n-octylphthala	3758743	1879372	7517486	3758743	0.00
77 Perylene-d12	4154109	2077054	8308218	4154109	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.00
27 Naphthalene-d8	9.26	8.76	9.76	9.26	0.00
42 Acenaphthene-d10	12.11	11.61	12.61	12.11	0.00
59 Phenanthrene-d10	14.46	13.96	14.96	14.46	0.00
69 Chrysene-d12	18.73	18.23	19.23	18.73	0.00
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	0.00
77 Perylene-d12	20.87	20.37	21.37	20.87	0.00

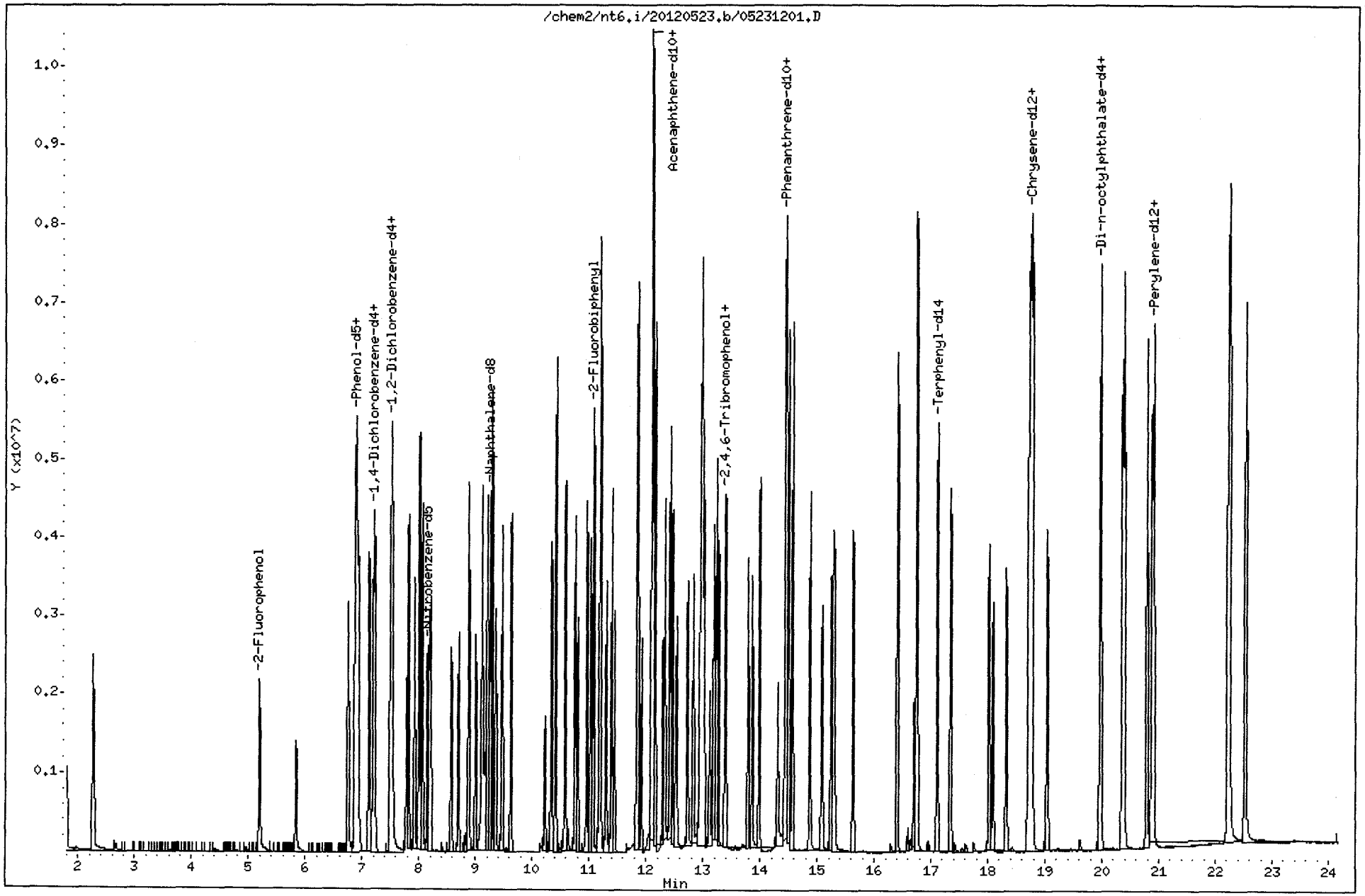
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120523.b/05231201.D
Date : 23-MAY-2012 13:34
Client ID: IC250523
Sample Info: IC250523,

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - 05231201.D

Lab ID: IC250523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231205.D
Lab Smp Id: IC400523 Client Smp ID: IC400523
Inj Date : 23-MAY-2012 15:48
Operator : JZ Inst ID: nt6.i
Smp Info : IC400523,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 15:48 Cal File: 05231205.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

AMOUNTS 05/24/12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.189	5.194	(0.721)	2188127	40.0000	44.57
$	2 Phenol-d5	99	6.872	6.877	(0.955)	2581093	40.0000	43.75
	3 Phenol	94	6.888	6.894	(0.958)	2943416	40.0000	40.59
$	5 2-Chlorophenol-d4	132	6.909	6.909	(0.961)	2467252	40.0000	43.11
	4 Bis(2-Chloroethyl)ether	93	6.898	6.899	(0.959)	2127461	40.0000	43.24
	6 2-Chlorophenol	128	6.936	6.936	(0.964)	2649332	40.0000	40.06
	7 1,3-Dichlorobenzene	146	7.128	7.129	(0.991)	2801357	40.0000	41.83
*	8 1,4-Dichlorobenzene-d4	152	7.192	7.193	(1.000)	850778	20.0000	
	9 1,4-Dichlorobenzene	146	7.219	7.220	(1.004)	2776027	40.0000	41.34
$	10 1,2-Dichlorobenzene-d4	152	7.497	7.497	(1.042)	1759908	40.0000	42.02
	12 1,2-Dichlorobenzene	146	7.518	7.519	(1.045)	2690679	40.0000	42.02
	11 Benzyl alcohol	108	7.534	7.545	(1.048)	1712439	40.0000	47.84
	14 2,2'-oxybis(1-Chloropropane)	45	7.785	7.791	(1.082)	2337774	40.0000	41.82
	13 2-Methylphenol	108	7.817	7.823	(1.087)	2268186	40.0000	41.35
	17 Hexachloroethane	117	8.004	8.005	(1.113)	1015633	40.0000	43.35
	16 N-Nitroso-di-n-propylamine	70	8.015	8.026	(1.114)	1452272	40.0000	43.60
	15 4-Methylphenol	108	8.063	8.069	(1.121)	2384576	40.0000	42.23
$	18 Nitrobenzene-d5	82	8.154	8.159	(0.881)	2129580	40.0000	42.30
	19 Nitrobenzene	77	8.186	8.187	(0.884)	2193129	40.0000	42.05
	20 Isophorone	82	8.581	8.593	(0.927)	3223860	40.0000	41.93
	21 2-Nitrophenol	139	8.704	8.710	(0.940)	1512491	40.0000	41.29
	22 2,4-Dimethylphenol	107	8.886	8.892	(0.960)	2272983	40.0000	41.01
	23 Bis(2-Chloroethoxy)methane	93	9.003	9.009	(0.972)	2420233	40.0000	41.97
	24 Benzoic acid	105	9.233	9.303	(0.997)	2853914	80.0000	105.8
	25 2,4-Dichlorophenol	162	9.115	9.121	(0.984)	2302289	40.0000	42.34
	26 1,2,4-Trichlorobenzene	180	9.212	9.218	(0.995)	2451465	40.0000	41.90
*	27 Naphthalene-d8	136	9.260	9.266	(1.000)	3124146	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	9.292	9.298	(1.003)	6305923	40.0000	36.81
	29 4-Chloroaniline	127	9.468	9.479	(1.022)	3069942	40.0000	40.34
	30 Hexachlorobutadiene	225	9.628	9.629	(1.040)	1489519	40.0000	41.91
	31 4-Chloro-3-methylphenol	107	10.339	10.345	(1.117)	1920850	40.0000	43.87
	32 2-Methylnaphthalene	141	10.419	10.420	(1.125)	4107135	40.0000	39.70
	33 Hexachlorocyclopentadiene	237	10.798	10.799	(0.892)	1528103	40.0000	50.31
	34 2,4,6-Trichlorophenol	196	10.958	10.964	(0.905)	1795541	40.0000	43.54
	35 2,4,5-Trichlorophenol	196	11.023	11.029	(0.910)	1818143	40.0000	45.48
$	36 2-Fluorobiphenyl	172	11.076	11.076	(0.915)	4881983	40.0000	38.54
	37 2-Chloronaphthalene	162	11.188	11.189	(0.924)	4425373	40.0000	40.37
	38 2-Nitroaniline	65	11.455	11.461	(0.946)	1150135	40.0000	44.29
	39 Dimethylphthalate	163	11.845	11.857	(0.978)	4368279	40.0000	38.85
	40 Acenaphthylene	152	11.856	11.862	(0.979)	6730090	40.0000	37.53
	41 2,6-Dinitrotoluene	165	11.925	11.937	(0.985)	1137310	40.0000	42.60
*	42 Acenaphthene-d10	164	12.107	12.108	(1.000)	2058292	20.0000	
	43 3-Nitroaniline	138	12.134	12.150	(1.002)	1267727	40.0000	39.65
	44 Acenaphthene	153	12.160	12.166	(1.004)	4373179	40.0000	38.26
	45 2,4-Dinitrophenol	184	12.299	12.316	(1.016)	1428791	80.0000	129.2
	46 Dibenzofuran	168	12.422	12.434	(1.026)	6096491	40.0000	36.21
	47 4-Nitrophenol	109	12.524	12.530	(1.034)	420980	40.0000	49.11
	48 2,4-Dinitrotoluene	165	12.545	12.556	(1.036)	1481727	40.0000	43.76
	50 Diethylphthalate	149	12.994	13.000	(1.073)	4131729	40.0000	38.71
	49 Fluorene	166	12.978	12.984	(1.072)	5169716	40.0000	38.72
	51 4-Chlorophenyl-phenylether	204	13.020	13.027	(1.075)	2593165	40.0000	40.86
	52 4-Nitroaniline	138	13.127	13.149	(1.084)	1202499	40.0000	42.42
	53 4,6-Dinitro-2-methylphenol	198	13.197	13.214	(0.913)	2003842	80.0000	92.91
	54 N-Nitrosodiphenylamine	169	13.239	13.251	(0.916)	3346918	40.0000	41.17
$	55 2,4,6-Tribromophenol	330	13.400	13.405	(1.107)	1140194	40.0000	43.35
	56 4-Bromophenyl-phenylether	248	13.790	13.790	(0.954)	1688097	40.0000	42.09
	57 Hexachlorobenzene	284	13.987	13.993	(0.967)	2093454	40.0000	41.69
	58 Pentachlorophenol	266	14.308	14.319	(0.990)	885434	40.0000	59.99
*	59 Phenanthrene-d10	188	14.457	14.464	(1.000)	3113173	20.0000	
	60 Phenanthrene	178	14.495	14.506	(1.003)	6466785	40.0000	37.15
	61 Anthracene	178	14.570	14.581	(1.008)	6623176	40.0000	37.42
	62 Carbazole	167	14.874	14.886	(1.029)	5128809	40.0000	38.37
	63 Di-n-butylphthalate	149	15.627	15.633	(1.081)	6194781	40.0000	38.68
	64 Fluoranthene	202	16.413	16.419	(1.135)	6894359	40.0000	37.03
	65 Pyrene	202	16.755	16.766	(0.894)	7246945	40.0000	37.11
$	66 Terphenyl-d14	244	17.113	17.113	(0.913)	4932214	40.0000	40.25
	67 Butylbenzylphthalate	149	18.021	18.027	(0.962)	2985193	40.0000	43.48
	68 Benzo(a)anthracene	228	18.715	18.721	(0.999)	7154469	40.0000	38.54
*	69 Chrysene-d12	240	18.737	18.743	(1.000)	3455807	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.753	18.759	(1.001)	2852694	40.0000	40.05
	71 Chrysene	228	18.779	18.791	(1.002)	6863740	40.0000	38.36
	72 bis(2-Ethylhexyl)phthalate	149	19.036	19.036	(0.953)	3960090	40.0000	41.69
*	134 Di-n-octylphthalate-d4	153	19.965	19.971	(1.000)	3287975	20.0000	
	73 Di-n-octylphthalate	149	19.976	19.982	(1.001)	6328444	40.0000	38.61

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	20.355	20.377	(0.975)	7663405	40.0000	37.81
75	Benzo(k)fluoranthene	252	20.393	20.377	(0.977)	7872720	40.0000	40.10
187	Total Benzofluoranthenes	252	20.393	20.409	(0.977)	14593835	80.0000	77.74
76	Benzo(a)pyrene	252	20.793	20.810	(0.996)	7080963	40.0000	40.22
* 77	Perylene-d12	264	20.868	20.879	(1.000)	3546130	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	22.225	22.242	(1.065)	10576812	40.0000	41.58
79	Dibenzo(a,h)anthracene	278	22.252	22.274	(1.066)	8488262	40.0000	40.39
80	Benzo(g,h,i)perylene	276	22.540	22.562	(1.080)	8918214	40.0000	41.13
90	N-Nitrosodimethylamine	74	2.288	2.305	(0.318)	1268785	40.0000	43.03
103	Pyridine	79	2.256	2.267	(0.314)	2142520	40.0000	43.74
91	Aniline	93	6.759	6.760	(0.940)	3093567	40.0000	37.87
105	1-methylnaphthalene	141	10.584	10.585	(1.143)	3163085	40.0000	40.29
93	Benzidine	184	16.701	16.702	(0.891)	1216358	40.0000	27.53
111	Azobenzene (1,2-DP-Hydrazine)	77	13.272	13.278	(1.096)	3971130	40.0000	40.36
143	1,4-Dioxane	88	1.807	1.819	(0.251)	737099	40.0000	41.45
$ 137	d8-1,4-Dioxane	96	1.775	1.781	(0.247)	778353	40.0000	40.68
144	alpha-Terpineol	59	9.356	9.362	(1.010)	1276367	40.0000	41.78
177	p-Benzoquinone	82	5.835	5.836	(0.630)	402056	40.0000	48.12
98	Retene	219	17.342	17.348	(0.926)	2794608	40.0000	42.90
99	Perylene	252	20.911	20.928	(1.002)	6582353	40.0000	38.22
133	Butylatedhydroxytoluene	205	12.331	12.337	(1.019)	3275268	40.0000	39.95
115	Tributyl Phosphate	99	13.389	13.411	(0.926)	3909671	40.0000	41.12
116	Dibutyl Phenyl Phosphate	175	15.088	15.105	(1.044)	3200108	40.0000	42.96
117	Butyl Diphenyl Phosphate	94	16.739	16.745	(0.893)	918123	40.0000	44.30
118	Triphenyl Phosphate	326	18.320	18.326	(0.978)	1756537	40.0000	43.98
123	Acetophenone	105	7.929	7.935	(1.103)	2891786	40.0000	42.92
168	Pentachlorobenzene	250	12.465	12.471	(1.030)	2259965	40.0000	41.84
113	Diphenyl Oxide	170	11.402	11.403	(0.942)	3154783	40.0000	41.24
112	Biphenyl	154	11.199	11.205	(0.925)	4652941	40.0000	38.64
120	2,3,4,6-Tetrachlorophenol	232	12.727	12.733	(1.051)	1291429	40.0000	46.63
151	1,2,4,5-Tetrachlorobenzene	216	10.755	10.756	(0.888)	2298609	40.0000	41.02
110	Tetrachloroguaiacol	247	14.441	14.453	(0.999)	1911259	80.0000	96.18
109	3,4,5-Trichloroguaiacol	213	12.833	12.840	(0.888)	875247	40.0000	43.00
181	3,4,6-Trichloroguaiacol	211	12.946	12.952	(1.800)	1096604	40.0000	45.51
108	4,5,6-Trichloroguaiacol	213	13.859	13.871	(1.145)	913012	40.0000	41.70
184	3,4-Dichloroguaiacol	192	11.300	11.306	(1.571)	963095	40.0000	44.38
107	4,5-Dichloroguaiacol	192	12.102	12.108	(1.000)	2370865	80.0000	81.68
182	4,6-Dichloroguaiacol	192	12.102	12.108	(1.683)	2402646	80.0000	87.05
185	4-Chloroguaiacol	115	10.227	10.233	(1.422)	474629	20.0000	22.57
186	Carbaryl	144	15.307	15.324	(1.059)	3318595	40.0000	44.72
178	2-Benzyl-4-Chlorophenol	218	15.280	15.297	(1.057)	1490973	40.0000	46.43
106	Guaiacol	124	8.207	8.213	(1.141)	1869465	40.0000	43.44

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231205.D
Lab Smp Id: IC400523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC400523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	850778	-11.72
27 Naphthalene-d8	3430476	1715238	6860952	3124146	-8.93
42 Acenaphthene-d10	2259168	1129584	4518336	2058292	-8.89
59 Phenanthrene-d10	3446677	1723338	6893354	3113173	-9.68
69 Chrysene-d12	3961525	1980762	7923050	3455807	-12.77
134 Di-n-octylphthala	3758743	1879372	7517486	3287975	-12.52
77 Perylene-d12	4154109	2077054	8308218	3546130	-14.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.02
27 Naphthalene-d8	9.26	8.76	9.76	9.26	0.02
42 Acenaphthene-d10	12.11	11.61	12.61	12.11	0.01
59 Phenanthrene-d10	14.46	13.96	14.96	14.46	0.01
69 Chrysene-d12	18.73	18.23	19.23	18.74	0.01
134 Di-n-octylphthala	19.96	19.46	20.46	19.97	0.01
77 Perylene-d12	20.87	20.37	21.37	20.87	-0.02

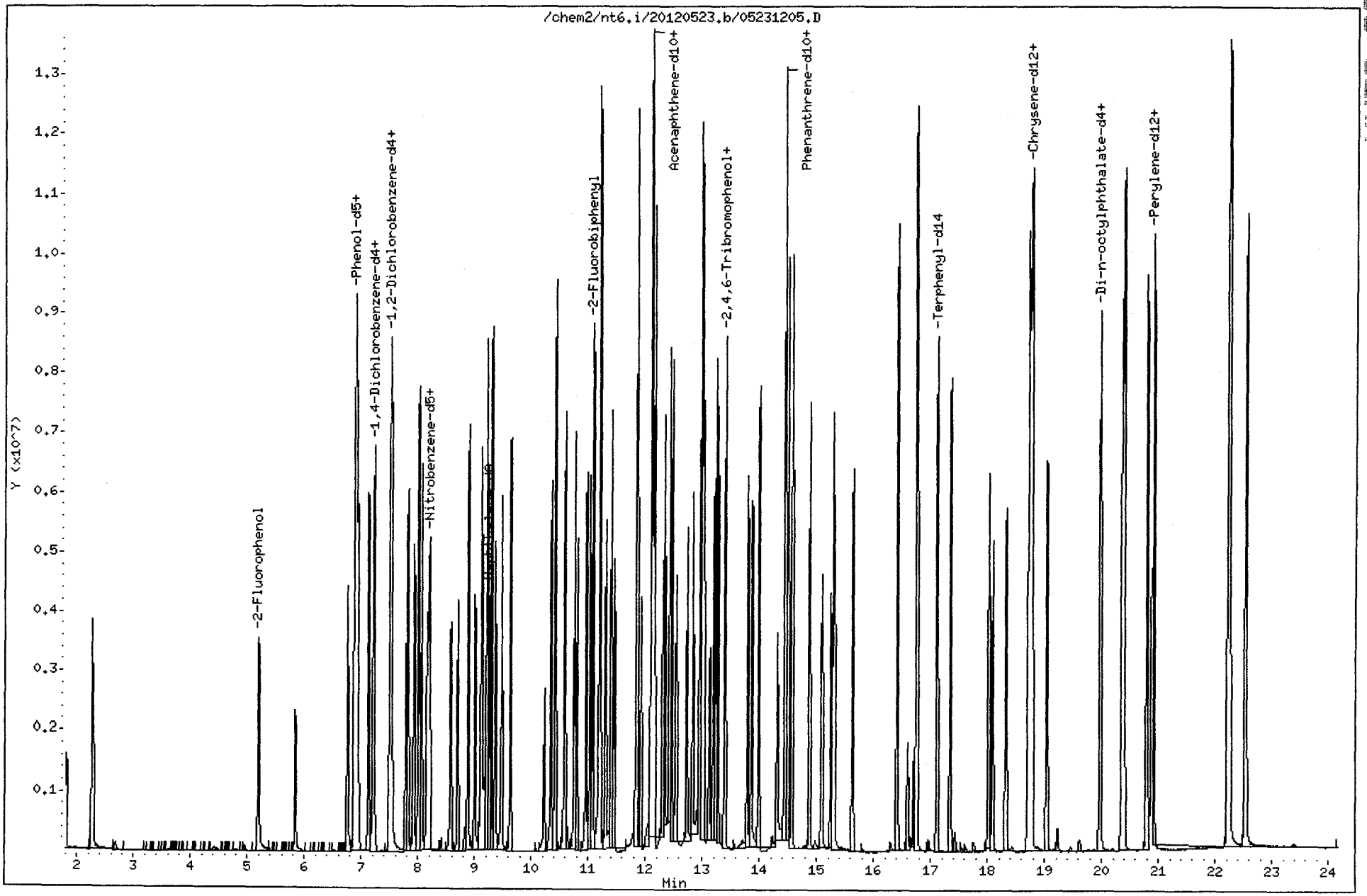
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120523.b/05231205.D
Date : 23-MAY-2012 15:48
Client ID: IC400523
Sample Info: IC400523,

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



UJ52:00589

CO-ELUTION SUMMARY FOR FILE - 05231205.D

Lab ID: IC400523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231206.D
Lab Smp Id: IC600523 Client Smp ID: IC600523
Inj Date : 23-MAY-2012 16:22
Operator : JZ Inst ID: nt6.i
Smp Info : IC600523
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:22 Cal File: 05231206.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

05/24/12

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.194	5.194	(0.722)	2956774	60.0000	62.10
$	2 Phenol-d5	99	6.877	6.877	(0.955)	3400540	60.0000	59.88
	3 Phenol	94	6.893	6.894	(0.958)	3928058	60.0000	56.84
$	5 2-Chlorophenol-d4	132	6.909	6.909	(0.960)	3278102	60.0000	59.56
	4 Bis(2-Chloroethyl)ether	93	6.904	6.899	(0.959)	2890831	60.0000	60.83
	6 2-Chlorophenol	128	6.936	6.936	(0.964)	3600037	60.0000	57.08
	7 1,3-Dichlorobenzene	146	7.128	7.129	(0.990)	3828610	60.0000	59.46
*	8 1,4-Dichlorobenzene-d4	152	7.198	7.193	(1.000)	819323	20.0000	
	9 1,4-Dichlorobenzene	146	7.219	7.220	(1.003)	3803175	60.0000	59.00
$	10 1,2-Dichlorobenzene-d4	152	7.497	7.497	(1.042)	2351450	60.0000	58.58
	12 1,2-Dichlorobenzene	146	7.518	7.519	(1.045)	3667804	60.0000	59.56
	11 Benzyl alcohol	108	7.540	7.545	(1.048)	2320303	60.0000	65.98
	14 2,2'-oxybis(1-Chloropropane)	45	7.785	7.791	(1.082)	3139262	60.0000	58.59
	13 2-Methylphenol	108	7.823	7.823	(1.087)	3045760	60.0000	58.03
	17 Hexachloroethane	117	8.004	8.005	(1.112)	1434373	60.0000	62.94
	16 N-Nitroso-di-n-propylamine	70	8.026	8.026	(1.115)	1927435	60.0000	60.07
	15 4-Methylphenol	108	8.068	8.069	(1.121)	3183271	60.0000	58.78
$	18 Nitrobenzene-d5	82	8.159	8.159	(0.881)	2775879	60.0000	58.37
	19 Nitrobenzene	77	8.186	8.187	(0.884)	2959374	60.0000	59.79
	20 Isophorone	82	8.587	8.593	(0.927)	4302671	60.0000	59.09
	21 2-Nitrophenol	139	8.704	8.710	(0.940)	2070676	60.0000	59.59
	22 2,4-Dimethylphenol	107	8.886	8.892	(0.960)	3041166	60.0000	58.13
	23 Bis(2-Chloroethoxy)methane	93	9.009	9.009	(0.973)	3230992	60.0000	59.15
	24 Benzoic acid	105	9.265	9.303	(1.001)	3886060	120.000	144.1(M)
	25 2,4-Dichlorophenol	162	9.121	9.121	(0.985)	3083001	60.0000	59.74
	26 1,2,4-Trichlorobenzene	180	9.212	9.218	(0.995)	3301335	60.0000	59.50
*	27 Naphthalene-d8	136	9.260	9.266	(1.000)	2967520	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	9.292	9.298	(1.003)	7838365	60.0000	49.81
	29 4-Chloroaniline	127	9.473	9.479	(1.023)	3953770	60.0000	55.51
	30 Hexachlorobutadiene	225	9.628	9.629	(1.040)	2024817	60.0000	59.99
	31 4-Chloro-3-methylphenol	107	10.344	10.345	(1.117)	2381359	60.0000	57.70
	32 2-Methylnaphthalene	141	10.419	10.420	(1.125)	5239753	60.0000	54.33
	33 Hexachlorocyclopentadiene	237	10.798	10.799	(0.892)	2012913	60.0000	72.35
	34 2,4,6-Trichlorophenol	196	10.964	10.964	(0.906)	2364357	60.0000	64.91
	35 2,4,5-Trichlorophenol	196	11.028	11.029	(0.911)	2311637	60.0000	65.37
$	36 2-Fluorobiphenyl	172	11.076	11.076	(0.915)	6084844	60.0000	56.02
	37 2-Chloronaphthalene	162	11.188	11.189	(0.924)	5725242	60.0000	60.09
	38 2-Nitroaniline	65	11.455	11.461	(0.946)	1473865	60.0000	64.38
	39 Dimethylphthalate	163	11.845	11.857	(0.978)	5540741	60.0000	57.24
	40 Acenaphthylene	152	11.856	11.862	(0.979)	7689688	60.0000	50.86
	41 2,6-Dinitrotoluene	165	11.931	11.937	(0.985)	1491506	60.0000	63.55
*	42 Acenaphthene-d10	164	12.107	12.108	(1.000)	1788274	20.0000	
	43 3-Nitroaniline	138	12.144	12.150	(1.003)	1562144	60.0000	56.83
	44 Acenaphthene	153	12.160	12.166	(1.004)	5486926	60.0000	55.99
	45 2,4-Dinitrophenol	184	12.310	12.316	(1.017)	2115908	120.000	188.7
	46 Dibenzofuran	168	12.428	12.434	(1.026)	7353732	60.0000	51.67
	47 4-Nitrophenol	109	12.524	12.530	(1.034)	600385	60.0000	75.43
	48 2,4-Dinitrotoluene	165	12.550	12.556	(1.037)	1994502	60.0000	66.36
	50 Diethylphthalate	149	12.999	13.000	(1.074)	5339356	60.0000	57.96
	49 Fluorene	166	12.978	12.984	(1.072)	6378878	60.0000	55.76
	51 4-Chlorophenyl-phenylether	204	13.021	13.027	(1.075)	3310547	60.0000	60.03
	52 4-Nitroaniline	138	13.138	13.149	(1.085)	1655901	60.0000	65.91
	53 4,6-Dinitro-2-methylphenol	198	13.208	13.214	(0.913)	2873604	120.000	134.4
	54 N-Nitrosodiphenylamine	169	13.245	13.251	(0.916)	4350924	60.0000	56.32
$	55 2,4,6-Tribromophenol	330	13.405	13.405	(1.107)	1499138	60.0000	64.59
	56 4-Bromophenyl-phenylether	248	13.790	13.790	(0.953)	2214504	60.0000	57.82
	57 Hexachlorobenzene	284	13.993	13.993	(0.967)	2769824	60.0000	57.78
	58 Pentachlorophenol	266	14.313	14.319	(0.990)	1388607	60.0000	86.87
*	59 Phenanthrene-d10	188	14.463	14.464	(1.000)	2994128	20.0000	
	60 Phenanthrene	178	14.500	14.506	(1.003)	8147753	60.0000	50.25
	61 Anthracene	178	14.575	14.581	(1.008)	8170789	60.0000	49.66
	62 Carbazole	167	14.880	14.886	(1.029)	6846062	60.0000	54.27
	63 Di-n-butylphthalate	149	15.633	15.633	(1.081)	7891320	60.0000	52.51
	64 Fluoranthene	202	16.418	16.419	(1.135)	8892009	60.0000	51.12
	65 Pyrene	202	16.760	16.766	(0.894)	9104006	60.0000	47.04
$	66 Terphenyl-d14	244	17.113	17.113	(0.913)	6518441	60.0000	52.71
	67 Butylbenzylphthalate	149	18.021	18.027	(0.962)	4264986	60.0000	60.07
	68 Benzo(a)anthracene	228	18.715	18.721	(0.999)	9613519	60.0000	51.51
*	69 Chrysene-d12	240	18.742	18.743	(1.000)	3573040	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.758	18.759	(1.001)	3963421	60.0000	54.76
	71 Chrysene	228	18.785	18.791	(1.002)	8946913	60.0000	49.98
	72 bis(2-Ethylhexyl)phthalate	149	19.036	19.036	(0.953)	5545804	60.0000	57.86
*	134 Di-n-octylphthalate-d4	153	19.971	19.971	(1.000)	3341643	20.0000	
	73 Di-n-octylphthalate	149	19.976	19.982	(1.000)	8402660	60.0000	51.82

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	20.366	20.377	(0.975)	10999133	60.0000	53.48
75	Benzo(k)fluoranthene	252	20.398	20.377	(0.977)	8918556	60.0000	45.89
187	Total Benzofluoranthenes	252	20.398	20.409	(0.977)	18765543	120.000	99.69
76	Benzo(a)pyrene	252	20.804	20.810	(0.996)	9473719	60.0000	53.10
* 77	Perylene-d12	264	20.879	20.879	(1.000)	3676255	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	22.236	22.242	(1.065)	14535658	60.0000	55.88
79	Dibenzo(a,h)anthracene	278	22.262	22.274	(1.066)	11054120	60.0000	52.08
80	Benzo(g,h,i)perylene	276	22.551	22.562	(1.080)	12099742	60.0000	54.77
90	N-Nitrosodimethylamine	74	2.294	2.305	(0.319)	1747117	60.0000	61.27
103	Pyridine	79	2.261	2.267	(0.314)	2993308	60.0000	62.85
91	Aniline	93	6.765	6.760	(0.940)	4050777	60.0000	52.74
105	1-methylnaphthalene	141	10.585	10.585	(1.143)	4117742	60.0000	55.96
93	Benzidine	184	16.701	16.702	(0.891)	1704469	60.0000	40.37
111	Azobenzene (1,2-DP-Hydrazine)	77	13.272	13.278	(1.096)	5021280	60.0000	58.95
143	1,4-Dioxane	88	1.813	1.819	(0.252)	1087827	60.0000	62.91
$ 137	d8-1,4-Dioxane	96	1.781	1.781	(0.247)	1133956	60.0000	61.28
144	alpha-Terpineol	59	9.361	9.362	(1.011)	1688773	60.0000	58.49
177	p-Benzoquinone	82	5.841	5.836	(0.631)	546381	60.0000	66.88
98	Retene	219	17.342	17.348	(0.925)	3990905	60.0000	59.38
99	Perylene	252	20.922	20.928	(1.002)	8832709	60.0000	50.96
133	Butylatedhydroxytoluene	205	12.331	12.337	(1.019)	4204761	60.0000	59.19
115	Tributyl Phosphate	99	13.400	13.411	(0.926)	5237624	60.0000	57.71
116	Dibutyl Phenyl Phosphate	175	15.093	15.105	(1.044)	4497490	60.0000	62.29
117	Butyl Diphenyl Phosphate	94	16.744	16.745	(0.893)	1345293	60.0000	62.30
118	Triphenyl Phosphate	326	18.325	18.326	(0.978)	2590268	60.0000	62.25
123	Acetophenone	105	7.930	7.935	(1.102)	3882826	60.0000	59.87
168	Pentachlorobenzene	250	12.465	12.471	(1.030)	2803334	60.0000	59.79
113	Diphenyl Oxide	170	11.402	11.403	(0.942)	3874868	60.0000	58.58
112	Biphenyl	154	11.204	11.205	(0.925)	5482305	60.0000	53.53
120	2,3,4,6-Tetrachlorophenol	232	12.732	12.733	(1.052)	1758979	60.0000	70.53
151	1,2,4,5-Tetrachlorobenzene	216	10.755	10.756	(0.888)	3049881	60.0000	62.19
110	Tetrachloroguaiacol	247	14.447	14.453	(0.999)	2661334	120.000	135.6
109	3,4,5-Trichloroguaiacol	213	12.834	12.840	(0.887)	1232088	60.0000	62.43
181	3,4,6-Trichloroguaiacol	211	12.951	12.952	(1.799)	1435026	60.0000	61.52
108	4,5,6-Trichloroguaiacol	213	13.865	13.871	(1.145)	1279705	60.0000	65.93
184	3,4-Dichloroguaiacol	192	11.300	11.306	(1.570)	1254053	60.0000	60.00
107	4,5-Dichloroguaiacol	192	12.102	12.108	(1.000)	3076819	120.000	121.7
182	4,6-Dichloroguaiacol	192	12.102	12.108	(1.681)	3031784	120.000	115.0
185	4-Chloroguaiacol	115	10.232	10.233	(1.422)	590509	30.0000	29.29
186	Carbaryl	144	15.312	15.324	(1.059)	4760949	60.0000	65.49
178	2-Benzyl-4-Chlorophenol	218	15.286	15.297	(1.057)	2183513	60.0000	68.66
106	Guaiacol	124	8.213	8.213	(1.141)	2559585	60.0000	61.46

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231206.D
Lab Smp Id: IC600523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC600523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	819323	-14.99
27 Naphthalene-d8	3430476	1715238	6860952	2967520	-13.50
42 Acenaphthene-d10	2259168	1129584	4518336	1788274	-20.84
59 Phenanthrene-d10	3446677	1723338	6893354	2994128	-13.13
69 Chrysene-d12	3961525	1980762	7923050	3573040	-9.81
134 Di-n-octylphthala	3758743	1879372	7517486	3341643	-11.10
77 Perylene-d12	4154109	2077054	8308218	3676255	-11.50

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.20	0.10
27 Naphthalene-d8	9.26	8.76	9.76	9.26	0.02
42 Acenaphthene-d10	12.11	11.61	12.61	12.11	0.01
59 Phenanthrene-d10	14.46	13.96	14.96	14.46	0.05
69 Chrysene-d12	18.73	18.23	19.23	18.74	0.04
134 Di-n-octylphthala	19.96	19.46	20.46	19.97	0.04
77 Perylene-d12	20.87	20.37	21.37	20.88	0.03

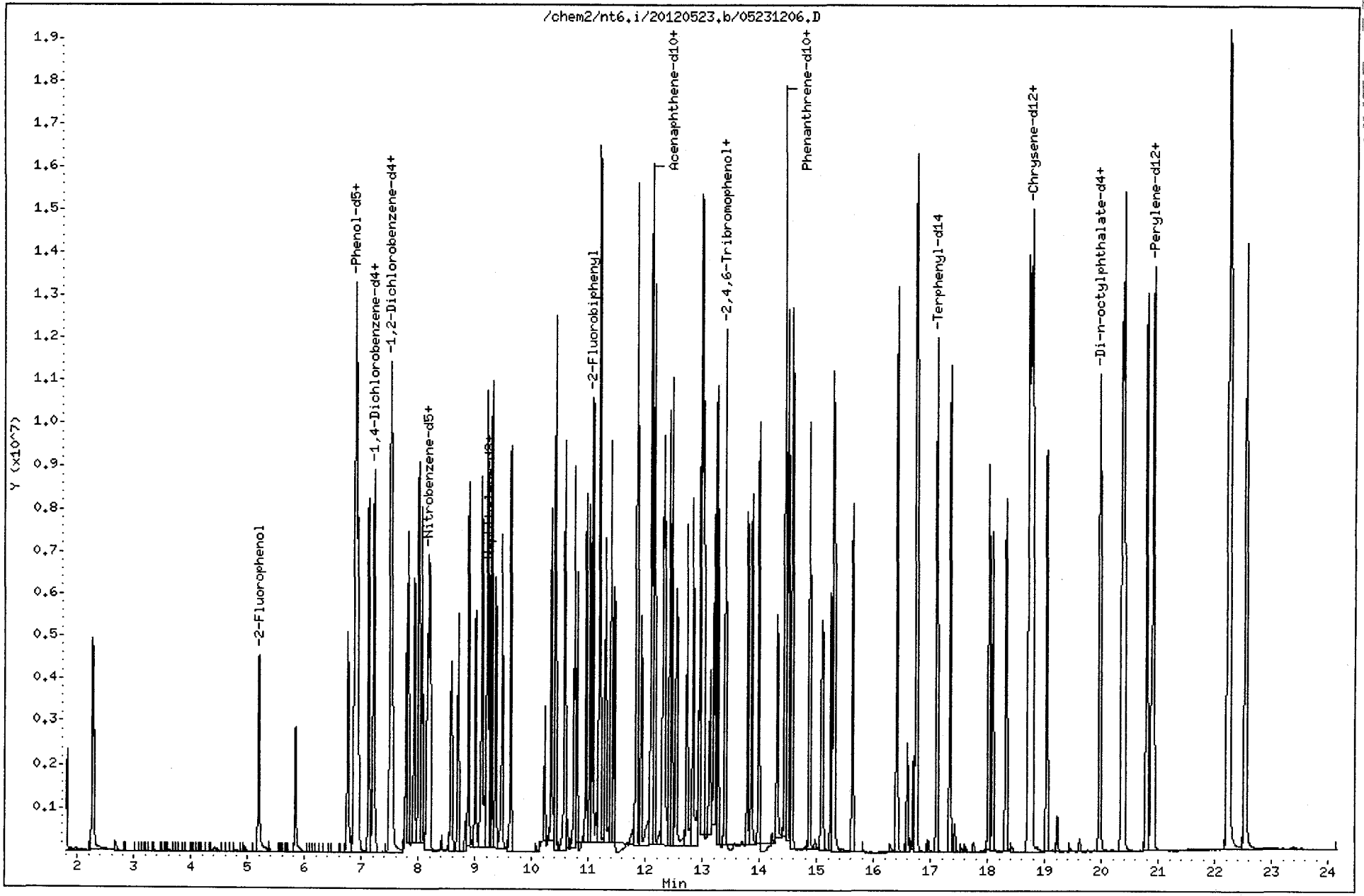
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120523.b/05231206.D
Date : 23-MAY-2012 16:22
Client ID: IC600523
Sample Info: IC600523

Instrument: nt6.i

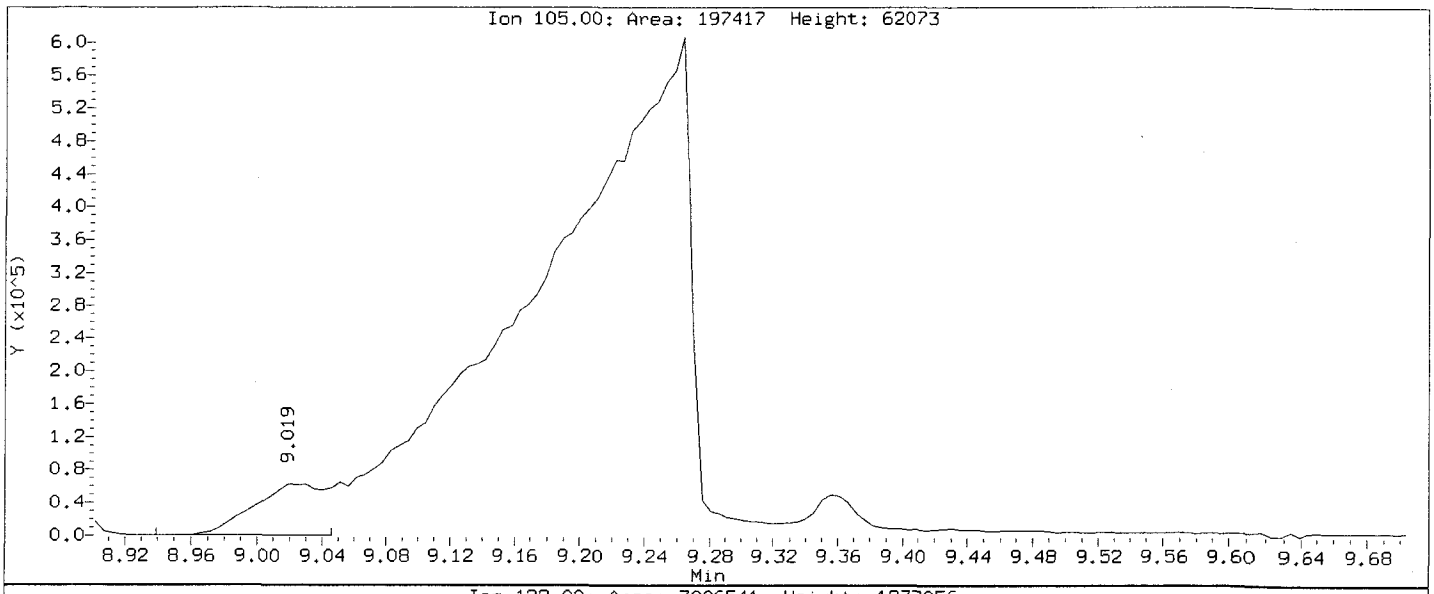
Operator: JZ
Column diameter: 0.32

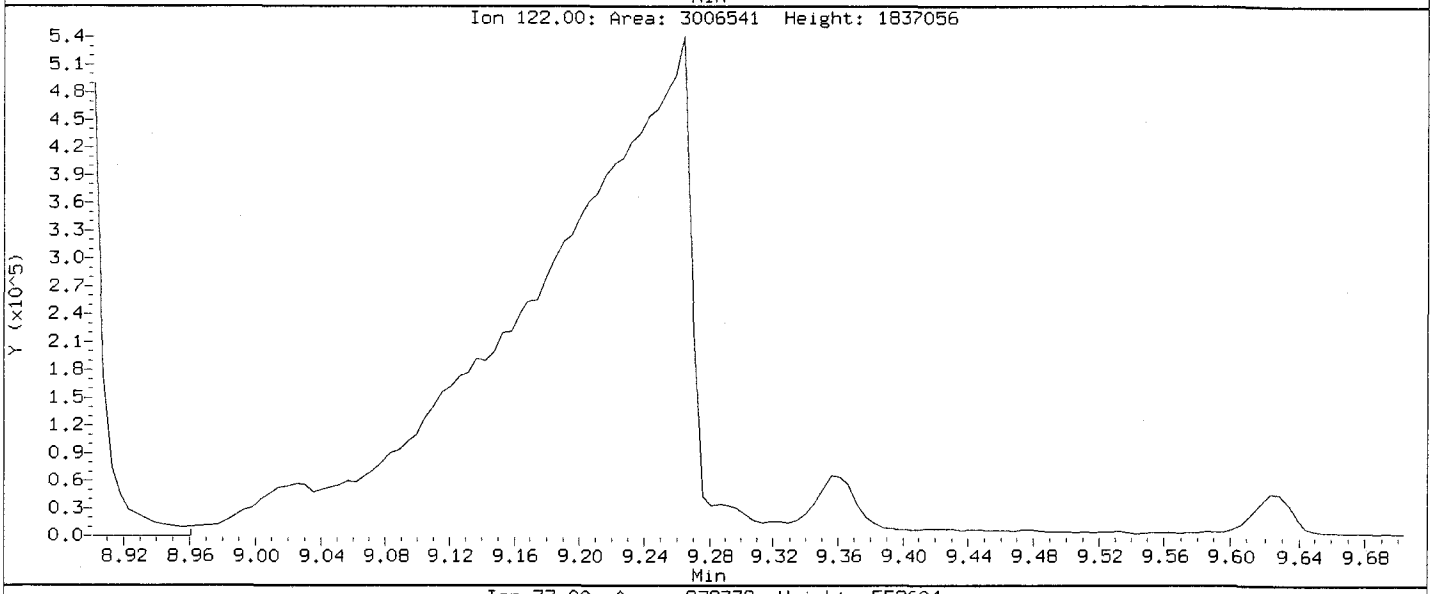
Column phase: ZB-5msi

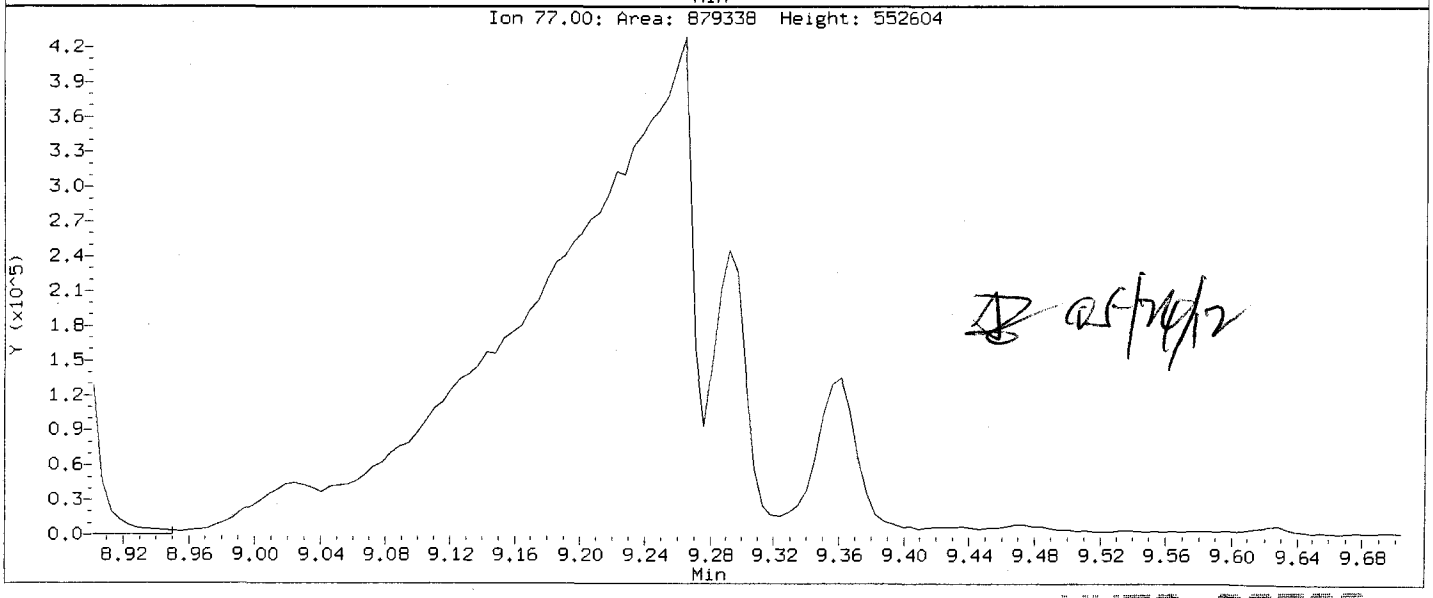


Data File: /chem2/nt6.i/20120523.b/05231206.D
Injection Date: 23-MAY-2012 16:22
Instrument: nt6.i
Client Sample ID: IC600523

Compound: Benzoic acid
CAS Number: 65-85-0



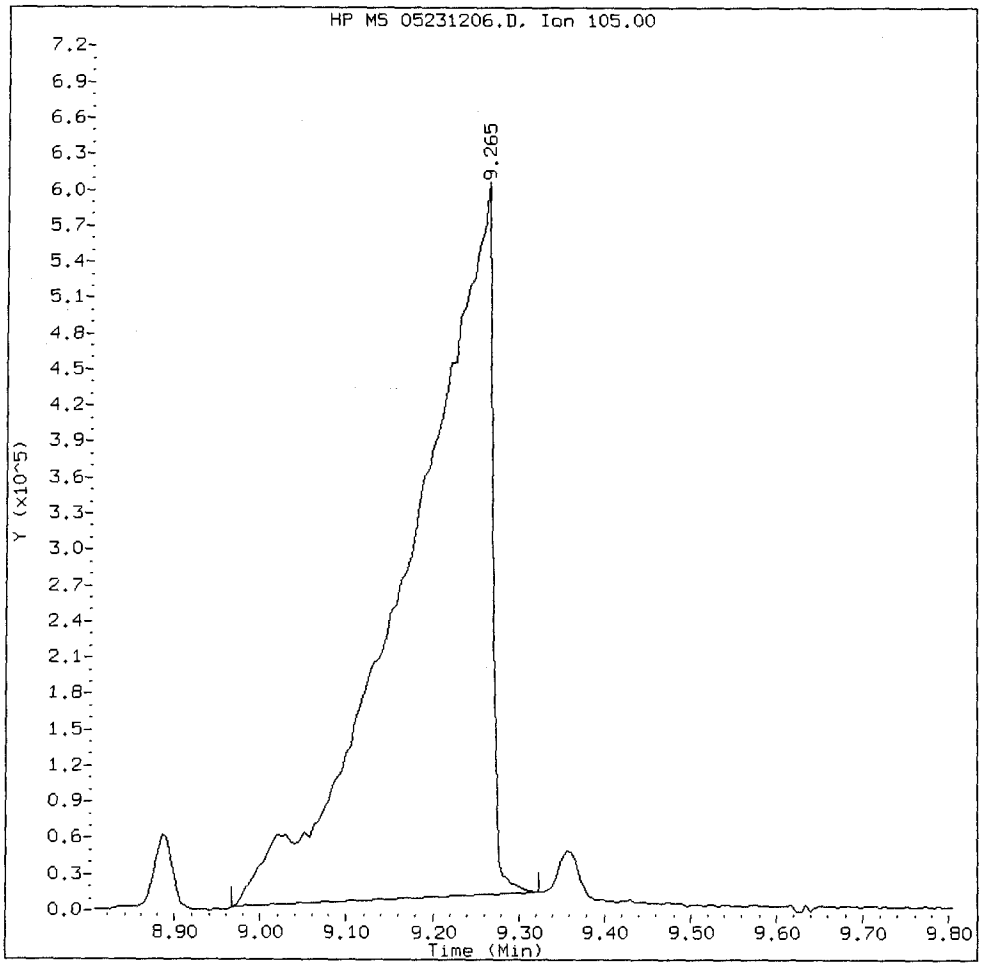




UU52 : 00596

IC600523, /chem2/nt6.i/20120523.b/05231206.D

Benzoic acid Amount: 144.07 Area: 3886060



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 05/24/12

CO-ELUTION SUMMARY FOR FILE - 05231206.D

Lab ID: IC600523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231207.D
Lab Smp Id: IC800523 Client Smp ID: IC800523
Inj Date : 23-MAY-2012 16:56
Operator : JZ Inst ID: nt6.i
Smp Info : IC800523,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

05/24/12

AMOUNTS

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1 2-Fluorophenol	112	Compound Not Detected.					
$ 2 Phenol-d5	99	Compound Not Detected.					
3 Phenol	94	6.894	6.894	(0.958)	4955898	80.0000	71.01
$ 5 2-Chlorophenol-d4	132	Compound Not Detected.					
4 Bis(2-Chloroethyl)ether	93	6.899	6.899	(0.959)	3671832	80.0000	75.77
6 2-Chlorophenol	128	6.936	6.936	(0.964)	4527563	80.0000	71.07
7 1,3-Dichlorobenzene	146	7.129	7.129	(0.991)	4778971	80.0000	73.17
* 8 1,4-Dichlorobenzene-d4	152	7.193	7.193	(1.000)	842934	20.0000	
9 1,4-Dichlorobenzene	146	7.220	7.220	(1.004)	4722377	80.0000	72.35
$ 10 1,2-Dichlorobenzene-d4	152	Compound Not Detected.					
12 1,2-Dichlorobenzene	146	7.519	7.519	(1.045)	4580662	80.0000	73.31
11 Benzyl alcohol	108	7.545	7.545	(1.049)	3039997	80.0000	83.42
14 2,2'-oxybis(1-Chloropropane)	45	7.791	7.791	(1.083)	3980410	80.0000	73.23
13 2-Methylphenol	108	7.823	7.823	(1.088)	3901294	80.0000	73.26
17 Hexachloroethane	117	8.005	8.005	(1.113)	1837842	80.0000	78.62
16 N-Nitroso-di-n-propylamine	70	8.026	8.026	(1.116)	2480871	80.0000	75.81
15 4-Methylphenol	108	8.069	8.069	(1.122)	4050882	80.0000	73.67
$ 18 Nitrobenzene-d5	82	Compound Not Detected.					
19 Nitrobenzene	77	8.187	8.187	(0.884)	3752174	80.0000	74.08
20 Isophorone	82	8.593	8.593	(0.927)	5518208	80.0000	74.07
21 2-Nitrophenol	139	8.710	8.710	(0.940)	2687169	80.0000	75.38
22 2,4-Dimethylphenol	107	8.892	8.892	(0.960)	3861146	80.0000	72.38
23 Bis(2-Chloroethoxy)methane	93	9.009	9.009	(0.972)	4129182	80.0000	73.91
24 Benzoic acid	105	9.303	9.303	(1.004)	5209192	160.000	181.5(M)
25 2,4-Dichlorophenol	162	9.121	9.121	(0.984)	3922797	80.0000	74.26
26 1,2,4-Trichlorobenzene	180	9.218	9.218	(0.995)	4181022	80.0000	73.70
* 27 Naphthalene-d8	136	9.266	9.266	(1.000)	3073829	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	9.298	9.298	(1.003)	9277135	80.0000	59.36
	29 4-Chloroaniline	127	9.479	9.479	(1.023)	5001026	80.0000	69.30
	30 Hexachlorobutadiene	225	9.629	9.629	(1.039)	2615179	80.0000	75.50
	31 4-Chloro-3-methylphenol	107	10.345	10.345	(1.116)	3134300	80.0000	74.20
	32 2-Methylnaphthalene	141	10.420	10.420	(1.125)	6448175	80.0000	66.38
	33 Hexachlorocyclopentadiene	237	10.799	10.799	(0.892)	2554079	80.0000	85.07
	34 2,4,6-Trichlorophenol	196	10.964	10.964	(0.906)	3245825	80.0000	83.10
	35 2,4,5-Trichlorophenol	196	11.029	11.029	(0.911)	3045276	80.0000	80.70
$	36 2-Fluorobiphenyl	172	Compound Not Detected.					
	37 2-Chloronaphthalene	162	11.189	11.189	(0.924)	6973674	80.0000	70.12
	38 2-Nitroaniline	65	11.461	11.461	(0.947)	1965243	80.0000	80.48
	39 Dimethylphthalate	163	11.857	11.857	(0.979)	7036877	80.0000	69.69
	40 Acenaphthylene	152	11.862	11.862	(0.980)	9821885	80.0000	63.11
	41 2,6-Dinitrotoluene	165	11.937	11.937	(0.986)	1984785	80.0000	79.46
*	42 Acenaphthene-d10	164	12.108	12.108	(1.000)	1905330	20.0000	
	43 3-Nitroaniline	138	12.150	12.150	(1.004)	1944636	80.0000	68.05
	44 Acenaphthene	153	12.166	12.166	(1.005)	6732525	80.0000	64.48
	45 2,4-Dinitrophenol	184	12.316	12.316	(1.017)	2924612	160.000	224.9
	46 Dibenzofuran	168	12.434	12.434	(1.027)	9122335	80.0000	62.37
	47 4-Nitrophenol	109	12.530	12.530	(1.035)	794628	80.0000	91.10
	48 2,4-Dinitrotoluene	165	12.556	12.556	(1.037)	2656847	80.0000	82.53
	50 Diethylphthalate	149	13.000	13.000	(1.074)	6760243	80.0000	70.28
	49 Fluorene	166	12.984	12.984	(1.072)	7879360	80.0000	66.47
	51 4-Chlorophenyl-phenylether	204	13.027	13.027	(1.076)	4355683	80.0000	74.92
	52 4-Nitroaniline	138	13.149	13.149	(1.086)	2209240	80.0000	82.16
	53 4,6-Dinitro-2-methylphenol	198	13.214	13.214	(0.914)	3817906	160.000	167.4
	54 N-Nitrosodiphenylamine	169	13.251	13.251	(0.916)	5469187	80.0000	68.61
$	55 2,4,6-Tribromophenol	330	Compound Not Detected.					
	56 4-Bromophenyl-phenylether	248	13.790	13.790	(0.953)	2915944	80.0000	73.11
	57 Hexachlorobenzene	284	13.993	13.993	(0.967)	3595757	80.0000	72.16
	58 Pentachlorophenol	266	14.319	14.319	(0.990)	1862334	80.0000	103.7
*	59 Phenanthrene-d10	188	14.464	14.464	(1.000)	3163164	20.0000	
	60 Phenanthrene	178	14.506	14.506	(1.003)	9874928	80.0000	60.05
	61 Anthracene	178	14.581	14.581	(1.008)	9611692	80.0000	57.84
	62 Carbazole	167	14.886	14.886	(1.029)	8265913	80.0000	64.08
	63 Di-n-butylphthalate	149	15.633	15.633	(1.081)	9209998	80.0000	60.38
	64 Fluoranthene	202	16.419	16.419	(1.135)	10329585	80.0000	58.71
	65 Pyrene	202	16.766	16.766	(0.895)	10702900	80.0000	56.47
$	66 Terphenyl-d14	244	Compound Not Detected.					
	67 Butylbenzylphthalate	149	18.027	18.027	(0.962)	5307057	80.0000	73.72
	68 Benzo(a)anthracene	228	18.721	18.721	(0.999)	11497534	80.0000	59.97
*	69 Chrysene-d12	240	18.743	18.743	(1.000)	3670223	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.759	18.759	(1.001)	4884408	80.0000	67.42
	71 Chrysene	228	18.791	18.791	(1.003)	10366319	80.0000	58.85
	72 bis(2-Ethylhexyl)phthalate	149	19.036	19.036	(0.953)	6768668	80.0000	70.29
*	134 Di-n-octylphthalate-d4	153	19.971	19.971	(1.000)	3425170	20.0000	
	73 Di-n-octylphthalate	149	19.982	19.982	(1.001)	9866823	80.0000	61.64

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	20.377	20.377	(0.976)	13059010	80.0000	62.21
75	Benzo(k)fluoranthene	252	20.377	20.377	(0.976)	13059010	80.0000	65.40
187	Total Benzofluoranthenes	252	20.409	20.409	(0.977)	21895322	160.000	115.0
76	Benzo(a)pyrene	252	20.810	20.810	(0.997)	11418220	80.0000	62.64
* 77	Perylene-d12	264	20.879	20.879	(1.000)	3891837	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	22.242	22.242	(1.065)	18145070	80.0000	67.59
79	Dibenzo(a,h)anthracene	278	22.274	22.274	(1.067)	13009482	80.0000	60.27
80	Benzo(g,h,i)perylene	276	22.562	22.562	(1.081)	14549710	80.0000	64.25
90	N-Nitrosodimethylamine	74	2.305	2.305	(0.320)	2245345	80.0000	77.01
103	Pyridine	79	2.267	2.267	(0.315)	3761264	80.0000	77.21
91	Aniline	93	6.760	6.760	(0.940)	5071601	80.0000	66.05
105	1-methylnaphthalene	141	10.585	10.585	(1.142)	5209179	80.0000	69.80
93	Benzidine	184	16.702	16.702	(0.891)	2105024	80.0000	51.94
111	Azobenzene (1,2-DP-Hydrazine)	77	13.278	13.278	(1.097)	6380123	80.0000	71.54
143	1,4-Dioxane	88	1.819	1.819	(0.253)	1359577	80.0000	76.92
$ 137	d8-1,4-Dioxane	96	1.781	1.781	(0.248)	1422459	80.0000	75.42
144	alpha-Terpineol	59	9.362	9.362	(1.010)	2177756	80.0000	73.76
177	p-Benzoquinone	82	5.836	5.836	(0.630)	663286	80.0000	78.64
98	Retene	219	17.348	17.348	(0.926)	4977123	80.0000	73.12
99	Perylene	252	20.928	20.928	(1.002)	10630741	80.0000	60.32
133	Butylatedhydroxytoluene	205	12.337	12.337	(1.019)	5316083	80.0000	71.48
115	Tributyl Phosphate	99	13.411	13.411	(0.927)	6493373	80.0000	69.25
116	Dibutyl Phenyl Phosphate	175	15.105	15.105	(1.044)	5820694	80.0000	76.82
117	Butyl Diphenyl Phosphate	94	16.745	16.745	(0.893)	1711752	80.0000	77.57
118	Triphenyl Phosphate	326	18.326	18.326	(0.978)	3276771	80.0000	77.12
123	Acetophenone	105	7.935	7.935	(1.103)	4937041	80.0000	74.80
168	Pentachlorobenzene	250	12.471	12.471	(1.030)	3691750	80.0000	74.71
113	Diphenyl Oxide	170	11.403	11.403	(0.942)	5205718	80.0000	74.68
112	Biphenyl	154	11.205	11.205	(0.925)	7185318	80.0000	67.56
120	2,3,4,6-Tetrachlorophenol	232	12.733	12.733	(1.052)	2353213	80.0000	87.23
151	1,2,4,5-Tetrachlorobenzene	216	10.756	10.756	(0.888)	3889870	80.0000	75.19
110	Tetrachloroguaiacol	247	14.453	14.453	(0.999)	3543072	160.000	169.3
109	3,4,5-Trichloroguaiacol	213	12.840	12.840	(0.888)	1646147	80.0000	79.10
181	3,4,6-Trichloroguaiacol	211	12.952	12.952	(1.801)	2008845	80.0000	83.16
108	4,5,6-Trichloroguaiacol	213	13.871	13.871	(1.146)	1712982	80.0000	82.42
184	3,4-Dichloroguaiacol	192	11.306	11.306	(1.572)	1693440	80.0000	78.93
107	4,5-Dichloroguaiacol	192	12.108	12.108	(1.000)	4083699	160.000	152.7
182	4,6-Dichloroguaiacol	192	12.108	12.108	(1.683)	4028104	160.000	150.1
185	4-Chloroguaiacol	115	10.233	10.233	(1.423)	842811	40.0000	40.55
186	Carbaryl	144	15.324	15.324	(1.059)	6019585	80.0000	78.61
178	2-Benzyl-4-Chlorophenol	218	15.297	15.297	(1.058)	2865577	80.0000	84.50
106	Guaiacol	124	8.213	8.213	(1.142)	3293719	80.0000	77.31

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231207.D
Lab Smp Id: IC800523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC800523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	842934	-12.54
27 Naphthalene-d8	3430476	1715238	6860952	3073829	-10.40
42 Acenaphthene-d10	2259168	1129584	4518336	1905330	-15.66
59 Phenanthrene-d10	3446677	1723338	6893354	3163164	-8.23
69 Chrysene-d12	3961525	1980762	7923050	3670223	-7.35
134 Di-n-octylphthala	3758743	1879372	7517486	3425170	-8.87
77 Perylene-d12	4154109	2077054	8308218	3891837	-6.31

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.03
27 Naphthalene-d8	9.26	8.76	9.76	9.27	0.08
42 Acenaphthene-d10	12.11	11.61	12.61	12.11	0.02
59 Phenanthrene-d10	14.46	13.96	14.96	14.46	0.05
69 Chrysene-d12	18.73	18.23	19.23	18.74	0.04
134 Di-n-octylphthala	19.96	19.46	20.46	19.97	0.04
77 Perylene-d12	20.87	20.37	21.37	20.88	0.04

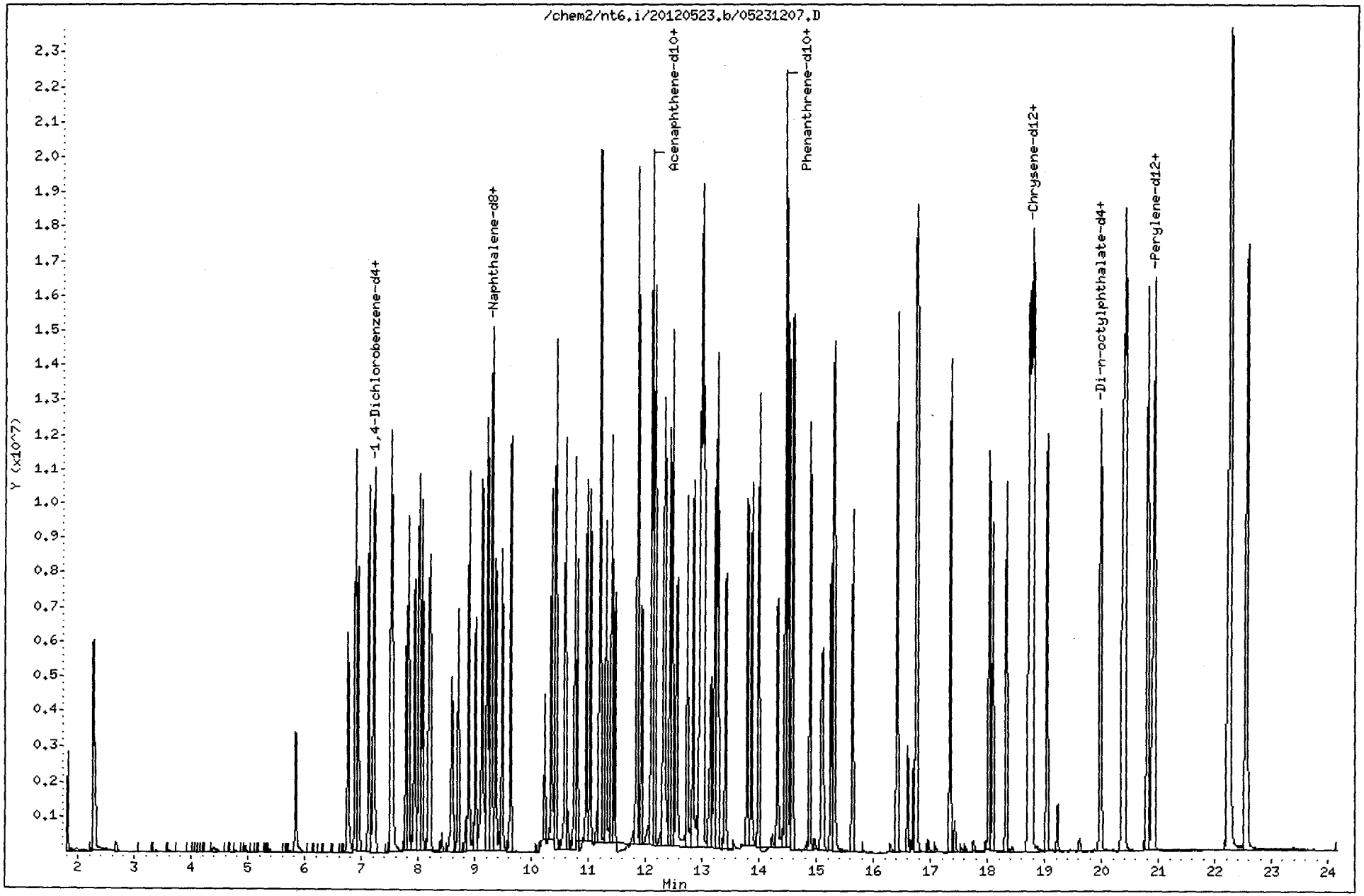
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120523.b/05231207.D
Date : 23-MAY-2012 16:56
Client ID: IC800523
Sample Info: IC800523,

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

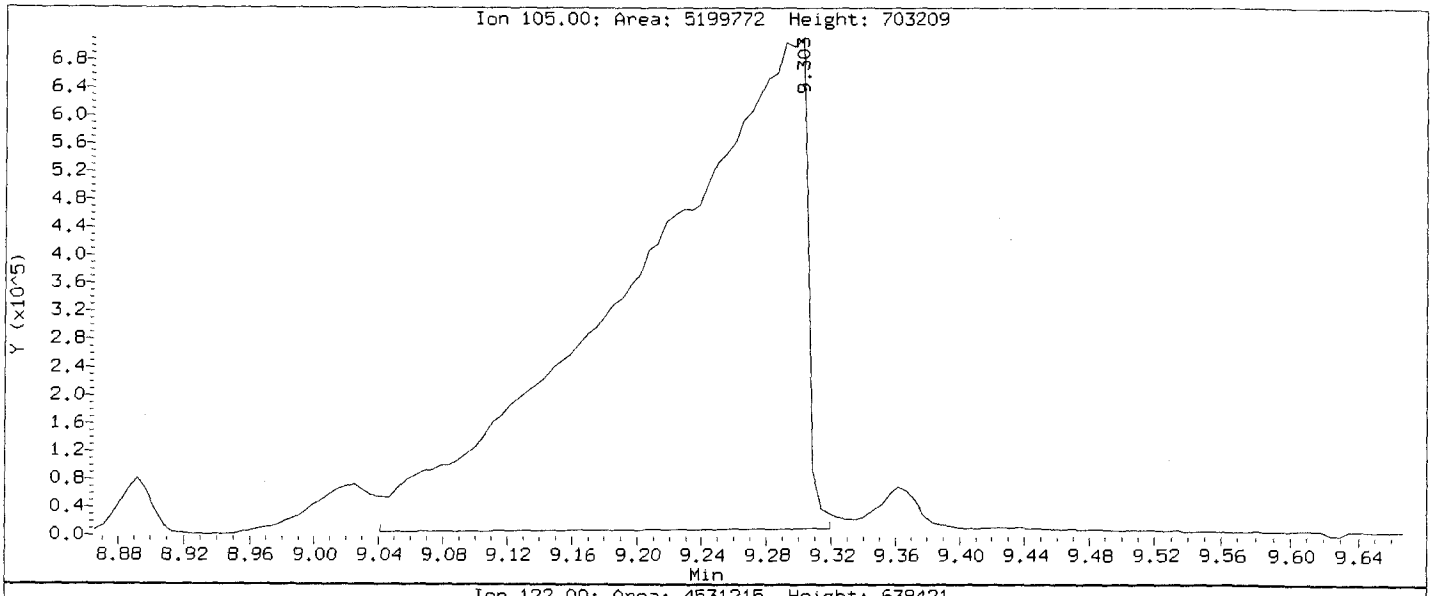
Column phase: ZB-5msi

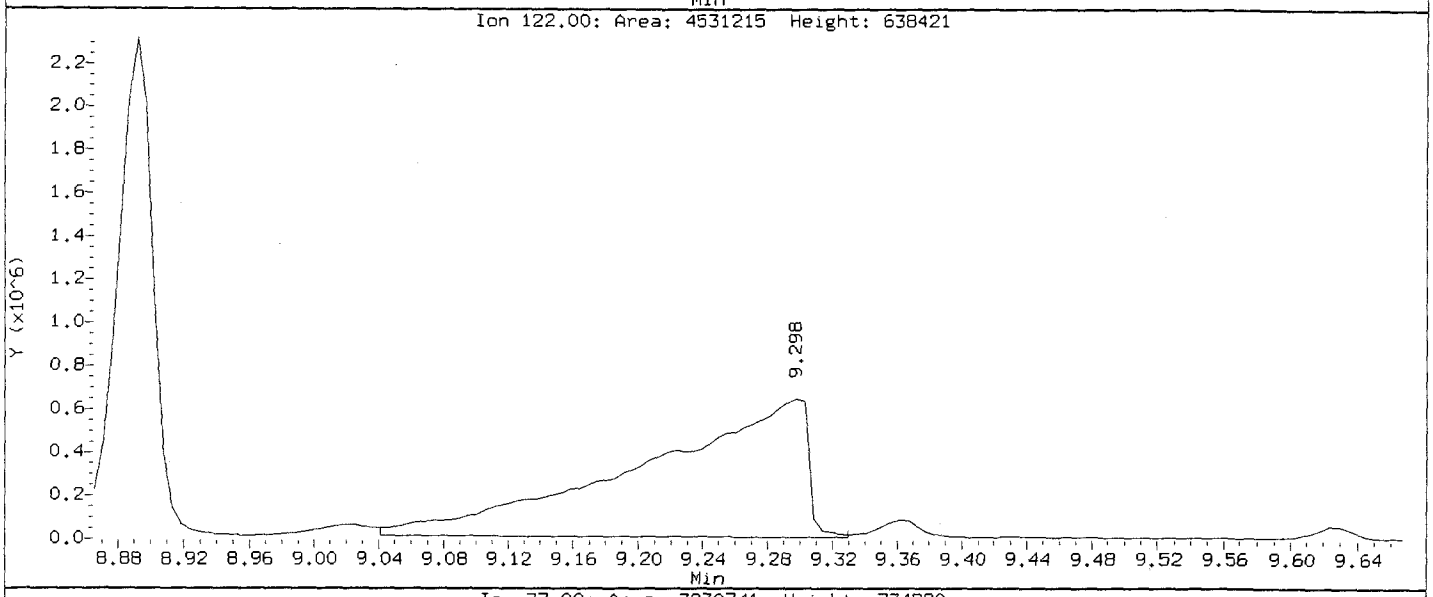


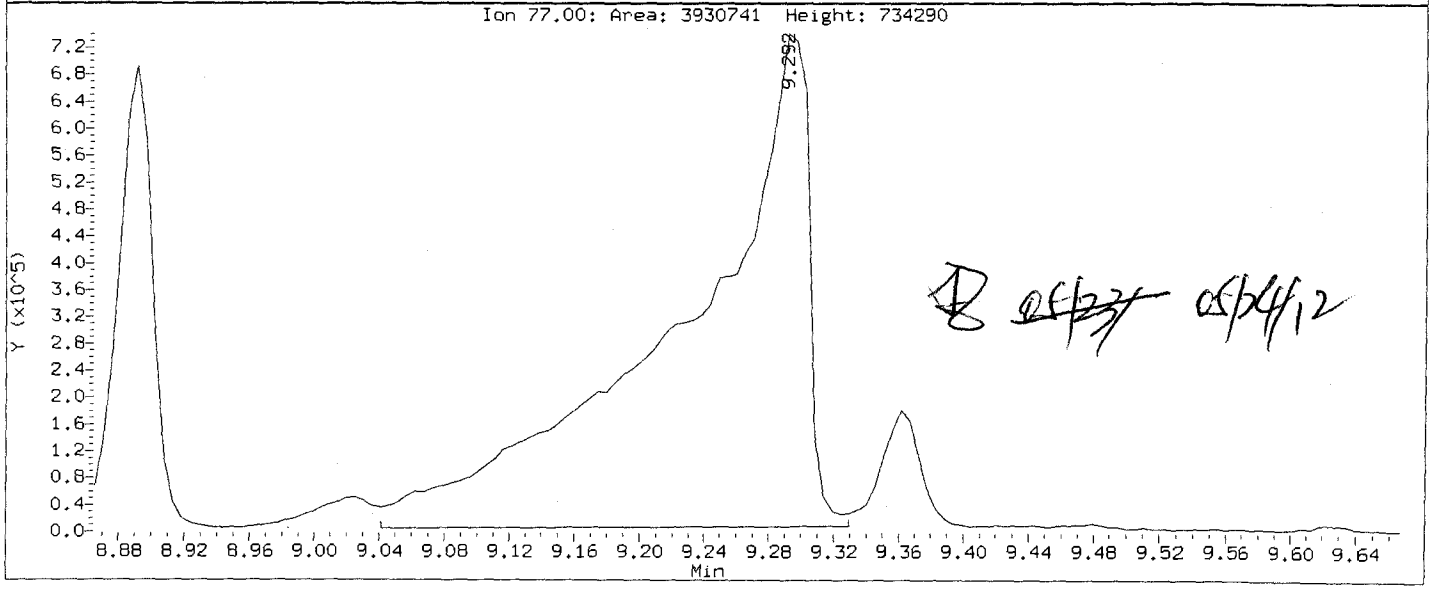
IJ0523 : 05231207

Data File: /chem2/nt6.i/20120523.b/05231207.D
Injection Date: 23-MAY-2012 16:56
Instrument: nt6.i
Client Sample ID: IC800523

Compound: Benzoic acid
CAS Number: 65-85-0



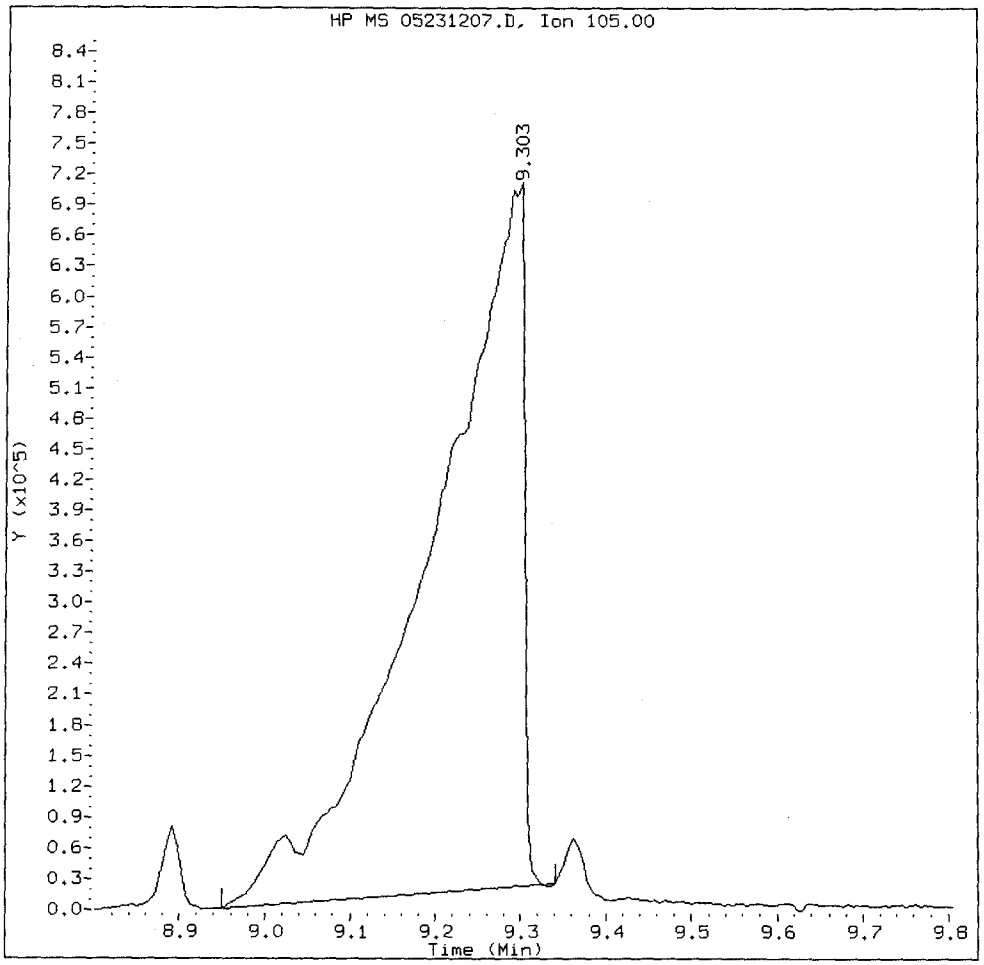




05/24/12

IC800523, /chem2/nt6.i/20120523.b/05231207.D

Benzoic acid Amount: 181.45 Area: 5209192



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 05/24/12

CO-ELUTION SUMMARY FOR FILE - 05231207.D

Lab ID: IC800523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231209.D
Lab Smp Id: ICV0523 Client Smp ID: ICV0523
Inj Date : 23-MAY-2012 20:29
Operator : JZ Inst ID: nt6.i
Smp Info : ICV0523
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 13:31 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$ 1	2-Fluorophenol	112	5.187	5.187	(0.721)	1179238	24.4979	24.50
$ 2	Phenol-d5	99	6.865	6.870	(0.955)	1360701	23.7012	23.70
3	Phenol	94	6.886	6.886	(0.958)	1488556	21.7070	21.71
$ 5	2-Chlorophenol-d4	132	6.907	6.907	(0.961)	1322938	23.7765	23.78
4	Bis(2-Chloroethyl)ether	93	6.897	6.897	(0.959)	1165628	24.4781	24.48
6	2-Chlorophenol	128	6.934	6.934	(0.964)	1343142	21.4562	21.46
7	1,3-Dichlorobenzene	146	7.126	7.121	(0.991)	1425025	22.2050	22.20
* 8	1,4-Dichlorobenzene-d4	152	7.191	7.191	(1.000)	828280	20.0000	
9	1,4-Dichlorobenzene	146	7.217	7.217	(1.004)	1446627	22.5543	22.55
$ 10	1,2-Dichlorobenzene-d4	152	7.495	7.495	(1.042)	948325	23.3700	23.37
12	1,2-Dichlorobenzene	146	7.516	7.516	(1.045)	1370178	22.3159	22.32
11	Benzyl alcohol	108	7.527	7.532	(1.047)	668735	18.6751	18.68
14	2,2'-oxybis(1-Chloropropane)	45	7.784	7.784	(1.082)	1335478	25.0046	25.00
13	2-Methylphenol	108	7.816	7.816	(1.087)	1172729	22.4121	22.41
17	Hexachloroethane	117	8.003	8.003	(1.113)	514726	22.4078	22.41
16	N-Nitroso-di-n-propylamine	70	8.008	8.008	(1.114)	758128	23.5761	23.58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
	15 4-Methylphenol	108	8.056	8.056	(1.120)	1208409	22.3646	22.36
$	18 Nitrobenzene-d5	82	8.152	8.152	(0.881)	1146008	23.6970	23.70
	19 Nitrobenzene	77	8.179	8.179	(0.883)	1100099	22.1258	22.13
	20 Isophorone	82	8.574	8.574	(0.926)	1864525	25.4934	25.49
	21 2-Nitrophenol	139	8.702	8.702	(0.940)	728922	20.8291	20.83
	22 2,4-Dimethylphenol	107	8.879	8.879	(0.959)	1126844	21.5187	21.52
	23 Bis(2-Chloroethoxy)methane	93	9.002	9.002	(0.972)	1238273	22.5768	22.58
	24 Benzoic acid	105	9.188	9.188	(0.992)	1468131	45.3154	45.32
	25 2,4-Dichlorophenol	162	9.114	9.114	(0.984)	1104495	21.3002	21.30
	26 1,2,4-Trichlorobenzene	180	9.210	9.210	(0.995)	1213981	21.7997	21.80
*	27 Naphthalene-d8	136	9.258	9.258	(1.000)	3017500	20.0000	
	28 Naphthalene	128	9.290	9.290	(1.003)	3364324	21.9298	21.93
	29 4-Chloroaniline	127	9.466	9.466	(1.022)	1302302	18.3824	18.38
	30 Hexachlorobutadiene	225	9.627	9.627	(1.040)	739476	21.7470	21.75
	31 4-Chloro-3-methylphenol	107	10.337	10.337	(1.117)	923488	22.2711	22.27
	32 2-Methylnaphthalene	141	10.412	10.412	(1.125)	1719178	18.0270	18.03
	33 Hexachlorocyclopentadiene	237	10.802	10.796	(0.892)	683120	22.6315	22.63
	34 2,4,6-Trichlorophenol	196	10.957	10.957	(0.905)	853466	21.7328	21.73
	35 2,4,5-Trichlorophenol	196	11.026	11.026	(0.911)	886322	23.3626	23.36
$	36 2-Fluorobiphenyl	172	11.074	11.074	(0.915)	2598626	22.3332	22.33
	37 2-Chloronaphthalene	162	11.186	11.186	(0.924)	2272649	22.7279	22.73
	38 2-Nitroaniline	65	11.448	11.448	(0.946)	434559	17.7019	17.70
	39 Dimethylphthalate	163	11.838	11.838	(0.978)	2325101	22.9040	22.90
	40 Acenaphthylene	152	11.854	11.854	(0.979)	3426390	21.8990	21.90
	41 2,6-Dinitrotoluene	165	11.924	11.918	(0.985)	548493	21.8403	21.84
*	42 Acenaphthene-d10	164	12.105	12.105	(1.000)	1915567	20.0000	
	43 3-Nitroaniline	138	12.127	12.127	(1.002)	536081	18.6598	18.66
	44 Acenaphthene	153	12.159	12.153	(1.004)	2133377	20.3225	20.32
	45 2,4-Dinitrophenol	184	12.298	12.298	(1.016)	879213	55.5920	55.59
	46 Dibenzofuran	168	12.420	12.420	(1.026)	2694356	18.3230	18.32
	47 4-Nitrophenol	109	12.522	12.517	(1.034)	194062	19.1914	19.19
	48 2,4-Dinitrotoluene	165	12.538	12.538	(1.036)	734919	22.7078	22.71
	50 Diethylphthalate	149	12.992	12.992	(1.073)	2244681	23.2101	23.21
	49 Fluorene	166	12.971	12.971	(1.071)	2492228	20.9113	20.91
	51 4-Chlorophenyl-phenylether	204	13.019	13.019	(1.075)	1309168	22.3967	22.40
	52 4-Nitroaniline	138	13.115	13.120	(1.083)	500303	18.5066	18.51
	53 4,6-Dinitro-2-methylphenol	198	13.190	13.190	(0.912)	1202815	53.5893	53.59
	54 N-Nitrosodiphenylamine	169	13.232	13.232	(0.915)	1716280	21.8732	21.87
$	55 2,4,6-Tribromophenol	330	13.398	13.398	(1.107)	588951	23.6894	23.69
	56 4-Bromophenyl-phenylether	248	13.788	13.788	(0.954)	847117	21.5770	21.58
	57 Hexachlorobenzene	284	13.986	13.986	(0.967)	1062718	21.6660	21.67
	58 Pentachlorophenol	266	14.306	14.306	(0.990)	340497	16.3506	16.35 (R)
*	59 Phenanthrene-d10	188	14.456	14.456	(1.000)	3113458	20.0000	
	60 Phenanthrene	178	14.493	14.493	(1.003)	3483949	21.5237	21.52
	61 Anthracene	178	14.563	14.563	(1.007)	3482419	21.2922	21.29
	62 Carbazole	167	14.873	14.873	(1.029)	2858501	22.5144	22.51
	63 Di-n-butylphthalate	149	15.626	15.626	(1.081)	3684393	24.5397	24.54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	16.411	16.411	(1.135)	3980107	22.9823	22.98
	65 Pyrene	202	16.753	16.753	(0.894)	4140140	20.9356	20.94
$	66 Terphenyl-d14	244	17.111	17.106	(0.913)	2977583	22.4630	22.46
	67 Butylbenzylphthalate	149	18.019	18.019	(0.962)	1703655	22.6799	22.68
	68 Benzo(a)anthracene	228	18.714	18.708	(0.999)	3976821	19.8816	19.88
*	69 Chrysene-d12	240	18.735	18.735	(1.000)	3829511	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.751	18.751	(1.001)	1532360	20.2722	20.27
	71 Chrysene	228	18.772	18.772	(1.002)	3825046	20.8132	20.81
	72 bis(2-Ethylhexyl)phthalate	149	19.034	19.034	(0.953)	2314041	22.5555	22.56
*	134 Di-n-octylphthalate-d4	153	19.964	19.964	(1.000)	3649186	20.0000	
	73 Di-n-octylphthalate	149	19.974	19.974	(1.001)	3825331	22.4302	22.43
	74 Benzo(b)fluoranthene	252	20.386	20.354	(0.977)	4364175	20.2402	20.24
	75 Benzo(k)fluoranthene	252	20.386	20.386	(0.977)	4364175	21.2782	21.28
	187 Total Benzofluoranthenes	252	20.386	20.386	(0.977)	8464608	43.2933	43.29
	76 Benzo(a)pyrene	252	20.792	20.786	(0.996)	3802429	20.3108	20.31
*	77 Perylene-d12	264	20.872	20.872	(1.000)	3997364	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	22.218	22.218	(1.064)	5743375	20.8304	20.83
	79 Dibenzo(a,h)anthracene	278	22.245	22.245	(1.066)	4761189	21.4764	21.48
	80 Benzo(g,h,i)perylene	276	22.528	22.528	(1.079)	4831616	20.7739	20.77
	90 N-Nitrosodimethylamine	74	2.276	2.276	(0.316)	685926	23.9414	23.94
	103 Pyridine	79	2.254	2.254	(0.314)	1026117	21.4366	21.44
	91 Aniline	93	6.758	6.758	(0.940)	1578057	20.9154	20.92
	105 1-methylnaphthalene	141	10.583	10.583	(1.143)	1518347	20.7246	20.72
	93 Benzidine	184	16.700	16.700	(0.891)	1082004	25.5877	25.59
	111 Azobenzene (1,2-DP-Hydrazine)	77	13.265	13.265	(1.096)	2053921	22.9066	22.91
	143 1,4-Dioxane	88	1.806	1.806	(0.251)	480903	27.6876	27.69
$	137 d8-1,4-Dioxane	96	1.774	1.774	(0.247)	513598	27.7147	27.71
	144 alpha-Terpineol	59	9.354	9.354	(1.010)	591512	20.4081	20.41
	177 p-Benzoquinone	82	5.834	5.834	(0.630)	223746	27.0239	27.02
	98 Retene	219	17.341	17.341	(0.926)	1662656	23.4118	23.41
	99 Perylene	252	20.909	20.904	(1.002)	4281016	23.6479	23.65
	133 Butylatedhydroxytoluene	205	12.330	12.330	(1.019)	1776388	23.7578	23.76
	115 Tributyl Phosphate	99	13.382	13.382	(0.926)	2176274	23.5786	23.58
	116 Dibutyl Phenyl Phosphate	175	15.086	15.086	(1.044)	1802155	24.1638	24.16
	117 Butyl Diphenyl Phosphate	94	16.737	16.737	(0.893)	543323	23.5965	23.60
	118 Triphenyl Phosphate	326	18.318	18.318	(0.978)	1046709	23.6112	23.61
	123 Acetophenone	105	7.922	7.922	(1.102)	1598526	24.6461	24.65
	168 Pentachlorobenzene	250	12.463	12.463	(1.030)	1100257	22.1469	22.15
	113 Diphenyl Oxide	170	11.400	11.395	(0.942)	1622131	23.1470	23.15
	112 Biphenyl	154	11.197	11.197	(0.925)	2169155	20.2858	20.29
	120 2,3,4,6-Tetrachlorophenol	232	12.725	12.725	(1.051)	588586	21.7014	21.70
	151 1,2,4,5-Tetrachlorobenzene	216	10.754	10.754	(0.888)	1258481	24.1951	24.20
	110 Tetrachloroguaiacol	247	14.440	14.440	(0.999)	955075	46.3557	46.36
	109 3,4,5-Trichloroguaiacol	213	12.826	12.832	(0.887)	464375	22.6694	22.67
	181 3,4,6-Trichloroguaiacol	211	12.944	12.944	(1.800)	557261	23.4767	23.48
	108 4,5,6-Trichloroguaiacol	213	13.858	13.858	(1.145)	468566	22.4243	22.42
	184 3,4-Dichloroguaiacol	192	11.299	11.299	(1.571)	479688	22.7533	22.75

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
107 4,5-Dichloroguaiacol	192	12.095	12.095	(0.999)	1209073	44.9743	44.97
182 4,6-Dichloroguaiacol	192	12.095	12.095	(1.682)	1214000	46.0266	46.03
185 4-Chloroguaiacol	115	10.225	10.225	(1.422)	231796	11.3483	11.35
186 Carbaryl	144	15.300	15.300	(1.058)	1620317	21.4972	21.50
178 2-Benzyl-4-Chlorophenol	218	15.279	15.273	(1.057)	810349	24.2758	24.28
106 Guaiacol	124	8.206	8.206	(1.141)	1001993	23.9345	23.93

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231209.D
Lab Smp Id: ICV0523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: ICV0523
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	828280	-14.06
27 Naphthalene-d8	3430476	1715238	6860952	3017500	-12.04
42 Acenaphthene-d10	2259168	1129584	4518336	1915567	-15.21
59 Phenanthrene-d10	3446677	1723338	6893354	3113458	-9.67
69 Chrysene-d12	3961525	1980762	7923050	3829511	-3.33
134 Di-n-octylphthala	3758743	1879372	7517486	3649186	-2.91
77 Perylene-d12	4154109	2077054	8308218	3997364	-3.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.00
27 Naphthalene-d8	9.26	8.76	9.76	9.26	0.00
42 Acenaphthene-d10	12.11	11.61	12.61	12.11	0.00
59 Phenanthrene-d10	14.46	13.96	14.96	14.46	0.00
69 Chrysene-d12	18.73	18.23	19.23	18.73	0.00
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	0.00
77 Perylene-d12	20.87	20.37	21.37	20.87	0.00

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

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: ICV0523
Level: LOW
Data Type: MS DATA
SpikeList File: ICVS.spk
Sublist File: ICALS.sub
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Client SDG: 20120523
Fraction: SV
Client Smp ID: ICV0523
Operator: JZ
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
3 Phenol	25.00	21.71	86.83	70-130
4 Bis(2-Chloroethyl)	25.00	24.48	97.91	70-130
6 2-Chlorophenol	25.00	21.46	85.82	70-130
7 1,3-Dichlorobenzen	25.00	22.20	88.82	70-130
9 1,4-Dichlorobenzen	25.00	22.55	90.22	70-130
11 Benzyl alcohol	25.00	18.68	74.70	70-130
12 1,2-Dichlorobenzen	25.00	22.32	89.26	70-130
13 2-Methylphenol	25.00	22.41	89.65	70-130
14 2,2'-oxybis(1-Chlo	25.00	25.00	100.02	70-130
15 4-Methylphenol	25.00	22.36	89.46	70-130
16 N-Nitroso-di-n-pro	25.00	23.58	94.30	70-130
17 Hexachloroethane	25.00	22.41	89.63	70-130
19 Nitrobenzene	25.00	22.13	88.50	70-130
20 Isophorone	25.00	25.49	101.97	70-130
21 2-Nitrophenol	25.00	20.83	83.32	70-130
22 2,4-Dimethylphenol	25.00	21.52	86.07	70-130
23 Bis(2-Chloroethoxy	25.00	22.58	90.31	70-130
24 Benzoic acid	50.00	45.32	90.63	70-130
25 2,4-Dichlorophenol	25.00	21.30	85.20	70-130
26 1,2,4-Trichloroben	25.00	21.80	87.20	70-130
28 Naphthalene	25.00	21.93	87.72	70-130
29 4-Chloroaniline	25.00	18.38	73.53	70-130
30 Hexachlorobutadien	25.00	21.75	86.99	70-130
31 4-Chloro-3-methylp	25.00	22.27	89.08	70-130
32 2-Methylnaphthalen	25.00	18.03	72.11	70-130
33 Hexachlorocyclopen	25.00	22.63	90.53	70-130
34 2,4,6-Trichlorophe	25.00	21.73	86.93	70-130
35 2,4,5-Trichlorophe	25.00	23.36	93.45	70-130
37 2-Chloronaphthalen	25.00	22.73	90.91	70-130
38 2-Nitroaniline	25.00	17.70	70.81	70-130
39 Dimethylphthalate	25.00	22.90	91.62	70-130
40 Acenaphthylene	25.00	21.90	87.60	70-130
41 2,6-Dinitrotoluene	25.00	21.84	87.36	70-130

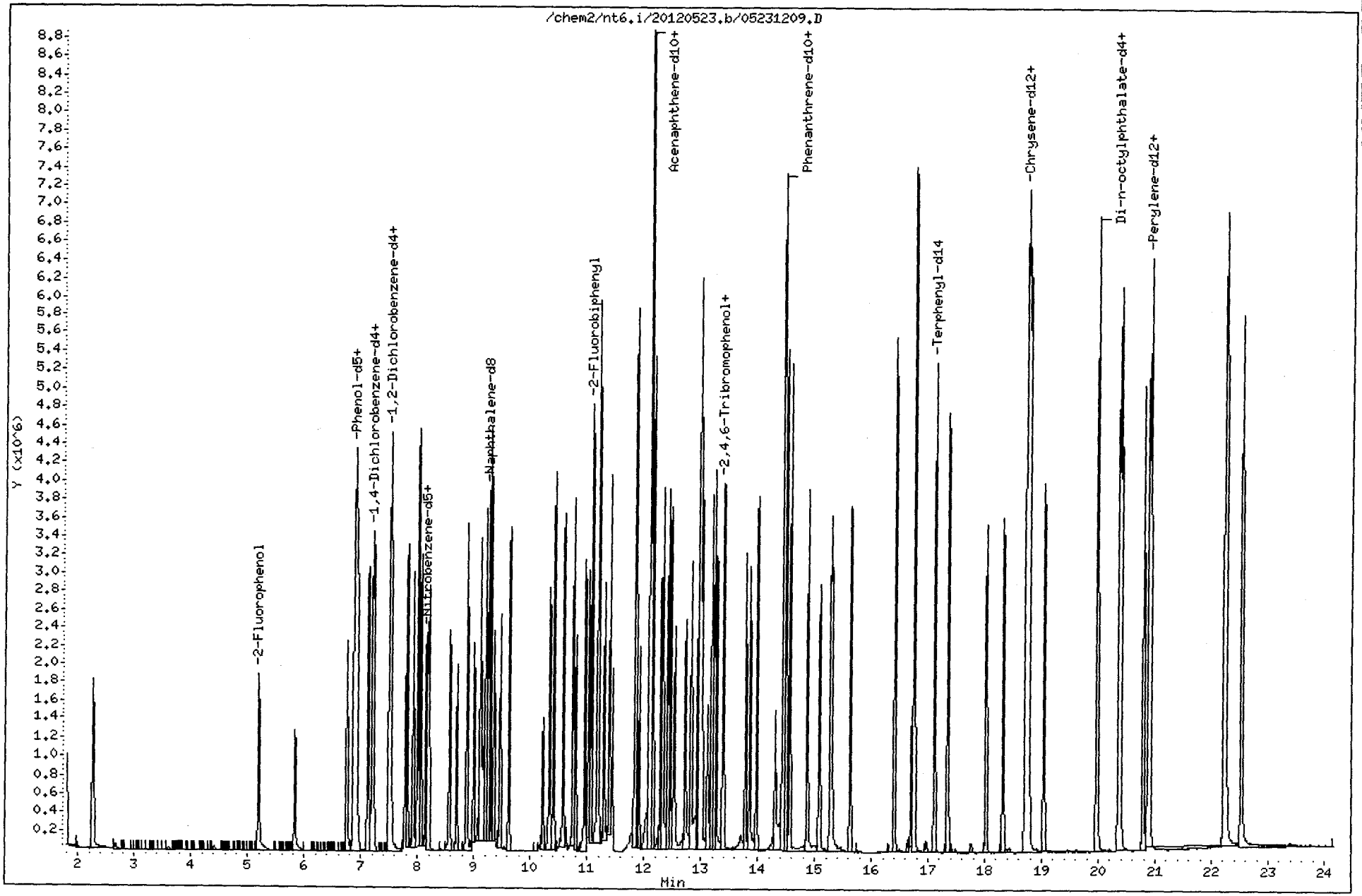
SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43	3-Nitroaniline	25.00	18.66	74.64	70-130
44	Acenaphthene	25.00	20.32	81.29	70-130
45	2,4-Dinitrophenol	50.00	55.59	111.18	70-130
46	Dibenzofuran	25.00	18.32	73.29	70-130
47	4-Nitrophenol	25.00	19.19	76.77	70-130
48	2,4-Dinitrotoluene	25.00	22.71	90.83	70-130
49	Fluorene	25.00	20.91	83.65	70-130
50	Diethylphthalate	25.00	23.21	92.84	70-130
51	4-Chlorophenyl-phe	25.00	22.40	89.59	70-130
52	4-Nitroaniline	25.00	18.51	74.03	70-130
53	4,6-Dinitro-2-meth	50.00	53.59	107.18	70-130
54	N-Nitrosodiphenyla	25.00	21.87	87.49	70-130
56	4-Bromophenyl-phen	25.00	21.58	86.31	70-130
57	Hexachlorobenzene	25.00	21.67	86.66	70-130
58	Pentachlorophenol	25.00	16.35	65.40*	70-130
60	Phenanthrene	25.00	21.52	86.09	70-130
61	Anthracene	25.00	21.29	85.17	70-130
62	Carbazole	25.00	22.51	90.06	70-130
63	Di-n-butylphthalat	25.00	24.54	98.16	70-130
64	Fluoranthene	25.00	22.98	91.93	70-130
65	Pyrene	25.00	20.94	83.74	70-130
67	Butylbenzylphthala	25.00	22.68	90.72	70-130
68	Benzo(a)anthracene	25.00	19.88	79.53	70-130
70	3,3'-Dichlorobenzi	25.00	20.27	81.09	70-130
71	Chrysene	25.00	20.81	83.25	70-130
72	bis(2-Ethylhexyl)p	25.00	22.56	90.22	70-130
73	Di-n-octylphthalat	25.00	22.43	89.72	70-130
74	Benzo(b)fluoranthe	25.00	20.24	80.96	70-130
75	Benzo(k)fluoranthe	25.00	21.28	85.11	70-130
187	Total Benzofluoran	50.00	43.29	86.59	70-130
76	Benzo(a)pyrene	25.00	20.31	81.24	70-130
78	Indeno(1,2,3-cd)py	25.00	20.83	83.32	70-130
79	Dibenzo(a,h)anthra	25.00	21.48	85.91	70-130
80	Benzo(g,h,i)peryle	25.00	20.77	83.10	70-130
90	N-Nitrosodimethyla	25.00	23.94	95.77	70-130
103	Pyridine	25.00	21.44	85.75	70-130
91	Aniline	25.00	20.92	83.66	70-130
105	1-methylnaphthalen	25.00	20.72	82.90	70-130
93	Benzidine	25.00	25.59	102.35	70-130
111	Azobenzene (1,2-DP	25.00	22.91	91.63	70-130
143	1,4-Dioxane	25.00	27.69	110.75	70-130
144	alpha-Terpineol	25.00	20.41	81.63	70-130
177	p-Benzoquinone	25.00	27.02	108.10	70-130
98	Retene	25.00	23.41	93.65	70-130
133	Butylatedhydroxyto	25.00	23.76	95.03	70-130
115	Tributyl Phosphate	25.00	23.58	94.31	70-130
116	Dibutyl Phenyl Pho	25.00	24.16	96.66	70-130

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
117 Butyl Diphenyl Pho	25.00	23.60	94.39	70-130
118 Triphenyl Phosphat	25.00	23.61	94.44	70-130
123 Acetophenone	25.00	24.65	98.58	70-130
168 Pentachlorobenzene	25.00	22.15	88.59	70-130
113 Diphenyl Oxide	25.00	23.15	92.59	70-130
112 Biphenyl	25.00	20.29	81.14	70-130
120 2,3,4,6-Tetrachlor	25.00	21.70	86.81	70-130
151 1,2,4,5-Tetrachlor	25.00	24.20	96.78	70-130
110 Tetrachloroguaiaco	50.00	46.36	92.71	70-130
109 3,4,5-Trichlorogua	25.00	22.67	90.68	70-130
181 3,4,6-Trichlorogua	25.00	23.48	93.91	70-130
108 4,5,6-Trichlorogua	25.00	22.42	89.70	70-130
184 3,4-Dichloroguaiac	25.00	22.75	91.01	70-130
107 4,5-Dichloroguaiac	50.00	44.97	89.95	70-130
182 4,6-Dichloroguaiac	50.00	46.03	92.05	70-130
185 4-Chloroguaiacol	12.50	11.35	90.79	70-130
106 Guaiacol	25.00	23.93	95.74	70-130
186 Carbaryl	25.00	21.50	85.99	70-130
178 2-Benzyl-4-Chlorop	25.00	24.28	97.10	70-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	25.00	24.50	97.99	75-125
$ 2 Phenol-d5	25.00	23.70	94.80	75-125
$ 5 2-Chlorophenol-d4	25.00	23.78	95.11	75-125
$ 10 1,2-Dichlorobenzen	25.00	23.37	93.48	75-125
$ 18 Nitrobenzene-d5	25.00	23.70	94.79	75-125
$ 36 2-Fluorobiphenyl	25.00	22.33	89.33	75-125
$ 55 2,4,6-Tribromophen	25.00	23.69	94.76	75-125
$ 66 Terphenyl-d14	25.00	22.46	89.85	75-125
$ 137 d8-1,4-Dioxane	25.00	27.71	110.86	75-125

Data File: /chem2/nt6.i/20120523.b/05231209.D
Date : 23-MAY-2012 20:29
Client ID: ICV0523
Sample Info: ICV0523
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



UJS2:050515

CO-ELUTION SUMMARY FOR FILE - 05231209.D

Lab ID: ICV0523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Semivolatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: UU52 Client ID: Anchor QEA, LLC

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): 8270

Instrument: NT-2 NT-4 NT-6 NT-8 NT11

Curve Date: 4/23/12 Analysis Start Date: 4/24/12

DFTPP Tune Meets Criteria?	YES / NO	Internal Standard Meets Criteria?	YES / NO
DDT Breakdown <20%?	YES / NO / NA	Method Blank In Control?	YES / NO
Peak Tailing Factor ≤2?	YES / NO / NA	LCS / LCSD Recovery In Control?	YES / NO
ICal acceptable?	YES / NO	CCal acceptable?	YES / NO
Q flag applied?	YES / NO	Q flag applied?	YES / NO
Surrogate Recovery in Control?	YES / NO	Special Analysis Criteria Met?	YES / NO / NA
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes / NO

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Samples 1-4 + MB/LCS/LCSD + RLS

Forms included.

LCS/LCSD: compound "Pentene" not added in.

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 5/24/12, 5/30/12

Reviewer: MW **Date:** 5/30

Analytical Resources Inc.: Organics Instrument Log

NT-6 Serial No.:GC=US00036167, MS=US81221575

Date: 5/4/12 Analysis: 8270 Analyst: AT

GC Program: BN/W1 MW Column No: 208282 Column Type: ZB-5MS

Instrument Tune (.U or .CT.): 120106 EM Voltage: 1741

Calibration File: 120501 Curve Date: 4/23/12 Injection Vol.: 1µL

IS/SS	Ical/Ccal	LCS/ICV
1871-1	1937-2, 1940-1	
	1941-1, 1942-1	
	1944, 1936-1	
	1939-3	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem2/nt6.i/20120524.b

	Time	Filename	LabID	ClientId	DF															
1	1050	05241201.D	CC0524	CC0524	1	7.19	841610	9.26	3091072	12.11	1981765	14.46	3205322	18.73	3861093	20.87	4039539	19.96	3655319
2	1126	05241202.D	UU62MBW1	UU62MBW1	1	7.19	971489	9.25	3374983	12.10	2127525	14.45	3333166	18.73	3717834	19.96	3450320	20.87	4238968
3	1159	05241203.D	UU62LCSW1	UU62LCSW1	1	7.19	847652	9.26	3074341	12.11	1869892	14.45	3057363	18.73	3736704	19.96	3533231	20.87	3942542
4	1233	05241204.D	UU62LCSDW1	UU62LCSDW1	1	7.19	912008	9.26	3381197	12.11	2121467	14.46	3414818	18.73	3963208	19.96	3774442	20.87	4232897
5	1307	05241205.D	UU62QLS	UU62QLS	1	7.19	926851	9.25	3296251	12.10	2107365	14.45	3337981	18.73	3892343	19.96	3637574	20.87	4355088
6	1340	05241206.D	UU62J	MS-SSRB-1205	1	7.19	896401	9.25	3178107	12.10	2016726	14.45	3170811	18.73	3765318	19.96	3520284	20.86	4272719
7	1414	05241207.D	UU62K	MS-SSFB-1205	1	7.19	948003	9.26	3347510	12.10	2141551	14.45	3383727	18.73	3983969	19.96	3747644	20.86	4429070
8	1447	05241208.D	UU68A	MW2-W-9	1	7.19	964832	9.26	3438997	12.10	2237574	14.45	3576664	18.73	3864134	19.96	3924286	20.87	4454331
9	1521	05241209.D	US34D	SPE003-40G	3	7.19	811378	9.25	2975429	12.10	1914303	14.45	3022789	18.73	3393496	19.97	3350409	20.87	3760179
10	1554	05241210.D	UU66A	MW1-W-8.5	1	7.19	816977	9.26	2969657	12.10	1796681	14.45	2930383	18.73	3718823	19.96	3702750	20.87	4405537
11	1627	05241211.D	UU66B	FIELD DUPLIC	1	7.19	834157	9.26	3012475	12.10	1814922	14.45	2785390	18.73	3703728	19.97	3668012	20.87	4385818
12	1701	05241212.D	UU22A	GP5-S-2	1	7.19	745464	9.25	2665987	12.10	1656488	14.45	2670063	18.74	4436955	19.98	4248614	20.90	5061876

5/4/12

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/nt6.i/20120524.b

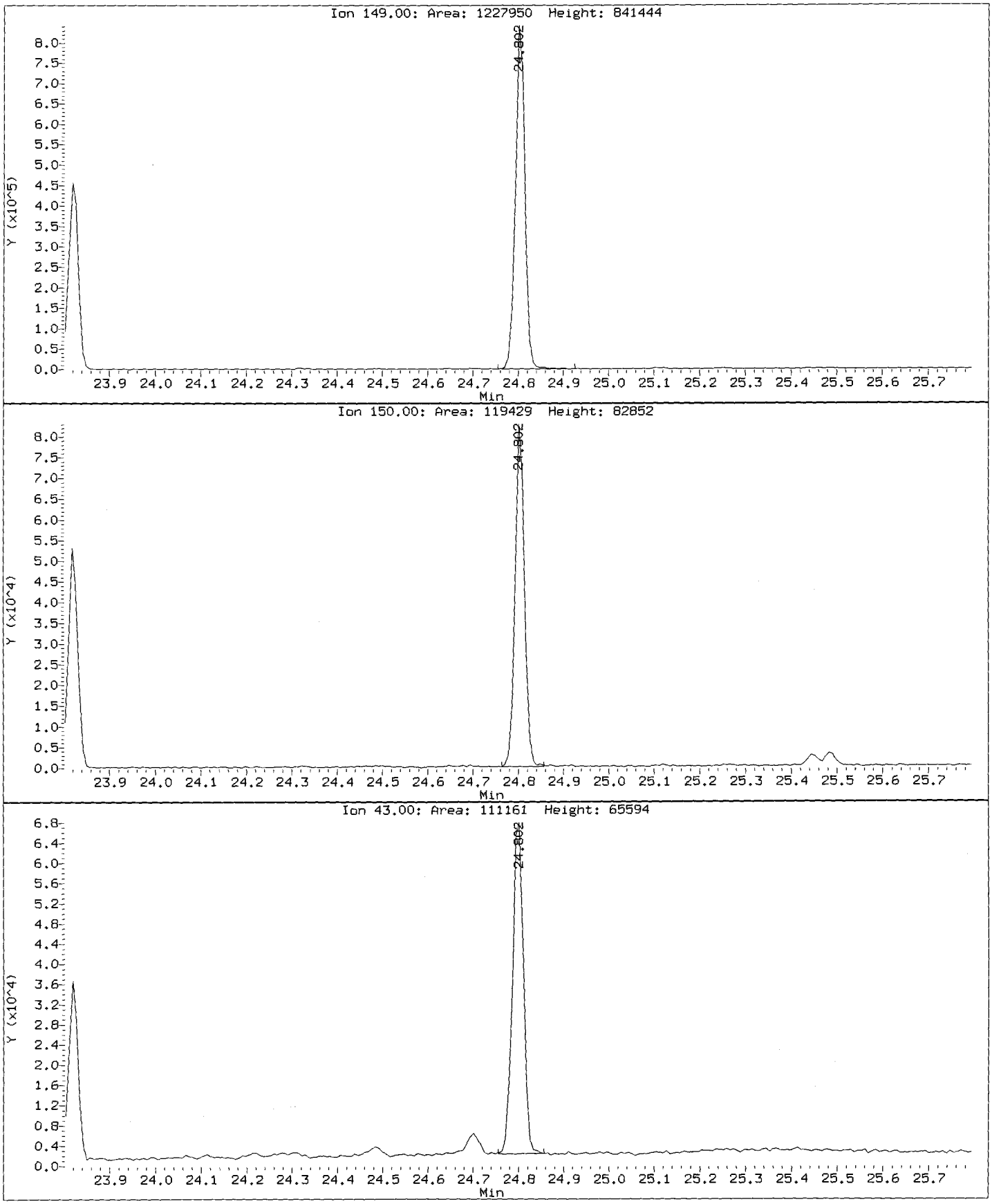
ARI Job No.: CC05 Method: SW846052312.m Instrument: nt6.i Date: 24-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1050	05241201.D	CC0524	CC0524	1	NO MANUAL INTEGRATION
1126	05241202.D	UU62MBW1	UU62MBW1	1	NO MANUAL INTEGRATION
1159	05241203.D	UU62LCSW1	UU62LCSW1	1	NO MANUAL INTEGRATION
1233	05241204.D	UU62LCSDW1	UU62LCSDW1	1	NO MANUAL INTEGRATION
1307	05241205.D	UU62QLS	UU62QLS	1	Isophorone, Benzoic acid, 4-Nitrophenol, Pentachlorophenol, Aniline,
1340	05241206.D	UU62J	MS-SSRB-12	1	NO MANUAL INTEGRATION
1414	05241207.D	UU62K	MS-SSFB-12	1	NO MANUAL INTEGRATION

6/26/12

Data File: /chem1/nt10.i/20120526.b/ic0526a.d
Injection Date: 26-MAY-2012 10:59
Instrument: nt10.i
Client Sample ID:

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Analytical Resources Inc.: Volatile Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 5/29/12 Analysis: ABN Analyst: YZ

GC Program: ABN_2 Column No: 227815 Column Type: ZB5 ms

Instrument Tune (.U or .CT.): 11121641 EM Voltage: 1800

Calibration File: DF0529 Curve Date: 5/26/12 Injection Vol.: 1 uL

IS/SS	Ical/Ccal		LCS/ICV
1875-1	1949-2	1891-2	
	1950-1	1892-1	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20120529.b

	Time	Filename	LabID	ClientId	DF												
1	1046	df0529.d	DFTPP	DFTPP	1	NO ISTDS FOUND											
2	1101	cc0529.d	CC0529		1	8.86	201464	11.51	781105	15.39	450943	18.65	697664	23.73	705871	24.80	1102875	26.13	704858
3	1141	uu52hms.d	UU52HMS	MS007-SS-120	3	8.87	194036	11.51	746578	15.39	430169	18.66	648205	23.73	694641	24.81	1111139	26.13	687334
4	1219	uu52hmsd.d	UU52HMSD	MS007-SS-120	3	8.87	198613	11.51	774430	15.39	446161	18.66	635278	23.73	714204	24.81	1120932	26.13	706143
5	1256	uu52i.d	UU52I	MS008-SS-120	3	8.86	197513	11.51	791554	15.39	435113	18.66	618705	23.73	705752	24.81	1101771	26.13	690654
6	1333	uu52j.d	UU52J	MS009-SS-120	3	8.87	192942	11.51	774858	15.39	438714	18.66	619554	23.73	704418	24.81	1108887	26.13	689542

YZ 5/31/12

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20120529.b

Instrument: nt10.i Date: 29-MAY-2012 Method: ABN.m

INITIAL CAL: 26-MAY-2012

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 29-MAY-2012

Compound	%D
NO Q-FLAGS	

Data File: /chem1/nt10.i/20120529.b/df0529.d

Date : 29-MAY-2012 10:46

Client ID: DFTPP

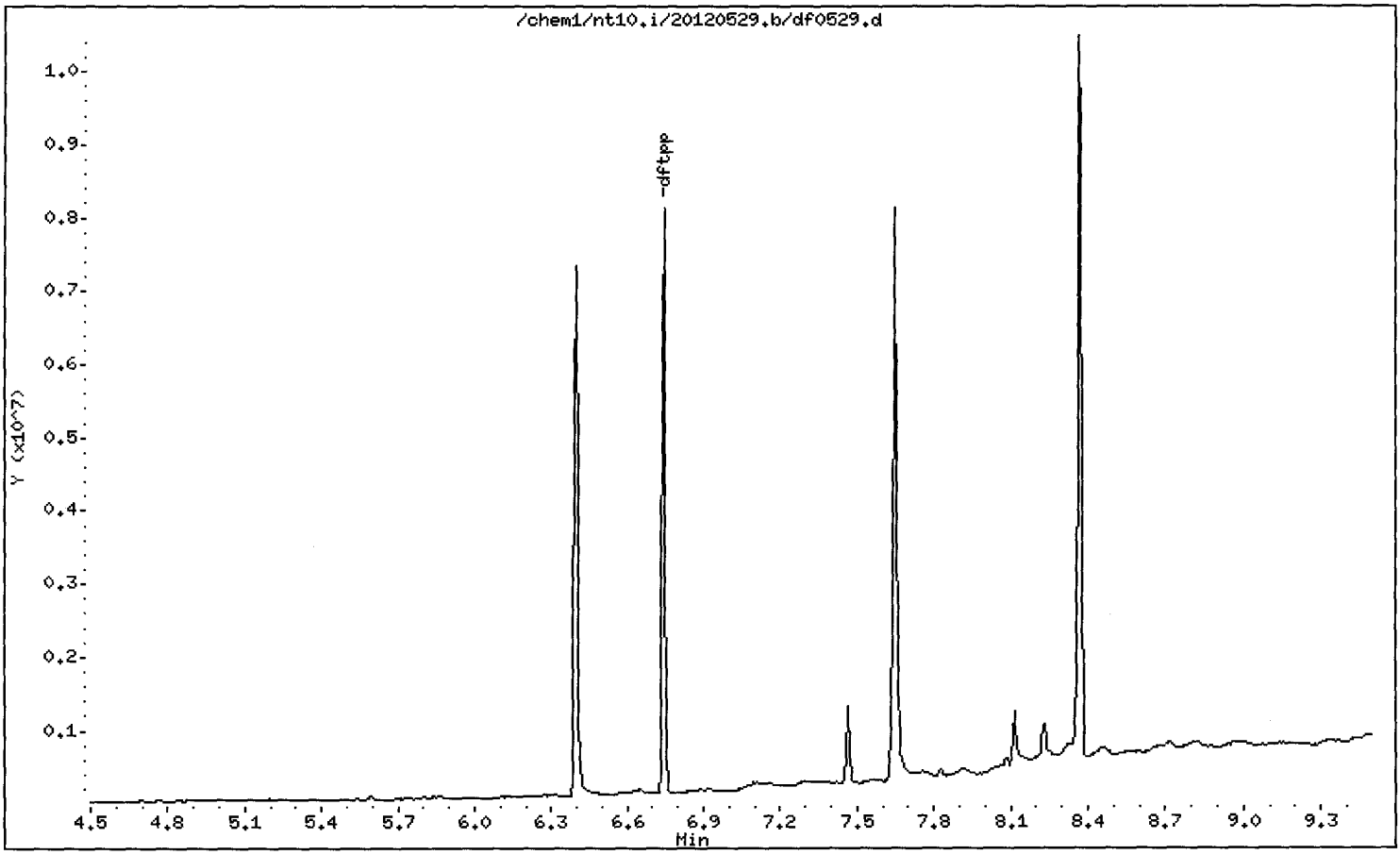
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20120529.b/df0529.d

Date : 29-MAY-2012 10:46

Client ID: DFTPP

Instrument: nt10.i

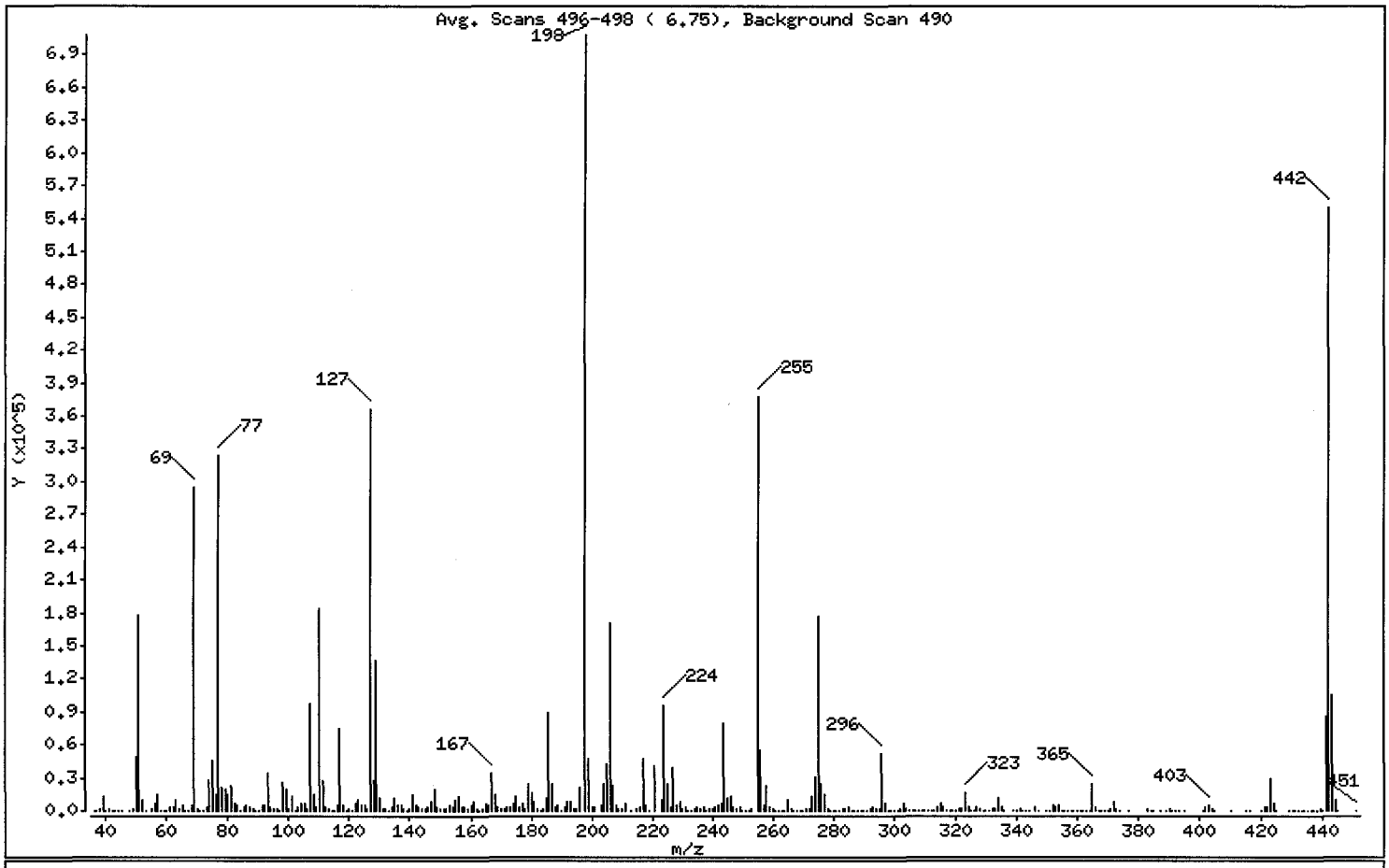
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	25.05
68	Less than 2.00% of mass 69	0.60 (1.45)
69	Mass 69 relative abundance	41.51
70	Less than 2.00% of mass 69	0.17 (0.41)
127	10.00 - 80.00% of mass 198	51.79
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.59
275	10.00 - 60.00% of mass 198	24.97
365	Greater than 1.00% of mass 198	3.38
441	0.01 - 24.00% of mass 442	12.07 (15.56)
442	50.00 - 200.00% of mass 198	77.62
443	15.00 - 24.00% of mass 442	14.94 (19.25)

Data File: /chem1/nt10.i/20120529.b/df0529.d

Date : 29-MAY-2012 10:46

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0529.d

Spectrum: Avg. Scans 496-498 (6.75), Background Scan 490

Location of Maximum: 198.00

Number of points: 367

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	135	131.00	2001	229.00	8295	322.00	1087
37.00	763	132.00	1043	230.00	1161	323.00	15621
38.00	2308	133.00	654	231.00	3379	324.00	2936
39.00	13696	134.00	3456	232.00	593	325.00	477
40.00	706	135.00	10868	233.00	703	326.00	390
41.00	1072	136.00	4233	234.00	2443	327.00	3157
42.00	62	137.00	5444	235.00	2893	328.00	1657
43.00	73	138.00	1103	236.00	2014	329.00	240
44.00	374	139.00	773	237.00	3084	330.00	220
45.00	476	140.00	1263	238.00	595	331.00	44
48.00	56	141.00	15462	239.00	1519	332.00	1391
49.00	1209	142.00	5314	240.00	1405	333.00	1663
50.00	48208	143.00	3912	241.00	2487	334.00	10870
51.00	177536	144.00	1004	242.00	5243	335.00	2621
52.00	9335	145.00	1113	243.00	6372	336.00	322
53.00	305	146.00	2785	244.00	79056	339.00	386
55.00	1069	147.00	8080	245.00	10729	340.00	279
56.00	5958	148.00	19000	246.00	13828	341.00	1858
57.00	14635	149.00	3727	247.00	2984	342.00	614
58.00	684	150.00	822	248.00	836	343.00	216
59.00	205	151.00	2297	249.00	2560	344.00	63
60.00	370	152.00	1226	250.00	721	346.00	3532
61.00	2704	153.00	5142	251.00	611	347.00	735
62.00	3331	154.00	3698	252.00	749	350.00	187
63.00	10025	155.00	9097	253.00	1886	351.00	403
64.00	1450	156.00	13308	255.00	377728	352.00	4829
65.00	5081	157.00	2817	256.00	55584	353.00	3536
66.00	300	158.00	2868	257.00	4383	354.00	4734
67.00	222	159.00	2221	258.00	22272	355.00	790
68.00	4257	160.00	5042	259.00	3440	356.00	264
69.00	294144	161.00	7363	260.00	834	357.00	174
70.00	1204	162.00	2381	261.00	776	358.00	108
71.00	265	163.00	567	262.00	70	359.00	458
72.00	90	164.00	956	263.00	392	360.00	65
73.00	2489	165.00	5752	264.00	578	361.00	116

Data File: /chem1/nt10.i/20120529.b/df0529.d

Date : 29-MAY-2012 10:46

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0529.d

Spectrum: Avg. Scans 496-498 (6.75), Background Scan 490

Location of Maximum: 198.00

Number of points: 367

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	28008	166.00	5228	265.00	9033	362.00	62
75.00	46120	167.00	33664	266.00	1234	363.00	85
76.00	14723	168.00	13974	267.00	122	364.00	96
77.00	324928	169.00	2657	268.00	248	365.00	23984
78.00	21960	170.00	1113	269.00	33	366.00	3617
79.00	19544	171.00	1748	270.00	487	367.00	242
80.00	15100	172.00	2589	271.00	1103	368.00	52
81.00	22696	173.00	3785	272.00	1387	369.00	112
82.00	5778	174.00	6633	273.00	12512	370.00	577
83.00	5690	175.00	13026	274.00	31608	371.00	1290
84.00	668	176.00	3865	275.00	176960	372.00	8424
85.00	3506	177.00	6004	276.00	23832	373.00	2188
86.00	5698	178.00	2071	277.00	14076	374.00	266
87.00	2873	179.00	23664	278.00	2319	377.00	299
88.00	1189	180.00	16215	279.00	674	383.00	2297
89.00	803	181.00	7800	280.00	147	384.00	663
90.00	202	182.00	1087	281.00	343	385.00	239
91.00	5112	183.00	656	282.00	577	387.00	60
92.00	4956	184.00	1964	283.00	1679	389.00	173
93.00	33968	185.00	11871	284.00	1329	390.00	1375
94.00	2449	186.00	89864	285.00	2516	391.00	638
95.00	1211	187.00	25008	286.00	605	392.00	565
96.00	1548	188.00	2649	287.00	199	393.00	58
97.00	645	189.00	5247	288.00	310	395.00	74
98.00	26264	190.00	682	289.00	728	401.00	569
99.00	20056	191.00	2457	290.00	506	402.00	3354
100.00	1762	192.00	7788	291.00	393	403.00	4350
101.00	12397	193.00	8088	292.00	818	404.00	1780
102.00	664	194.00	1741	293.00	3345	405.00	258
103.00	3928	195.00	858	294.00	1039	410.00	128
104.00	7300	196.00	21824	295.00	1352	415.00	314
105.00	7077	198.00	708608	296.00	52336	416.00	67
106.00	2310	199.00	46688	297.00	6813	420.00	76
107.00	97392	200.00	3818	298.00	580	421.00	4053
108.00	15246	201.00	3753	299.00	101	422.00	3709

Data File: /chem1/nt10.i/20120529.b/df0529.d

Date : 29-MAY-2012 10:46

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

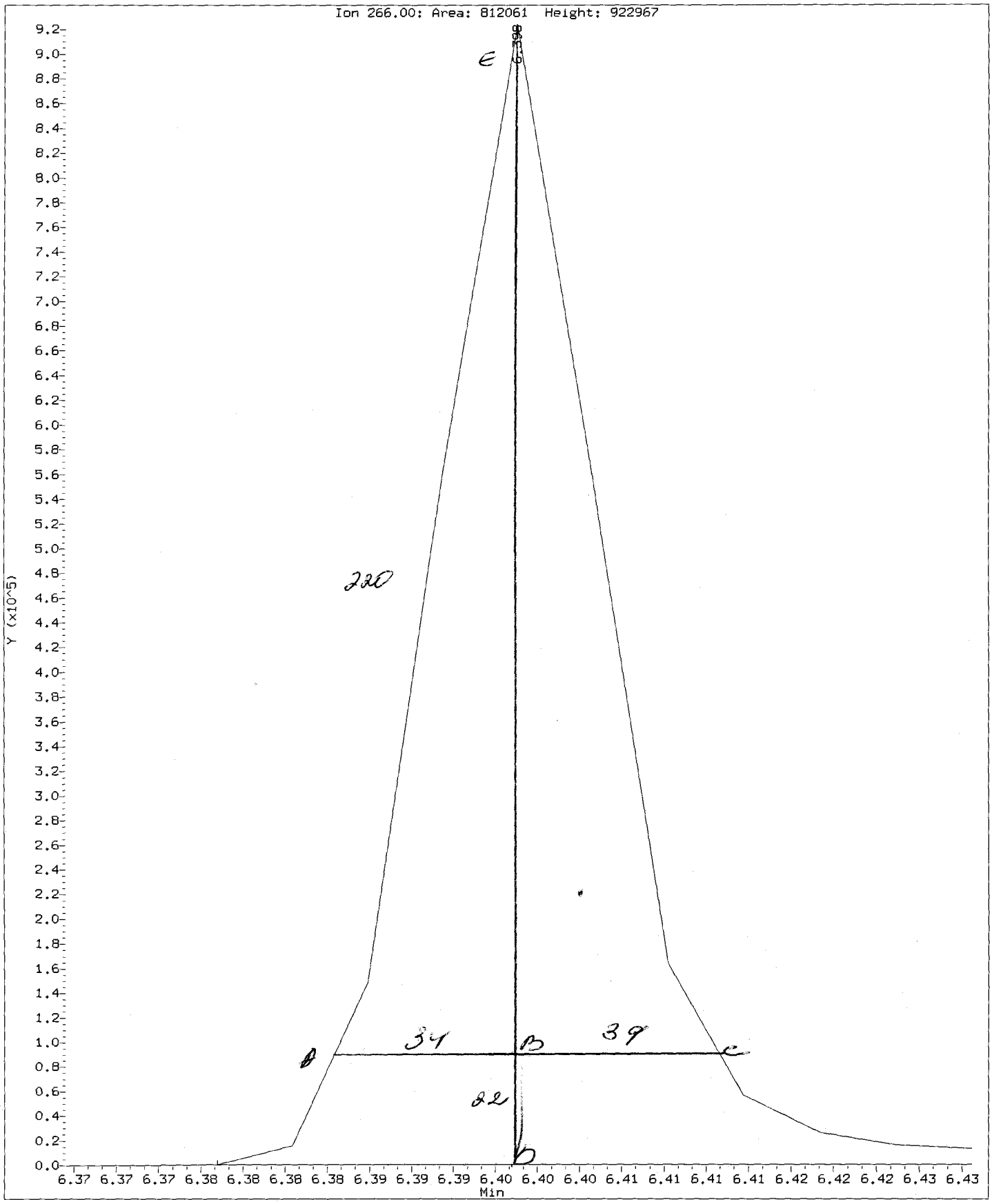
Column diameter: 0.25

Data File: df0529.d
Spectrum: Avg. Scans 496-498 (6.75), Background Scan 490
Location of Maximum: 198.00
Number of points: 367

m/z	Y	m/z	Y	m/z	Y	m/z	Y
109.00	2641	203.00	4656	300.00	114	423.00	29192
110.00	183872	204.00	24168	301.00	764	424.00	6137
111.00	27760	205.00	41560	302.00	909	425.00	582
112.00	3134	206.00	170816	303.00	6129	429.00	105
113.00	1051	207.00	22000	304.00	1520	430.00	52
114.00	310	208.00	5414	305.00	277	431.00	82
115.00	656	209.00	1910	306.00	58	432.00	57
116.00	5448	210.00	1058	307.00	52	433.00	234
117.00	74712	211.00	6340	308.00	743	434.00	118
118.00	5073	213.00	388	309.00	582	435.00	518
119.00	520	215.00	1609	310.00	674	436.00	318
120.00	1101	216.00	4019	311.00	185	437.00	590
121.00	335	217.00	47600	312.00	293	438.00	731
122.00	5769	218.00	5509	313.00	599	439.00	1355
123.00	9487	219.00	721	314.00	2660	440.00	770
124.00	4236	221.00	40024	315.00	5826	441.00	85560
125.00	4260	223.00	10570	316.00	3053	442.00	550016
126.00	1748	224.00	96032	317.00	525	443.00	105888
127.00	366976	225.00	24312	318.00	119	444.00	9889
128.00	27392	226.00	2780	319.00	89	445.00	637
129.00	136320	227.00	38464	320.00	333	451.00	110
130.00	11276	228.00	5497	321.00	1755		

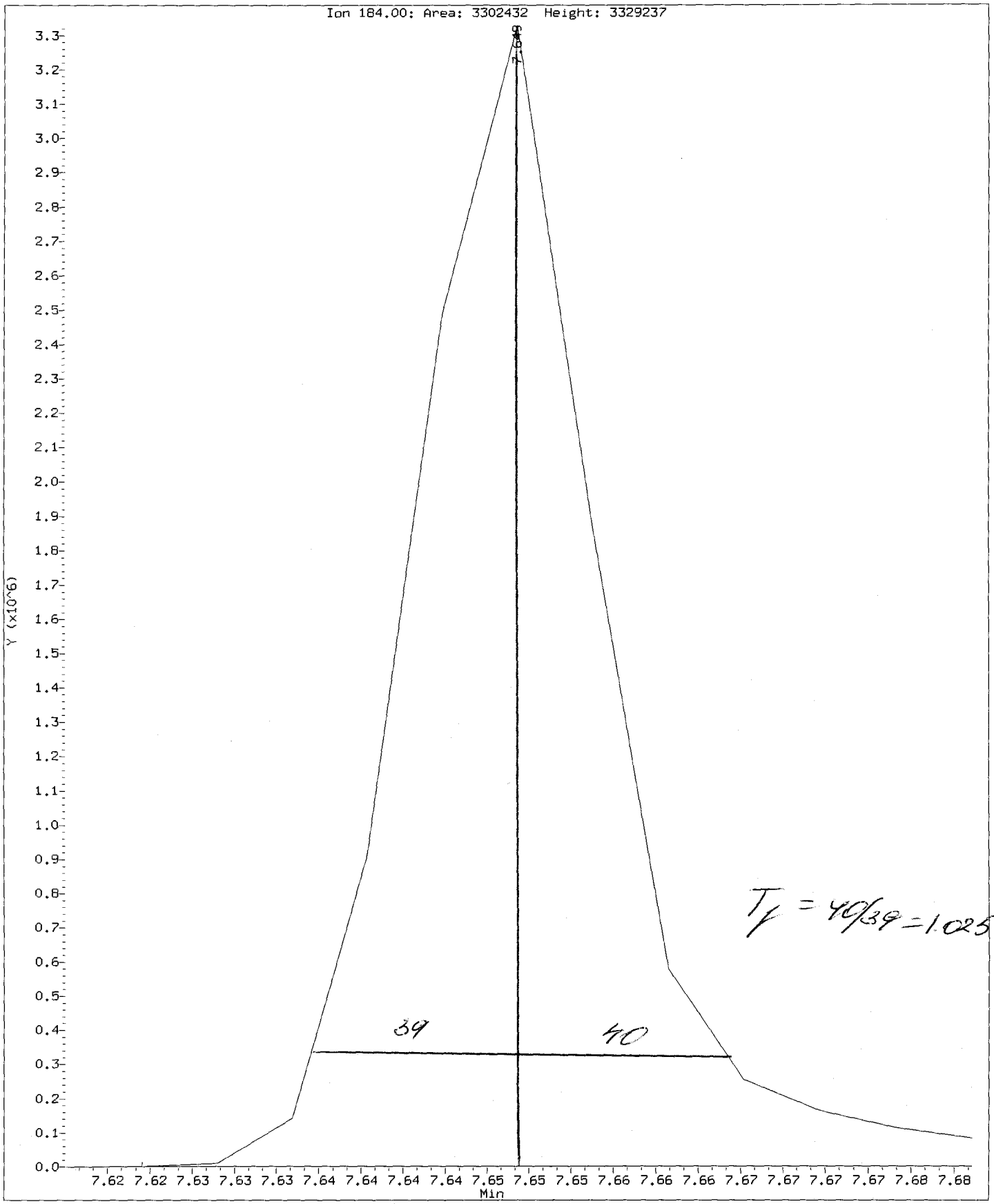
Data File: /chem1/nt10.i/20120529.b/ddt.b/df0529.d
Injection Date: 29-MAY-2012 10:46
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20120529.b/ddt.b/df0529.d
Injection Date: 29-MAY-2012 10:46
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20120529.b/ddt.b/df0529.d ARI ID: DFTPP
Method: /chem1/nt10.i/20120529.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 29-MAY-2012 10:46 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.398	812061
Benzidine	7.649	3302432
4,4'-DDE	7.826	10563
4,4'-DDD	8.114	151282
4,4'-DDT	8.366	1717734

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 10563 + 151282) * 100}{(\ 10563 + 151282 + 1717734)}$$

DDT Percent Breakdown = 8.6 %

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 29-MAY-2012 11:01
Lab File ID: cc0529.d Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Analysis Type: Init. Cal. Times: 10:59 14:42
Lab Sample ID: CC0529 Quant Type: ISTD
Method: /chem1/nt10.i/20120529.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 2-Fluorophenol	1.39876	1.34119	1.34119	0.010	-4.11528	20.00000	Averaged
$ 2 Phenol-d5	1.74239	1.64523	1.64523	0.010	-5.57603	20.00000	Averaged
3 Phenol	1.85722	1.94971	1.94971	0.100	4.98041	20.00000	Averaged
$ 5 2-Chlorophenol-d4	1.52653	1.48249	1.48249	0.010	-2.88493	20.00000	Averaged
7 1,3-Dichlorobenzene	1.64203	1.65084	1.65084	0.010	0.53618	20.00000	Averaged
9 1,4-Dichlorobenzene	1.60271	1.58609	1.58609	0.010	-1.03652	20.00000	Averaged
$ 10 1,2-Dichlorobenzene-d4	1.00142	1.01504	1.01504	0.010	1.36073	20.00000	Averaged
12 1,2-Dichlorobenzene	1.56383	1.58334	1.58334	0.010	1.24731	20.00000	Averaged
11 Benzyl alcohol	0.78027	0.79374	0.79374	0.010	1.72588	20.00000	Averaged
13 2-Methylphenol	1.46378	1.40738	1.40738	0.700	-3.85319	20.00000	Averaged
17 Hexachloroethane	0.62268	0.65102	0.65102	0.300	4.55136	20.00000	Averaged
15 4-Methylphenol	1.52714	1.40714	1.40714	0.600	-7.85829	20.00000	Averaged
$ 18 Nitrobenzene-d5	0.35840	0.34441	0.34441	0.010	-3.90172	20.00000	Averaged
22 2,4-Dimethylphenol	0.35235	0.35032	0.35032	0.200	-0.57861	20.00000	Averaged
24 Benzoic acid	19.65044	20.00000	0.23344	0.010	-1.74779	20.00000	Quadratic
26 1,2,4-Trichlorobenzene	0.32265	0.32673	0.32673	0.010	1.26439	20.00000	Averaged
28 Naphthalene	1.00840	1.01312	1.01312	0.100	0.46855	20.00000	Averaged
30 Hexachlorobutadiene	0.17350	0.17945	0.17945	0.010	3.43063	20.00000	Averaged
32 2-Methylnaphthalene	0.70103	0.72645	0.72645	0.300	3.62625	20.00000	Averaged
$ 36 2-Fluorobiphenyl	1.38663	1.37941	1.37941	0.010	-0.52047	20.00000	Averaged
39 Dimethylphthalate	1.22903	1.22162	1.22162	0.010	-0.60274	20.00000	Averaged
40 Acenaphthylene	1.79648	1.93961	1.93961	0.900	7.96742	20.00000	Averaged
44 Acenaphthene	1.08358	1.07103	1.07103	0.100	-1.15842	20.00000	Averaged
46 Dibenzofuran	1.58749	1.59421	1.59421	0.800	0.42282	20.00000	Averaged
50 Diethylphthalate	1.19817	1.21675	1.21675	0.010	1.55135	20.00000	Averaged
49 Fluorene	1.21637	1.38809	1.38809	0.100	14.11698	20.00000	Averaged
54 N-Nitrosodiphenylamine	0.53809	0.51981	0.51981	0.010	-3.39835	20.00000	Averaged
$ 55 2,4,6-Tribromophenol	0.16510	0.17606	0.17606	0.010	6.63950	20.00000	Averaged
57 Hexachlorobenzene	0.24689	0.24013	0.24013	0.100	-2.74149	20.00000	Averaged
58 Pentachlorophenol	9.60937	10.00000	0.12482	0.010	-3.90626	20.00000	Quadratic
60 Phenanthrene	1.03144	1.01670	1.01670	0.700	-1.42934	20.00000	Averaged
61 Anthracene	1.07748	1.09533	1.09533	0.700	1.65598	20.00000	Averaged
63 Di-n-butylphthalate	1.40311	1.45985	1.45985	0.010	4.04394	20.00000	Averaged
64 Fluoranthene	1.17111	1.18912	1.18912	0.600	1.53810	20.00000	Averaged
65 Pyrene	1.21707	1.24402	1.24402	0.600	2.21454	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 29-MAY-2012 11:01
Lab File ID: cc0529.d Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Analysis Type: Init. Cal. Times: 10:59 14:42
Lab Sample ID: CC0529 Quant Type: ISTD
Method: /chem1/nt10.i/20120529.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 66 Terphenyl-d14	0.76242	0.74876	0.74876	0.010	-1.79197	20.00000	Averaged
67 Butylbenzylphthalate	0.56457	0.57293	0.57293	0.010	1.48103	20.00000	Averaged
68 Benzo(a)anthracene	1.12516	1.11353	1.11353	0.700	-1.03386	20.00000	Averaged
71 Chrysene	0.98981	0.99224	0.99224	0.700	0.24562	20.00000	Averaged
72 bis(2-Ethylhexyl)phthalate	0.54931	0.54741	0.54741	0.010	-0.34451	20.00000	Averaged
73 Di-n-octylphthalate	0.97317	0.96145	0.96145	0.010	-1.20418	20.00000	Averaged
76 Benzo(a)pyrene	1.03427	1.01636	1.01636	0.700	-1.73162	20.00000	Averaged
78 Indeno(1,2,3-cd)pyrene	1.19637	1.24552	1.24552	0.500	4.10749	20.00000	Averaged
79 Dibenzo(a,h)anthracene	0.94241	0.99900	0.99900	0.400	6.00474	20.00000	Averaged
80 Benzo(g,h,i)perylene	1.02591	1.06068	1.06068	0.500	3.38972	20.00000	Averaged
105 1-methylnaphthalene	0.71493	0.74980	0.74980	0.010	4.87717	20.00000	Averaged
187 Total Benzofluoranthenes	1.10989	1.08687	1.08687	0.010	-2.07392	20.00000	Averaged
98 Retene	0.56674	0.57909	0.57909	0.010	2.17888	20.00000	Averaged

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 5/30/12

Data file : /chem1/nt10.i/20120529.b/cc0529.d
Lab Smp Id: CC0529
Inj Date : 29-MAY-2012 11:01
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : CC0529
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120529.b/ABN.m
Meth Date : 30-May-2012 12:34 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.sub
Target Version: 3.50

							AMOUNTS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.560	6.560	(0.740)	337752	5.00000	4.794
$	2 Phenol-d5	99	8.260	8.260	(0.932)	414319	5.00000	4.721
	3 Phenol	94	8.283	8.283	(0.935)	490996	5.00000	5.249
$	5 2-Chlorophenol-d4	132	8.492	8.492	(0.958)	373335	5.00000	4.856
	7 1,3-Dichlorobenzene	146	8.794	8.794	(0.992)	415730	5.00000	5.027
*	8 1,4-Dichlorobenzene-d4	152	8.863	8.863	(1.000)	201464	4.00000	
	9 1,4-Dichlorobenzene	146	8.894	8.894	(1.003)	399426	5.00000	4.948
$	10 1,2-Dichlorobenzene-d4	152	9.244	9.244	(1.043)	255618	5.00000	5.068
	12 1,2-Dichlorobenzene	146	9.275	9.275	(1.046)	398732	5.00000	5.062
	11 Benzyl alcohol	108	9.182	9.182	(1.036)	199887	5.00000	5.086
	13 2-Methylphenol	108	9.453	9.453	(1.067)	354420	5.00000	4.807
	17 Hexachloroethane	117	9.896	9.896	(1.116)	163946	5.00000	5.228
	15 4-Methylphenol	108	9.748	9.748	(1.100)	354359	5.00000	4.607
$	18 Nitrobenzene-d5	82	10.035	10.035	(0.872)	336278	5.00000	4.805
	22 2,4-Dimethylphenol	107	10.857	10.857	(0.943)	684084	10.0000	9.942
	24 Benzoic acid	105	11.126	11.126	(0.966)	911702	20.0000	19.65
	26 1,2,4-Trichlorobenzene	180	11.427	11.427	(0.993)	319012	5.00000	5.063
*	27 Naphthalene-d8	136	11.512	11.512	(1.000)	781105	4.00000	
	28 Naphthalene	128	11.550	11.550	(1.003)	989196	5.00000	5.023
	30 Hexachlorobutadiene	225	11.952	11.952	(1.038)	175210	5.00000	5.172
	32 2-Methylnaphthalene	142	13.051	13.051	(1.134)	709290	5.00000	5.181
$	36 2-Fluorobiphenyl	172	13.910	13.910	(0.904)	777543	5.00000	4.974
	39 Dimethylphthalate	163	14.909	14.909	(0.969)	688603	5.00000	4.970
	40 Acenaphthylene	152	15.048	15.048	(0.978)	1093320	5.00000	5.398
*	42 Acenaphthene-d10	164	15.388	15.388	(1.000)	450943	4.00000	
	44 Acenaphthene	153	15.458	15.458	(1.005)	603718	5.00000	4.942
	46 Dibenzofuran	168	15.813	15.813	(1.028)	898620	5.00000	5.021

							AMOUNTS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	50 Diethylphthalate	149	16.478	16.478	(1.071)	685858	5.00000	5.078
	49 Fluorene	166	16.579	16.579	(1.077)	782436	5.00000	5.706
	54 N-Nitrosodiphenylamine	169	16.872	16.872	(0.905)	453312	5.00000	4.830
$	55 2,4,6-Tribromophenol	330	17.157	17.157	(1.115)	99242	5.00000	5.332
	57 Hexachlorobenzene	284	17.991	17.991	(0.965)	209409	5.00000	4.863
	58 Pentachlorophenol	266	18.394	18.394	(0.986)	217704	10.0000	9.609
*	59 Phenanthrene-d10	188	18.649	18.649	(1.000)	697664	4.00000	
	60 Phenanthrene	178	18.703	18.703	(1.003)	886645	5.00000	4.929
	61 Anthracene	178	18.796	18.796	(1.008)	955213	5.00000	5.083
	63 Di-n-butylphthalate	149	20.018	20.018	(1.073)	1273108	5.00000	5.202
	64 Fluoranthene	202	21.117	21.117	(1.132)	1037007	5.00000	5.077
	65 Pyrene	202	21.535	21.535	(0.908)	1097648	5.00000	5.111
$	66 Terphenyl-d14	244	21.852	21.852	(0.921)	660661	5.00000	4.910
	67 Butylbenzylphthalate	149	22.797	22.797	(0.961)	505517	5.00000	5.074
	68 Benzo(a)anthracene	228	23.695	23.695	(0.999)	982513	5.00000	4.948
*	69 Chrysene-d12	240	23.726	23.726	(1.000)	705871	4.00000	
	71 Chrysene	228	23.765	23.765	(1.002)	875490	5.00000	5.012
	72 bis(2-Ethylhexyl)phthalate	149	23.834	23.834	(0.961)	754661	5.00000	4.983
*	134 Di-n-octylphthalate-d4	153	24.802	24.802	(1.000)	1102875	4.00000	
	73 Di-n-octylphthalate	149	24.817	24.817	(1.001)	1325456	5.00000	4.940
	76 Benzo(a)pyrene	252	26.025	26.025	(0.996)	895485	5.00000	4.913
*	77 Perylene-d12	264	26.126	26.126	(1.000)	704858	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.389	28.389	(1.087)	1097390	5.00000	5.205
	79 Dibenzo(a,h)anthracene	278	28.396	28.396	(1.087)	880196	5.00000	5.300
	80 Benzo(g,h,i)perylene	276	29.041	29.041	(1.112)	934538	5.00000	5.169
	105 1-methylnaphthalene	142	13.291	13.291	(1.155)	732093	5.00000	5.244
	187 Total Benzofluoranthenes	252	25.506	25.506	(0.976)	1915228	10.0000	9.793
	98 Retene	219	22.146	22.146	(0.933)	510955	5.00000	5.109

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0529.d
Lab Smp Id: CC0529
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info:

Calibration Date: 29-MAY-2012
Calibration Time: 11:01

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

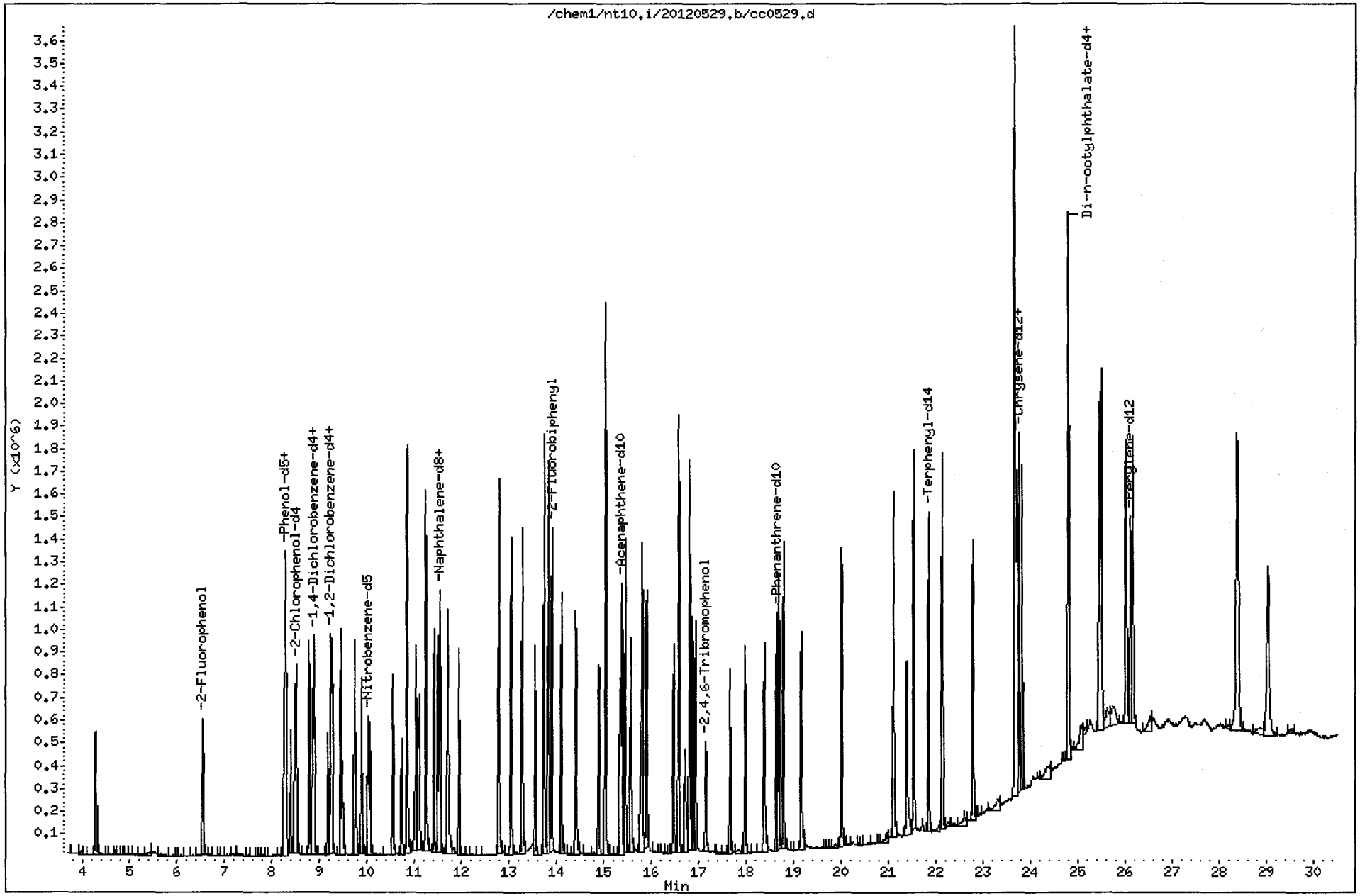
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	201464	6.30
27 Naphthalene-d8	730932	365466	1461864	781105	6.86
42 Acenaphthene-d10	420698	210349	841396	450943	7.19
59 Phenanthrene-d10	638950	319475	1277900	697664	9.19
69 Chrysene-d12	645065	322532	1290130	705871	9.43
134 Di-n-octylphthala	1016118	508059	2032236	1102875	8.54
77 Perylene-d12	650033	325016	1300066	704858	8.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.51	11.01	12.01	11.51	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.65	18.15	19.15	18.65	0.00
69 Chrysene-d12	23.73	23.23	24.23	23.73	0.00
134 Di-n-octylphthala	24.80	24.30	25.30	24.80	0.00
77 Perylene-d12	26.13	25.63	26.63	26.13	0.00

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

Data File: /chem1/nt10.i/20120529.b/cc0529.d
Date : 29-MAY-2012 11:01
Client ID:
Sample Info: CC0529

Instrument: nt10.i
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - cc0529.d

Lab ID: CC0529, Method: ABN.m, Instrument: nt10.i, Date: 29-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: UU52 Client ID: Anchor QEA

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): SVOA Reddie

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: 5/26/12 Analysis Start Date: 5/26/12

DFTPP Tune Meets Criteria?	YES / NO	Internal Standard Meets Criteria?	YES / NO
DDT Breakdown <20%?	YES / NO / NA	Method Blank In Control?	YES / NO
Peak Tailing Factor ≤2?	YES / NO / NA	LCS / LCSD Recovery In Control?	YES / NO
ICal acceptable?	YES / NO	CCal acceptable?	YES / NO
Q flag applied?	YES / NO	Q flag applied?	YES / NO
Surrogate Recovery in Control?	YES / NO	Special Analysis Criteria Met?	YES / NO / NA
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes / NO

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

All samples were run @ 3x dilution due to dark color of the extracts. High Matrix BKG.

Sample 6 was re-run @ 6x dilution due to high concentration of Naphthalene.

Extremely Wet Sample (marsh) 90% ish wet

Di-n-Octyl phthalate UJ to MDL. No Sample Hits found

Additional Details on Reverse: Yes / NO

Analyst: YZ **Date:** 5/31/12.

Reviewer: [signature] **Date:** 6/4/12

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 5/26/12 Analysis: ABN Analyst: VS / YZ

GC Program: ABN2 Column No: 227815 Column Type: ZB5 MSI

Instrument Tune (.U or .CT.): 112164 EM Voltage: 1800

Calibration File: DF0514 Curve Date: 5/26/12 Injection Vol.: 1.0 ul

IS/SS	Ical/Ccal		LCS/ICV
1875-1	1949-2	1891-2	1941-1
	1950-1	1892-1	1940-1
			1932-2.

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20120526.b

	Time	Filename	LabID	ClientId	DF												
1	1044	df0526.d	DFTPP	DFTPP	1	NO ISTDS FOUND											
2	1059	ic0526a.d	ABN5		1	8.86	189516	11.50	730932	15.37	420698	18.63	638950	23.71	645065	26.10	650033	24.79	1016118
3	1136	ic0526b.d	ABN20		1	8.86	184424	11.50	732078	15.38	416049	18.64	604660	23.71	638131	26.11	642084	24.80	1045968
4	1213	ic0526c.d	ABN.2		1	8.86	196685	11.50	765616	15.37	413229	18.63	646258	23.70	644080	26.10	645156	24.79	952925
5	1250	ic0526d.d	ABN10		1	8.86	182402	11.50	714951	15.38	396335	18.64	598080	23.71	620456	26.10	621376	24.79	977954
6	1327	ic0526e.d	ABN.5		1	8.86	190457	11.50	743799	15.37	404393	18.63	632241	23.70	634764	26.10	624951	24.79	934301
7	1405	ic0526f.d	ABN2.5		1	8.86	187226	11.50	736534	15.37	398626	18.63	624933	23.70	619154	26.10	625787	24.79	927369
8	1442	ic0526g.d	ABN1.0		1	8.86	193887	11.50	750391	15.37	411692	18.63	635080	23.70	638910	26.10	628310	24.79	937949
9	1519	icv0526.d	ICV-5		1	8.86	249364	11.50	989810	15.37	545323	18.63	840695	23.71	872921	26.10	859333	24.79	1354341
10	1556	uu52mb.d	UU52MBS1	UU52MBS1	1	8.86	192270	11.50	755212	15.36	409923	18.63	652568	23.70	628746	24.79	911710	26.10	575994
11	1634	uu52sb.d	UU52LCSS1	UU52LCSS1	1	8.86	180960	11.50	713226	15.37	402827	18.63	613172	23.70	610564	24.79	927500	26.10	601200
12	1711	uu52a.d	UU52A	MS001-SS-120	3	8.86	192479	11.50	766868	15.37	424558	18.64	586032	23.71	664578	24.79	1081857	26.11	673821
13	1748	uu52b.d	UU52B	MS101-SS-120	3	8.86	191331	11.50	774622	15.38	431955	18.64	601035	23.72	668327	24.80	1085453	26.12	667061
14	1825	uu52c.d	UU52C	MS002-SS-120	3	8.86	189793	11.50	762840	15.38	421087	18.64	644641	23.72	673614	24.80	1081717	26.12	665077
15	1902	uu52d.d	UU52D	MS003-SS-120	3	8.86	195684	11.50	781696	15.38	433584	18.64	608068	23.72	705866	24.80	1095300	26.12	688484
16	1939	uu52e.d	UU52E	MS004-SS-120	3	8.86	197248	11.50	788940	15.38	430674	18.64	660353	23.72	700903	24.80	1104559	26.12	683374
17	2016	uu52f.d	UU52F	MS005-SS-120	3	8.86	190373	11.51	742174	15.39	431594	18.66	643967	23.73	721119	24.81	1107167	26.14	669438
18	2054	uu52g.d	UU52G	MS006-SS-120	3	8.86	189614	11.51	736251	15.38	426687	18.65	605251	23.72	696152	24.81	1081407	26.13	658886
19	2131	uu52h.d	UU52H	MS007-SS-120	3	8.86	194227	11.51	756334	15.39	437900	18.66	626572	23.73	703620	24.81	1121633	26.13	665896
20	2208	uu52hms.d	UU52HMS	MS007-SS-120	3	8.86	189708	11.51	749764	15.39	426739	18.66	614981	23.73	691706	24.81	1104162	26.13	671591
21	2245	uu52hmsd.d	UU52HMSD	MS007-SS-120	3	8.86	190489	11.50	741504	15.39	417132	18.66	622626	23.73	711179	24.81	1127612	26.13	667595

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

YZ 5/31/12

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20120526.b

ARI Job No.: UU52 Method: ABN.m Instrument: nt10.i Date: 26-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1556	uu52mb.d	UU52MBS1	UU52MBS1	1	NO MANUAL INTEGRATION
1634	uu52sb.d	UU52LCSS1	UU52LCSS1	1	NO MANUAL INTEGRATION
1711	uu52a.d	UU52A	MS001-SS-1	3	NO MANUAL INTEGRATION
1748	uu52b.d	UU52B	MS101-SS-1	3	NO MANUAL INTEGRATION
1825	uu52c.d	UU52C	MS002-SS-1	3	NO MANUAL INTEGRATION
1902	uu52d.d	UU52D	MS003-SS-1	3	NO MANUAL INTEGRATION
1939	uu52e.d	UU52E	MS004-SS-1	3	NO MANUAL INTEGRATION
2016	uu52f.d	UU52F	MS005-SS-1	3	2-Methylphenol, Acenaphthylene, Dibenzo(a,h)anthracene,
2054	uu52g.d	UU52G	MS006-SS-1	3	Acenaphthylene, Phenanthrene, Dibenzo(a,h)anthracene,
2131	uu52h.d	UU52H	MS007-SS-1	3	Acenaphthylene, Dibenzo(a,h)anthracene,
1141	uu52hms.d	UU52HMS	MS007-SS-1	3	NO MANUAL INTEGRATION
1219	uu52hmsd.d	UU52HMSD	MS007-SS-1	3	NO MANUAL INTEGRATION
1256	uu52i.d	UU52I	MS008-SS-1	3	Acenaphthylene, Dibenzo(a,h)anthracene,
1333	uu52j.d	UU52J	MS009-SS-1	3	NO MANUAL INTEGRATION
1304	uu52g6.d	UU52G	MS006-SS-1	6	Acenaphthylene, Dibenzo(a,h)anthracene,

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20120526.b

Instrument: nt10.i Date: 26-MAY-2012 Method: ABN.m

INITIAL CAL: 26-MAY-2012

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 26-MAY-2012

Compound	%D
NO Q-FLAGS	

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

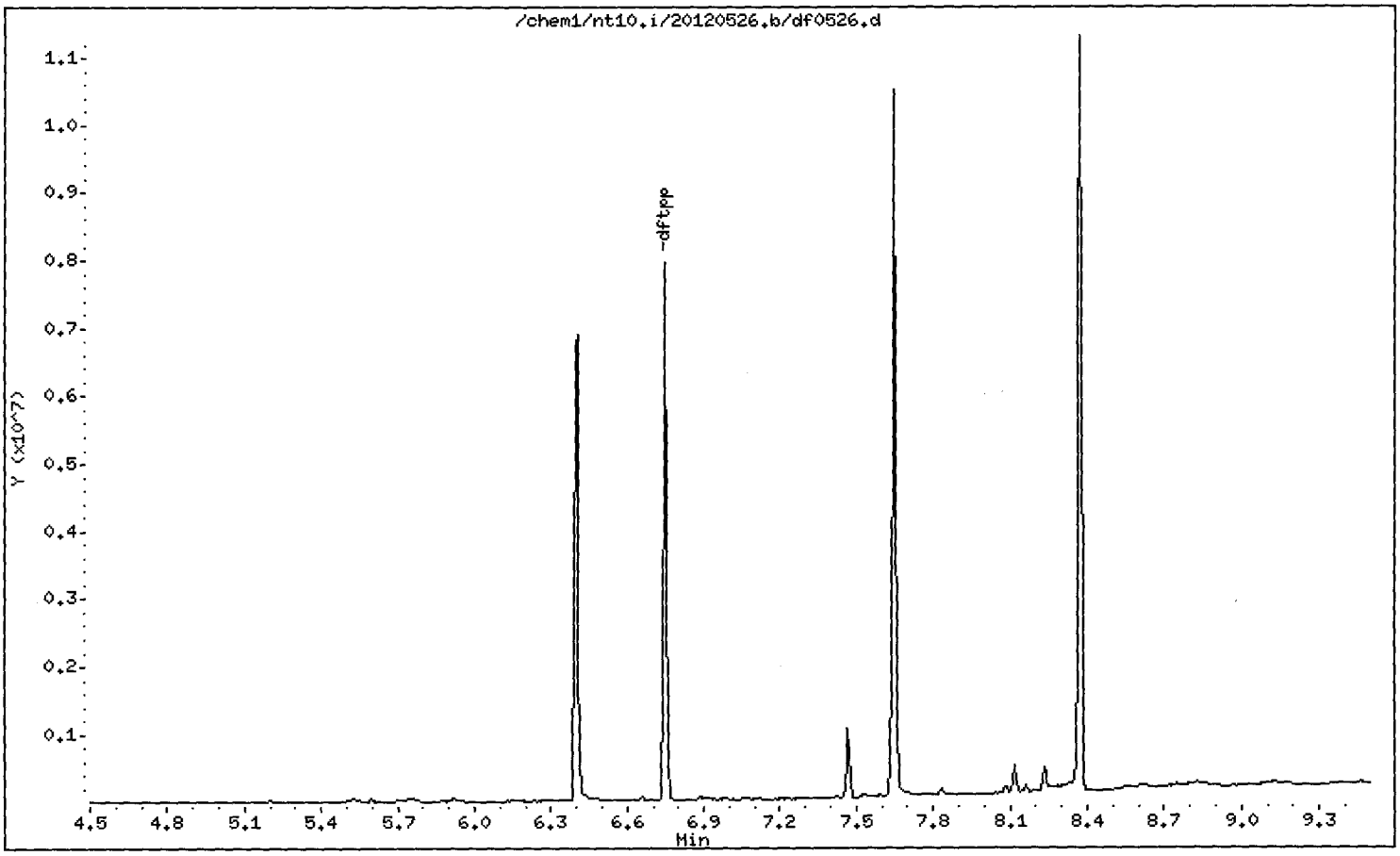
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

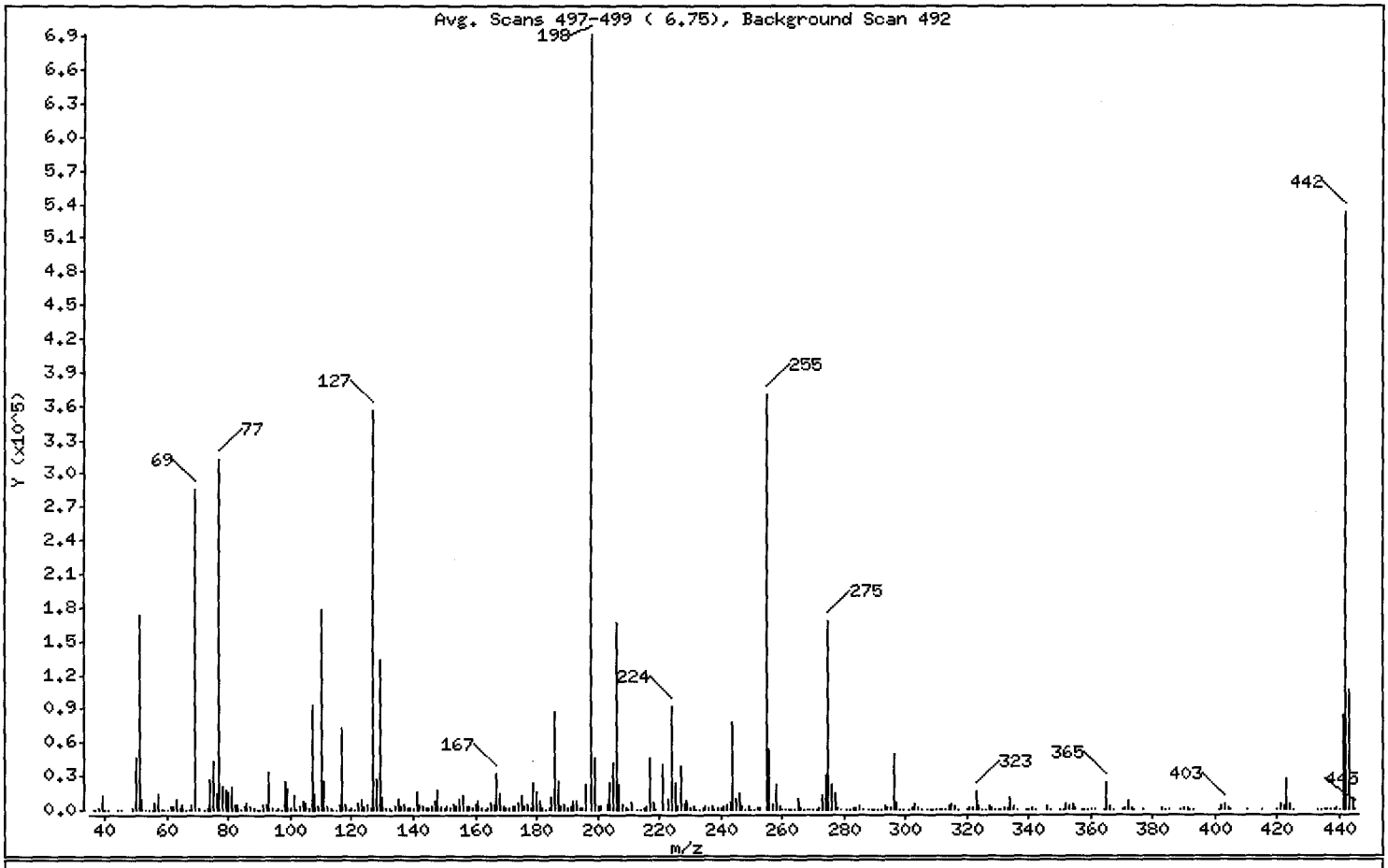
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	25.07
68	Less than 2.00% of mass 69	0.60 (1.45)
69	Mass 69 relative abundance	41.32
70	Less than 2.00% of mass 69	0.16 (0.40)
127	10.00 - 80.00% of mass 198	51.51
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 60.00% of mass 198	24.35
365	Greater than 1.00% of mass 198	3.46
441	0.01 - 24.00% of mass 442	12.16 (15.78)
442	50.00 - 200.00% of mass 198	77.09
443	15.00 - 24.00% of mass 442	15.36 (19.93)

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d
Spectrum: Avg. Scans 497-499 (6.75), Background Scan 492
Location of Maximum: 198.00
Number of points: 344

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	26	129.00	133888	219.00	609	313.00	521
37.00	738	130.00	10870	221.00	40088	314.00	2625
38.00	2259	131.00	2053	223.00	10237	315.00	5121
39.00	13341	132.00	1262	224.00	92880	316.00	2893
40.00	569	133.00	466	225.00	23296	317.00	637
41.00	216	134.00	3414	226.00	2573	320.00	235
44.00	149	135.00	9909	227.00	38288	321.00	1663
45.00	367	136.00	3935	228.00	5304	322.00	1109
49.00	1189	137.00	4873	229.00	7998	323.00	15465
50.00	46176	138.00	1128	230.00	1358	324.00	2751
51.00	173504	139.00	805	231.00	3474	325.00	323
52.00	9398	140.00	1603	232.00	716	326.00	455
53.00	300	141.00	15489	233.00	661	327.00	3101
54.00	229	142.00	5414	234.00	2342	328.00	1494
55.00	448	143.00	3720	235.00	2777	329.00	370
56.00	6014	144.00	1136	236.00	2141	330.00	56
57.00	13761	145.00	942	237.00	3010	331.00	197
58.00	408	146.00	2786	238.00	564	332.00	1250
59.00	179	147.00	8163	239.00	1494	333.00	1705
60.00	272	148.00	18016	240.00	1176	334.00	10488
61.00	2630	149.00	3469	241.00	2531	335.00	2517
62.00	3433	150.00	842	242.00	5295	336.00	303
63.00	9251	151.00	2529	243.00	6077	339.00	186
64.00	1297	152.00	1040	244.00	78016	340.00	284
65.00	4742	153.00	4885	245.00	9692	341.00	2021
66.00	167	154.00	3744	246.00	14024	342.00	519
67.00	487	155.00	9049	247.00	2921	346.00	3558
68.00	4159	156.00	13247	248.00	765	347.00	600
69.00	285952	157.00	2827	249.00	2660	350.00	271
70.00	1139	158.00	2845	250.00	607	351.00	343
72.00	190	159.00	2353	251.00	678	352.00	4486
73.00	1995	160.00	5145	252.00	867	353.00	3227
74.00	27632	161.00	7274	253.00	1909	354.00	4155
75.00	43448	162.00	2140	255.00	370304	355.00	808
76.00	14823	163.00	679	256.00	54880	357.00	121

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d

Spectrum: Avg. Scans 497-499 (6.75), Background Scan 492

Location of Maximum: 198.00

Number of points: 344

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	313792	164.00	1059	257.00	4329	358.00	52
78.00	20888	165.00	5892	258.00	21480	359.00	426
79.00	18144	166.00	5005	259.00	3568	360.00	59
80.00	15251	167.00	32544	260.00	602	361.00	119
81.00	20912	168.00	13737	261.00	620	364.00	104
82.00	5239	169.00	2539	262.00	127	365.00	23944
83.00	4808	170.00	1075	263.00	188	366.00	3294
84.00	129	171.00	1308	264.00	584	367.00	152
85.00	3163	172.00	2874	265.00	8905	370.00	494
86.00	5793	173.00	3665	266.00	1076	371.00	1374
87.00	2776	174.00	6643	267.00	74	372.00	7891
88.00	1151	175.00	12622	268.00	51	373.00	1946
89.00	520	176.00	3756	269.00	229	374.00	236
90.00	65	177.00	5429	270.00	372	377.00	229
91.00	4623	178.00	1805	271.00	793	383.00	2132
92.00	5132	179.00	23488	272.00	1269	384.00	670
93.00	33360	180.00	15572	273.00	12611	385.00	117
94.00	2216	181.00	7701	274.00	29880	389.00	52
95.00	380	182.00	1110	275.00	168512	390.00	1125
96.00	1107	183.00	491	276.00	22000	391.00	839
97.00	21	184.00	1883	277.00	13717	392.00	587
98.00	25000	185.00	11629	278.00	2058	393.00	55
99.00	19064	186.00	88272	279.00	511	401.00	443
100.00	1716	187.00	24768	281.00	116	402.00	2867
101.00	12840	188.00	2490	282.00	481	403.00	4359
102.00	537	189.00	5139	283.00	1659	404.00	1567
103.00	3931	190.00	951	284.00	1165	405.00	170
104.00	7795	191.00	2619	285.00	2561	410.00	58
105.00	6943	192.00	7480	286.00	616	415.00	299
106.00	2109	193.00	8529	288.00	167	420.00	73
107.00	94312	194.00	1572	289.00	565	421.00	4081
108.00	14776	195.00	1022	290.00	563	422.00	3772
109.00	2699	196.00	22624	291.00	337	423.00	27824
110.00	178432	198.00	692096	292.00	692	424.00	5405
111.00	26104	199.00	46376	293.00	3255	425.00	517

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d

Spectrum: Avg. Scans 497-499 (6.75), Background Scan 492

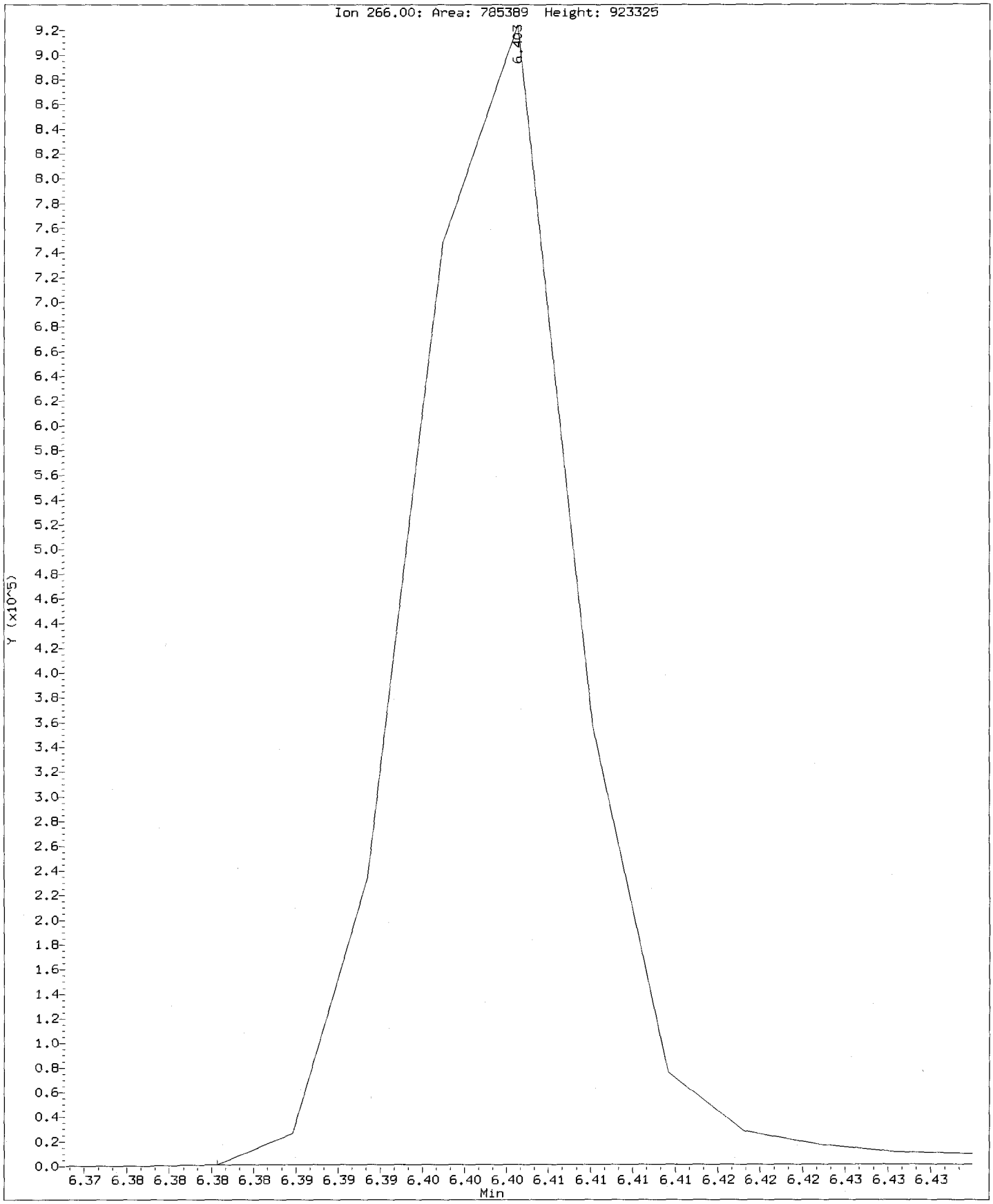
Location of Maximum: 198.00

Number of points: 344

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	2941	200.00	3155	294.00	851	433.00	182
113.00	925	201.00	3528	295.00	1364	434.00	330
114.00	293	203.00	4862	296.00	49064	435.00	384
115.00	582	204.00	24424	297.00	6873	436.00	524
116.00	4751	205.00	40776	298.00	480	437.00	742
117.00	73120	206.00	166848	299.00	121	438.00	378
118.00	5224	207.00	21712	301.00	760	439.00	1052
119.00	711	208.00	5262	302.00	851	440.00	757
120.00	1191	209.00	1631	303.00	5451	441.00	84168
121.00	537	210.00	634	304.00	1399	442.00	533504
122.00	5952	211.00	6697	305.00	61	443.00	106320
123.00	9239	213.00	451	307.00	73	444.00	9542
124.00	3620	214.00	166	308.00	672	445.00	638
125.00	4068	215.00	1855	309.00	579		
126.00	1464	216.00	3870	310.00	726		
127.00	356480	217.00	45744	311.00	93		
128.00	26776	218.00	5952	312.00	210		

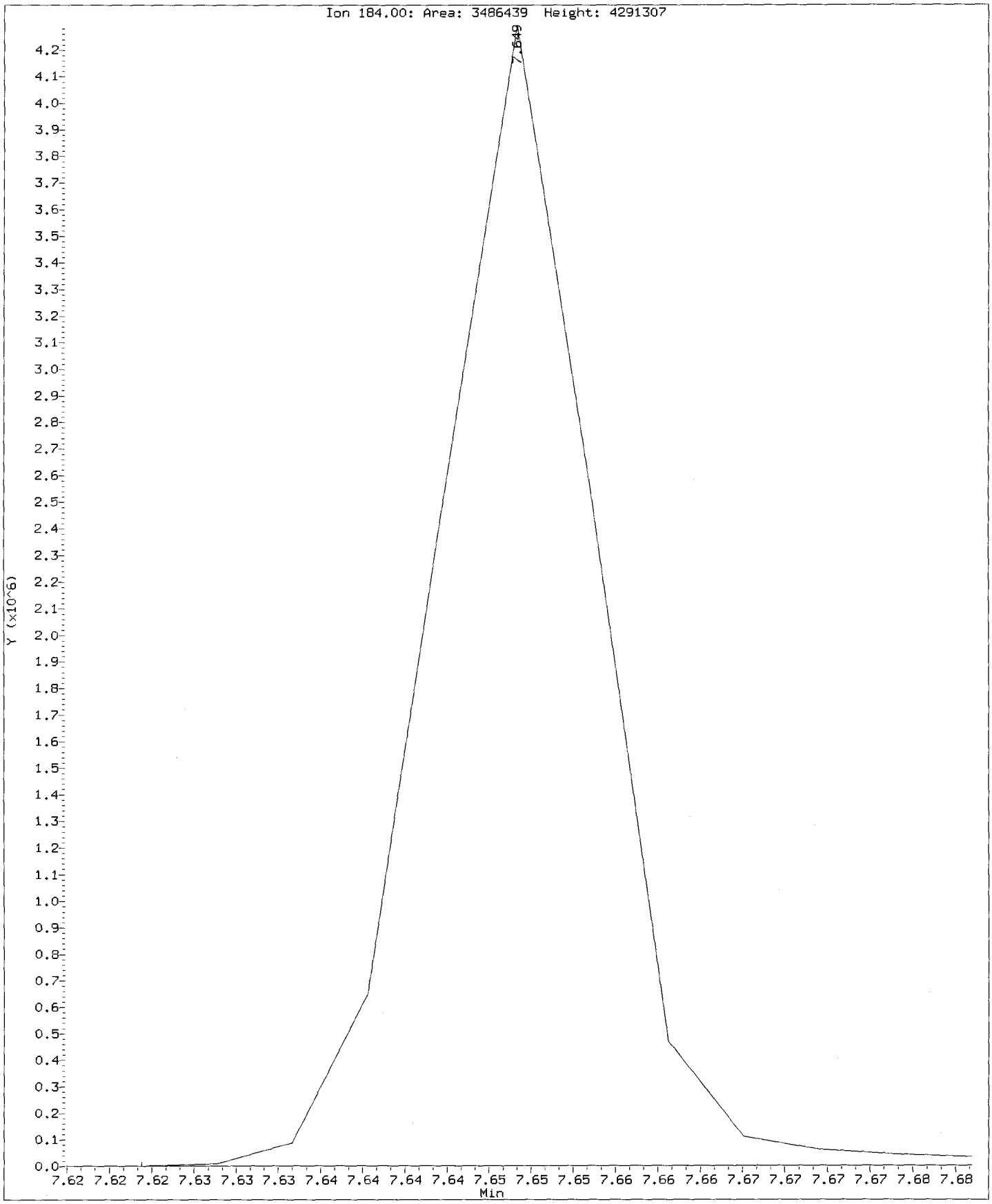
Data File: /chem1/nt10.i/20120526.b/ddt.b/df0526.d
Injection Date: 26-MAY-2012 10:44
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20120526.b/ddt.b/df0526.d
Injection Date: 26-MAY-2012 10:44
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



UU52:00649

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20120526.b/ddt.b/df0526.d ARI ID: DFTPP
Method: /chem1/nt10.i/20120526.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 26-MAY-2012 10:44 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.403	785389
Benzidine	7.649	3486439
4,4'-DDE	7.831	8080
4,4'-DDD	8.120	77952
4,4'-DDT	8.371	1823281

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 8080 + 77952) * 100}{(\ 8080 + 77952 + 1823281)}$$

DDT Percent Breakdown = 4.5 %

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: ic0526a.d
Analysis Type:
Lab Sample ID: ABN5
Method: /chem1/nt10.i/20120526.b/ABN.m

Injection Date: 26-MAY-2012 10:59
Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Init. Cal. Times: 10:59 14:42
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 2-Fluorophenol	1.39876	1.41730	1.41730	0.010	1.32602	20.00000	Averaged
$ 2 Phenol-d5	1.74239	1.77639	1.77639	0.010	1.95148	20.00000	Averaged
3 Phenol	1.85722	1.94466	1.94466	0.100	4.70830	20.00000	Averaged
$ 5 2-Chlorophenol-d4	1.52653	1.52331	1.52331	0.010	-0.21087	20.00000	Averaged
7 1,3-Dichlorobenzene	1.64203	1.65734	1.65734	0.010	0.93204	20.00000	Averaged
9 1,4-Dichlorobenzene	1.60271	1.59176	1.59176	0.010	-0.68291	20.00000	Averaged
$ 10 1,2-Dichlorobenzene-d4	1.00142	1.01271	1.01271	0.010	1.12736	20.00000	Averaged
12 1,2-Dichlorobenzene	1.56383	1.56974	1.56974	0.010	0.37798	20.00000	Averaged
11 Benzyl alcohol	0.78027	0.80699	0.80699	0.010	3.42384	20.00000	Averaged
13 2-Methylphenol	1.46378	1.46574	1.46574	0.700	0.13391	20.00000	Averaged
17 Hexachloroethane	0.62268	0.62403	0.62403	0.300	0.21635	20.00000	Averaged
15 4-Methylphenol	1.52714	1.53207	1.53207	0.600	0.32232	20.00000	Averaged
$ 18 Nitrobenzene-d5	0.35840	0.36634	0.36634	0.010	2.21539	20.00000	Averaged
22 2,4-Dimethylphenol	0.35235	0.36445	0.36445	0.200	3.43400	20.00000	Averaged
24 Benzoic acid	19.85509	20.00000	0.23596	0.010	-0.72455	20.00000	Quadratic
26 1,2,4-Trichlorobenzene	0.32265	0.32535	0.32535	0.010	0.83663	20.00000	Averaged
28 Naphthalene	1.00840	1.02274	1.02274	0.100	1.42255	20.00000	Averaged
30 Hexachlorobutadiene	0.17350	0.18139	0.18139	0.010	4.55134	20.00000	Averaged
32 2-Methylnaphthalene	0.70103	0.72209	0.72209	0.300	3.00404	20.00000	Averaged
$ 36 2-Fluorobiphenyl	1.38663	1.35546	1.35546	0.010	-2.24757	20.00000	Averaged
39 Dimethylphthalate	1.22903	1.22652	1.22652	0.010	-0.20464	20.00000	Averaged
40 Acenaphthylene	1.79648	1.78241	1.78241	0.900	-0.78317	20.00000	Averaged
44 Acenaphthene	1.08358	1.09053	1.09053	0.100	0.64127	20.00000	Averaged
46 Dibenzofuran	1.58749	1.57536	1.57536	0.800	-0.76417	20.00000	Averaged
50 Diethylphthalate	1.19817	1.20929	1.20929	0.010	0.92836	20.00000	Averaged
49 Fluorene	1.21637	1.20161	1.20161	0.100	-1.21368	20.00000	Averaged
54 N-Nitrosodiphenylamine	0.53809	0.53680	0.53680	0.010	-0.24091	20.00000	Averaged
$ 55 2,4,6-Tribromophenol	0.16510	0.17168	0.17168	0.010	3.98761	20.00000	Averaged
57 Hexachlorobenzene	0.24689	0.24201	0.24201	0.100	-1.97802	20.00000	Averaged
58 Pentachlorophenol	9.96302	10.00000	0.12954	0.010	-0.36980	20.00000	Quadratic
60 Phenanthrene	1.03144	1.02336	1.02336	0.700	-0.78411	20.00000	Averaged
61 Anthracene	1.07748	1.11319	1.11319	0.700	3.31332	20.00000	Averaged
63 Di-n-butylphthalate	1.40311	1.47098	1.47098	0.010	4.83701	20.00000	Averaged
64 Fluoranthene	1.17111	1.20211	1.20211	0.600	2.64710	20.00000	Averaged
65 Pyrene	1.21707	1.24483	1.24483	0.600	2.28075	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 26-MAY-2012 10:59
Lab File ID: ic0526a.d Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Analysis Type: Init. Cal. Times: 10:59 14:42
Lab Sample ID: ABN5 Quant Type: ISTD
Method: /chem1/nt10.i/20120526.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 66 Terphenyl-d14	0.76242	0.77623	0.77623	0.010	1.81123	20.00000	Averaged
67 Butylbenzylphthalate	0.56457	0.58390	0.58390	0.010	3.42498	20.00000	Averaged
68 Benzo(a)anthracene	1.12516	1.11070	1.11070	0.700	-1.28548	20.00000	Averaged
71 Chrysene	0.98981	1.00552	1.00552	0.700	1.58713	20.00000	Averaged
72 bis(2-Ethylhexyl)phthalate	0.54931	0.54429	0.54429	0.010	-0.91233	20.00000	Averaged
73 Di-n-octylphthalate	0.97317	0.96678	0.96678	0.010	-0.65721	20.00000	Averaged
76 Benzo(a)pyrene	1.03427	1.04753	1.04753	0.700	1.28229	20.00000	Averaged
78 Indeno(1,2,3-cd)pyrene	1.19637	1.24880	1.24880	0.500	4.38201	20.00000	Averaged
79 Dibenzo(a,h)anthracene	0.94241	0.99213	0.99213	0.400	5.27540	20.00000	Averaged
80 Benzo(g,h,i)perylene	1.02591	1.06812	1.06812	0.500	4.11482	20.00000	Averaged
105 1-methylnaphthalene	0.71493	0.74060	0.74060	0.010	3.58979	20.00000	Averaged
187 Total Benzofluoranthenes	1.10989	1.11851	1.11851	0.010	0.77624	20.00000	Averaged
98 Retene	0.56674	0.58856	0.58856	0.010	3.85011	20.00000	Averaged

Analytical Resources, Inc.

VZ 5/30/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526a.d
Lab Smp Id: ABN5
Inj Date : 26-MAY-2012 10:59
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : ABN5
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 12:12 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 1	2-Fluorophenol	112	6.537	6.537	(0.738)	335752	5.00000	5.066
$ 2	Phenol-d5	99	8.237	8.237	(0.930)	420818	5.00000	5.098
3	Phenol	94	8.260	8.260	(0.933)	460680	5.00000	5.235
$ 5	2-Chlorophenol-d4	132	8.476	8.476	(0.957)	360864	5.00000	4.989
7	1,3-Dichlorobenzene	146	8.786	8.786	(0.992)	392615	5.00000	5.047
* 8	1,4-Dichlorobenzene-d4	152	8.855	8.855	(1.000)	189516	4.00000	
9	1,4-Dichlorobenzene	146	8.886	8.886	(1.004)	377080	5.00000	4.966
$ 10	1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	239905	5.00000	5.056
12	1,2-Dichlorobenzene	146	9.267	9.267	(1.046)	371864	5.00000	5.019
11	Benzyl alcohol	108	9.166	9.166	(1.035)	191171	5.00000	5.171
13	2-Methylphenol	108	9.430	9.430	(1.065)	347227	5.00000	5.007
17	Hexachloroethane	117	9.888	9.888	(1.117)	147829	5.00000	5.011
15	4-Methylphenol	108	9.725	9.725	(1.098)	362939	5.00000	5.016
$ 18	Nitrobenzene-d5	82	10.027	10.027	(0.872)	334709	5.00000	5.111
22	2,4-Dimethylphenol	107	10.833	10.833	(0.942)	665979	10.0000	10.34
24	Benzoic acid	105	11.087	11.087	(0.964)	862339	20.0000	19.86
26	1,2,4-Trichlorobenzene	180	11.419	11.419	(0.993)	297260	5.00000	5.042
* 27	Naphthalene-d8	136	11.504	11.504	(1.000)	730932	4.00000	
28	Naphthalene	128	11.542	11.542	(1.003)	934446	5.00000	5.071
30	Hexachlorobutadiene	225	11.952	11.952	(1.039)	165733	5.00000	5.228
32	2-Methylnaphthalene	142	13.043	13.043	(1.134)	659745	5.00000	5.150
$ 36	2-Fluorobiphenyl	172	13.902	13.902	(0.904)	712799	5.00000	4.888
39	Dimethylphthalate	163	14.893	14.893	(0.969)	644991	5.00000	4.990
40	Acenaphthylene	152	15.032	15.032	(0.978)	937321	5.00000	4.961
* 42	Acenaphthene-d10	164	15.373	15.373	(1.000)	420698	4.00000	
44	Acenaphthene	153	15.442	15.442	(1.005)	573481	5.00000	5.032

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	46 Dibenzofuran	168	15.798	15.798	(1.028)	828440	5.00000	4.962
	50 Diethylphthalate	149	16.470	16.470	(1.071)	635932	5.00000	5.046
	49 Fluorene	166	16.563	16.563	(1.077)	631894	5.00000	4.939
	54 N-Nitrosodiphenylamine	169	16.856	16.856	(0.905)	428732	5.00000	4.988
$	55 2,4,6-Tribromophenol	330	17.142	17.142	(1.115)	90284	5.00000	5.199
	57 Hexachlorobenzene	284	17.975	17.975	(0.965)	193291	5.00000	4.901
	58 Pentachlorophenol	266	18.378	18.378	(0.986)	206931	10.0000	9.963
*	59 Phenanthrene-d10	188	18.633	18.633	(1.000)	638950	4.00000	
	60 Phenanthrene	178	18.687	18.687	(1.003)	817342	5.00000	4.961
	61 Anthracene	178	18.780	18.780	(1.008)	889087	5.00000	5.166
	63 Di-n-butylphthalate	149	20.010	20.010	(1.074)	1174853	5.00000	5.242
	64 Fluoranthene	202	21.101	21.101	(1.132)	960108	5.00000	5.132
	65 Pyrene	202	21.519	21.519	(0.908)	1003743	5.00000	5.114
$	66 Terphenyl-d14	244	21.844	21.844	(0.921)	625901	5.00000	5.091
	67 Butylbenzylphthalate	149	22.781	22.781	(0.961)	470820	5.00000	5.171
	68 Benzo(a)anthracene	228	23.679	23.679	(0.999)	895593	5.00000	4.936
*	69 Chrysene-d12	240	23.710	23.710	(1.000)	645065	4.00000	
	71 Chrysene	228	23.749	23.749	(1.002)	810779	5.00000	5.079
	72 bis(2-Ethylhexyl)phthalate	149	23.818	23.818	(0.961)	691334	5.00000	4.954
*	134 Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	1016118	4.00000	
	73 Di-n-octylphthalate	149	24.802	24.802	(1.000)	1227950	5.00000	4.967
	76 Benzo(a)pyrene	252	26.002	26.002	(0.996)	851161	5.00000	5.064
*	77 Perylene-d12	264	26.102	26.102	(1.000)	650033	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.342	28.342	(1.086)	1014701	5.00000	5.219
	79 Dibenzo(a,h)anthracene	278	28.365	28.365	(1.087)	806147	5.00000	5.264
	80 Benzo(g,h,i)perylene	276	29.002	29.002	(1.111)	867892	5.00000	5.206
	105 1-methylnaphthalene	142	13.275	13.275	(1.154)	676659	5.00000	5.179
	187 Total Benzofluoranthenes	252	25.483	25.483	(0.976)	1817664	10.0000	10.08
	98 Retene	219	22.131	22.131	(0.933)	474577	5.00000	5.193

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526a.d
Lab Smp Id: ABN5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

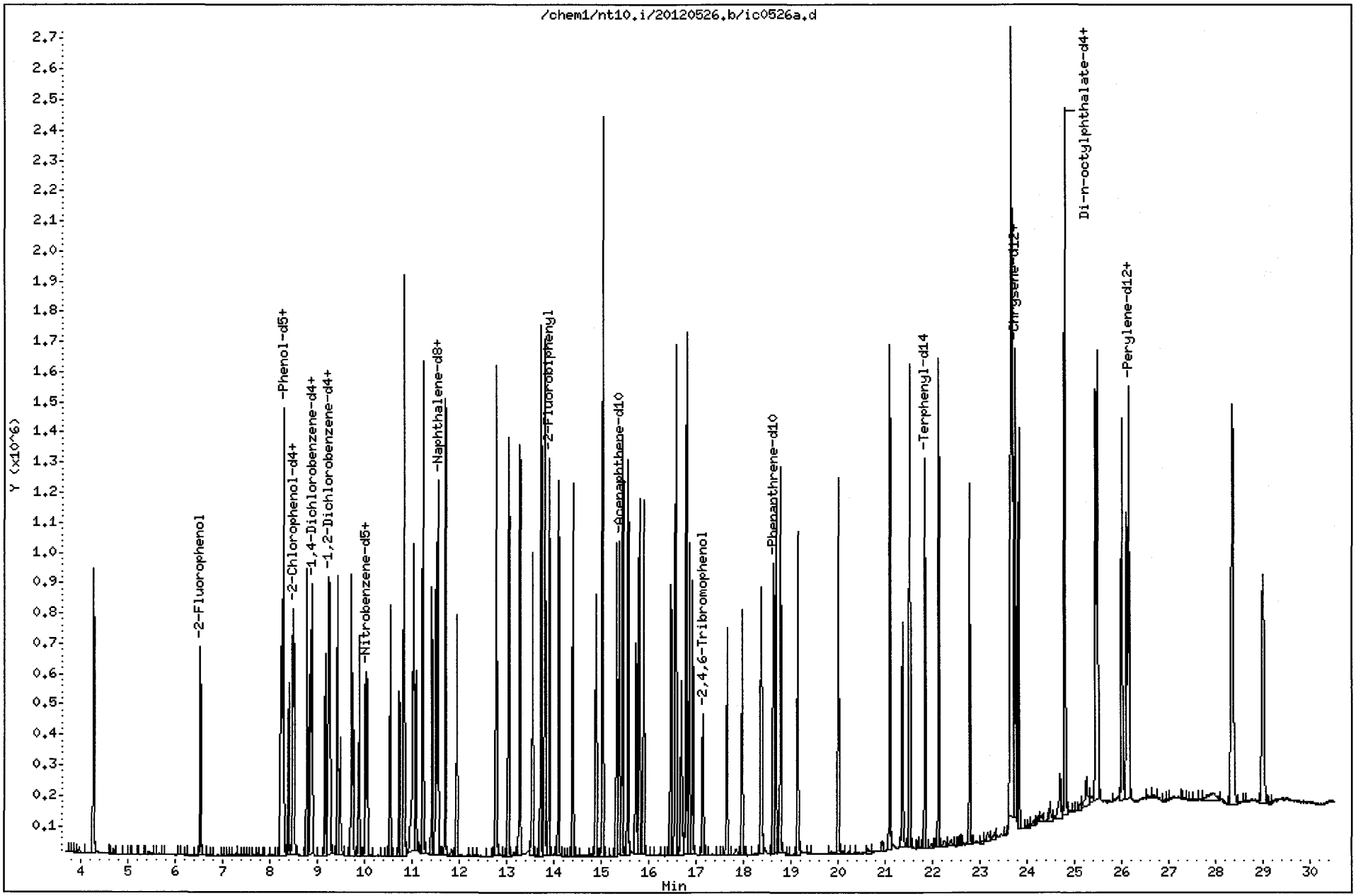
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	189516	0.00
27 Naphthalene-d8	730932	365466	1461864	730932	0.00
42 Acenaphthene-d10	420698	210349	841396	420698	0.00
59 Phenanthrene-d10	638950	319475	1277900	638950	0.00
69 Chrysene-d12	645065	322532	1290130	645065	0.00
134 Di-n-octylphthala	1016118	508059	2032236	1016118	0.00
77 Perylene-d12	650033	325016	1300066	650033	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	0.00
42 Acenaphthene-d10	15.37	14.87	15.87	15.37	0.00
59 Phenanthrene-d10	18.63	18.13	19.13	18.63	0.00
69 Chrysene-d12	23.71	23.21	24.21	23.71	0.00
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

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

Data File: /chem1/nt10.i/20120526.b/ic0526a.d
Date : 26-MAY-2012 10:59
Client ID:
Sample Info: ABN5

Instrument: nt10.i
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - ic0526a.d

Lab ID: ABN5, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 5/30/12 Analysis: ABN Analyst: YZ

GC Program: ABN2 Column No: 227815 Column Type: ZB5 ms1

Instrument Tune (.U or .CT.): 11121604 EM Voltage: 1800

Calibration File: DF0530 Curve Date: 5/26/12 Injection Vol.: 1 ul

IS/SS	Ical/Ccal	LCS/ICV
1875-1	1949-2 1891-2	
	1950-1 1892-1.	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20120530.b

	Time	Filename	LabID	ClientId	DF											
1	1212	df0530.d	DFTPP	DFTPP	1	NO ISTDS FOUND										
2	1227	cc0530.d	CC0530		1	8.86	191858	11.51	750130	15.39	423103	18.66	662850	23.73	713203	24.81	1121736	26.13	700277
3	1304	uu52g6.d	UU52G	MS006-SS-120	6	8.87	186026	11.51	733531	15.39	426946	18.66	591988	23.73	709441	24.81	1089932	26.13	662093

YZ 5/31/12

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20120530.b

Instrument: nt10.i Date: 30-MAY-2012 Method: ABN.m

INITIAL CAL: 26-MAY-2012

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 30-MAY-2012

Compound	%D
Benzoic acid	-48.8
~~Hexachlorocyclopentadiene~~	~~-36.6~~
~~2,4-Dinitrophenol~~	~~-70.8~~
~~4,6-Dinitro-2-methylphenol~~	~~-27.0~~

Data File: /chem1/nt10.i/20120530.b/df0530.d

Date : 30-MAY-2012 12:12

Client ID: DFTPP

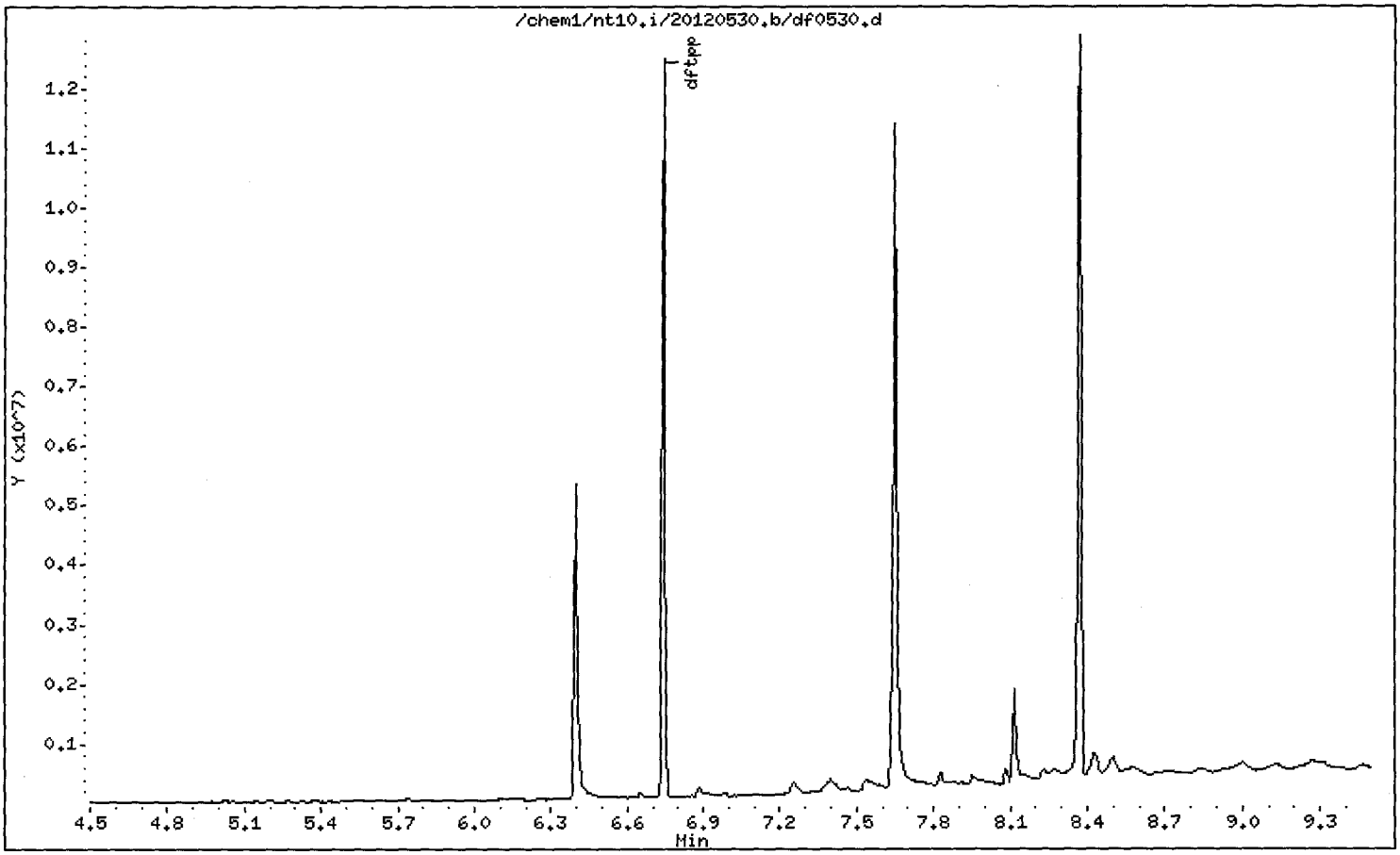
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20120530.b/df0530.d

Date : 30-MAY-2012 12:12

Client ID: DFTPP

Instrument: nt10.i

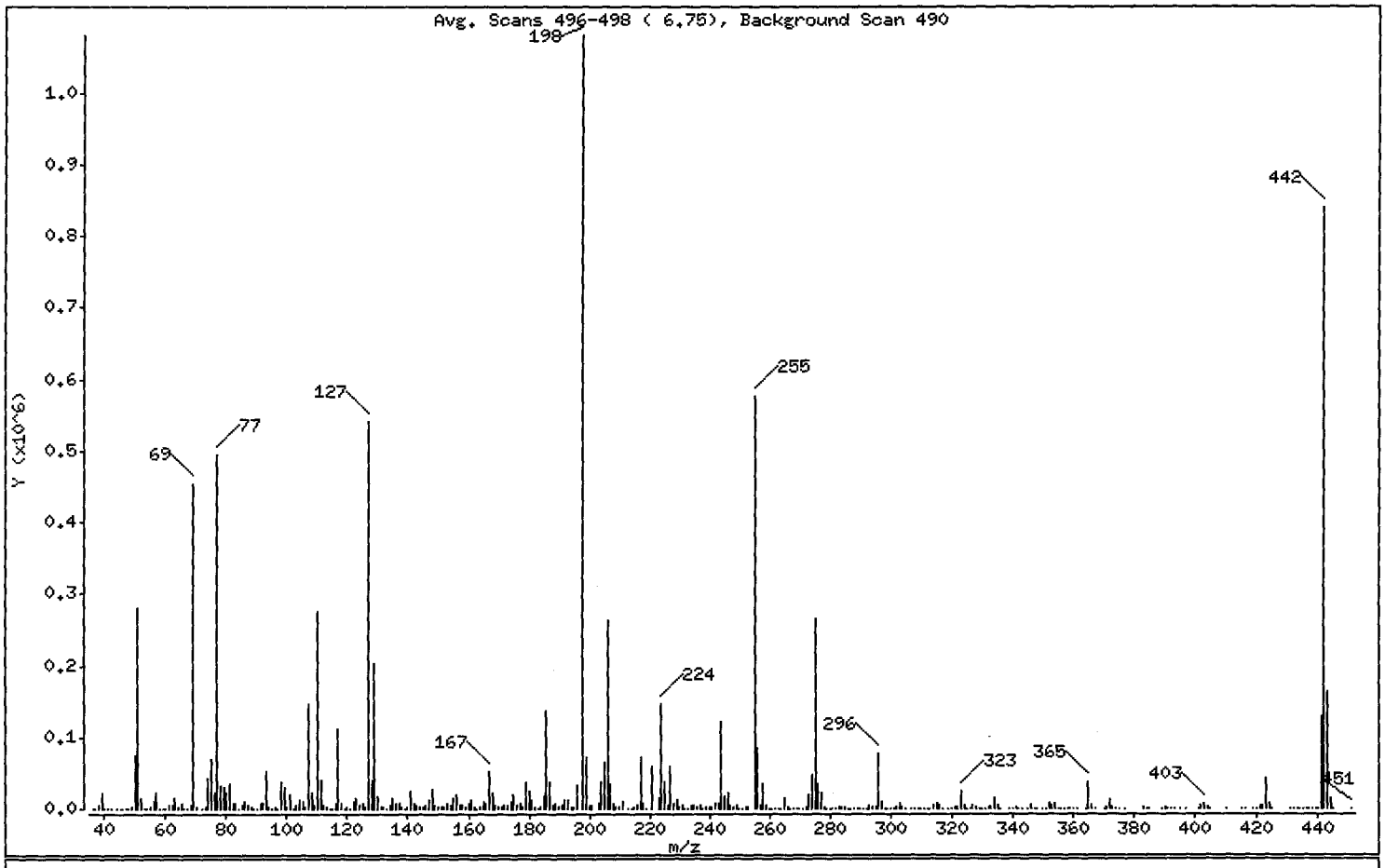
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	25.95
68	Less than 2.00% of mass 69	0.56 (1.33)
69	Mass 69 relative abundance	42.05
70	Less than 2.00% of mass 69	0.16 (0.37)
127	10.00 - 80.00% of mass 198	50.08
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.63
275	10.00 - 60.00% of mass 198	24.62
365	Greater than 1.00% of mass 198	3.34
441	0.01 - 24.00% of mass 442	11.95 (15.38)
442	50.00 - 200.00% of mass 198	77.69
443	15.00 - 24.00% of mass 442	15.22 (19.59)

Data File: /chem1/nt10.i/20120530.b/df0530.d

Date : 30-MAY-2012 12:12

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0530.d

Spectrum: Avg. Scans 496-498 (6.75), Background Scan 490

Location of Maximum: 198.00

Number of points: 364

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	201	130.00	16976	227.00	59320	322.00	1375
37.00	977	131.00	3284	228.00	8477	323.00	23688
38.00	3764	132.00	1922	229.00	12041	324.00	4431
39.00	21560	133.00	628	230.00	1933	325.00	512
40.00	953	134.00	5518	231.00	5723	326.00	586
41.00	337	135.00	15853	232.00	1126	327.00	4785
42.00	45	136.00	6515	233.00	915	328.00	2421
44.00	362	137.00	7334	234.00	4032	329.00	426
45.00	593	138.00	1698	235.00	4582	330.00	190
46.00	53	139.00	936	236.00	3178	331.00	244
47.00	44	140.00	2345	237.00	4618	332.00	1912
48.00	143	141.00	23960	238.00	853	333.00	2518
49.00	1902	142.00	7944	239.00	2127	334.00	15785
50.00	74928	143.00	5527	240.00	1673	335.00	3853
51.00	280576	144.00	1434	241.00	3665	336.00	417
52.00	14314	145.00	1404	242.00	7846	339.00	437
53.00	855	146.00	4377	243.00	8579	340.00	301
54.00	126	147.00	12436	244.00	120672	341.00	2747
55.00	1768	148.00	27840	245.00	16186	342.00	736
56.00	9492	149.00	5304	246.00	21808	343.00	240
57.00	21992	150.00	1406	247.00	4387	345.00	74
58.00	571	151.00	3247	248.00	1255	346.00	5357
59.00	265	152.00	2102	249.00	4168	347.00	1020
60.00	392	153.00	7520	250.00	920	348.00	110
61.00	4118	154.00	5777	251.00	1154	350.00	266
62.00	5066	155.00	14324	252.00	1277	351.00	480
63.00	15059	156.00	20544	253.00	2659	352.00	7435
64.00	2275	157.00	4279	255.00	577792	353.00	4879
65.00	7719	158.00	4440	256.00	84696	354.00	6774
66.00	444	159.00	3346	257.00	6104	355.00	1198
67.00	369	160.00	7718	258.00	34336	356.00	206
68.00	6055	161.00	11326	259.00	5340	357.00	123
69.00	454656	162.00	3603	260.00	1038	358.00	205
70.00	1704	163.00	921	261.00	1053	359.00	547
72.00	77	164.00	1580	262.00	186	360.00	101

Data File: /chem1/nt10.i/20120530.b/df0530.d

Date : 30-MAY-2012 12:12

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0530.d

Spectrum: Avg. Scans 496-498 (6.75), Background Scan 490

Location of Maximum: 198.00

Number of points: 364

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	3492	165.00	9481	263.00	491	361.00	216
74.00	42512	166.00	7501	264.00	1114	364.00	180
75.00	69664	167.00	51144	265.00	14050	365.00	36112
76.00	22816	168.00	21464	266.00	1448	366.00	5112
77.00	495680	169.00	4055	267.00	228	367.00	350
78.00	33024	170.00	1765	268.00	207	370.00	904
79.00	29600	171.00	2195	269.00	193	371.00	1980
80.00	23440	172.00	4469	270.00	765	372.00	12747
81.00	34008	173.00	5433	271.00	1240	373.00	3266
82.00	8232	174.00	10723	272.00	1914	374.00	391
83.00	8030	175.00	19968	273.00	19184	375.00	114
84.00	506	176.00	6189	274.00	47464	377.00	432
85.00	5018	177.00	8556	275.00	266176	383.00	3308
86.00	8869	178.00	3155	276.00	35936	384.00	937
87.00	4166	179.00	37096	277.00	21928	385.00	376
88.00	1382	180.00	24512	278.00	3590	389.00	241
89.00	1021	181.00	11761	279.00	780	390.00	1670
90.00	292	182.00	1906	280.00	65	391.00	1217
91.00	7351	183.00	1175	281.00	236	392.00	817
92.00	7890	184.00	2748	282.00	668	393.00	143
93.00	51920	185.00	18168	283.00	2785	395.00	139
94.00	3571	186.00	137856	284.00	1596	397.00	82
95.00	417	187.00	38280	285.00	3704	401.00	773
96.00	2139	188.00	3994	286.00	812	402.00	4708
97.00	466	189.00	8026	287.00	153	403.00	7149
98.00	38416	190.00	1758	288.00	278	404.00	2514
99.00	30376	191.00	4007	289.00	1005	405.00	496
100.00	2545	192.00	12193	290.00	924	410.00	285
101.00	19728	193.00	12825	291.00	633	415.00	403
102.00	980	194.00	2641	292.00	1138	416.00	62
103.00	5920	195.00	2031	293.00	5029	419.00	65
104.00	11523	196.00	33240	294.00	1280	420.00	149
105.00	10957	198.00	1081344	295.00	2190	421.00	5994
106.00	3553	199.00	71664	296.00	77456	422.00	5784
107.00	146240	200.00	5725	297.00	10668	423.00	42824

Data File: /chem1/nt10.i/20120530.b/df0530.d

Date : 30-MAY-2012 12:12

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0530.d

Spectrum: Avg. Scans 496-498 (6.75), Background Scan 490

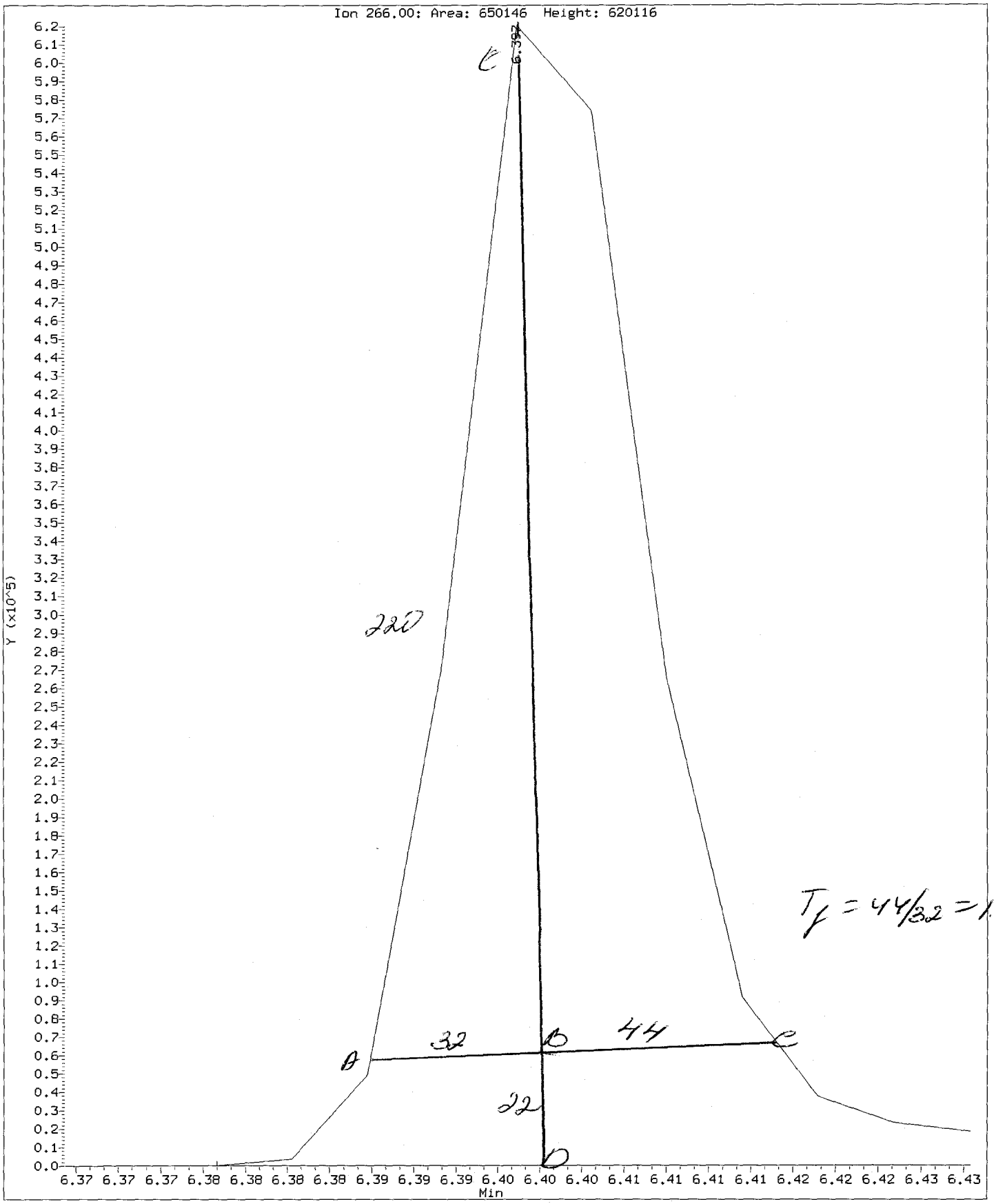
Location of Maximum: 198.00

Number of points: 364

m/z	Y	m/z	Y	m/z	Y	m/z	Y
108.00	23112	201.00	5452	298.00	794	424.00	8479
109.00	3913	203.00	7293	299.00	342	425.00	849
110.00	275520	204.00	37040	300.00	75	431.00	59
111.00	40224	205.00	64480	301.00	1173	432.00	133
112.00	4767	206.00	262720	302.00	1489	433.00	113
113.00	1701	207.00	34088	303.00	8603	434.00	398
114.00	464	208.00	7838	304.00	2355	435.00	298
115.00	642	209.00	2586	305.00	275	436.00	486
116.00	7646	210.00	1961	307.00	115	437.00	598
117.00	111128	211.00	10539	308.00	1145	438.00	829
118.00	7964	213.00	525	309.00	810	439.00	344
119.00	1061	214.00	361	310.00	974	440.00	1193
120.00	1957	215.00	2806	311.00	314	441.00	129248
121.00	657	216.00	5582	312.00	338	442.00	840128
122.00	8973	217.00	71640	313.00	775	443.00	164544
123.00	14031	218.00	8575	314.00	3827	444.00	15508
124.00	5994	219.00	1105	315.00	8281	445.00	816
125.00	6435	221.00	59032	316.00	4645	451.00	51
126.00	2565	223.00	15531	317.00	883		
127.00	541504	224.00	146112	319.00	125		
128.00	40160	225.00	36104	320.00	363		
129.00	204544	226.00	3979	321.00	2468		

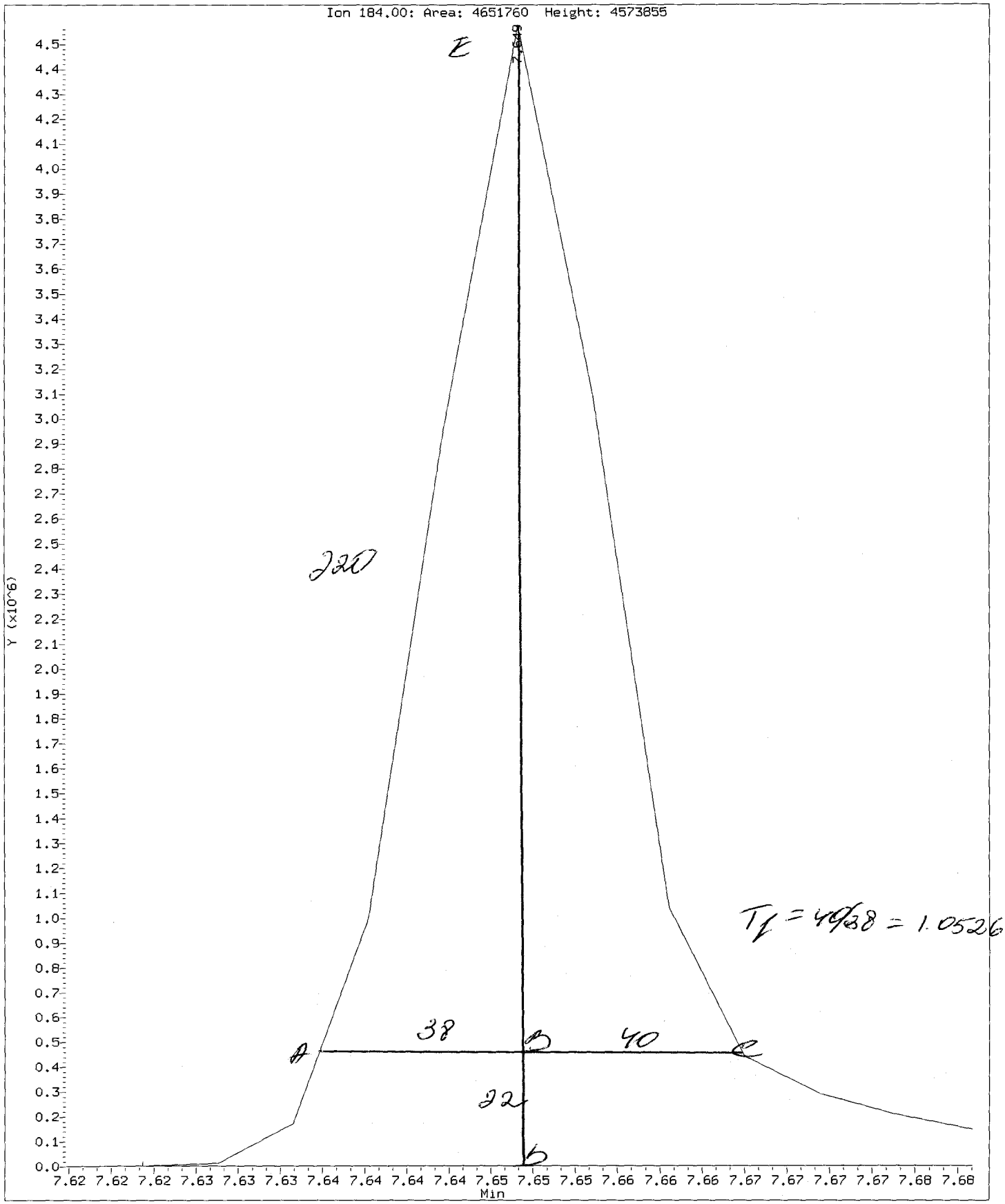
Data File: /chem1/nt10.i/20120530.b/ddt.b/df0530.d
Injection Date: 30-MAY-2012 12:12
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20120530.b/ddt.b/df0530.d
Injection Date: 30-MAY-2012 12:12
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20120530.b/ddt.b/df0530.d ARI ID: DFTPP
Method: /chem1/nt10.i/20120530.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 30-MAY-2012 12:12 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.397	650146
Benzidine	7.649	4651760
4,4'-DDE	7.831	21114
4,4'-DDD	8.114	308435
4,4'-DDT	8.371	2080466

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 21114 + 308435) * 100}{(\ 21114 + 308435 + 2080466)}$$

DDT Percent Breakdown = 13.7 %

Data File: /chem1/nt10.i/20120530.b/cc0530.d
Report Date: 04-Jun-2012 11:58

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0530.d
Analysis Type:
Lab Sample ID: CC0530
Method: /chem1/nt10.i/20120530.b/ABN.m

Injection Date: 30-MAY-2012 12:27
Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Init. Cal. Times: 10:59 14:42
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	1.39876	1.31614	1.31614	0.010	-5.90664	20.00000	Averaged	
$ 2 Phenol-d5	1.74239	1.59621	1.59621	0.010	-8.38978	20.00000	Averaged	
3 Phenol	1.85722	1.91241	1.91241	0.100	2.97190	20.00000	Averaged	
$ 5 2-Chlorophenol-d4	1.52653	1.44424	1.44424	0.010	-5.39025	20.00000	Averaged	
4 Bis(2-Chloroethyl)ether	1.38283	1.31178	1.31178	0.700	-5.13762	20.00000	Averaged	
6 2-Chlorophenol	1.64006	1.55544	1.55544	0.800	-5.15950	20.00000	Averaged	
7 1,3-Dichlorobenzene	1.64203	1.62870	1.62870	0.010	-0.81223	20.00000	Averaged	
9 1,4-Dichlorobenzene	1.60271	1.58390	1.58390	0.010	-1.17356	20.00000	Averaged	
$ 10 1,2-Dichlorobenzene-d4	1.00142	1.02445	1.02445	0.010	2.30003	20.00000	Averaged	
12 1,2-Dichlorobenzene	1.56383	1.55742	1.55742	0.010	-0.40978	20.00000	Averaged	
11 Benzyl alcohol	0.78027	0.79875	0.79875	0.010	2.36870	20.00000	Averaged	
14 2,2'-oxybis(1-Chloropropane	0.50908	0.50578	0.50578	0.010	-0.64907	20.00000	Averaged	
13 2-Methylphenol	1.46378	1.37387	1.37387	0.700	-6.14243	20.00000	Averaged	
17 Hexachloroethane	0.62268	0.63844	0.63844	0.300	2.53142	20.00000	Averaged	
16 N-Nitroso-di-n-propylamine	0.86256	0.80858	0.80858	0.500	-6.25800	20.00000	Averaged	
15 4-Methylphenol	1.52714	1.37577	1.37577	0.600	-9.91243	20.00000	Averaged	
$ 18 Nitrobenzene-d5	0.35840	0.34113	0.34113	0.010	-4.81654	20.00000	Averaged	
19 Nitrobenzene	0.35273	0.32576	0.32576	0.200	-7.64696	20.00000	Averaged	
20 Isophorone	0.66495	0.71492	0.71492	0.300	7.51351	20.00000	Averaged	
21 2-Nitrophenol	0.22242	0.22061	0.22061	0.100	-0.81440	20.00000	Averaged	
22 2,4-Dimethylphenol	0.35235	0.34008	0.34008	0.200	-3.48450	20.00000	Averaged	
23 Bis(2-Chloroethoxy)methane	0.39601	0.37841	0.37841	0.050	-4.44543	20.00000	Averaged	
24 Benzoic acid	10.23171	20.00000	0.11958	0.010	-48.84143	20.00000	Quadratic	<-
25 2,4-Dichlorophenol	0.33892	0.32850	0.32850	0.100	-3.07528	20.00000	Averaged	
26 1,2,4-Trichlorobenzene	0.32265	0.31778	0.31778	0.010	-1.50840	20.00000	Averaged	
28 Naphthalene	1.00840	1.00895	1.00895	0.100	0.05430	20.00000	Averaged	
29 4-Chloroaniline	0.44927	0.43481	0.43481	0.010	-3.21932	20.00000	Averaged	
30 Hexachlorobutadiene	0.17350	0.17922	0.17922	0.010	3.29859	20.00000	Averaged	
31 4-Chloro-3-methylphenol	0.30410	0.31245	0.31245	0.200	2.74390	20.00000	Averaged	
32 2-Methylnaphthalene	0.70103	0.71430	0.71430	0.300	1.89268	20.00000	Averaged	
33 Hexachlorocyclopentadiene	6.33640	10.00000	0.18396	0.001	-36.63596	20.00000	Quadratic	<-
34 2,4,6-Trichlorophenol	0.39418	0.41460	0.41460	0.200	5.17908	20.00000	Averaged	
35 2,4,5-Trichlorophenol	0.42197	0.45922	0.45922	0.200	8.82848	20.00000	Averaged	
$ 36 2-Fluorobiphenyl	1.38663	1.39990	1.39990	0.010	0.95703	20.00000	Averaged	
37 2-Chloronaphthalene	1.18536	1.20990	1.20990	0.700	2.06993	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0530.d
Analysis Type:
Lab Sample ID: CC0530
Method: /chem1/nt10.i/20120530.b/ABN.m

Injection Date: 30-MAY-2012 12:27
Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Init. Cal. Times: 10:59 14:42
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
38 2-Nitroaniline	0.28350	0.28300	0.28300	0.010	-0.17677	20.00000	Averaged	
39 Dimethylphthalate	1.22903	1.24685	1.24685	0.010	1.44992	20.00000	Averaged	
40 Acenaphthylene	1.79648	1.95252	1.95252	0.900	8.68569	20.00000	Averaged	
41 2,6-Dinitrotoluene	0.29943	0.31167	0.31167	0.100	4.08704	20.00000	Averaged	
43 3-Nitroaniline	0.33807	0.32934	0.32934	0.010	-2.58254	20.00000	Averaged	
44 Acenaphthene	1.08358	1.10560	1.10560	0.100	2.03174	20.00000	Averaged	
45 2,4-Dinitrophenol	5.84174	20.00000	0.05693	0.030	-70.79128	20.00000	Quadratic	<-
46 Dibenzofuran	1.58749	1.62405	1.62405	0.800	2.30268	20.00000	Averaged	
47 4-Nitrophenol	0.13011	0.14268	0.14268	0.010	9.66153	20.00000	Averaged	
48 2,4-Dinitrotoluene	0.38632	0.41561	0.41561	0.200	7.58369	20.00000	Averaged	
50 Diethylphthalate	1.19817	1.24075	1.24075	0.010	3.55404	20.00000	Averaged	
49 Fluorene	1.21637	1.36102	1.36102	0.100	11.89200	20.00000	Averaged	
51 4-Chlorophenyl-phenylether	0.57758	0.69277	0.69277	0.100	19.94445	20.00000	Averaged	
52 4-Nitroaniline	0.34544	0.33890	0.33890	0.010	-1.89169	20.00000	Averaged	
53 4,6-Dinitro-2-methylphenol	0.15872	0.11578	0.11578	0.001	-27.04880	20.00000	Averaged	<-
54 N-Nitrosodiphenylamine	0.53809	0.52907	0.52907	0.010	-1.67589	20.00000	Averaged	
$ 55 2,4,6-Tribromophenol	0.16510	0.17606	0.17606	0.010	6.63640	20.00000	Averaged	
56 4-Bromophenyl-phenylether	0.21413	0.21509	0.21509	0.100	0.44709	20.00000	Averaged	
57 Hexachlorobenzene	0.24689	0.24040	0.24040	0.100	-2.63016	20.00000	Averaged	
58 Pentachlorophenol	9.75376	10.00000	0.12675	0.010	-2.46238	20.00000	Quadratic	
60 Phenanthrene	1.03144	1.02793	1.02793	0.700	-0.34060	20.00000	Averaged	
61 Anthracene	1.07748	1.13468	1.13468	0.700	5.30821	20.00000	Averaged	
62 Carbazole	0.99697	1.08341	1.08341	0.010	8.67040	20.00000	Averaged	
63 Di-n-butylphthalate	1.40311	1.49220	1.49220	0.010	6.34956	20.00000	Averaged	
64 Fluoranthene	1.17111	1.25507	1.25507	0.600	7.16987	20.00000	Averaged	
65 Pyrene	1.21707	1.22037	1.22037	0.600	0.27120	20.00000	Averaged	
$ 66 Terphenyl-d14	0.76242	0.74551	0.74551	0.010	-2.21783	20.00000	Averaged	
67 Butylbenzylphthalate	0.56457	0.58243	0.58243	0.010	3.16360	20.00000	Averaged	
68 Benzo(a)anthracene	1.12516	1.09265	1.09265	0.700	-2.88934	20.00000	Averaged	
70 3,3'-Dichlorobenzidine	0.61607	0.66378	0.66378	0.010	7.74417	20.00000	Averaged	
71 Chrysene	0.98981	0.98250	0.98250	0.700	-0.73834	20.00000	Averaged	
72 bis(2-Ethylhexyl)phthalate	0.54931	0.53298	0.53298	0.010	-2.97123	20.00000	Averaged	
73 Di-n-octylphthalate	0.97317	0.95800	0.95800	0.010	-1.55885	20.00000	Averaged	
74 Benzo(b)fluoranthene	1.12365	1.17964	1.17964	0.700	4.98292	20.00000	Averaged	
75 Benzo(k)fluoranthene	1.23726	1.20722	1.20722	0.700	-2.42746	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0530.d
Analysis Type:
Lab Sample ID: CC0530
Method: /chem1/nt10.i/20120530.b/ABN.m

Injection Date: 30-MAY-2012 12:27
Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Init. Cal. Times: 10:59 14:42
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 Benzo(a)pyrene	1.03427	1.04143	1.04143	0.700	0.69245	20.00000	Averaged
78 Indeno(1,2,3-cd)pyrene	1.19637	1.21690	1.21690	0.500	1.71540	20.00000	Averaged
79 Dibenzo(a,h)anthracene	0.94241	0.98502	0.98502	0.400	4.52058	20.00000	Averaged
80 Benzo(g,h,i)perylene	1.02591	1.02921	1.02921	0.500	0.32168	20.00000	Averaged
90 N-Nitrosodimethylamine	0.83166	0.81490	0.81490	0.010	-2.01522	20.00000	Averaged
91 Aniline	3.95624	3.51758	3.51758	0.010	-11.08795	20.00000	Averaged
93 Benzidine	0.45686	0.45161	0.45161	0.010	-1.14756	20.00000	Averaged
103 Pyridine	0.71808	0.67369	0.67369	0.010	-6.18266	20.00000	Averaged
105 1-methylnaphthalene	0.71493	0.74652	0.74652	0.010	4.41747	20.00000	Averaged
111 Azobenzene (1,2-DP-Hydrazin	1.21402	1.21740	1.21740	0.010	0.27776	20.00000	Averaged
187 Total Benzofluoranthenes	1.10989	1.12476	1.12476	0.010	1.33934	20.00000	Averaged
99 Perylene	1.03973	1.04286	1.04286	0.010	0.30049	20.00000	Averaged
98 Retene	0.56674	0.56307	0.56307	0.010	-0.64850	20.00000	Averaged

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 6/4/12

Data file : /chem1/nt10.i/20120530.b/cc0530.d
Lab Smp Id: CC0530
Inj Date : 30-MAY-2012 12:27
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : CC0530
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120530.b/ABN.m
Meth Date : 04-Jun-2012 11:58 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

							AMOUNTS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.560	6.560	(0.740)	315639	5.00000	4.705
$	2 Phenol-d5	99	8.260	8.260	(0.932)	382806	5.00000	4.581
	3 Phenol	94	8.283	8.283	(0.935)	458639	5.00000	5.149
$	5 2-Chlorophenol-d4	132	8.499	8.499	(0.959)	346362	5.00000	4.730
	4 Bis(2-Chloroethyl)ether	93	8.407	8.407	(0.948)	314595	5.00000	4.743
	6 2-Chlorophenol	128	8.522	8.522	(0.962)	373029	5.00000	4.742
	7 1,3-Dichlorobenzene	146	8.793	8.793	(0.992)	390598	5.00000	4.959
*	8 1,4-Dichlorobenzene-d4	152	8.863	8.863	(1.000)	191858	4.00000	
	9 1,4-Dichlorobenzene	146	8.902	8.902	(1.004)	379854	5.00000	4.941
$	10 1,2-Dichlorobenzene-d4	152	9.243	9.243	(1.043)	245686	5.00000	5.115
	12 1,2-Dichlorobenzene	146	9.274	9.274	(1.046)	373505	5.00000	4.980
	11 Benzyl alcohol	108	9.181	9.181	(1.036)	191559	5.00000	5.118
	14 2,2'-oxybis(1-Chloropropane)	121	9.500	9.500	(1.072)	121297	5.00000	4.968
	13 2-Methylphenol	108	9.453	9.453	(1.067)	329485	5.00000	4.693
	17 Hexachloroethane	117	9.895	9.895	(1.116)	153113	5.00000	5.127
	16 N-Nitroso-di-n-propylamine	70	9.771	9.771	(1.102)	193916	5.00000	4.687
	15 4-Methylphenol	108	9.748	9.748	(1.100)	329940	5.00000	4.504
$	18 Nitrobenzene-d5	82	10.035	10.035	(0.872)	319869	5.00000	4.759
	19 Nitrobenzene	77	10.074	10.074	(0.875)	305450	5.00000	4.618
	20 Isophorone	82	10.563	10.563	(0.918)	670350	5.00000	5.376
	21 2-Nitrophenol	139	10.748	10.748	(0.934)	206856	5.00000	4.959
	22 2,4-Dimethylphenol	107	10.856	10.856	(0.943)	637755	10.0000	9.652
	23 Bis(2-Chloroethoxy)methane	93	11.041	11.041	(0.959)	354820	5.00000	4.778
	24 Benzoic acid	105	11.080	11.080	(0.962)	448518	20.0000	10.23
	25 2,4-Dichlorophenol	162	11.257	11.257	(0.978)	616036	10.0000	9.692
	26 1,2,4-Trichlorobenzene	180	11.427	11.427	(0.993)	297973	5.00000	4.925
*	27 Naphthalene-d8	136	11.512	11.512	(1.000)	750130	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.558	11.558	(1.004)	946052	5.00000	5.003
	29 4-Chloroaniline	127	11.728	11.728	(1.019)	815406	10.0000	9.678
	30 Hexachlorobutadiene	225	11.960	11.960	(1.039)	168048	5.00000	5.165
	31 4-Chloro-3-methylphenol	107	12.803	12.803	(1.112)	585936	10.0000	10.27
	32 2-Methylnaphthalene	142	13.059	13.059	(1.134)	669768	5.00000	5.095
	33 Hexachlorocyclopentadiene	237	13.562	13.562	(0.881)	194586	10.0000	6.336
	34 2,4,6-Trichlorophenol	196	13.747	13.747	(0.893)	438543	10.0000	10.52
	35 2,4,5-Trichlorophenol	196	13.840	13.840	(0.899)	485745	10.0000	10.88
$	36 2-Fluorobiphenyl	172	13.910	13.910	(0.904)	740375	5.00000	5.048
	37 2-Chloronaphthalene	162	14.119	14.119	(0.918)	639890	5.00000	5.103
	38 2-Nitroaniline	65	14.421	14.421	(0.937)	299349	10.0000	9.982
	39 Dimethylphthalate	163	14.908	14.908	(0.969)	659433	5.00000	5.072
	40 Acenaphthylene	152	15.048	15.048	(0.978)	1032645	5.00000	5.434
	41 2,6-Dinitrotoluene	165	15.048	15.048	(0.978)	329670	10.0000	10.41
*	42 Acenaphthene-d10	164	15.388	15.388	(1.000)	423103	4.00000	
	43 3-Nitroaniline	138	15.349	15.349	(0.997)	348362	10.0000	9.742
	44 Acenaphthene	153	15.458	15.458	(1.005)	584728	5.00000	5.102
	45 2,4-Dinitrophenol	184	15.581	15.581	(1.013)	120434	20.0000	5.842
	46 Dibenzofuran	168	15.813	15.813	(1.028)	858925	5.00000	5.115
	47 4-Nitrophenol	109	15.782	15.782	(1.026)	150918	10.0000	10.97(M)
	48 2,4-Dinitrotoluene	165	15.914	15.914	(1.034)	439618	10.0000	10.76
	50 Diethylphthalate	149	16.478	16.478	(1.071)	656206	5.00000	5.178
	49 Fluorene	166	16.579	16.579	(1.077)	719817	5.00000	5.595
	51 4-Chlorophenyl-phenylether	204	16.594	16.594	(1.078)	366392	5.00000	5.997
	52 4-Nitroaniline	138	16.718	16.718	(1.086)	358475	10.0000	9.811
	53 4,6-Dinitro-2-methylphenol	198	16.818	16.818	(0.901)	383740	20.0000	14.59
	54 N-Nitrosodiphenylamine	169	16.872	16.872	(0.904)	438371	5.00000	4.916
$	55 2,4,6-Tribromophenol	330	17.165	17.165	(1.115)	93113	5.00000	5.332
	56 4-Bromophenyl-phenylether	248	17.674	17.674	(0.947)	178217	5.00000	5.022
	57 Hexachlorobenzene	284	17.991	17.991	(0.964)	199187	5.00000	4.868
	58 Pentachlorophenol	266	18.401	18.401	(0.986)	210036	10.0000	9.754
*	59 Phenanthrene-d10	188	18.657	18.657	(1.000)	662850	4.00000	
	60 Phenanthrene	178	18.703	18.703	(1.002)	851705	5.00000	4.983
	61 Anthracene	178	18.803	18.803	(1.008)	940153	5.00000	5.265
	62 Carbazole	167	19.167	19.167	(1.027)	897670	5.00000	5.434
	63 Di-n-butylphthalate	149	20.018	20.018	(1.073)	1236383	5.00000	5.317
	64 Fluoranthene	202	21.125	21.125	(1.132)	1039907	5.00000	5.358
	65 Pyrene	202	21.542	21.542	(0.908)	1087964	5.00000	5.014
$	66 Terphenyl-d14	244	21.860	21.860	(0.921)	664629	5.00000	4.889
	67 Butylbenzylphthalate	149	22.796	22.796	(0.961)	519237	5.00000	5.158
	68 Benzo(a)anthracene	228	23.695	23.695	(0.999)	974106	5.00000	4.856
*	69 Chrysene-d12	240	23.726	23.726	(1.000)	713203	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.679	23.679	(0.998)	1183532	10.0000	10.77
	71 Chrysene	228	23.772	23.772	(1.002)	875901	5.00000	4.963
	72 bis(2-Ethylhexyl)phthalate	149	23.834	23.834	(0.961)	747335	5.00000	4.851
*	134 Di-n-octylphthalate-d4	153	24.809	24.809	(1.000)	1121736	4.00000	
	73 Di-n-octylphthalate	149	24.817	24.817	(1.000)	1343283	5.00000	4.922

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.467	25.467	(0.975)	1032597	5.00000	5.249
75	Benzo(k)fluoranthene	252	25.506	25.506	(0.976)	1056738	5.00000	4.879(H)
76	Benzo(a)pyrene	252	26.033	26.033	(0.996)	911611	5.00000	5.035
* 77	Perylene-d12	264	26.133	26.133	(1.000)	700277	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.388	28.388	(1.086)	1065206	5.00000	5.086
79	Dibenzo(a,h)anthracene	278	28.404	28.404	(1.087)	862231	5.00000	5.226
80	Benzo(g,h,i)perylene	276	29.049	29.049	(1.112)	900912	5.00000	5.016
90	N-Nitrosodimethylamine	74	4.282	4.282	(0.483)	390863	10.0000	9.798
91	Aniline	93	8.306	8.306	(0.937)	843594	5.00000	4.446
93	Benzidine	184	21.388	21.388	(0.901)	805231	10.0000	9.885
103	Pyridine	79	4.297	4.297	(0.485)	323130	10.0000	9.382
105	1-methylnaphthalene	142	13.291	13.291	(1.155)	699980	5.00000	5.221
111	Azobenzene (1,2-DP-Hydrazine)	77	16.941	16.941	(1.101)	643855	5.00000	5.014
187	Total Benzofluoranthenes	252	25.506	25.506	(0.976)	1969101	10.0000	10.13
99	Perylene	252	26.180	26.180	(1.002)	912862	5.00000	5.015
98	Retene	219	22.146	22.146	(0.933)	501977	5.00000	4.968

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0530.d
Lab Smp Id: CC0530
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120530.b/ABN.m
Misc Info:

Calibration Date: 30-MAY-2012
Calibration Time: 12:27
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	191858	1.24
27 Naphthalene-d8	730932	365466	1461864	750130	2.63
42 Acenaphthene-d10	420698	210349	841396	423103	0.57
59 Phenanthrene-d10	638950	319475	1277900	662850	3.74
69 Chrysene-d12	645065	322532	1290130	713203	10.56
134 Di-n-octylphthala	1016118	508059	2032236	1121736	10.39
77 Perylene-d12	650033	325016	1300066	700277	7.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.51	11.01	12.01	11.51	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.66	18.16	19.16	18.66	0.00
69 Chrysene-d12	23.73	23.23	24.23	23.73	0.00
134 Di-n-octylphthala	24.81	24.31	25.31	24.81	0.00
77 Perylene-d12	26.13	25.63	26.63	26.13	0.00

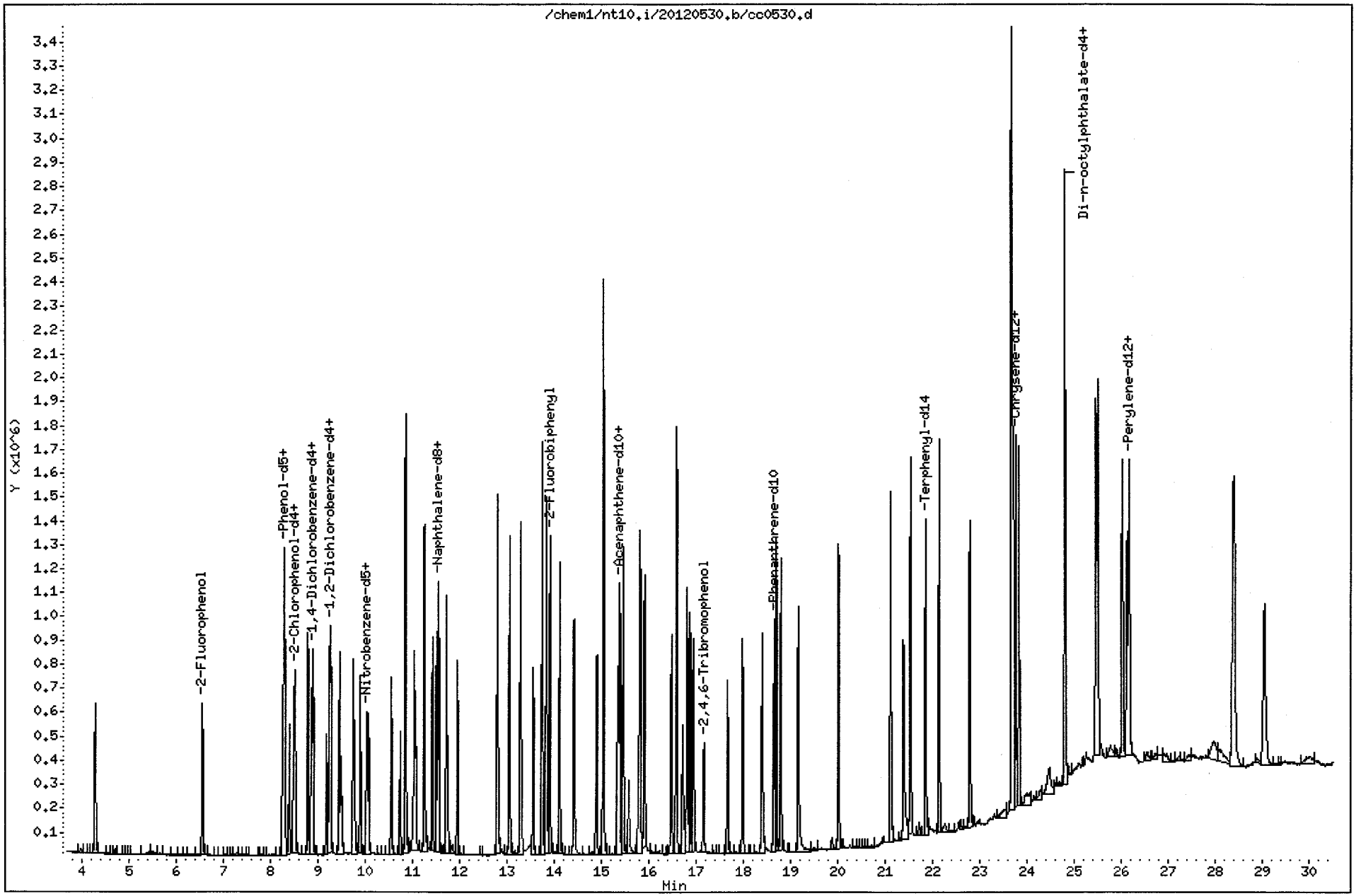
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120530.b/cc0530.d
Date : 30-MAY-2012 12:27
Client ID:
Sample Info: CC0530

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - cc0530.d

Lab ID: CC0530, Method: ABN.m, Instrument: nt10.i, Date: 30-MAY-2012

RT	CO-ELUTION COMPOUNDS
15.048	Acenaphthylene and 2,6-Dinitrotoluene

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

6/4/12

Data file : /chem1/nt10.i/20120526.b/uu52mb.d
Lab Smp Id: UU52MBS1 Client Smp ID: UU52MBS1
Inj Date : 26-MAY-2012 15:56
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52MBS1
Misc Info : 12-8900
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 11:32 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1	2-Fluorophenol	112	6.552	6.537	(0.740)	269199	4.00387	400.4
$	2	Phenol-d5	99	8.229	8.237	(0.929)	345487	4.12511	412.5
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.476	8.476	(0.957)	308315	4.20183	420.2
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.855	8.855	(1.000)	192270	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	133251	2.76824	276.8
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	10.020	10.027	(0.872)	190061	2.80879	280.9
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.496	11.504	(1.000)	755212	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.894	13.902	(0.904)	396112	2.78751	278.8
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.365	15.373	(1.000)	409923	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.142	17.142	(1.116)	69910	4.13189	413.2
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.633	18.633	(1.000)	652568	4.00000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	21.836	21.844	(0.921)	398113	3.32196	332.2
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	23.702	23.710	(1.000)	628746	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	23.818	23.818	(0.961)	17222	0.13755	13.76(R)
*	134 Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	911710	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	Compound Not Detected.					
	75 Benzo(k)fluoranthene	252	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	26.102	26.102	(1.000)	575994	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					
	99 Perylene	252	Compound Not Detected.					
	98 Retene	219	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52mb.d
Lab Smp Id: UU52MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8900

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: UU52MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	192270	1.45
27 Naphthalene-d8	730932	365466	1461864	755212	3.32
42 Acenaphthene-d10	420698	210349	841396	409923	-2.56
59 Phenanthrene-d10	638950	319475	1277900	652568	2.13
69 Chrysene-d12	645065	322532	1290130	628746	-2.53
134 Di-n-octylphthala	1016118	508059	2032236	911710	-10.28
77 Perylene-d12	650033	325016	1300066	575994	-11.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	-0.07
42 Acenaphthene-d10	15.37	14.87	15.87	15.36	-0.05
59 Phenanthrene-d10	18.63	18.13	19.13	18.63	0.00
69 Chrysene-d12	23.71	23.21	24.21	23.70	-0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

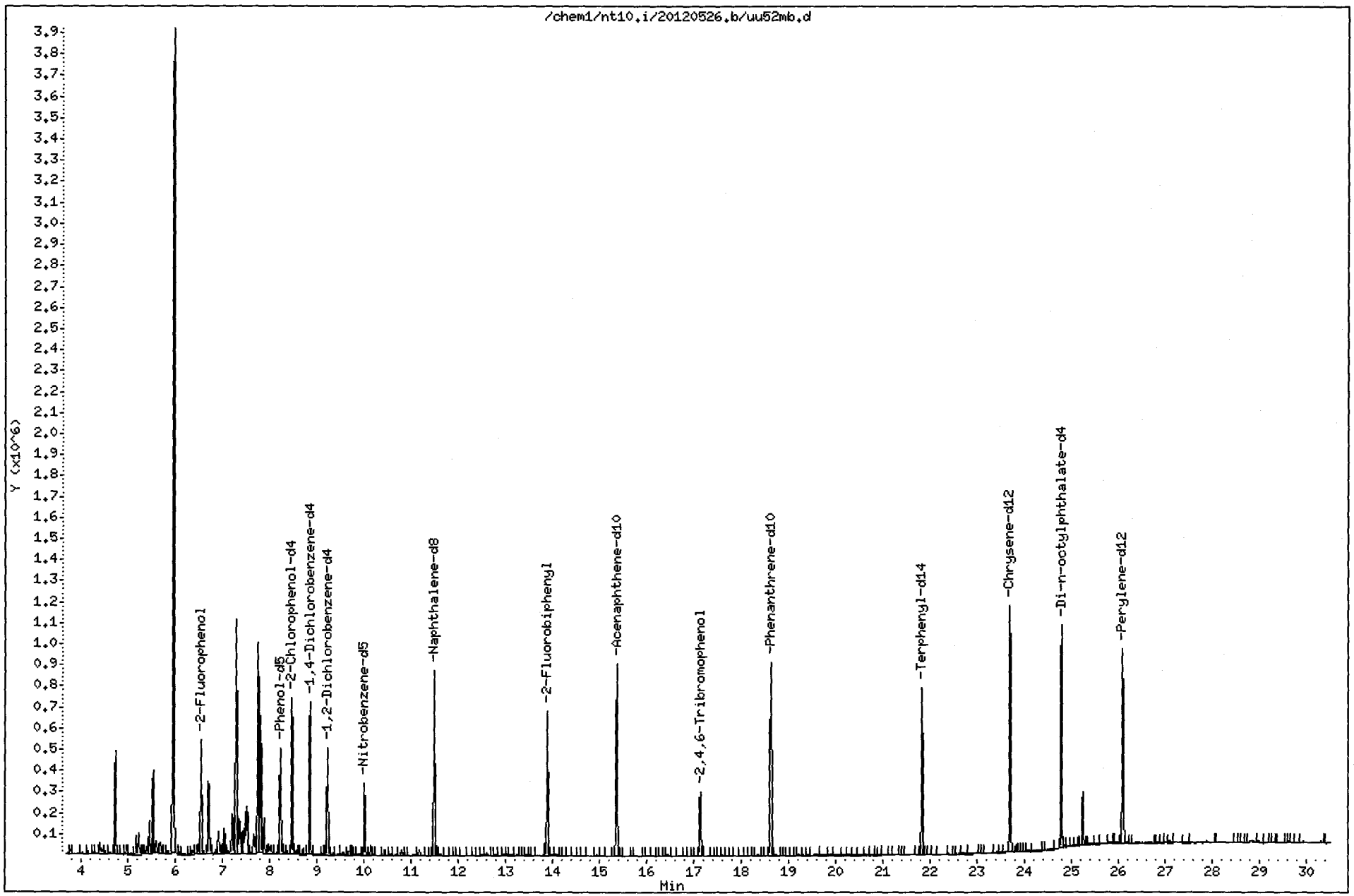
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	500.0	0.000	*	30-160
78 Indeno(1,2,3-cd)p	500.0	0.000	*	30-160
79 Dibenzo(a,h)anthr	500.0	0.000	*	30-160
80 Benzo(g,h,i)peryl	500.0	0.000	*	30-160
105 1-methylnaphthale	500.0	0.000	*	30-160
187 Total Benzofluora	1000	0.000	*	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	400.4	53.38	30-160
$ 2 Phenol-d5	750.0	412.5	55.00	30-160
$ 5 2-Chlorophenol-d4	750.0	420.2	56.02	30-160
$ 10 1,2-Dichlorobenzen	500.0	276.8	55.36	30-160
$ 18 Nitrobenzene-d5	500.0	280.9	56.18	30-160
$ 36 2-Fluorobiphenyl	500.0	278.8	55.75	30-160
$ 55 2,4,6-Tribromophen	750.0	413.2	55.09	30-160
$ 66 Terphenyl-d14	500.0	332.2	66.44	30-160

Data File: /chem1/nt10.i/20120526.b/uu52mb.d
Date : 26-MAY-2012 15:56
Client ID: UU52MBS1
Sample Info: UU52MBS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52 : 95632

CO-ELUTION SUMMARY FOR FILE - uu52mb.d

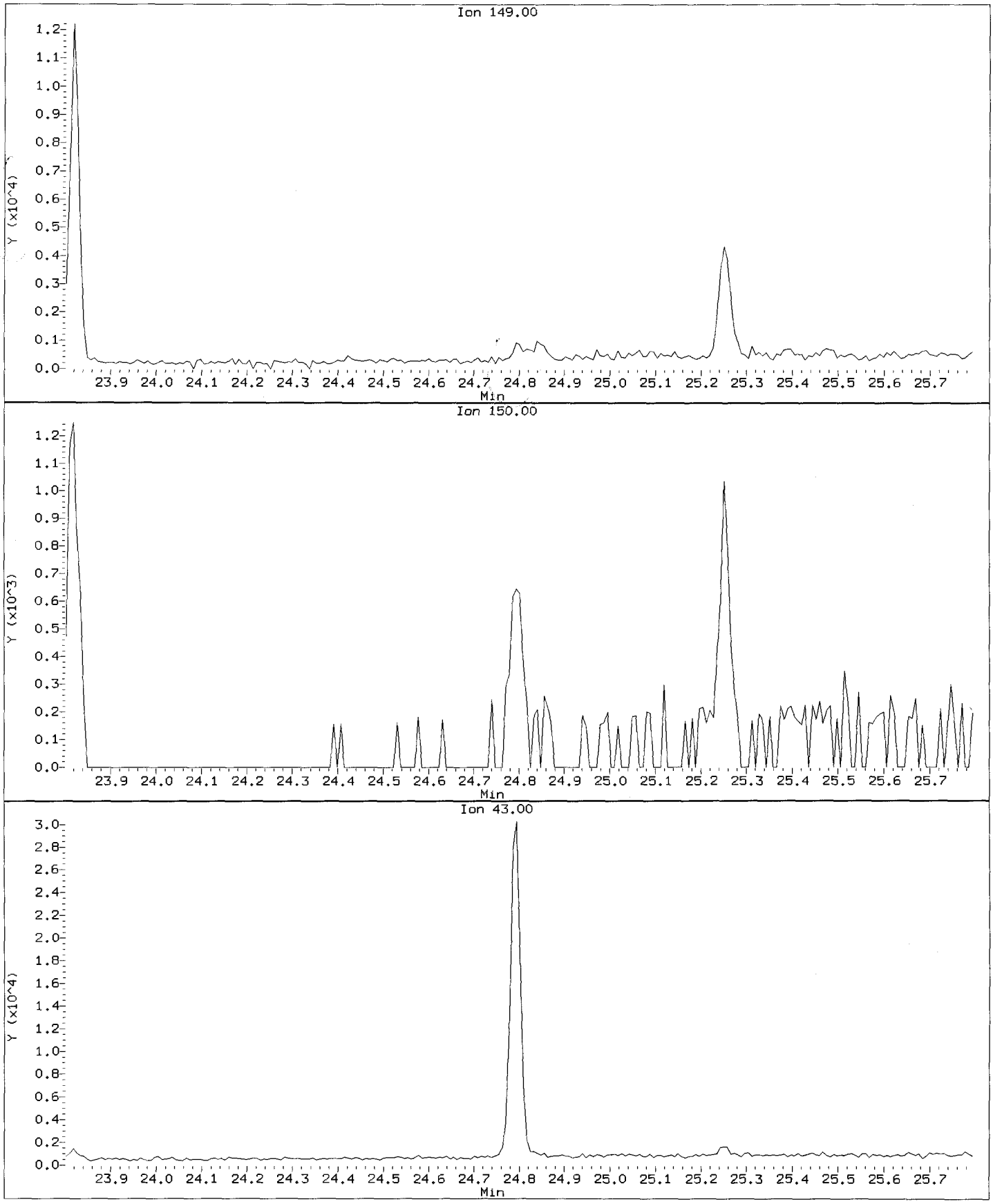
Lab ID: UU52MBS1, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt10.i/20120526.b/uu52mb.d
Injection Date: 26-MAY-2012 15:56
Instrument: nt10.i
Client Sample ID: UU52MBS1

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Analytical Resources, Inc.

YZ 6/4/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/uu52sb.d
Lab Smp Id: UU52LCSS1 Client Smp ID: UU52LCSS1
Inj Date : 26-MAY-2012 16:34
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52LCSS1
Misc Info : 12-8900
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 11:32 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.552	6.537	(0.740)	351853	5.56028	556.0
$ 2	Phenol-d5	99	8.237	8.237	(0.930)	454063	5.76035	576.0
3	Phenol	94	8.260	8.260	(0.933)	351312	4.18127	418.1
$ 5	2-Chlorophenol-d4	132	8.476	8.476	(0.957)	391851	5.67406	567.4
4	Bis(2-Chloroethyl)ether	93	8.399	8.399	(0.948)	241368	3.85824	385.8
6	2-Chlorophenol	128	8.507	8.507	(0.961)	261774	3.52813	352.8
7	1,3-Dichlorobenzene	146	8.786	8.786	(0.992)	267027	3.59460	359.5
* 8	1,4-Dichlorobenzene-d4	152	8.855	8.855	(1.000)	180960	4.00000	
9	1,4-Dichlorobenzene	146	8.886	8.886	(1.004)	259775	3.58279	358.3
$ 10	1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	163328	3.60515	360.5
12	1,2-Dichlorobenzene	146	9.259	9.267	(1.046)	257060	3.63347	363.3
11	Benzyl alcohol	108	9.166	9.166	(1.035)	143480	4.06465	406.5
14	2,2'-oxybis(1-Chloropropane)	121	9.492	9.492	(1.072)	84639	3.67502	367.5
13	2-Methylphenol	108	9.430	9.430	(1.065)	210118	3.17296	317.3

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/kg)
	17	Hexachloroethane	117	9.888	9.888	(1.117)	101404	3.59971	360.0
	16	N-Nitroso-di-n-propylamine	70	9.764	9.764	(1.103)	143731	3.68331	368.3
	15	4-Methylphenol	108	9.733	9.725	(1.099)	453028	6.55726	655.7
$	18	Nitrobenzene-d5	82	10.020	10.027	(0.872)	232022	3.63076	363.1
	19	Nitrobenzene	77	10.058	10.058	(0.875)	235293	3.74110	374.1
	20	Isophorone	82	10.540	10.547	(0.917)	463703	3.91094	391.1
	21	2-Nitrophenol	139	10.733	10.733	(0.934)	144195	3.63588	363.6
	22	2,4-Dimethylphenol	107	10.833	10.833	(0.942)	586325	9.33235	933.2
	23	Bis(2-Chloroethoxy)methane	93	11.034	11.033	(0.960)	275135	3.89645	389.6
	24	Benzoic acid	105	11.057	11.087	(0.962)	556369	13.2797	1328
	25	2,4-Dichlorophenol	162	11.234	11.234	(0.977)	664257	10.9919	1099
	26	1,2,4-Trichlorobenzene	180	11.411	11.419	(0.993)	208928	3.63160	363.2
*	27	Naphthalene-d8	136	11.496	11.504	(1.000)	713226	4.00000	
	28	Naphthalene	128	11.542	11.542	(1.004)	717706	3.99160	399.2
	29	4-Chloroaniline	127	11.705	11.705	(1.018)	691348	8.63020	863.0
	30	Hexachlorobutadiene	225	11.944	11.952	(1.039)	115797	3.74315	374.3
	31	4-Chloro-3-methylphenol	107	12.780	12.780	(1.112)	648715	11.9638	1196
	32	2-Methylnaphthalene	142	13.035	13.043	(1.134)	480451	3.84368	384.4
	33	Hexachlorocyclopentadiene	237	13.546	13.554	(0.881)	280755	9.48564	948.6
	34	2,4,6-Trichlorophenol	196	13.724	13.732	(0.893)	450023	11.3365	1134
	35	2,4,5-Trichlorophenol	196	13.809	13.809	(0.898)	480362	11.3040	1130
$	36	2-Fluorobiphenyl	172	13.902	13.902	(0.904)	509056	3.64542	364.5
	37	2-Chloronaphthalene	162	14.103	14.103	(0.917)	448978	3.76110	376.1
	38	2-Nitroaniline	65	14.405	14.405	(0.937)	366504	12.8369	1284
	39	Dimethylphthalate	163	14.893	14.893	(0.969)	523986	4.23349	423.3
	40	Acenaphthylene	152	15.032	15.032	(0.978)	714247	3.94791	394.8
	41	2,6-Dinitrotoluene	165	15.024	15.032	(0.977)	377144	12.5070	1251
*	42	Acenaphthene-d10	164	15.373	15.373	(1.000)	402827	4.00000	
	43	3-Nitroaniline	138	15.326	15.326	(0.997)	356497	10.4710	1047
	44	Acenaphthene	153	15.442	15.442	(1.005)	444597	4.07423	407.4
	45	2,4-Dinitrophenol	184	15.558	15.558	(1.012)	358932	17.9335	1793
	46	Dibenzofuran	168	15.798	15.798	(1.028)	629715	3.93889	393.9
	47	4-Nitrophenol	109	15.728	15.728	(1.023)	181639	13.8628	1386
	48	2,4-Dinitrotoluene	165	15.898	15.898	(1.034)	508723	13.0761	1308
	50	Diethylphthalate	149	16.470	16.470	(1.071)	536826	4.44895	444.9
	49	Fluorene	166	16.563	16.563	(1.077)	504171	4.11578	411.6
	51	4-Chlorophenyl-phenylether	204	16.579	16.579	(1.078)	234854	4.03766	403.8
	52	4-Nitroaniline	138	16.687	16.687	(1.085)	415166	11.9343	1193
	53	4,6-Dinitro-2-methylphenol	198	16.795	16.802	(0.901)	552498	22.7085	2271
	54	N-Nitrosodiphenylamine	169	16.856	16.856	(0.905)	337666	4.09363	409.4
$	55	2,4,6-Tribromophenol	330	17.142	17.142	(1.115)	103270	6.21108	621.1
	56	4-Bromophenyl-phenylether	248	17.658	17.658	(0.948)	138020	4.20468	420.5
	57	Hexachlorobenzene	284	17.975	17.975	(0.965)	153096	4.04511	404.5
	58	Pentachlorophenol	266	18.378	18.378	(0.986)	232414	11.6050	1160
*	59	Phenanthrene-d10	188	18.633	18.633	(1.000)	613172	4.00000	
	60	Phenanthrene	178	18.680	18.687	(1.002)	700154	4.42818	442.8
	61	Anthracene	178	18.780	18.780	(1.008)	682167	4.13007	413.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	19.144	19.144	(1.027)	704781	4.61160	461.2
63	Di-n-butylphthalate	149	20.011	20.010	(1.074)	976462	4.53984	454.0
64	Fluoranthene	202	21.101	21.101	(1.132)	833125	4.64078	464.1
65	Pyrene	202	21.519	21.519	(0.908)	835877	4.49942	449.9
$ 66	Terphenyl-d14	244	21.844	21.844	(0.922)	483974	4.15867	415.9
67	Butylbenzylphthalate	149	22.781	22.781	(0.961)	396379	4.59964	460.0
68	Benzo(a)anthracene	228	23.679	23.679	(0.999)	740526	4.31174	431.2
* 69	Chrysene-d12	240	23.702	23.710	(1.000)	610564	4.00000	
70	3,3'-Dichlorobenzidine	252	23.656	23.656	(0.998)	417995	4.44495	444.5
71	Chrysene	228	23.749	23.749	(1.002)	665513	4.40489	440.5
72	bis(2-Ethylhexyl)phthalate	149	23.819	23.818	(0.961)	594305	4.66596	466.6
* 134	Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	927500	4.00000	
73	Di-n-octylphthalate	149	24.802	24.802	(1.000)	1036214	4.59204	459.2
74	Benzo(b)fluoranthene	252	25.444	25.452	(0.975)	801643	4.74668	474.7
75	Benzo(k)fluoranthene	252	25.483	25.483	(0.976)	765650	4.11729	411.7
76	Benzo(a)pyrene	252	26.002	26.002	(0.996)	624438	4.01696	401.7
* 77	Perylene-d12	264	26.102	26.102	(1.000)	601200	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.342	28.342	(1.086)	800878	4.45390	445.4
79	Dibenzo(a,h)anthracene	278	28.357	28.365	(1.086)	635951	4.48976	449.0
80	Benzo(g,h,i)perylene	276	28.994	29.002	(1.111)	697341	4.52250	452.2
90	N-Nitrosodimethylamine	74	4.313	4.266	(0.487)	391174	10.3968	1040
91	Aniline	93	8.291	8.291	(0.936)	584871	3.26779	326.8
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	4.320	4.282	(0.488)	560842	17.2641	1726
105	1-methylnaphthalene	142	13.275	13.275	(1.155)	478242	3.75158	375.2
111	Azobenzene (1,2-DP-Hydrazine)	77	16.926	16.926	(1.101)	485420	3.97038	397.0
187	Total Benzofluoranthenes	252	25.483	25.483	(0.976)	1481220	8.87934	887.9
99	Perylene	252	26.149	26.149	(1.002)	486464	3.11293	311.3
98	Retene	219	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52sb.d
Lab Smp Id: UU52LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8900

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: UU52LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	180960	-4.51
27 Naphthalene-d8	730932	365466	1461864	713226	-2.42
42 Acenaphthene-d10	420698	210349	841396	402827	-4.25
59 Phenanthrene-d10	638950	319475	1277900	613172	-4.03
69 Chrysene-d12	645065	322532	1290130	610564	-5.35
134 Di-n-octylphthala	1016118	508059	2032236	927500	-8.72
77 Perylene-d12	650033	325016	1300066	601200	-7.51

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	-0.07
42 Acenaphthene-d10	15.37	14.87	15.87	15.37	0.00
59 Phenanthrene-d10	18.63	18.13	19.13	18.63	0.00
69 Chrysene-d12	23.71	23.21	24.21	23.70	-0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

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

Analytical Resources, Inc.

RECOVERY REPORT

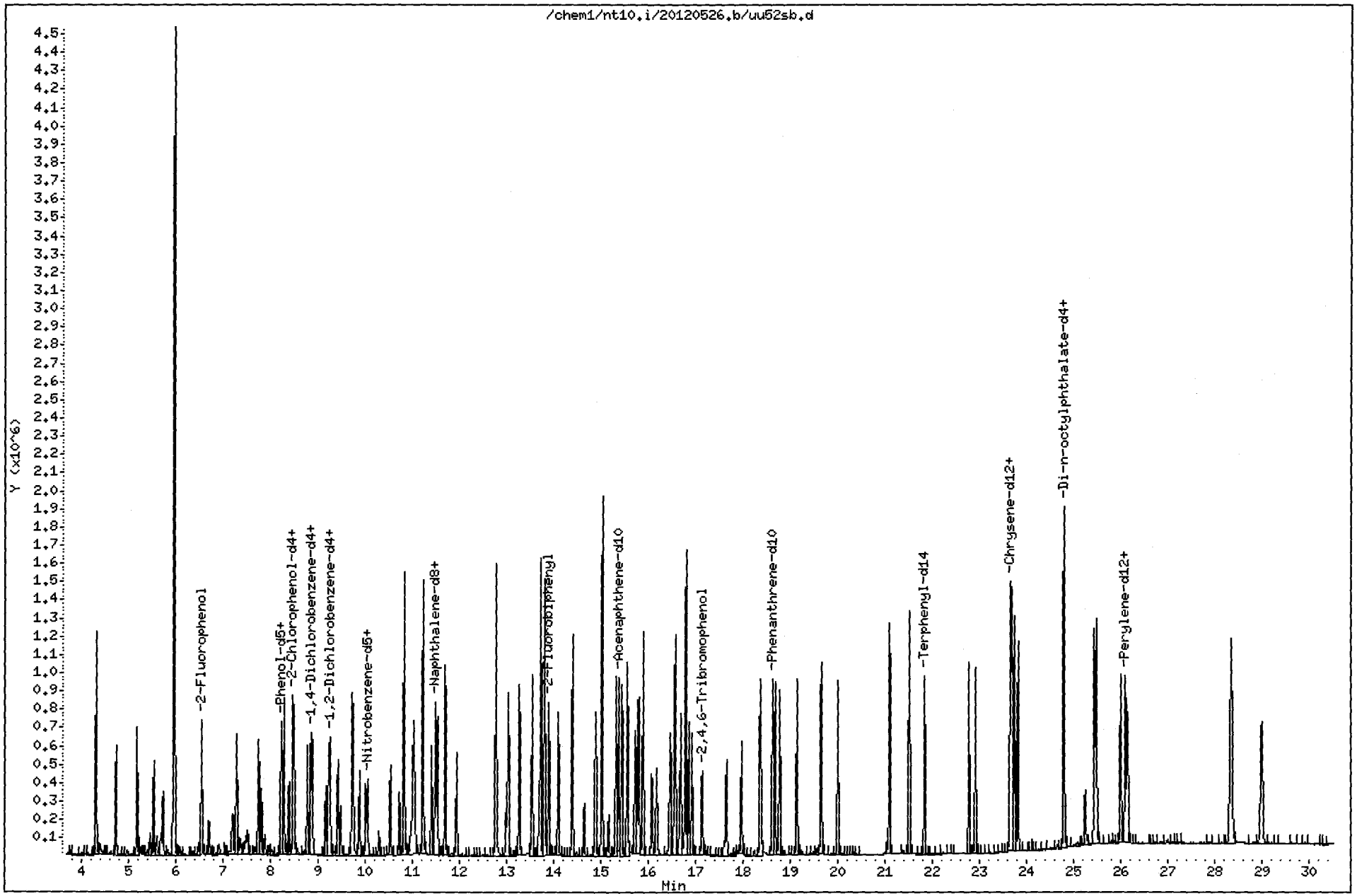
Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52LCSS1 Client Smp ID: UU52LCSS1
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: LCS
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8900

SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	418.1	83.63	30-160
7	1,3-Dichlorobenzen	500.0	359.5	71.89	30-160
9	1,4-Dichlorobenzen	500.0	358.3	71.66	30-160
11	Benzyl alcohol	500.0	406.5	81.29	30-160
12	1,2-Dichlorobenzen	500.0	363.3	72.67	30-160
13	2-Methylphenol	500.0	317.3	63.46	30-160
15	4-Methylphenol	1000	655.7	65.57	30-160
17	Hexachloroethane	500.0	360.0	71.99	30-160
22	2,4-Dimethylphenol	1500	933.2	62.22	30-160
24	Benzoic acid	2750	1328	48.29	30-160
26	1,2,4-Trichloroben	500.0	363.2	72.63	30-160
28	Naphthalene	500.0	399.2	79.83	30-160
30	Hexachlorobutadien	500.0	374.3	74.86	30-160
32	2-Methylnaphthalen	500.0	384.4	76.87	30-160
39	Dimethylphthalate	500.0	423.3	84.67	30-160
40	Acenaphthylene	500.0	394.8	78.96	30-160
44	Acenaphthene	500.0	407.4	81.48	30-160
46	Dibenzofuran	500.0	393.9	78.78	30-160
49	Fluorene	500.0	411.6	82.32	30-160
50	Diethylphthalate	500.0	444.9	88.98	30-160
54	N-Nitrosodiphenyla	500.0	409.4	81.87	30-160
57	Hexachlorobenzene	500.0	404.5	80.90	30-160
58	Pentachlorophenol	1500	1160	77.37	30-160
60	Phenanthrene	500.0	442.8	88.56	30-160
61	Anthracene	500.0	413.0	82.60	30-160
63	Di-n-butylphthalat	500.0	454.0	90.80	30-160
64	Fluoranthene	500.0	464.1	92.82	30-160
65	Pyrene	500.0	449.9	89.99	30-160
67	Butylbenzylphthala	500.0	460.0	91.99	30-160
68	Benzo(a)anthracene	500.0	431.2	86.23	30-160
71	Chrysene	500.0	440.5	88.10	30-160
72	bis(2-Ethylhexyl)p	500.0	466.6	93.32	30-160
73	Di-n-octylphthalat	500.0	459.2	91.84	30-160

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	500.0	401.7	80.34	30-160
78 Indeno(1,2,3-cd)py	500.0	445.4	89.08	30-160
79 Dibenzo(a,h)anthra	500.0	449.0	89.80	30-160
80 Benzo(g,h,i)peryle	500.0	452.2	90.45	30-160
105 1-methylnaphthalen	500.0	375.2	75.03	30-160
187 Total Benzofluoran	1000	887.9	88.79	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	556.0	74.14	30-160
$ 2 Phenol-d5	750.0	576.0	76.80	30-160
$ 5 2-Chlorophenol-d4	750.0	567.4	75.65	30-160
$ 10 1,2-Dichlorobenzen	500.0	360.5	72.10	30-160
$ 18 Nitrobenzene-d5	500.0	363.1	72.62	30-160
$ 36 2-Fluorobiphenyl	500.0	364.5	72.91	30-160
$ 55 2,4,6-Tribromophen	750.0	621.1	82.81	30-160
$ 66 Terphenyl-d14	500.0	415.9	83.17	30-160

Data File: /chem1/nt10.i/20120526.b/uu52sb.d
Date : 26-MAY-2012 16:34
Client ID: UU52LCSS1
Instrument: nt10.i
Sample Info: UU52LCSS1
Volume Injected (uL): 1.0
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - uu52sb.d

Lab ID: UU52LCSS1, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 6/4/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/uu52a.d
Lab Smp Id: UU52A Client Smp ID: MS001-SS-120515
Inj Date : 26-MAY-2012 17:11
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52A,3
Misc Info : 12-8893
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 3
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	104.00000	Weight of sample extracted (g)
M	90.30000	% Moisture

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1	2-Fluorophenol	112	6.552	6.537	(0.740)	110825	1.64654	489.7
$	2	Phenol-d5	99	8.237	8.237	(0.930)	143040	1.70604	507.3
	3	Phenol	94	8.268	8.260	(0.934)	90446	1.01205	301.0
$	5	2-Chlorophenol-d4	132	8.484	8.476	(0.958)	123999	1.68807	502.0
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.856	8.855	(1.000)	192479	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	49316	1.02341	304.3
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.733	9.725	(1.099)	282761	3.84783	1144
$	18 Nitrobenzene-d5	82	10.028	10.027	(0.872)	72049	1.04858	311.8
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.003	11.087	(0.957)	57862	1.31031	389.7
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.496	11.504	(1.000)	766868	4.00000	
	28 Naphthalene	128	11.543	11.542	(1.004)	710552	3.67538	1093
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.043	13.043	(1.135)	77549	0.57701	171.6
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.895	13.902	(0.904)	170901	1.16120	345.3
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	15.032	15.032	(0.978)	48420	0.25394	75.52
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.373	15.373	(1.000)	424558	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	15.442	15.442	(1.005)	43181	0.37545	111.7
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.798	15.798	(1.028)	101884	0.60467	179.8
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	16.563	16.563	(1.077)	52239	0.40462	120.3
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.150	17.142	(1.116)	32386	1.84813	549.6
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.641	18.633	(1.000)	586032	4.00000	
	60 Phenanthrene	178	18.688	18.687	(1.002)	349480	2.31268	687.8
	61 Anthracene	178	18.780	18.780	(1.007)	72099	0.45673	135.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	19.152	19.144	(1.027)	20102	0.13763	J 40.93 (M)
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	21.125	21.101	(1.133)	377509	2.20024	654.3
65	Pyrene	202	21.527	21.519	(0.908)	394416	1.95053	580.1
$ 66	Terphenyl-d14	244	21.844	21.844	(0.921)	156401	1.23469	367.2
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.679	23.679	(0.999)	99573	0.53265	158.4
* 69	Chrysene-d12	240	23.710	23.710	(1.000)	664578	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.757	23.749	(1.002)	234729	1.42735	424.5
72	bis(2-Ethylhexyl)phthalate	149	23.826	23.818	(0.961)	70591	0.47514	141.3
* 134	Di-n-octylphthalate-d4	153	24.794	24.794	(1.000)	1081857	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	26.010	26.002	(0.996)	150542	0.86405	257.0
* 77	Perylene-d12	264	26.110	26.102	(1.000)	673821	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.357	28.342	(1.086)	136614	0.67787	201.6
79	Dibenzo(a,h)anthracene	278	28.365	28.365	(1.086)	29913	0.18842	56.03
80	Benzo(g,h,i)perylene	276	29.018	29.002	(1.111)	158572	0.91756	272.9
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.275	13.275	(1.155)	48825	0.35622	105.9
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	25.452	25.483	(0.975)	358743	1.91875	570.6
99	Perylene	252	Compound Not Detected.					
98	Retene	219	22.131	22.131	(0.933)	23982	0.25469	75.74

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52a.d
Lab Smp Id: UU52A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8893

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS001-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	192479	1.56
27 Naphthalene-d8	730932	365466	1461864	766868	4.92
42 Acenaphthene-d10	420698	210349	841396	424558	0.92
59 Phenanthrene-d10	638950	319475	1277900	586032	-8.28
69 Chrysene-d12	645065	322532	1290130	664578	3.02
134 Di-n-octylphthala	1016118	508059	2032236	1081857	6.47
77 Perylene-d12	650033	325016	1300066	673821	3.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	-0.07
42 Acenaphthene-d10	15.37	14.87	15.87	15.37	0.00
59 Phenanthrene-d10	18.63	18.13	19.13	18.64	0.04
69 Chrysene-d12	23.71	23.21	24.21	23.71	0.00
134 Di-n-octylphthala	24.79	24.29	25.29	24.79	0.00
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

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

Analytical Resources, Inc.

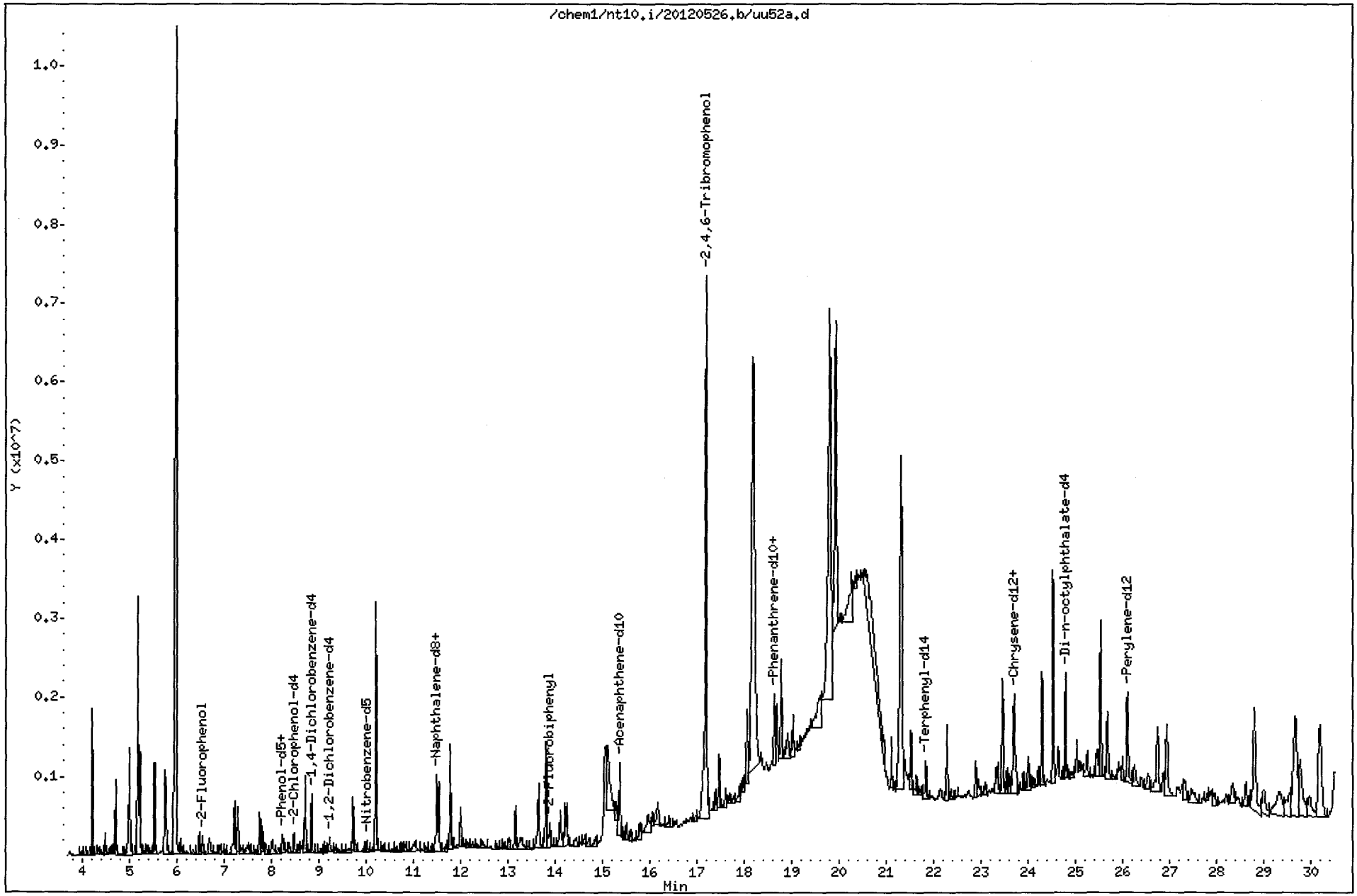
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52A Client Smp ID: MS001-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8893

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	743.5	489.7	65.86	30-160
$ 2 Phenol-d5	743.5	507.3	68.24	30-160
$ 5 2-Chlorophenol-d4	743.5	502.0	67.52	30-160
$ 10 1,2-Dichlorobenzen	495.6	304.3	61.40	30-160
$ 18 Nitrobenzene-d5	495.6	311.8	62.92	30-160
$ 36 2-Fluorobiphenyl	495.6	345.3	69.67	30-160
$ 55 2,4,6-Tribromophen	743.5	549.6	73.93	30-160
$ 66 Terphenyl-d14	495.6	367.2	74.08	30-160

Data File: /chem1/nt10.i/20120526.b/uu52a.d
Date : 26-MAY-2012 17:11
Client ID: MS001-SS-120515
Sample Info: UU52A,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52 : 00598

Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

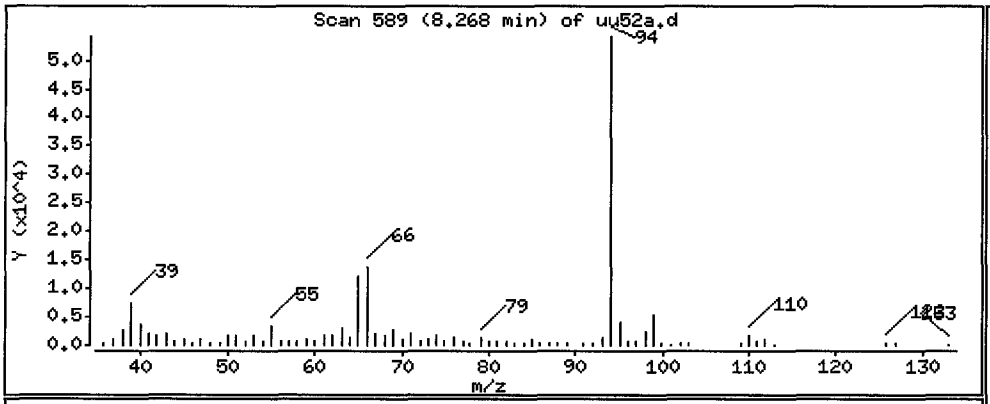
Operator: VTS/YZ

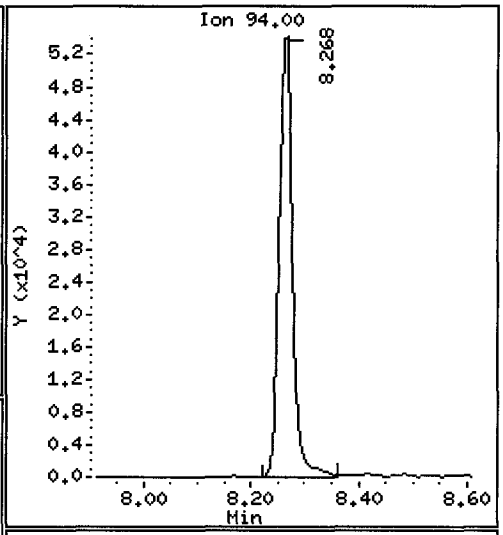
Column phase: ZB-5msi

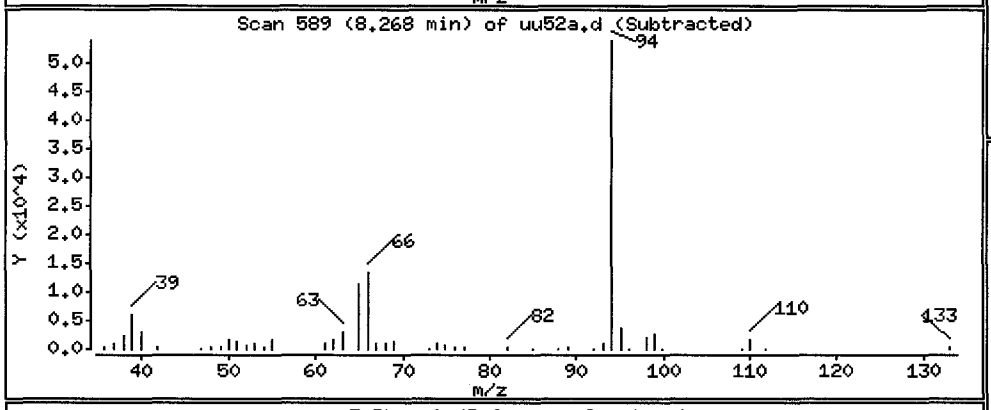
Column diameter: 0.25

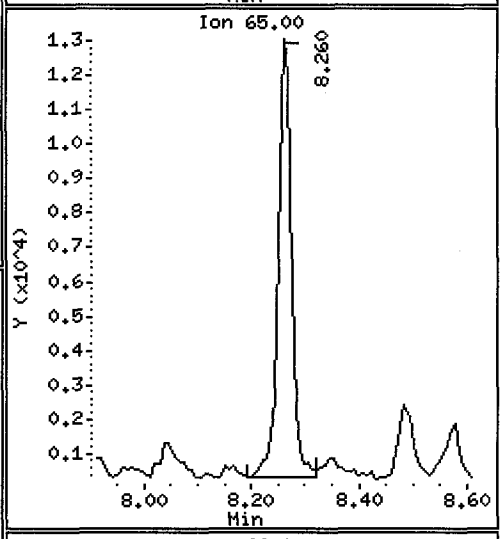
3 Phenol

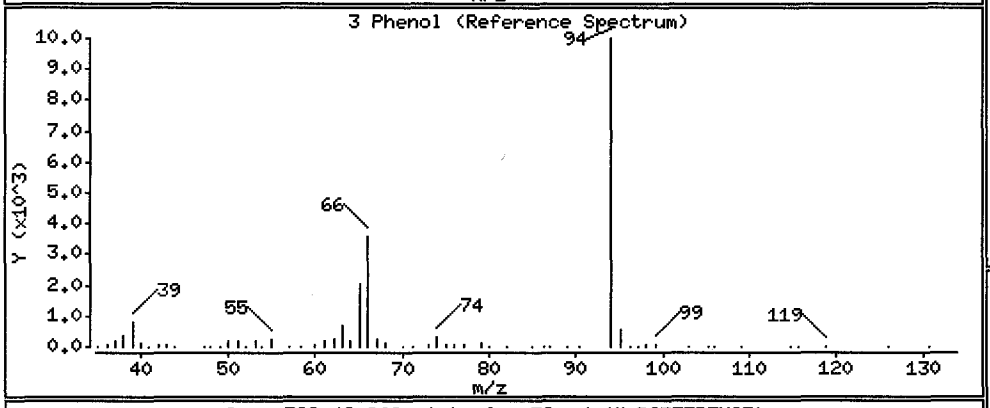
Concentration: 301.0 ug/kg

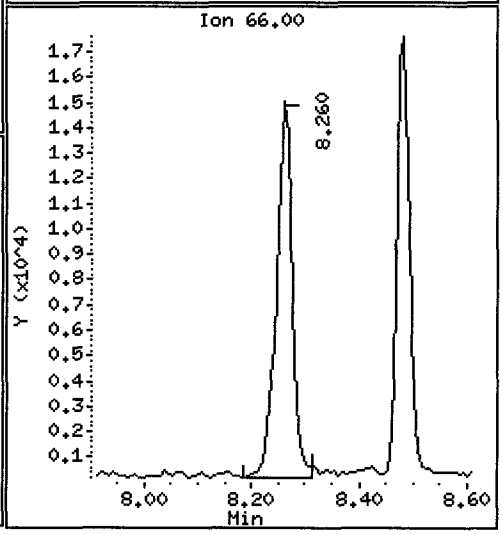


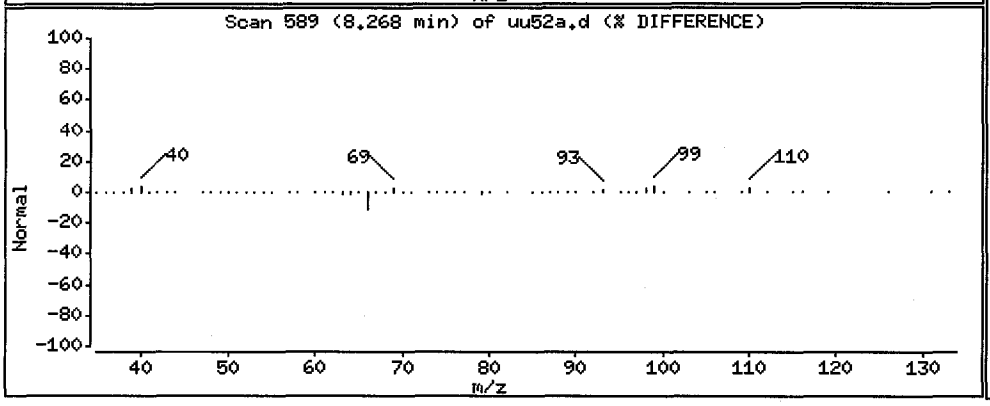












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

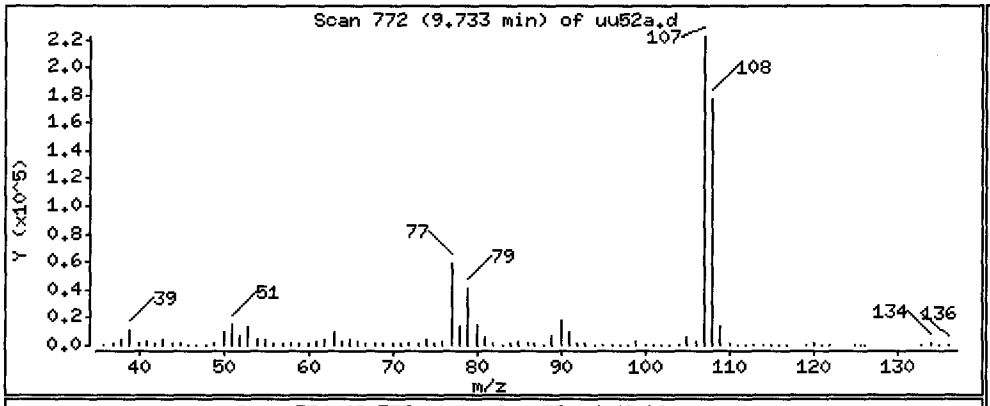
Client ID: MS001-SS-120515 Instrument: nt10.i

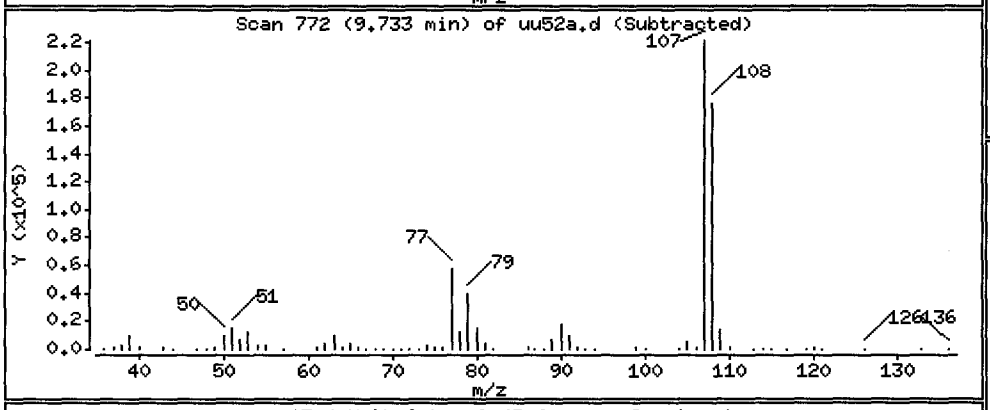
Sample Info: UU52A,3

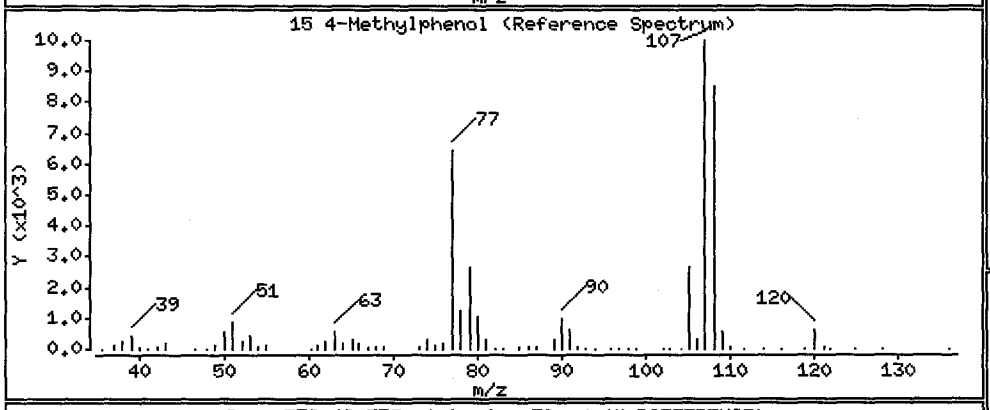
Volume Injected (uL): 1.0 Operator: VTS/YZ

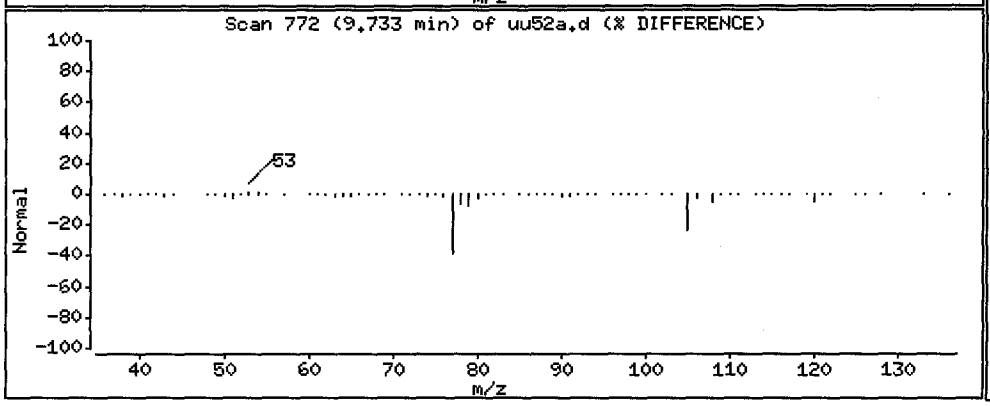
Column phase: ZB-5msi Column diameter: 0.25

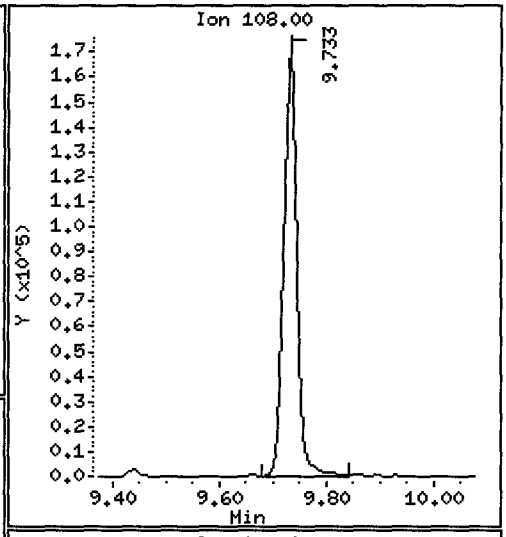
15 4-Methylphenol Concentration: 1144 ug/kg

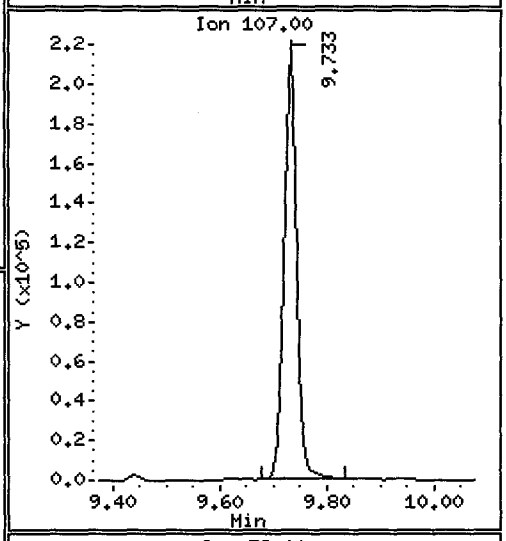


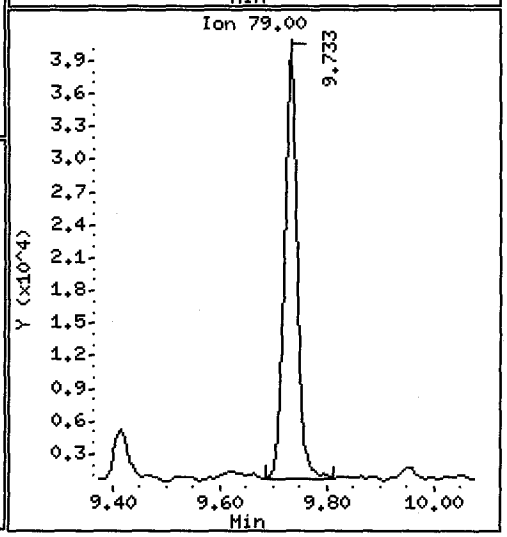












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

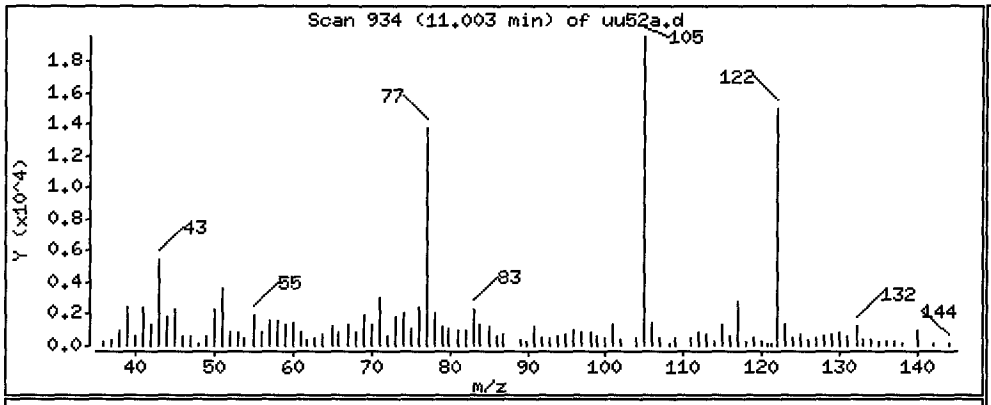
Operator: VTS/YZ

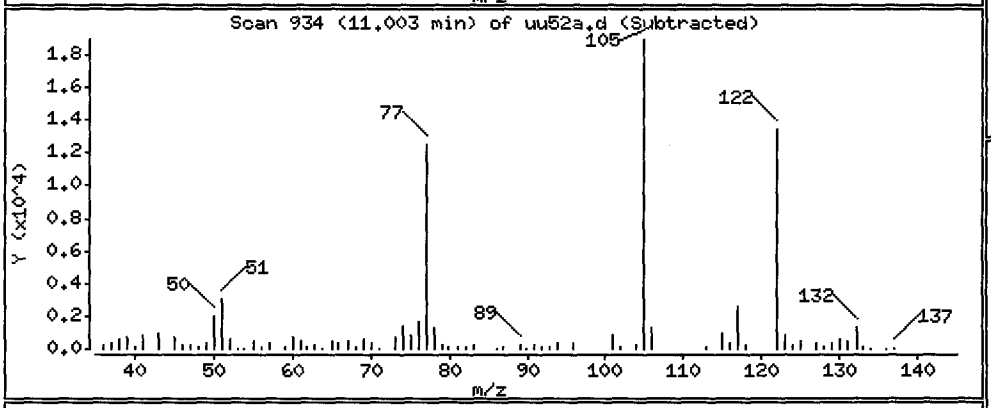
Column phase: ZB-5msi

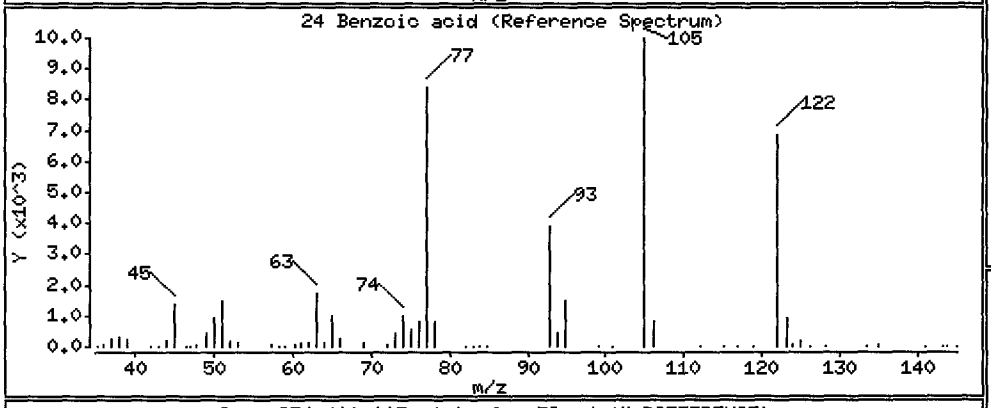
Column diameter: 0.25

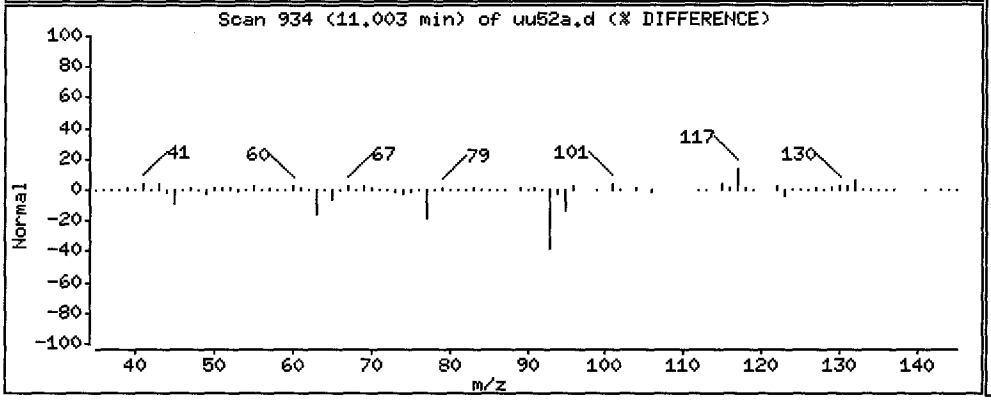
24 Benzoic acid

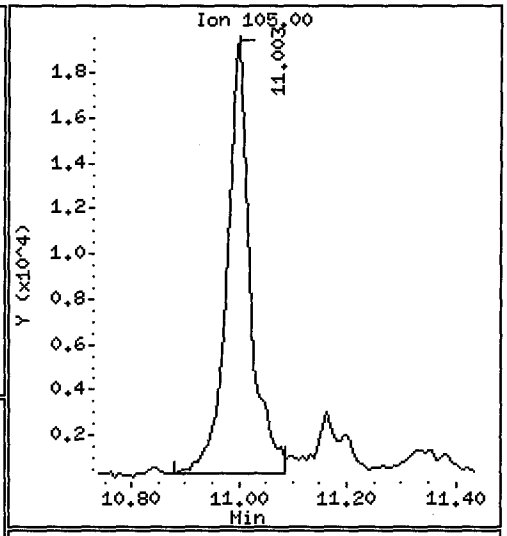
Concentration: 389.7 ug/kg

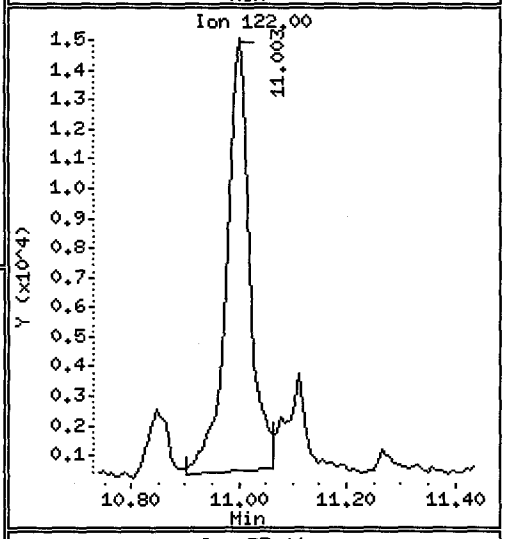


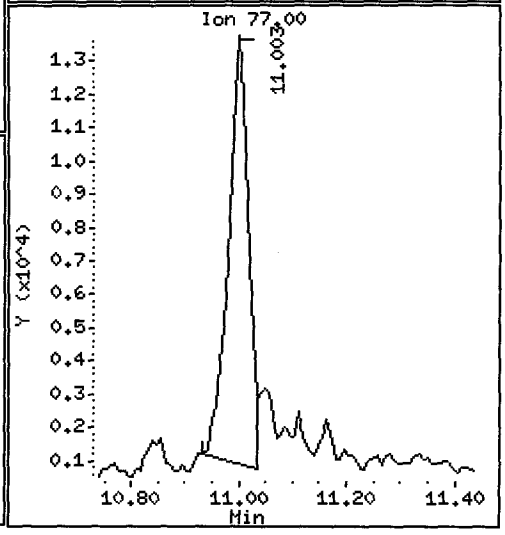












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

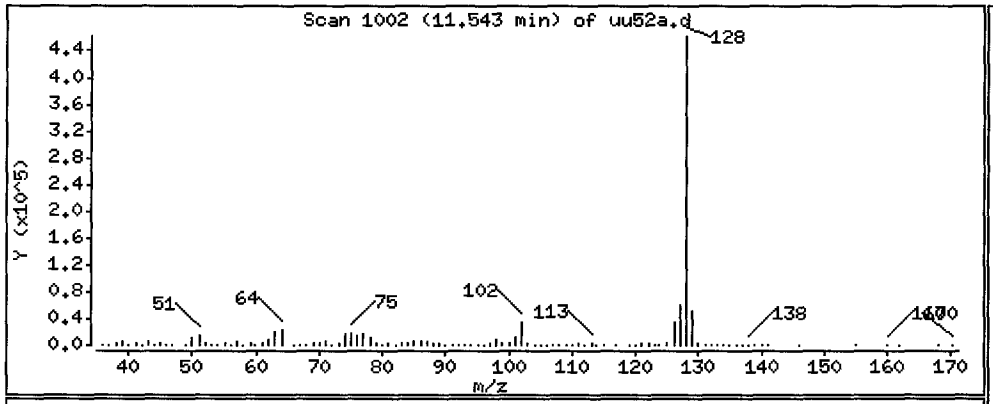
Operator: VTS/YZ

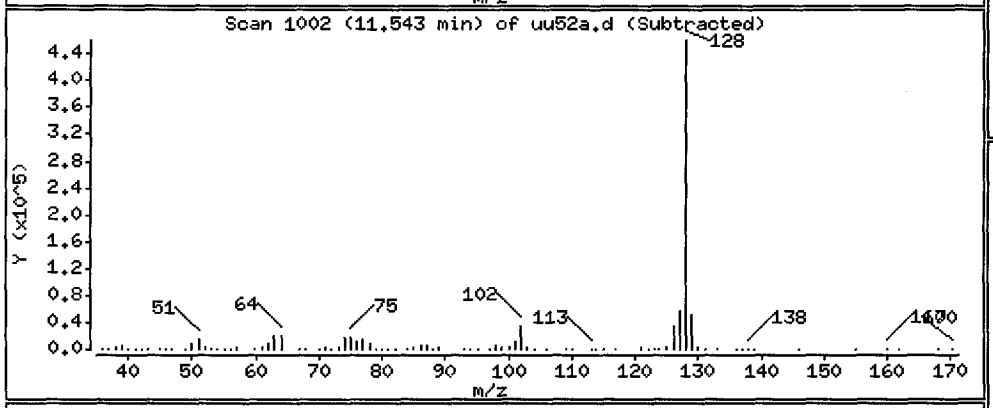
Column phase: ZB-5msi

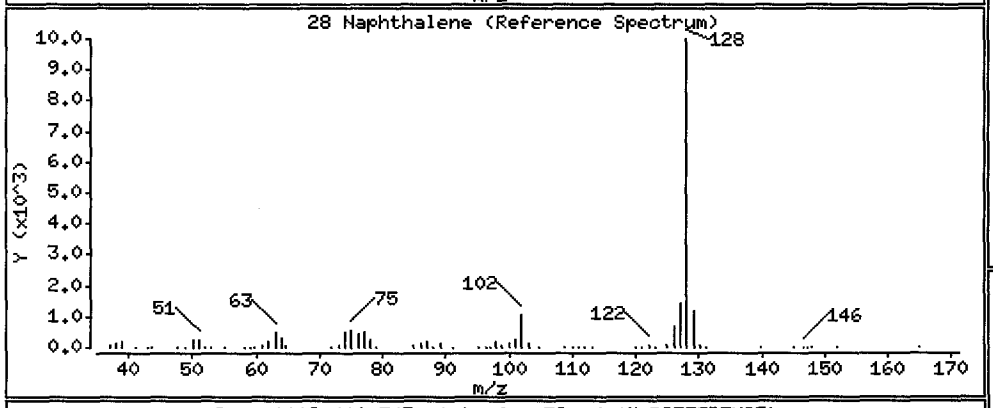
Column diameter: 0.25

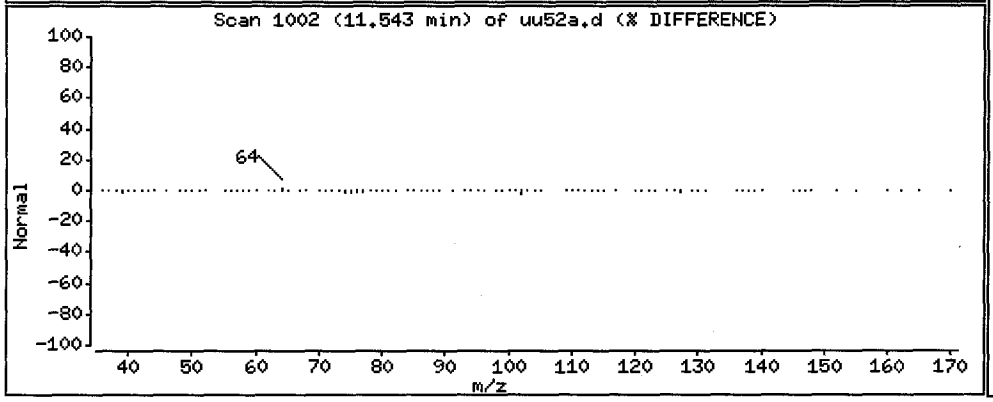
28 Naphthalene

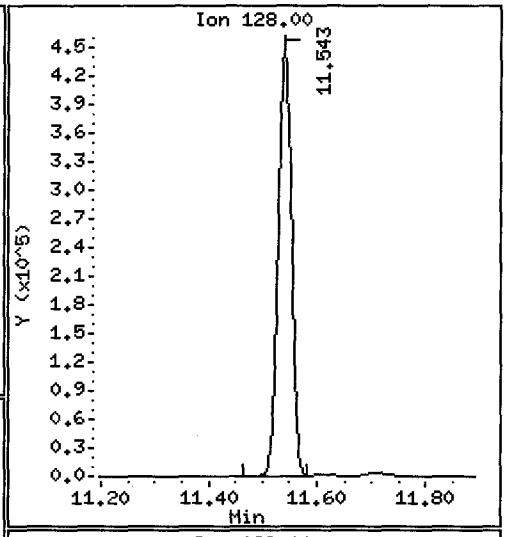
Concentration: 1093 ug/kg

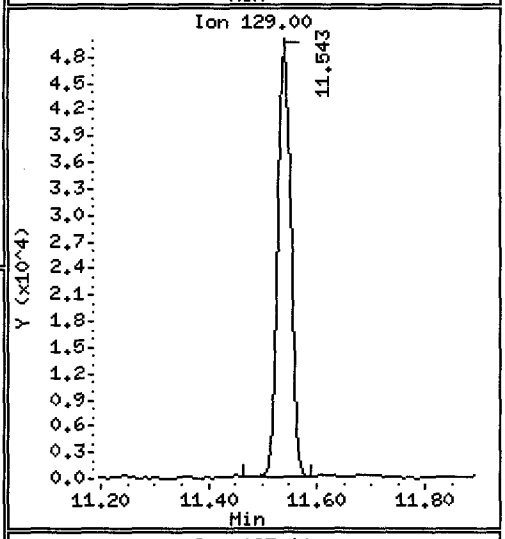


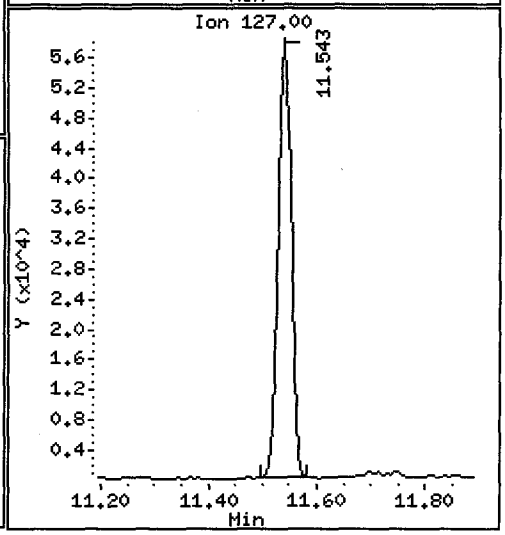












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

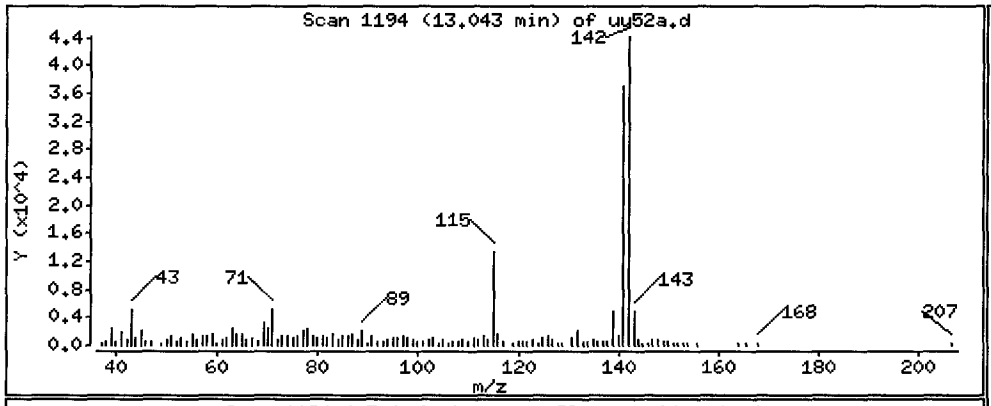
Client ID: MS001-SS-120515 Instrument: nt10.i

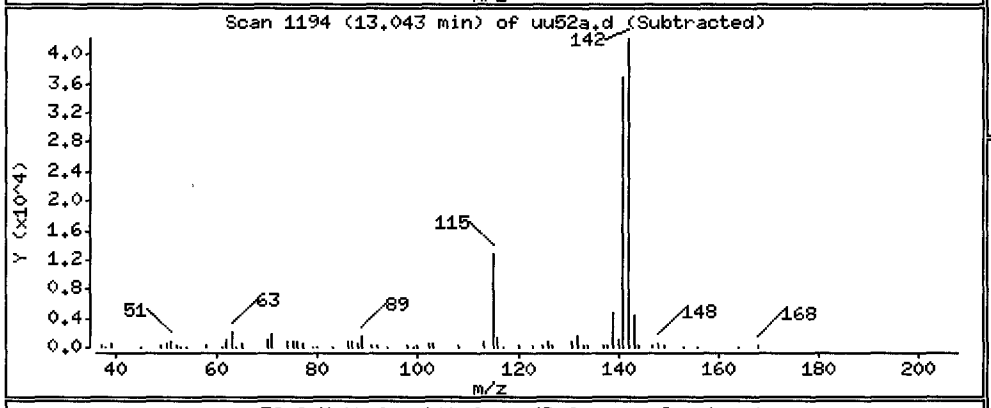
Sample Info: UU52A,3

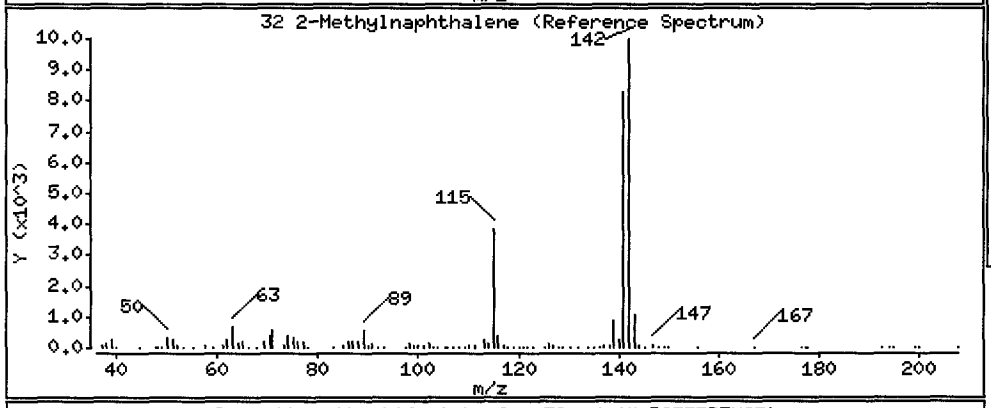
Volume Injected (uL): 1.0 Operator: VTS/YZ

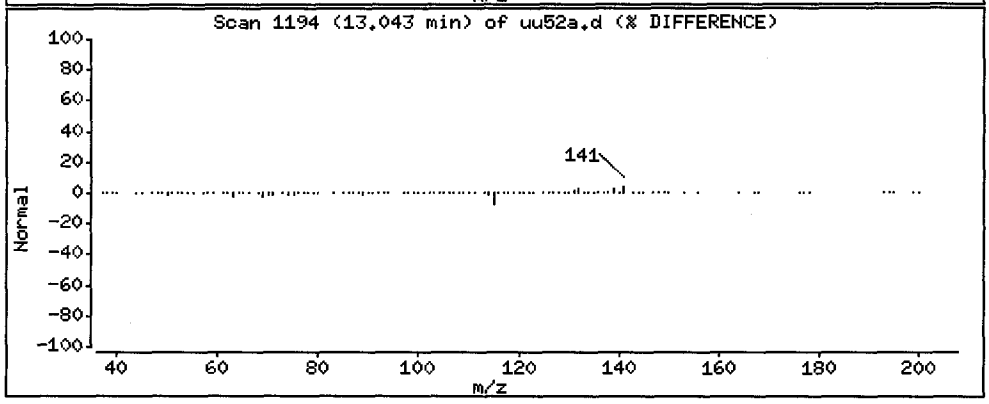
Column phase: ZB-5msi Column diameter: 0.25

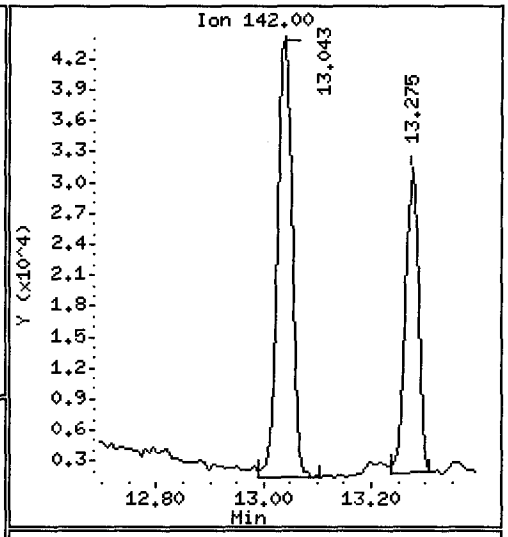
32 2-Methylnaphthalene Concentration: 171.6 ug/kg

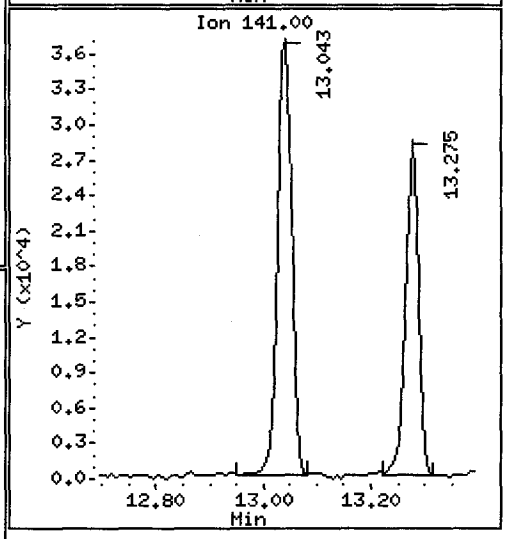












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

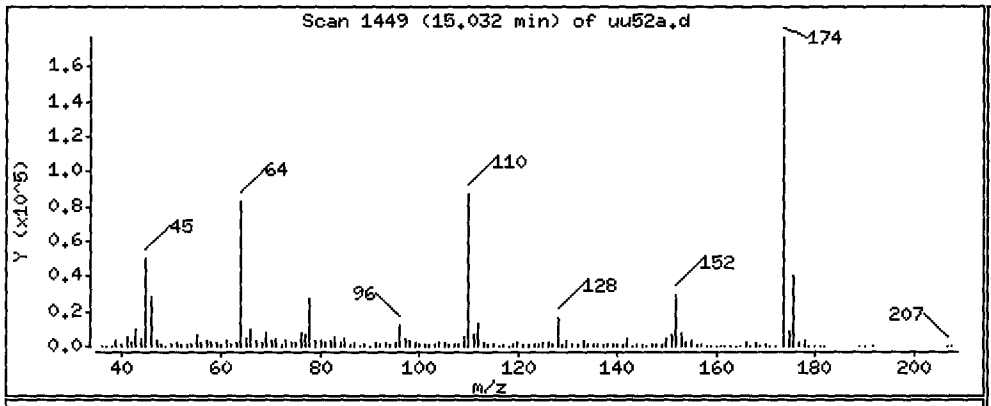
Client ID: MS001-SS-120515 Instrument: nt10.i

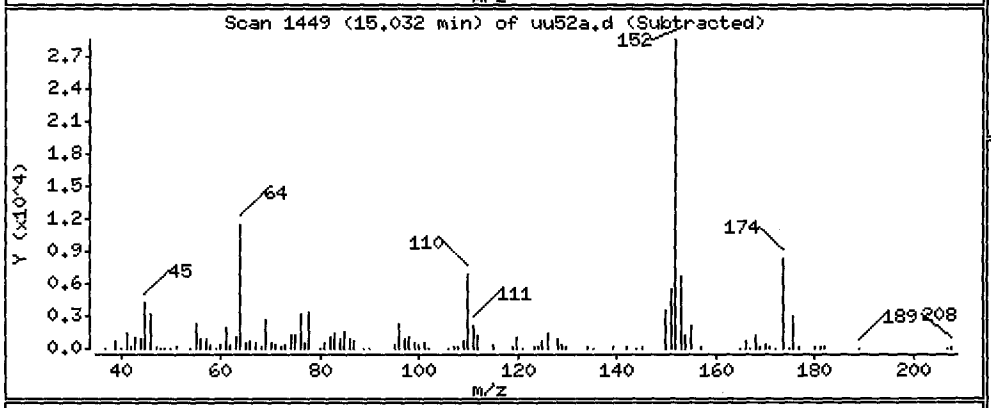
Sample Info: UU52A,3

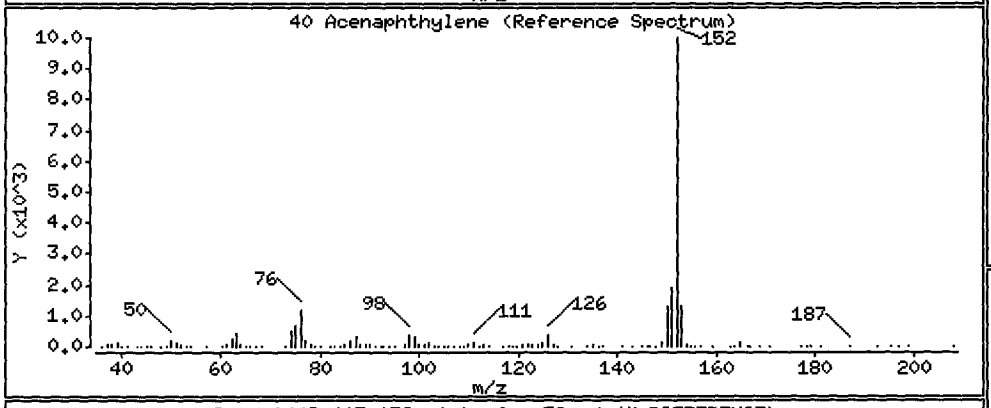
Volume Injected (uL): 1.0 Operator: VTS/YZ

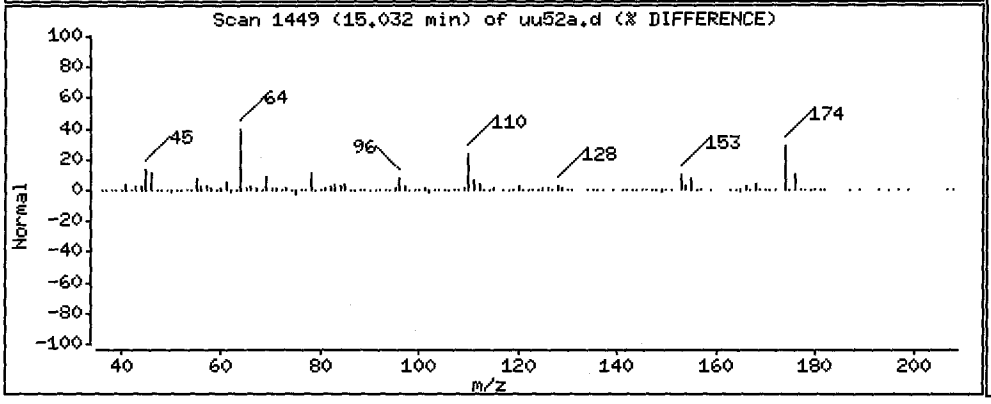
Column phase: ZB-5msi Column diameter: 0.25

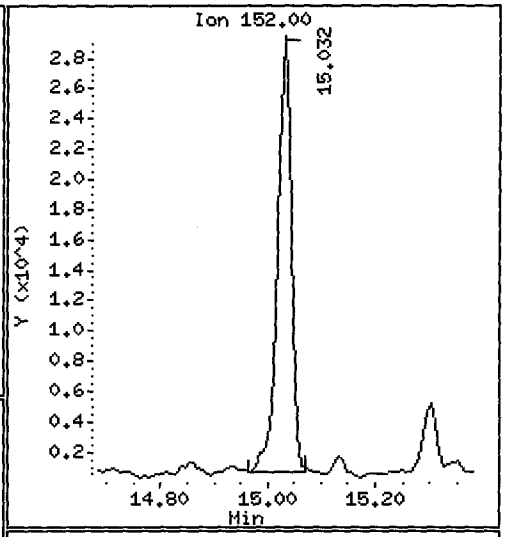
40 Acenaphthylene Concentration: 75.52 ug/kg

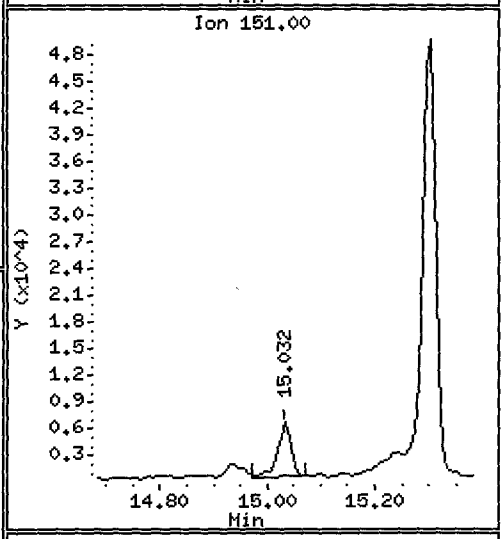


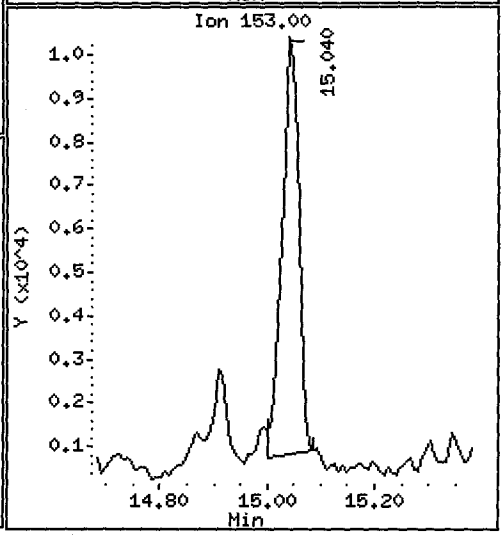












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

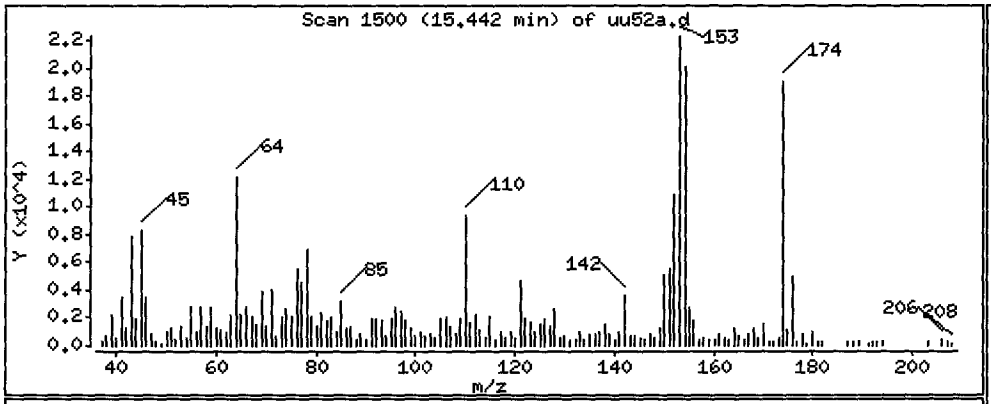
Operator: VTS/YZ

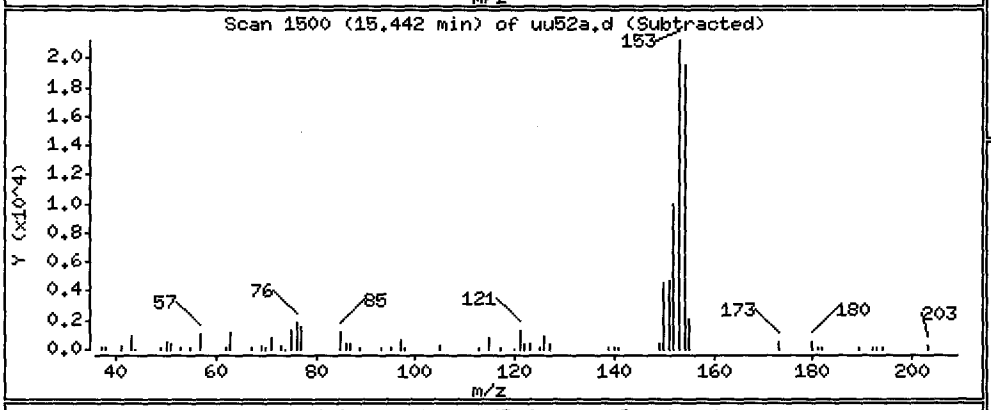
Column phase: ZB-5msi

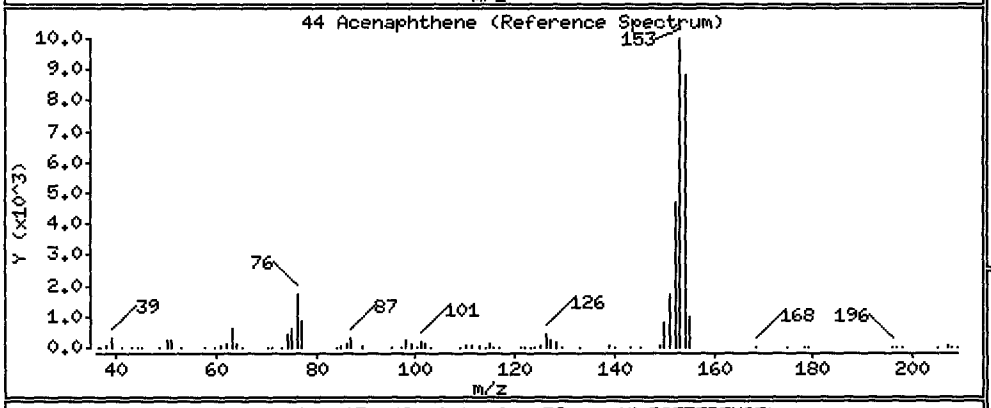
Column diameter: 0.25

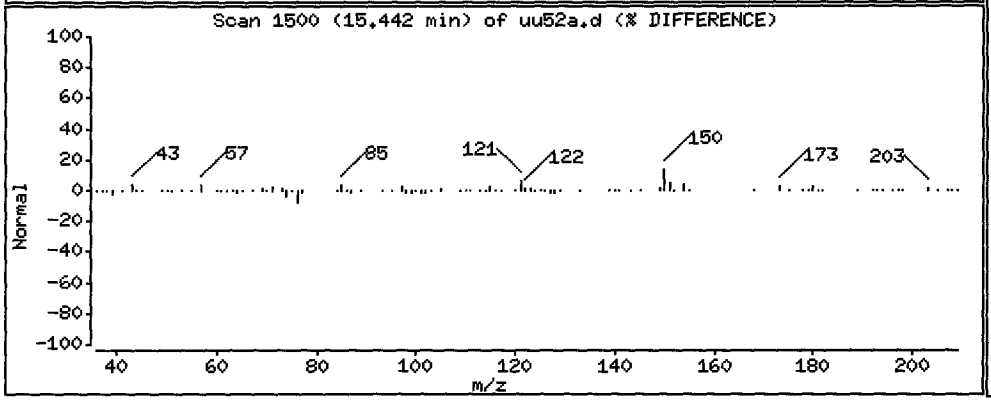
44 Acenaphthene

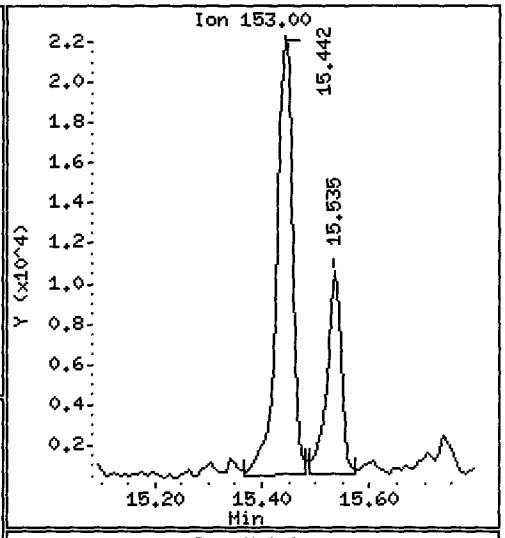
Concentration: 111.7 ug/kg

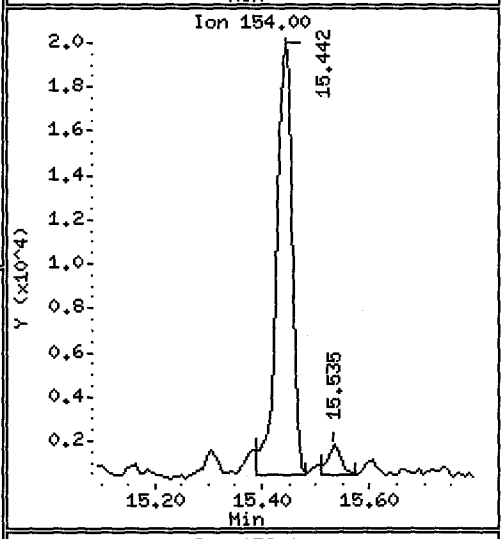


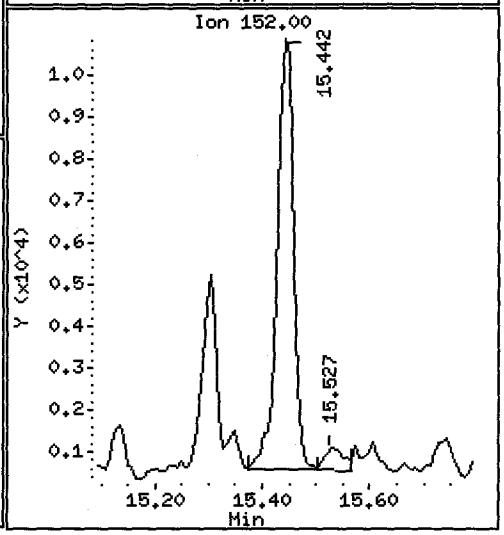












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

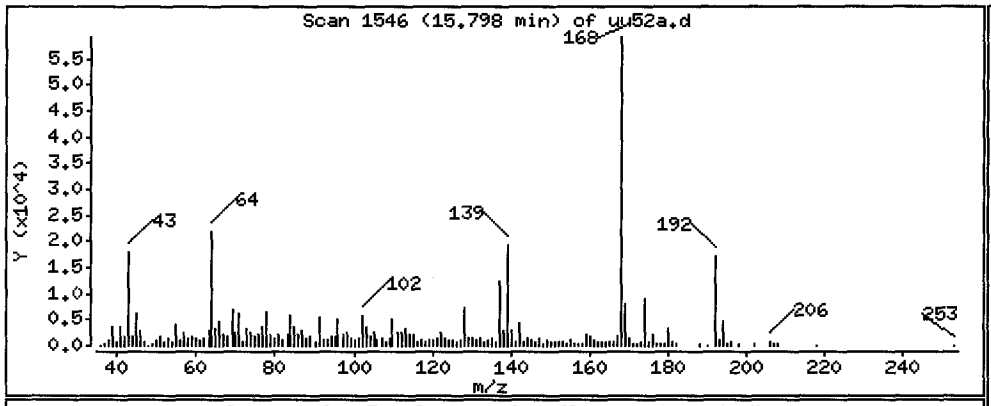
Client ID: MS001-SS-120515 Instrument: nt10.i

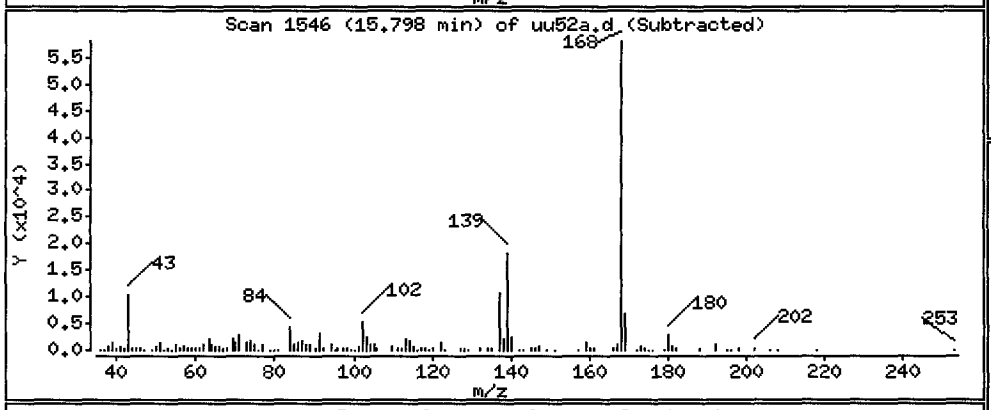
Sample Info: UU52A,3

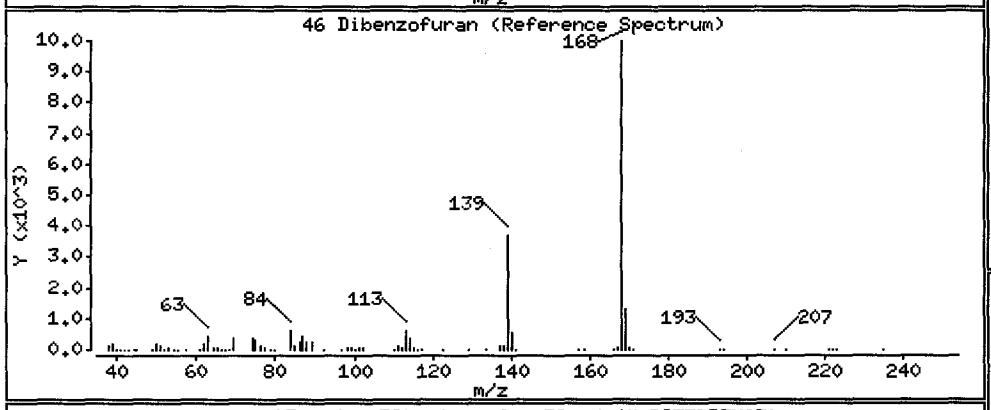
Volume Injected (uL): 1.0 Operator: VTS/YZ

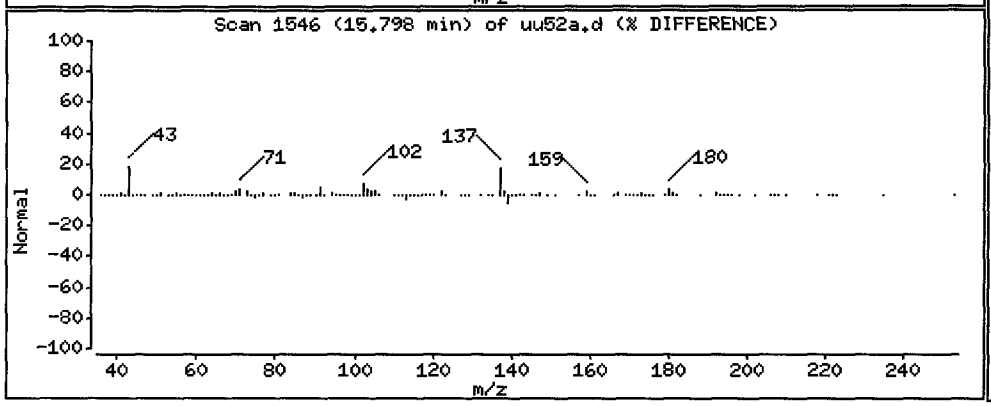
Column phase: ZB-5msi Column diameter: 0.25

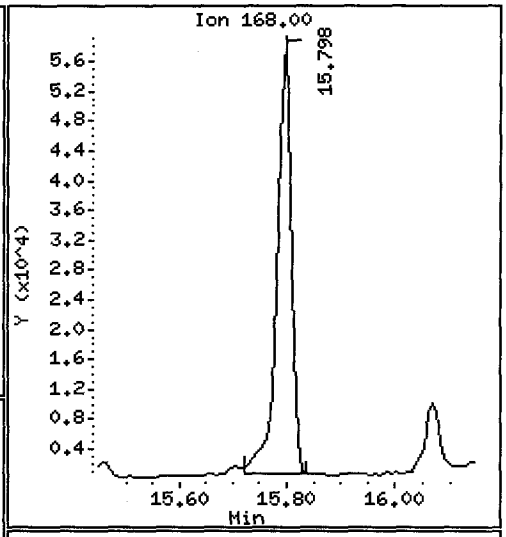
46 Dibenzofuran Concentration: 179.8 ug/kg

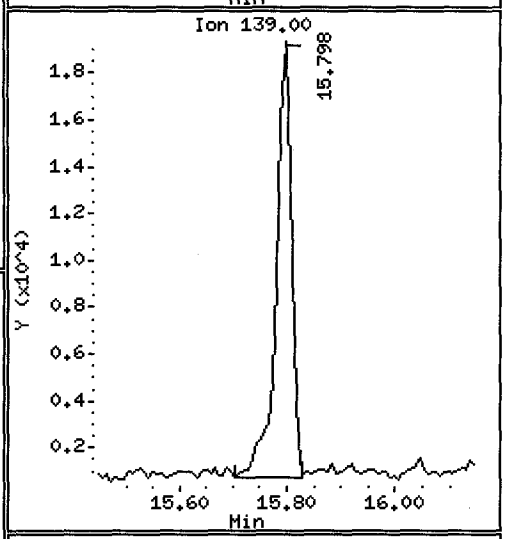


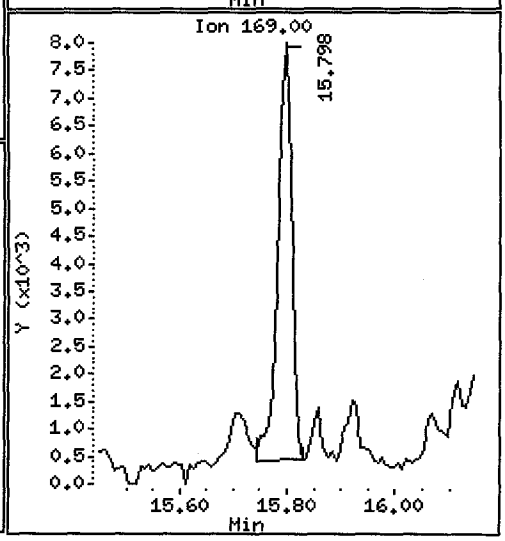












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

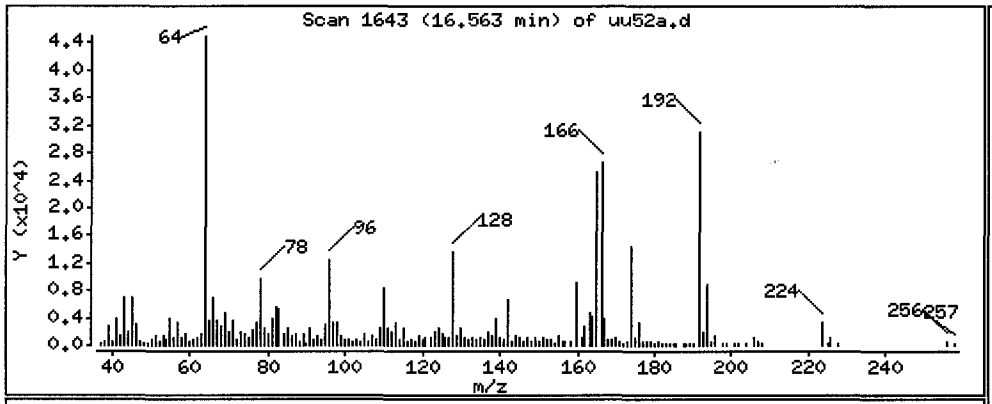
Operator: VTS/YZ

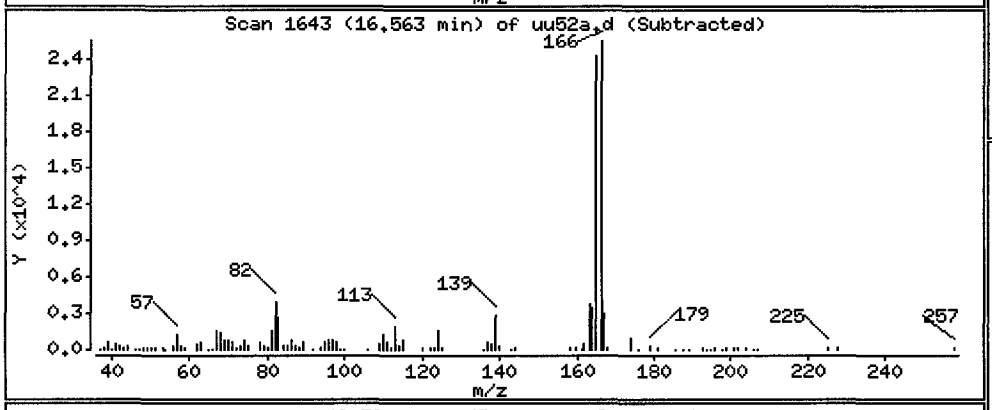
Column phase: ZB-5msi

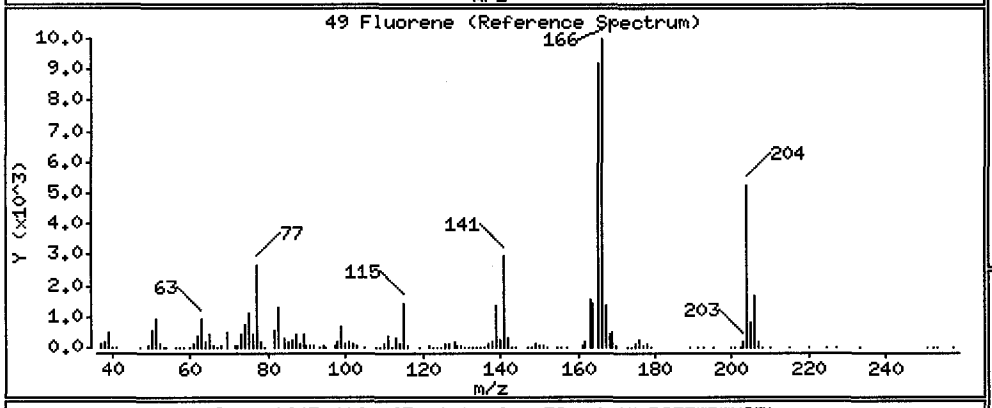
Column diameter: 0.25

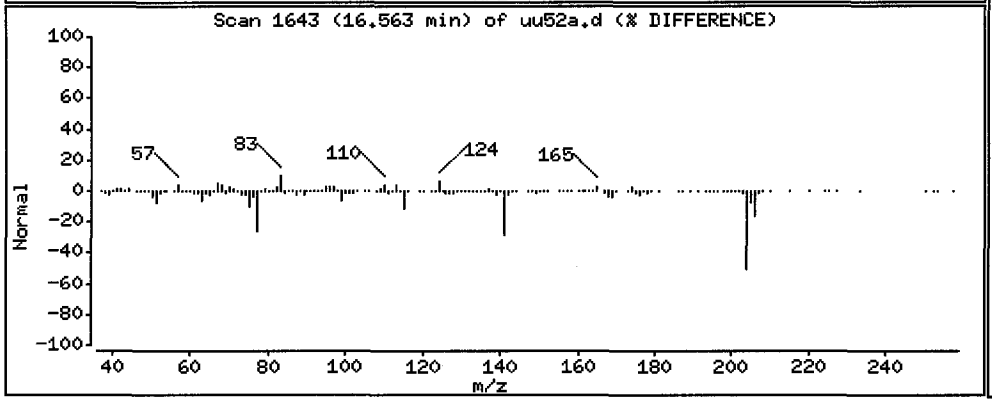
49 Fluorene

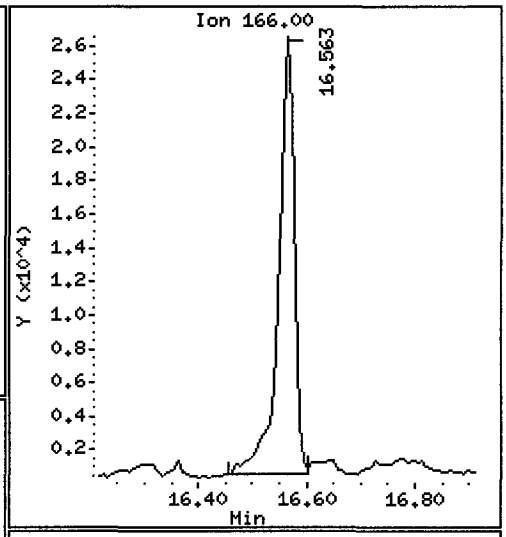
Concentration: 120.3 ug/kg

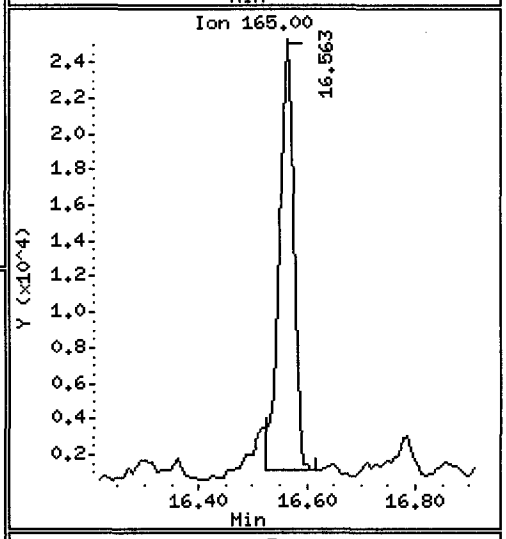


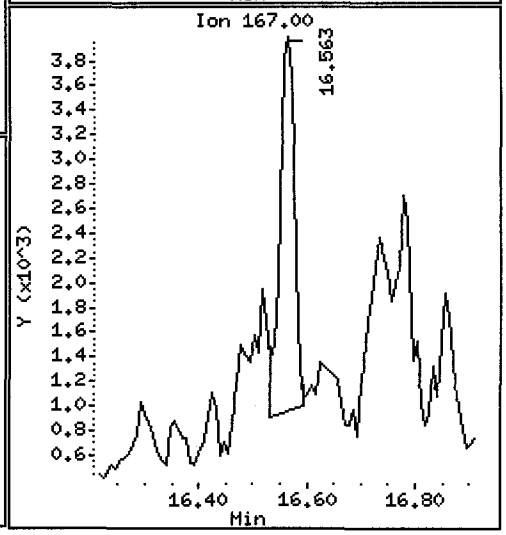












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

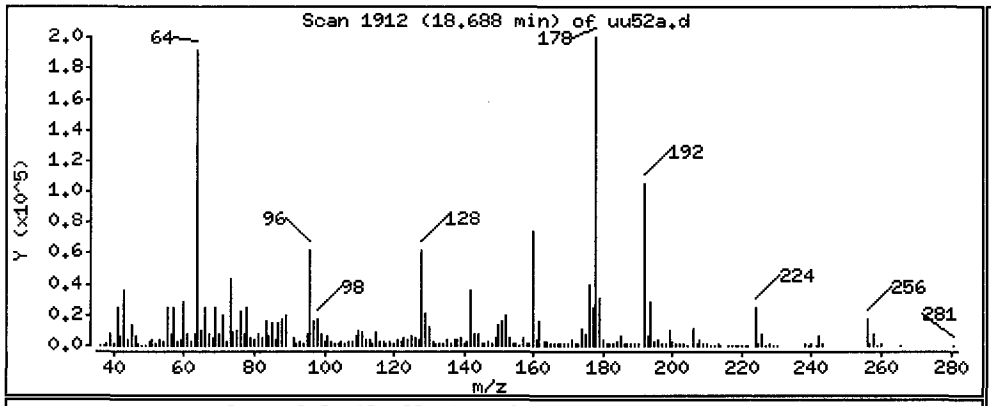
Operator: VTS/YZ

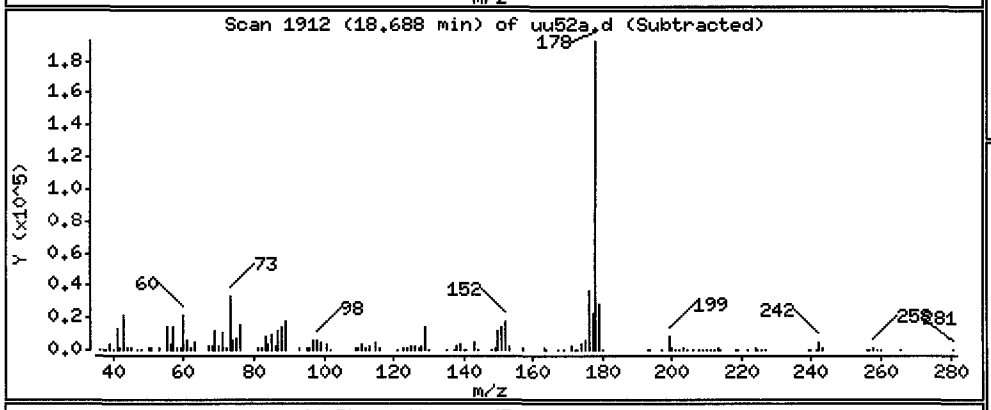
Column phase: ZB-5msi

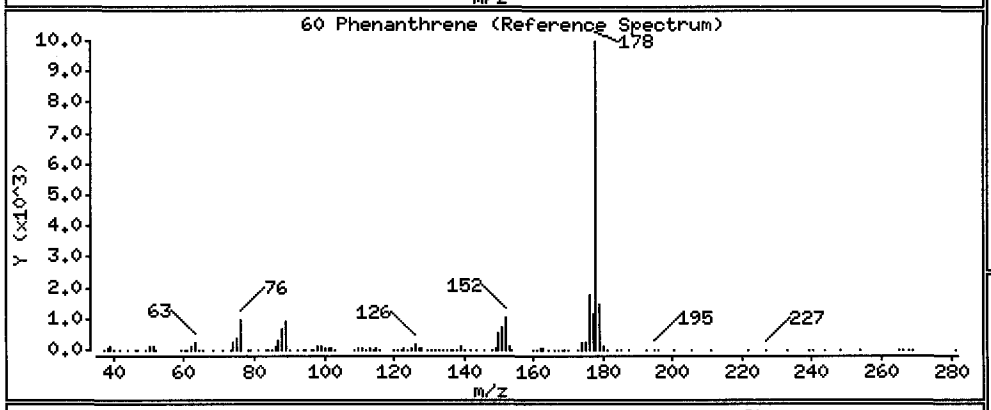
Column diameter: 0.25

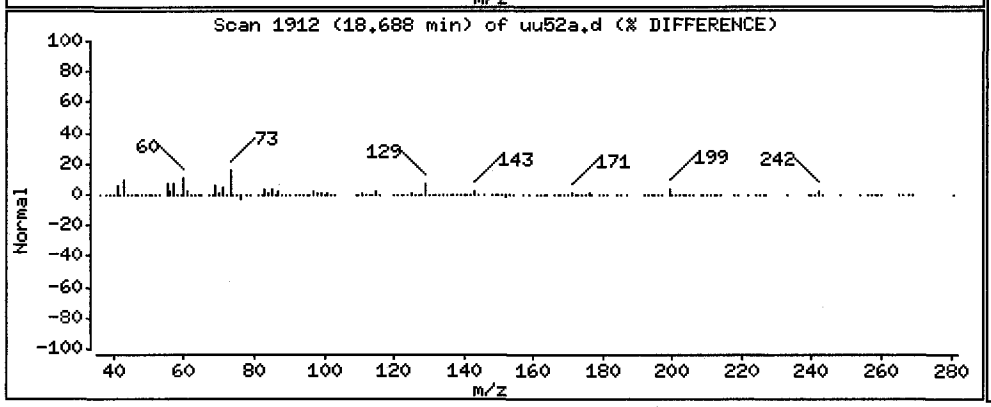
60 Phenanthrene

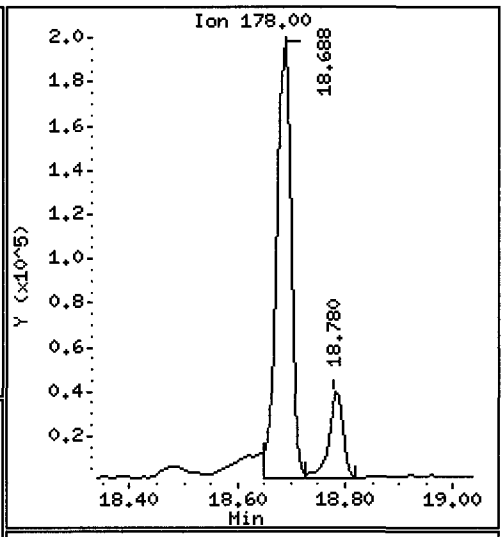
Concentration: 687.8 ug/kg

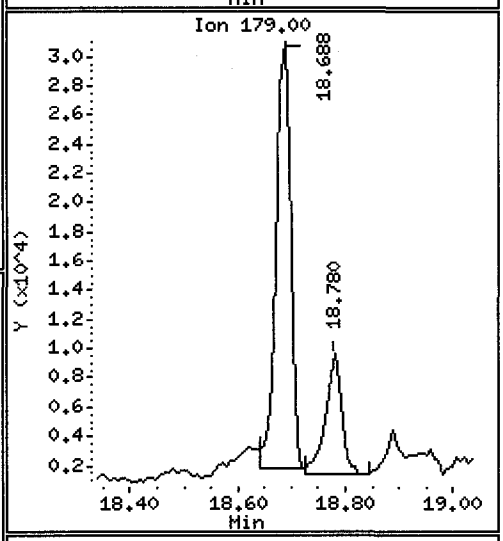


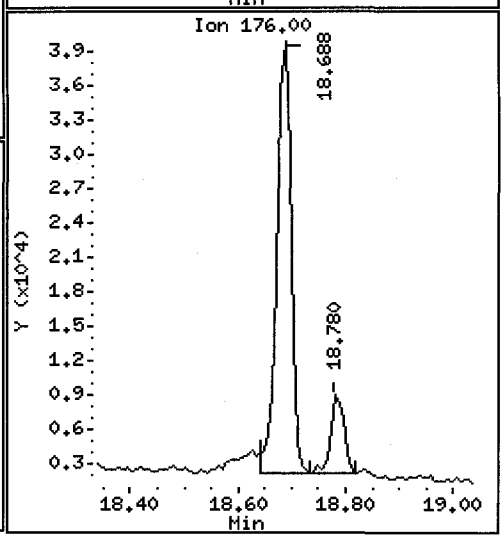












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

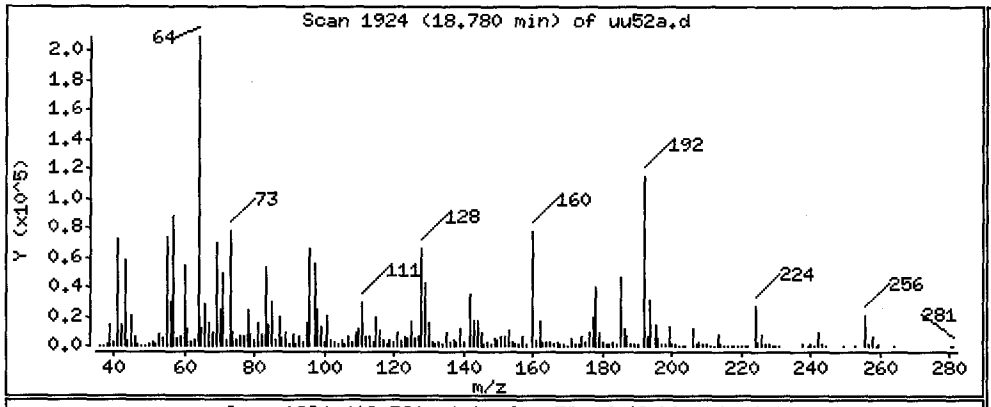
Operator: VTS/YZ

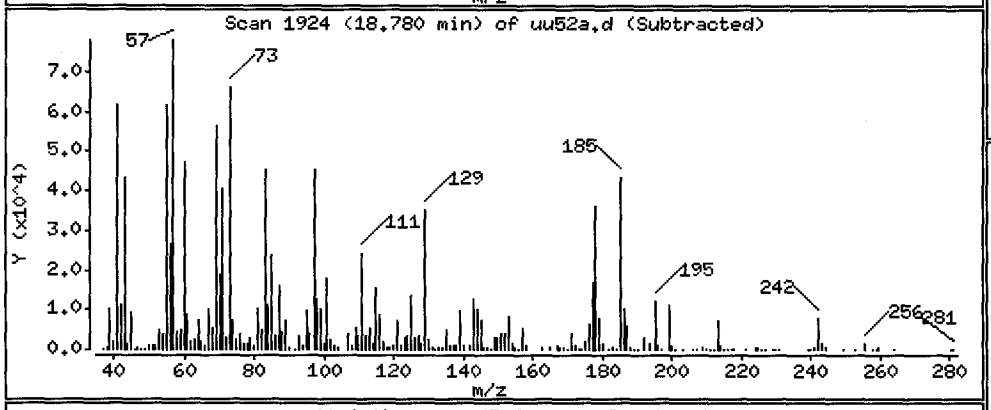
Column phase: ZB-5msi

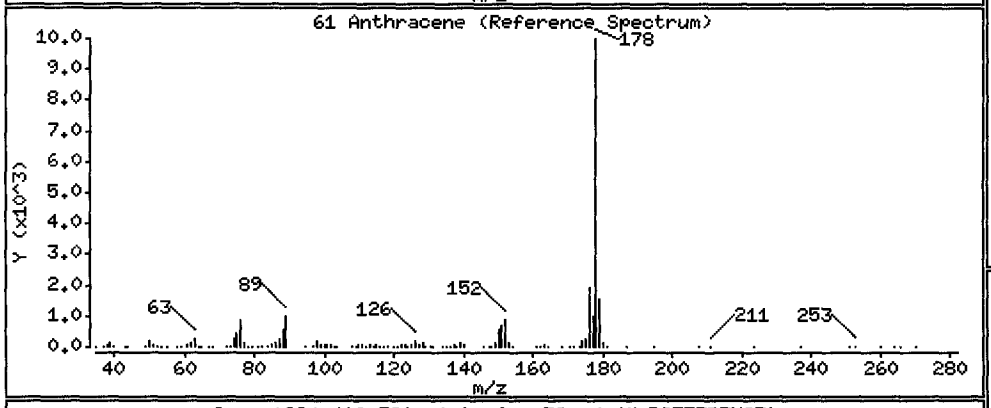
Column diameter: 0.25

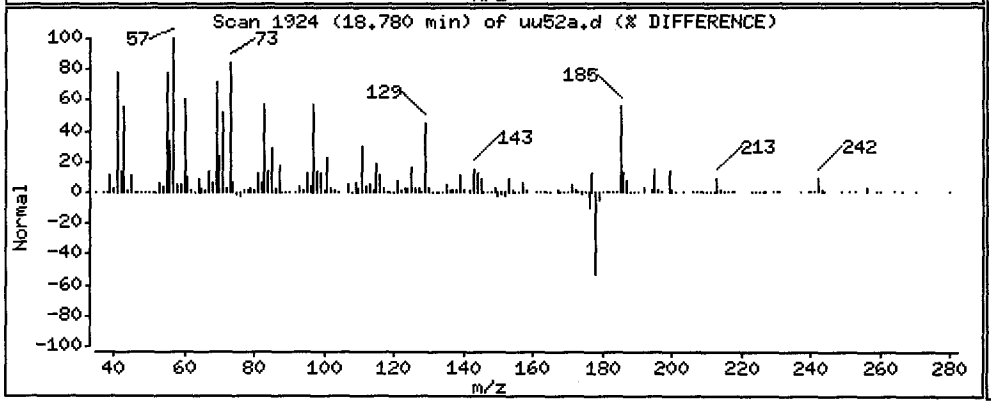
61 Anthracene

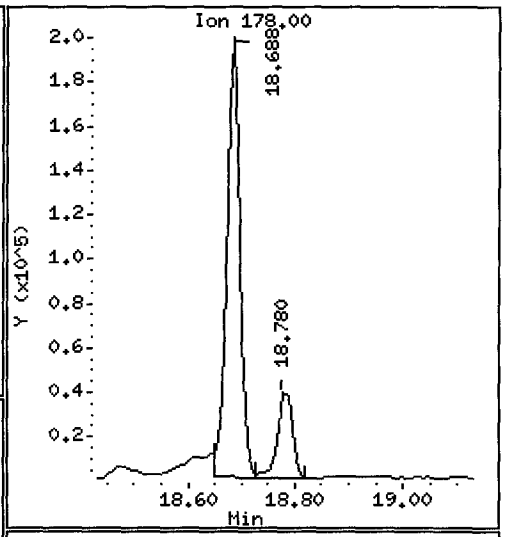
Concentration: 135.8 ug/kg

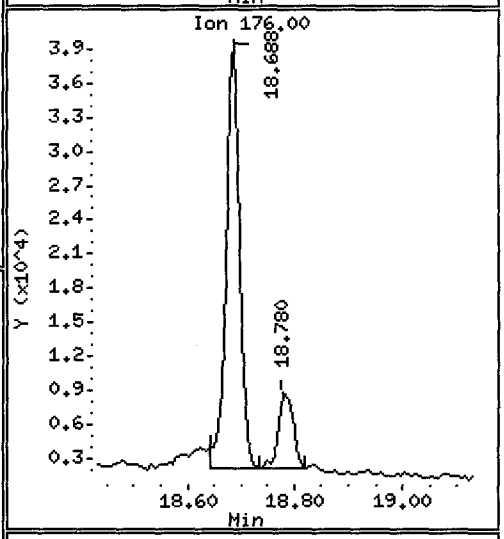


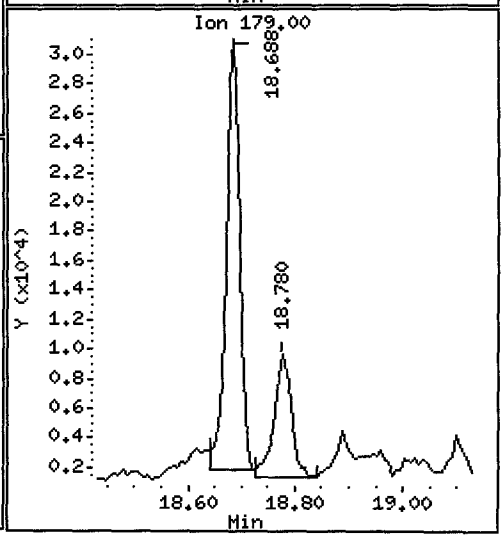












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

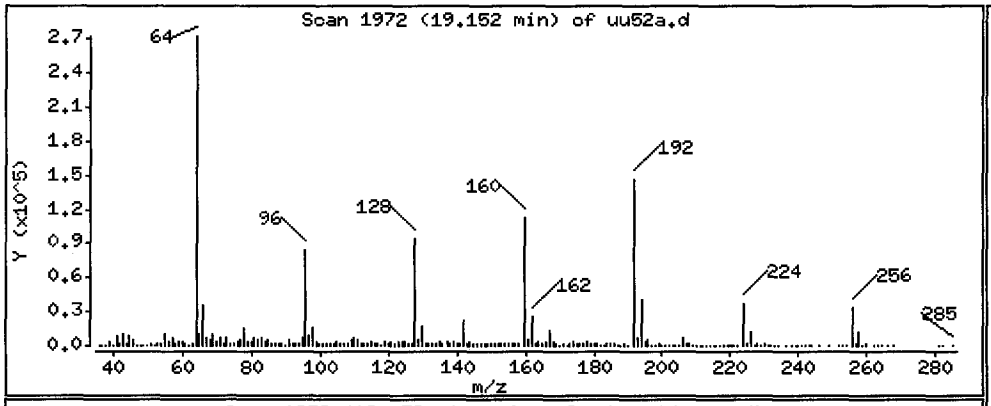
Operator: VTS/YZ

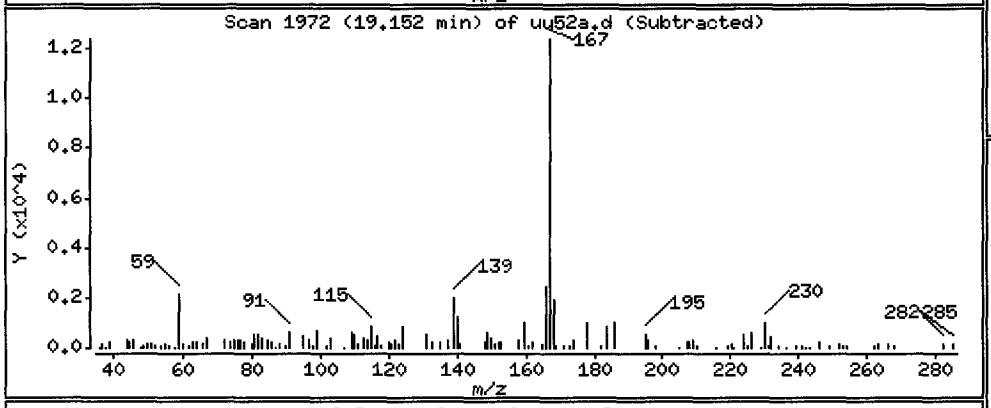
Column phase: ZB-5msi

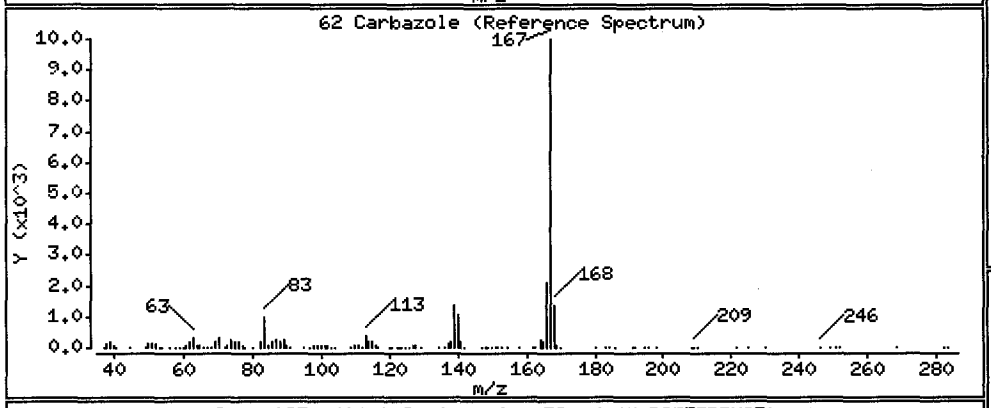
Column diameter: 0.25

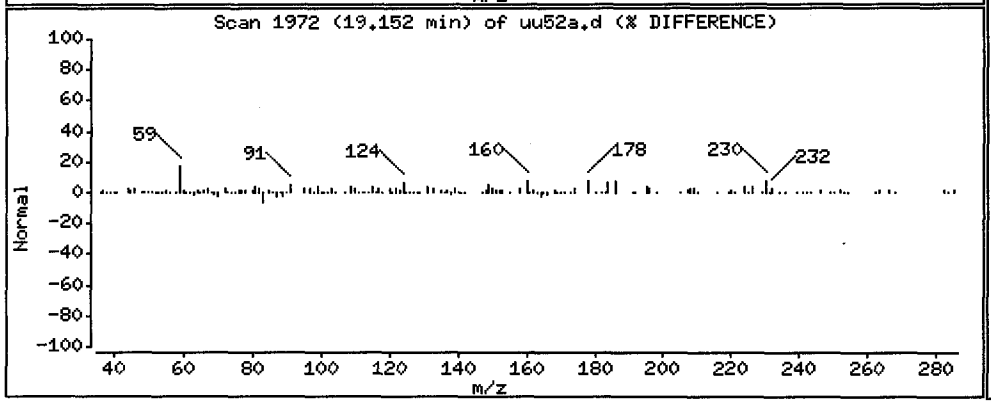
62 Carbazole

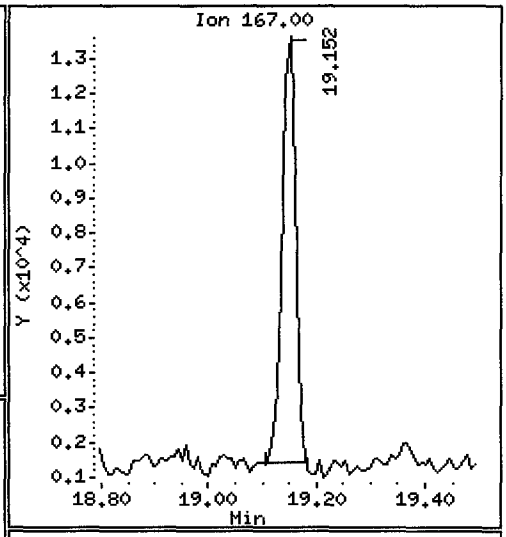
Concentration: 40.93 ug/kg

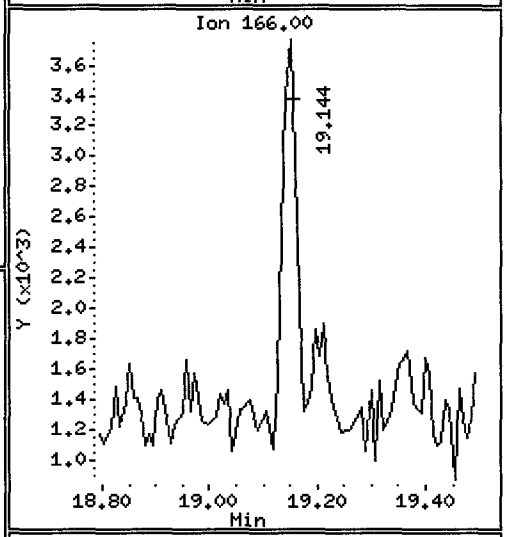


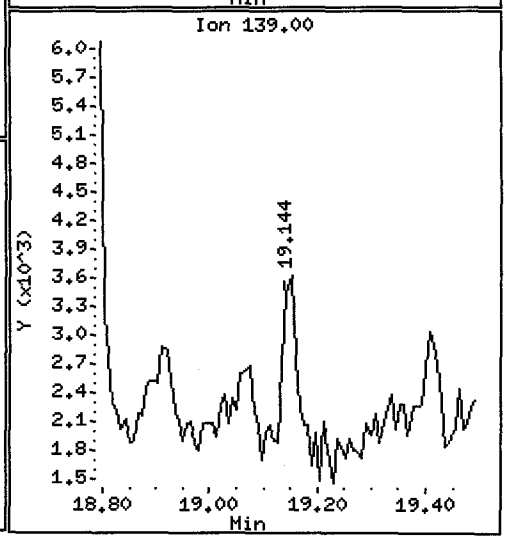












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

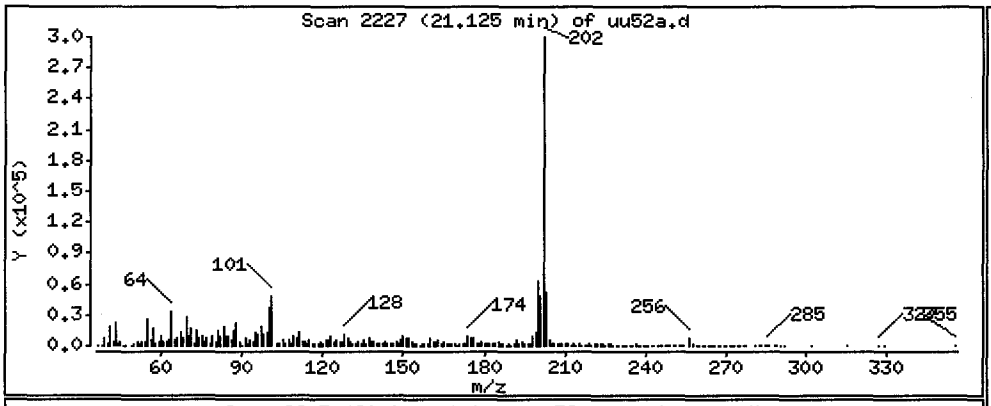
Operator: VTS/YZ

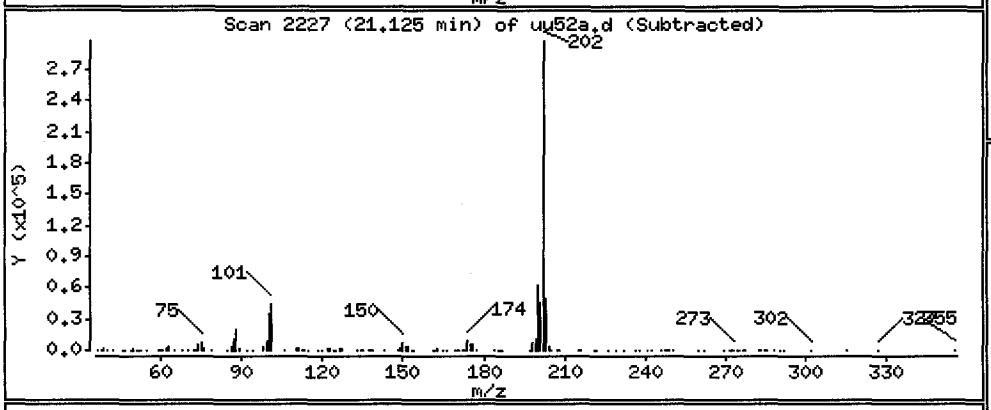
Column phase: ZB-5msi

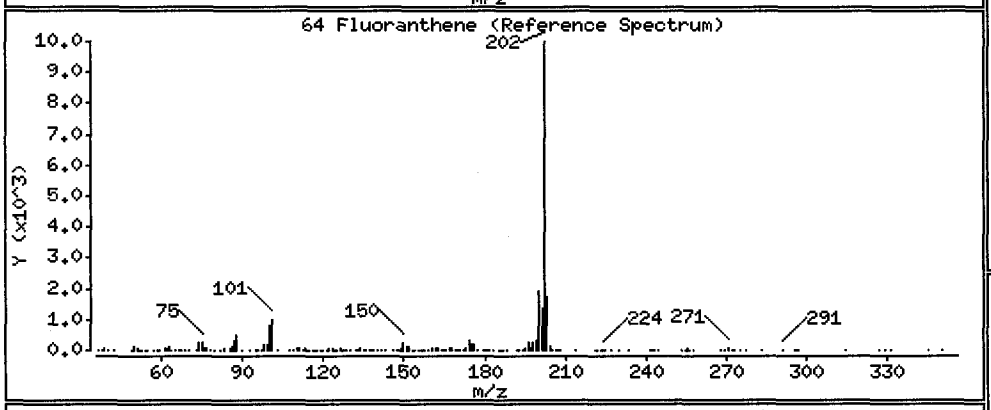
Column diameter: 0.25

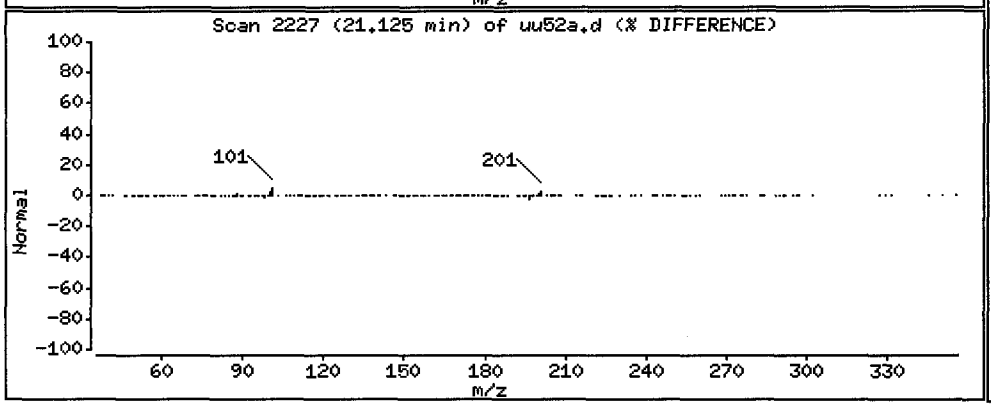
64 Fluoranthene

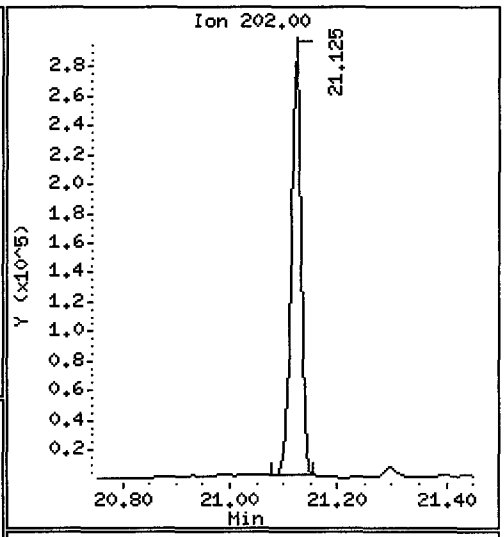
Concentration: 654.3 ug/kg

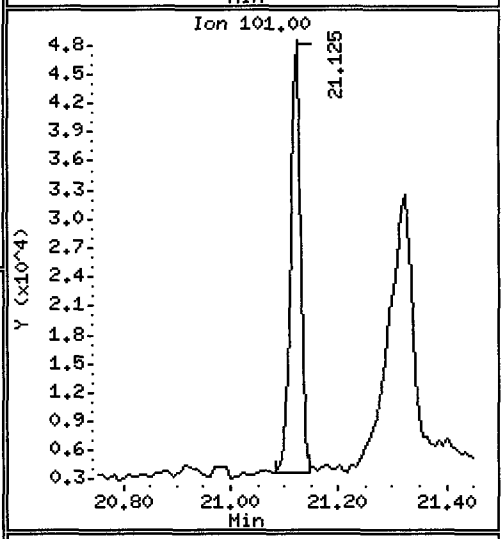


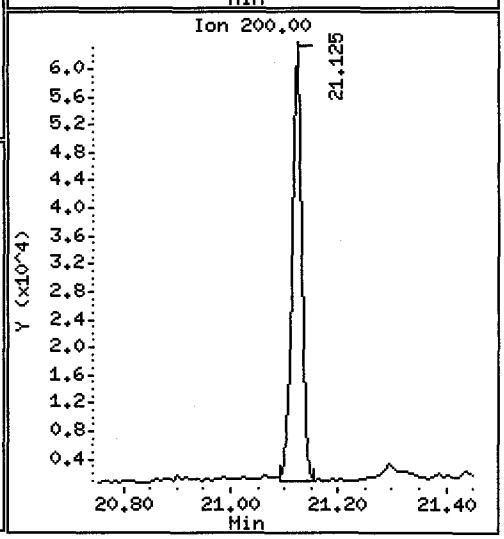












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

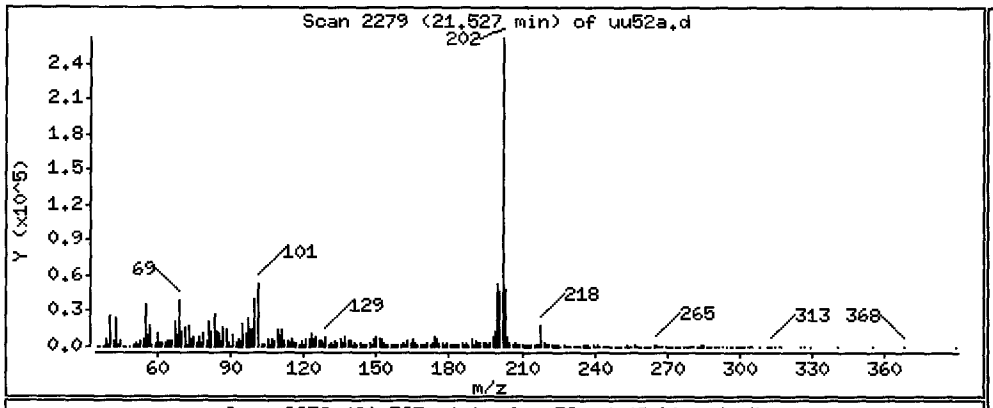
Operator: VTS/YZ

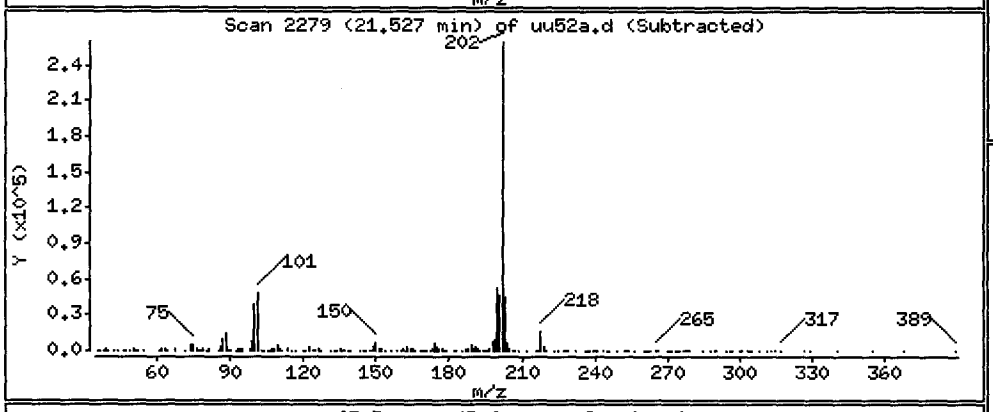
Column phase: ZB-5msi

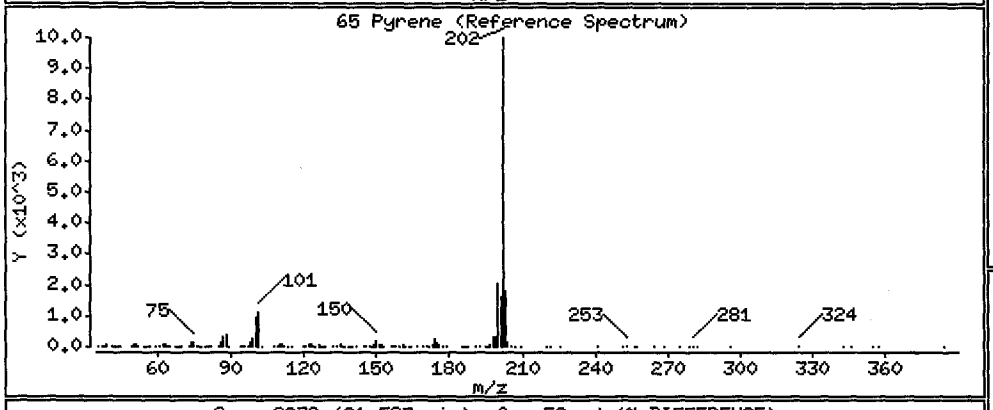
Column diameter: 0.25

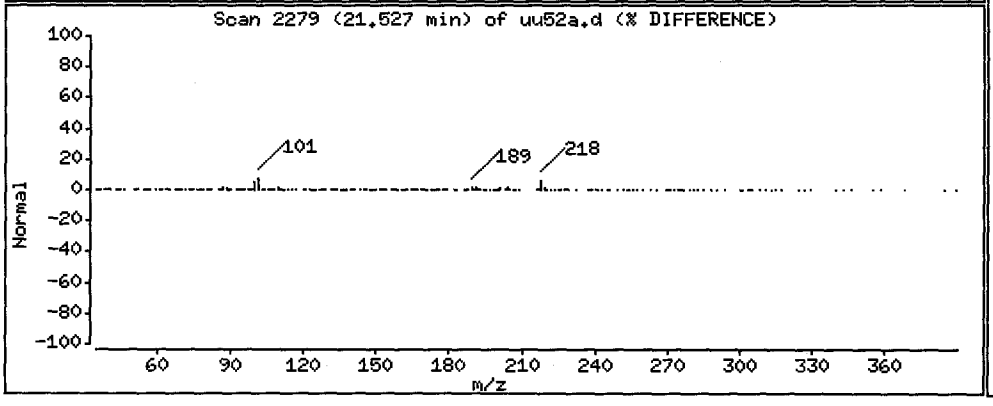
65 Pyrene

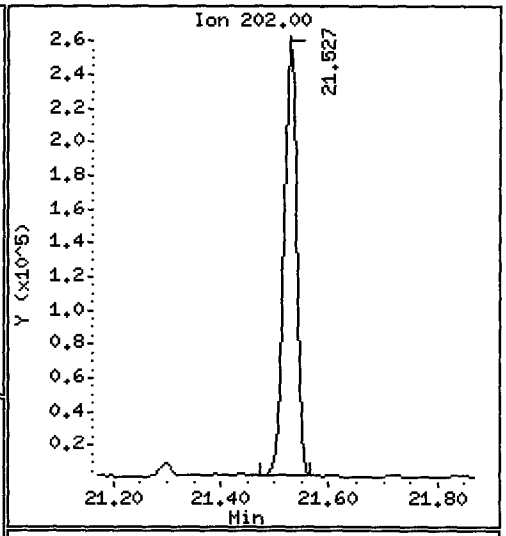
Concentration: 580.1 ug/kg

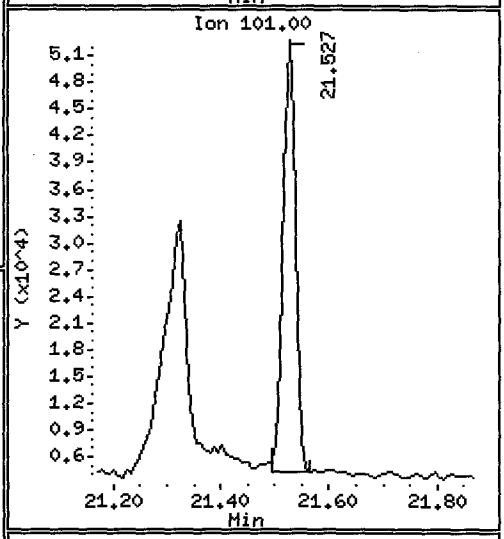


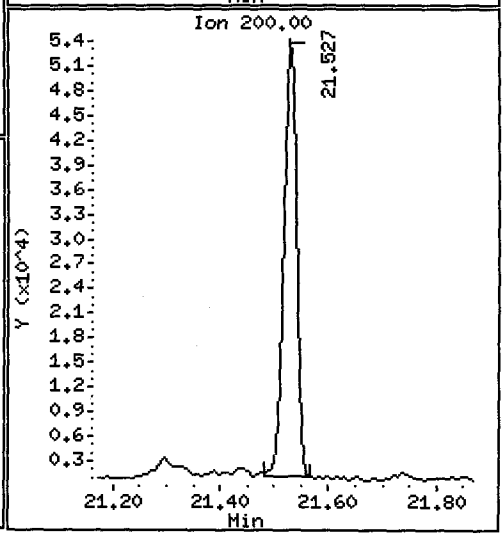












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

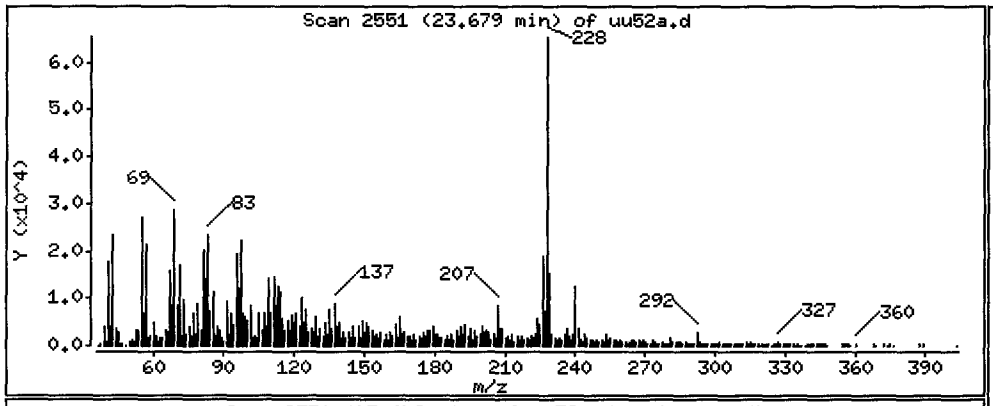
Operator: VTS/YZ

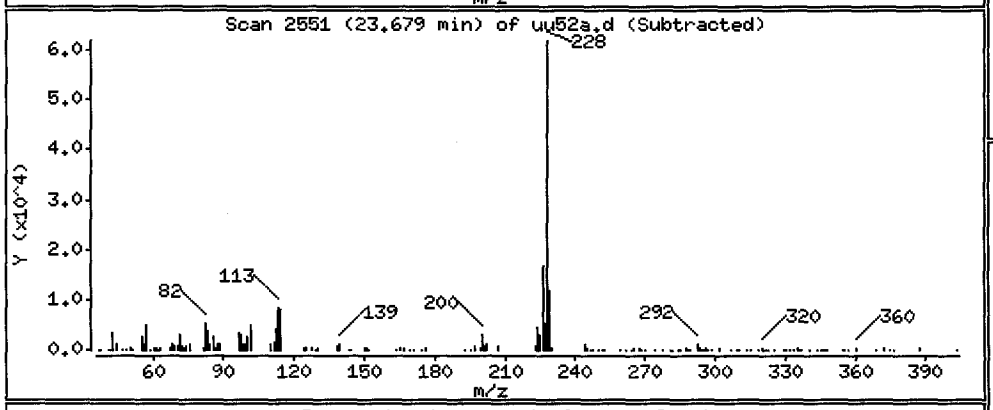
Column phase: ZB-5msi

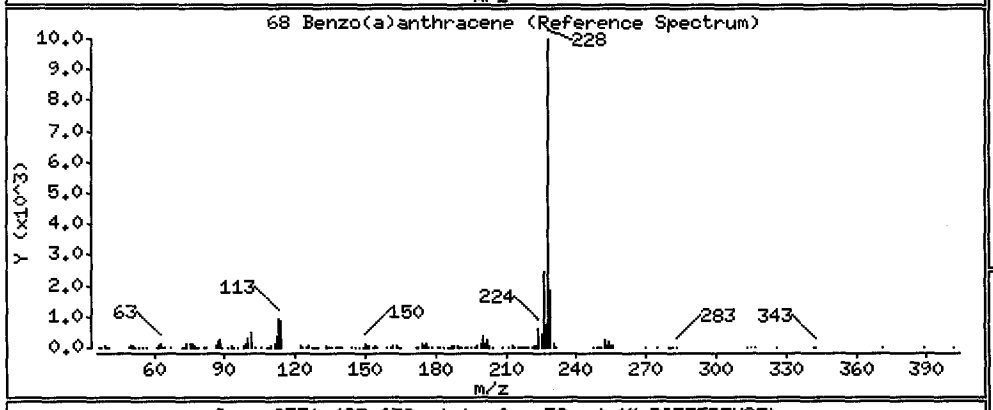
Column diameter: 0.25

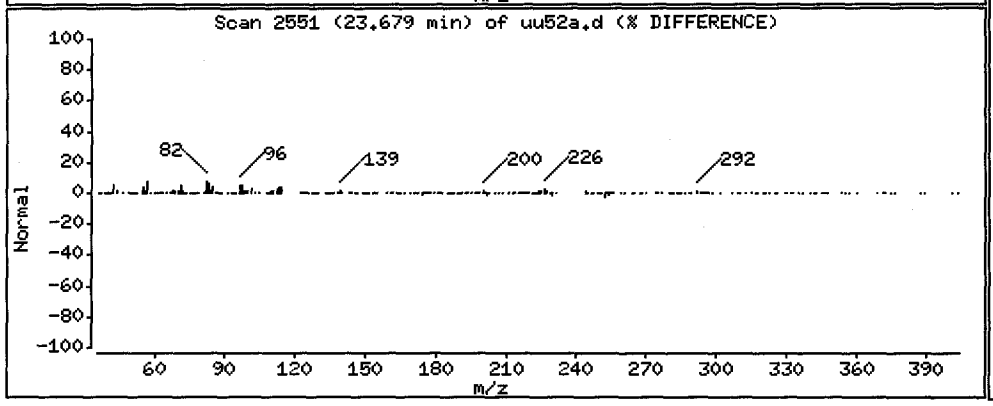
68 Benzo(a)anthracene

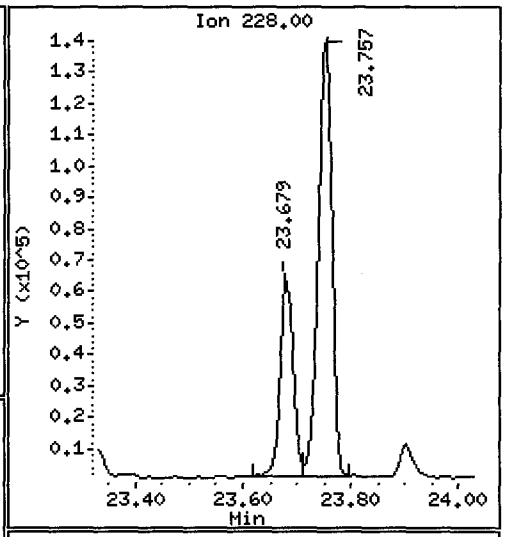
Concentration: 158.4 ug/kg

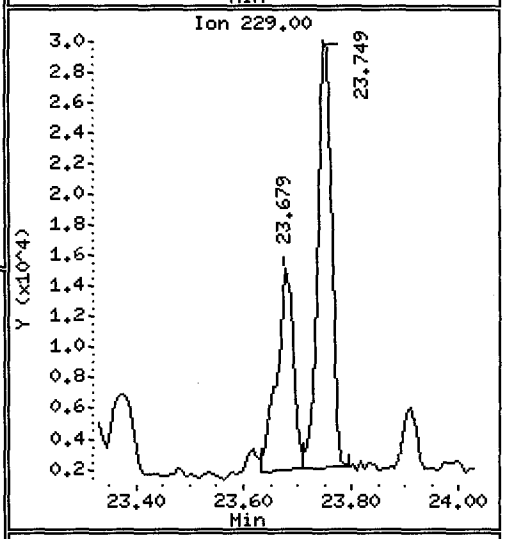


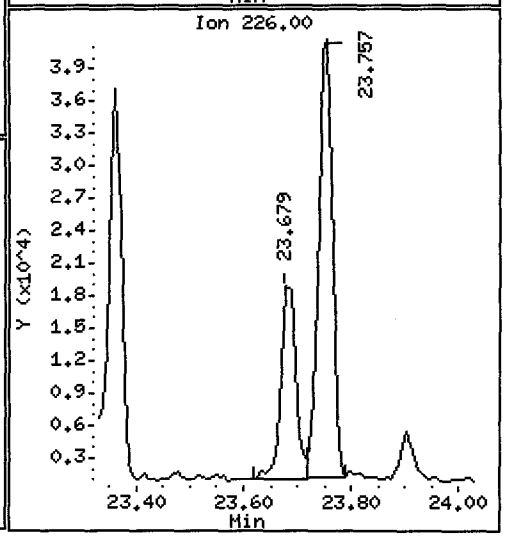












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

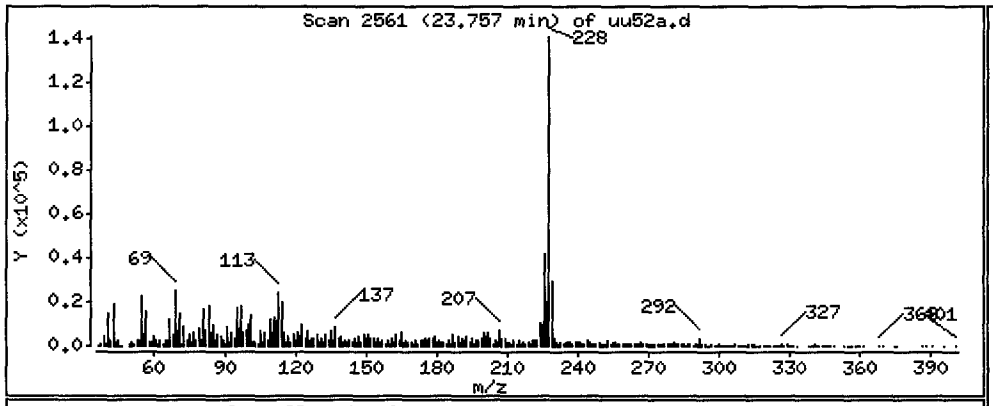
Client ID: MS001-SS-120515 Instrument: nt10.i

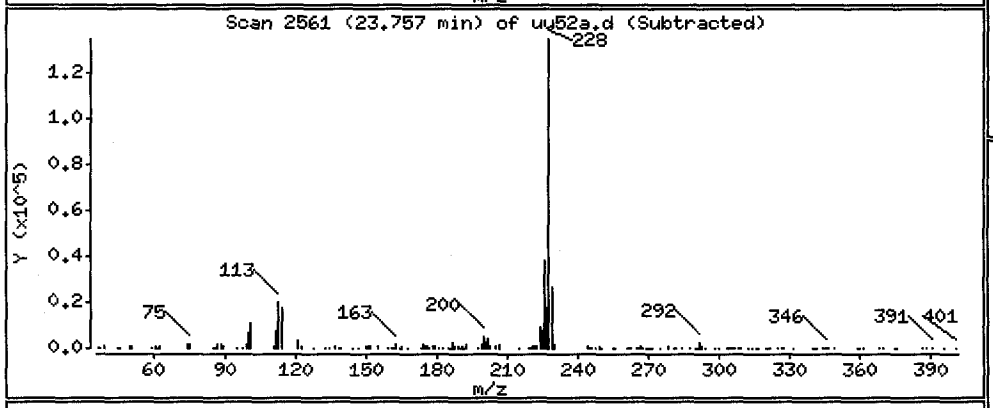
Sample Info: UU52A,3

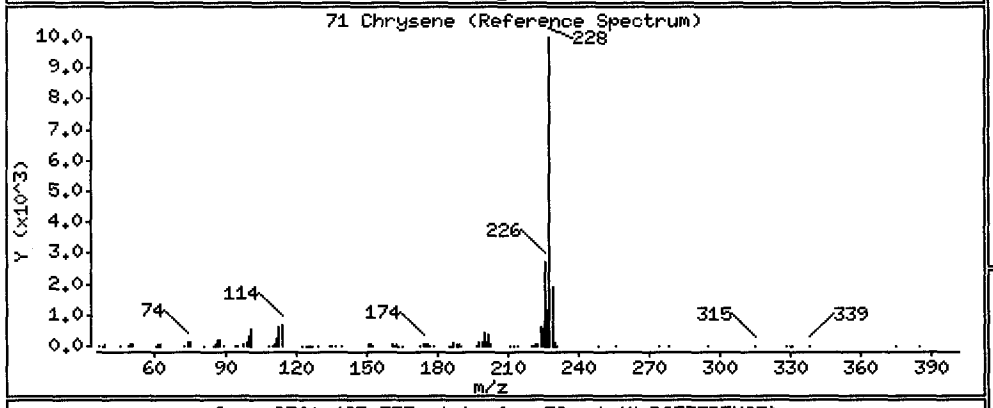
Volume Injected (uL): 1.0 Operator: VTS/YZ

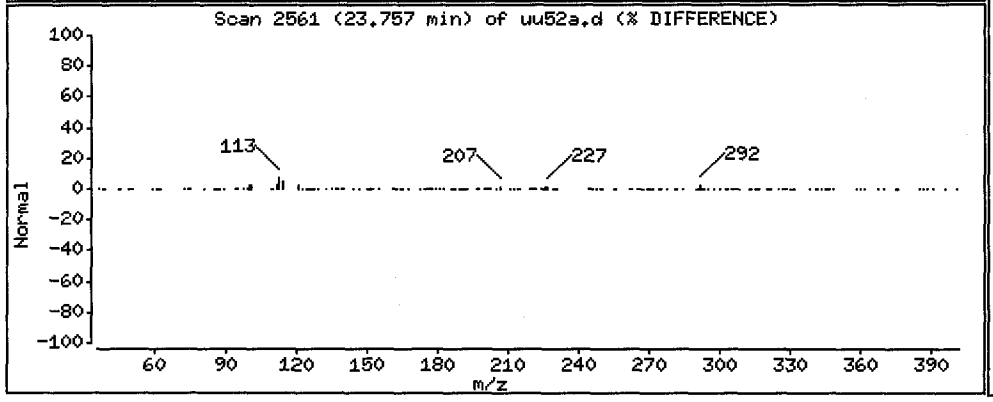
Column phase: ZB-5msi Column diameter: 0.25

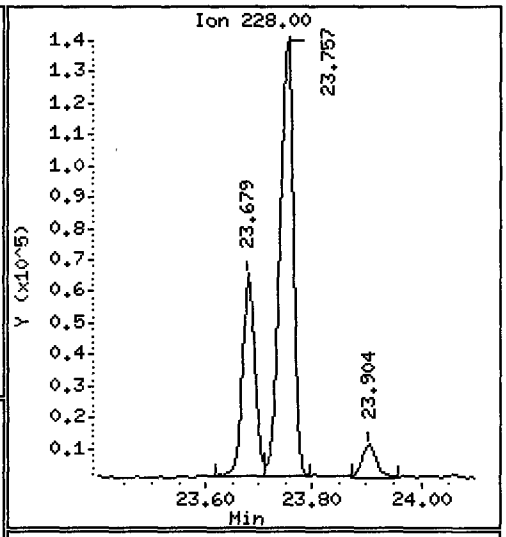
71 Chrysene Concentration: 424.5 ug/kg

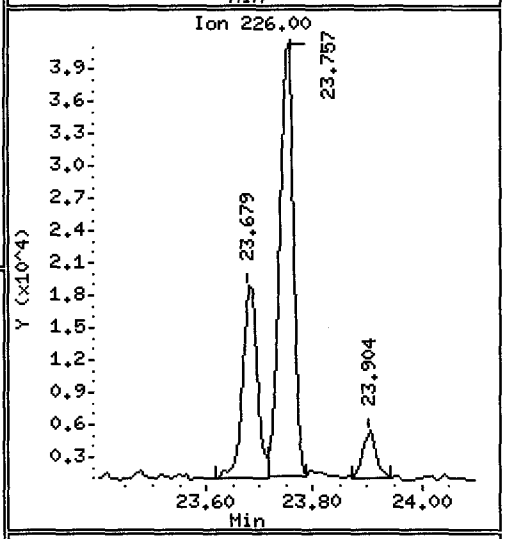


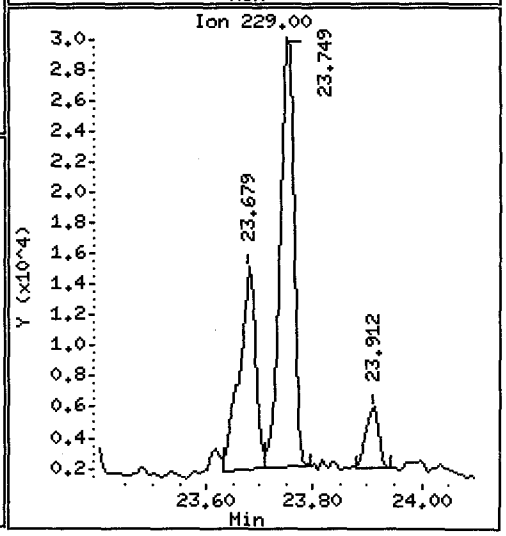












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

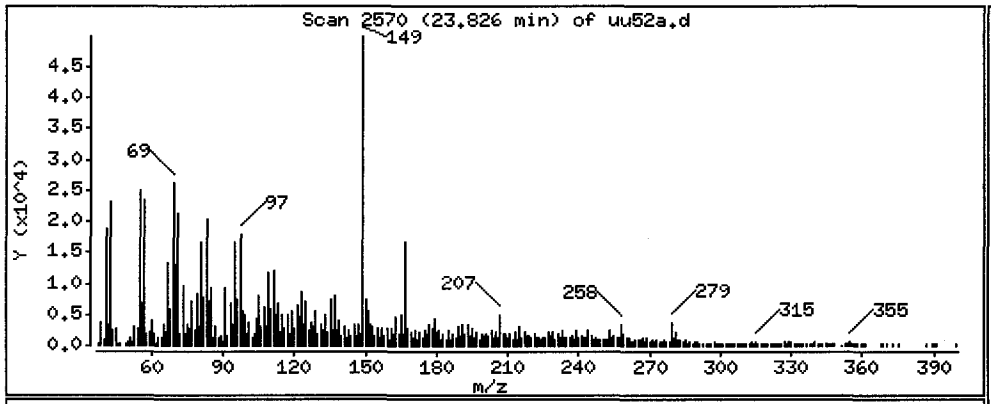
Operator: VTS/YZ

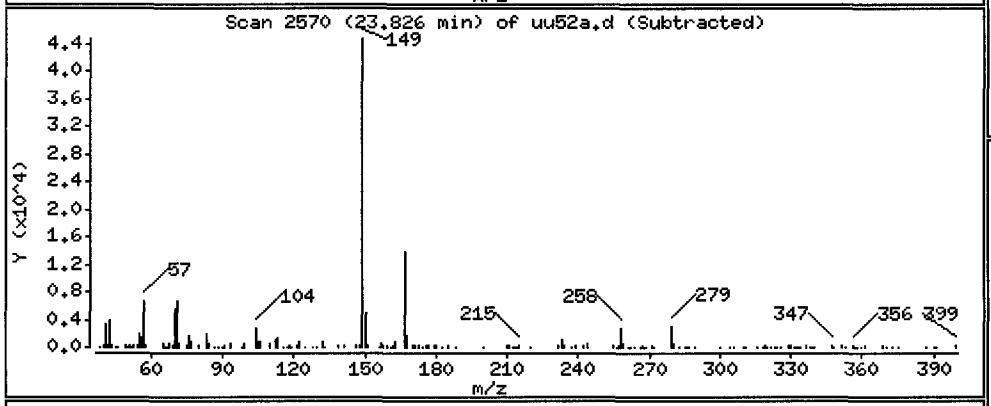
Column phase: ZB-5msi

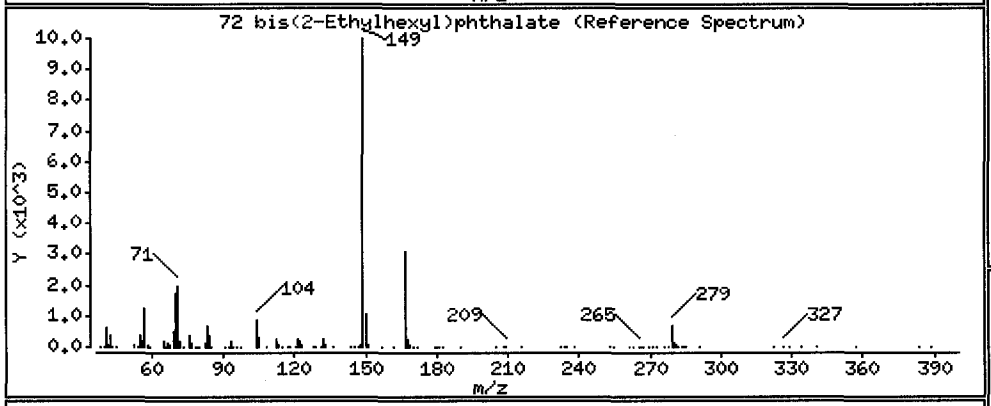
Column diameter: 0.25

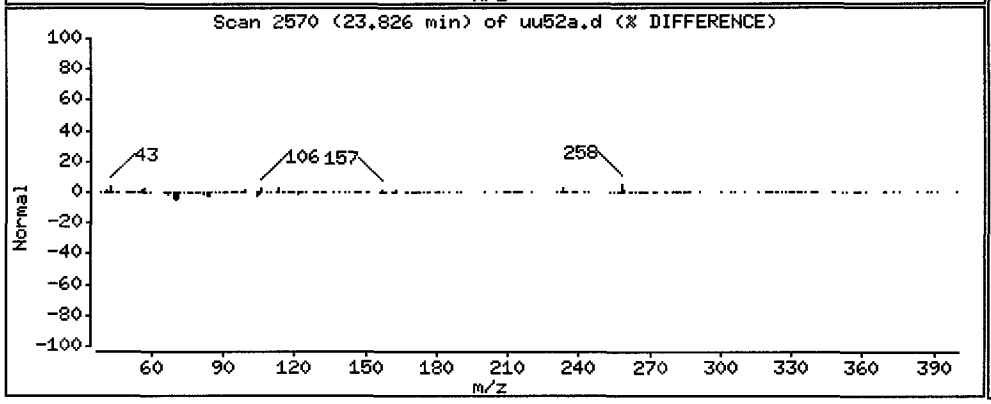
72 bis(2-Ethylhexyl)phthalate

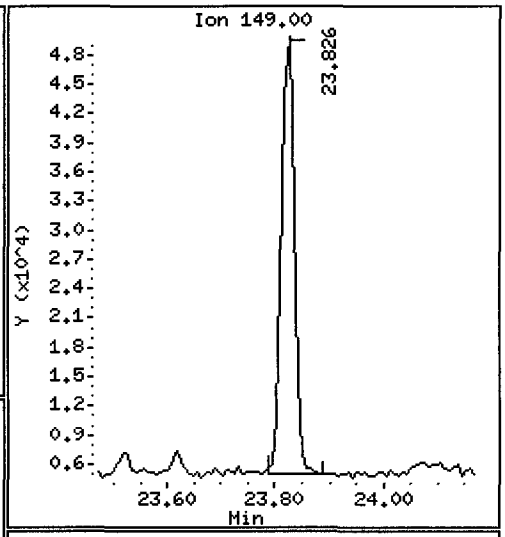
Concentration: 141.3 ug/kg

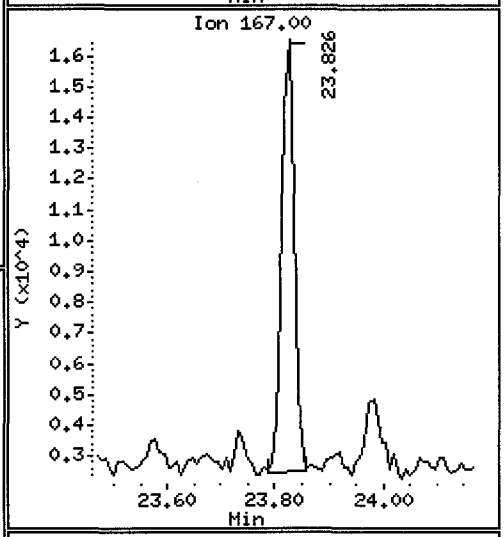


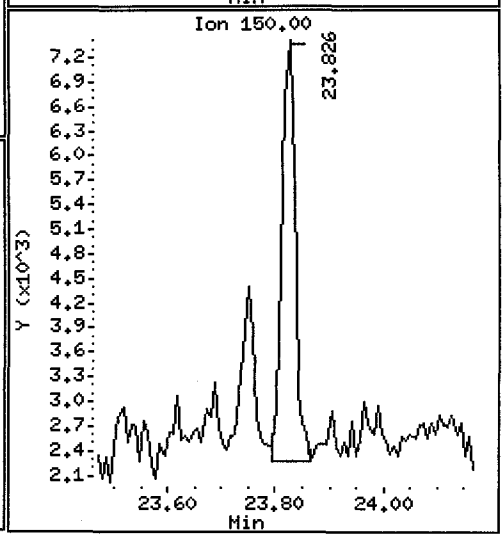






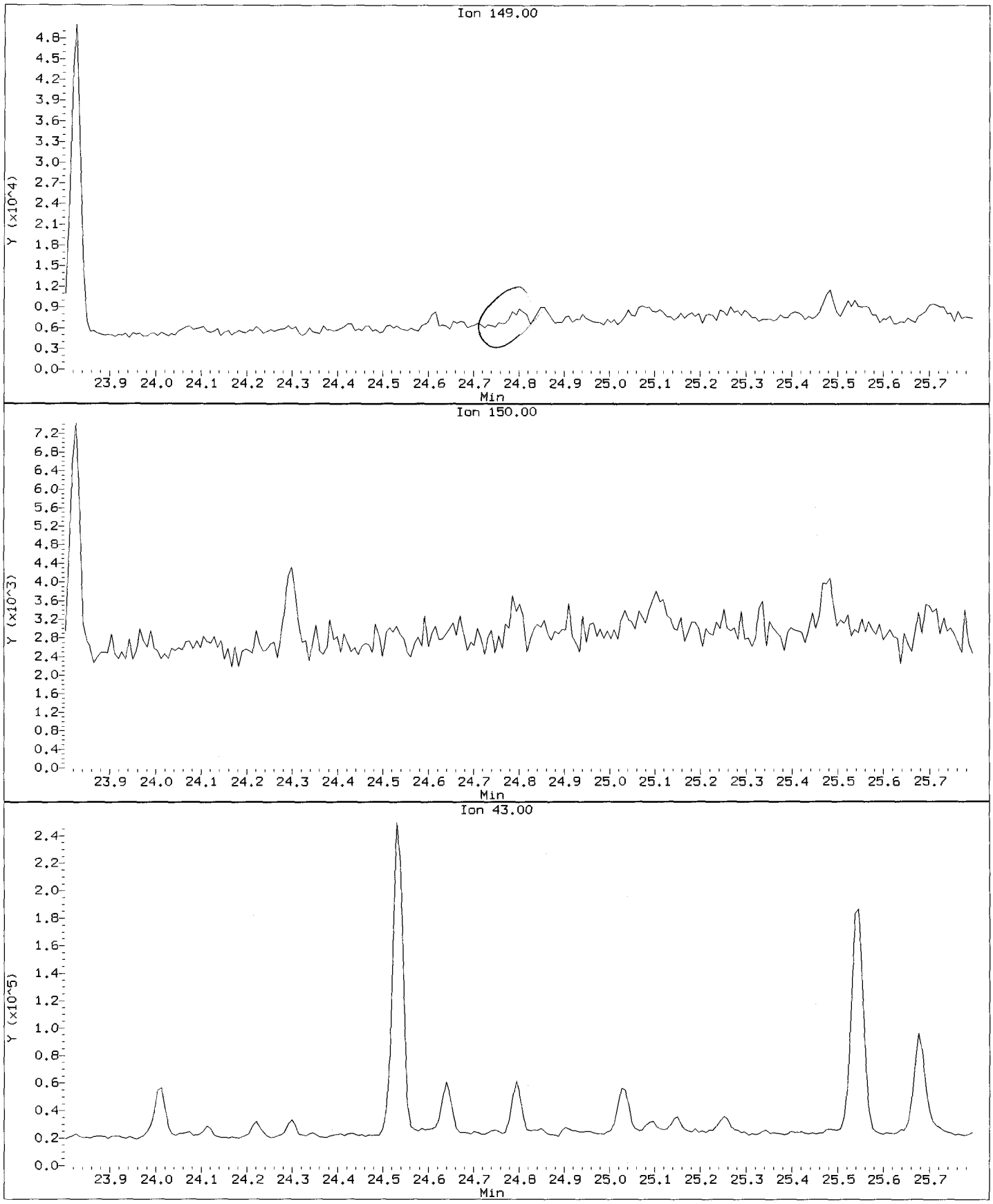






Data File: /chem1/nt10.i/20120526.b/uu52a.d
Injection Date: 26-MAY-2012 17:11
Instrument: nt10.i
Client Sample ID: MS001-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

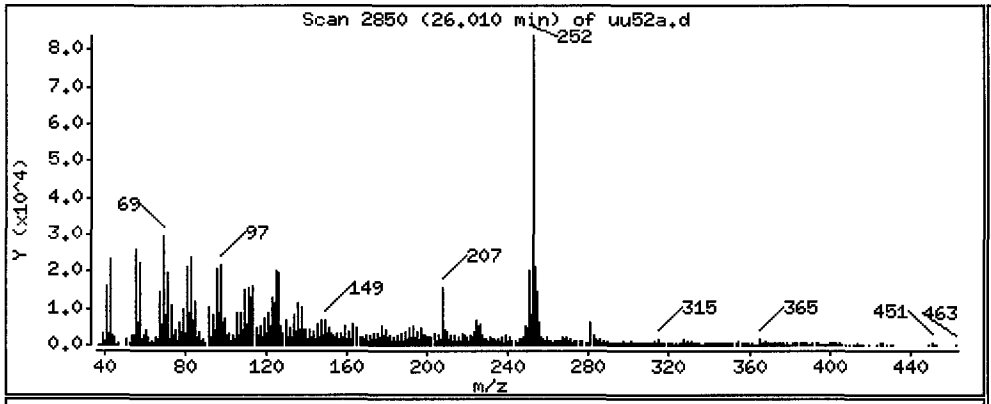
Client ID: MS001-SS-120515 Instrument: nt10.i

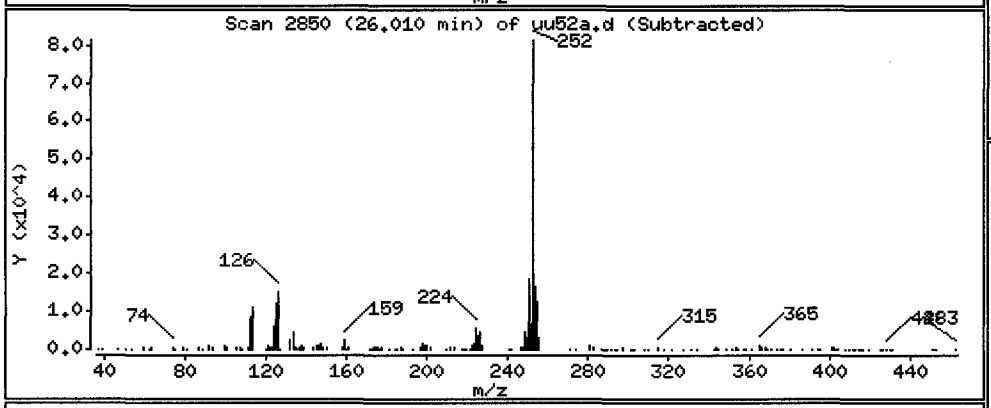
Sample Info: UU52A,3

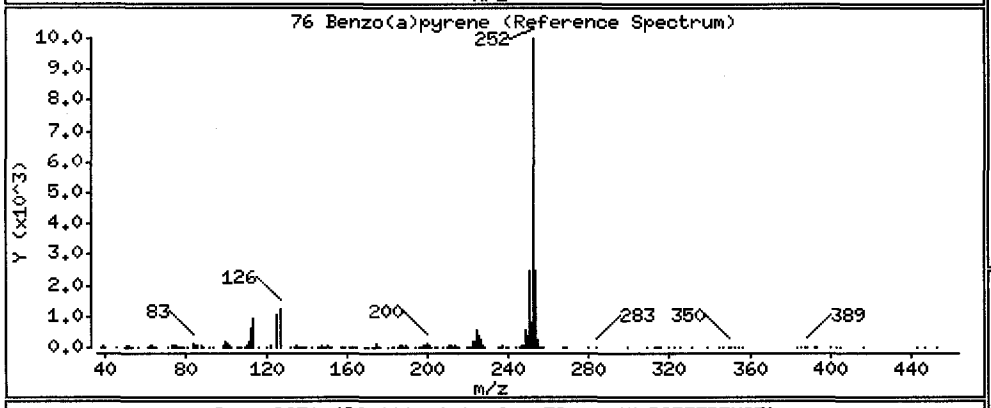
Volume Injected (uL): 1.0 Operator: VTS/YZ

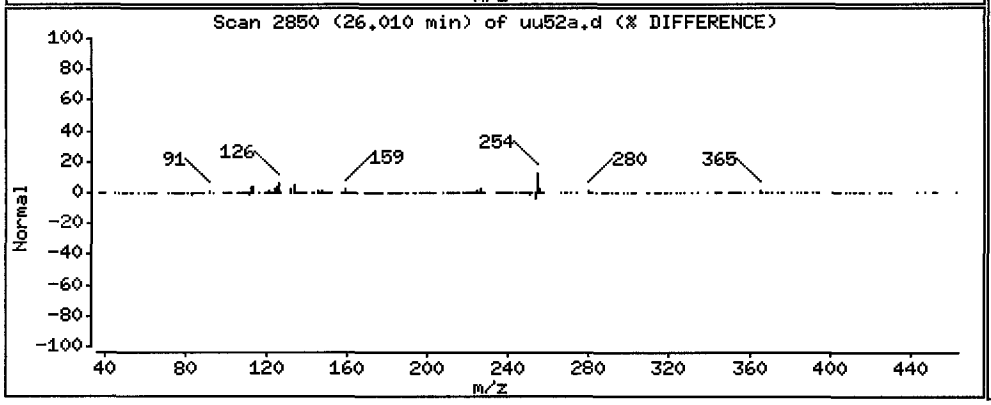
Column phase: ZB-5msi Column diameter: 0.25

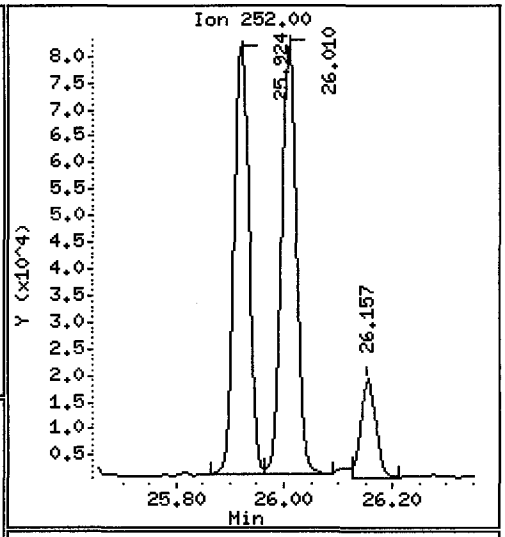
76 Benzo(a)pyrene Concentration: 257.0 ug/kg

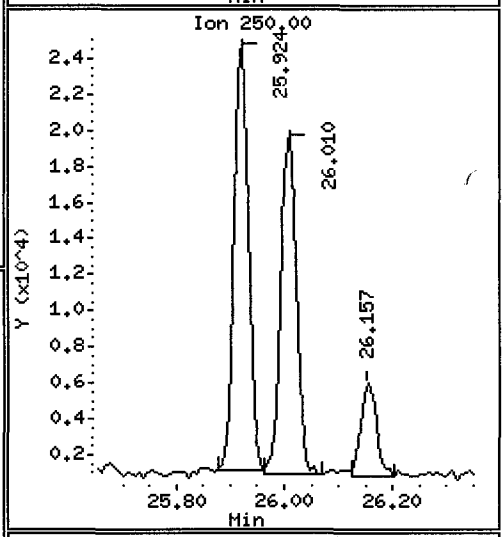


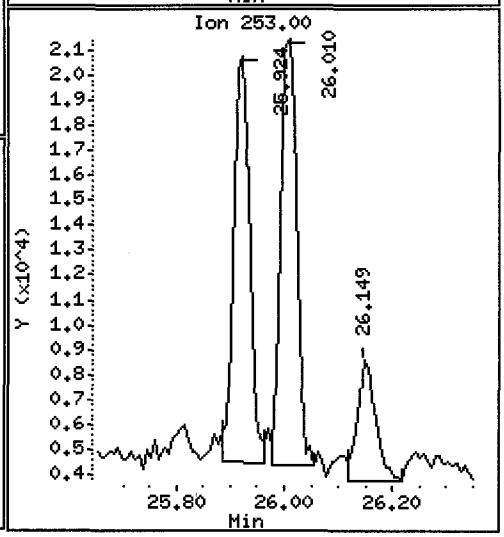












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

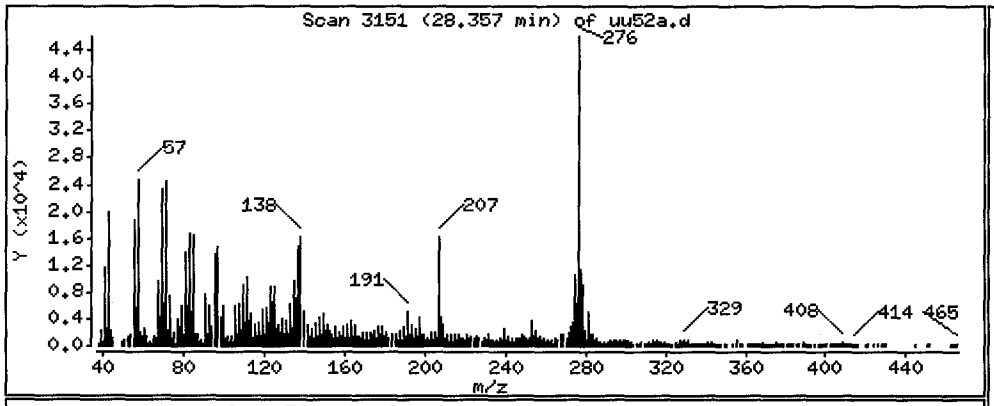
Client ID: MS001-SS-120515 Instrument: nt10.i

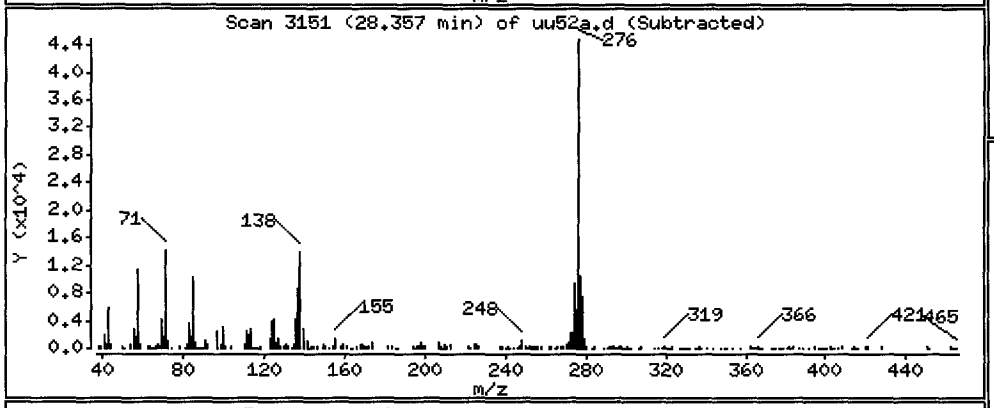
Sample Info: UU52A,3

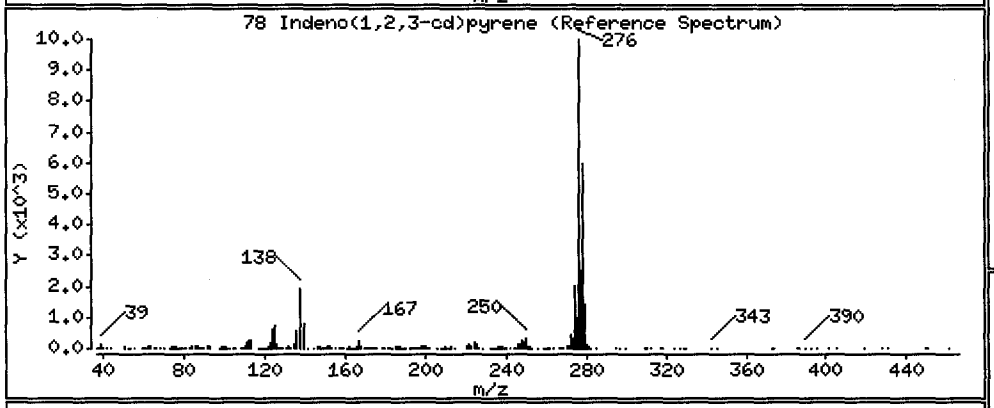
Volume Injected (uL): 1.0 Operator: VTS/YZ

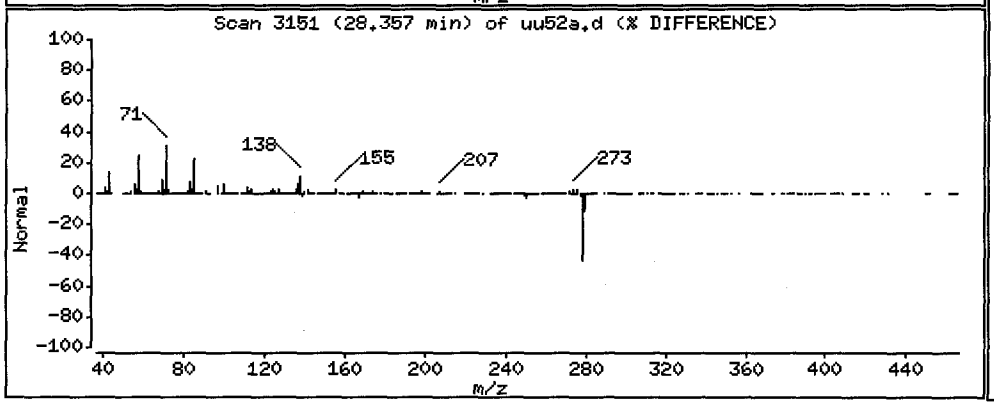
Column phase: ZB-5msi Column diameter: 0.25

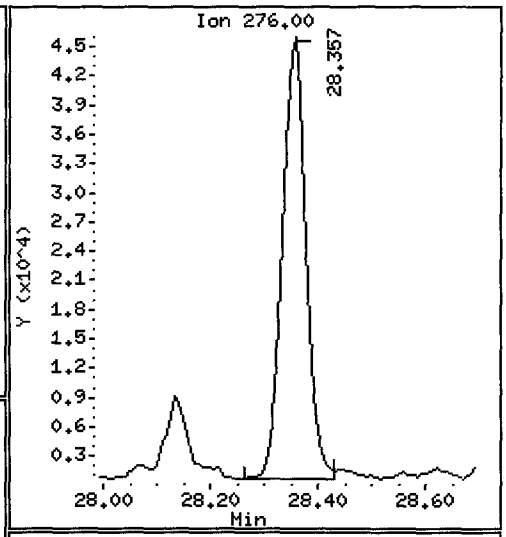
78 Indeno(1,2,3-cd)pyrene Concentration: 201.6 ug/kg

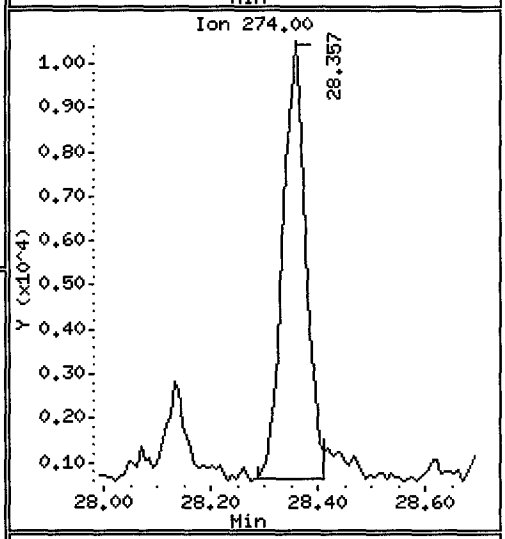


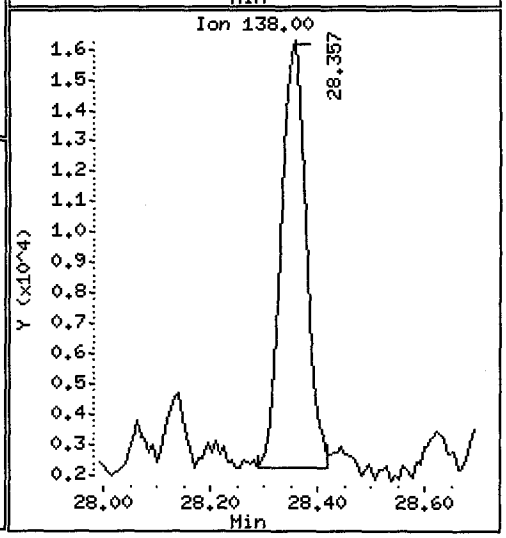












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

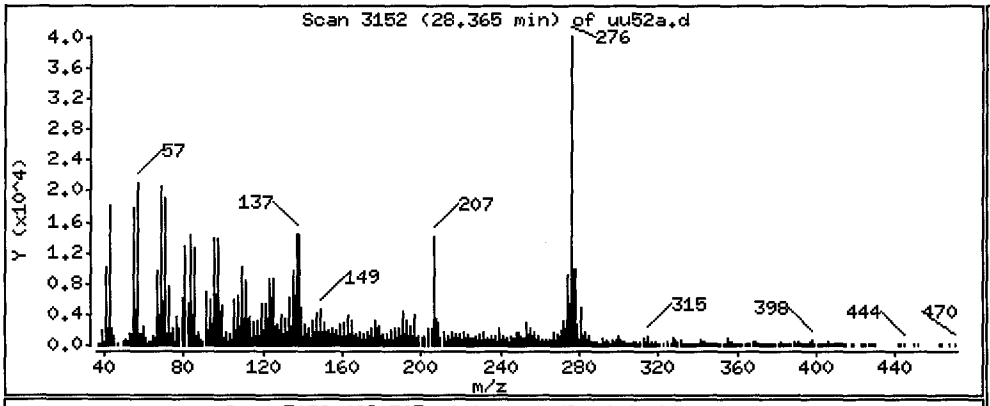
Operator: VTS/YZ

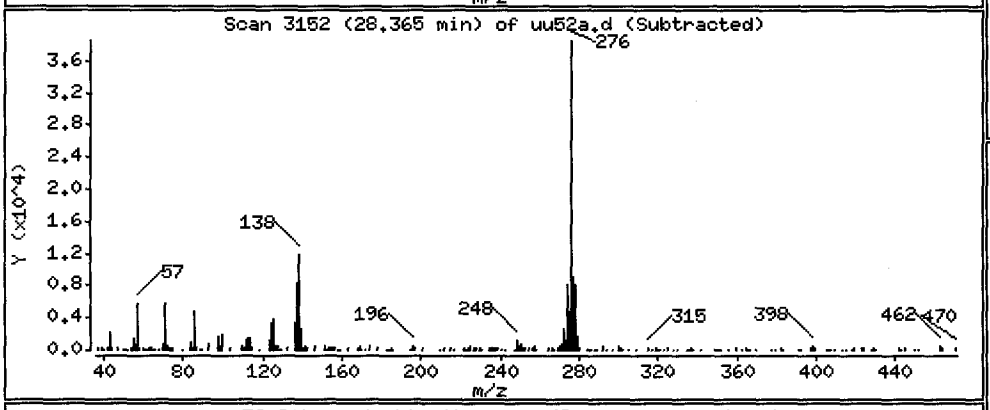
Column phase: ZB-5msi

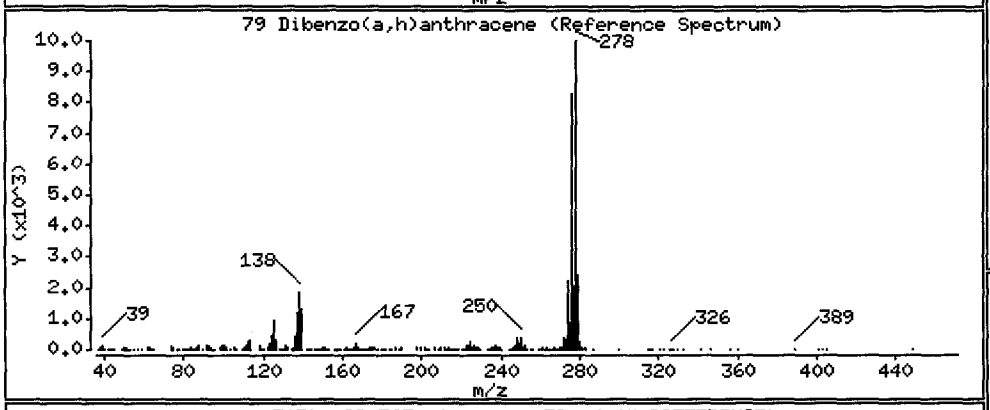
Column diameter: 0.25

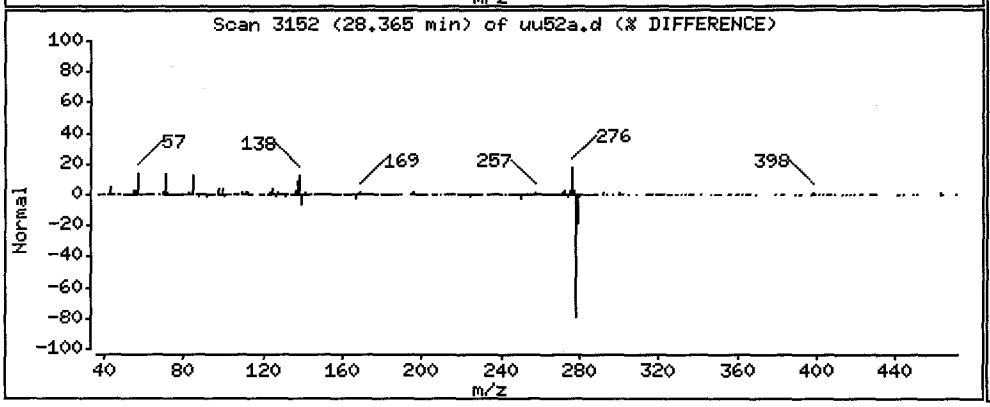
79 Dibenzo(a,h)anthracene

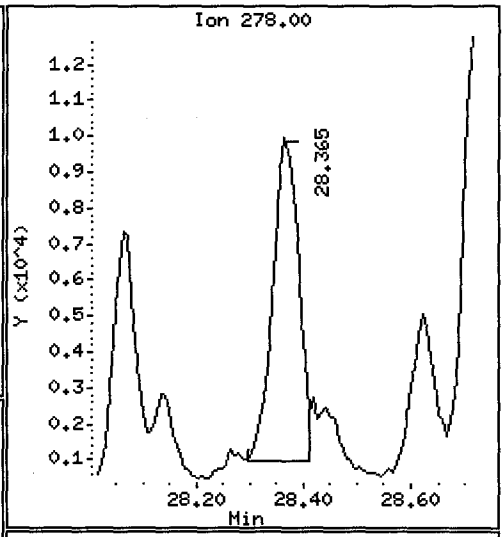
Concentration: 56.03 ug/kg

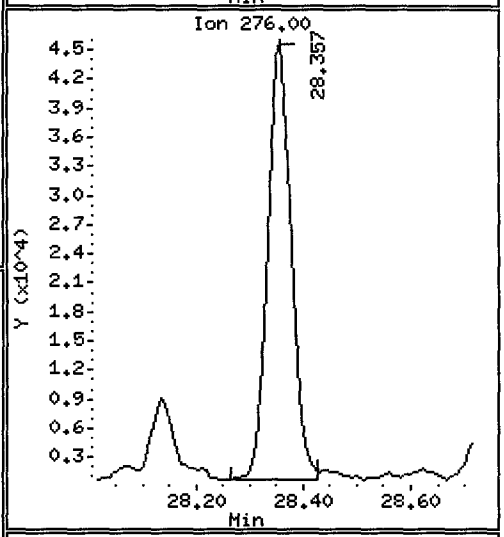


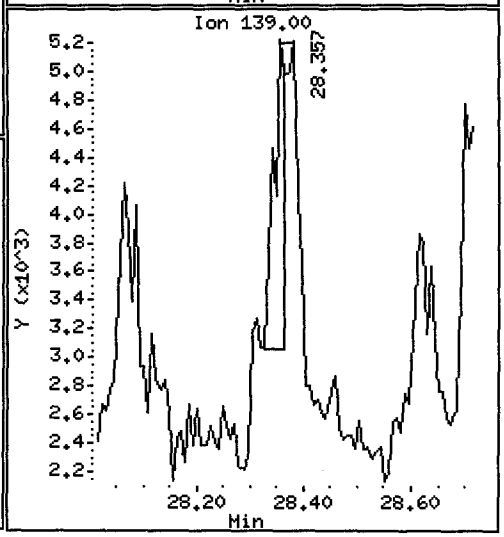












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

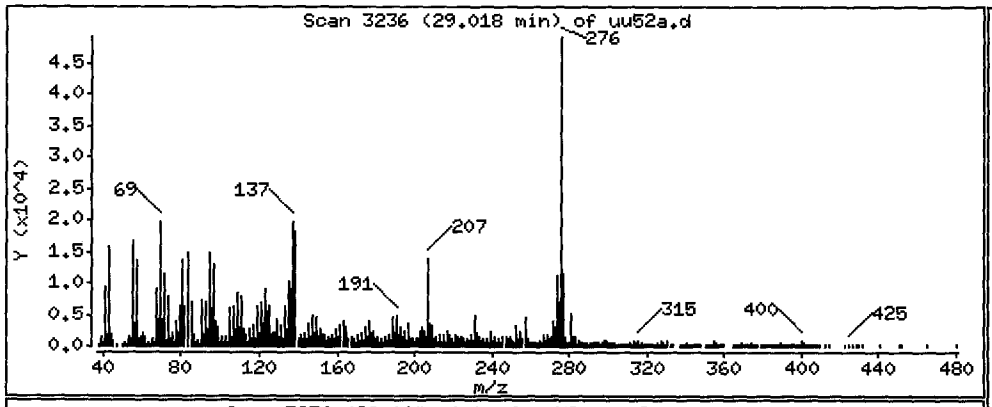
Operator: VTS/YZ

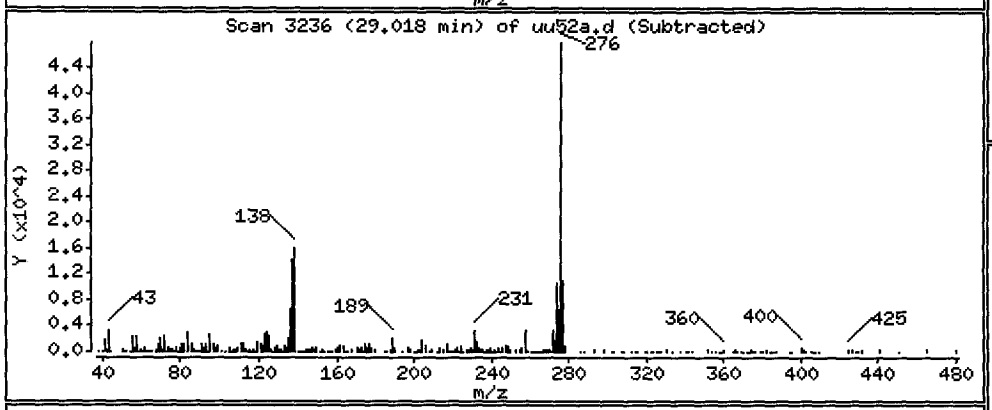
Column phase: ZB-5msi

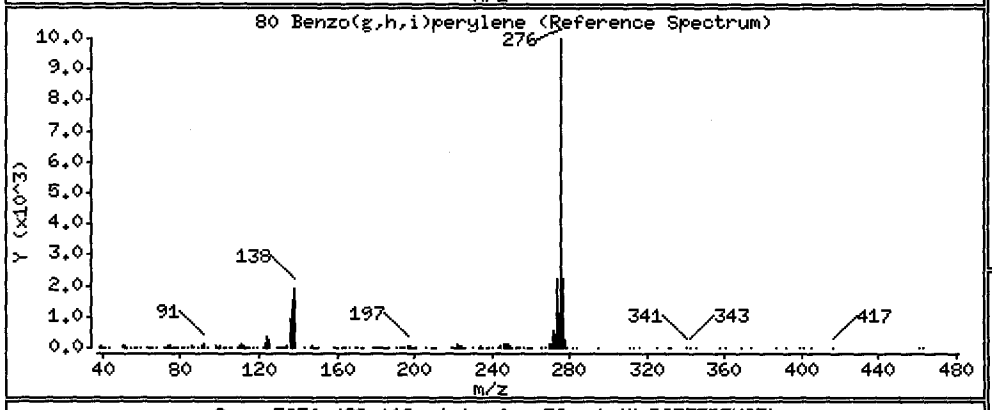
Column diameter: 0.25

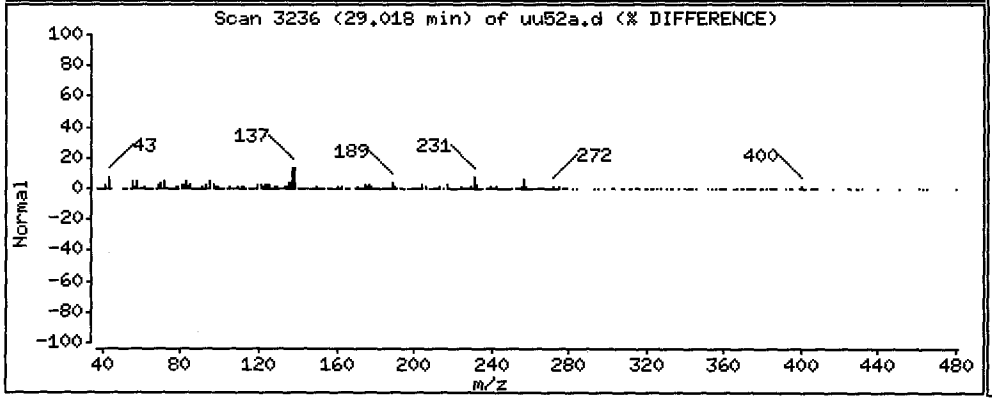
80 Benzo(g,h,i)perylene

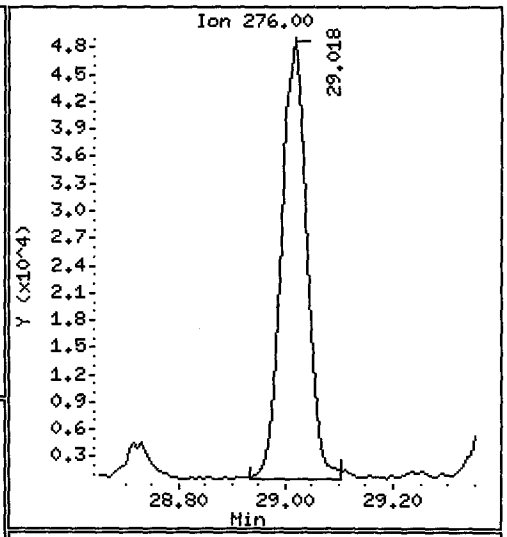
Concentration: 272.9 ug/kg

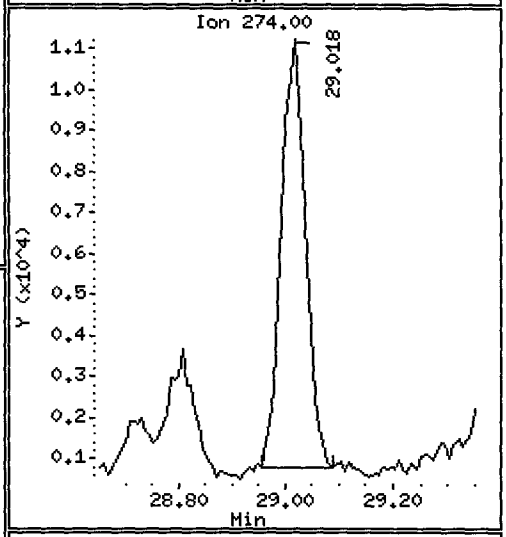


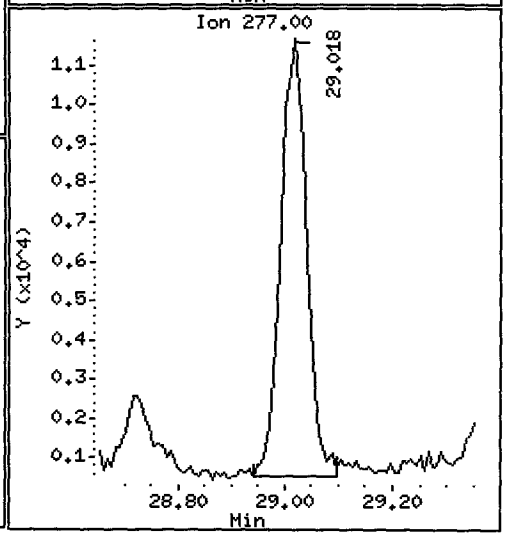












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

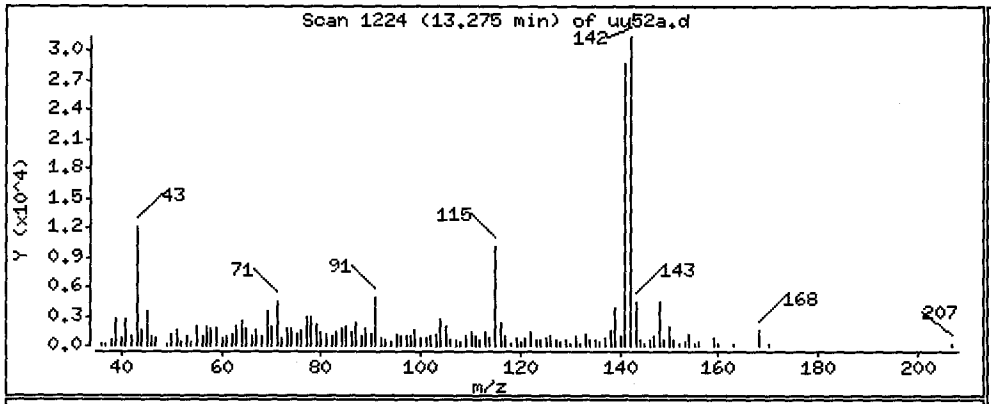
Operator: VTS/YZ

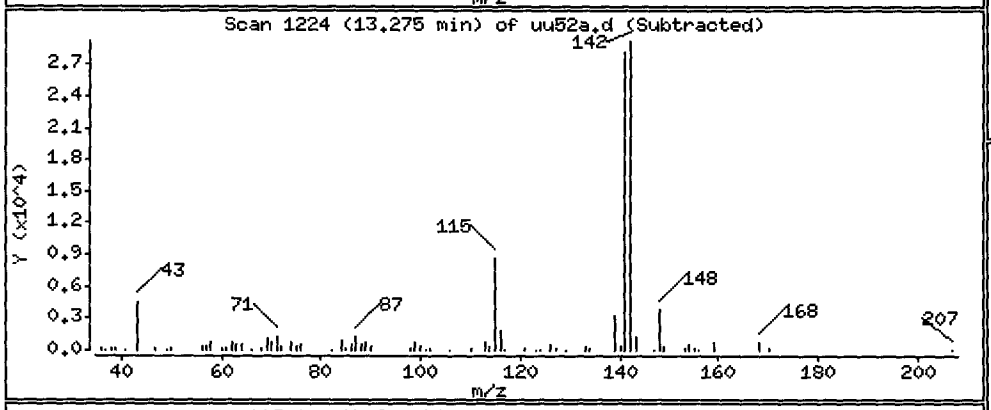
Column phase: ZB-5msi

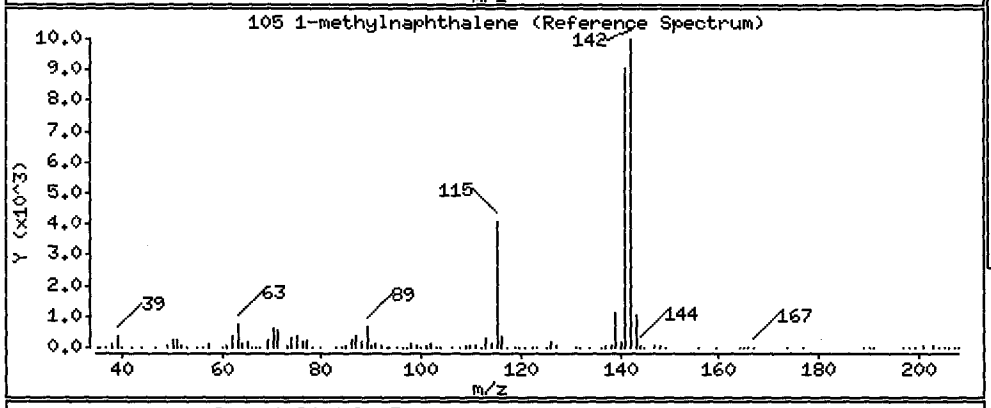
Column diameter: 0.25

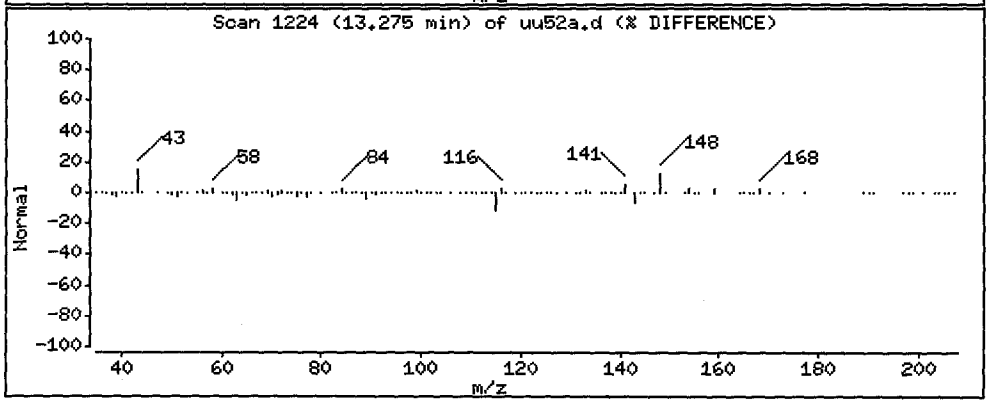
105 1-methylnaphthalene

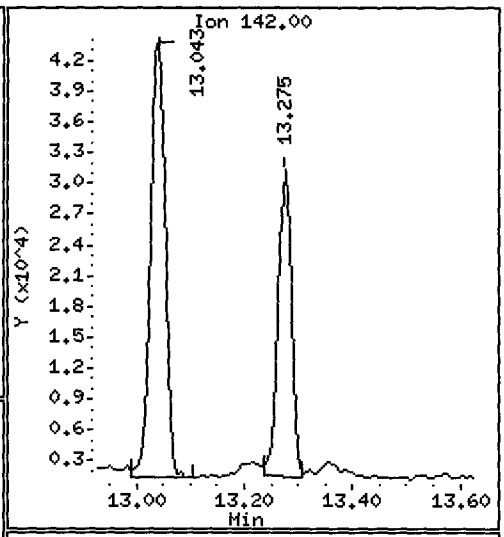
Concentration: 105.9 ug/kg

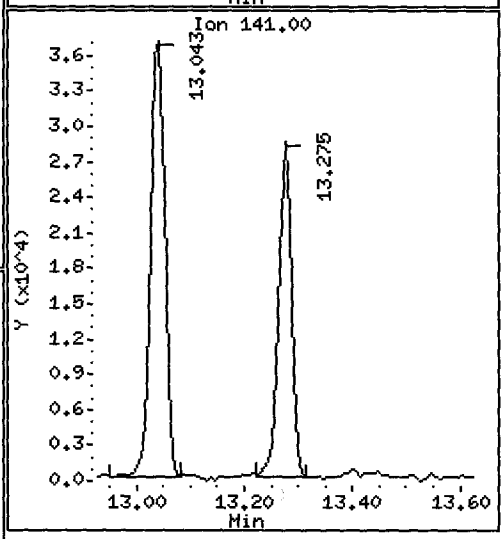












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

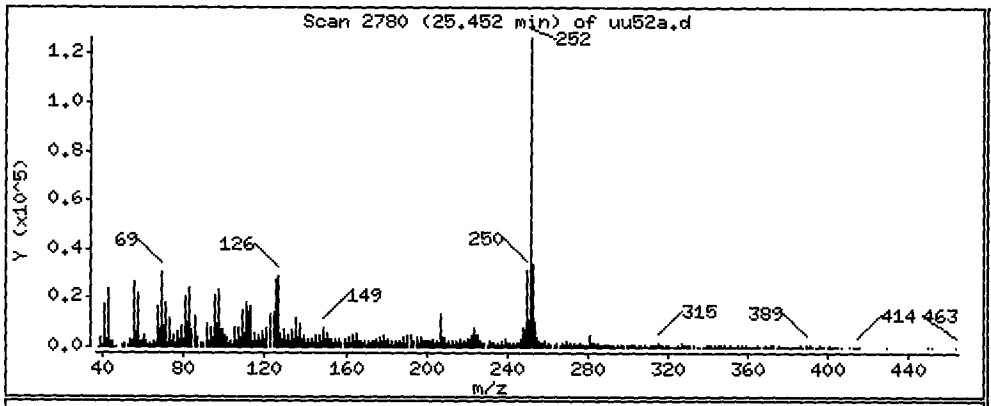
Operator: VTS/YZ

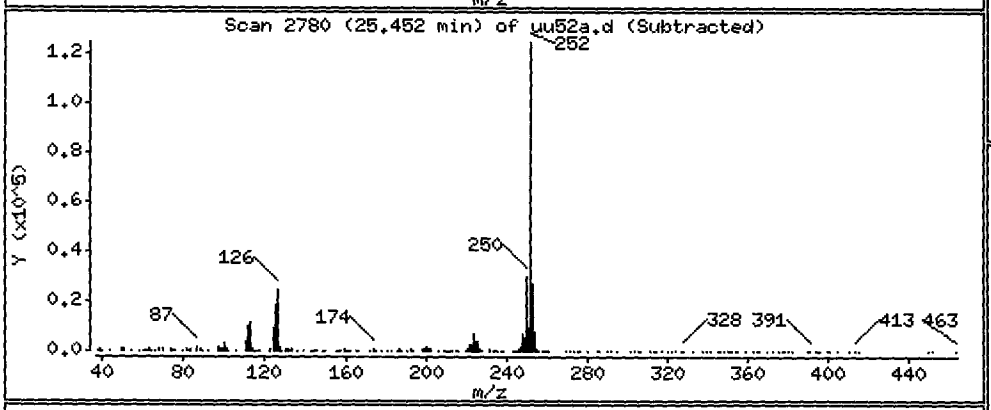
Column phase: ZB-5msi

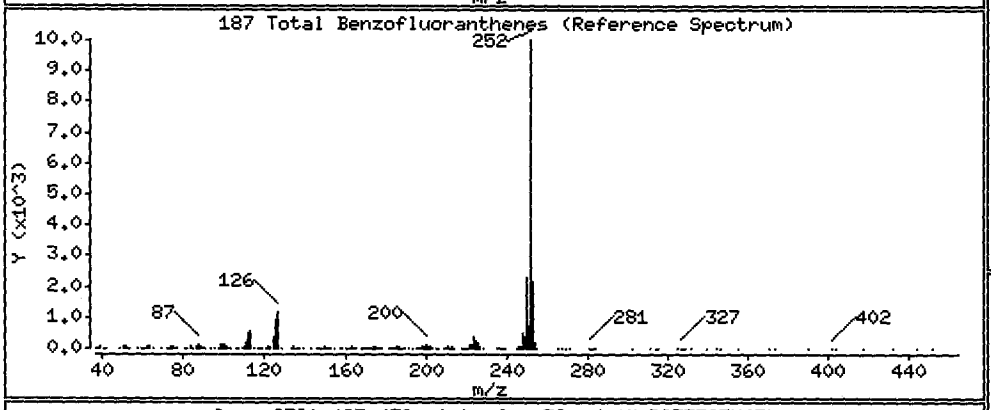
Column diameter: 0.25

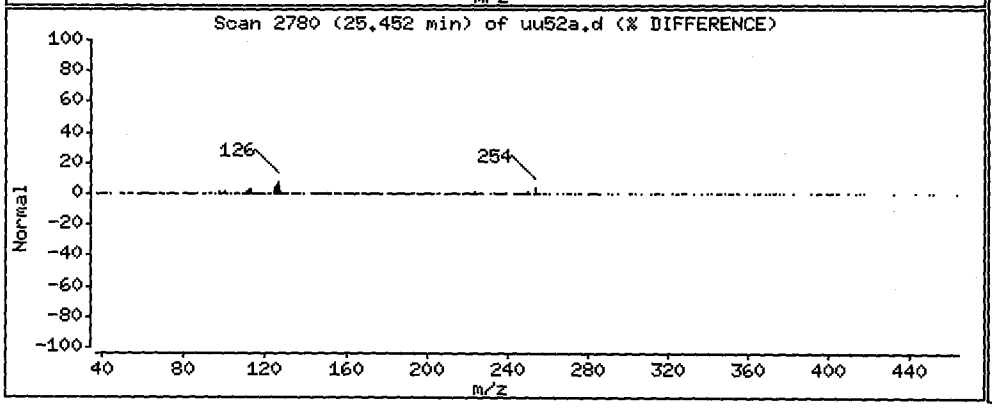
187 Total Benzofluoranthenes

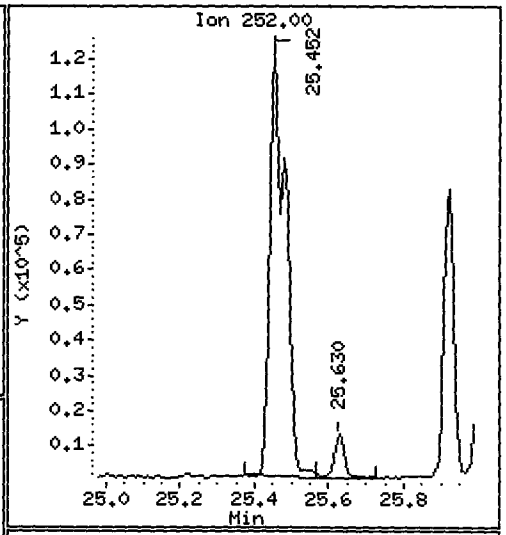
Concentration: 570.6 ug/kg

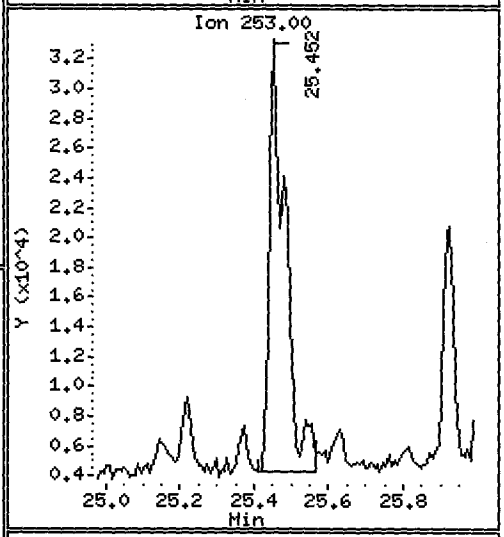


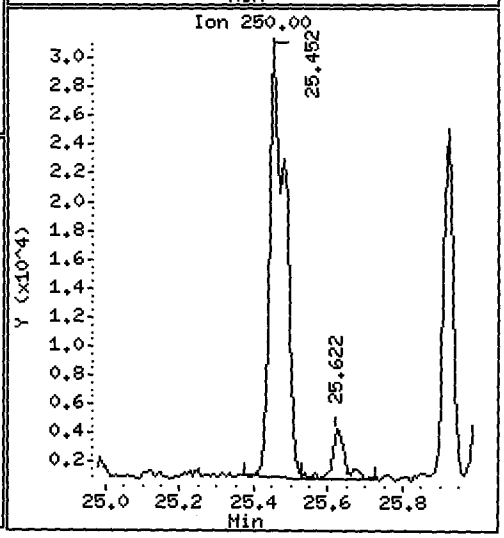












Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

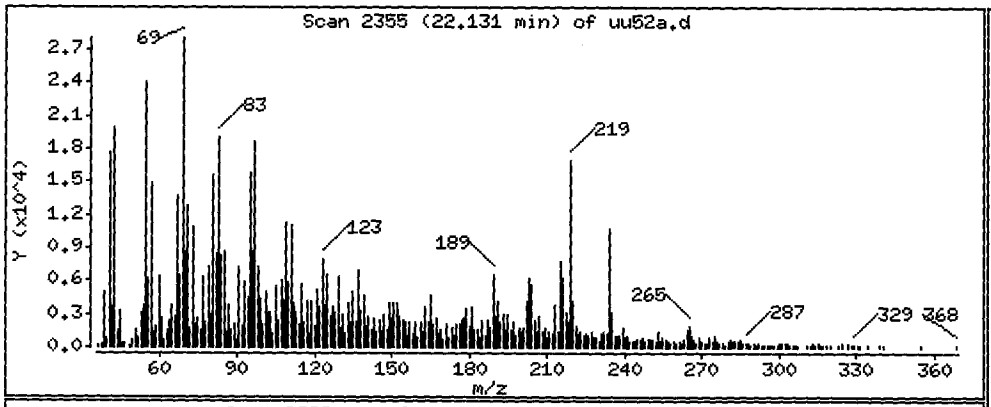
Operator: VTS/YZ

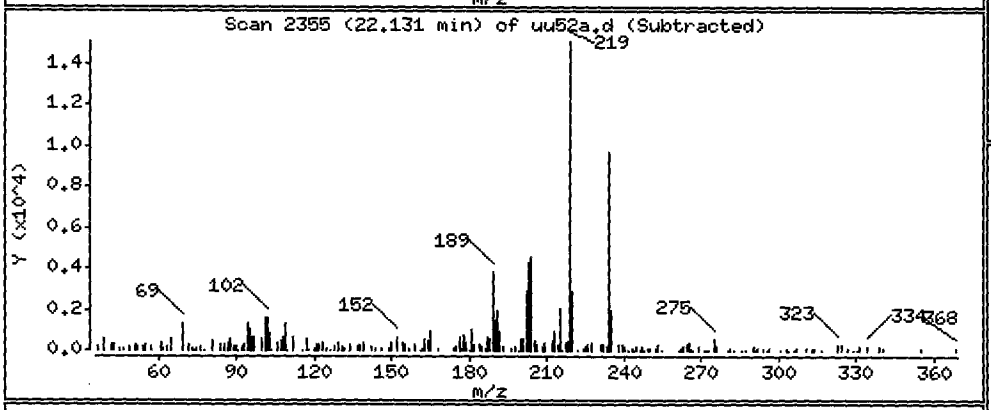
Column phase: ZB-5msi

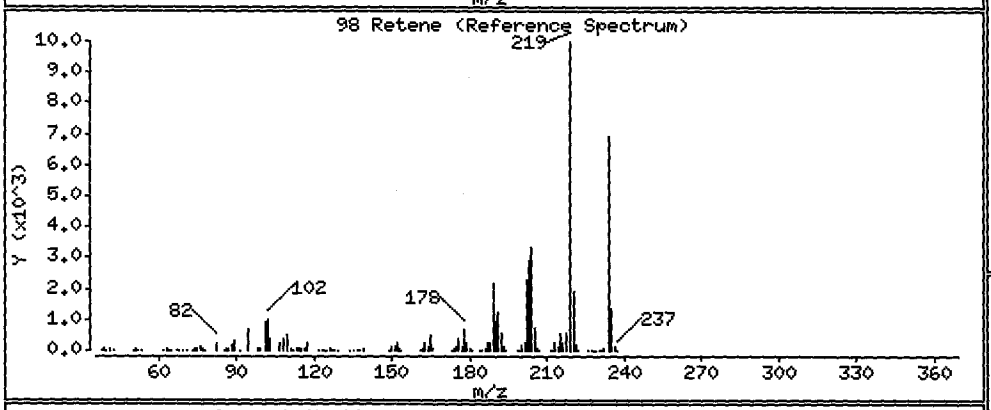
Column diameter: 0.25

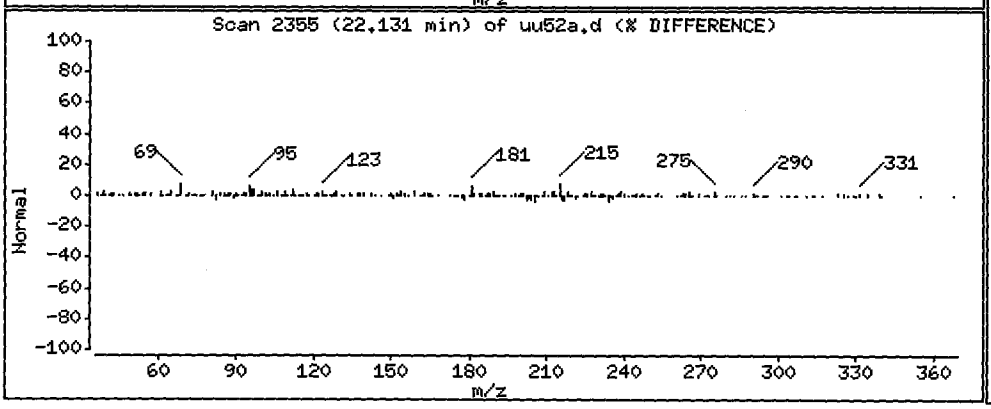
98 Retene

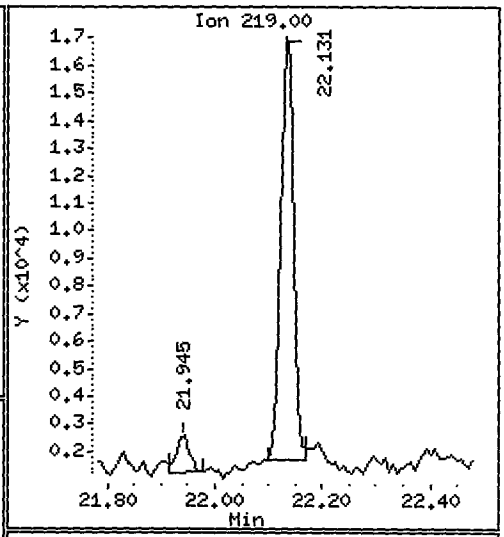
Concentration: 75.74 ug/kg

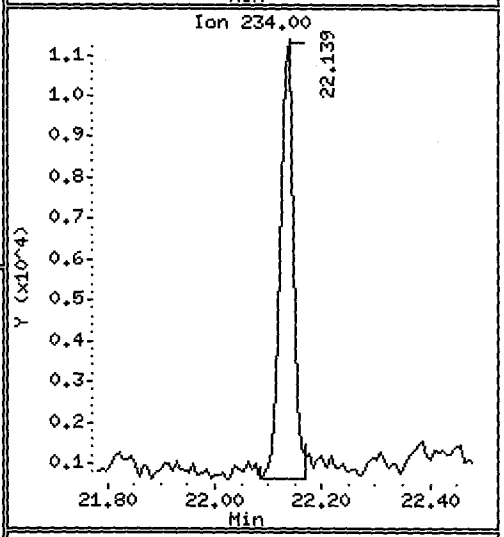


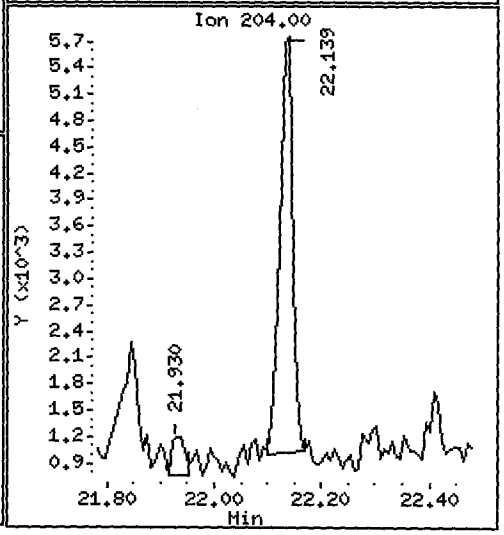






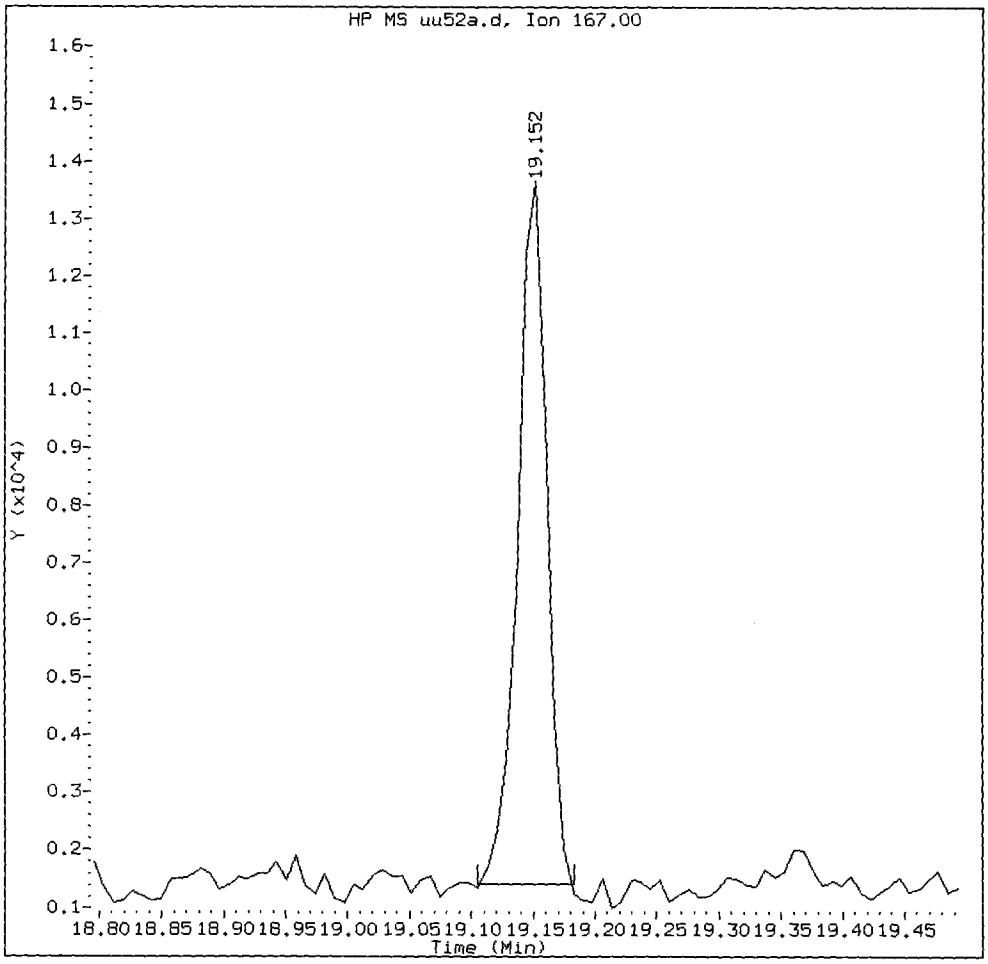






UU52A, /chem1/nt10.i/20120526.b/uu52a.d

Carbazole Amount: 0.14 Area: 20102



MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YB Date: 6/5/12

CO-ELUTION SUMMARY FOR FILE - uu52a.d

Lab ID: UU52A, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/uu52b.d
Lab Smp Id: UU52B Client Smp ID: MS101-SS-120515
Inj Date : 26-MAY-2012 17:48
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52B,3
Misc Info : 12-8894
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 4
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	103.00000	Weight of sample extracted (g)
M	90.20000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	6.560	6.537	(0.741)	104496	1.56183	464.2
$	2 Phenol-d5	99	8.244	8.237	(0.931)	136257	1.63489	485.9
	3 Phenol	94	8.268	8.260	(0.934)	120073	1.35163	401.7
$	5 2-Chlorophenol-d4	132	8.484	8.476	(0.958)	117430	1.60823	478.0
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.855	8.855	(1.000)	191331	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	45483	0.94953	282.2
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.181	9.166	(1.037)	4604	0.12336	36.66
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.740	9.725	(1.100)	382447	5.23559	1556
$	18 Nitrobenzene-d5	82	10.027	10.027	(0.872)	68438	0.98606	293.1
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	10.856	10.833	(0.944)	8101	0.11872	35.28
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.026	11.087	(0.958)	96121	2.15197	639.6
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.504	11.504	(1.000)	774622	4.00000	
	28 Naphthalene	128	11.542	11.542	(1.003)	1214937	6.22144	1849
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.043	13.043	(1.134)	125267	0.92272	274.2
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.902	13.902	(0.904)	163778	1.09375	325.1
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	15.032	15.032	(0.977)	84179	0.43391	129.0
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.380	15.373	(1.000)	431955	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	15.442	15.442	(1.004)	60440	0.51652	153.5
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.798	15.798	(1.027)	161833	0.94401	280.6
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	16.563	16.563	(1.077)	76692	0.58385	173.5
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.149	17.142	(1.115)	31403	1.76134	523.5
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	18.386	18.378	(0.986)	10089	0.53004	157.5
*	59 Phenanthrene-d10	188	18.641	18.633	(1.000)	601035	4.00000	
	60 Phenanthrene	178	18.695	18.687	(1.003)	609174	3.93057	1168
	61 Anthracene	178	18.788	18.780	(1.008)	96618	0.59677	177.4

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	19.152	19.144	(1.027)	28849	0.19258	57.24(M)
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	21.132	21.101	(1.134)	575551	3.27075	972.1
65	Pyrene	202	21.535	21.519	(0.908)	621489	3.05625	908.3
$ 66	Terphenyl-d14	244	21.852	21.844	(0.921)	146138	1.14720	341.0
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.687	23.679	(0.999)	109471	0.58231	173.1
* 69	Chrysene-d12	240	23.718	23.710	(1.000)	668327	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.757	23.749	(1.002)	220845	1.33539	396.9
72	bis(2-Ethylhexyl)phthalate	149	23.826	23.818	(0.961)	61873	0.41508	123.4
* 134	Di-n-octylphthalate-d4	153	24.802	24.794	(1.000)	1085453	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	26.017	26.002	(0.996)	157613	0.91381	271.6
* 77	Perylene-d12	264	26.118	26.102	(1.000)	667061	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.365	28.342	(1.086)	151843	0.76107	226.2
79	Dibenzo(a,h)anthracene	278	28.373	28.365	(1.086)	28544	0.18162	53.98
80	Benzo(g,h,i)perylene	276	29.025	29.002	(1.111)	191714	1.12057	333.0
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.283	13.275	(1.155)	78703	0.56845	168.9
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	25.460	25.483	(0.975)	393793	2.12756	632.3
99	Perylene	252	Compound Not Detected.					
98	Retene	219	22.138	22.131	(0.933)	32970	0.34818	103.5

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52b.d
Lab Smp Id: UU52B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8894

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS101-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	191331	0.96
27 Naphthalene-d8	730932	365466	1461864	774622	5.98
42 Acenaphthene-d10	420698	210349	841396	431955	2.68
59 Phenanthrene-d10	638950	319475	1277900	601035	-5.93
69 Chrysene-d12	645065	322532	1290130	668327	3.61
134 Di-n-octylphthala	1016118	508059	2032236	1085453	6.82
77 Perylene-d12	650033	325016	1300066	667061	2.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	0.00
42 Acenaphthene-d10	15.37	14.87	15.87	15.38	0.05
59 Phenanthrene-d10	18.63	18.13	19.13	18.64	0.04
69 Chrysene-d12	23.71	23.21	24.21	23.72	0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.80	0.03
77 Perylene-d12	26.10	25.60	26.60	26.12	0.06

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

Analytical Resources, Inc.

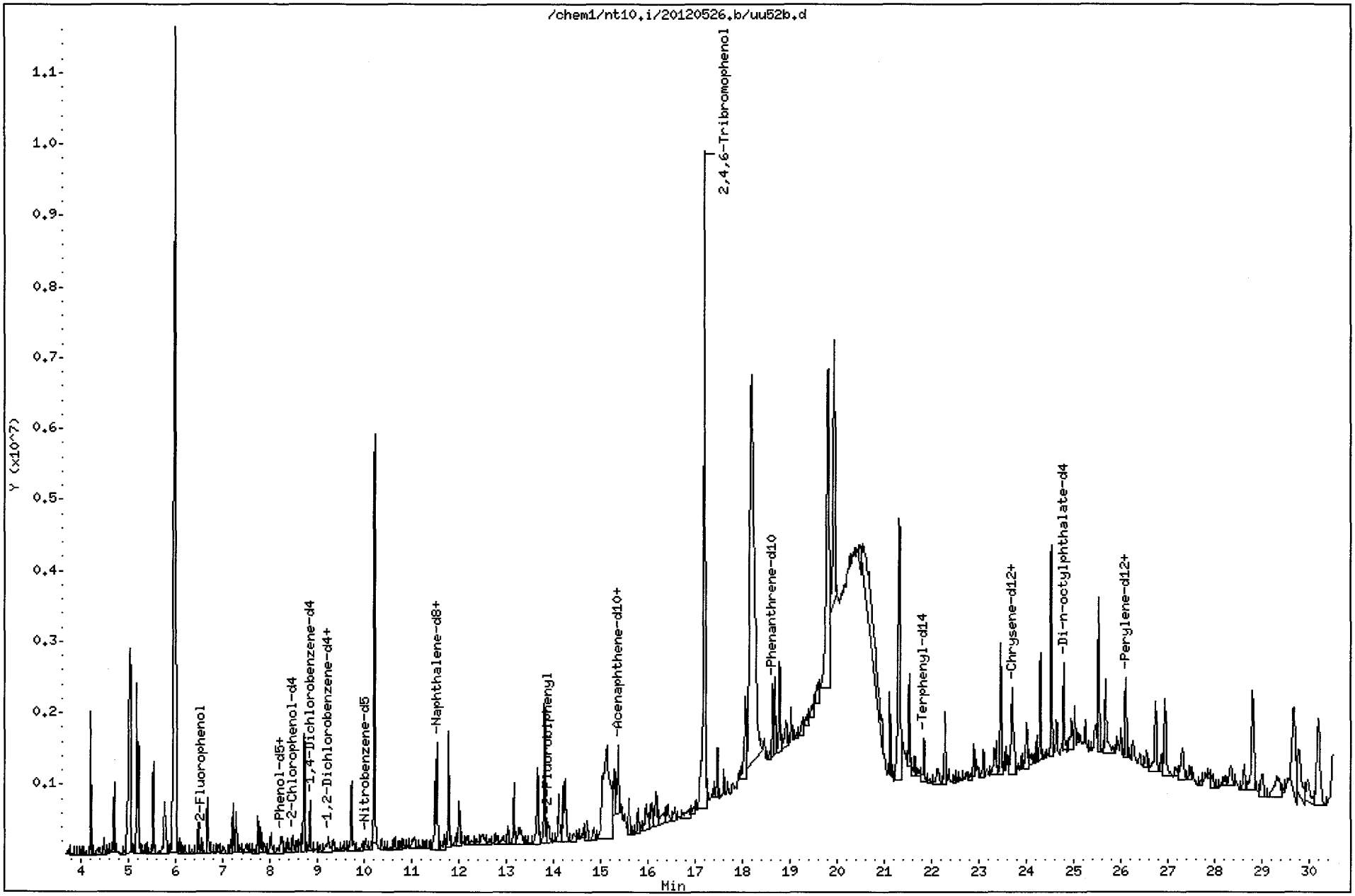
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52B Client Smp ID: MS101-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8894

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	743.0	464.2	62.47	30-160
$ 2 Phenol-d5	743.0	485.9	65.40	30-160
$ 5 2-Chlorophenol-d4	743.0	478.0	64.33	30-160
$ 10 1,2-Dichlorobenzen	495.3	282.2	56.97	30-160
$ 18 Nitrobenzene-d5	495.3	293.1	59.16	30-160
$ 36 2-Fluorobiphenyl	495.3	325.1	65.62	30-160
$ 55 2,4,6-Tribromophen	743.0	523.5	70.45	30-160
$ 66 Terphenyl-d14	495.3	341.0	68.83	30-160

Data File: /chem1/nt10.i/20120526.b/uu52b.d
Date : 26-MAY-2012 17:48
Client ID: MS101-SS-120515
Sample Info: UU52B,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52:09731

Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

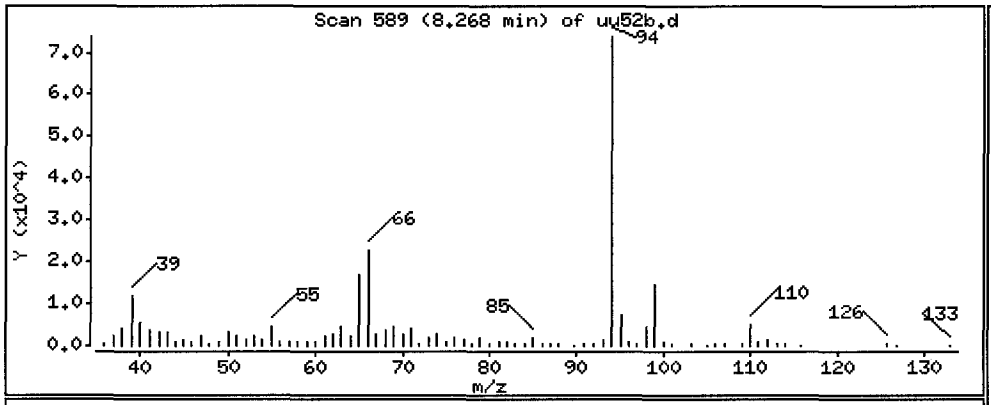
Operator: VTS/YZ

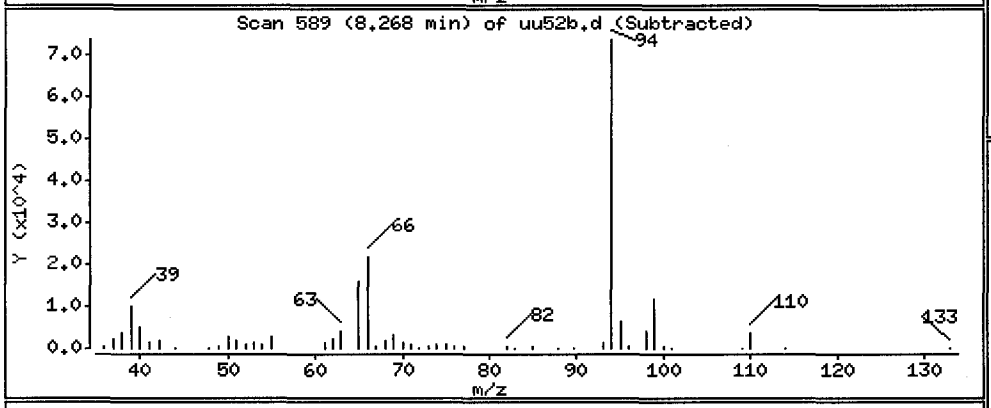
Column phase: ZB-5msi

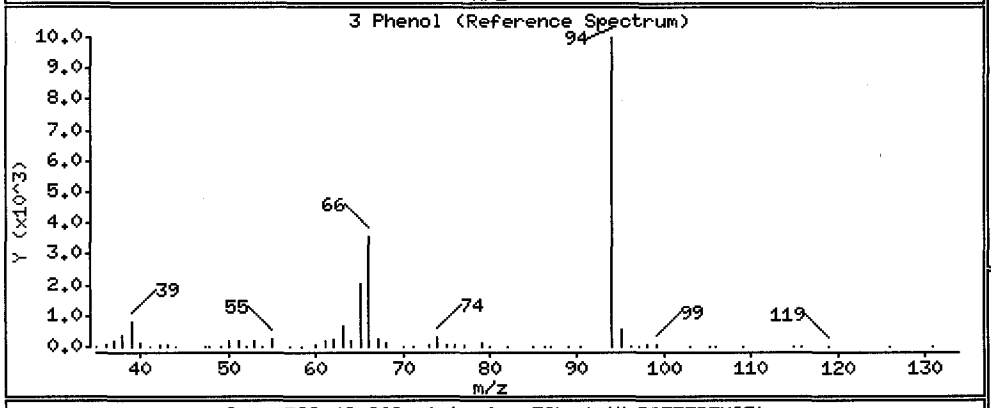
Column diameter: 0.25

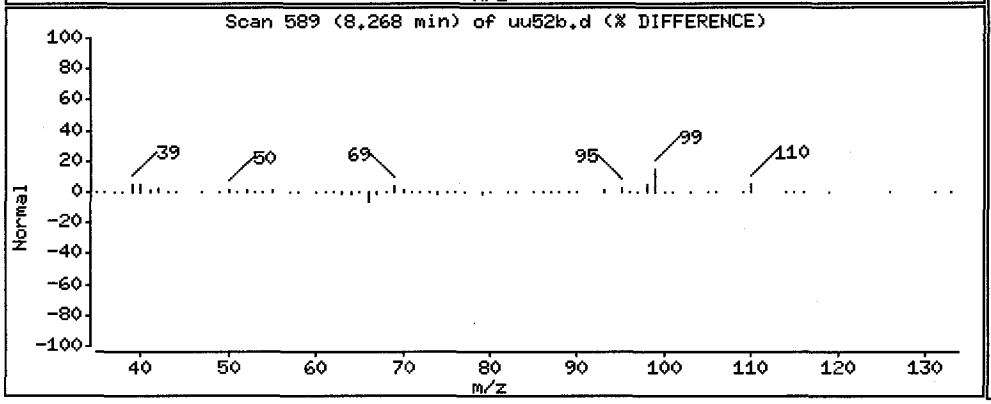
3 Phenol

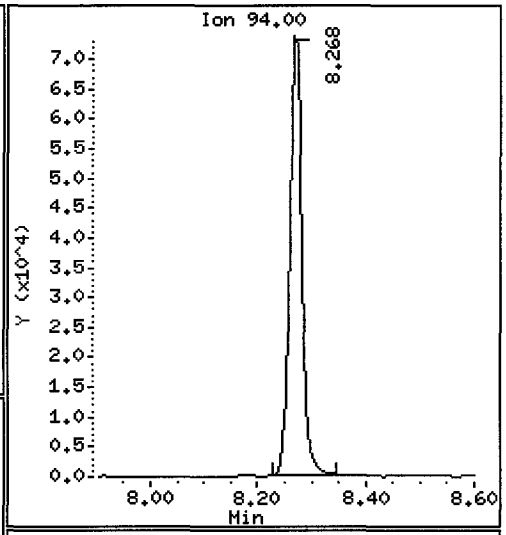
Concentration: 401.7 ug/kg

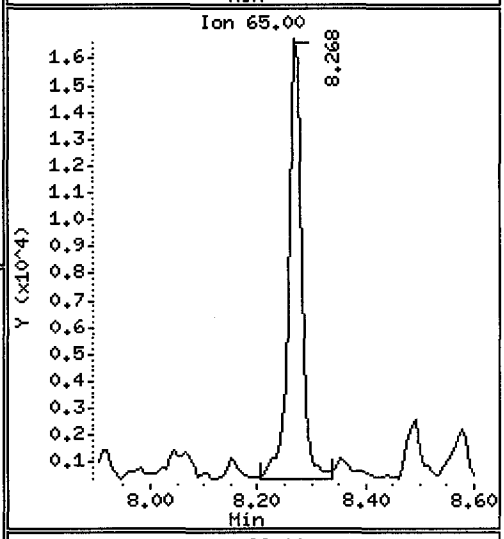


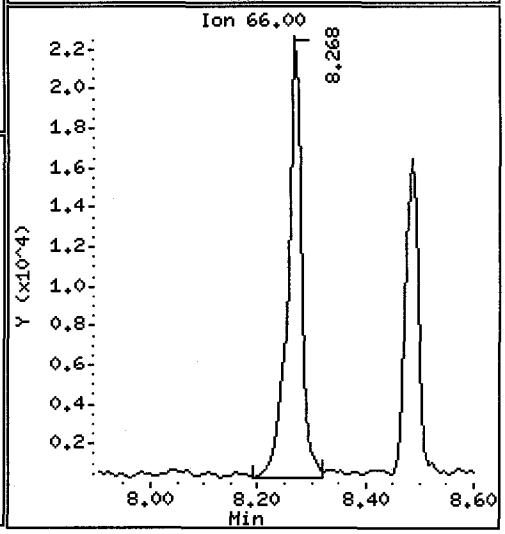












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

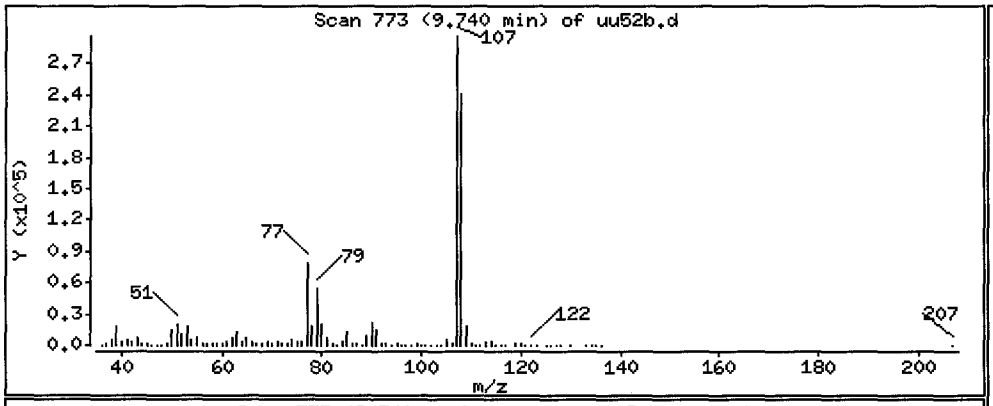
Client ID: MS101-SS-120515 Instrument: nt10.i

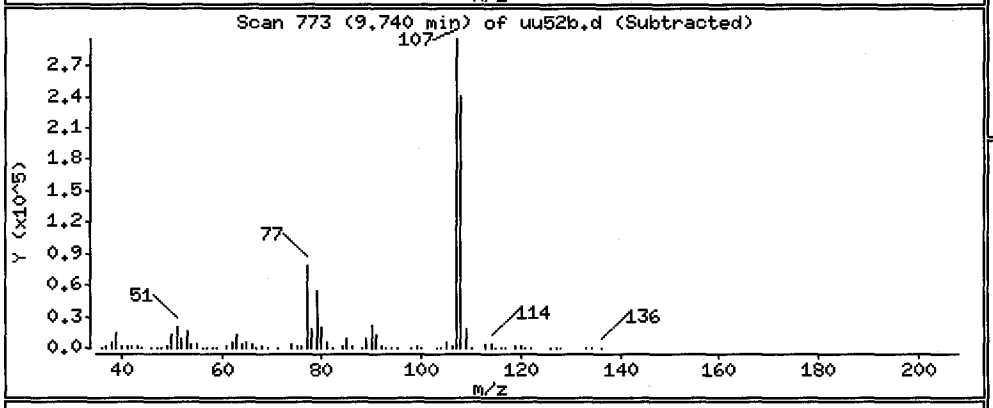
Sample Info: UU52B,3

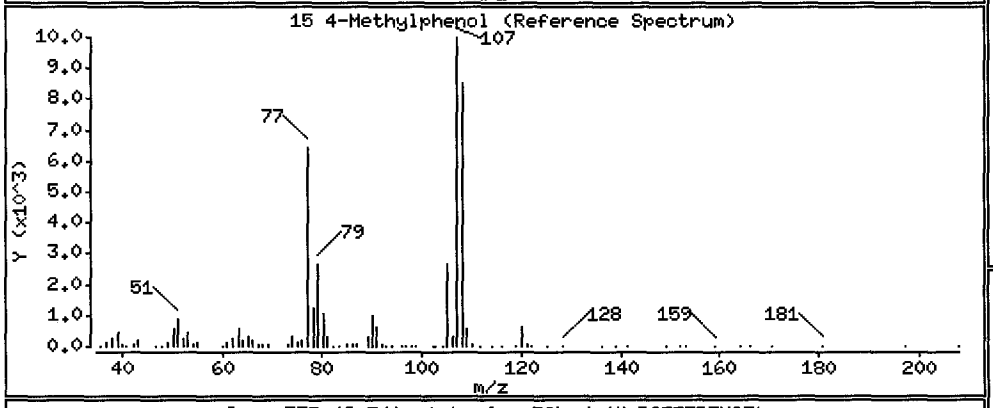
Volume Injected (uL): 1.0 Operator: VTS/YZ

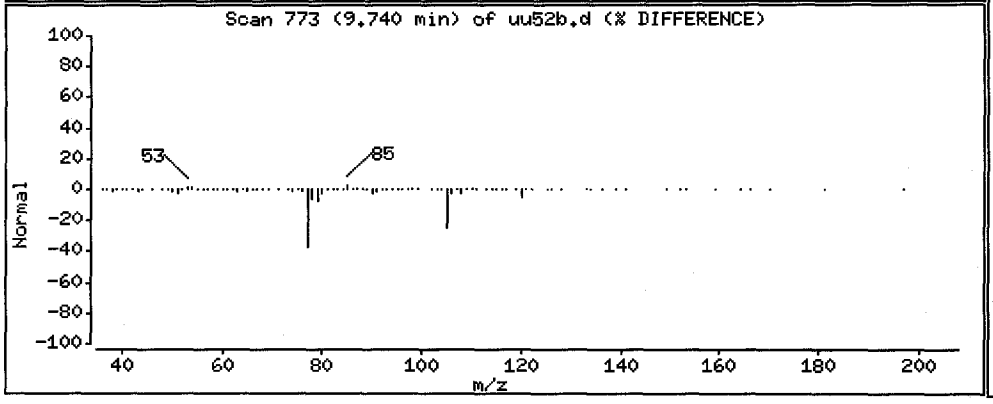
Column phase: ZB-5msi Column diameter: 0.25

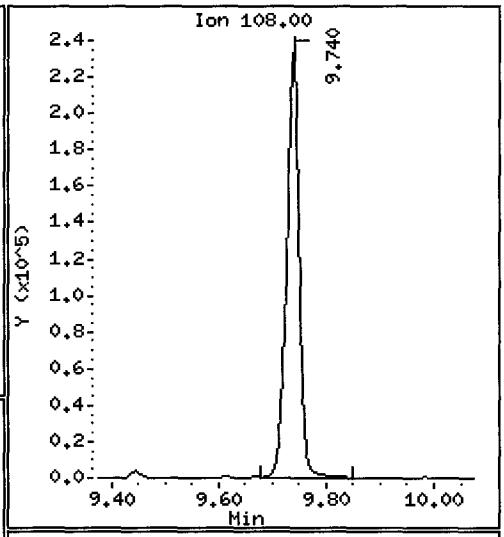
15 4-Methylphenol Concentration: 1556 ug/kg

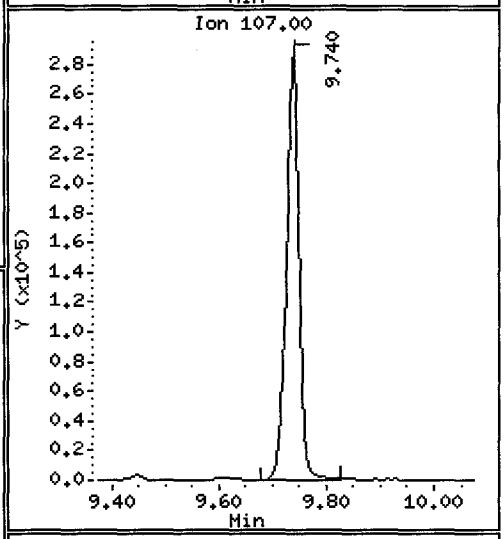


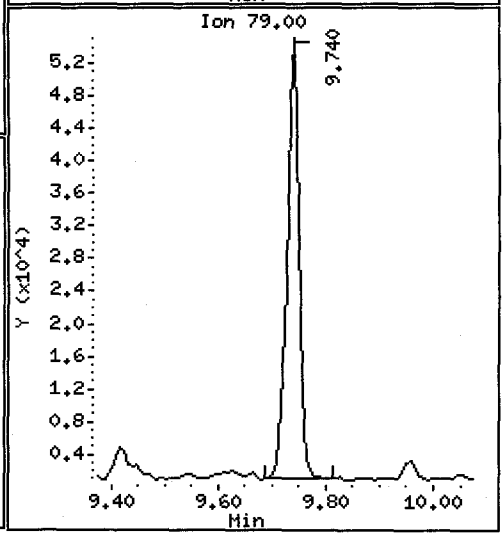












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

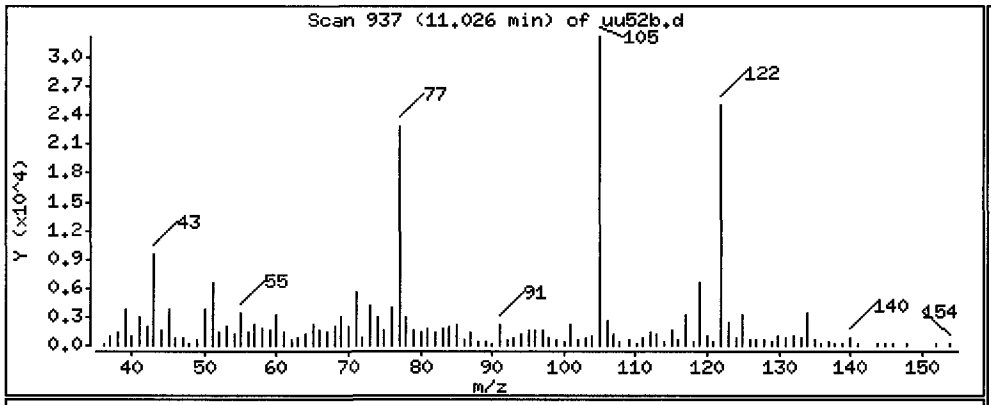
Operator: VTS/YZ

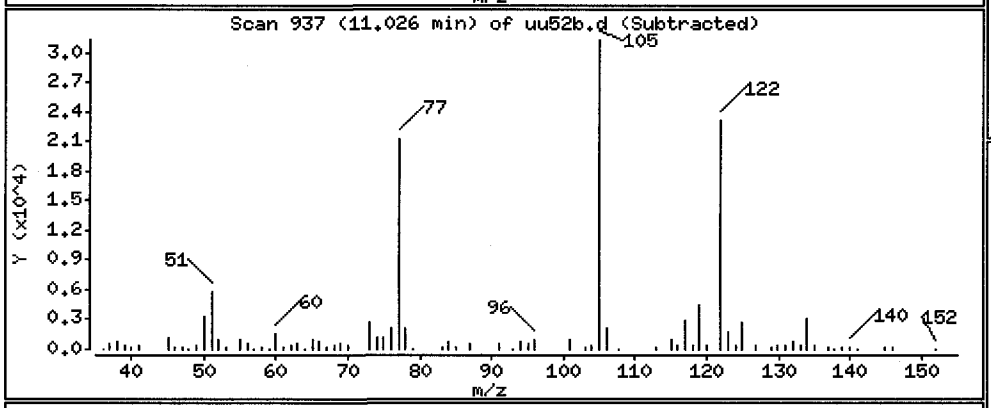
Column phase: ZB-5msi

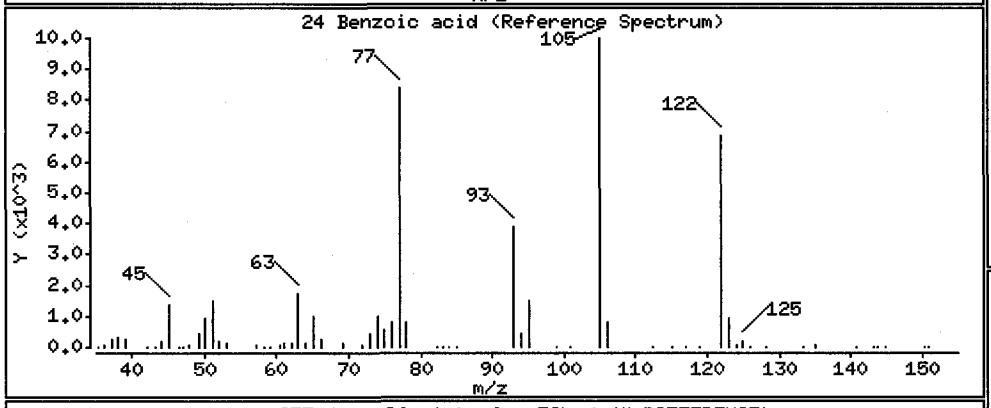
Column diameter: 0.25

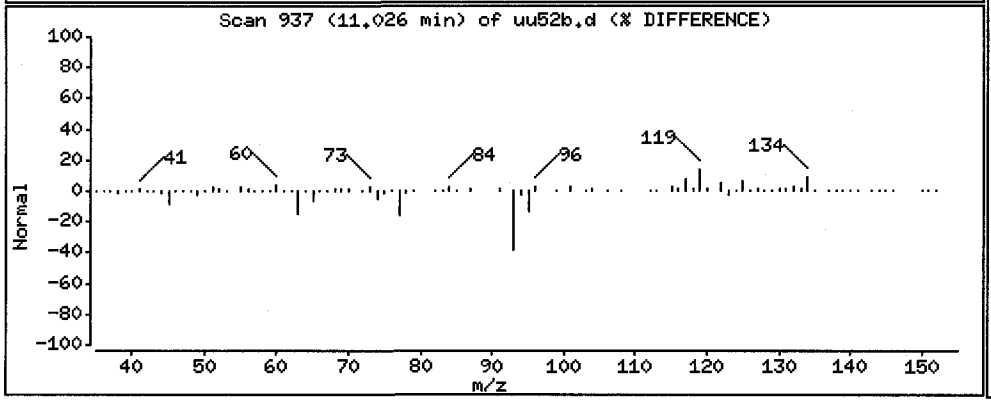
24 Benzoic acid

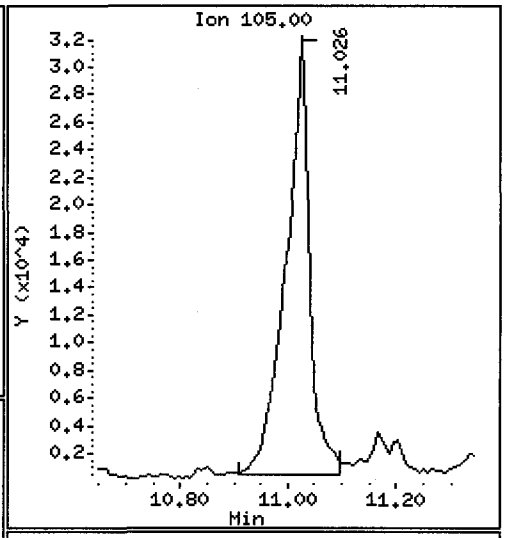
Concentration: 639.6 ug/kg

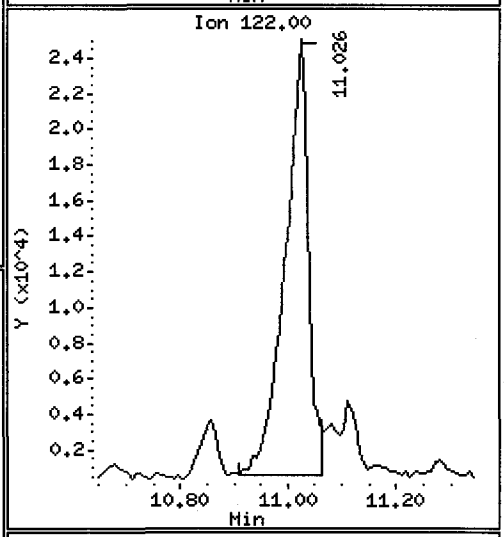


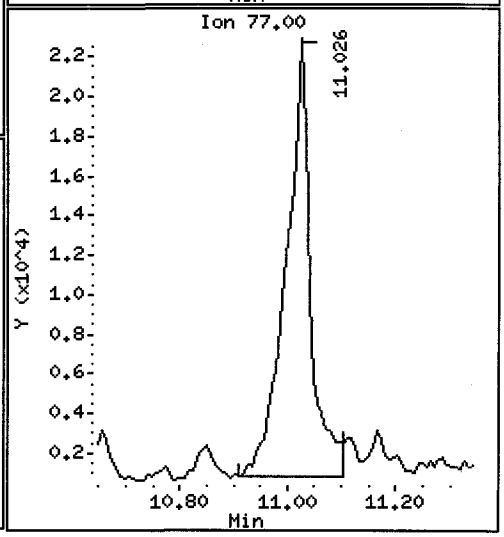












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

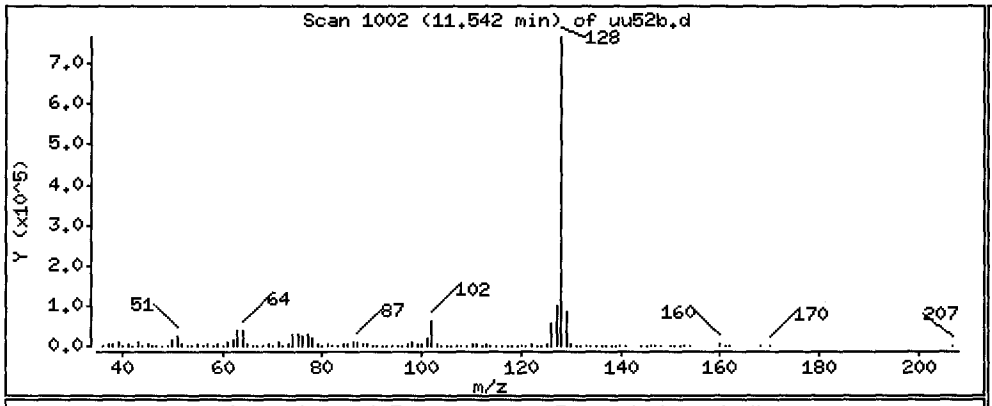
Operator: VTS/YZ

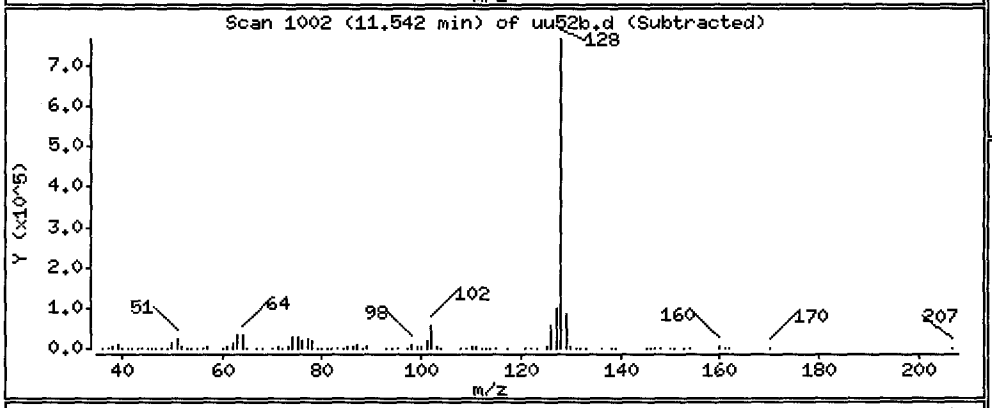
Column phase: ZB-5msi

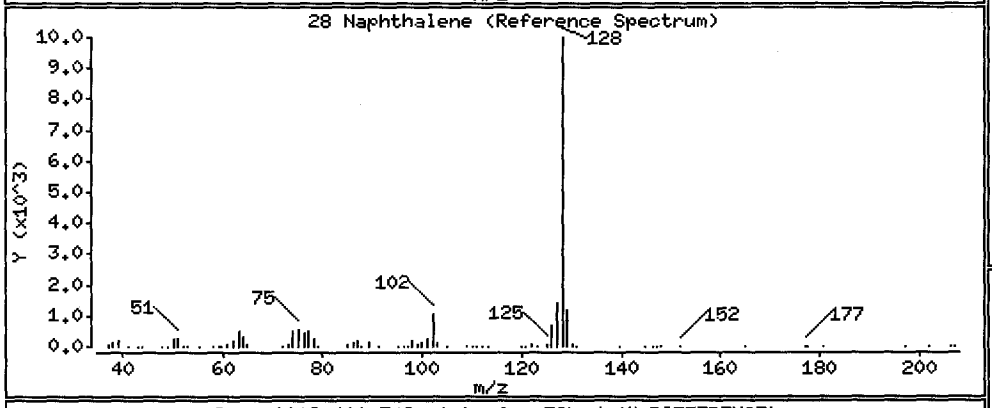
Column diameter: 0.25

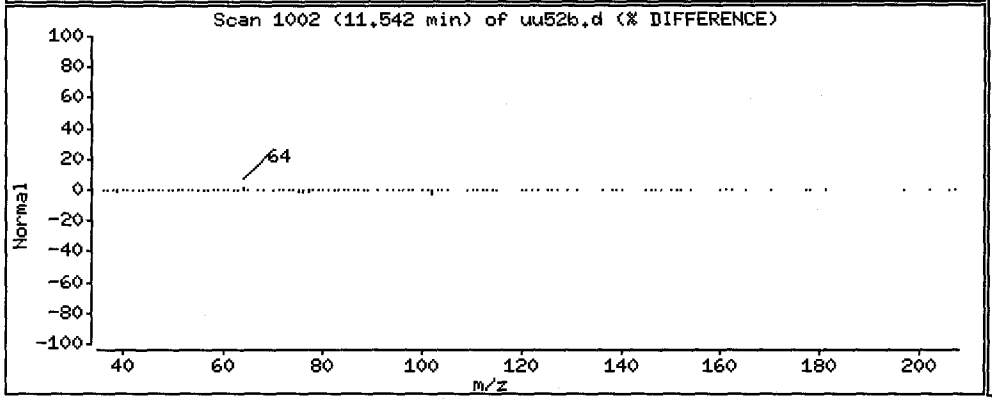
28 Naphthalene

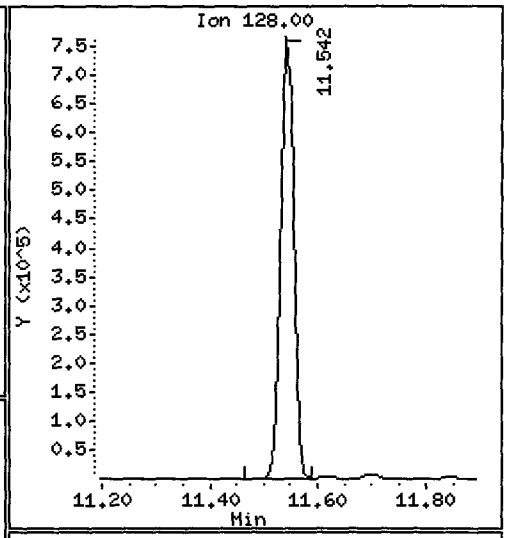
Concentration: 1849 ug/kg

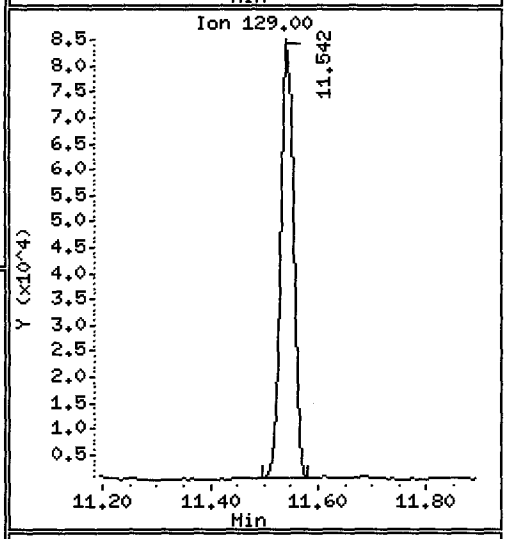


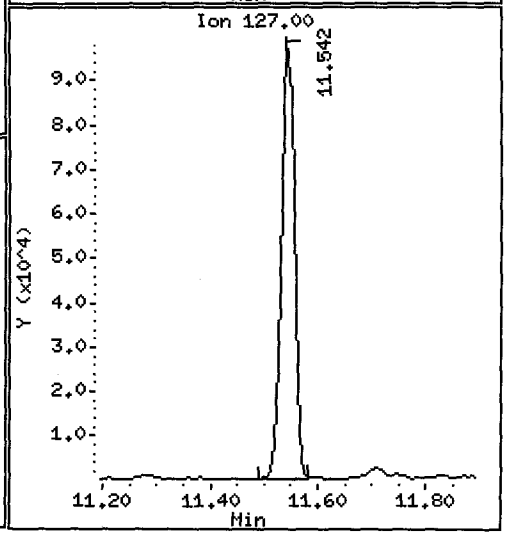












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

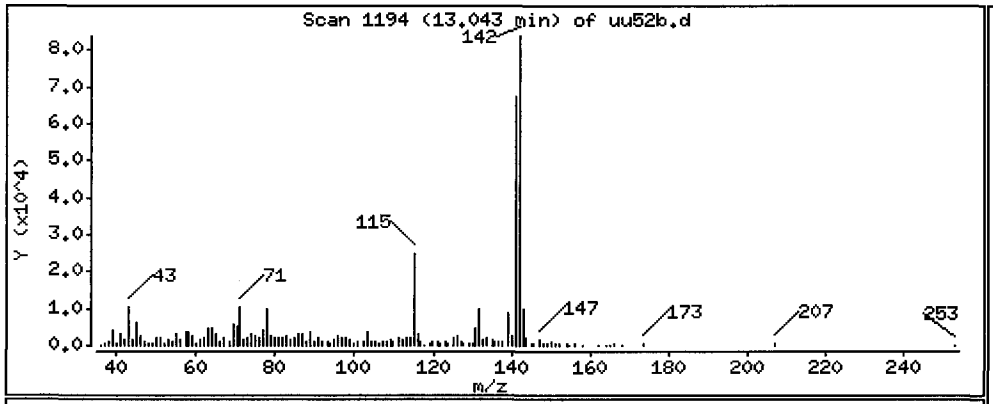
Client ID: MS101-SS-120515 Instrument: nt10.i

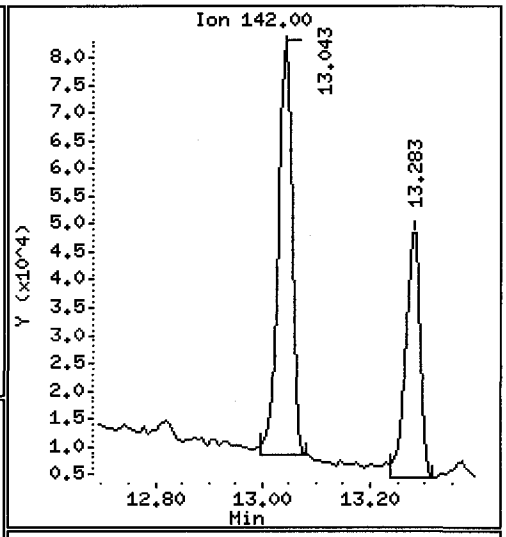
Sample Info: UU52B,3

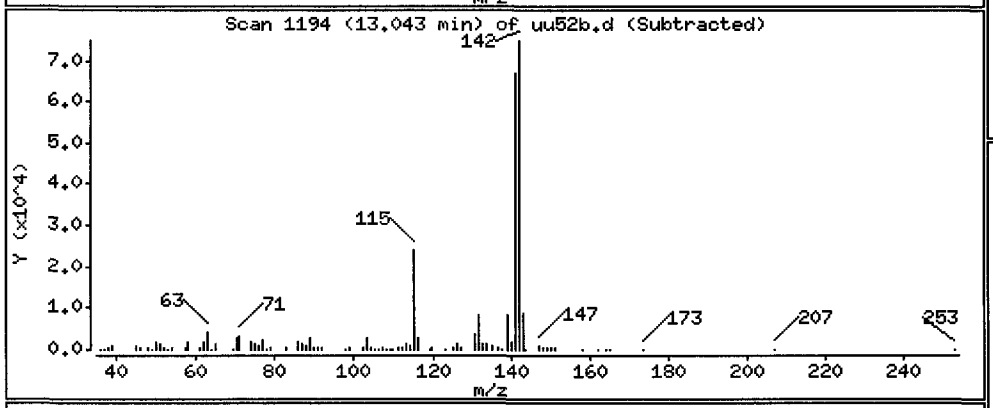
Volume Injected (uL): 1.0 Operator: VTS/YZ

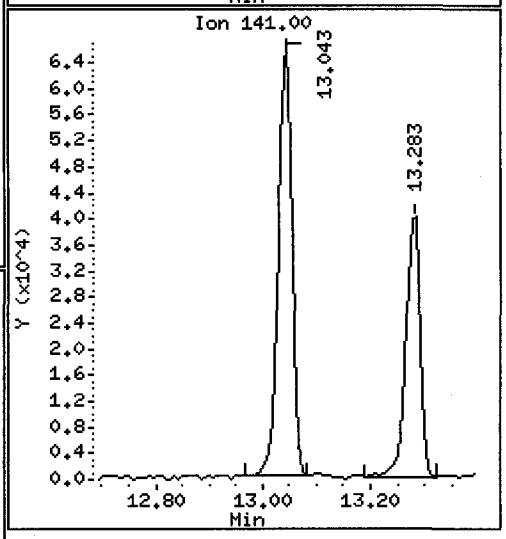
Column phase: ZB-5msi Column diameter: 0.25

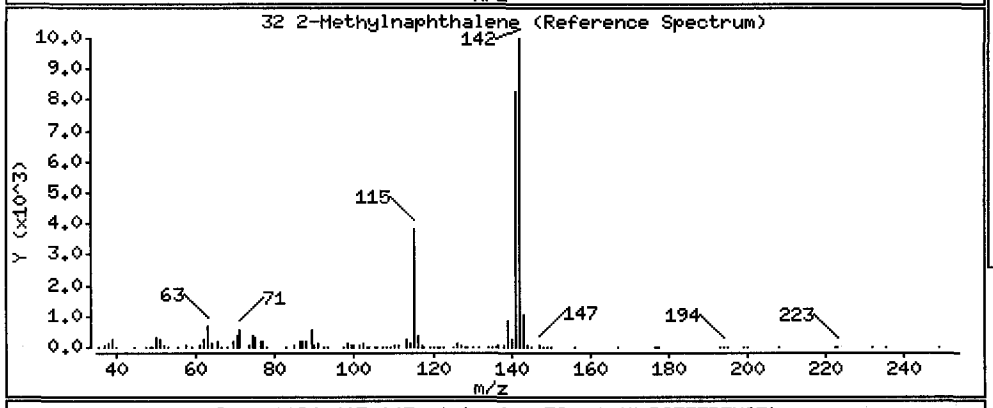
32 2-Methylnaphthalene Concentration: 274.2 ug/kg

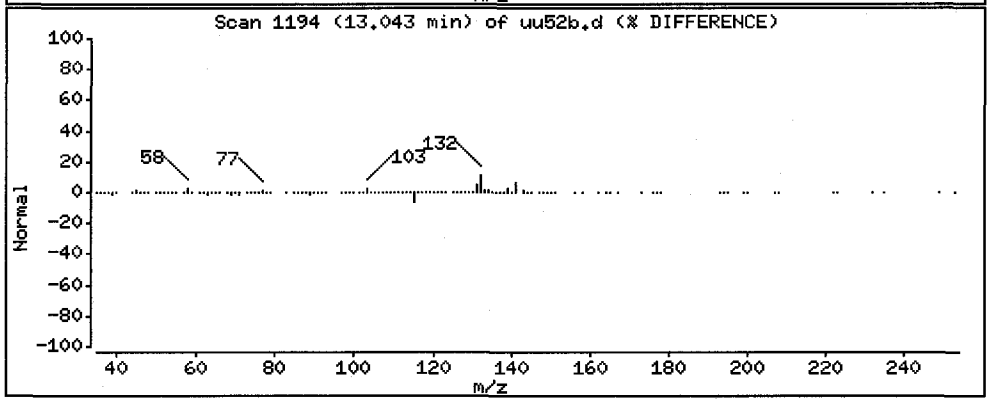












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

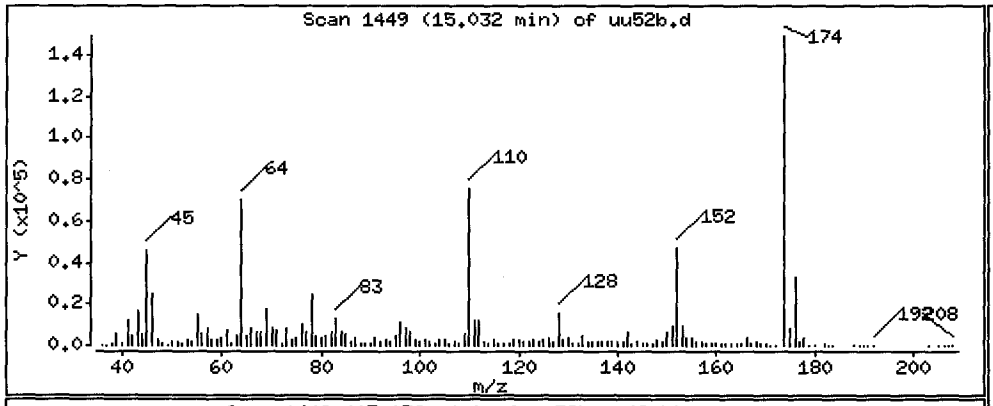
Operator: VTS/YZ

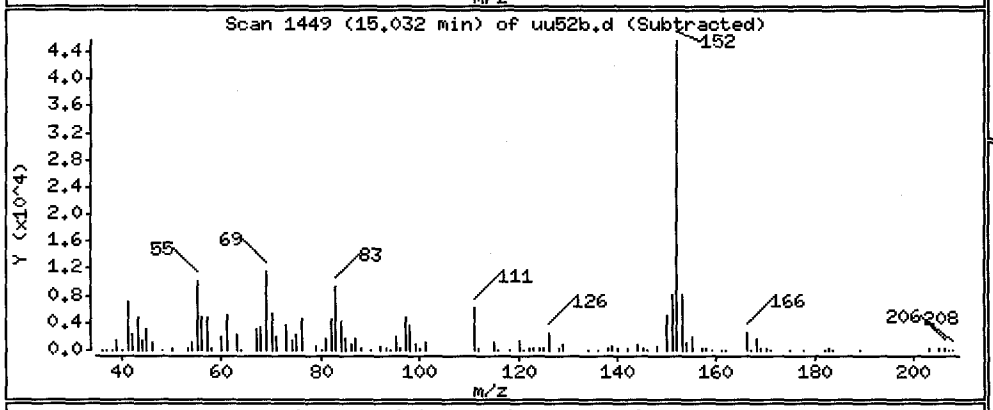
Column phase: ZB-5msi

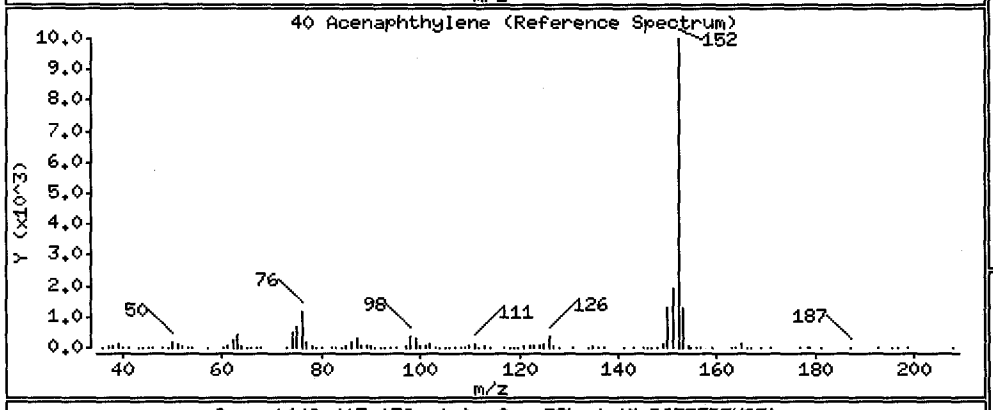
Column diameter: 0.25

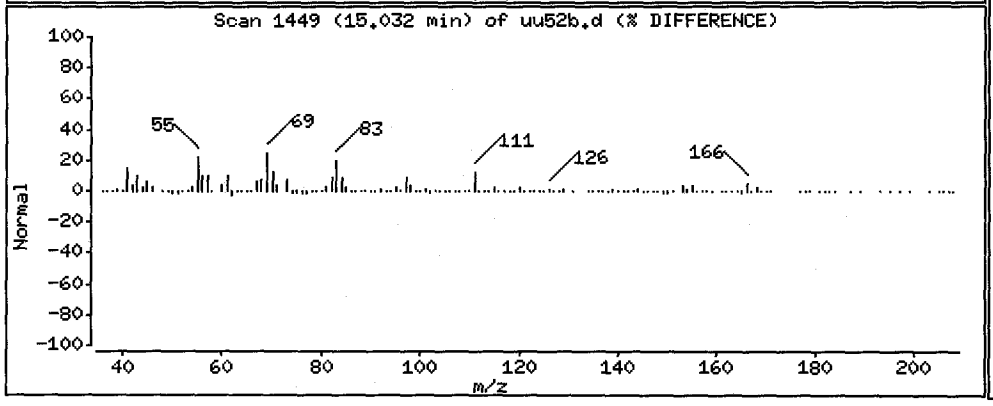
40 Acenaphthylene

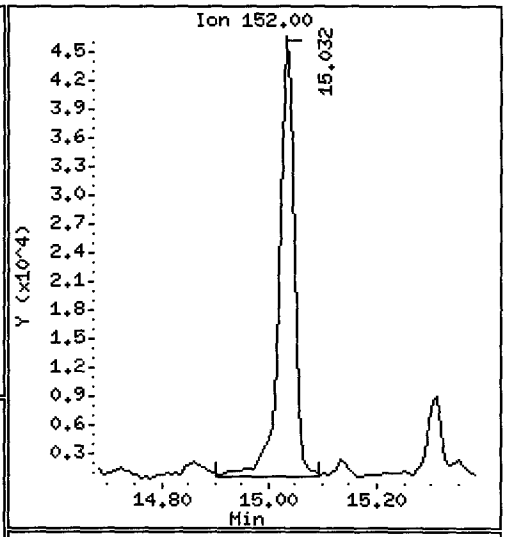
Concentration: 129.0 ug/kg

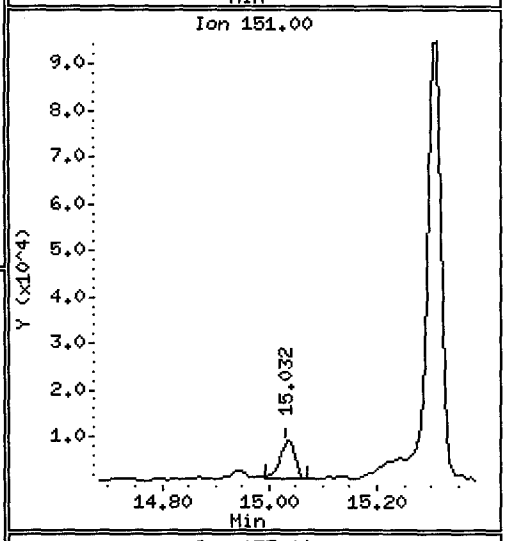


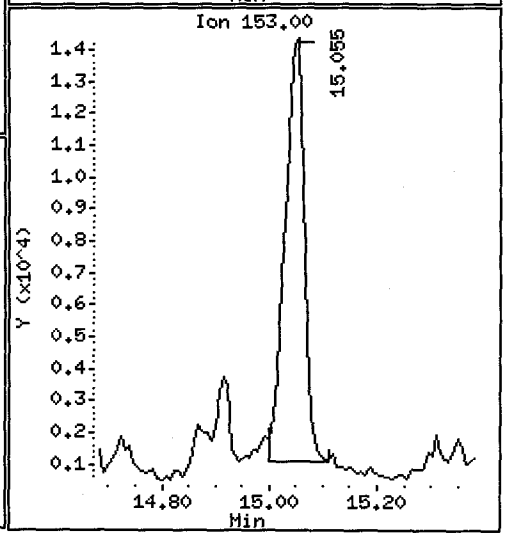












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

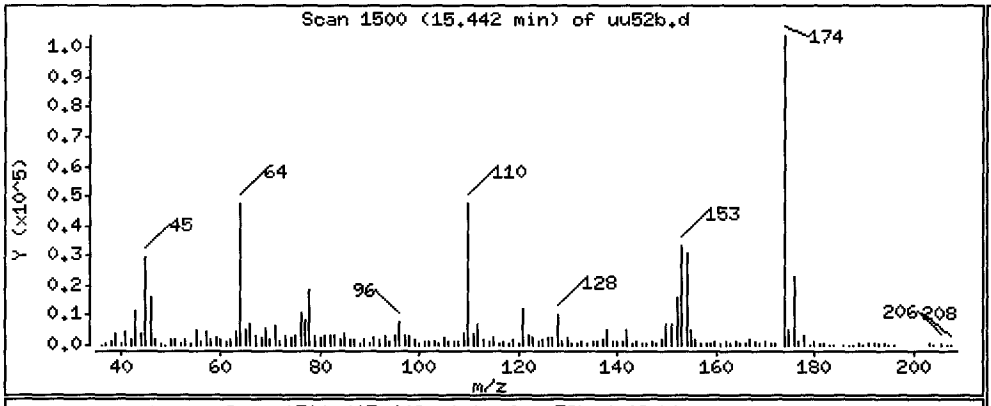
Operator: VTS/YZ

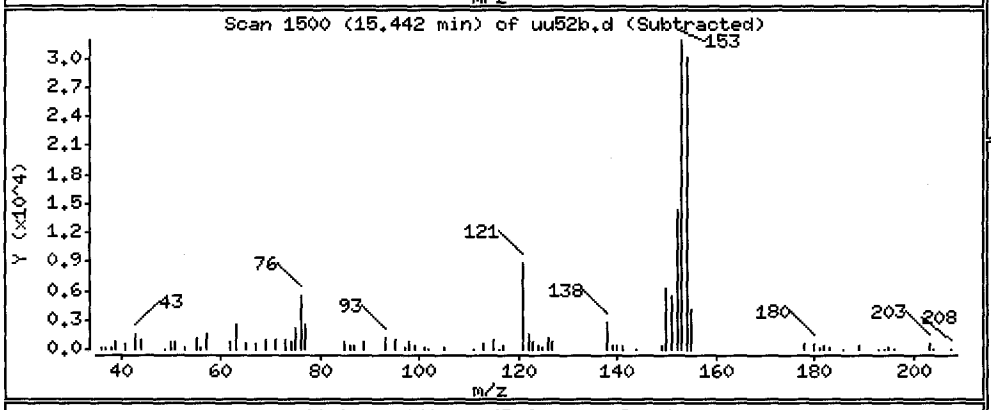
Column phase: ZB-5msi

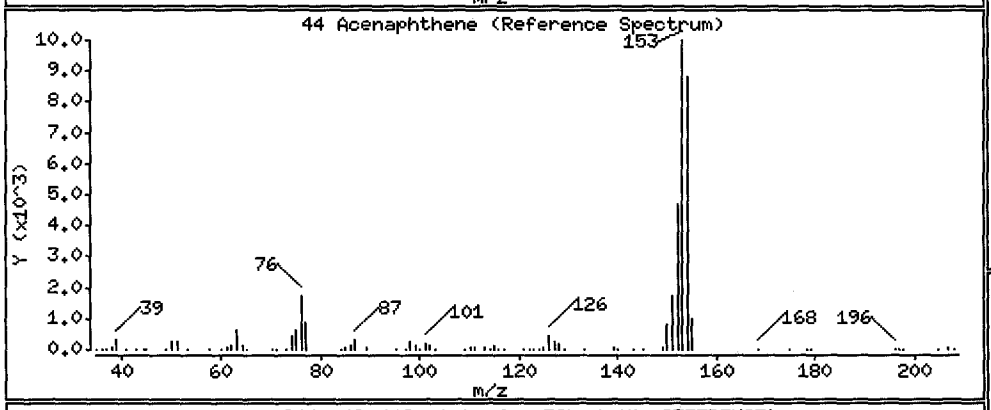
Column diameter: 0.25

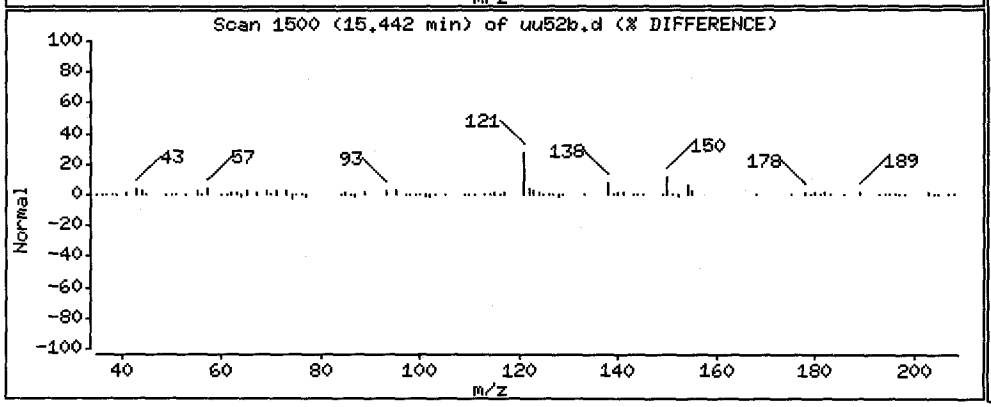
44 Acenaphthene

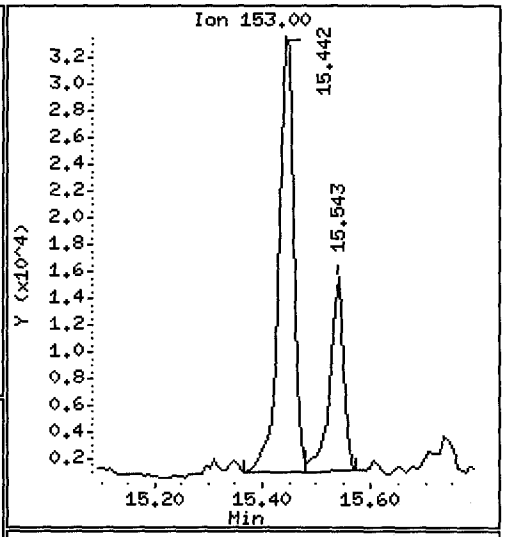
Concentration: 153.5 ug/kg

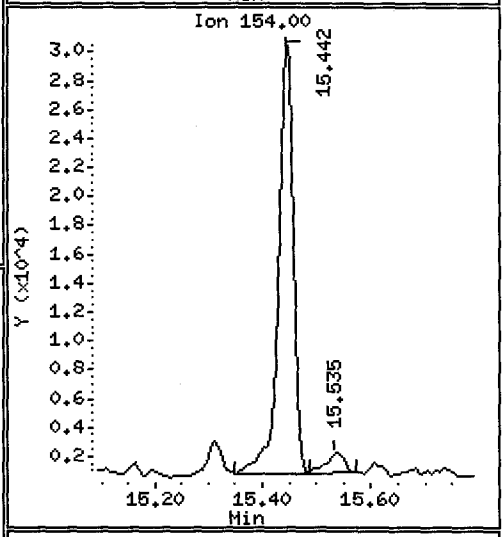


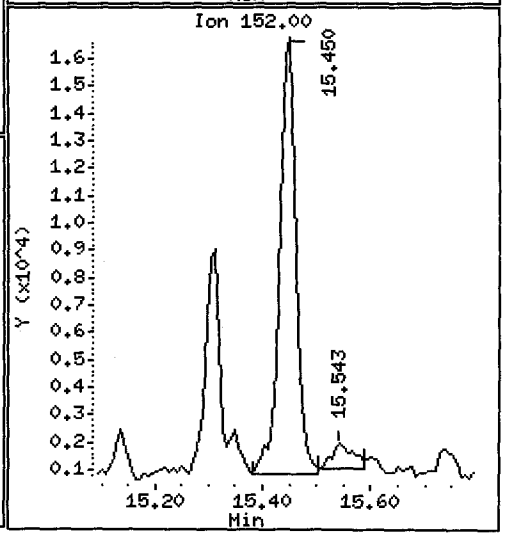












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

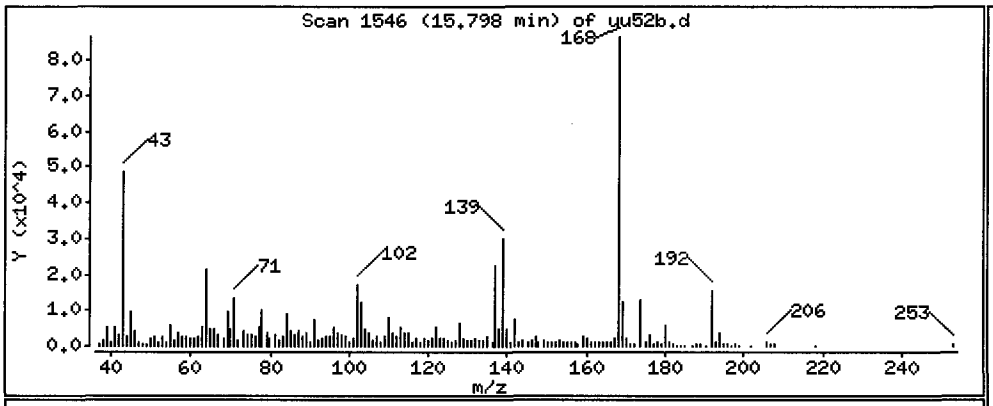
Operator: VTS/YZ

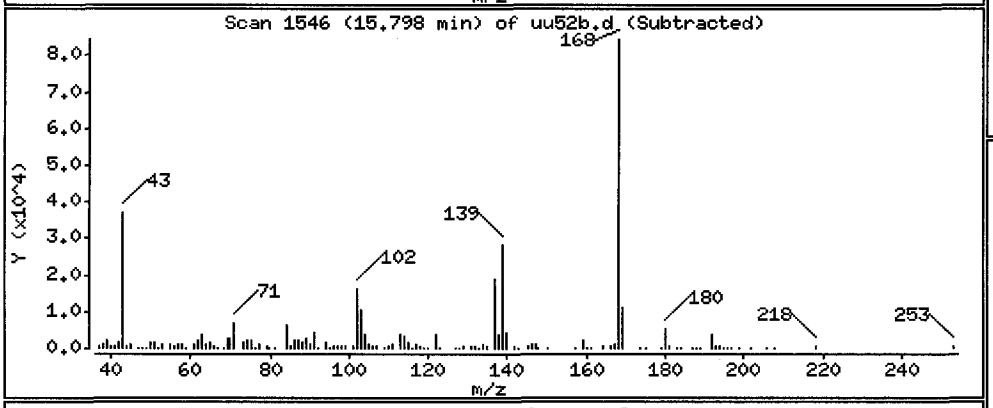
Column phase: ZB-5msi

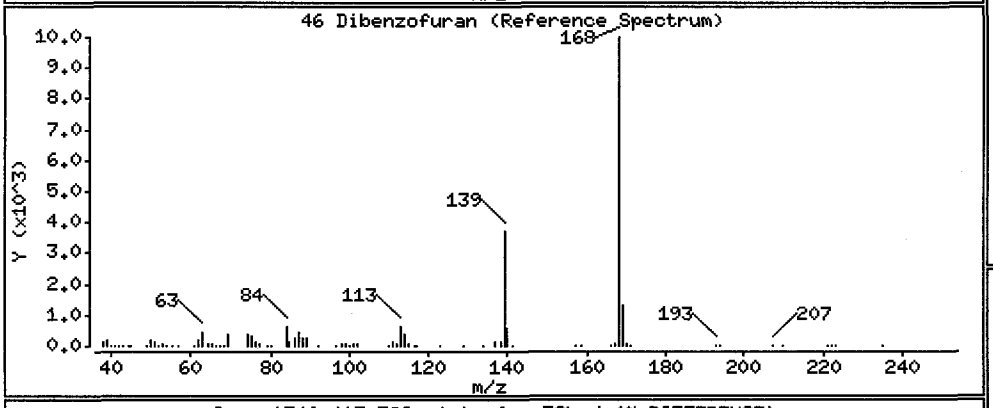
Column diameter: 0.25

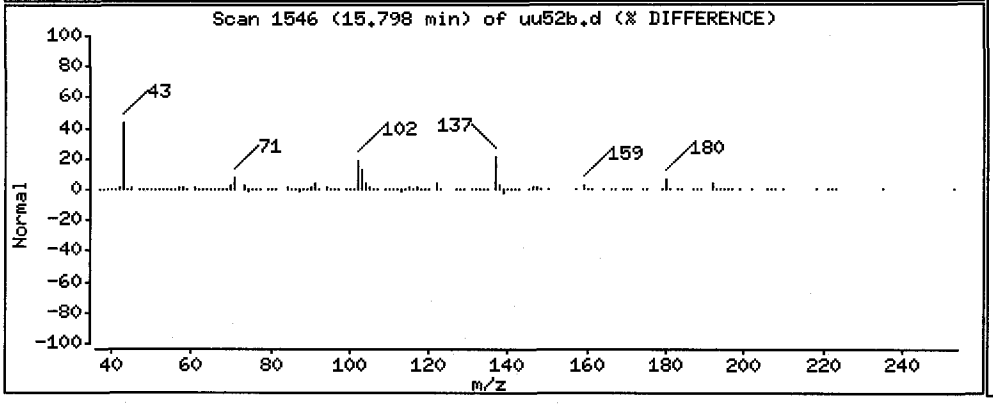
46 Dibenzofuran

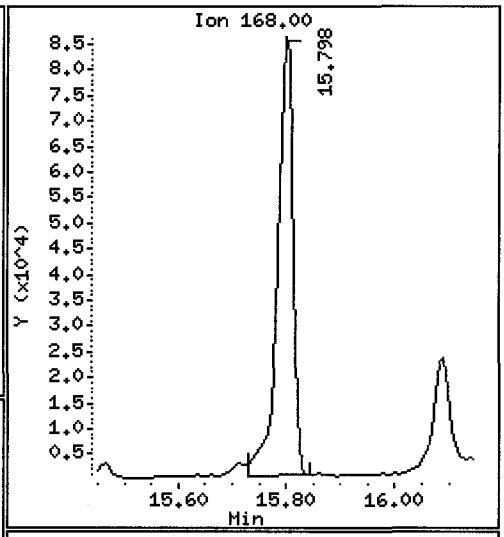
Concentration: 280.6 ug/kg

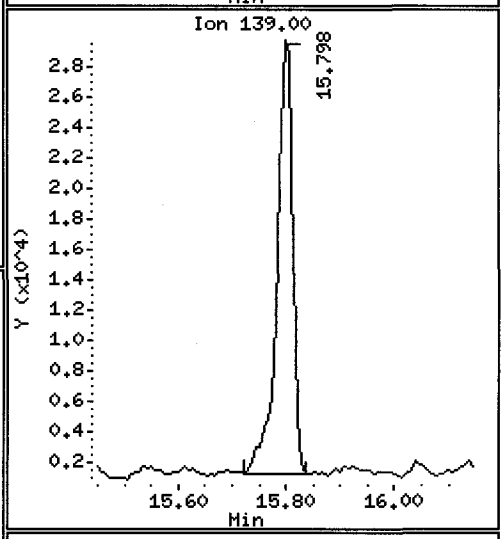


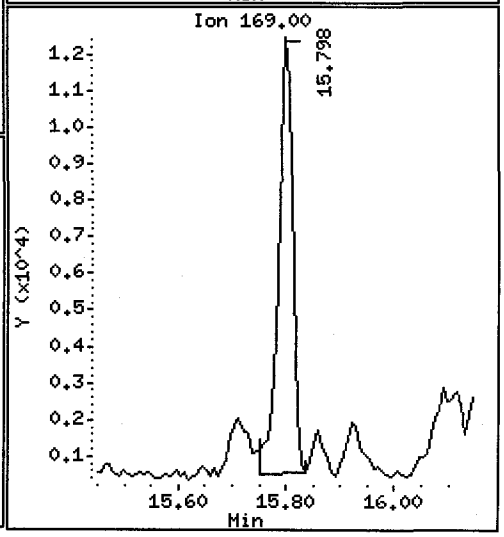












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

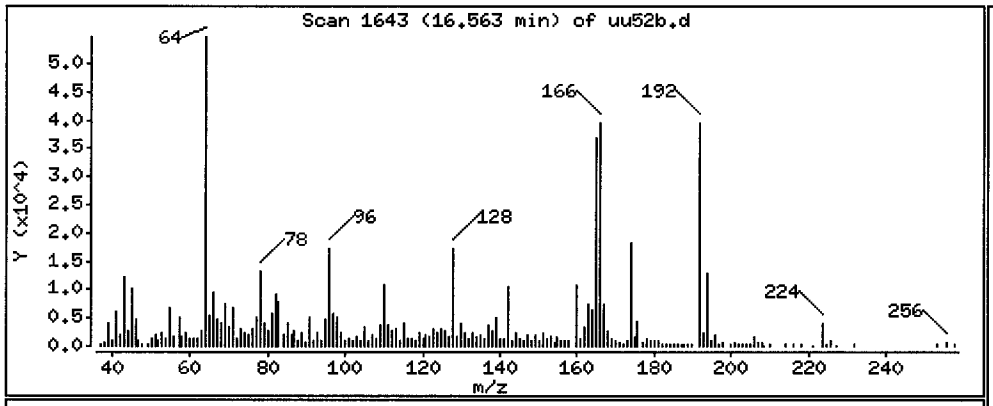
Operator: VTS/YZ

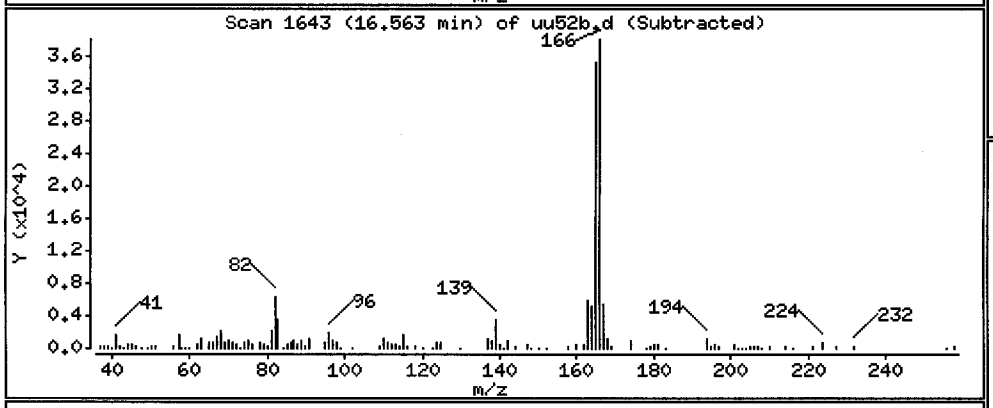
Column phase: ZB-5msi

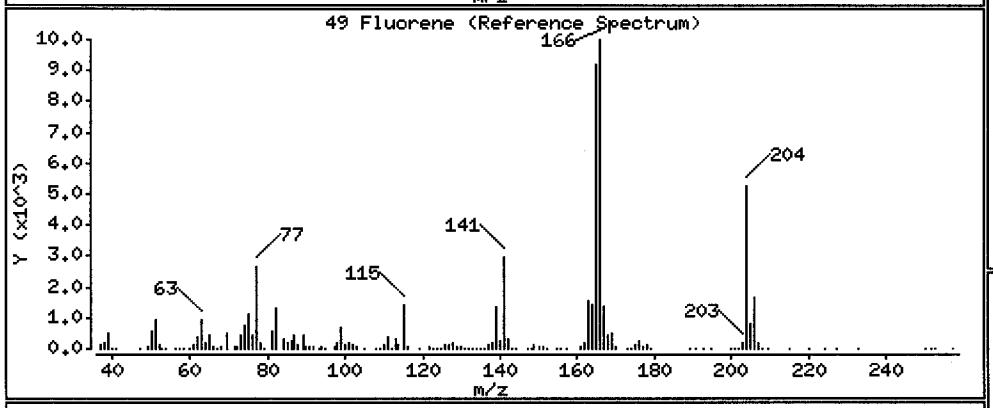
Column diameter: 0.25

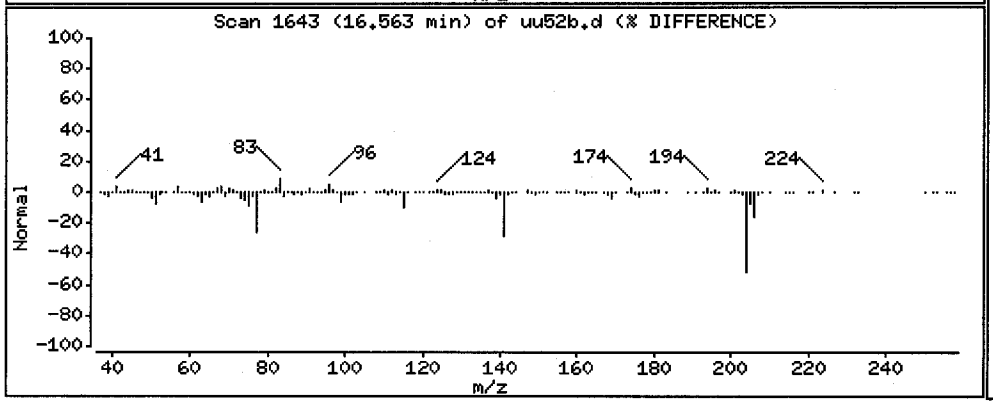
49 Fluorene

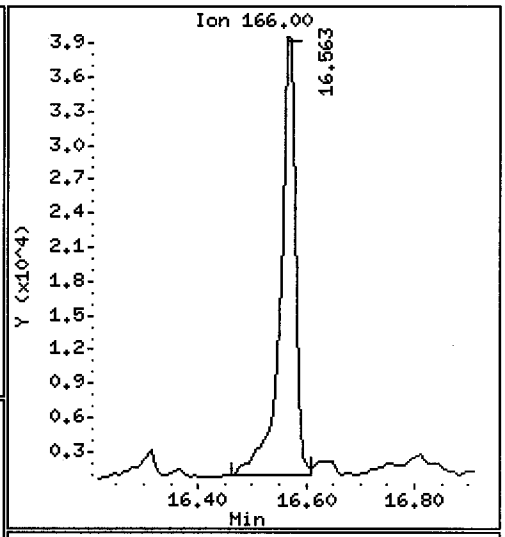
Concentration: 173.5 ug/kg

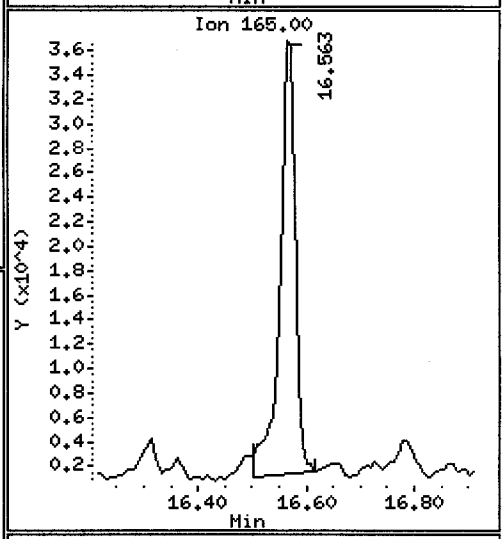


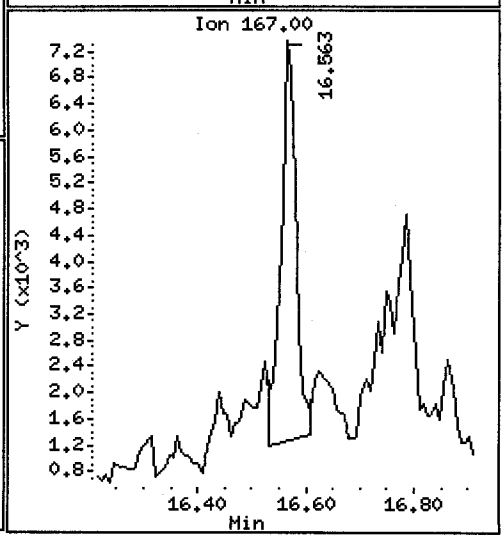












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

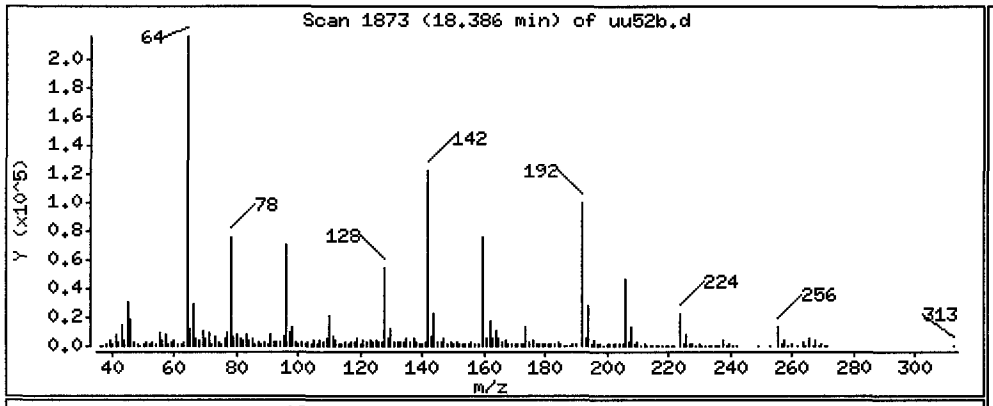
Client ID: MS101-SS-120515 Instrument: nt10.i

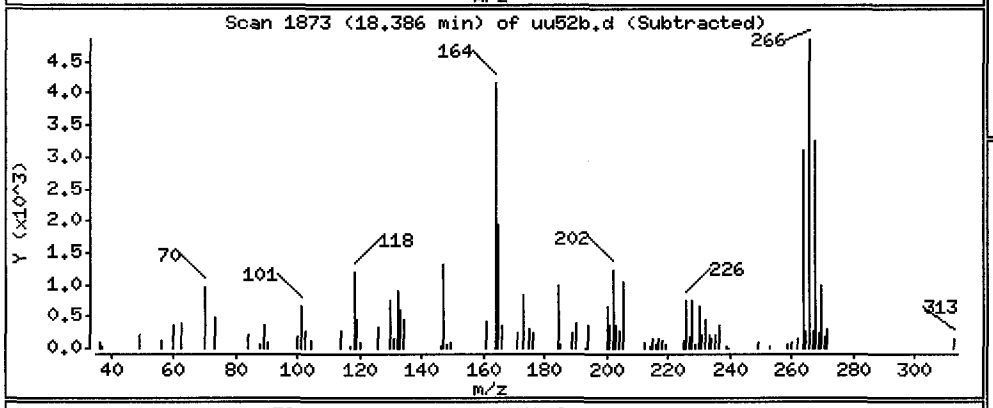
Sample Info: UU52B,3

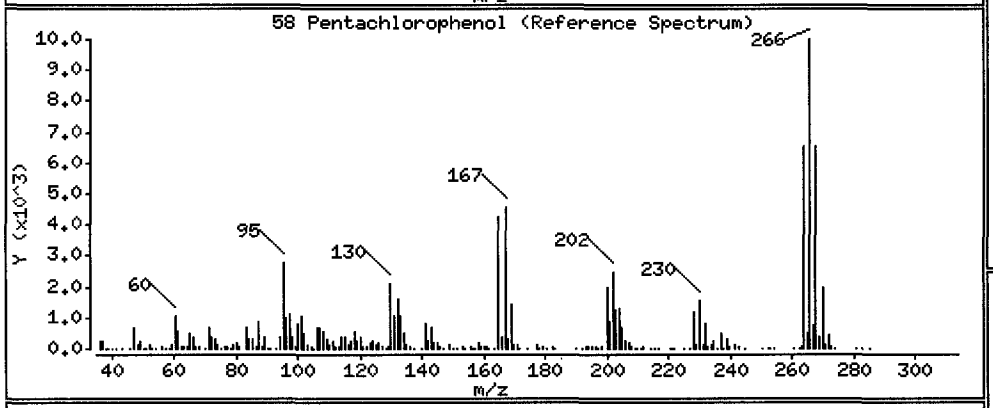
Volume Injected (uL): 1.0 Operator: VTS/YZ

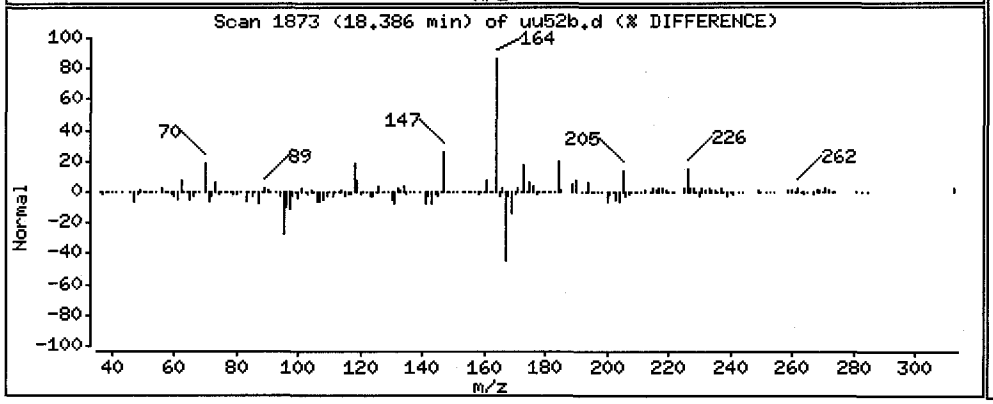
Column phase: ZB-5msi Column diameter: 0.25

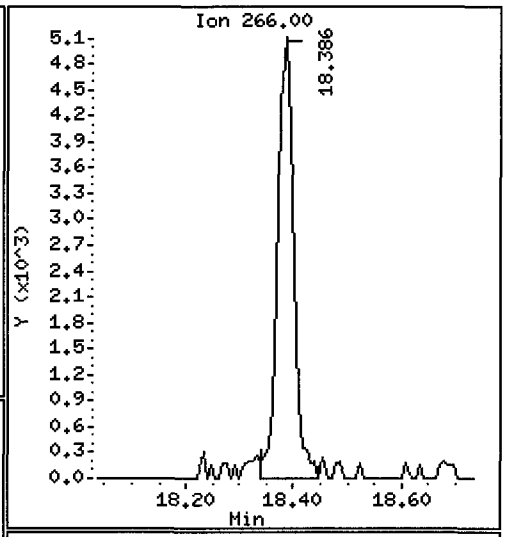
58 Pentachlorophenol Concentration: 157.5 ug/kg

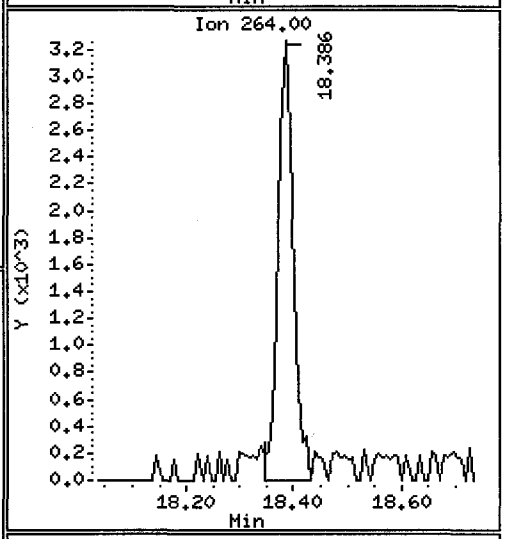


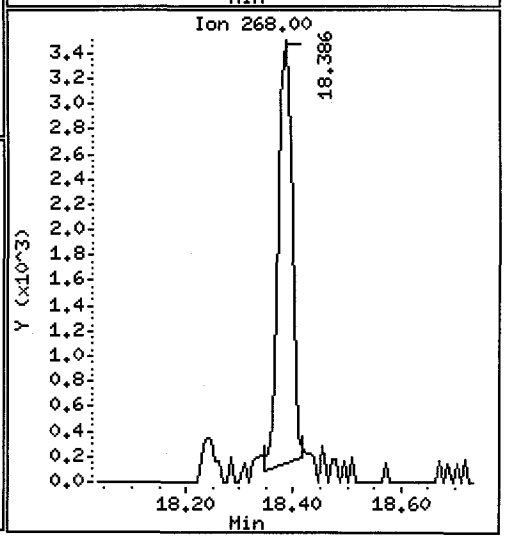












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

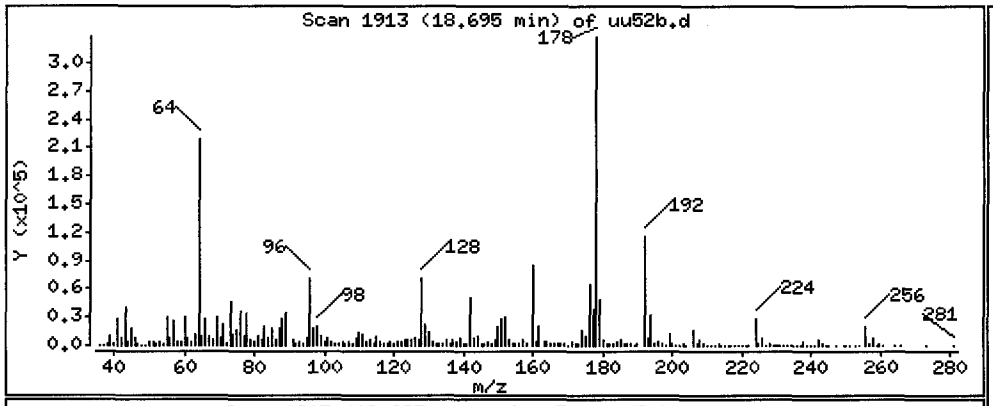
Operator: VTS/YZ

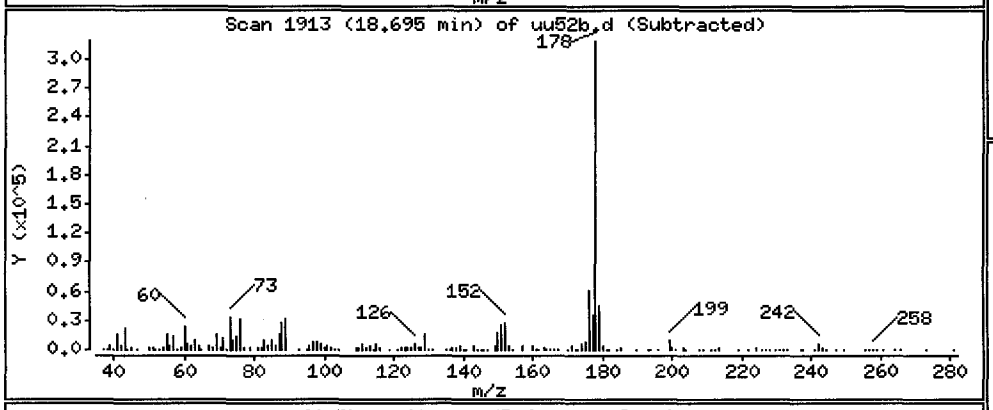
Column phase: ZB-5msi

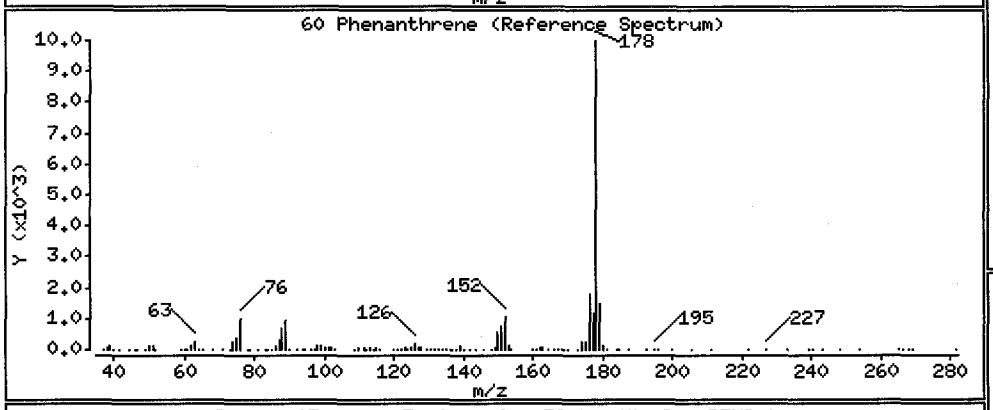
Column diameter: 0.25

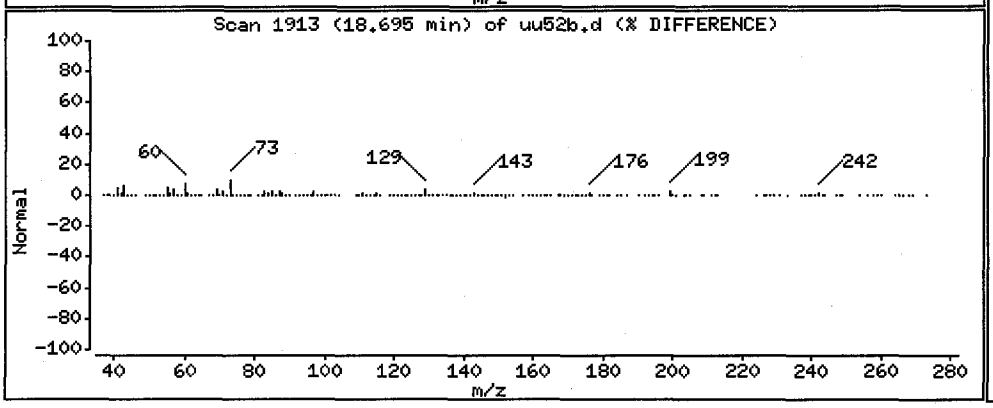
60 Phenanthrene

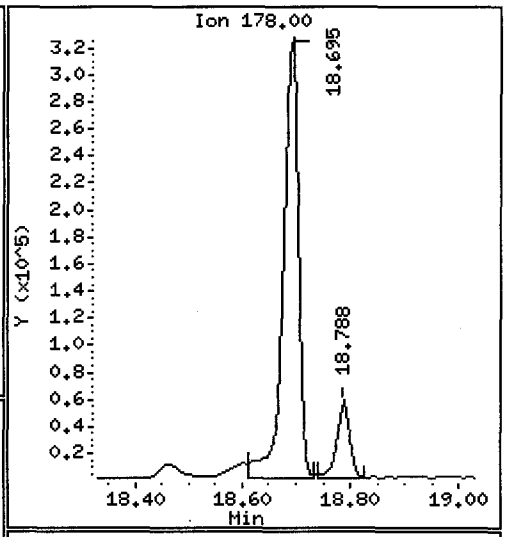
Concentration: 1168 ug/kg

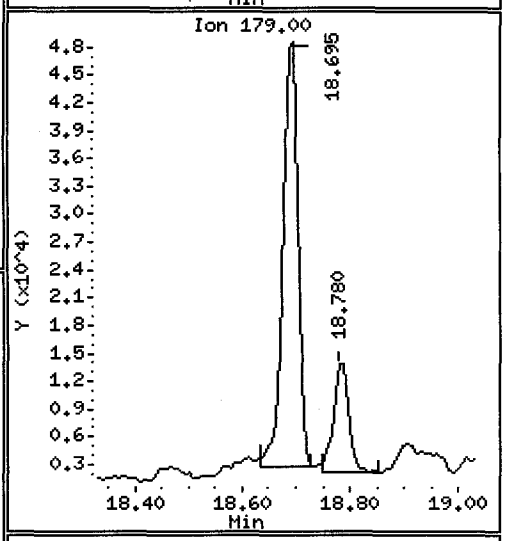


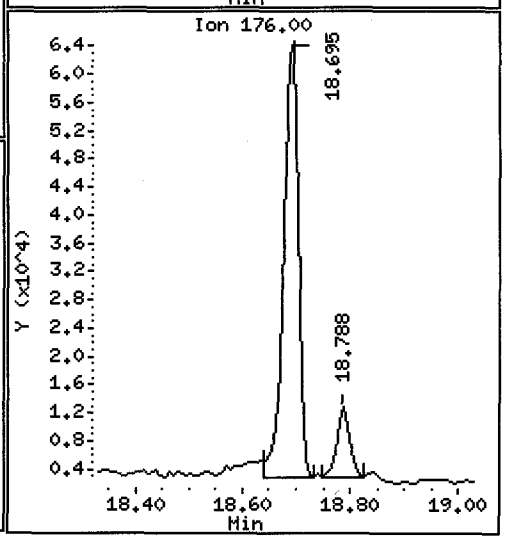












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

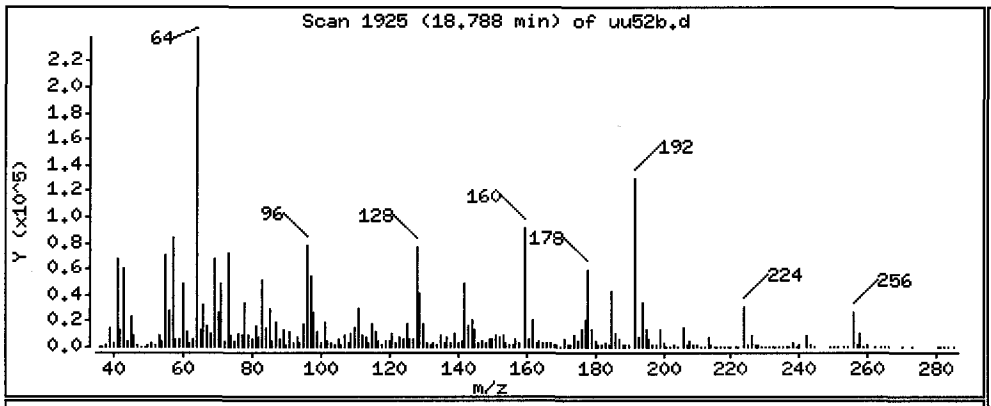
Operator: VTS/YZ

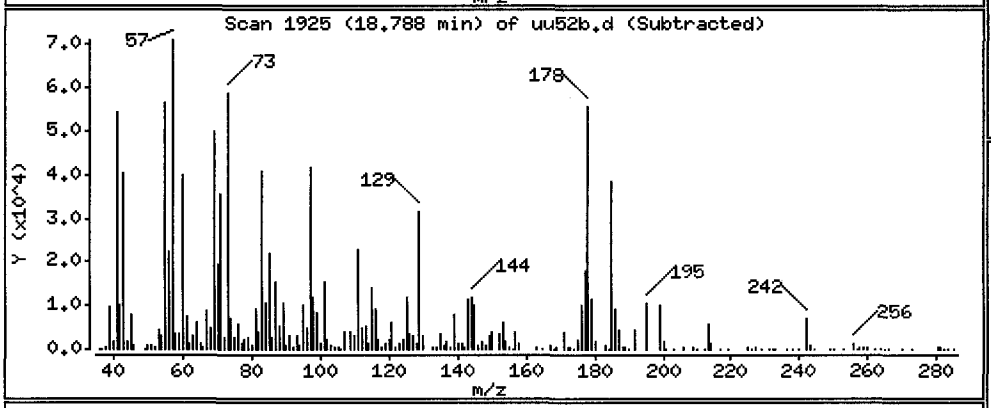
Column phase: ZB-5msi

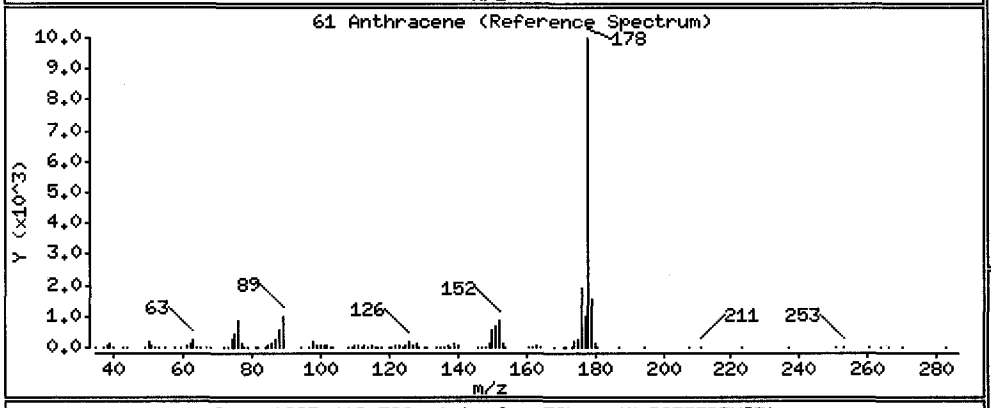
Column diameter: 0.25

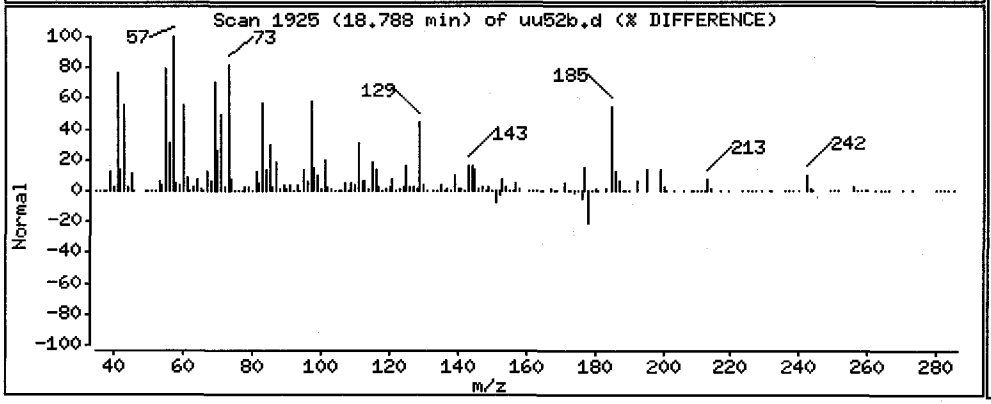
61 Anthracene

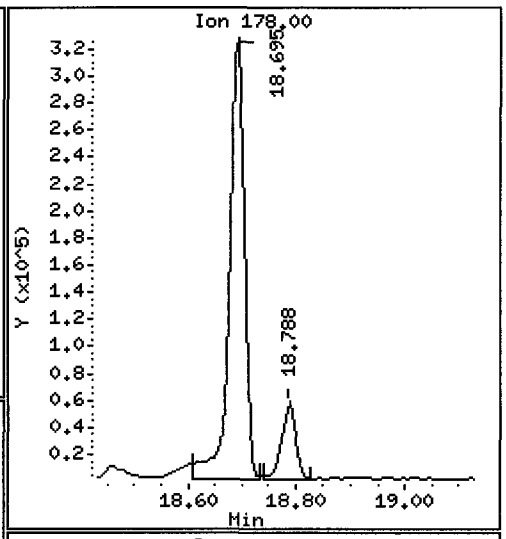
Concentration: 177.4 ug/kg

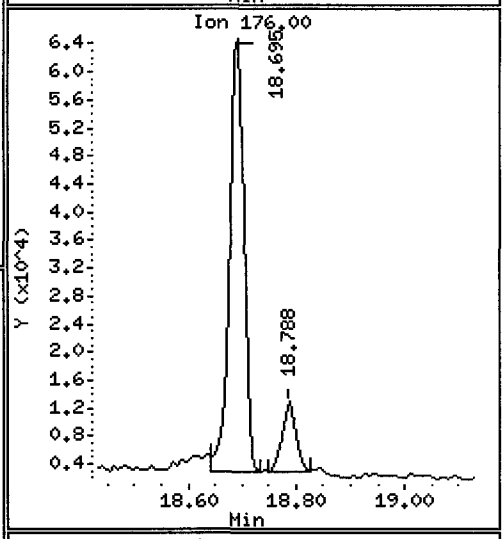


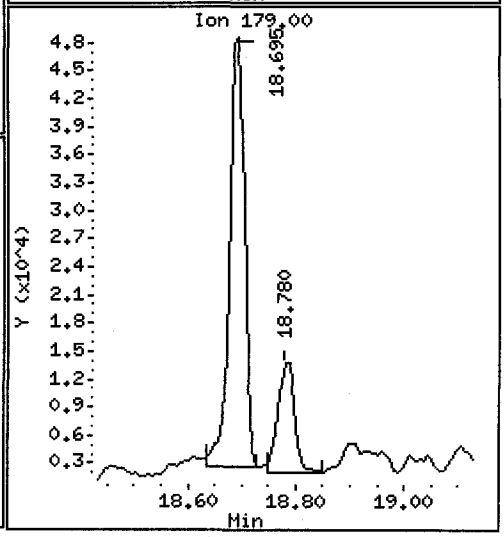












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

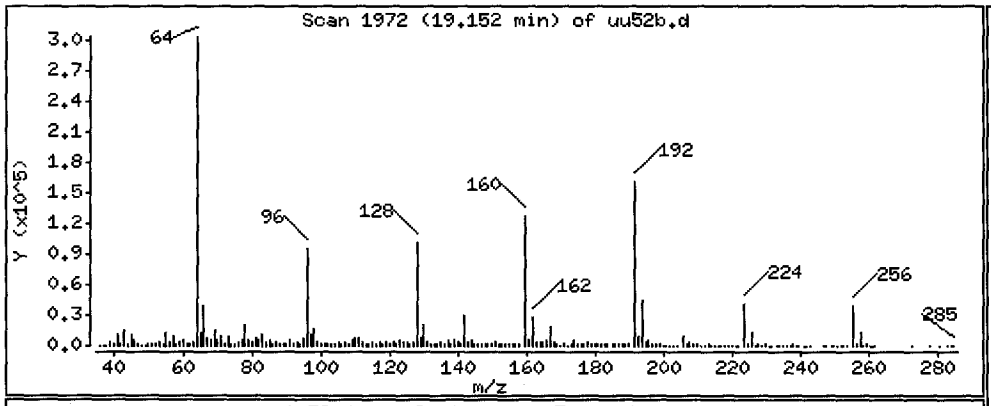
Operator: VTS/YZ

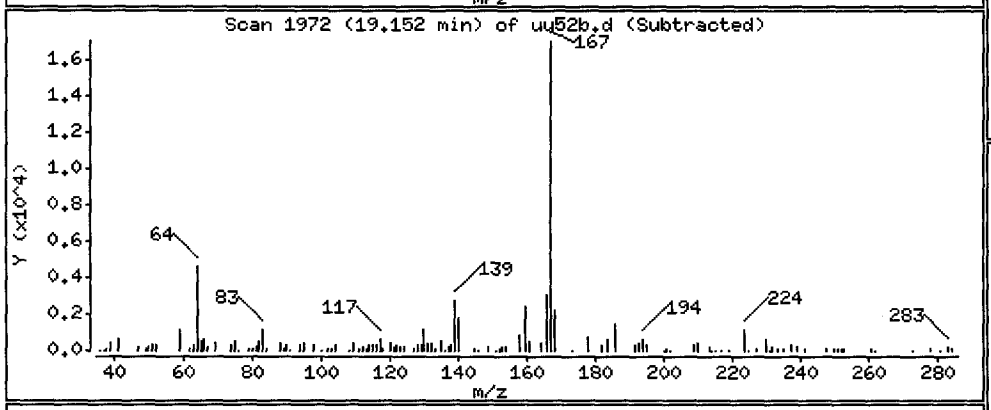
Column phase: ZB-5msi

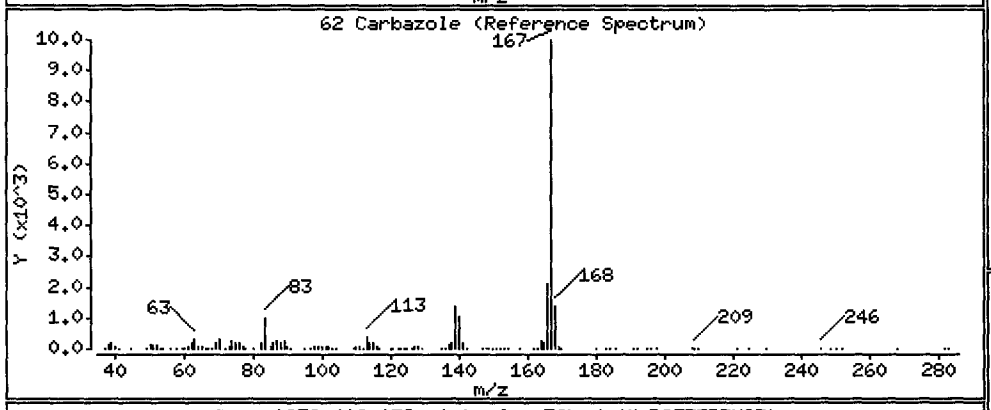
Column diameter: 0.25

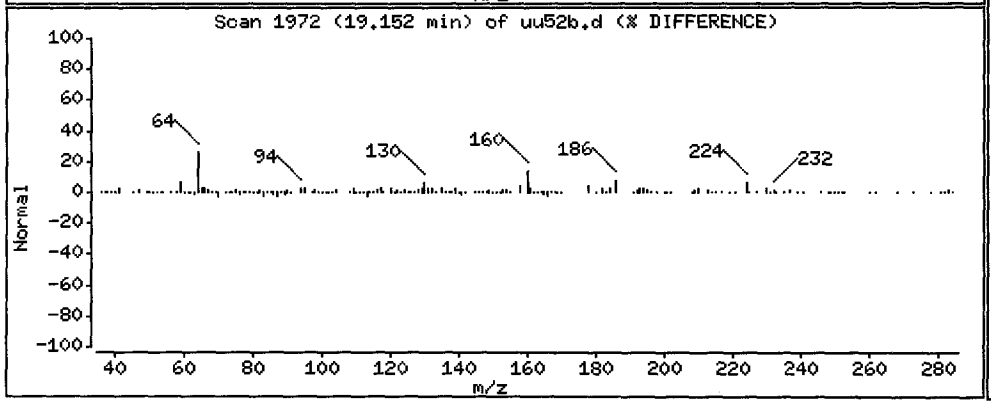
62 Carbazole

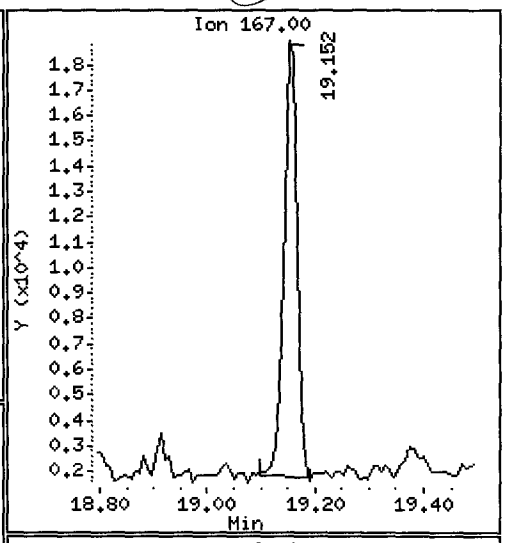
Concentration: 57.24 ug/kg

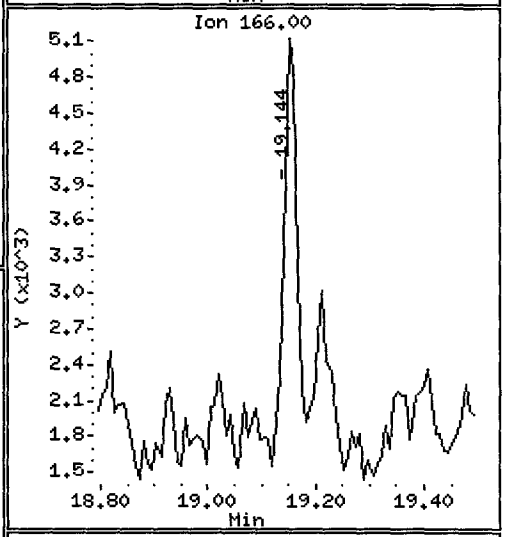


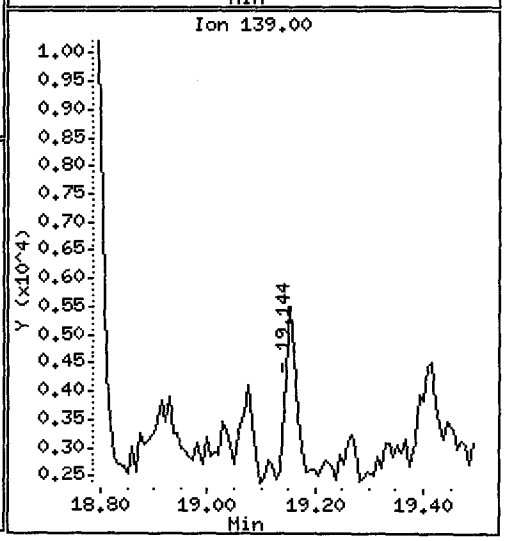












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

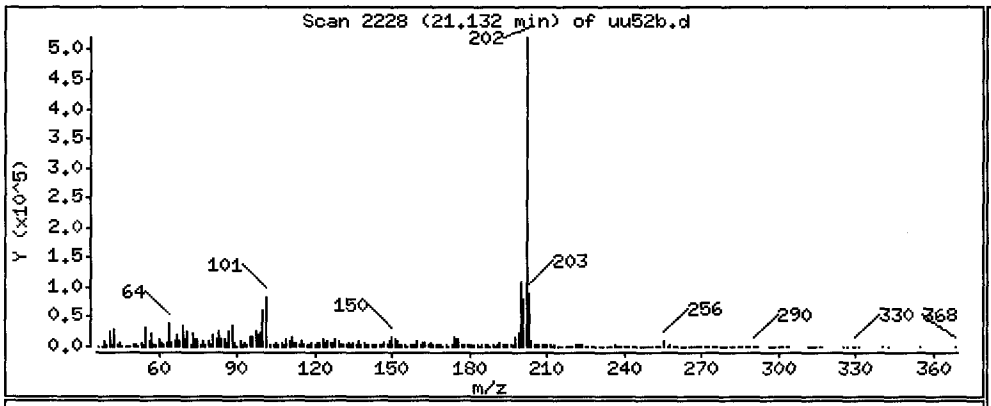
Client ID: MS101-SS-120515 Instrument: nt10.i

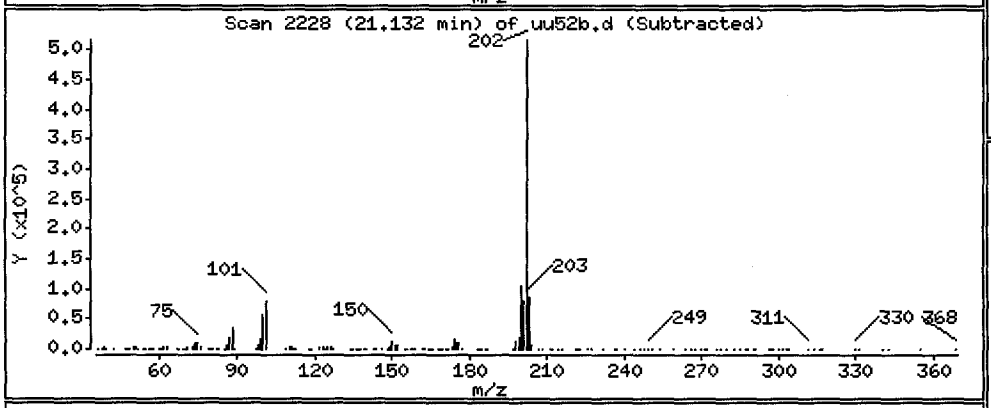
Sample Info: UU52B,3

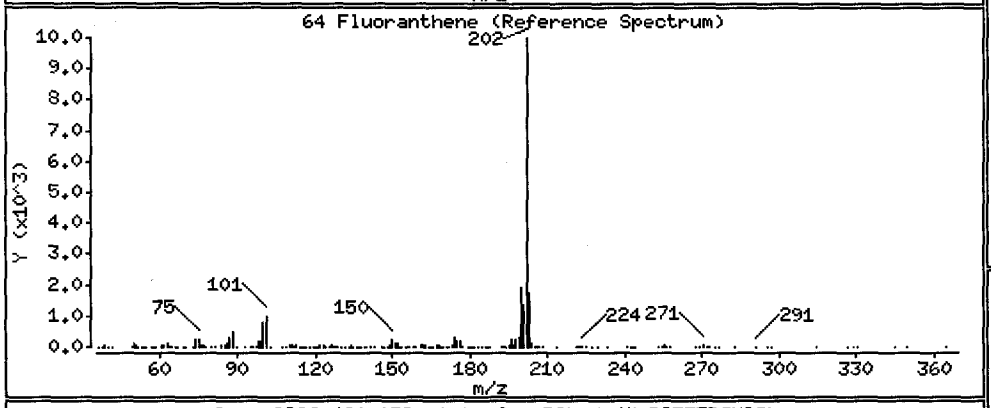
Volume Injected (uL): 1.0 Operator: VTS/YZ

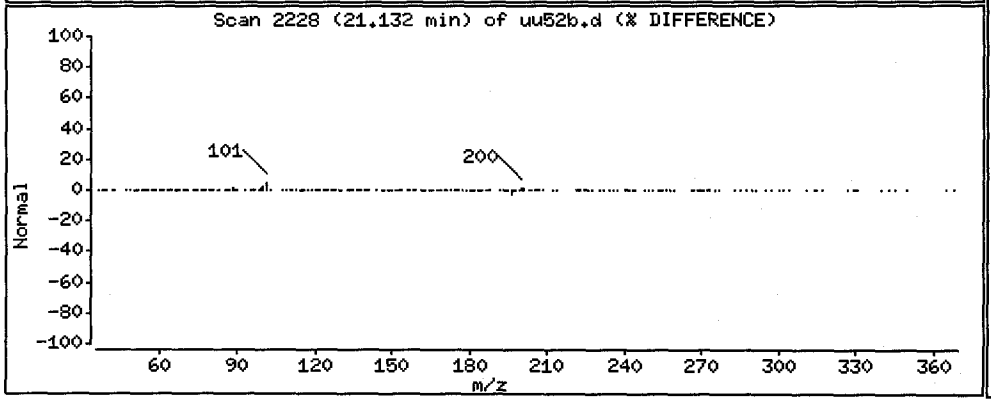
Column phase: ZB-5msi Column diameter: 0.25

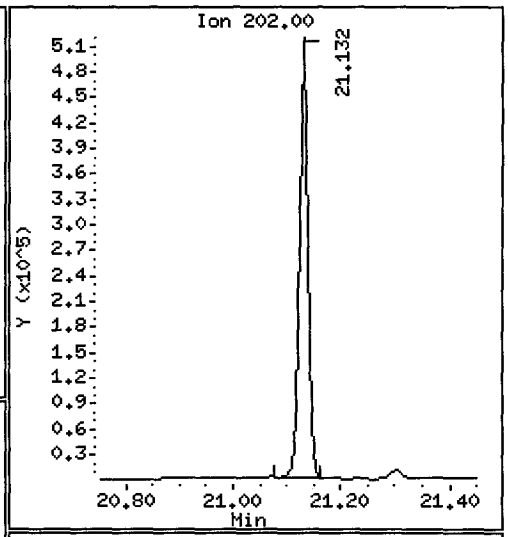
64 Fluoranthene Concentration: 972.1 ug/kg

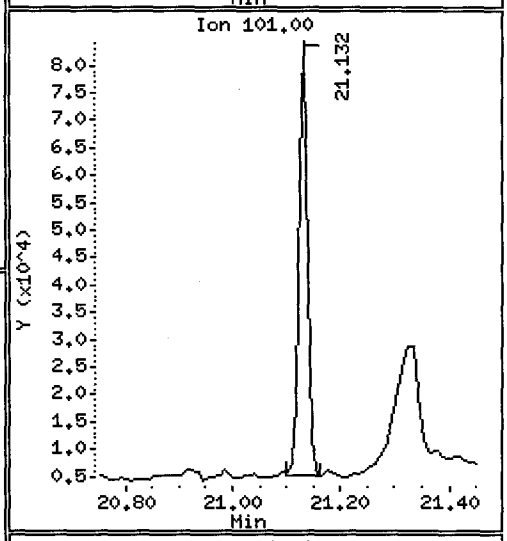


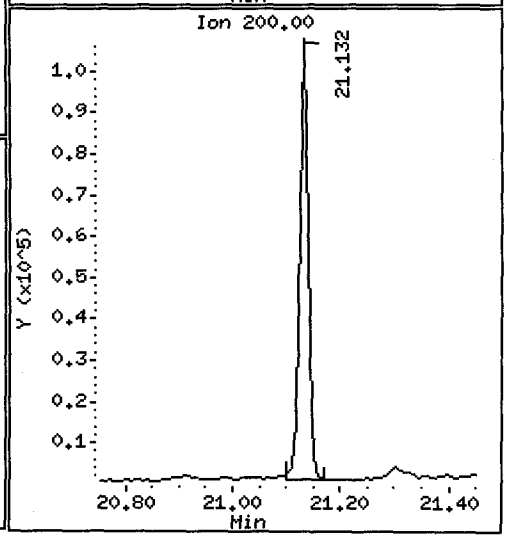












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

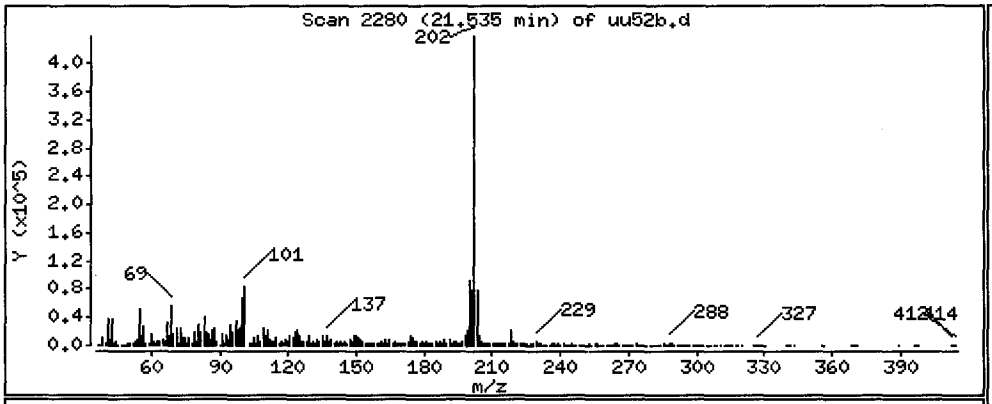
Operator: VTS/YZ

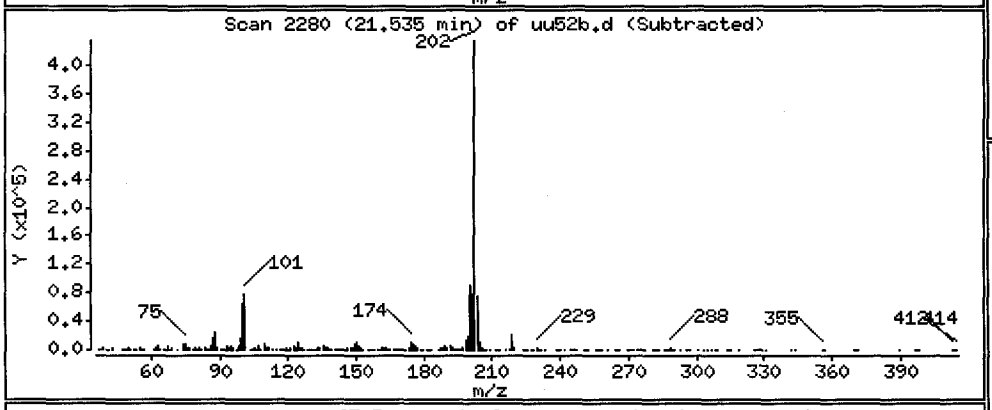
Column phase: ZB-5msi

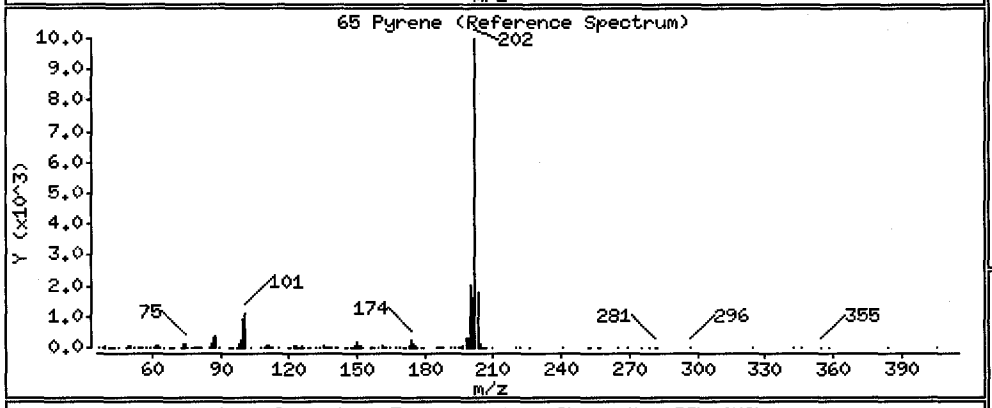
Column diameter: 0.25

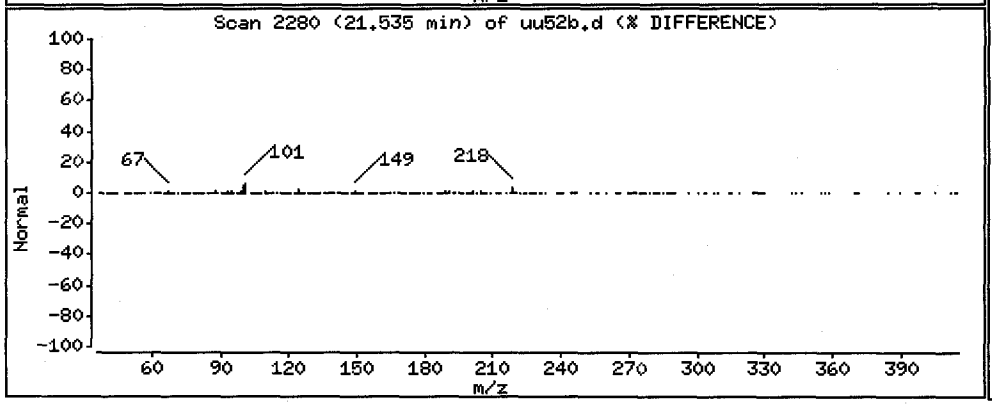
65 Pyrene

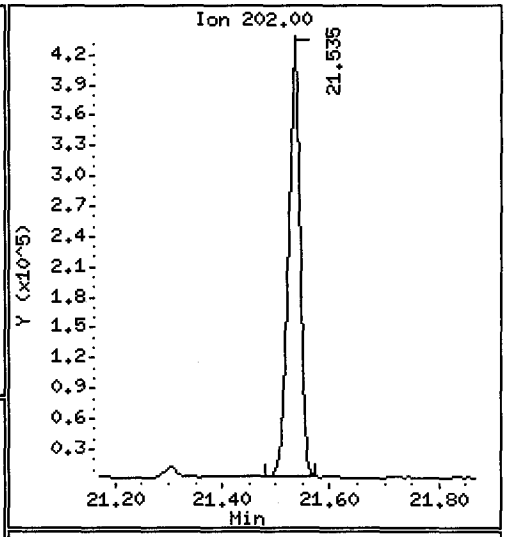
Concentration: 908.3 ug/kg

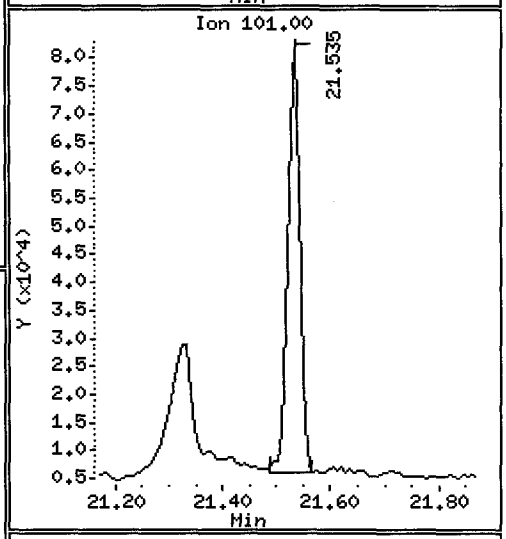


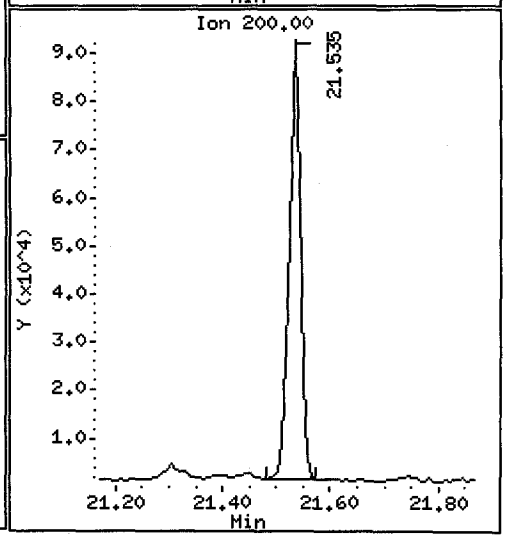












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

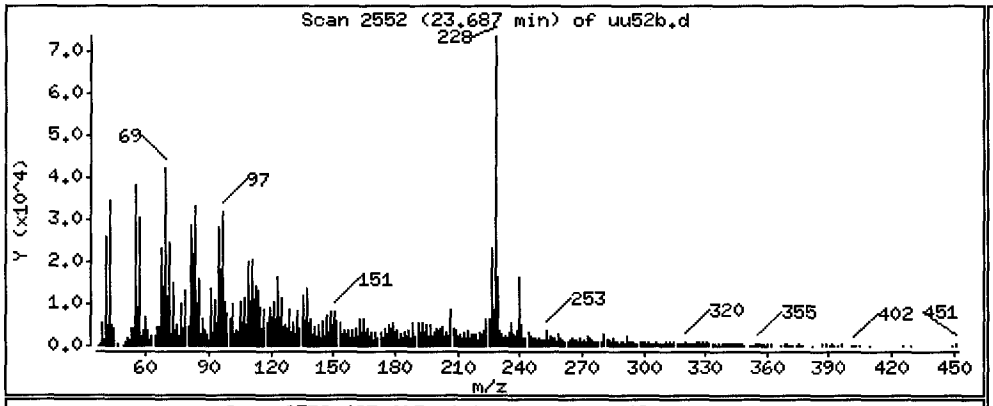
Client ID: MS101-SS-120515 Instrument: nt10.i

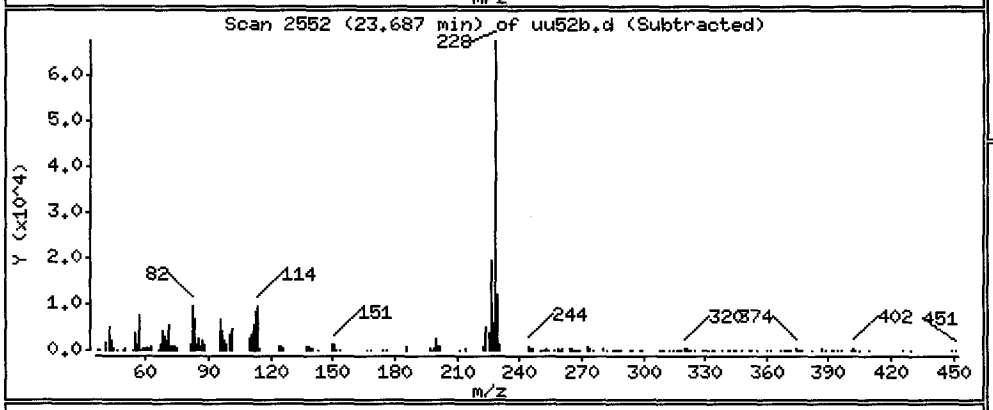
Sample Info: UU52B,3

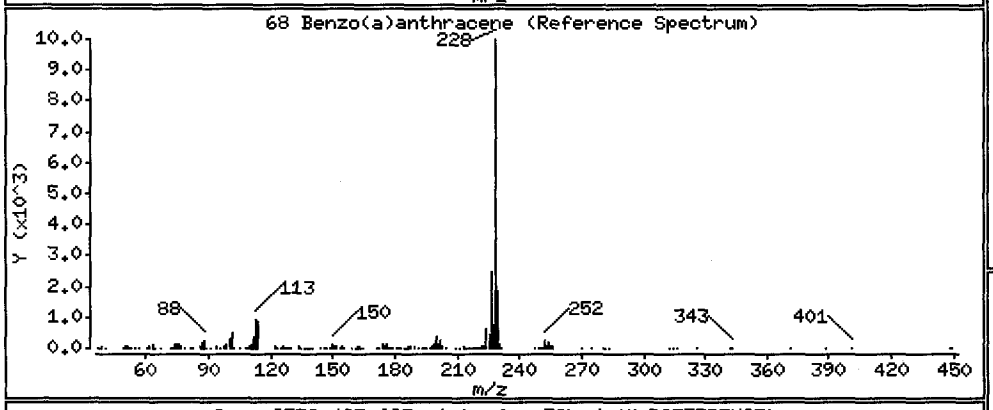
Volume Injected (uL): 1.0 Operator: VTS/YZ

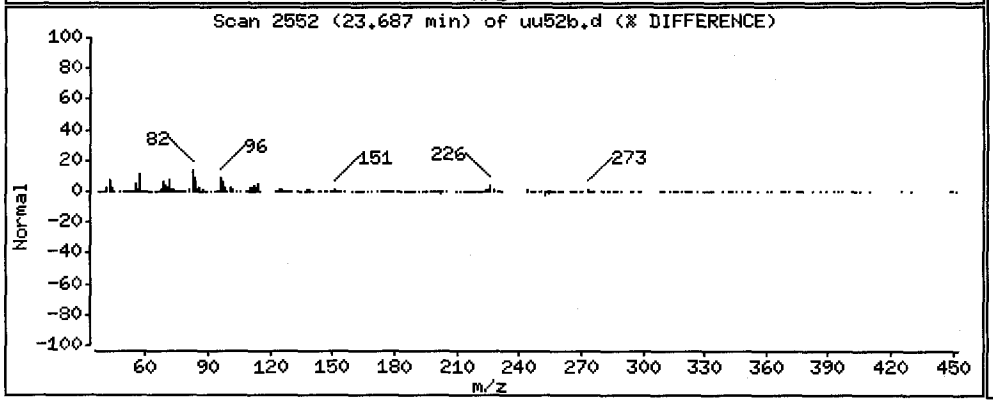
Column phase: ZB-5msi Column diameter: 0.25

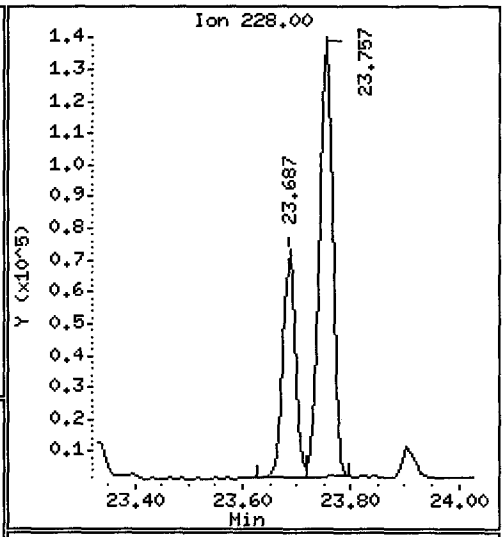
68 Benzo(a)anthracene Concentration: 173.1 ug/kg

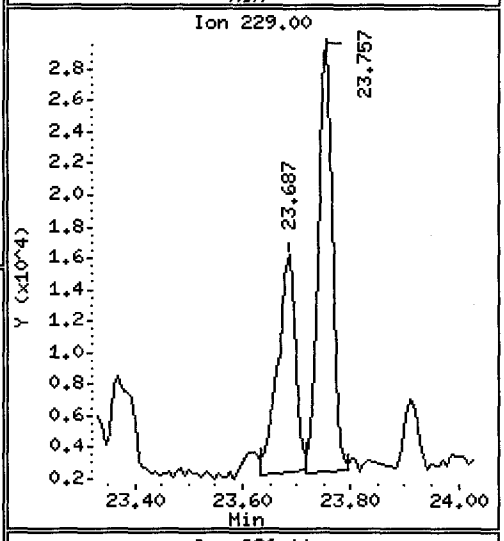


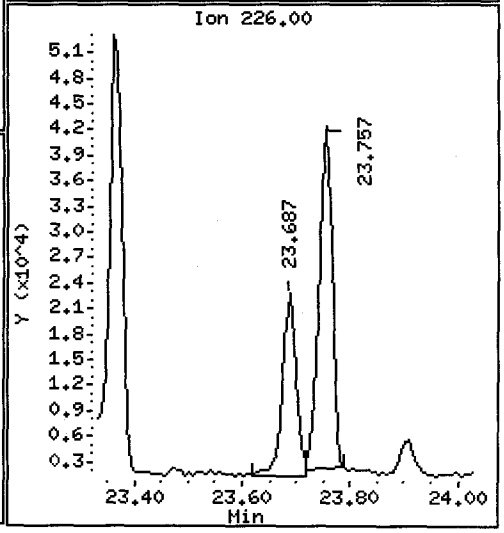












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

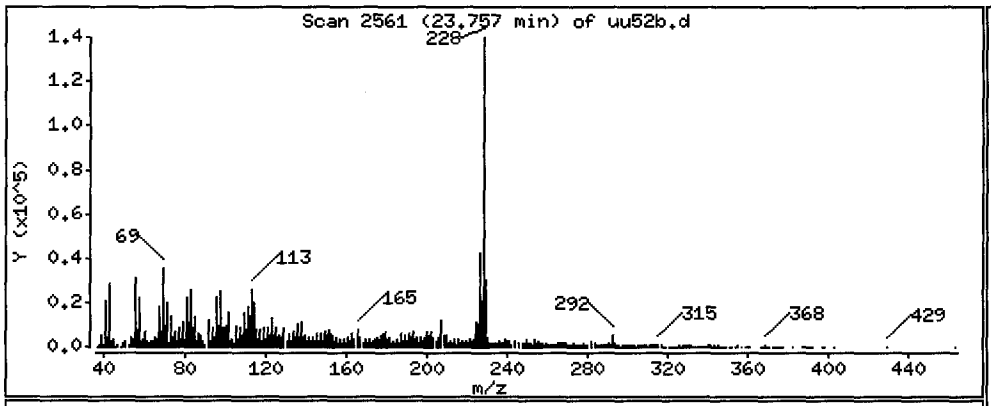
Operator: VTS/YZ

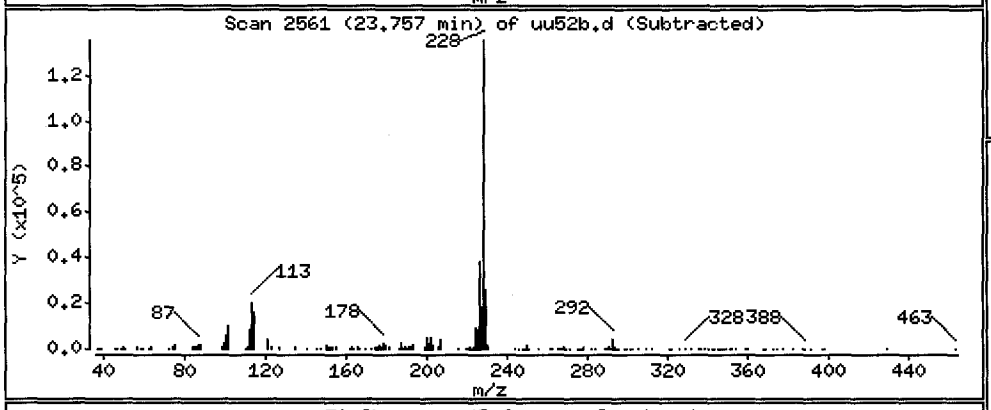
Column phase: ZB-5msi

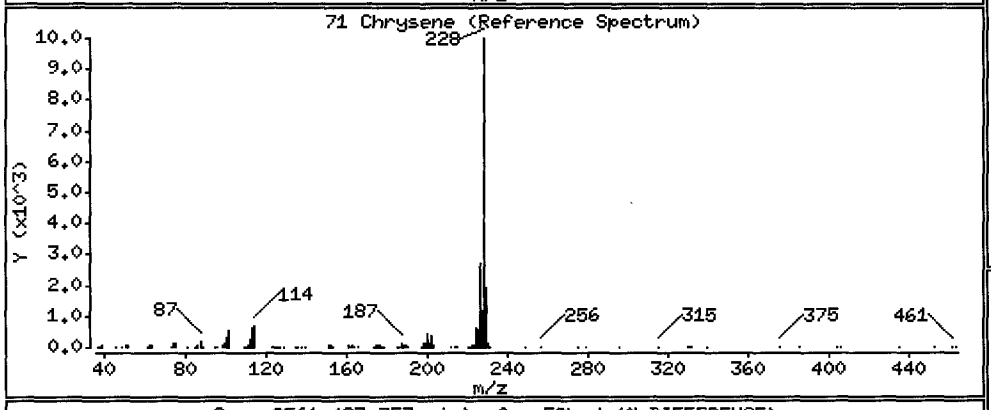
Column diameter: 0.25

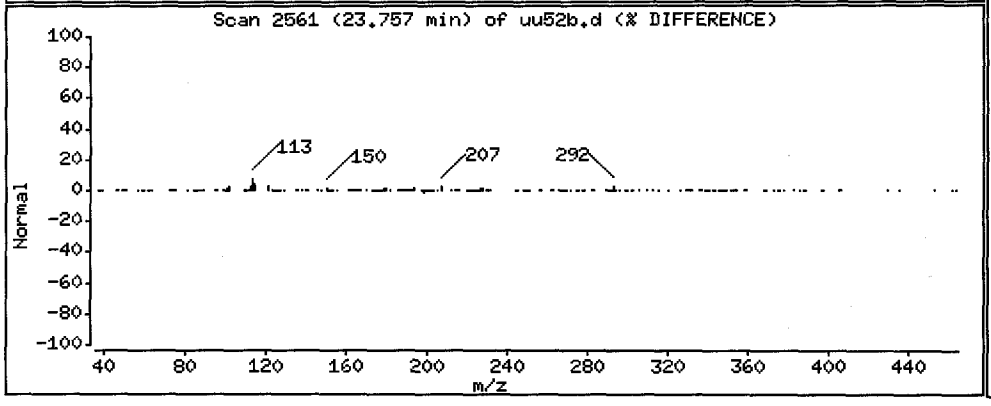
71 Chrysene

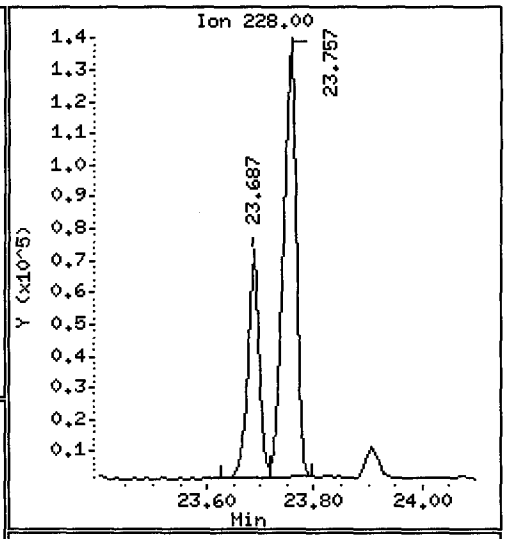
Concentration: 396.9 ug/kg

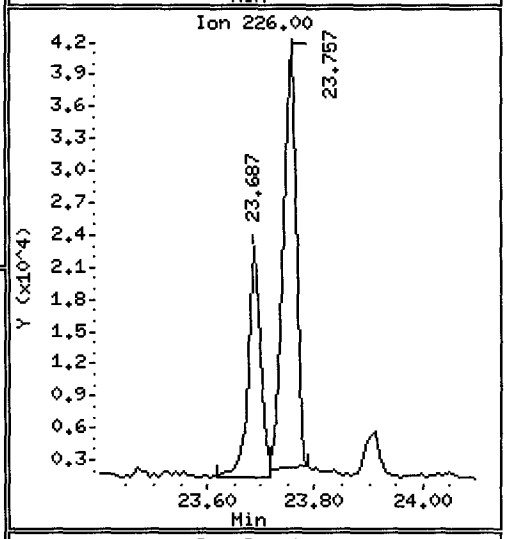


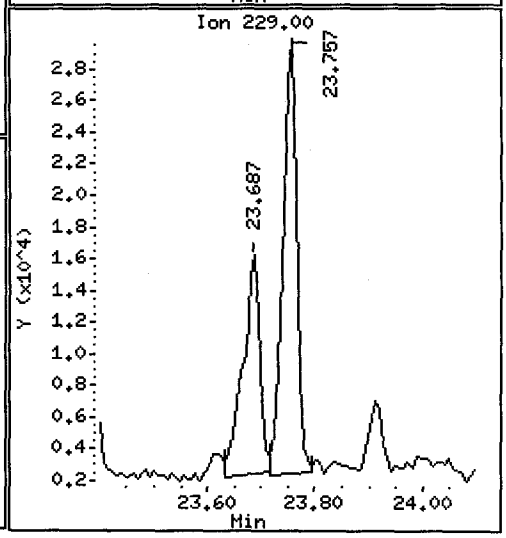












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

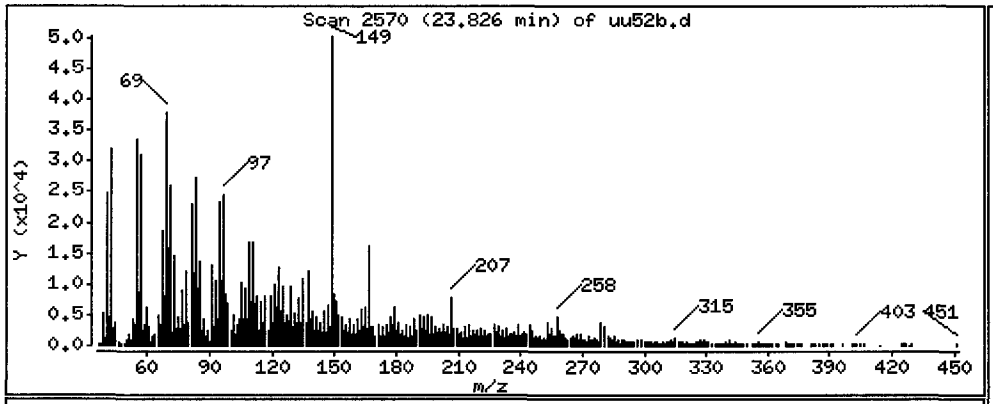
Client ID: MS101-SS-120515 Instrument: nt10.i

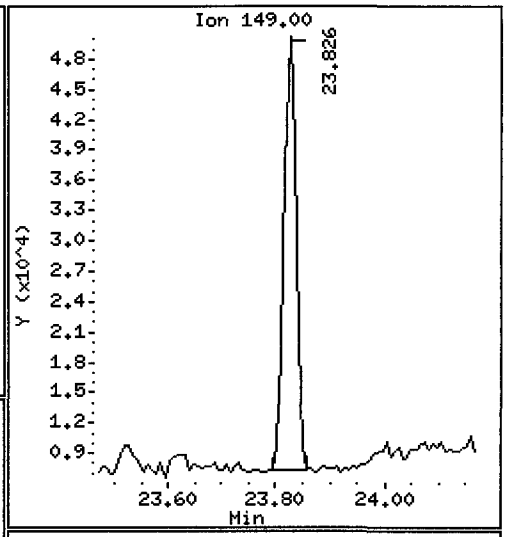
Sample Info: UU52B,3

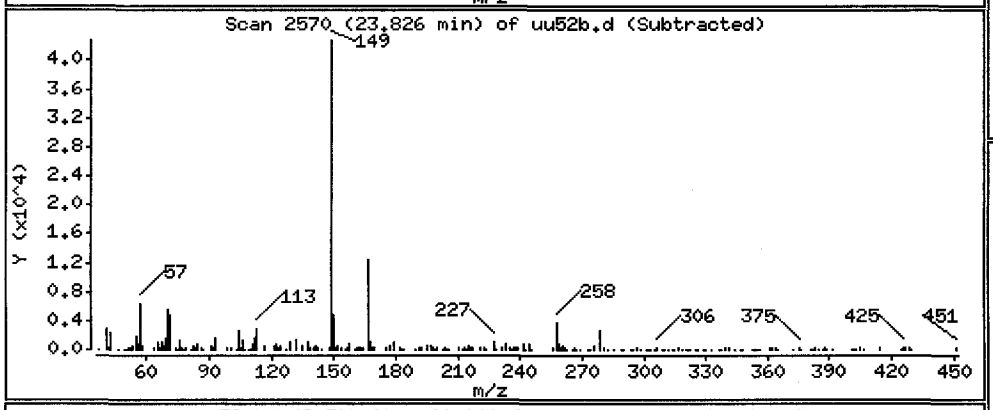
Volume Injected (uL): 1.0 Operator: VTS/YZ

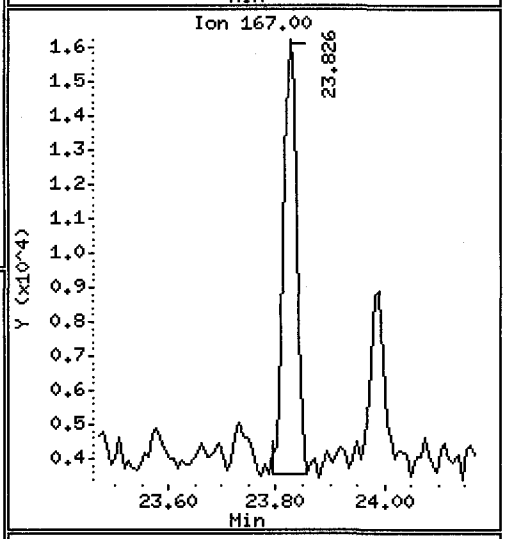
Column phase: ZB-5msi Column diameter: 0.25

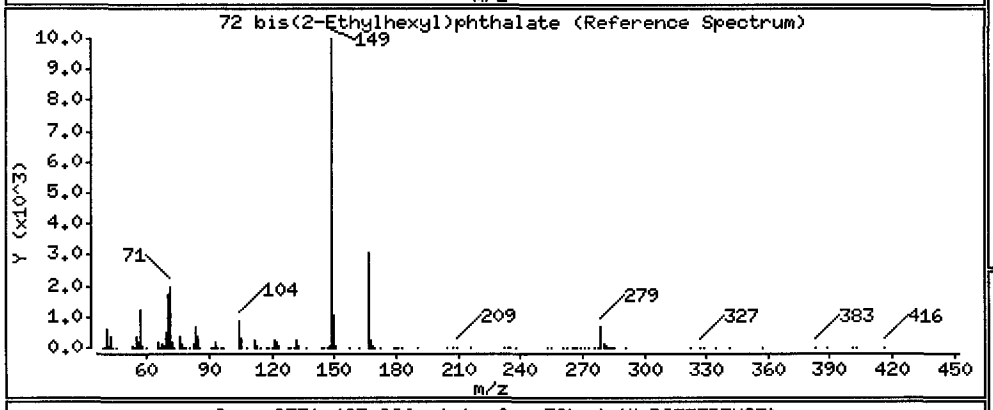
72 bis(2-Ethylhexyl)phthalate Concentration: 123.4 ug/kg

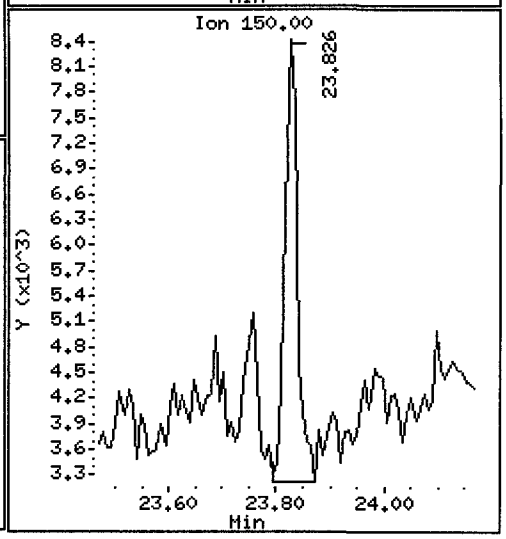


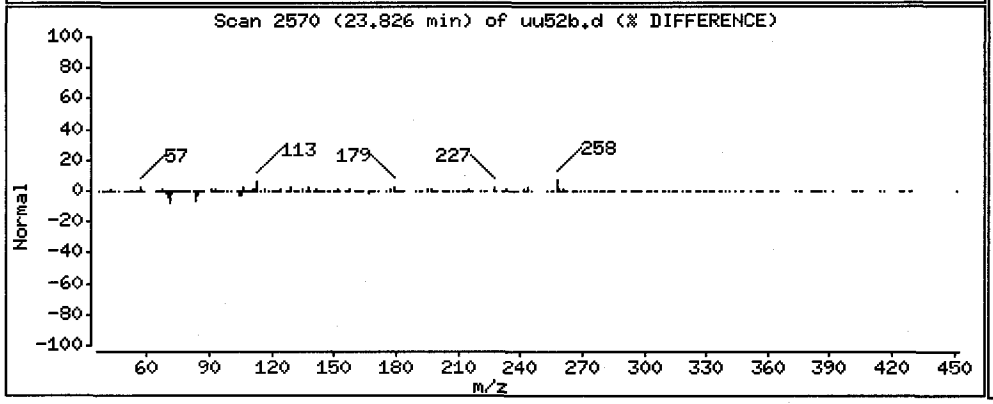






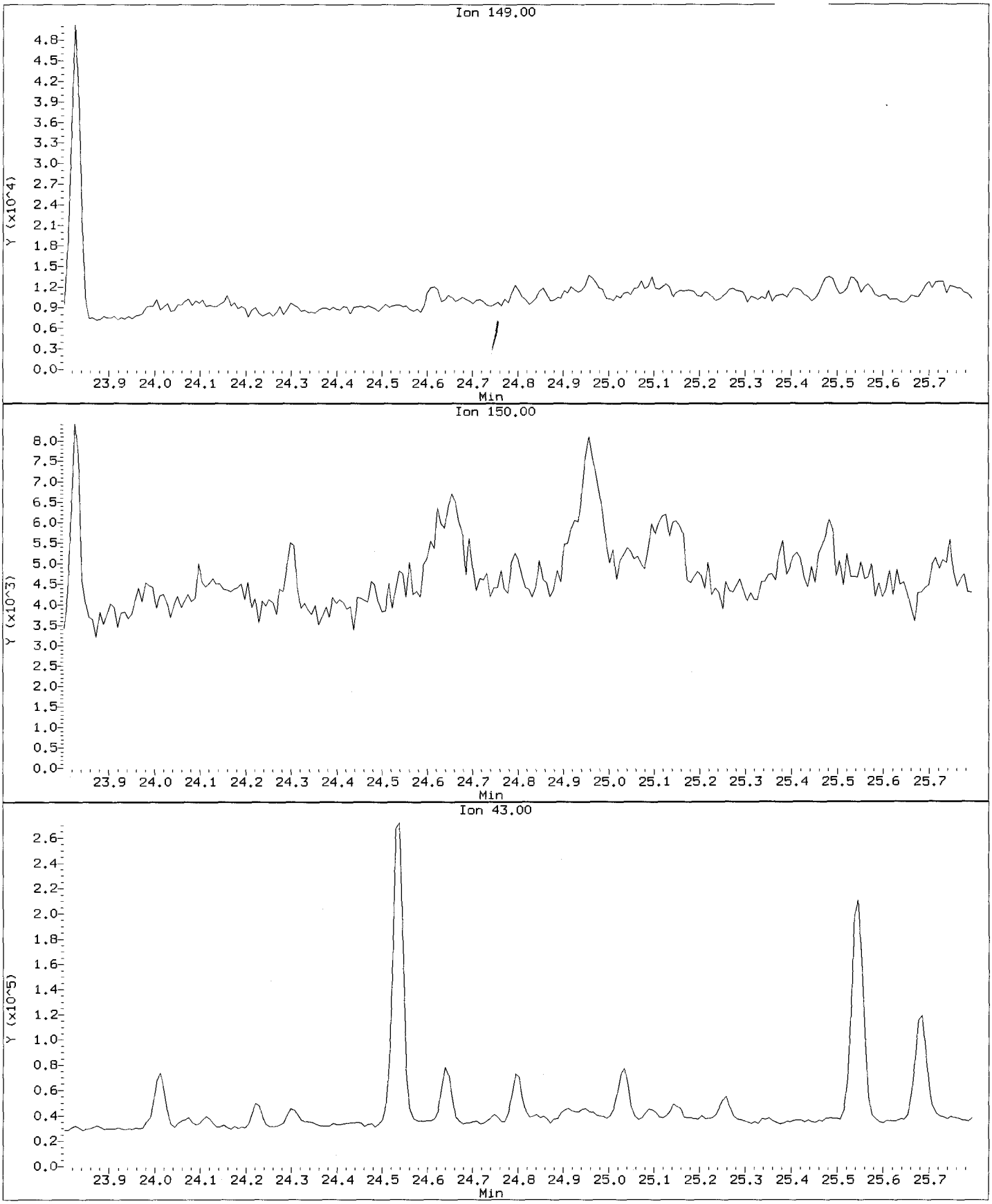






Data File: /chem1/nt10.i/20120526.b/uu52b.d
Injection Date: 26-MAY-2012 17:48
Instrument: nt10.i
Client Sample ID: MS101-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

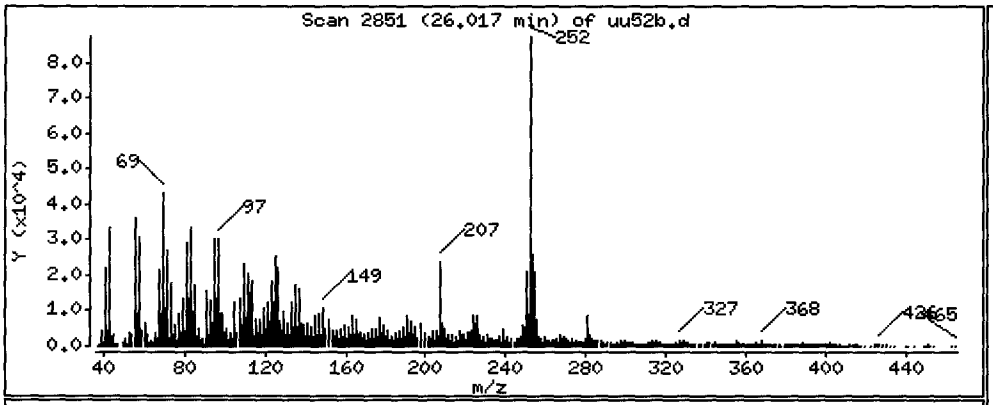
Client ID: MS101-SS-120515 Instrument: nt10.i

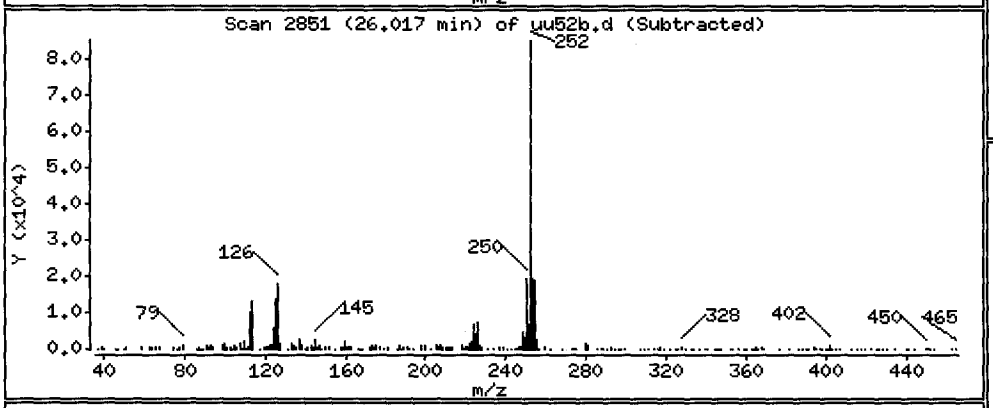
Sample Info: UU52B,3

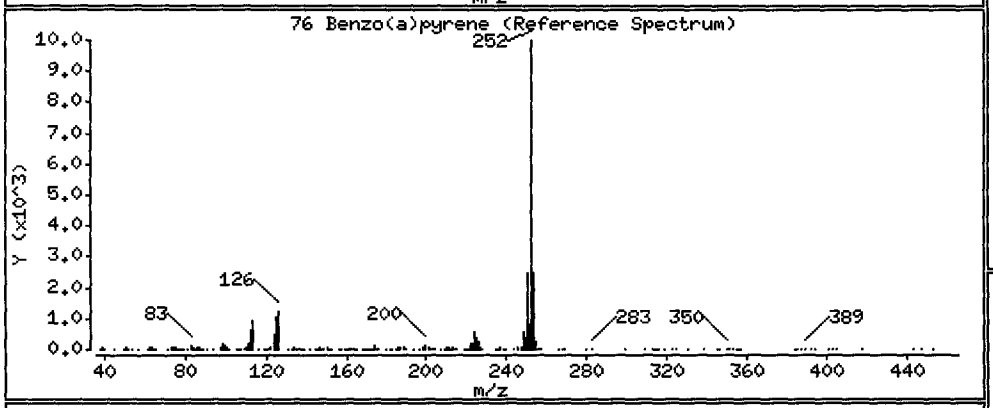
Volume Injected (uL): 1.0 Operator: VTS/YZ

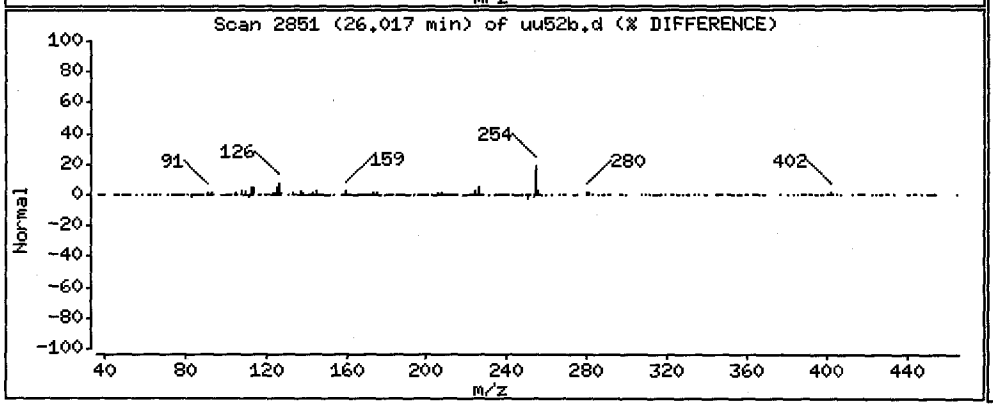
Column phase: ZB-5msi Column diameter: 0.25

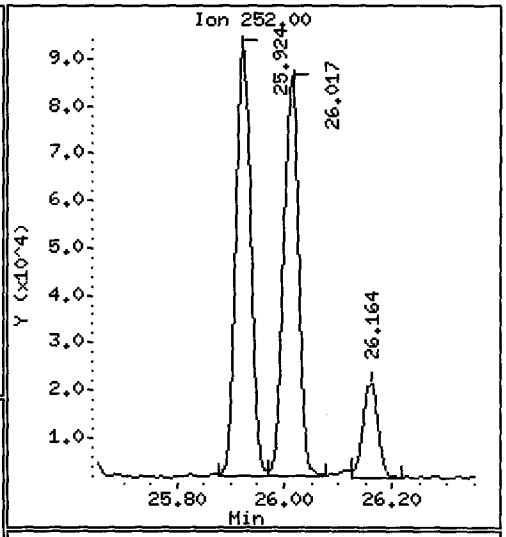
76 Benzo(a)pyrene Concentration: 271.6 ug/kg

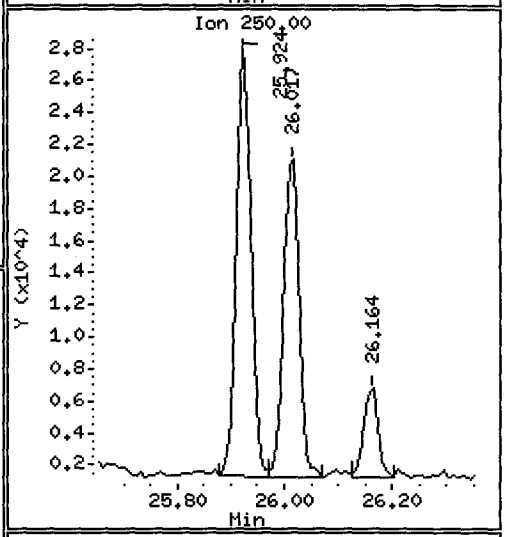


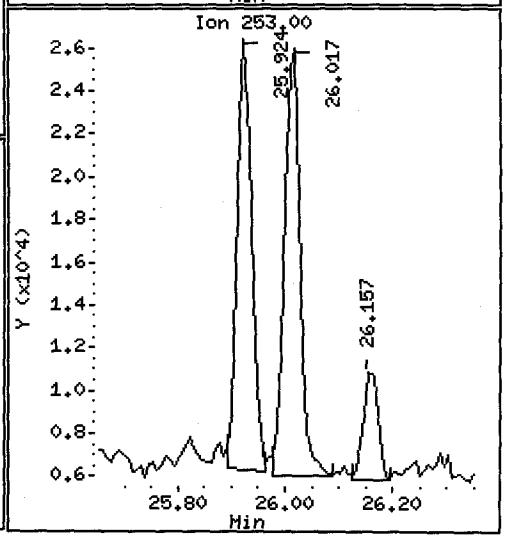












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

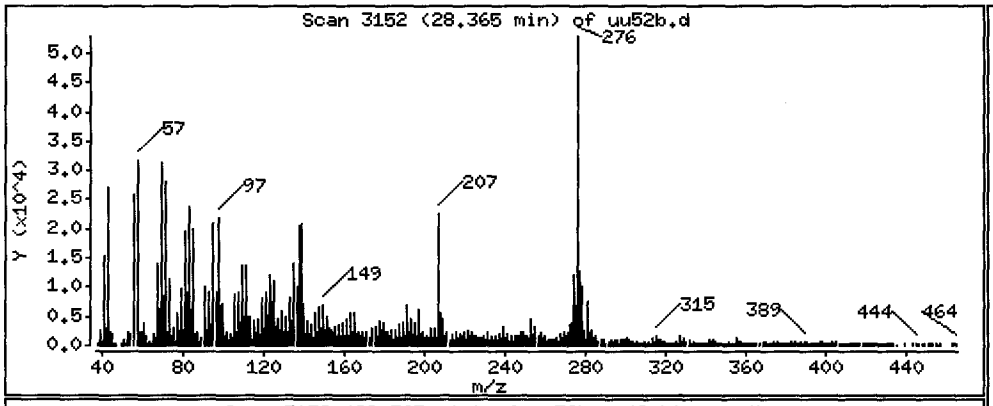
Operator: VTS/YZ

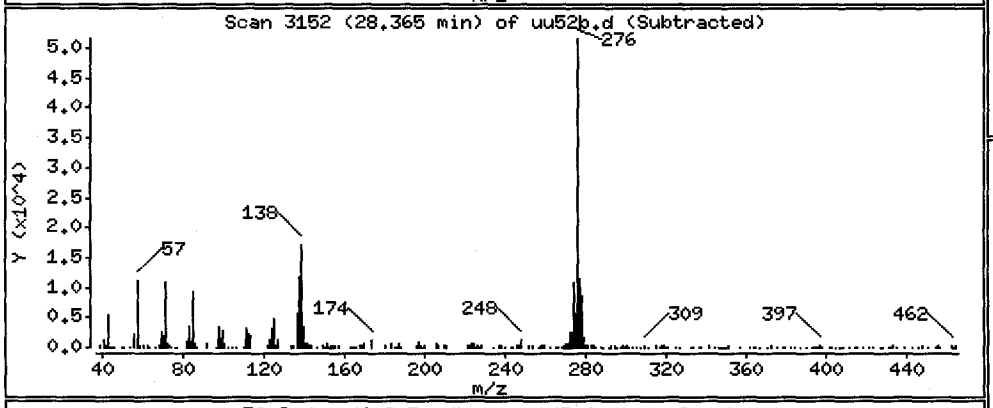
Column phase: ZB-5msi

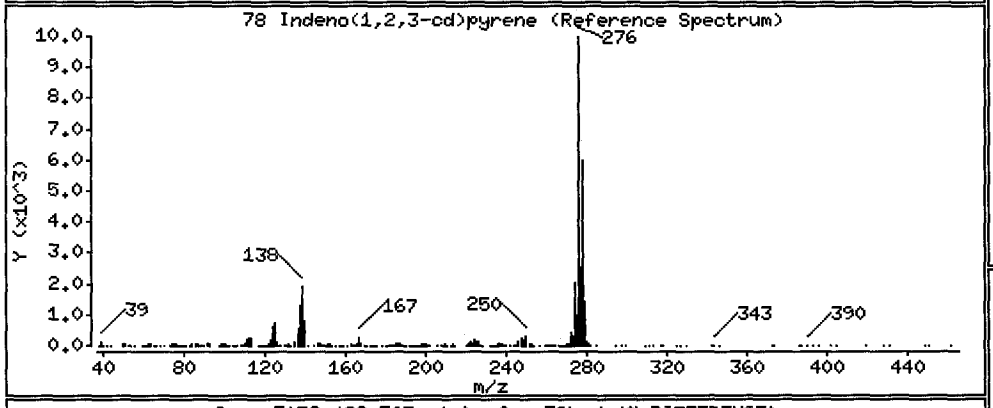
Column diameter: 0.25

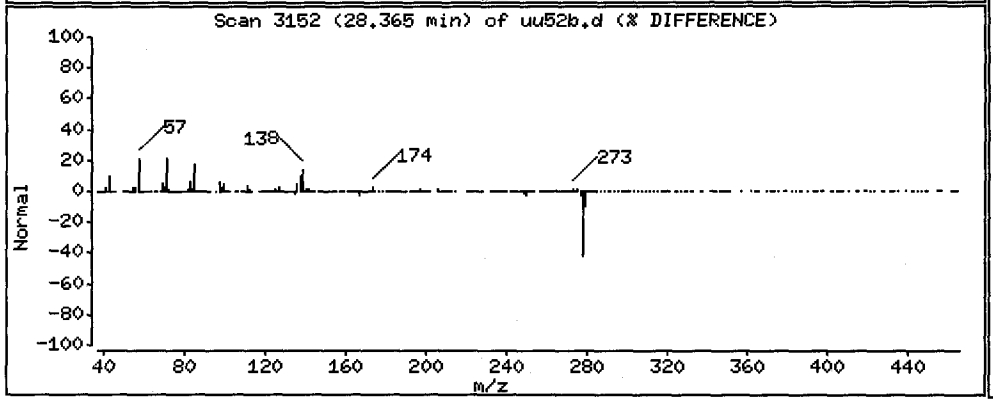
78 Indeno(1,2,3-cd)pyrene

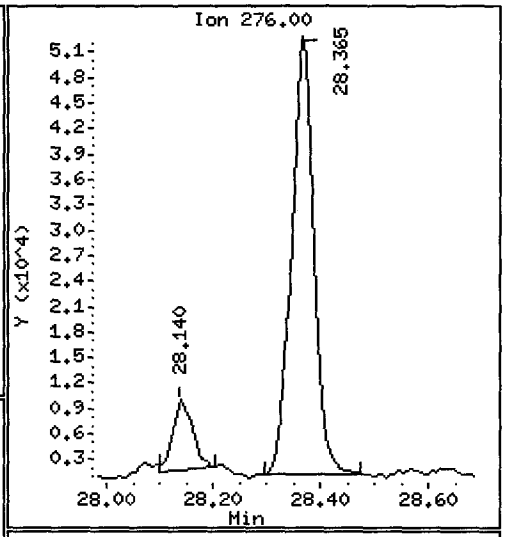
Concentration: 226.2 ug/kg

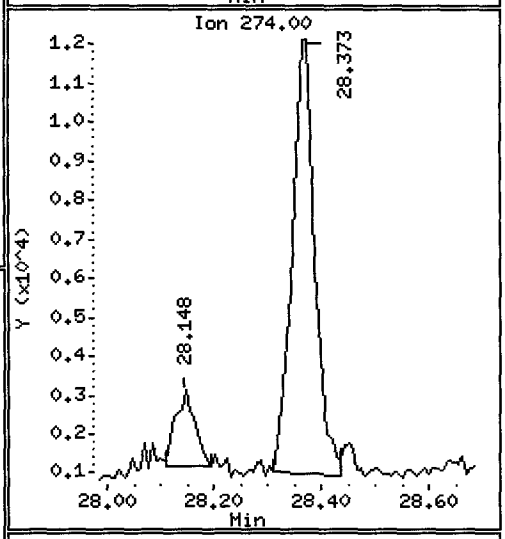


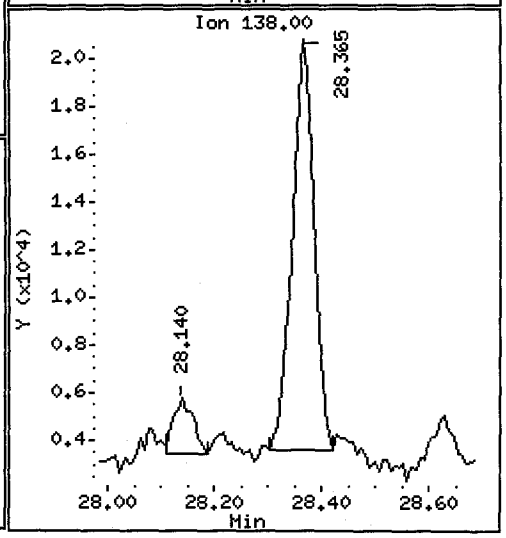












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

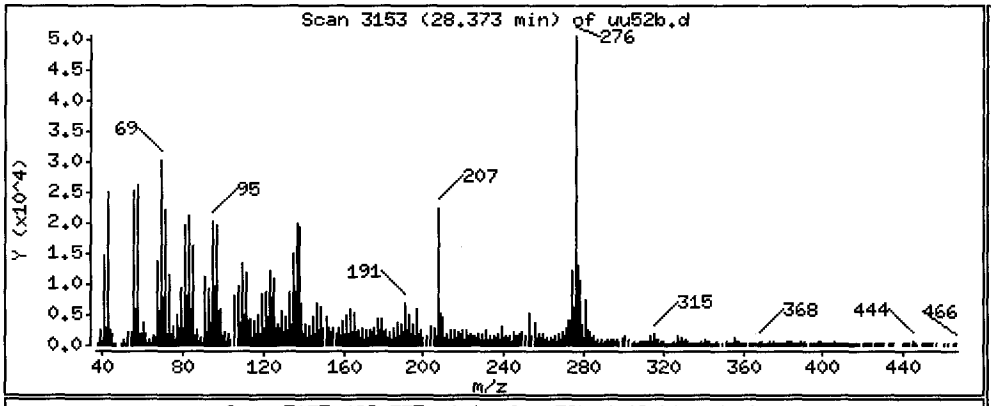
Operator: VTS/YZ

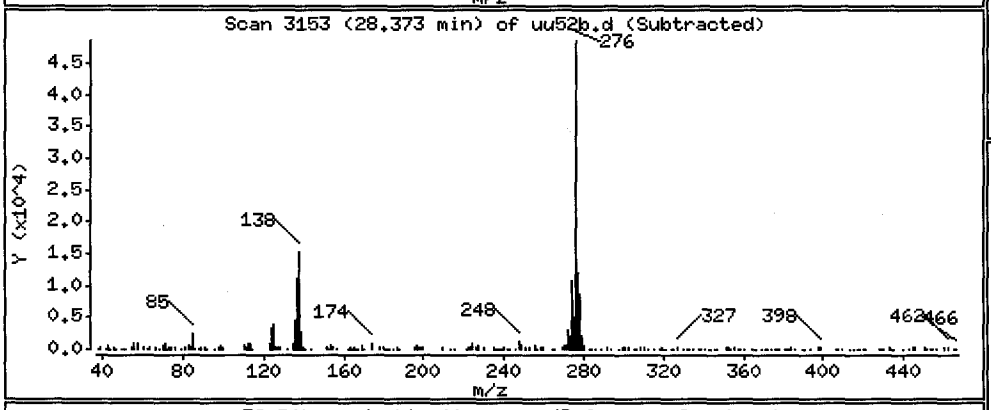
Column phase: ZB-5msi

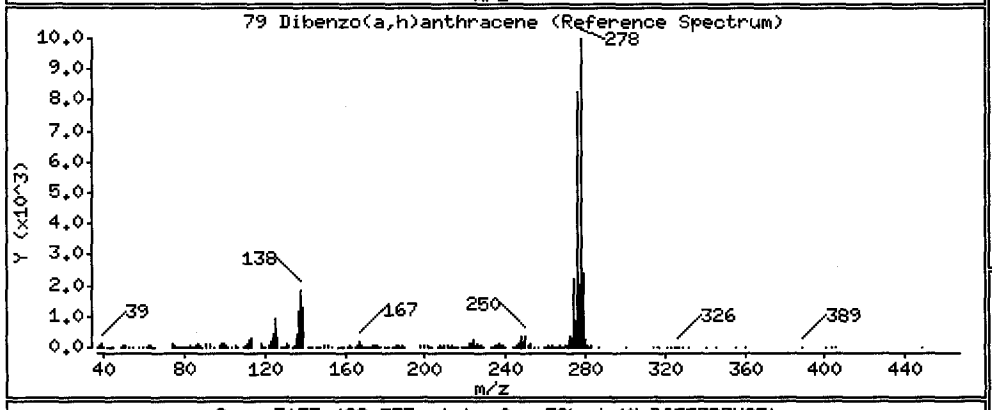
Column diameter: 0.25

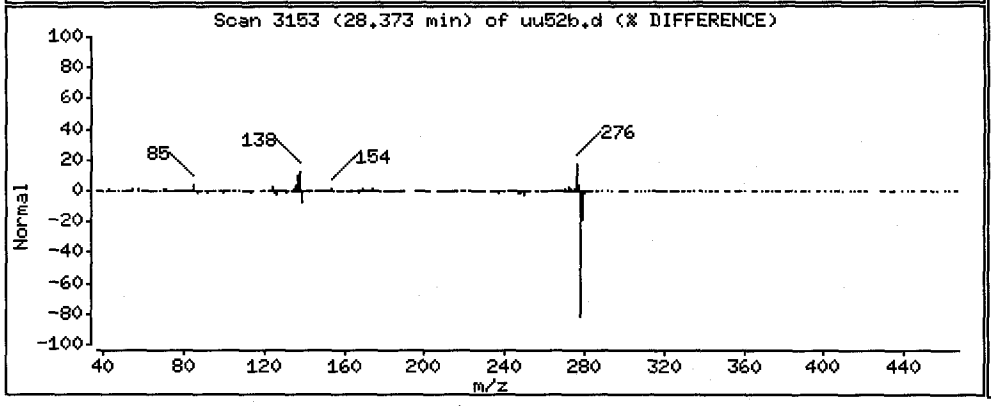
79 Dibenzo(a,h)anthracene

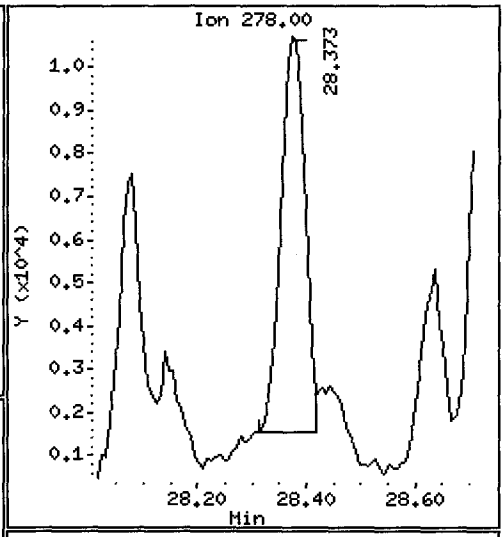
Concentration: 53.98 ug/kg

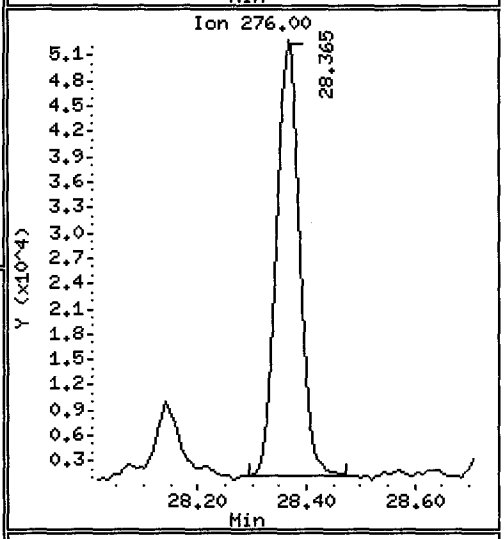


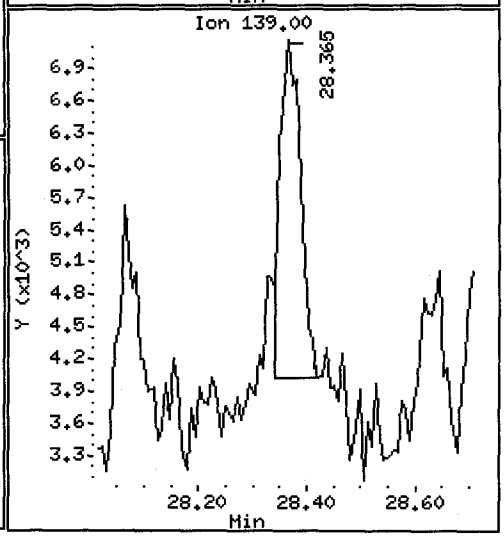












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

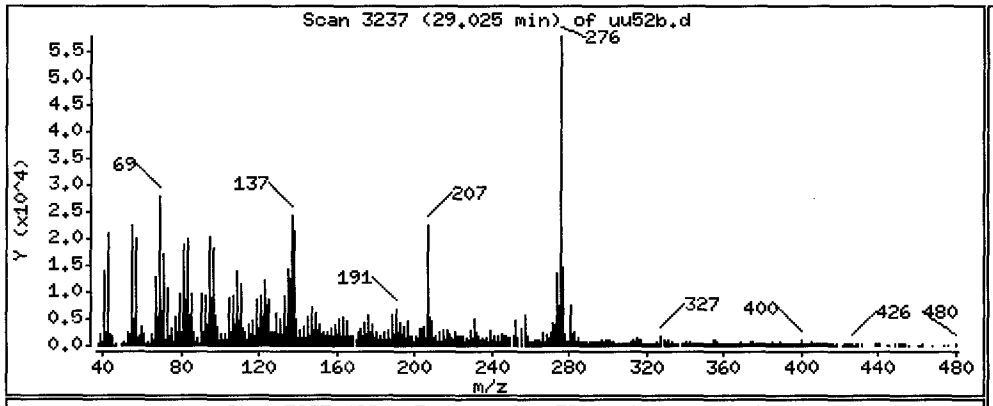
Operator: VTS/YZ

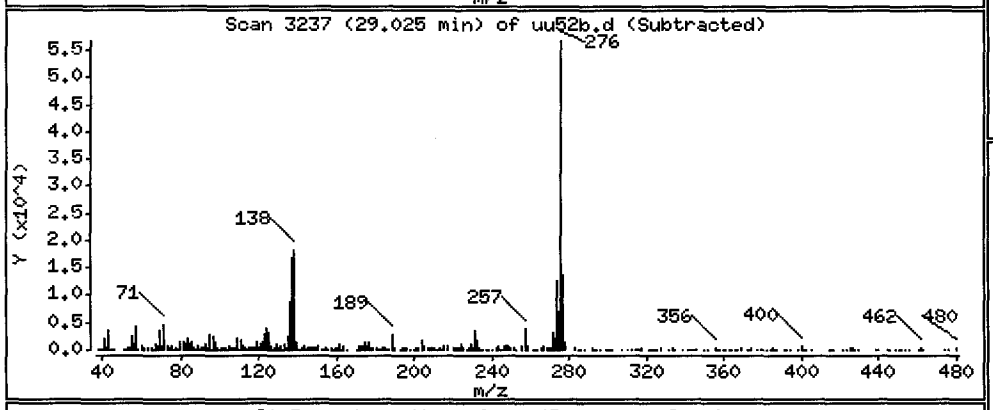
Column phase: ZB-5msi

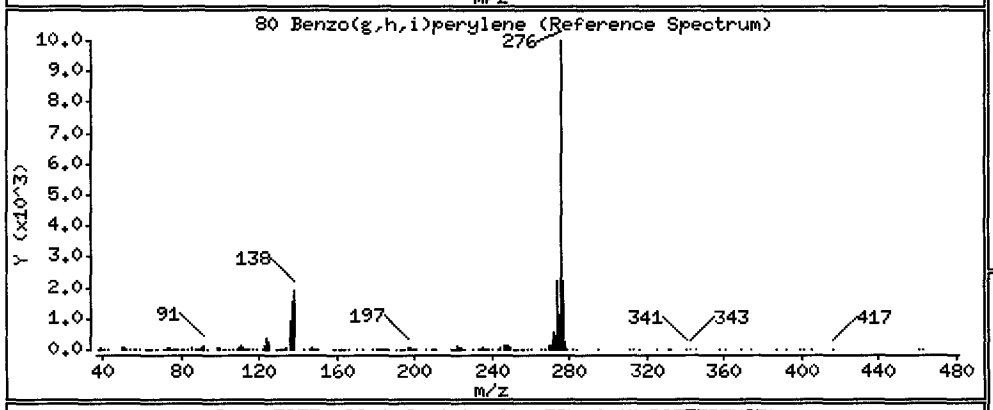
Column diameter: 0.25

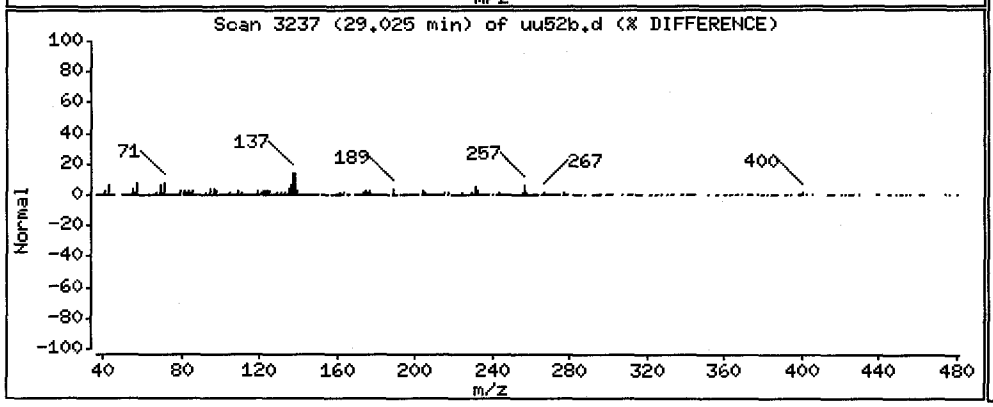
80 Benzo(g,h,i)perylene

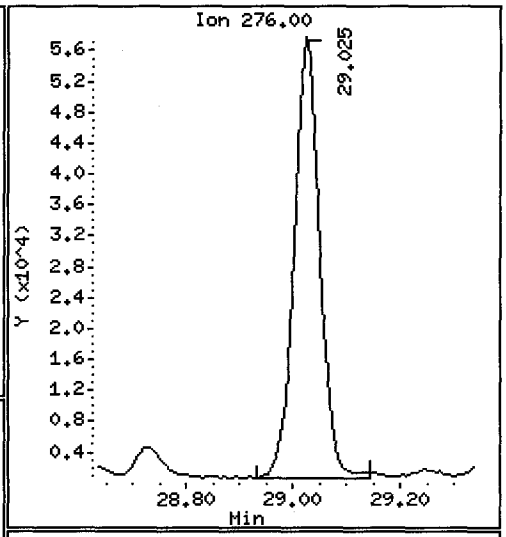
Concentration: 333.0 ug/kg

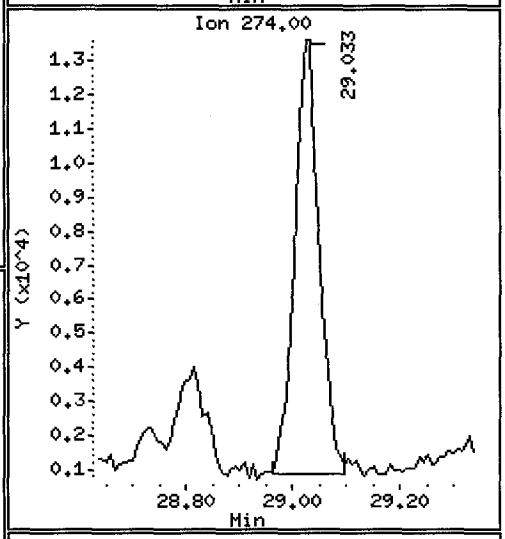


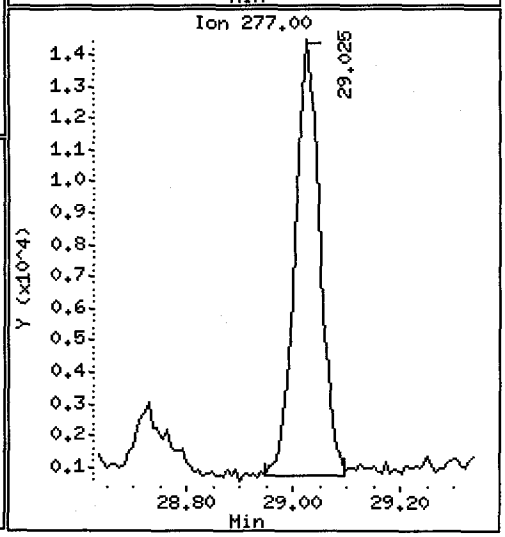












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

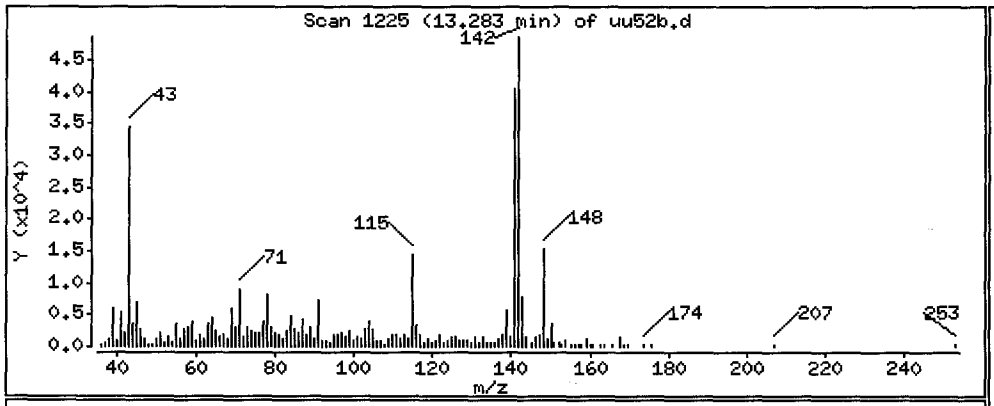
Operator: VTS/YZ

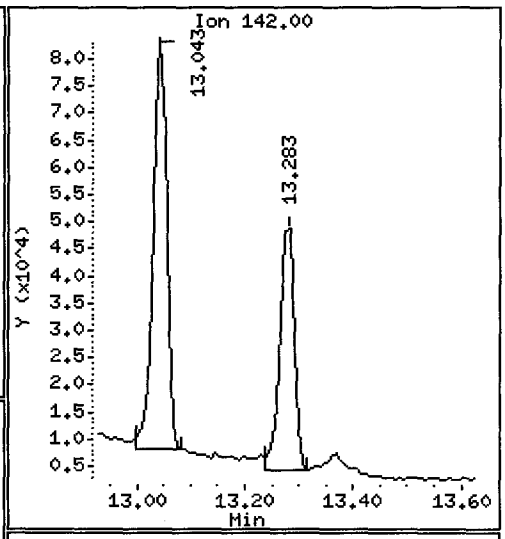
Column phase: ZB-5msi

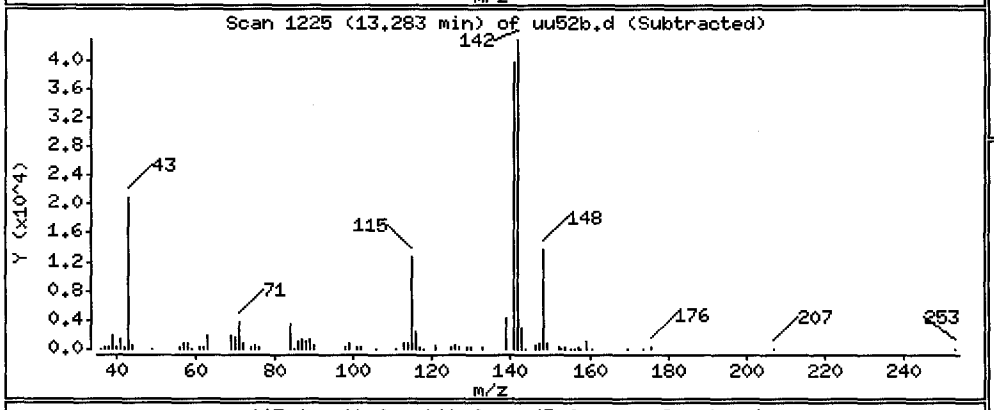
Column diameter: 0.25

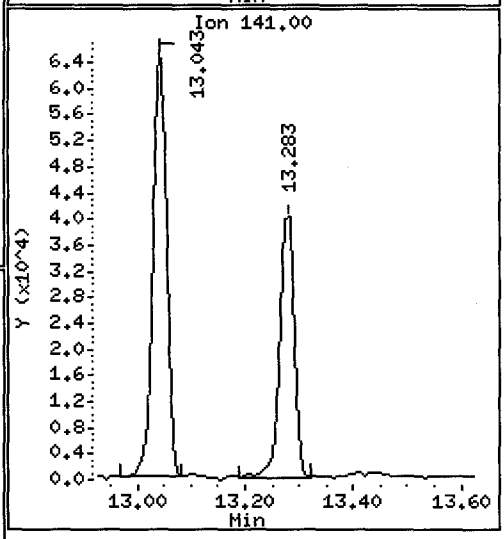
105 1-methylnaphthalene

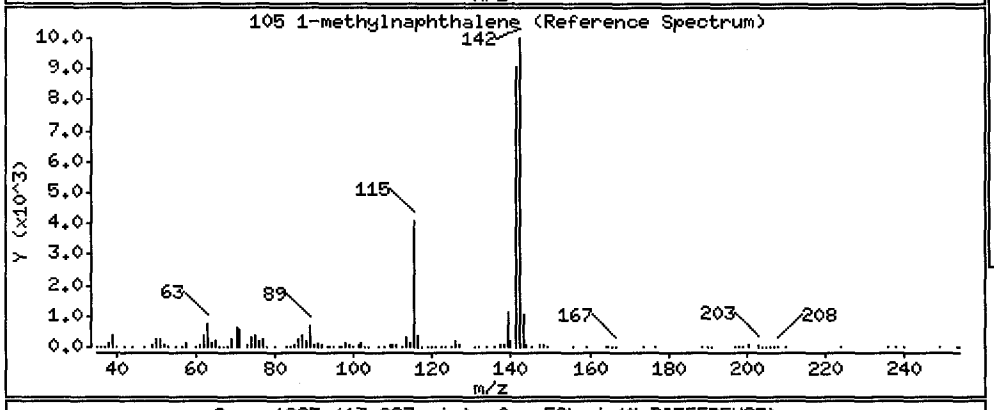
Concentration: 168.9 ug/kg

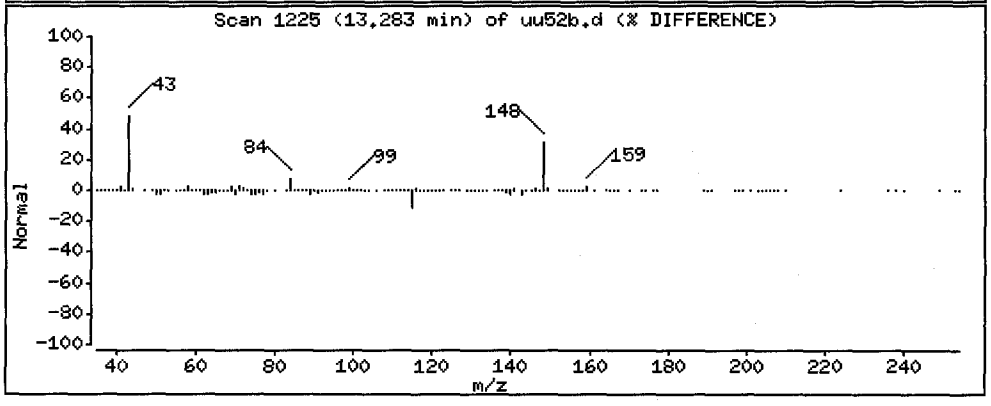












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

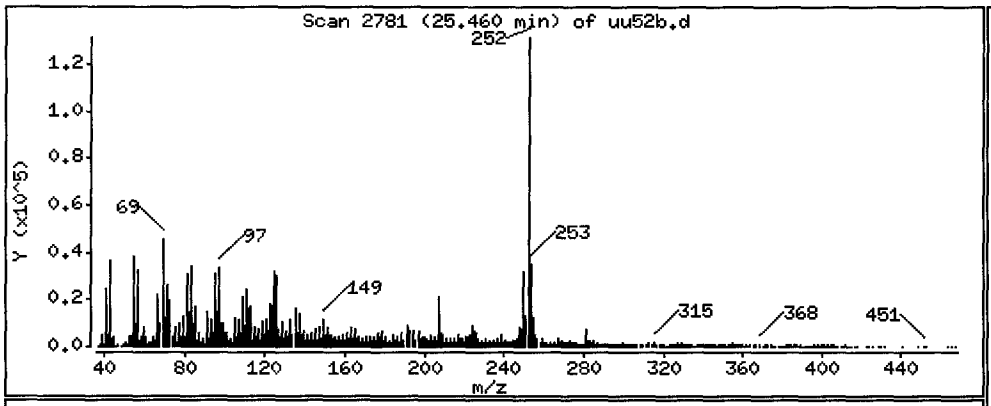
Client ID: MS101-SS-120515 Instrument: nt10.i

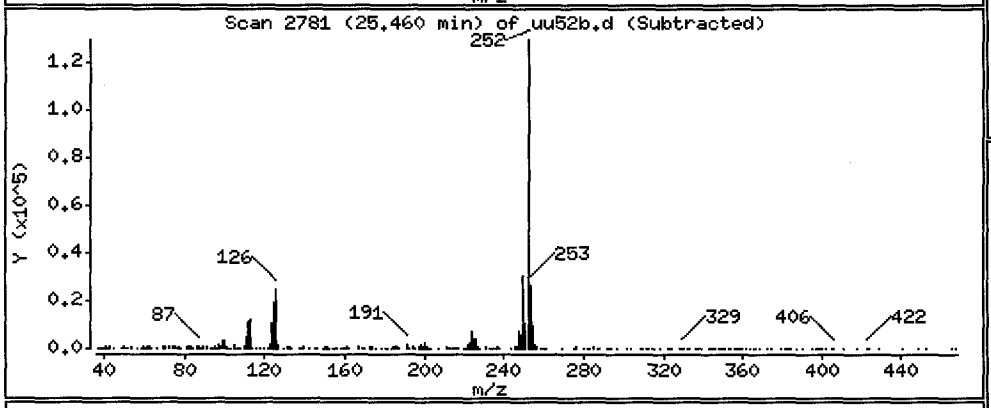
Sample Info: UU52B,3

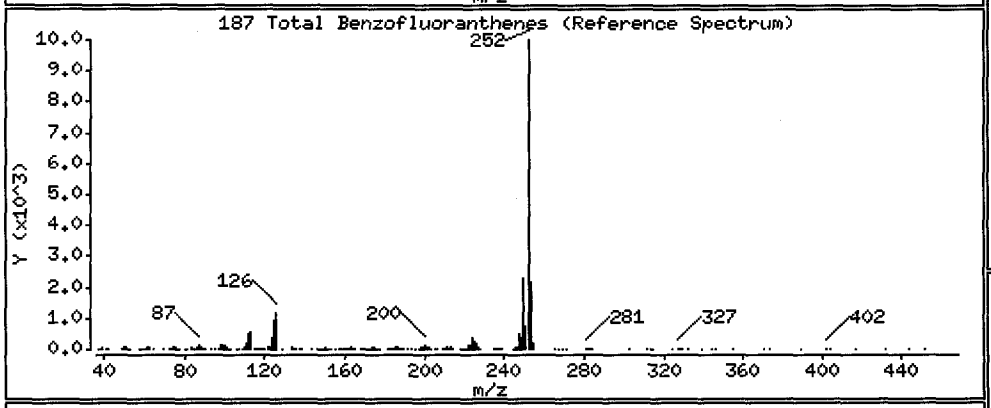
Volume Injected (uL): 1.0 Operator: VTS/YZ

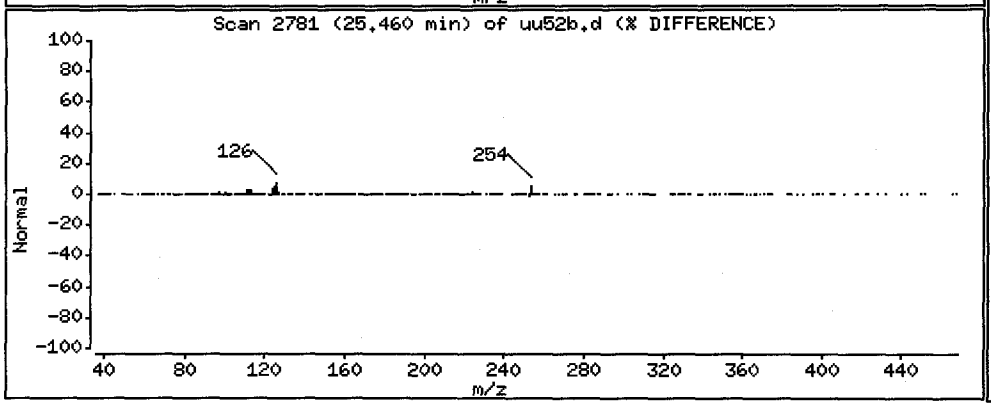
Column phase: ZB-5msi Column diameter: 0.25

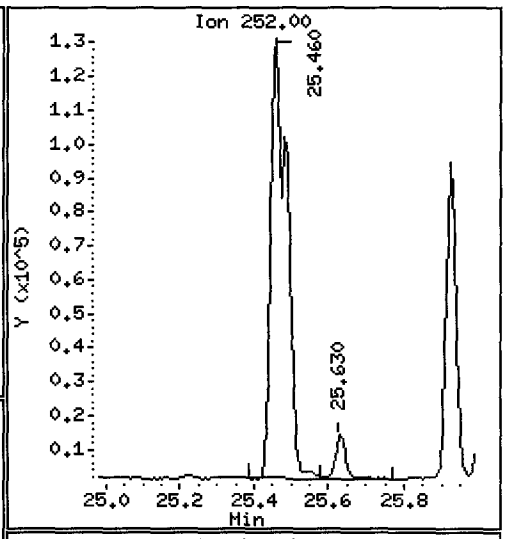
187 Total Benzofluoranthenes Concentration: 632.3 ug/kg

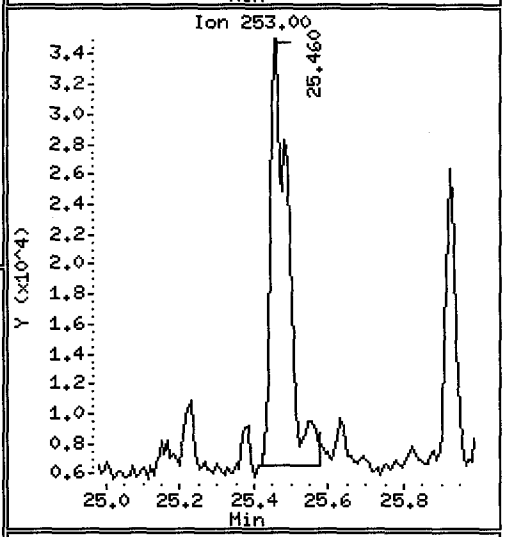


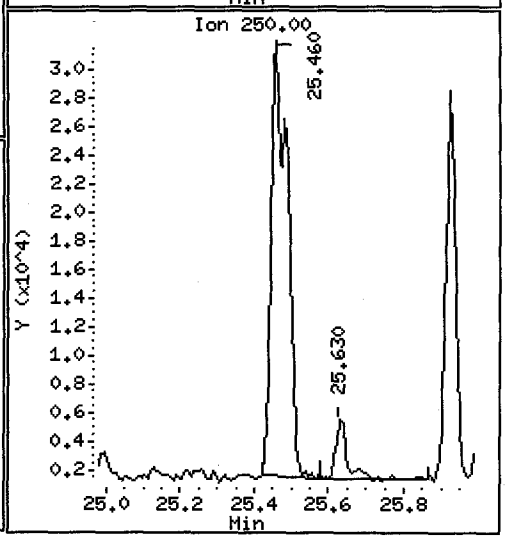












Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

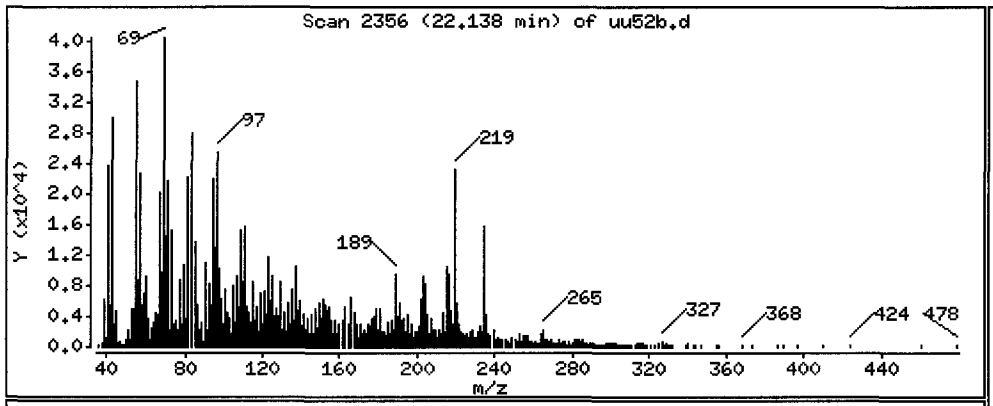
Client ID: MS101-SS-120515 Instrument: nt10.i

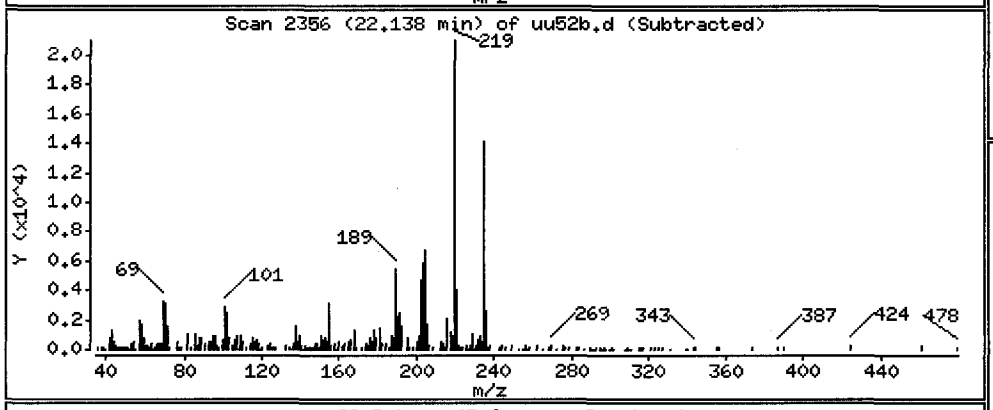
Sample Info: UU52B,3

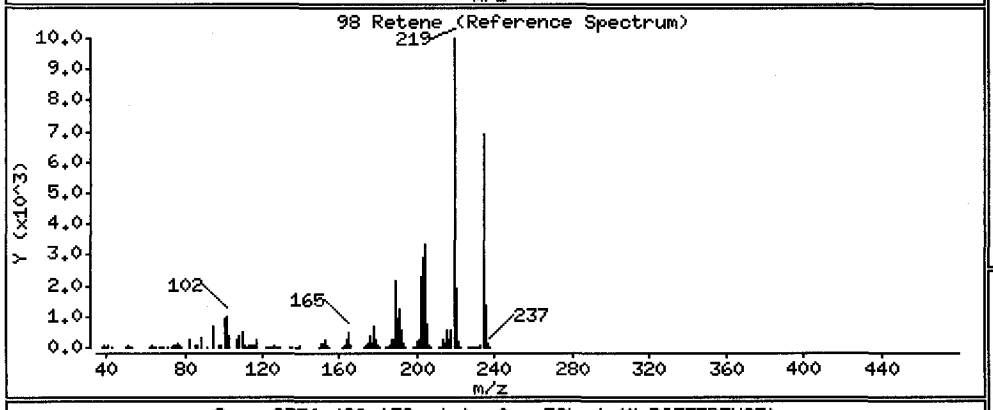
Volume Injected (uL): 1.0 Operator: VTS/YZ

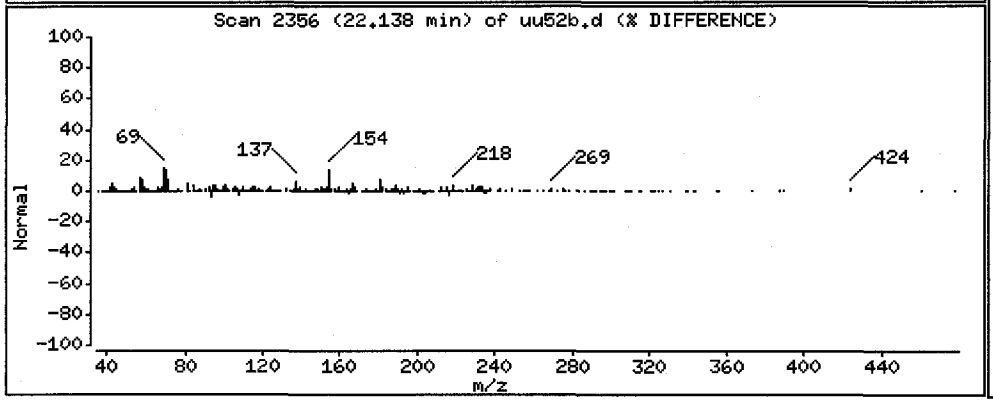
Column phase: ZB-5msi Column diameter: 0.25

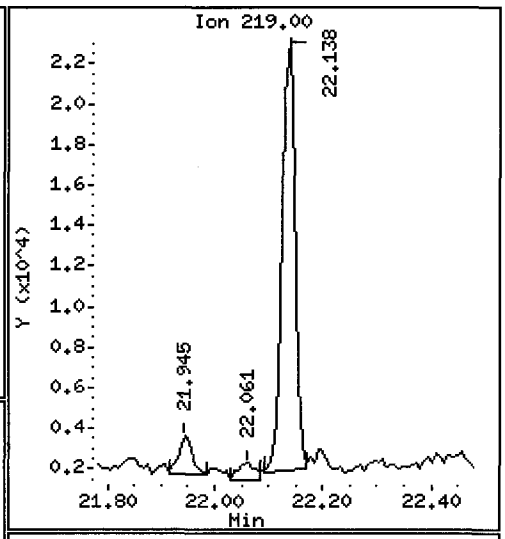
98 Retene Concentration: 103.5 ug/kg

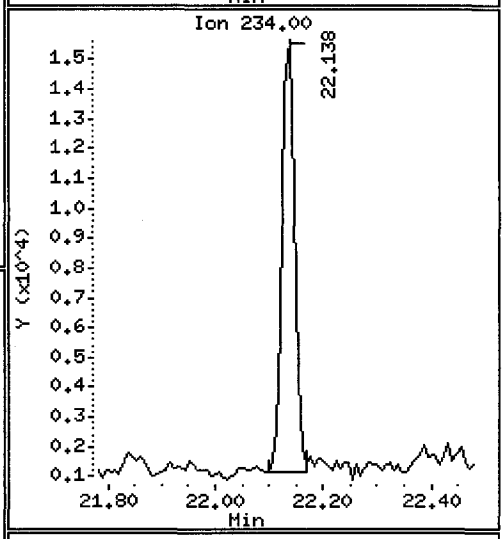


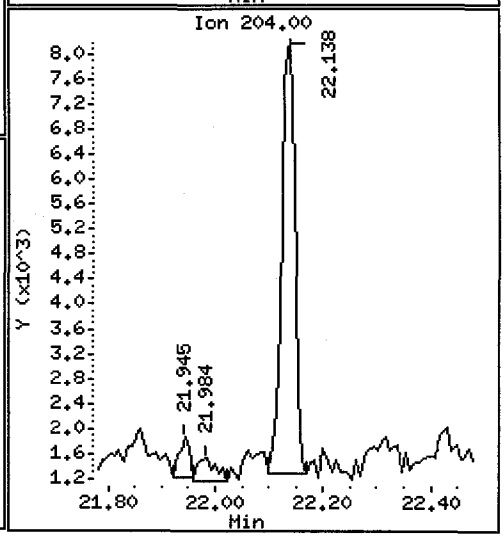






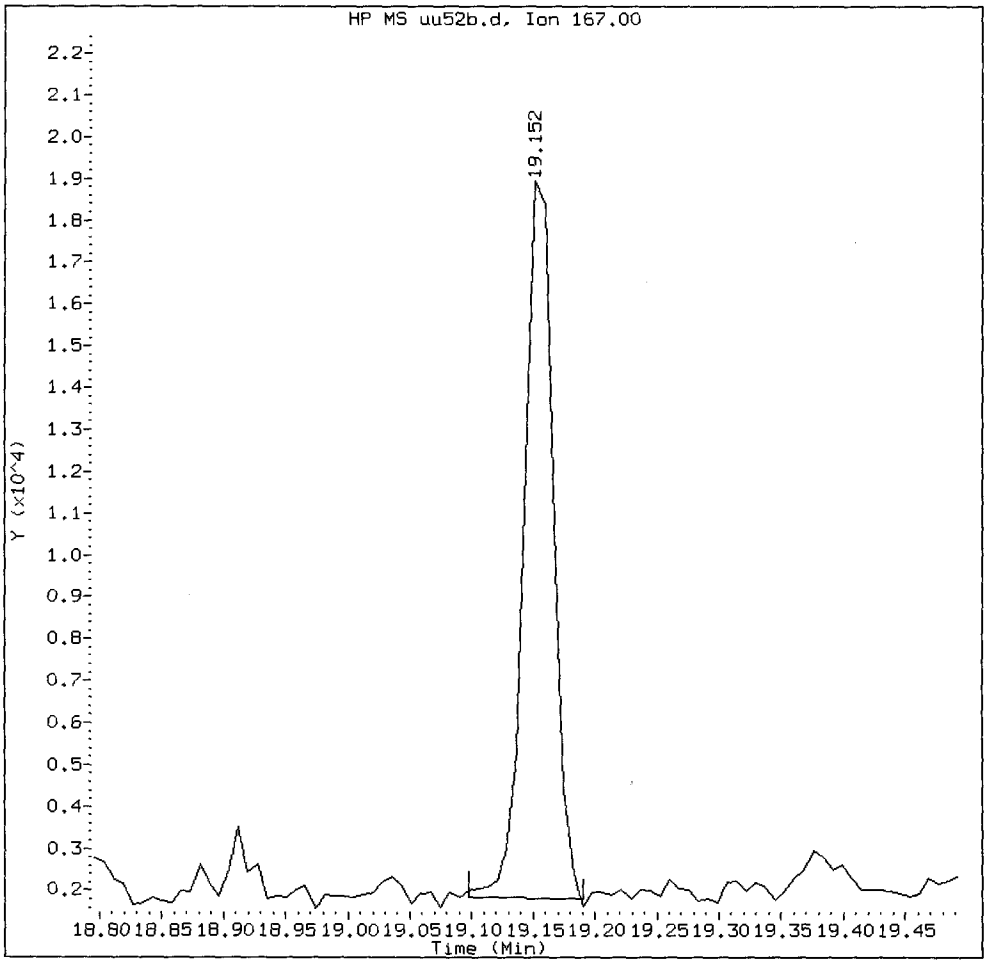






UU52B, /chem1/nt10.i/20120526.b/uu52b.d

Carbazole Amount: 0.19 Area: 28849



MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/4/12

CO-ELUTION SUMMARY FOR FILE - uu52b.d

Lab ID: UU52B, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/uu52c.d
Lab Smp Id: UU52C Client Smp ID: MS002-SS-120515
Inj Date : 26-MAY-2012 18:25
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52C,3
Misc Info : 12-8895
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 5
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

YZ 6/4/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	99.10000	Weight of sample extracted (g)
M	89.80000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1 2-Fluorophenol	112	6.560	6.537	(0.741)	106665	1.60716	477.0
$ 2 Phenol-d5	99	8.245	8.237	(0.931)	143555	1.73641	515.3
3 Phenol	94	8.268	8.260	(0.934)	76732	0.87075	258.4
$ 5 2-Chlorophenol-d4	132	8.484	8.476	(0.958)	120657	1.66582	494.4
4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6 2-Chlorophenol	128	Compound Not Detected.					
7 1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152	8.855	8.855	(1.000)	189793	4.00000	
9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10 1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.043)	47340	0.99631	295.7
12 1,2-Dichlorobenzene	146	Compound Not Detected.					
11 Benzyl alcohol	108	Compound Not Detected.					
14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13 2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.740	9.725	(1.100)	342549	4.72740	1403
$	18 Nitrobenzene-d5	82	10.028	10.027	(0.872)	72146	1.05554	313.3
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.026	11.087	(0.958)	62829	1.43002	424.4
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.504	11.504	(1.000)	762840	4.00000	
	28 Naphthalene	128	11.543	11.542	(1.003)	856750	4.45500	1322
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.043	13.043	(1.134)	107209	0.80190	238.0
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.902	13.902	(0.904)	169852	1.16359	345.3
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	15.040	15.032	(0.978)	55290	0.29236	86.77
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.380	15.373	(1.000)	421087	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	15.442	15.442	(1.004)	54131	0.47454	140.8
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.806	15.798	(1.028)	134028	0.80199	238.0
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	16.470	16.470	(1.071)	17315	0.13728 J	40.74
	49 Fluorene	166	16.571	16.563	(1.077)	69735	0.54459	161.6
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.150	17.142	(1.115)	32396	1.86394	553.2
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.641	18.633	(1.000)	644641	4.00000	
	60 Phenanthrene	178	18.695	18.687	(1.003)	466441	2.80604	832.8
	61 Anthracene	178	18.788	18.780	(1.008)	96806	0.55749	165.5

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	62 Carbazole	167	19.160	19.144	(1.028)	30025	0.18687	55.46 (M)
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	21.132	21.101	(1.134)	547685	2.90186	861.2
	65 Pyrene	202	21.535	21.519	(0.908)	592803	2.89231	858.4
$	66 Terphenyl-d14	244	21.852	21.844	(0.921)	156944	1.22235	362.8
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	23.687	23.679	(0.999)	177073	0.93451	277.4
*	69 Chrysene-d12	240	23.718	23.710	(1.000)	673614	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	23.757	23.749	(1.002)	447294	2.68344	796.4
	72 bis(2-Ethylhexyl)phthalate	149	23.834	23.818	(0.961)	75018	0.50501	149.9
*	134 Di-n-octylphthalate-d4	153	24.802	24.794	(1.000)	1081717	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	Compound Not Detected.					
	75 Benzo(k)fluoranthene	252	Compound Not Detected.					
	76 Benzo(a)pyrene	252	26.017	26.002	(0.996)	273211	1.58874	471.5
*	77 Perylene-d12	264	26.118	26.102	(1.000)	665077	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.373	28.342	(1.086)	229330	1.15287	342.2
	79 Dibenzo(a,h)anthracene	278	28.388	28.365	(1.087)	55054	0.35135	104.3
	80 Benzo(g,h,i)perylene	276	29.041	29.002	(1.112)	246965	1.44782	429.7
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	13.283	13.275	(1.155)	65473	0.48020	142.5
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	25.460	25.483	(0.975)	633923	3.43514	1020
	99 Perylene	252	Compound Not Detected.					
	98 Retene	219	22.146	22.131	(0.934)	25521	0.26740	79.36

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52c.d
Lab Smp Id: UU52C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8895

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS002-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	189793	0.15
27 Naphthalene-d8	730932	365466	1461864	762840	4.37
42 Acenaphthene-d10	420698	210349	841396	421087	0.09
59 Phenanthrene-d10	638950	319475	1277900	644641	0.89
69 Chrysene-d12	645065	322532	1290130	673614	4.43
134 Di-n-octylphthala	1016118	508059	2032236	1081717	6.46
77 Perylene-d12	650033	325016	1300066	665077	2.31

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.50	11.00	12.00	11.50	0.00
42 Acenaphthene-d10	15.37	14.87	15.87	15.38	0.05
59 Phenanthrene-d10	18.63	18.13	19.13	18.64	0.04
69 Chrysene-d12	23.71	23.21	24.21	23.72	0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.80	0.03
77 Perylene-d12	26.10	25.60	26.60	26.12	0.06

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

Analytical Resources, Inc.

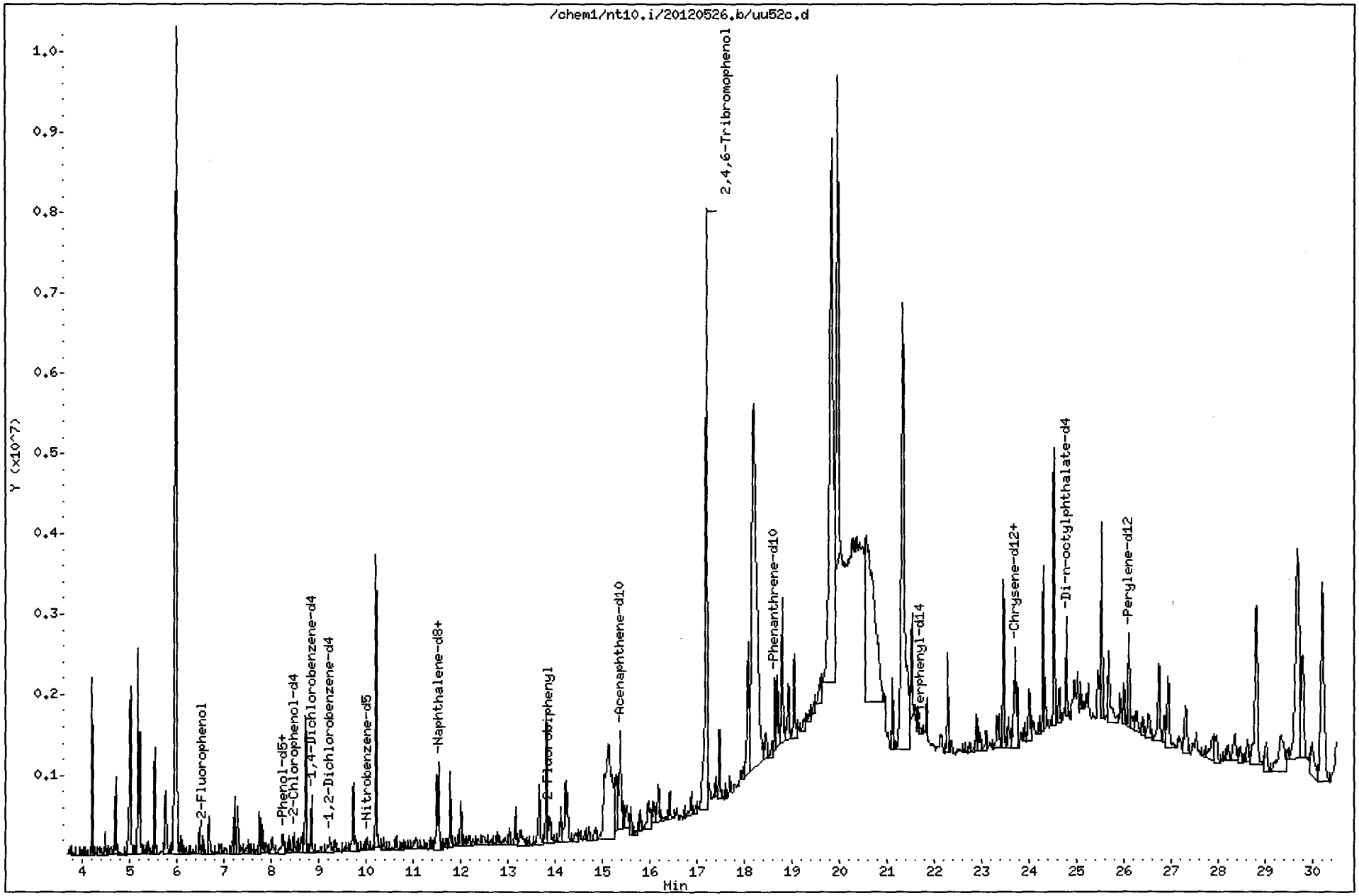
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52C Client Smp ID: MS002-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8895

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	742.0	477.0	64.29	30-160
$ 2 Phenol-d5	742.0	515.3	69.46	30-160
$ 5 2-Chlorophenol-d4	742.0	494.4	66.63	30-160
$ 10 1,2-Dichlorobenzen	494.6	295.7	59.78	30-160
$ 18 Nitrobenzene-d5	494.6	313.3	63.33	30-160
$ 36 2-Fluorobiphenyl	494.6	345.3	69.82	30-160
$ 55 2,4,6-Tribromophen	742.0	553.2	74.56	30-160
$ 66 Terphenyl-d14	494.6	362.8	73.34	30-160

Data File: /chem1/nt10.i/20120526.b/uu52c.d
Date : 26-MAY-2012 18:25
Client ID: MS002-SS-120515
Sample Info: UU52C,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52: 66755

Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

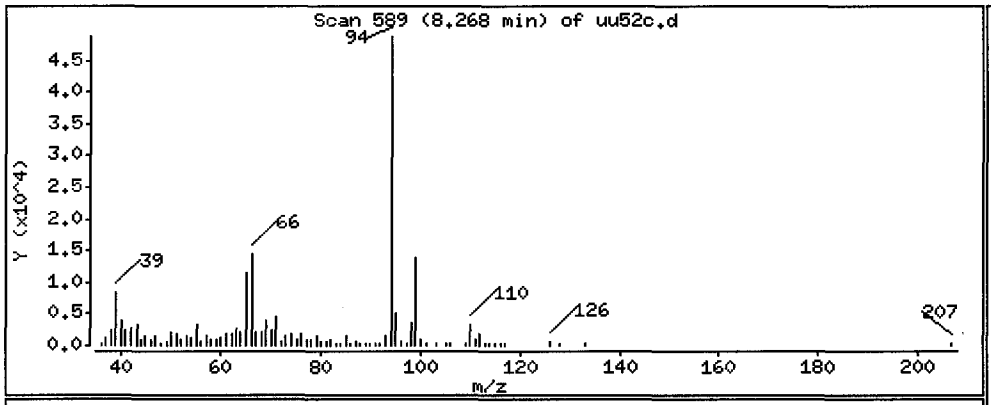
Client ID: MS002-SS-120515 Instrument: nt10.i

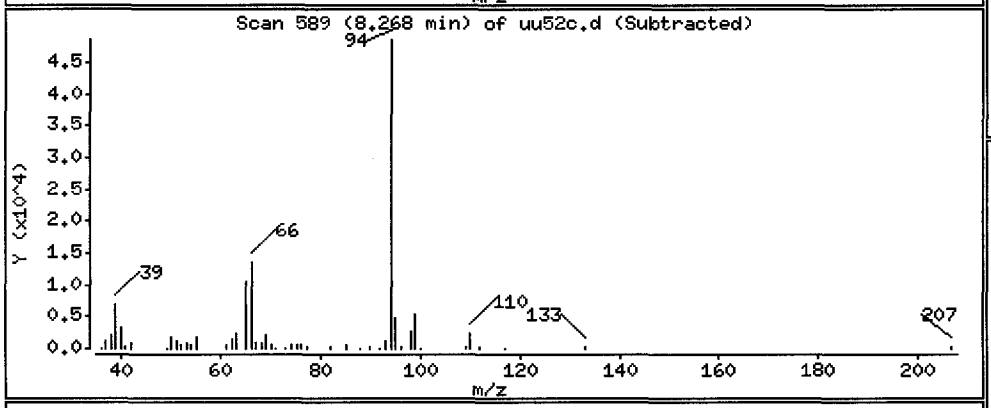
Sample Info: UU52C,3

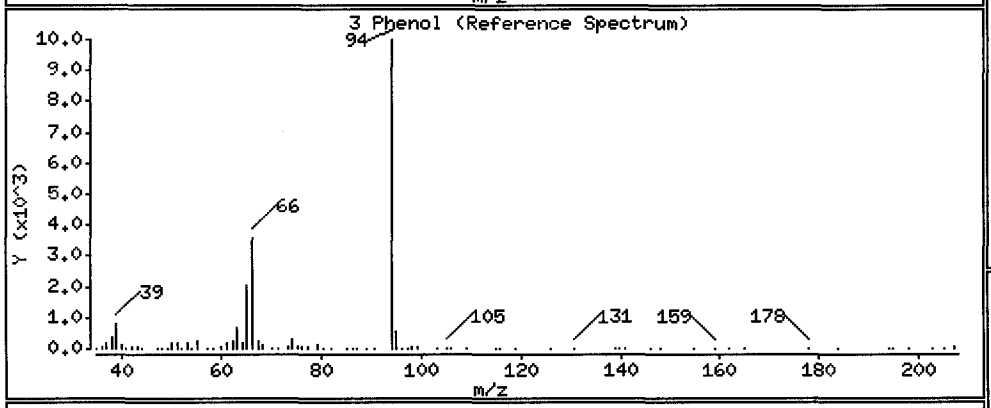
Volume Injected (uL): 1.0 Operator: VTS/YZ

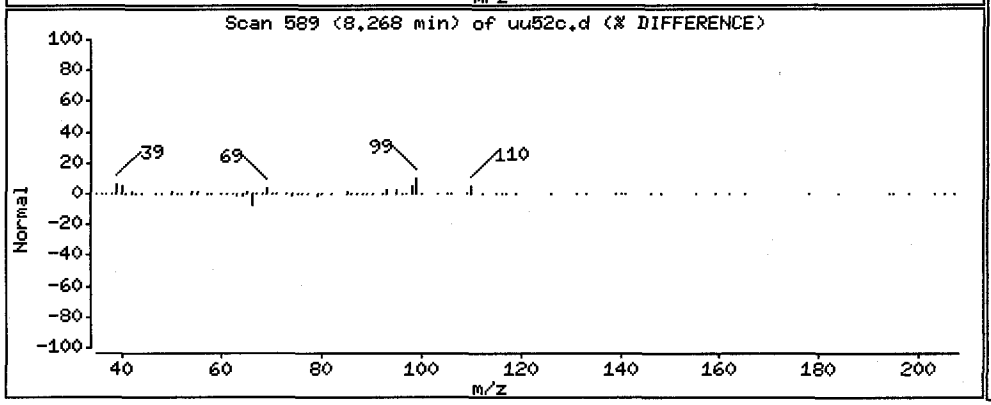
Column phase: ZB-5msi Column diameter: 0.25

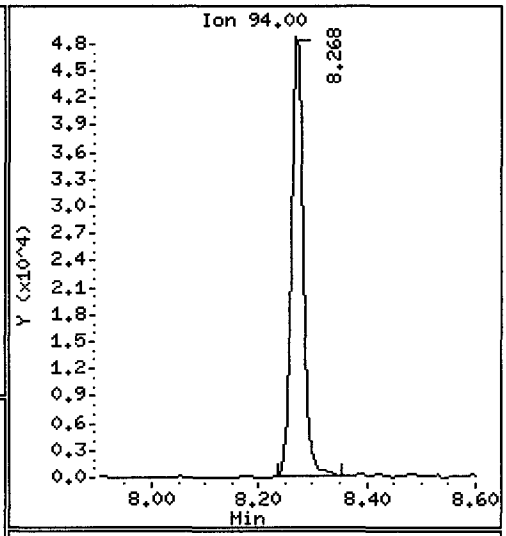
3 Phenol Concentration: 258.4 ug/kg

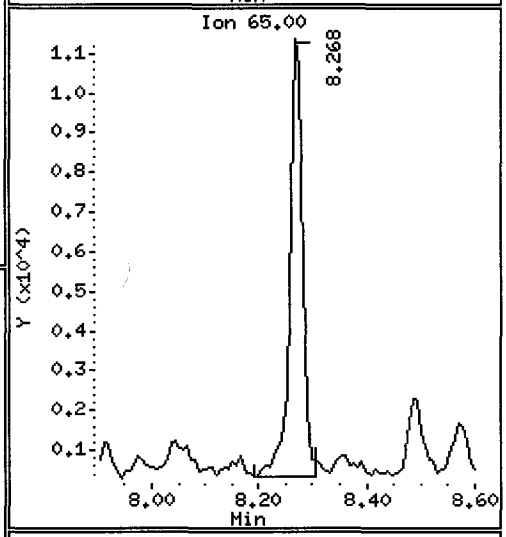


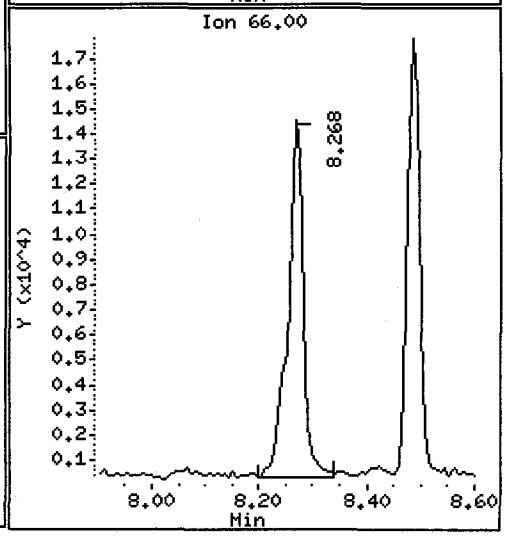












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

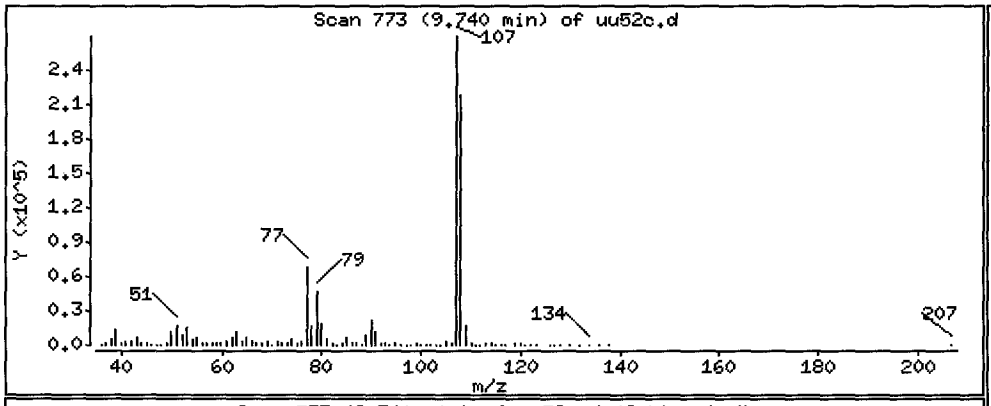
Operator: VTS/YZ

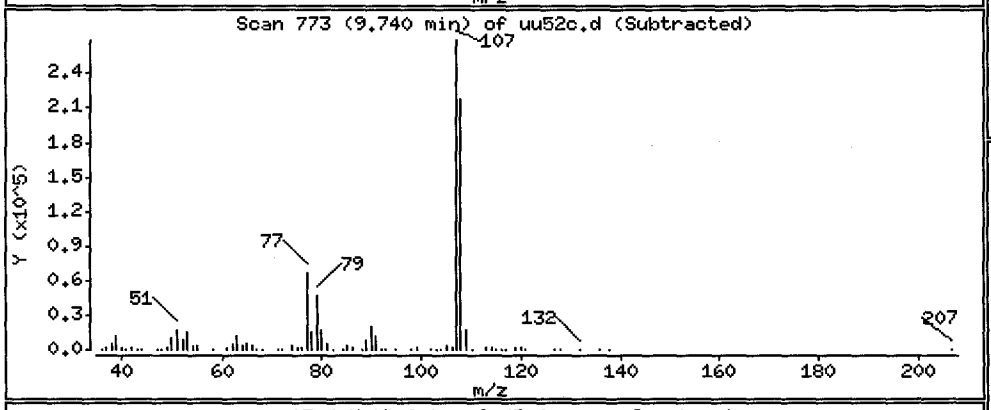
Column phase: ZB-5msi

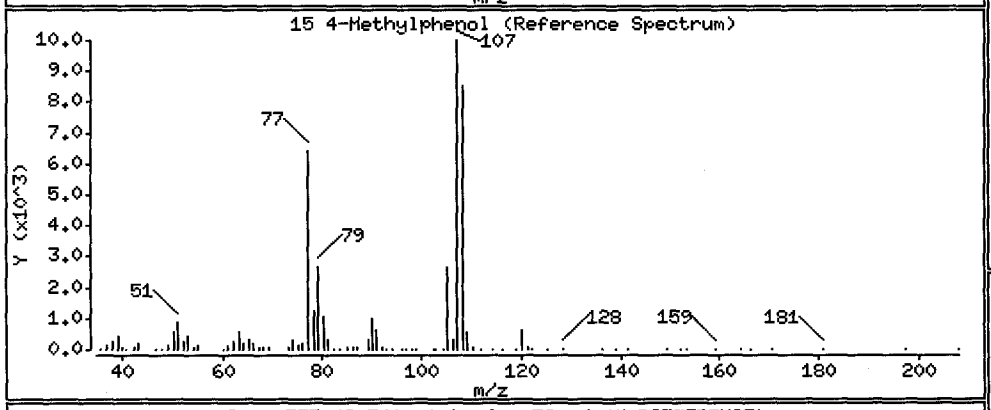
Column diameter: 0.25

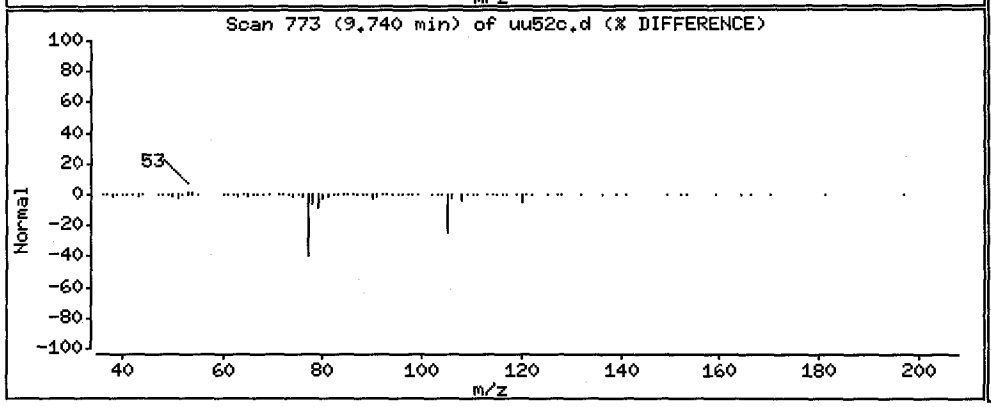
15 4-Methylphenol

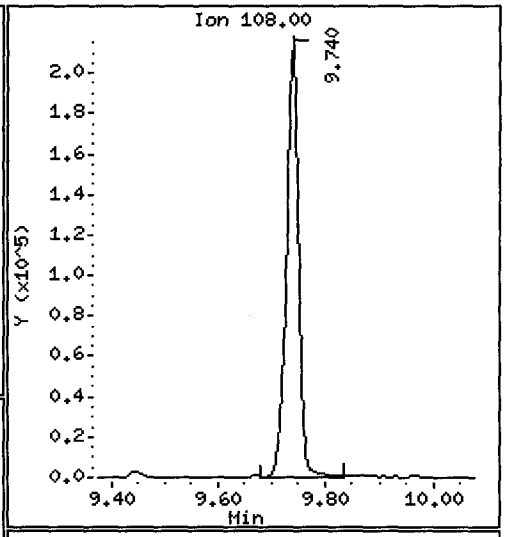
Concentration: 1403 ug/kg

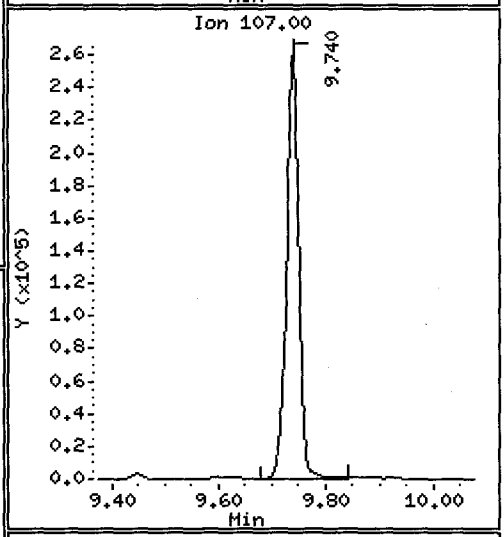


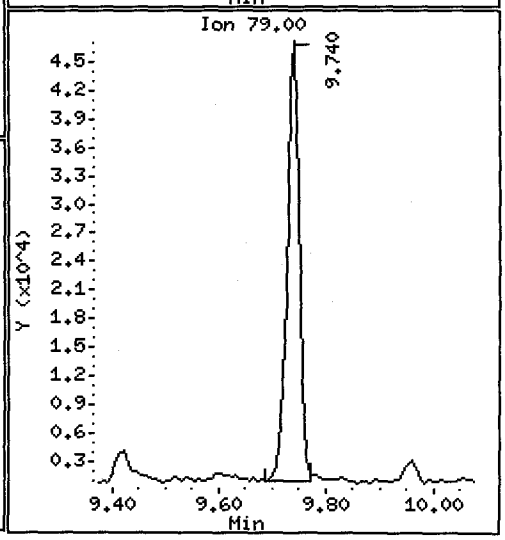












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

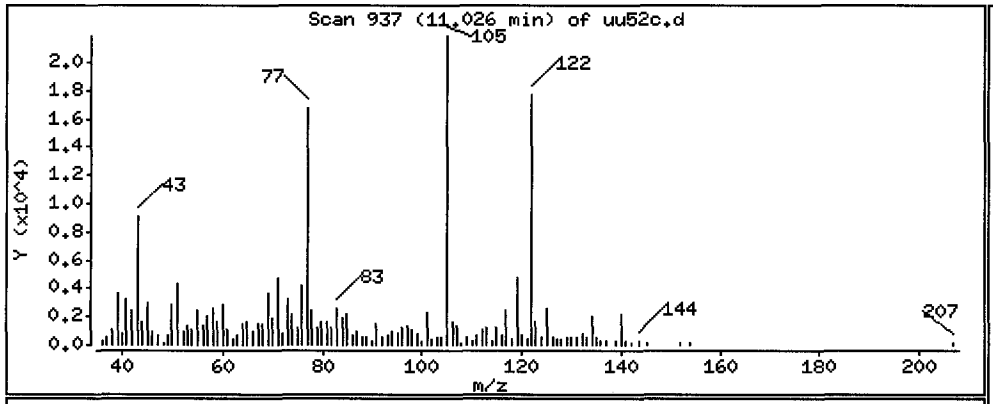
Client ID: MS002-SS-120515 Instrument: nt10.i

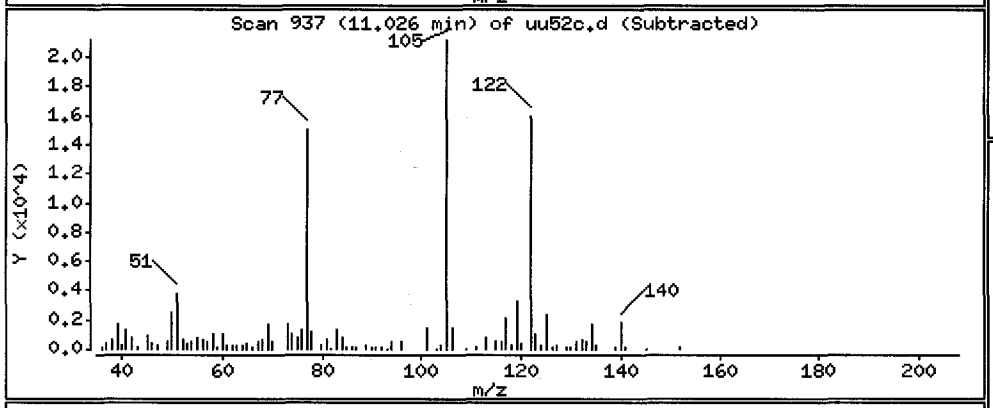
Sample Info: UU52C,3

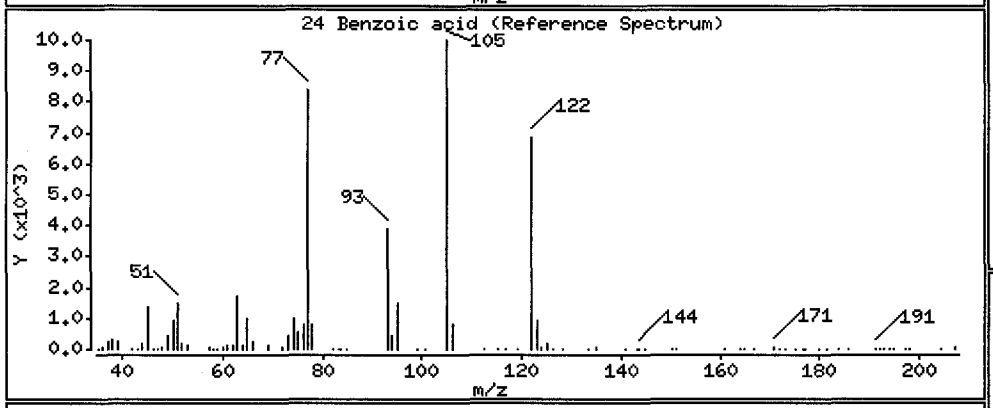
Volume Injected (uL): 1.0 Operator: VTS/YZ

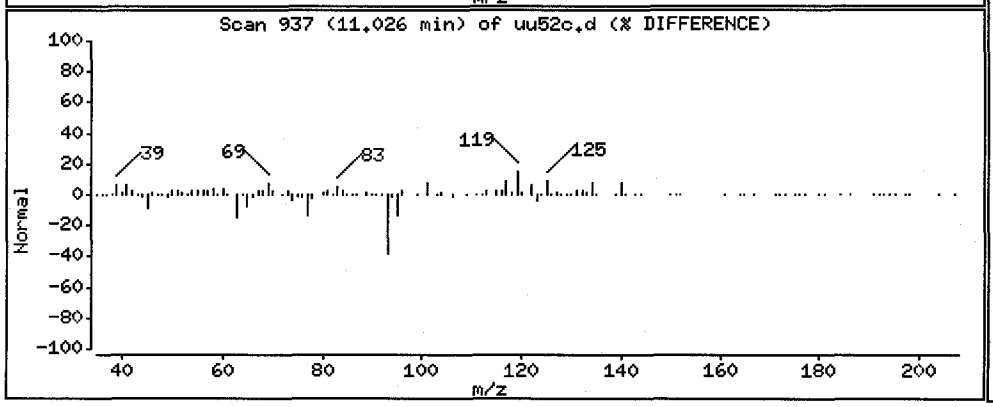
Column phase: ZB-5msi Column diameter: 0.25

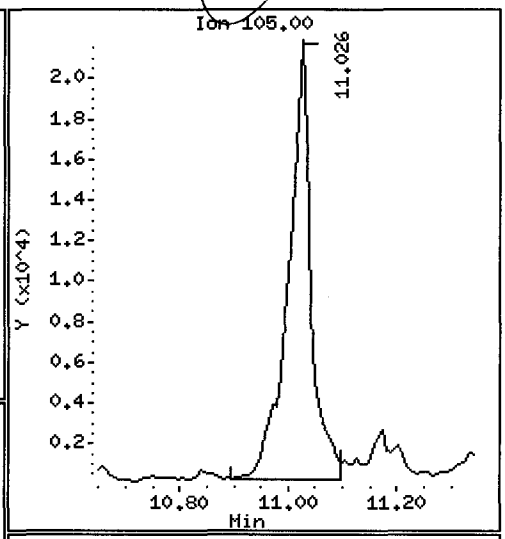
24 Benzoic acid Concentration: 424.4 ug/kg

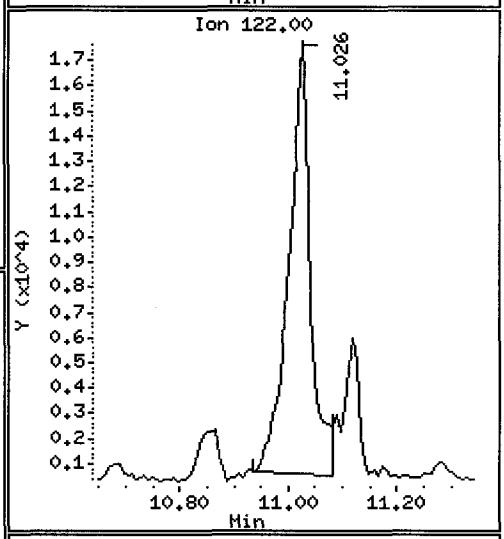


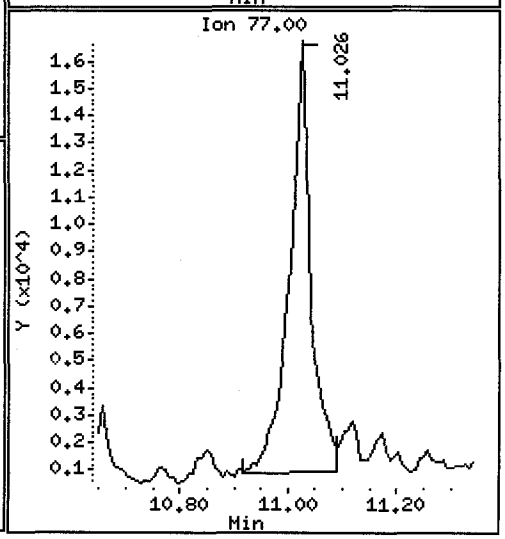












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

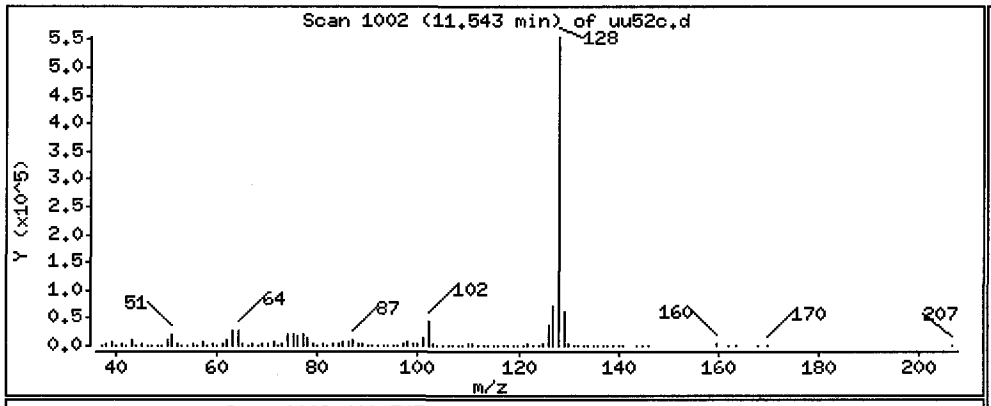
Client ID: MS002-SS-120515 Instrument: nt10.i

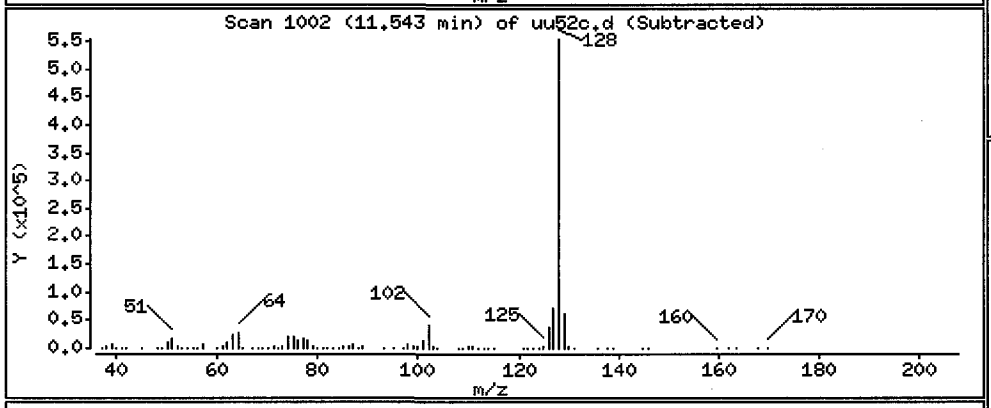
Sample Info: UU52C,3

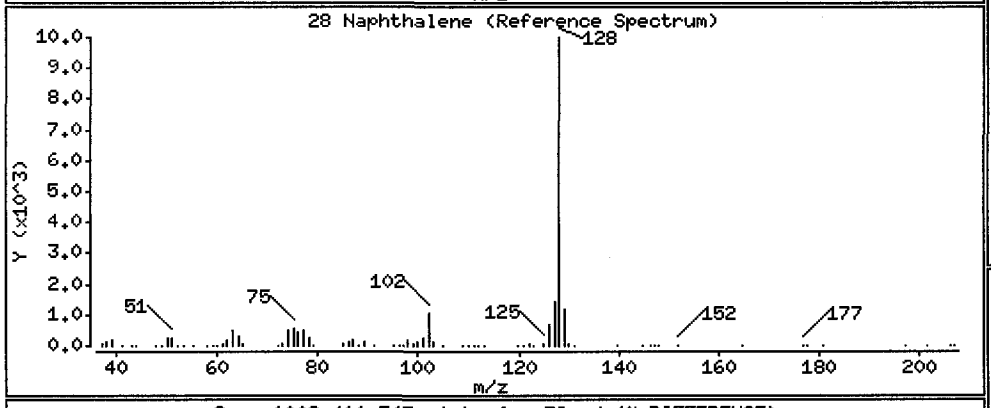
Volume Injected (uL): 1.0 Operator: VTS/YZ

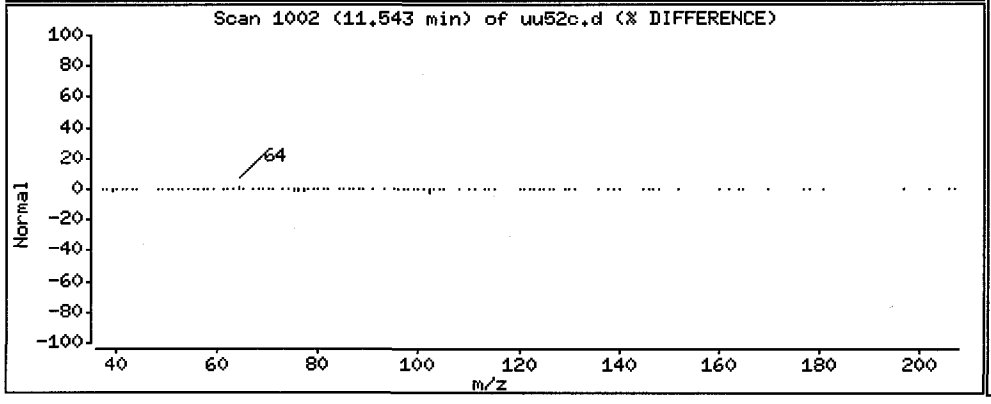
Column phase: ZB-5msi Column diameter: 0.25

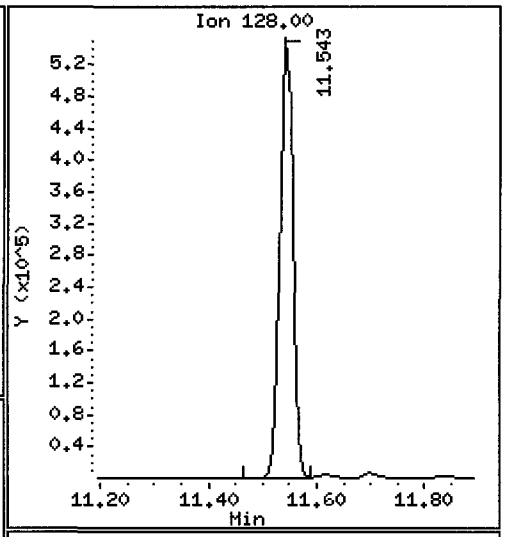
28 Naphthalene Concentration: 1322 ug/kg

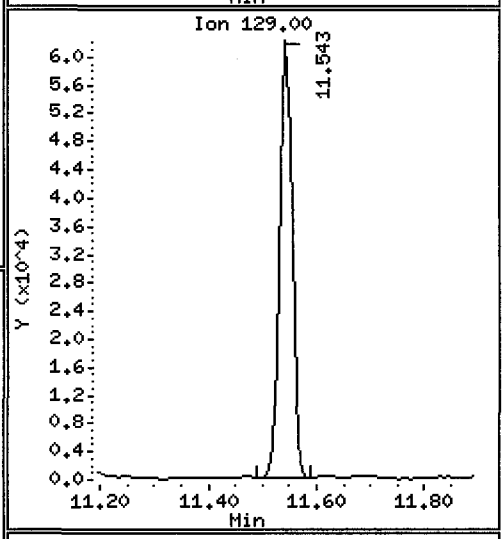


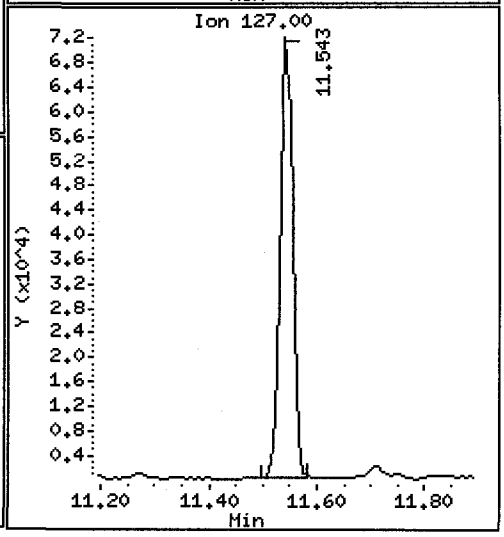












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

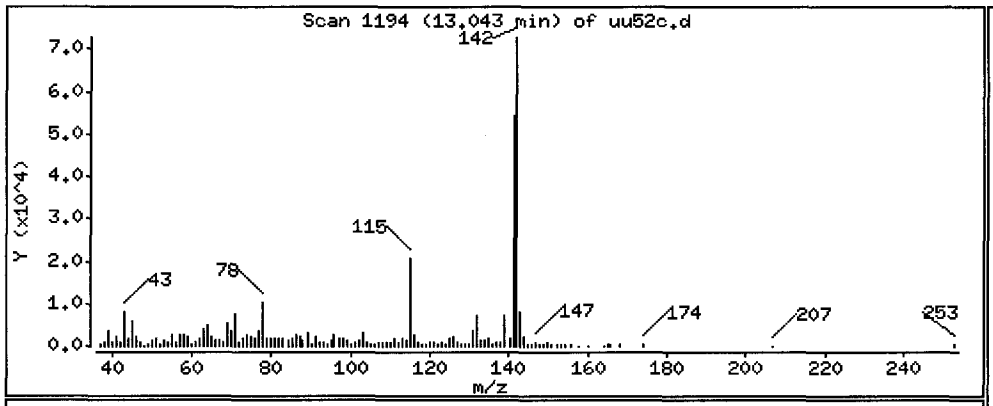
Operator: VTS/YZ

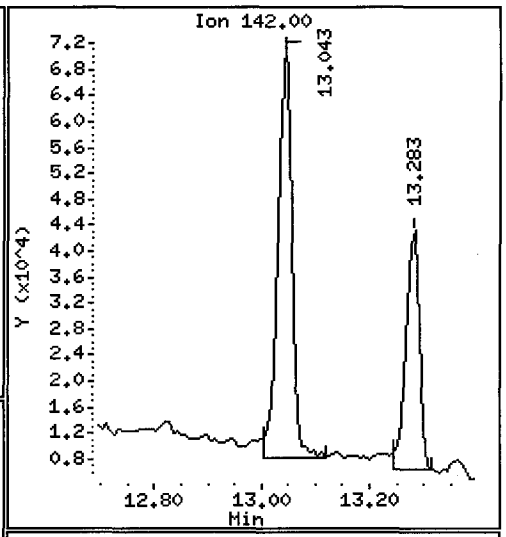
Column phase: ZB-5msi

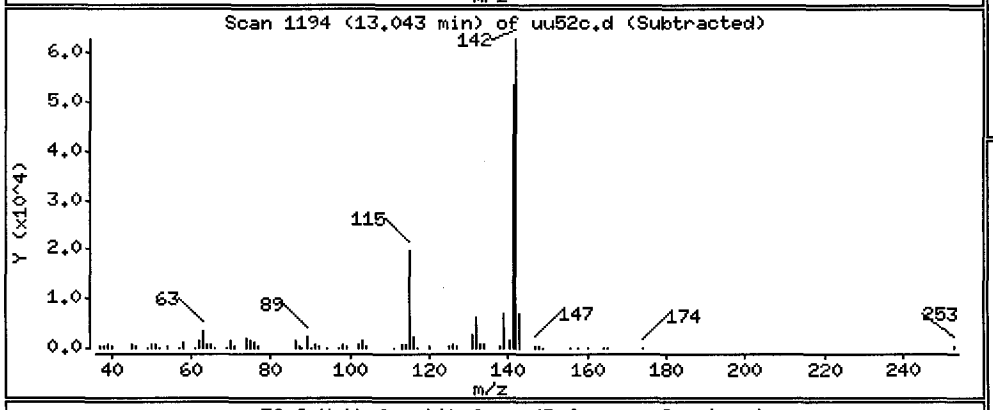
Column diameter: 0.25

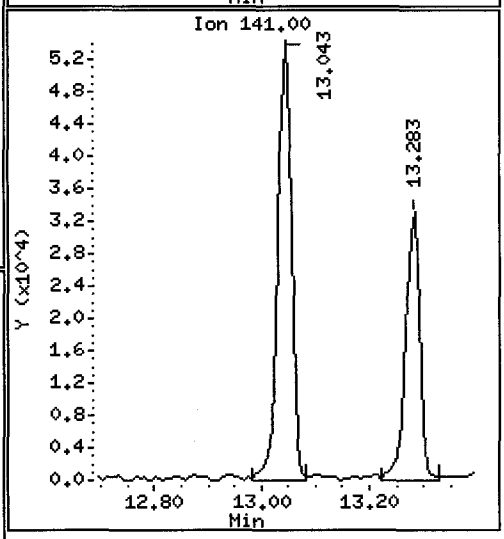
32 2-Methylnaphthalene

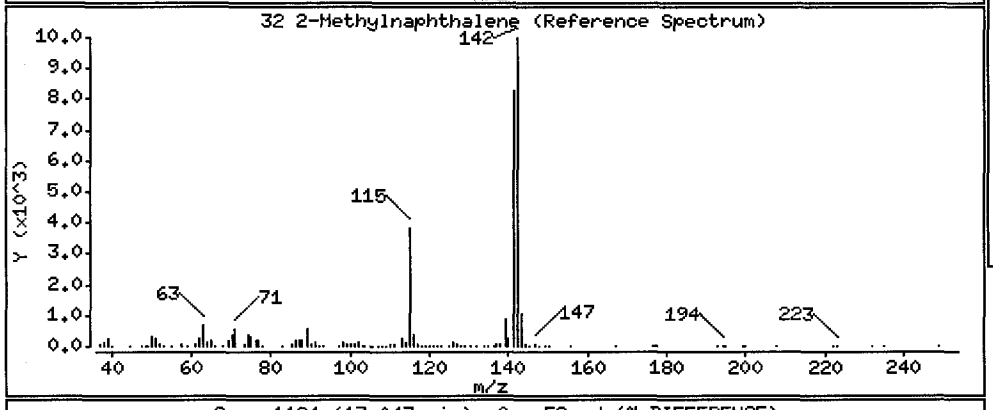
Concentration: 238.0 ug/kg

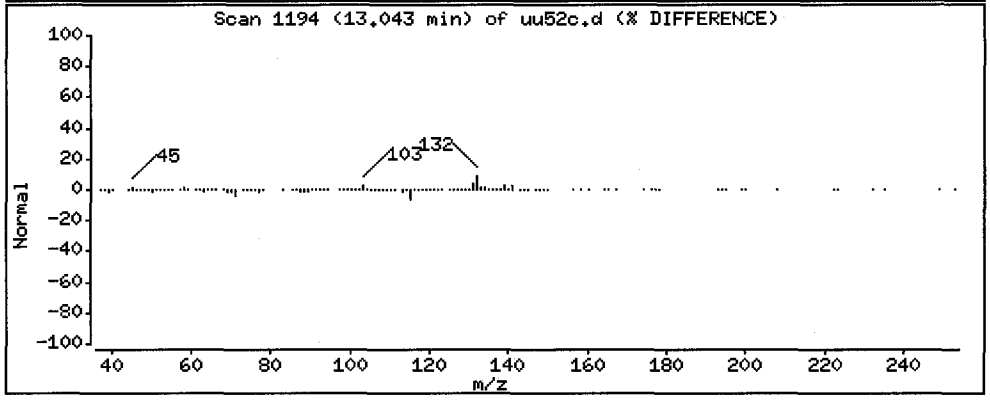












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

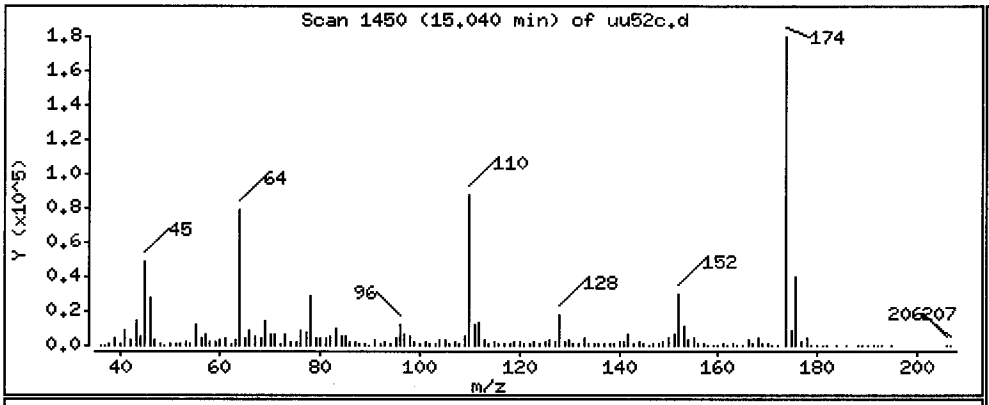
Operator: VTS/YZ

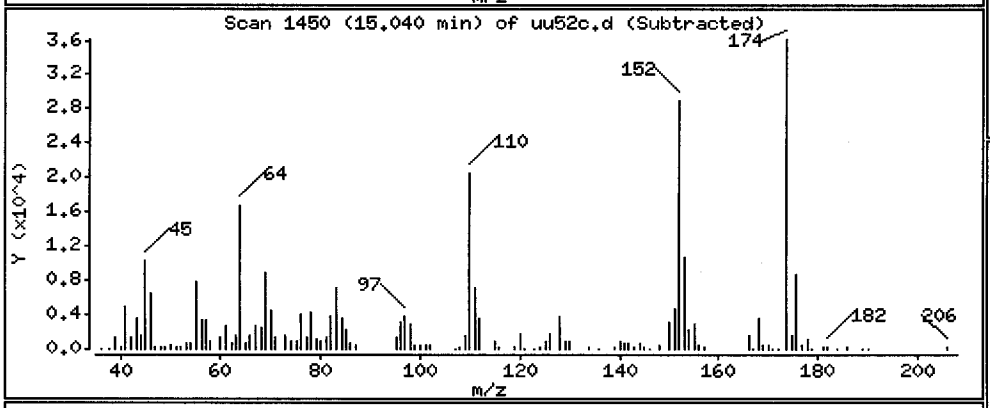
Column phase: ZB-5msi

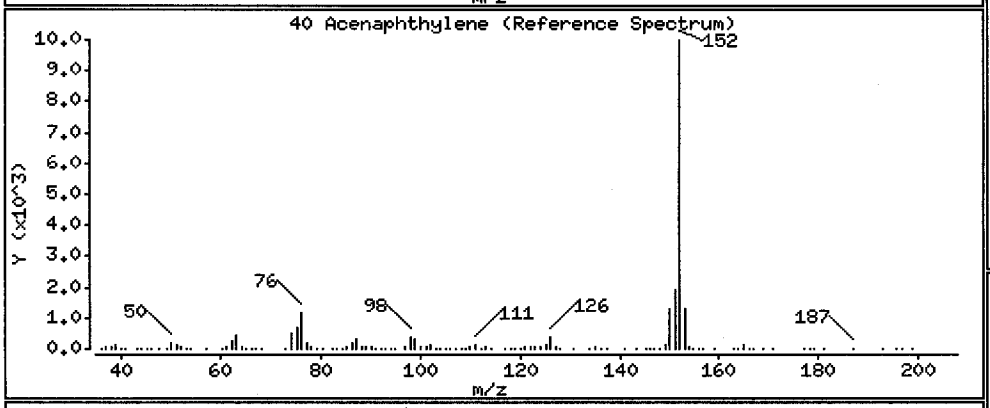
Column diameter: 0.25

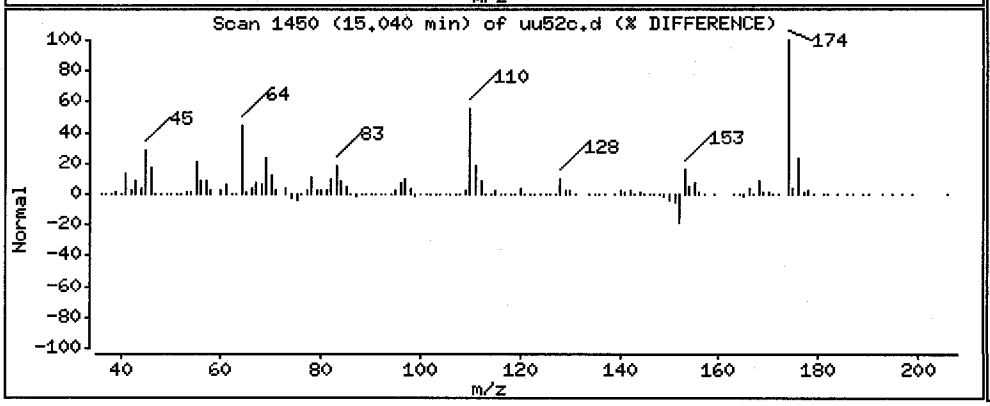
40 Acenaphthylene

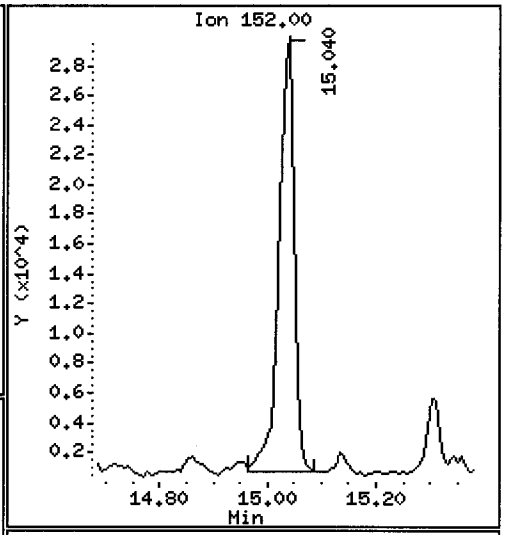
Concentration: 86.77 ug/kg

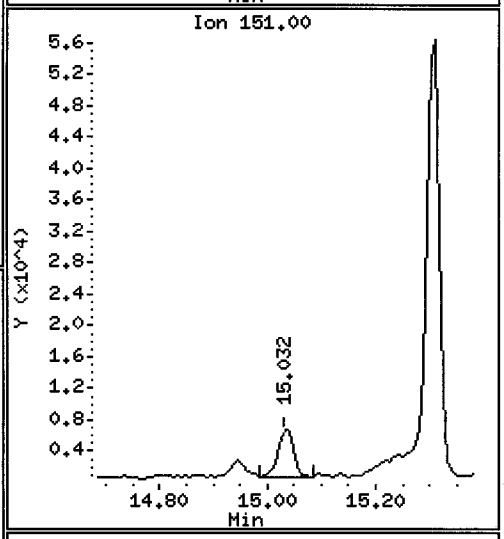


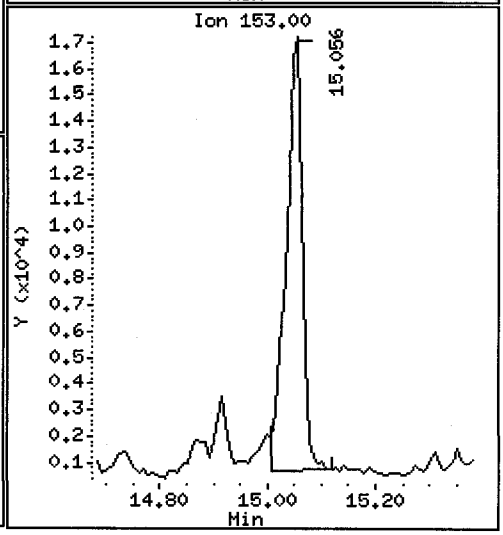












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

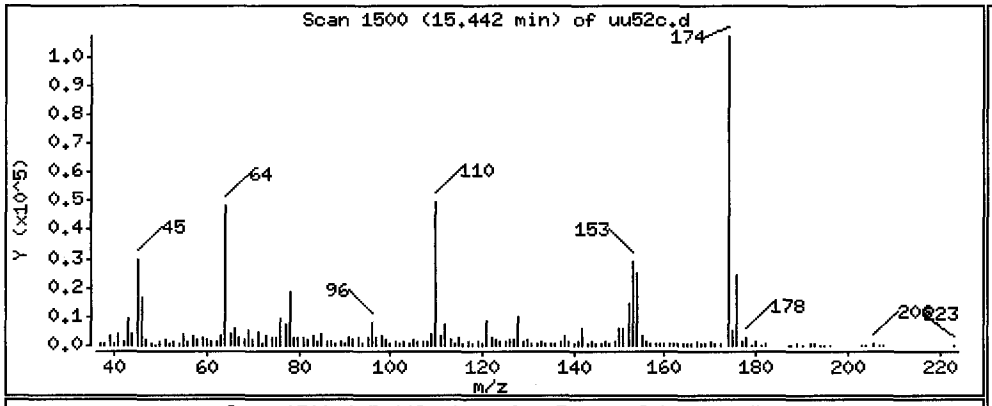
Operator: VTS/YZ

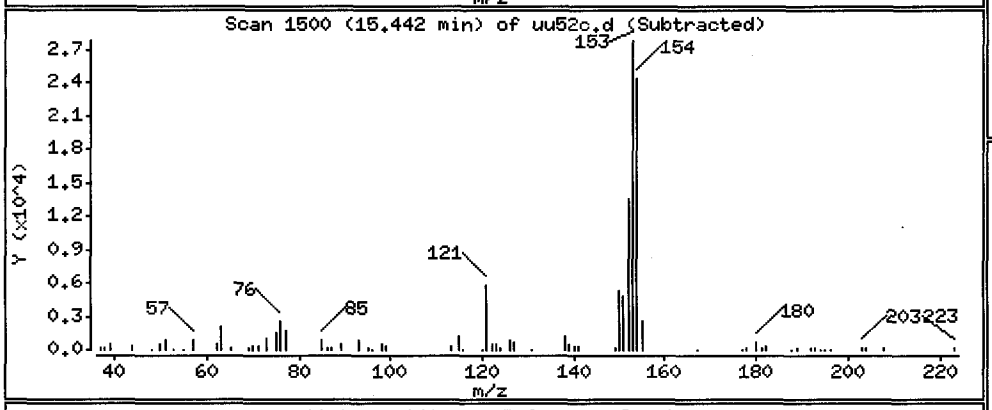
Column phase: ZB-5msi

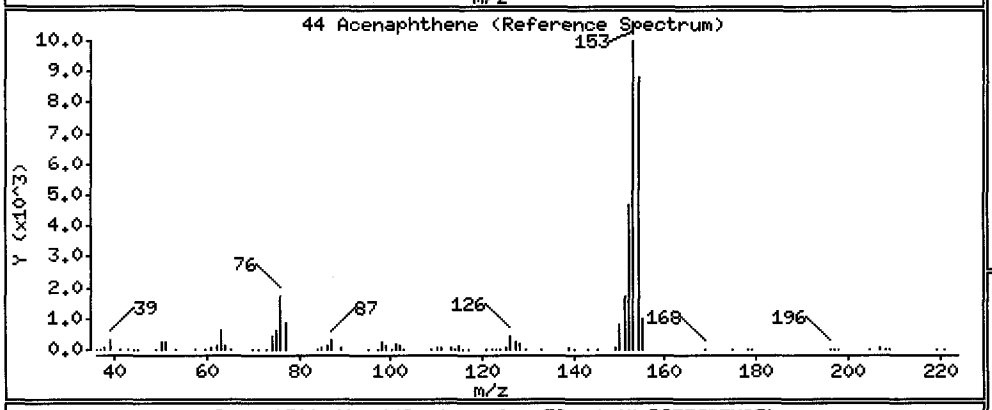
Column diameter: 0.25

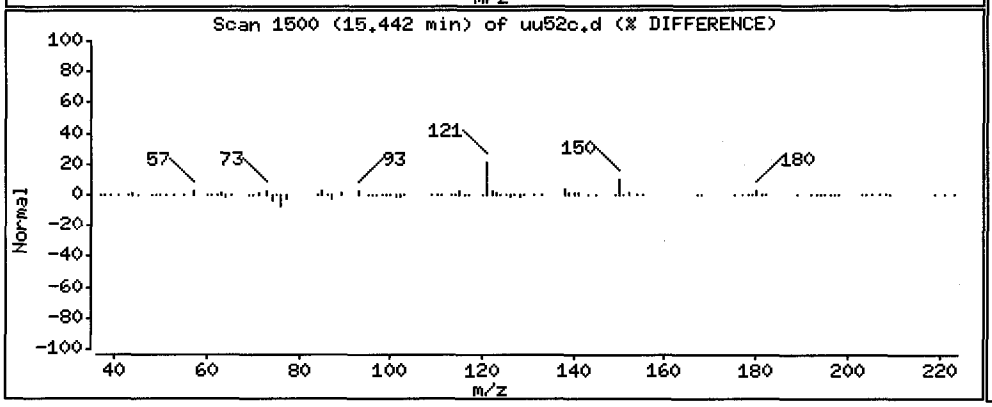
44 Acenaphthene

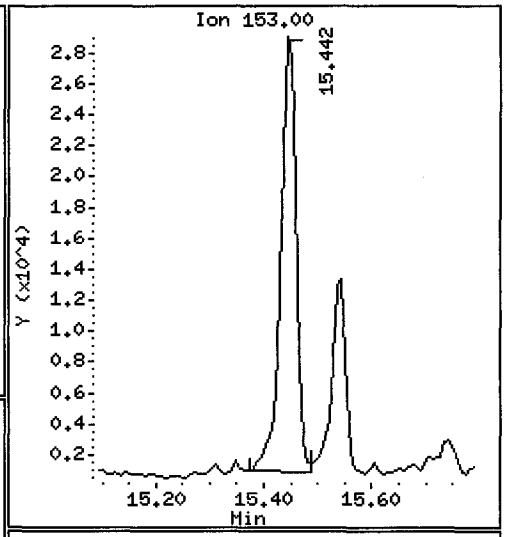
Concentration: 140.8 ug/kg

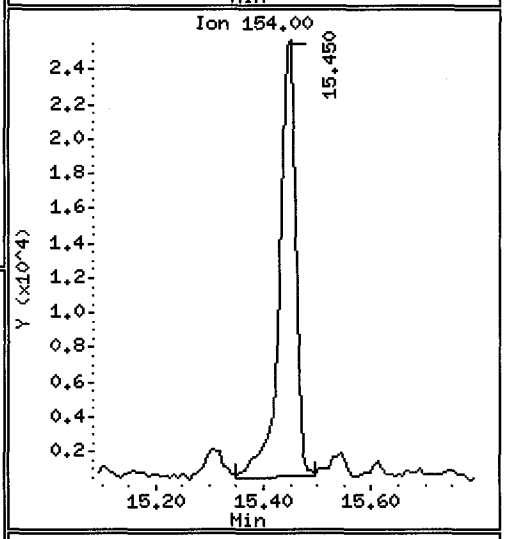


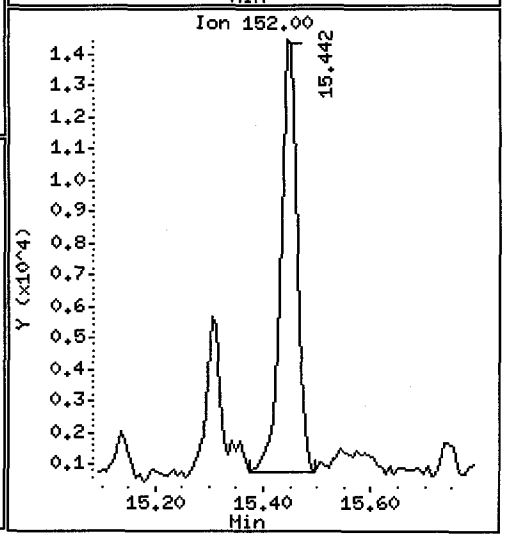












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

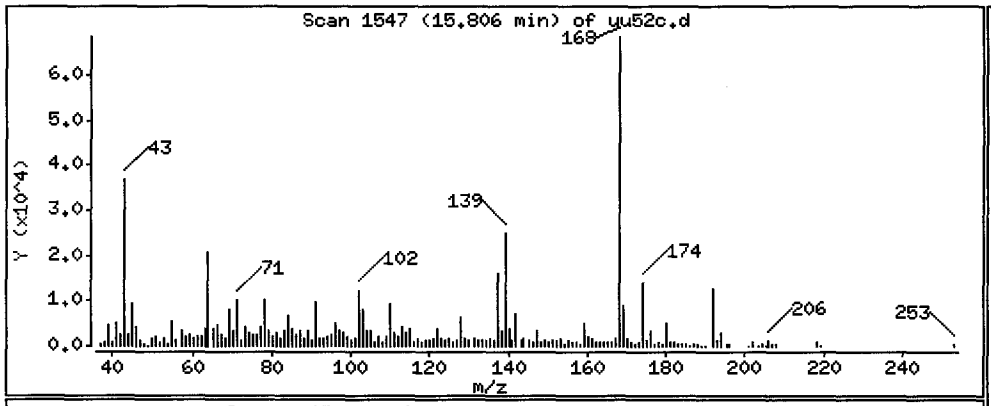
Client ID: MS002-SS-120515 Instrument: nt10.i

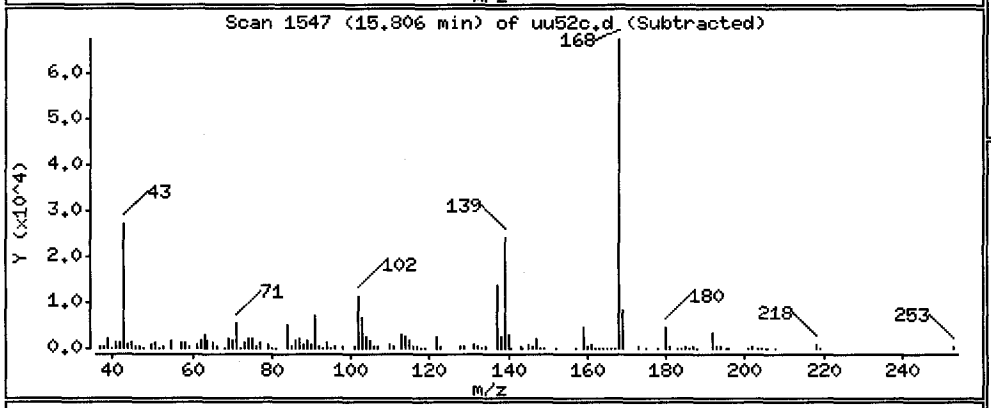
Sample Info: UU52C,3

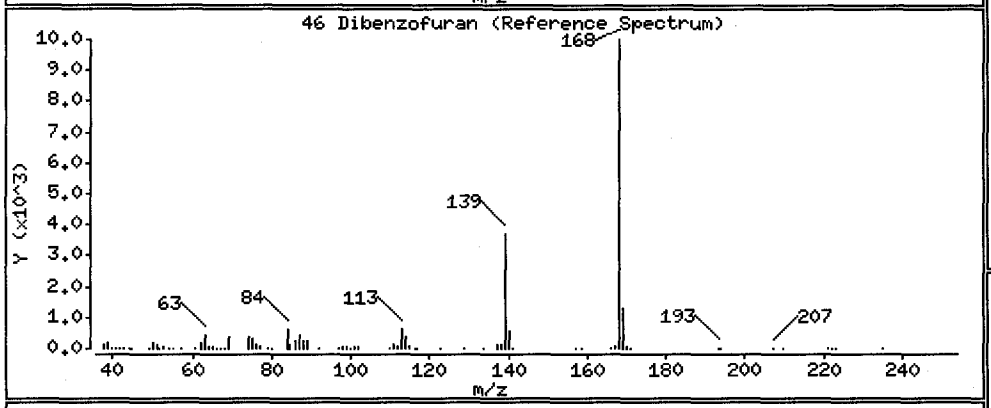
Volume Injected (uL): 1.0 Operator: VTS/YZ

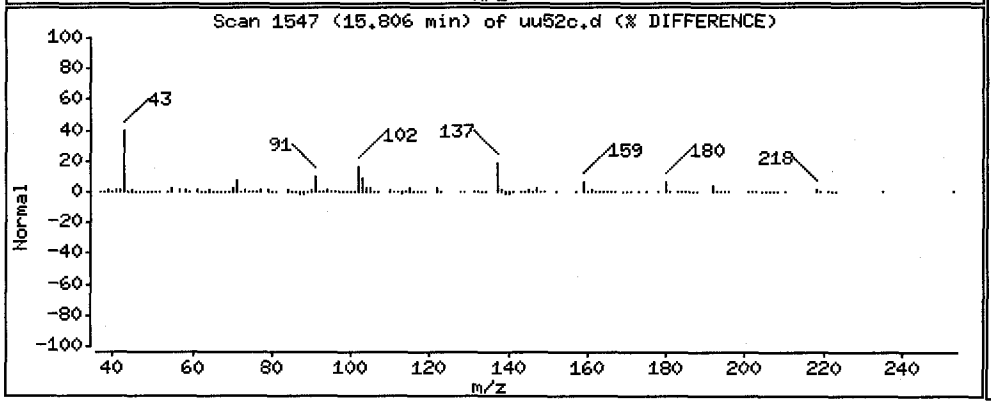
Column phase: ZB-5msi Column diameter: 0.25

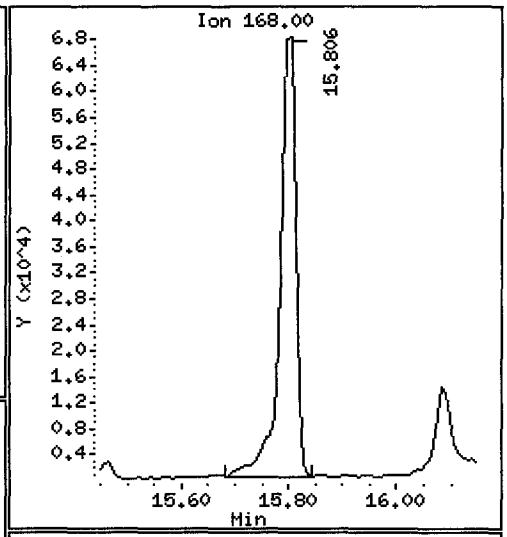
46 Dibenzofuran Concentration: 238.0 ug/kg

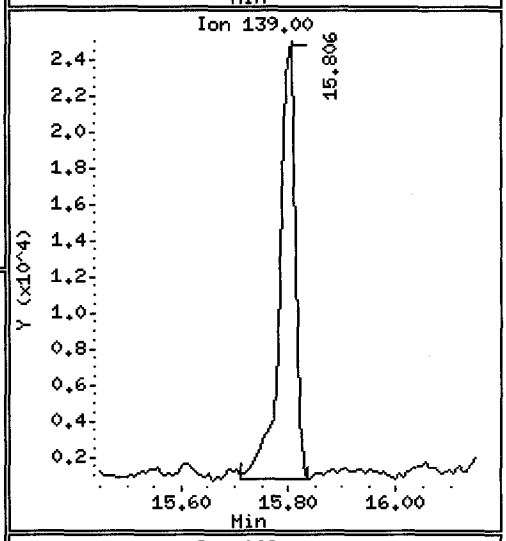


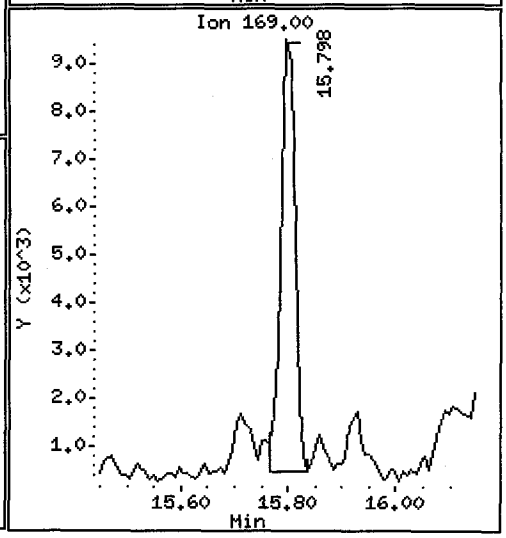












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

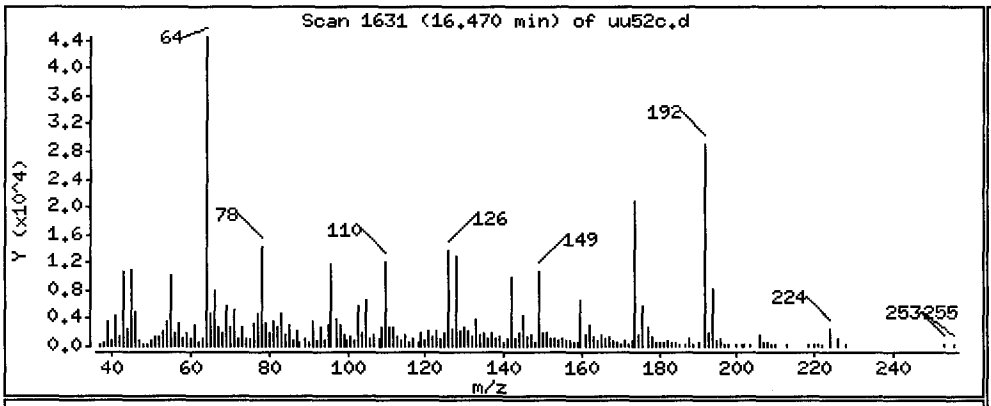
Operator: VTS/YZ

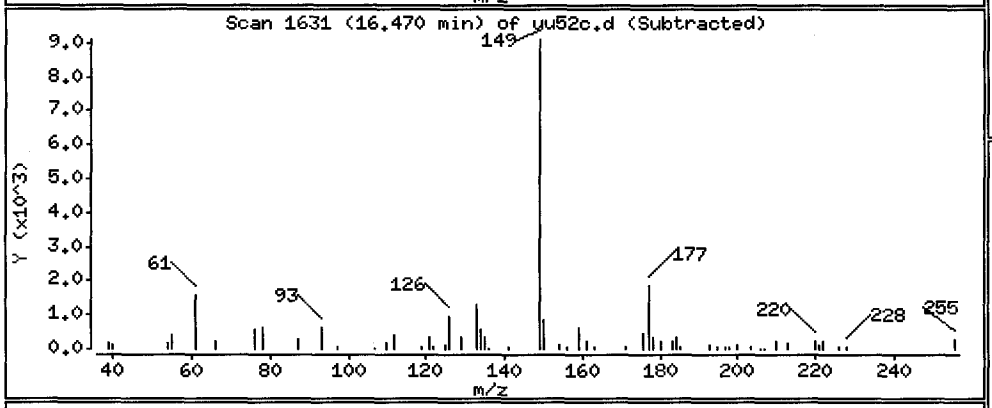
Column phase: ZB-5msi

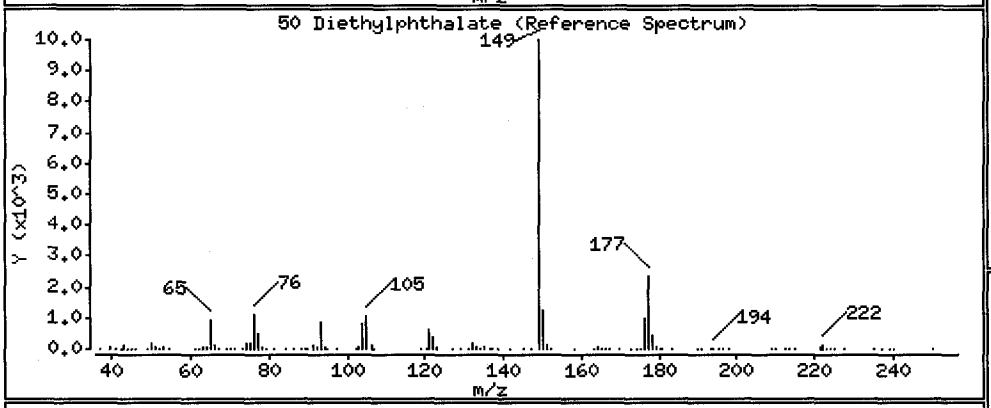
Column diameter: 0.25

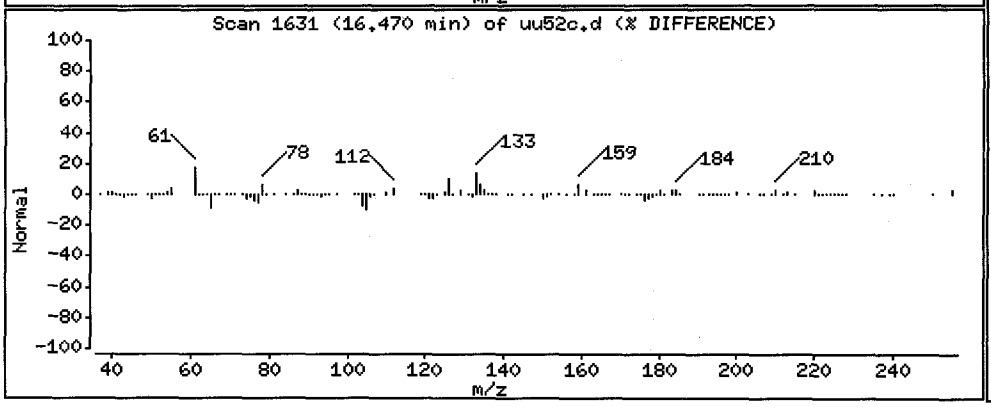
50 Diethylphthalate

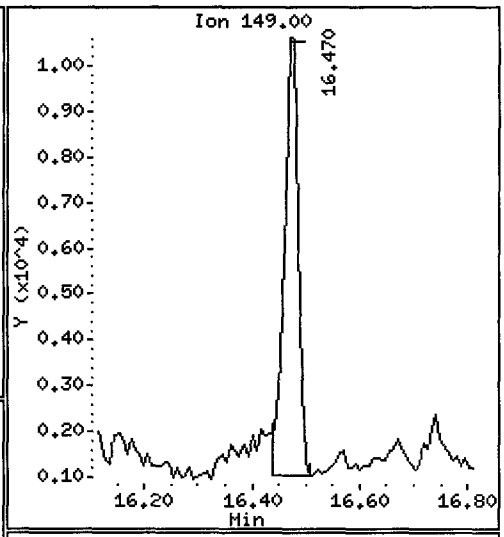
Concentration: 40.74 ug/kg

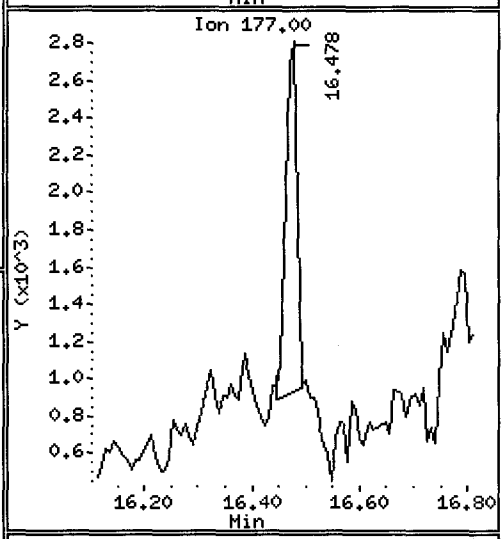


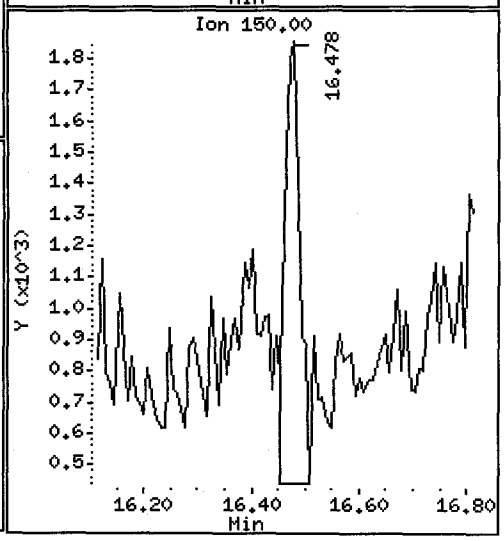












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

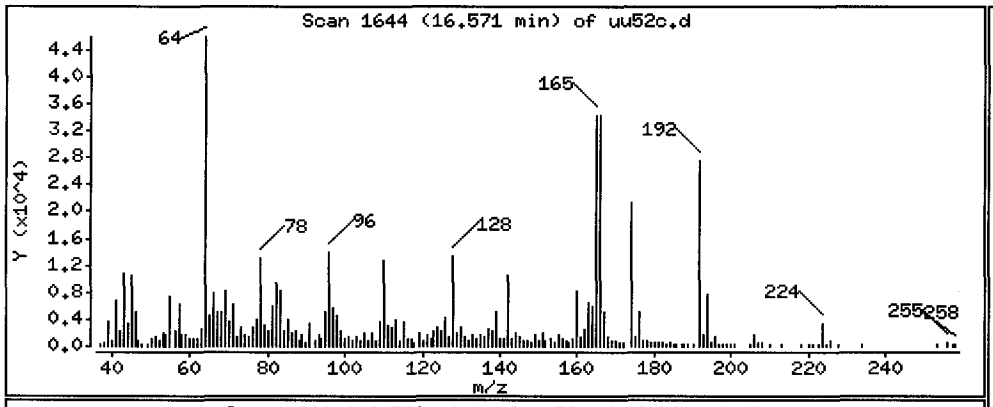
Operator: VTS/YZ

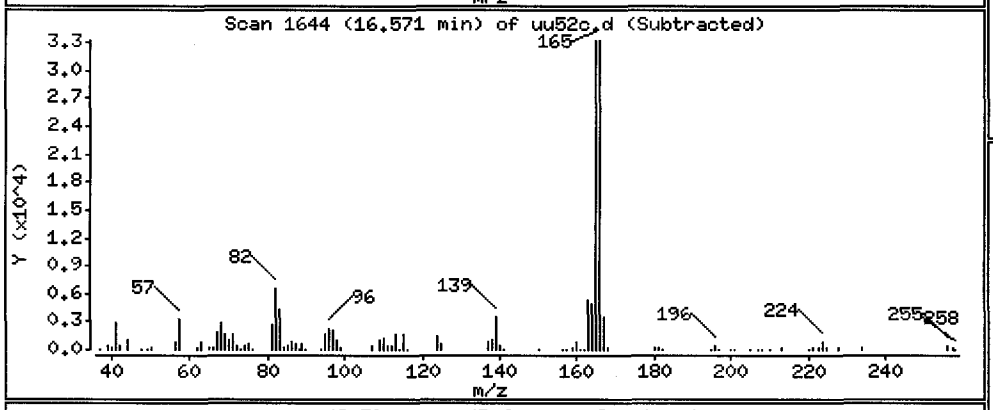
Column phase: ZB-5msi

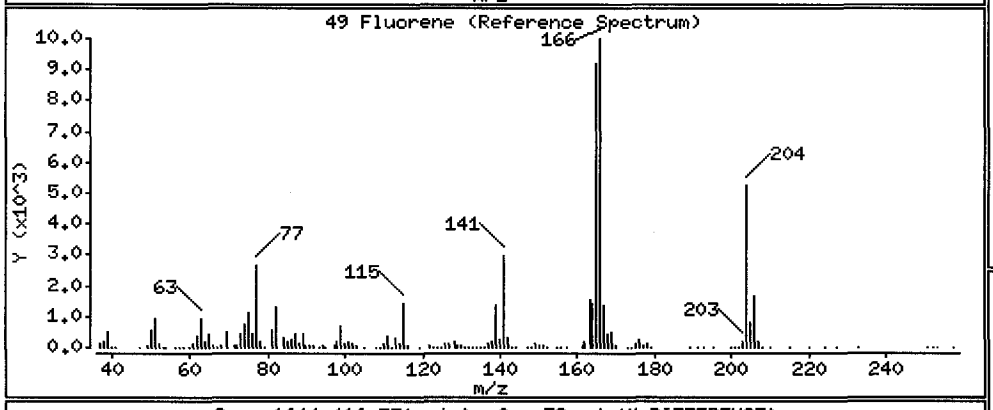
Column diameter: 0.25

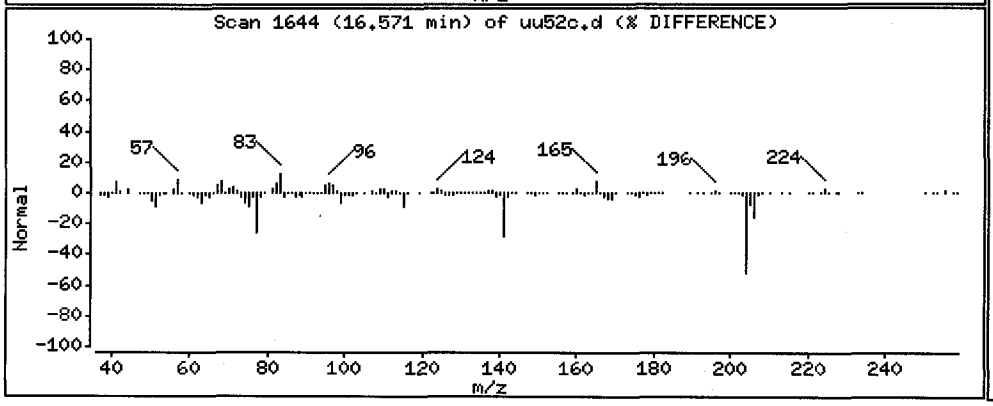
49 Fluorene

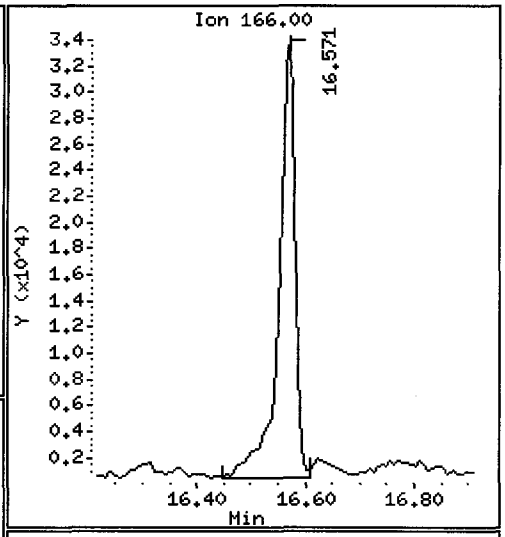
Concentration: 161.6 ug/kg

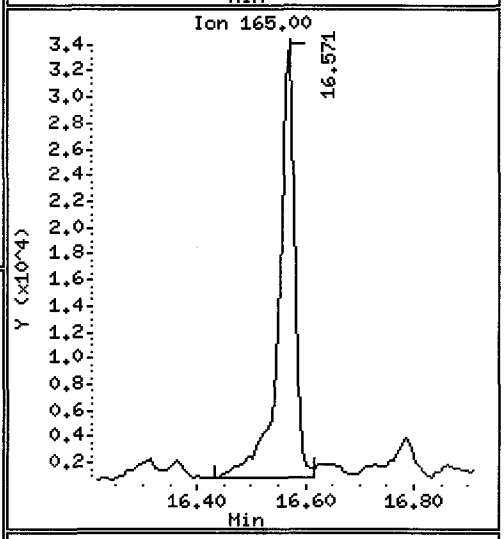


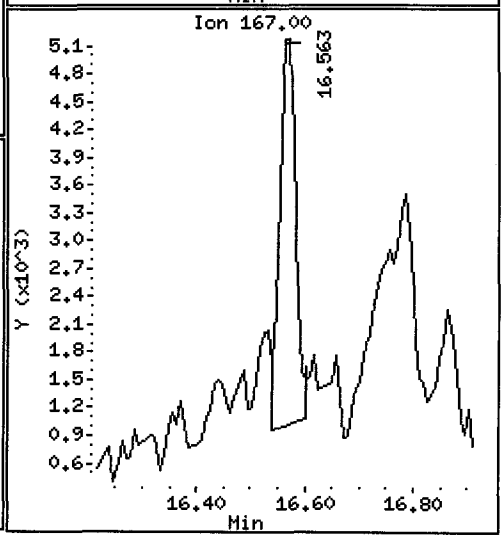












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

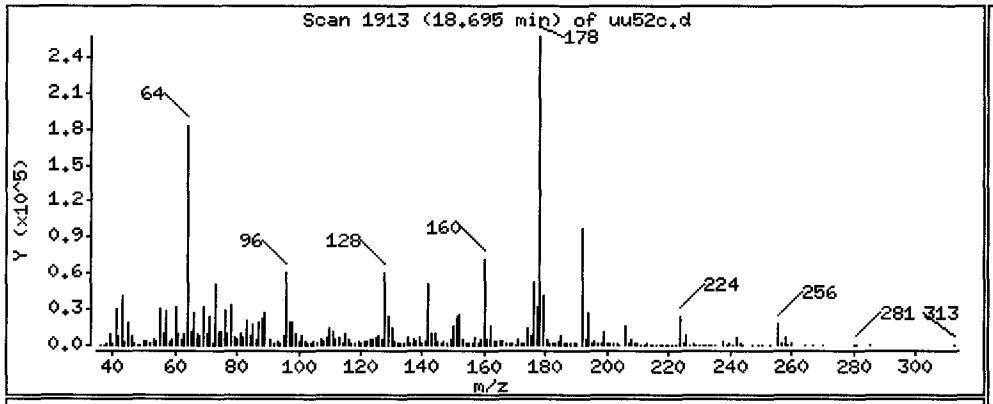
Client ID: MS002-SS-120515 Instrument: nt10.i

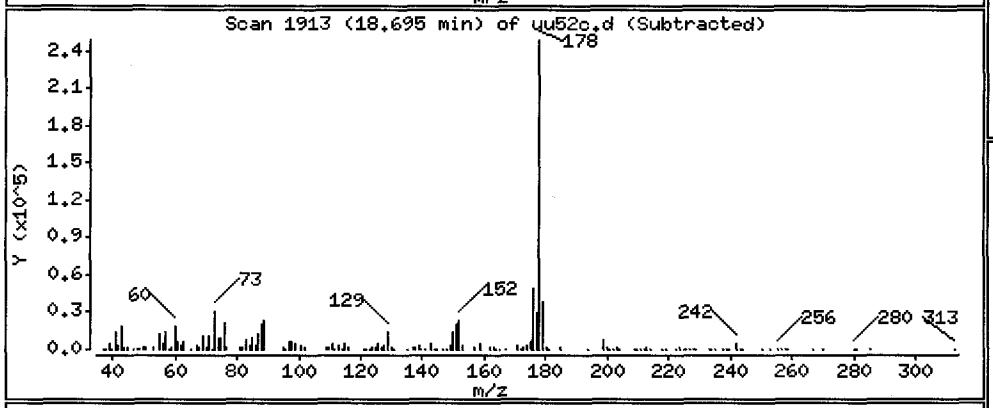
Sample Info: UU52C,3

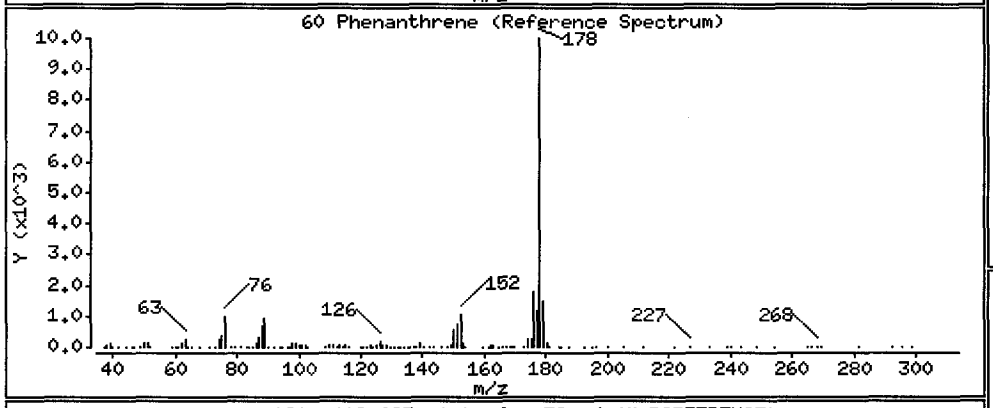
Volume Injected (uL): 1.0 Operator: VTS/YZ

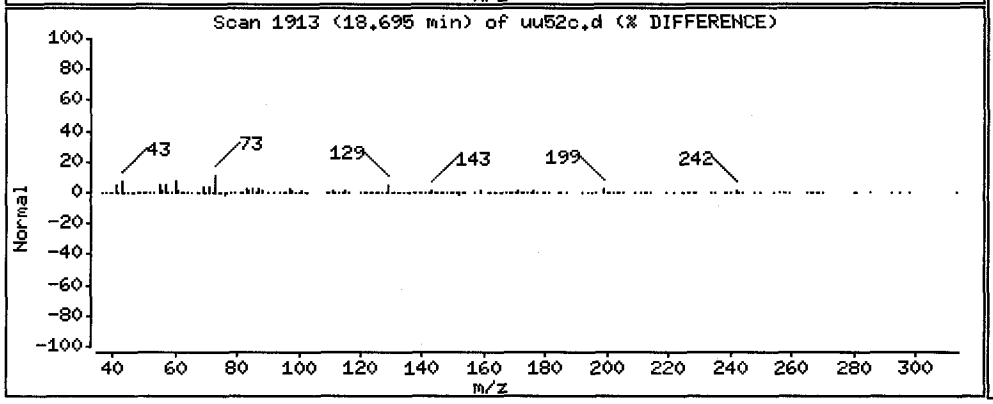
Column phase: ZB-5msi Column diameter: 0.25

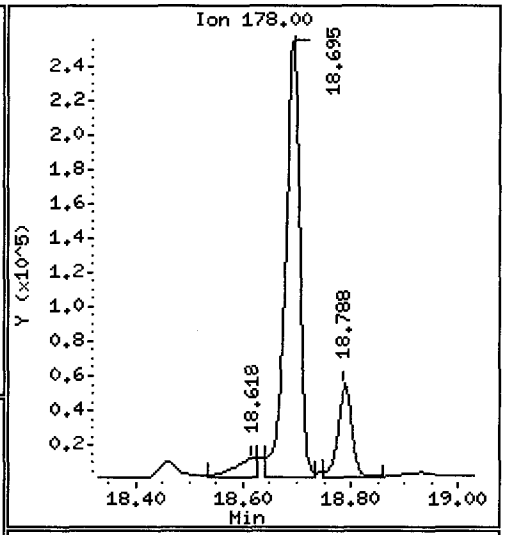
60 Phenanthrene Concentration: 832.8 ug/kg

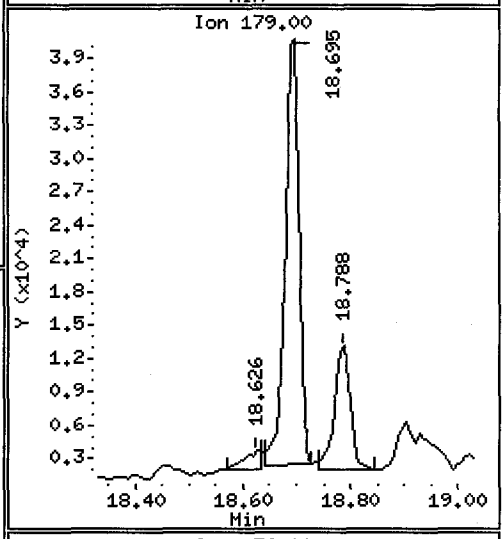


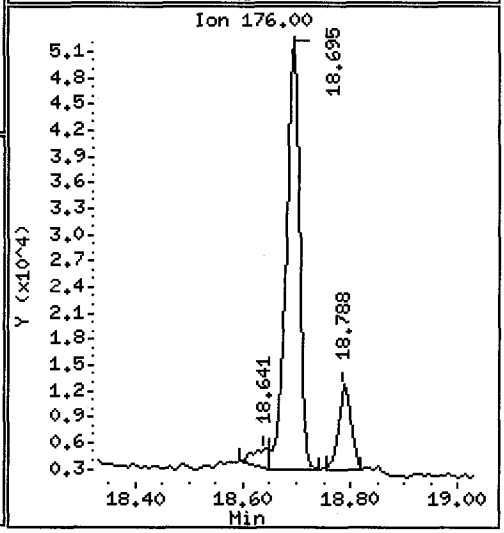












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

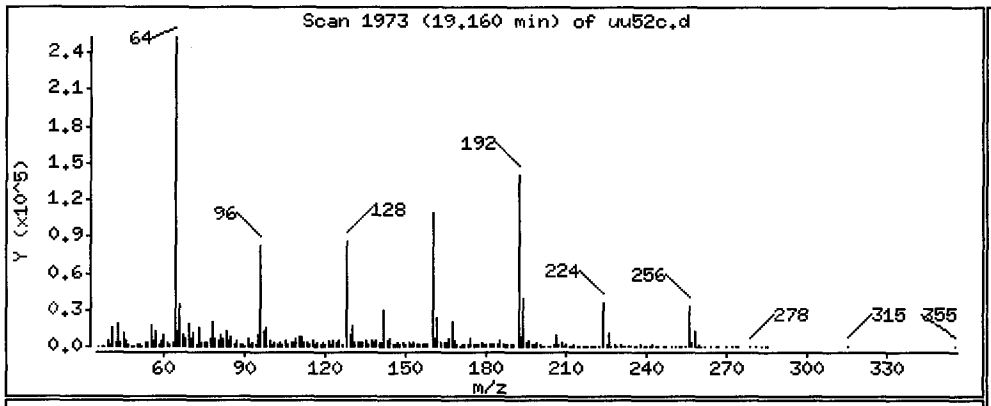
Operator: VTS/YZ

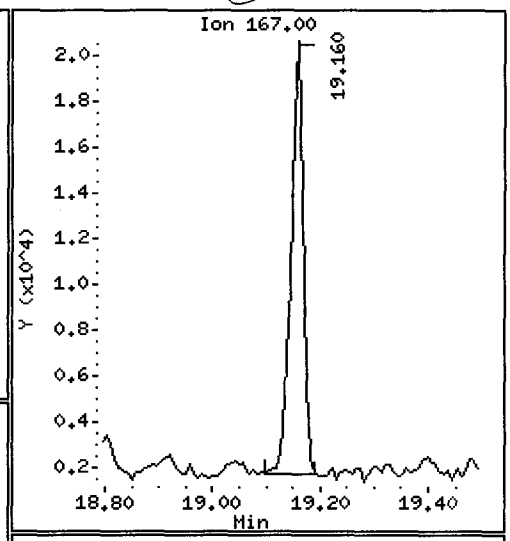
Column phase: ZB-5msi

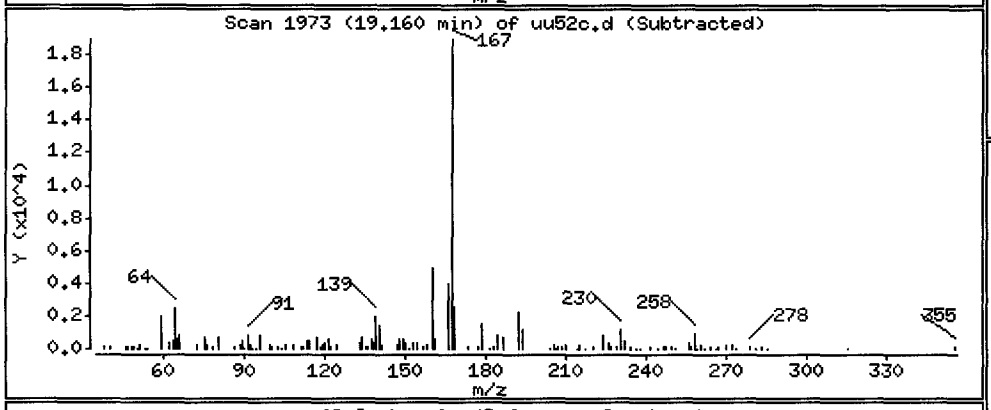
Column diameter: 0.25

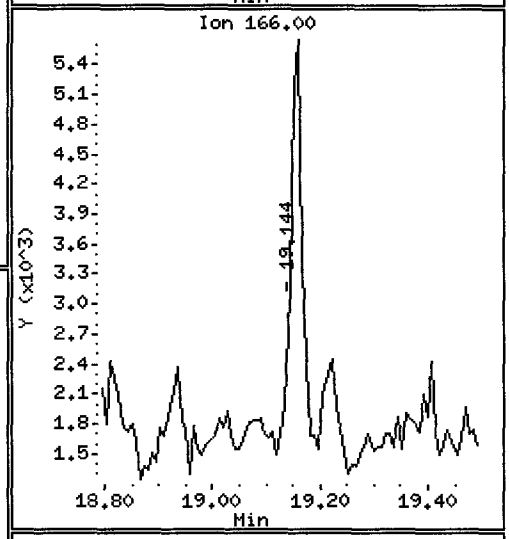
62 Carbazole

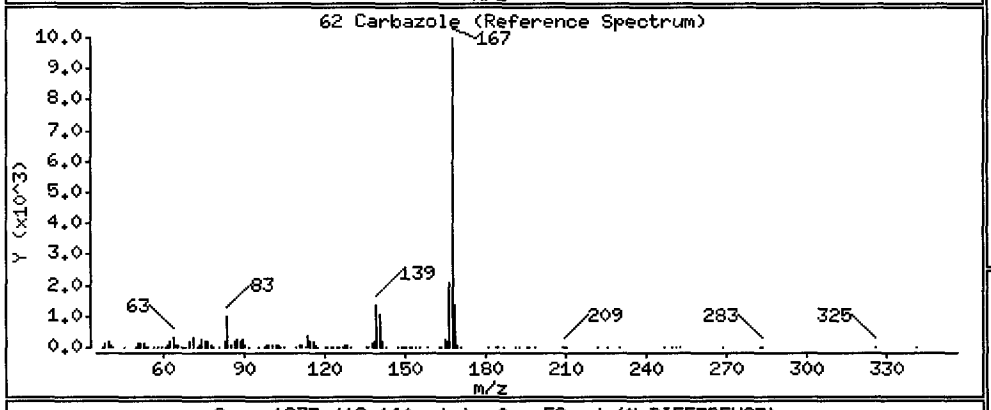
Concentration: 55.46 ug/kg

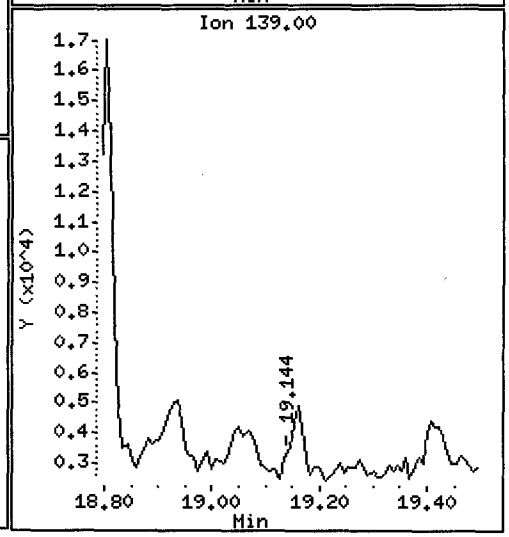


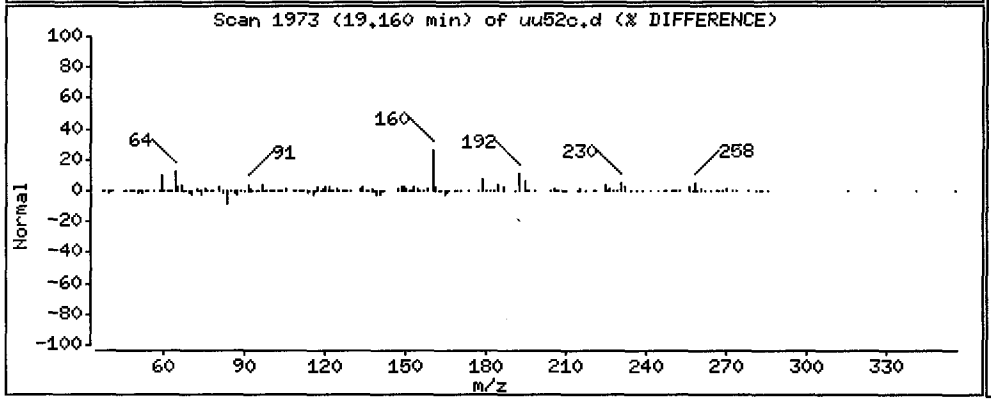












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

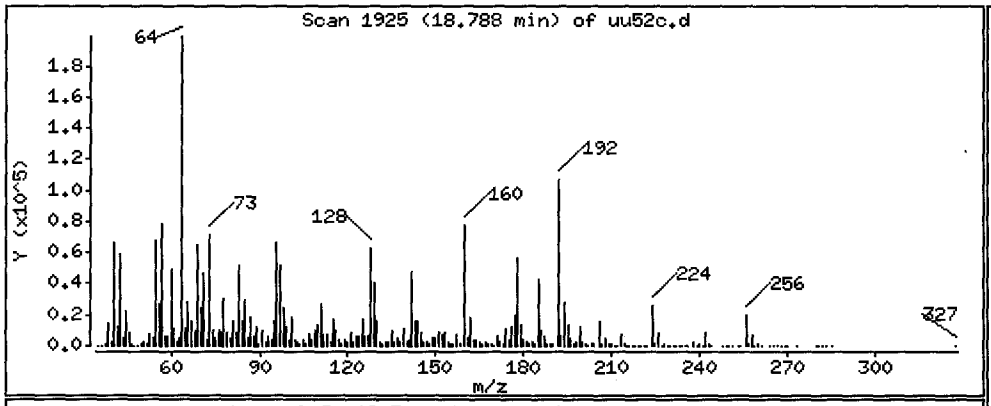
Client ID: MS002-SS-120515 Instrument: nt10.i

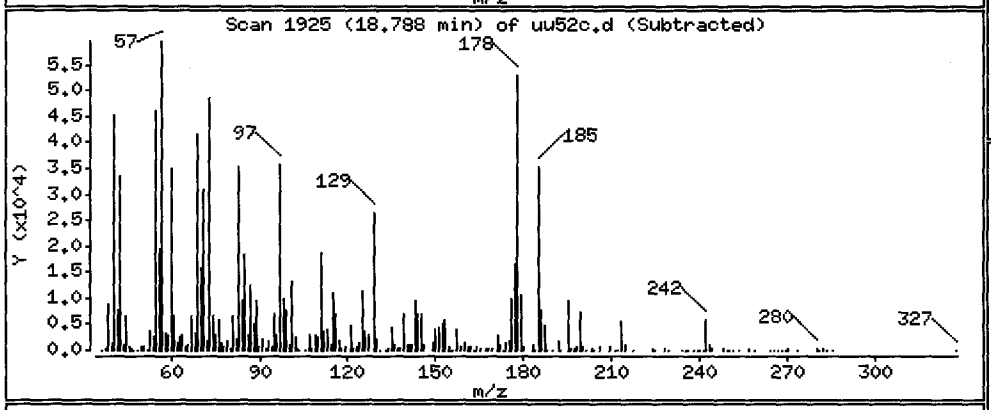
Sample Info: UU52C,3

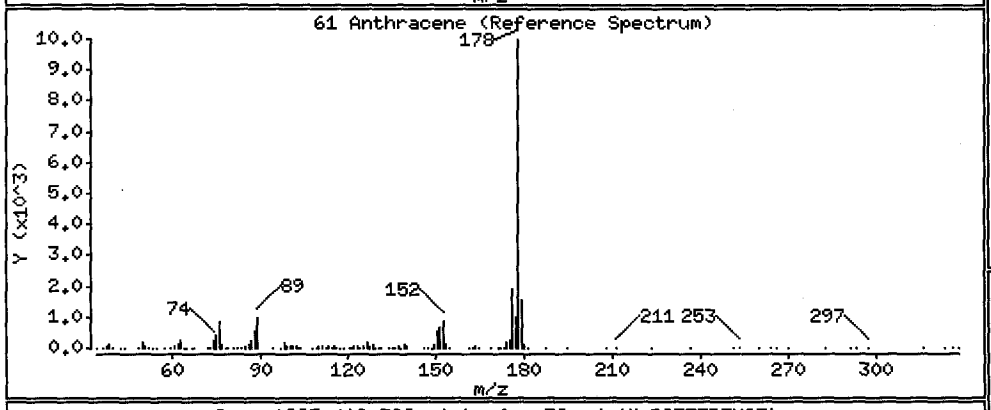
Volume Injected (uL): 1.0 Operator: VTS/YZ

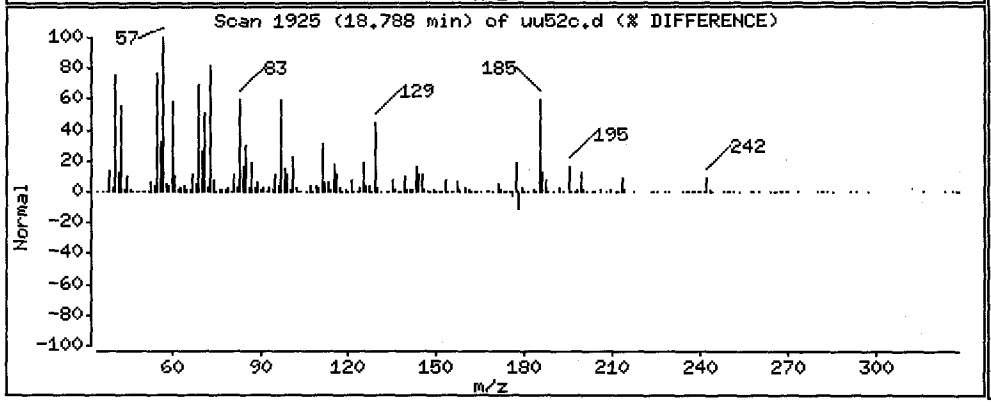
Column phase: ZB-5msi Column diameter: 0.25

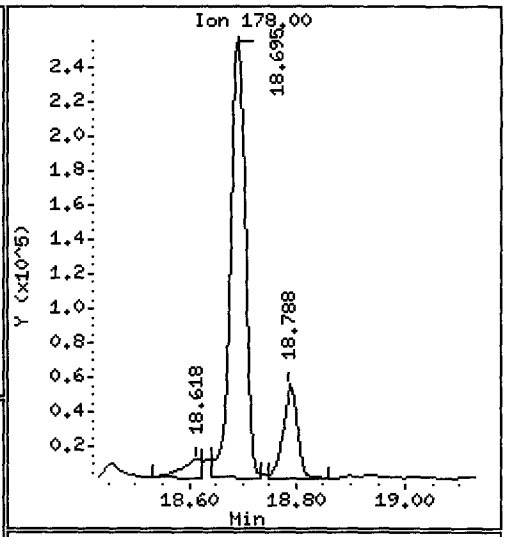
61 Anthracene Concentration: 165.5 ug/kg

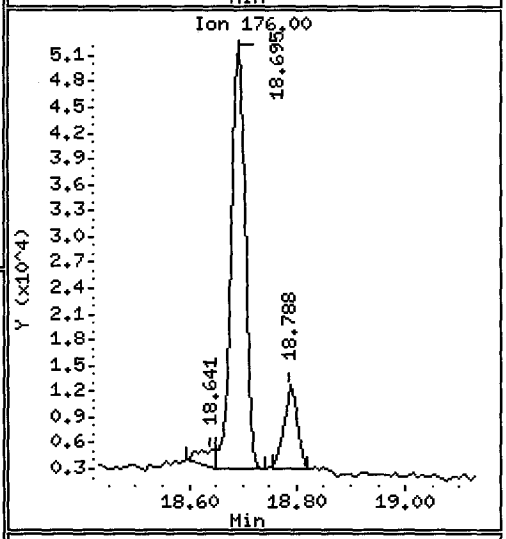


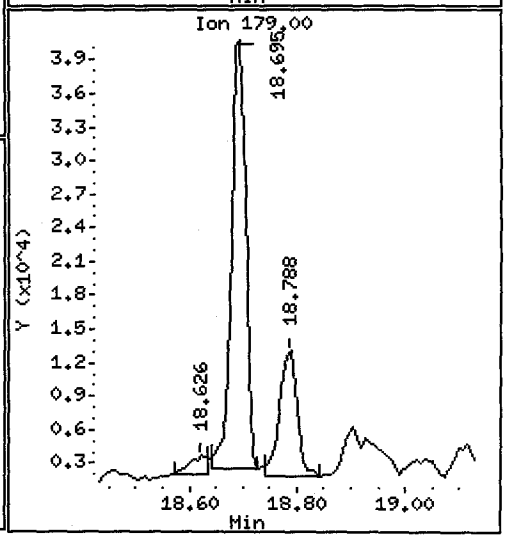












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

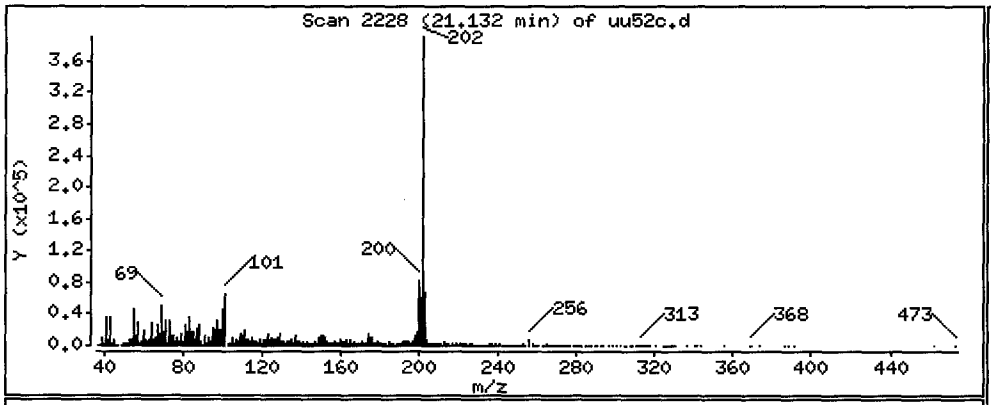
Client ID: MS002-SS-120515 Instrument: nt10.i

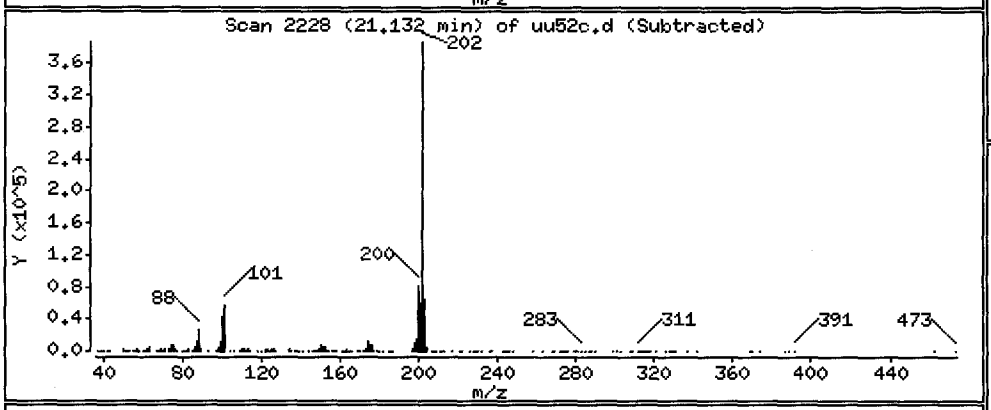
Sample Info: UU52C,3

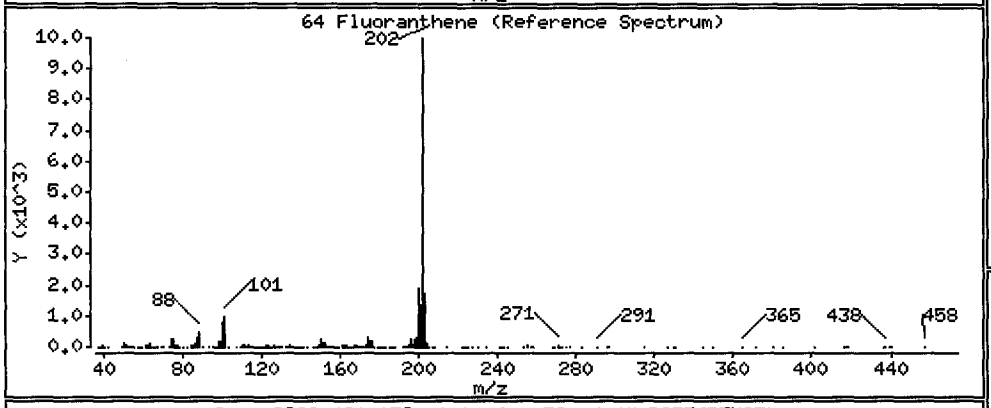
Volume Injected (uL): 1.0 Operator: VTS/YZ

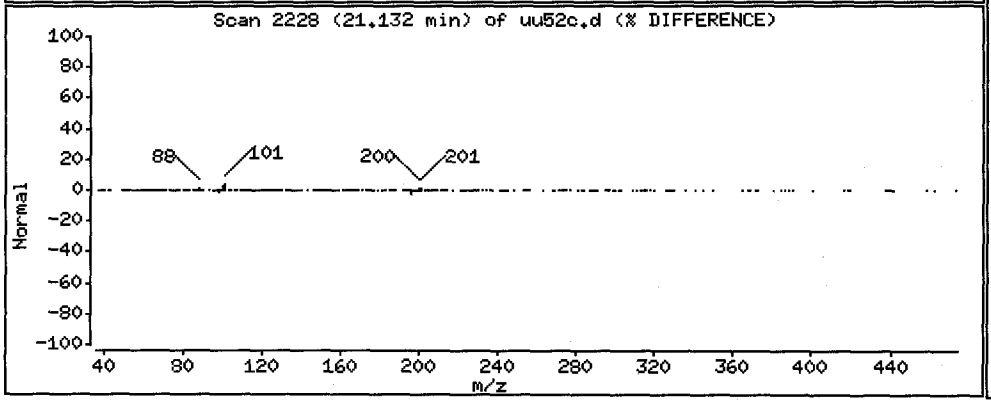
Column phase: ZB-5msi Column diameter: 0.25

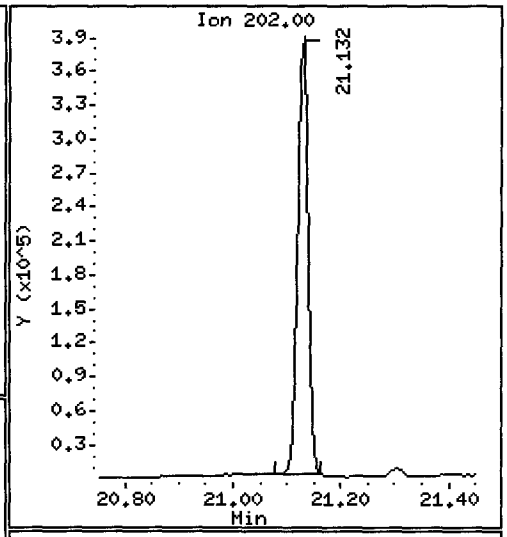
64 Fluoranthene Concentration: 861.2 ug/kg

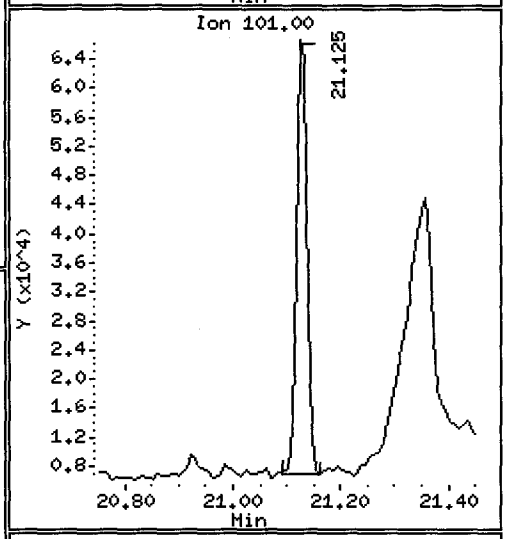


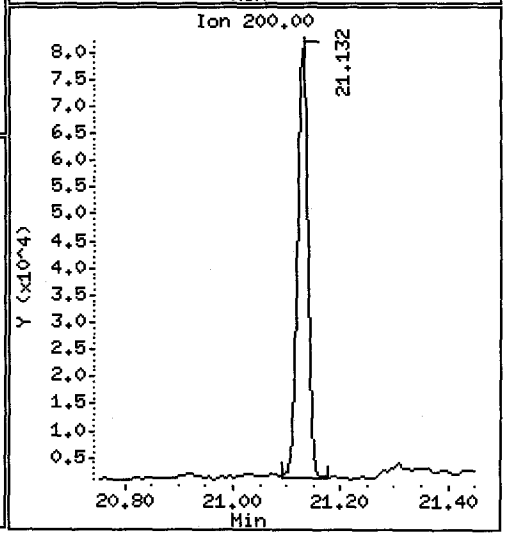












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

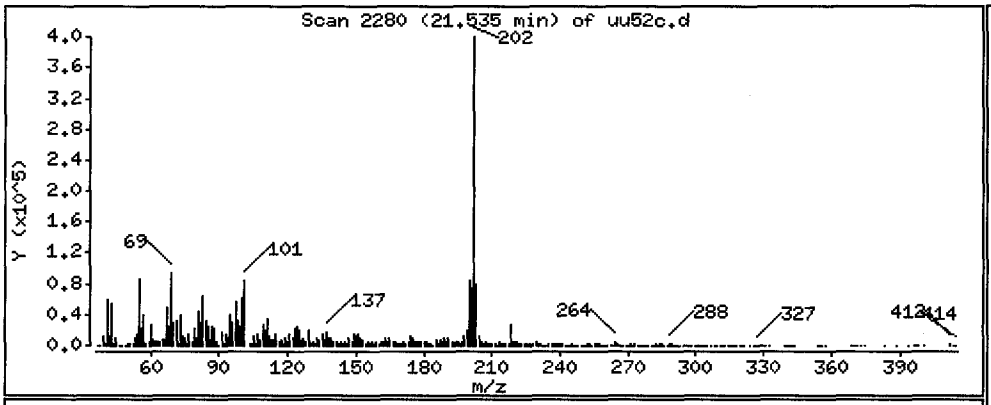
Client ID: MS002-SS-120515 Instrument: nt10.i

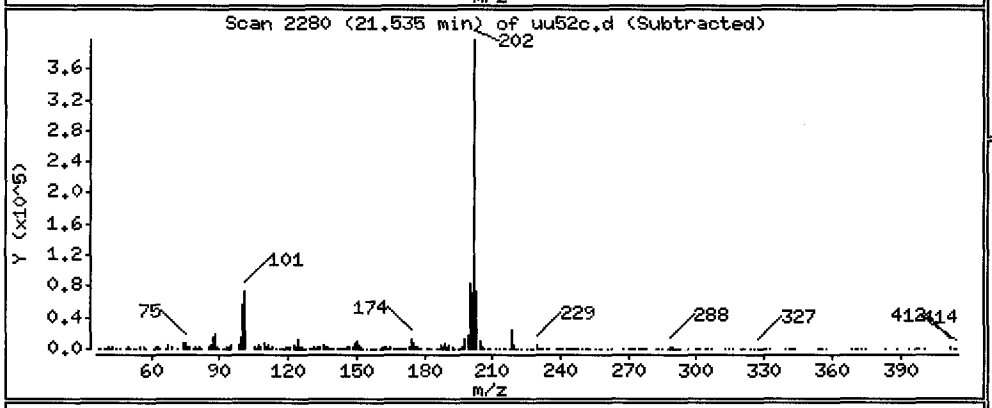
Sample Info: UU52C,3

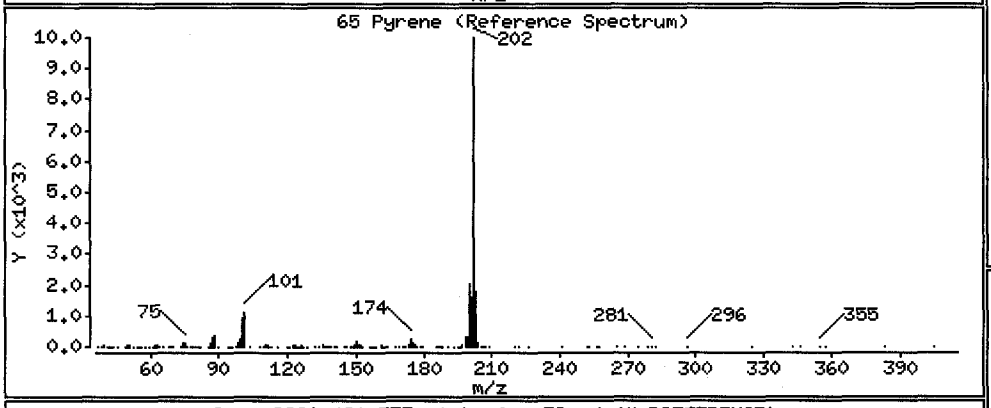
Volume Injected (uL): 1.0 Operator: VTS/YZ

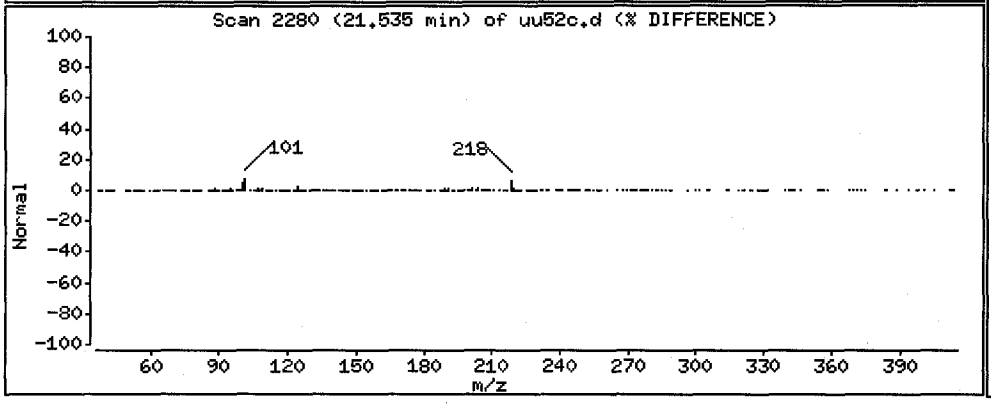
Column phase: ZB-5msi Column diameter: 0.25

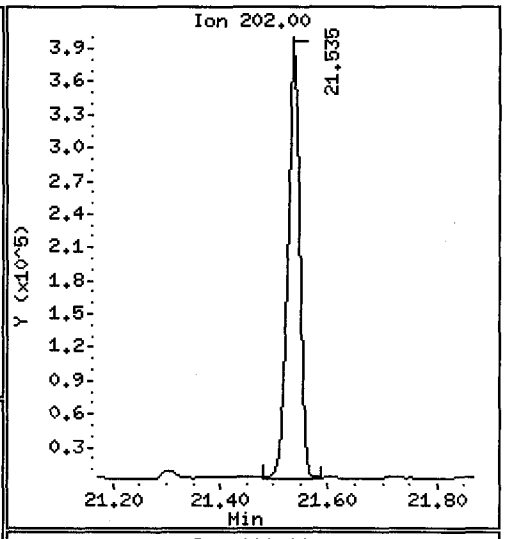
65 Pyrene Concentration: 858.4 ug/kg

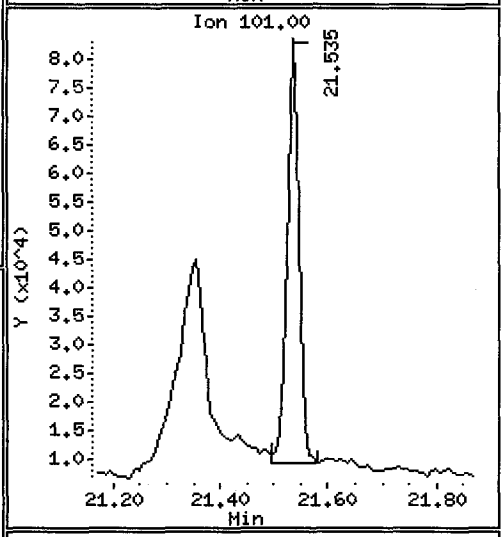


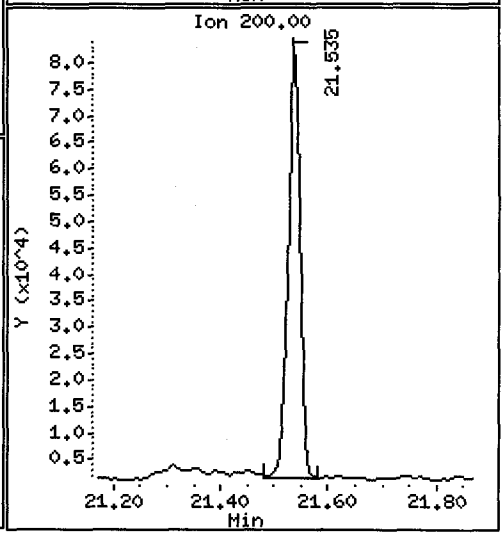












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

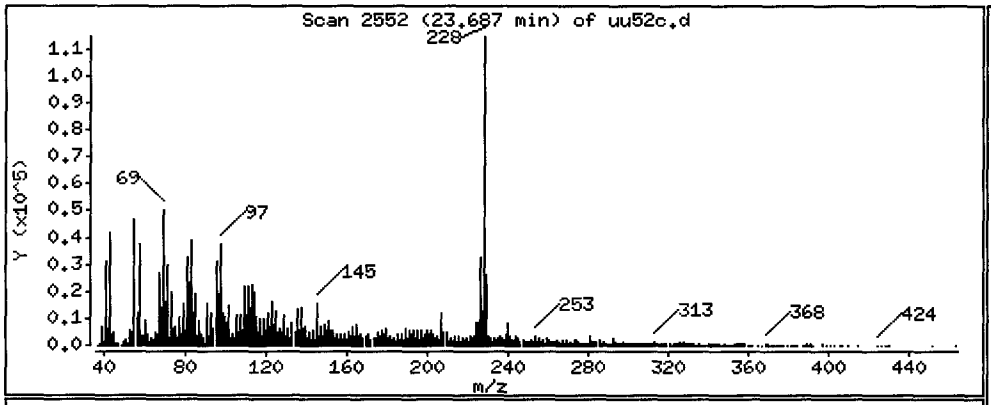
Operator: VTS/YZ

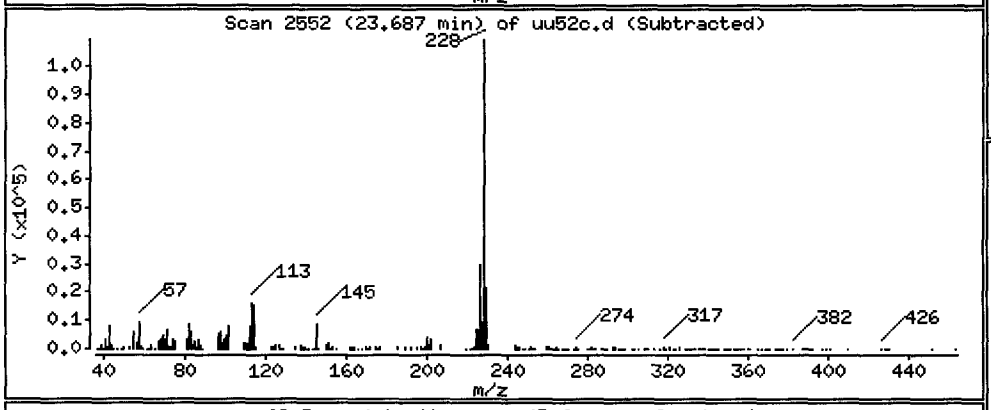
Column phase: ZB-5msi

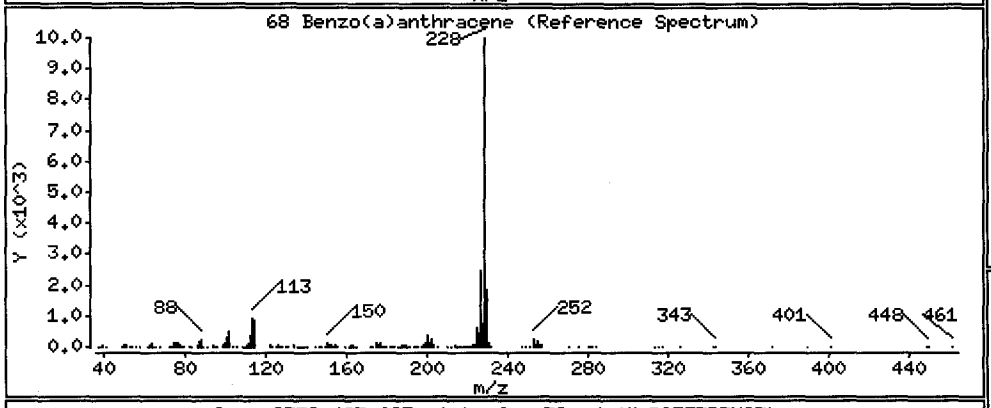
Column diameter: 0.25

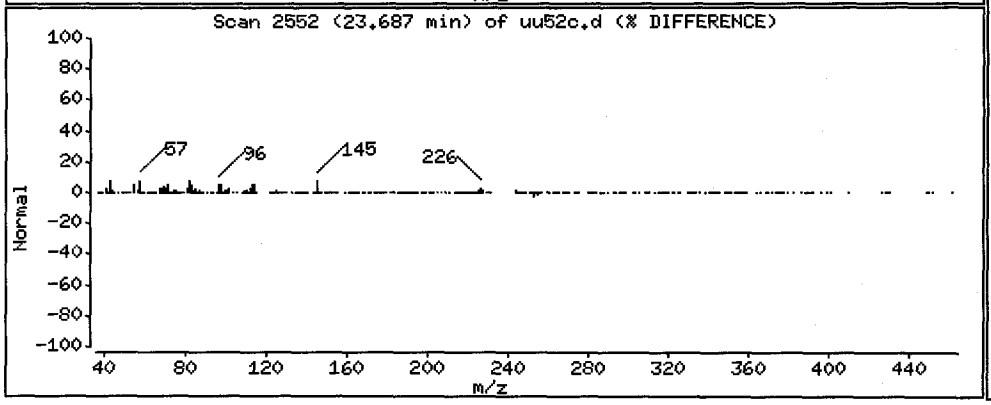
68 Benzo(a)anthracene

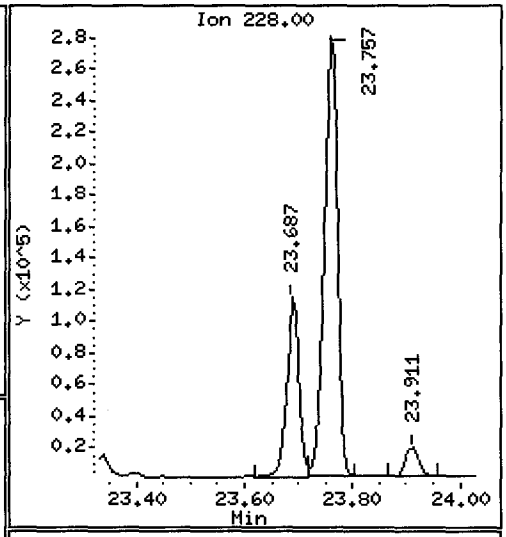
Concentration: 277.4 ug/kg

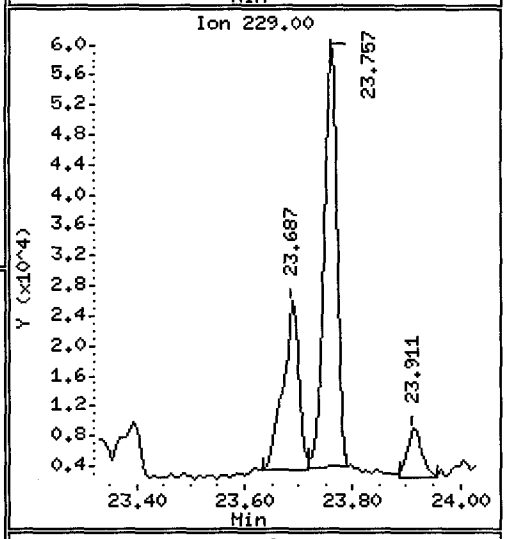


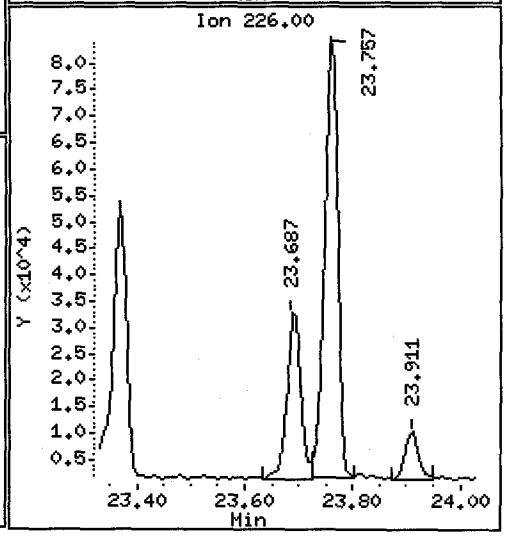












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

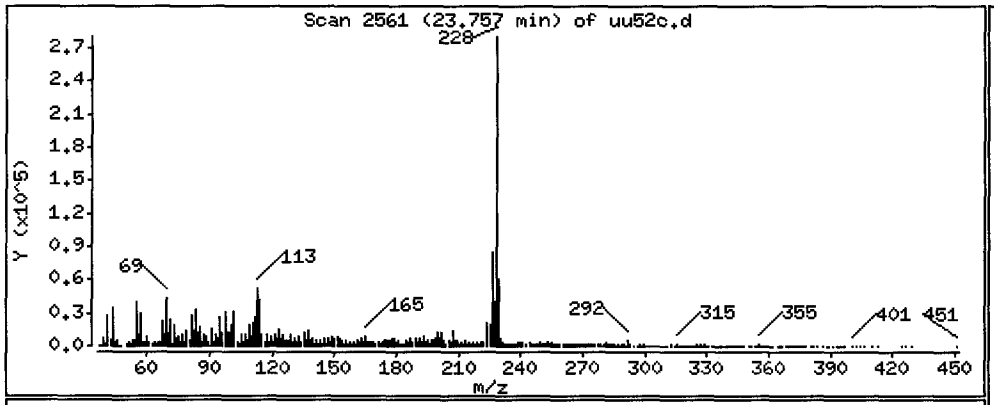
Operator: VTS/YZ

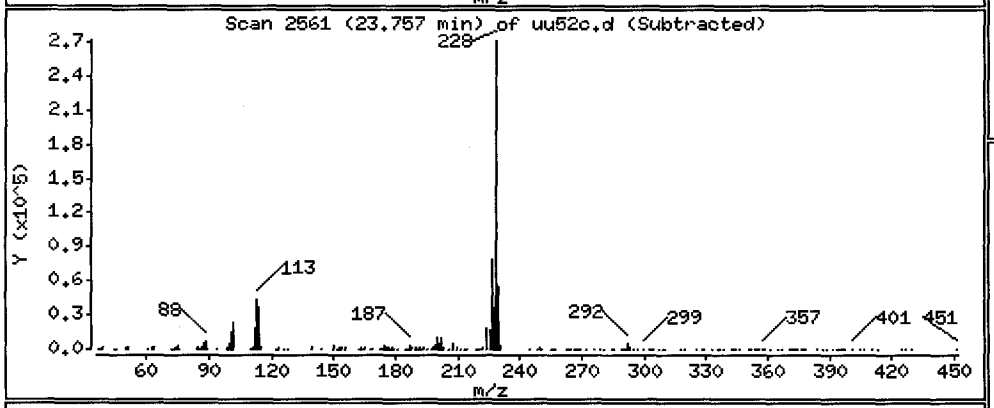
Column phase: ZB-5msi

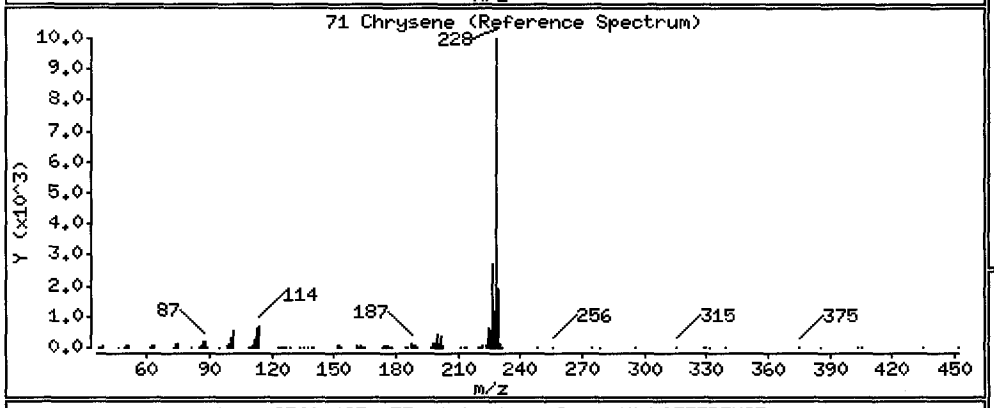
Column diameter: 0.25

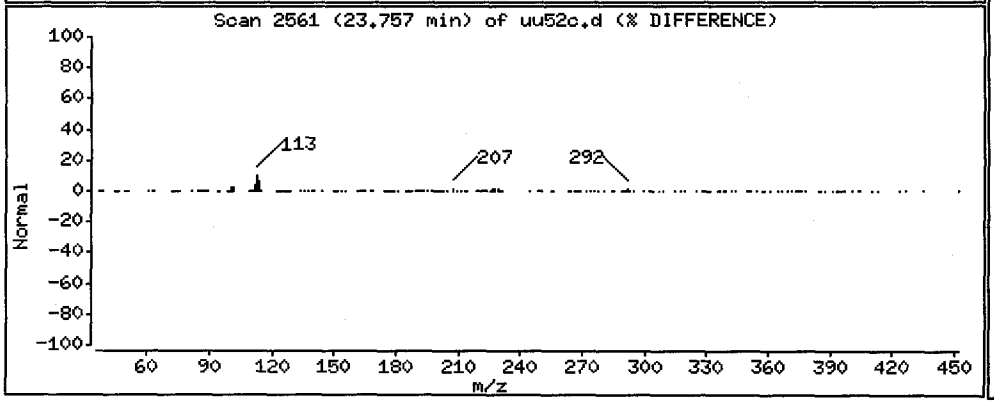
71 Chrysene

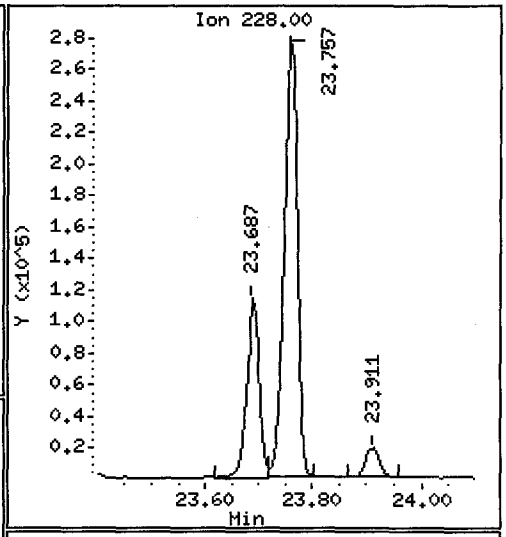
Concentration: 796.4 ug/kg

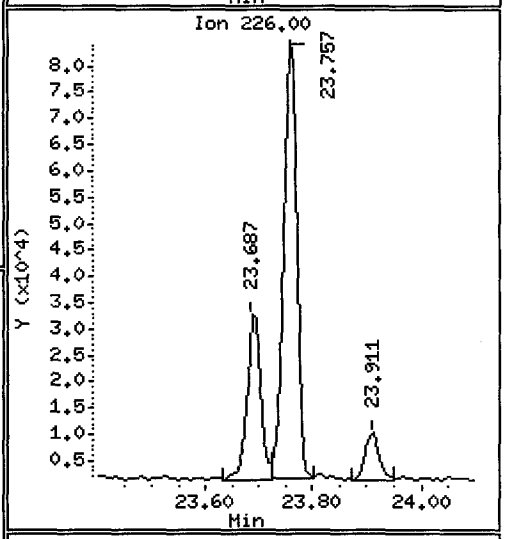


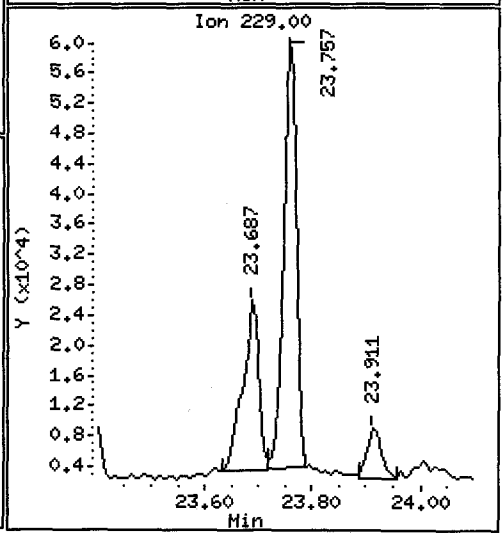












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

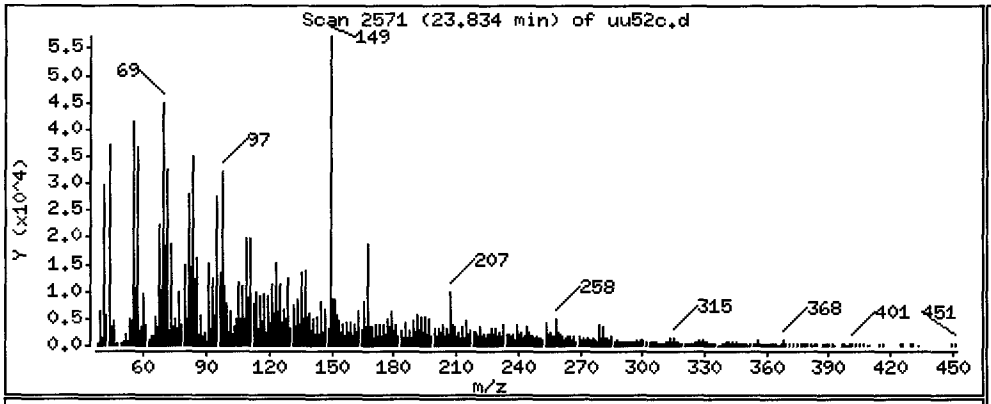
Client ID: MS002-SS-120515 Instrument: nt10.i

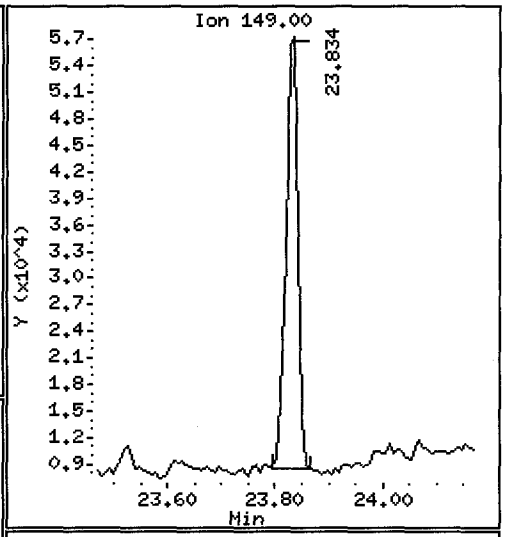
Sample Info: UU52C,3

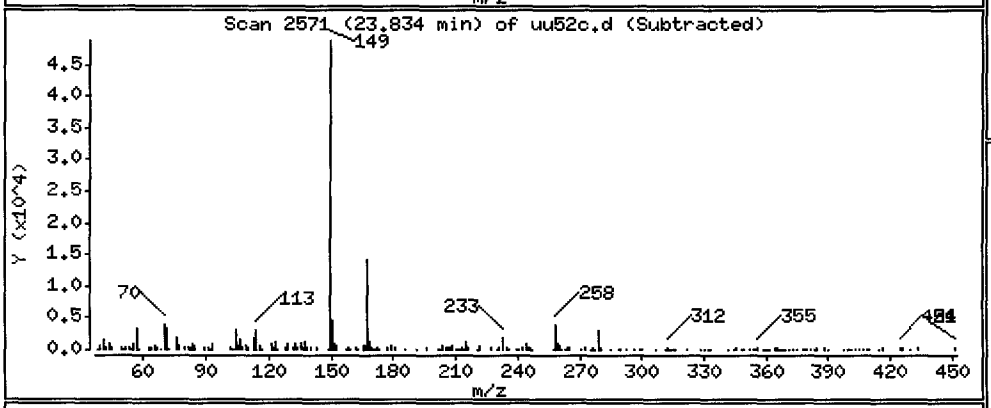
Volume Injected (uL): 1.0 Operator: VTS/YZ

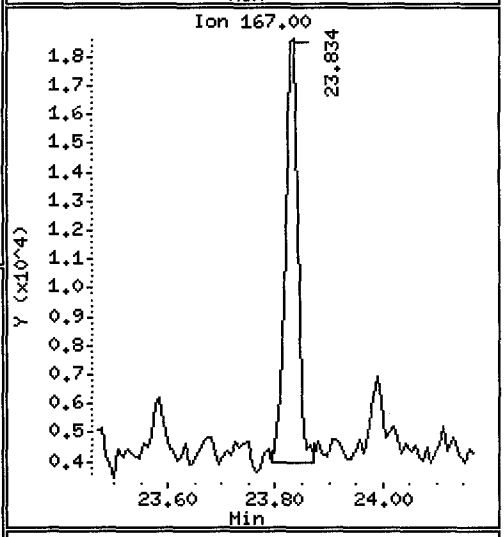
Column phase: ZB-5msi Column diameter: 0.25

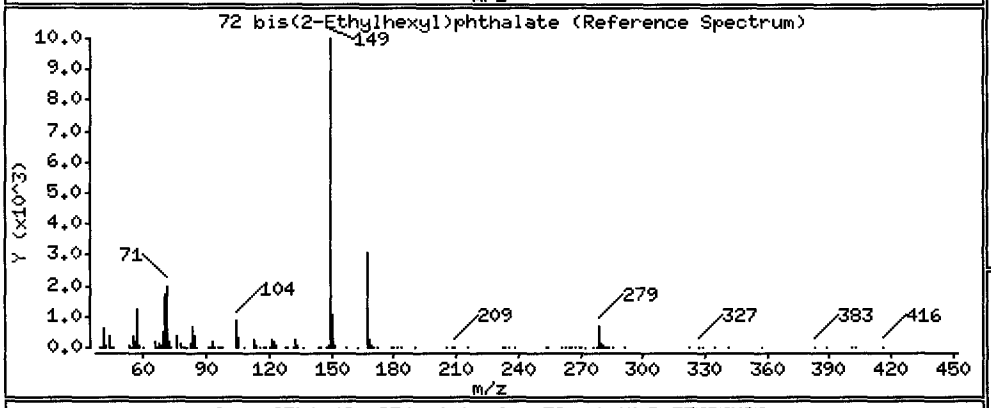
72 bis(2-Ethylhexyl)phthalate Concentration: 149.9 ug/kg

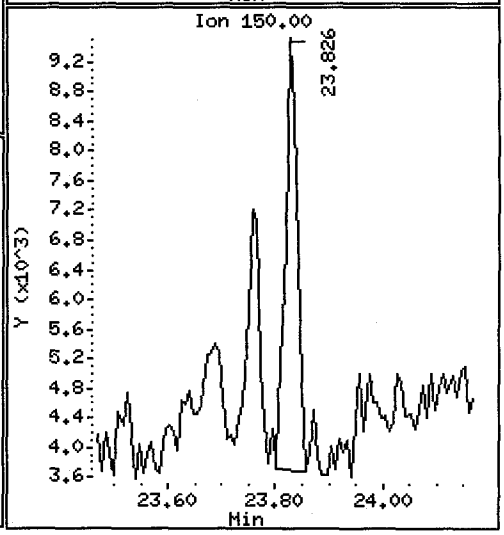


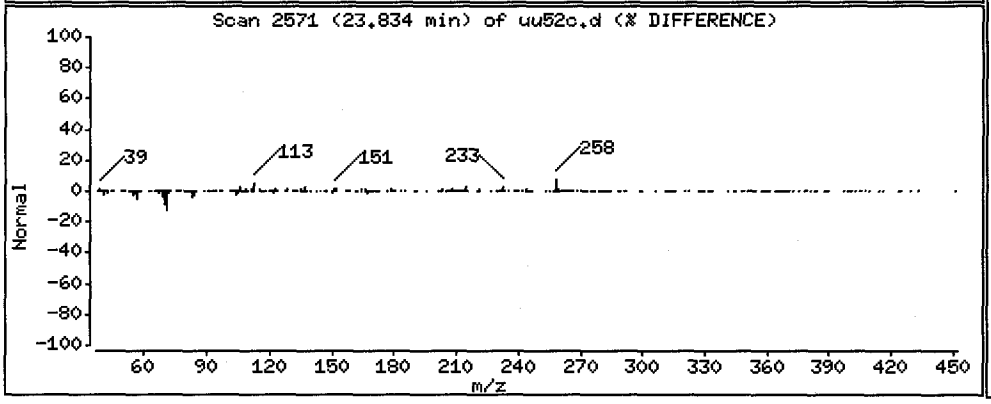






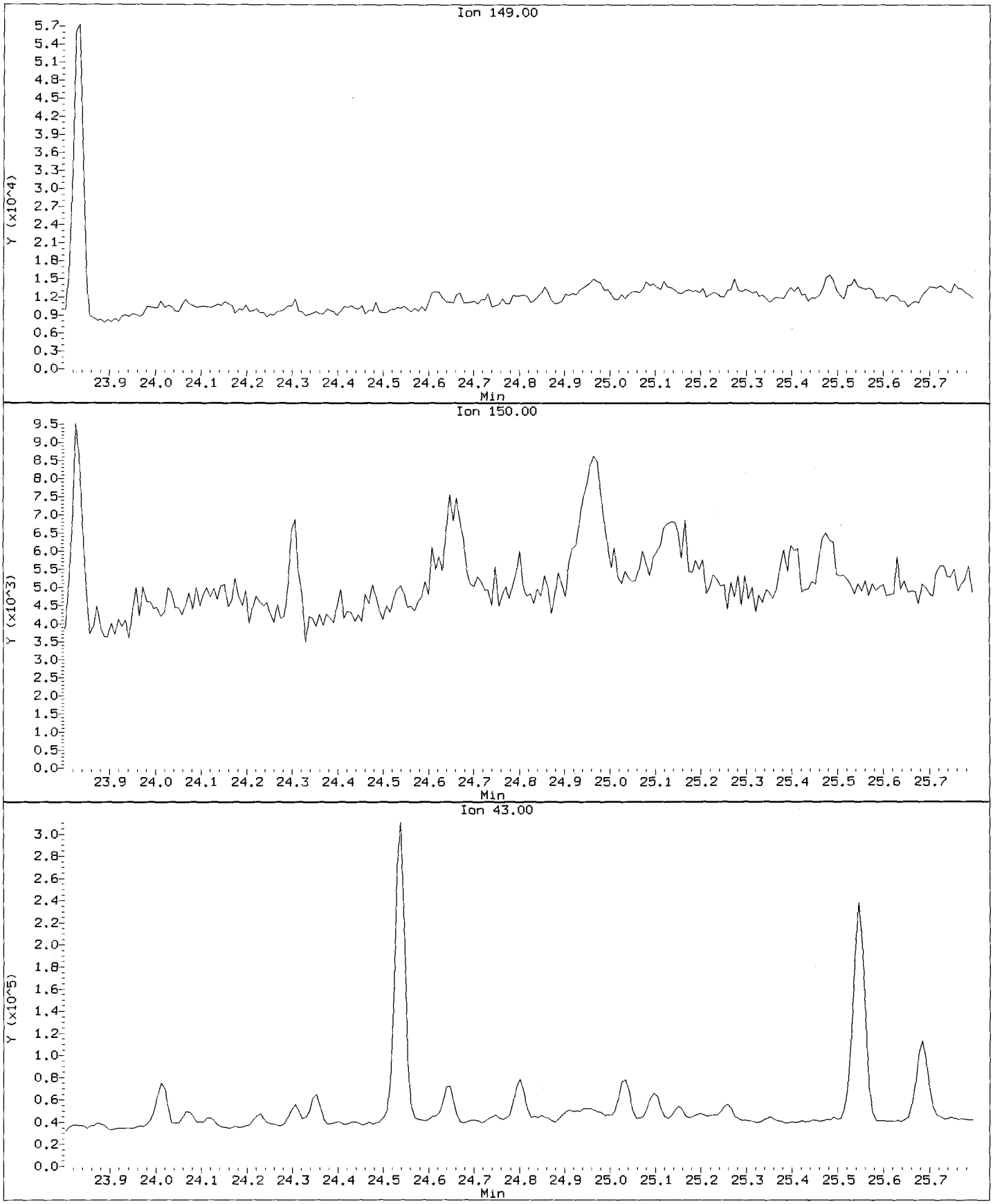






Data File: /chem1/nt10.i/20120526.b/uu52c.d
Injection Date: 26-MAY-2012 18:25
Instrument: nt10.i
Client Sample ID: MS002-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

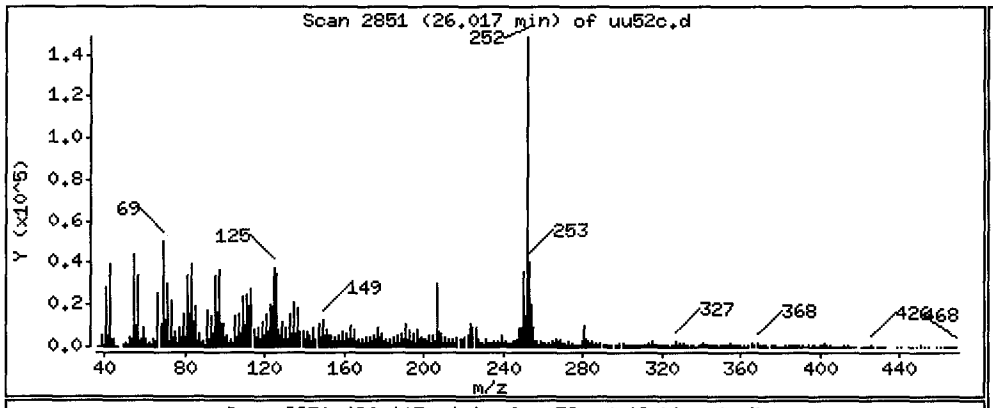
Operator: VTS/YZ

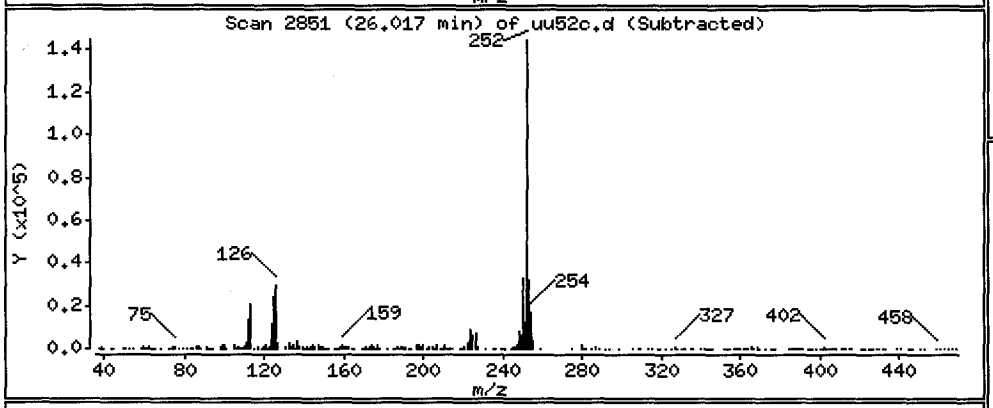
Column phase: ZB-5msi

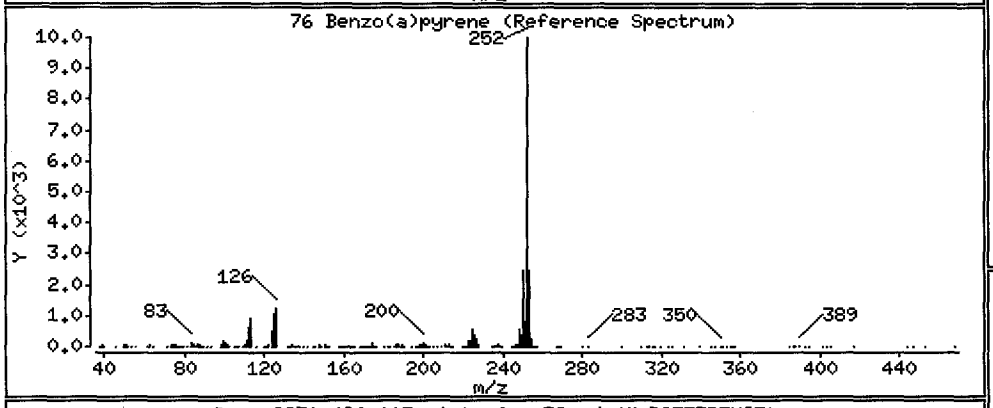
Column diameter: 0.25

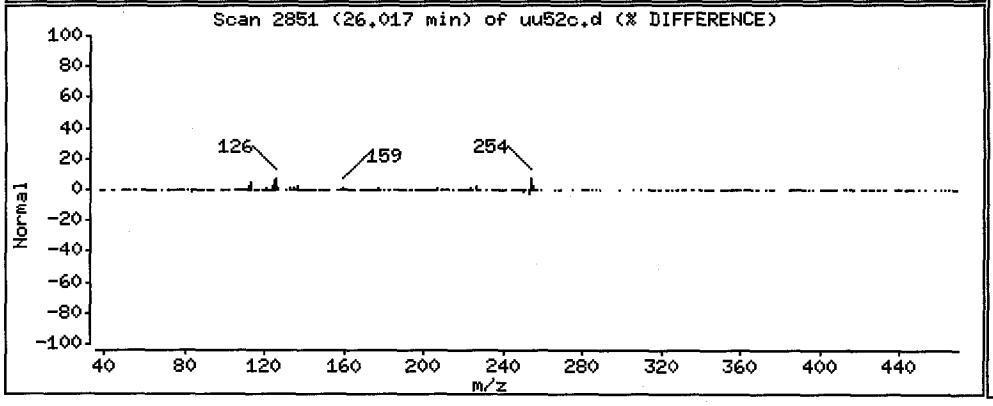
76 Benzo(a)pyrene

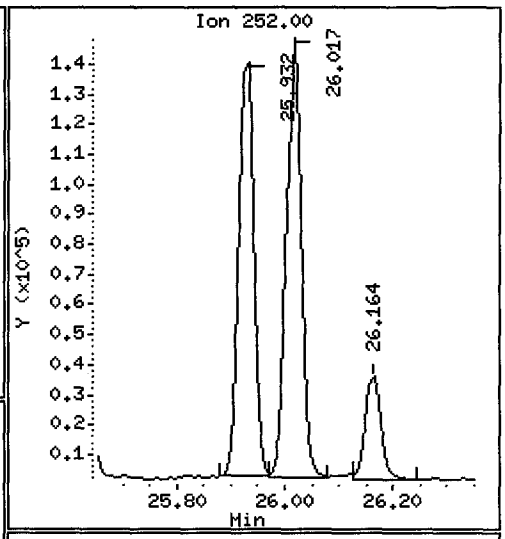
Concentration: 471.5 ug/kg

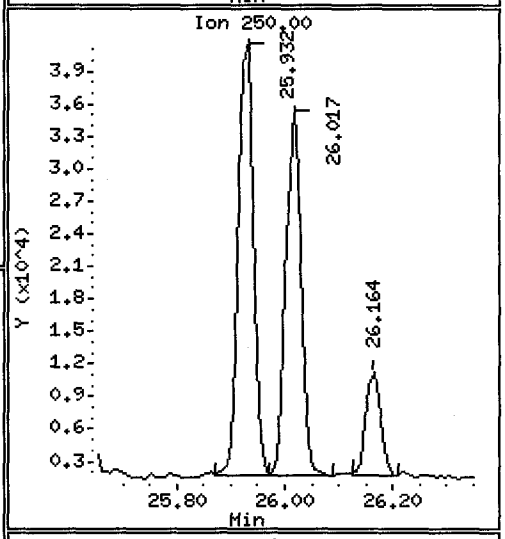


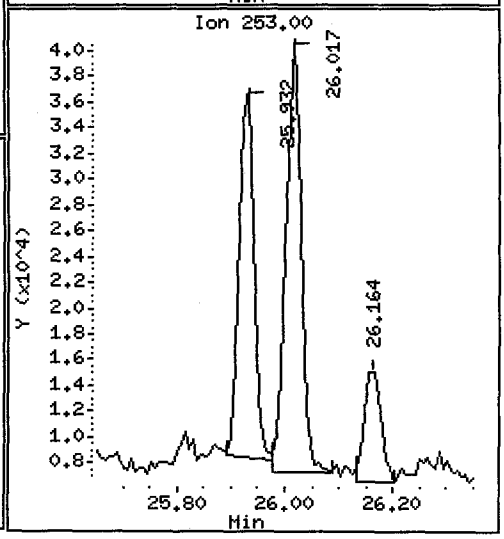












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

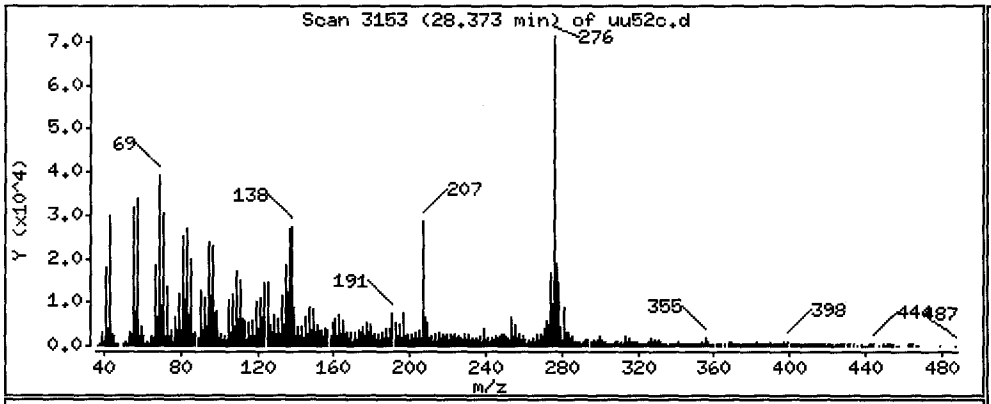
Operator: VTS/YZ

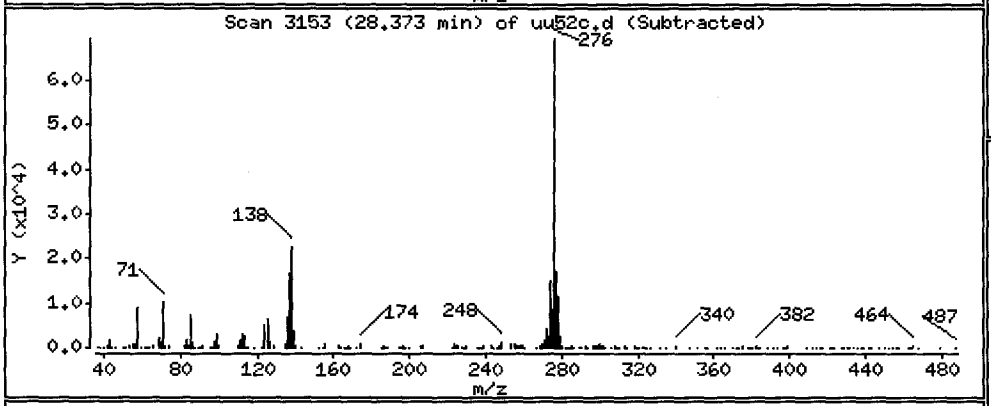
Column phase: ZB-5msi

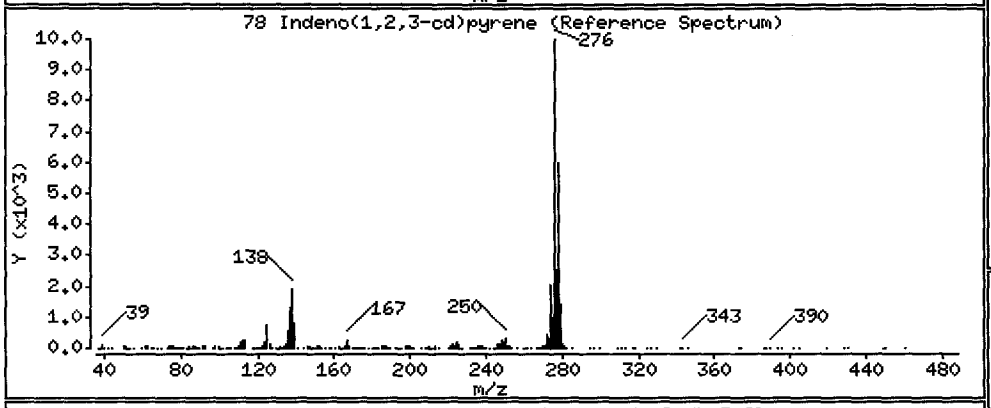
Column diameter: 0.25

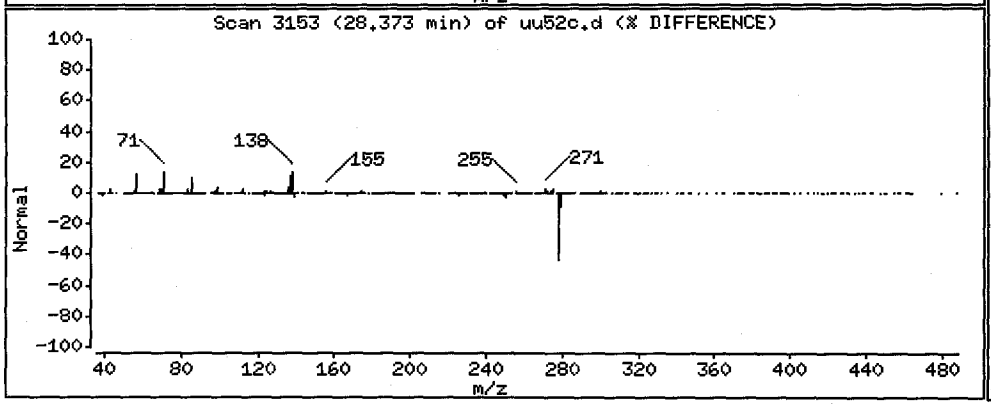
78 Indeno(1,2,3-cd)pyrene

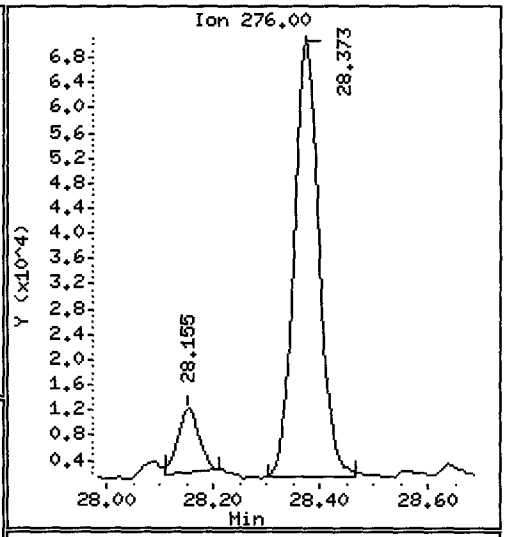
Concentration: 342.2 ug/kg

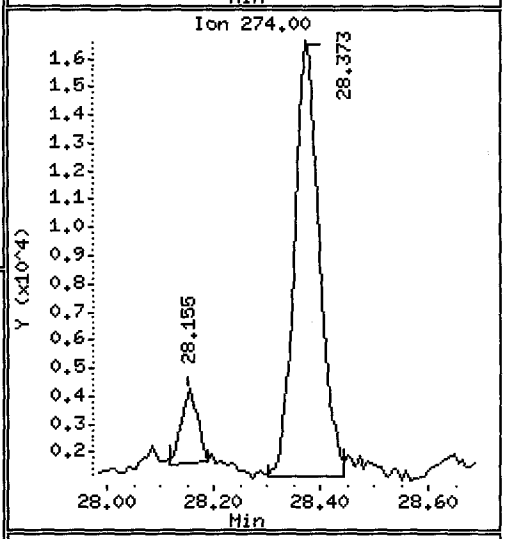


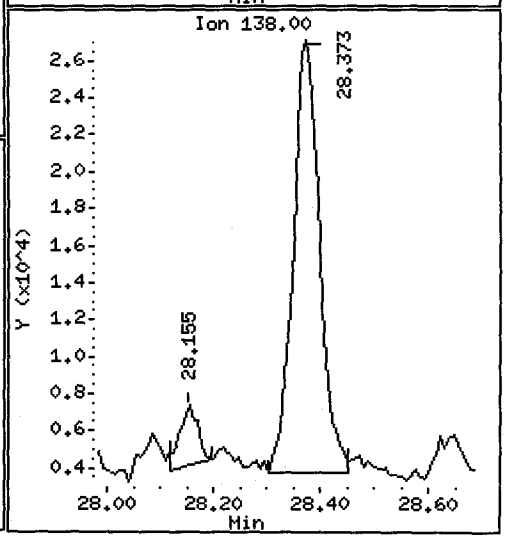












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

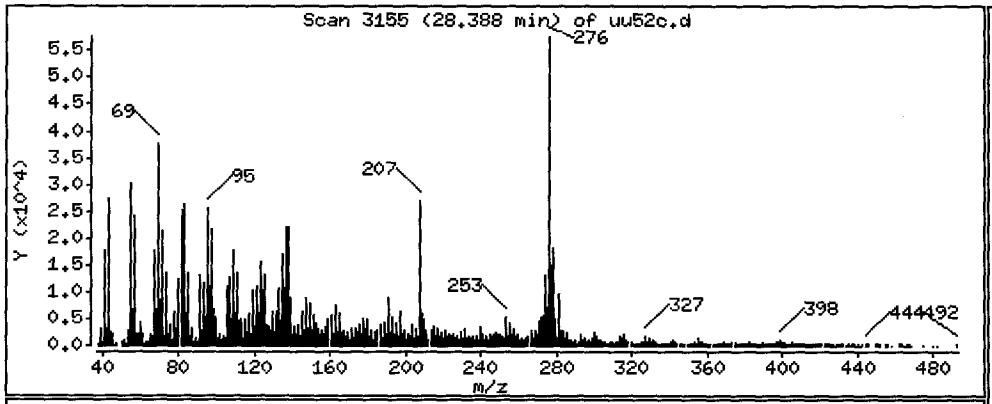
Operator: VTS/YZ

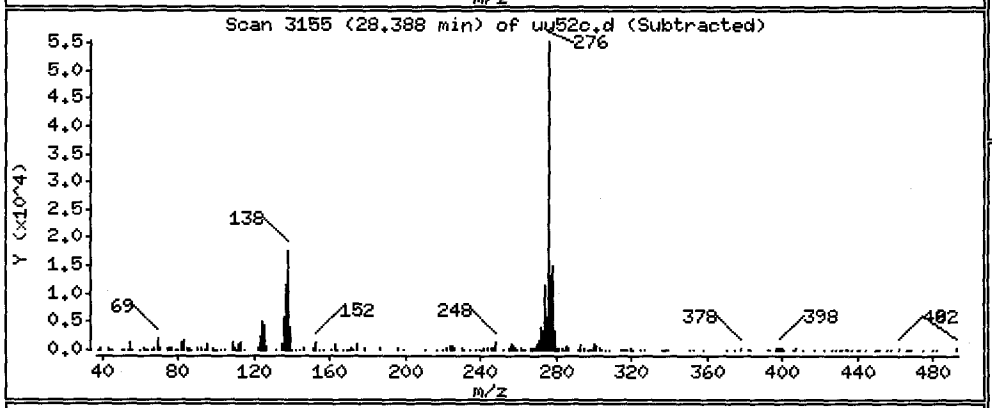
Column phase: ZB-5msi

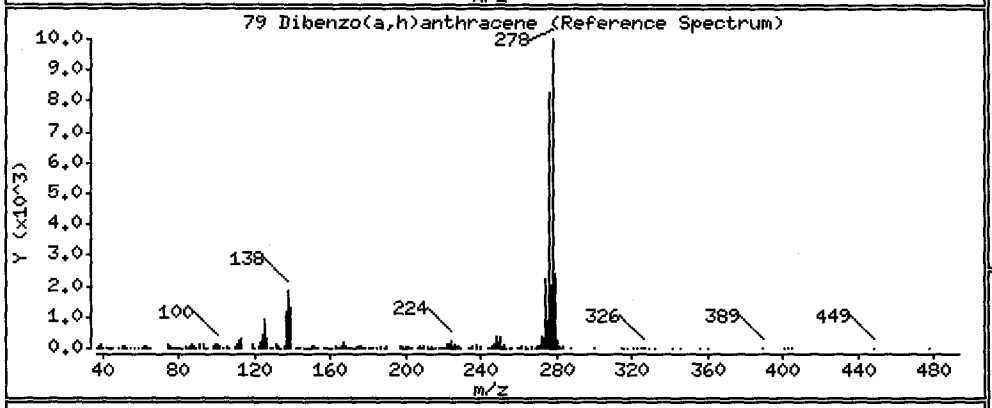
Column diameter: 0.25

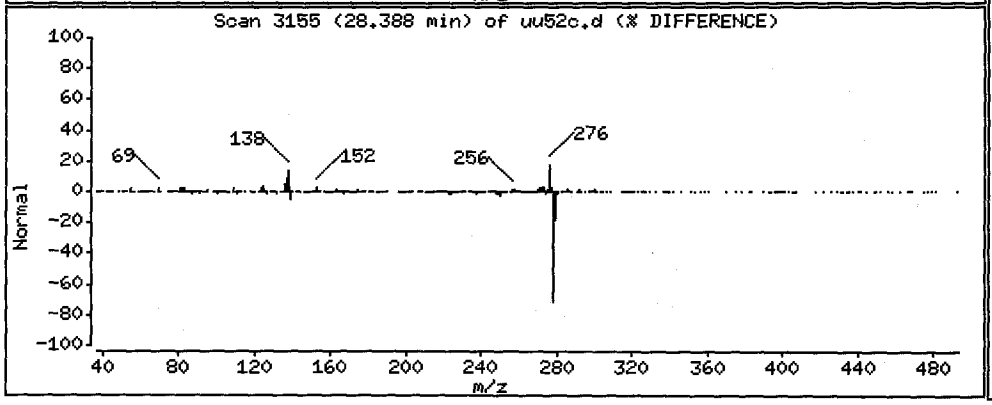
79 Dibenzo(a,h)anthracene

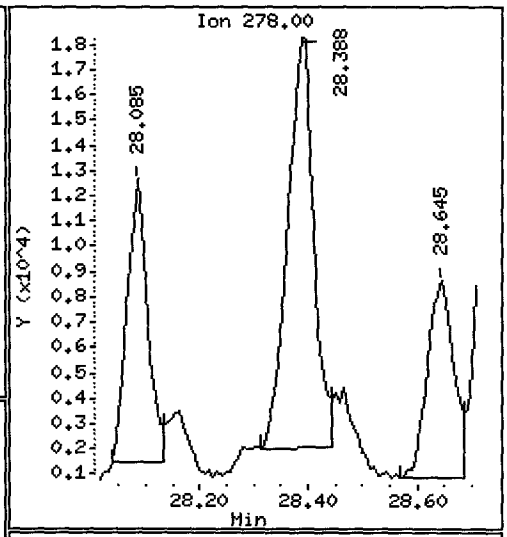
Concentration: 104.3 ug/kg

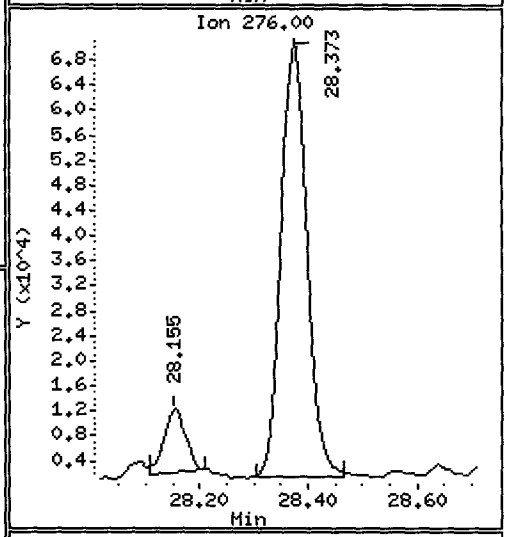


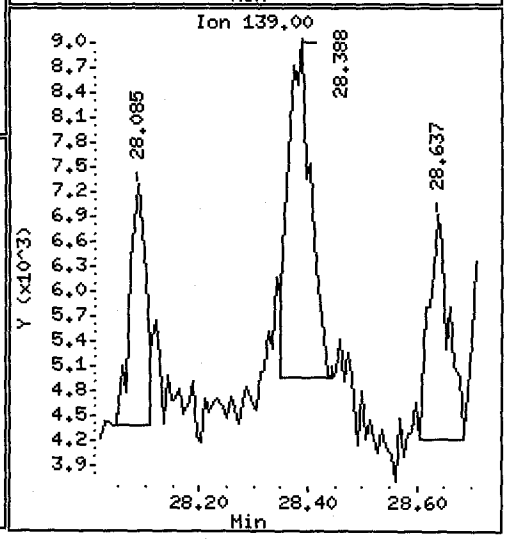












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

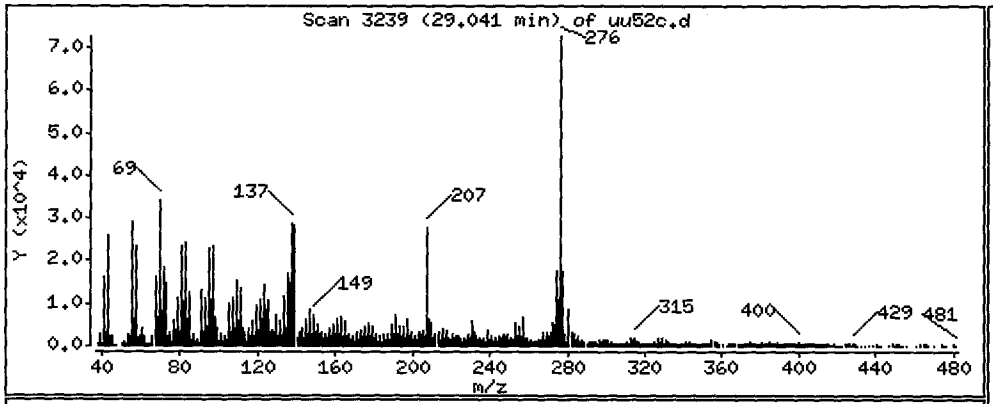
Client ID: MS002-SS-120515 Instrument: nt10.i

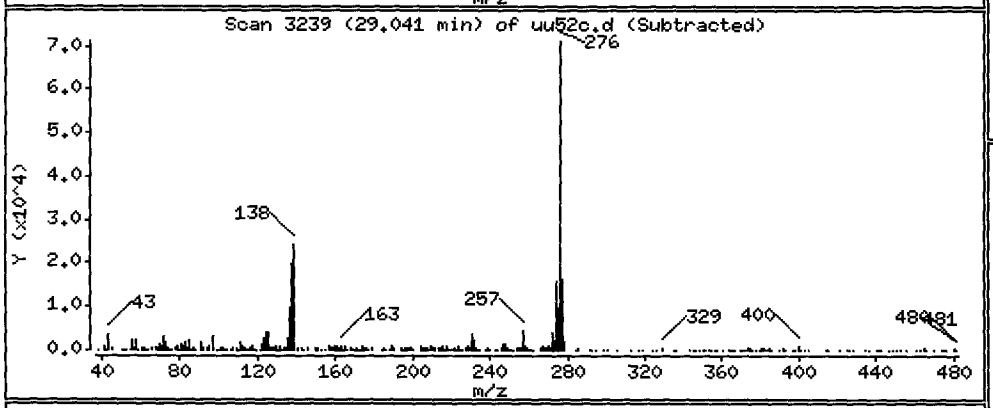
Sample Info: UU52C,3

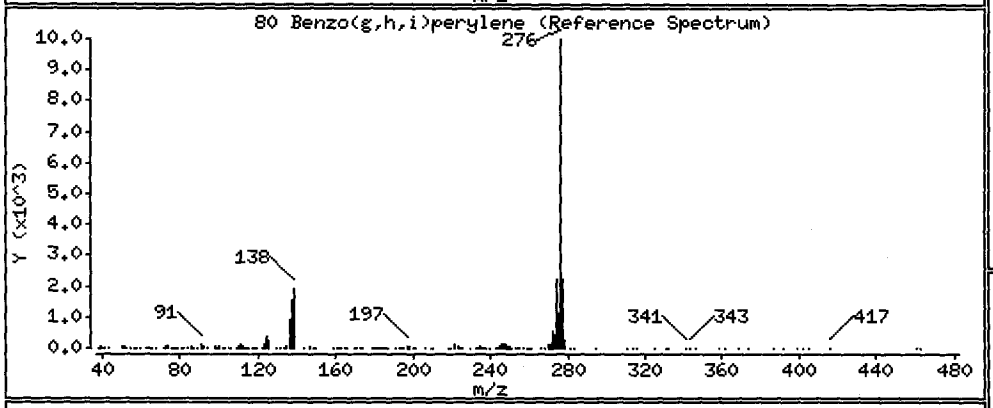
Volume Injected (uL): 1.0 Operator: VTS/YZ

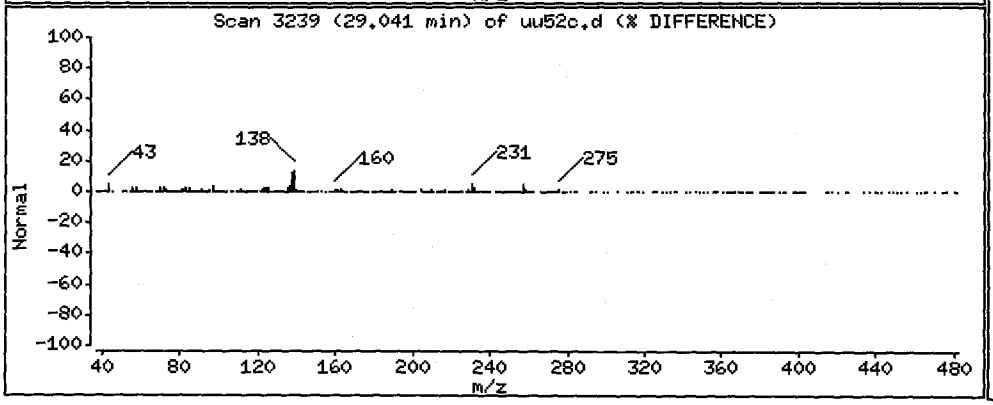
Column phase: ZB-5msi Column diameter: 0.25

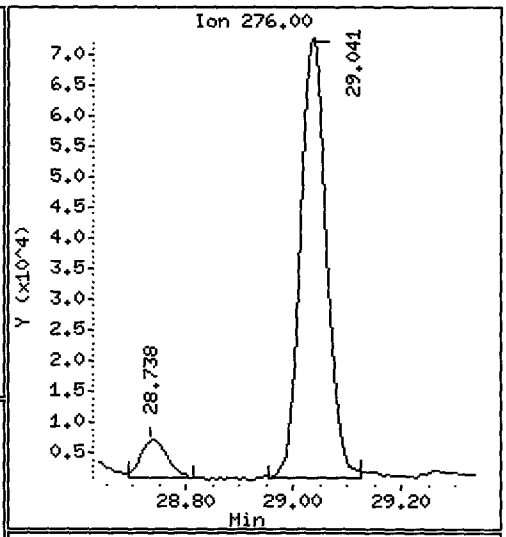
80 Benzo(g,h,i)perylene Concentration: 429.7 ug/kg

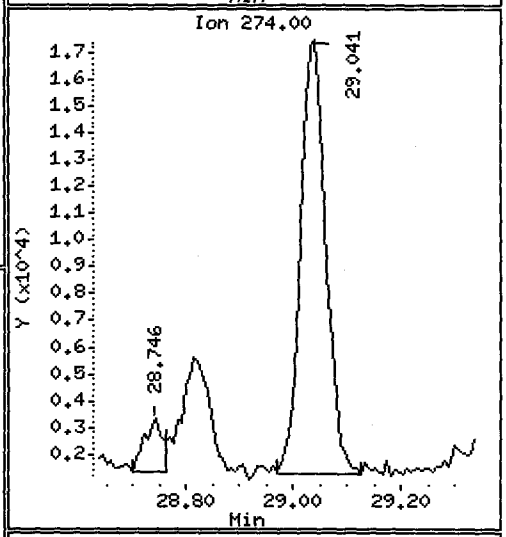


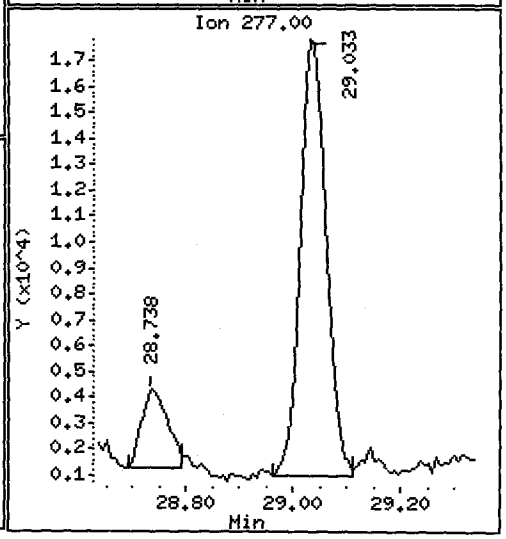












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

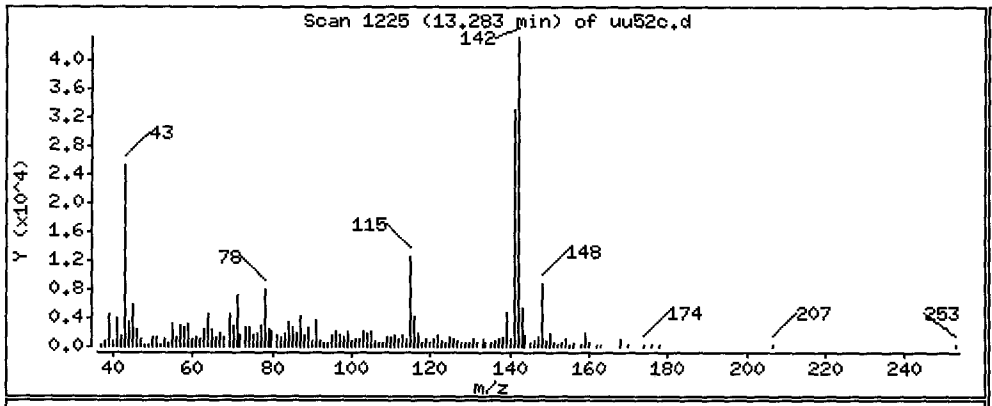
Client ID: MS002-SS-120515 Instrument: nt10.i

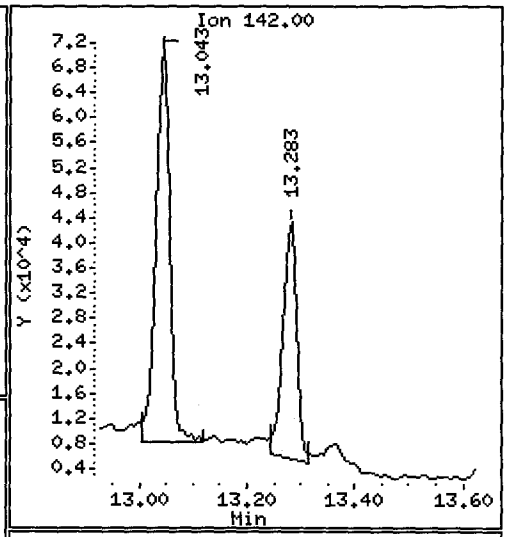
Sample Info: UU52C,3

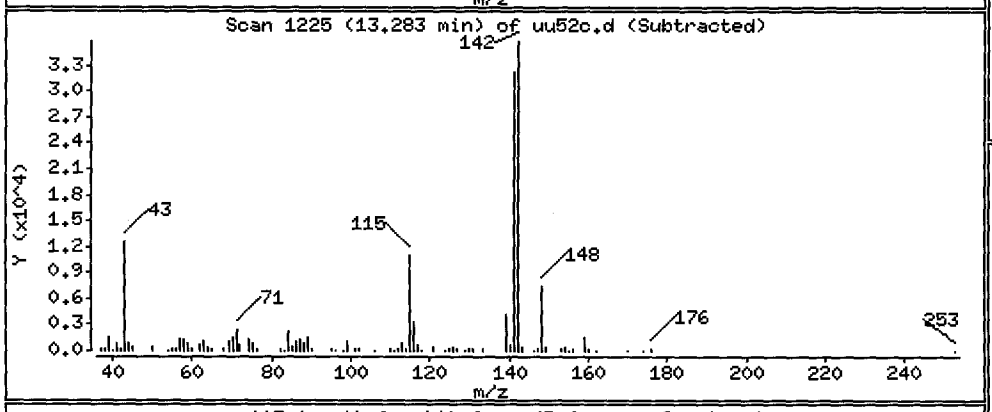
Volume Injected (uL): 1.0 Operator: VTS/YZ

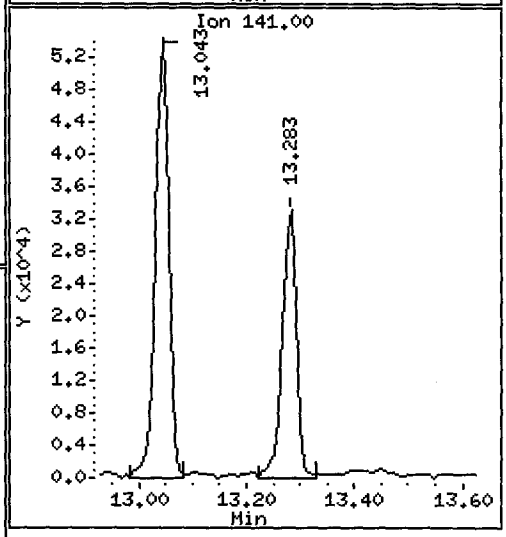
Column phase: ZB-5msi Column diameter: 0.25

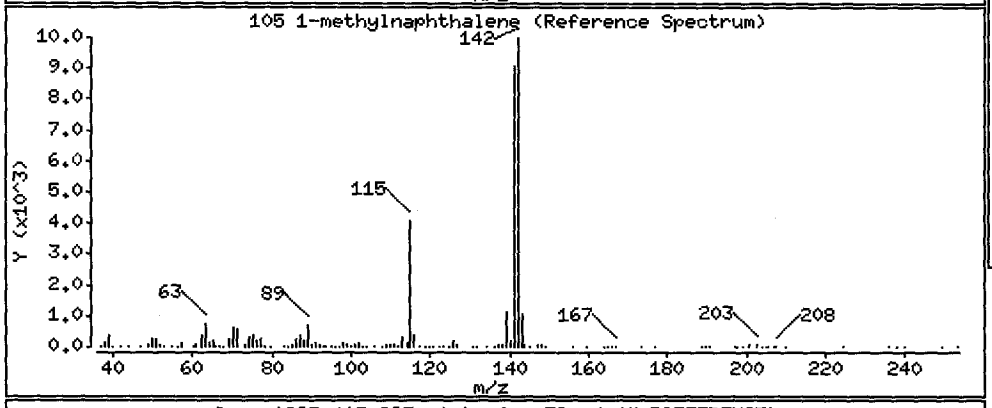
105 1-methylnaphthalene Concentration: 142.5 ug/kg

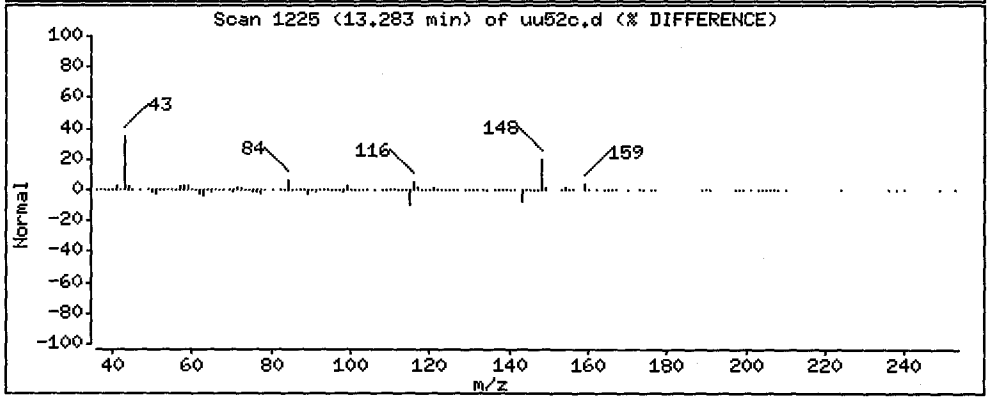












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

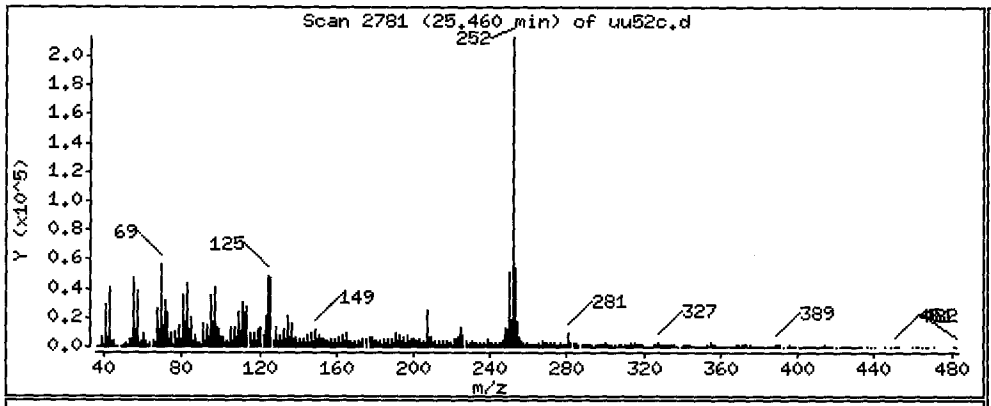
Operator: VTS/YZ

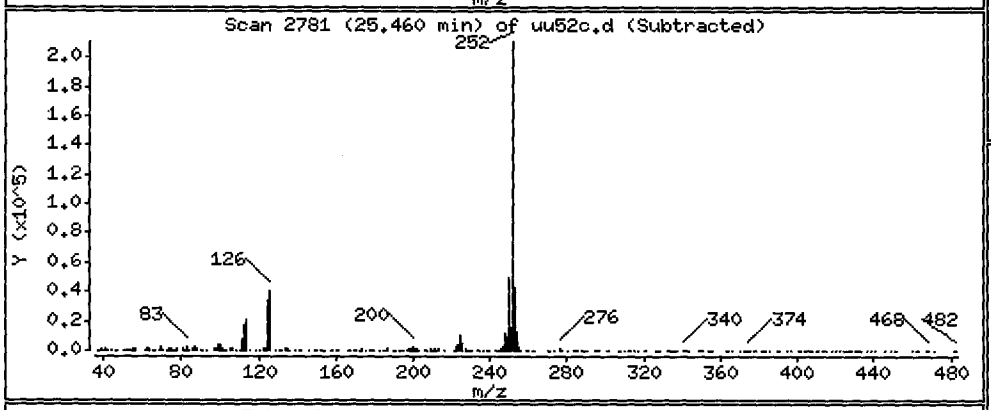
Column phase: ZB-5msi

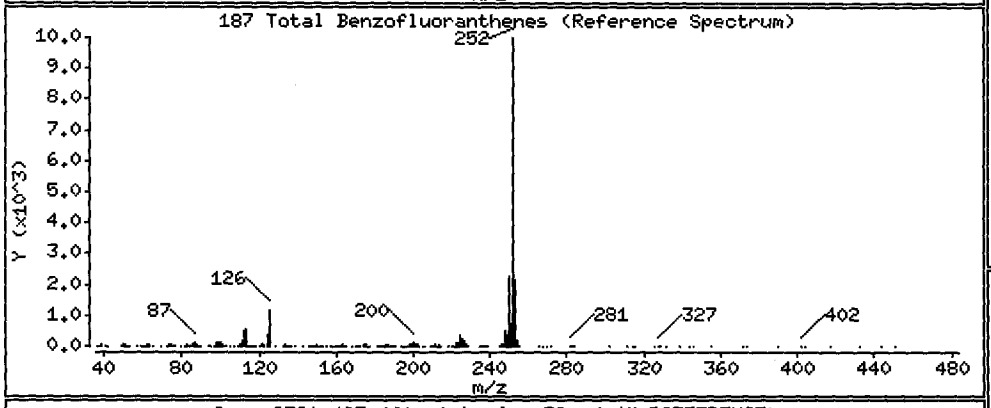
Column diameter: 0.25

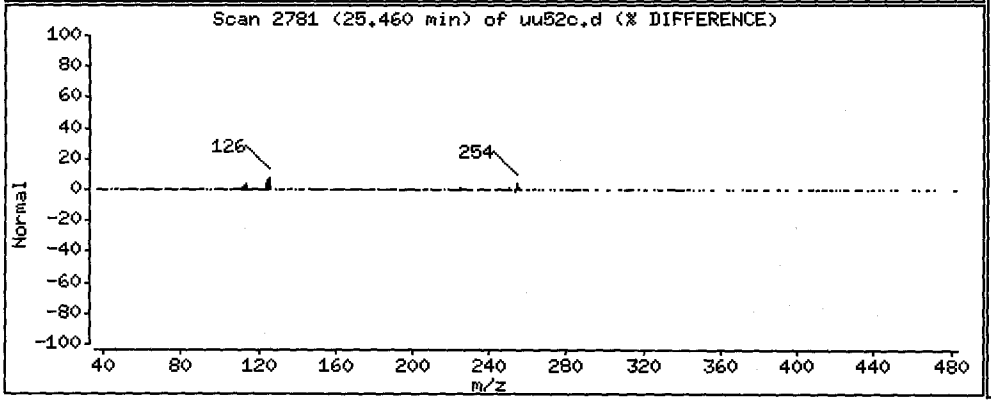
187 Total Benzofluoranthenes

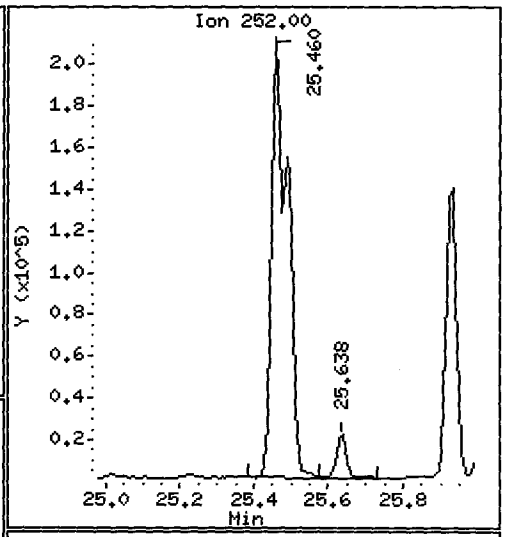
Concentration: 1020 ug/kg

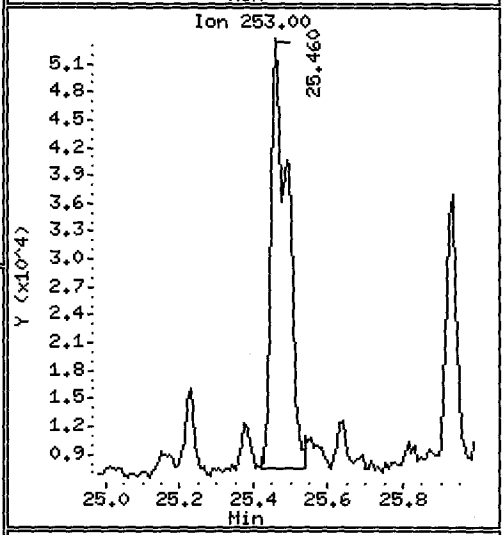


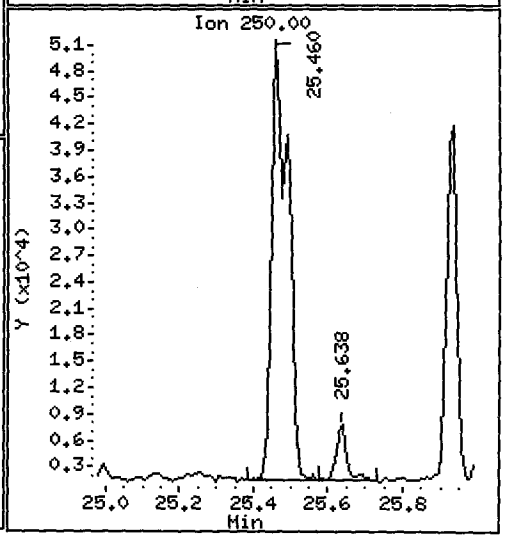












Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

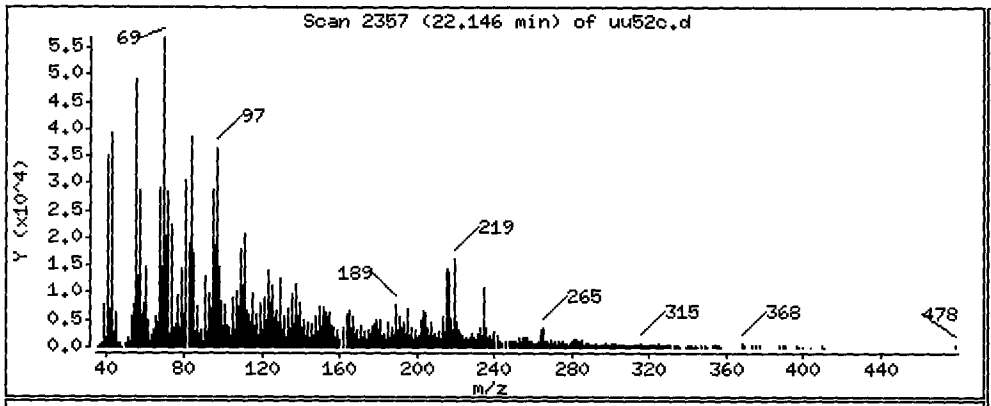
Operator: VTS/YZ

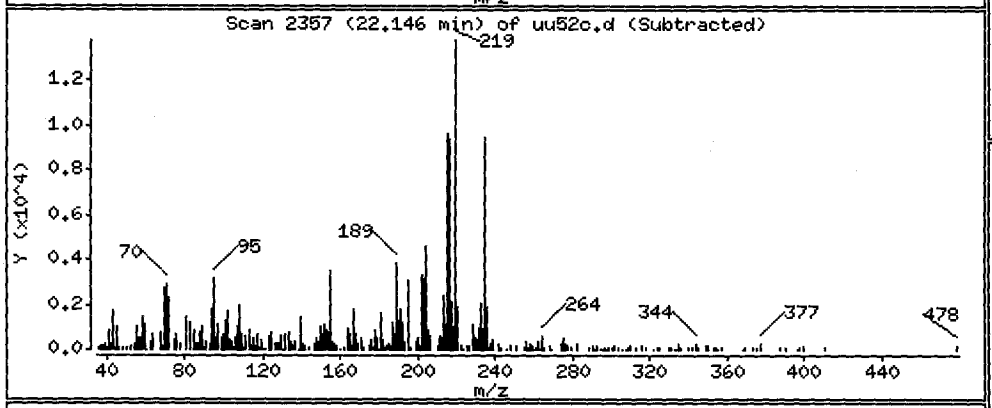
Column phase: ZB-5msi

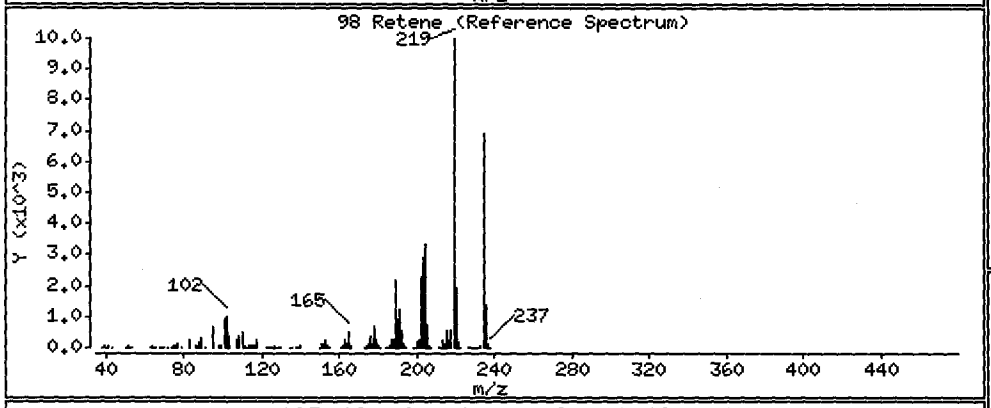
Column diameter: 0.25

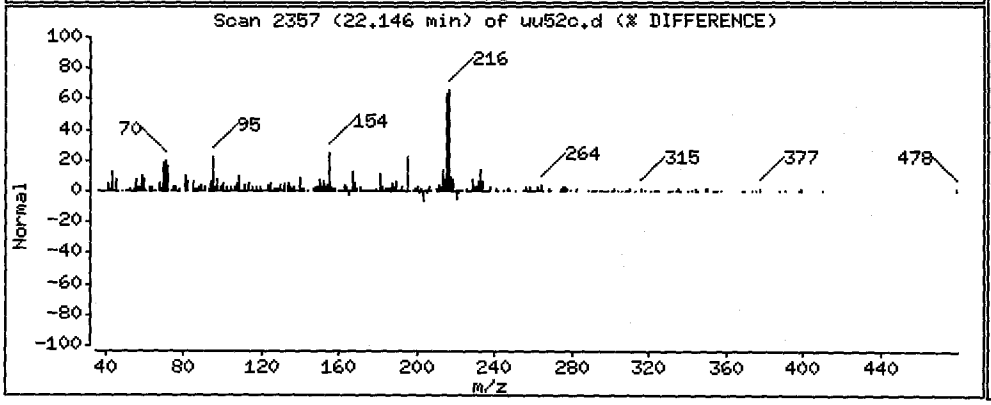
98 Retene

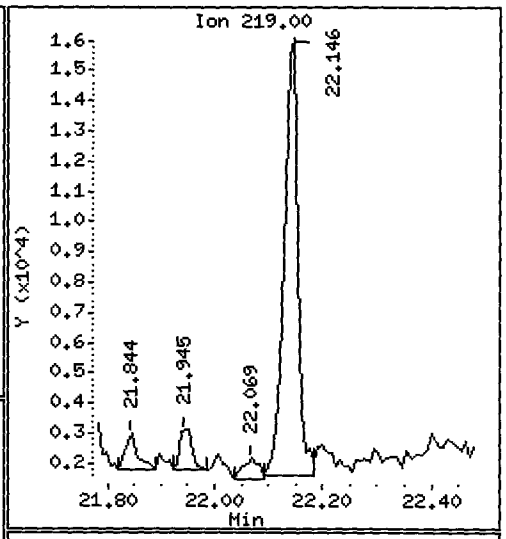
Concentration: 79.36 ug/kg

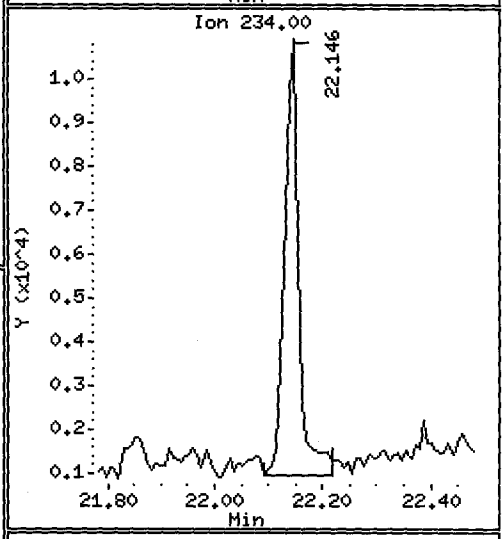


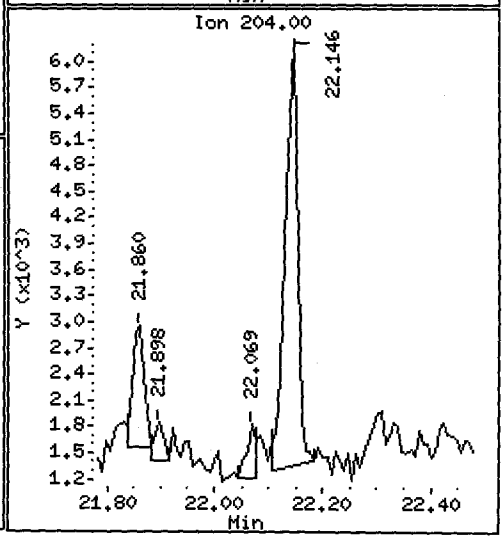






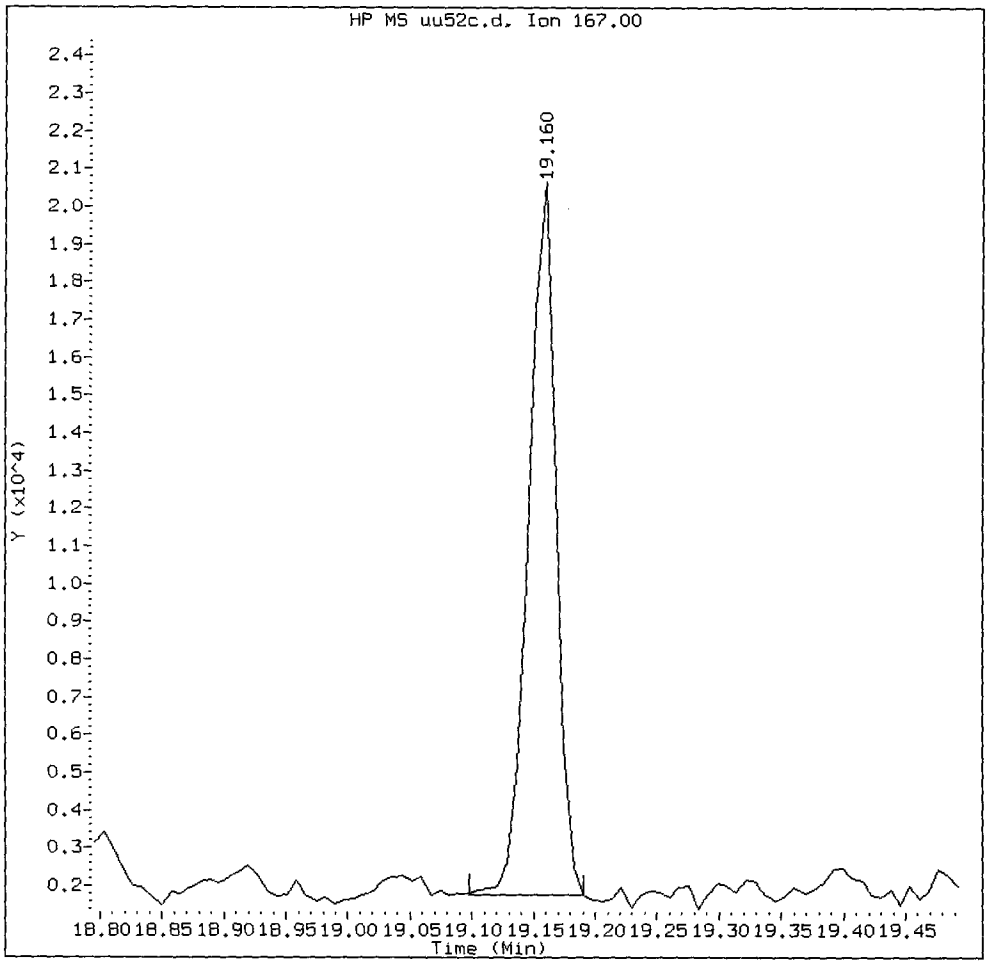






UU52C, /chem1/nt10.i/20120526.b/uu52c.d

Carbazole Amount: 0.19 Area: 30025



MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - uu52c.d

Lab ID: UU52C, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 6/4/12

Data file : /chem1/nt10.i/20120526.b/uu52d.d
Lab Smp Id: UU52D Client Smp ID: MS003-SS-120515
Inj Date : 26-MAY-2012 19:02
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52D,3
Misc Info : 12-8896
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 6
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	109.00000	Weight of sample extracted (g)
M	90.70000	% Moisture

Cpnd Variable Local Compound Variable

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)
$	1	2-Fluorophenol	112	6.560	6.537	(0.740)	100119	1.46312	433.0
$	2	Phenol-d5	99	8.252	8.237	(0.931)	134469	1.57755	466.9
	3	Phenol	94	8.275	8.260	(0.934)	55442	0.61021	180.6
$	5	2-Chlorophenol-d4	132	8.484	8.476	(0.957)	115894	1.55189	459.3
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.863	8.855	(1.000)	195684	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	9.236	9.236	(1.042)	45372	0.92614	274.1
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.740	9.725	(1.099)	266177	3.56283	1054
$	18 Nitrobenzene-d5	82	10.027	10.027	(0.872)	66940	0.95575	282.8
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.033	11.087	(0.959)	49498	1.10001	325.5
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.504	11.504	(1.000)	781696	4.00000	
	28 Naphthalene	128	11.542	11.542	(1.003)	363786	1.84602	546.3
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.043	13.043	(1.134)	39687	0.28969	85.73
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.902	13.902	(0.904)	160125	1.06534	315.3
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	15.040	15.032	(0.978)	38602	0.19823	58.67
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.380	15.373	(1.000)	433584	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	15.450	15.442	(1.005)	27756	0.23631	69.93
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.798	15.798	(1.027)	64527	0.37499	111.0
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	16.571	16.563	(1.077)	32582	0.24711	73.13
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.149	17.142	(1.115)	31514	1.76093	521.1
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.641	18.633	(1.000)	608068	4.00000	
	60 Phenanthrene	178	18.695	18.687	(1.003)	261353	1.66682	493.3
	61 Anthracene	178	18.788	18.780	(1.008)	64809	0.39567	117.1
	62 Carbazole	167	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	21.125	21.101	(1.133)	328973	1.84787	546.9
65	Pyrene	202	21.542	21.519	(0.908)	366111	1.70465	504.5
$ 66	Terphenyl-d14	244	21.852	21.844	(0.921)	148792	1.10591	327.3
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.695	23.679	(0.999)	88337	0.44490	131.7
* 69	Chrysene-d12	240	23.718	23.710	(1.000)	705866	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.764	23.749	(1.002)	227198	1.30074	384.9
72	bis(2-Ethylhexyl)phthalate	149	23.834	23.818	(0.961)	61724	0.41036	121.4
* 134	Di-n-octylphthalate-d4	153	24.802	24.794	(1.000)	1095300	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	26.017	26.002	(0.996)	147795	0.83022	245.7
* 77	Perylene-d12	264	26.118	26.102	(1.000)	688484	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.380	28.342	(1.087)	120715	0.58622	173.5
79	Dibenzo(a,h)anthracene	278	28.388	28.365	(1.087)	27469	0.16934	50.12
80	Benzo(g,h,i)perylene	276	29.048	29.002	(1.112)	134502	0.76171	225.4
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.283	13.275	(1.155)	26639	0.19067	56.43
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	25.460	25.483	(0.975)	369394	1.93364	572.3
99	Perylene	252	Compound Not Detected.					
98	Retene	219	22.146	22.131	(0.934)	10666	0.10665	31.56

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52d.d
Lab Smp Id: UU52D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8896

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS003-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	195684	3.25
27 Naphthalene-d8	730932	365466	1461864	781696	6.95
42 Acenaphthene-d10	420698	210349	841396	433584	3.06
59 Phenanthrene-d10	638950	319475	1277900	608068	-4.83
69 Chrysene-d12	645065	322532	1290130	705866	9.43
134 Di-n-octylphthala	1016118	508059	2032236	1095300	7.79
77 Perylene-d12	650033	325016	1300066	688484	5.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.09
27 Naphthalene-d8	11.50	11.00	12.00	11.50	0.00
42 Acenaphthene-d10	15.37	14.87	15.87	15.38	0.05
59 Phenanthrene-d10	18.63	18.13	19.13	18.64	0.04
69 Chrysene-d12	23.71	23.21	24.21	23.72	0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.80	0.03
77 Perylene-d12	26.10	25.60	26.60	26.12	0.06

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

Analytical Resources, Inc.

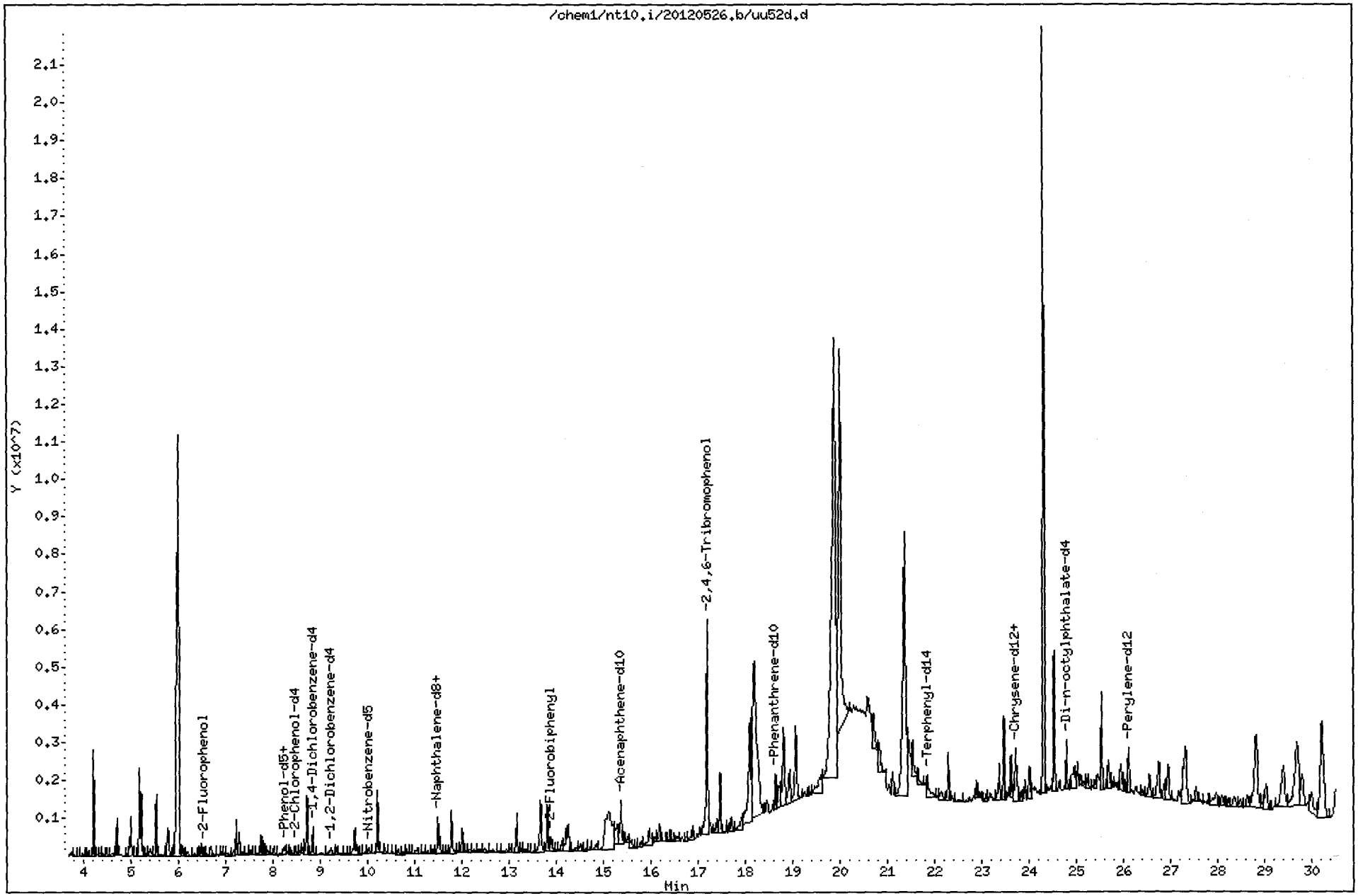
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52D Client Smp ID: MS003-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8896

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	739.9	433.0	58.52	30-160
$ 2 Phenol-d5	739.9	466.9	63.10	30-160
$ 5 2-Chlorophenol-d4	739.9	459.3	62.08	30-160
$ 10 1,2-Dichlorobenzen	493.2	274.1	55.57	30-160
$ 18 Nitrobenzene-d5	493.2	282.8	57.34	30-160
$ 36 2-Fluorobiphenyl	493.2	315.3	63.92	30-160
$ 55 2,4,6-Tribromophen	739.9	521.1	70.44	30-160
$ 66 Terphenyl-d14	493.2	327.3	66.35	30-160

Data File: /chem1/nt10.i/20120526.b/uu52d.d
Date : 26-MAY-2012 19:02
Client ID: MS003-SS-120515
Sample Info: UU52D,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52:99759

Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

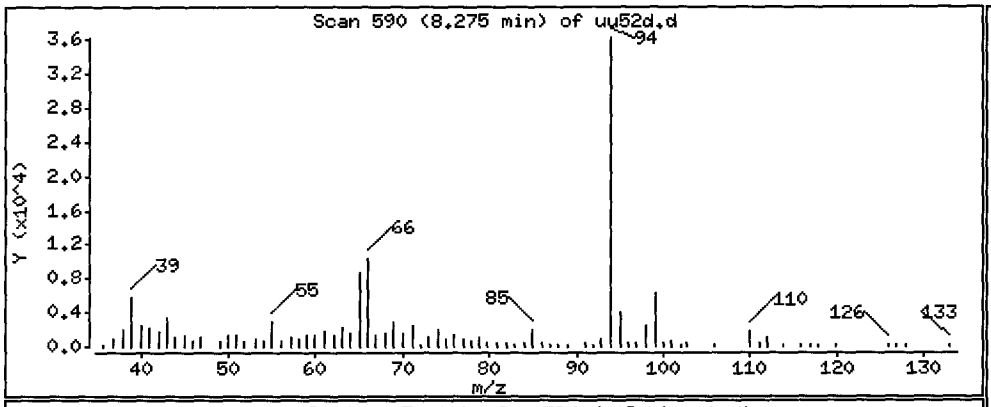
Operator: VTS/YZ

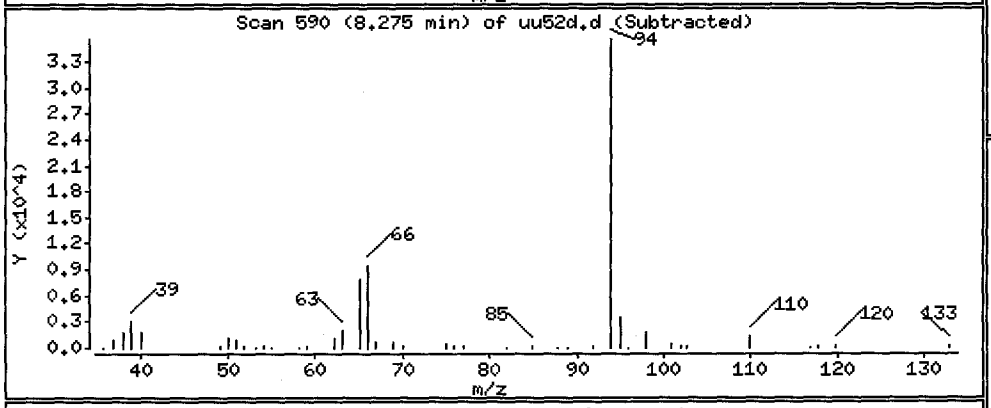
Column phase: ZB-5msi

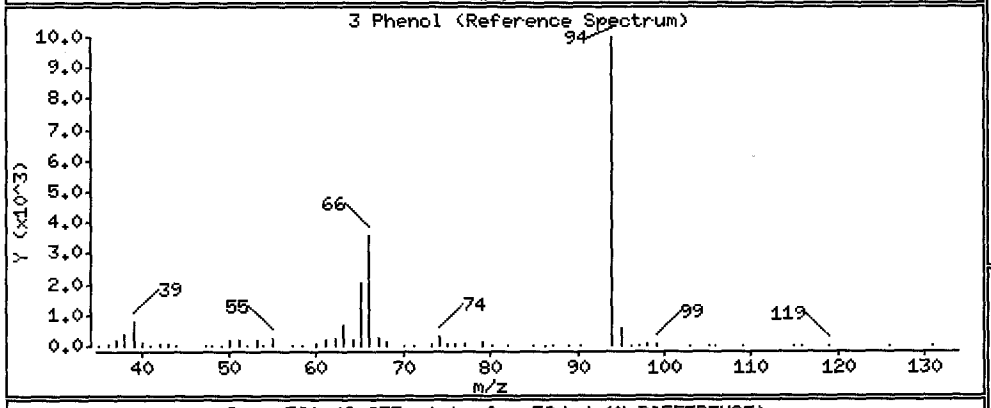
Column diameter: 0.25

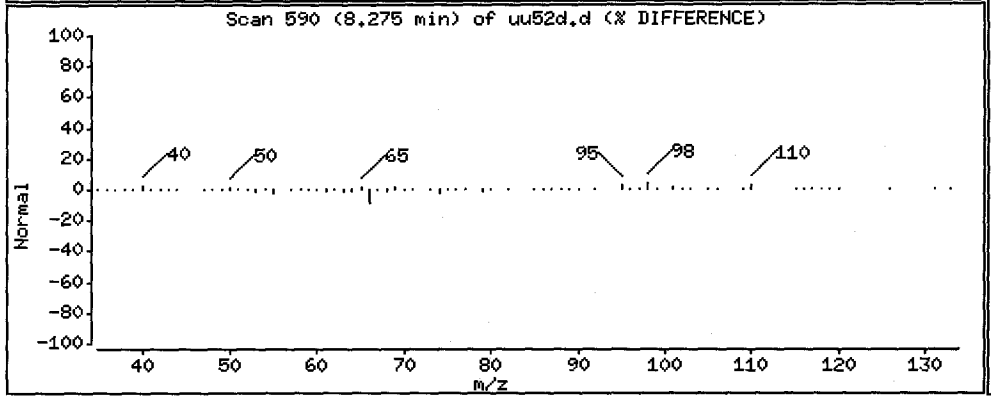
3 Phenol

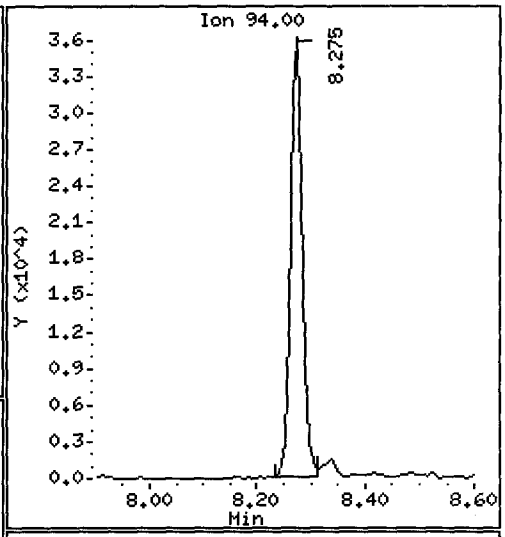
Concentration: 180.6 ug/kg

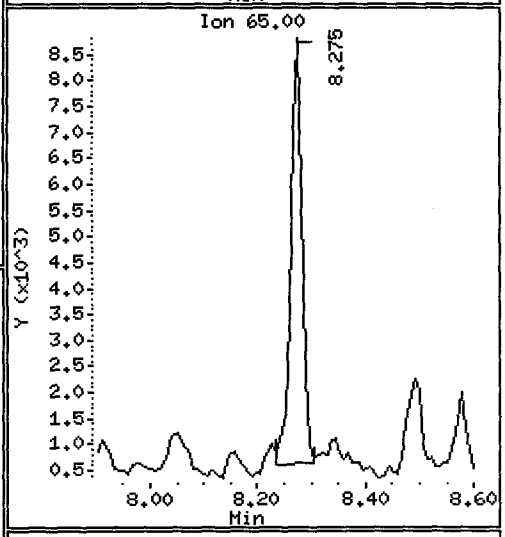


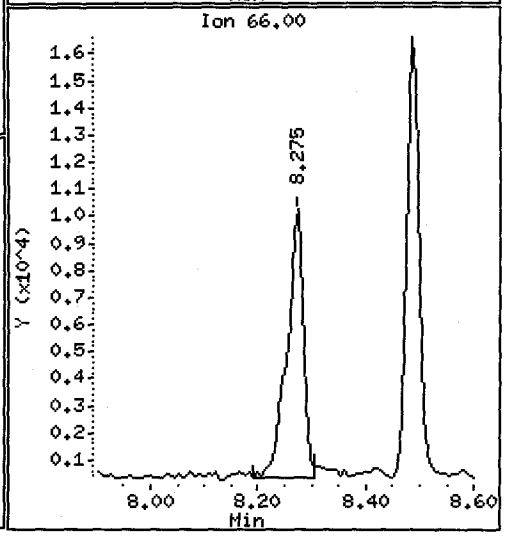












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

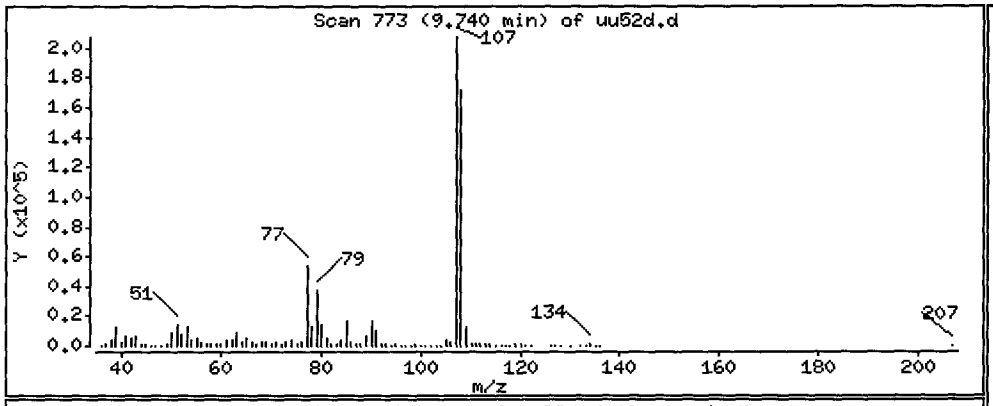
Operator: VTS/YZ

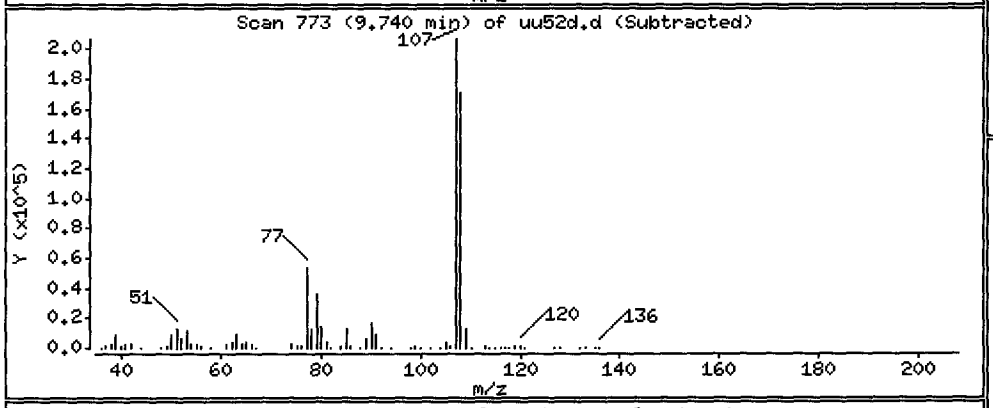
Column phase: ZB-5msi

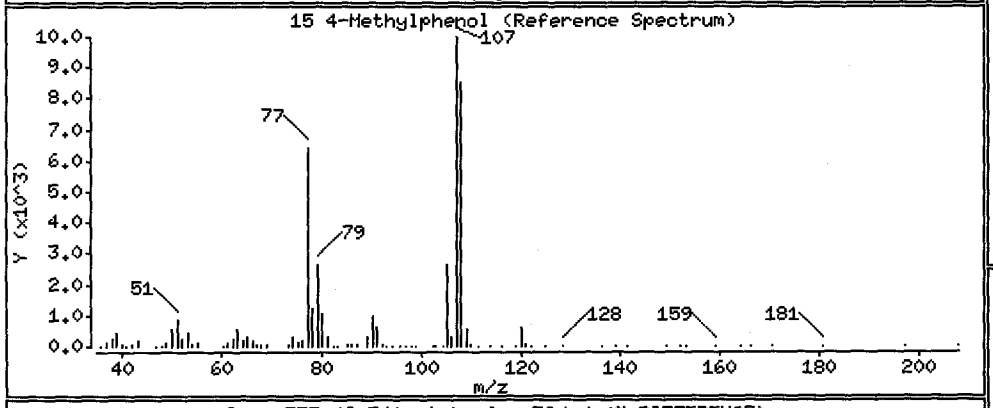
Column diameter: 0.25

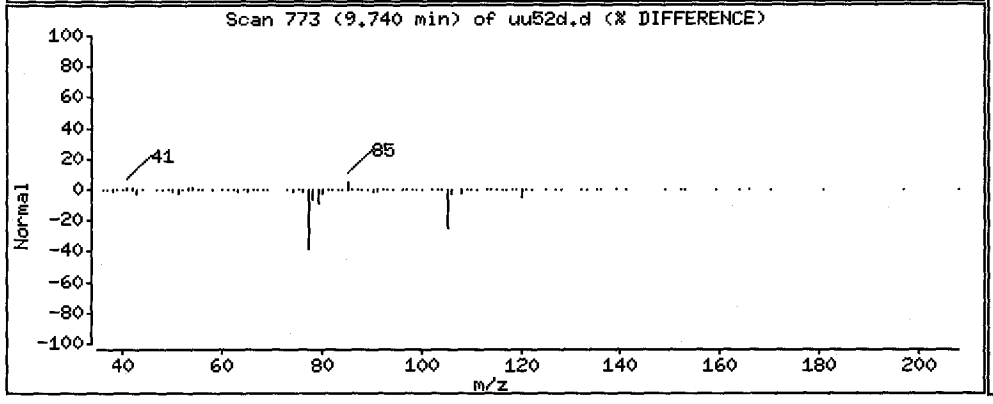
15 4-Methylphenol

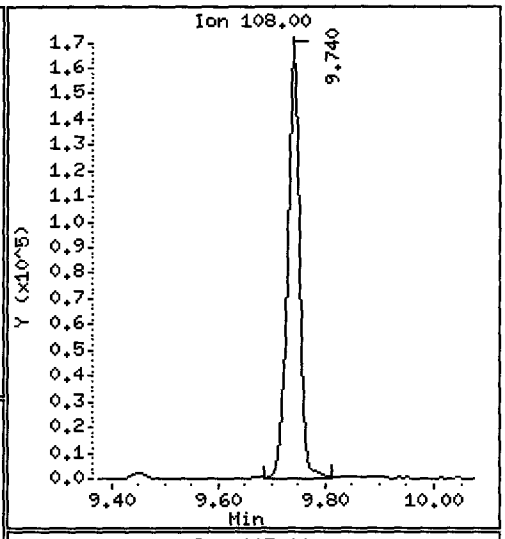
Concentration: 1054 ug/kg

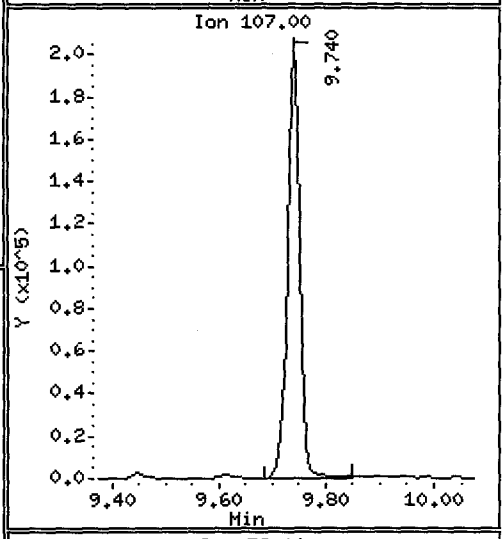


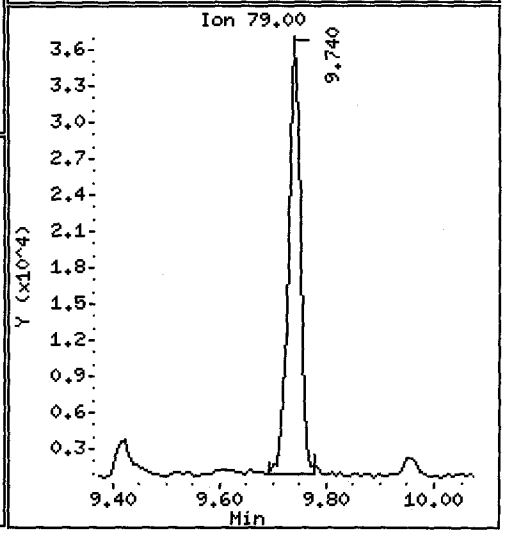












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

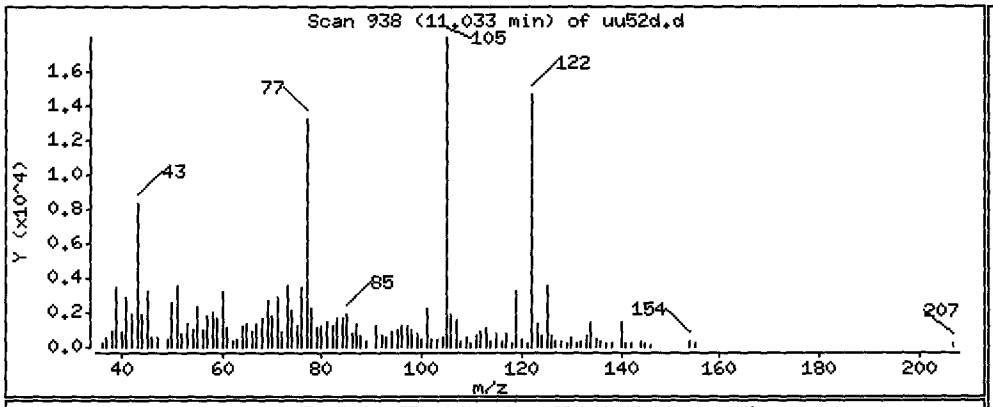
Operator: VTS/YZ

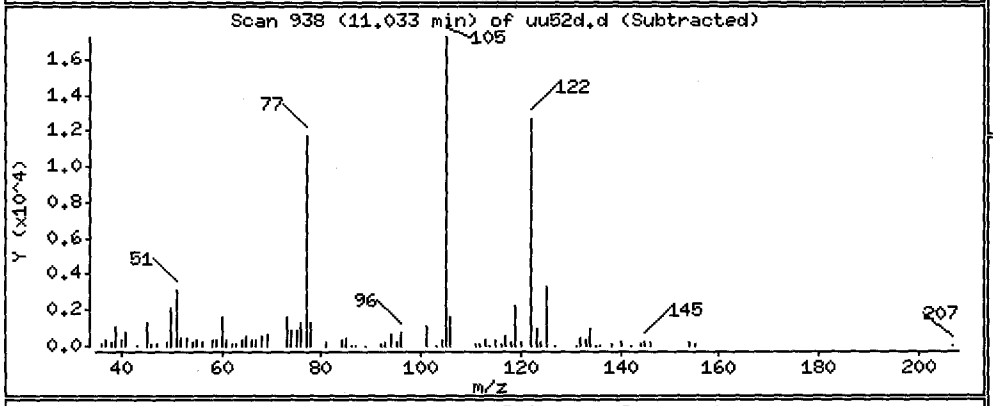
Column phase: ZB-5msi

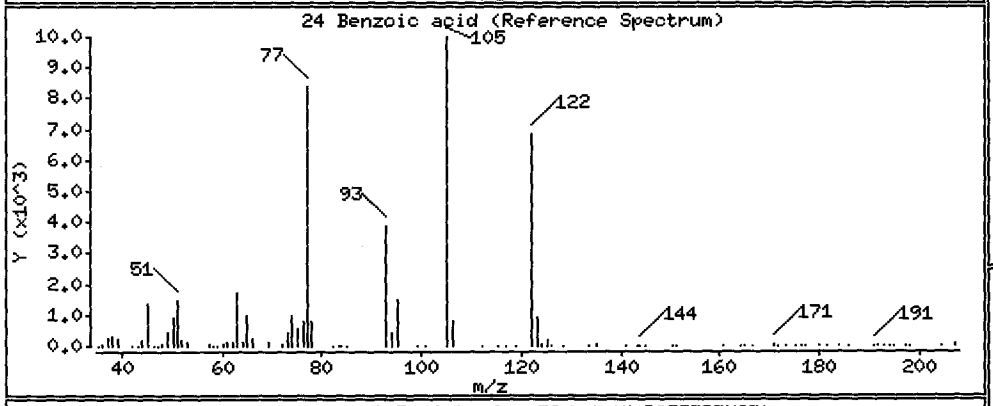
Column diameter: 0.25

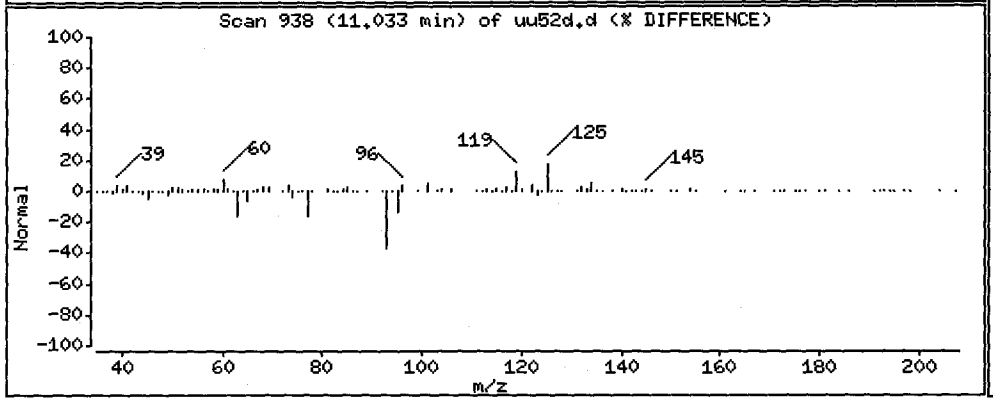
24 Benzoic acid

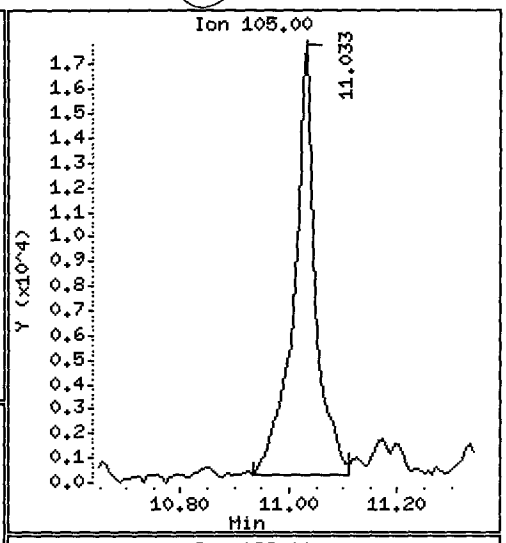
Concentration: 325.5 ug/kg

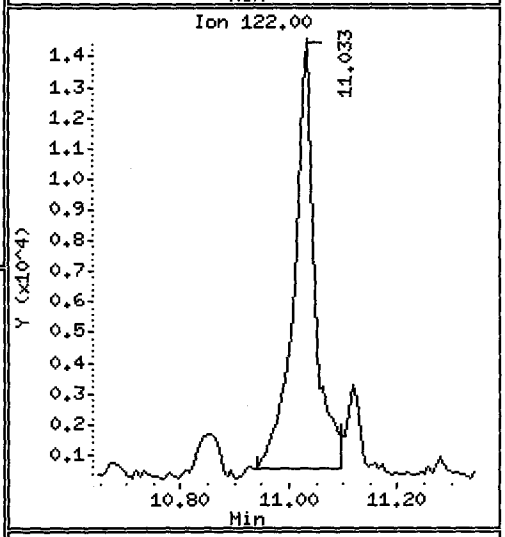


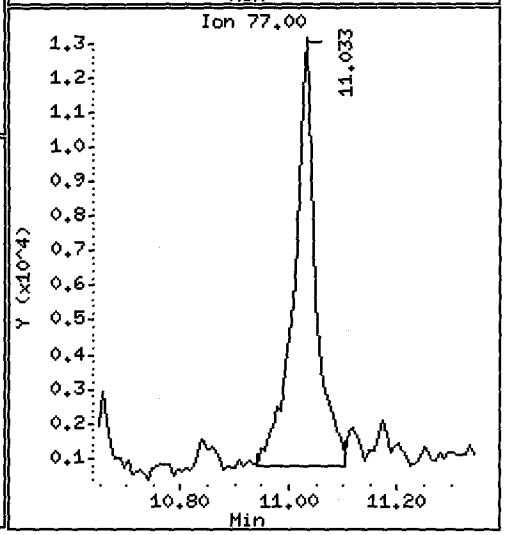












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

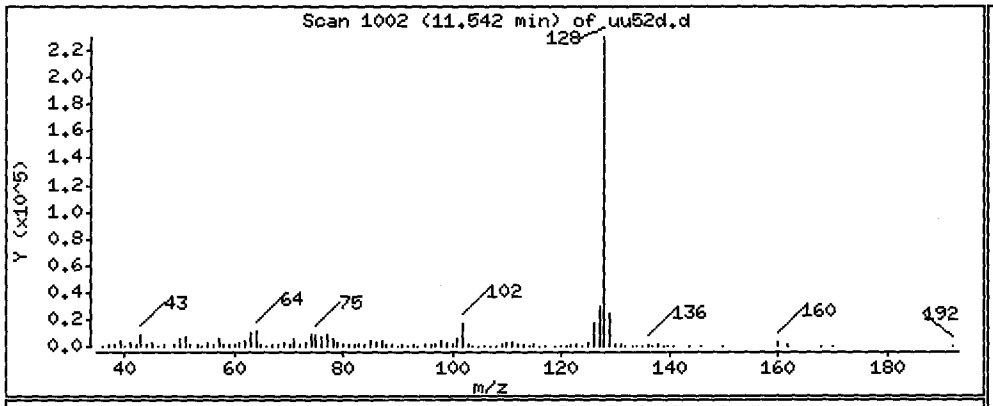
Operator: VTS/YZ

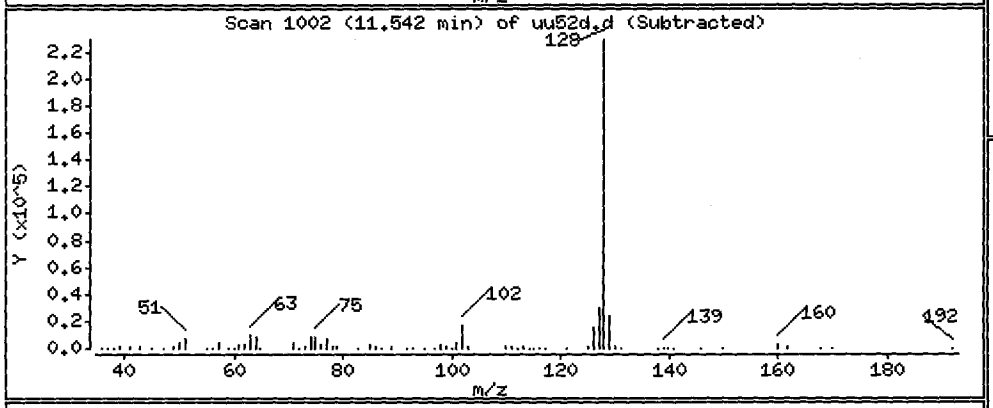
Column phase: ZB-5msi

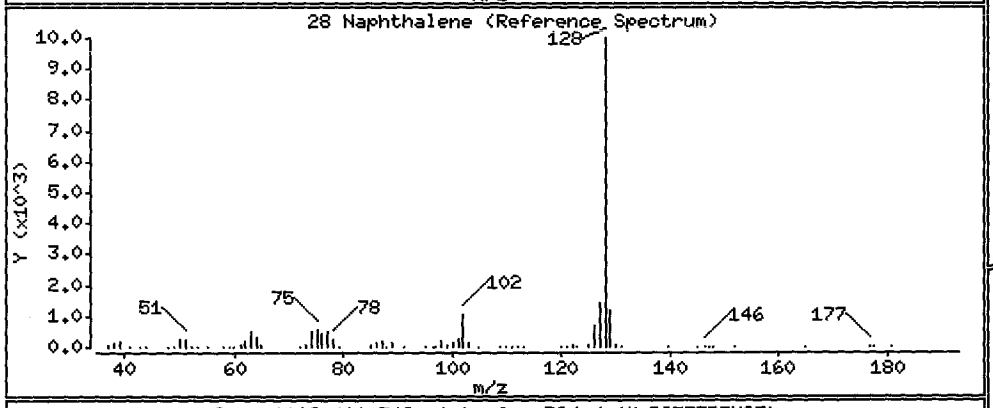
Column diameter: 0.25

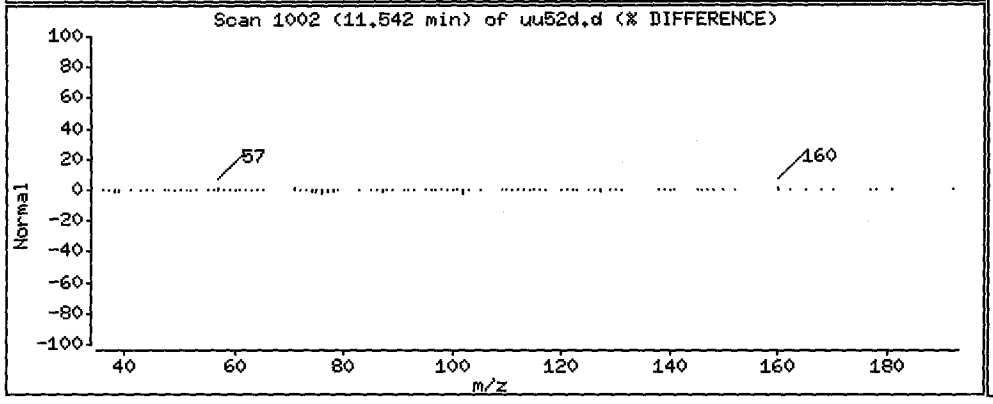
28 Naphthalene

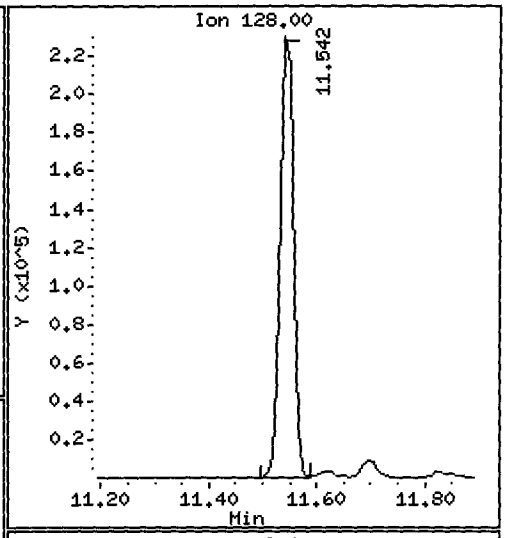
Concentration: 546.3 ug/kg

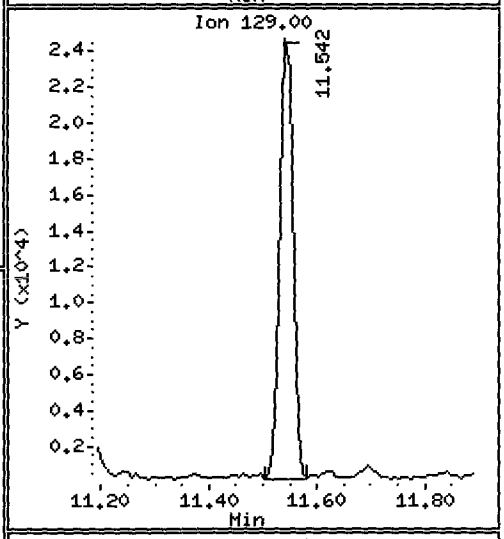


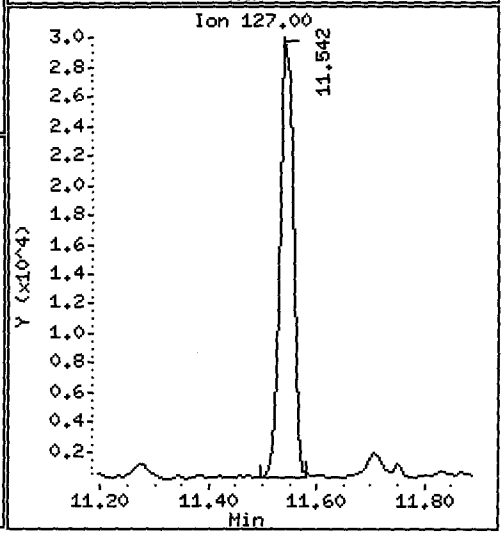












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

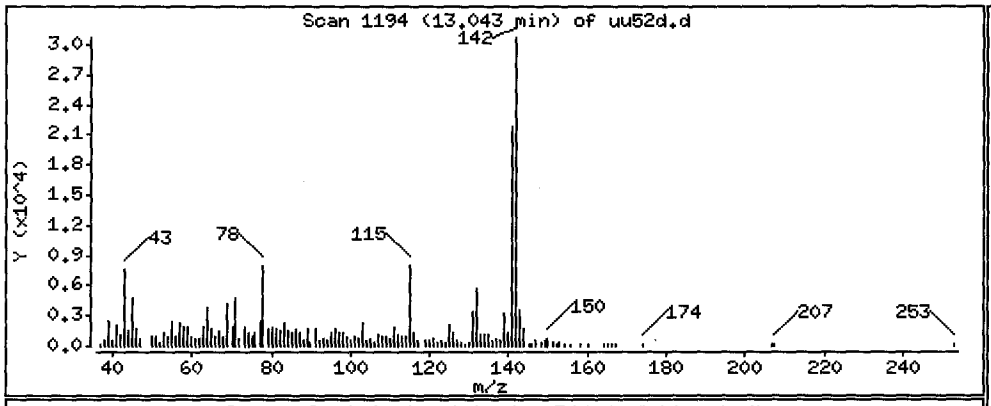
Operator: VTS/YZ

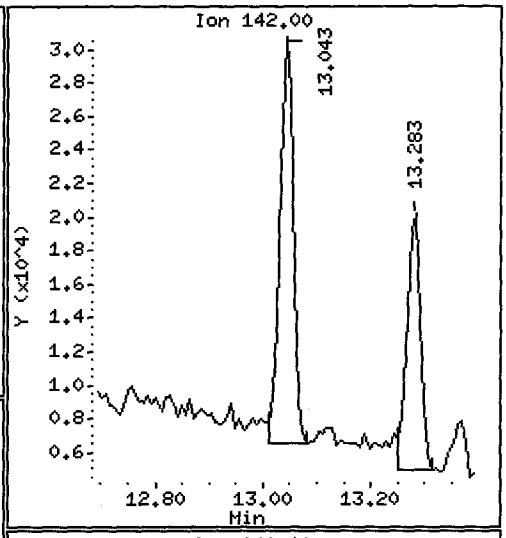
Column phase: ZB-5msi

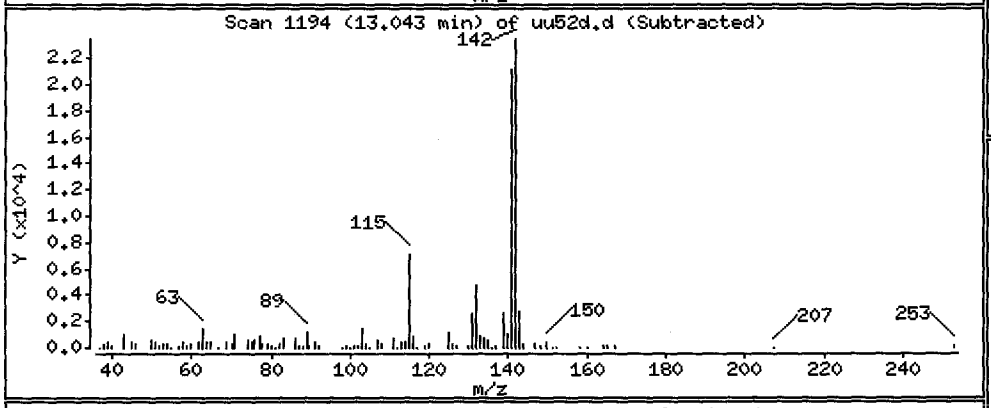
Column diameter: 0.25

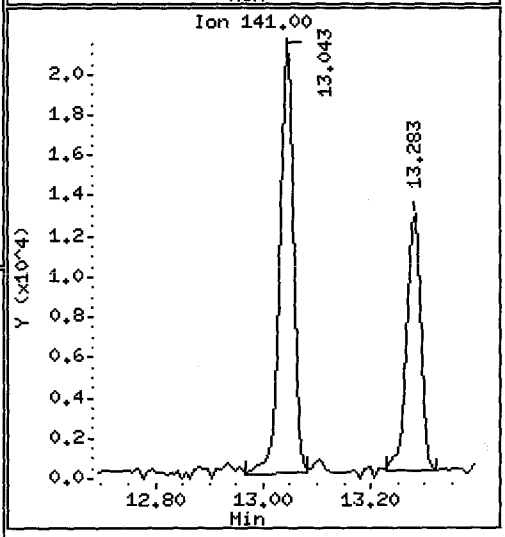
32 2-Methylnaphthalene

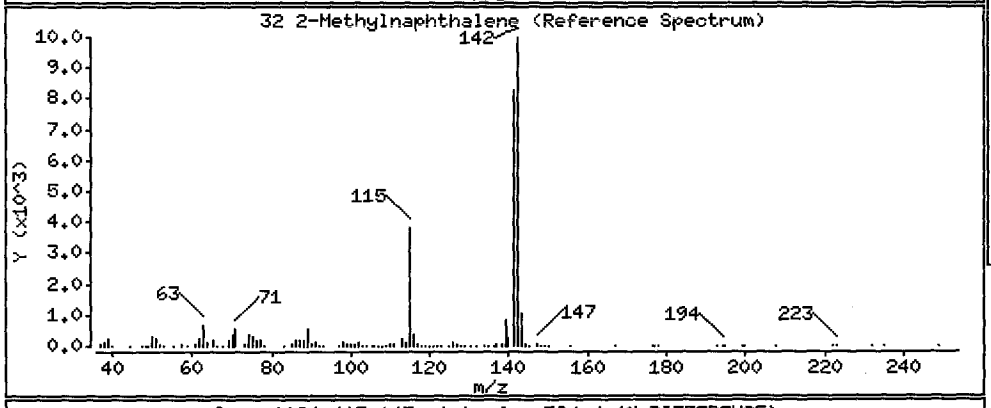
Concentration: 85.73 ug/kg

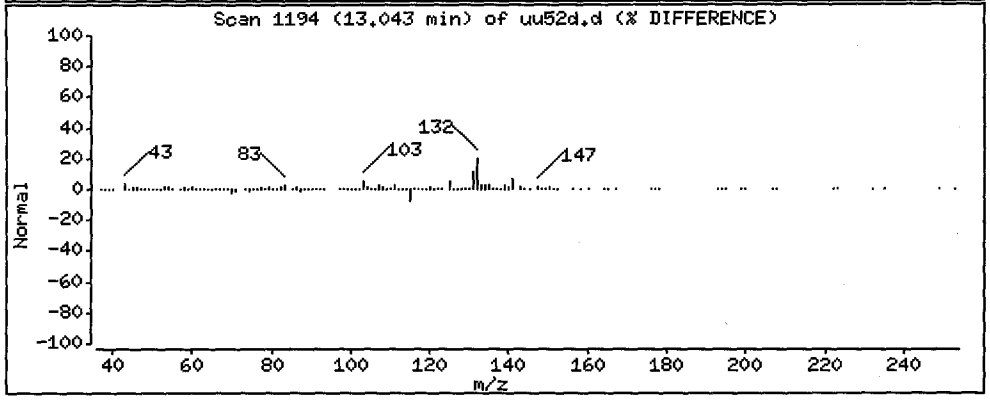












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

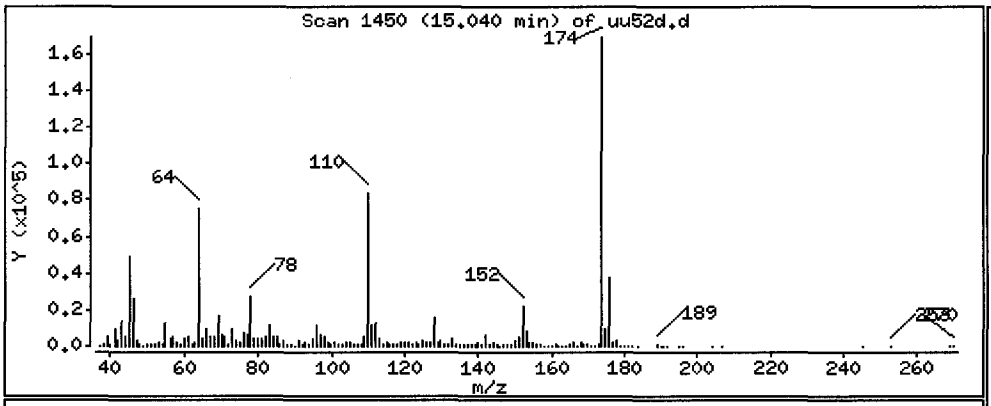
Client ID: MS003-SS-120515 Instrument: nt10.i

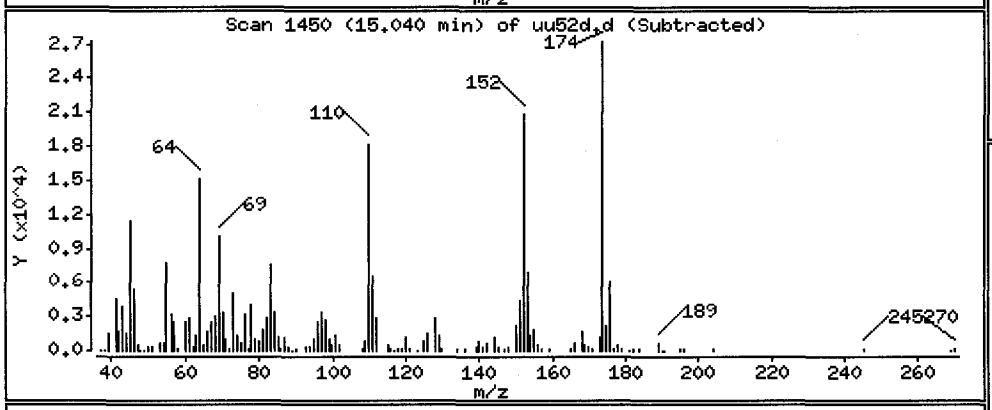
Sample Info: UU52D,3

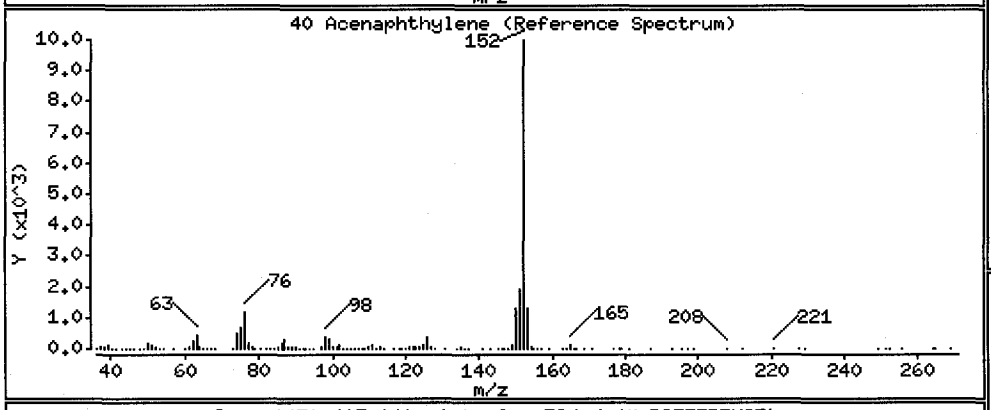
Volume Injected (uL): 1.0 Operator: VTS/YZ

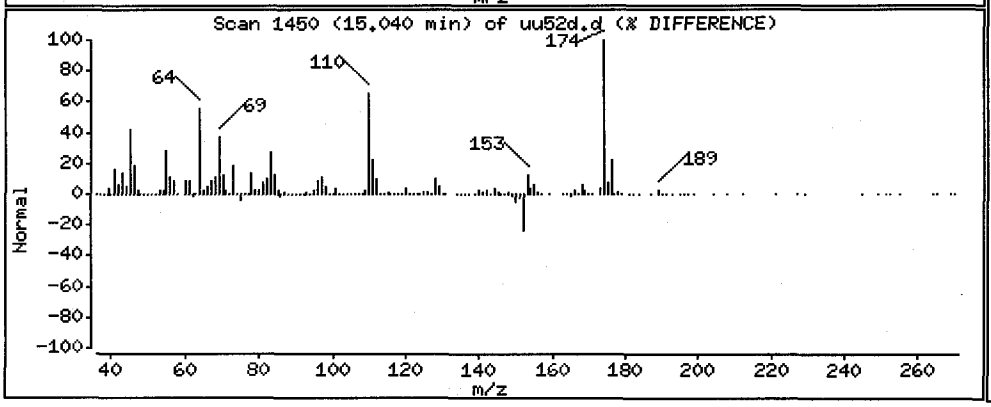
Column phase: ZB-5msi Column diameter: 0.25

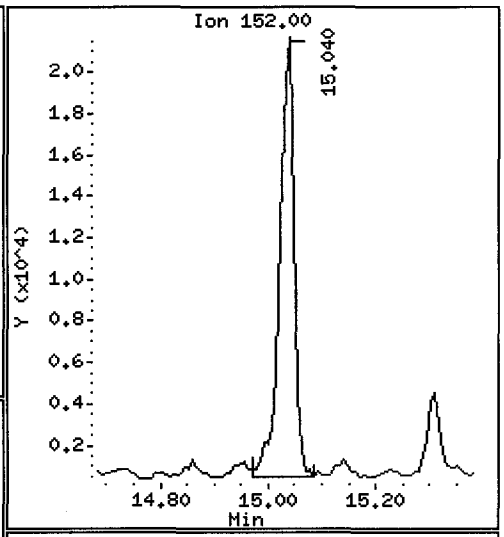
40 Acenaphthylene Concentration: 58.67 ug/kg

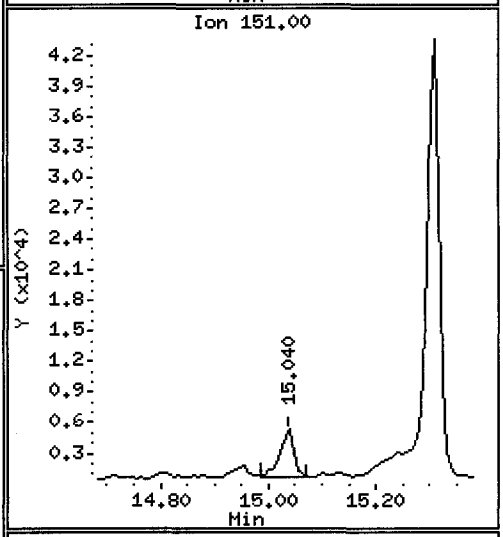


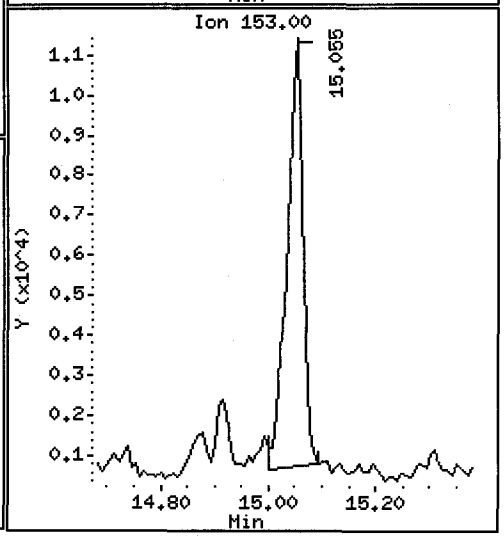












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

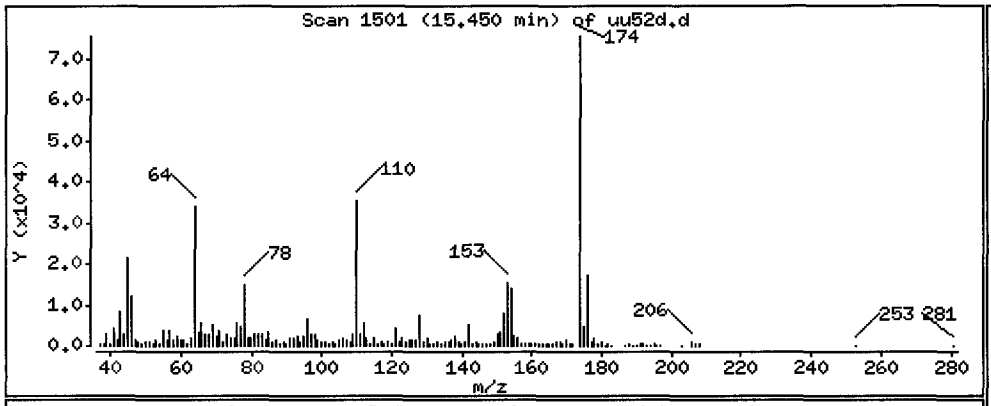
Operator: VTS/YZ

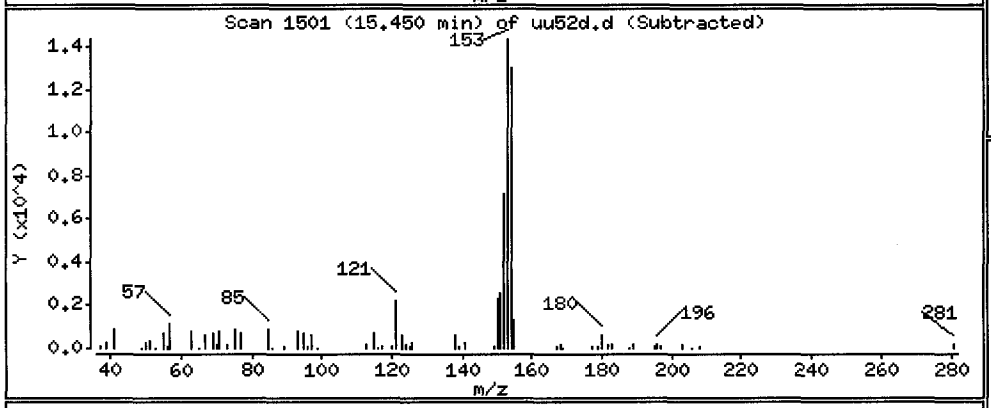
Column phase: ZB-5msi

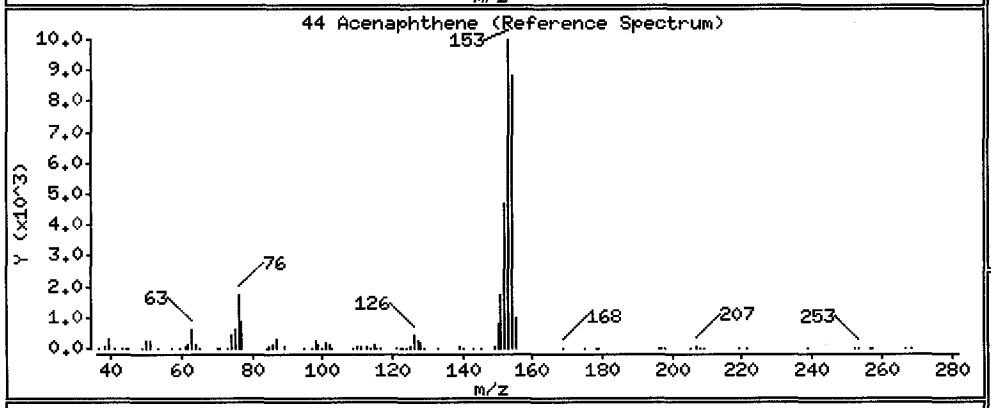
Column diameter: 0.25

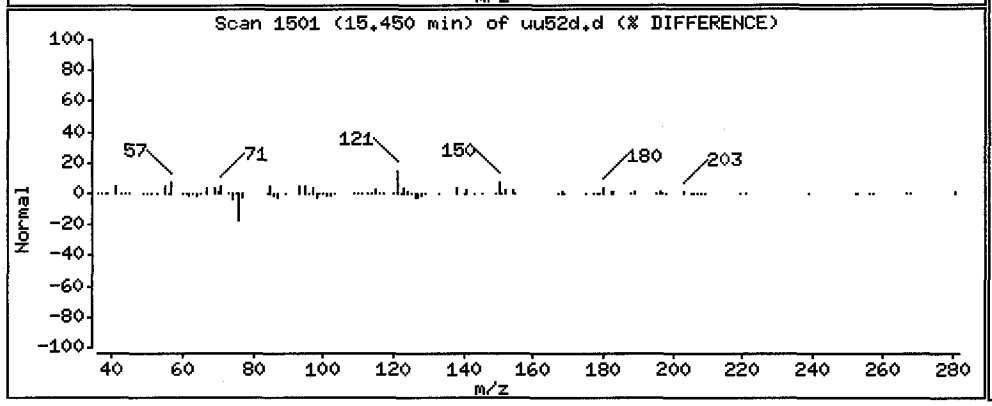
44 Acenaphthene

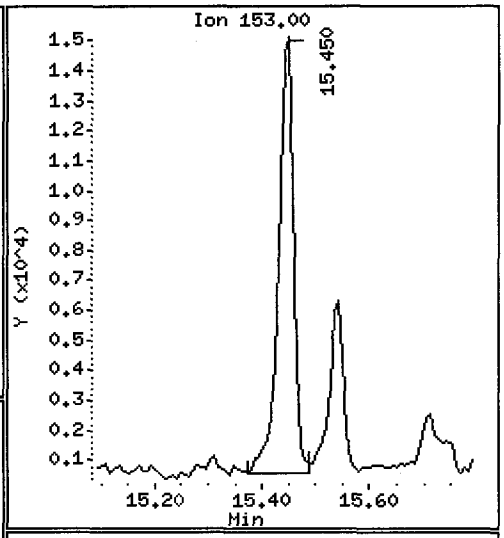
Concentration: 69.93 ug/kg

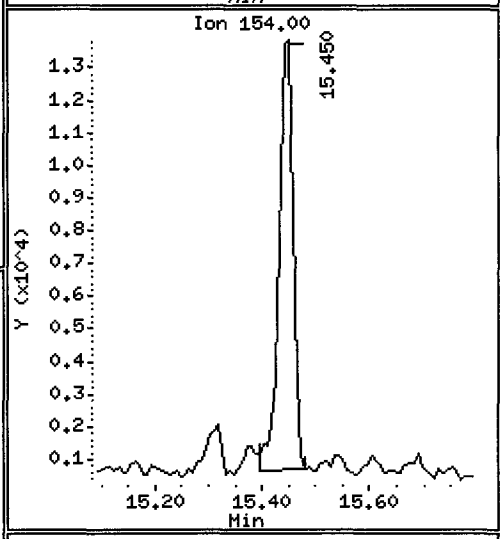


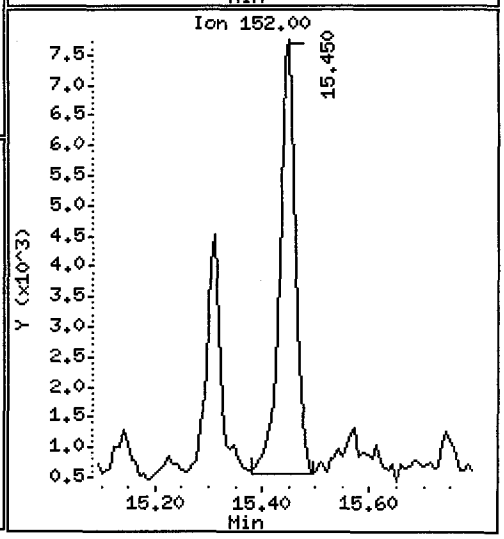












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

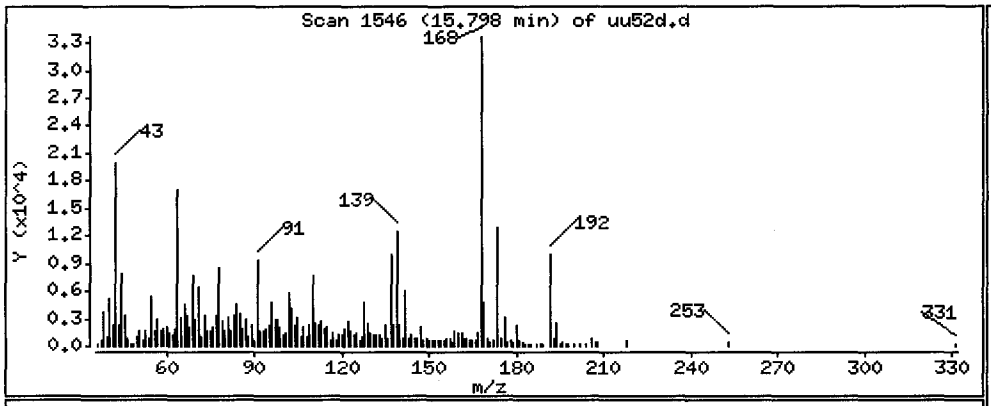
Operator: VTS/YZ

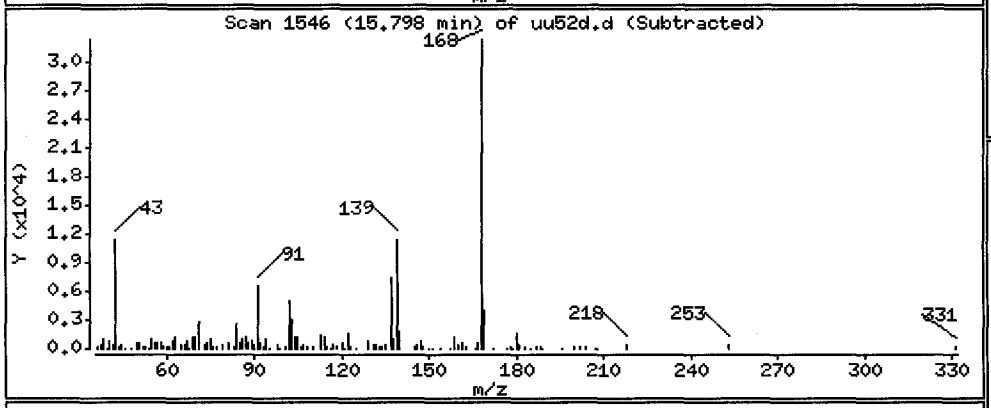
Column phase: ZB-5msi

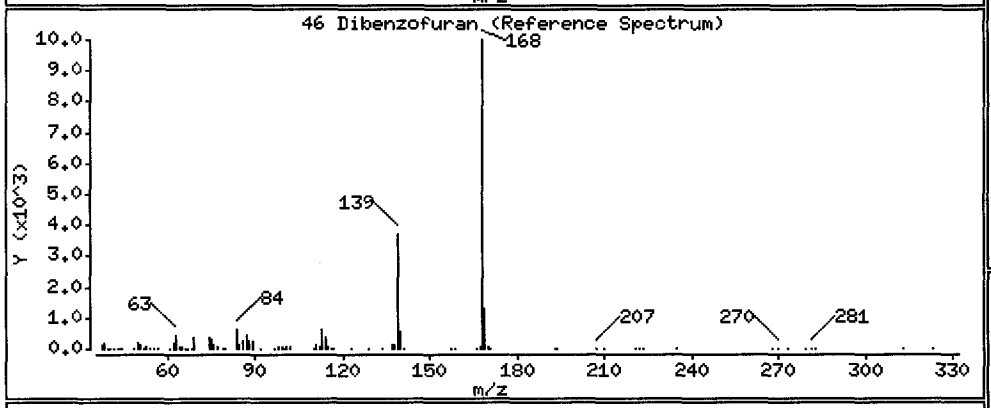
Column diameter: 0.25

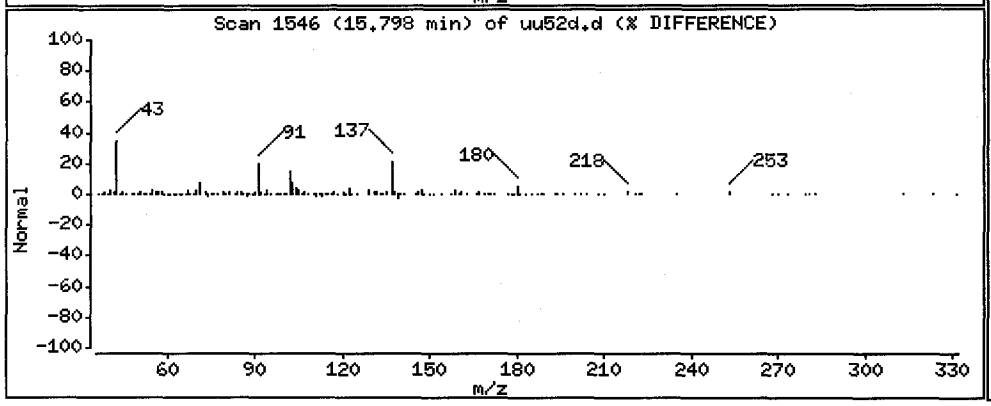
46 Dibenzofuran

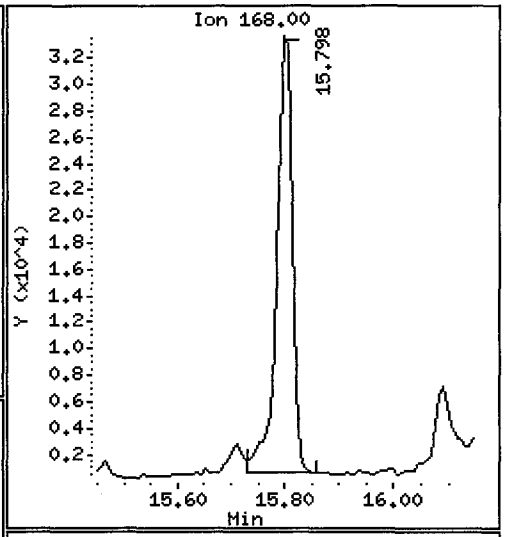
Concentration: 111.0 ug/kg

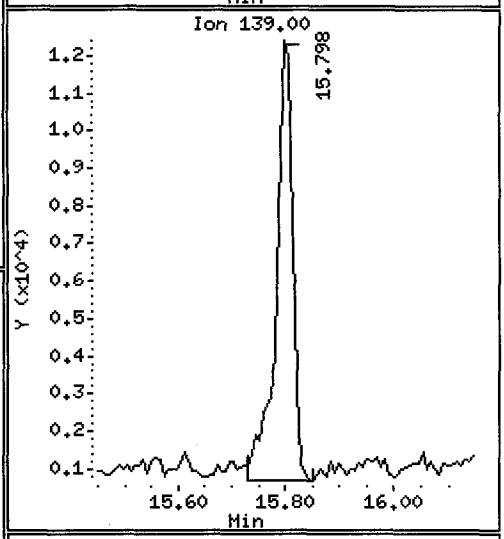


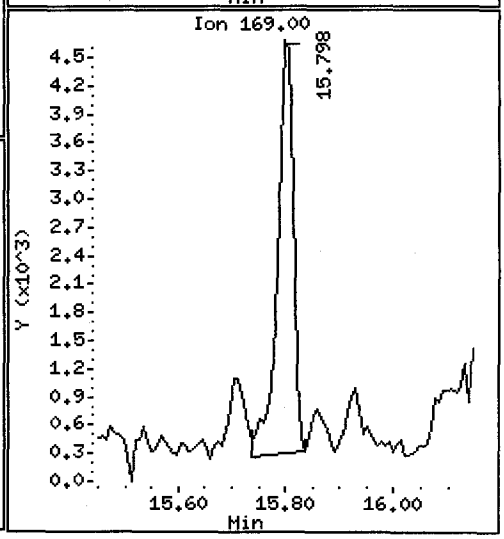












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

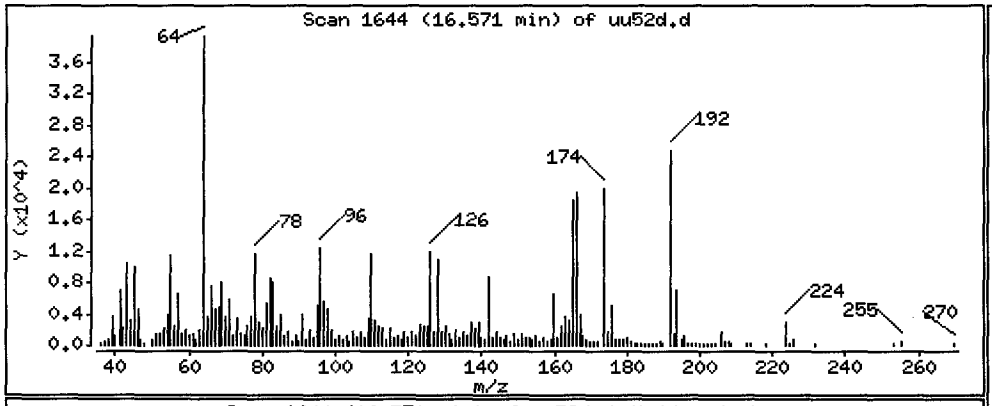
Operator: VTS/YZ

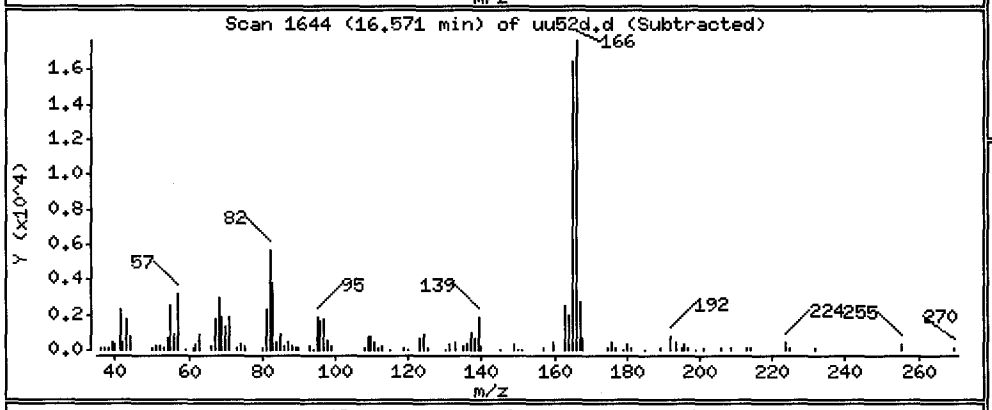
Column phase: ZB-5msi

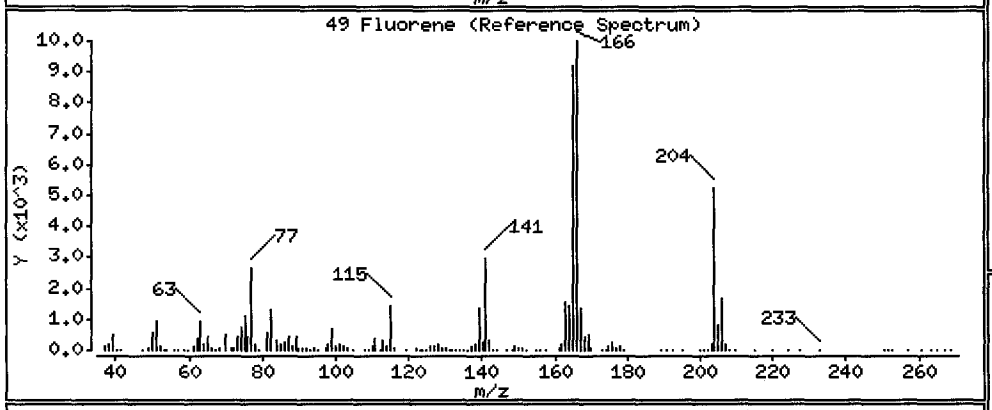
Column diameter: 0.25

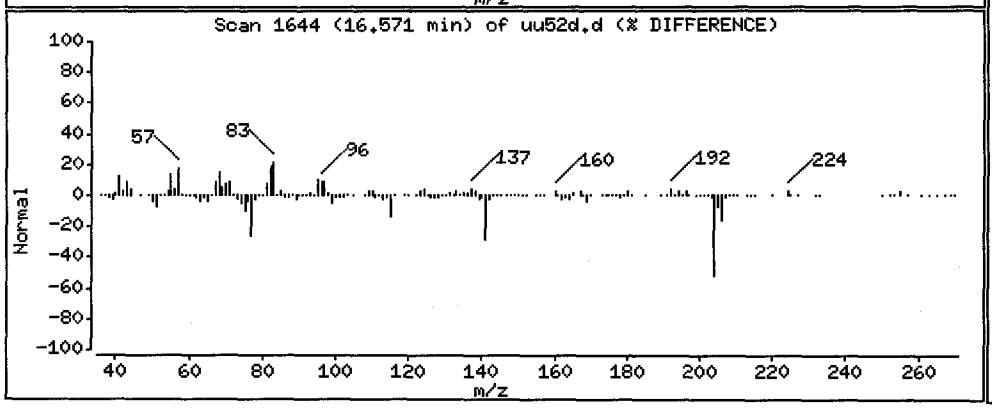
49 Fluorene

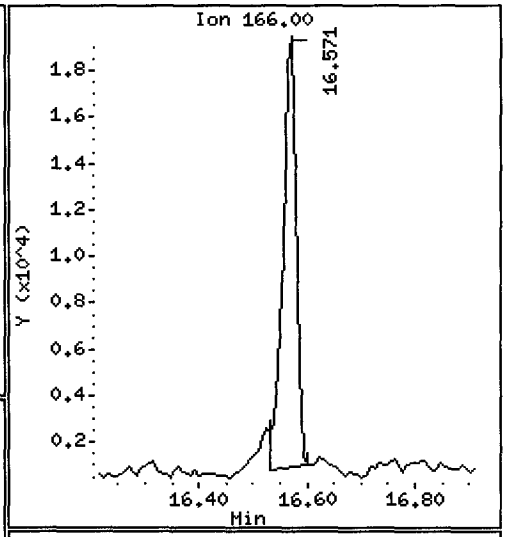
Concentration: 73.13 ug/kg

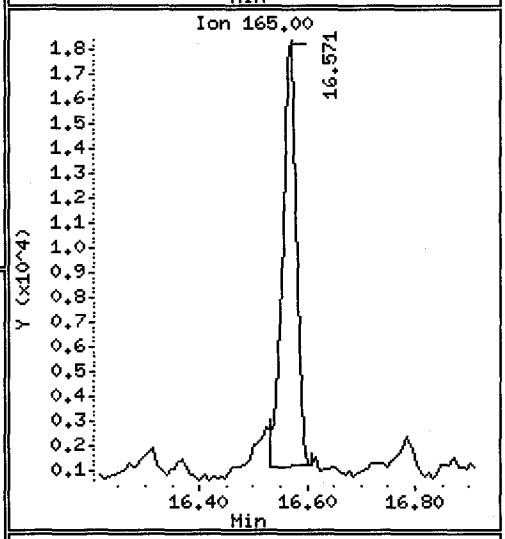


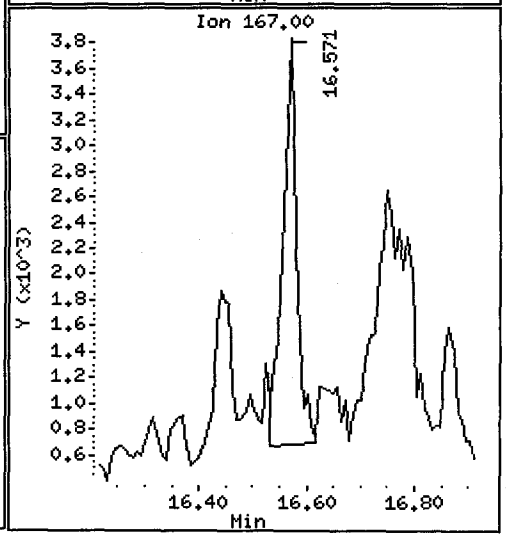












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

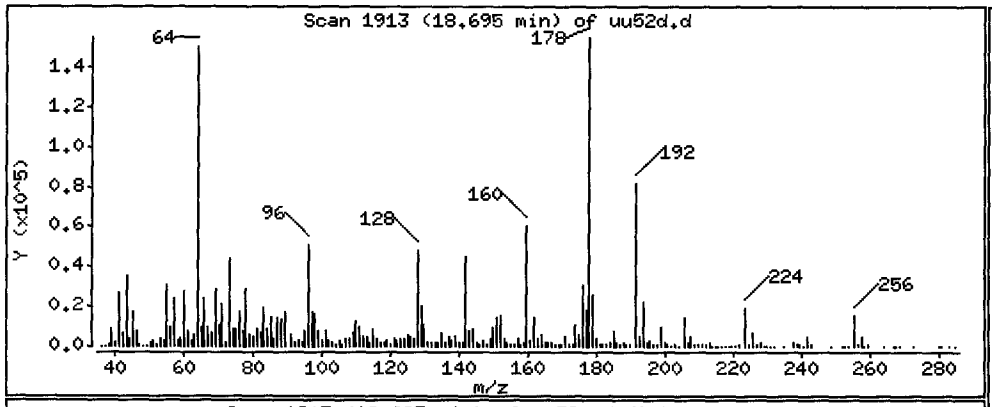
Operator: VTS/YZ

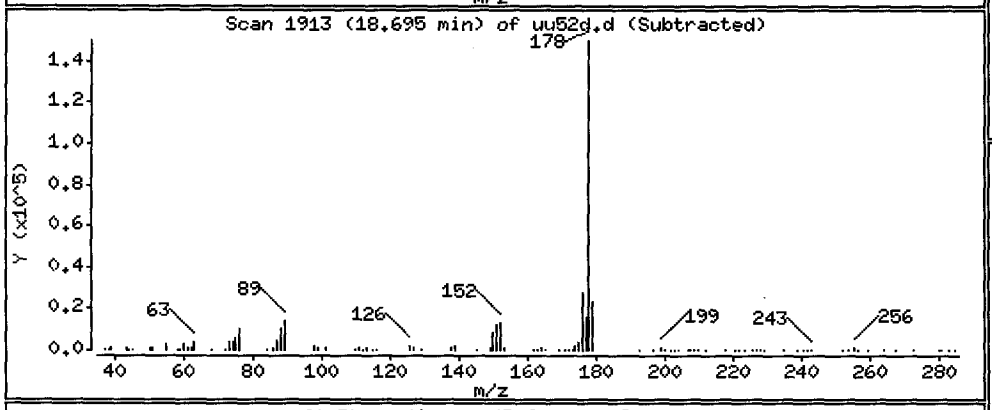
Column phase: ZB-5msi

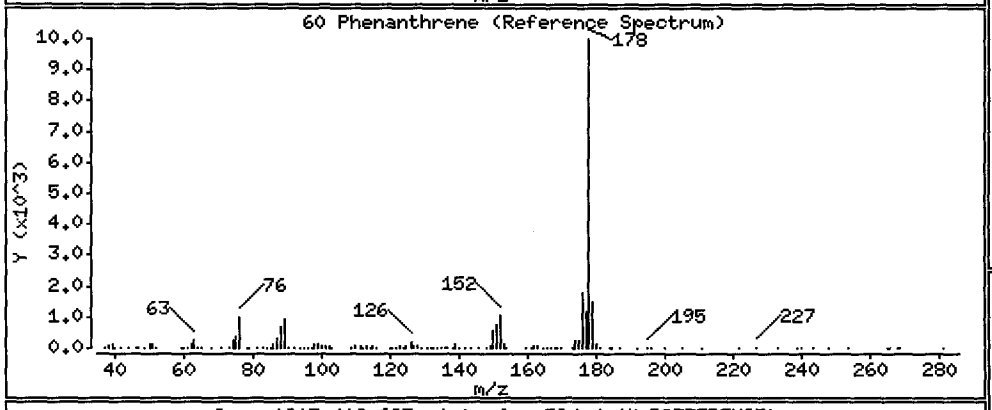
Column diameter: 0.25

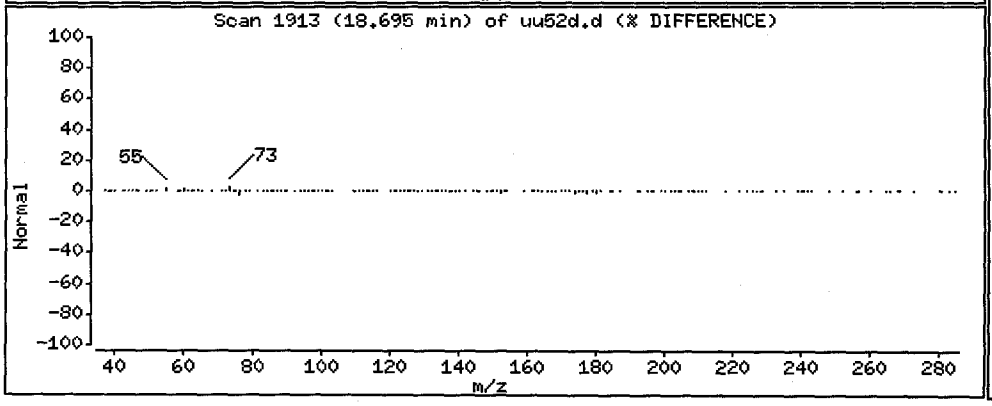
60 Phenanthrene

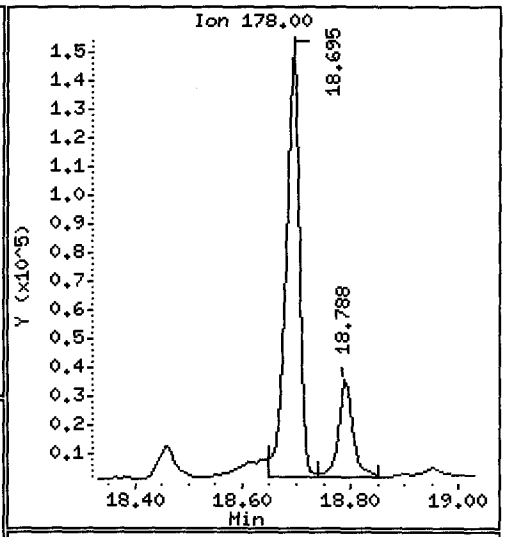
Concentration: 493.3 ug/kg

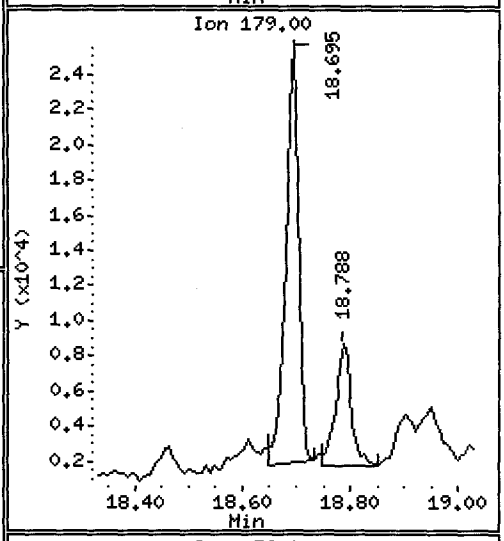


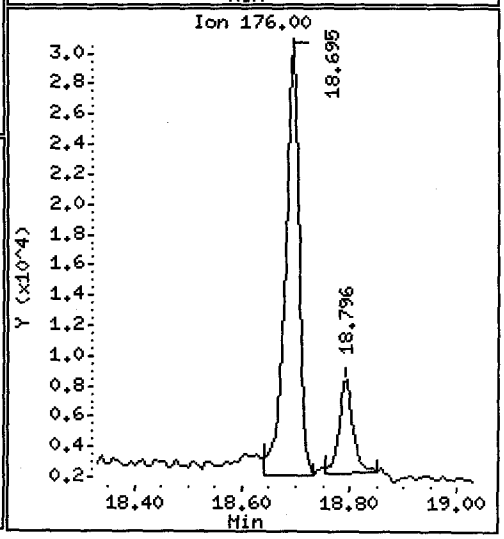












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

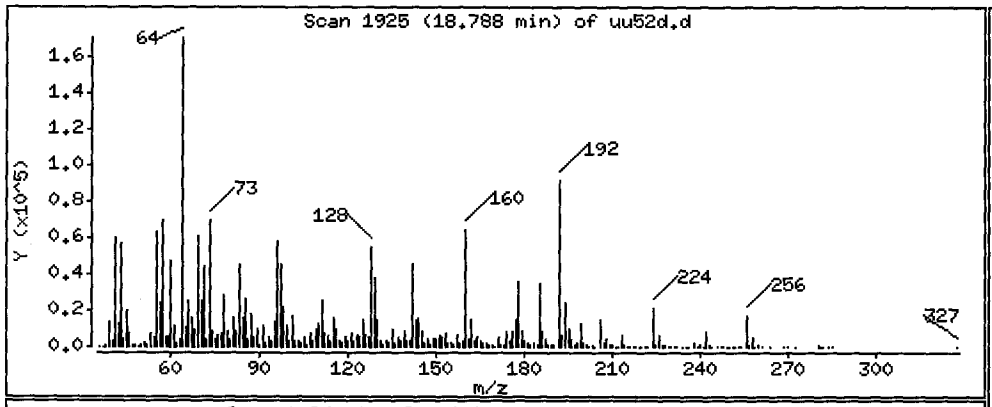
Operator: VTS/YZ

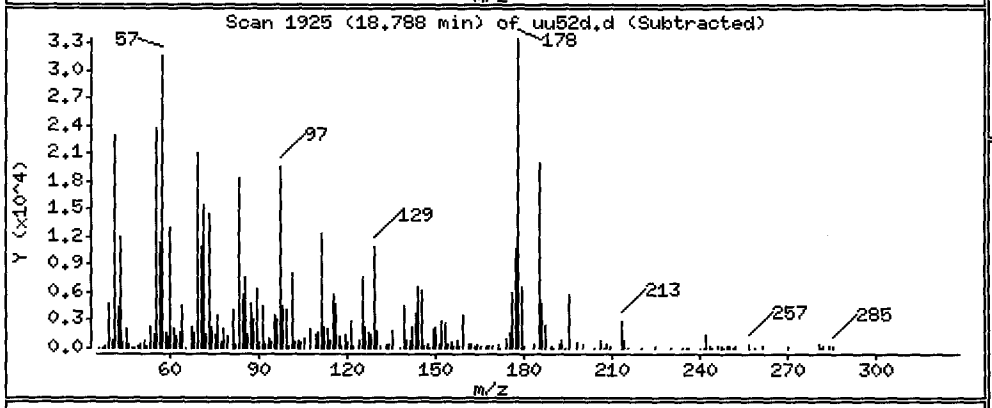
Column phase: ZB-5msi

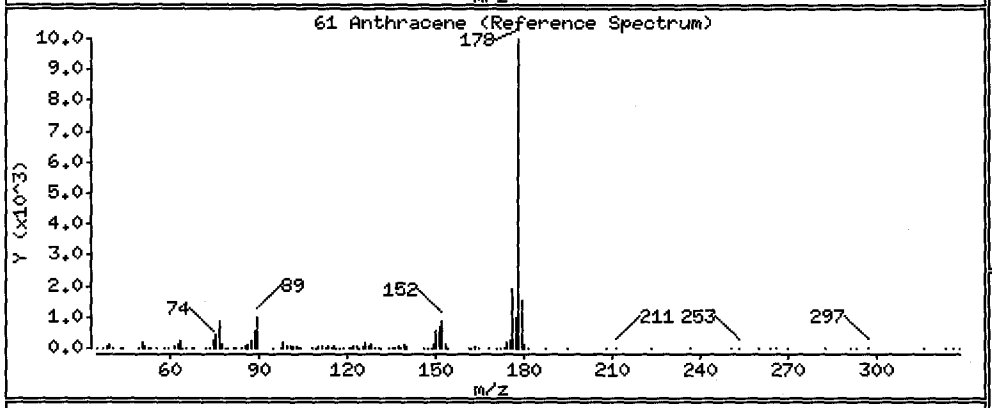
Column diameter: 0.25

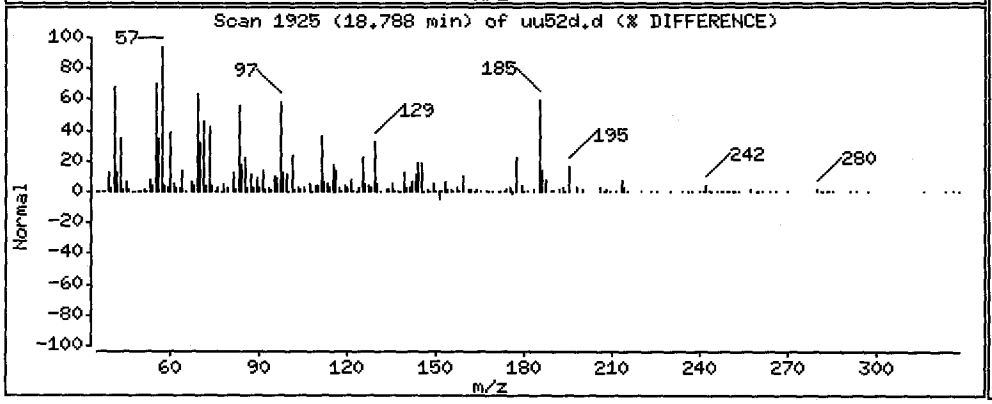
61 Anthracene

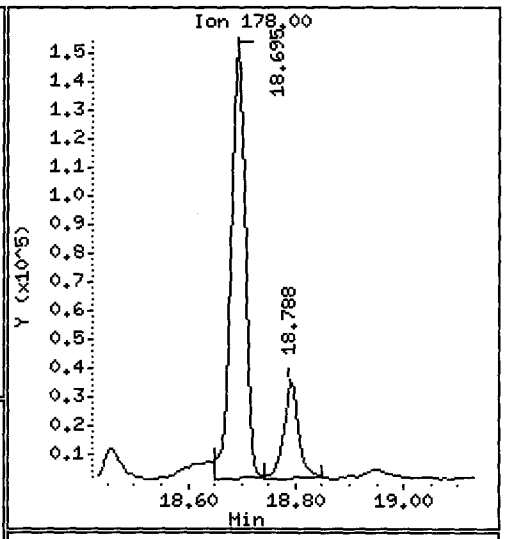
Concentration: 117.1 ug/kg

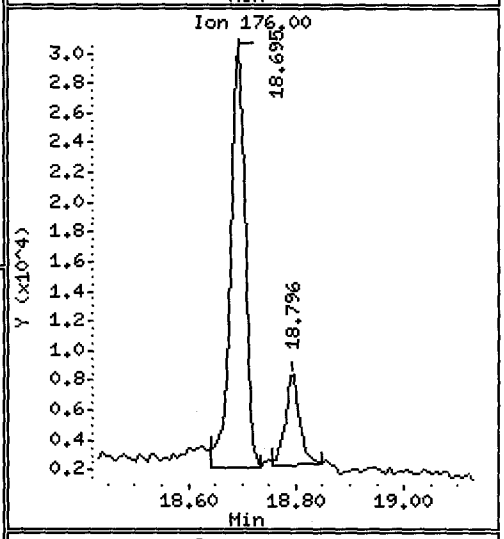


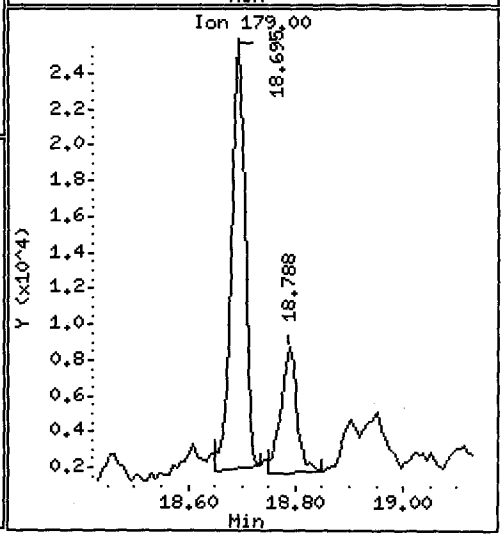












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

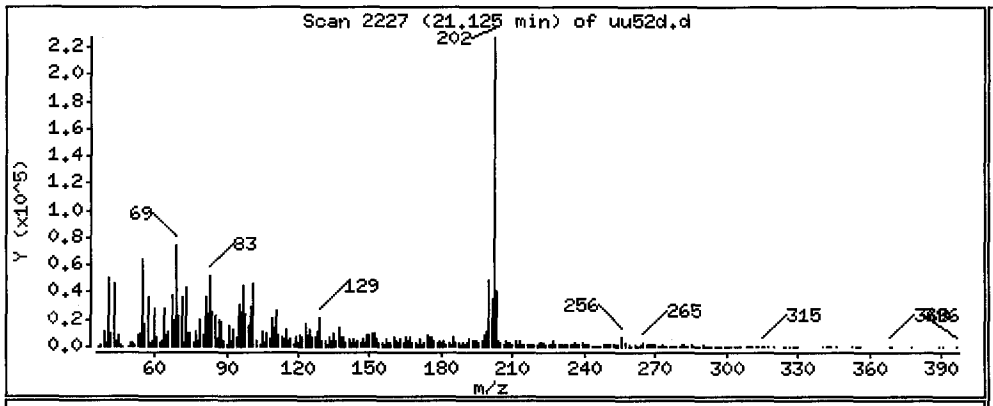
Operator: VTS/YZ

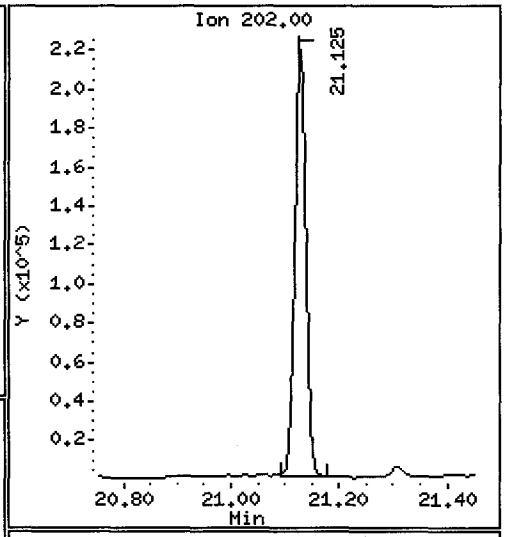
Column phase: ZB-5msi

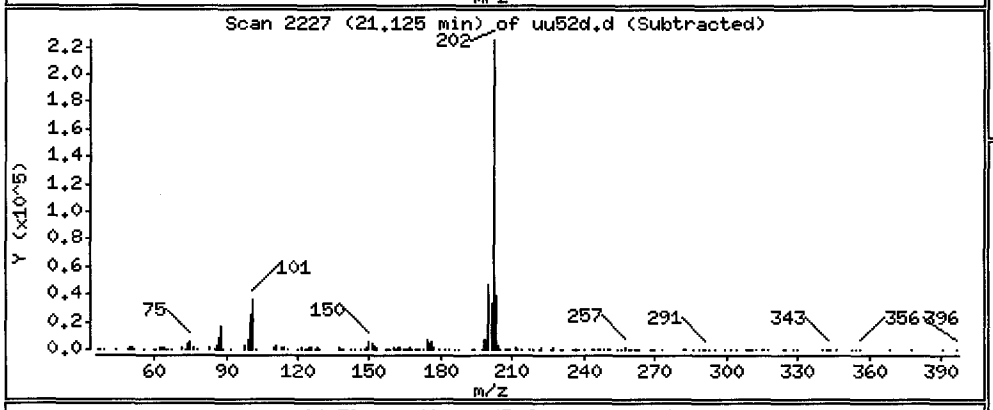
Column diameter: 0.25

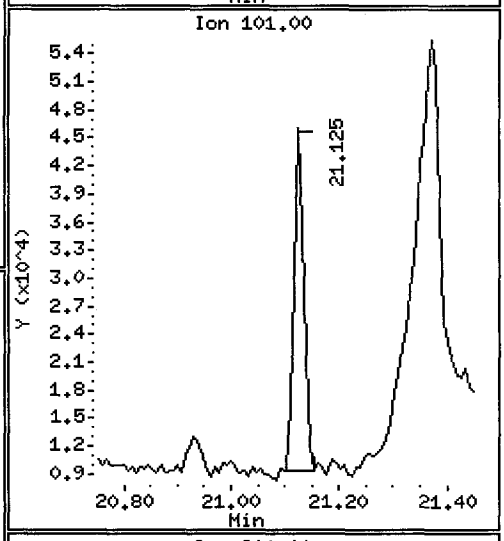
64 Fluoranthene

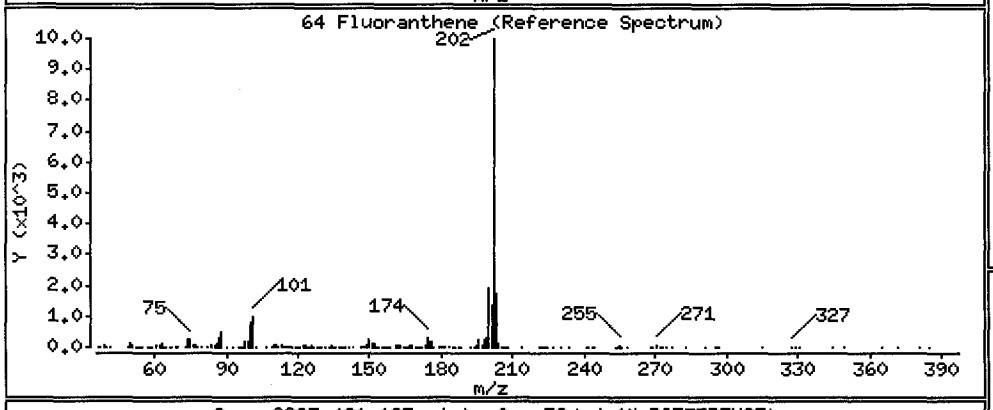
Concentration: 546.9 ug/kg

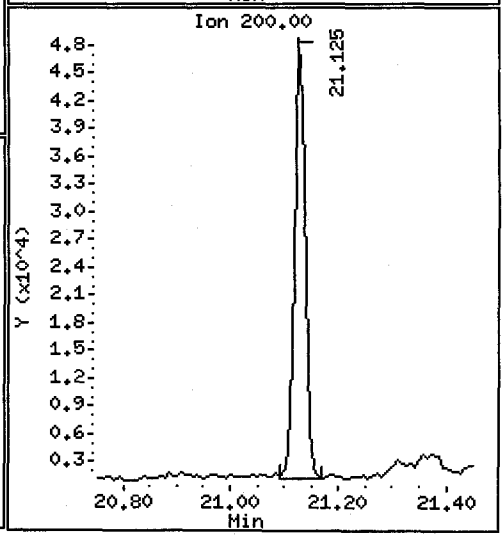


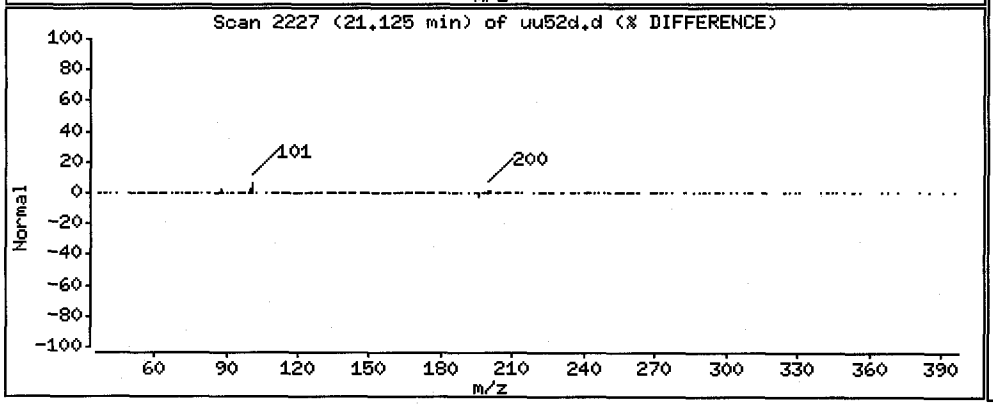












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

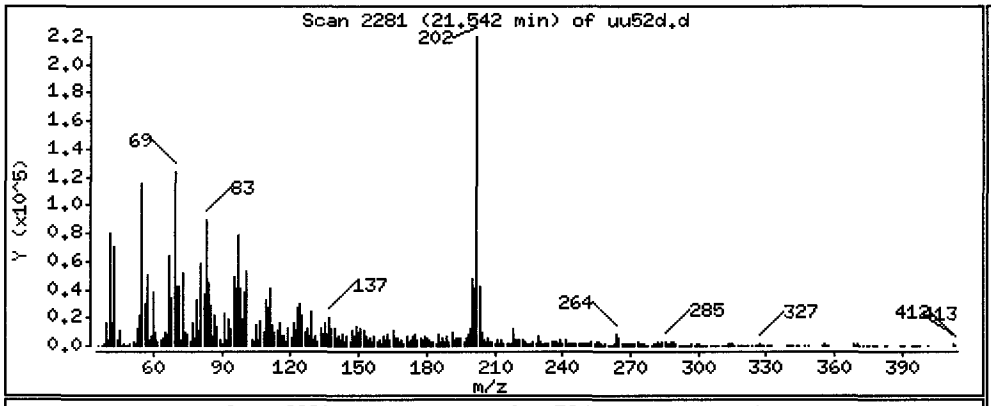
Operator: VTS/YZ

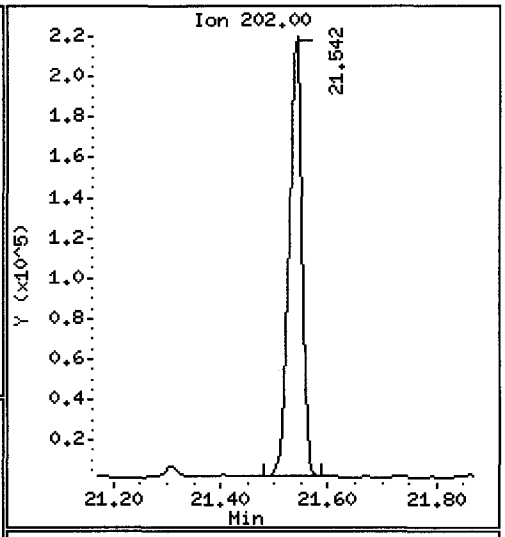
Column phase: ZB-5msi

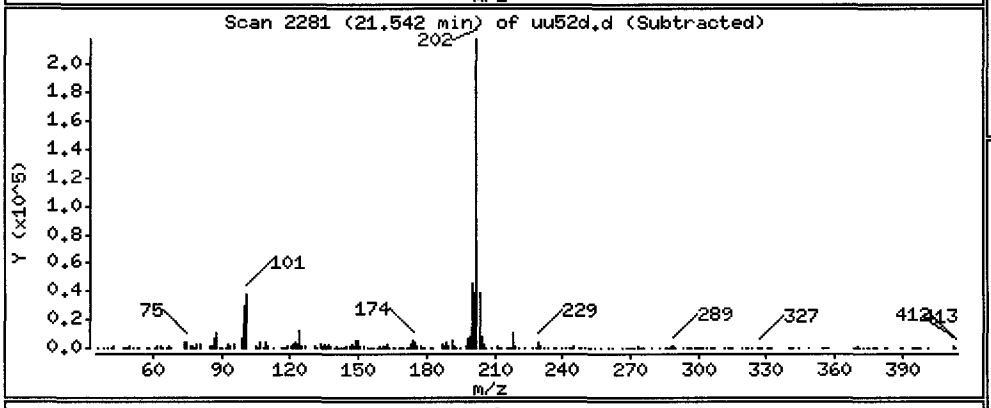
Column diameter: 0.25

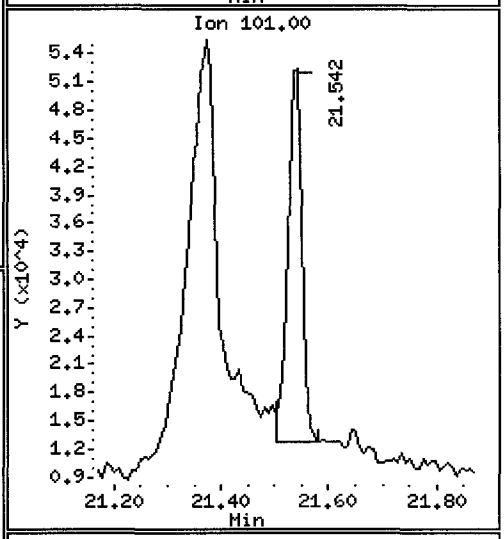
65 Pyrene

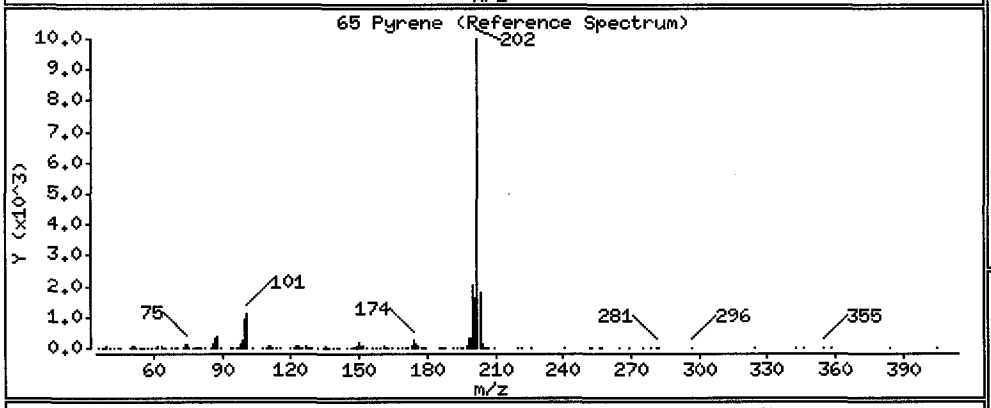
Concentration: 504.5 ug/kg

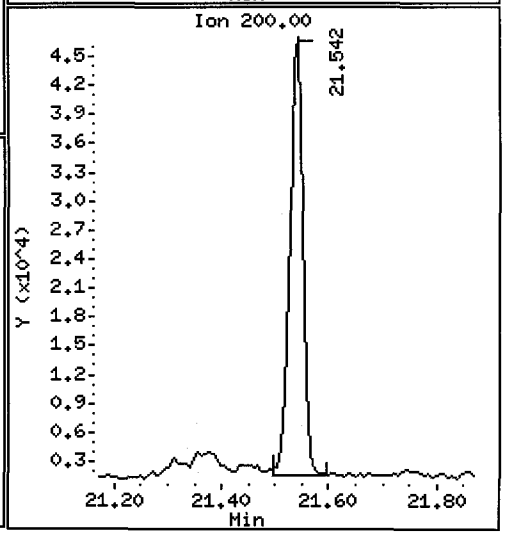


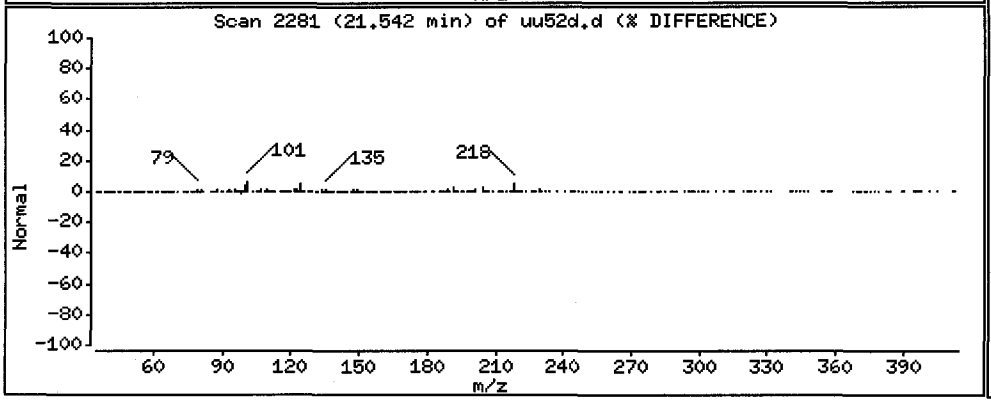












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

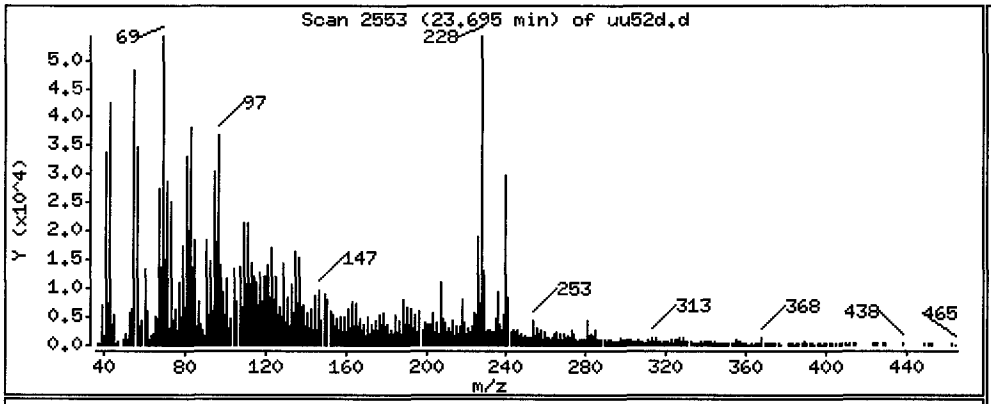
Operator: VTS/YZ

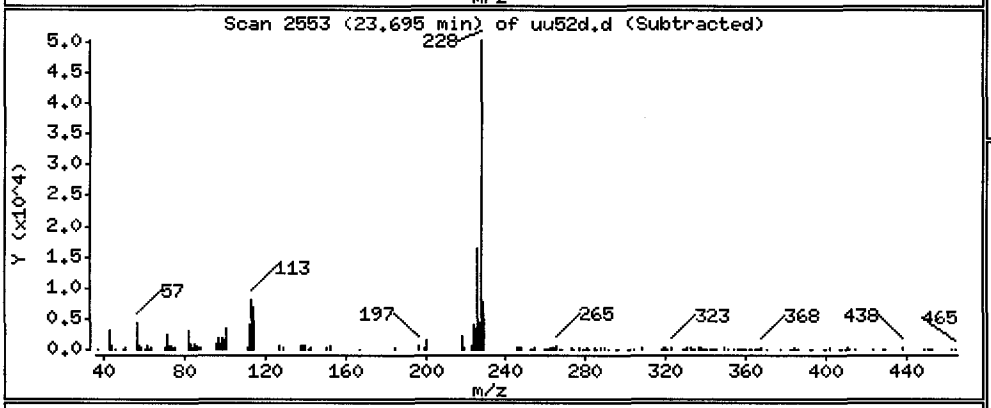
Column phase: ZB-5msi

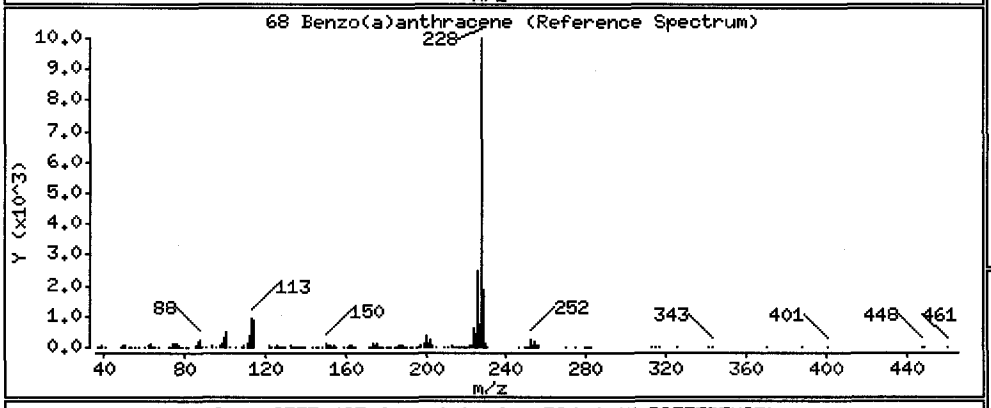
Column diameter: 0.25

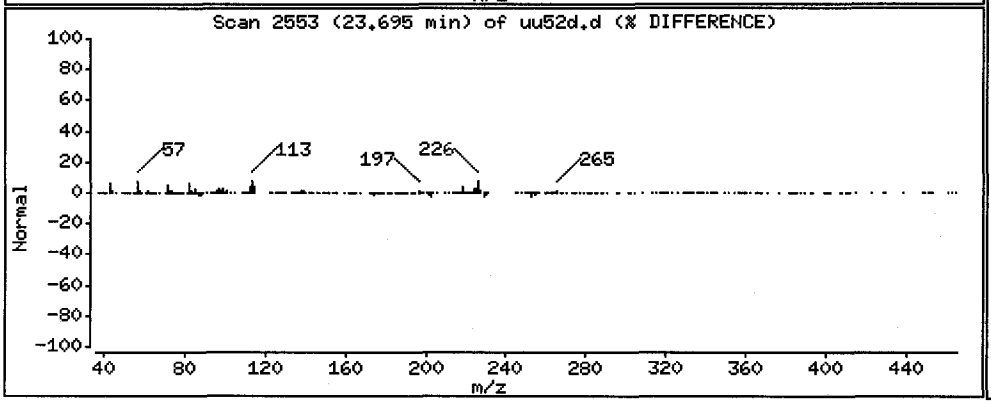
68 Benzo(a)anthracene

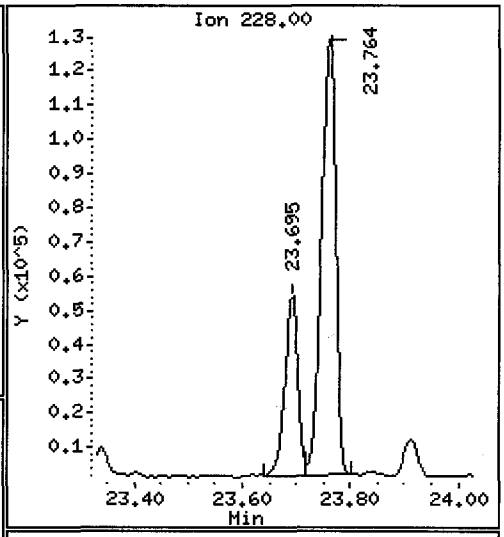
Concentration: 131.7 ug/kg

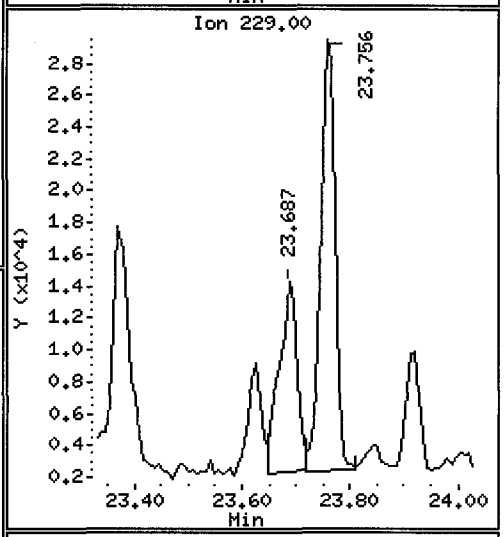


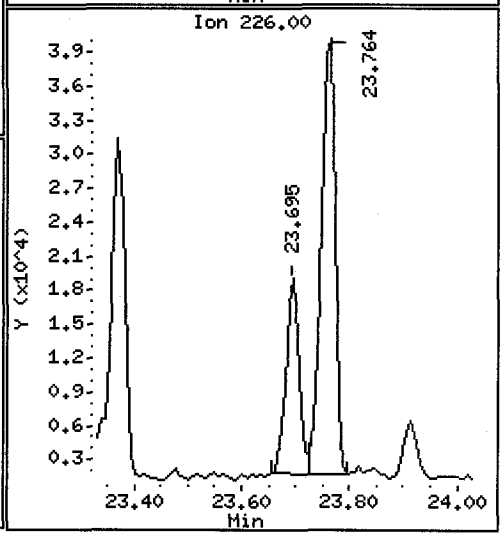












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

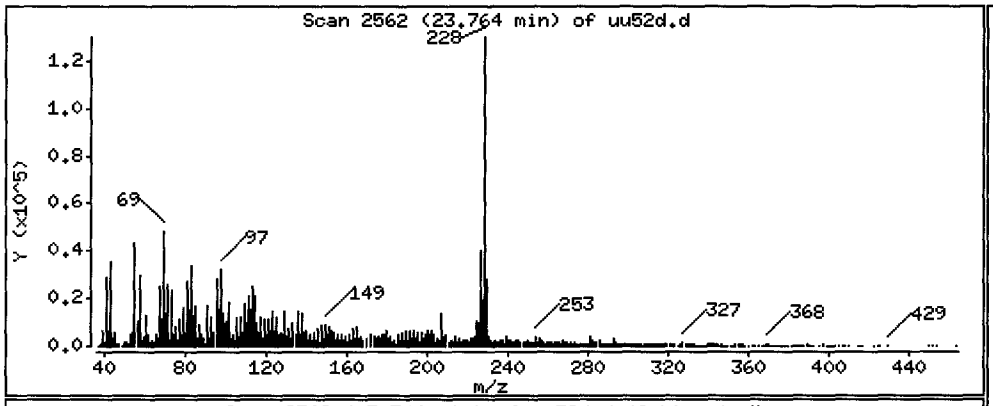
Operator: VTS/YZ

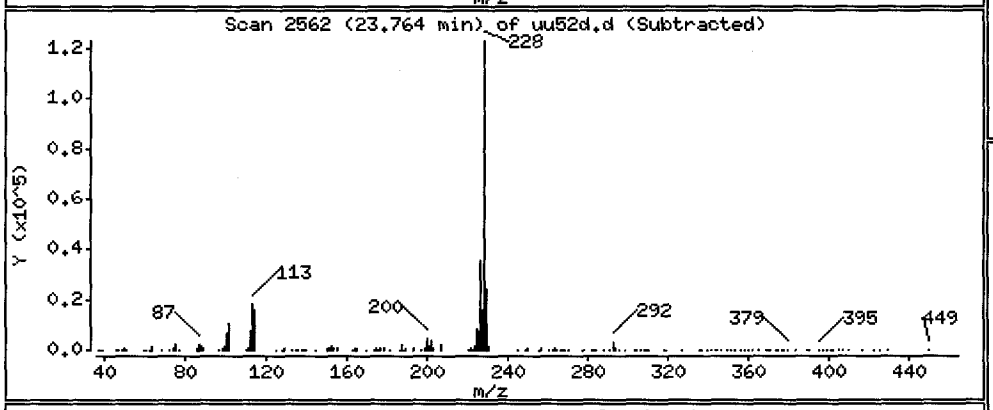
Column phase: ZB-5msi

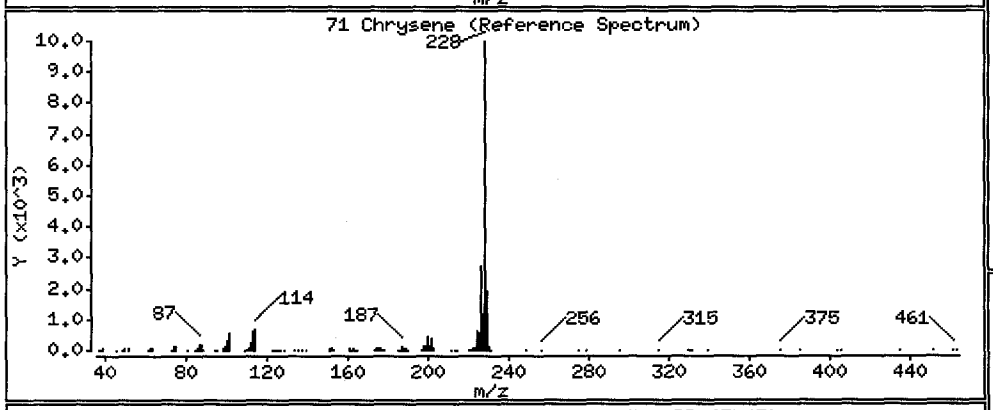
Column diameter: 0.25

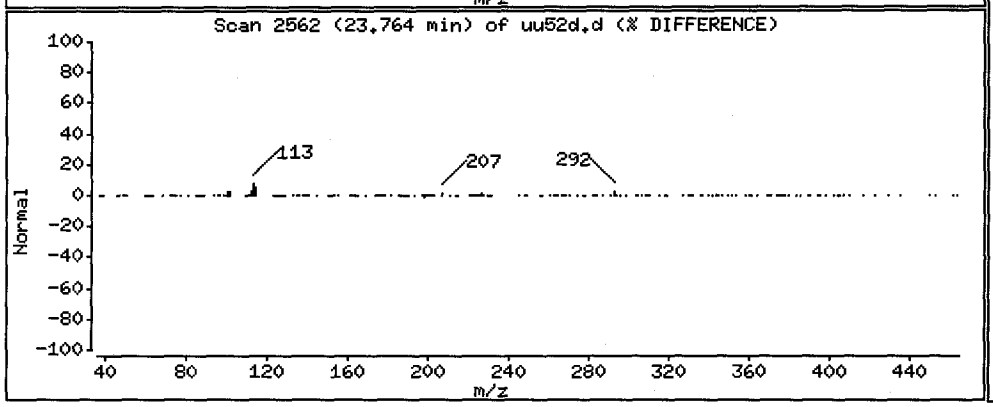
71 Chrysene

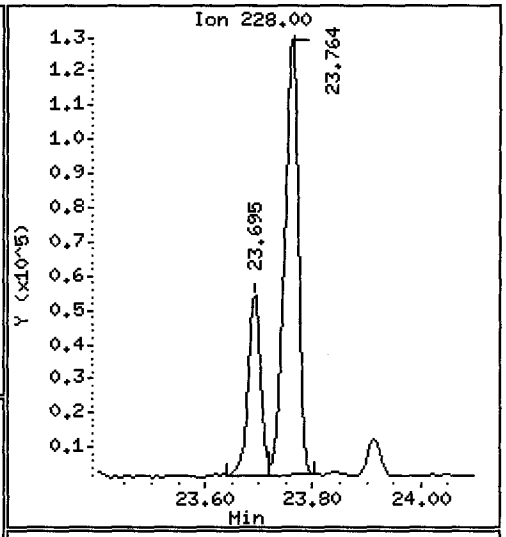
Concentration: 384.9 ug/kg

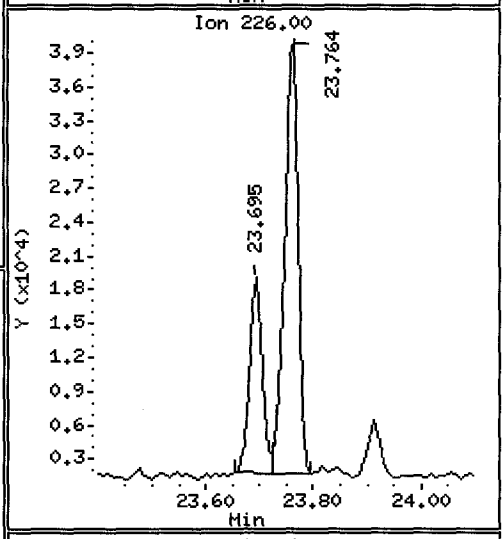


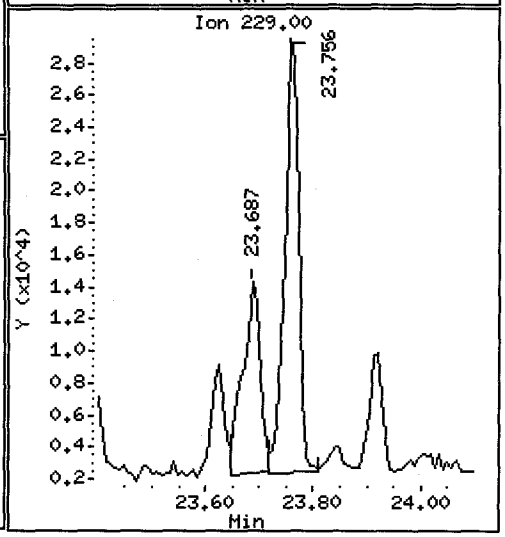












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

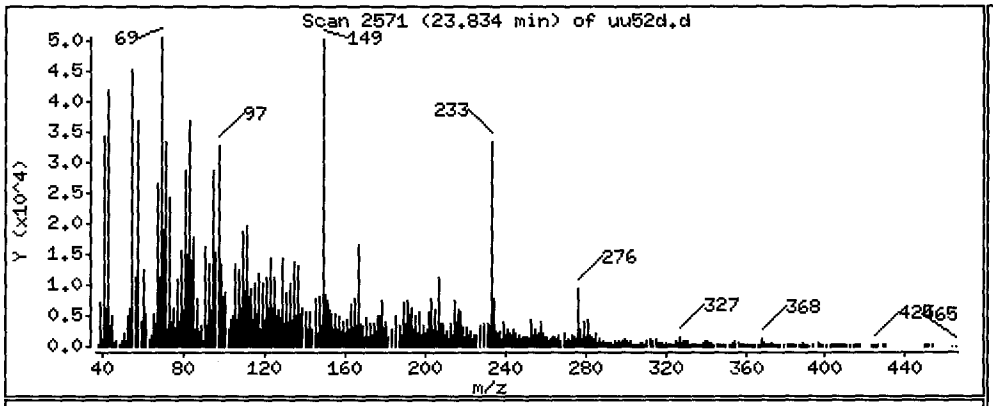
Operator: VTS/YZ

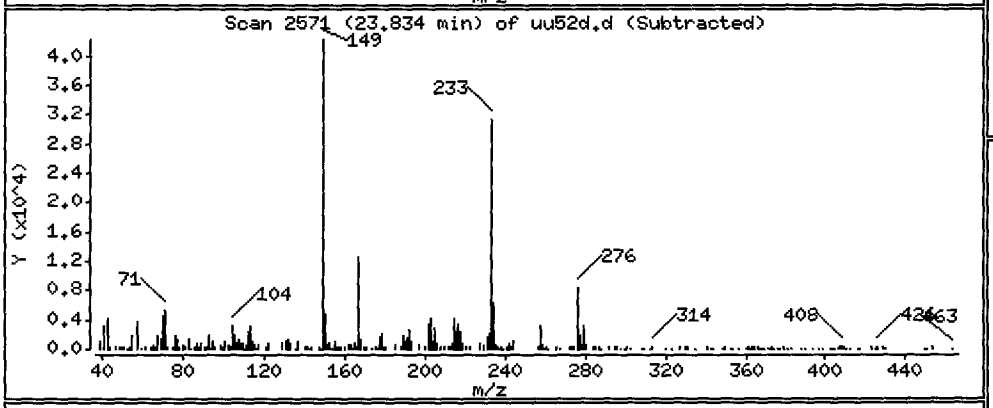
Column phase: ZB-5msi

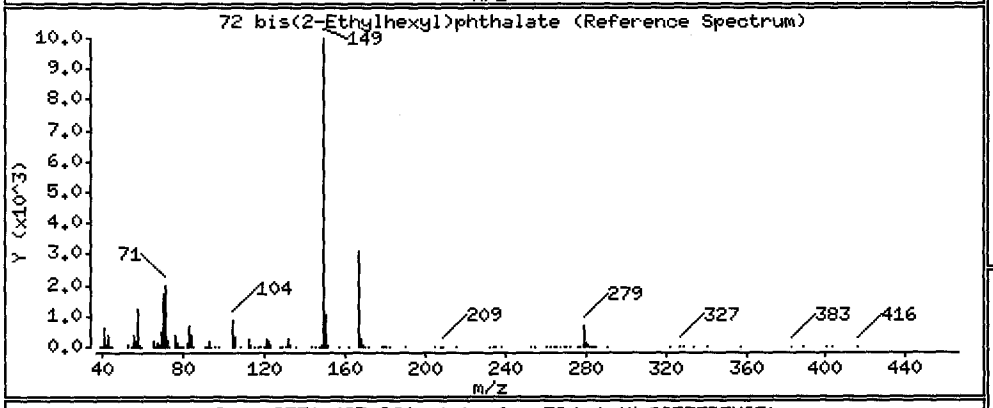
Column diameter: 0.25

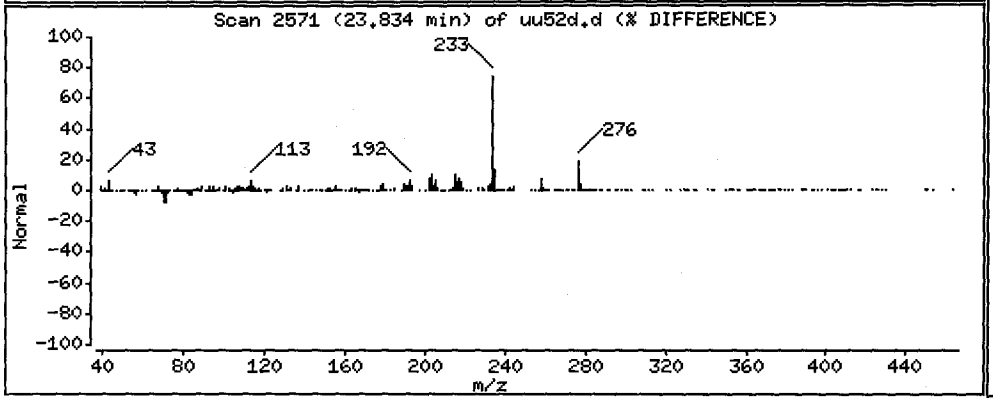
72 bis(2-Ethylhexyl)phthalate

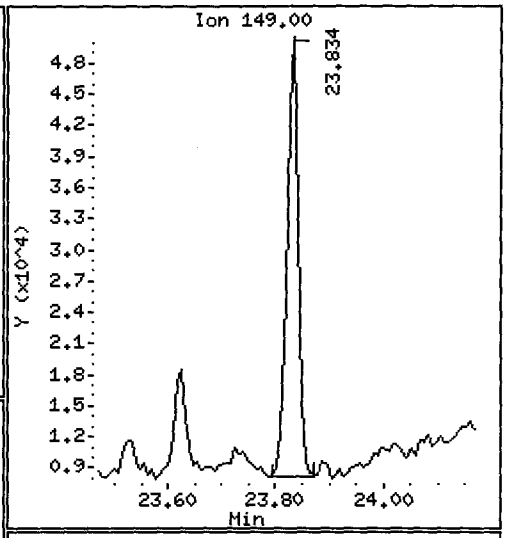
Concentration: 121.4 ug/kg

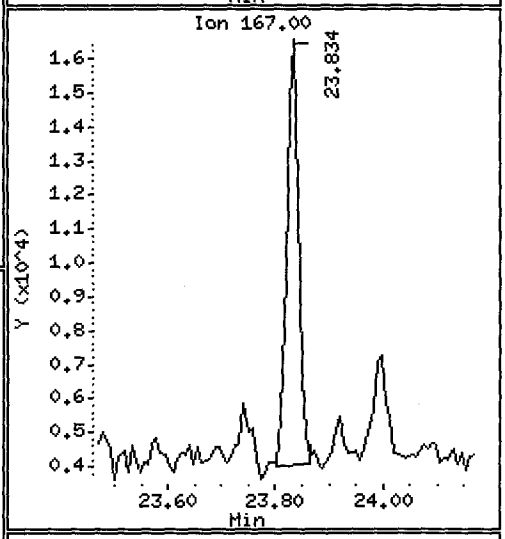


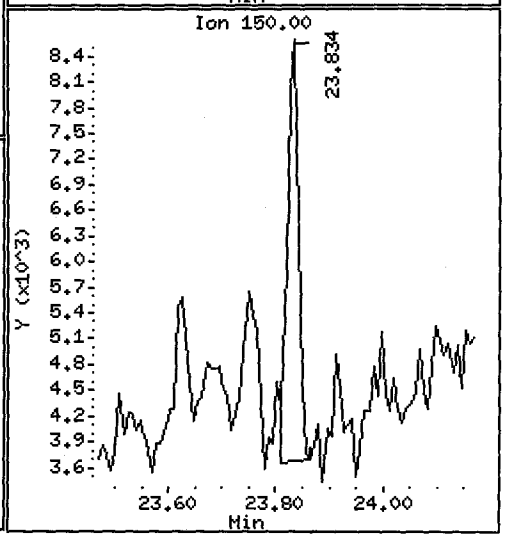






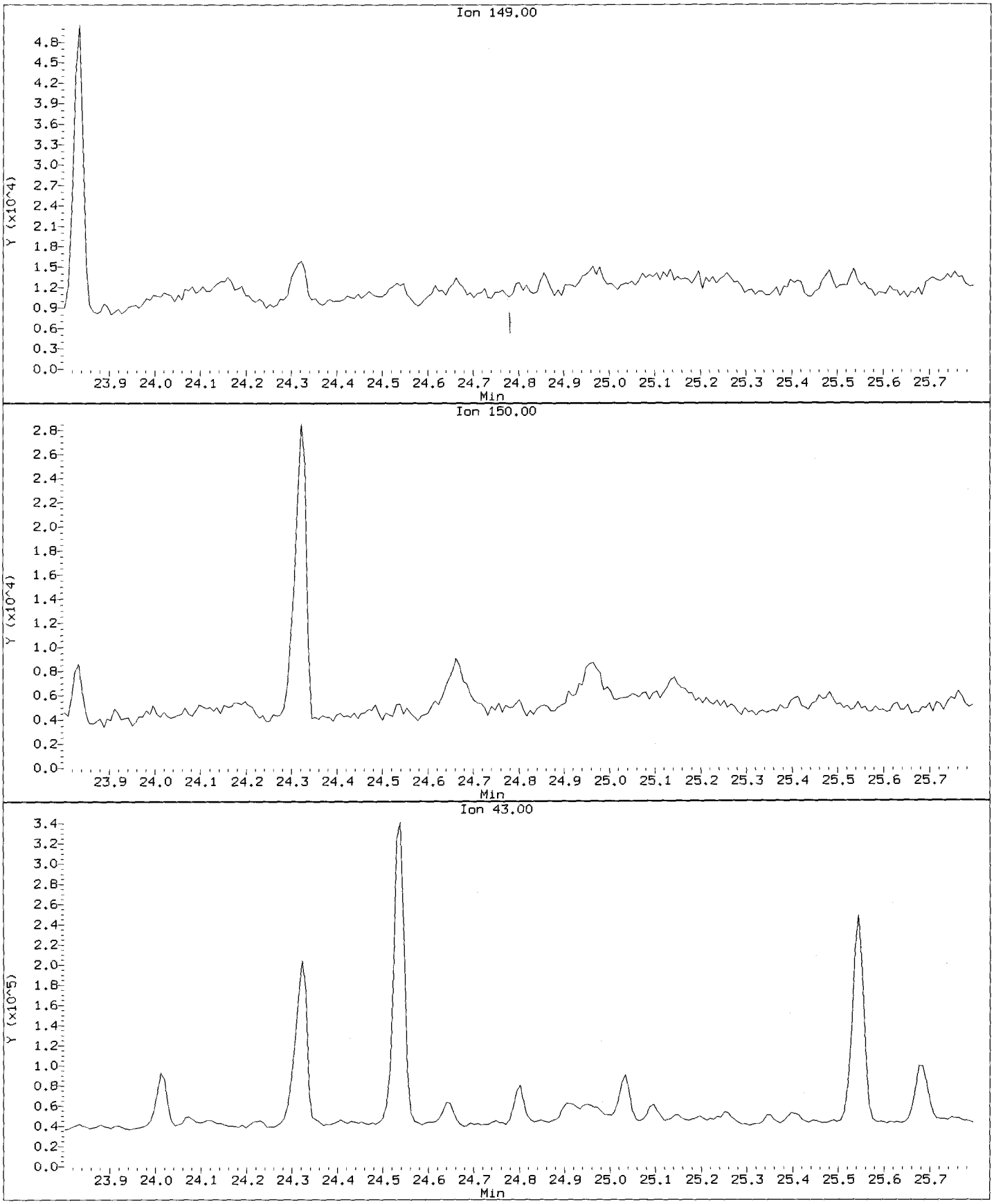






Data File: /chem1/nt10.i/20120526.b/uu52d.d
Injection Date: 26-MAY-2012 19:02
Instrument: nt10.i
Client Sample ID: MS003-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

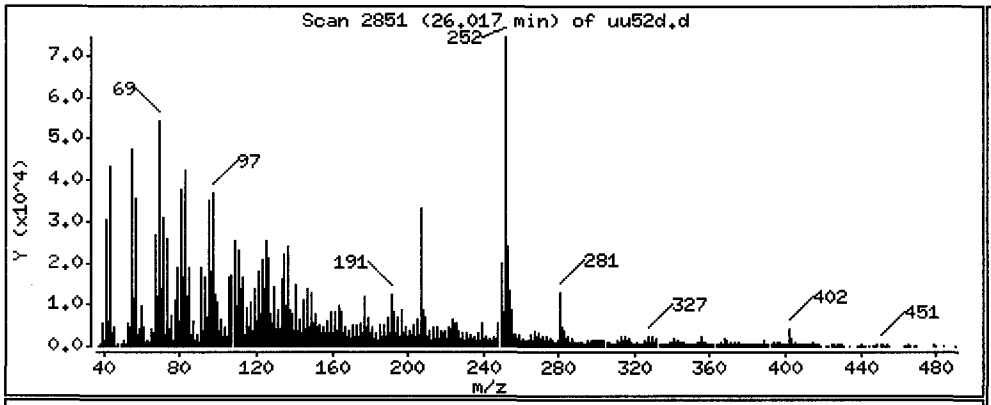
Operator: VTS/YZ

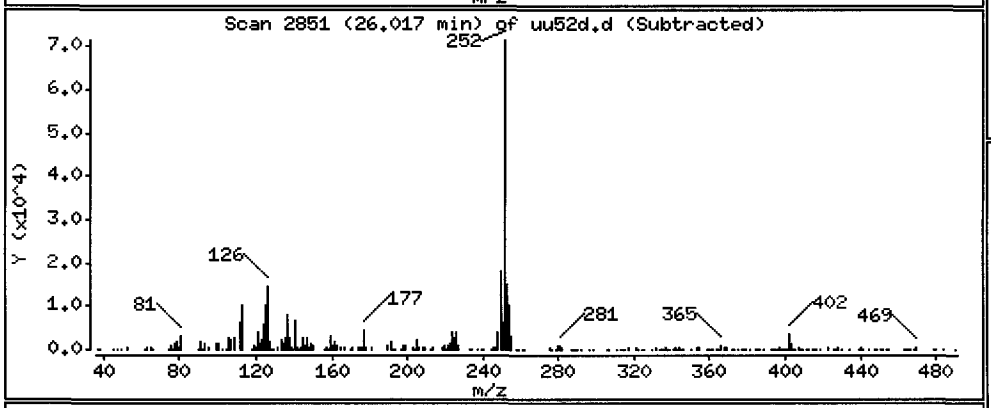
Column phase: ZB-5msi

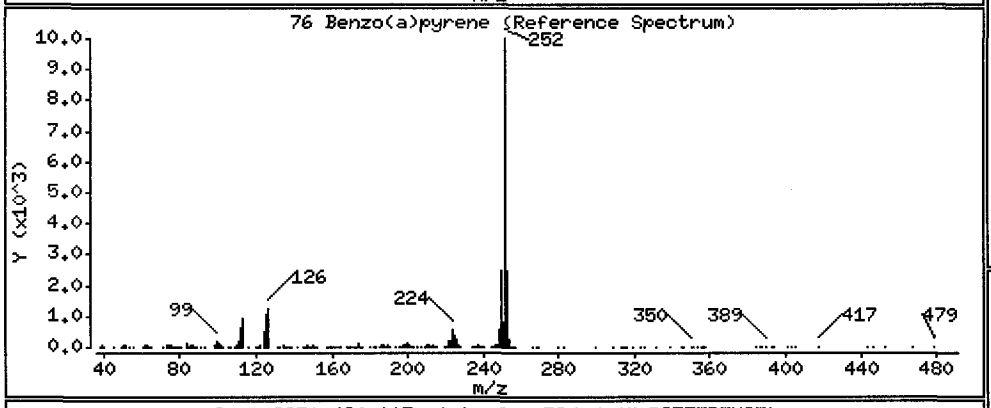
Column diameter: 0.25

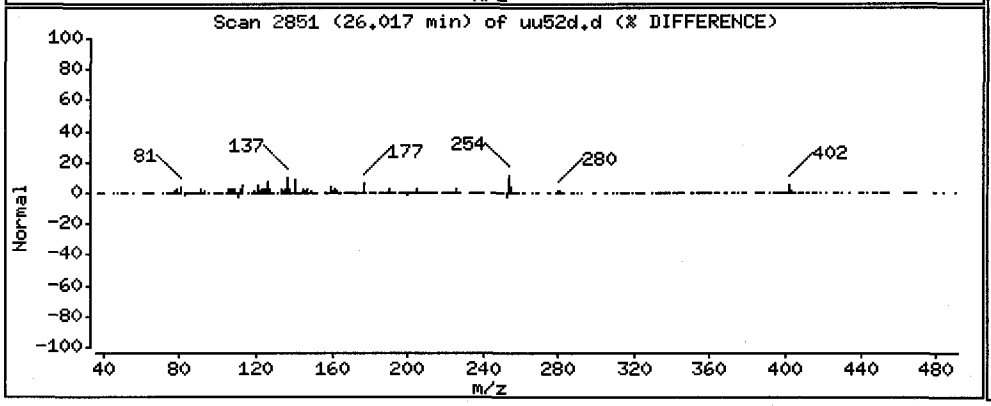
76 Benzo(a)pyrene

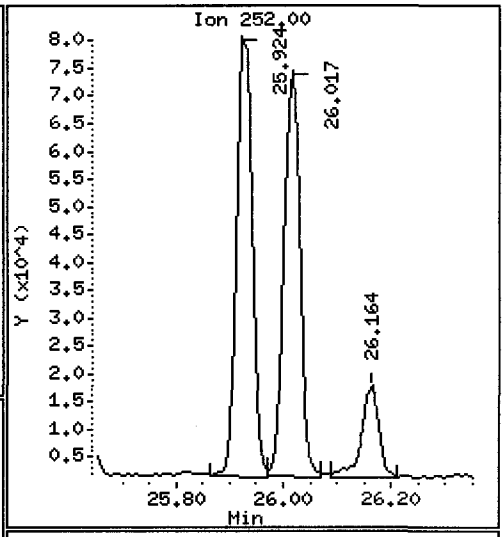
Concentration: 245.7 ug/kg

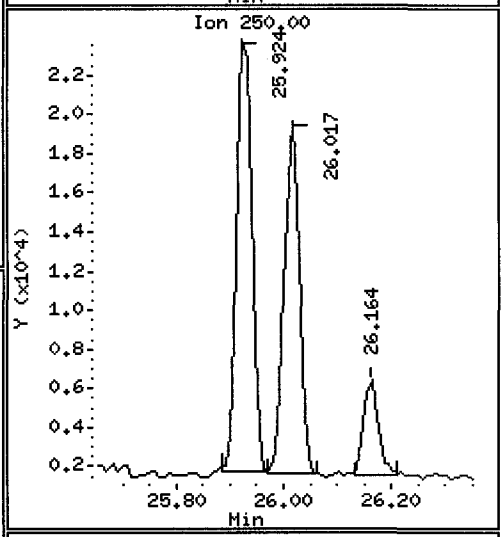


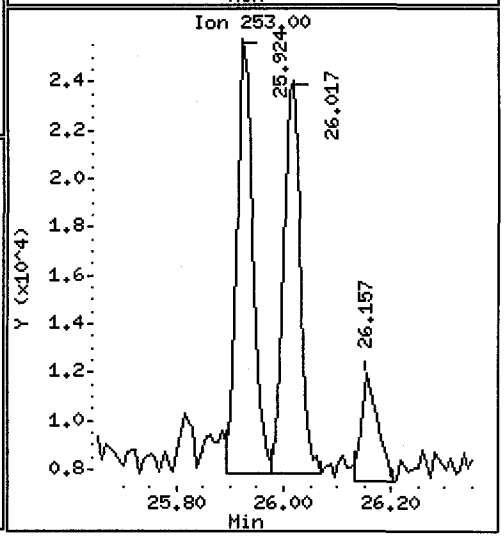












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

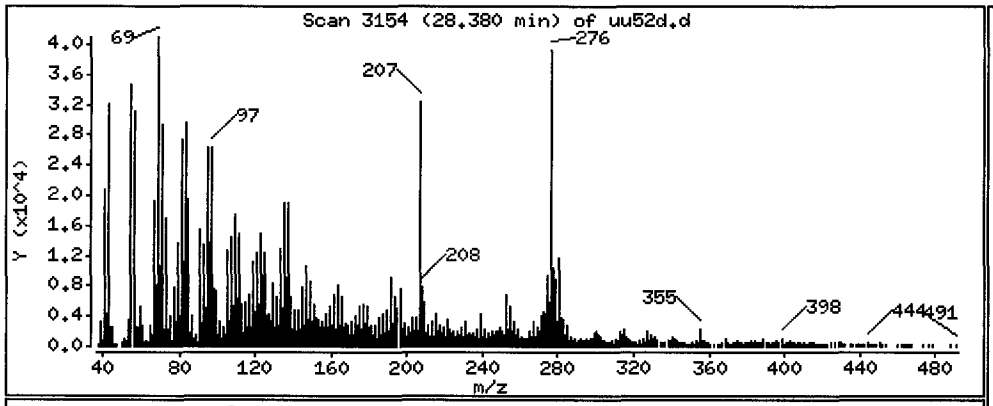
Operator: VTS/YZ

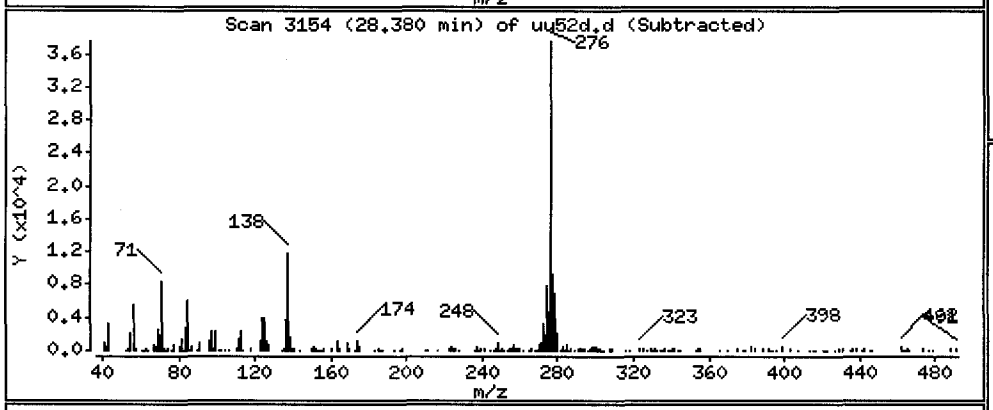
Column phase: ZB-5msi

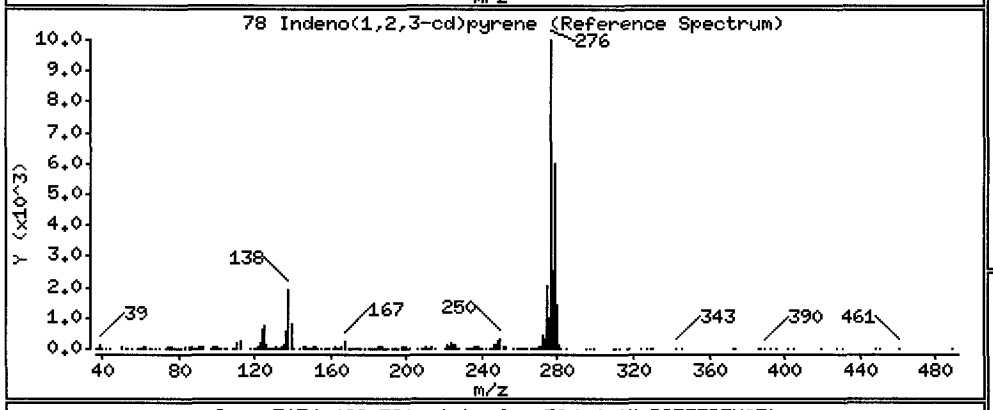
Column diameter: 0.25

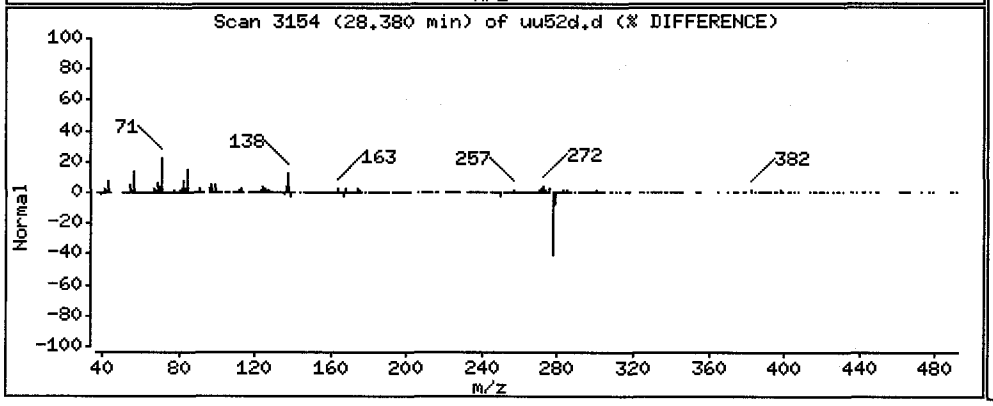
78 Indeno(1,2,3-cd)pyrene

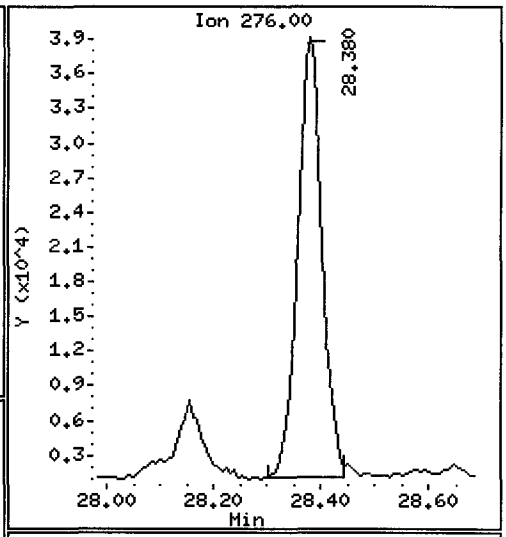
Concentration: 173.5 ug/kg

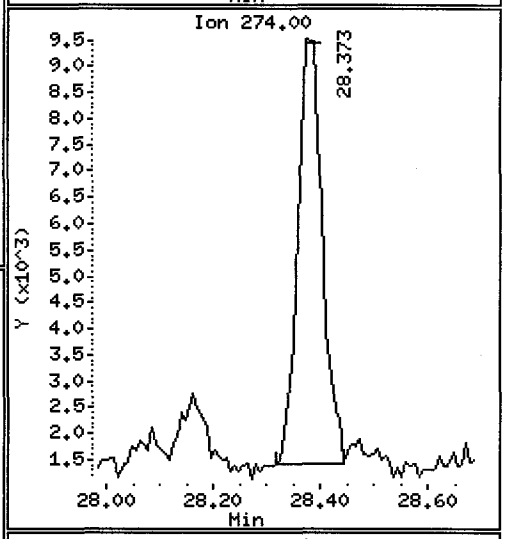


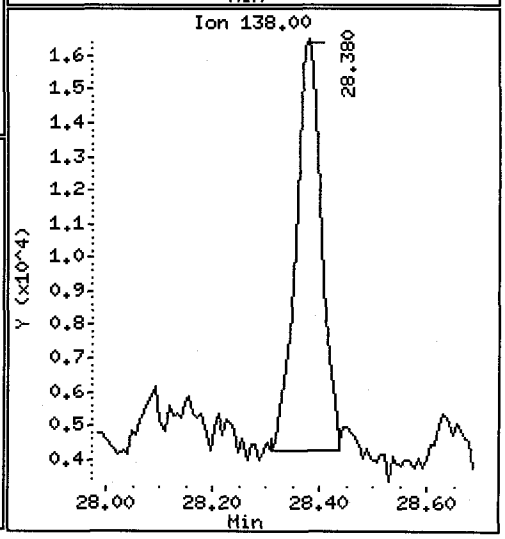












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

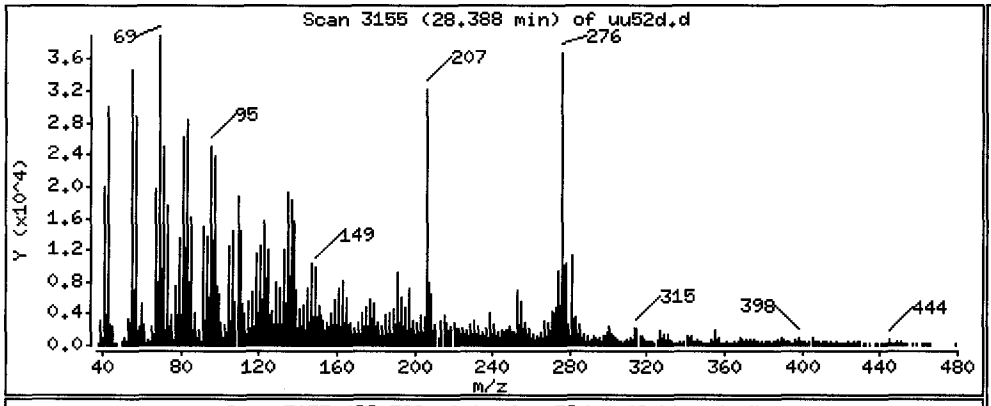
Operator: VTS/YZ

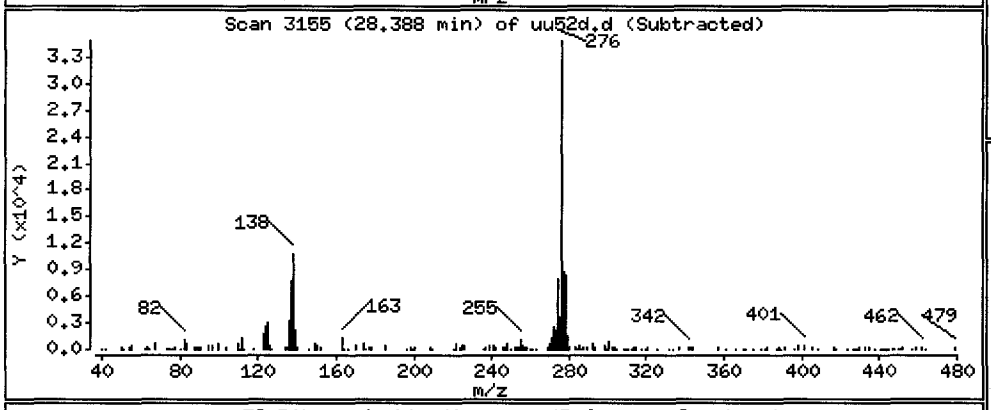
Column phase: ZB-5msi

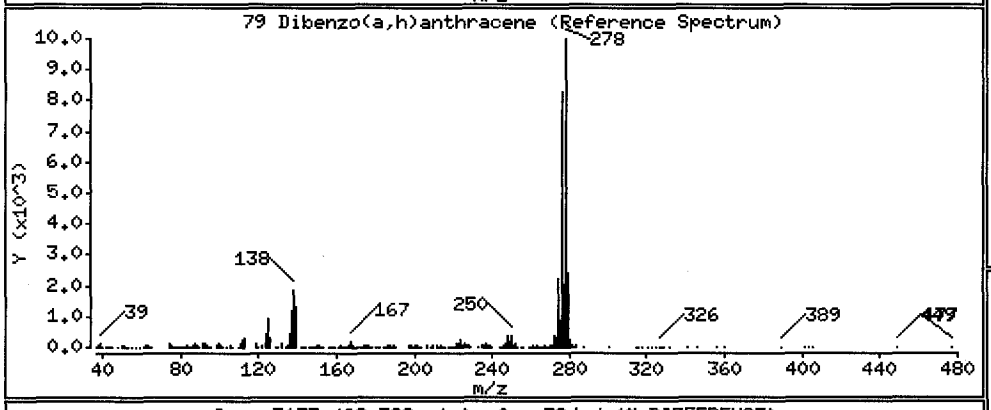
Column diameter: 0.25

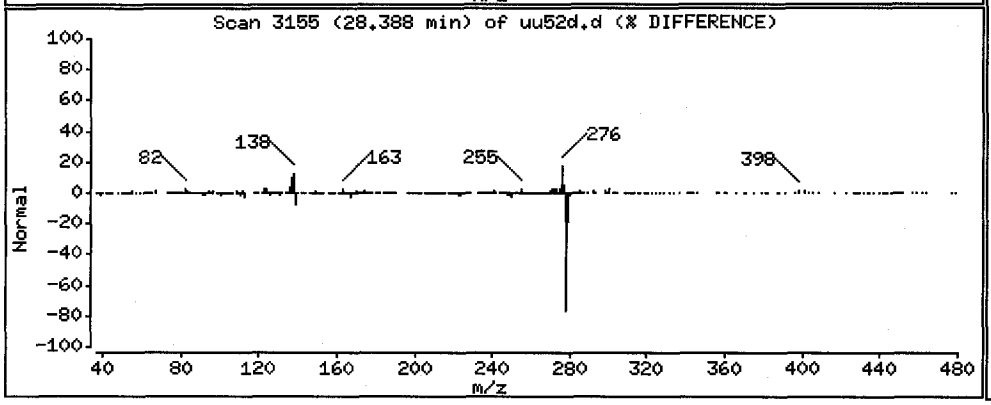
79 Dibenzo(a,h)anthracene

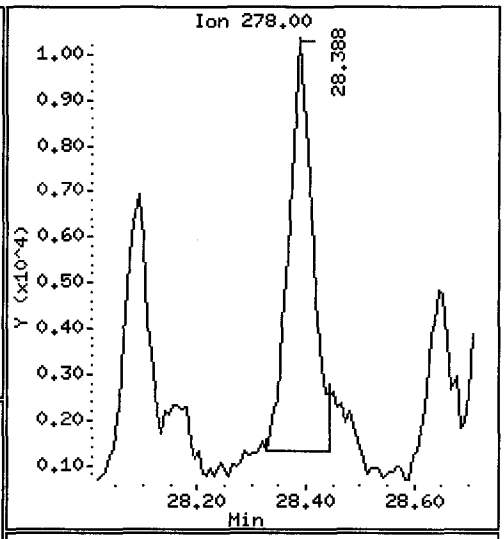
Concentration: 50.12 ug/kg

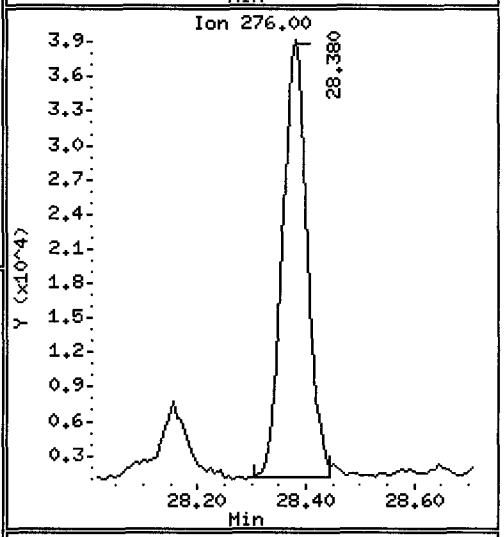


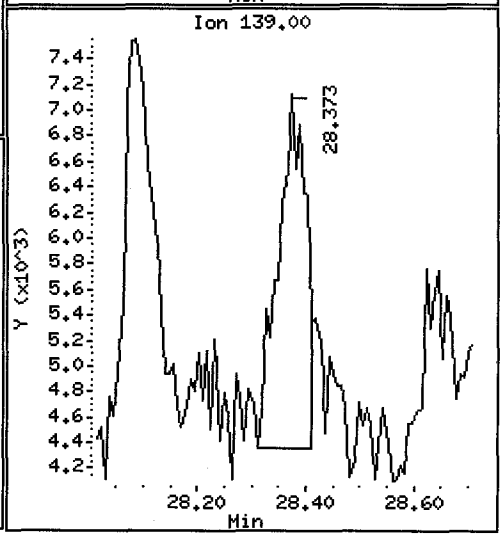












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

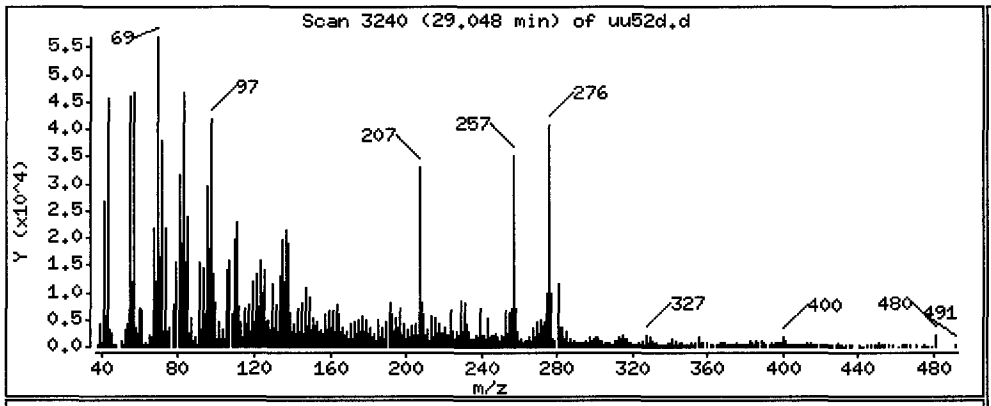
Client ID: MS003-SS-120515 Instrument: nt10.i

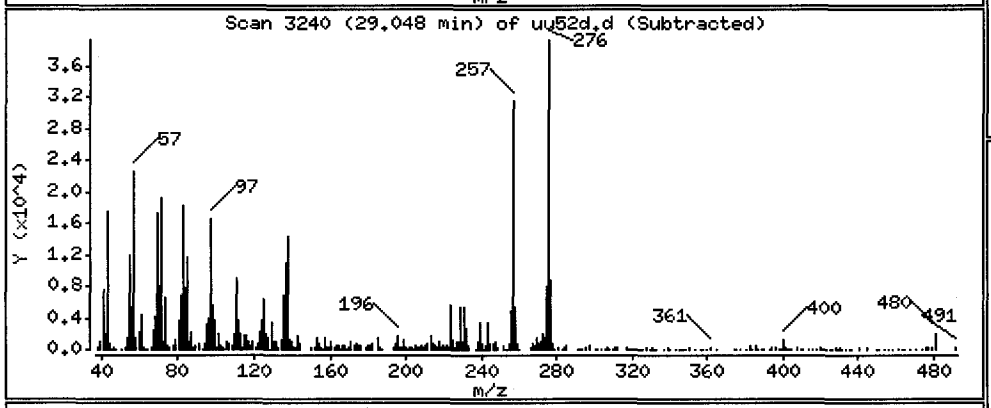
Sample Info: UU52D,3

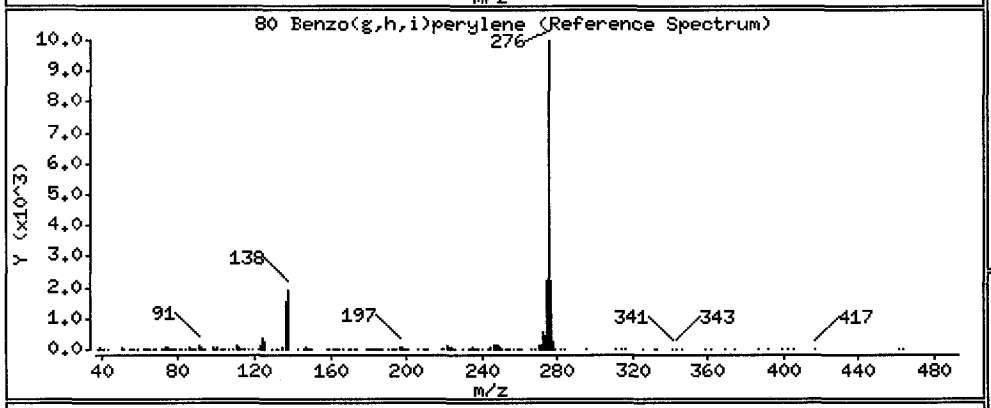
Volume Injected (uL): 1.0 Operator: VTS/YZ

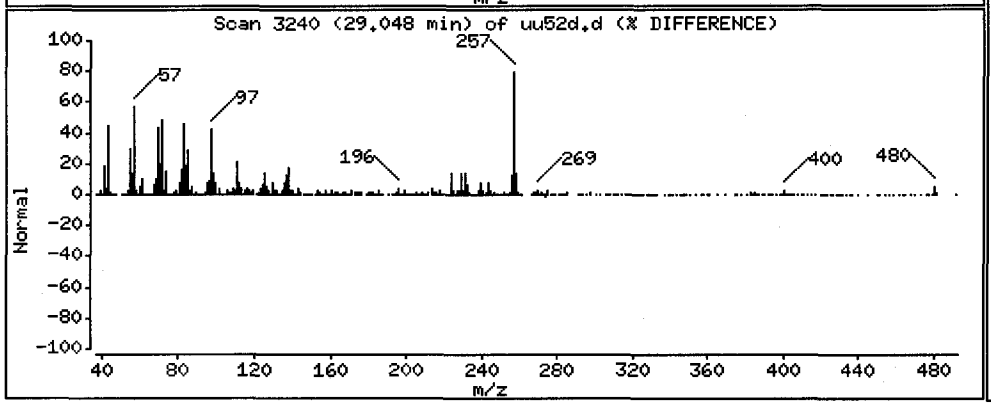
Column phase: ZB-5msi Column diameter: 0.25

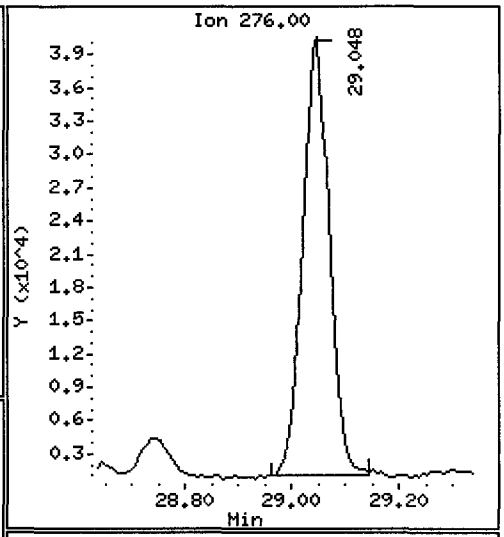
80 Benzo(g,h,i)perylene Concentration: 225.4 ug/kg

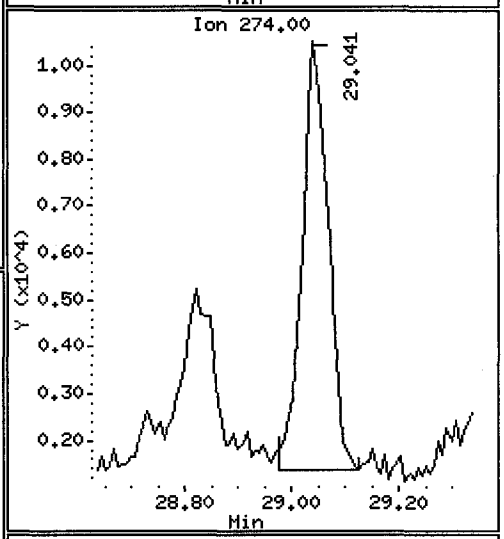


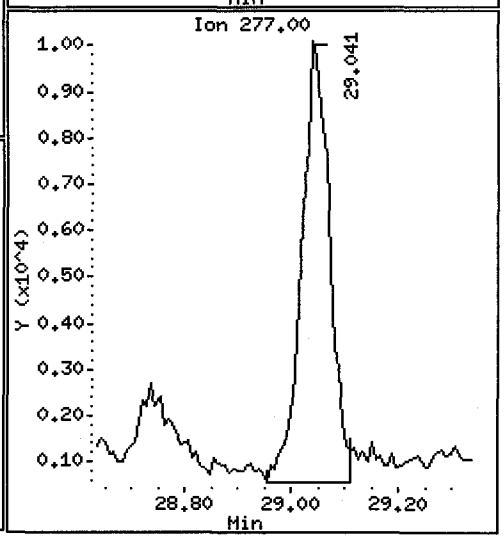












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

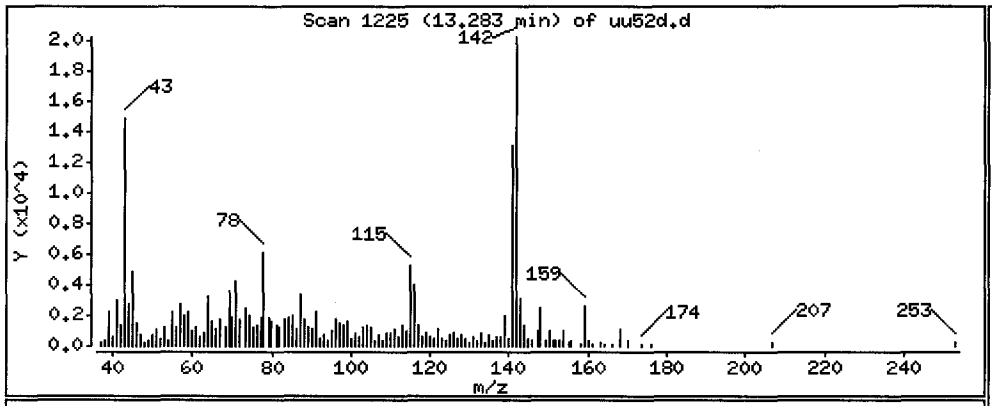
Operator: VTS/YZ

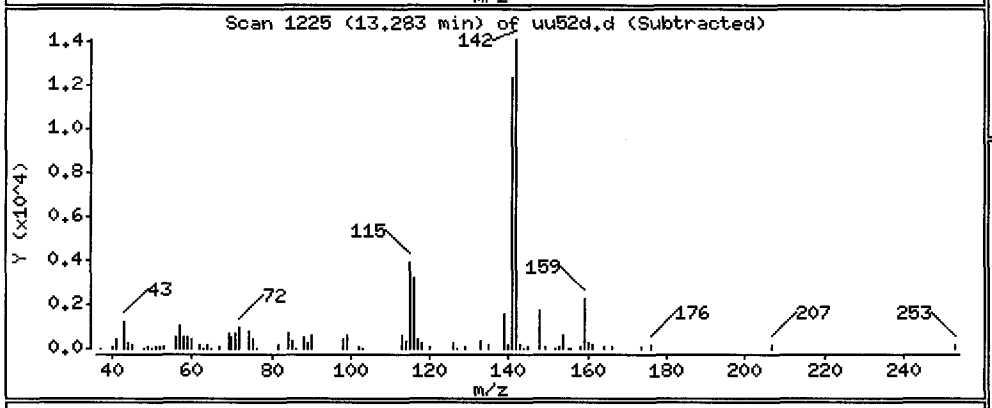
Column phase: ZB-5msi

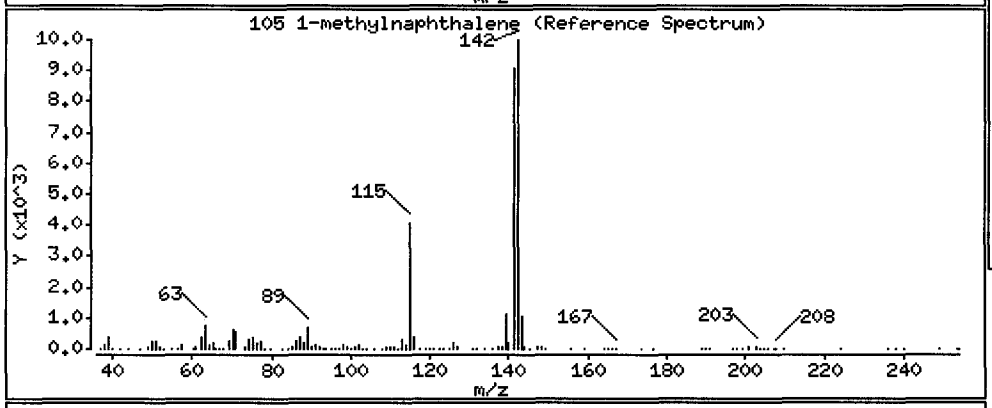
Column diameter: 0.25

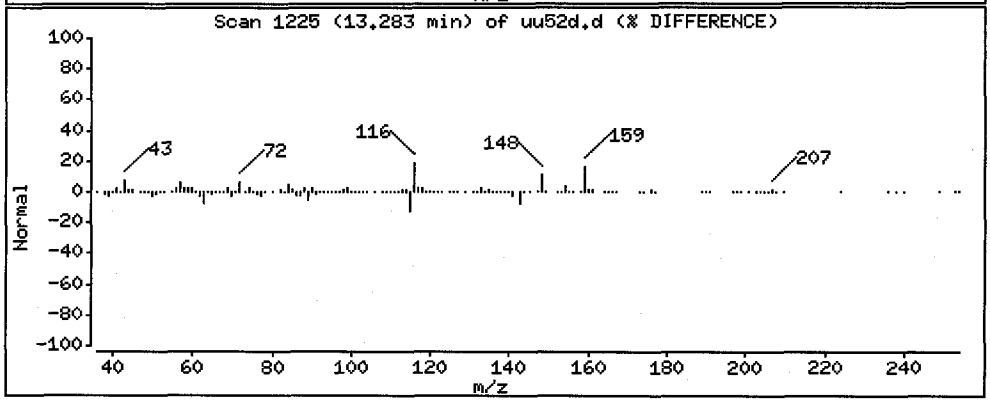
105 1-methylnaphthalene

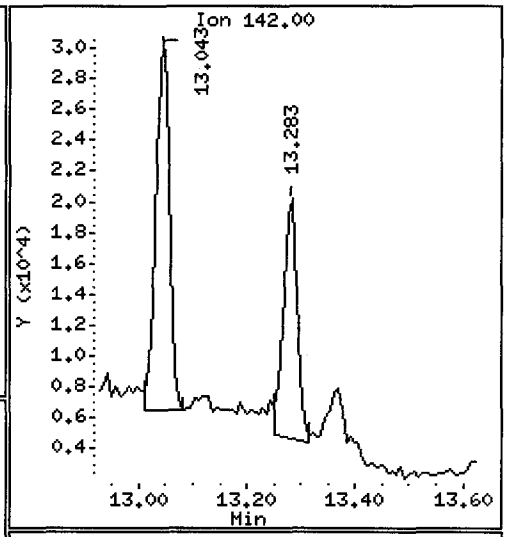
Concentration: 56.43 ug/kg

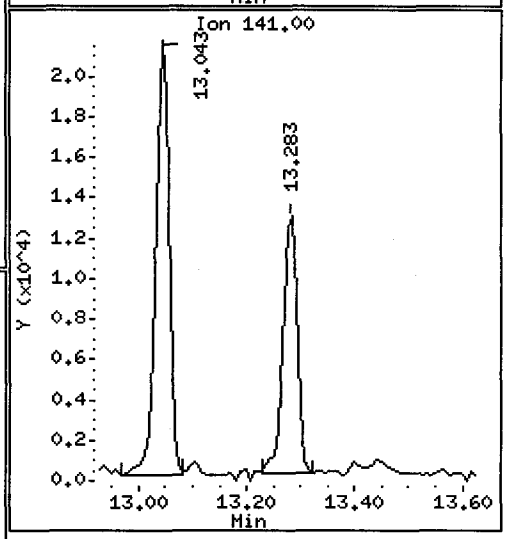












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

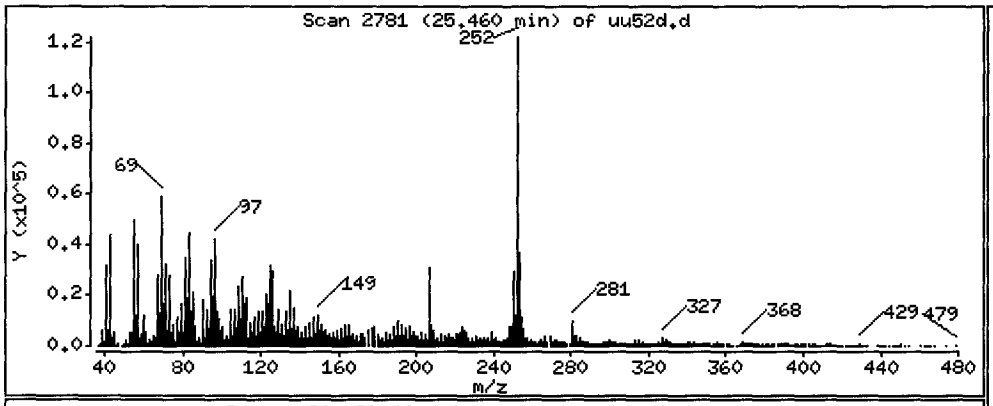
Operator: VTS/YZ

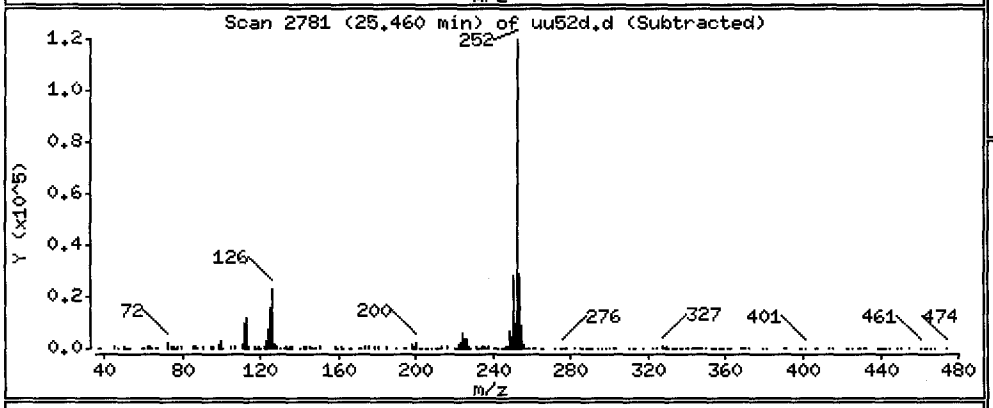
Column phase: ZB-5msi

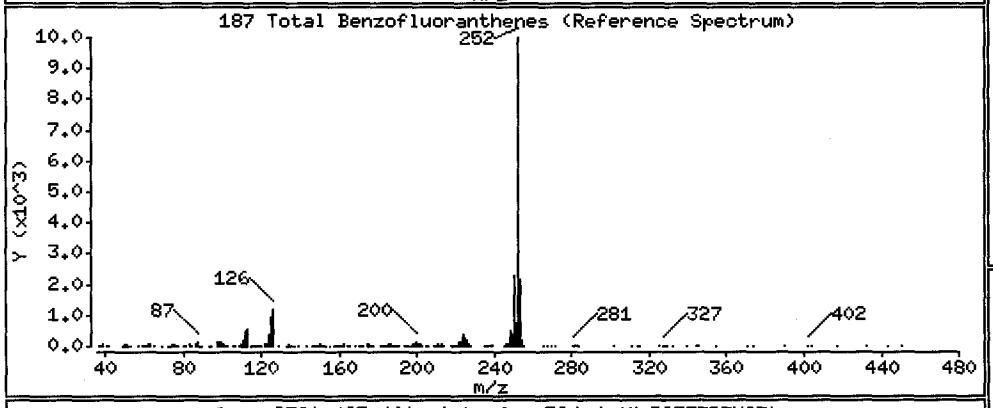
Column diameter: 0.25

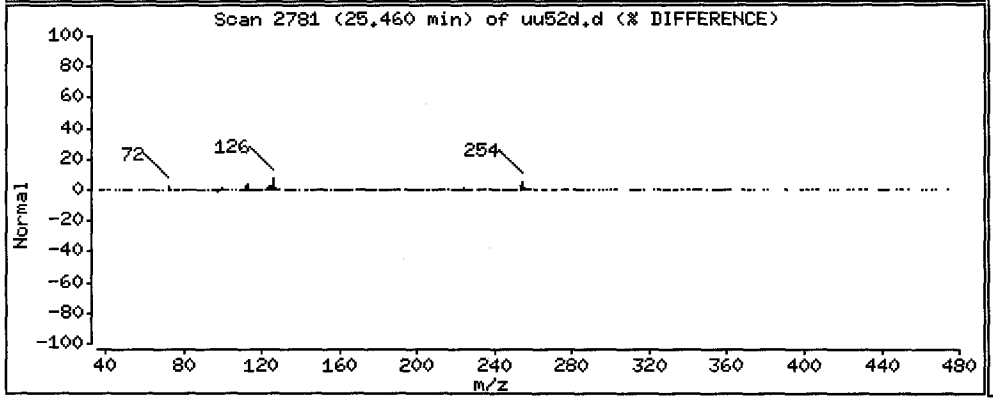
187 Total Benzofluoranthenes

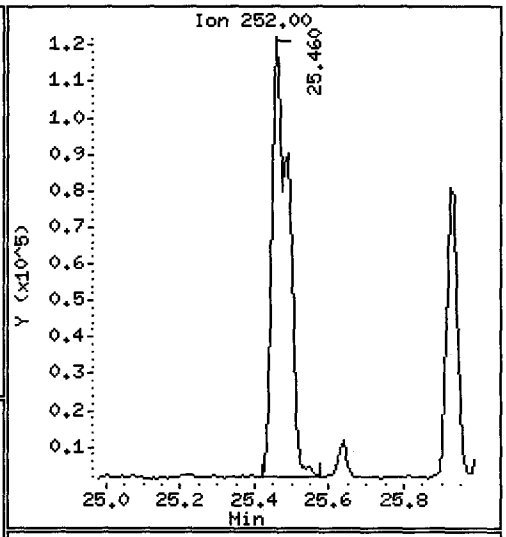
Concentration: 572.3 ug/kg

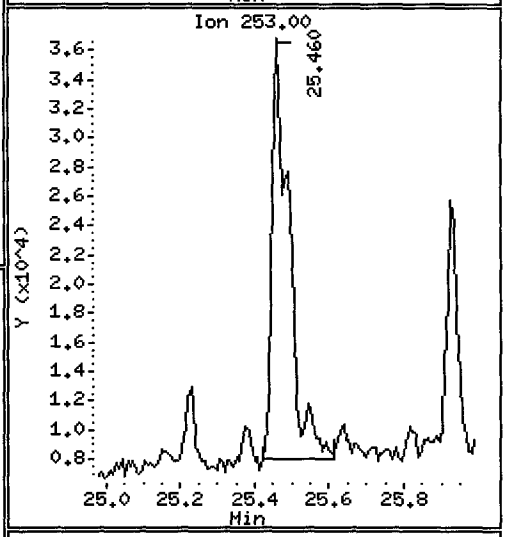


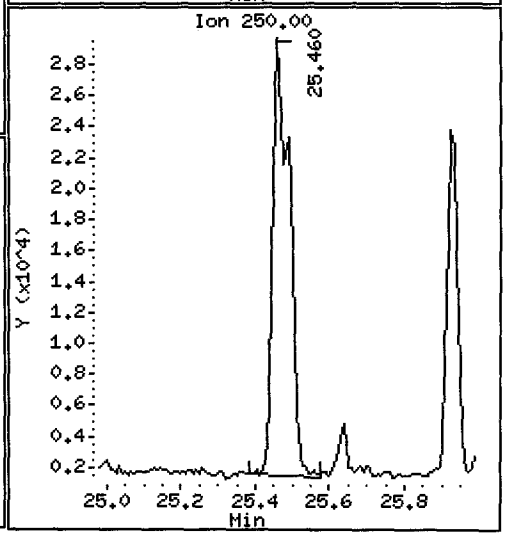












Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

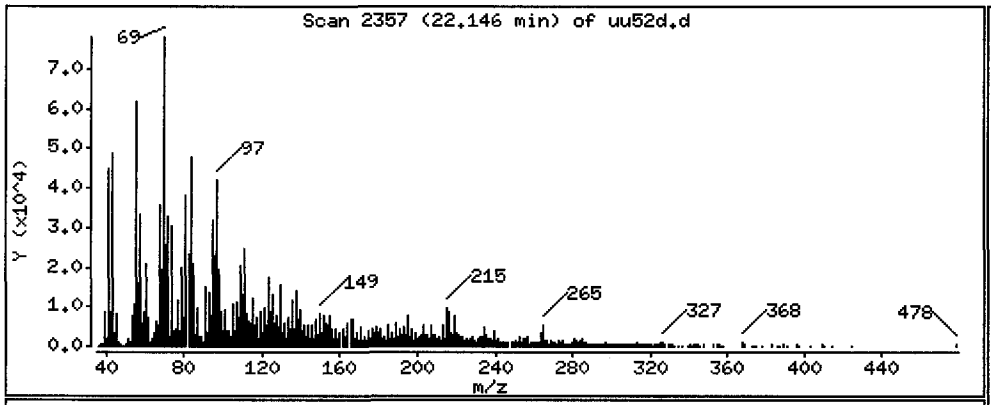
Operator: VTS/YZ

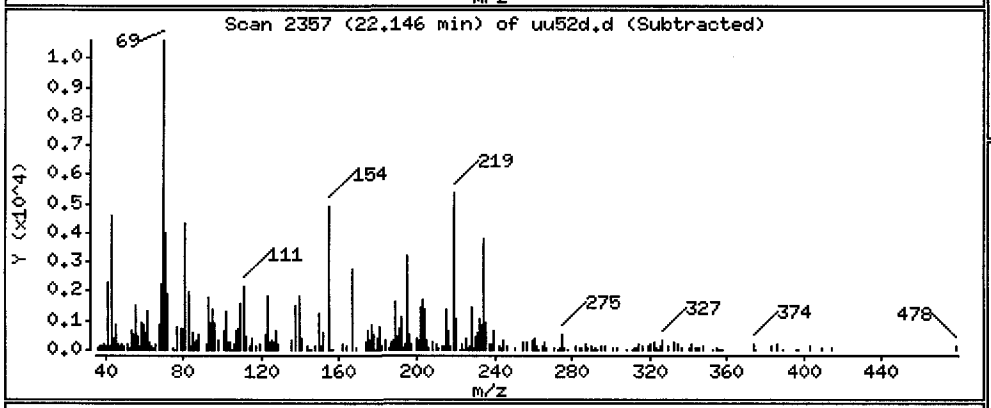
Column phase: ZB-5msi

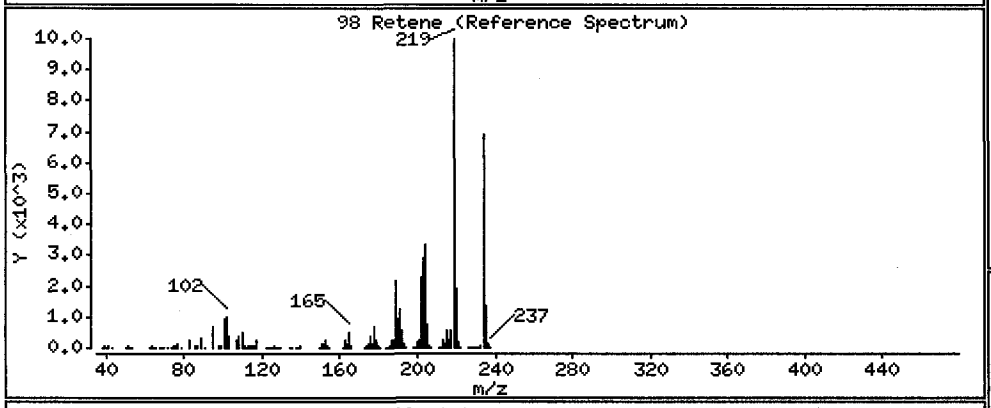
Column diameter: 0.25

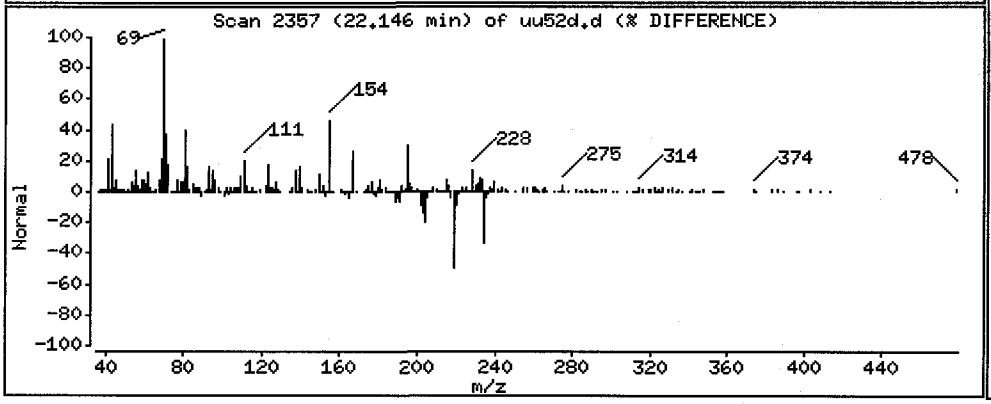
98 Retene

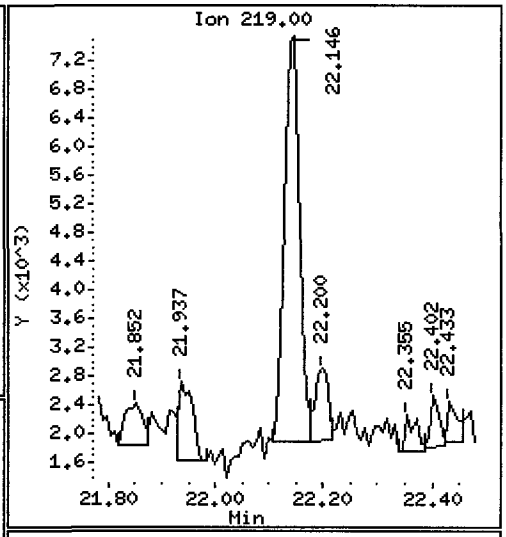
Concentration: 31.56 ug/kg

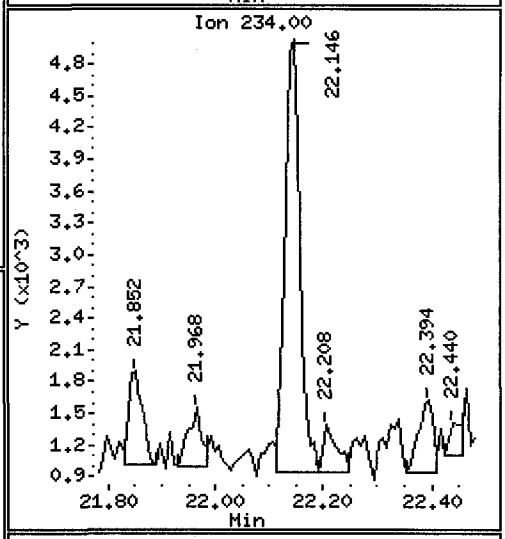


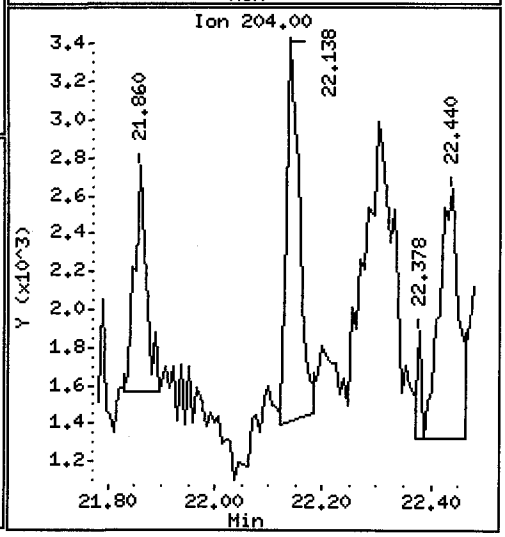












CO-ELUTION SUMMARY FOR FILE - uu52d.d

Lab ID: UU52D, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

12 4/4/12

Data file : /chem1/nt10.i/20120526.b/uu52e.d
Lab Smp Id: UU52E Client Smp ID: MS004-SS-120515
Inj Date : 26-MAY-2012 19:39
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52E,3
Misc Info : 12-8897
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 7
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	105.00000	Weight of sample extracted (g)
M	90.40000	% Moisture

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1	2-Fluorophenol	112	6.560	6.537	(0.740)	108495	1.57295	468.1
$	2	Phenol-d5	99	8.252	8.237	(0.931)	137061	1.59520	474.8
	3	Phenol	94	8.275	8.260	(0.934)	60378	0.65927	196.2
$	5	2-Chlorophenol-d4	132	8.492	8.476	(0.958)	123380	1.63903	487.8
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.863	8.855	(1.000)	197248	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	9.244	9.236	(1.043)	48012	0.97226	289.4
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.740	9.725	(1.099)	173813	2.30807	686.9
$	18 Nitrobenzene-d5	82	10.028	10.027	(0.872)	72946	1.03194	307.1
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.034	11.087	(0.959)	59224	1.30364	388.0
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.504	11.504	(1.000)	788940	4.00000	
	28 Naphthalene	128	11.543	11.542	(1.003)	928037	4.66604	1389
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.043	13.043	(1.134)	124956	0.90373	269.0
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.902	13.902	(0.904)	171209	1.14678	341.3
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	15.040	15.032	(0.978)	49975	0.25837	76.90
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.380	15.373	(1.000)	430674	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	15.450	15.442	(1.005)	55286	0.47388	141.0
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.798	15.798	(1.027)	174748	1.02238	304.3
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	16.571	16.563	(1.077)	74808	0.57121	170.0
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.150	17.142	(1.115)	31764	1.78689	531.8
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.641	18.633	(1.000)	660353	4.00000	
	60 Phenanthrene	178	18.695	18.687	(1.003)	505372	2.96790	883.3
	61 Anthracene	178	18.796	18.780	(1.008)	108818	0.61175	182.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	19.160	19.144	(1.028)	37142	0.22567	67.16(M)
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	21.132	21.101	(1.134)	562298	2.90840	865.6
65	Pyrene	202	21.543	21.519	(0.908)	564406	2.64654	787.7
$ 66	Terphenyl-d14	244	21.852	21.844	(0.921)	156299	1.16994	348.2
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.695	23.679	(0.999)	156626	0.79442	236.4
* 69	Chrysene-d12	240	23.718	23.710	(1.000)	700903	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.764	23.749	(1.002)	395101	2.27803	678.0
72	bis(2-Ethylhexyl)phthalate	149	23.834	23.818	(0.961)	63302	0.41732	124.2
* 134	Di-n-octylphthalate-d4	153	24.802	24.794	(1.000)	1104559	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	26.017	26.002	(0.996)	222144	1.25720	374.2
* 77	Perylene-d12	264	26.118	26.102	(1.000)	683374	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.381	28.342	(1.087)	194371	0.95097	283.0
79	Dibenzo(a,h)anthracene	278	28.396	28.365	(1.087)	47009	0.29197	86.90
80	Benzo(g,h,i)perylene	276	29.041	29.002	(1.112)	211555	1.20703	359.2
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.283	13.275	(1.155)	65451	0.46416	138.1
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	25.460	25.483	(0.975)	618322	3.26089	970.5
99	Perylene	252	Compound Not Detected.					
98	Retene	219	22.146	22.131	(0.934)	42161	0.42455	126.4

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52e.d
Lab Smp Id: UU52E
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8897

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS004-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	197248	4.08
27 Naphthalene-d8	730932	365466	1461864	788940	7.94
42 Acenaphthene-d10	420698	210349	841396	430674	2.37
59 Phenanthrene-d10	638950	319475	1277900	660353	3.35
69 Chrysene-d12	645065	322532	1290130	700903	8.66
134 Di-n-octylphthala	1016118	508059	2032236	1104559	8.70
77 Perylene-d12	650033	325016	1300066	683374	5.13

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.09
27 Naphthalene-d8	11.50	11.00	12.00	11.50	0.00
42 Acenaphthene-d10	15.37	14.87	15.87	15.38	0.05
59 Phenanthrene-d10	18.63	18.13	19.13	18.64	0.04
69 Chrysene-d12	23.71	23.21	24.21	23.72	0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.80	0.03
77 Perylene-d12	26.10	25.60	26.60	26.12	0.06

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

Analytical Resources, Inc.

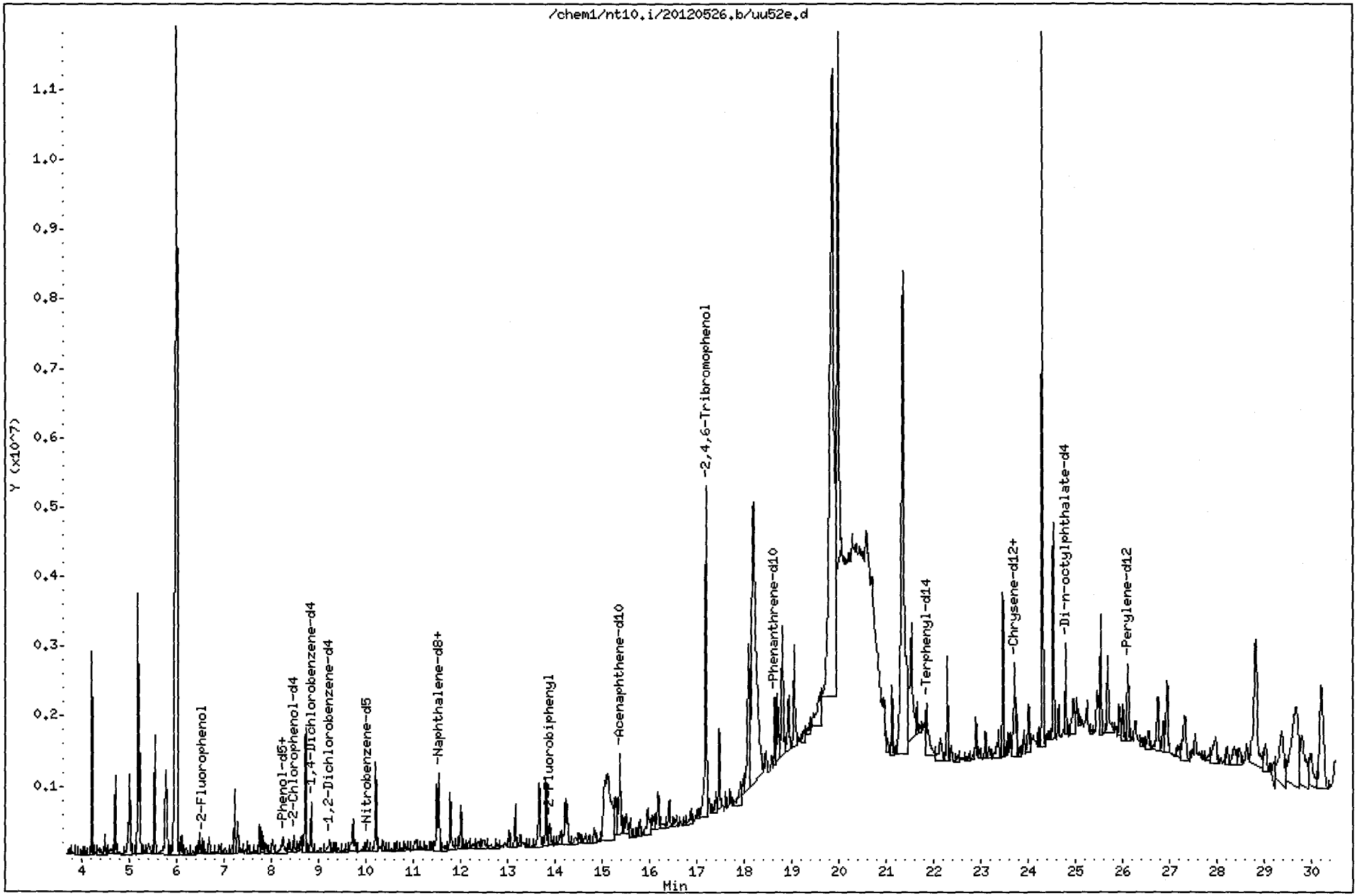
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52E Client Smp ID: MS004-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8897

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	744.0	468.1	62.92	30-160
$ 2 Phenol-d5	744.0	474.8	63.81	30-160
$ 5 2-Chlorophenol-d4	744.0	487.8	65.56	30-160
$ 10 1,2-Dichlorobenzen	496.0	289.4	58.34	30-160
$ 18 Nitrobenzene-d5	496.0	307.1	61.92	30-160
$ 36 2-Fluorobiphenyl	496.0	341.3	68.81	30-160
$ 55 2,4,6-Tribromophen	744.0	531.8	71.48	30-160
$ 66 Terphenyl-d14	496.0	348.2	70.20	30-160

Data File: /chem1/nt10.i/20120526.b/uu52e.d
Date : 26-MAY-2012 19:39
Client ID: MS004-SS-120515
Sample Info: UU52E,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52 : 99839

Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

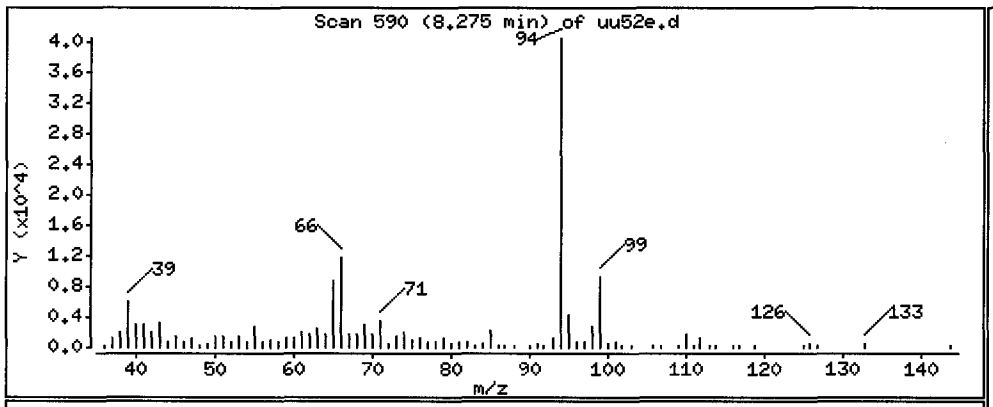
Operator: VTS/YZ

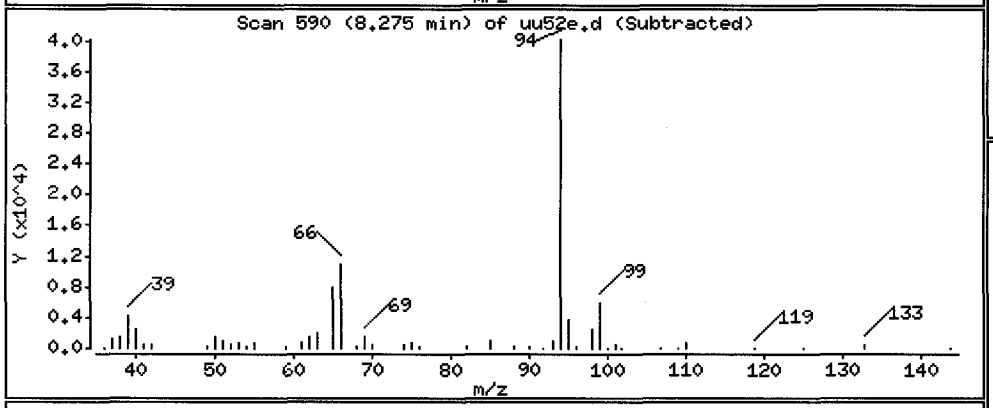
Column phase: ZB-5msi

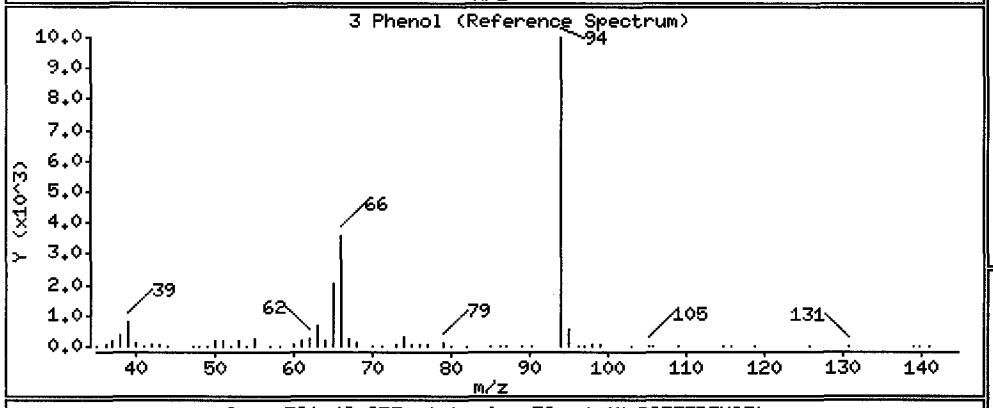
Column diameter: 0.25

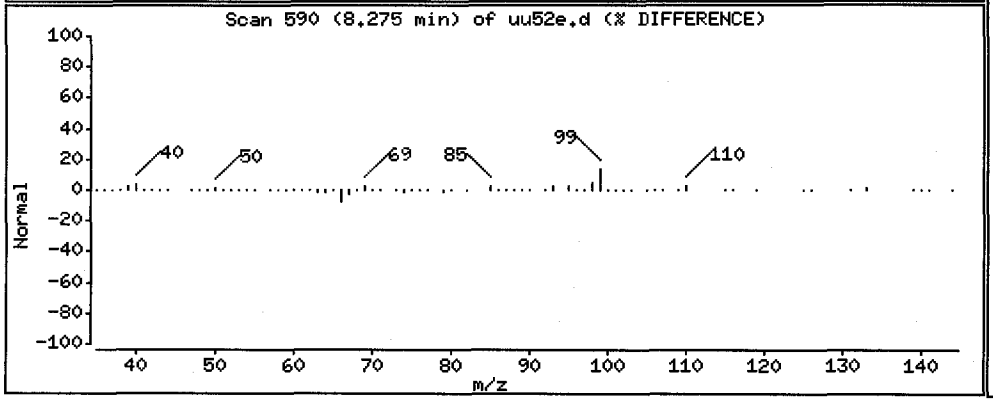
3 Phenol

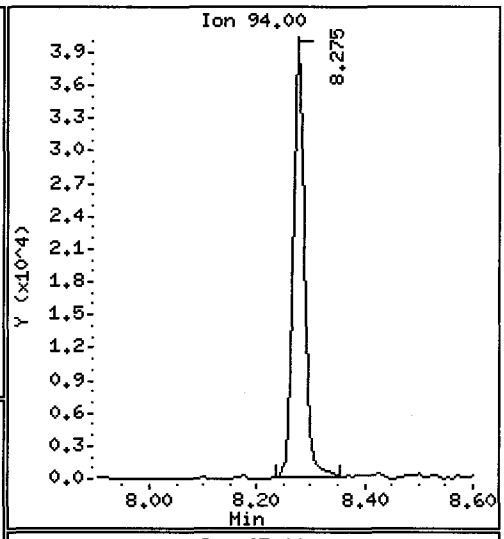
Concentration: 196.2 ug/kg

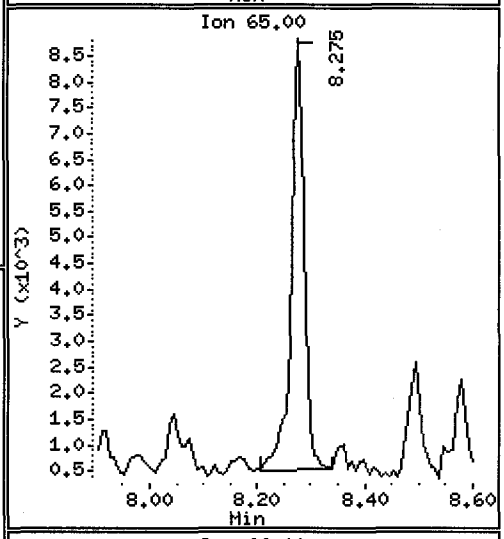


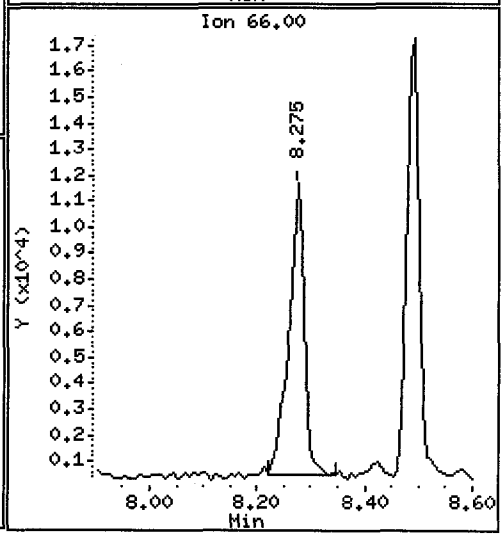












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

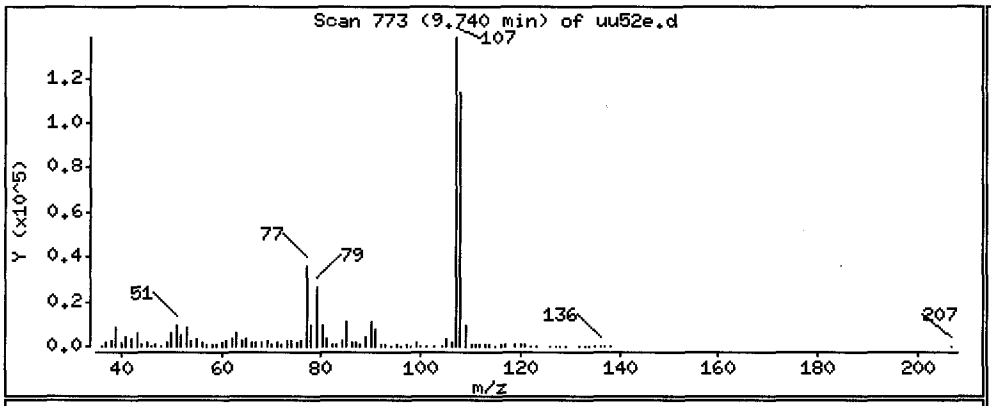
Client ID: MS004-SS-120515 Instrument: nt10.i

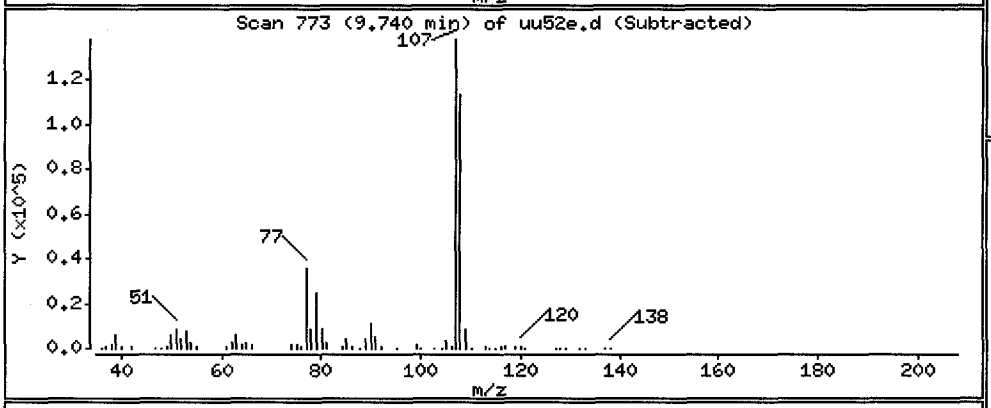
Sample Info: UU52E,3

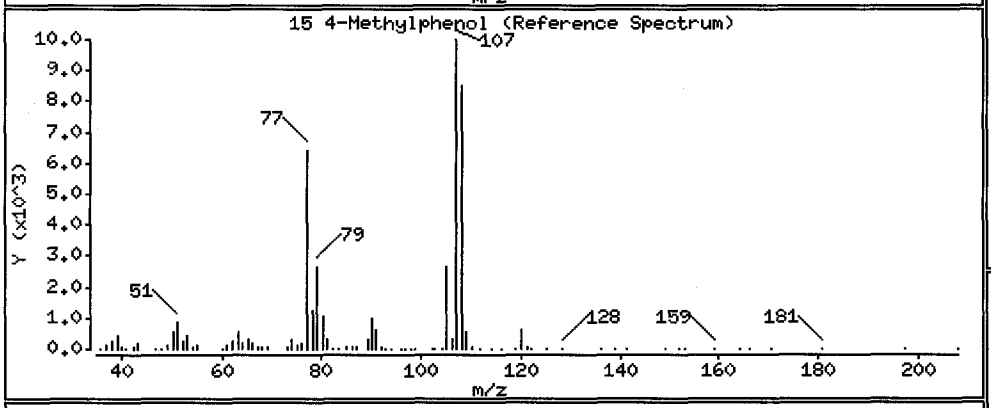
Volume Injected (uL): 1.0 Operator: VTS/YZ

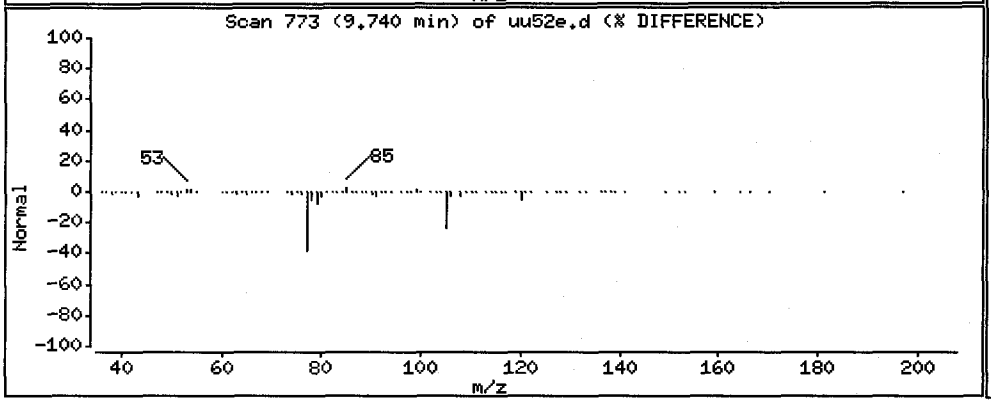
Column phase: ZB-5msi Column diameter: 0.25

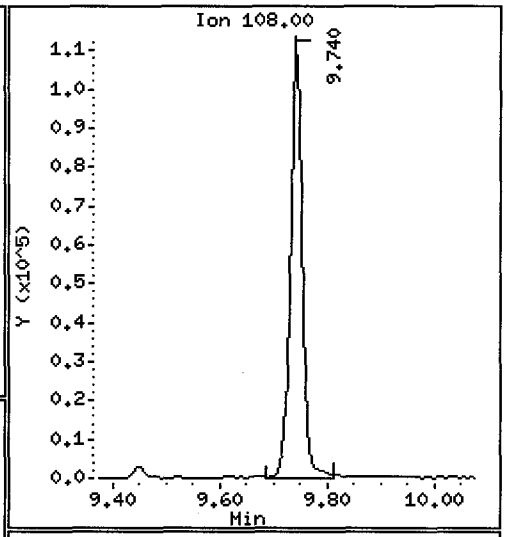
15 4-Methylphenol Concentration: 686.9 ug/kg

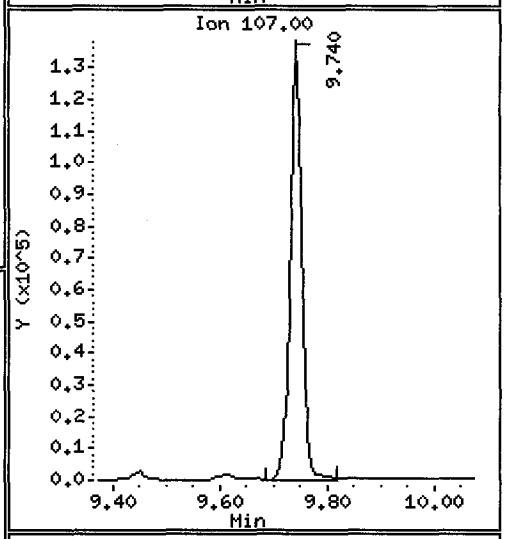


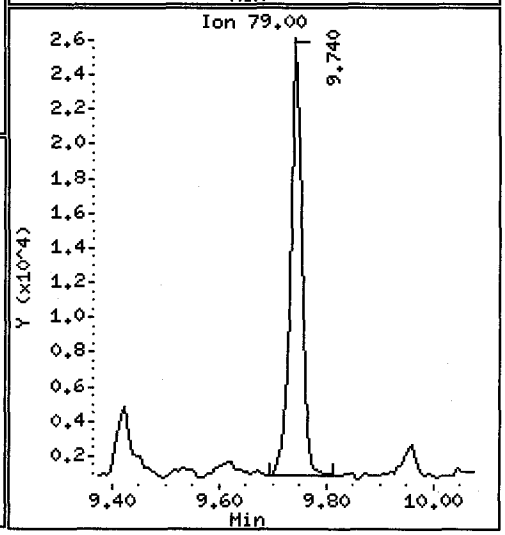












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

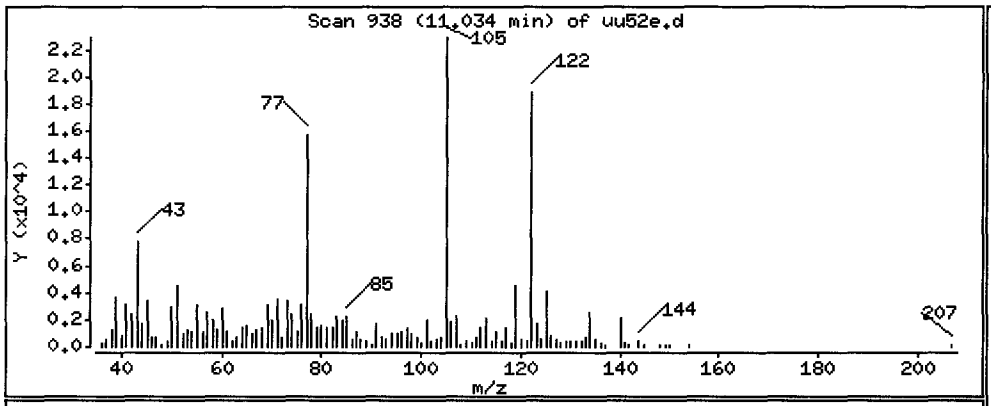
Client ID: MS004-SS-120515 Instrument: nt10.i

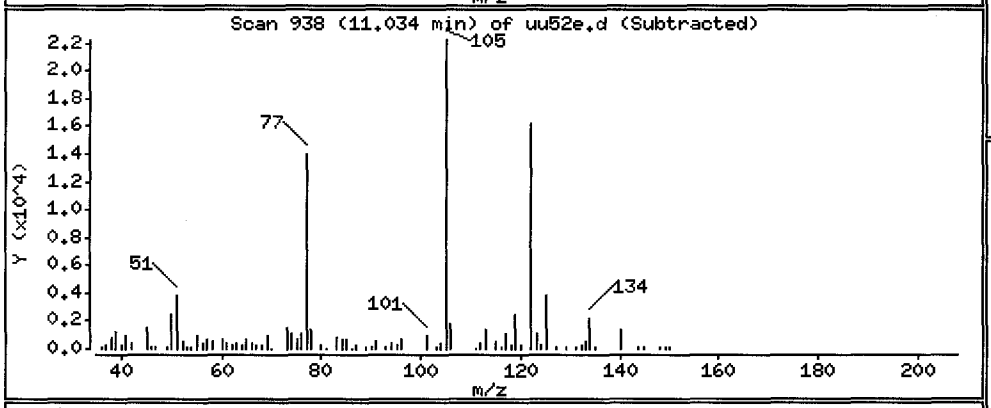
Sample Info: UU52E,3

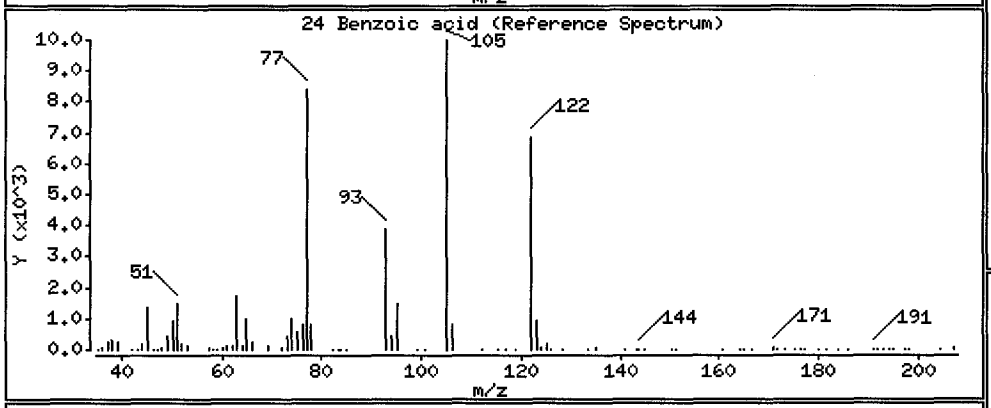
Volume Injected (uL): 1.0 Operator: VTS/YZ

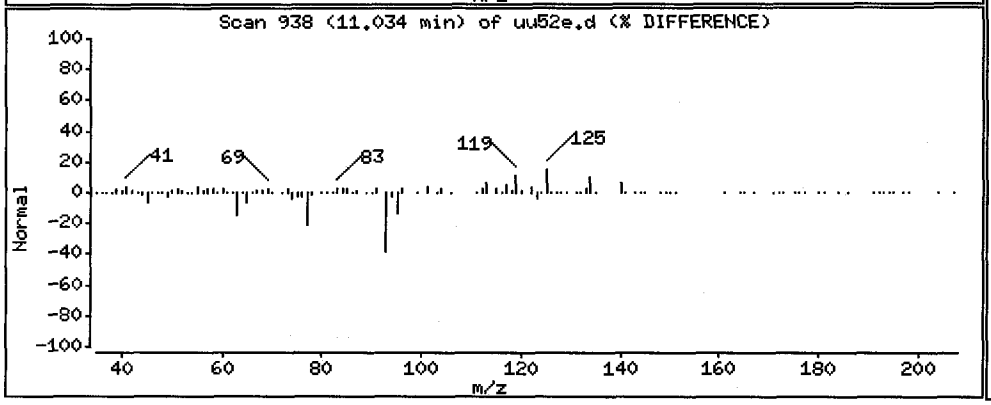
Column phase: ZB-5msi Column diameter: 0.25

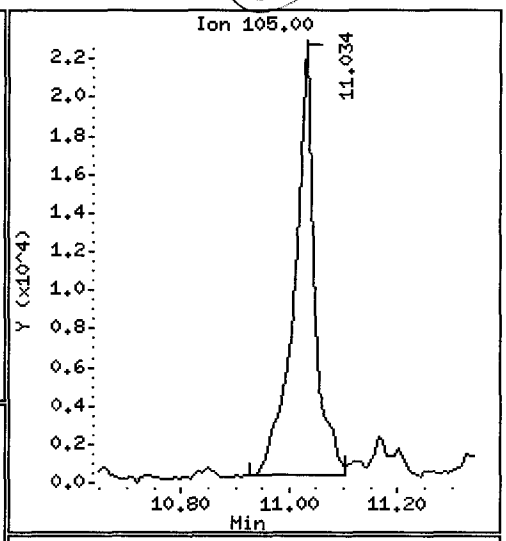
24 Benzoic acid Concentration: 388.0 ug/kg

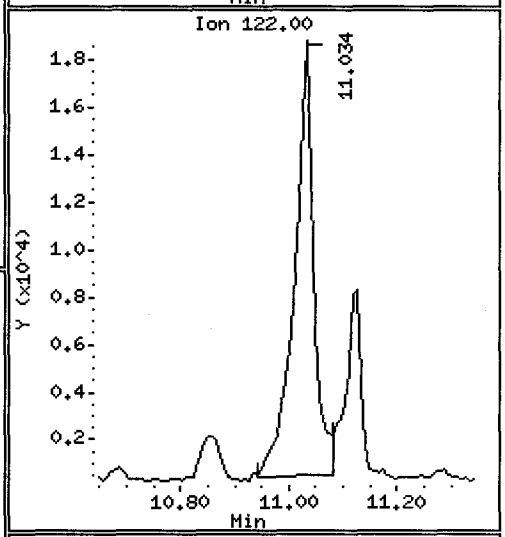


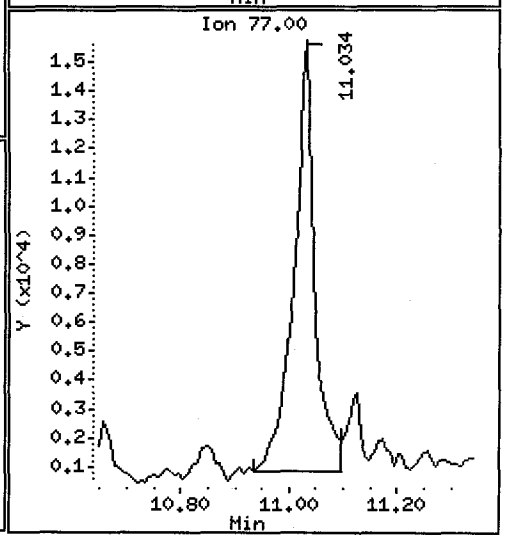












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

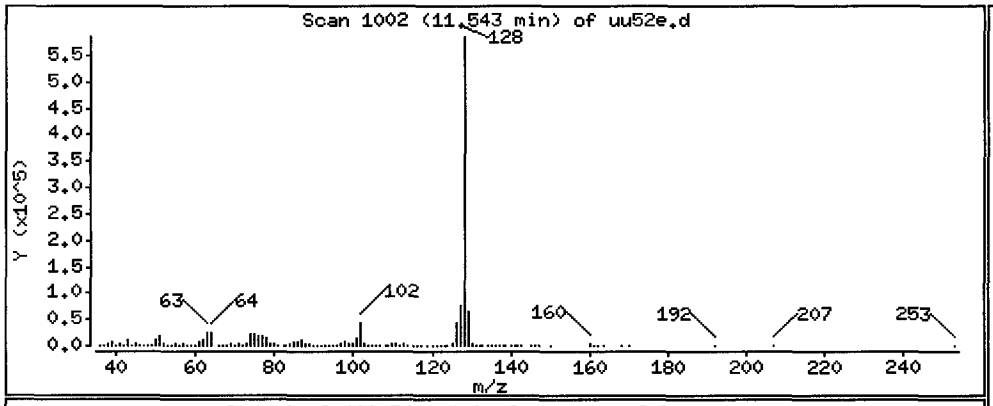
Operator: VTS/YZ

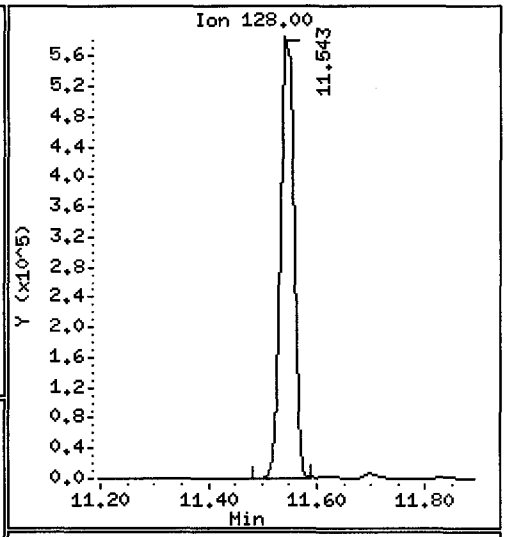
Column phase: ZB-5msi

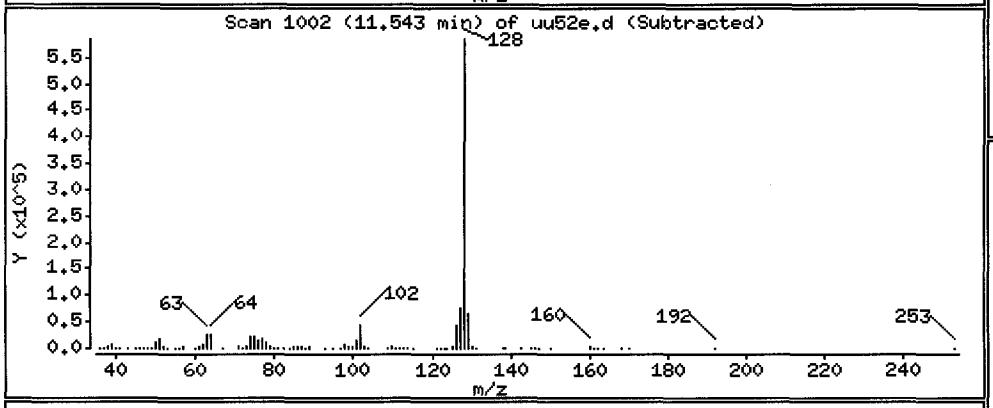
Column diameter: 0.25

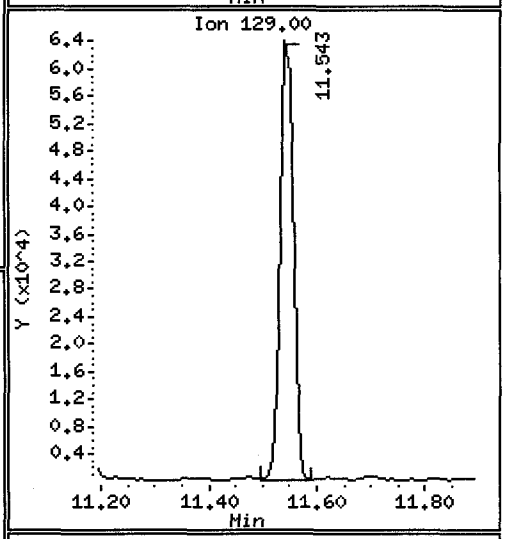
28 Naphthalene

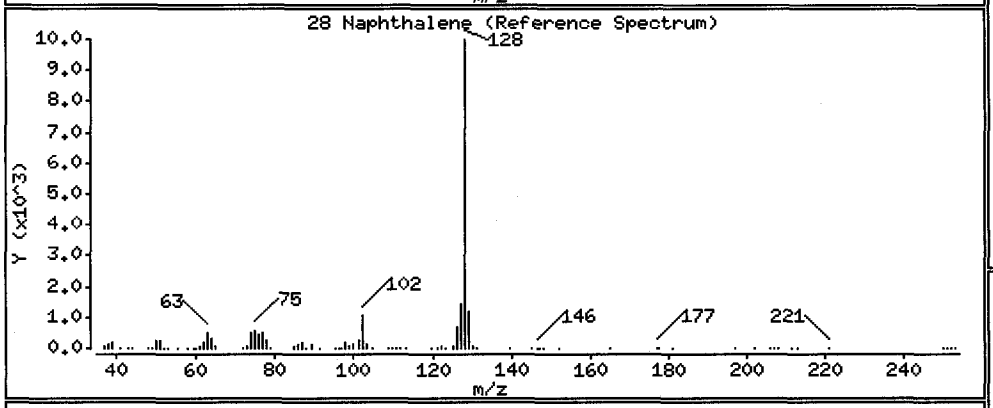
Concentration: 1389 ug/kg

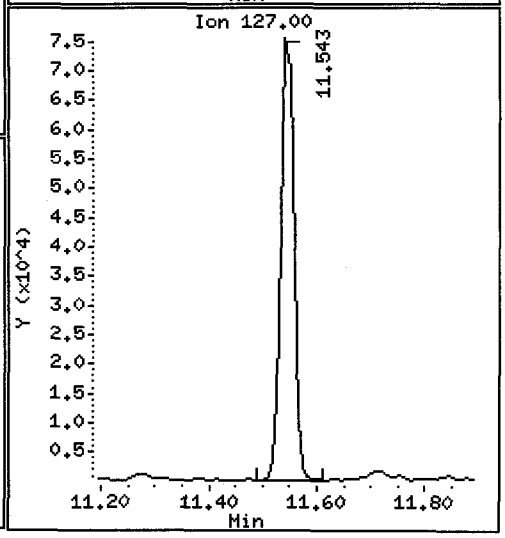


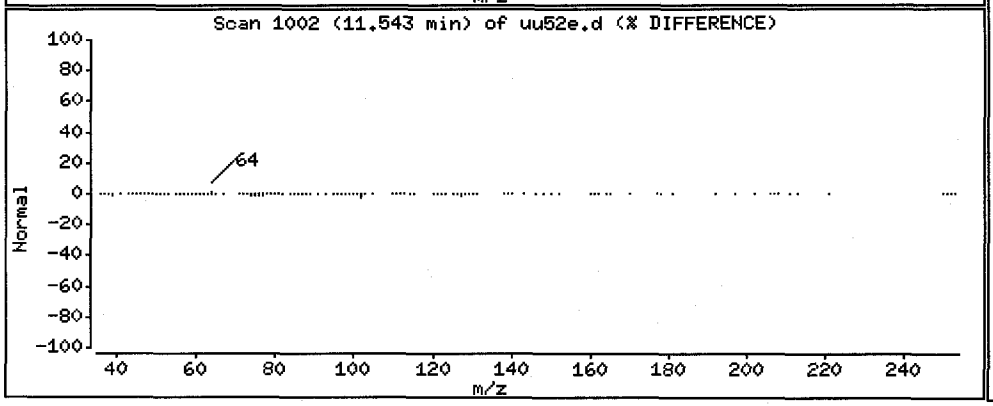












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

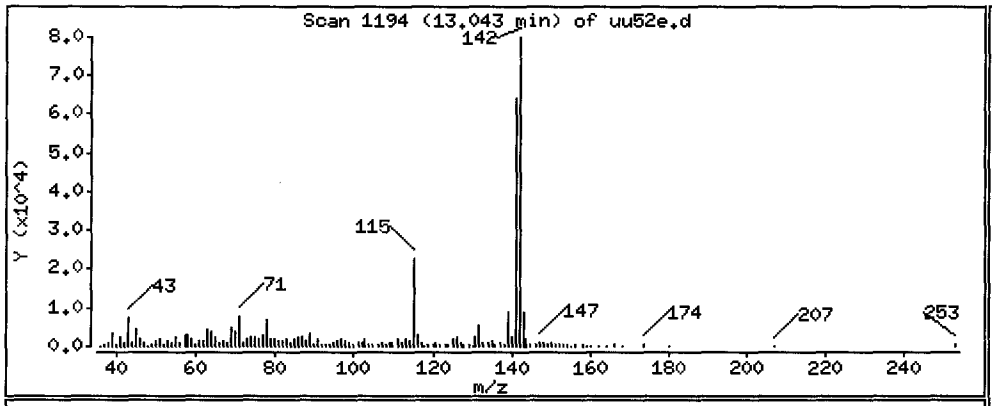
Client ID: MS004-SS-120515 Instrument: nt10.i

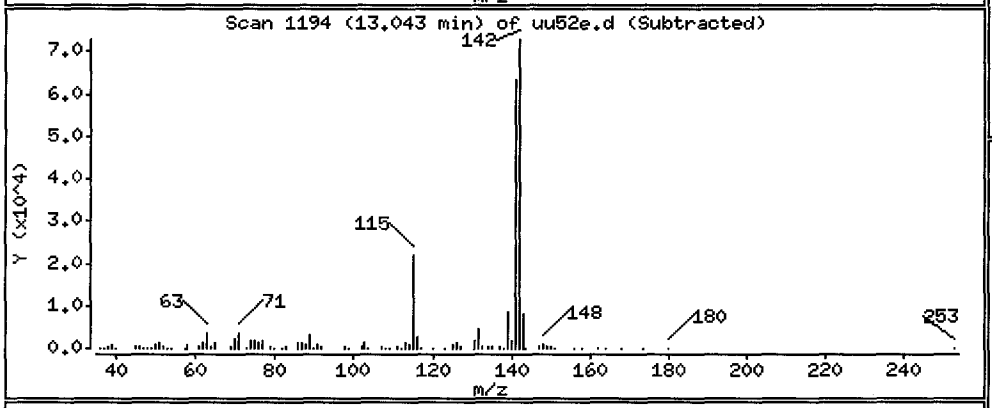
Sample Info: UU52E,3

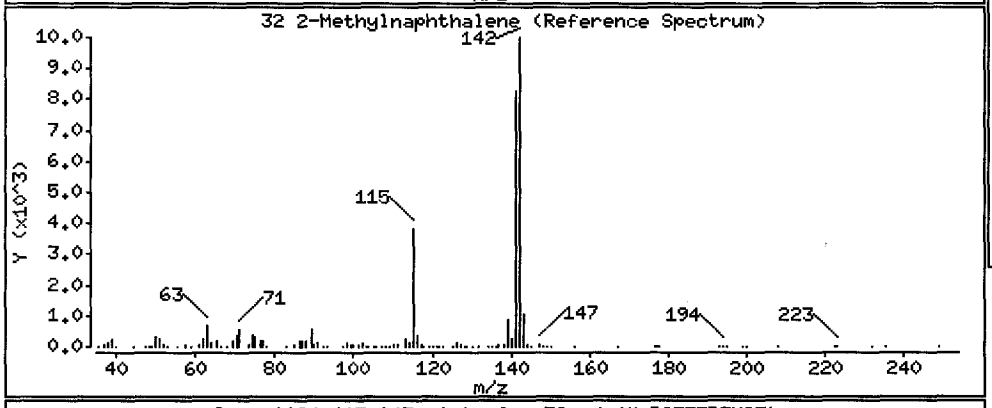
Volume Injected (uL): 1.0 Operator: VTS/YZ

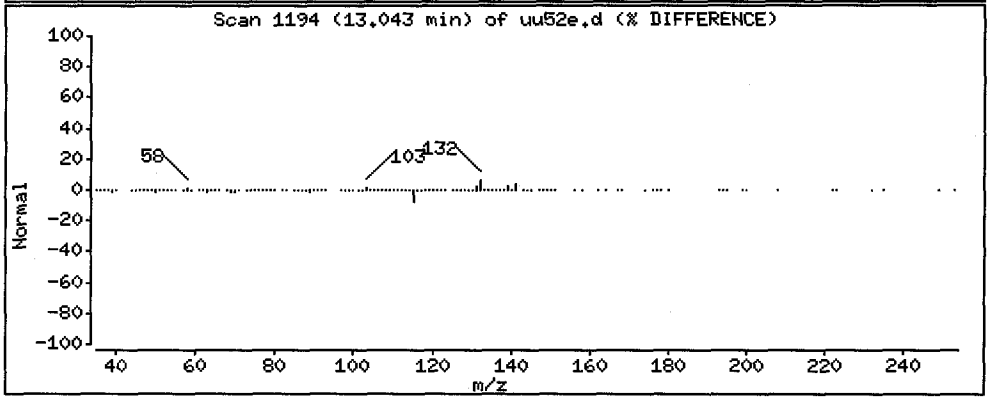
Column phase: ZB-5msi Column diameter: 0.25

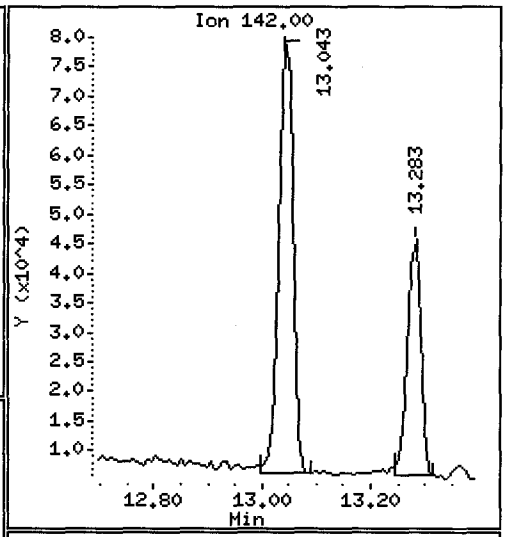
32 2-Methylnaphthalene Concentration: 269.0 ug/kg

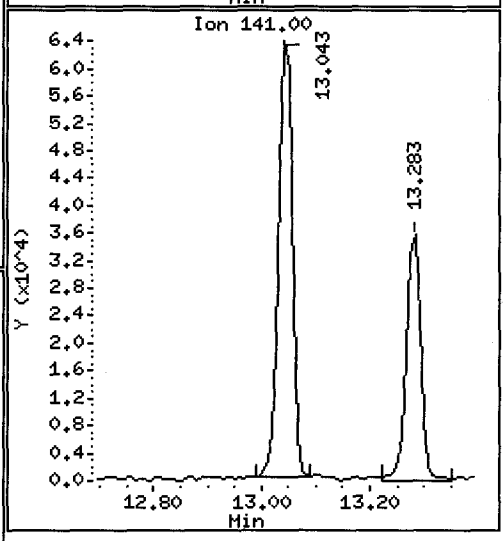












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

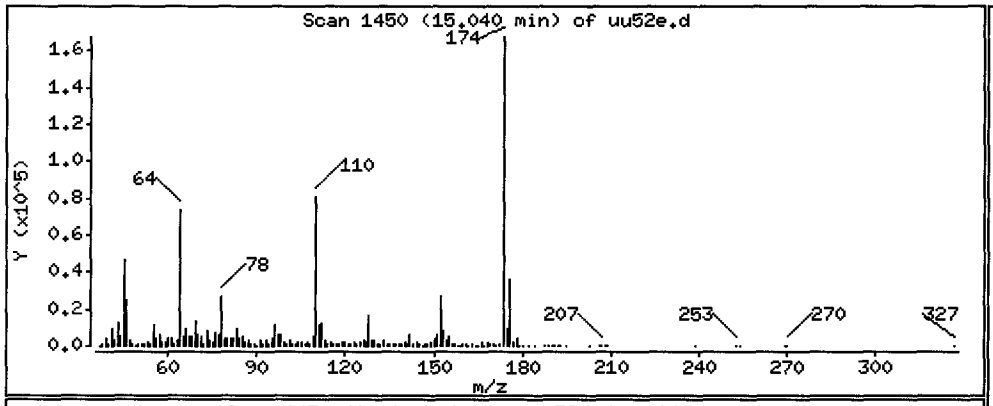
Operator: VTS/YZ

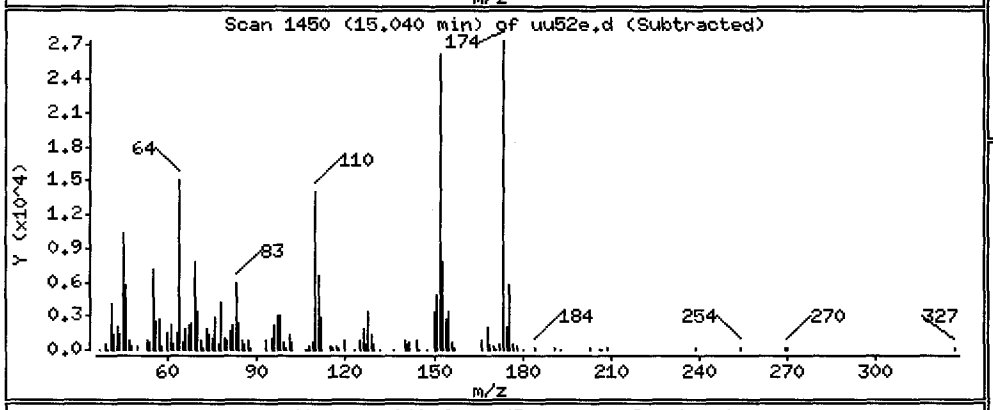
Column phase: ZB-5msi

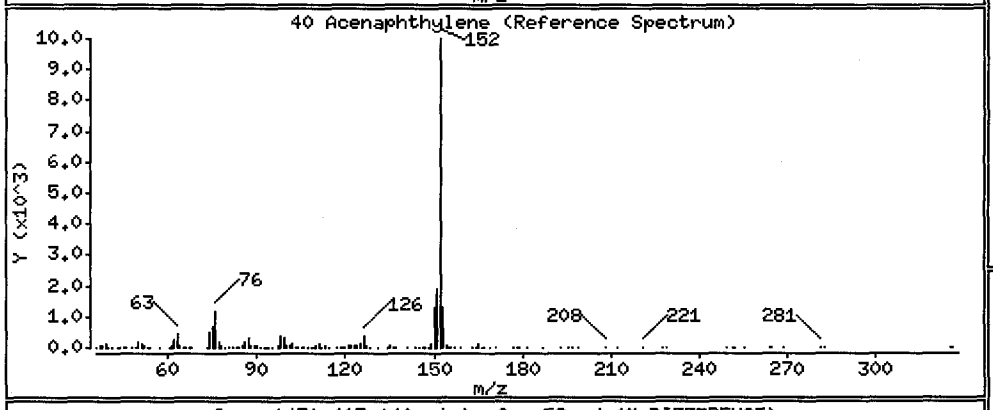
Column diameter: 0.25

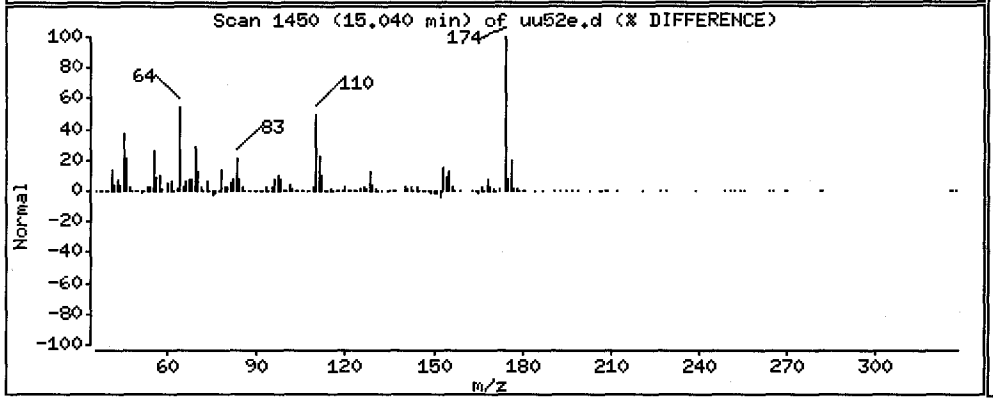
40 Acenaphthylene

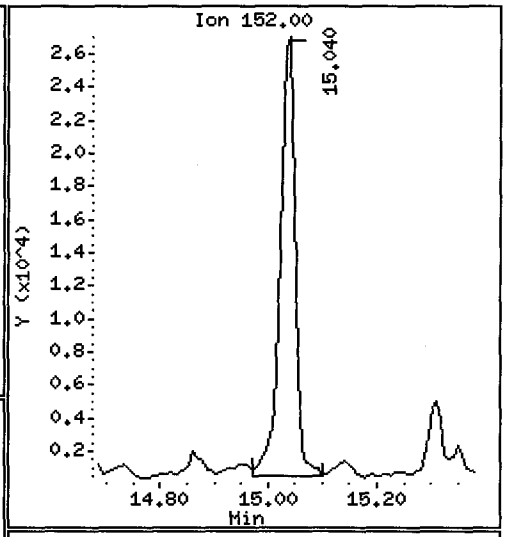
Concentration: 76.90 ug/kg

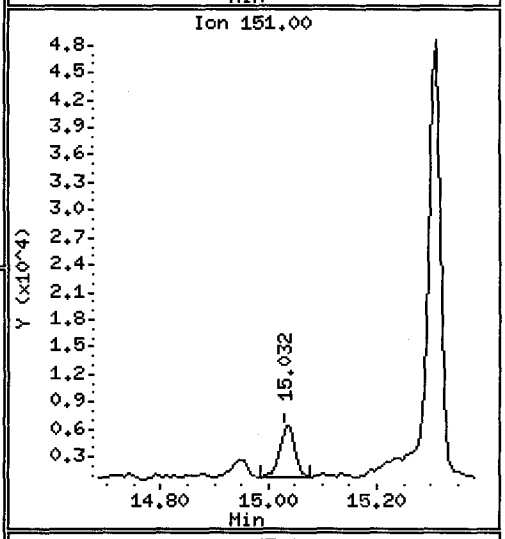


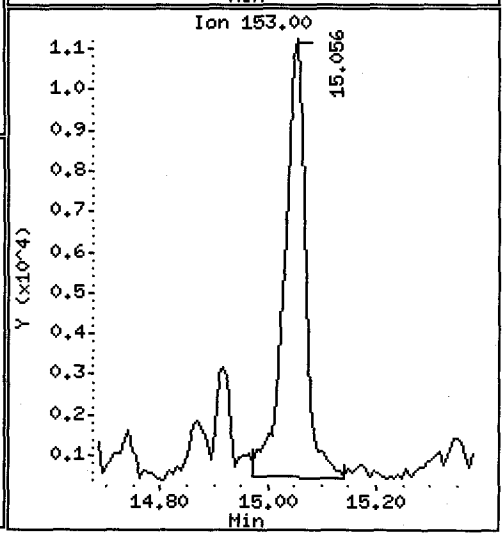












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

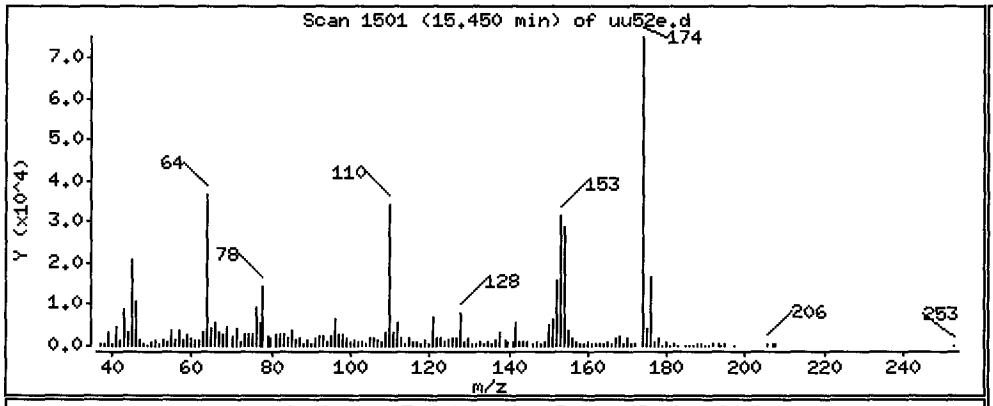
Operator: VTS/YZ

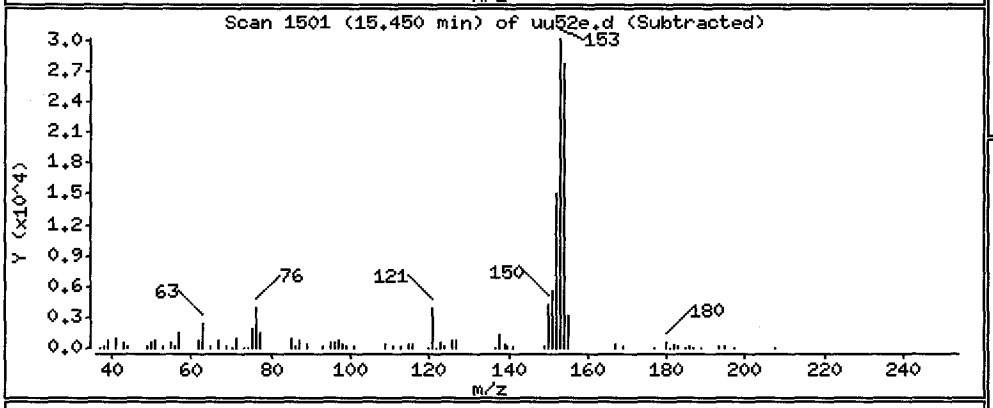
Column phase: ZB-5msi

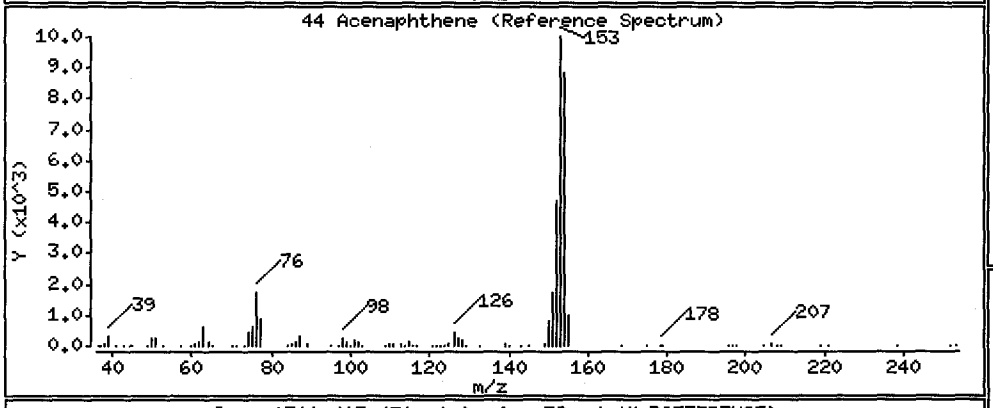
Column diameter: 0.25

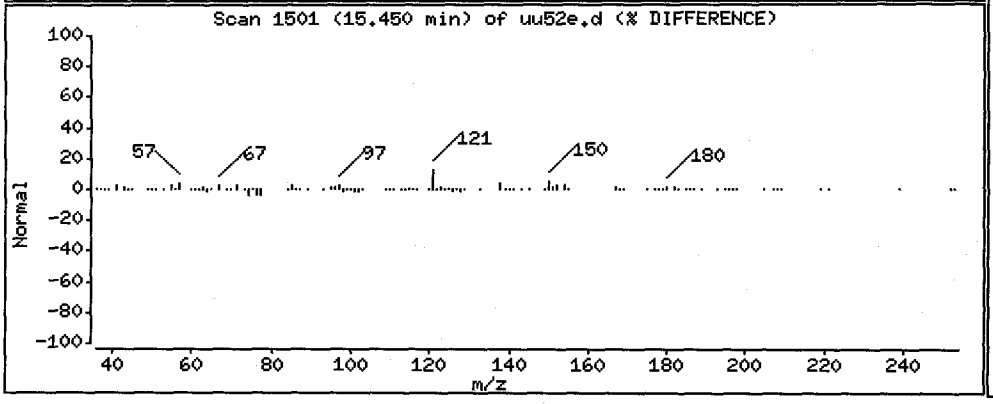
44 Acenaphthene

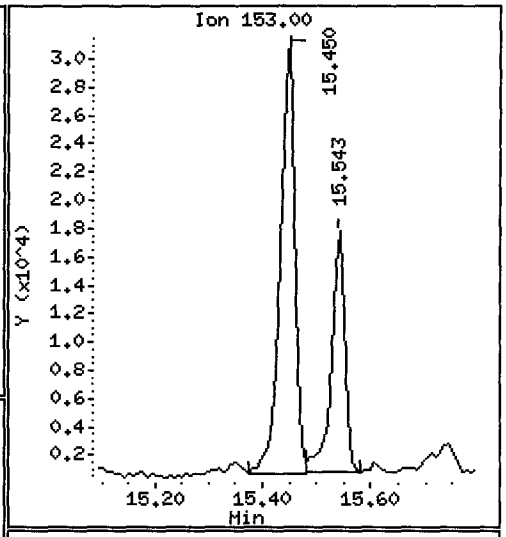
Concentration: 141.0 ug/kg

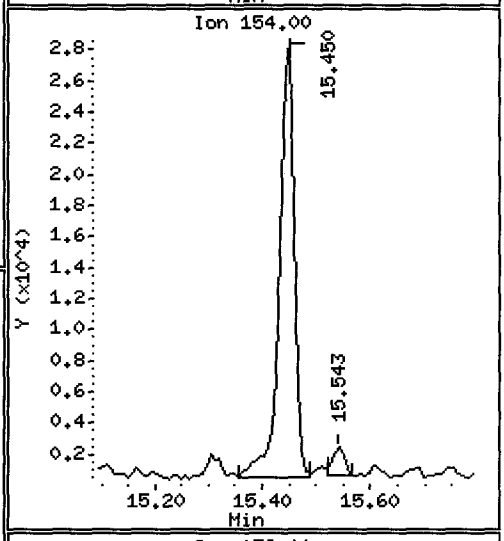


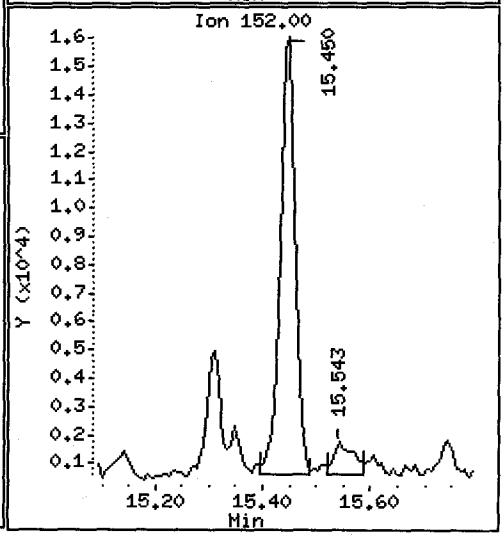












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

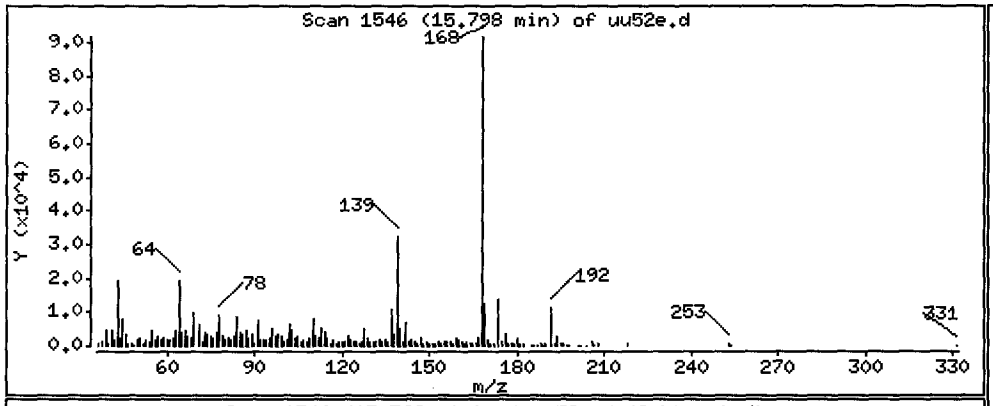
Operator: VTS/YZ

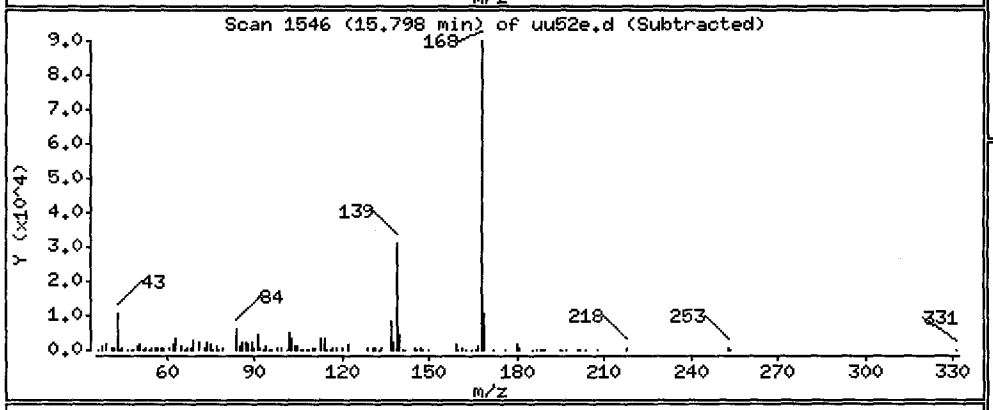
Column phase: ZB-5msi

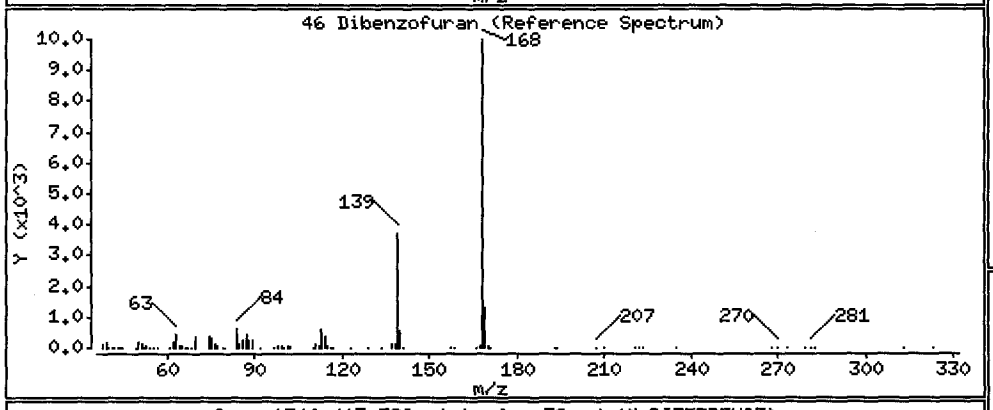
Column diameter: 0.25

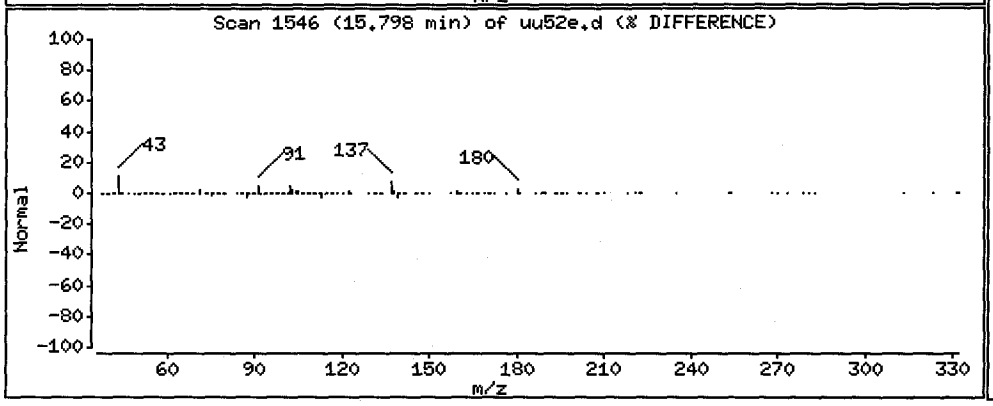
46 Dibenzofuran

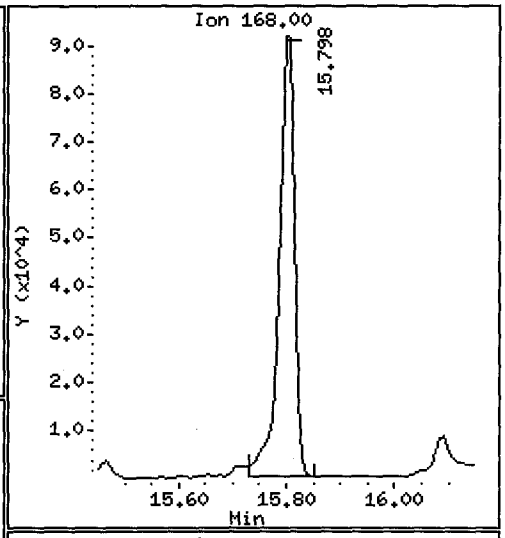
Concentration: 304.3 ug/kg

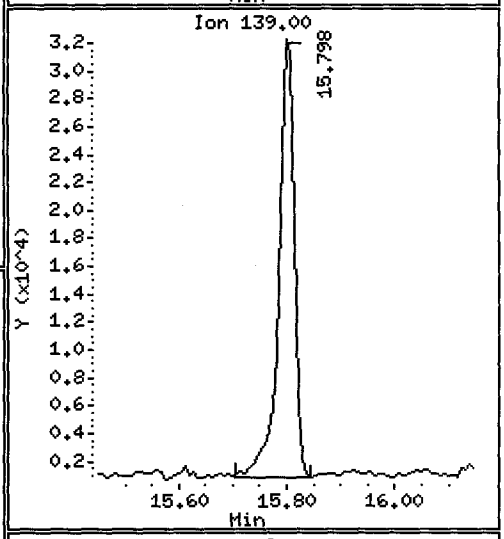


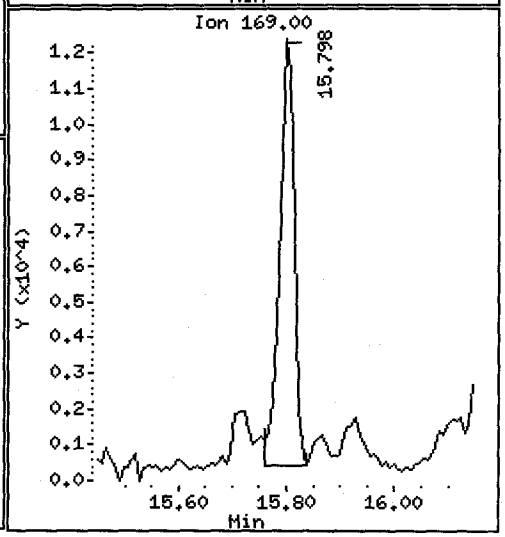












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

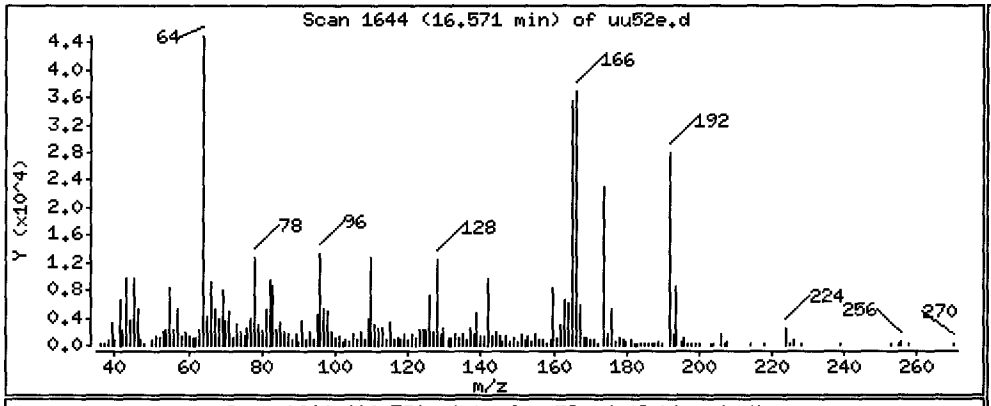
Operator: VTS/YZ

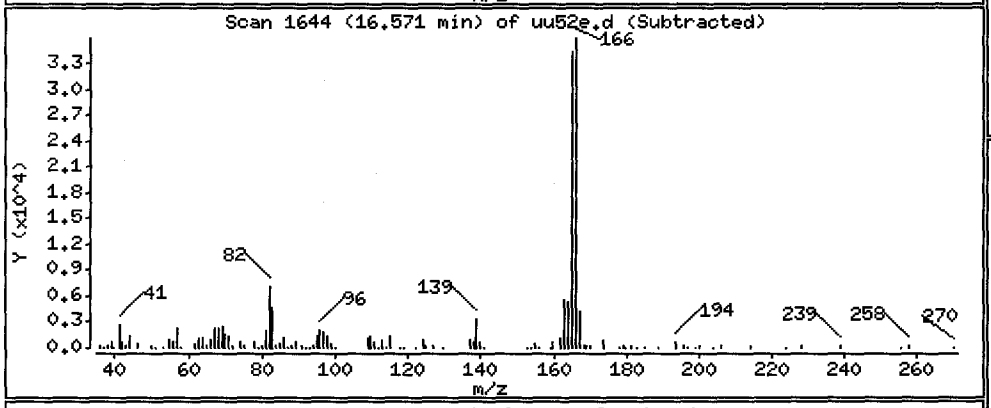
Column phase: ZB-5msi

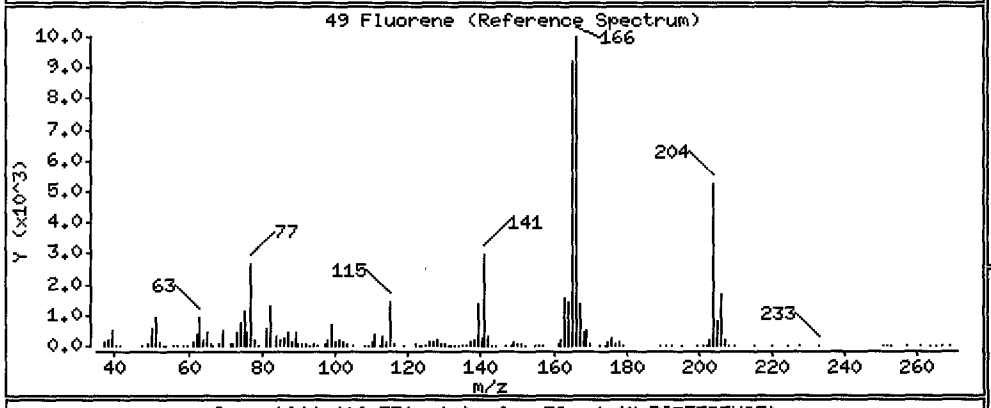
Column diameter: 0.25

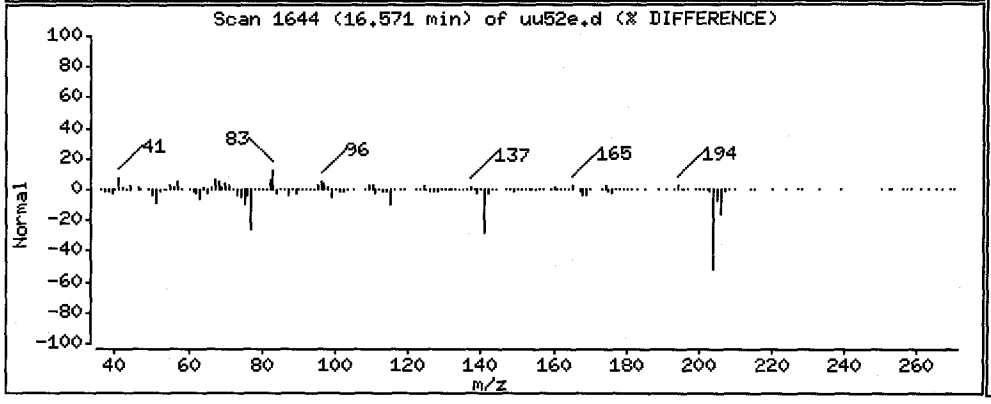
49 Fluorene

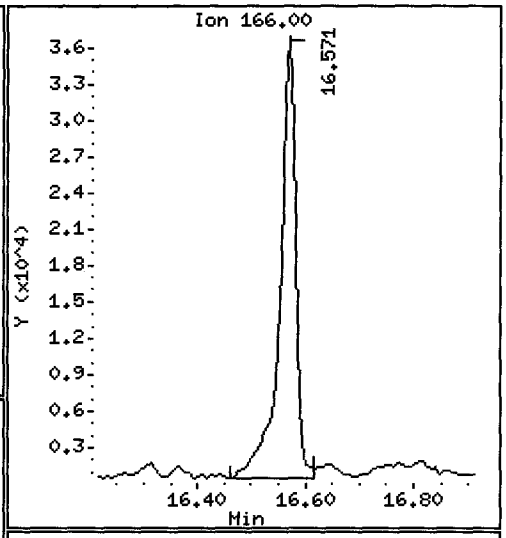
Concentration: 170.0 ug/kg

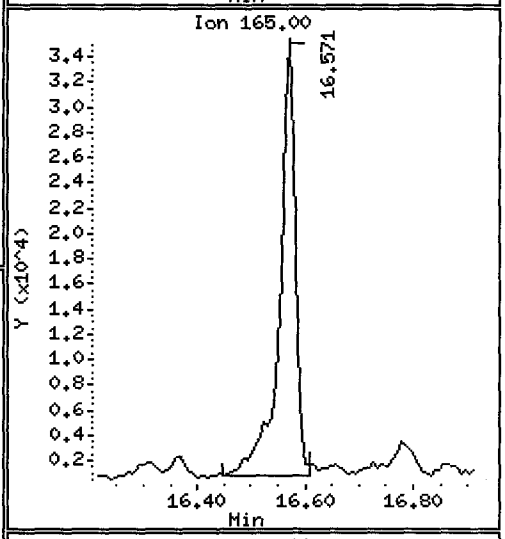


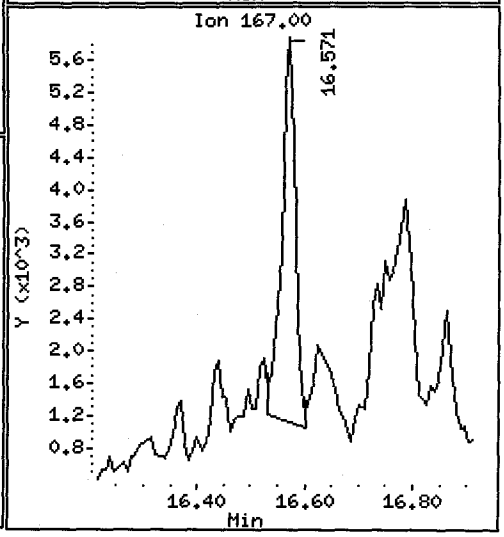












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

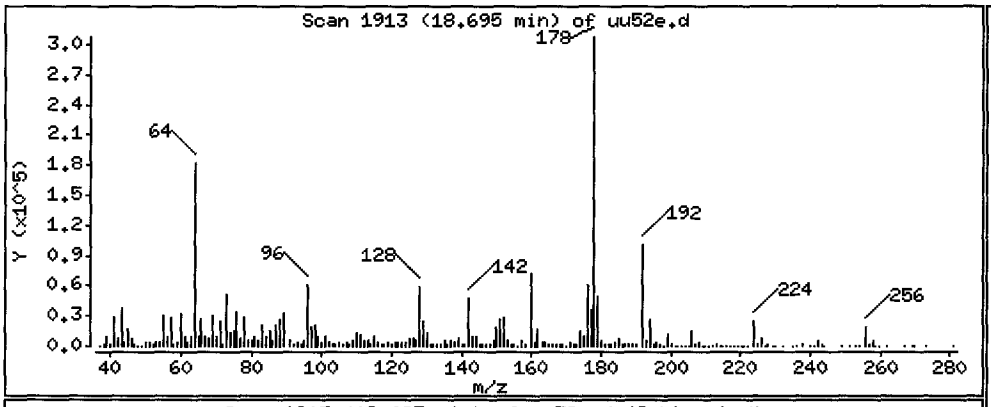
Client ID: MS004-SS-120515 Instrument: nt10.i

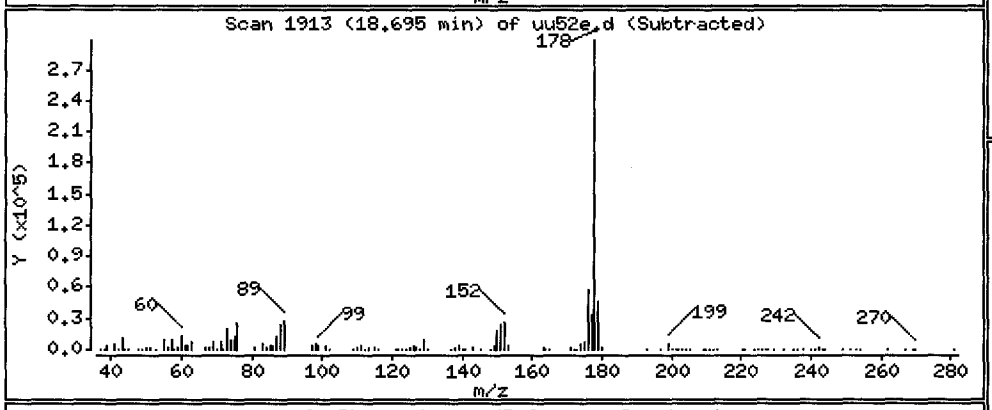
Sample Info: UU52E,3

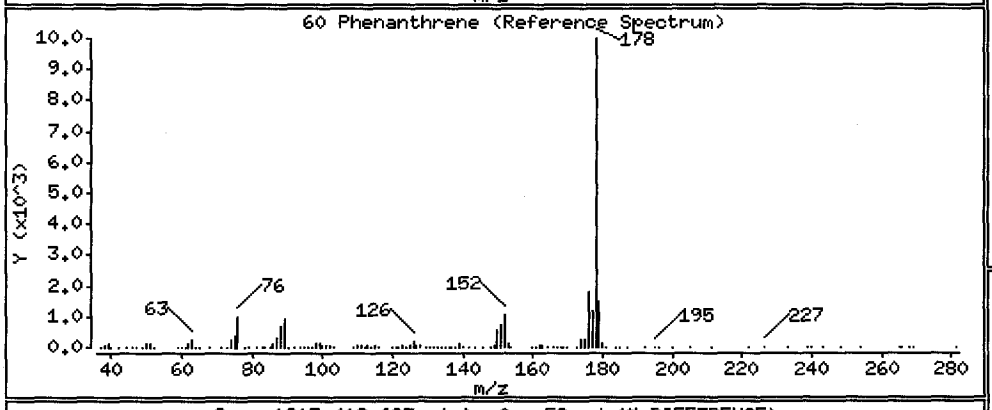
Volume Injected (uL): 1.0 Operator: VTS/YZ

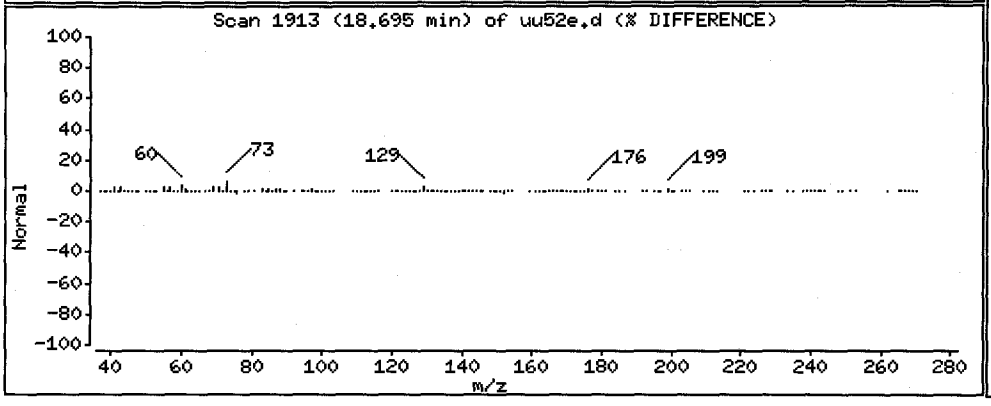
Column phase: ZB-5msi Column diameter: 0.25

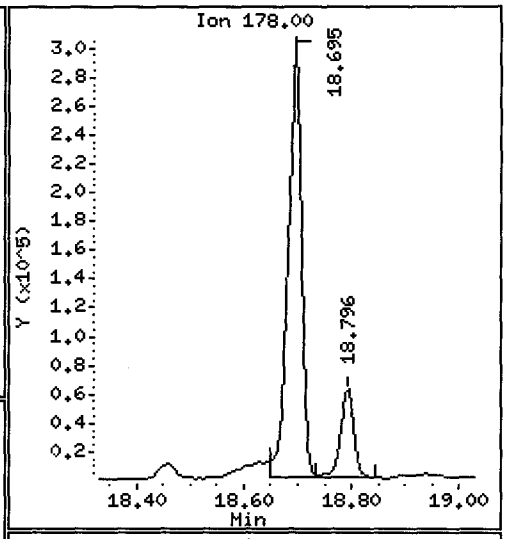
60 Phenanthrene Concentration: 883.3 ug/kg

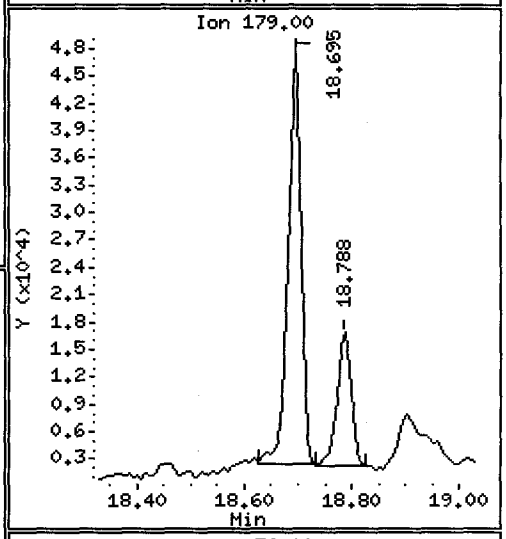


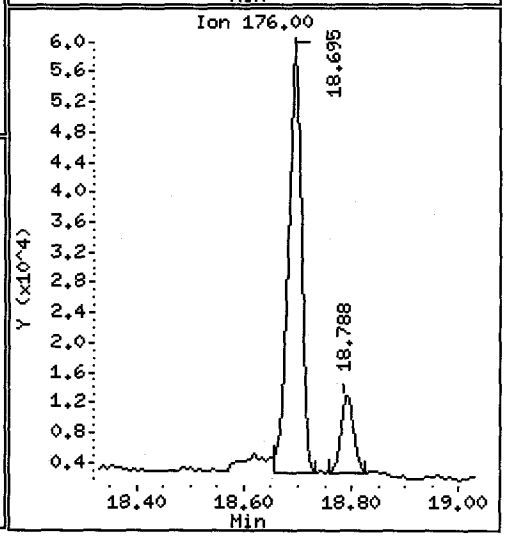












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

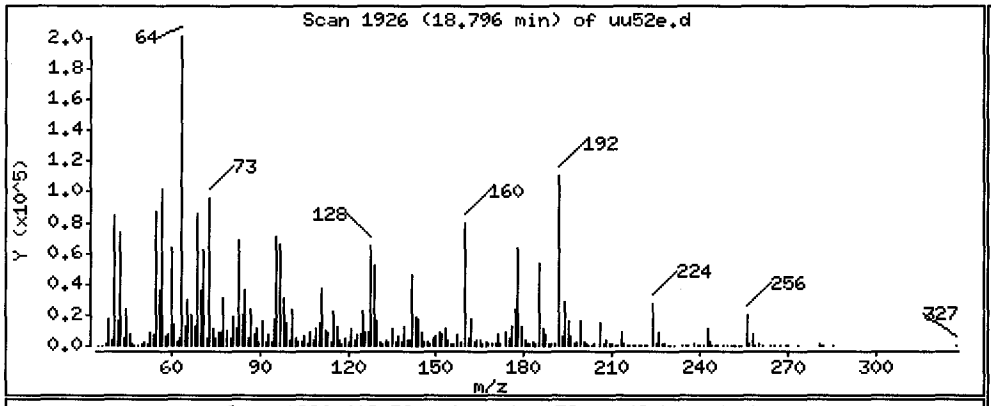
Operator: VTS/YZ

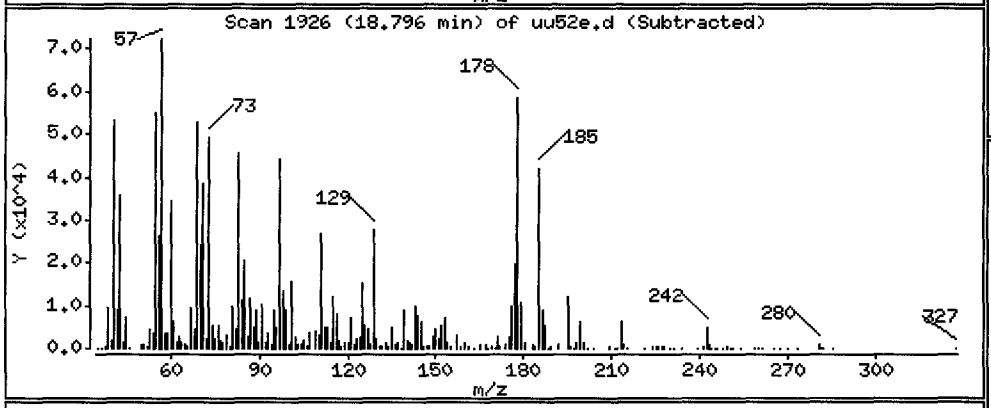
Column phase: ZB-5msi

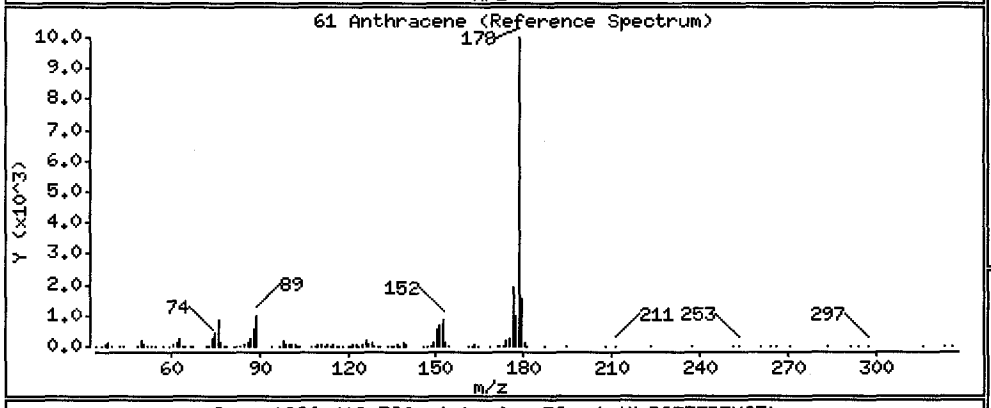
Column diameter: 0.25

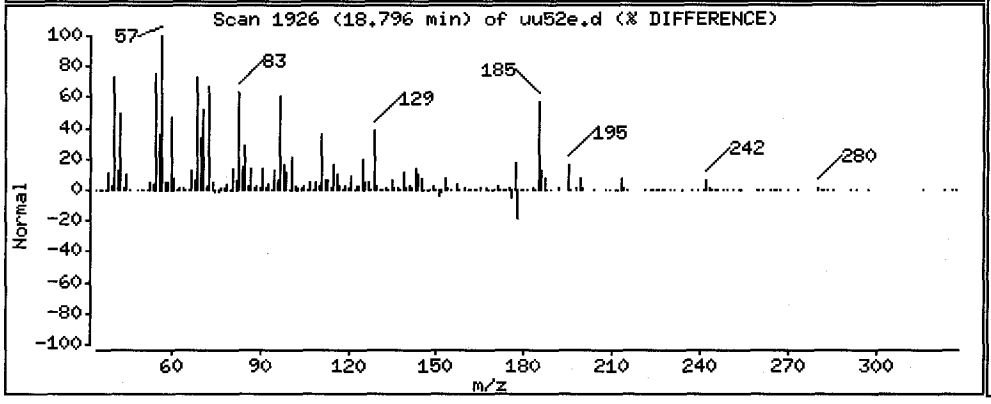
61 Anthracene

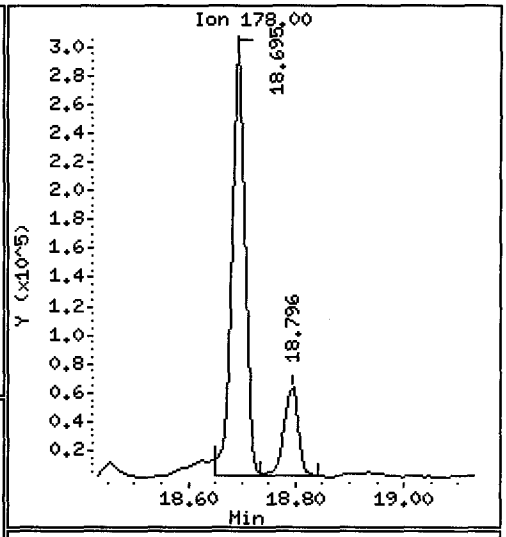
Concentration: 182.1 ug/kg

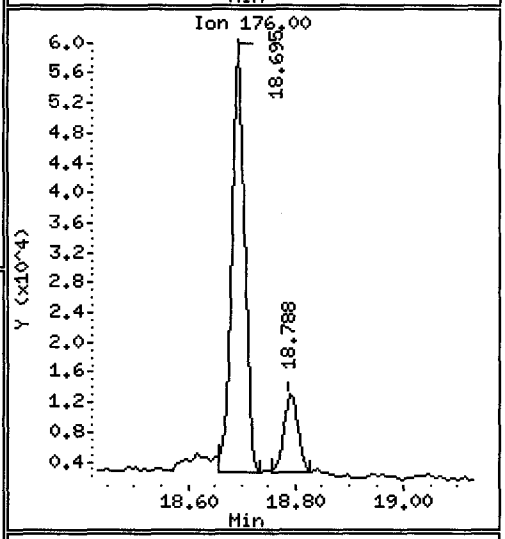


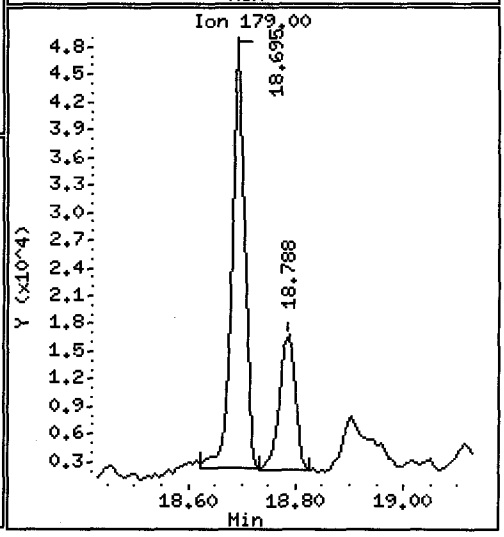












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

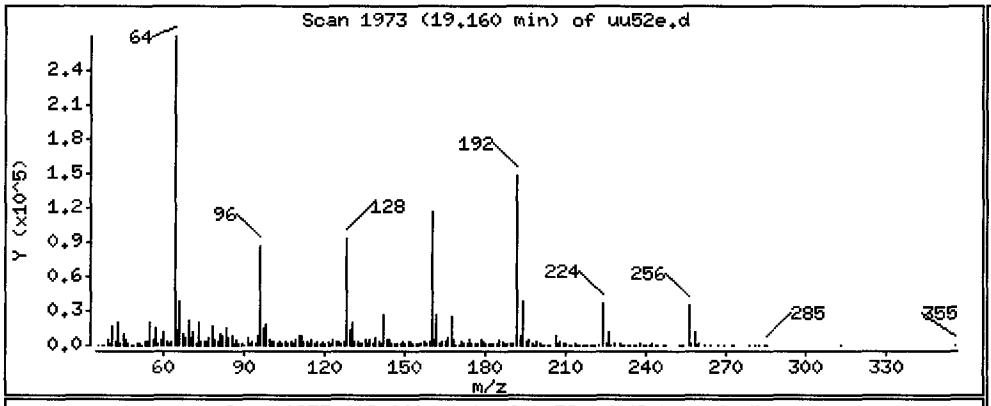
Operator: VTS/YZ

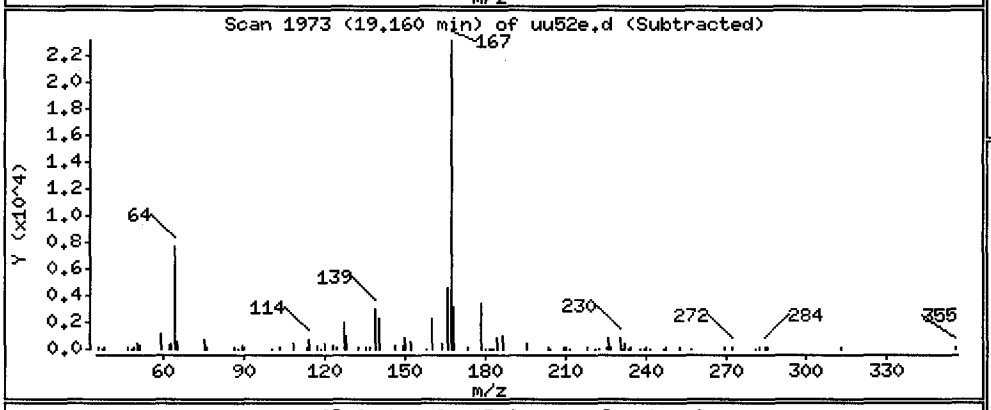
Column phase: ZB-5msi

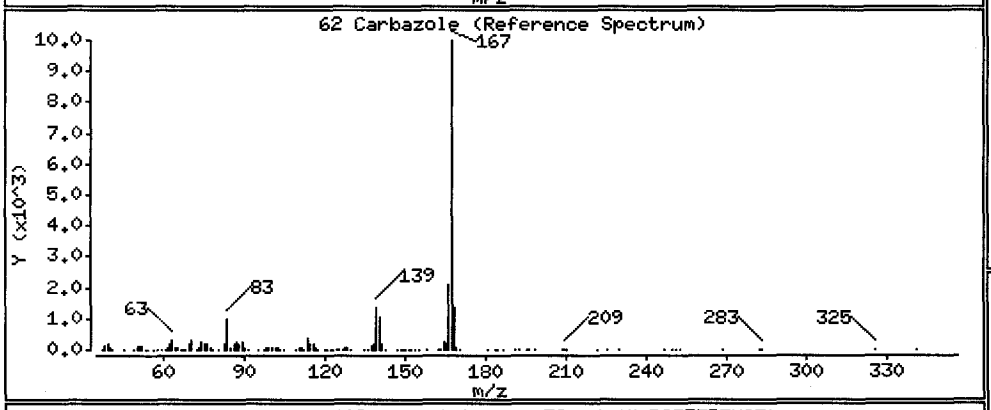
Column diameter: 0.25

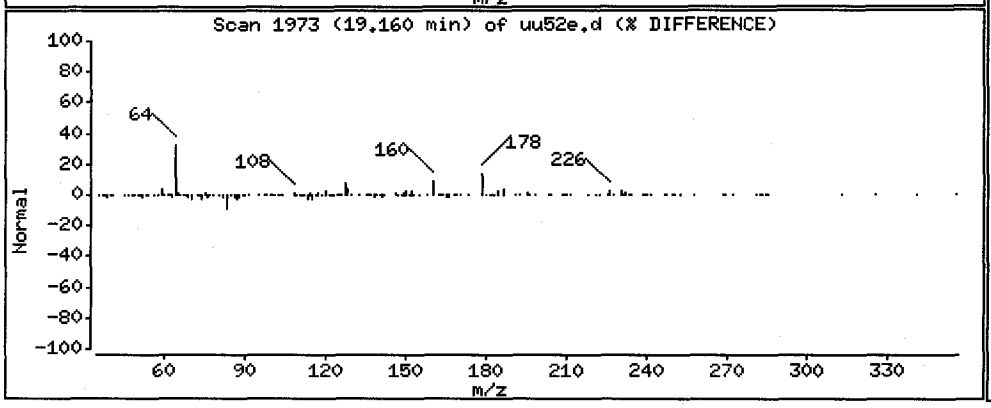
62 Carbazole

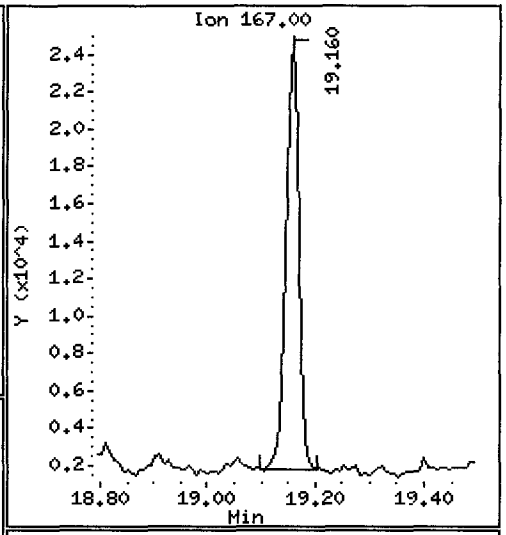
Concentration: 67.16 ug/kg

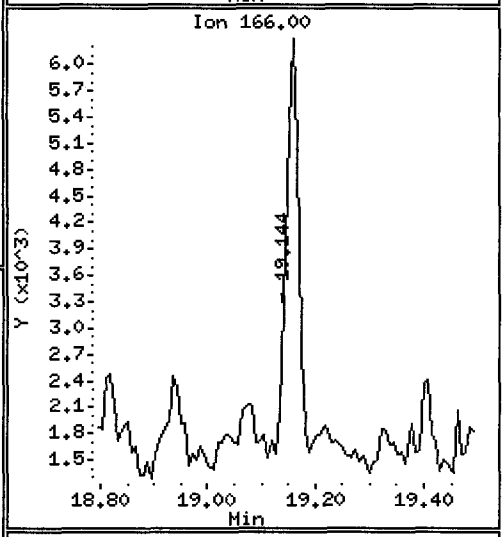


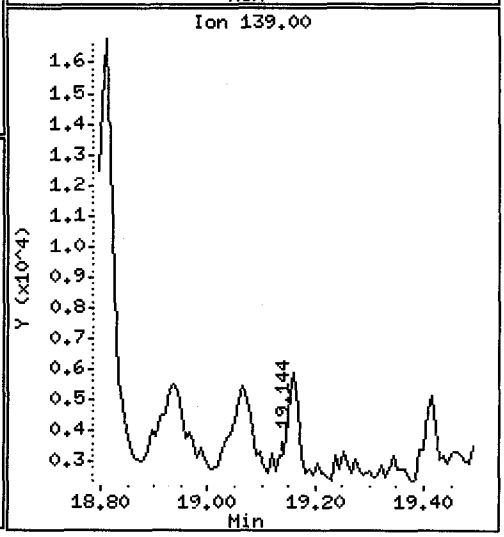












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

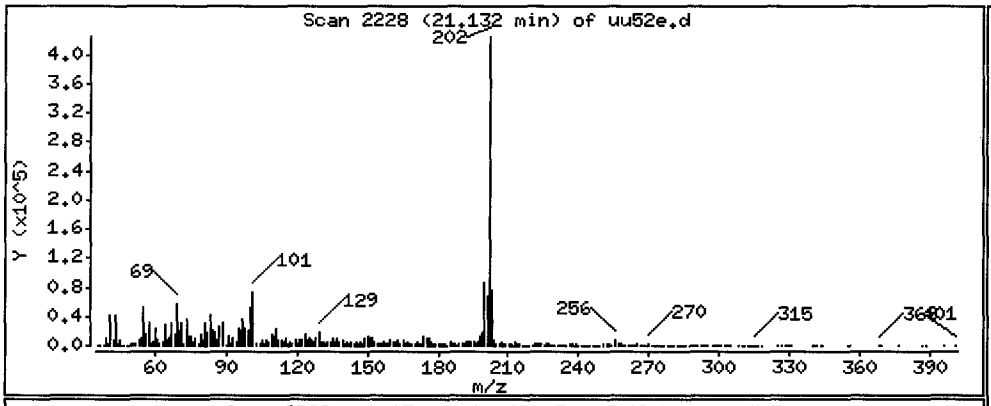
Operator: VTS/YZ

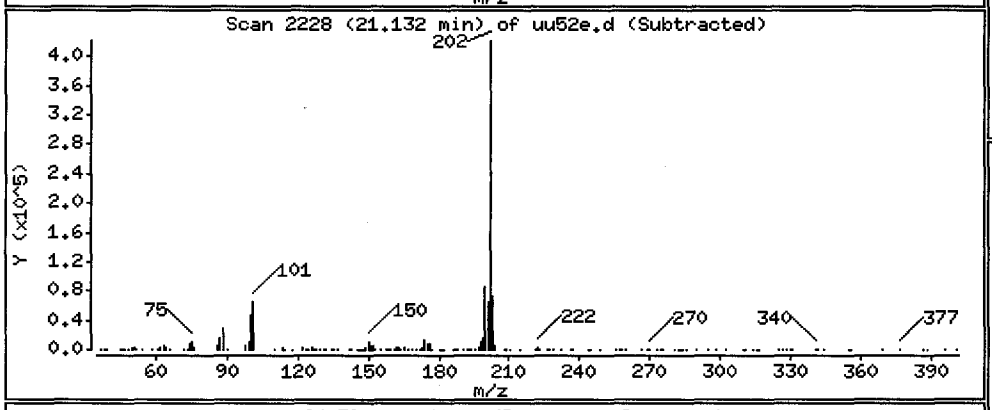
Column phase: ZB-5msi

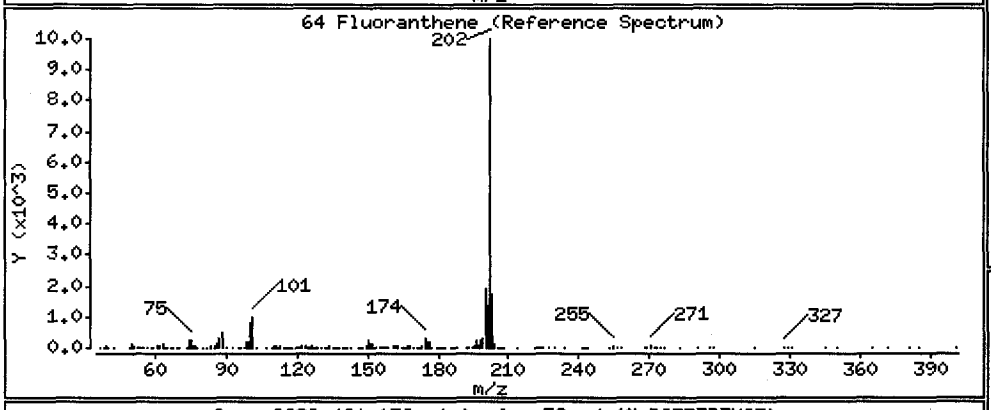
Column diameter: 0.25

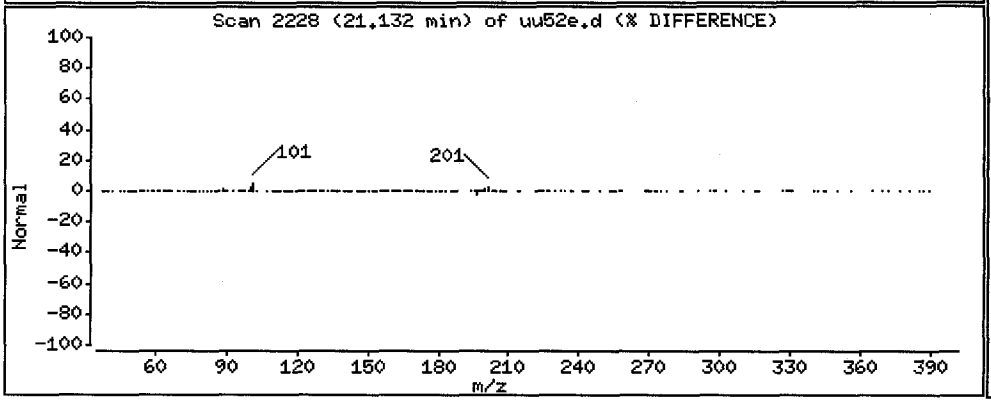
64 Fluoranthene

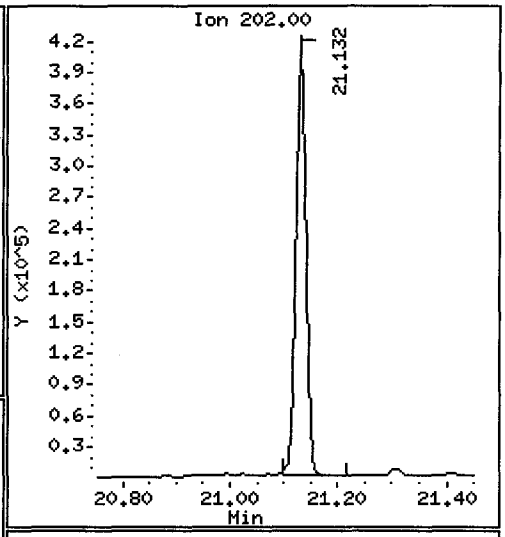
Concentration: 865.6 ug/kg

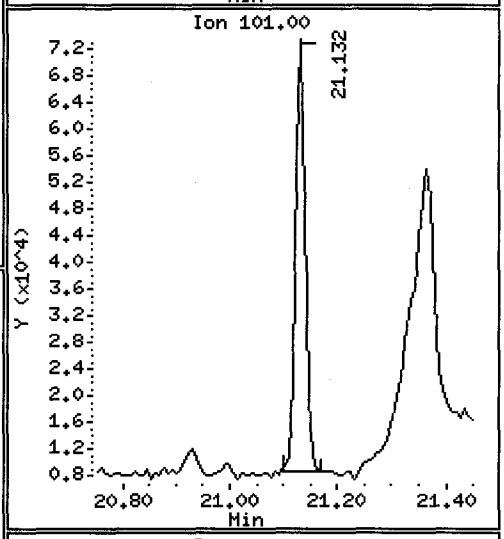


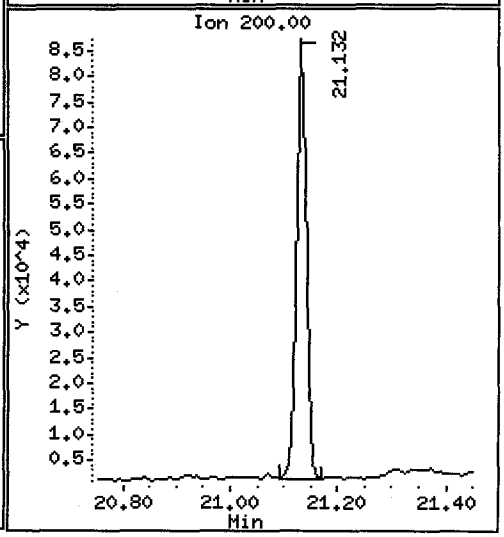












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

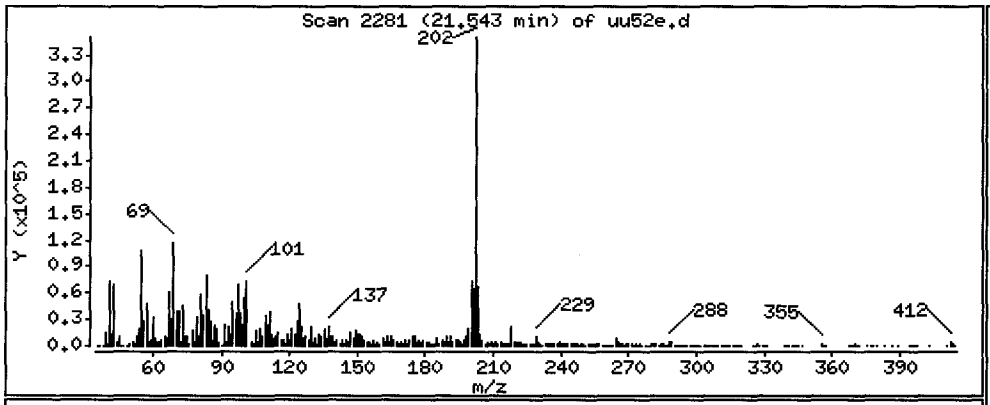
Operator: VTS/YZ

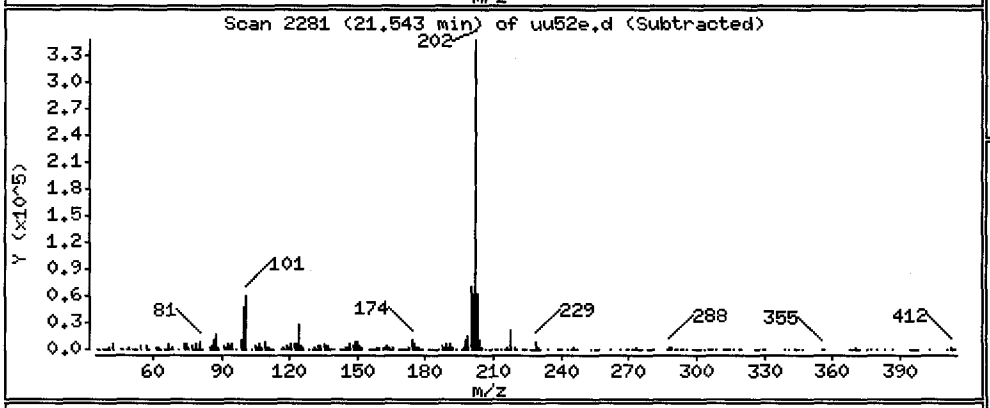
Column phase: ZB-5msi

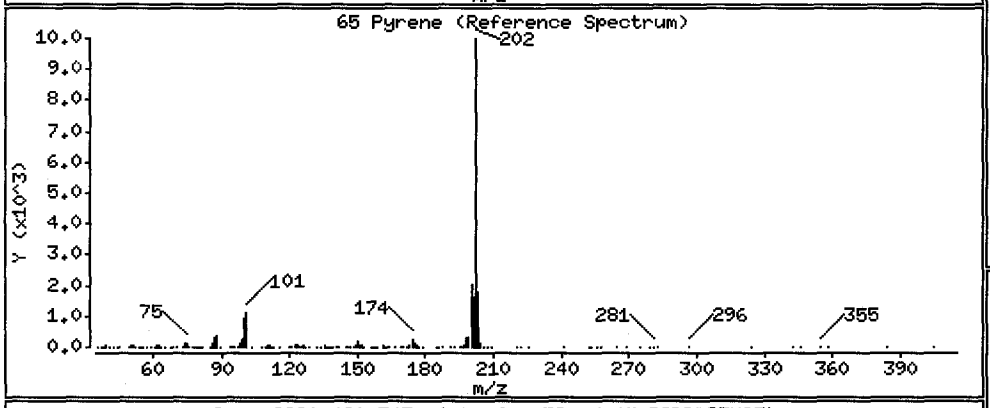
Column diameter: 0.25

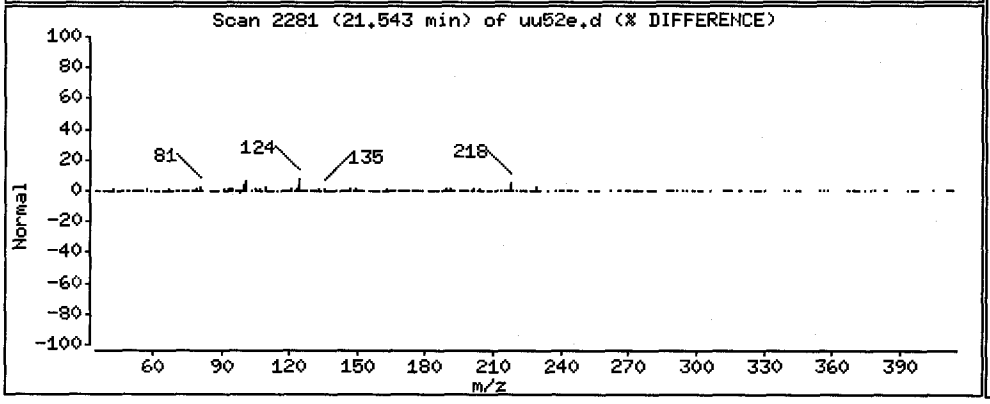
65 Pyrene

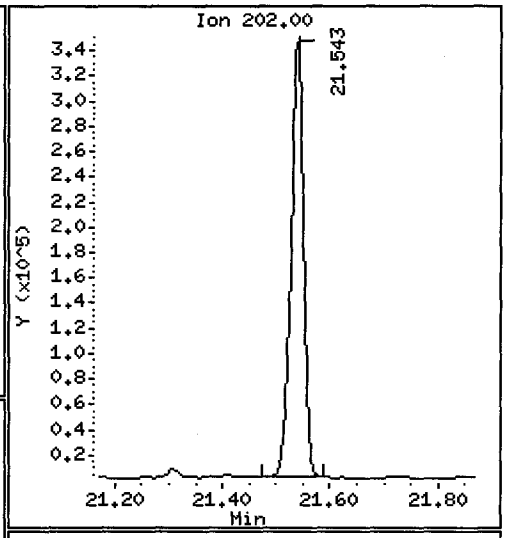
Concentration: 787.7 ug/kg

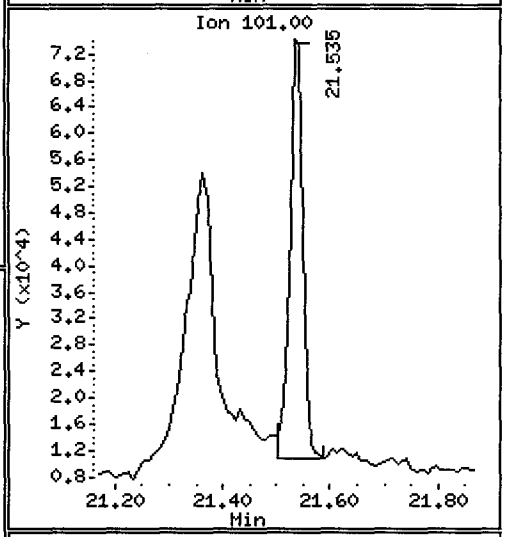


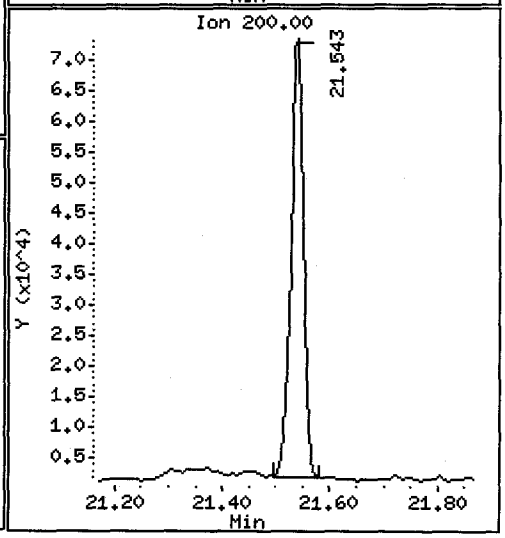












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

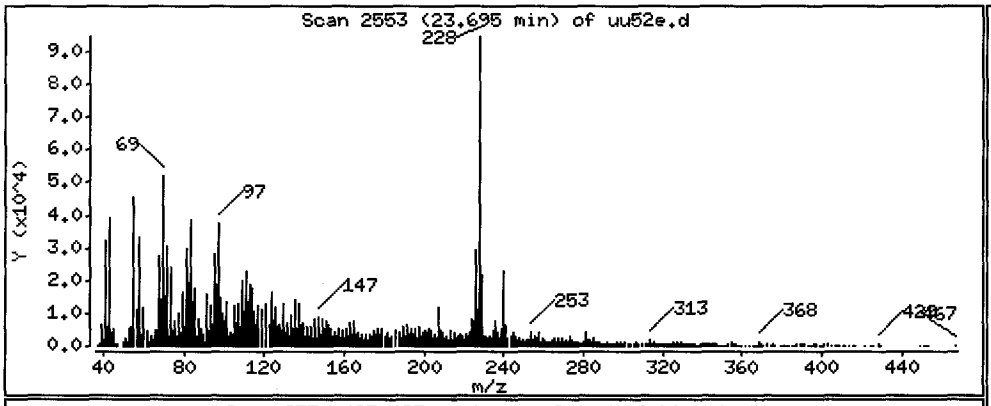
Operator: VTS/YZ

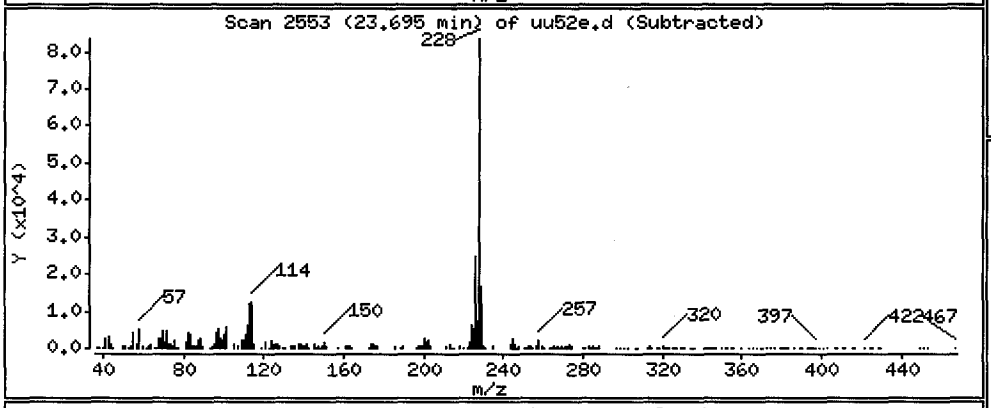
Column phase: ZB-5msi

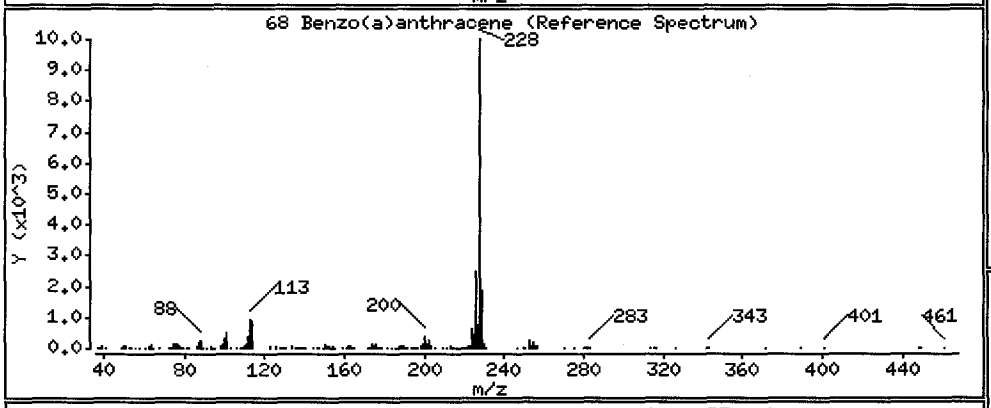
Column diameter: 0.25

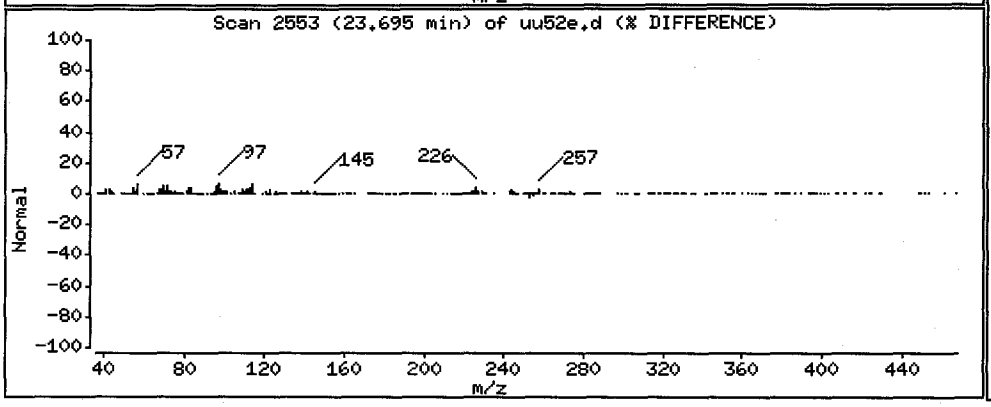
68 Benzo(a)anthracene

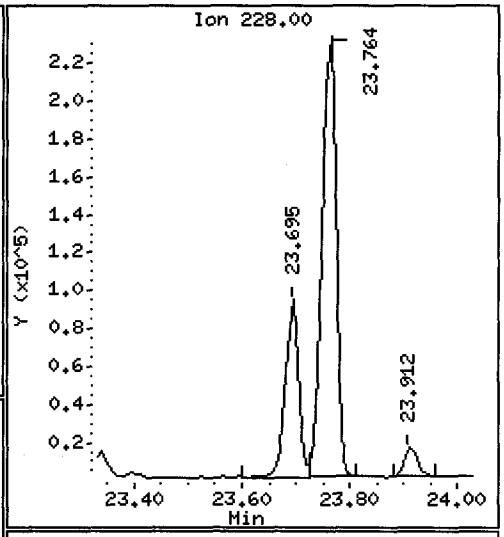
Concentration: 236.4 ug/kg

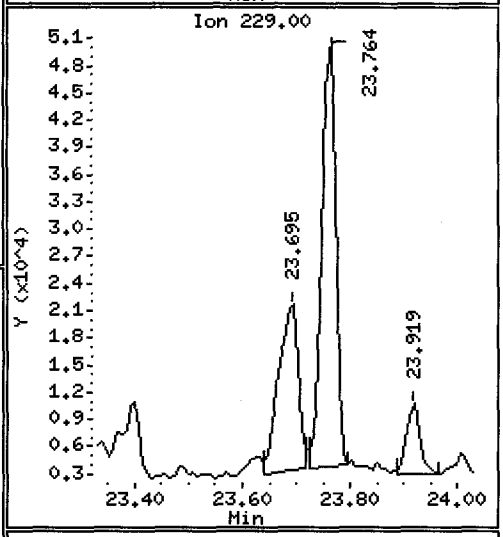


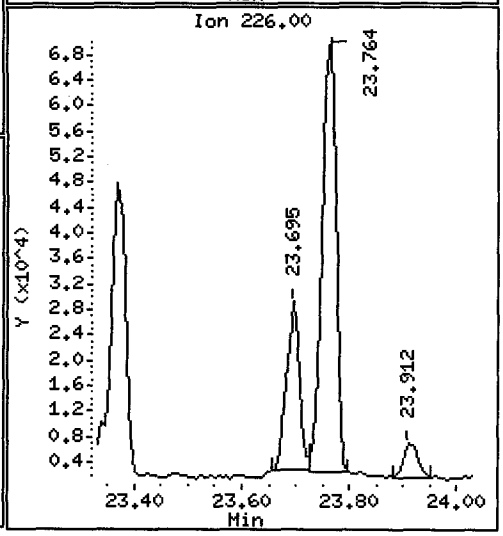












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

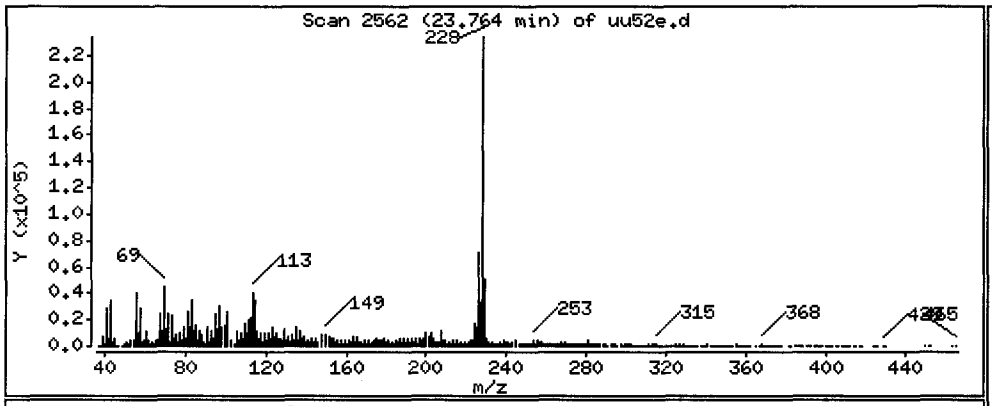
Operator: VTS/YZ

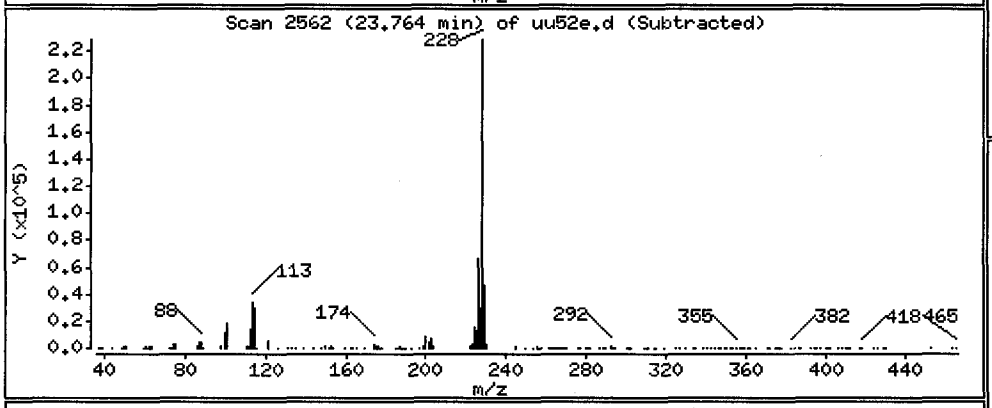
Column phase: ZB-5msi

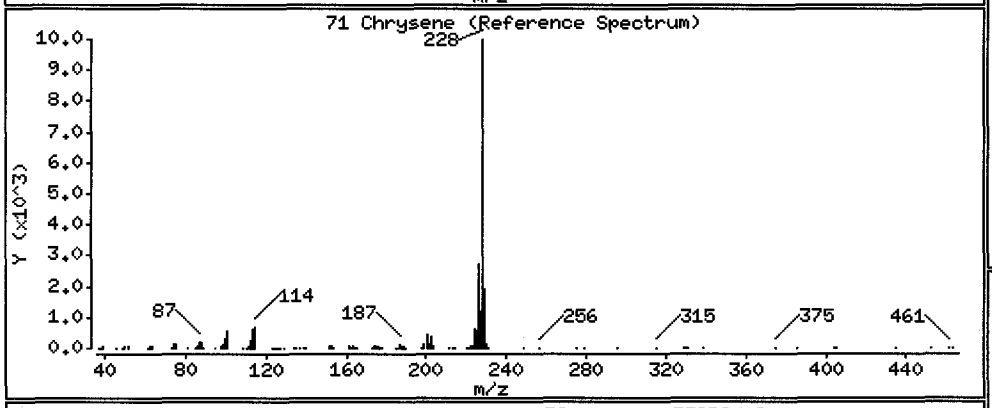
Column diameter: 0.25

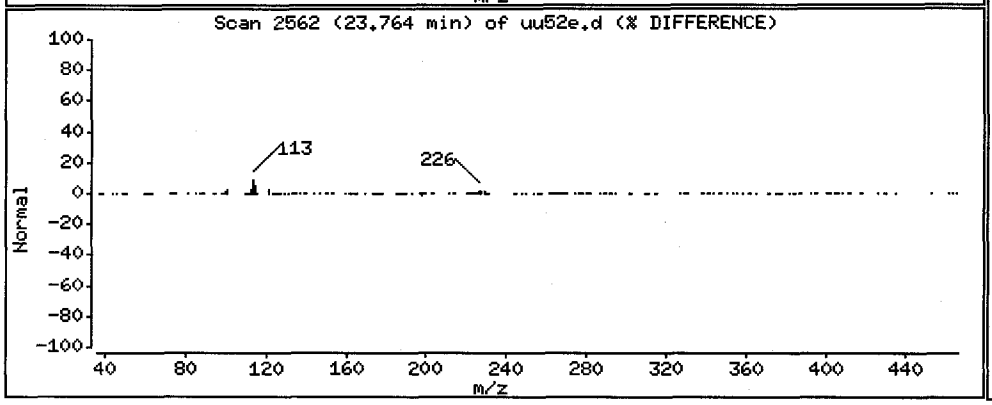
71 Chrysene

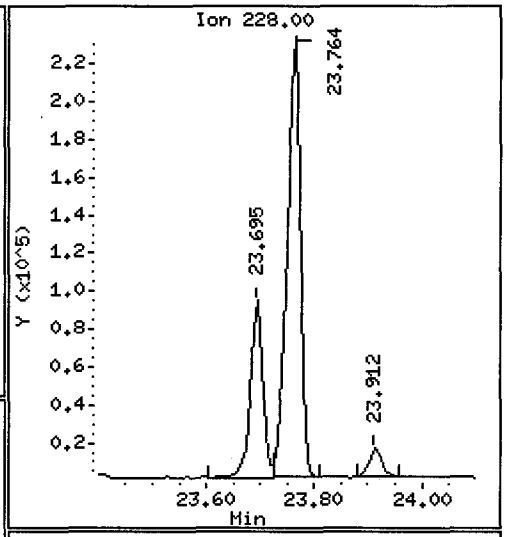
Concentration: 678.0 ug/kg

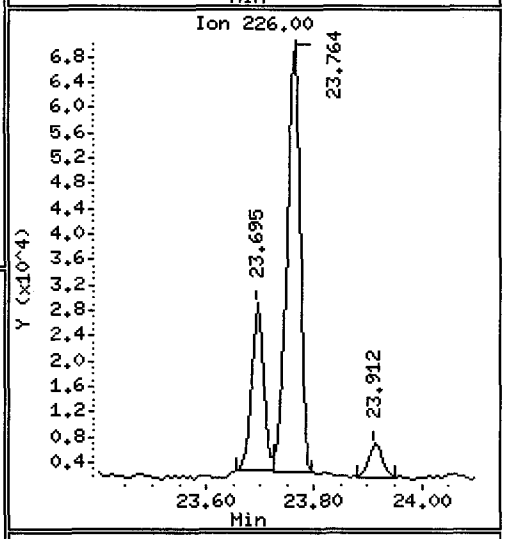


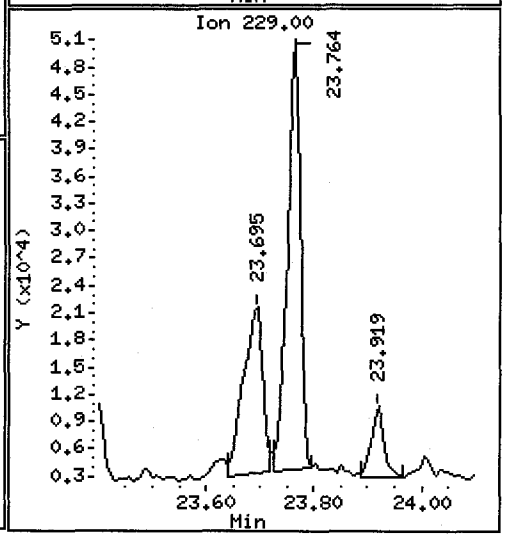












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

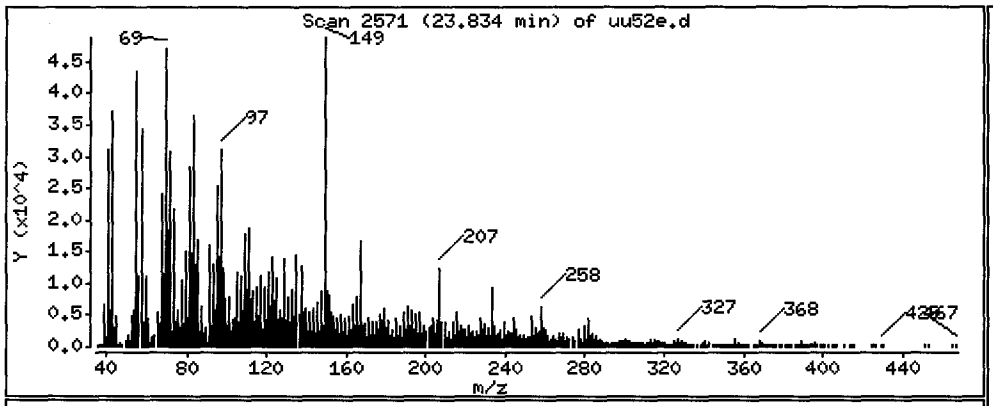
Client ID: MS004-SS-120515 Instrument: nt10.i

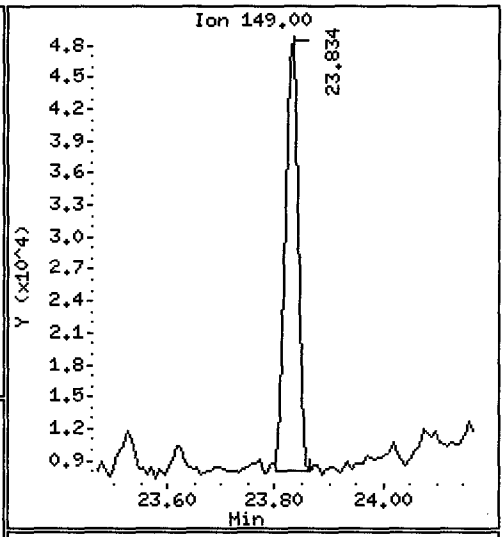
Sample Info: UU52E,3

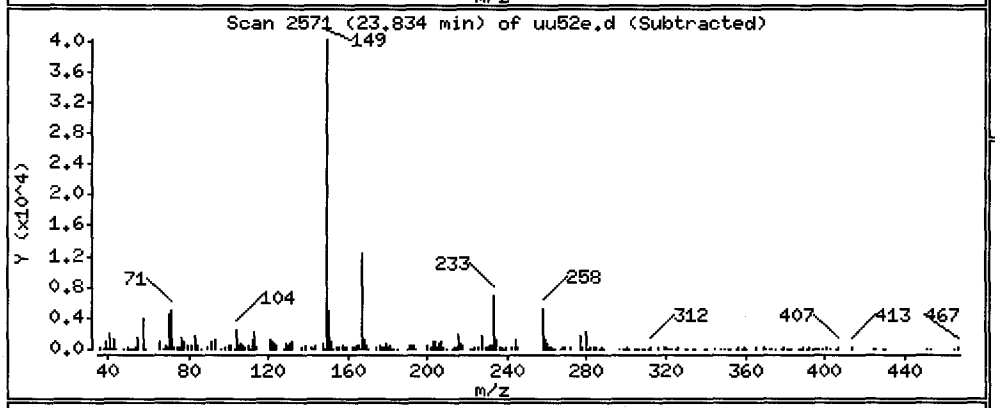
Volume Injected (uL): 1.0 Operator: VTS/YZ

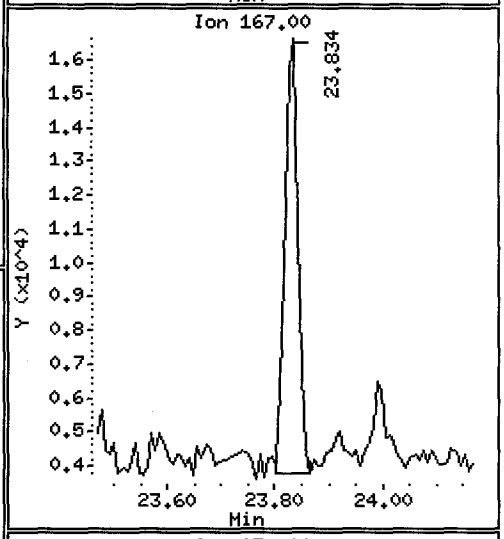
Column phase: ZB-5msi Column diameter: 0.25

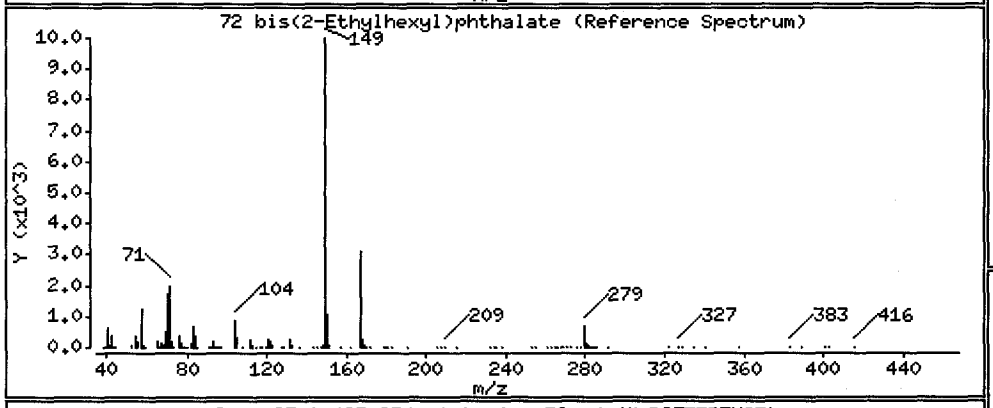
72 bis(2-Ethylhexyl)phthalate Concentration: 124.2 ug/kg

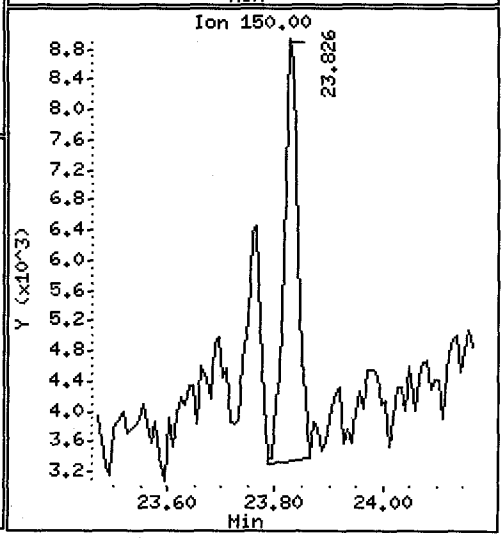


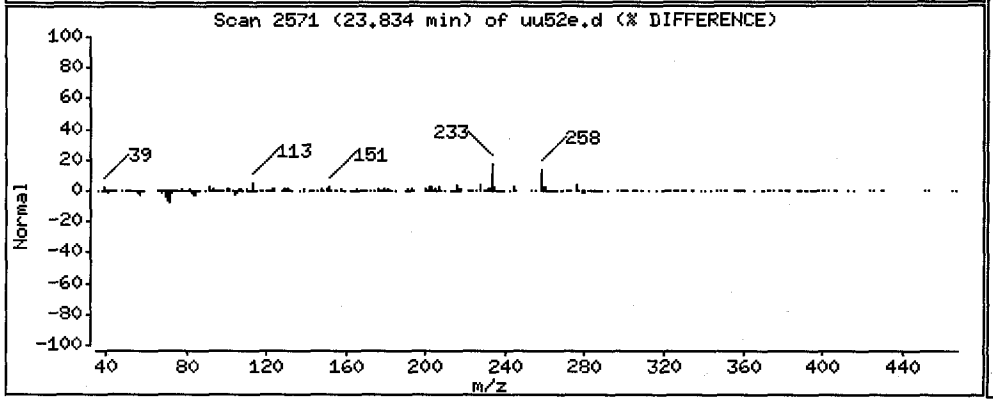






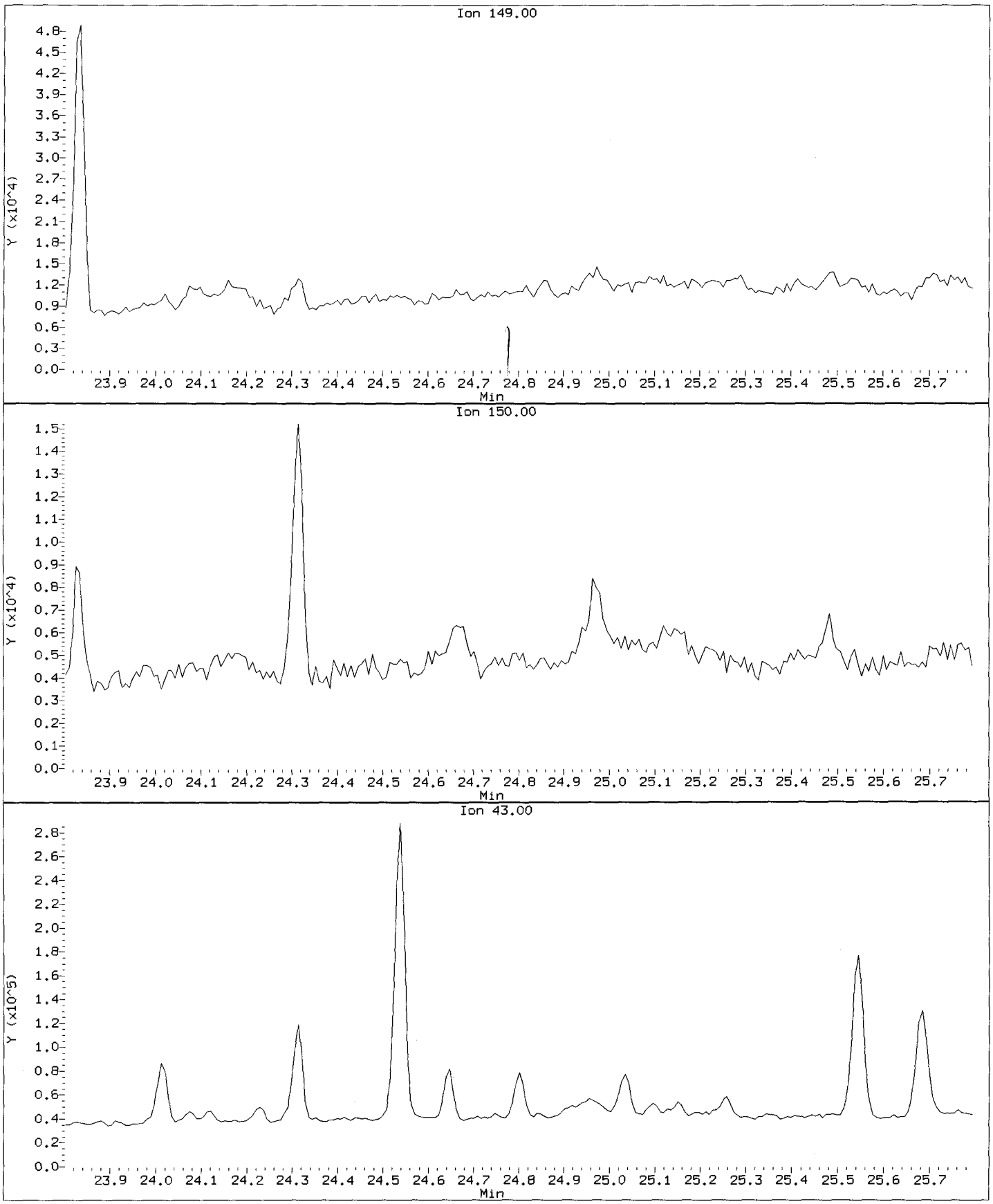






Data File: /chem1/nt10.i/20120526.b/uu52e.d
Injection Date: 26-MAY-2012 19:39
Instrument: nt10.i
Client Sample ID: MS004-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

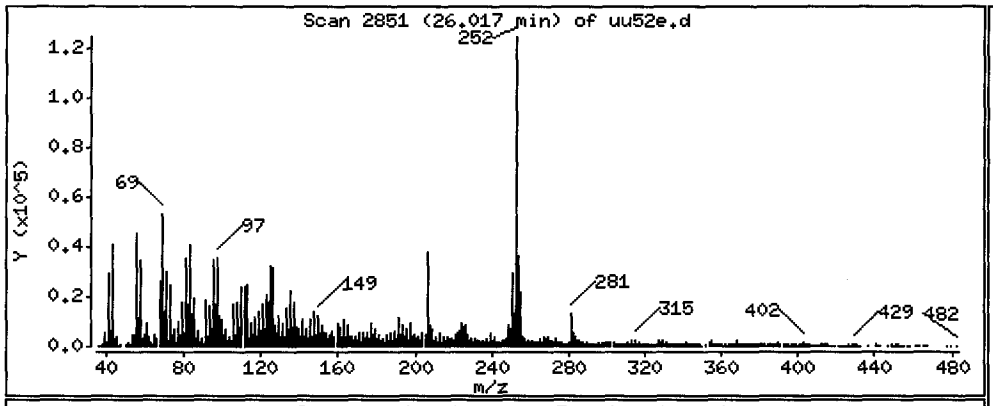
Operator: VTS/YZ

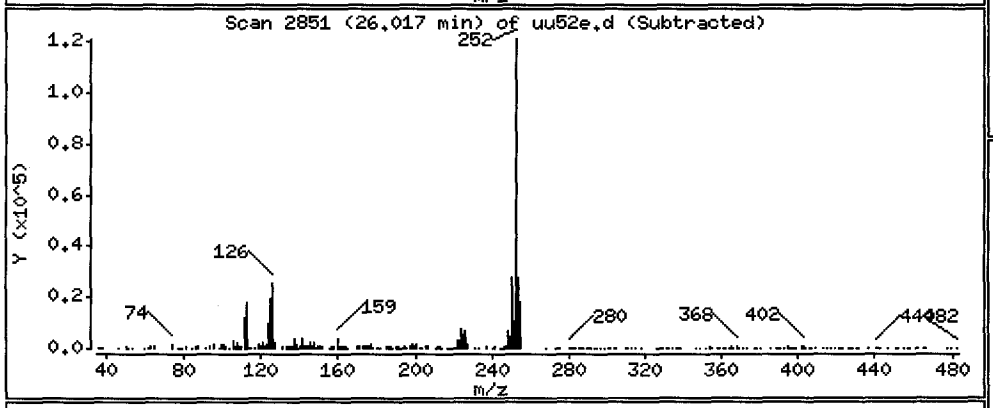
Column phase: ZB-5msi

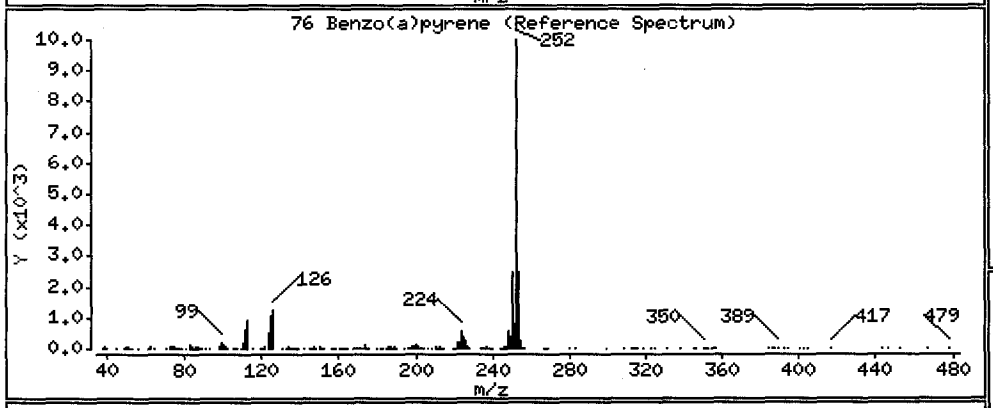
Column diameter: 0.25

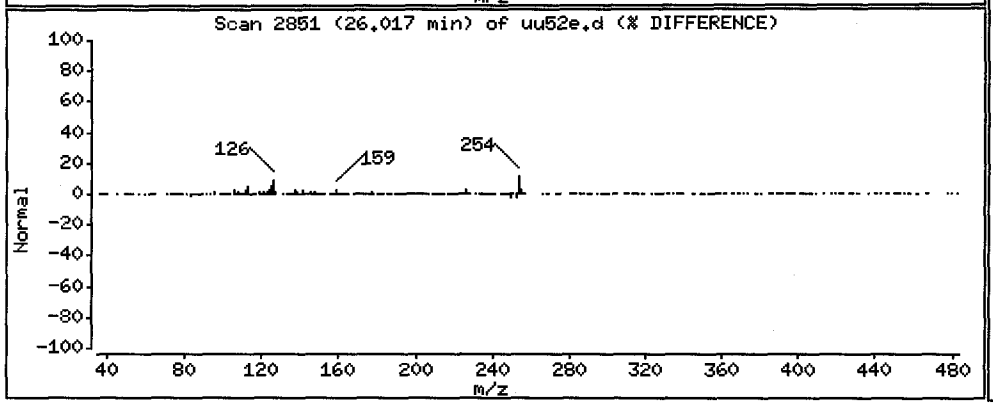
76 Benzo(a)pyrene

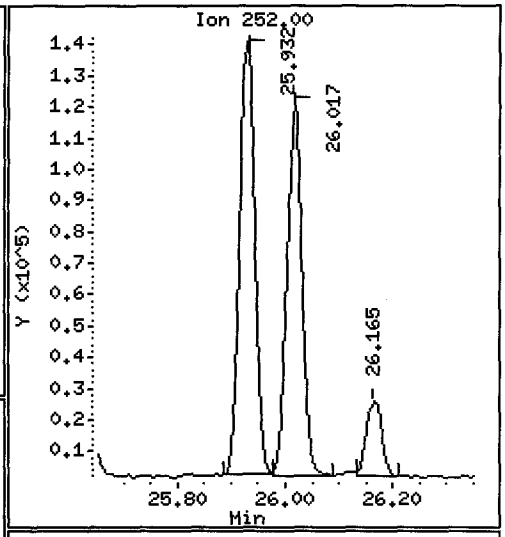
Concentration: 374.2 ug/kg

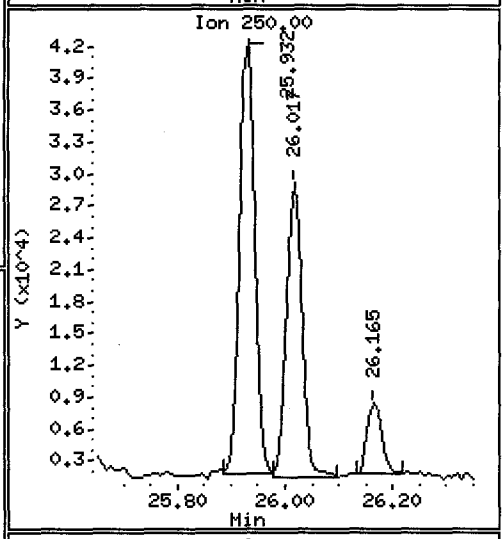


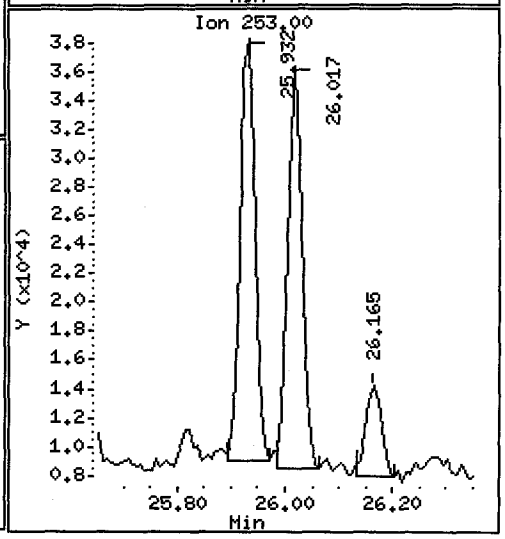












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

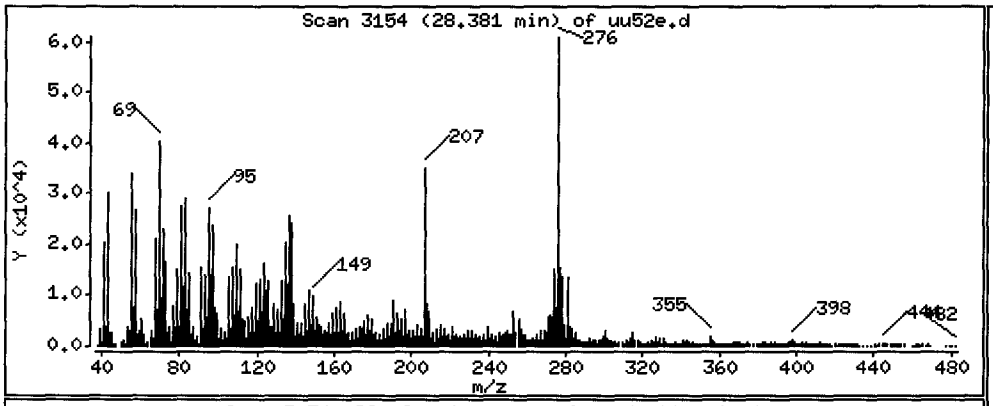
Client ID: MS004-SS-120515 Instrument: nt10.i

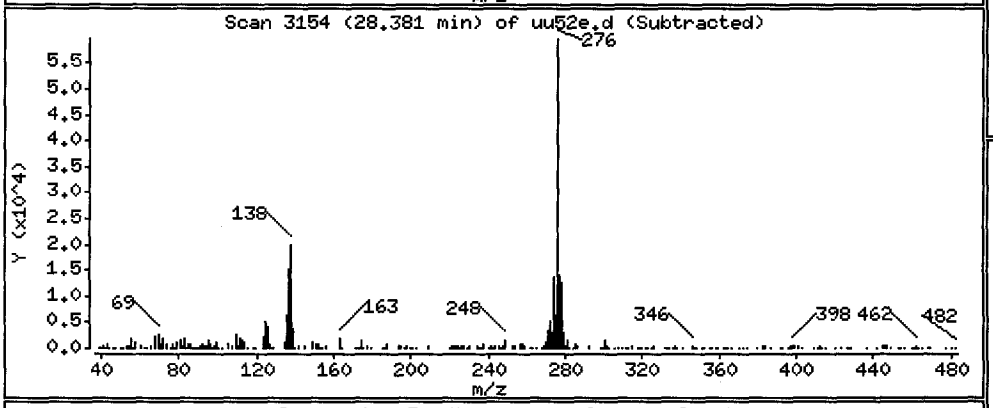
Sample Info: UU52E,3

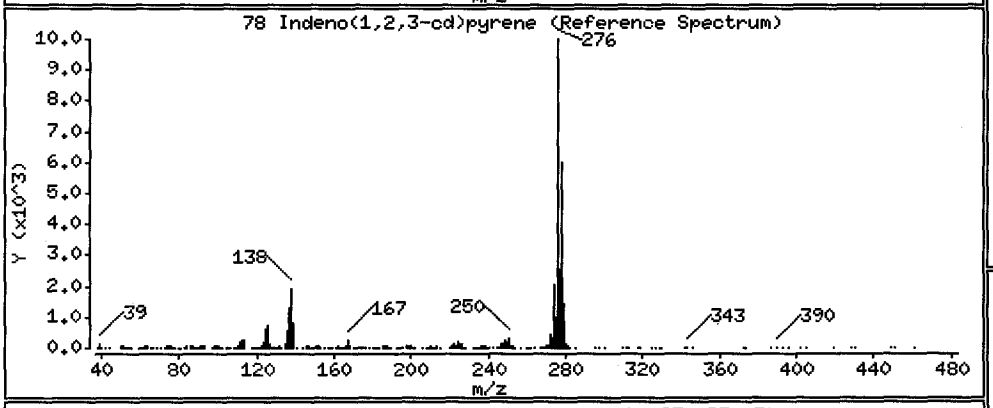
Volume Injected (uL): 1.0 Operator: VTS/YZ

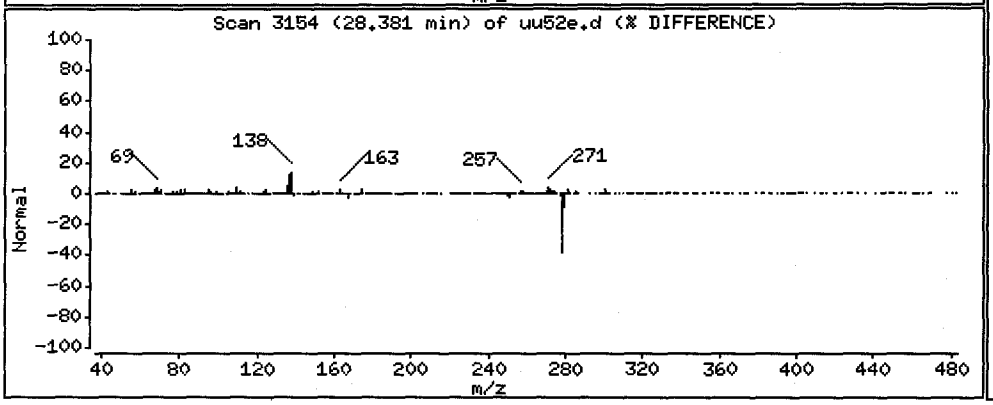
Column phase: ZB-5msi Column diameter: 0.25

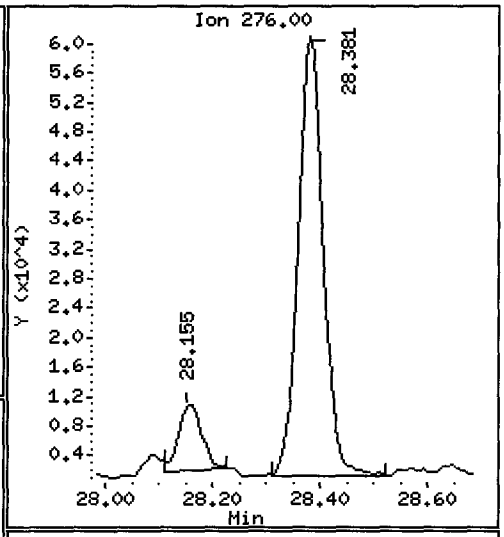
78 Indeno(1,2,3-cd)pyrene Concentration: 283.0 ug/kg

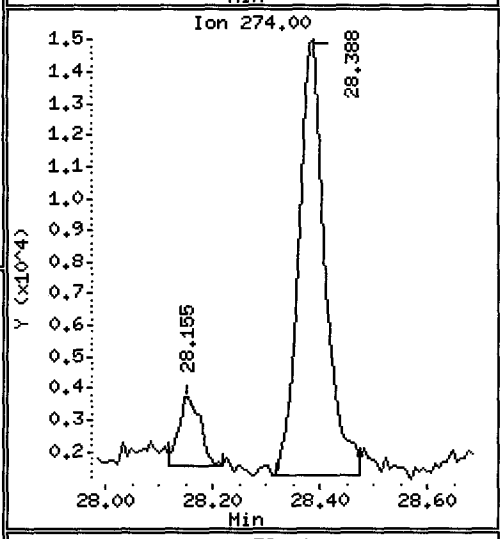


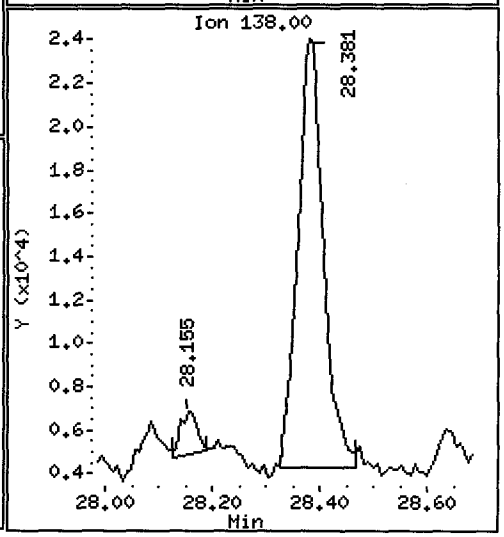












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

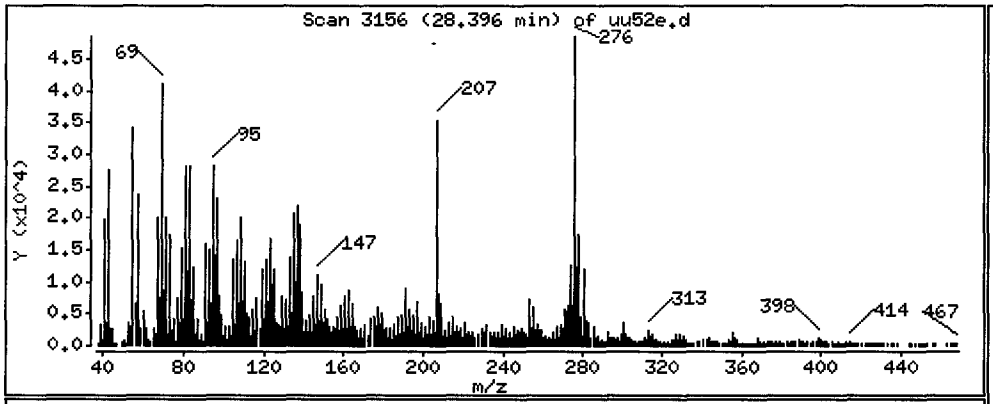
Operator: VTS/YZ

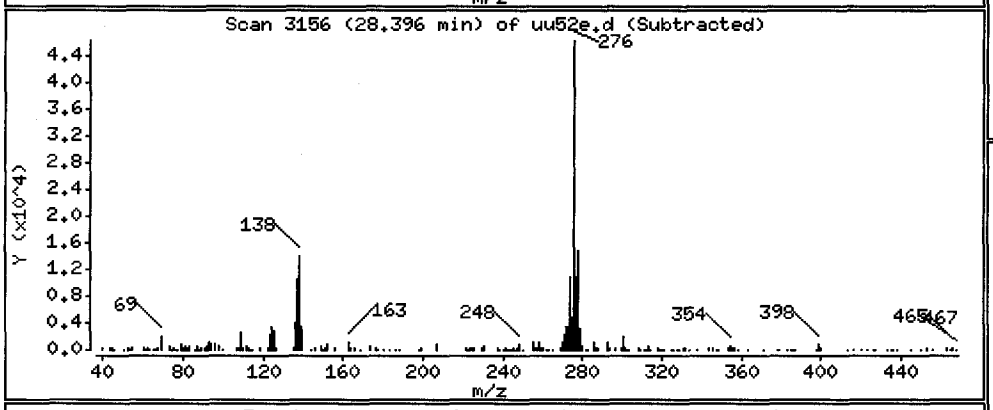
Column phase: ZB-5msi

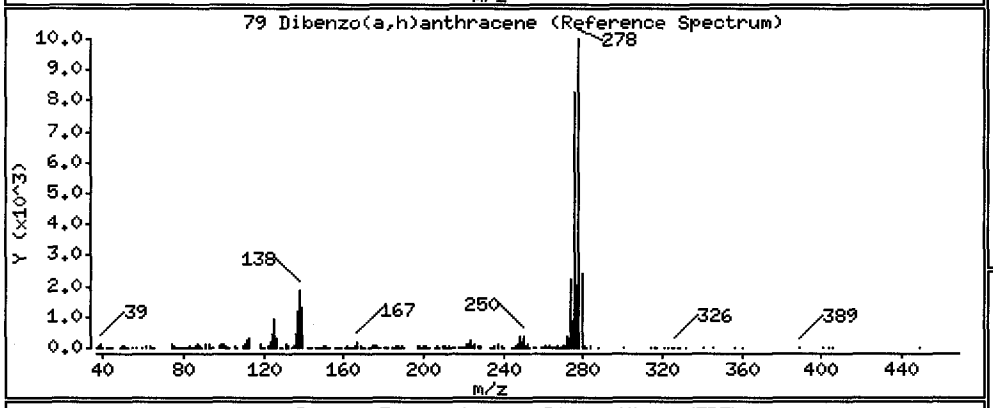
Column diameter: 0.25

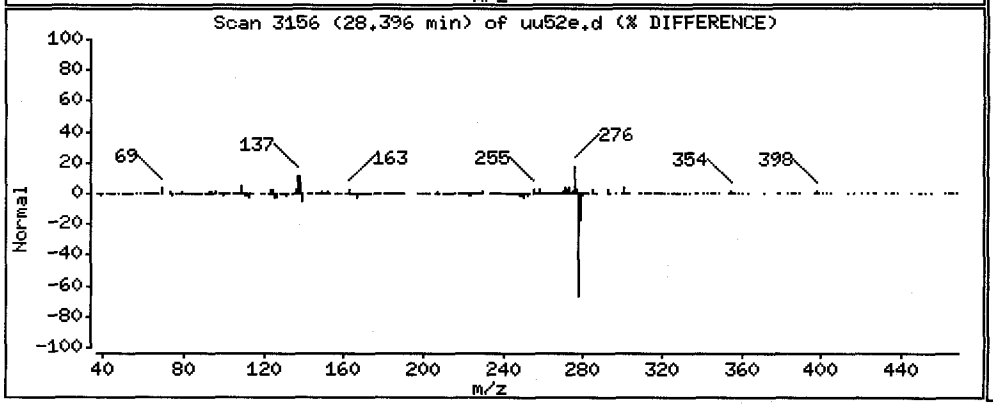
79 Dibenzo(a,h)anthracene

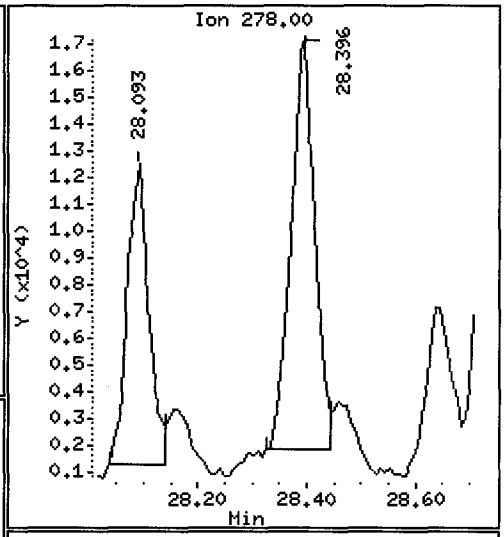
Concentration: 86.90 ug/kg

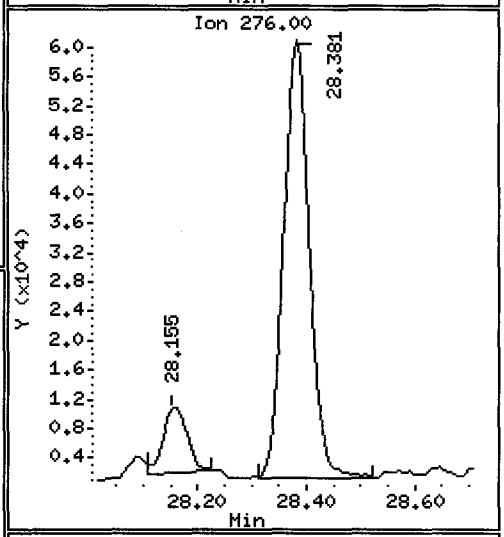


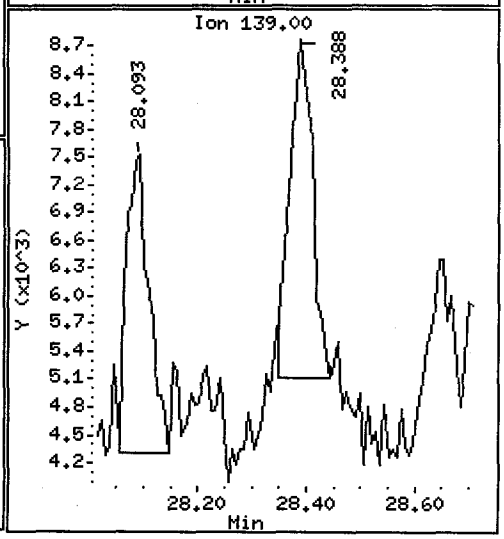












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

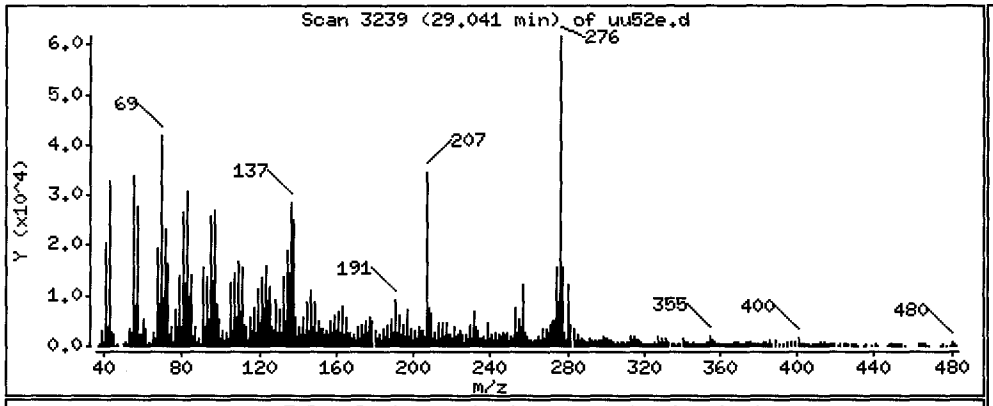
Client ID: MS004-SS-120515 Instrument: nt10.i

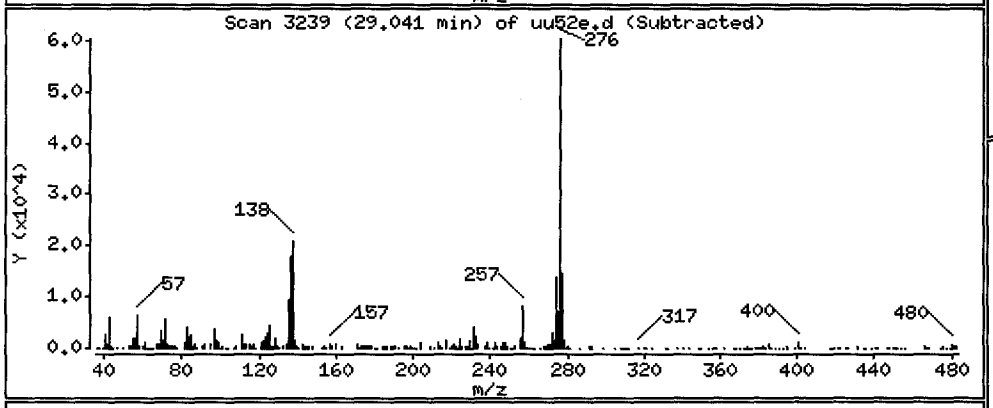
Sample Info: UU52E,3

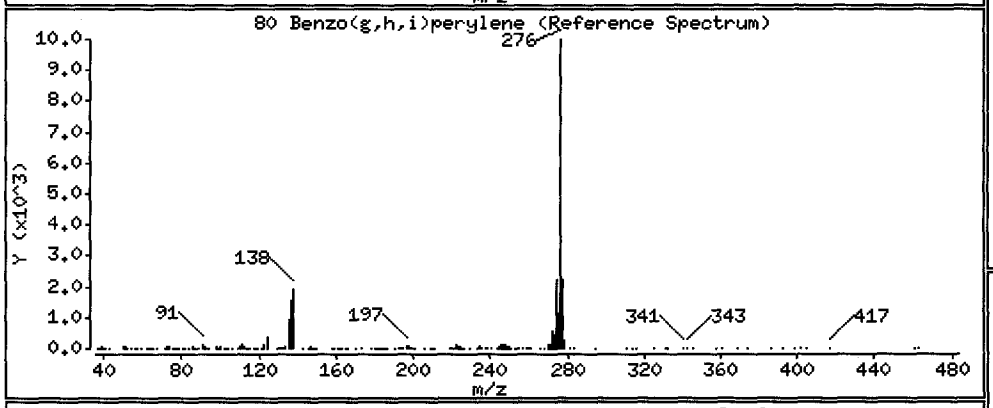
Volume Injected (uL): 1.0 Operator: VTS/YZ

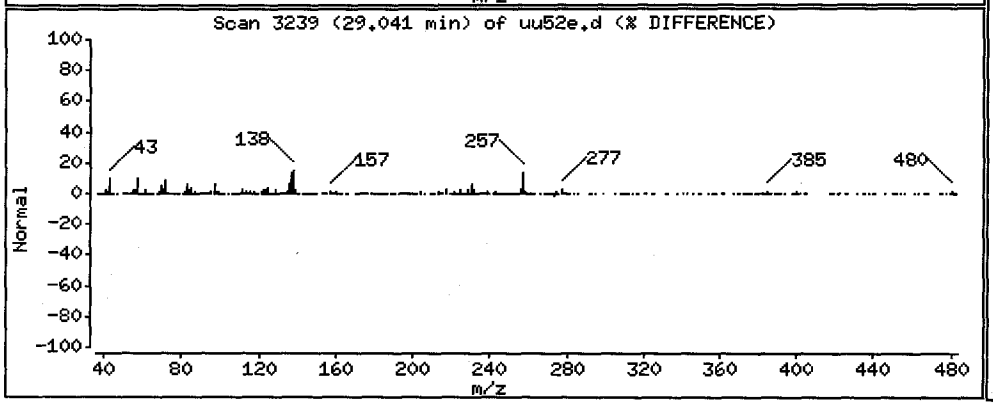
Column phase: ZB-5msi Column diameter: 0.25

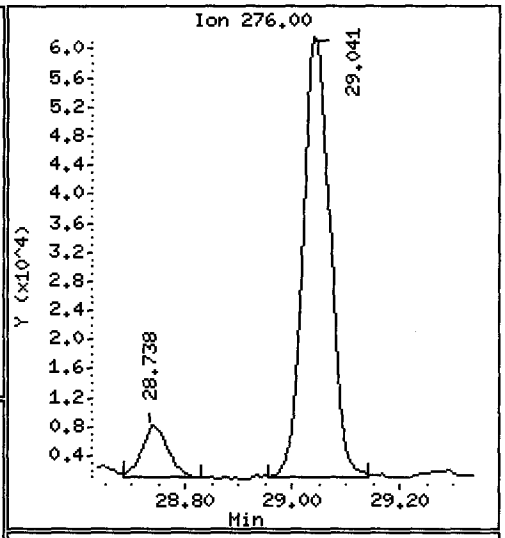
80 Benzo(g,h,i)perylene Concentration: 359.2 ug/kg

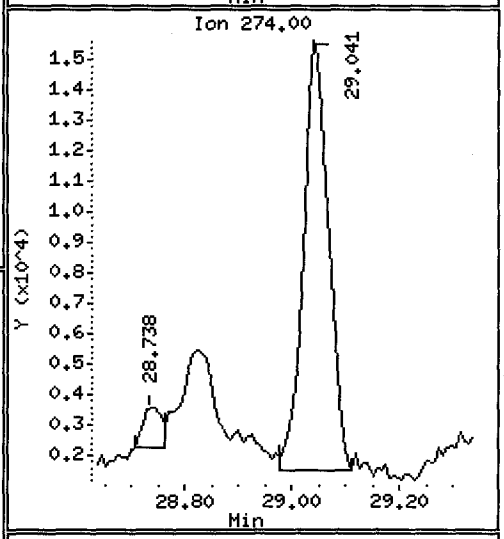


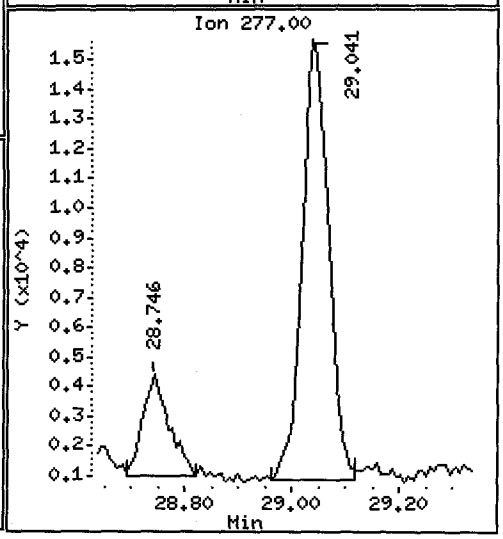












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

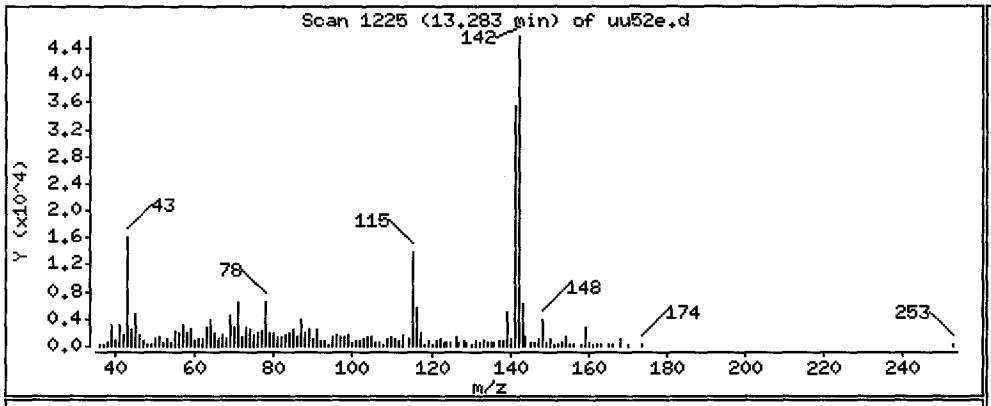
Client ID: MS004-SS-120515 Instrument: nt10.i

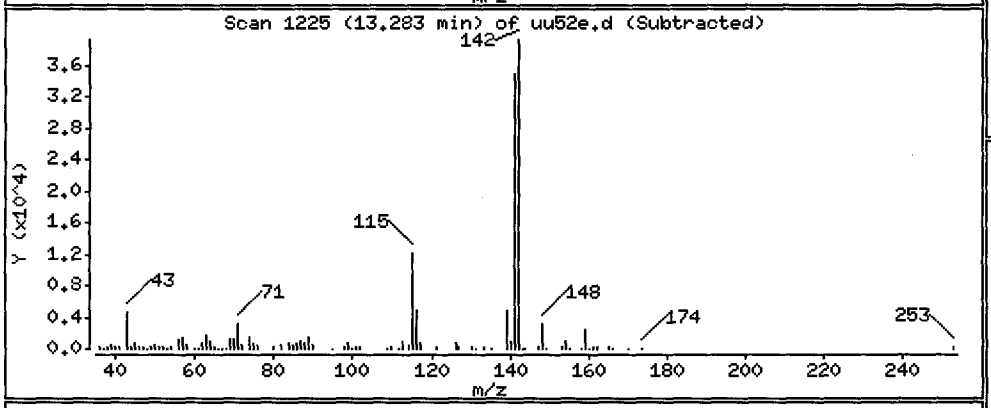
Sample Info: UU52E,3

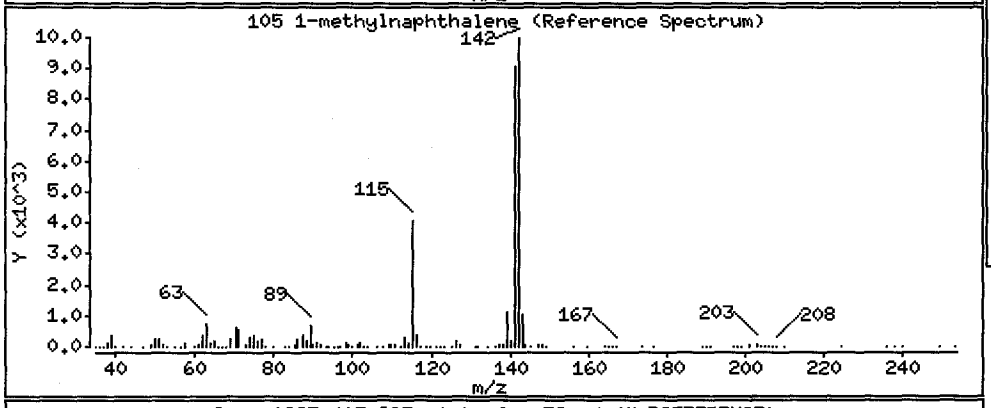
Volume Injected (uL): 1.0 Operator: VTS/YZ

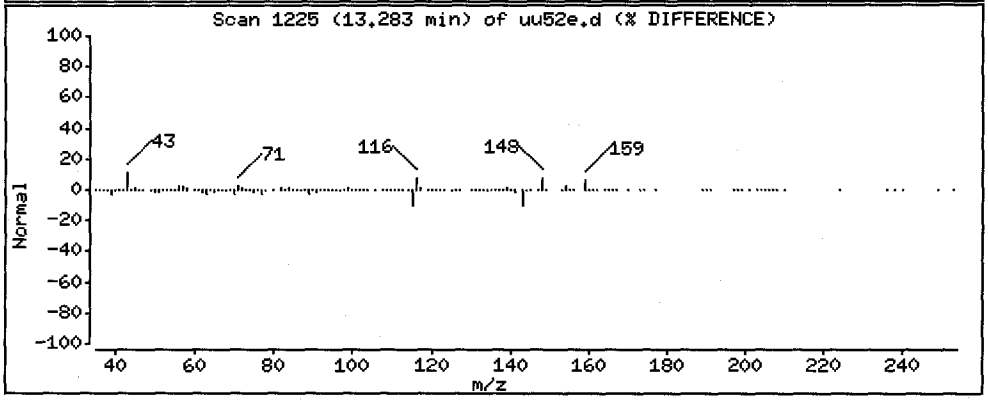
Column phase: ZB-5msi Column diameter: 0.25

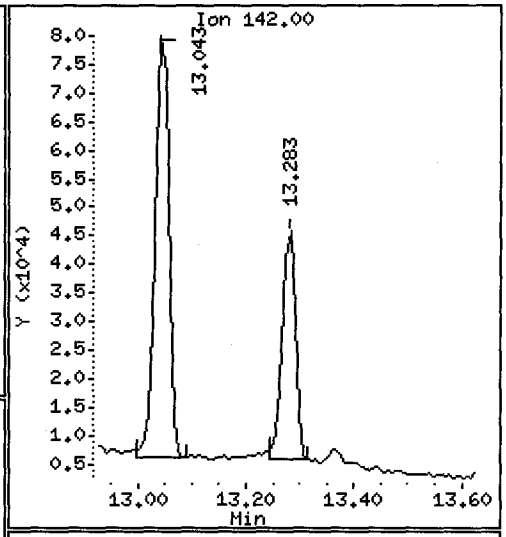
105 1-methylnaphthalene Concentration: 138.1 ug/kg

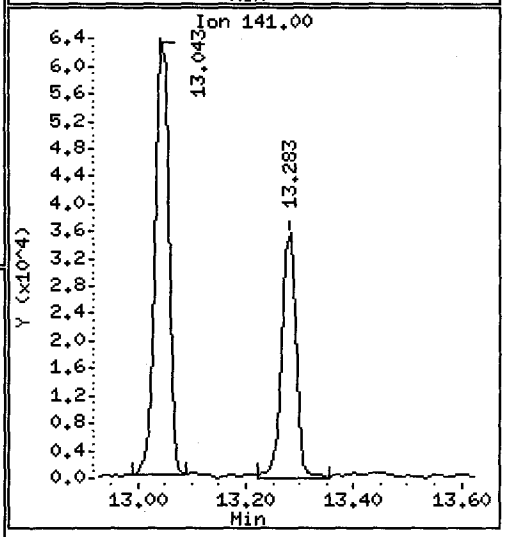












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

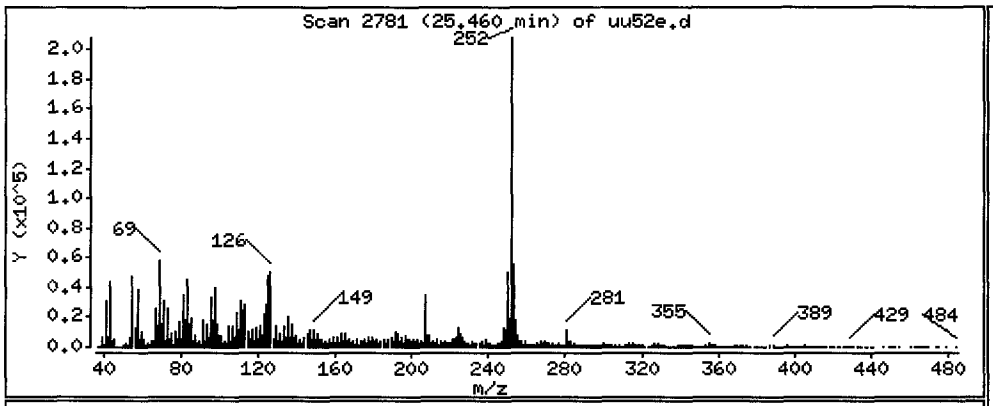
Client ID: MS004-SS-120515 Instrument: nt10.i

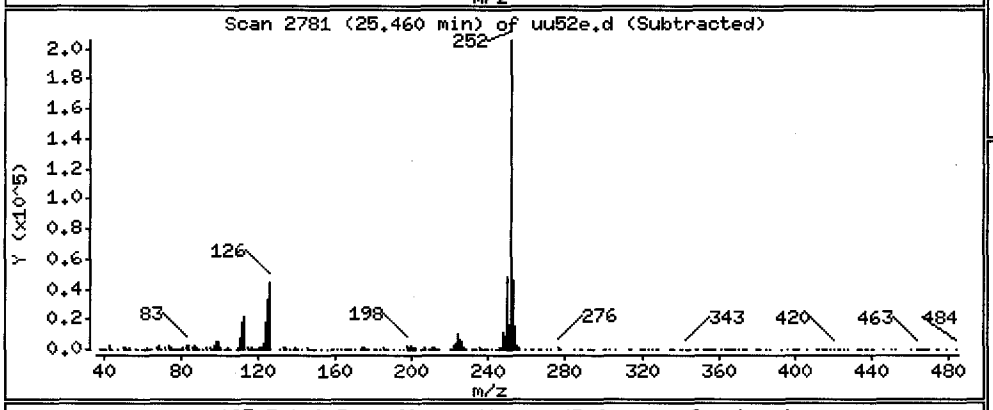
Sample Info: UU52E,3

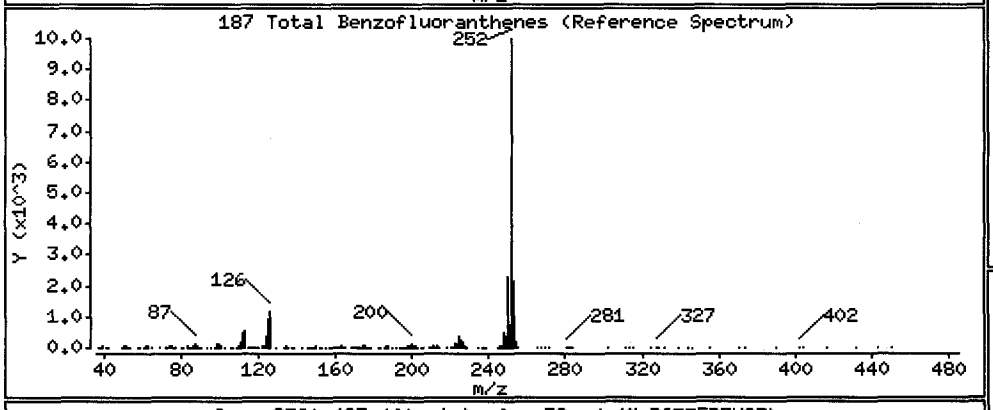
Volume Injected (uL): 1.0 Operator: VTS/YZ

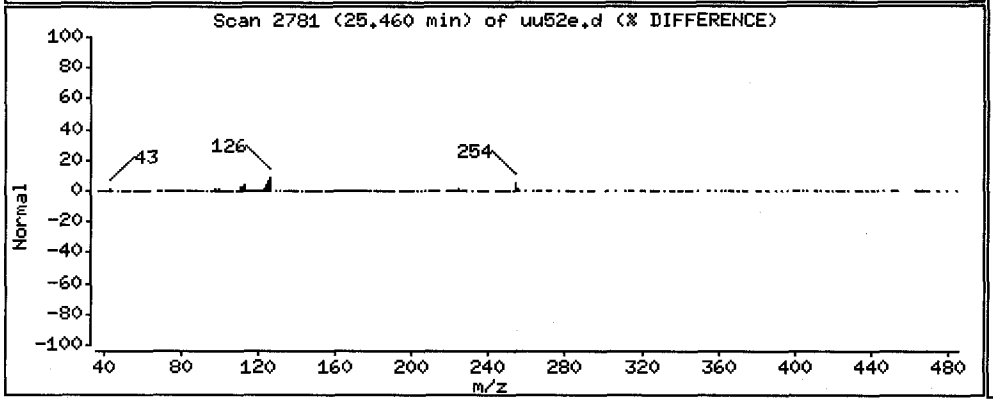
Column phase: ZB-5msi Column diameter: 0.25

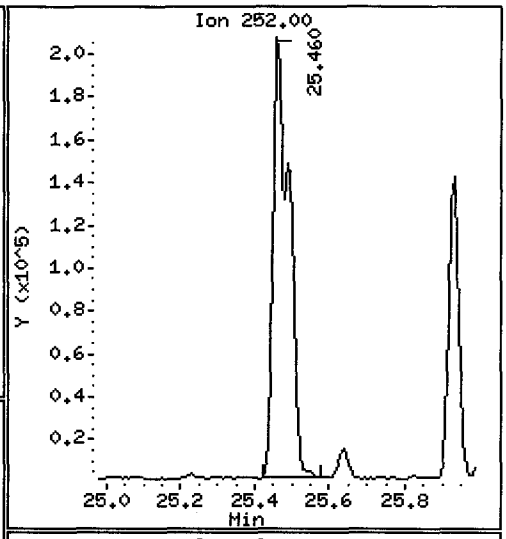
187 Total Benzofluoranthenes Concentration: 970.5 ug/kg

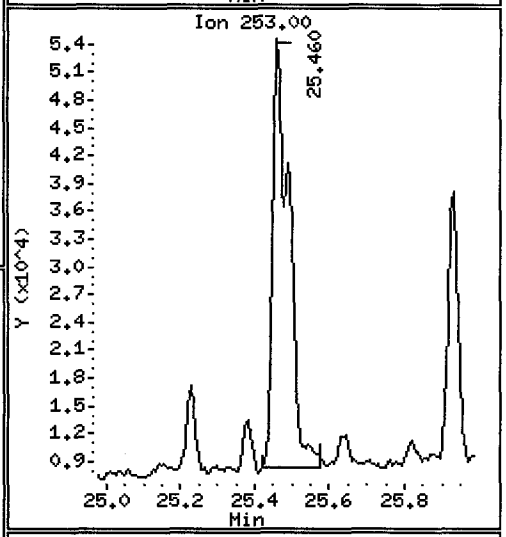


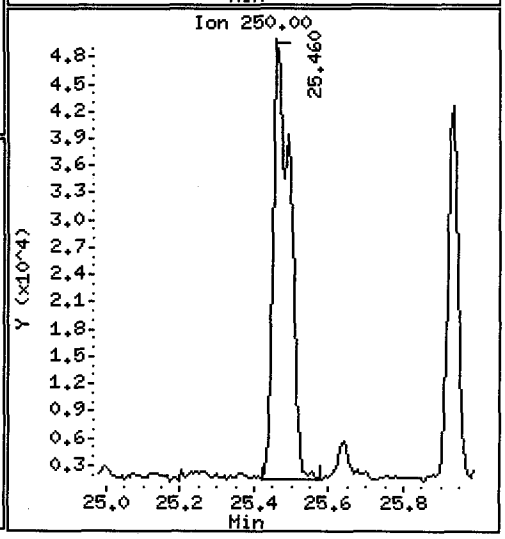












Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

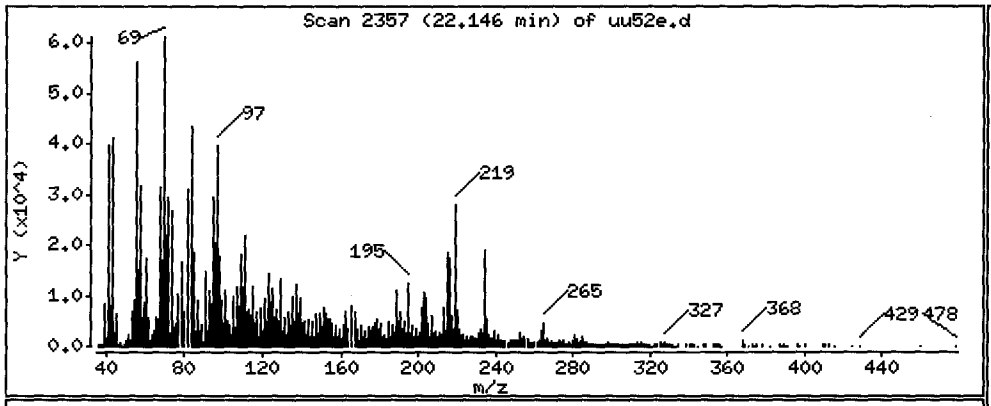
Operator: VTS/YZ

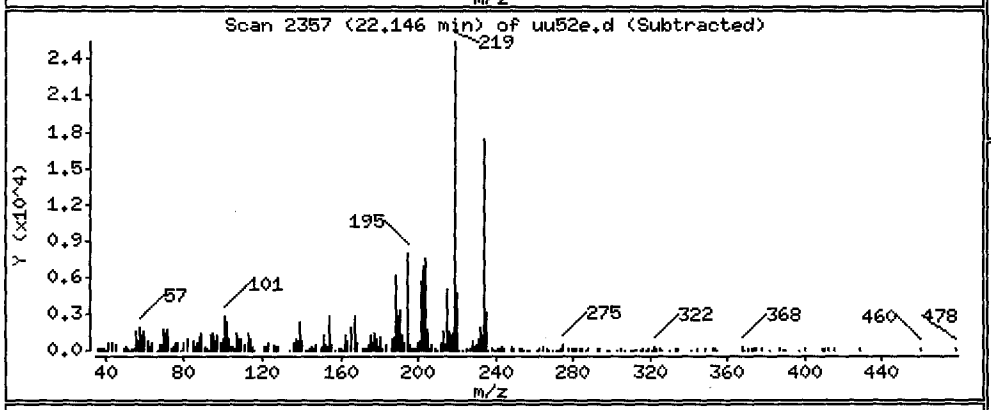
Column phase: ZB-5msi

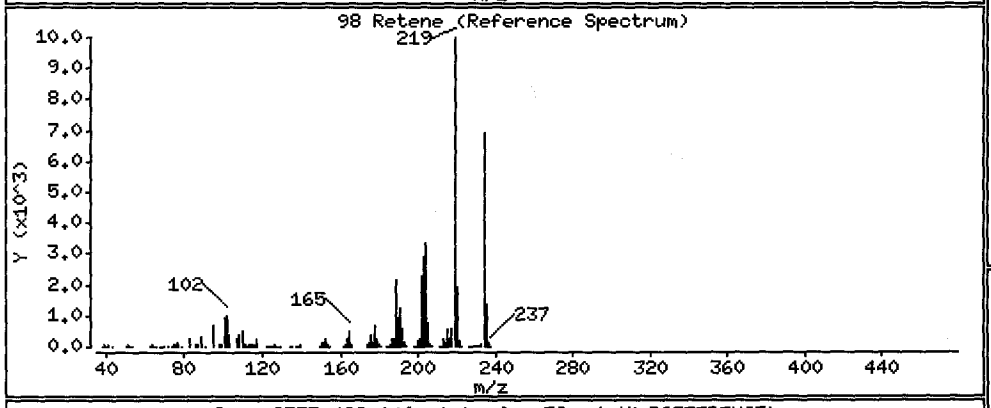
Column diameter: 0.25

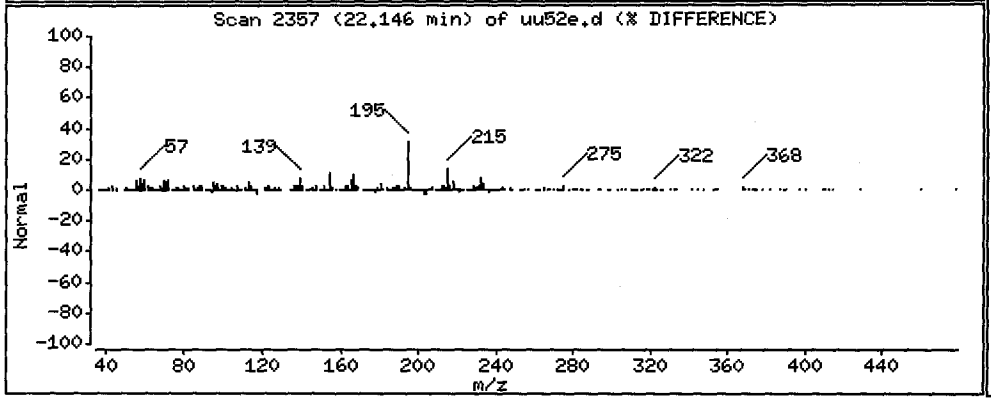
98 Retene

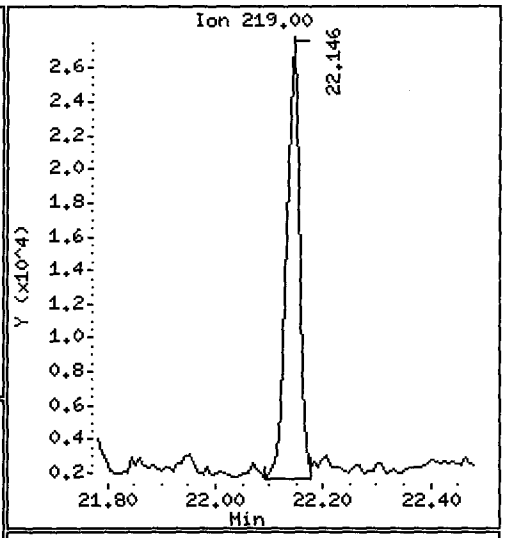
Concentration: 126.4 ug/kg

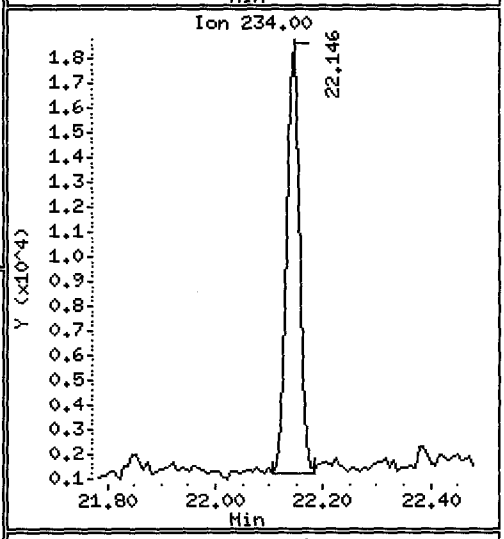


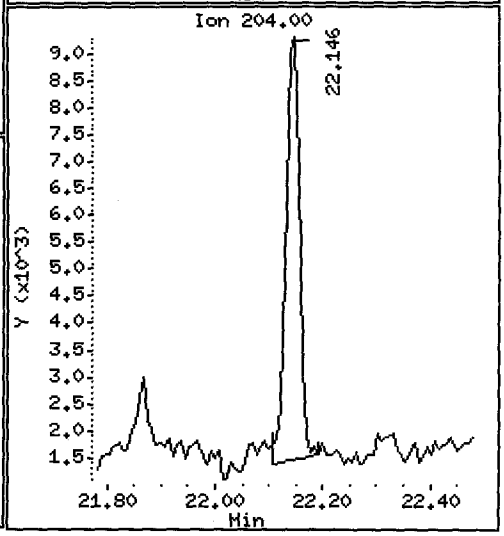






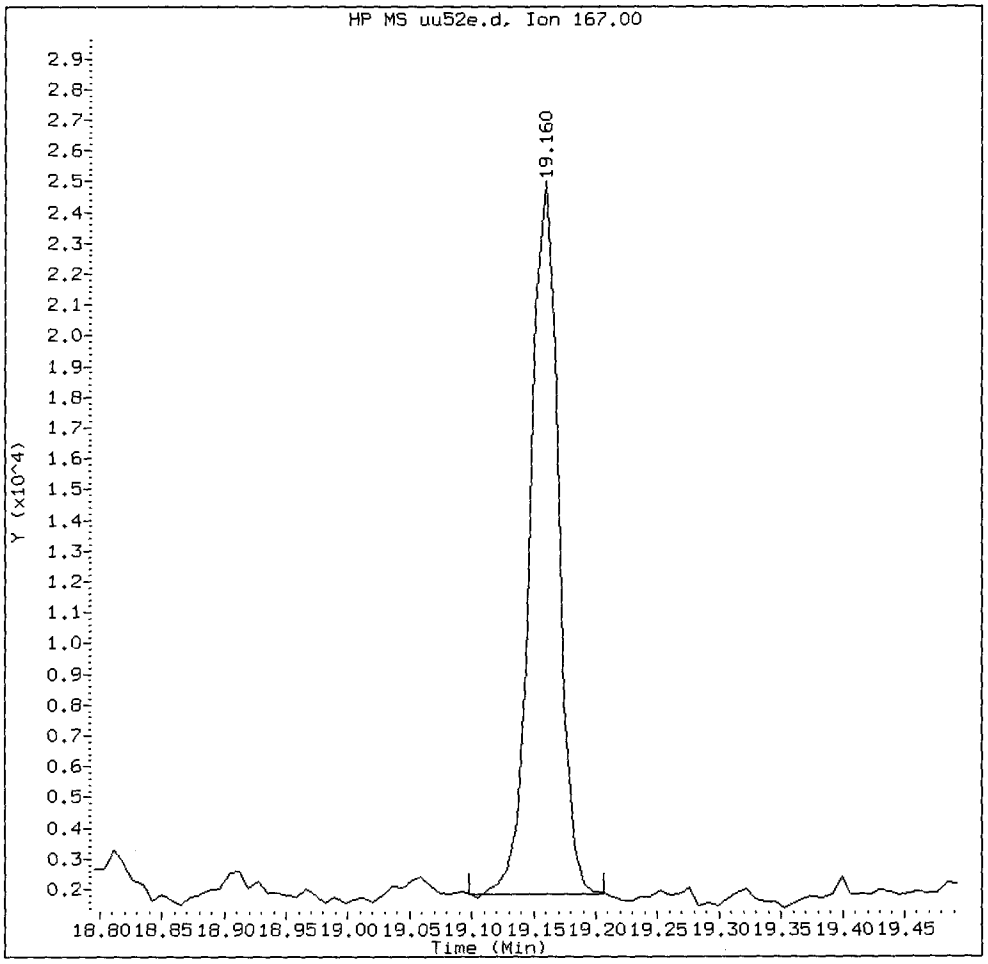






UU52E, /chem1/nt10.i/20120526.b/uu52e.d

Carbazole Amount: 0.23 Area: 37142



MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/4/12

CO-ELUTION SUMMARY FOR FILE - uu52e.d

Lab ID: UU52E, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 6/4/12

Data file : /chem1/nt10.i/20120526.b/uu52f.d
Lab Smp Id: UU52F Client Smp ID: MS005-SS-120515
Inj Date : 26-MAY-2012 20:16
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52F,3
Misc Info : 12-8898
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 8
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	114.00000	Weight of sample extracted (g)
M	91.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.598	6.537	(0.744)	117561	1.76594	522.2
$ 2	Phenol-d5	99	8.283	8.237	(0.935)	170773	2.05934	608.9
3	Phenol	94	8.314	8.260	(0.938)	322267	3.64593	1078
$ 5	2-Chlorophenol-d4	132	8.507	8.476	(0.960)	123002	1.69302	500.6
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.863	8.855	(1.000)	190373	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	9.243	9.236	(1.043)	47567	0.99803	295.1
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	9.476	9.430	(1.069)	15496	0.22243	65.77(M)
17	Hexachloroethane	117	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.771	9.725	(1.102)	812968	11.1853	3307
$	18 Nitrobenzene-d5	82	10.043	10.027	(0.872)	70815	1.06492	314.9
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	10.864	10.833	(0.944)	14654	0.22415	66.28
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.187	11.087	(0.972)	460450	10.6097	3137
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.511	11.504	(1.000)	742174	4.00000	
	28 Naphthalene	128	11.558	11.542	(1.004)	2799633	14.9631	4424
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.051	13.043	(1.134)	263467	2.02556	598.9
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.910	13.902	(0.904)	171045	1.14324	338.0
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	15.048	15.032	(0.978)	164674	0.84955	251.2(M)
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.388	15.373	(1.000)	431594	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	15.458	15.442	(1.005)	324964	2.77944	821.8
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.813	15.798	(1.028)	382551	2.23338	660.4
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	16.579	16.563	(1.077)	200855	1.53038	452.5
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.165	17.142	(1.115)	34086	1.91343	565.8
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	18.409	18.378	(0.987)	2810	0.13793	40.78
*	59 Phenanthrene-d10	188	18.656	18.633	(1.000)	643967	4.00000	
	60 Phenanthrene	178	18.703	18.687	(1.002)	1024353	6.16880	1824
	61 Anthracene	178	18.803	18.780	(1.008)	204716	1.18015	349.0
	62 Carbazole	167	19.183	19.144	(1.028)	68755	0.42837	126.7(M)
	63 Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	64 Fluoranthene	202	21.155	21.101	(1.134)	1237166	6.56187	1940
	65 Pyrene	202	21.550	21.519	(0.908)	1184633	5.39910	1596
$	66 Terphenyl-d14	244	21.860	21.844	(0.921)	161332	1.17375	347.1
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	23.702	23.679	(0.999)	202680	0.99919	295.4
*	69 Chrysene-d12	240	23.726	23.710	(1.000)	721119	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	23.772	23.749	(1.002)	346391	1.94120	574.0
	72 bis(2-Ethylhexyl)phthalate	149	23.842	23.818	(0.961)	85390	0.56162	166.1
*	134 Di-n-octylphthalate-d4	153	24.809	24.794	(1.000)	1107167	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	Compound Not Detected.					
	75 Benzo(k)fluoranthene	252	Compound Not Detected.					
	76 Benzo(a)pyrene	252	26.033	26.002	(0.996)	195880	1.13164	334.6
*	77 Perylene-d12	264	26.141	26.102	(1.000)	669438	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.412	28.342	(1.087)	164459	0.82137	242.9
	79 Dibenzo(a,h)anthracene	278	28.419	28.365	(1.087)	50459	0.31992	94.60(M)
	80 Benzo(g,h,i)perylene	276	29.087	29.002	(1.113)	187724	1.09336	323.3
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	13.291	13.275	(1.155)	179332	1.35190	399.7
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	25.475	25.483	(0.975)	607007	3.26786	966.3
	99 Perylene	252	Compound Not Detected.					
	98 Retene	219	22.146	22.131	(0.933)	48533	0.47501	140.5

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52f.d
Lab Smp Id: UU52F
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8898

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS005-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	190373	0.45
27 Naphthalene-d8	730932	365466	1461864	742174	1.54
42 Acenaphthene-d10	420698	210349	841396	431594	2.59
59 Phenanthrene-d10	638950	319475	1277900	643967	0.79
69 Chrysene-d12	645065	322532	1290130	721119	11.79
134 Di-n-octylphthala	1016118	508059	2032236	1107167	8.96
77 Perylene-d12	650033	325016	1300066	669438	2.99

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.09
27 Naphthalene-d8	11.50	11.00	12.00	11.51	0.07
42 Acenaphthene-d10	15.37	14.87	15.87	15.39	0.10
59 Phenanthrene-d10	18.63	18.13	19.13	18.66	0.12
69 Chrysene-d12	23.71	23.21	24.21	23.73	0.06
134 Di-n-octylphthala	24.79	24.29	25.29	24.81	0.06
77 Perylene-d12	26.10	25.60	26.60	26.14	0.15

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

Analytical Resources, Inc.

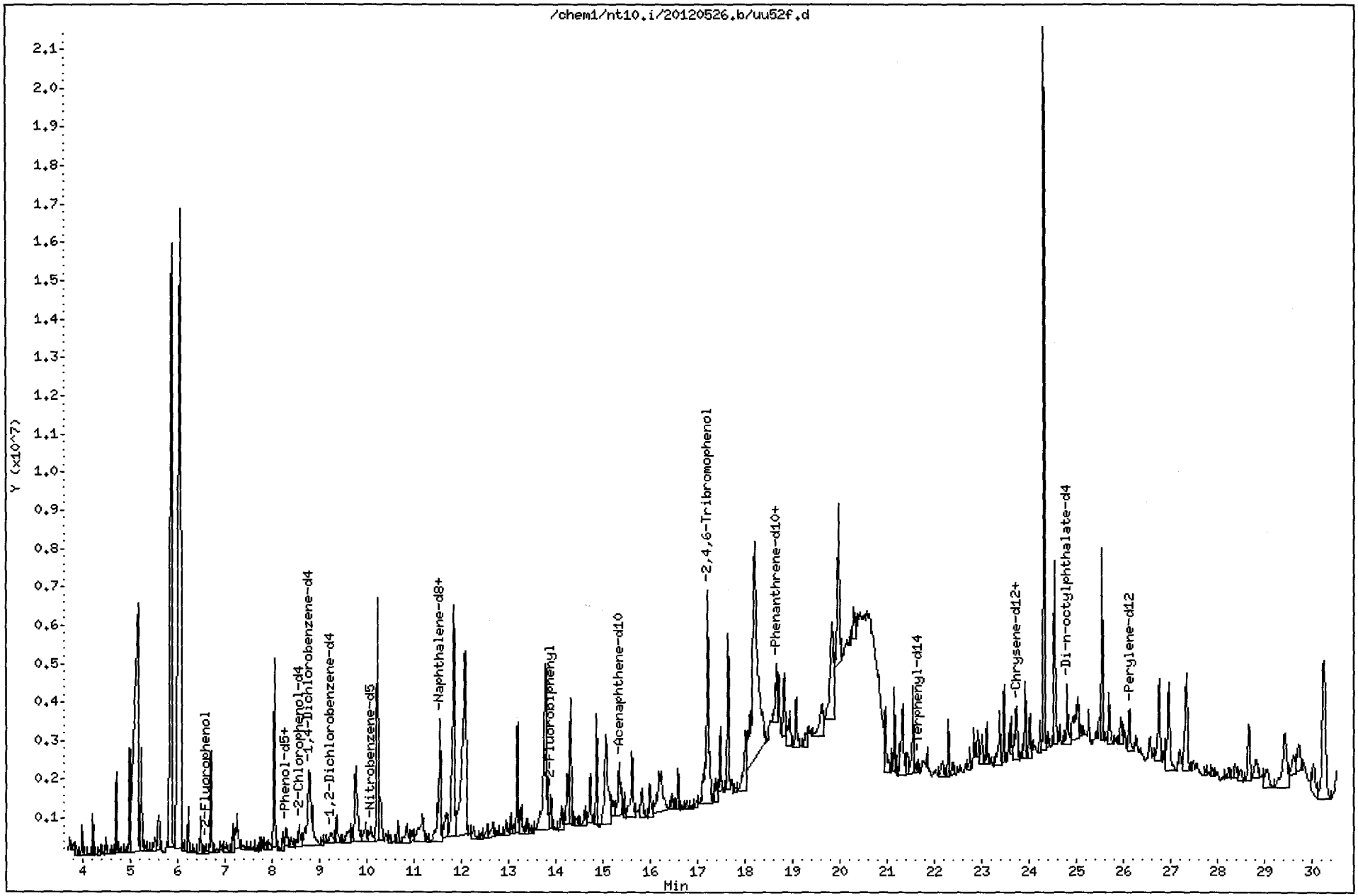
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52F Client Smp ID: MS005-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8898

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	739.2	522.2	70.64	30-160
$ 2 Phenol-d5	739.2	608.9	82.37	30-160
$ 5 2-Chlorophenol-d4	739.2	500.6	67.72	30-160
$ 10 1,2-Dichlorobenzen	492.8	295.1	59.88	30-160
$ 18 Nitrobenzene-d5	492.8	314.9	63.89	30-160
$ 36 2-Fluorobiphenyl	492.8	338.0	68.59	30-160
$ 55 2,4,6-Tribromophen	739.2	565.8	76.54	30-160
$ 66 Terphenyl-d14	492.8	347.1	70.43	30-160

Data File: /chem1/nt10.i/20120526.b/uu52f.d
Date : 26-MAY-2012 20:16
Client ID: MS005-SS-120515
Sample Info: UU52F,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52:00853

Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

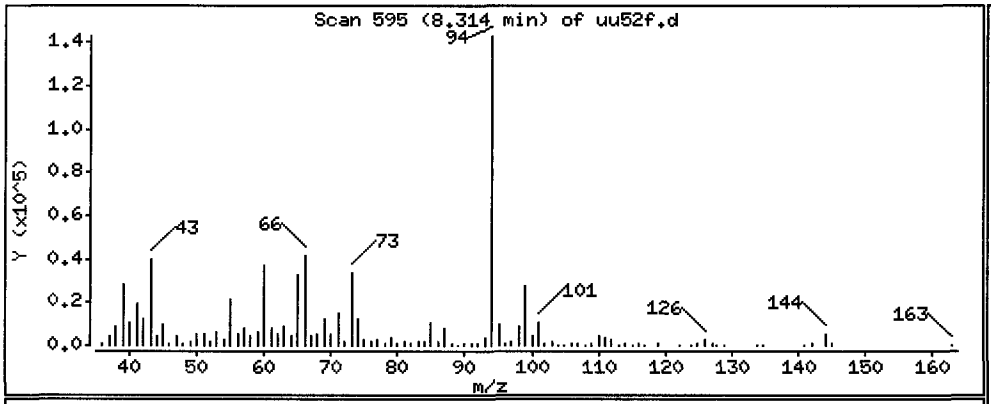
Operator: VTS/YZ

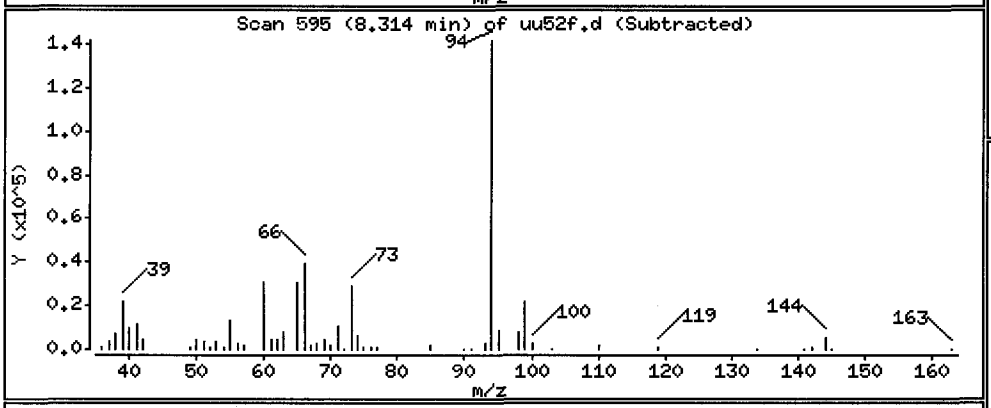
Column phase: ZB-5msi

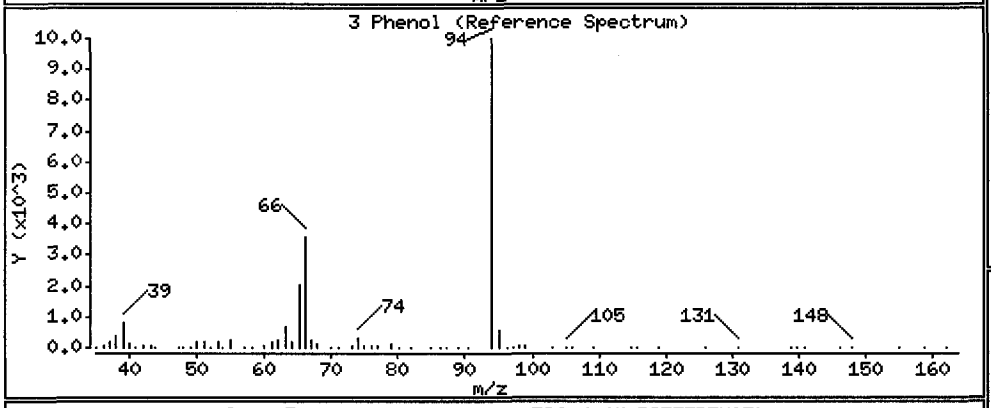
Column diameter: 0.25

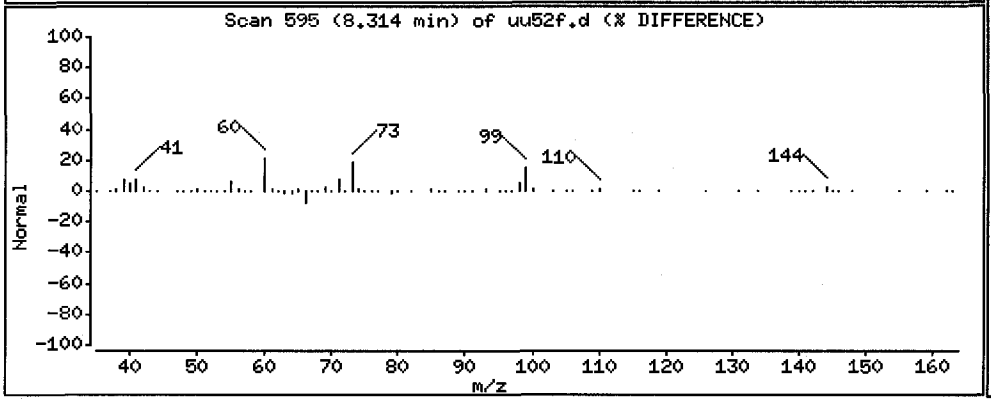
3 Phenol

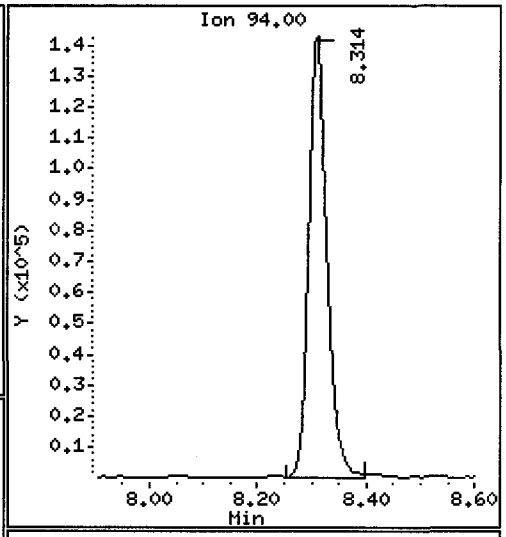
Concentration: 1078 ug/kg

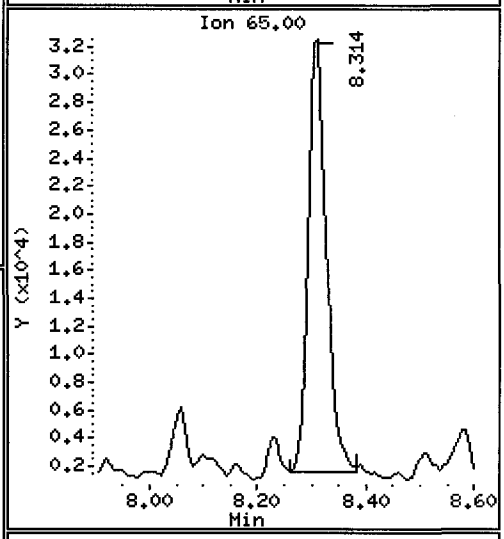


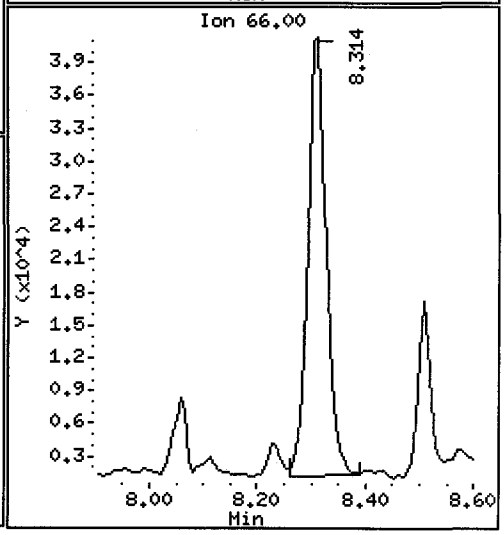












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

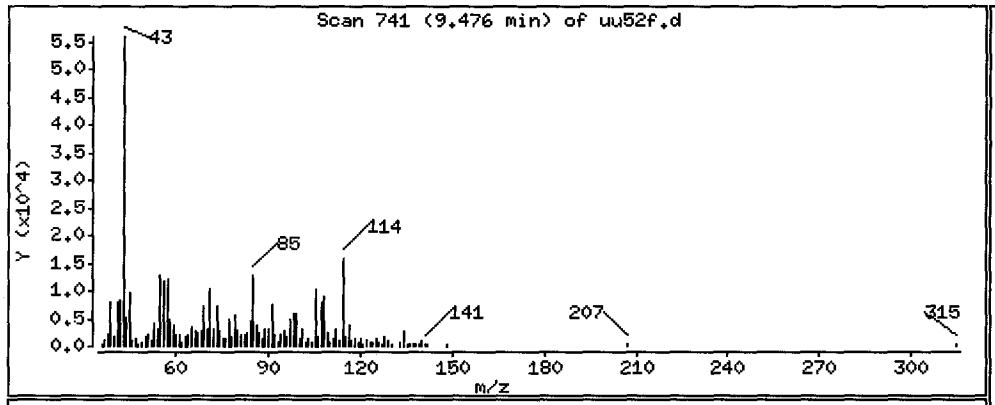
Client ID: MS005-SS-120515 Instrument: nt10.i

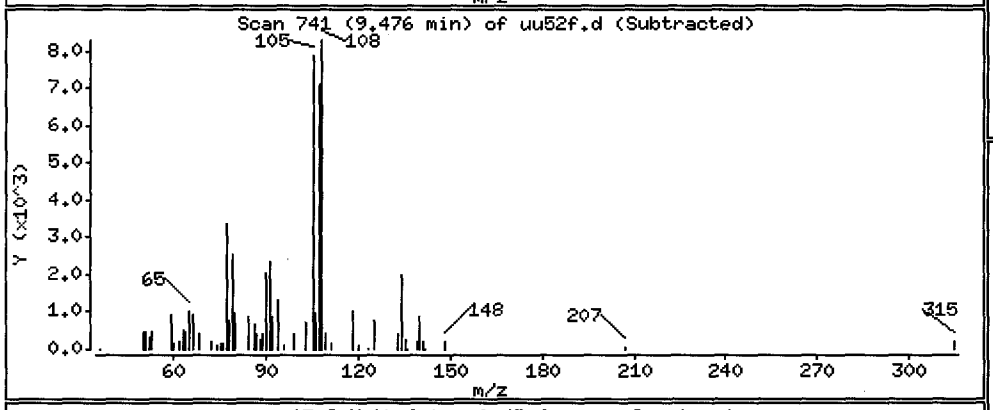
Sample Info: UU52F,3

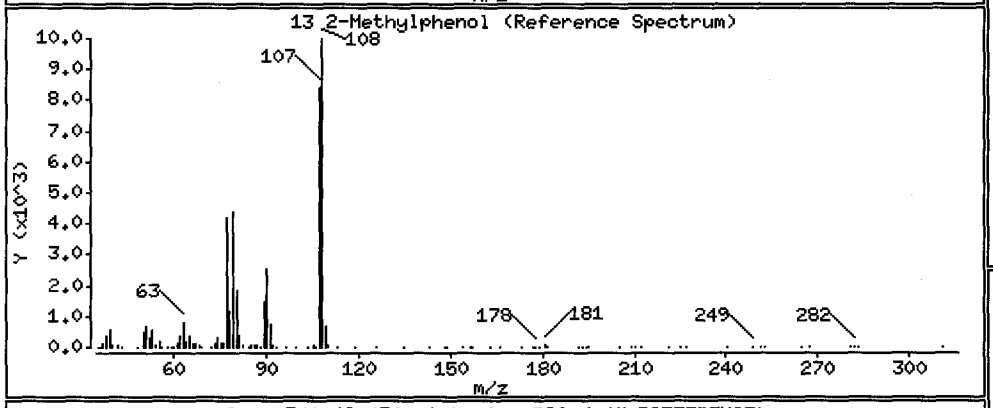
Volume Injected (uL): 1.0 Operator: VTS/YZ

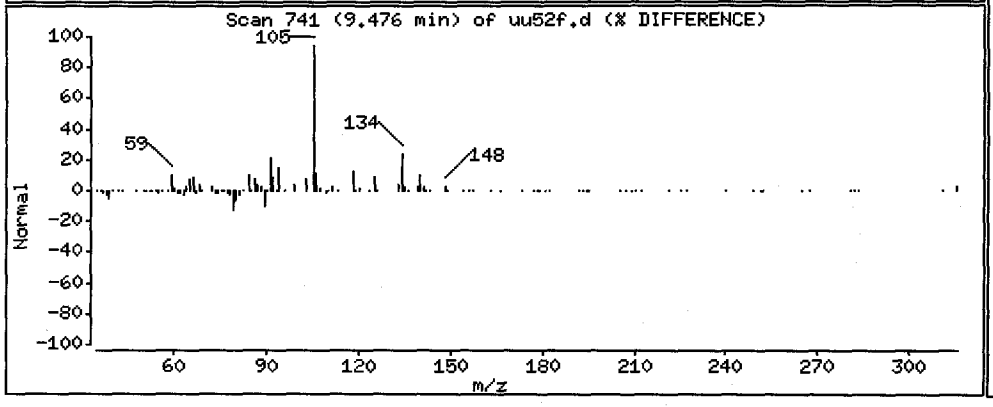
Column phase: ZB-5msi Column diameter: 0.25

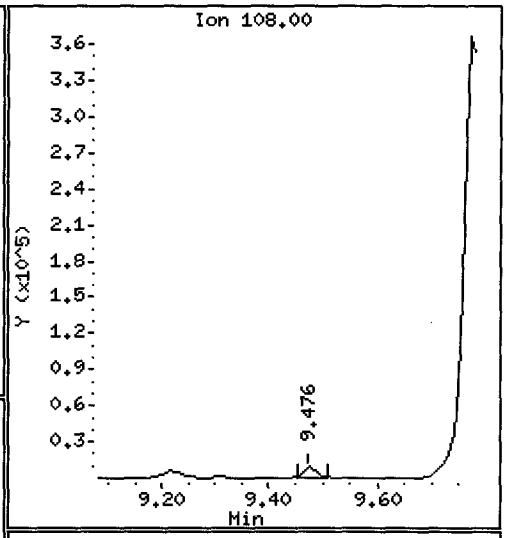
13 2-Methylphenol Concentration: 65.77 ug/kg

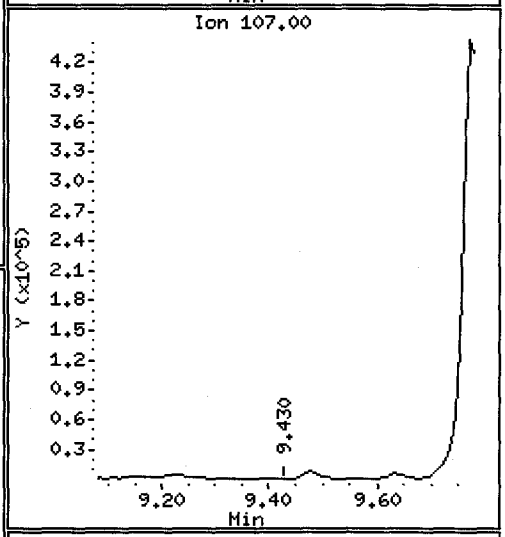


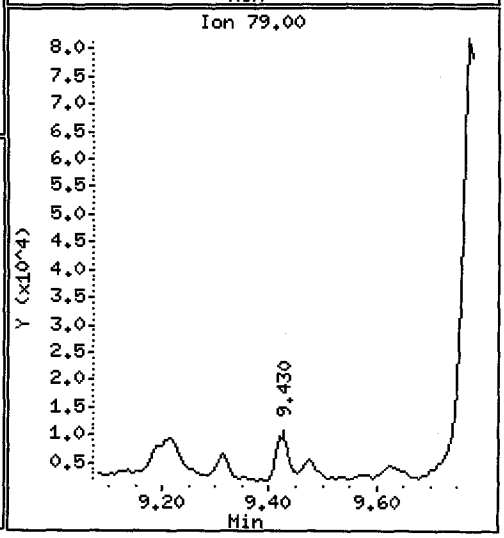












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

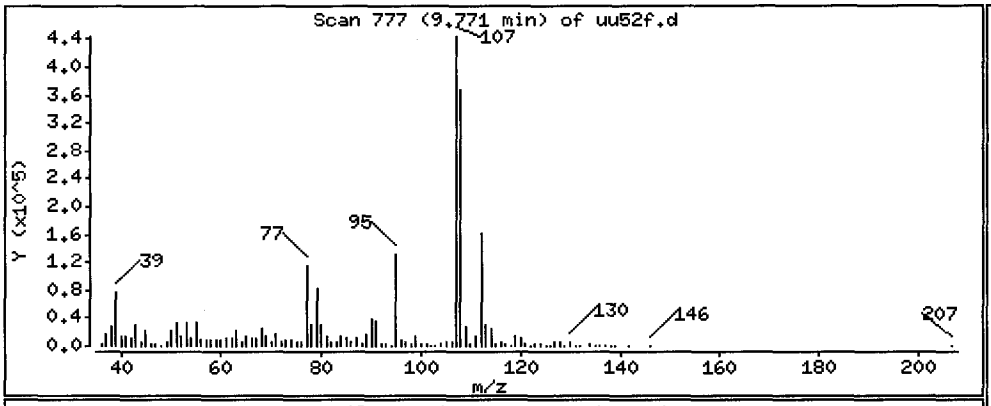
Client ID: MS005-SS-120515 Instrument: nt10.i

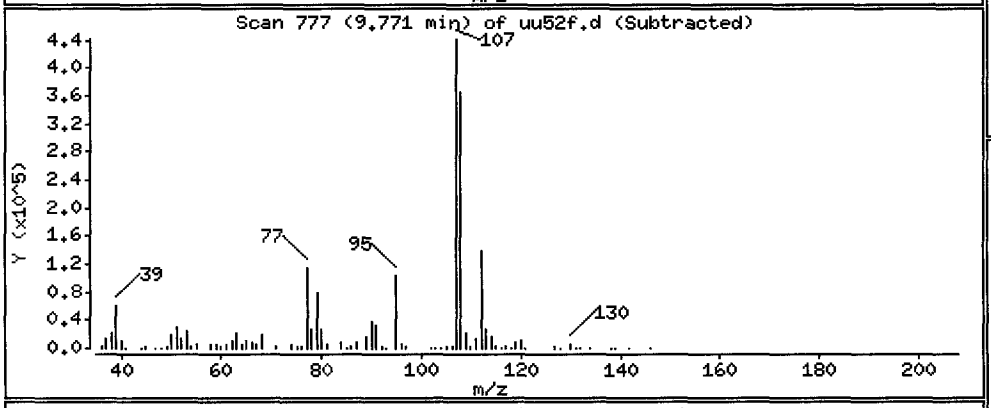
Sample Info: UU52F,3

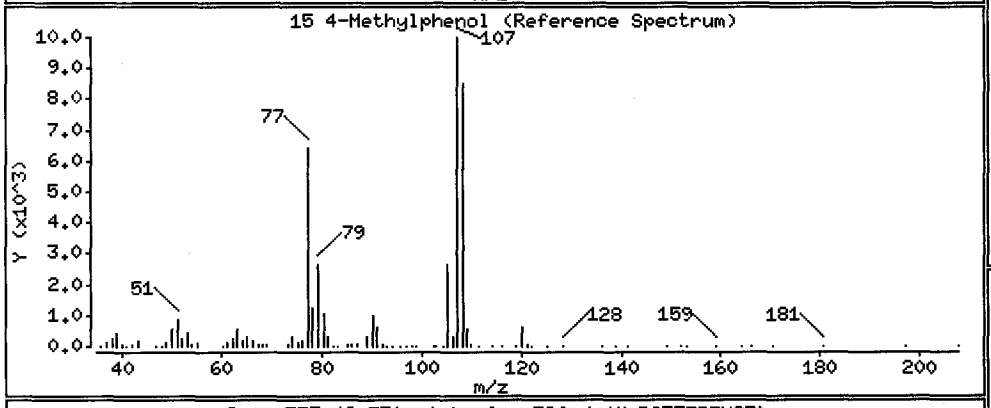
Volume Injected (uL): 1.0 Operator: VTS/YZ

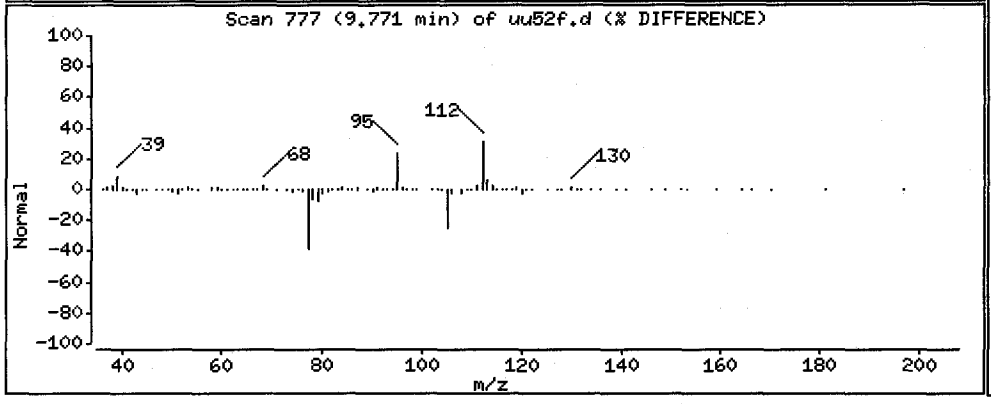
Column phase: ZB-5msi Column diameter: 0.25

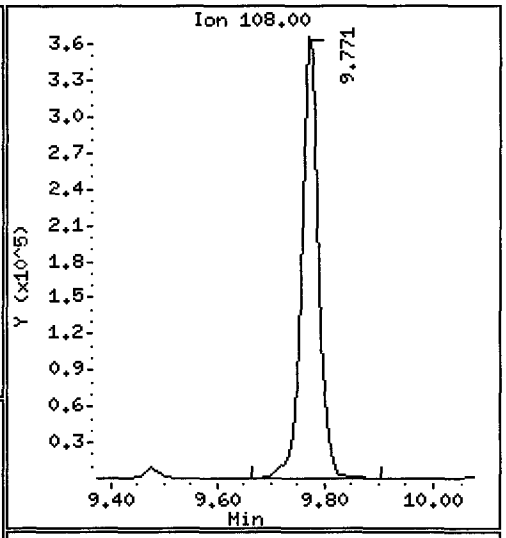
15 4-Methylphenol Concentration: 3307 ug/kg

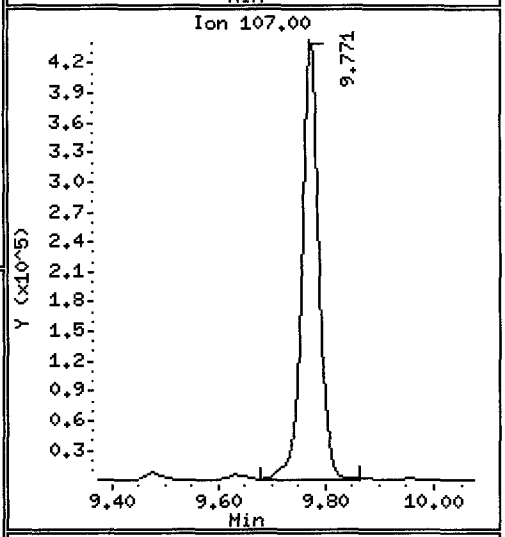


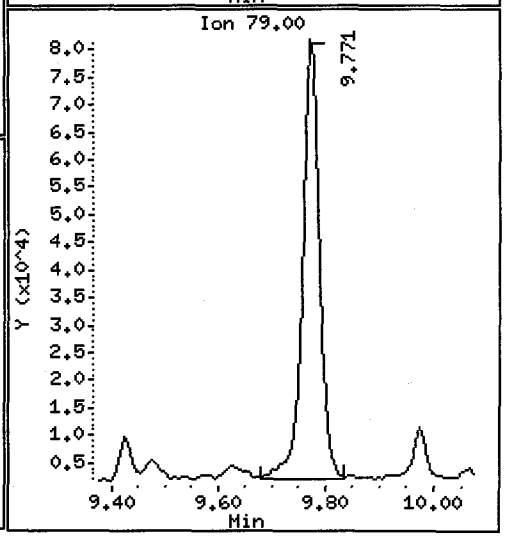












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

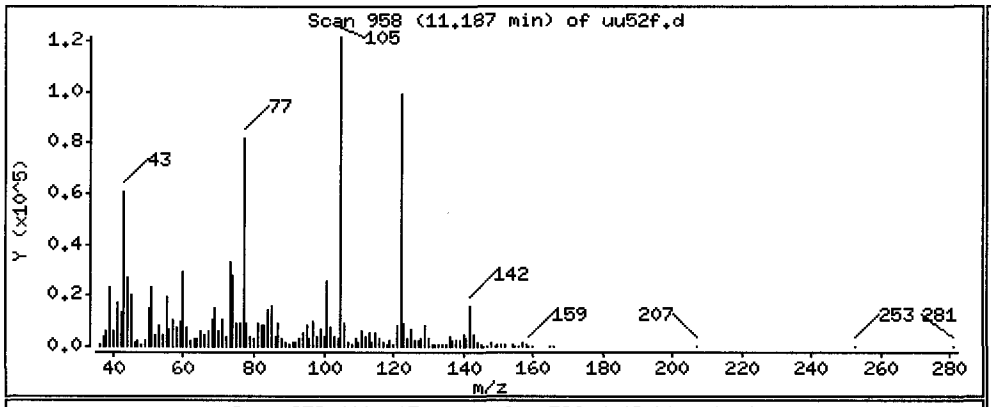
Client ID: MS005-SS-120515 Instrument: nt10.i

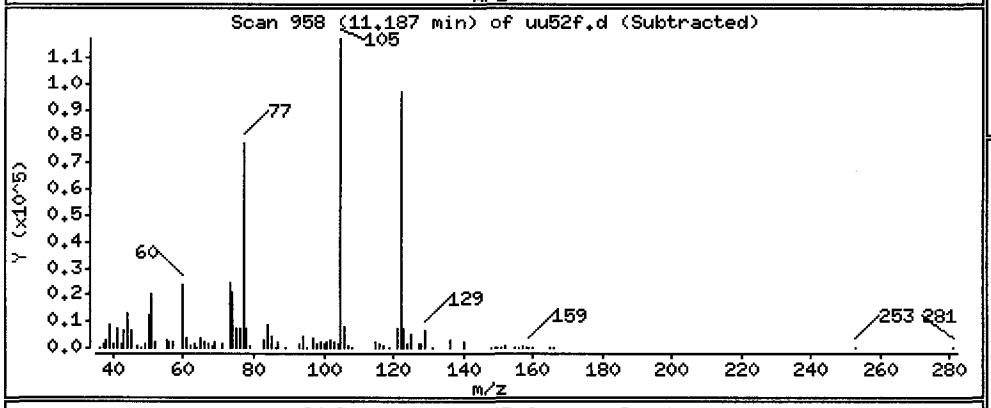
Sample Info: UU52F,3

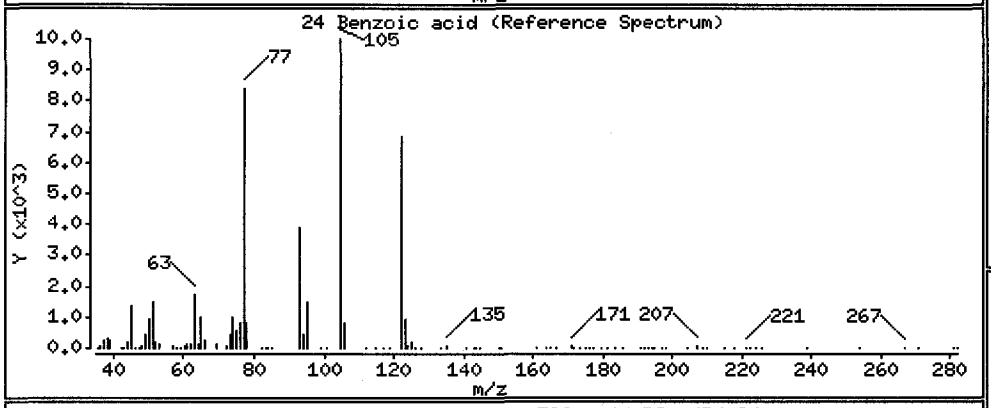
Volume Injected (uL): 1.0 Operator: VTS/YZ

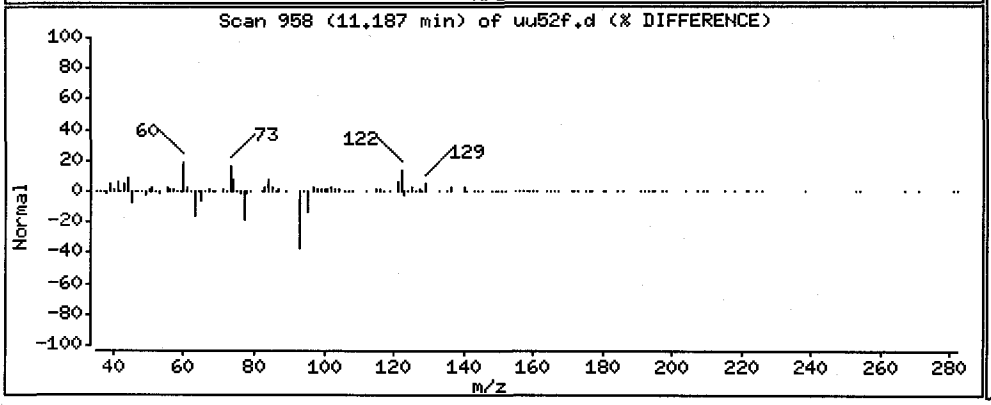
Column phase: ZB-5msi Column diameter: 0.25

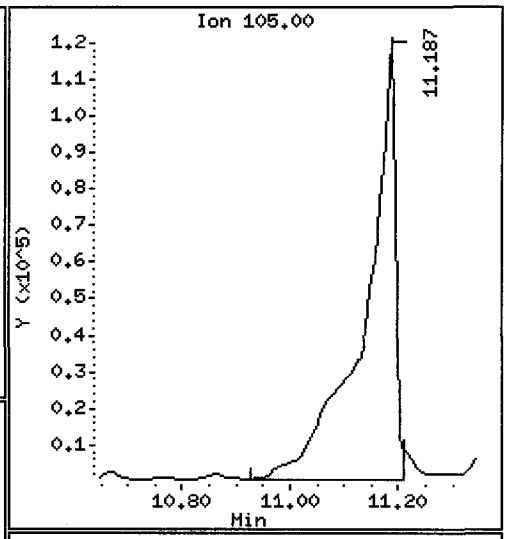
24 Benzoic acid Concentration: 3137 ug/kg

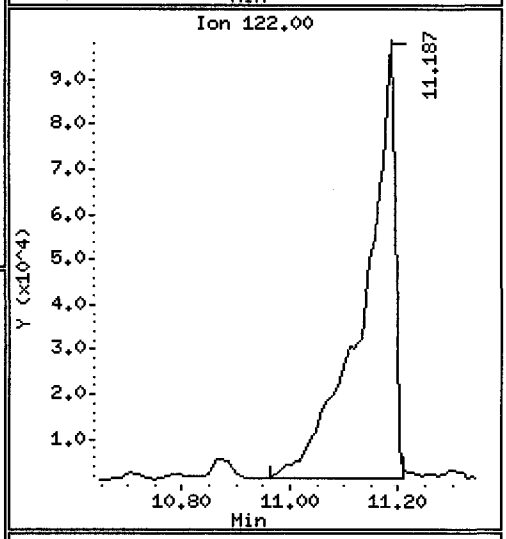


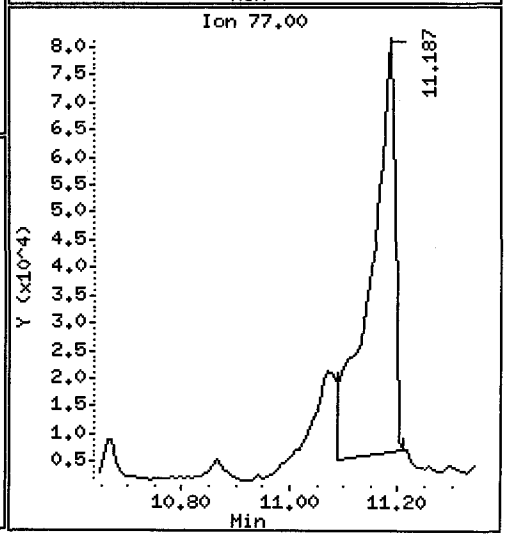












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

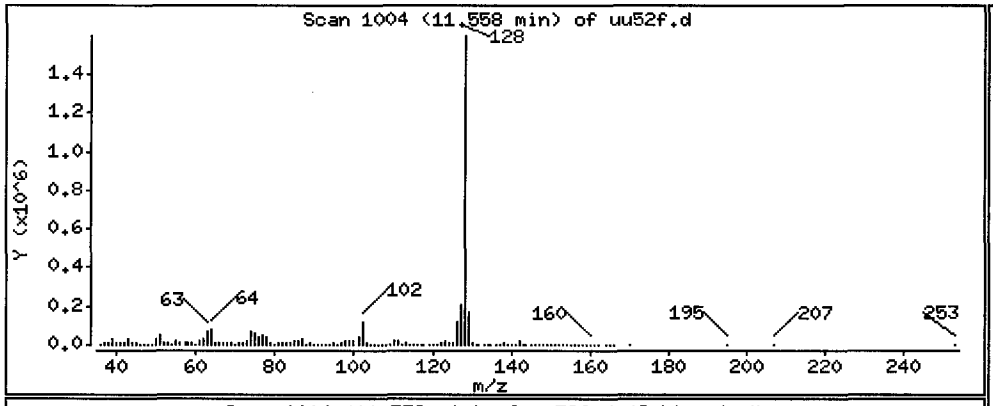
Client ID: MS005-SS-120515 Instrument: nt10.i

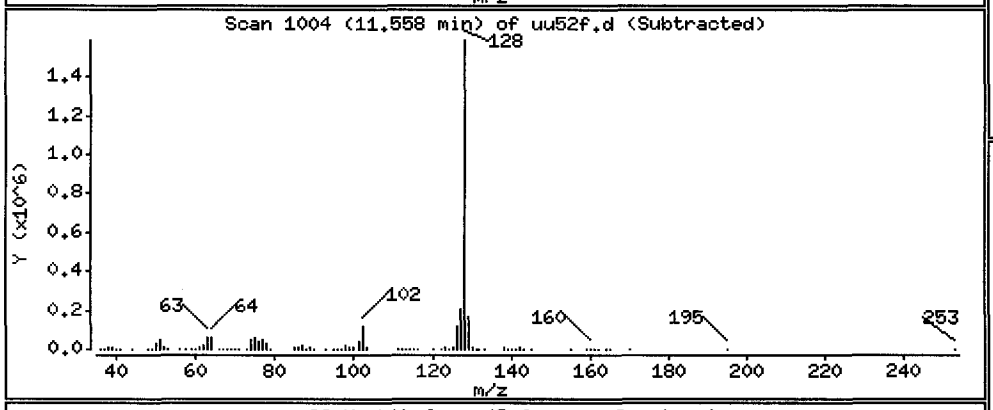
Sample Info: UU52F,3

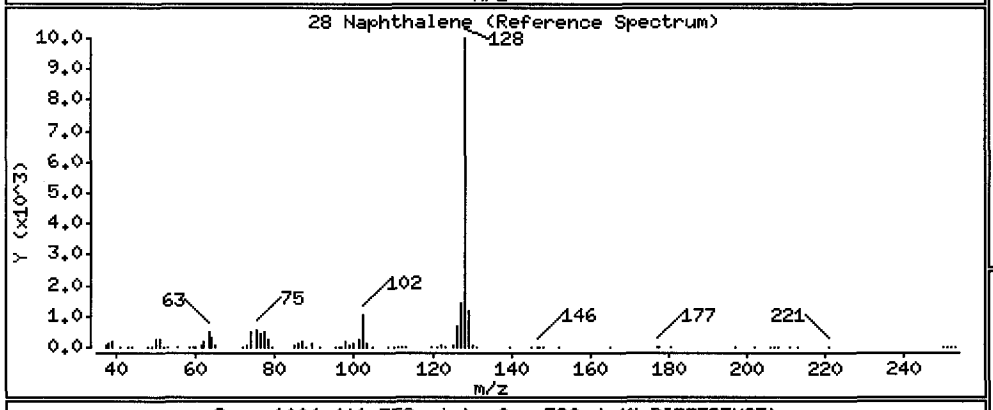
Volume Injected (uL): 1.0 Operator: VTS/YZ

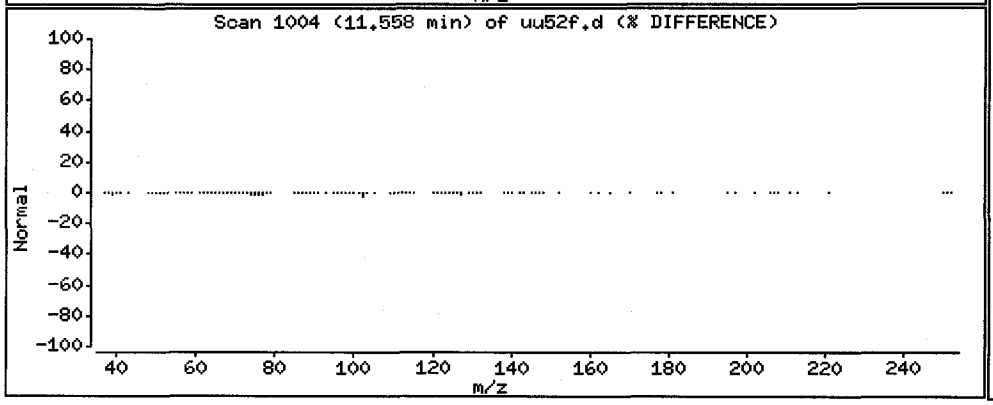
Column phase: ZB-5msi Column diameter: 0.25

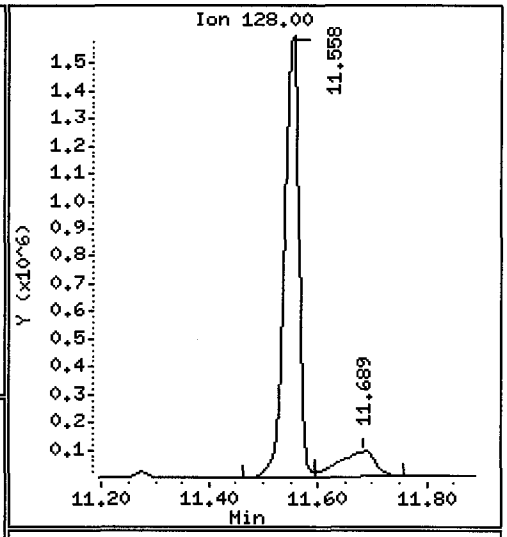
28 Naphthalene Concentration: 4424 ug/kg

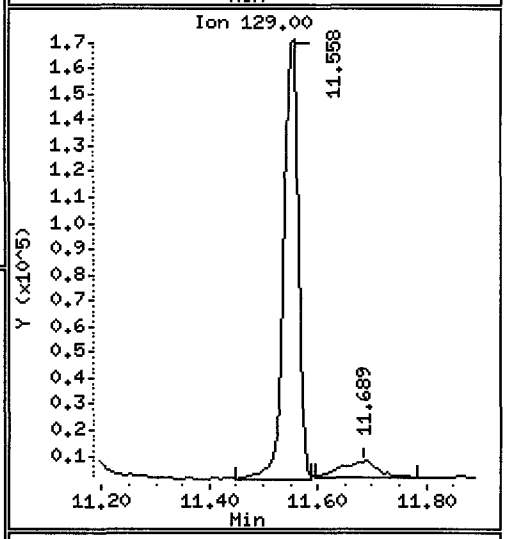


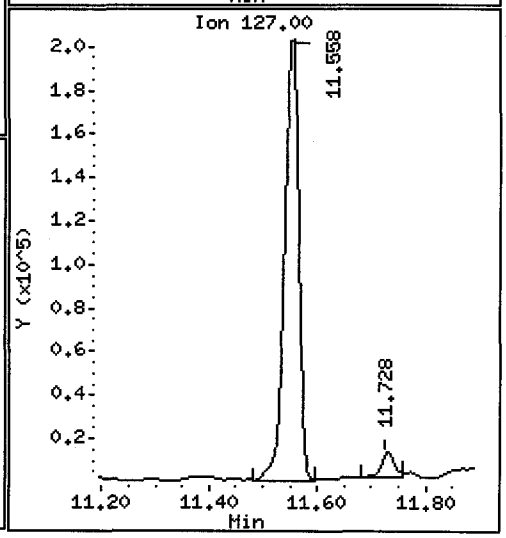












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

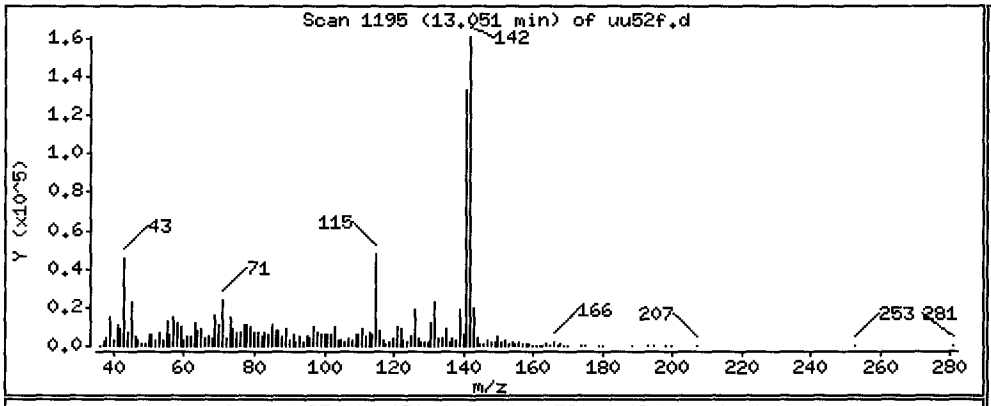
Client ID: MS005-SS-120515 Instrument: nt10.i

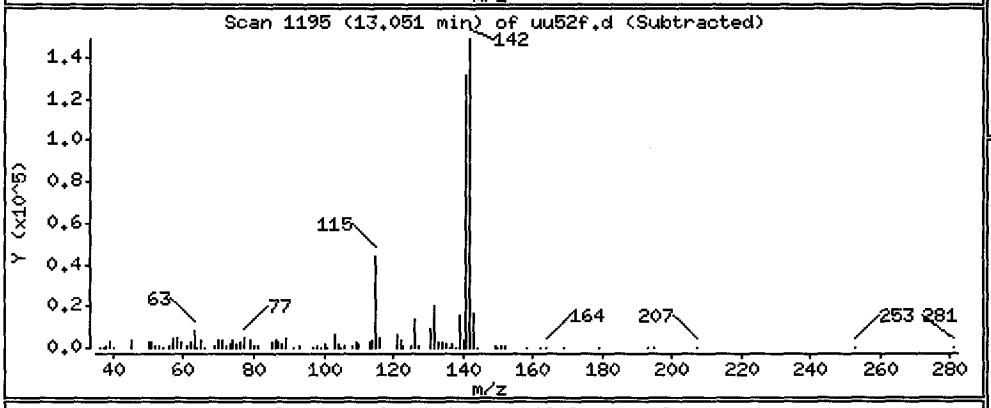
Sample Info: UU52F,3

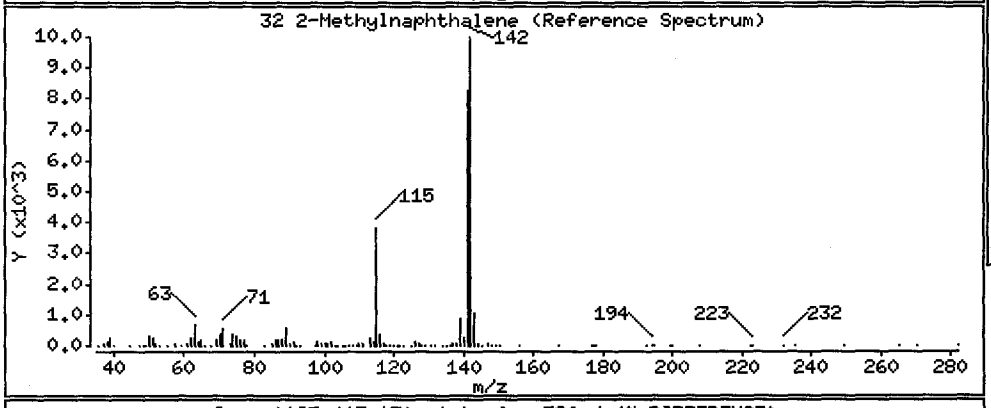
Volume Injected (uL): 1.0 Operator: VTS/YZ

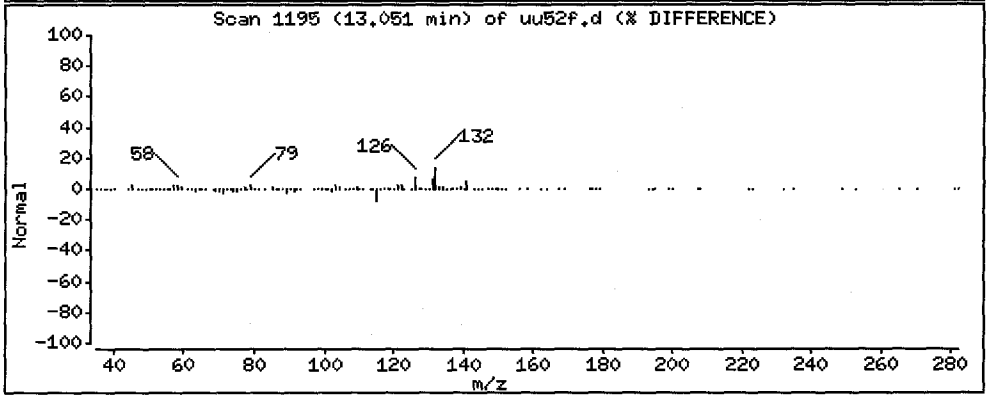
Column phase: ZB-5msi Column diameter: 0.25

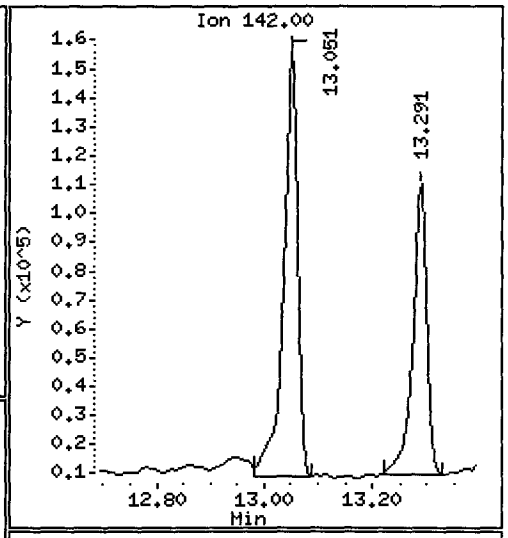
32 2-Methylnaphthalene Concentration: 598.9 ug/kg

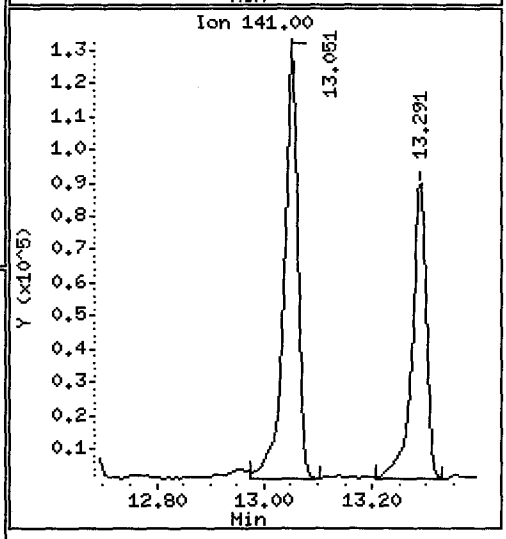












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

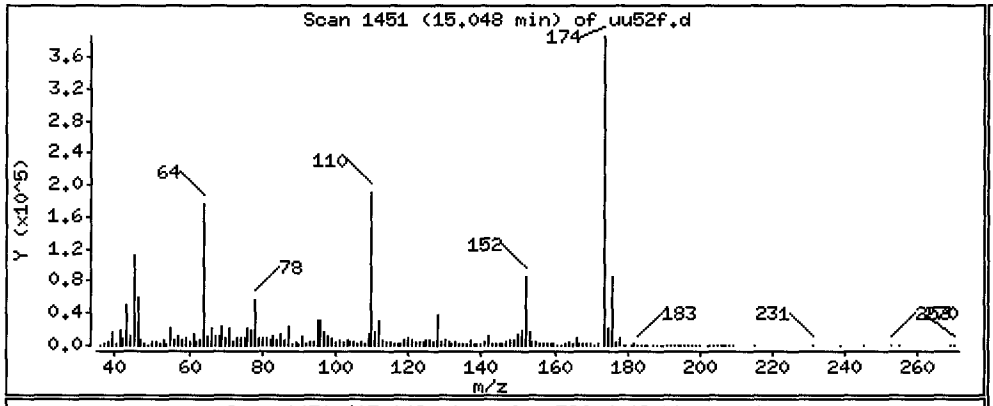
Client ID: MS005-SS-120515 Instrument: nt10.i

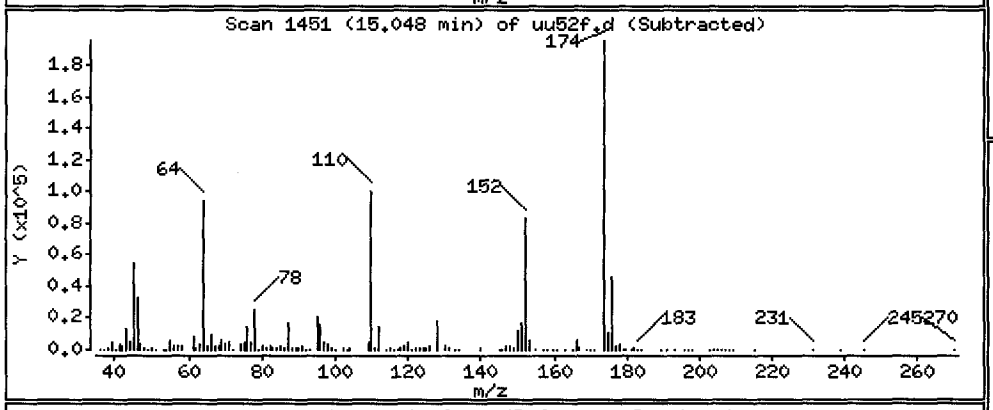
Sample Info: UU52F,3

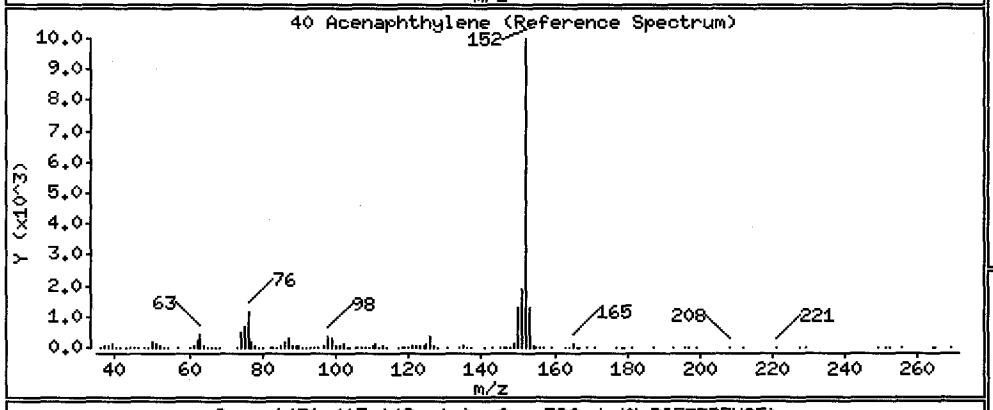
Volume Injected (uL): 1.0 Operator: VTS/YZ

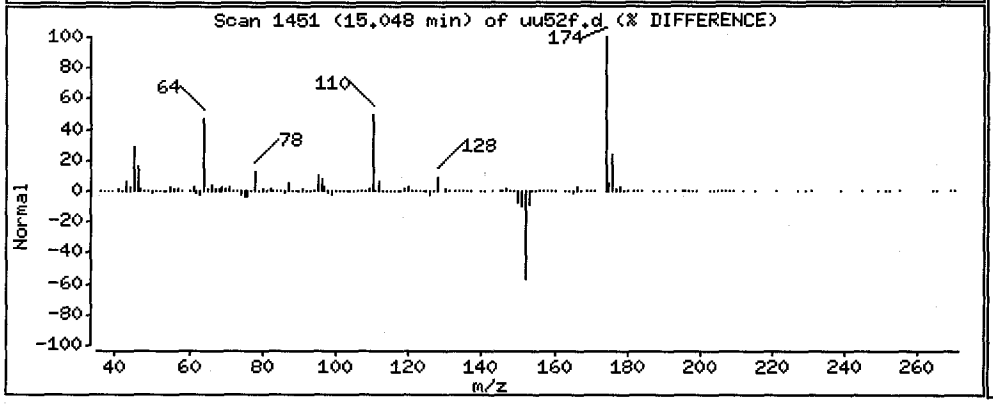
Column phase: ZB-5msi Column diameter: 0.25

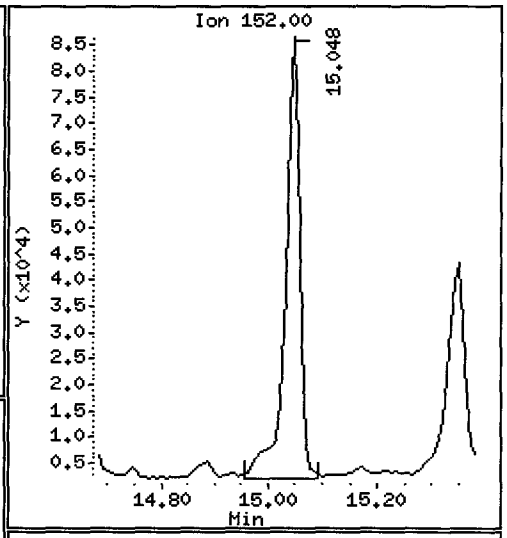
40 Acenaphthylene Concentration: 251.2 ug/kg

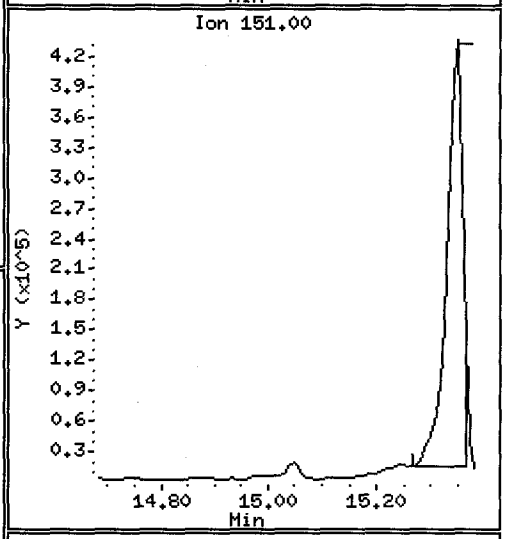


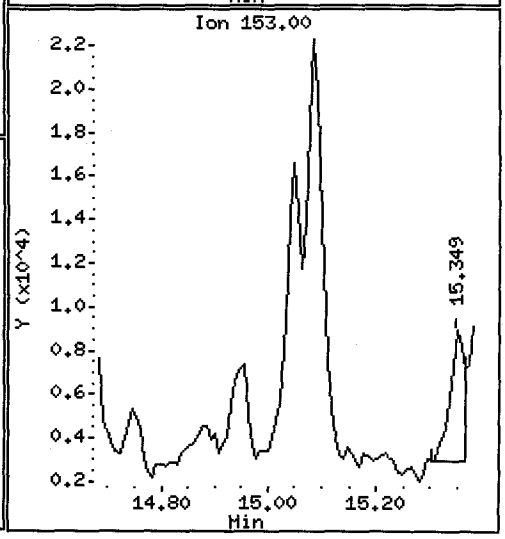












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

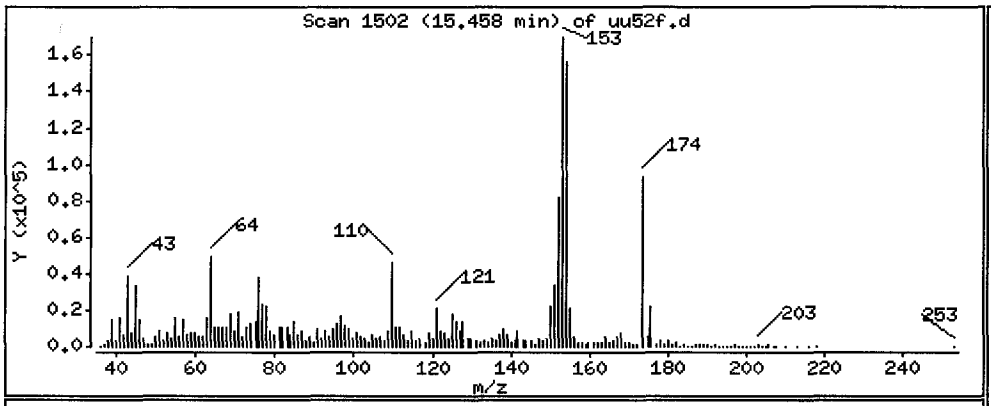
Client ID: MS005-SS-120515 Instrument: nt10.i

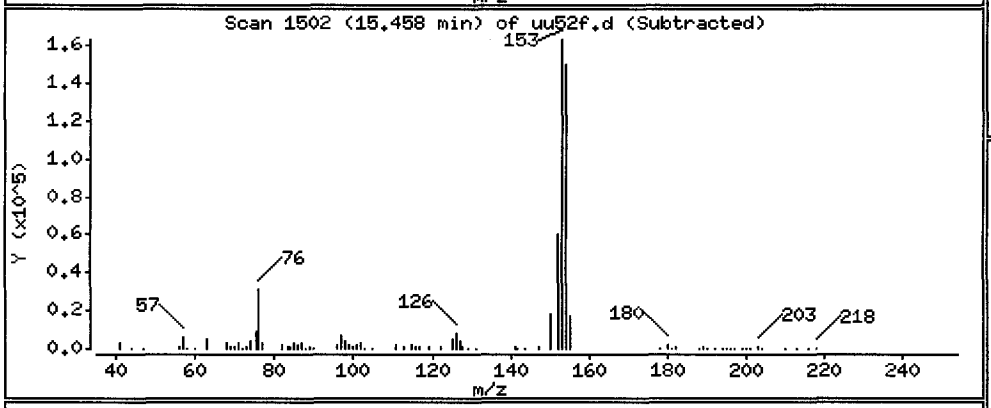
Sample Info: UU52F,3

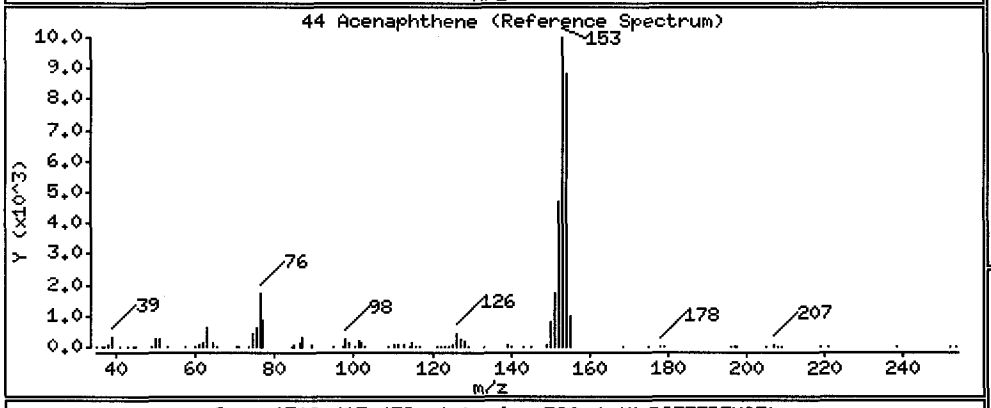
Volume Injected (uL): 1.0 Operator: VTS/YZ

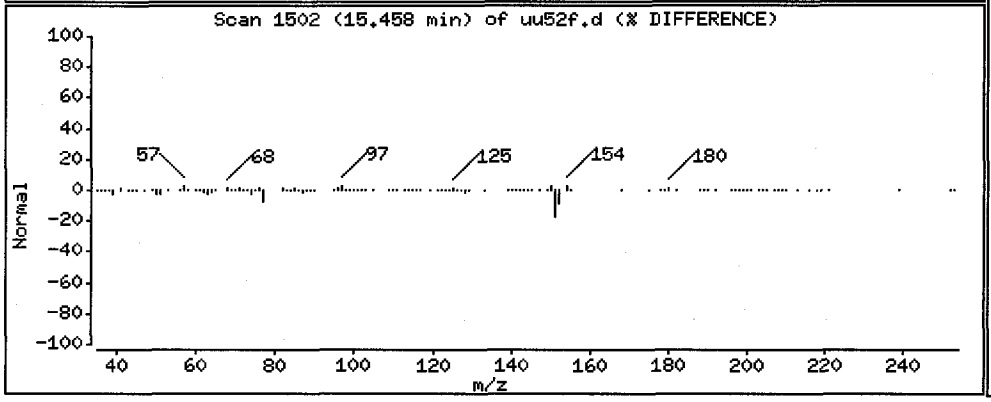
Column phase: ZB-5msi Column diameter: 0.25

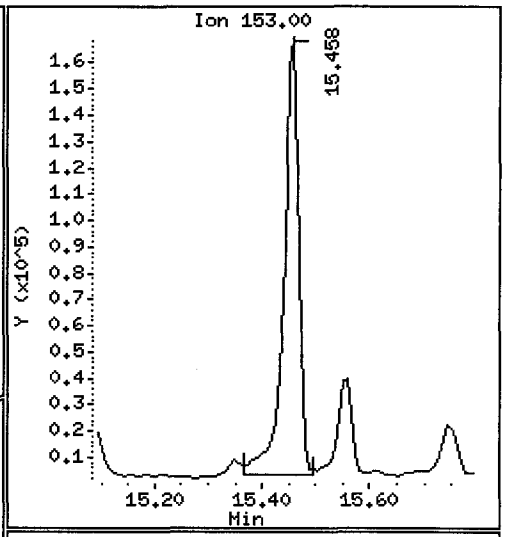
44 Acenaphthene Concentration: 821.8 ug/kg

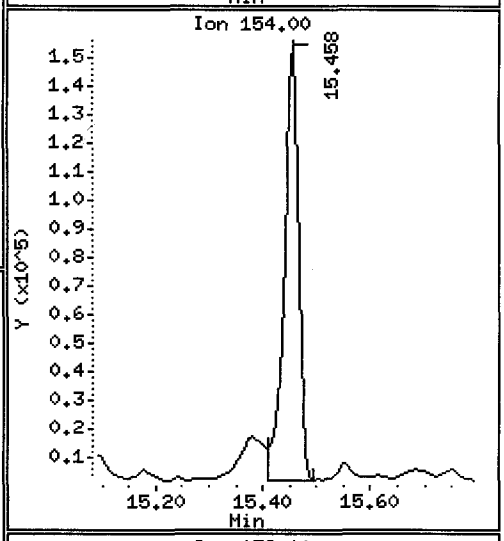


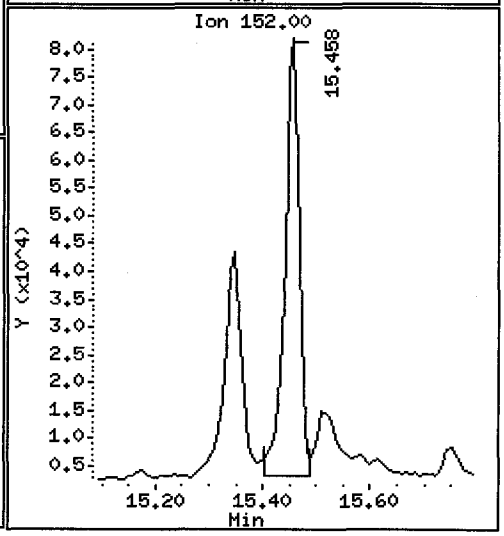












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

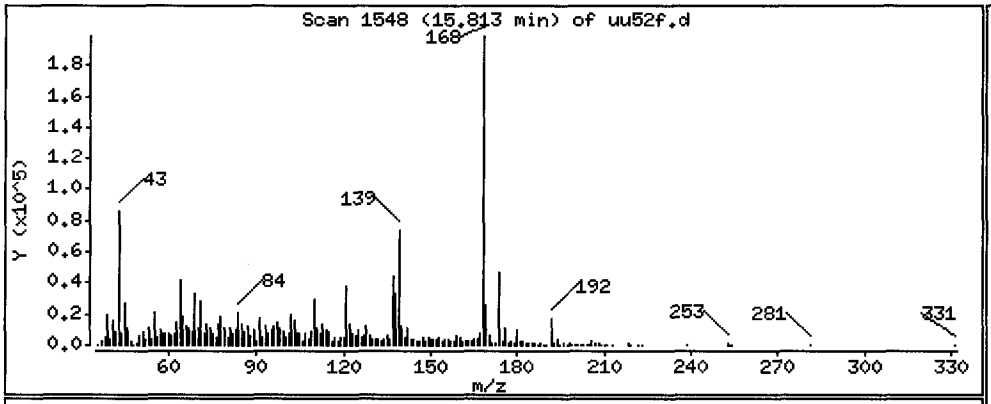
Operator: VTS/YZ

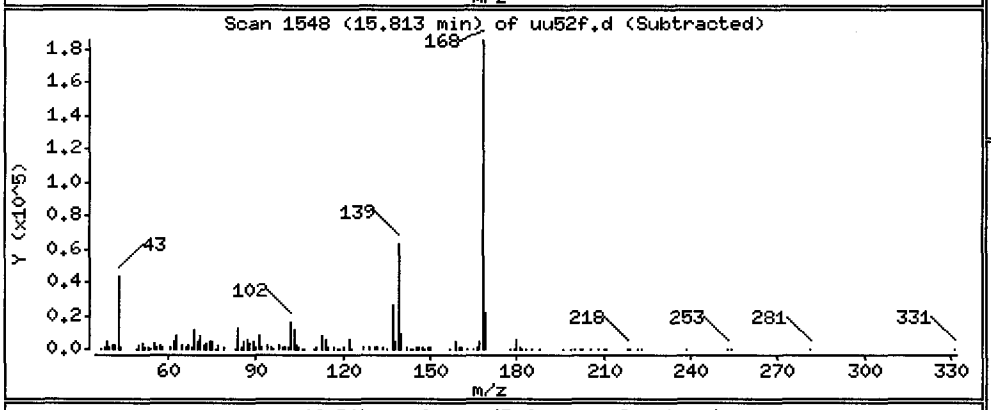
Column phase: ZB-5msi

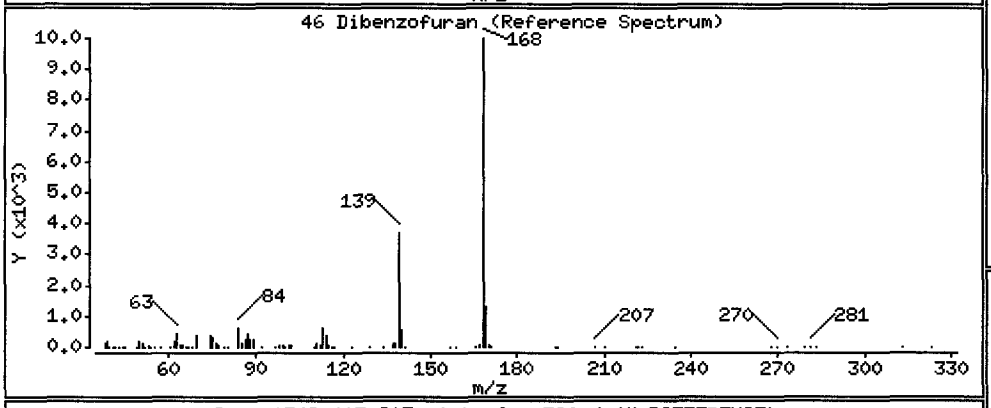
Column diameter: 0.25

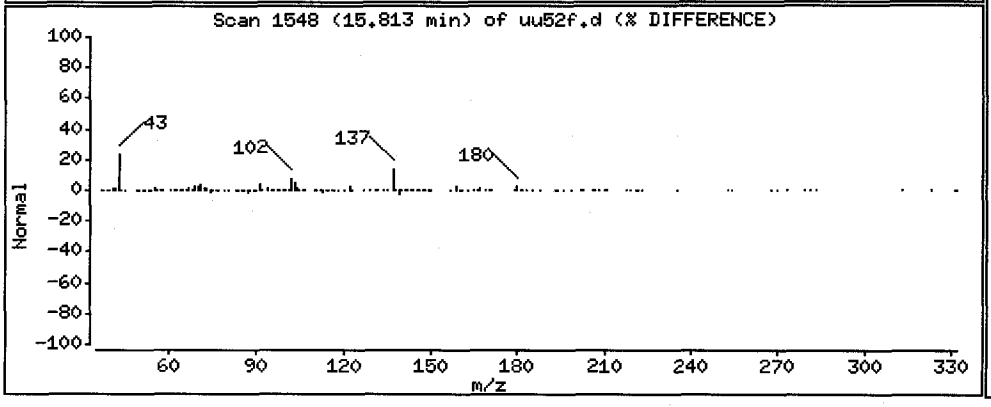
46 Dibenzofuran

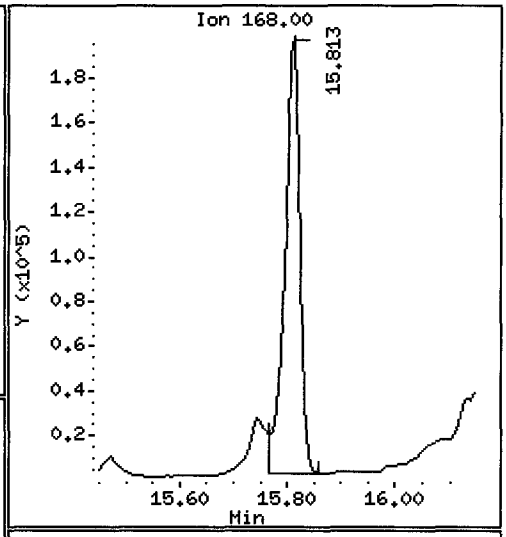
Concentration: 660.4 ug/kg

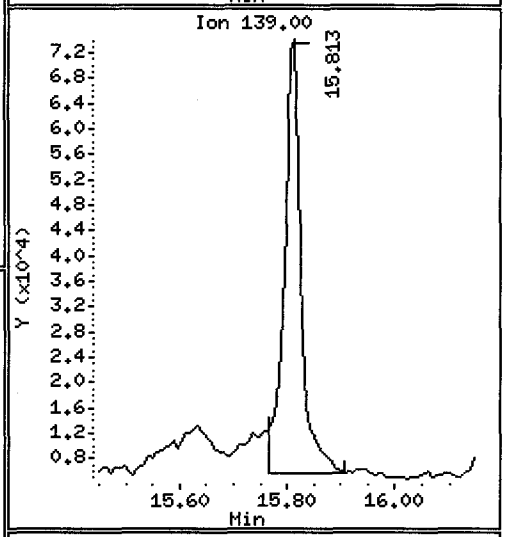


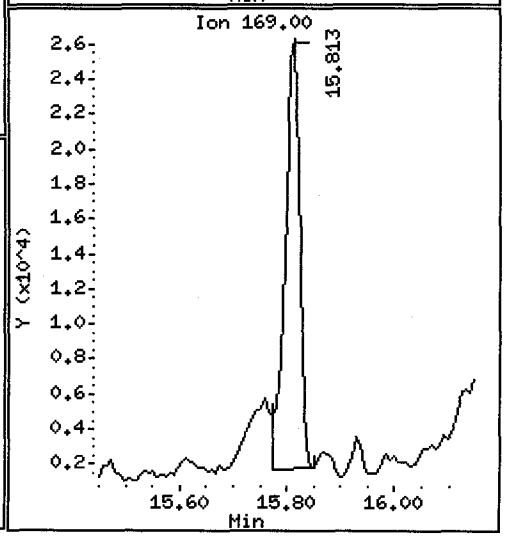












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

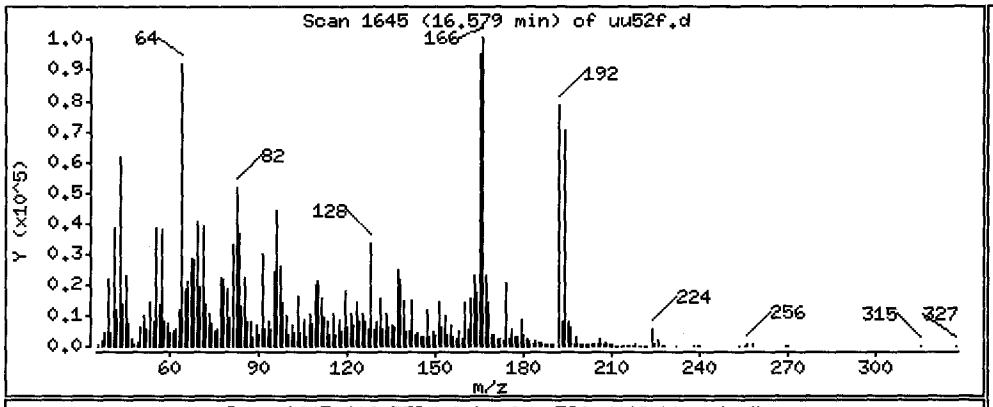
Client ID: MS005-SS-120515 Instrument: nt10.i

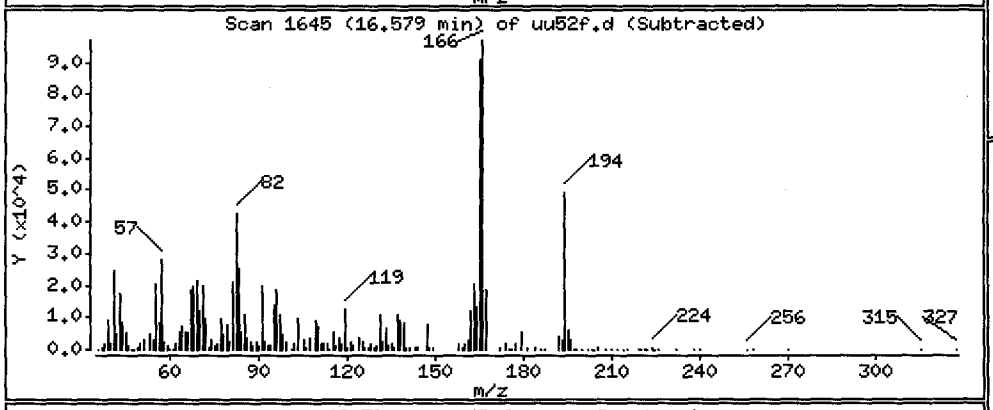
Sample Info: UU52F,3

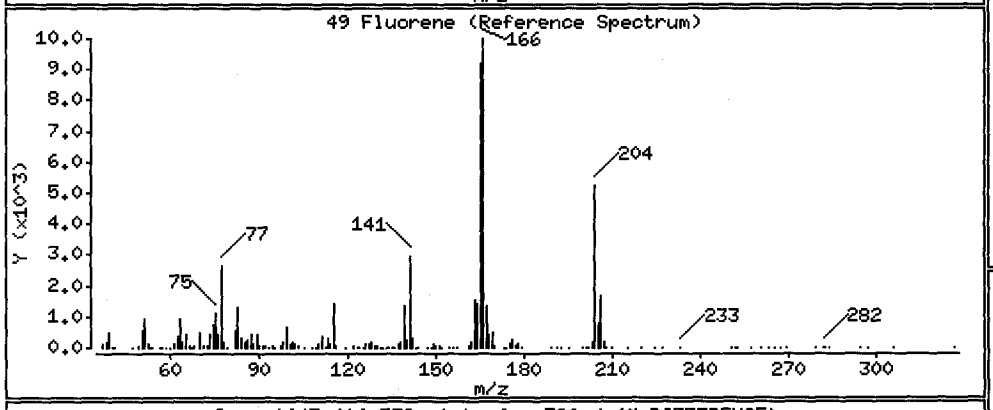
Volume Injected (uL): 1.0 Operator: VTS/YZ

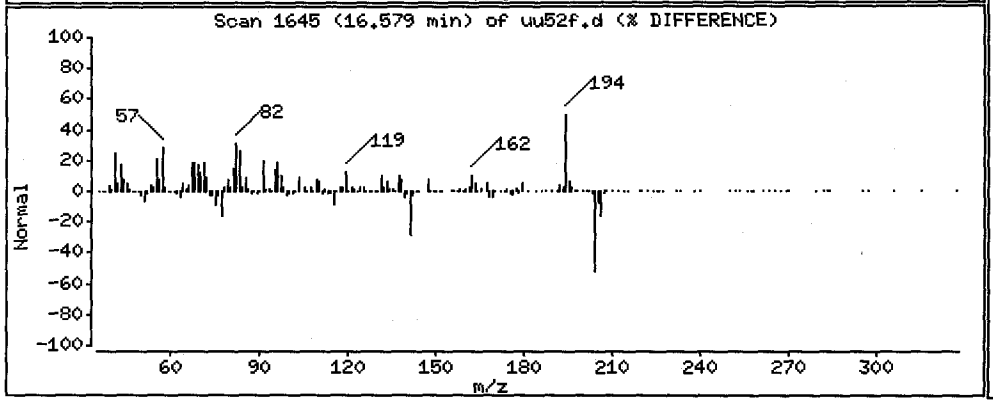
Column phase: ZB-5msi Column diameter: 0.25

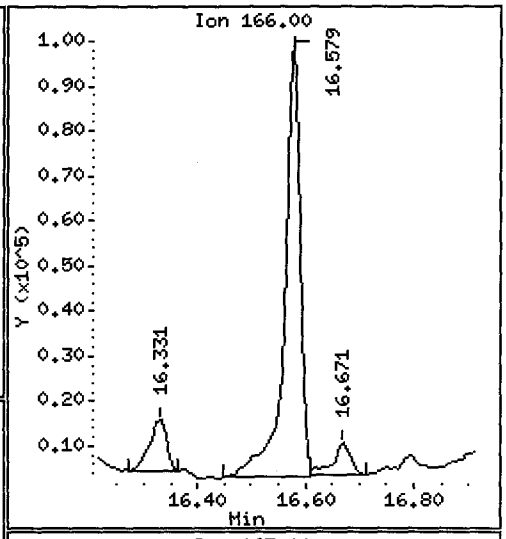
49 Fluorene Concentration: 452.5 ug/kg

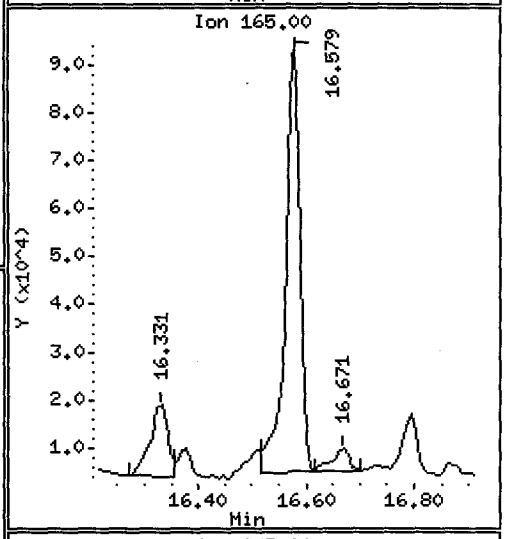


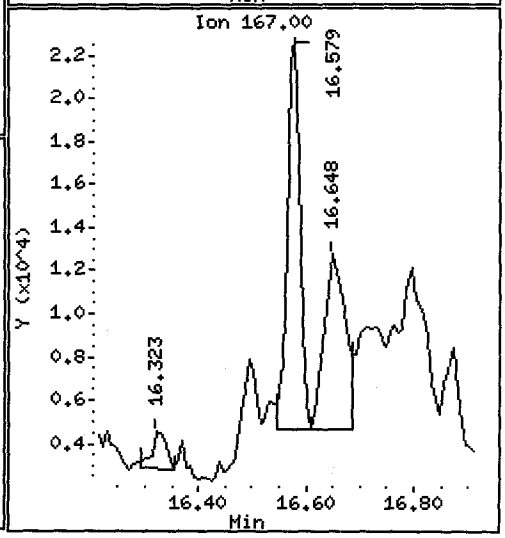












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

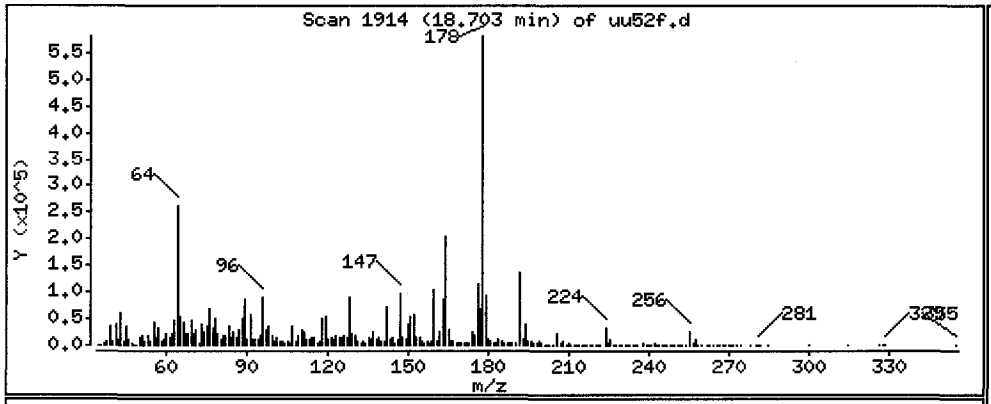
Operator: VTS/YZ

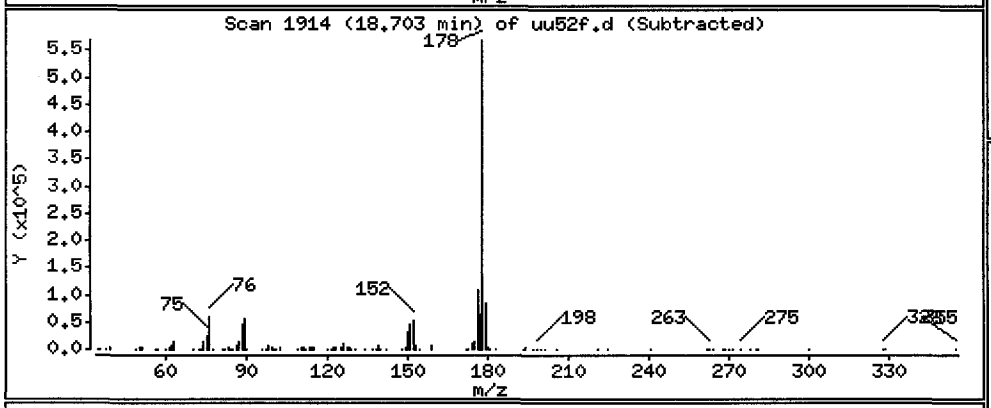
Column phase: ZB-5msi

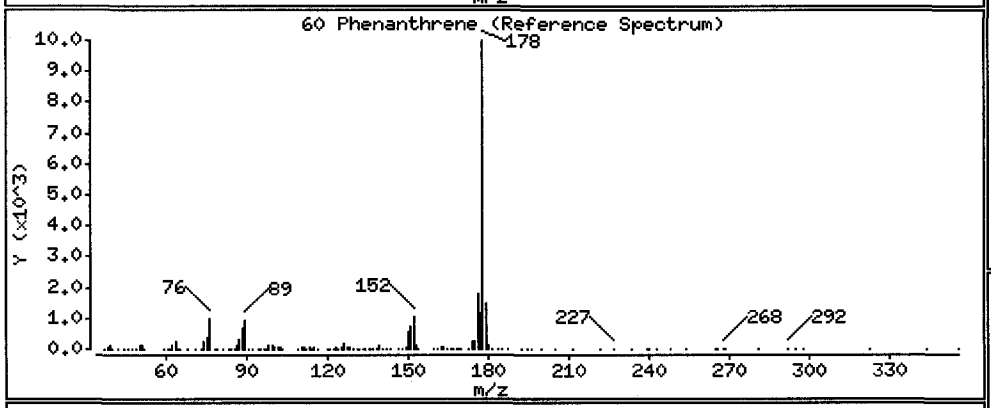
Column diameter: 0.25

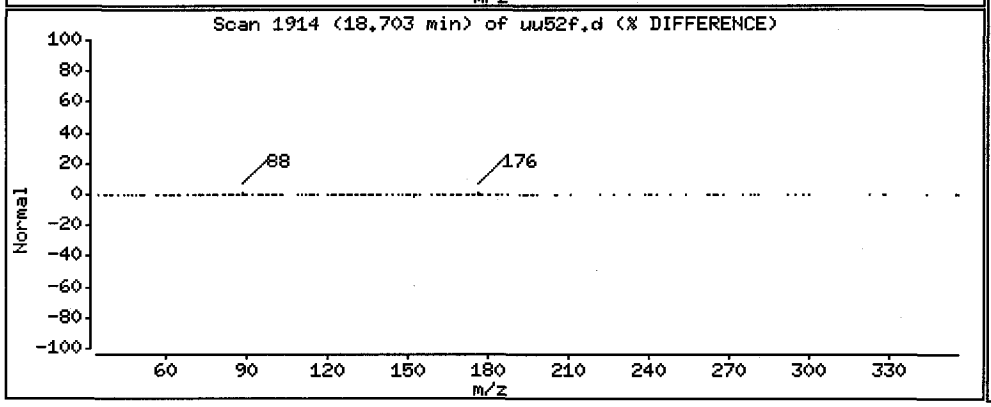
60 Phenanthrene

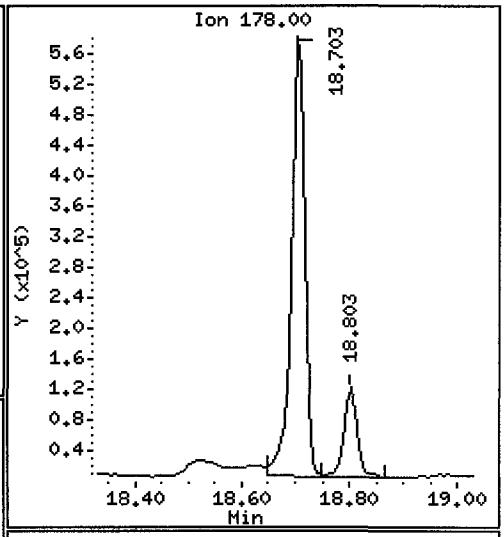
Concentration: 1824 ug/kg

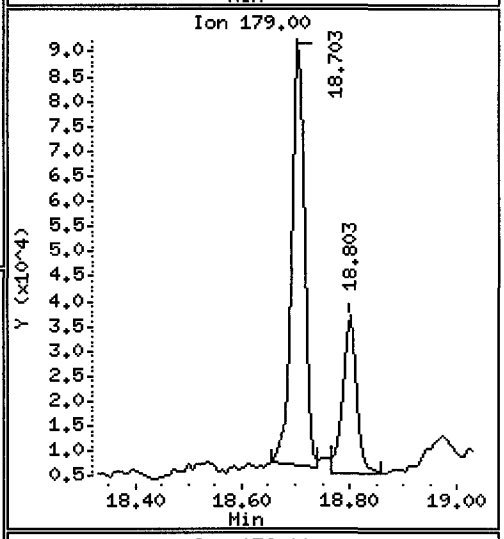


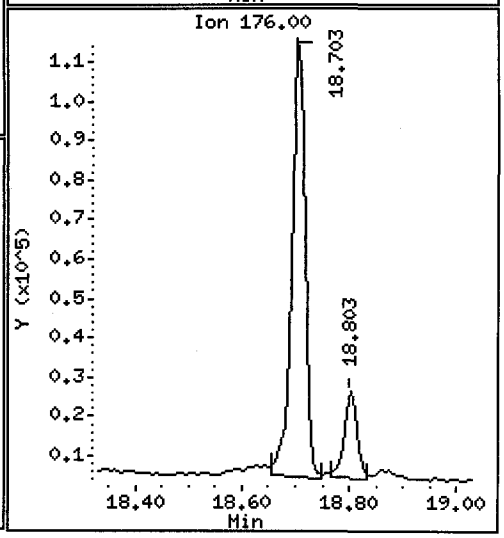












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

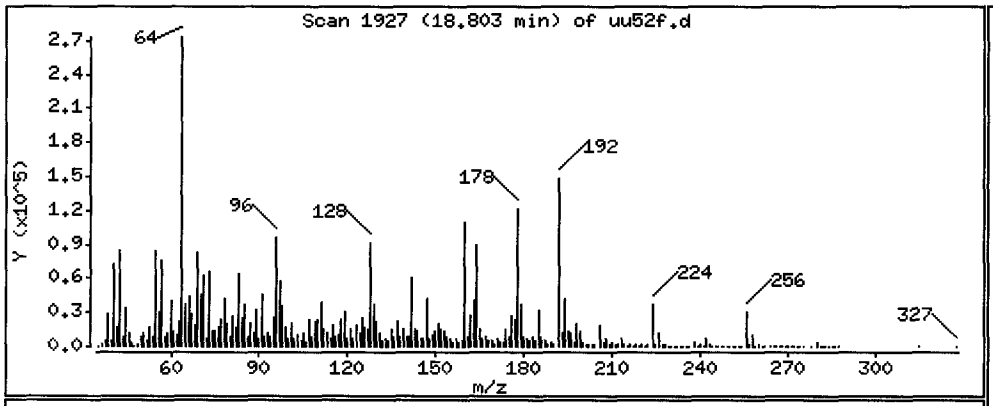
Operator: VTS/YZ

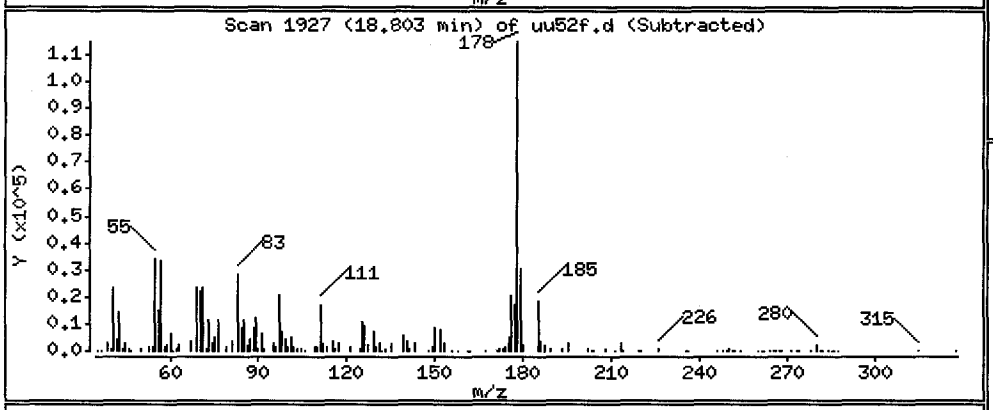
Column phase: ZB-5msi

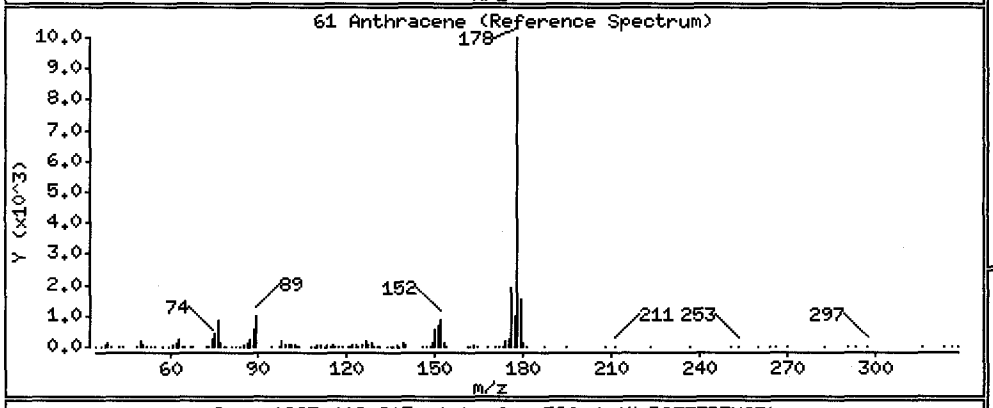
Column diameter: 0.25

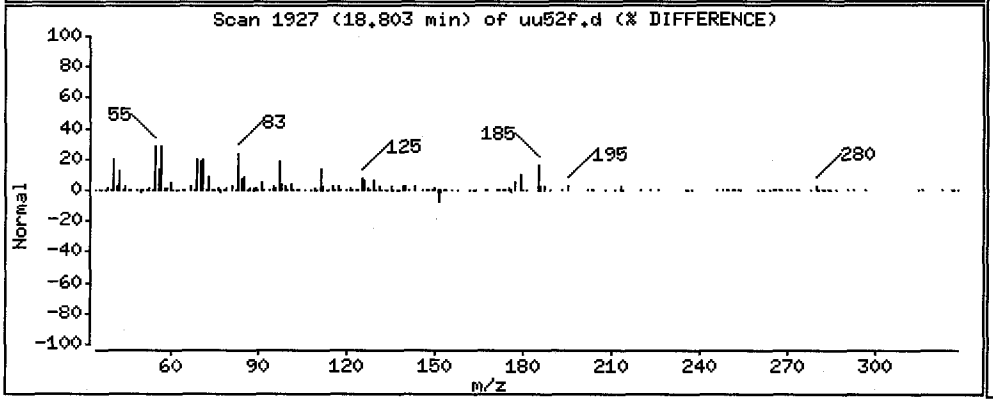
61 Anthracene

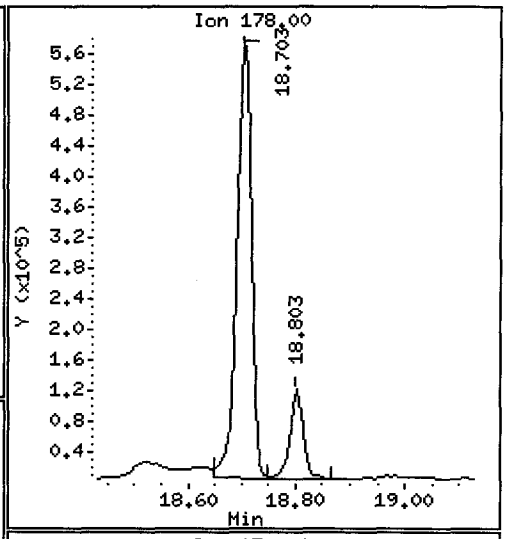
Concentration: 349.0 ug/kg

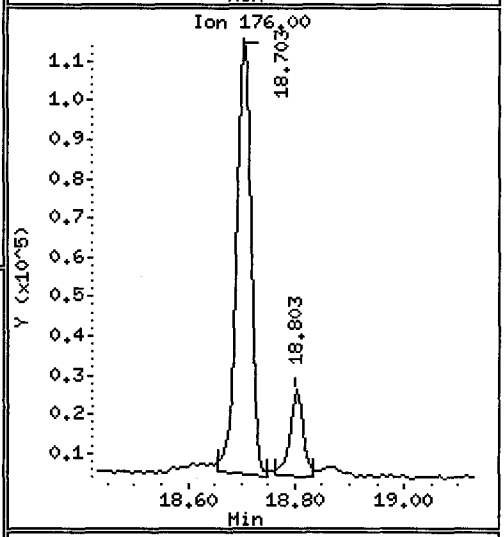


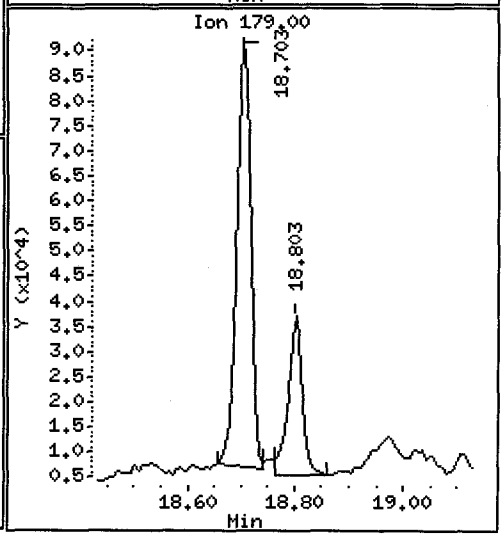












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

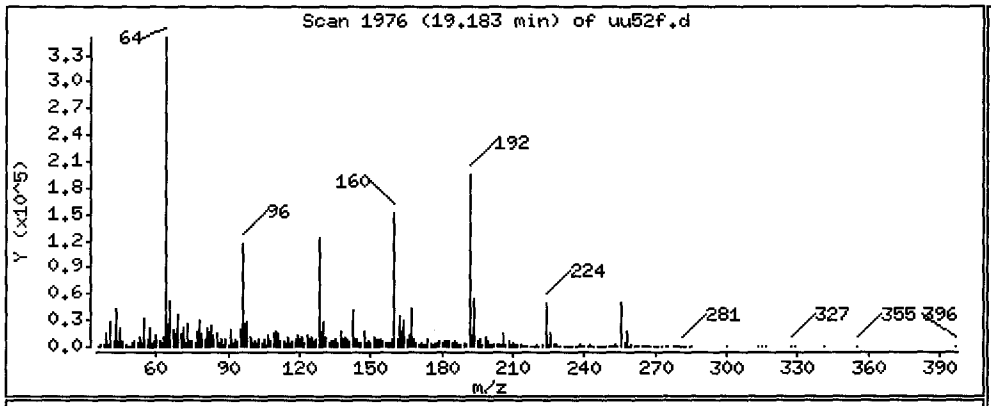
Client ID: MS005-SS-120515 Instrument: nt10.i

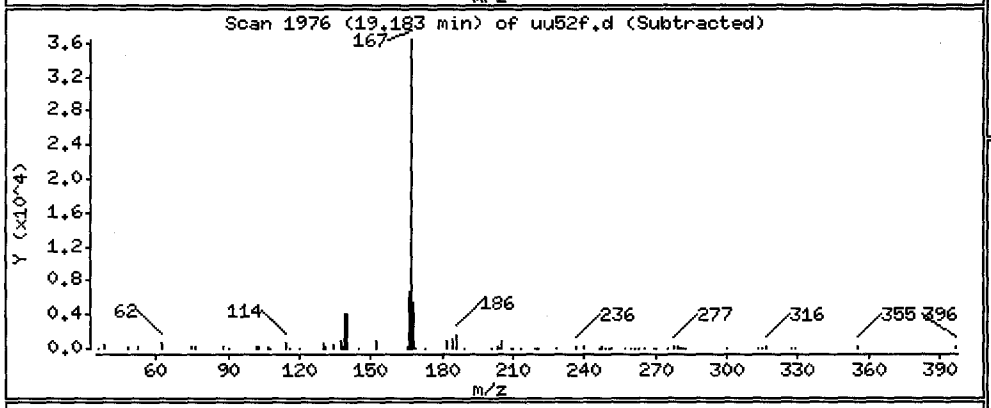
Sample Info: UU52F,3

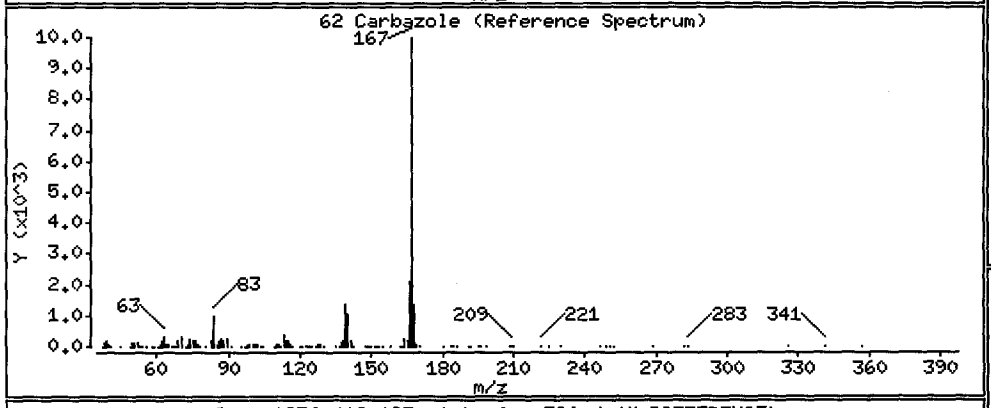
Volume Injected (uL): 1.0 Operator: VTS/YZ

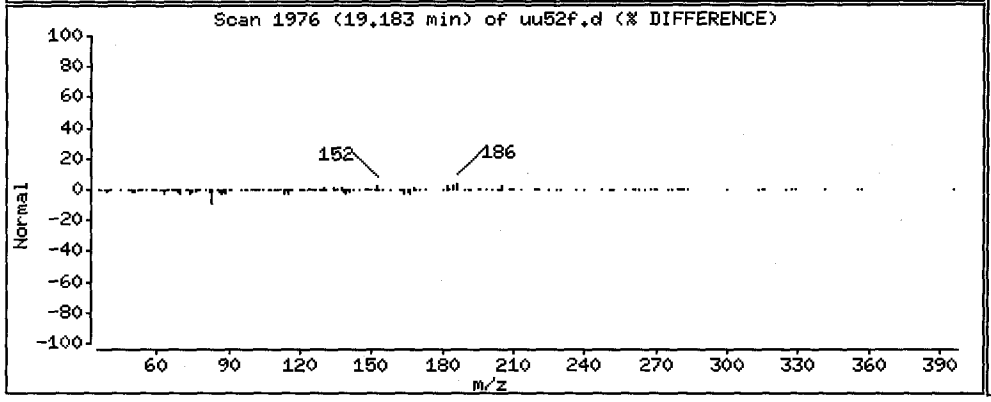
Column phase: ZB-5msi Column diameter: 0.25

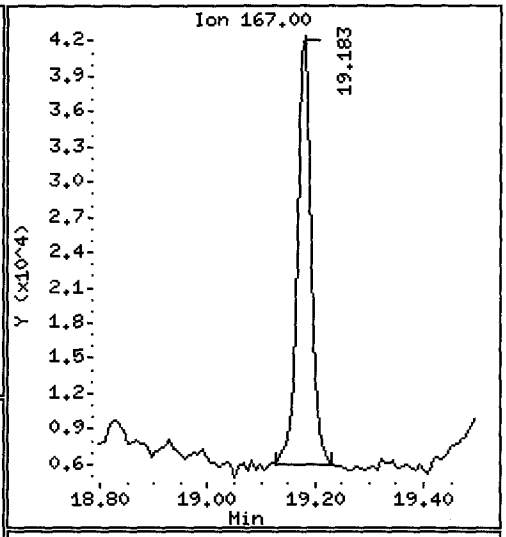
62 Carbazole Concentration: 126.7 ug/kg

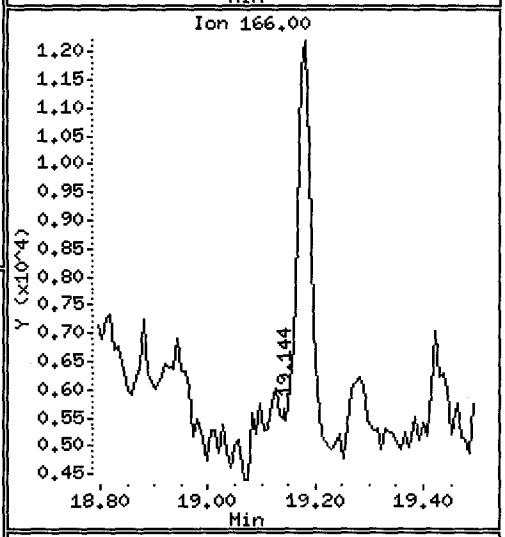


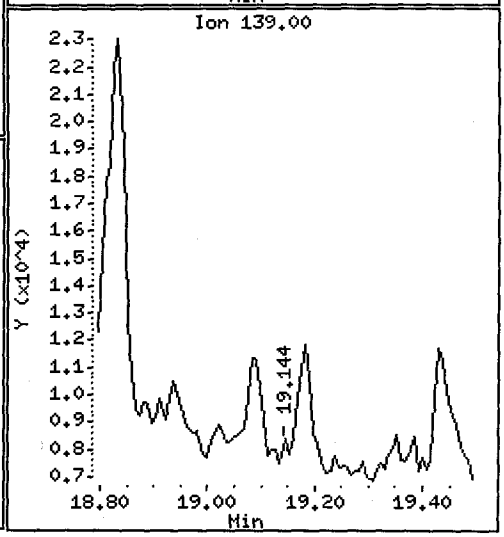












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

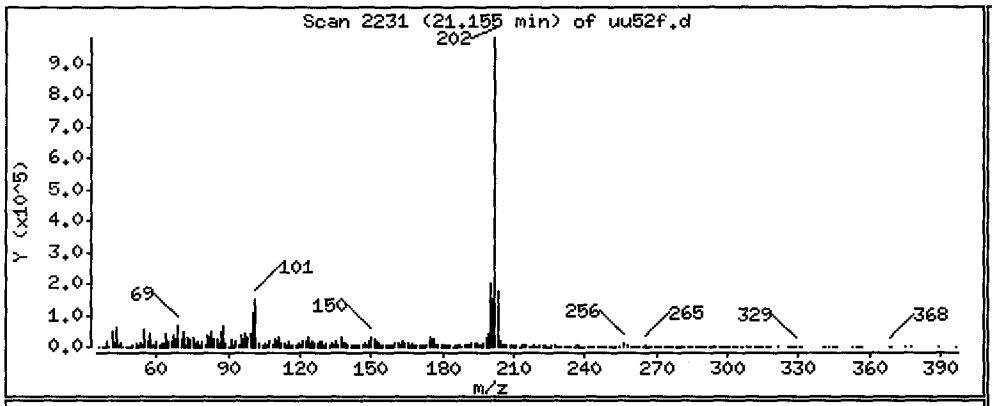
Operator: VTS/YZ

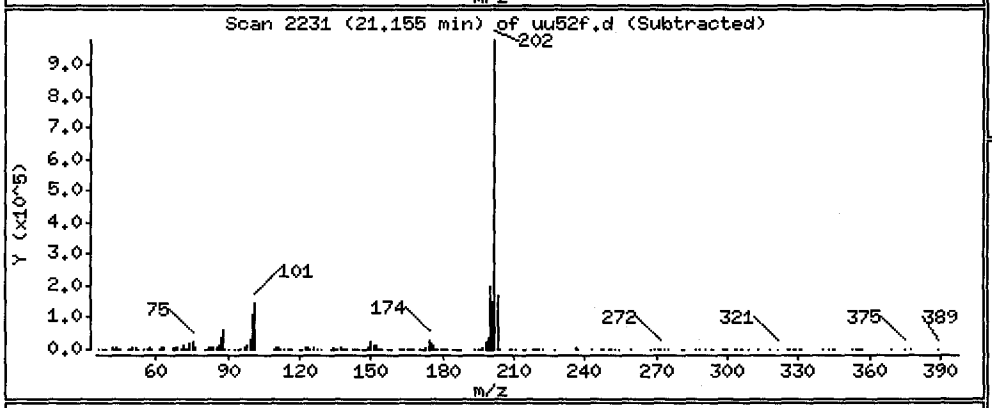
Column phase: ZB-5msi

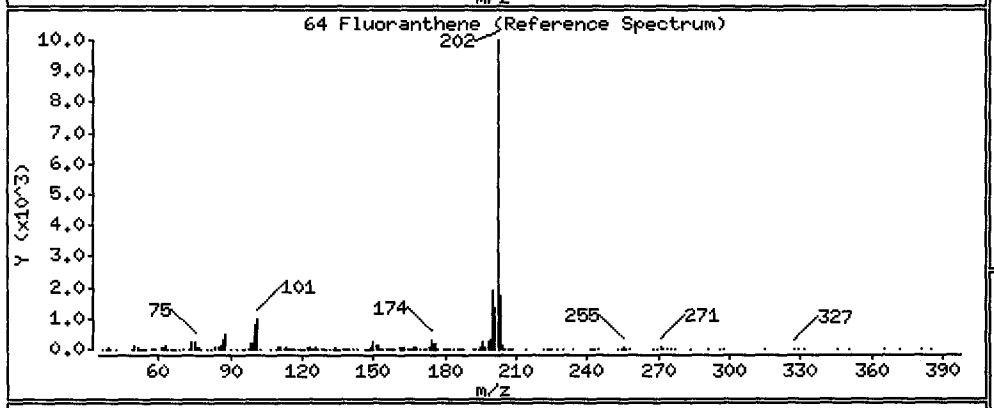
Column diameter: 0.25

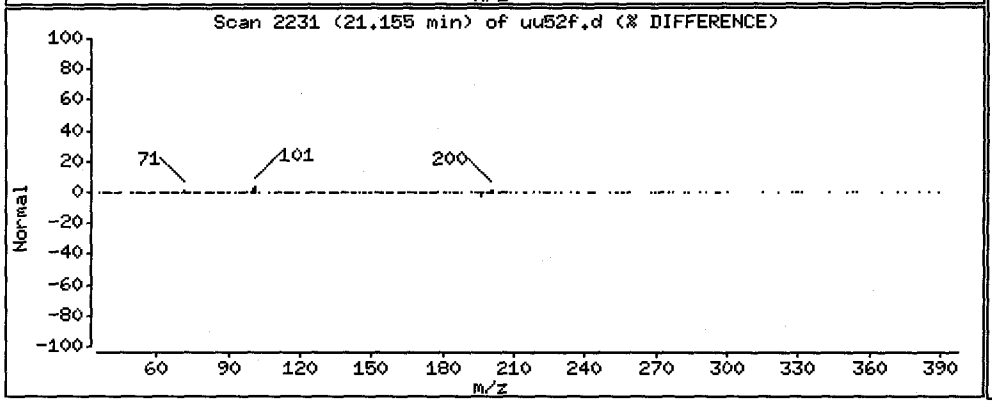
64 Fluoranthene

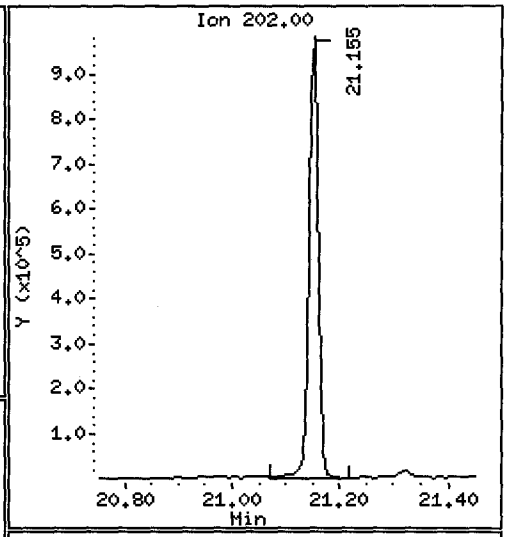
Concentration: 1940 ug/kg

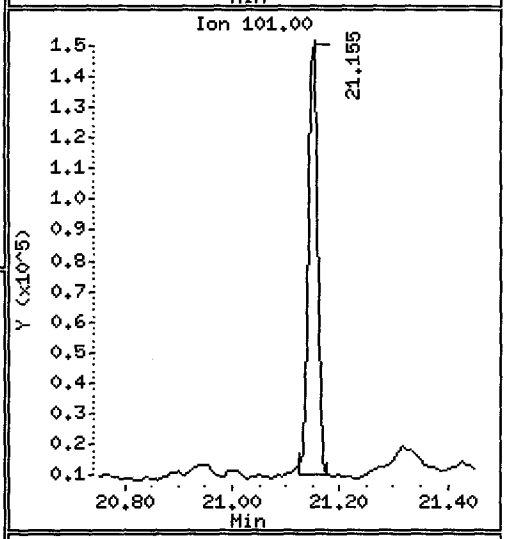


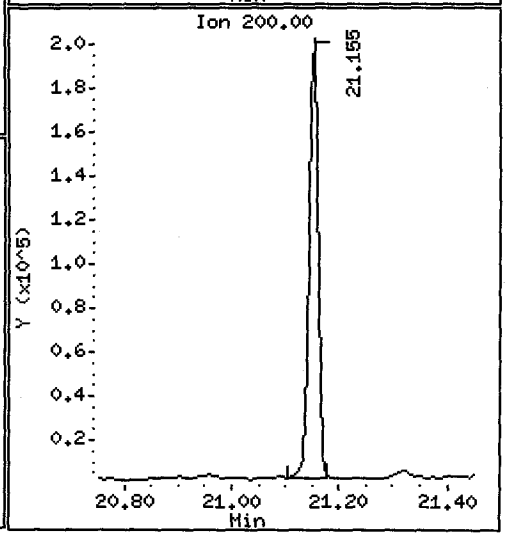












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

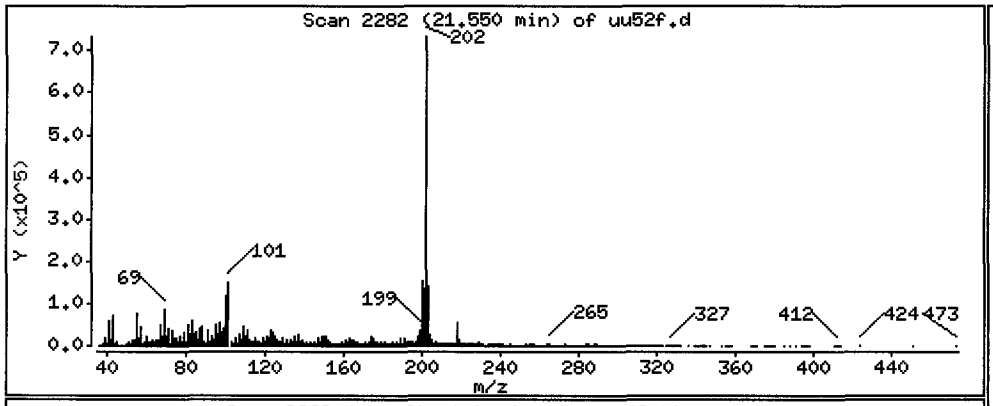
Operator: VTS/YZ

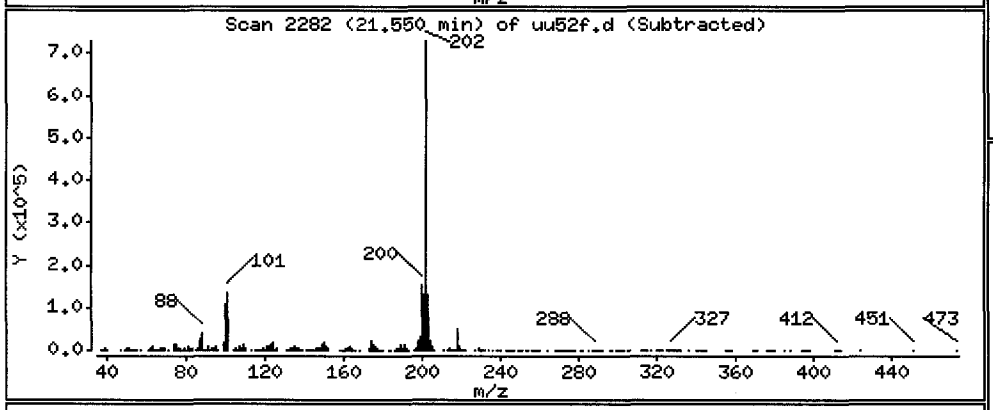
Column phase: ZB-5msi

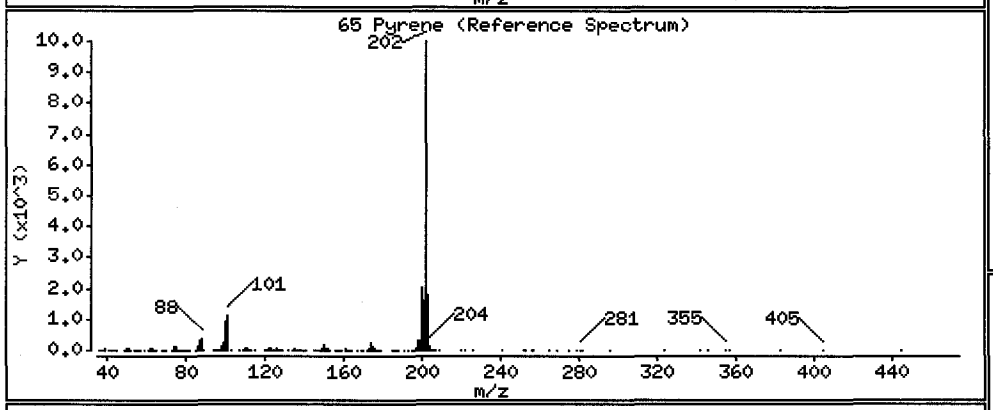
Column diameter: 0.25

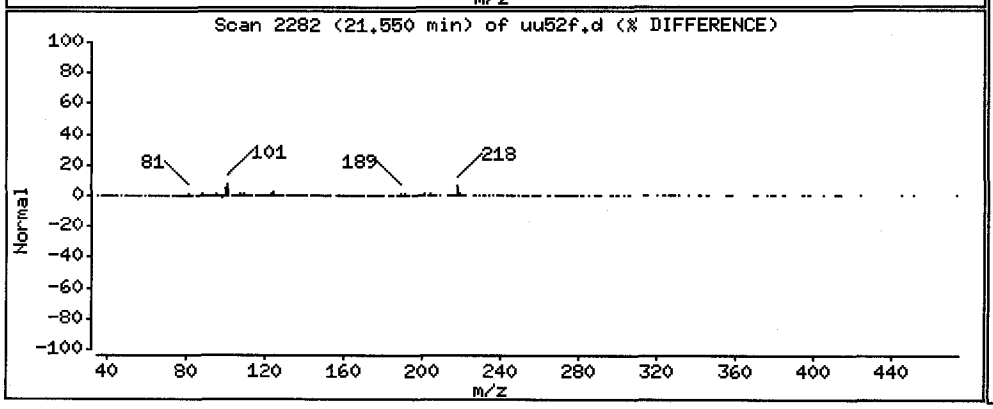
65 Pyrene

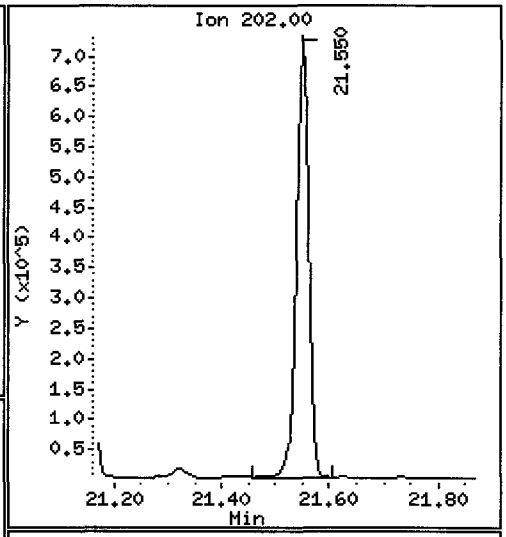
Concentration: 1596 ug/kg

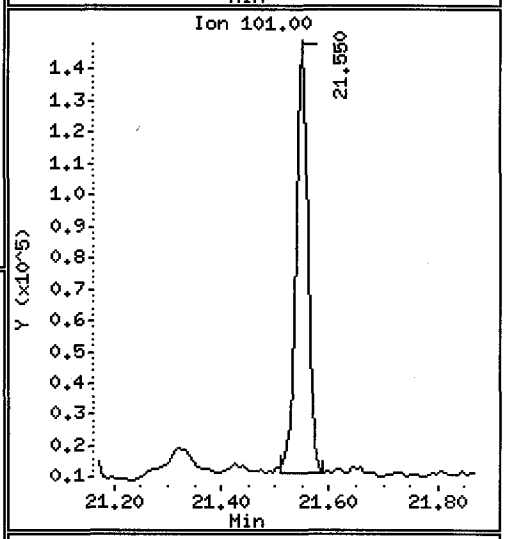


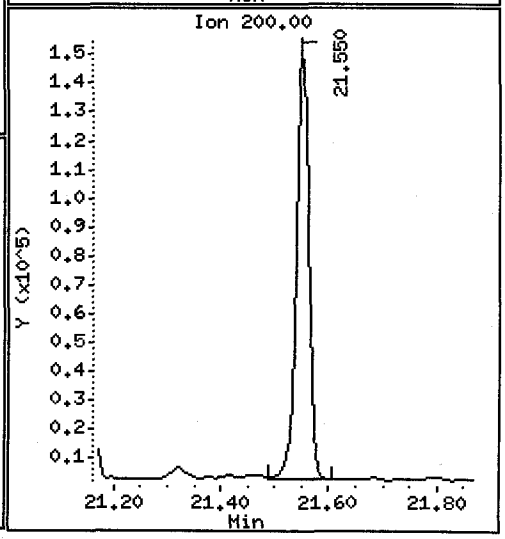












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

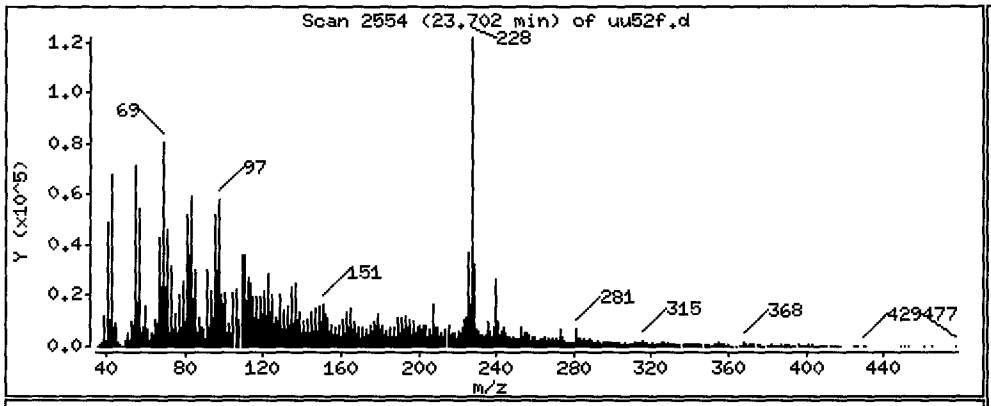
Client ID: MS005-SS-120515 Instrument: nt10.i

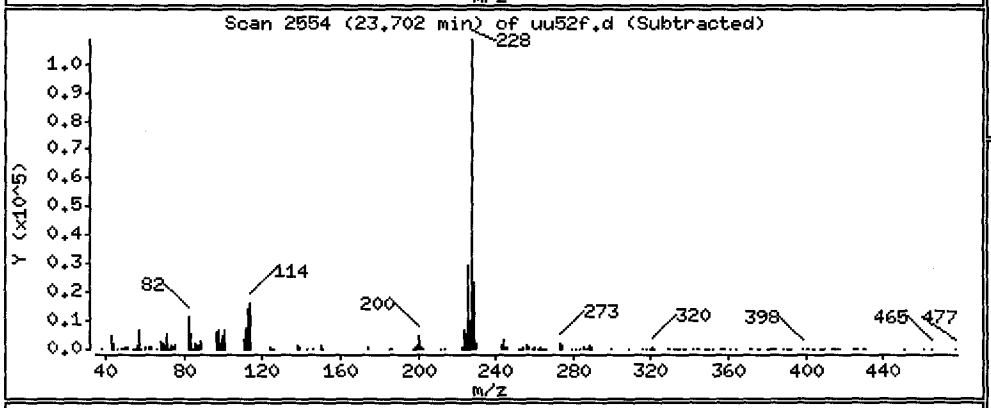
Sample Info: UU52F,3

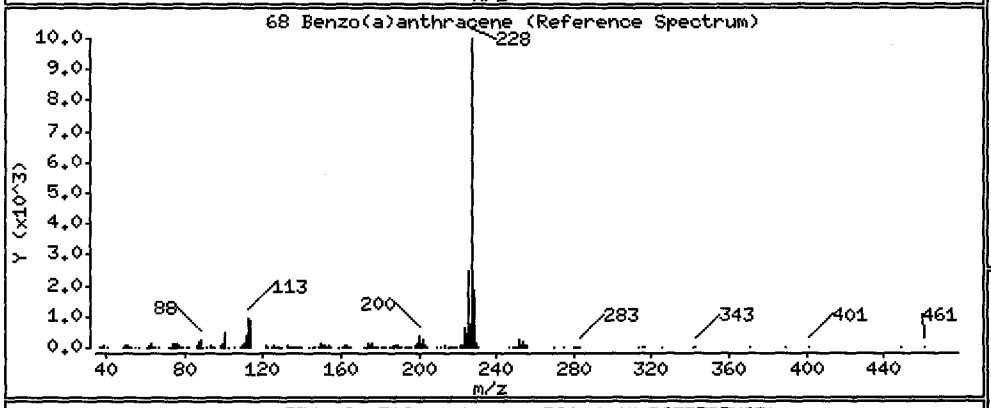
Volume Injected (uL): 1.0 Operator: VTS/YZ

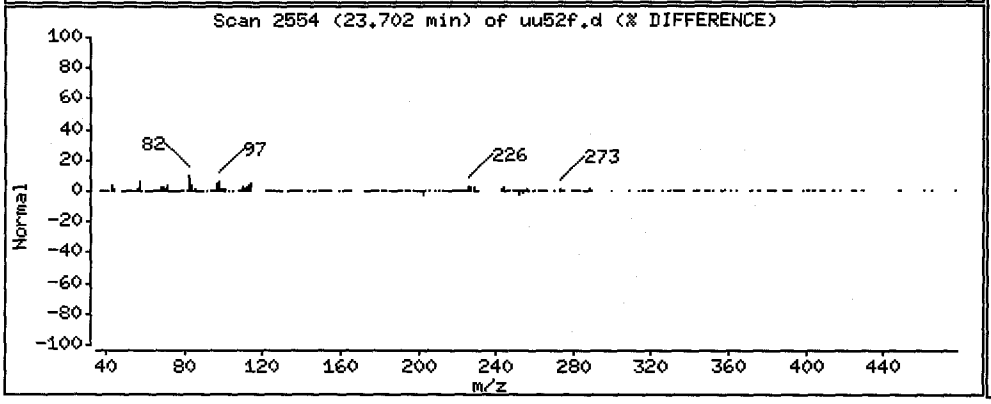
Column phase: ZB-5msi Column diameter: 0.25

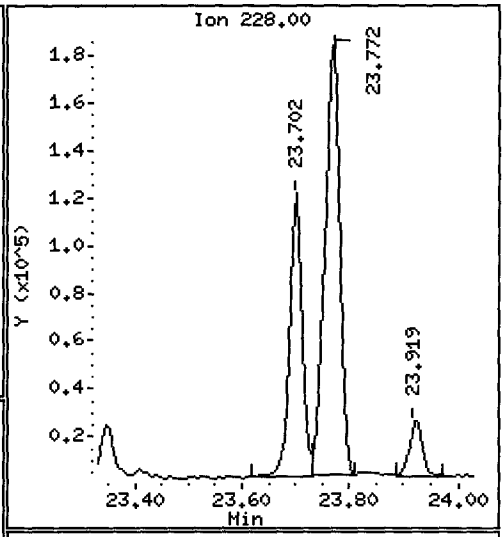
68 Benzo(a)anthracene Concentration: 295.4 ug/kg

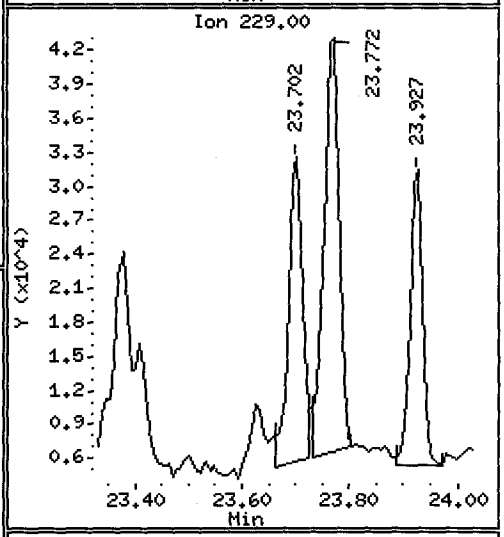


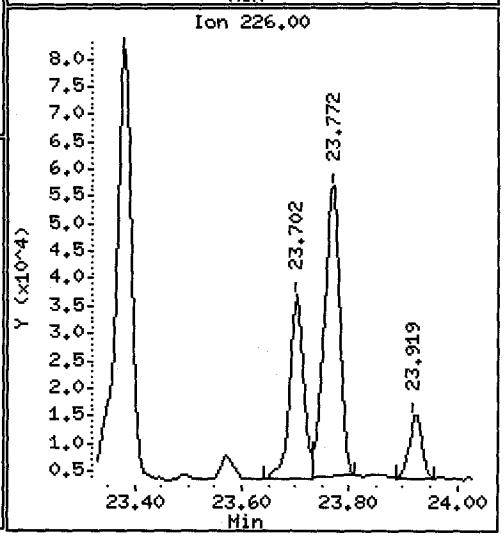












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

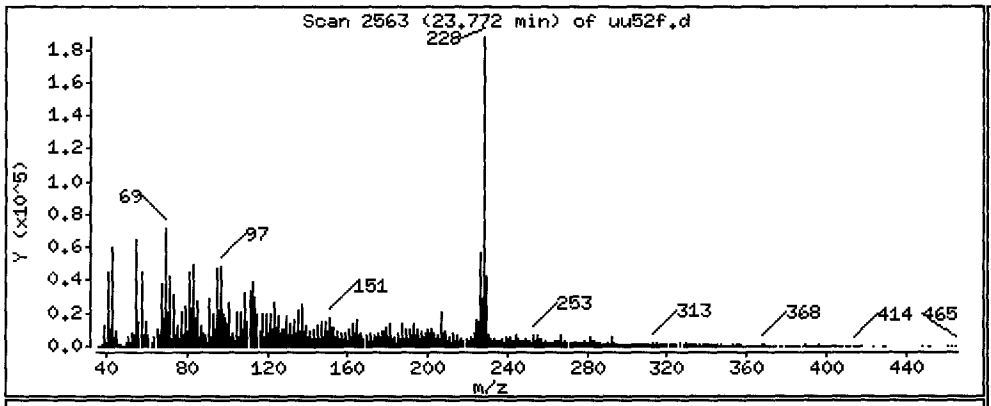
Operator: VTS/YZ

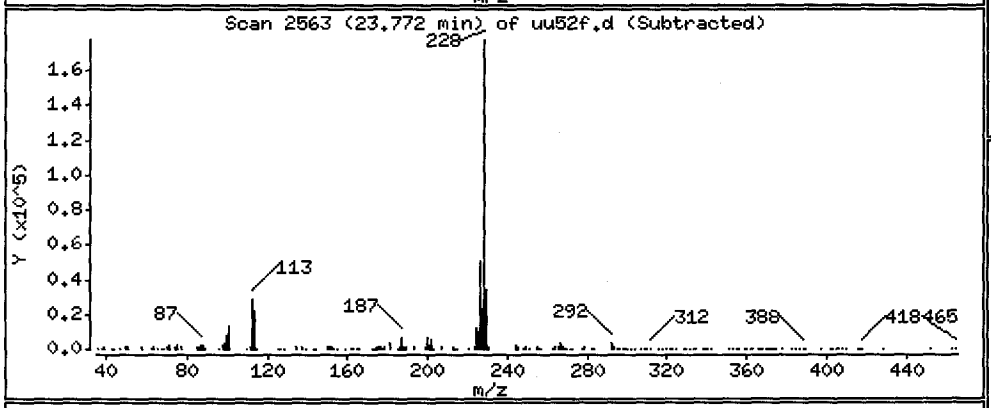
Column phase: ZB-5msi

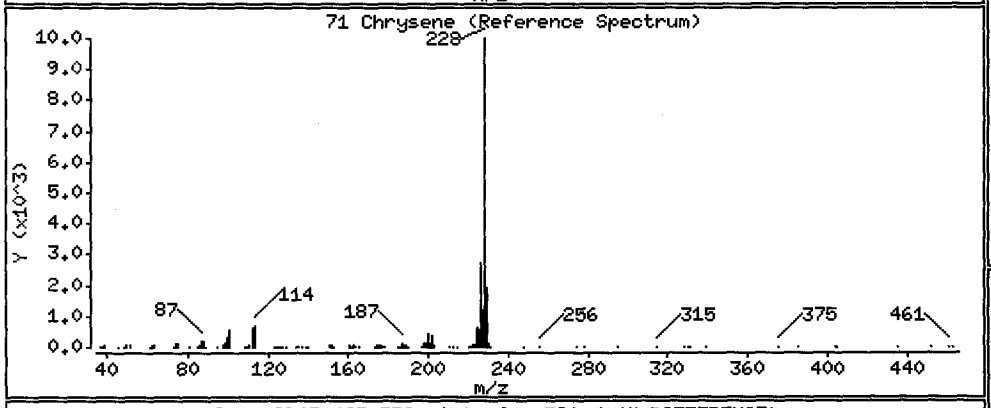
Column diameter: 0.25

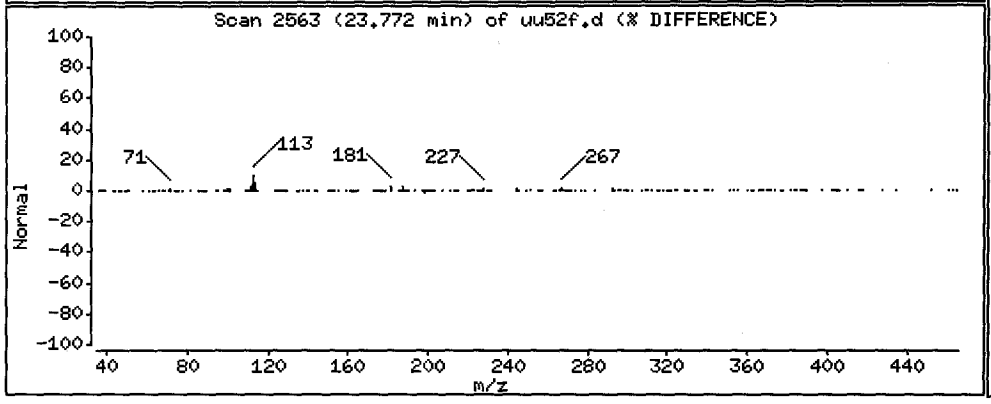
71 Chrysene

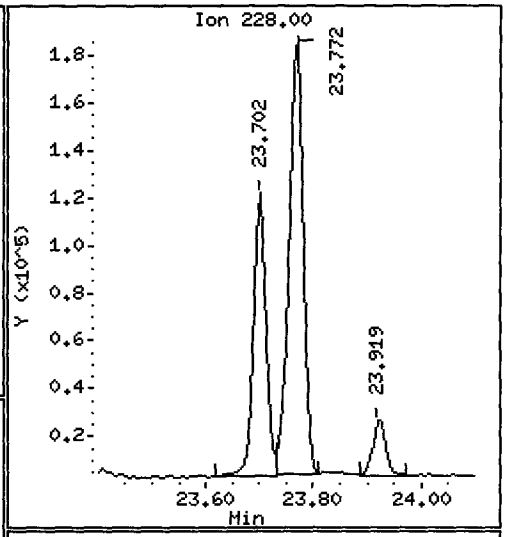
Concentration: 574.0 ug/kg

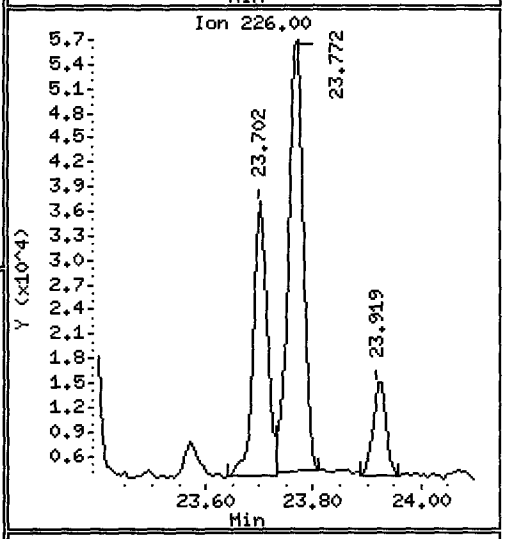


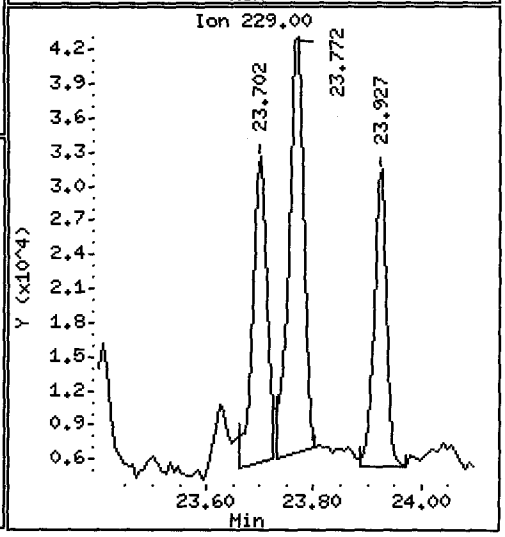












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

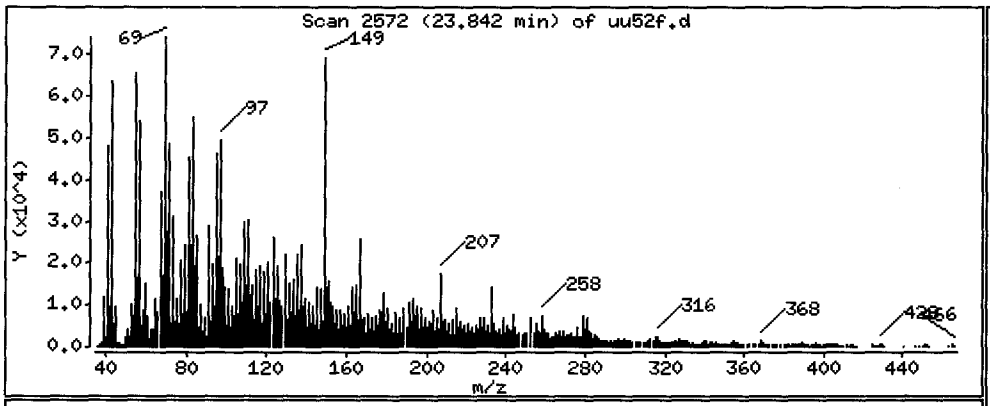
Client ID: MS005-SS-120515 Instrument: nt10.i

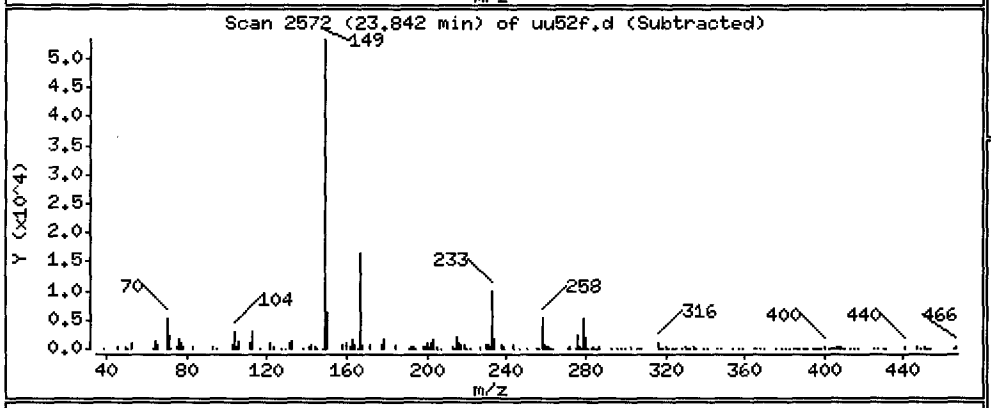
Sample Info: UU52F,3

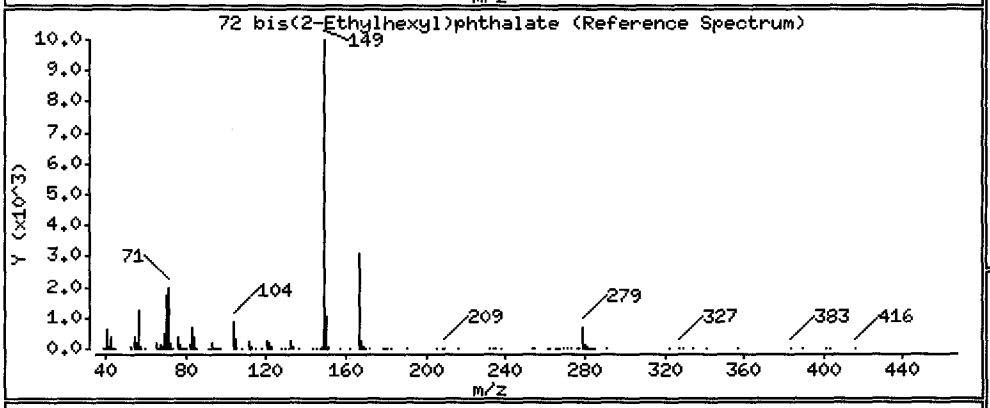
Volume Injected (uL): 1.0 Operator: VTS/YZ

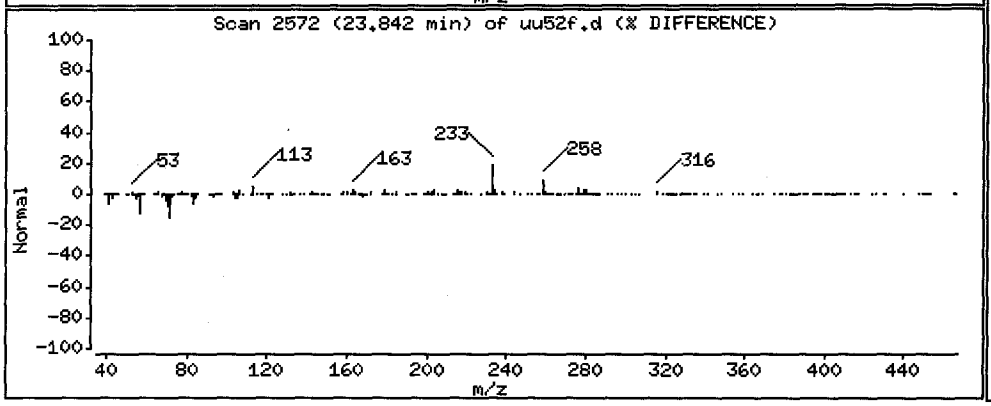
Column phase: ZB-5msi Column diameter: 0.25

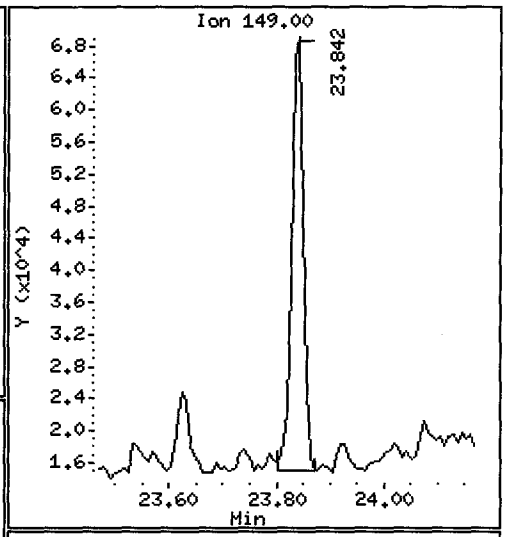
72 bis(2-Ethylhexyl)phthalate Concentration: 166.1 ug/kg

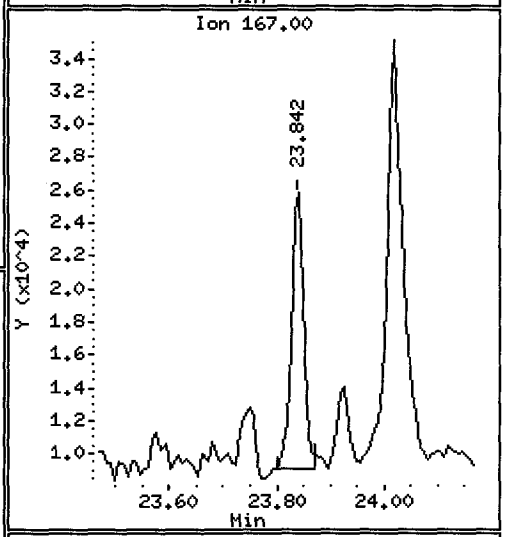


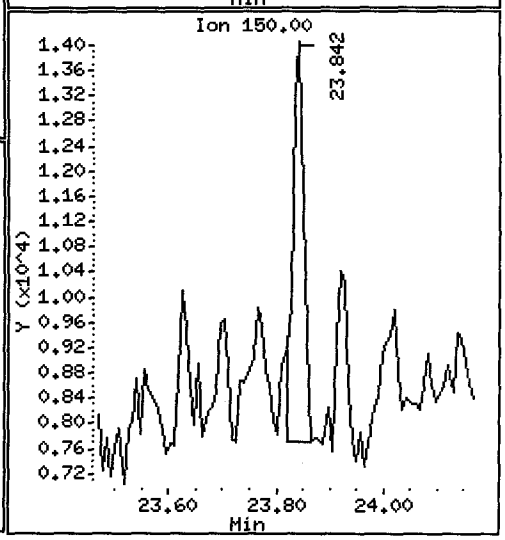






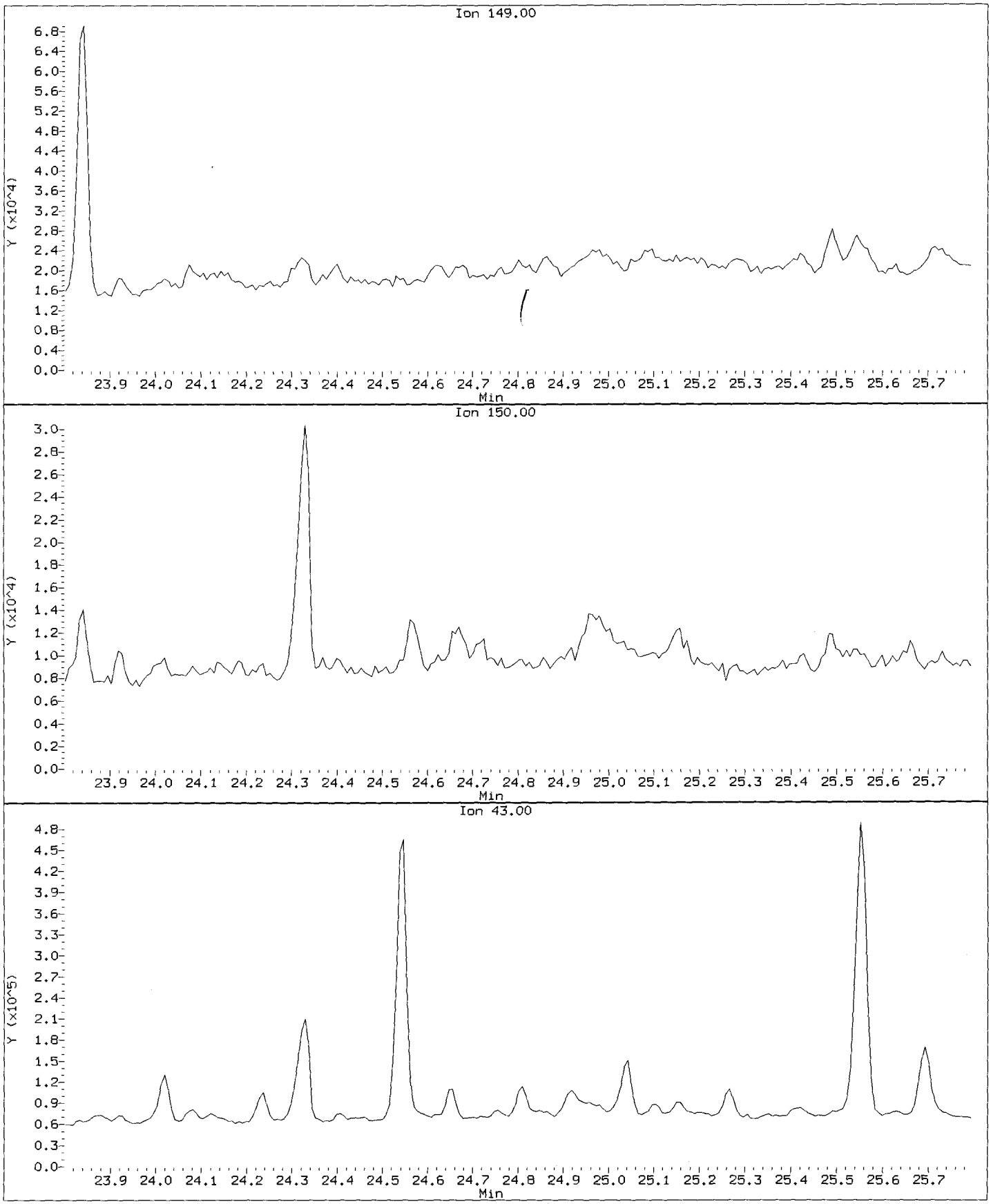






Data File: /chem1/nt10.i/20120526.b/uu52f.d
Injection Date: 26-MAY-2012 20:16
Instrument: nt10.i
Client Sample ID: MS005-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

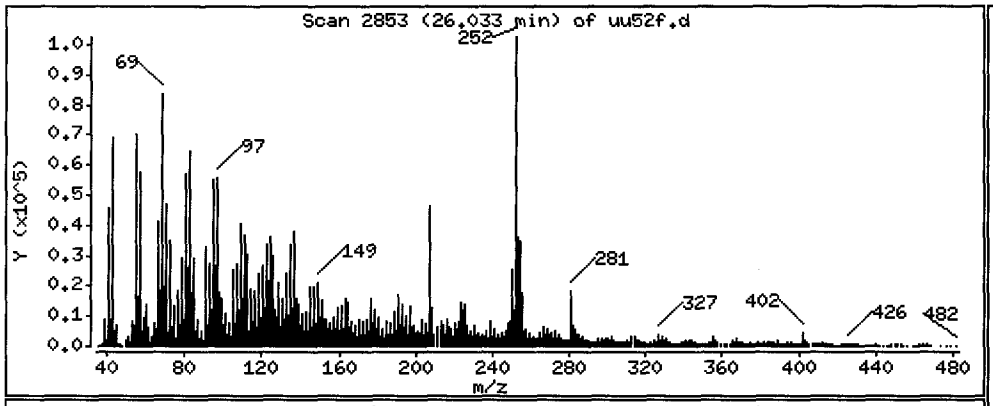
Operator: VTS/YZ

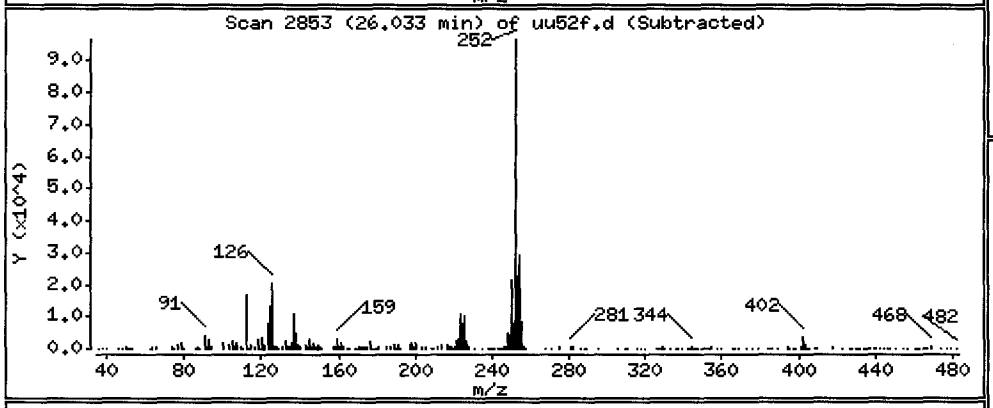
Column phase: ZB-5msi

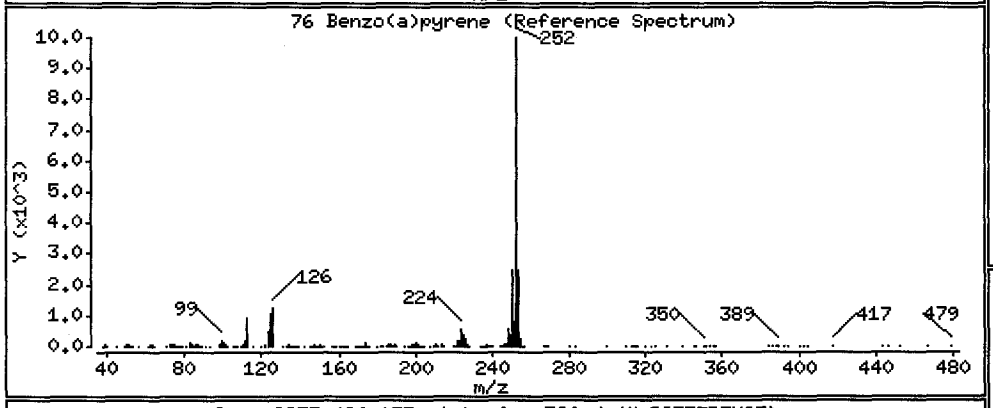
Column diameter: 0.25

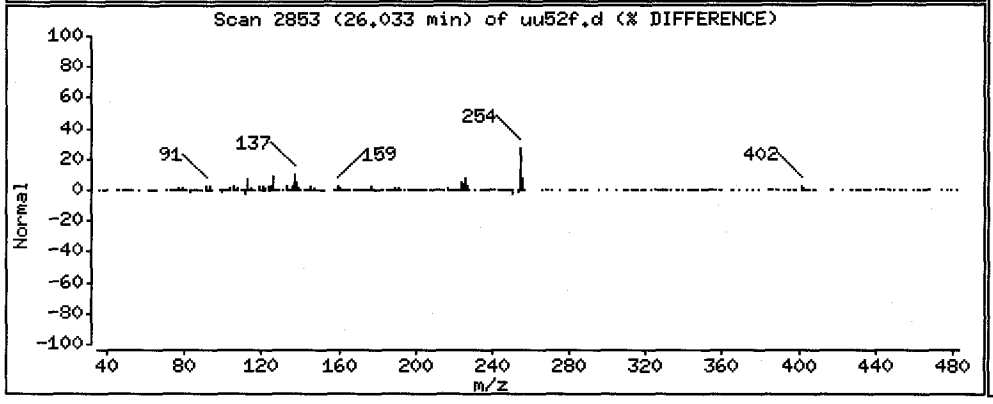
76 Benzo(a)pyrene

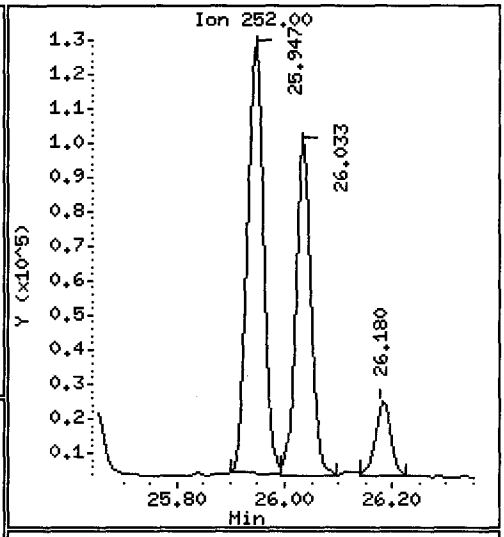
Concentration: 334.6 ug/kg

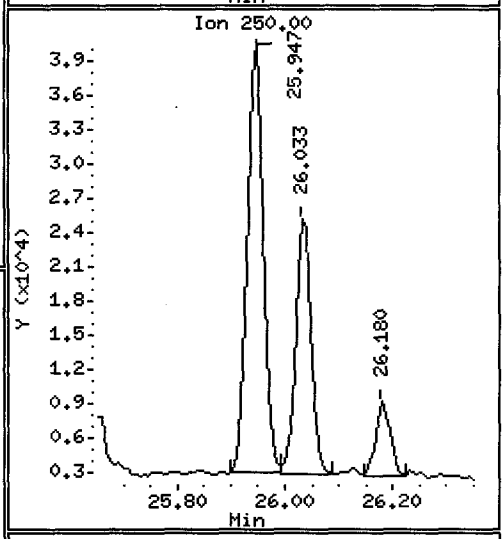


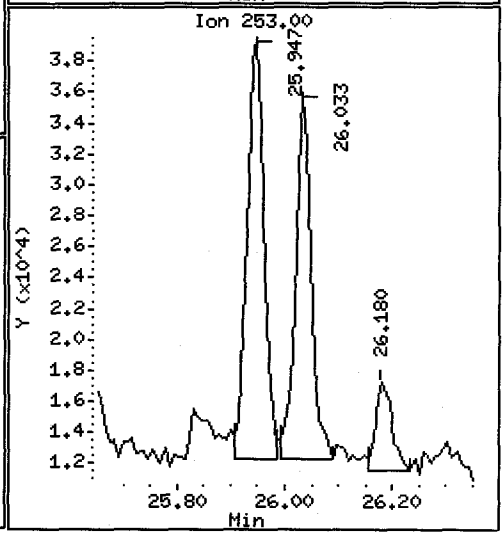












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

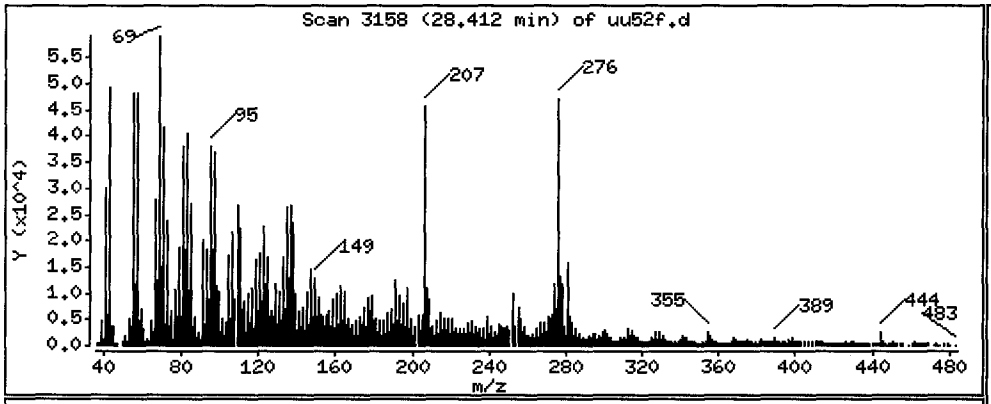
Operator: VTS/YZ

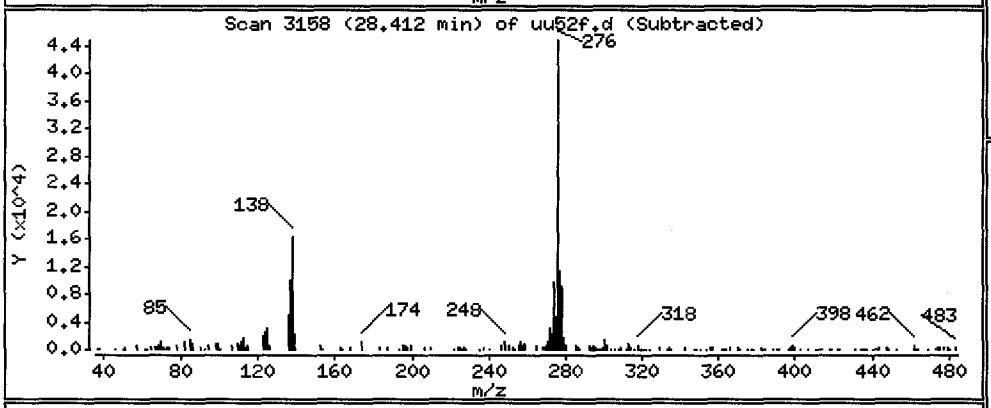
Column phase: ZB-5msi

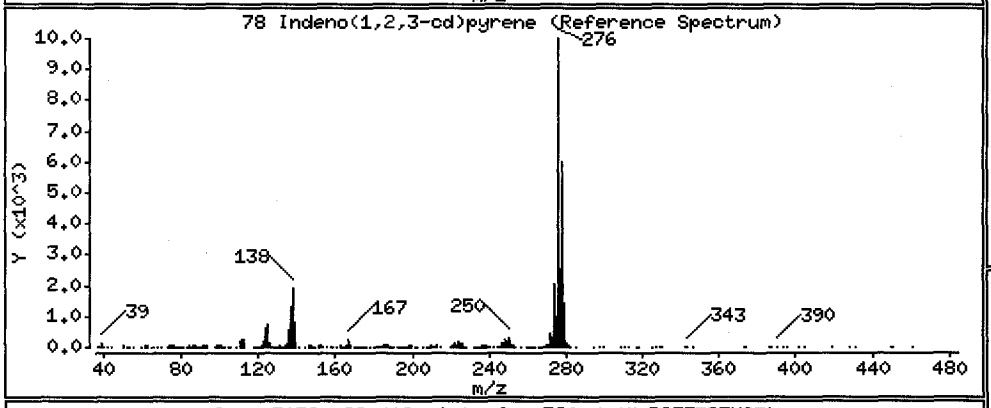
Column diameter: 0.25

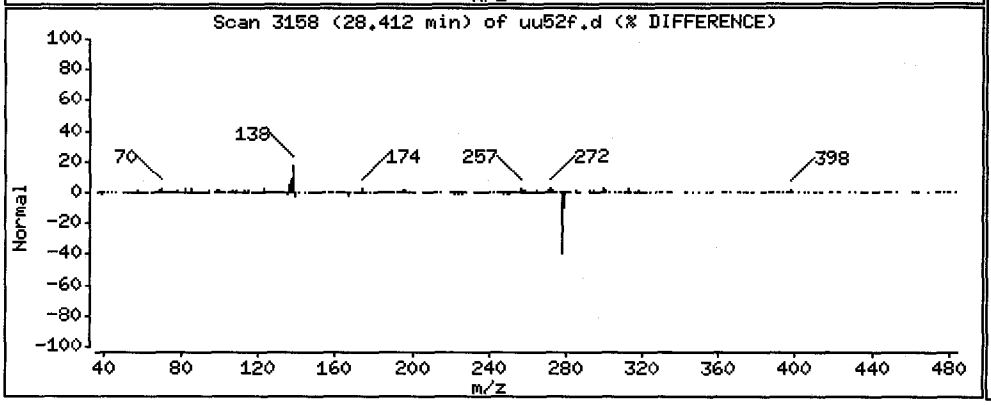
78 Indeno(1,2,3-cd)pyrene

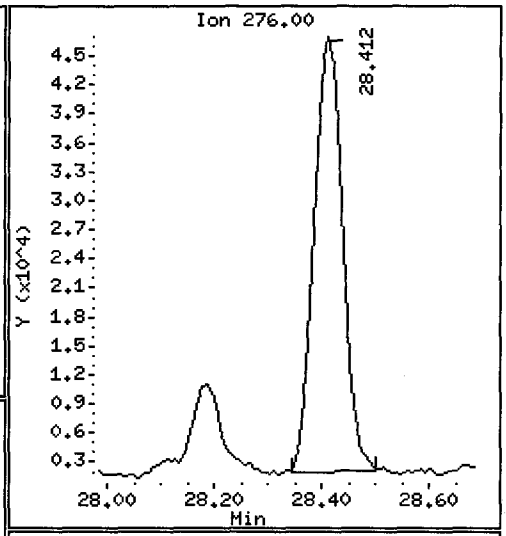
Concentration: 242.9 ug/kg

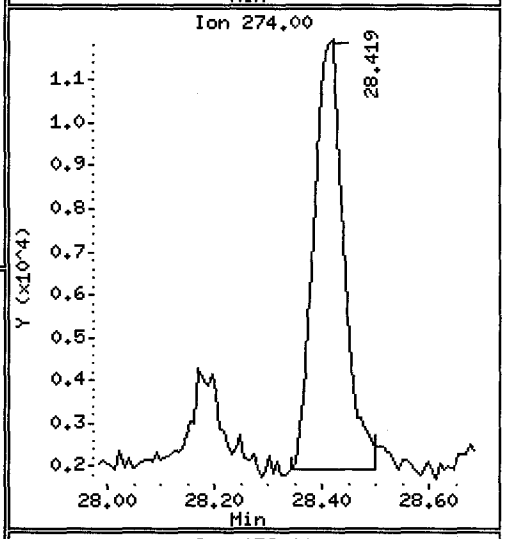


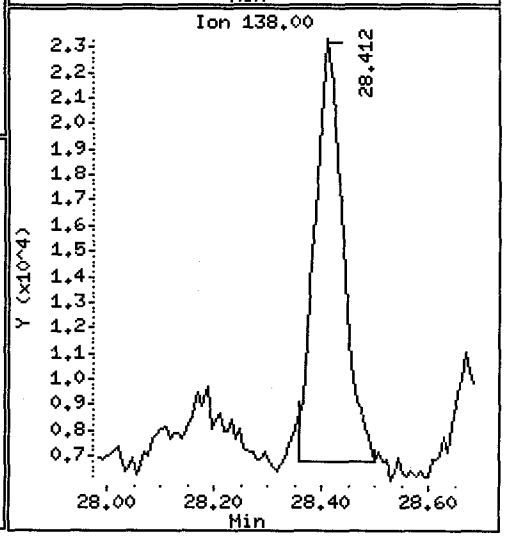












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

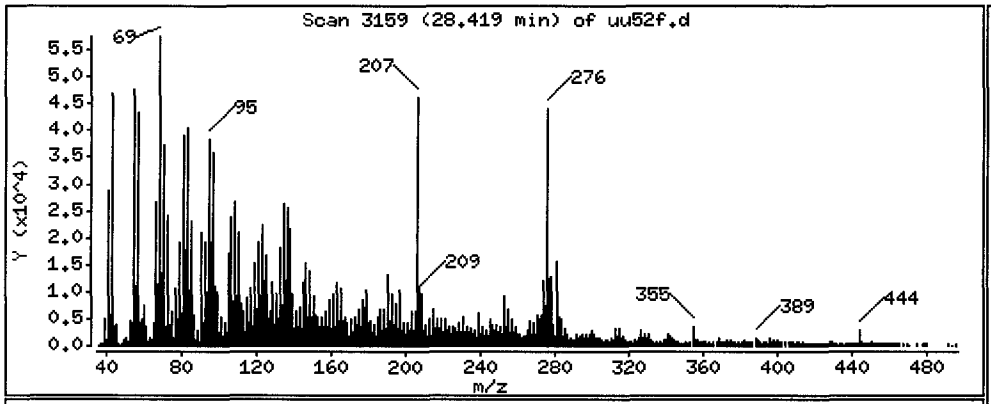
Operator: VTS/YZ

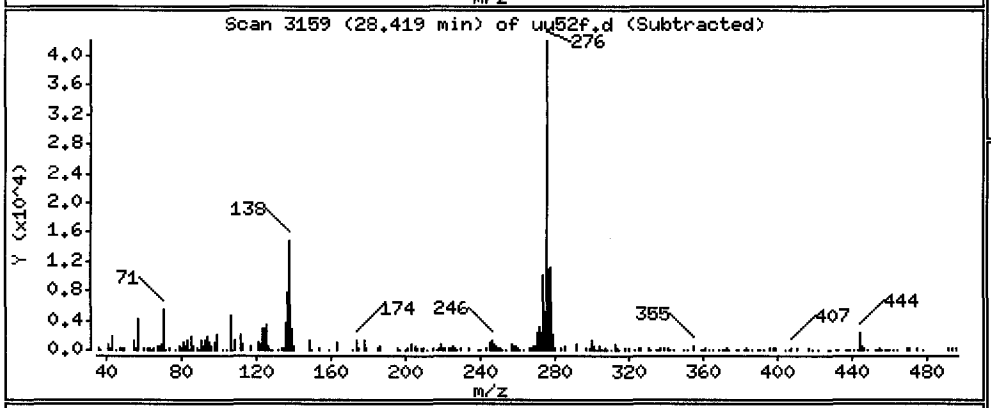
Column phase: ZB-5msi

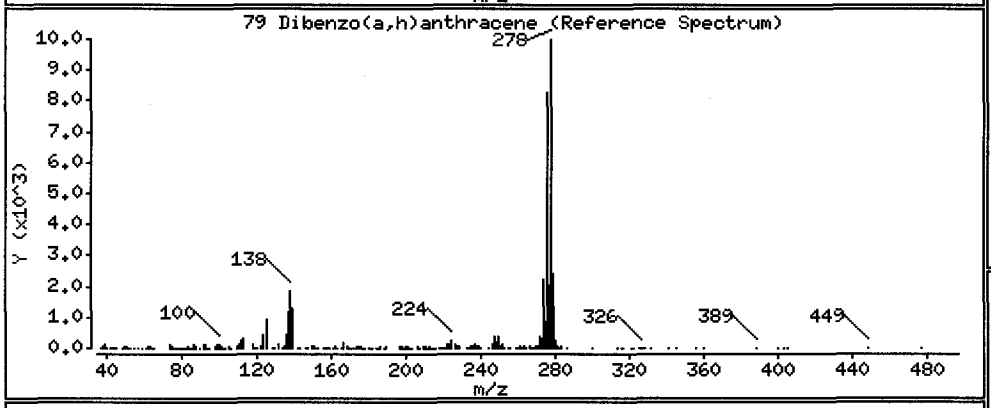
Column diameter: 0.25

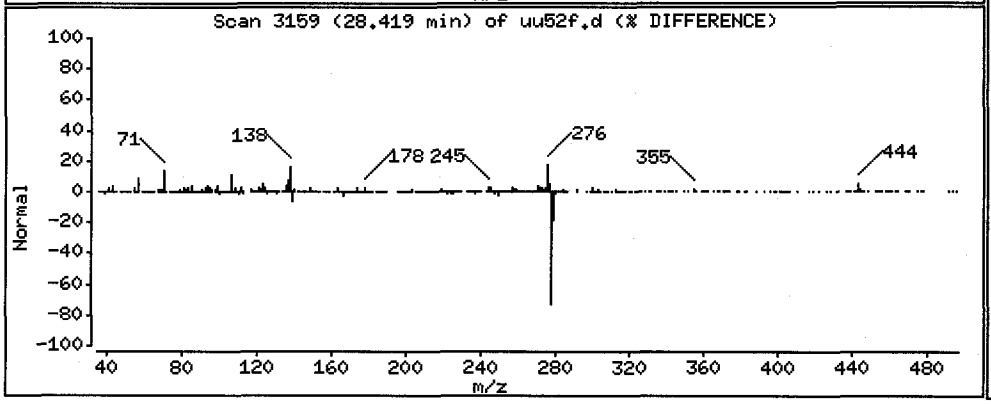
79 Dibenzo(a,h)anthracene

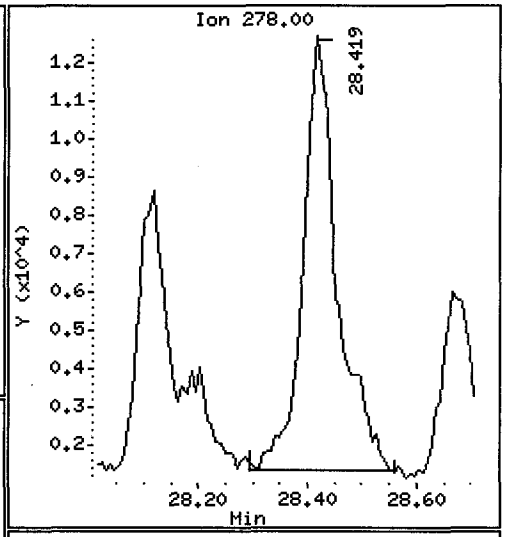
Concentration: 94.60 ug/kg

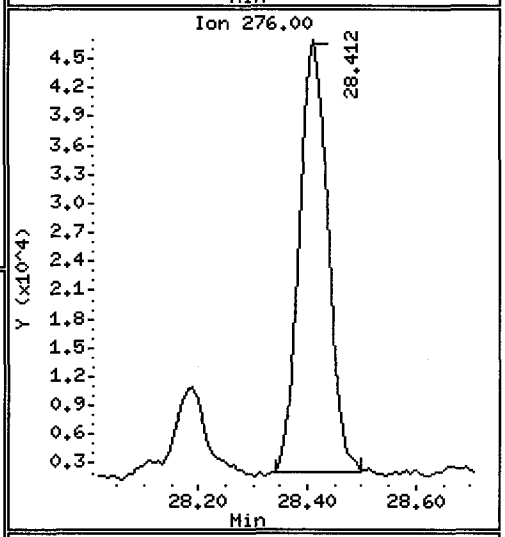


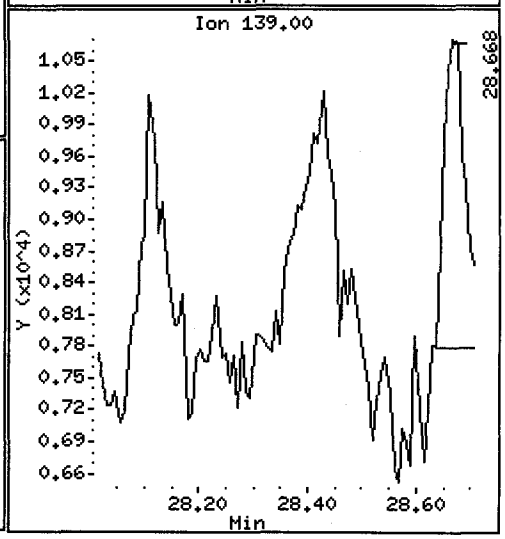












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

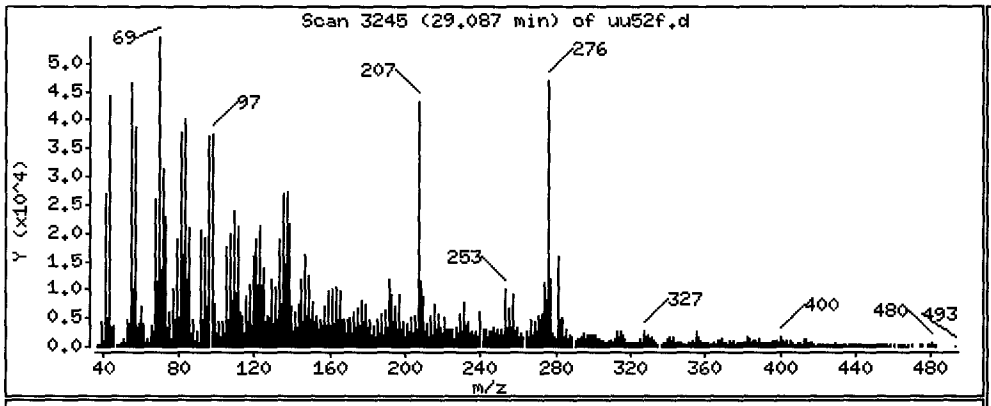
Operator: VTS/YZ

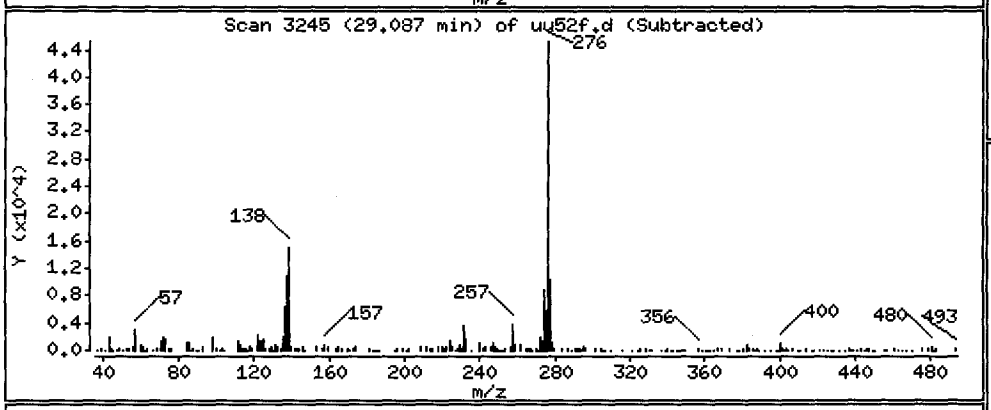
Column phase: ZB-5msi

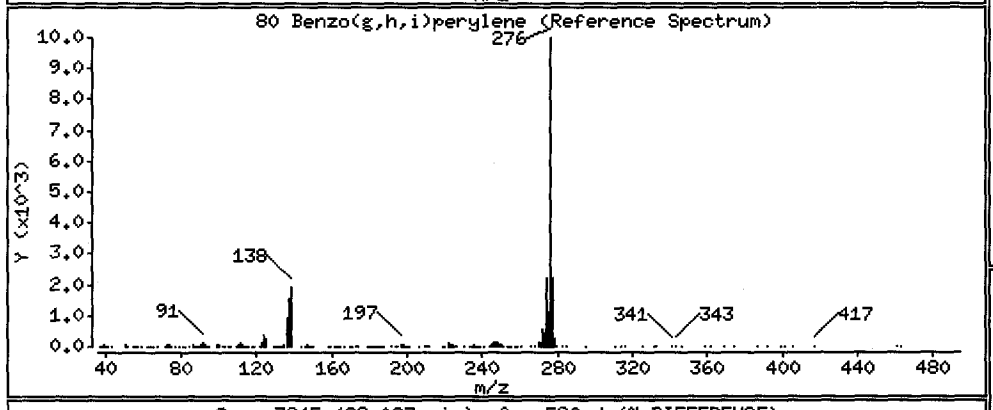
Column diameter: 0.25

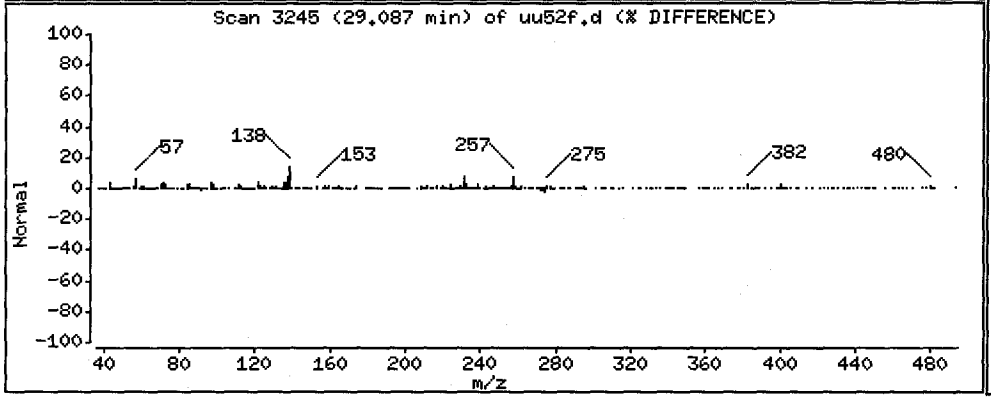
80 Benzo(g,h,i)perylene

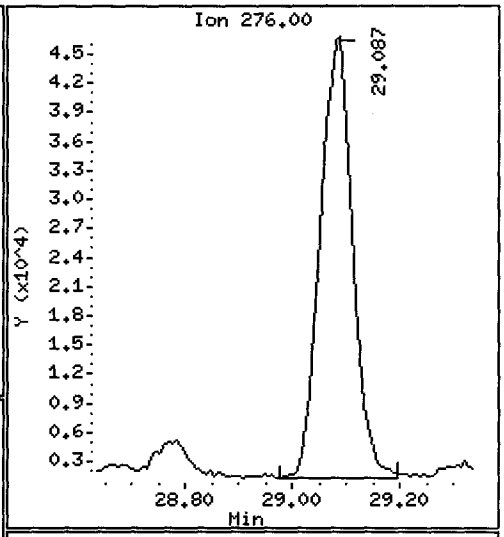
Concentration: 323.3 ug/kg

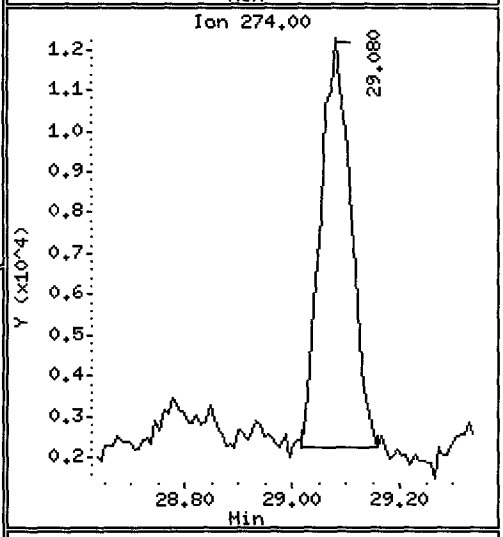


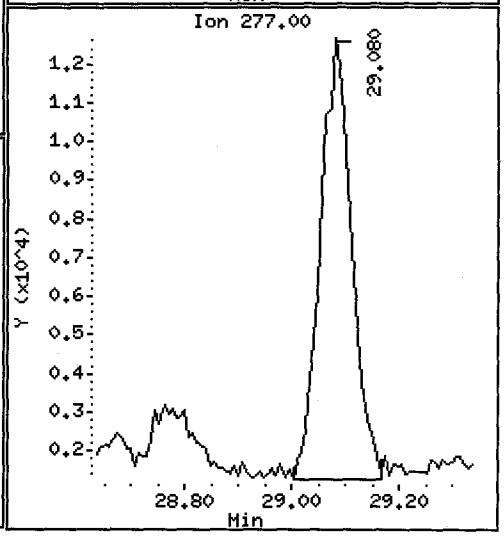












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

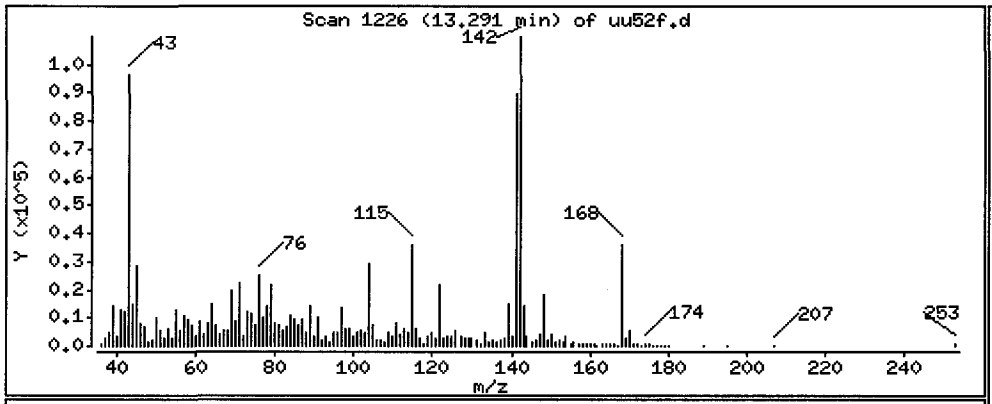
Client ID: MS005-SS-120515 Instrument: nt10.i

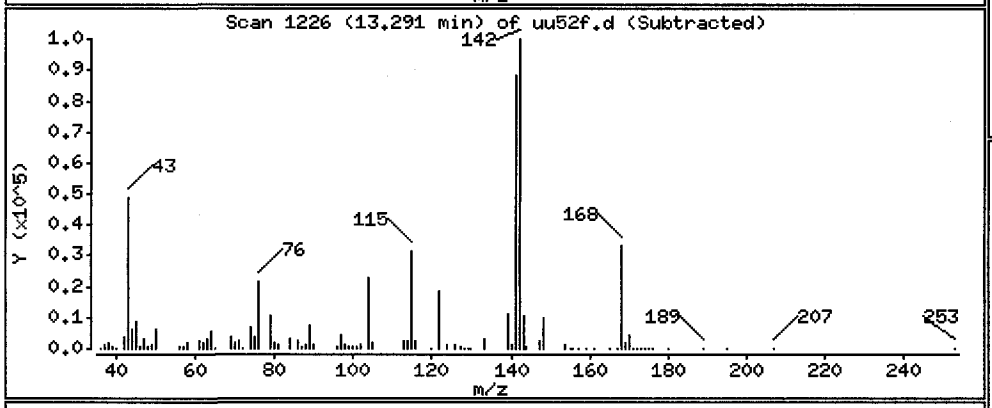
Sample Info: UU52F,3

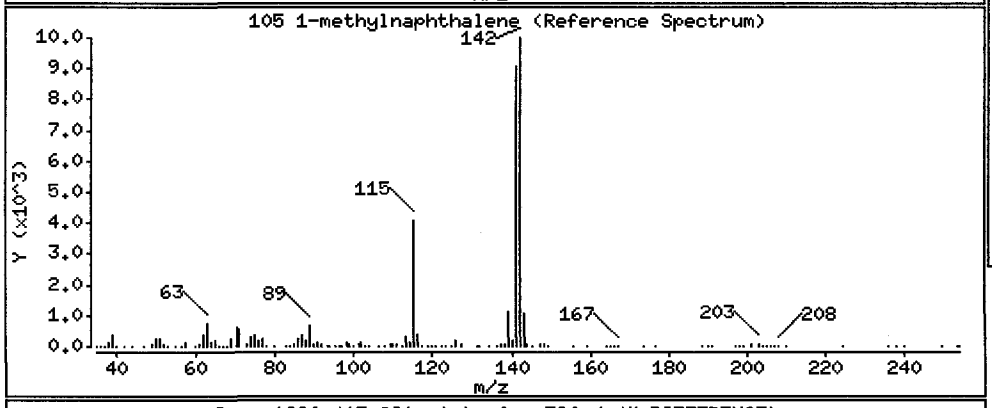
Volume Injected (uL): 1.0 Operator: VTS/YZ

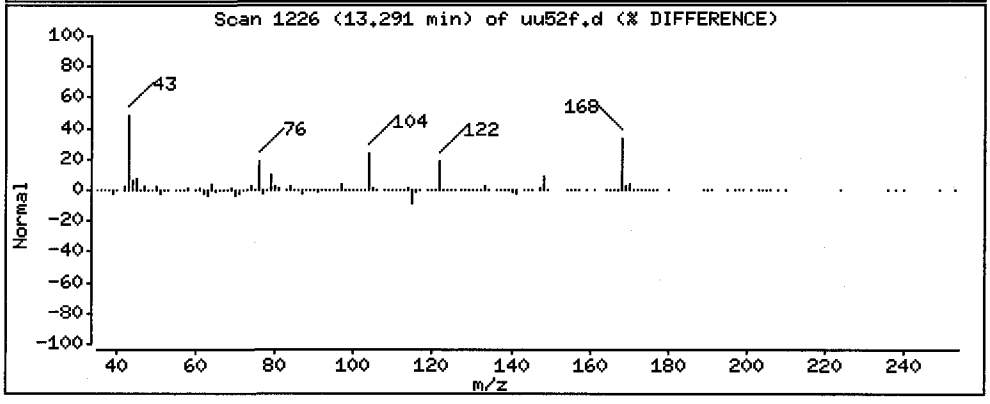
Column phase: ZB-5msi Column diameter: 0.25

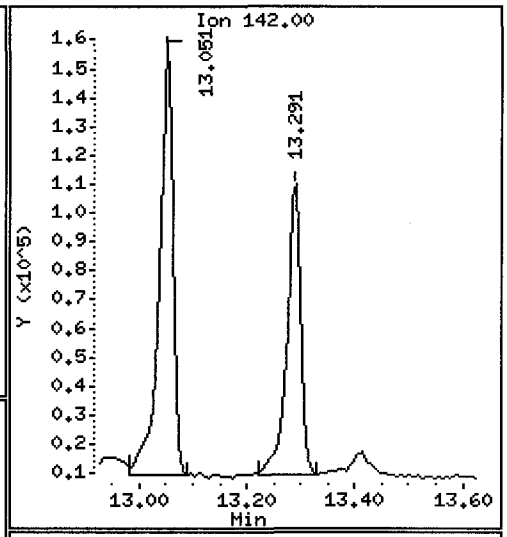
105 1-methylnaphthalene Concentration: 399.7 ug/kg

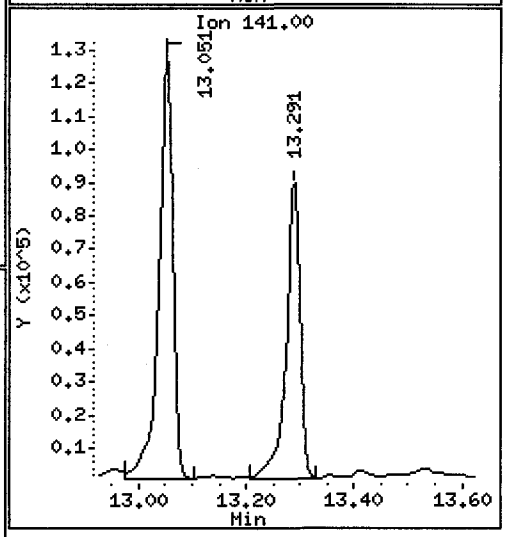












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

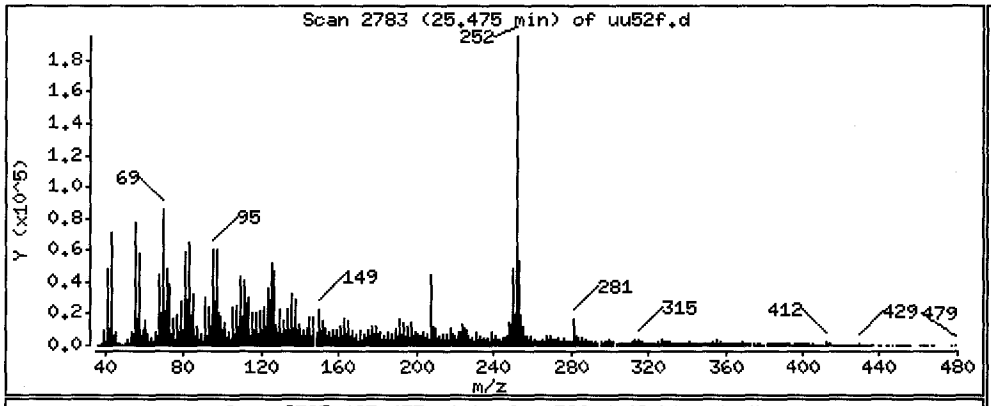
Client ID: MS005-SS-120515 Instrument: nt10.i

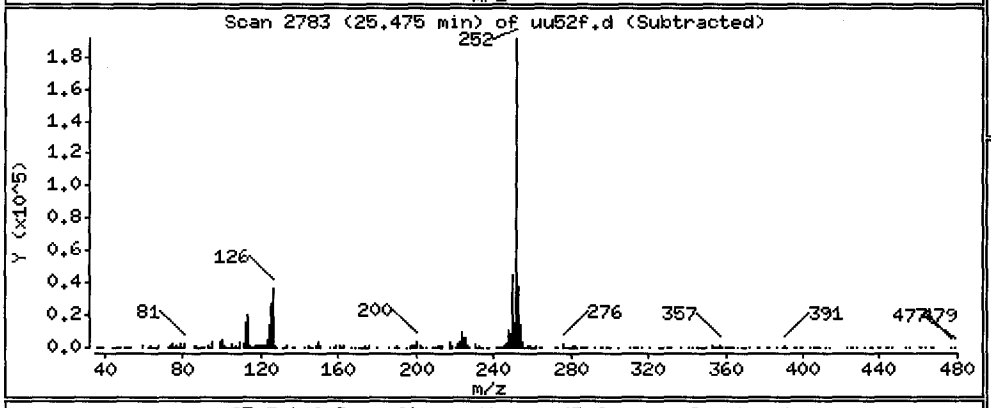
Sample Info: UU52F,3

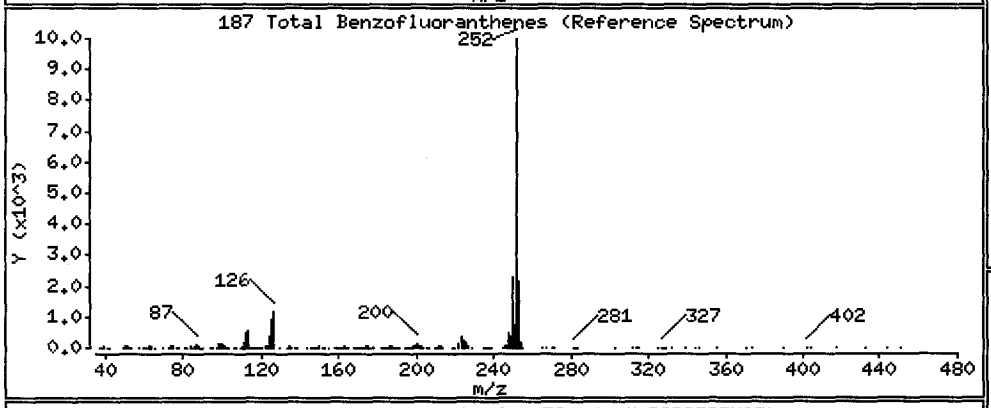
Volume Injected (uL): 1.0 Operator: VTS/YZ

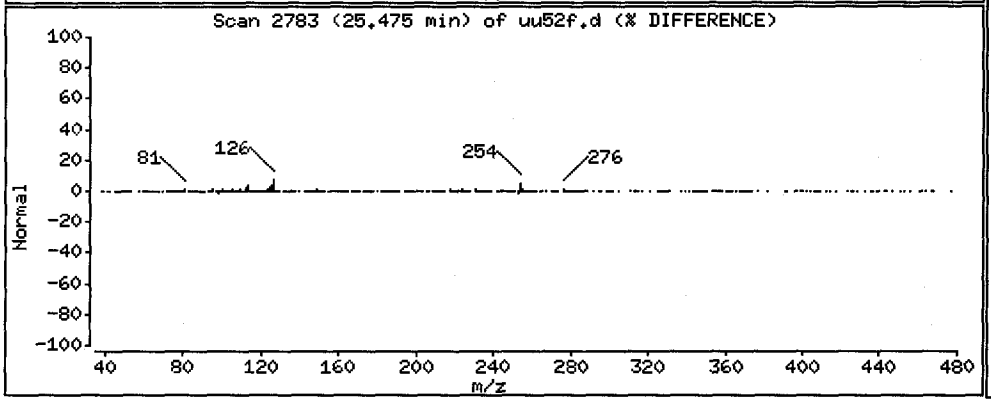
Column phase: ZB-5msi Column diameter: 0.25

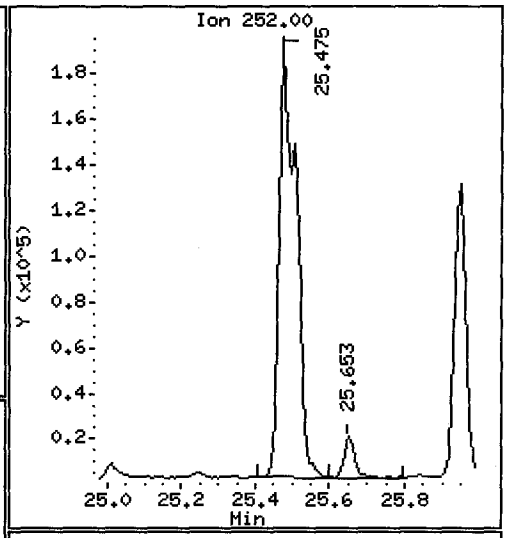
187 Total Benzofluoranthenes Concentration: 966.3 ug/kg

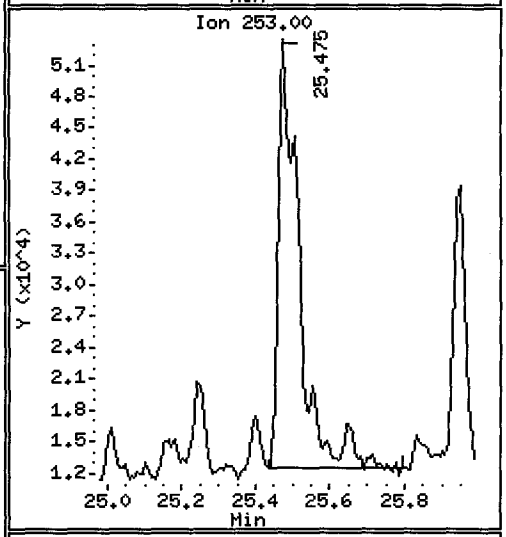


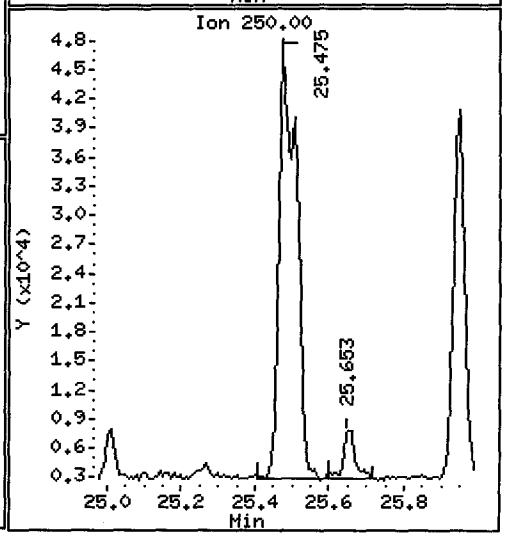












Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

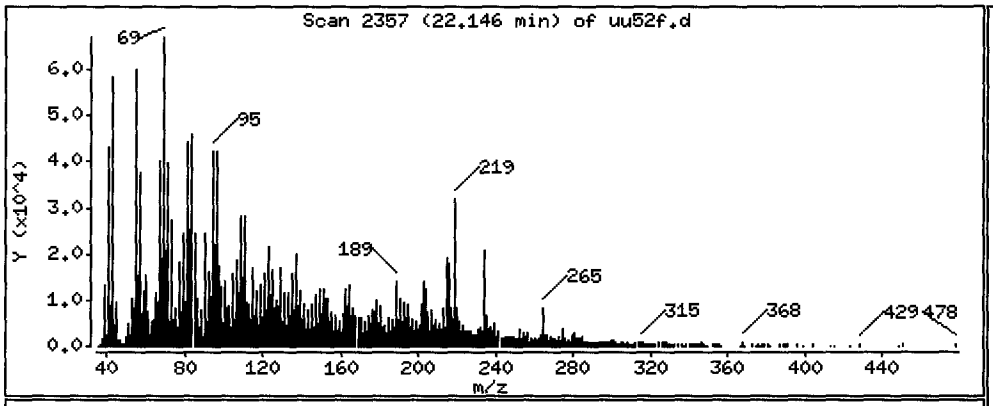
Client ID: MS005-SS-120515 Instrument: nt10.i

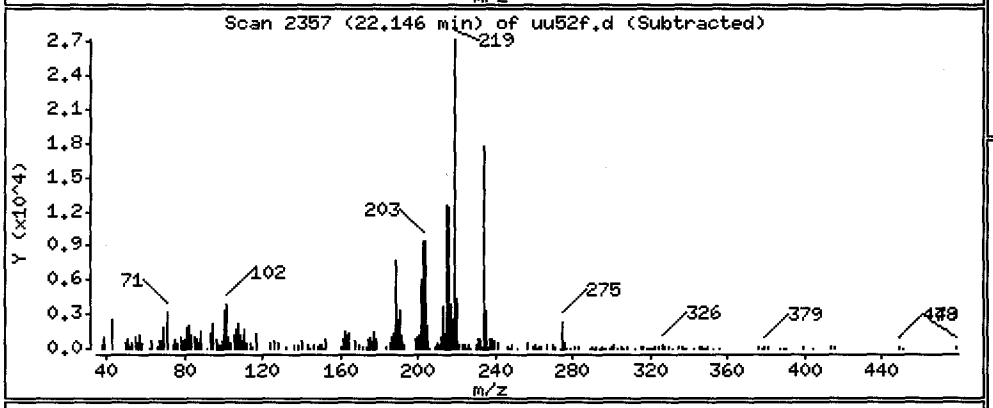
Sample Info: UU52F,3

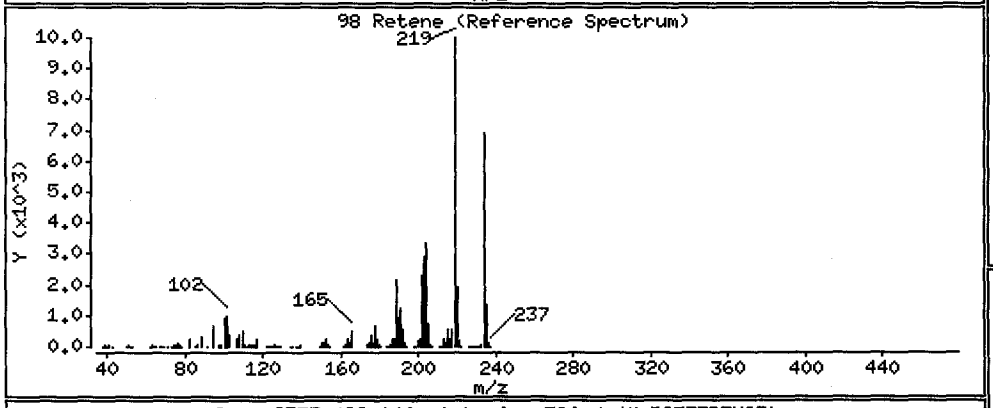
Volume Injected (uL): 1.0 Operator: VTS/YZ

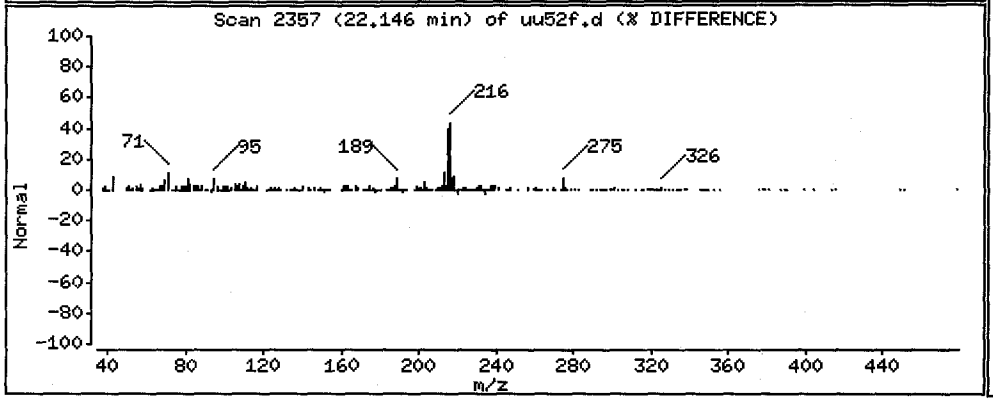
Column phase: ZB-5msi Column diameter: 0.25

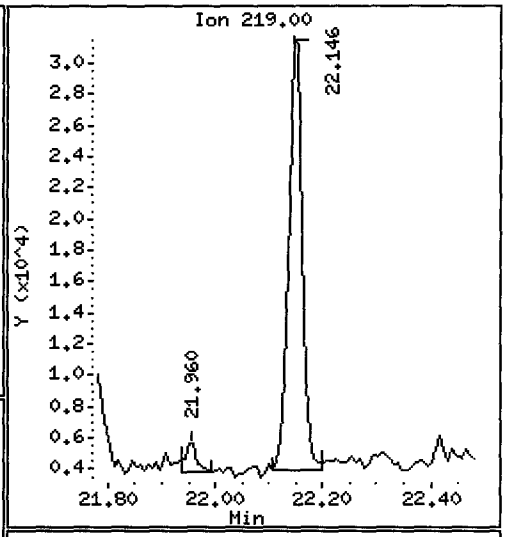
98 Retene Concentration: 140.5 ug/kg

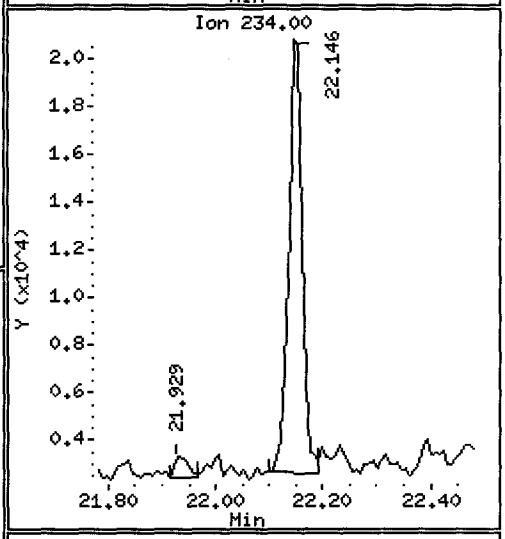


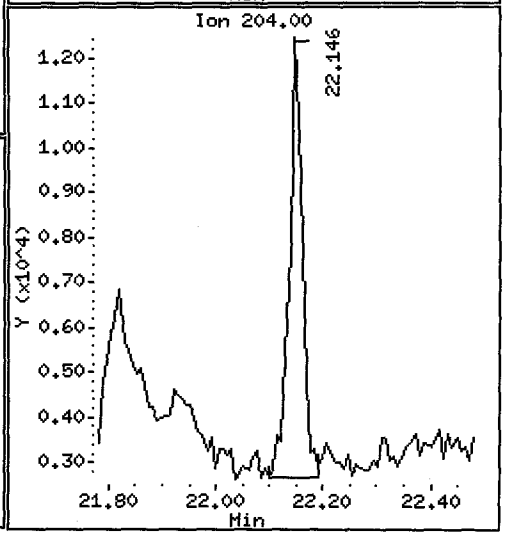






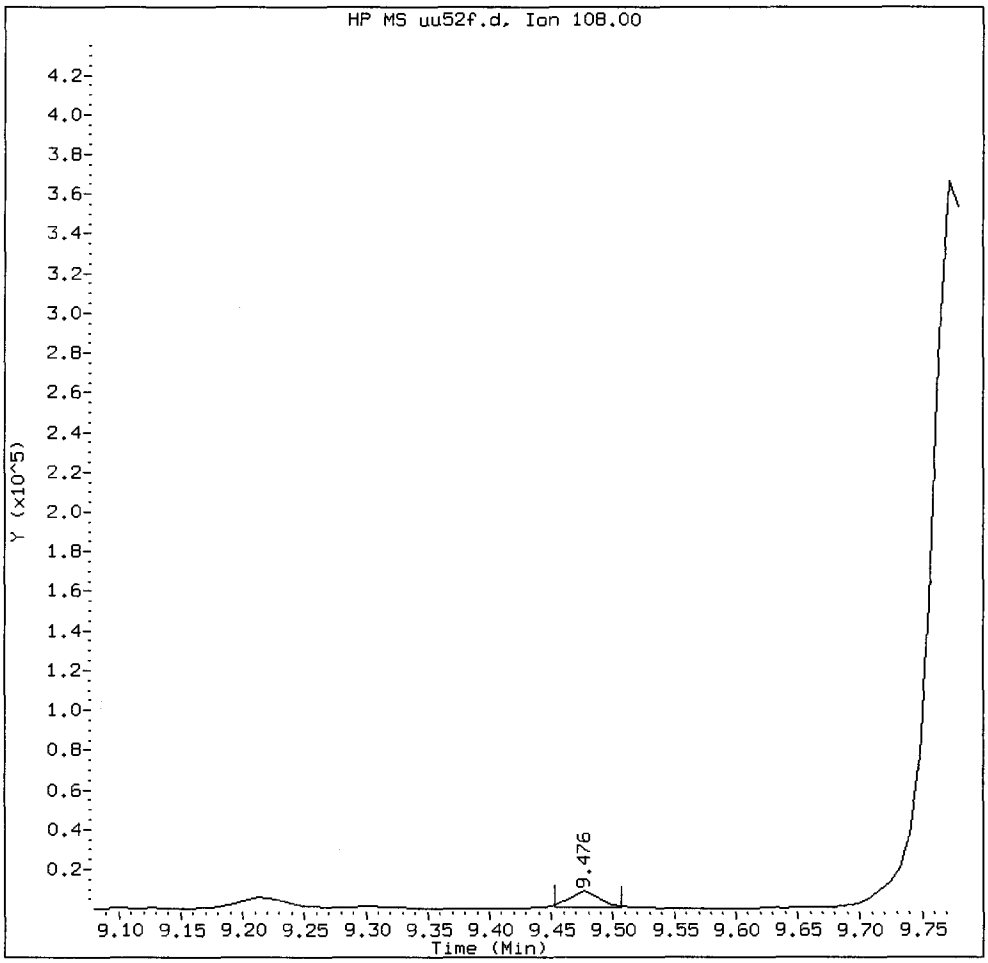






UU52F, /chem1/nt10.i/20120526.b/uu52f.d

2-Methylphenol Amount: 0.22 Area: 15496



MANUAL INTEGRATION for 2-Methylphenol

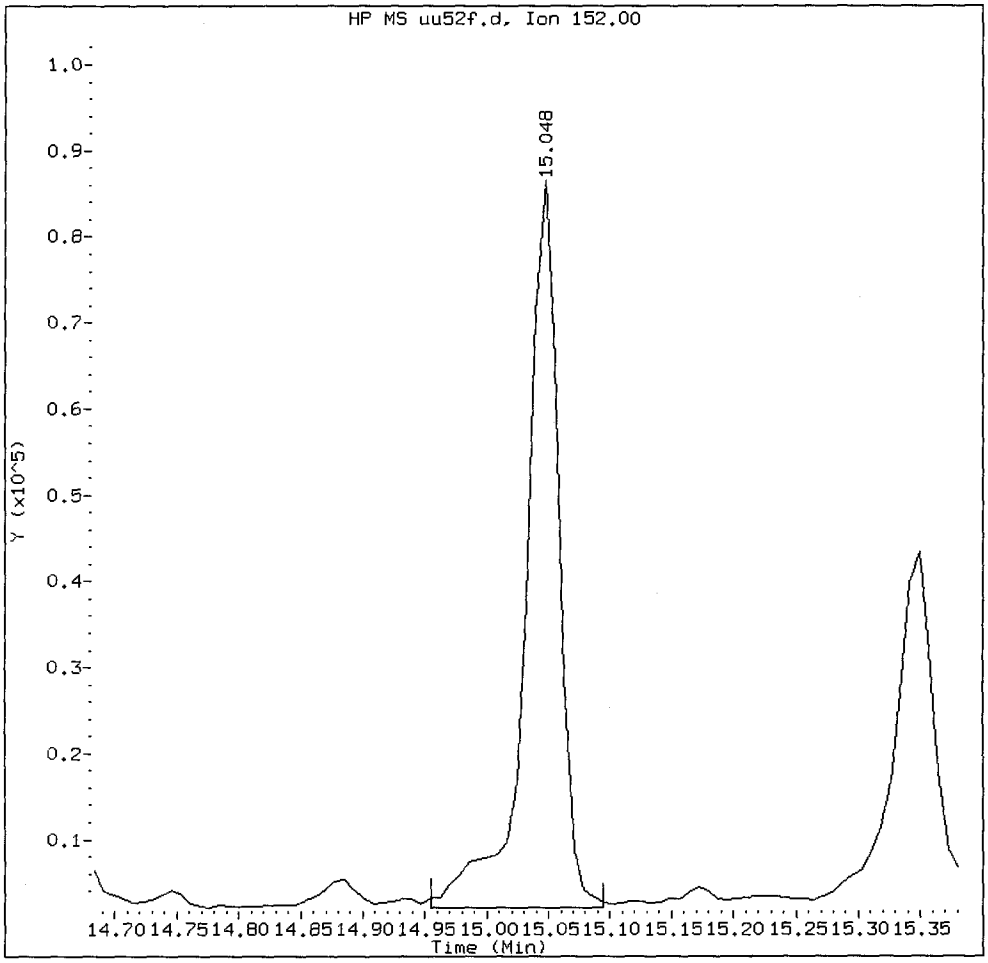
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ Date: 5/30/12

UU52F, /chem1/nt10.i/20120526.b/uu52f.d

Acenaphthylene Amount: 0.85 Area: 164674



MANUAL INTEGRATION for Acenaphthylene

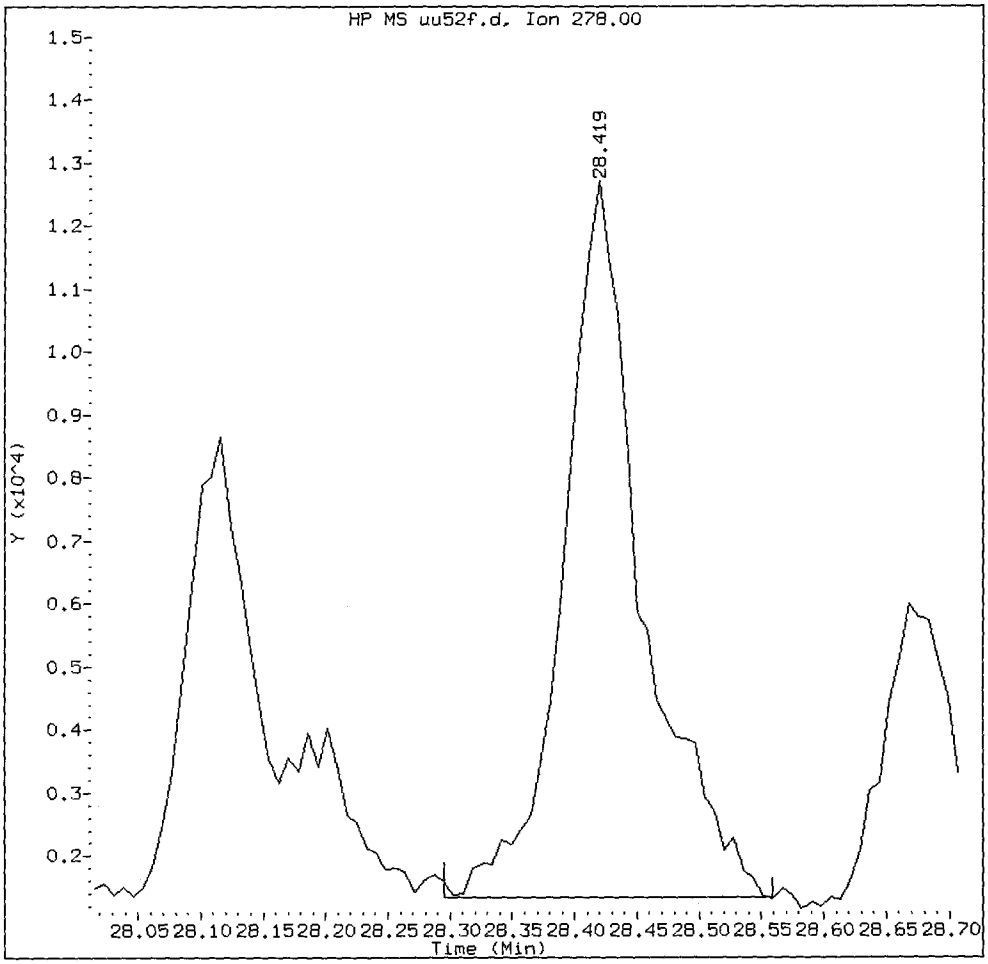
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YR Date: 5/30/12

UU52F, /chem1/nt10.i/20120526.b/uu52f.d

Dibenzo(a,h)anthracene Amount: 0.32 Area: 50459



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/31/12

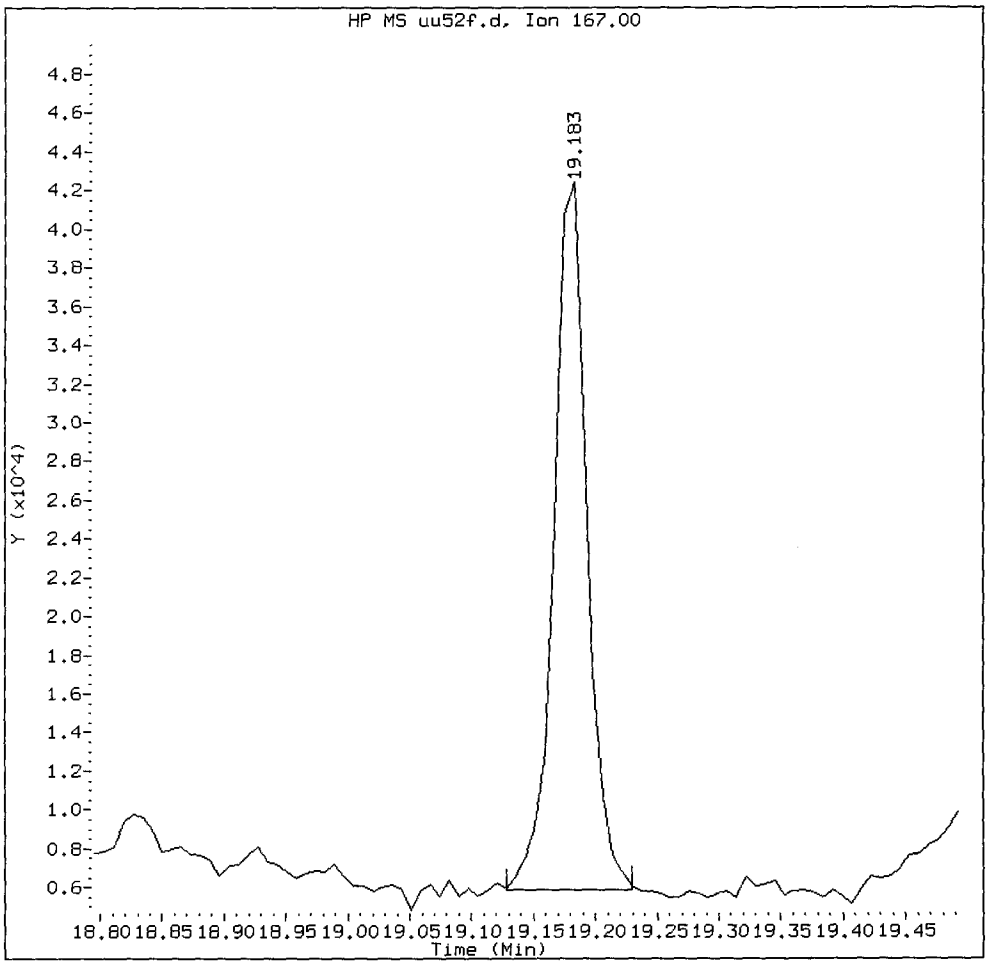
CO-ELUTION SUMMARY FOR FILE - uu52f.d

Lab ID: UU52F, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

UU52F, /chem1/nt10.i/20120526.b/uu52f.d

Carbazole Amount: 0.43 Area: 68755



MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/4/12

CO-ELUTION SUMMARY FOR FILE - uu52f.d

Lab ID: UU52F, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/uu52g.d
Lab Smp Id: UU52G Client Smp ID: MS006-SS-120515
Inj Date : 26-MAY-2012 20:54
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52G,3
Misc Info : 12-8899
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 9
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	109.00000	Weight of sample extracted (g)
M	90.80000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	6.575	6.537	(0.742)	105057	1.58443	474.0
$	2 Phenol-d5	99	8.268	8.237	(0.933)	138513	1.67701	501.7
	3 Phenol	94	8.291	8.260	(0.935)	113384	1.28789	385.3
$	5 2-Chlorophenol-d4	132	8.499	8.476	(0.959)	125526	1.73468	519.0
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.863	8.855	(1.000)	189614	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.244	9.236	(1.043)	51412	1.08303	324.0
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.197	9.166	(1.038)	13856	0.37461	112.1
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	9.461	9.430	(1.067)	8624	0.12429	37.18
	17 Hexachloroethane	117	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	9.756	9.725	(1.101)	66646	0.92063	275.4
$ 18	Nitrobenzene-d5	82	10.035	10.027	(0.872)	74039	1.12236	335.8
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	11.142	11.087	(0.968)	446325	10.3712	3103
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	11.512	11.504	(1.000)	736251	4.00000	
28	Naphthalene	128	11.550	11.542	(1.003)	3899177	21.0075 E	6285
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	142	13.051	13.043	(1.134)	257956	1.99915	598.1
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					
34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$ 36	2-Fluorobiphenyl	172	13.910	13.902	(0.904)	175818	1.18865	355.6
37	2-Chloronaphthalene	162	Compound Not Detected.					
38	2-Nitroaniline	65	Compound Not Detected.					
39	Dimethylphthalate	163	Compound Not Detected.					
40	Acenaphthylene	152	15.040	15.032	(0.978)	143385	0.74822	223.8(M)
41	2,6-Dinitrotoluene	165	Compound Not Detected.					
* 42	Acenaphthene-d10	164	15.380	15.373	(1.000)	426687	4.00000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	15.450	15.442	(1.005)	43851	0.37937	113.5
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	15.806	15.798	(1.028)	274573	1.62142	485.1
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	Compound Not Detected.					
50	Diethylphthalate	149	Compound Not Detected.					
49	Fluorene	166	16.579	16.563	(1.078)	57199	0.44083	131.9
51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$ 55	2,4,6-Tribromophenol	330	17.157	17.142	(1.116)	38566	2.18981	655.1
56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	18.649	18.633	(1.000)	605251	4.00000	
60	Phenanthrene	178	18.703	18.687	(1.003)	1146010	7.34289	2197(M)
61	Anthracene	178	18.796	18.780	(1.008)	122937	0.75404	225.6
62	Carbazole	167	19.167	19.144	(1.028)	48791	0.32343	96.76(M)
63	Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
64	Fluoranthene	202	21.117	21.101	(1.132)	1034302	5.83681	1746
65	Pyrene	202	21.535	21.519	(0.908)	969610	4.57760	1369
$ 66	Terphenyl-d14	244	21.852	21.844	(0.921)	163934	1.23546	369.6
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.695	23.679	(0.999)	150488	0.76850	229.9
* 69	Chrysene-d12	240	23.718	23.710	(1.000)	696152	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.764	23.749	(1.002)	238255	1.38308	413.8
72	bis(2-Ethylhexyl)phthalate	149	23.834	23.818	(0.961)	61323	0.41293	123.5
* 134	Di-n-octylphthalate-d4	153	24.810	24.794	(1.000)	1081407	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	26.025	26.002	(0.996)	141417	0.83008	248.3
* 77	Perylene-d12	264	26.134	26.102	(1.000)	658886	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.388	28.342	(1.086)	145103	0.73631	220.3
79	Dibenzo(a,h)anthracene	278	28.404	28.365	(1.087)	28561	0.18398	55.04(M)
80	Benzo(g,h,i)perylene	276	29.056	29.002	(1.112)	177007	1.04745	313.4
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.283	13.275	(1.154)	147277	1.11919	334.8
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	25.468	25.483	(0.975)	398082	2.17742	651.4
99	Perylene	252	Compound Not Detected.					
98	Retene	219	22.139	22.131	(0.933)	91096	0.92357	276.3

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52g.d
Lab Smp Id: UU52G
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8899

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS006-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	189614	0.05
27 Naphthalene-d8	730932	365466	1461864	736251	0.73
42 Acenaphthene-d10	420698	210349	841396	426687	1.42
59 Phenanthrene-d10	638950	319475	1277900	605251	-5.27
69 Chrysene-d12	645065	322532	1290130	696152	7.92
134 Di-n-octylphthala	1016118	508059	2032236	1081407	6.43
77 Perylene-d12	650033	325016	1300066	658886	1.36

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.09
27 Naphthalene-d8	11.50	11.00	12.00	11.51	0.07
42 Acenaphthene-d10	15.37	14.87	15.87	15.38	0.05
59 Phenanthrene-d10	18.63	18.13	19.13	18.65	0.08
69 Chrysene-d12	23.71	23.21	24.21	23.72	0.03
134 Di-n-octylphthala	24.79	24.29	25.29	24.81	0.06
77 Perylene-d12	26.10	25.60	26.60	26.13	0.12

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

Analytical Resources, Inc.

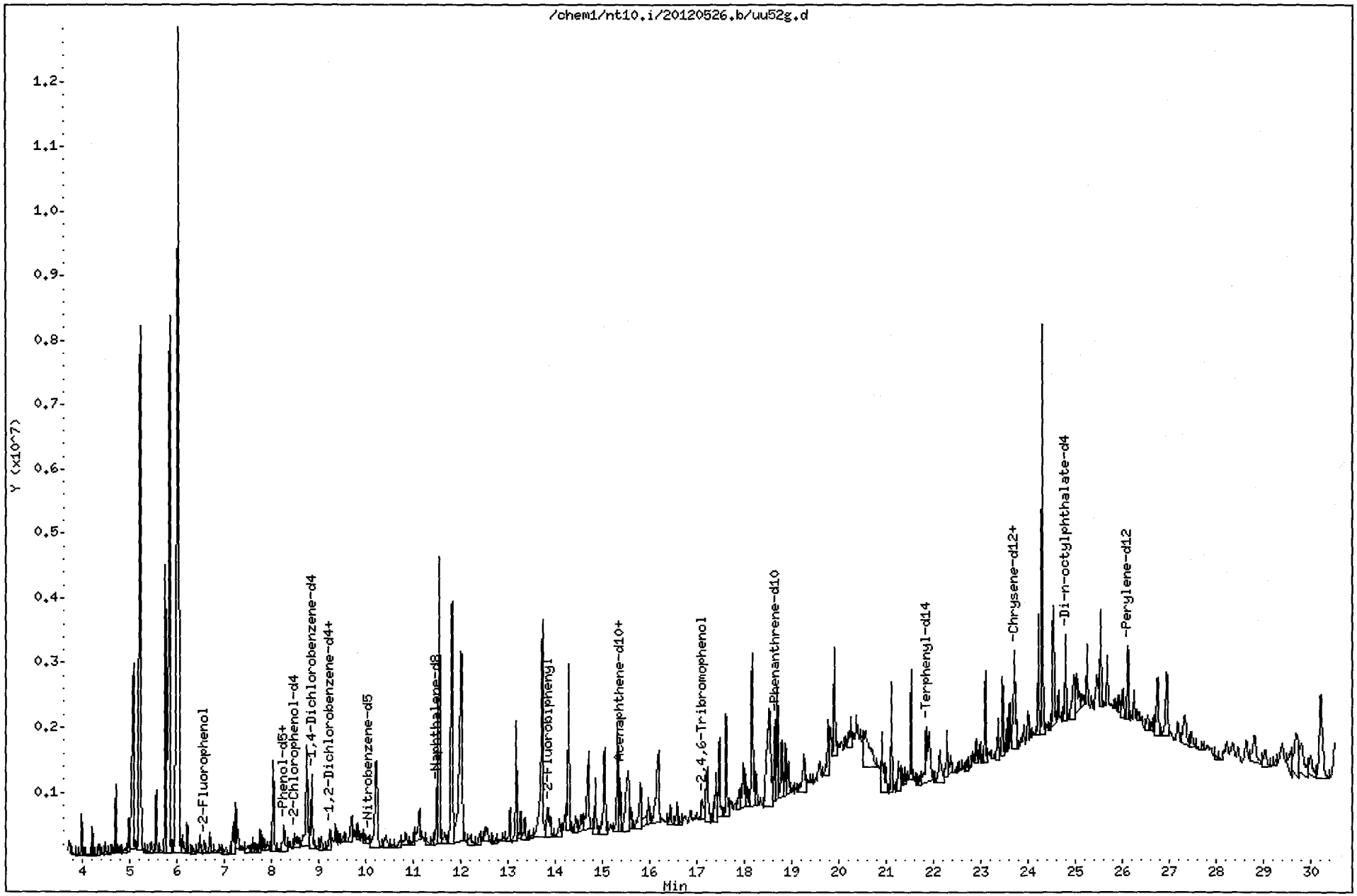
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52G Client Smp ID: MS006-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8899

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	747.9	474.0	63.38	30-160
$ 2 Phenol-d5	747.9	501.7	67.08	30-160
$ 5 2-Chlorophenol-d4	747.9	519.0	69.39	30-160
$ 10 1,2-Dichlorobenzen	498.6	324.0	64.98	30-160
$ 18 Nitrobenzene-d5	498.6	335.8	67.34	30-160
$ 36 2-Fluorobiphenyl	498.6	355.6	71.32	30-160
$ 55 2,4,6-Tribromophen	747.9	655.1	87.59	30-160
$ 66 Terphenyl-d14	498.6	369.6	74.13	30-160

Data File: /chem1/nt10.i/20120526.b/uu52g.d
Date : 26-MAY-2012 20:54
Client ID: MS006-SS-120515
Sample Info: UU52G,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52 : 66961

Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

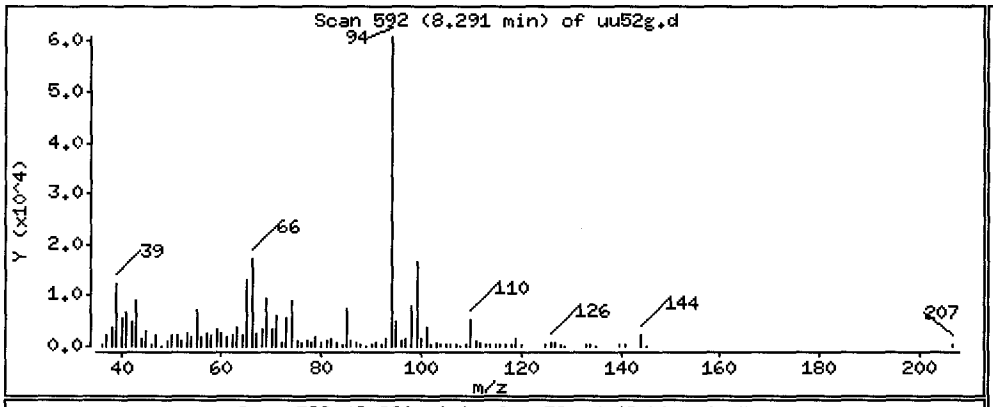
Operator: VTS/YZ

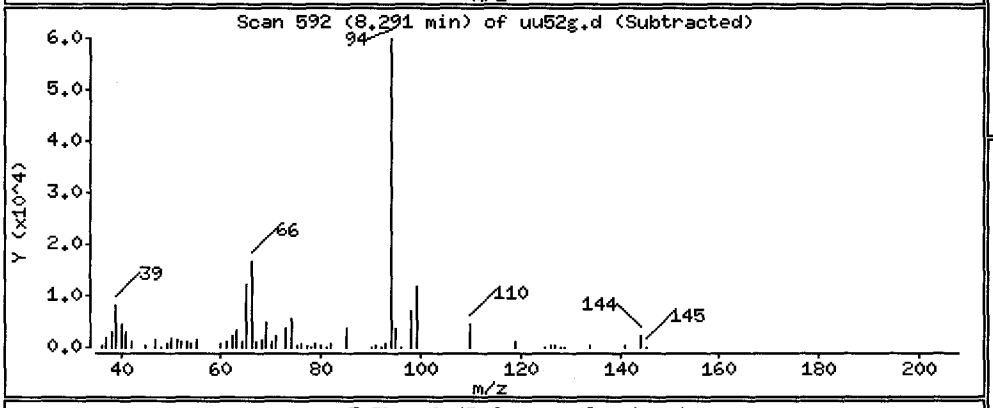
Column phase: ZB-5msi

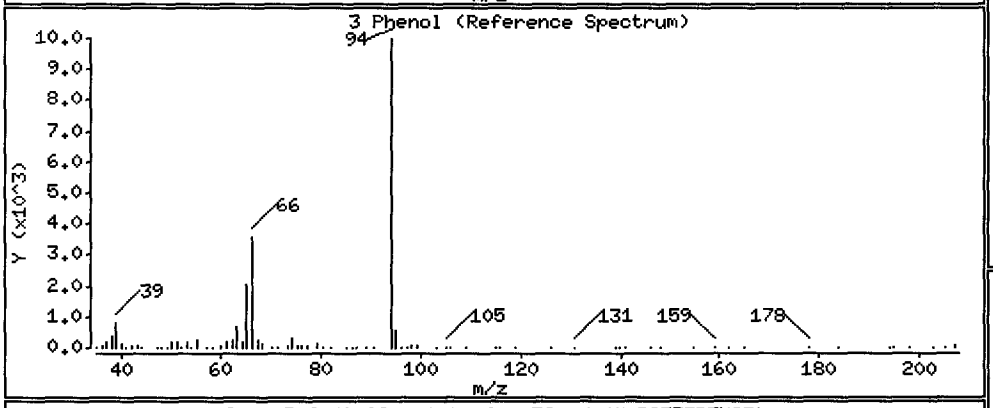
Column diameter: 0.25

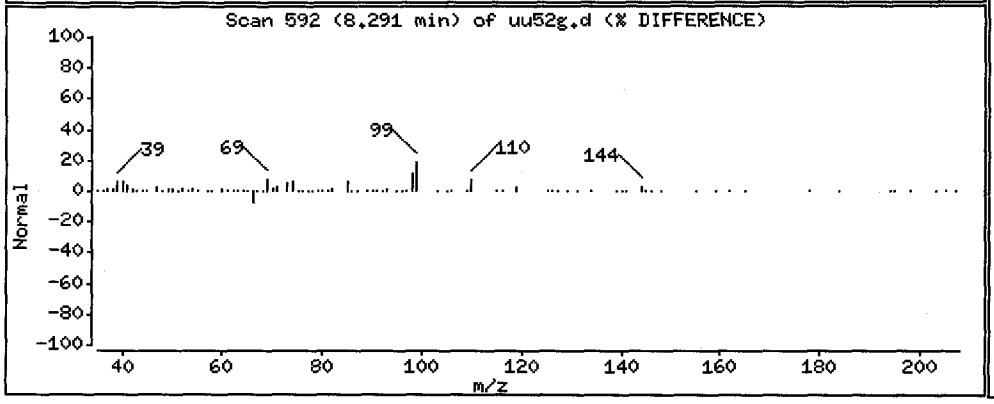
3 Phenol

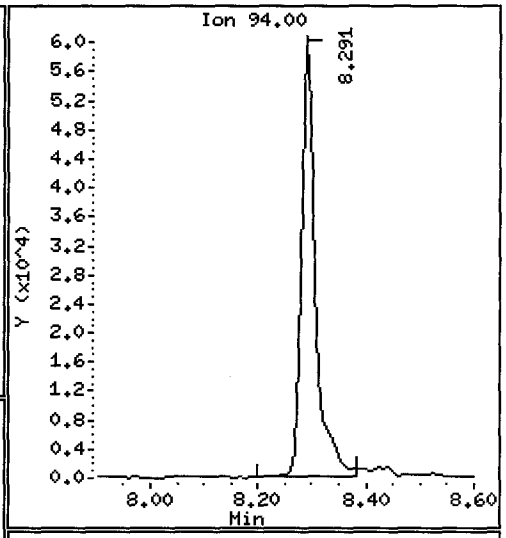
Concentration: 385.3 ug/kg

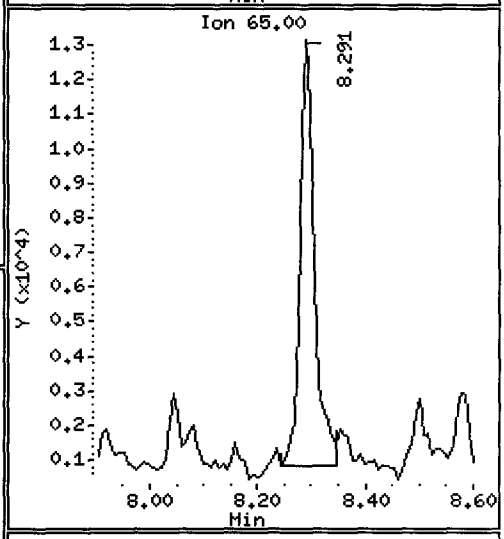


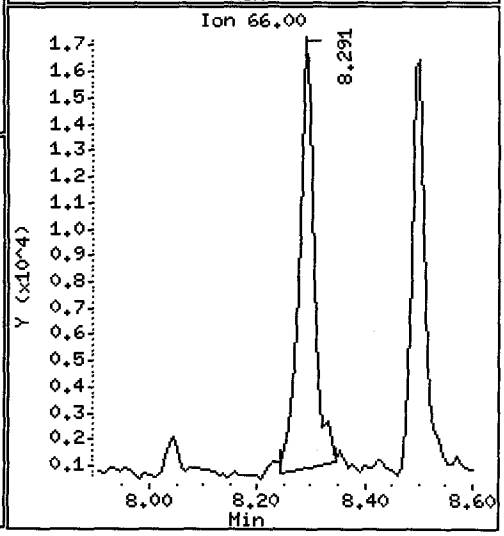












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

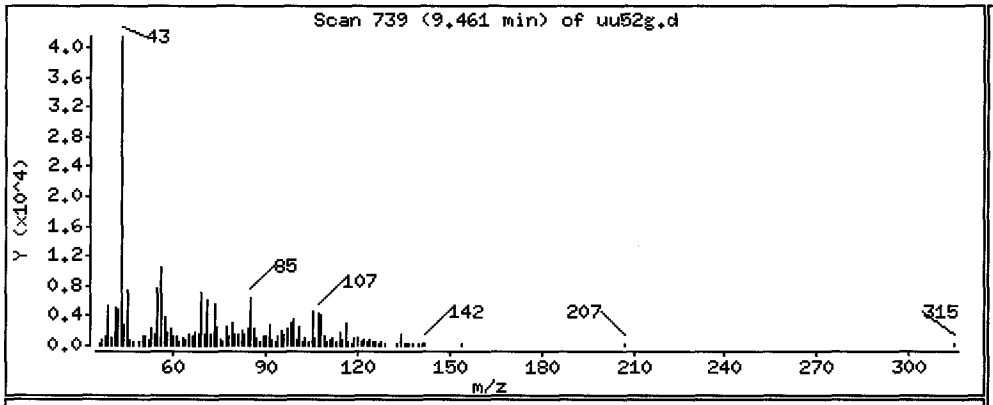
Client ID: MS006-SS-120515 Instrument: nt10.i

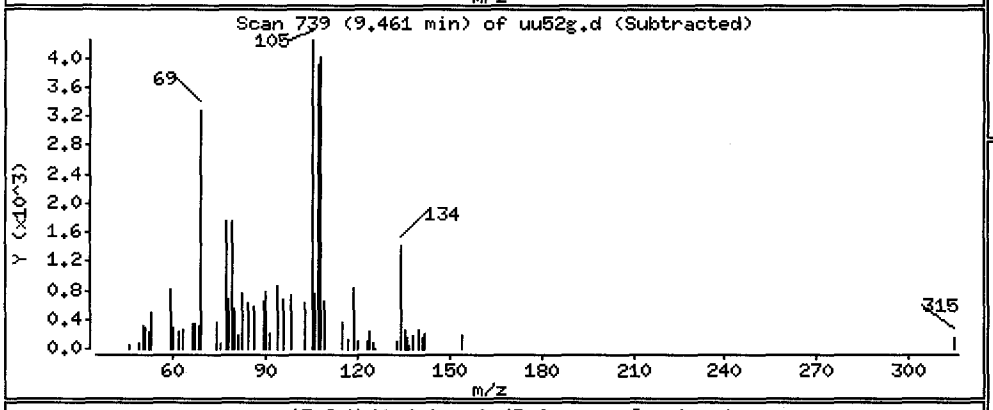
Sample Info: UU52G,3

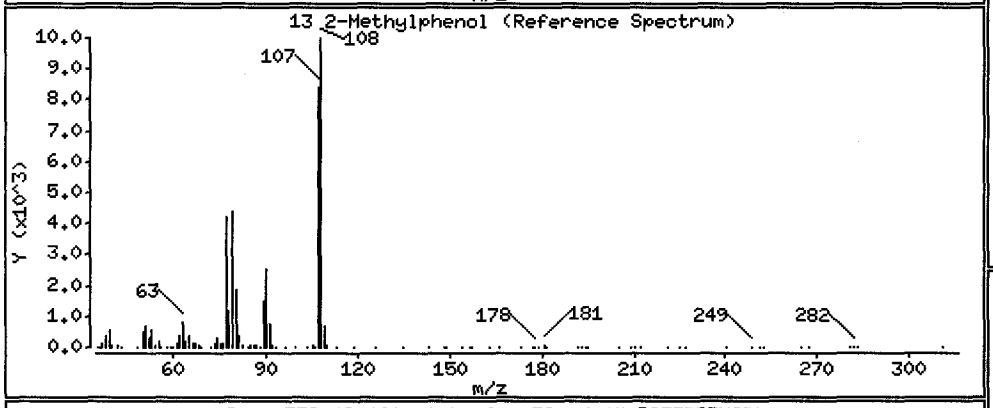
Volume Injected (uL): 1.0 Operator: VTS/YZ

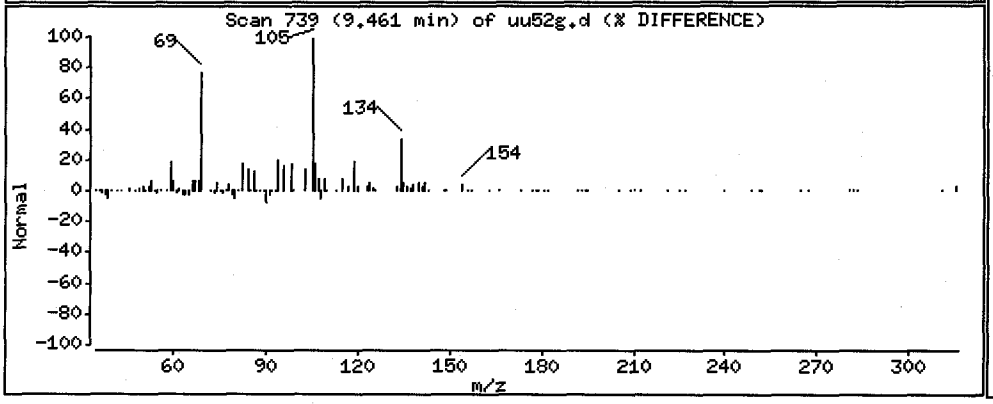
Column phase: ZB-5msi Column diameter: 0.25

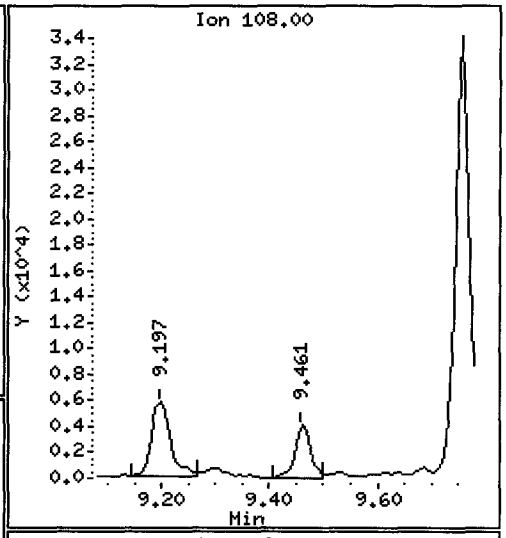
13 2-Methylphenol Concentration: 37.18 ug/kg

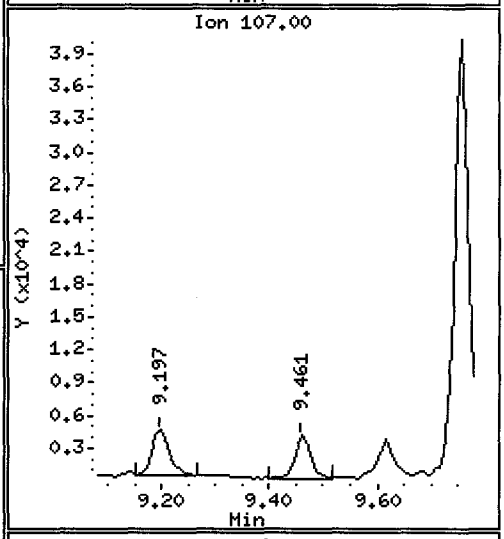


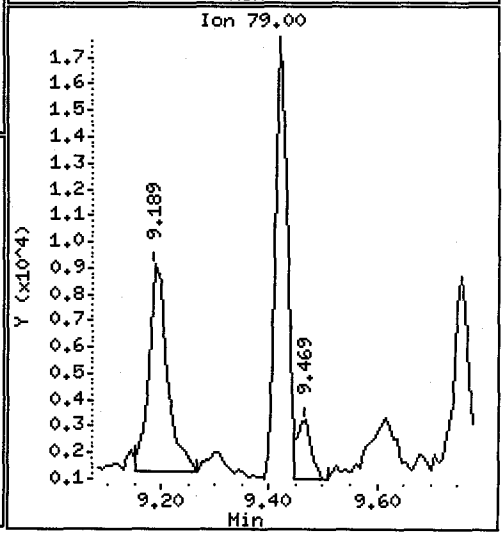












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

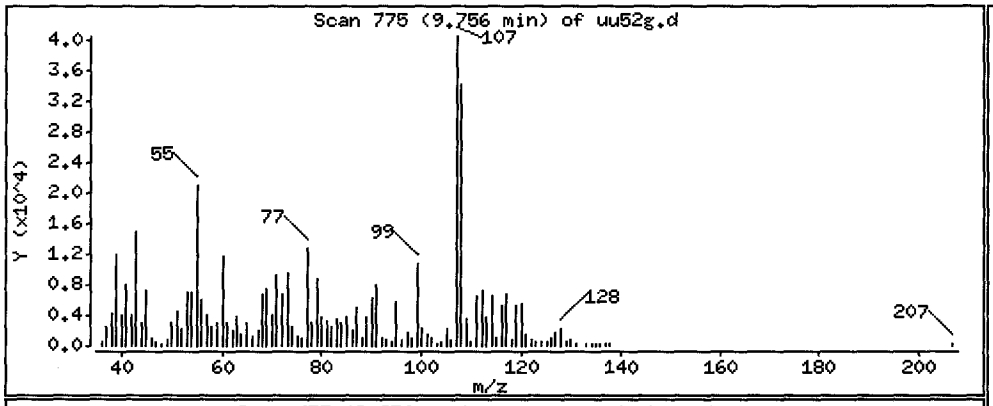
Operator: VTS/YZ

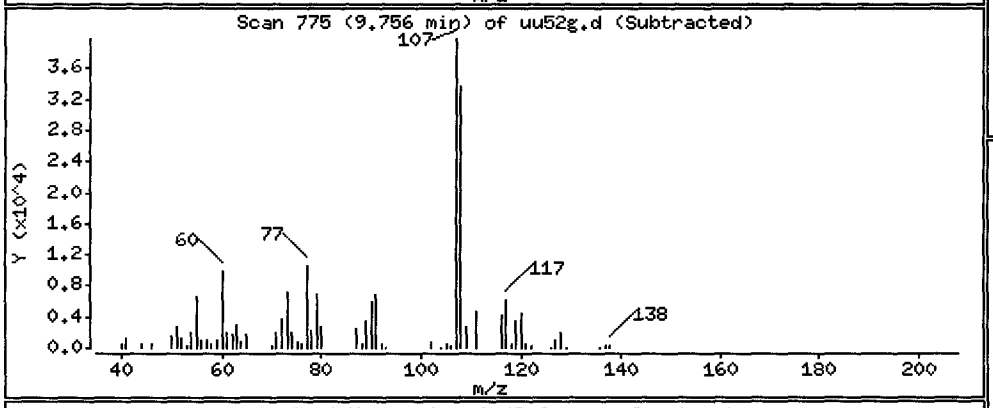
Column phase: ZB-5msi

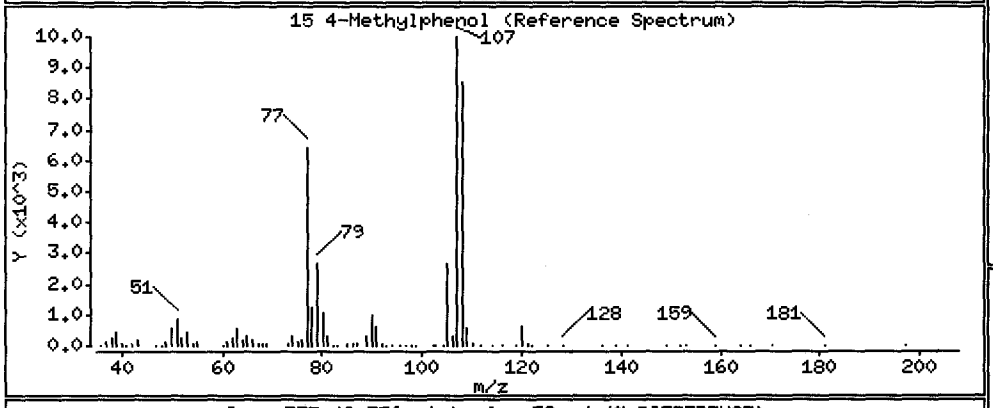
Column diameter: 0.25

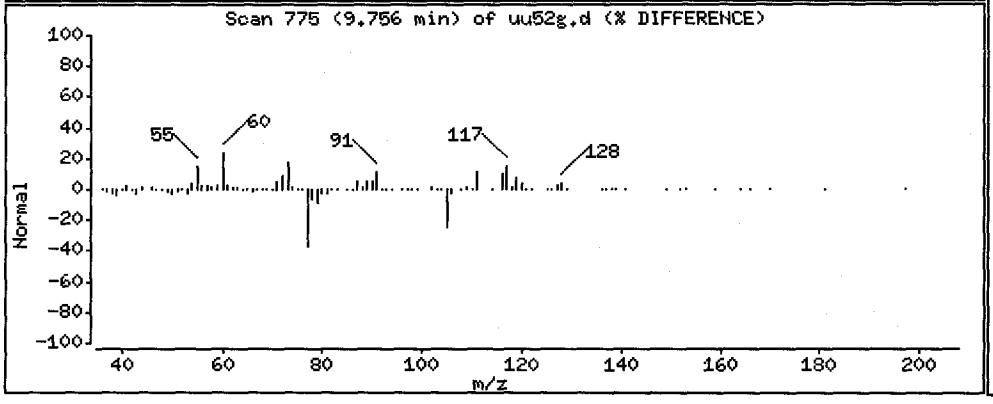
15 4-Methylphenol

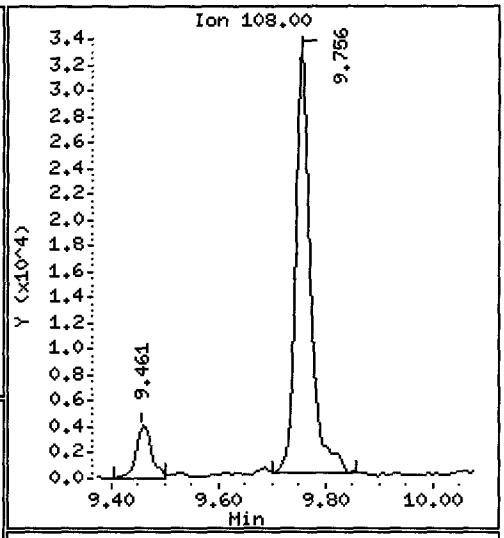
Concentration: 275.4 ug/kg

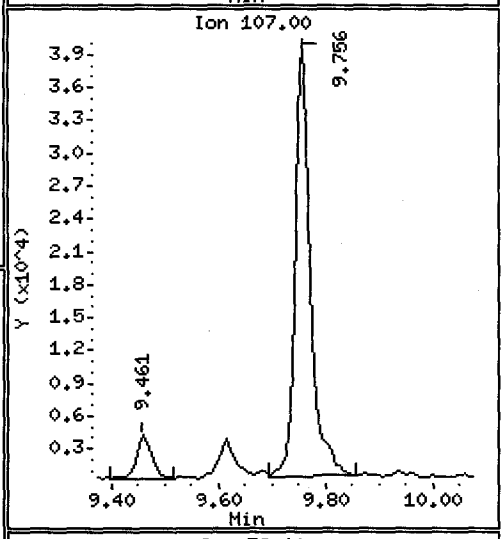


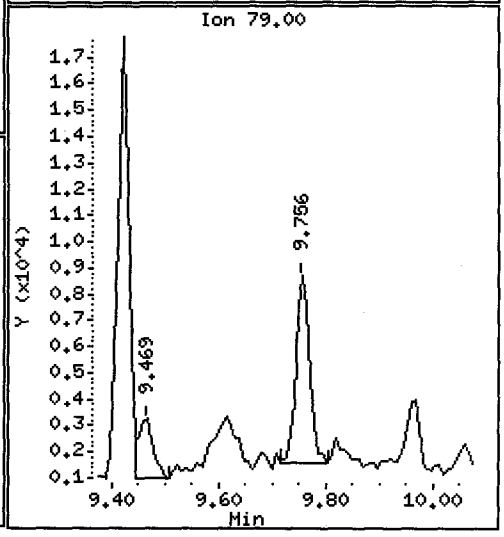












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

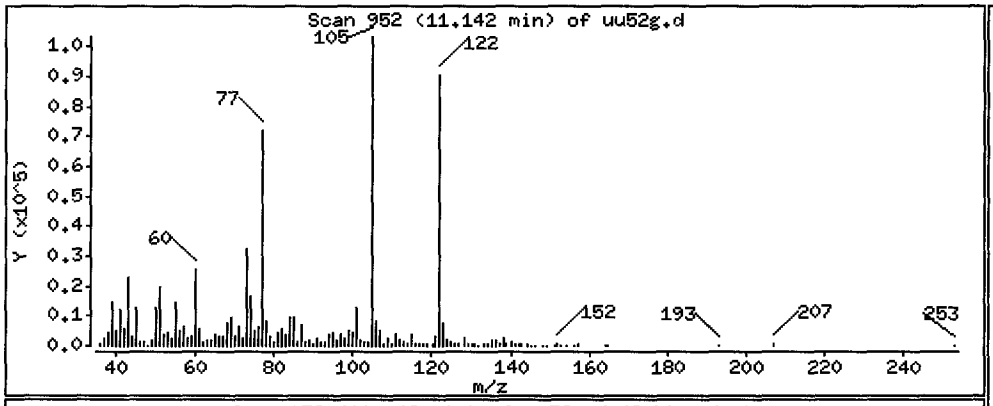
Operator: VTS/YZ

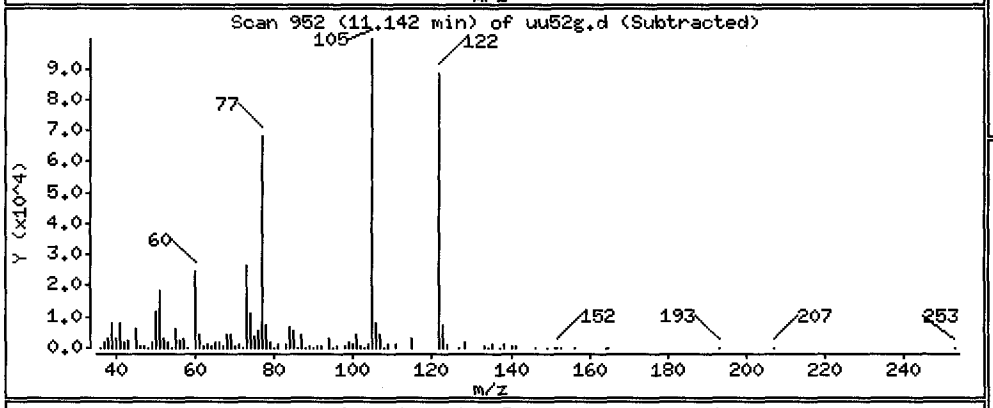
Column phase: ZB-5msi

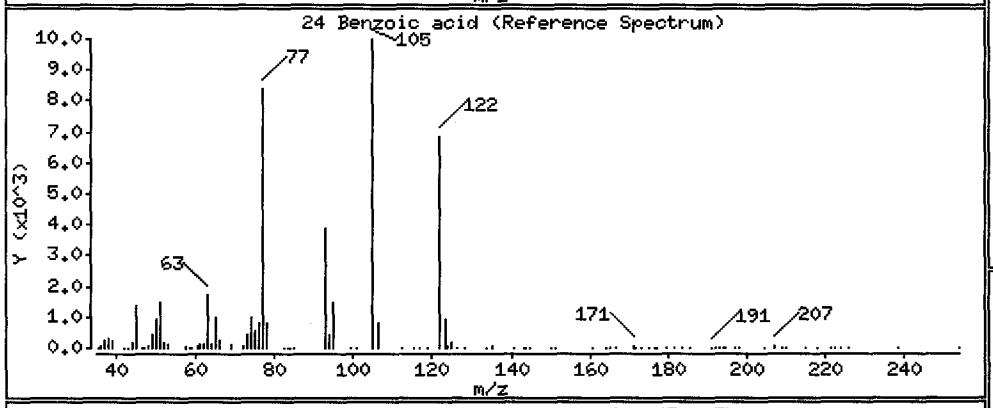
Column diameter: 0.25

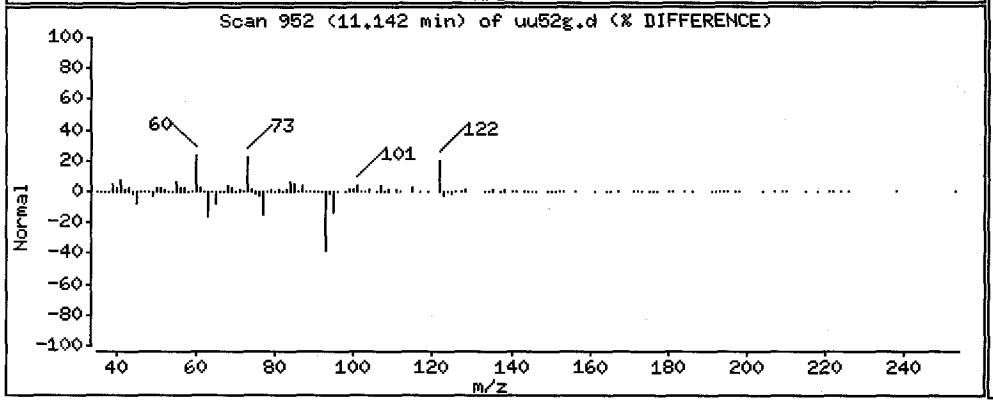
24 Benzoic acid

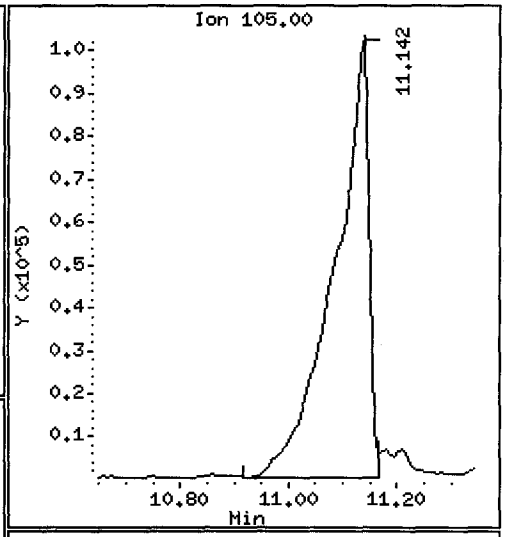
Concentration: 3103 ug/kg

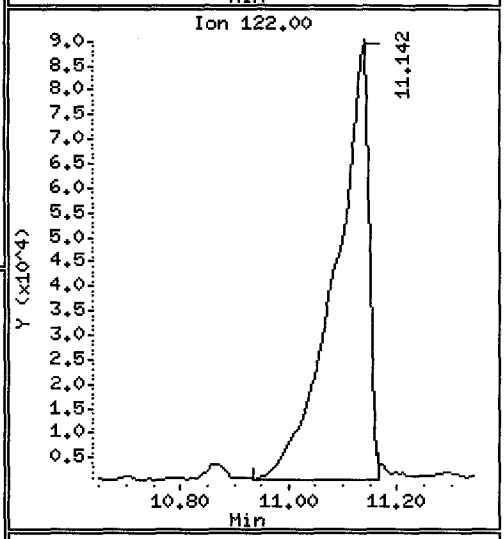


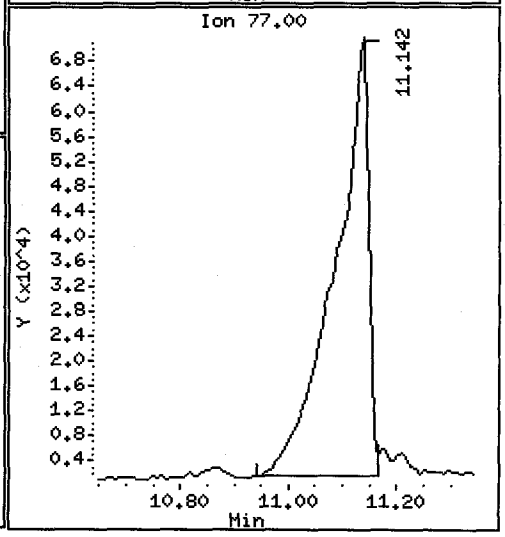












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

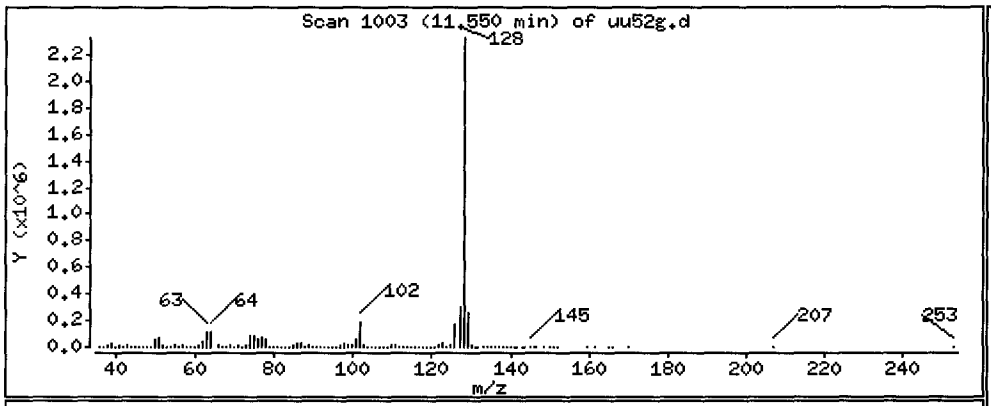
Client ID: MS006-SS-120515 Instrument: nt10.i

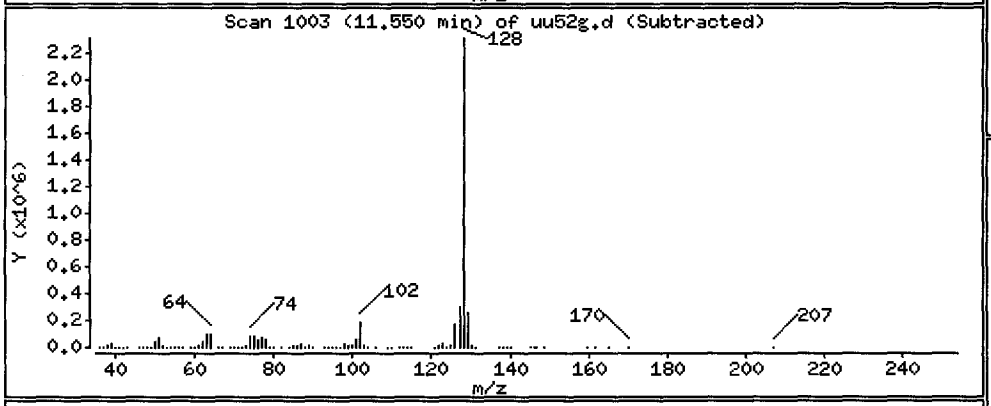
Sample Info: UU52G,3

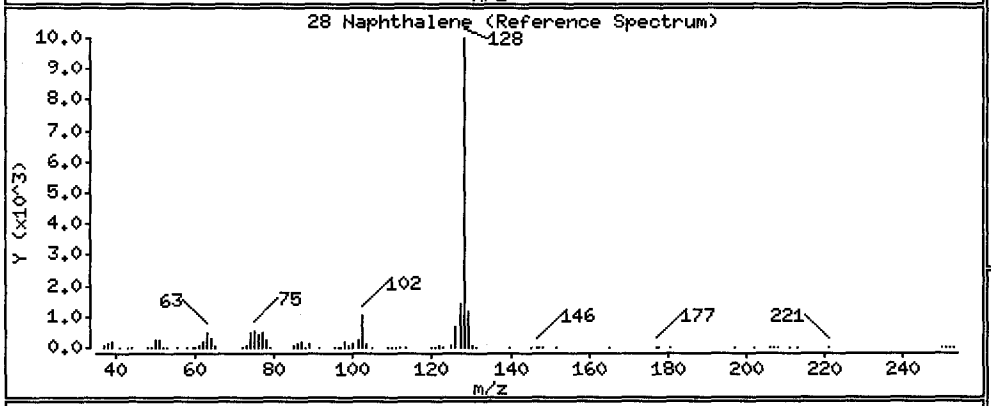
Volume Injected (uL): 1.0 Operator: VTS/YZ

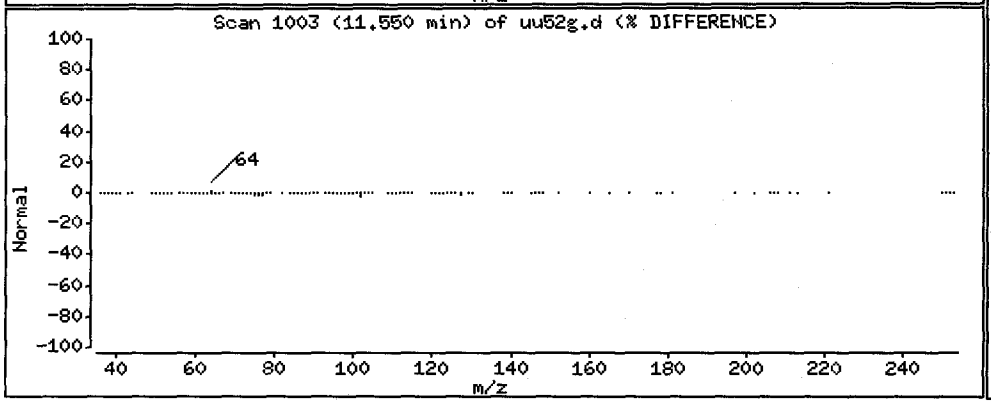
Column phase: ZB-5msi Column diameter: 0.25

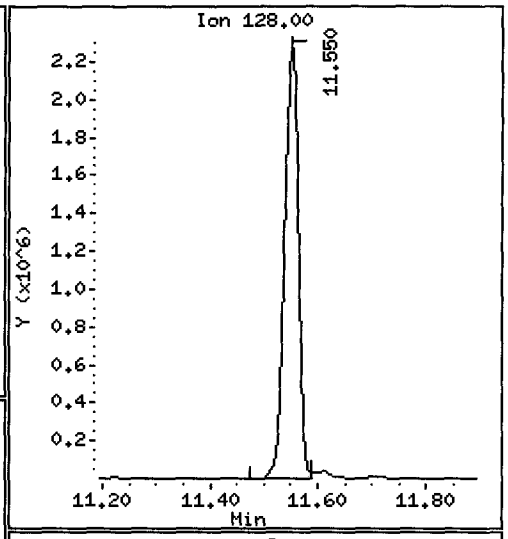
28 Naphthalene Concentration: 6285 ug/kg

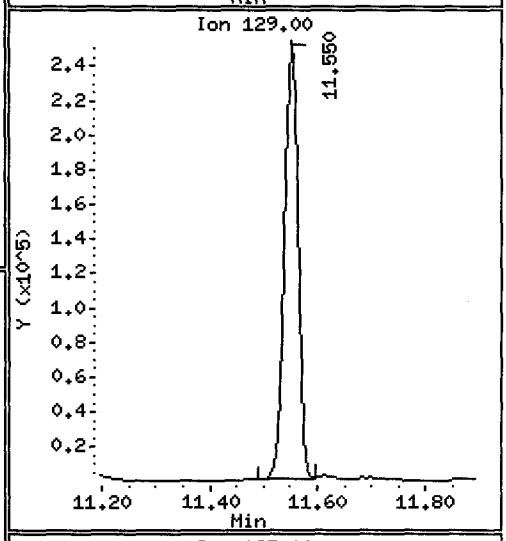


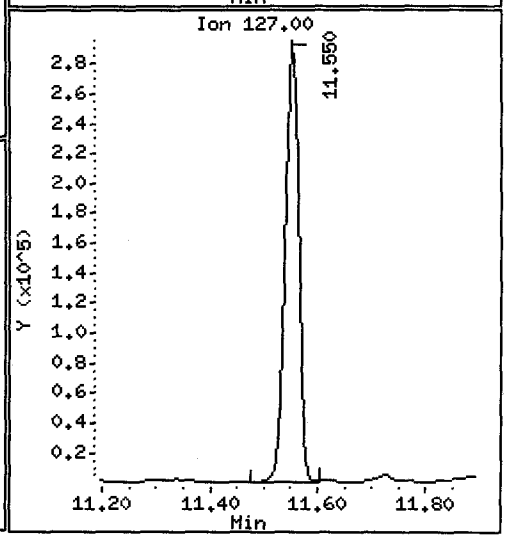












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

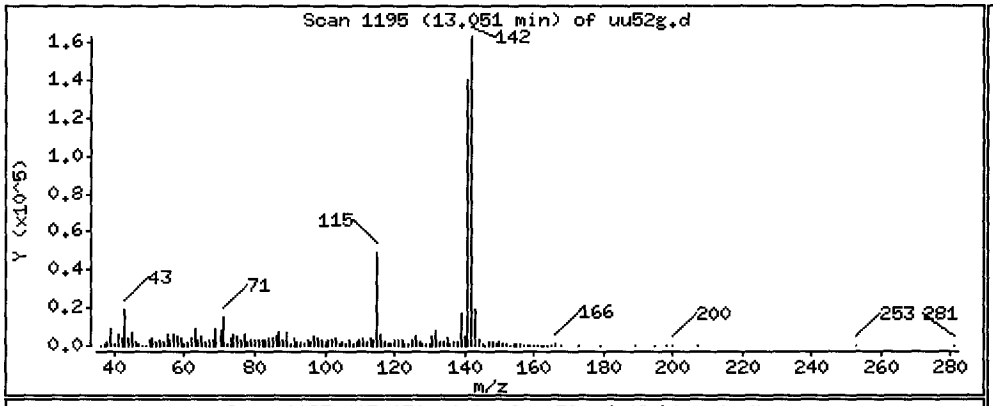
Client ID: MS006-SS-120515 Instrument: nt10.i

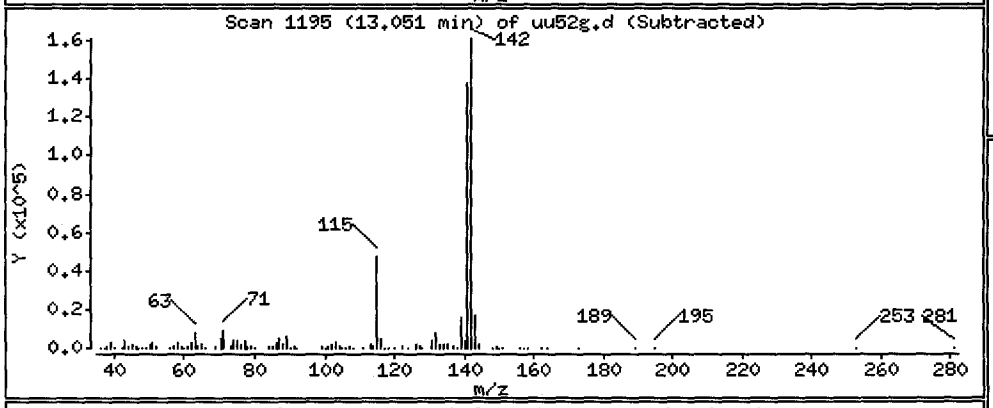
Sample Info: UU52G,3

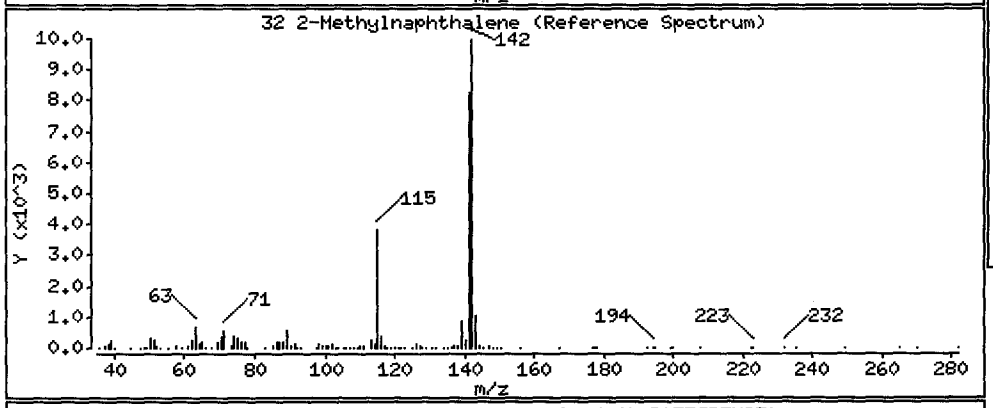
Volume Injected (uL): 1.0 Operator: VTS/YZ

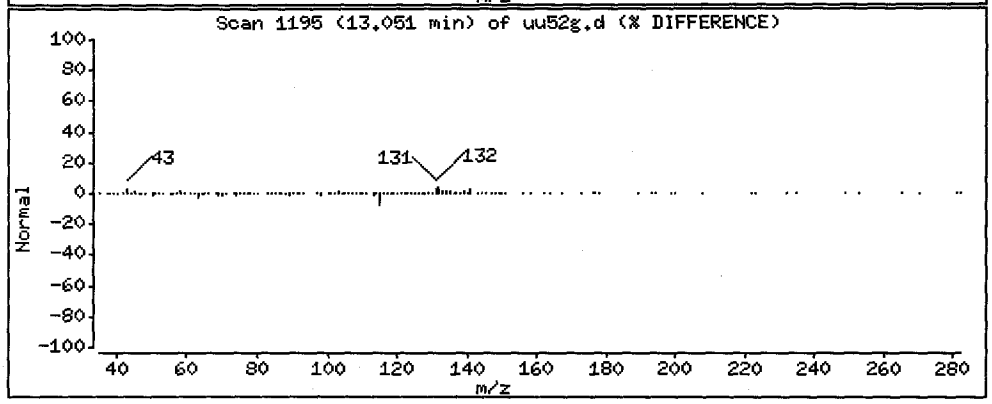
Column phase: ZB-5msi Column diameter: 0.25

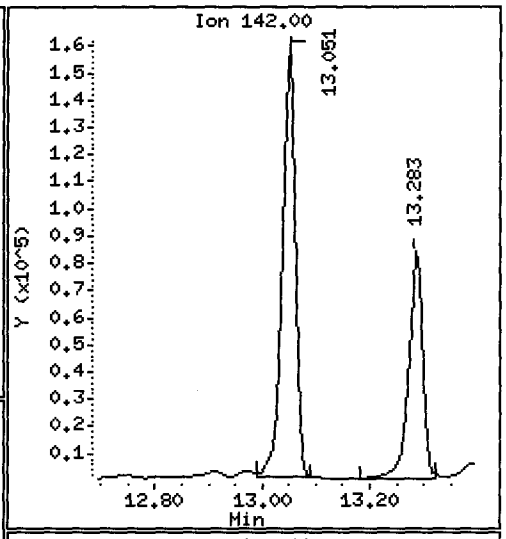
32 2-Methylnaphthalene Concentration: 598.1 ug/kg

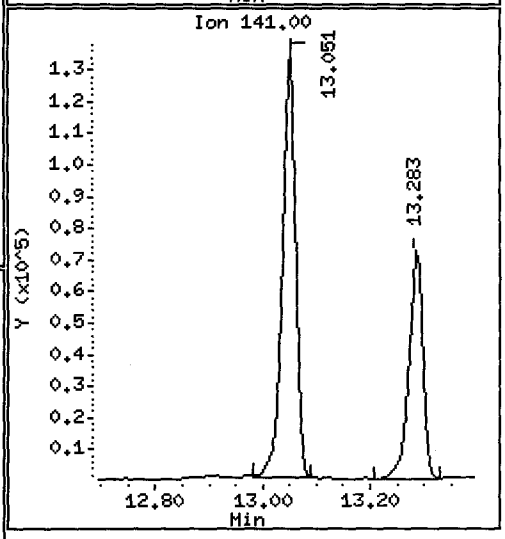












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

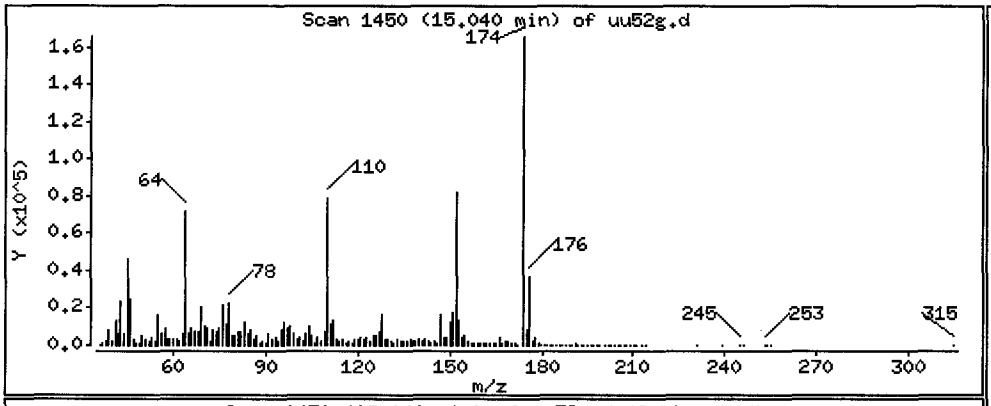
Operator: VTS/YZ

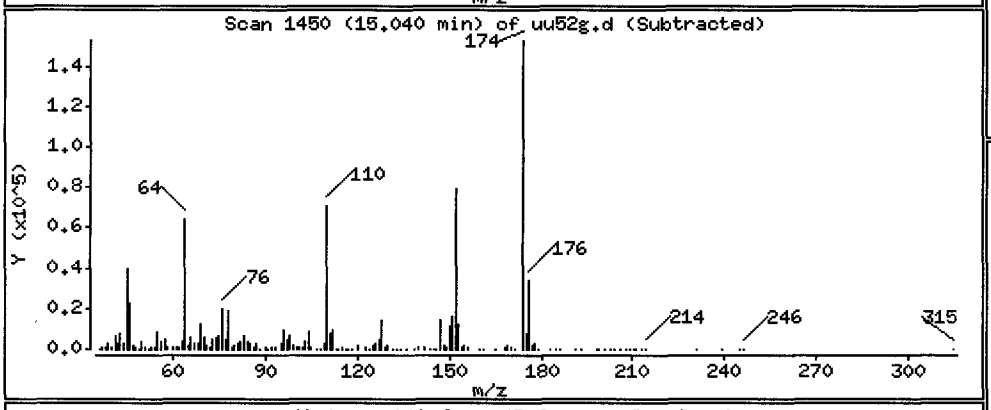
Column phase: ZB-5msi

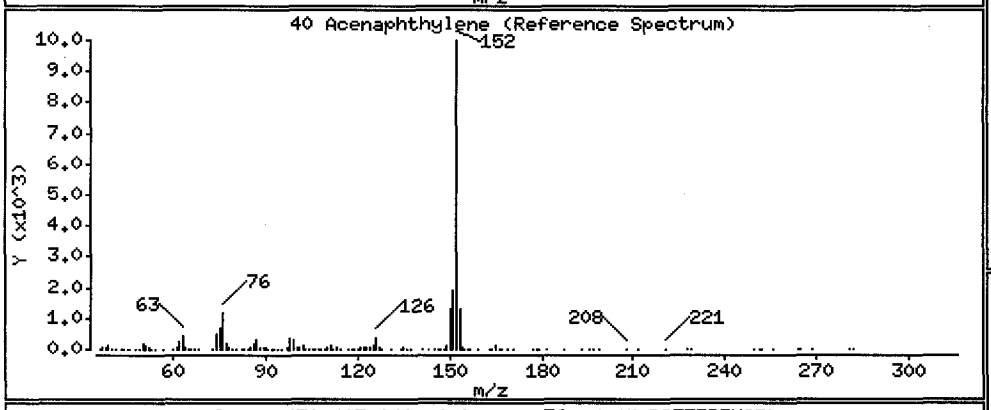
Column diameter: 0.25

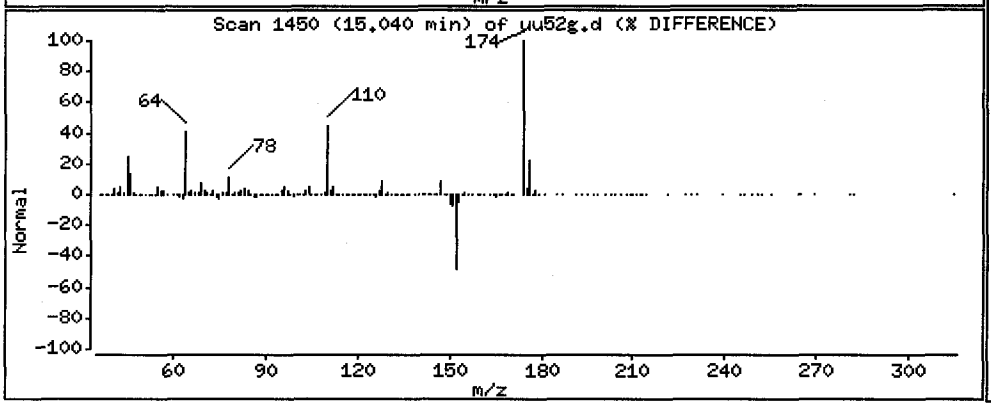
40 Acenaphthylene

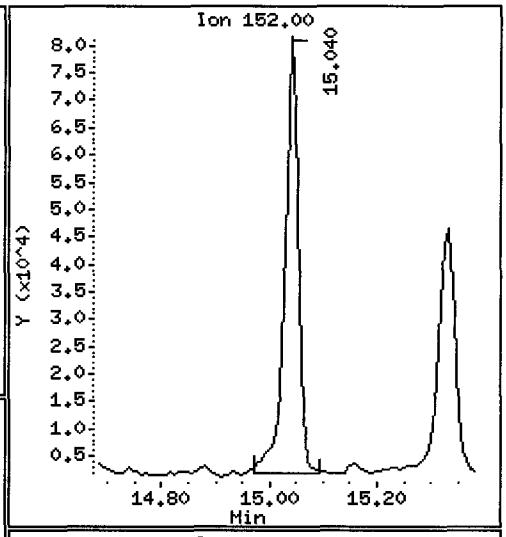
Concentration: 223.8 ug/kg

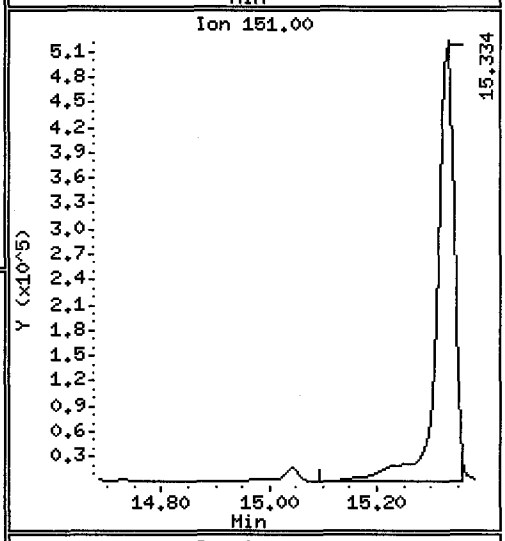


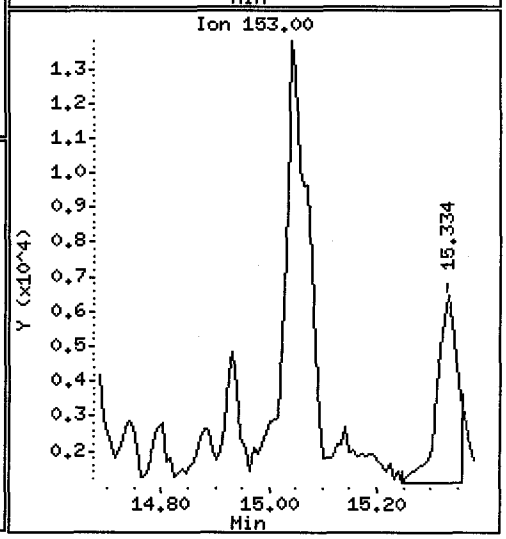












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

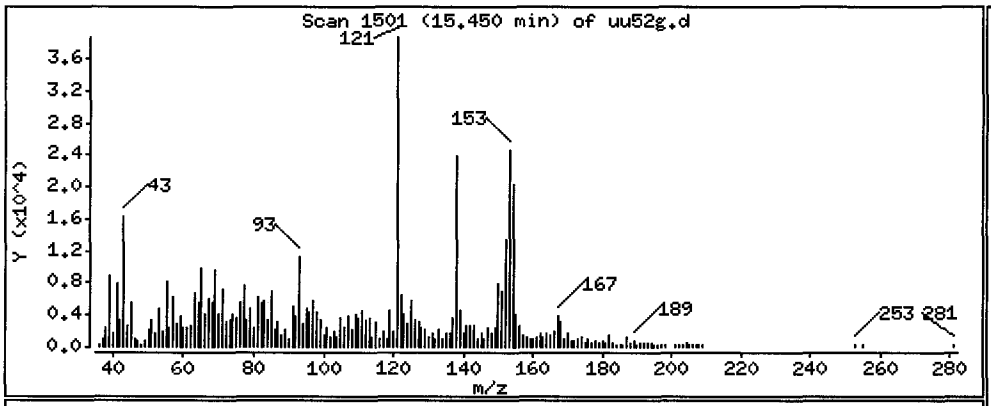
Operator: VTS/YZ

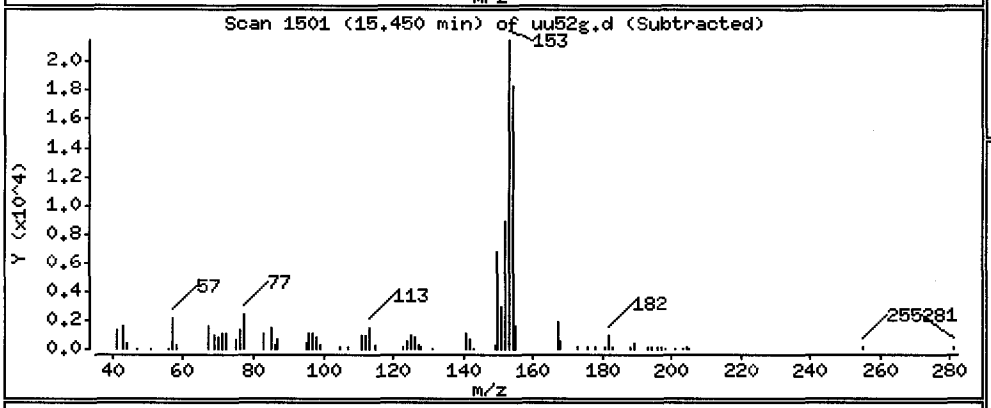
Column phase: ZB-5msi

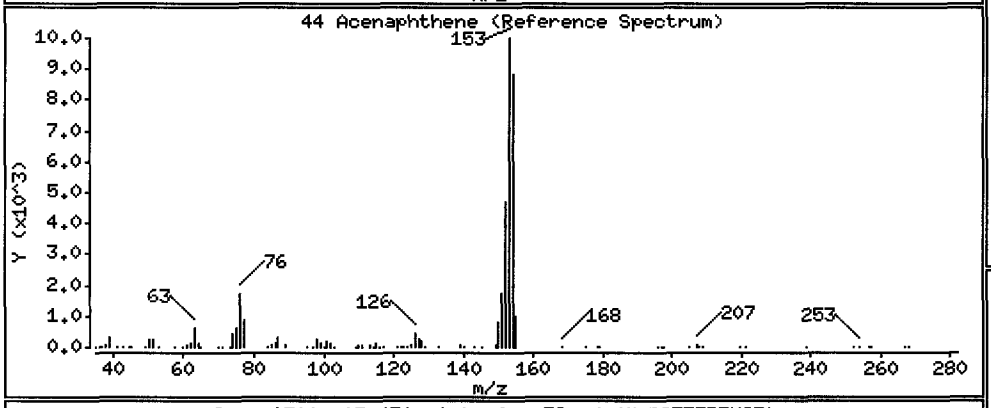
Column diameter: 0.25

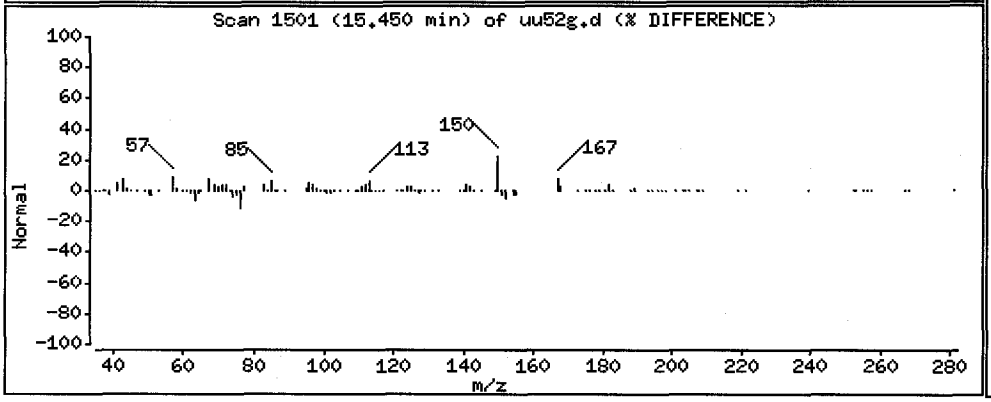
44 Acenaphthene

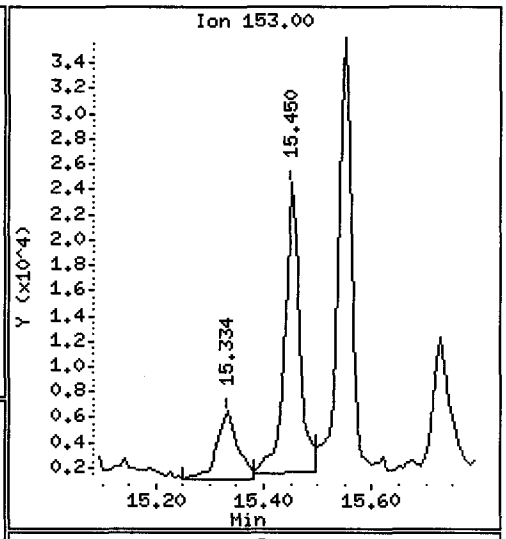
Concentration: 113.5 ug/kg

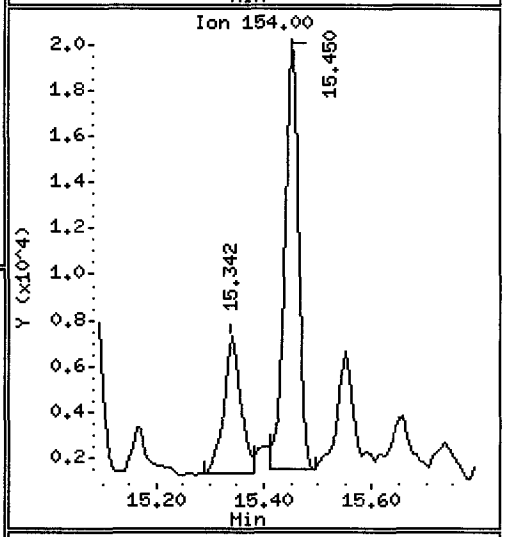


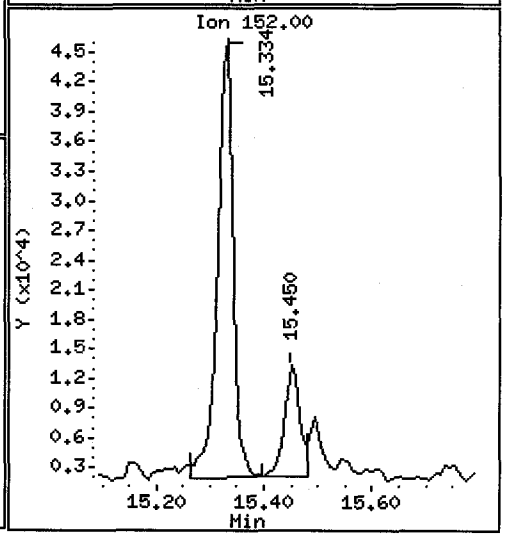












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

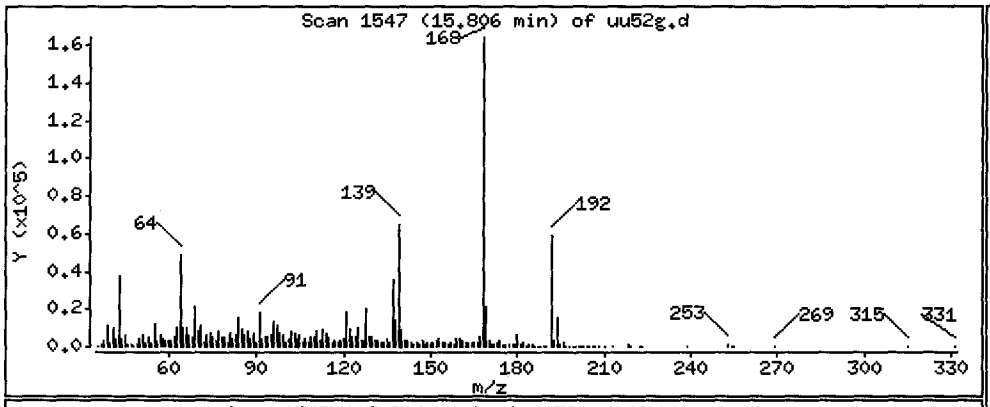
Operator: VTS/YZ

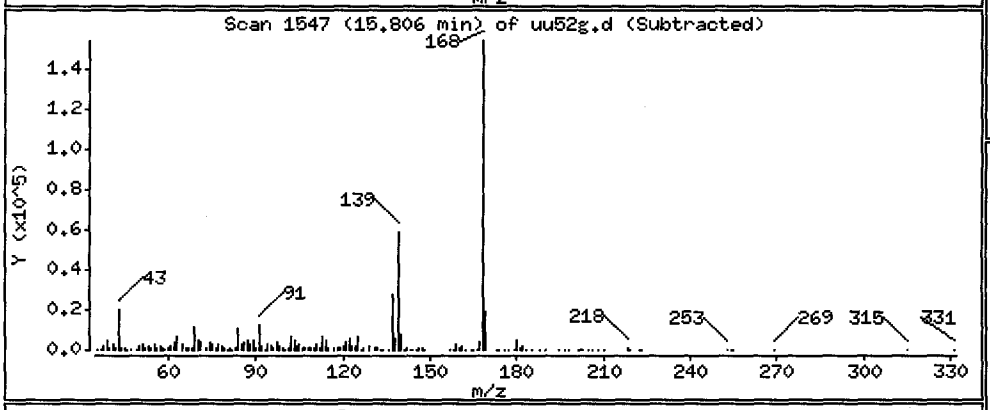
Column phase: ZB-5msi

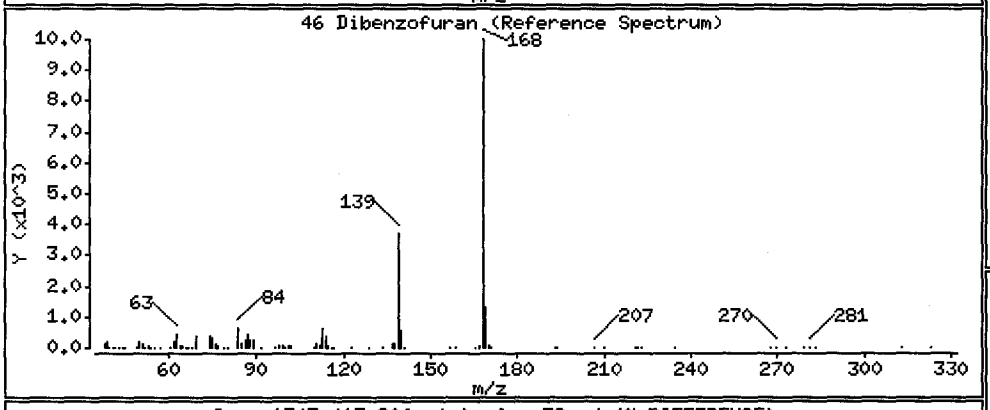
Column diameter: 0.25

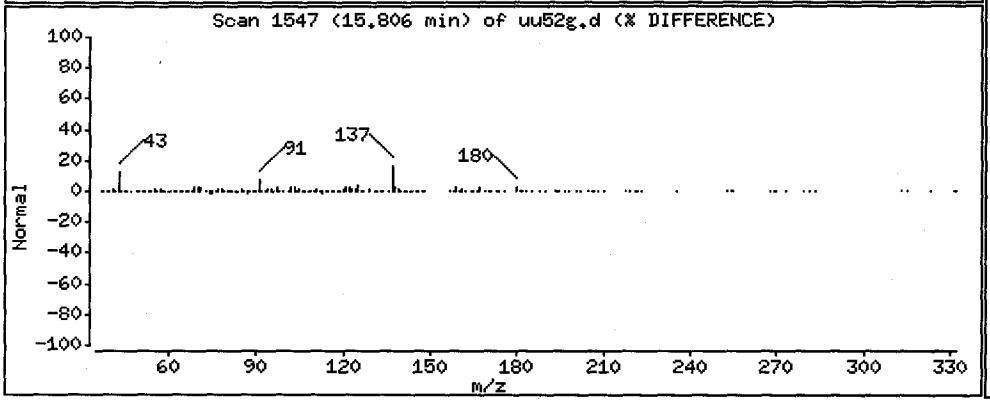
46 Dibenzofuran

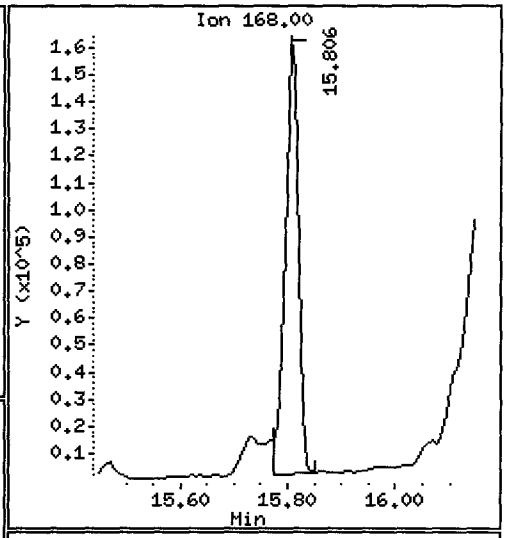
Concentration: 485.1 ug/kg

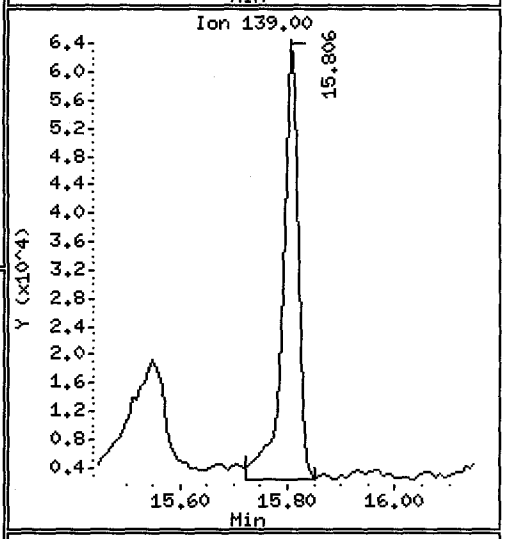


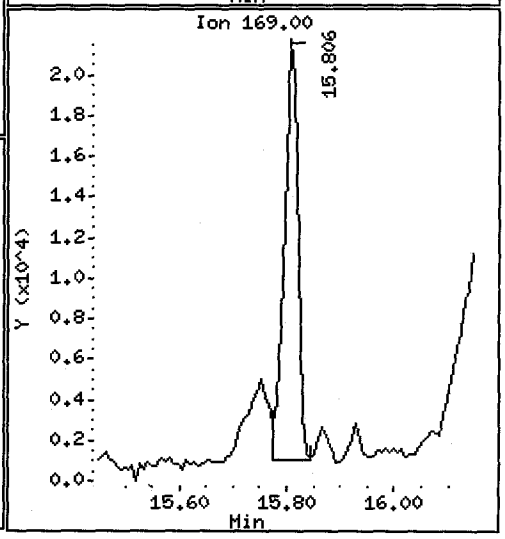












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

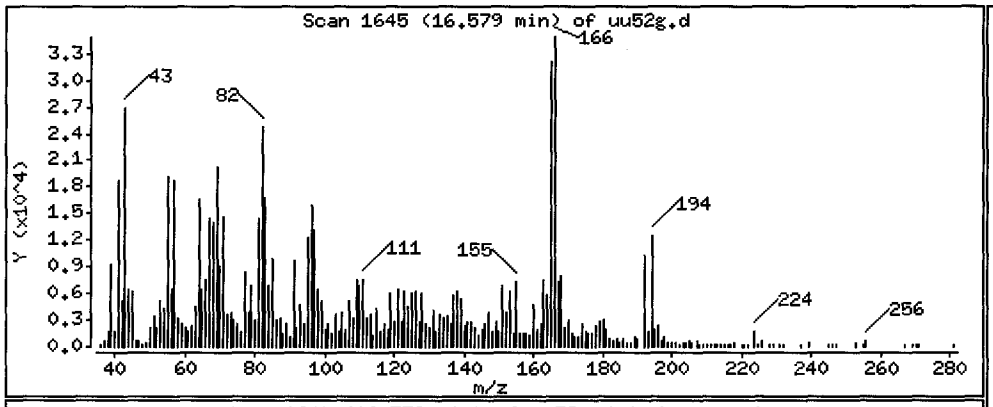
Operator: VTS/YZ

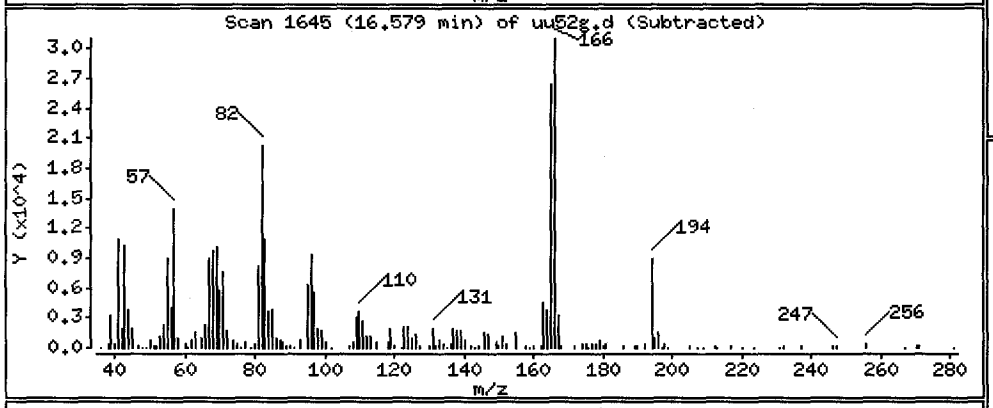
Column phase: ZB-5msi

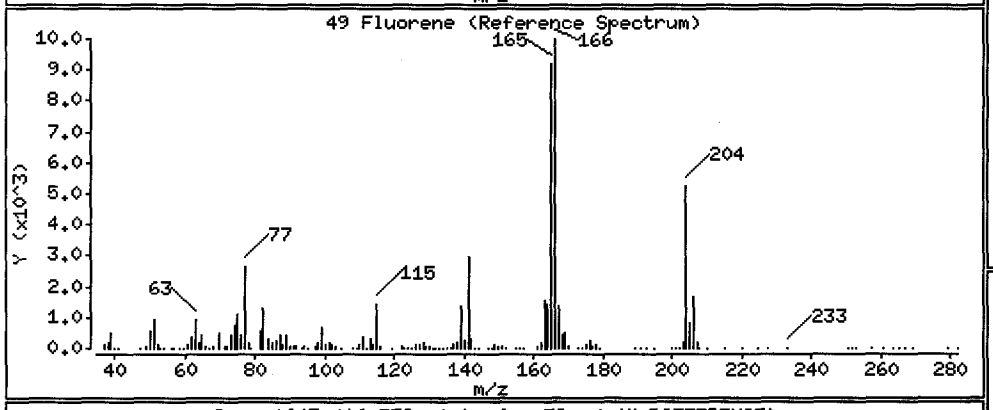
Column diameter: 0.25

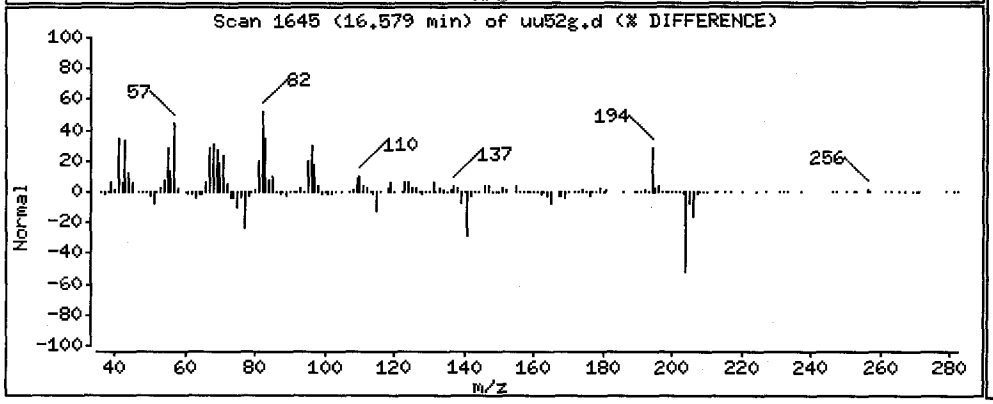
49 Fluorene

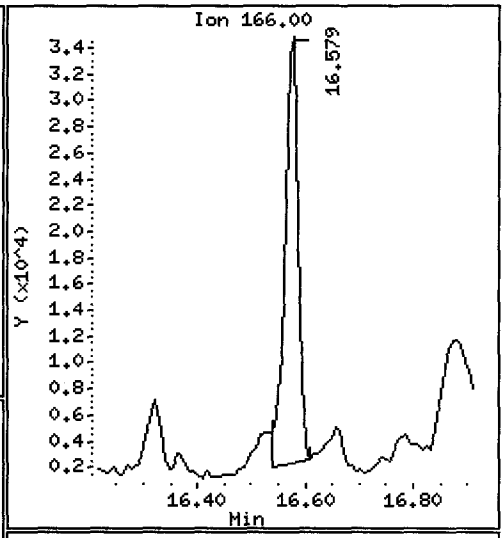
Concentration: 131.9 ug/kg

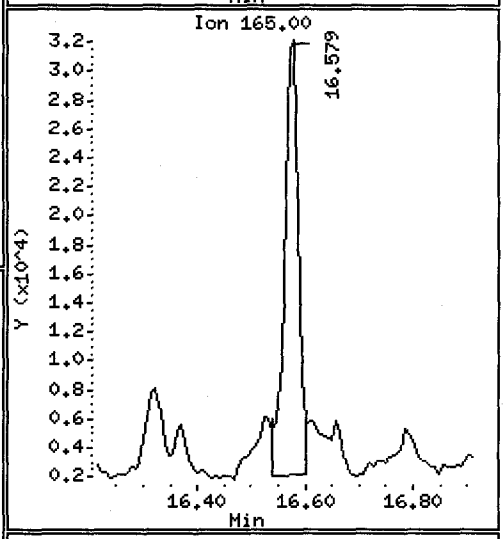


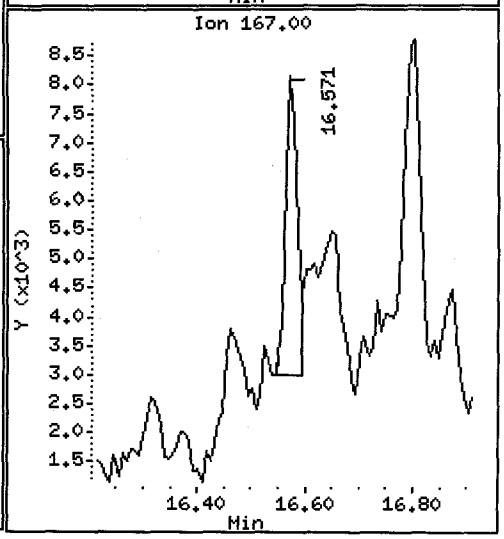












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

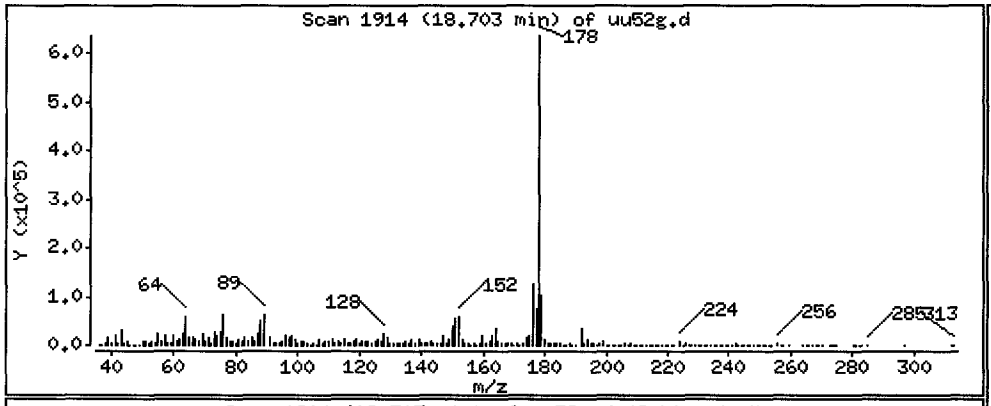
Operator: VTS/YZ

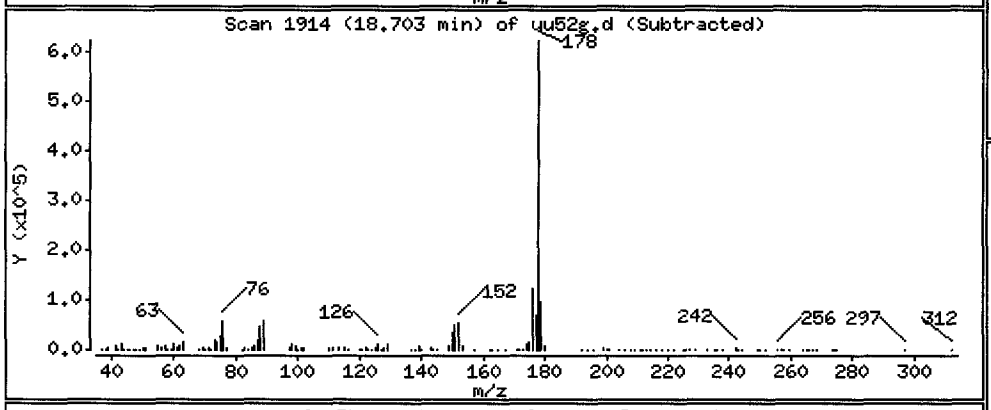
Column phase: ZB-5msi

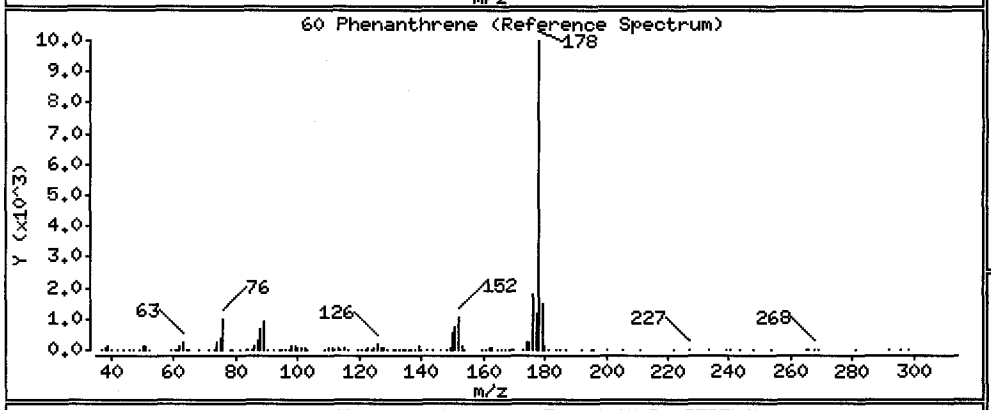
Column diameter: 0.25

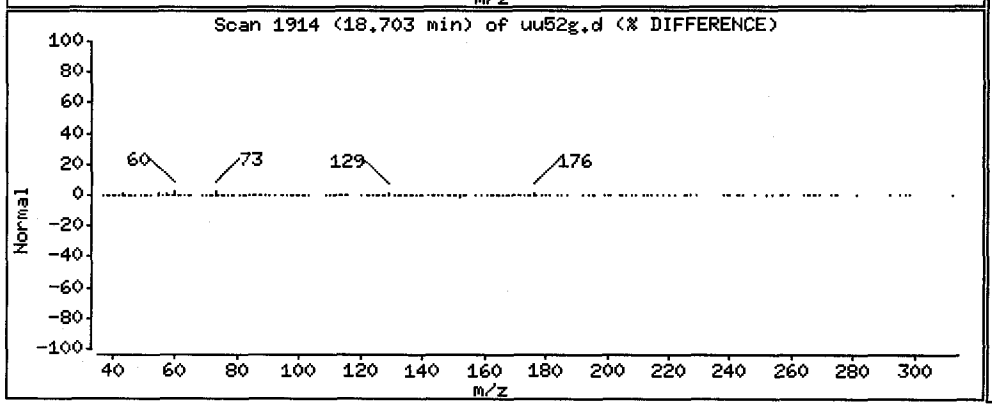
60 Phenanthrene

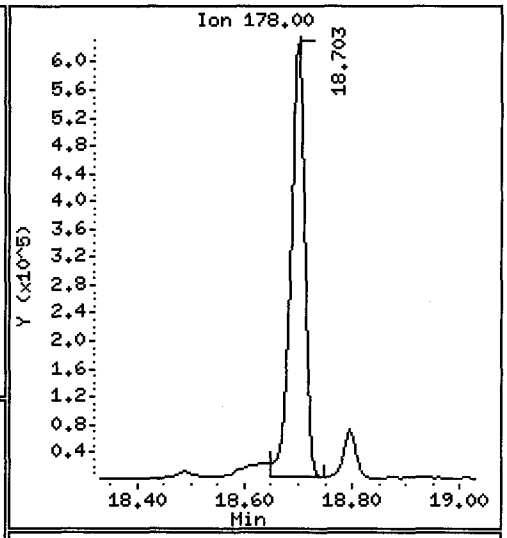
Concentration: 2197 ug/kg

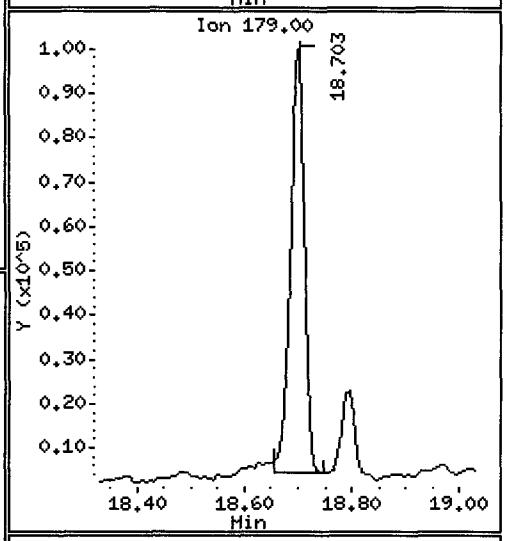


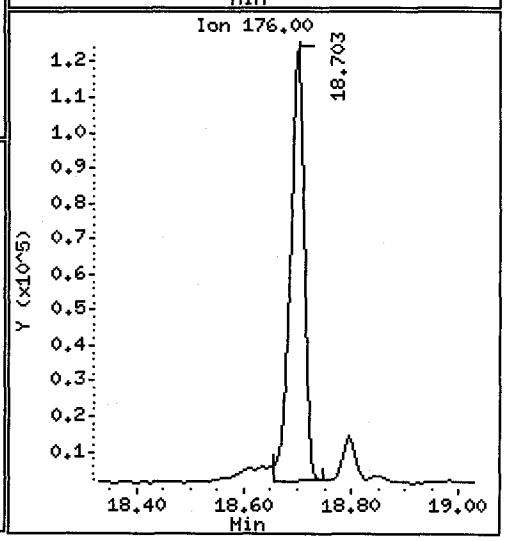












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

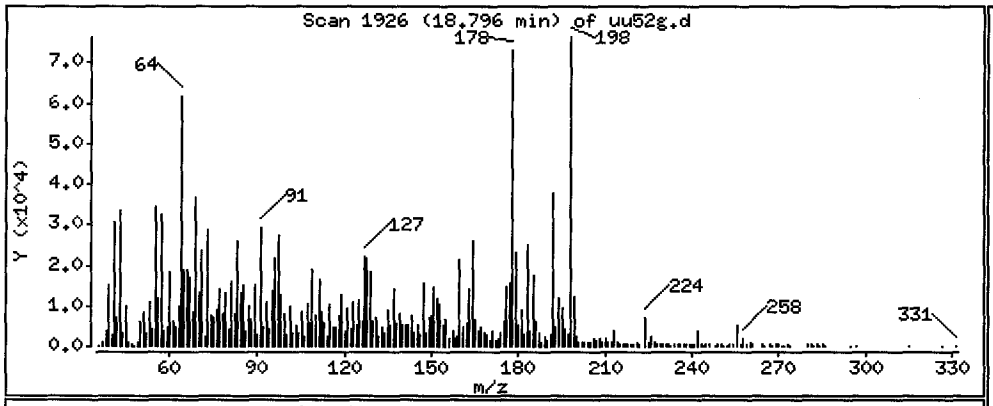
Operator: VTS/YZ

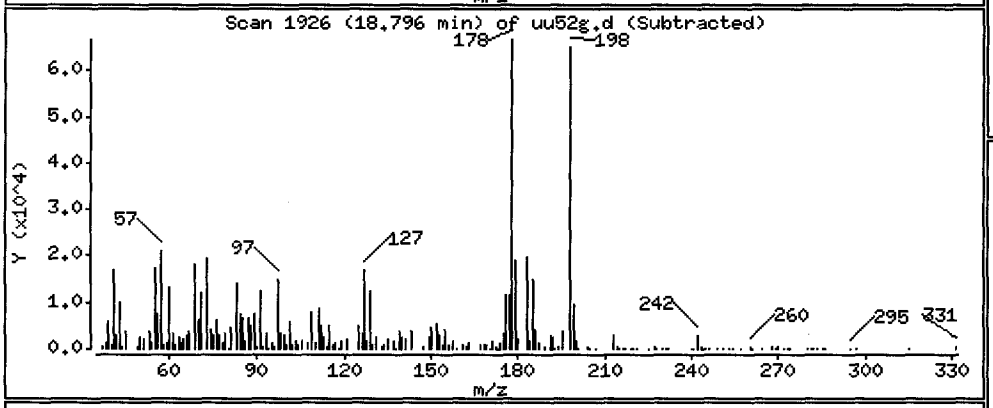
Column phase: ZB-5msi

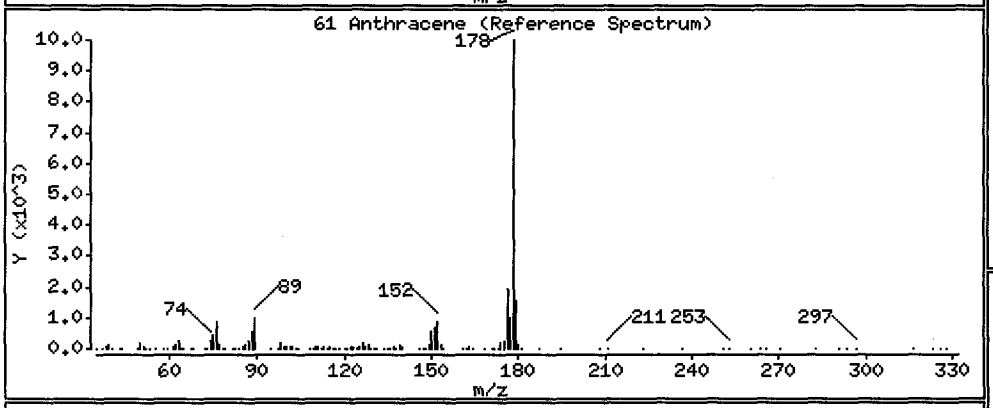
Column diameter: 0.25

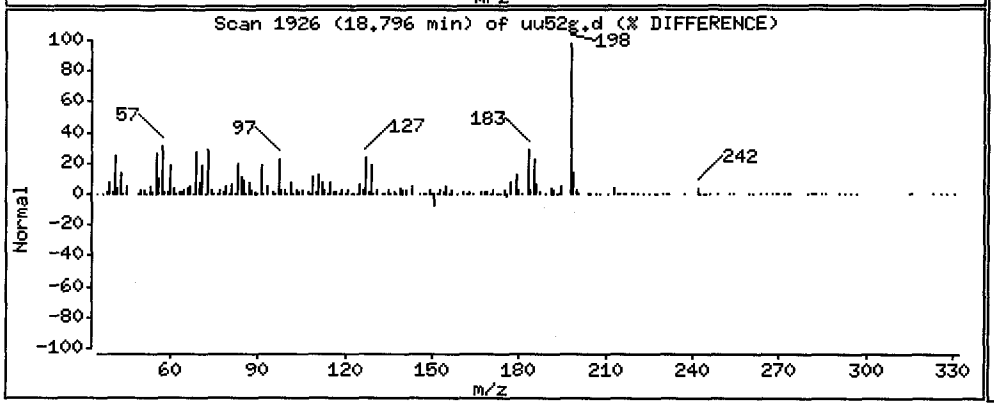
61 Anthracene

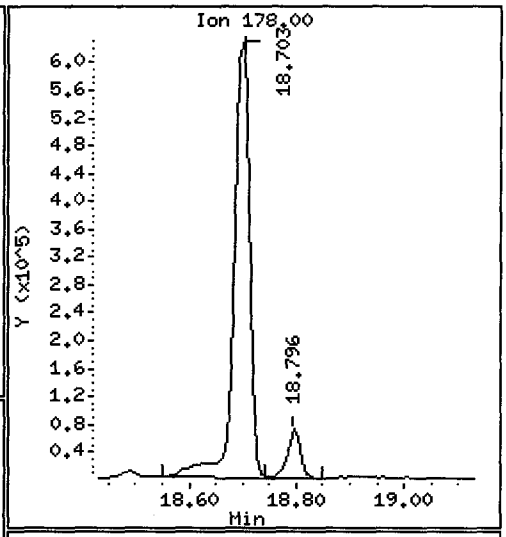
Concentration: 225.6 ug/kg

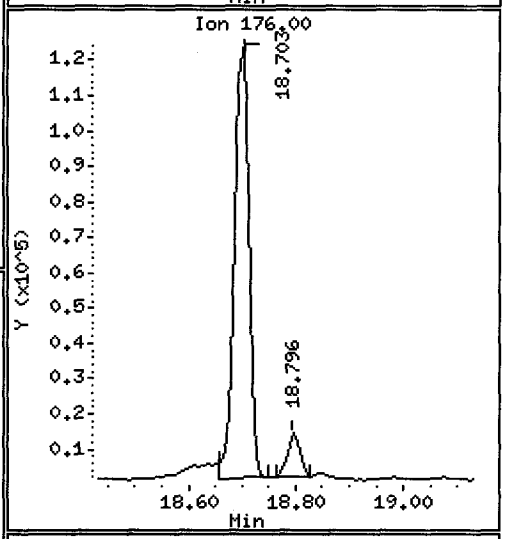


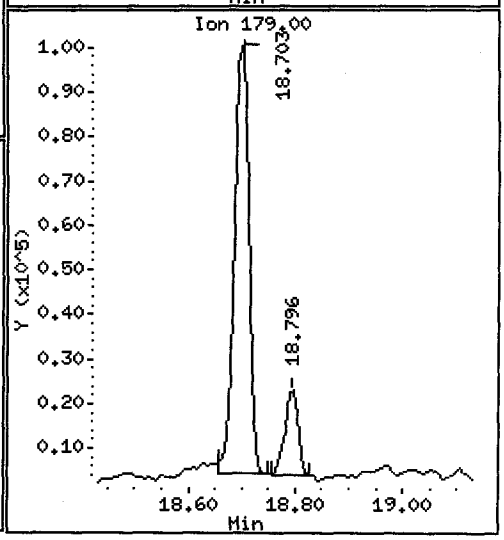












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

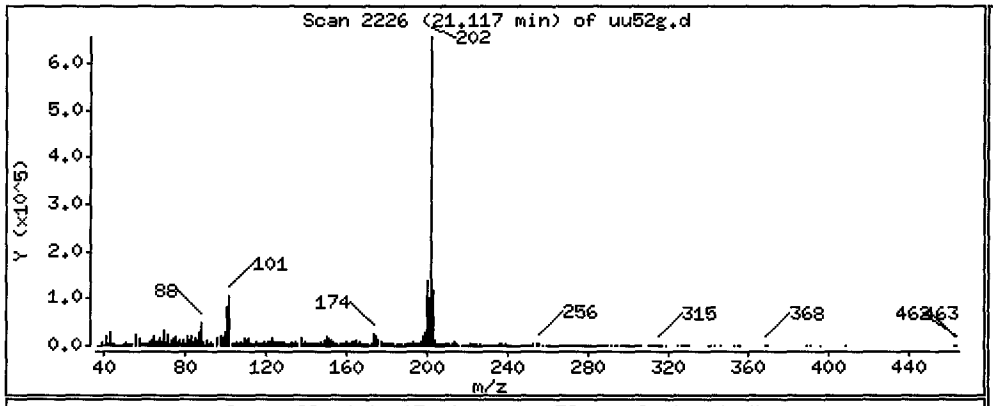
Client ID: MS006-SS-120515 Instrument: nt10.i

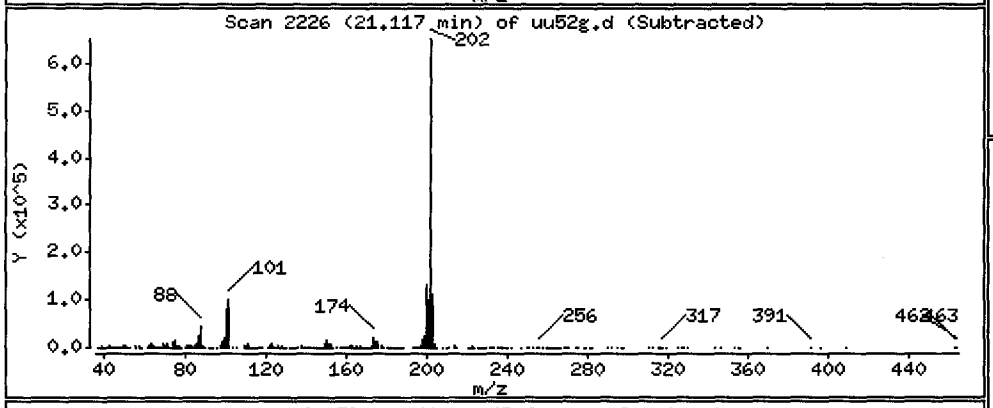
Sample Info: UU52G,3

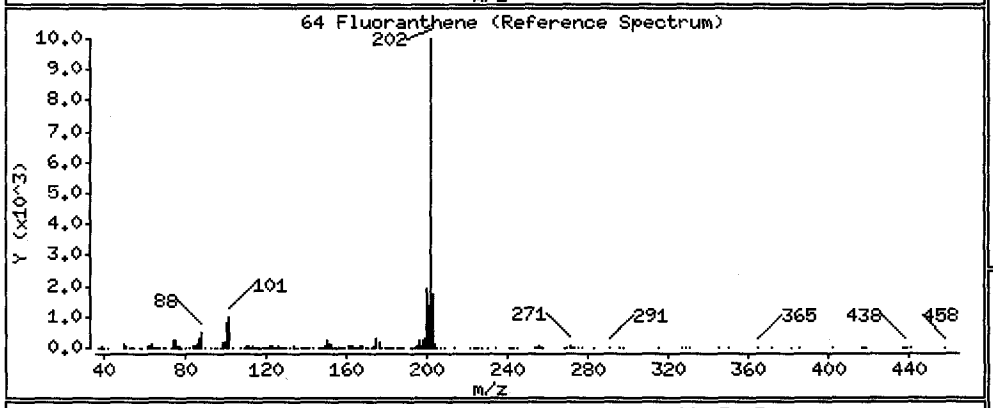
Volume Injected (uL): 1.0 Operator: VTS/YZ

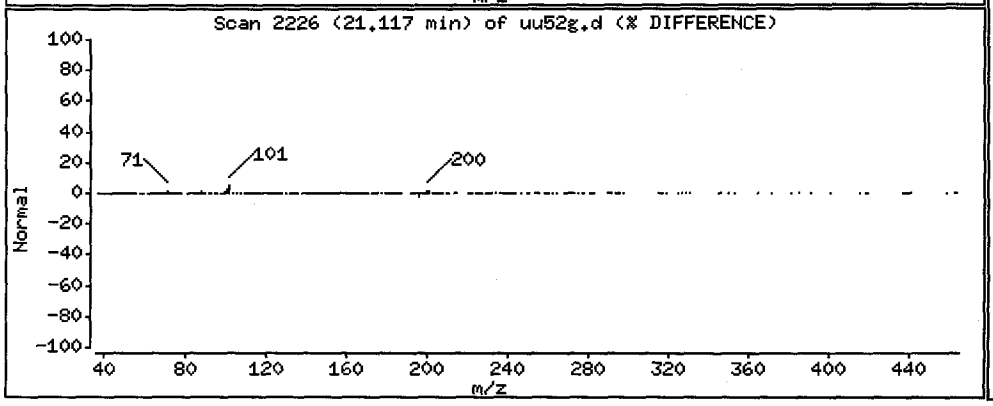
Column phase: ZB-5msi Column diameter: 0.25

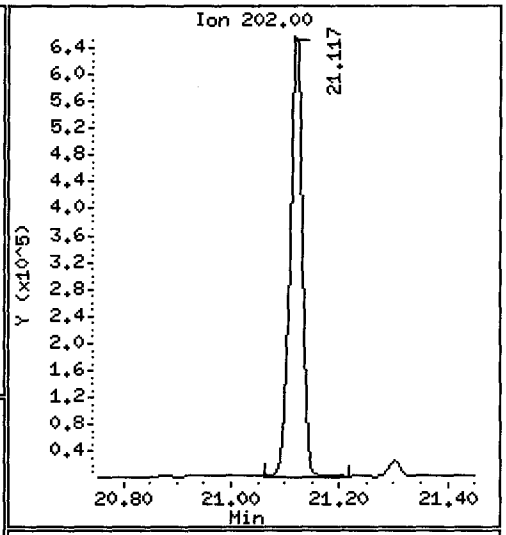
64 Fluoranthene Concentration: 1746 ug/kg

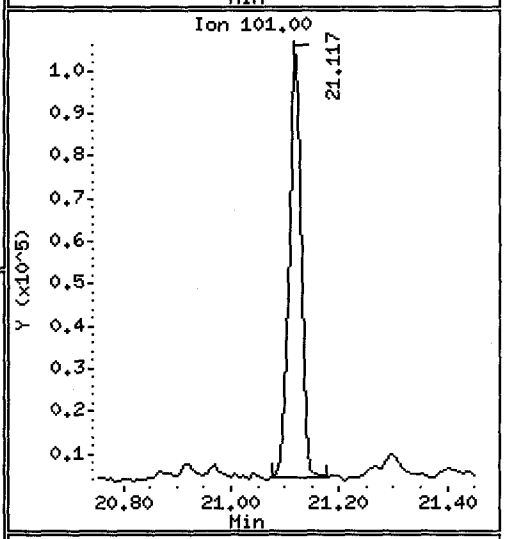


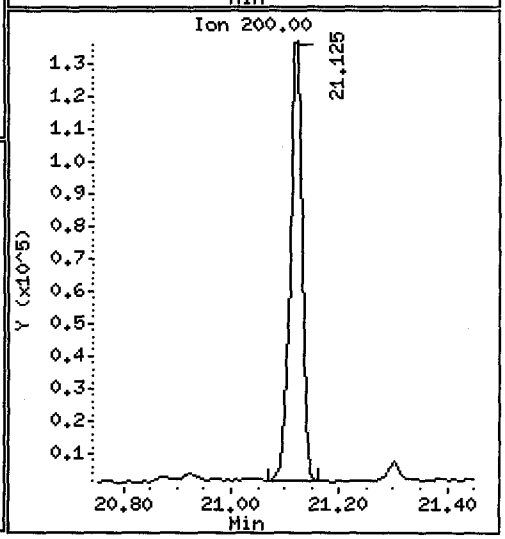












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

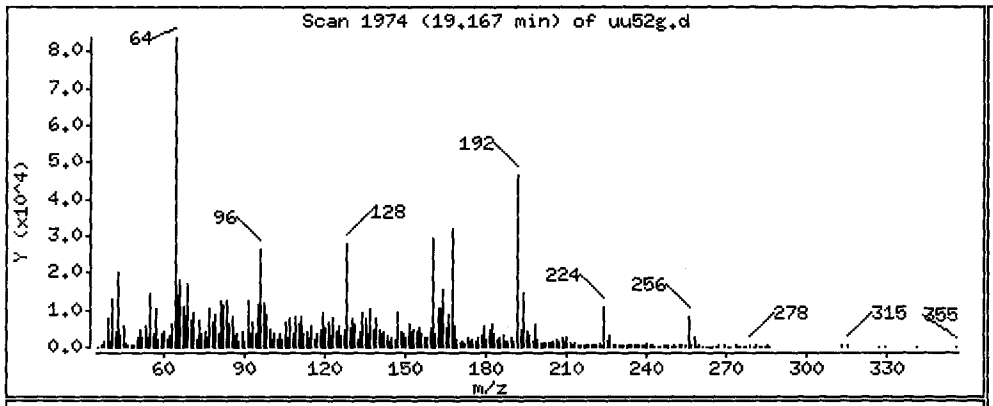
Client ID: MS006-SS-120515 Instrument: nt10.i

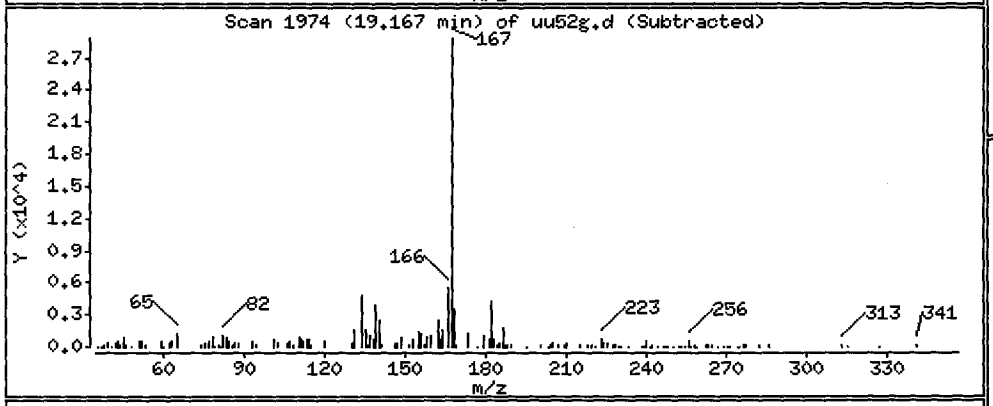
Sample Info: UU52G,3

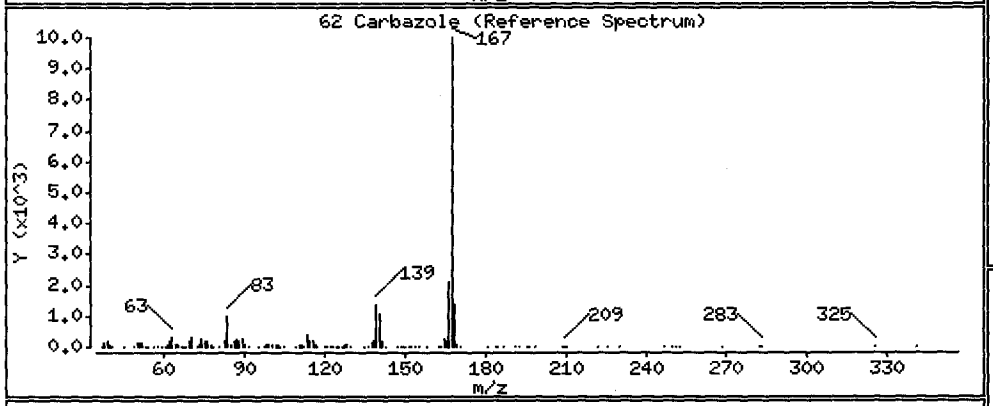
Volume Injected (uL): 1.0 Operator: VTS/YZ

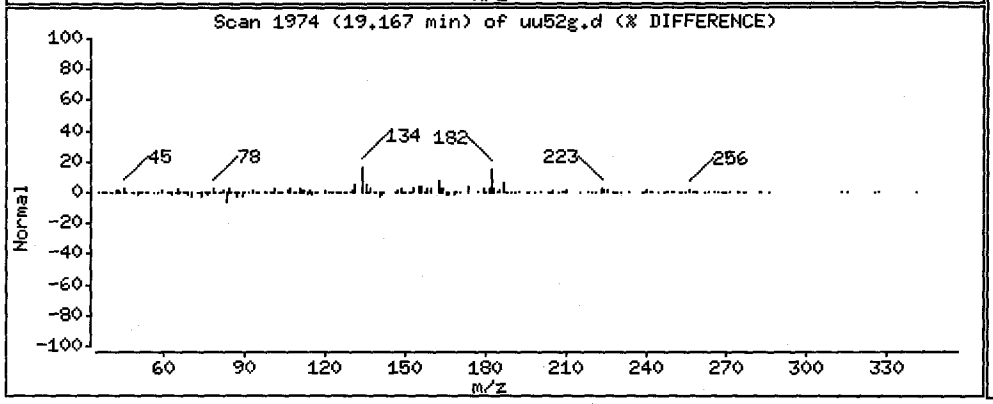
Column phase: ZB-5msi Column diameter: 0.25

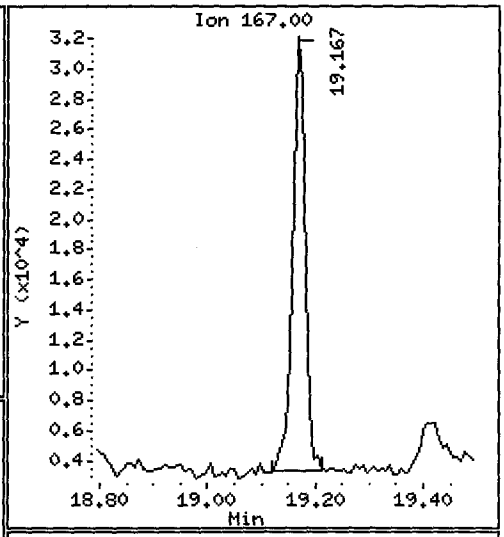
62 Carbazole Concentration: 96.76 ug/kg

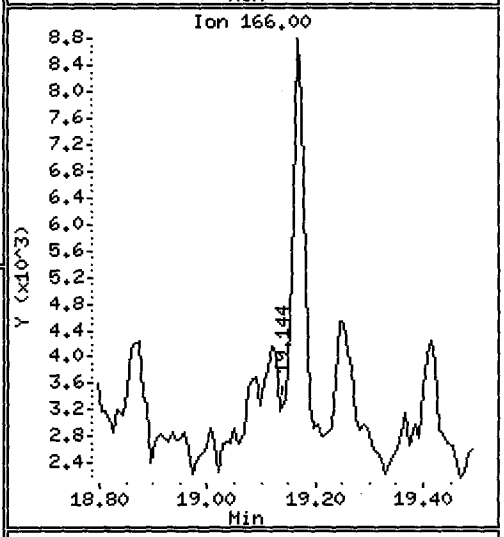


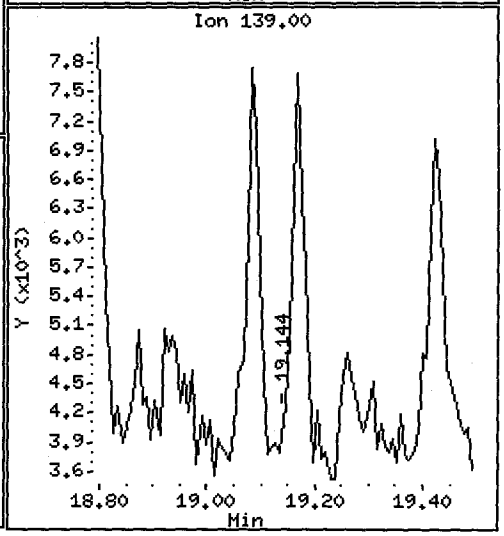












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

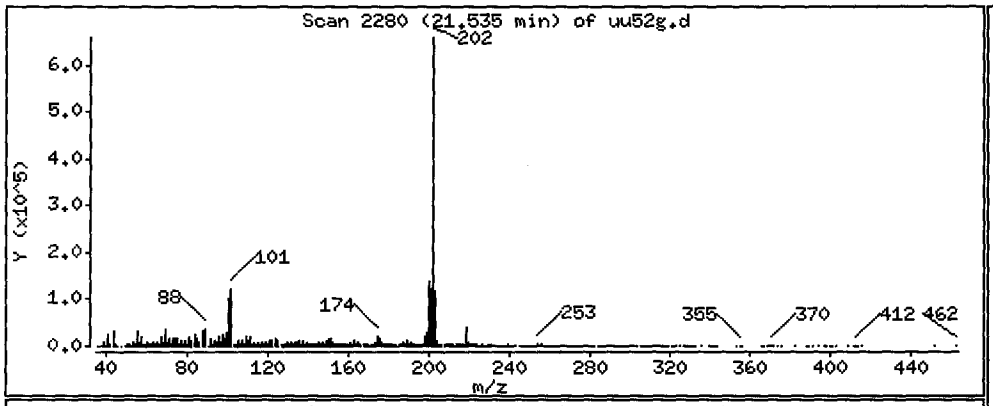
Client ID: MS006-SS-120515 Instrument: nt10.i

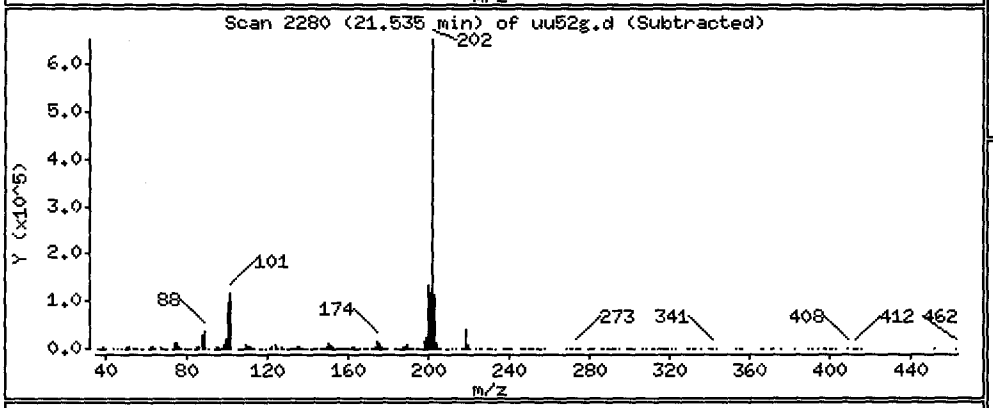
Sample Info: UU52G,3

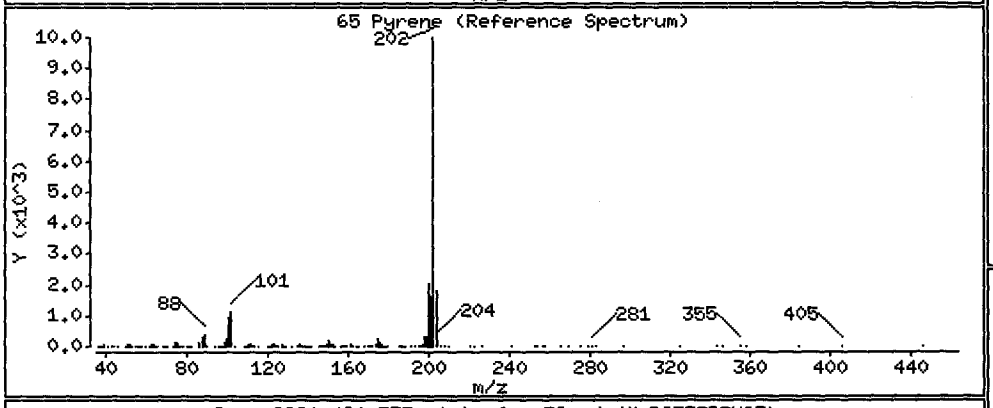
Volume Injected (uL): 1.0 Operator: VTS/YZ

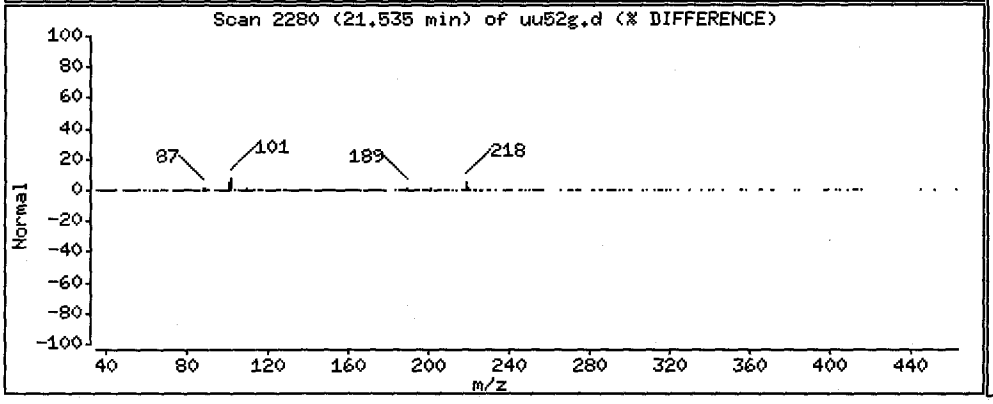
Column phase: ZB-5msi Column diameter: 0.25

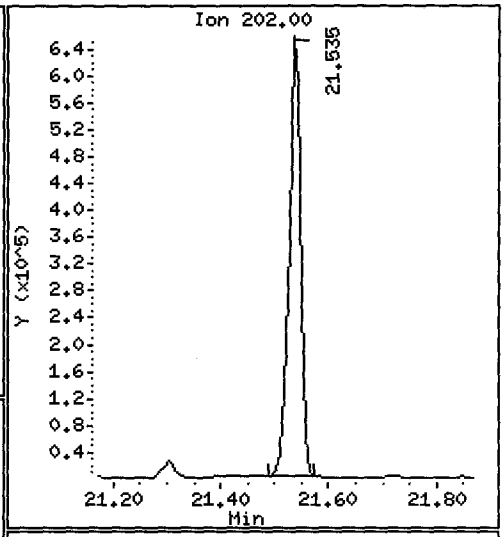
65 Pyrene Concentration: 1369 ug/kg

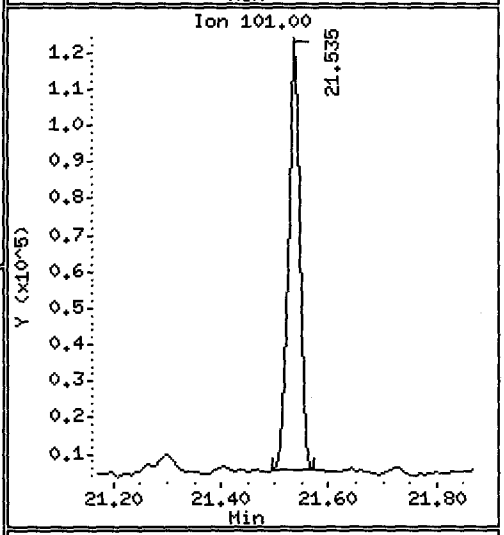


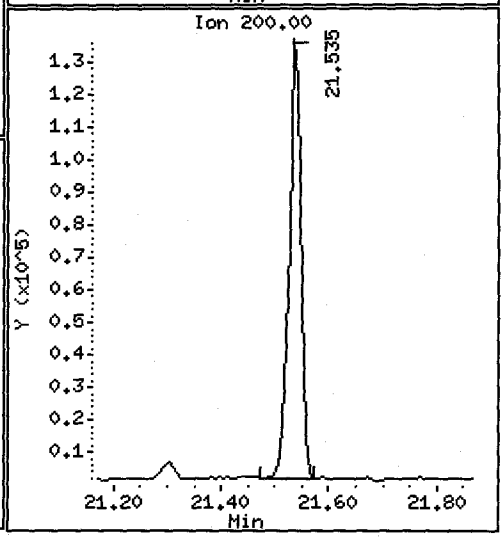












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

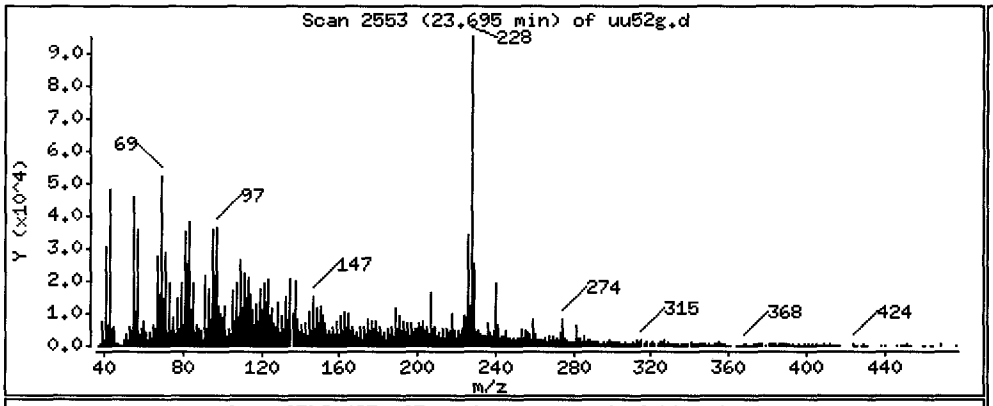
Operator: VTS/YZ

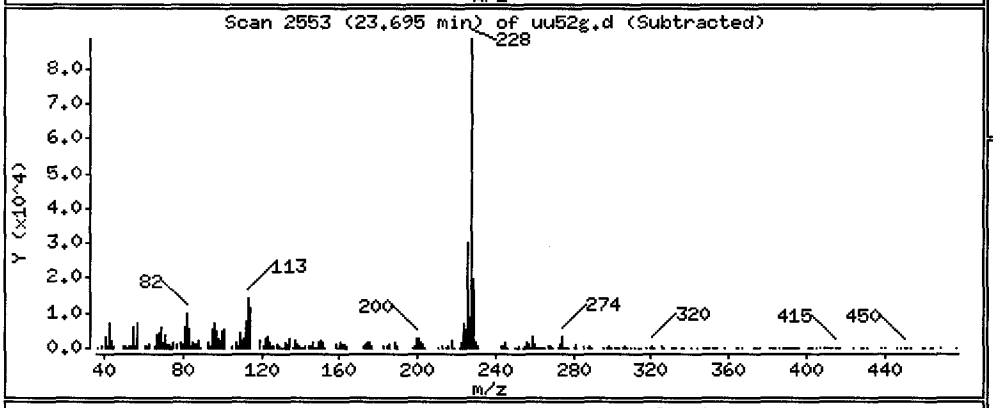
Column phase: ZB-5msi

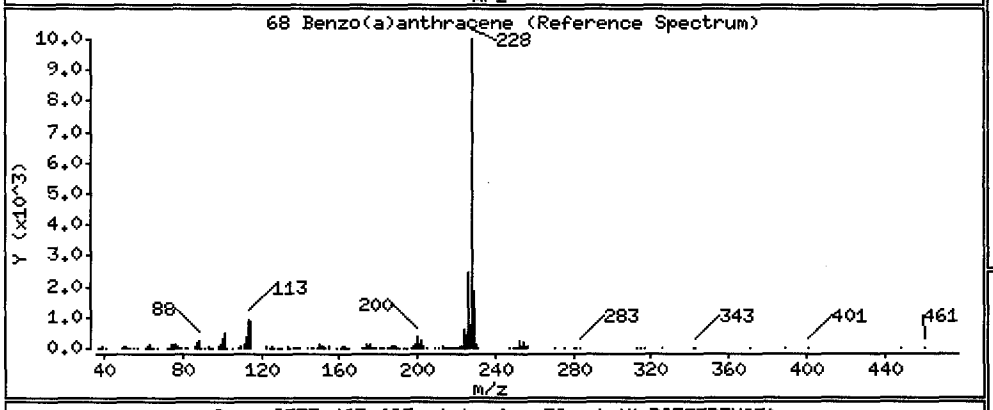
Column diameter: 0.25

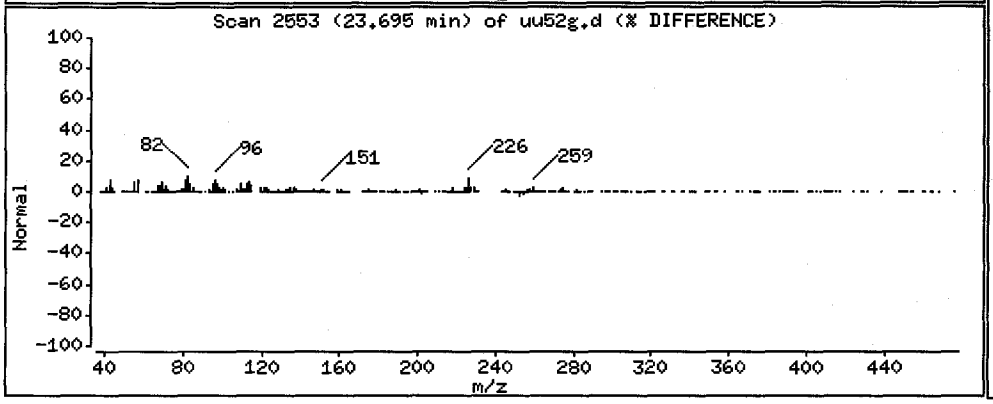
68 Benzo(a)anthracene

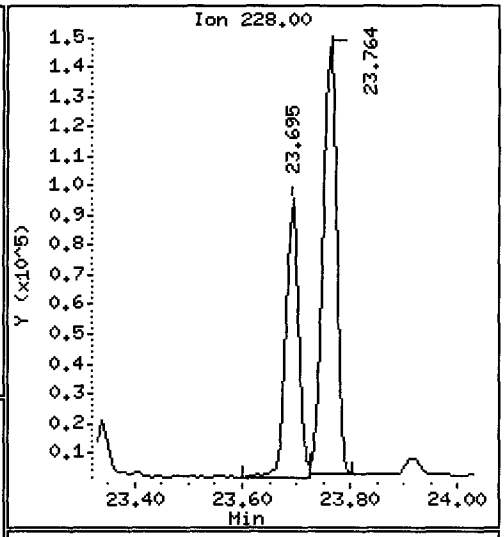
Concentration: 229.9 ug/kg

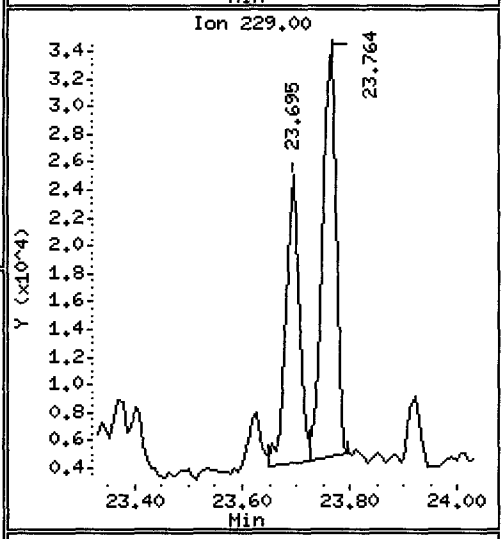


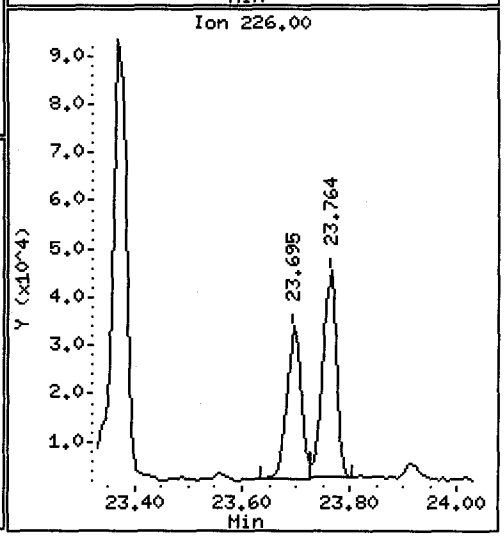












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

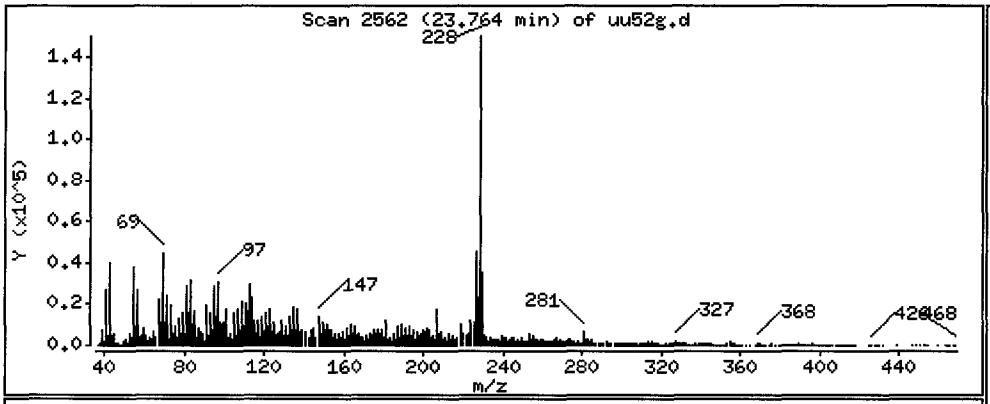
Operator: VTS/YZ

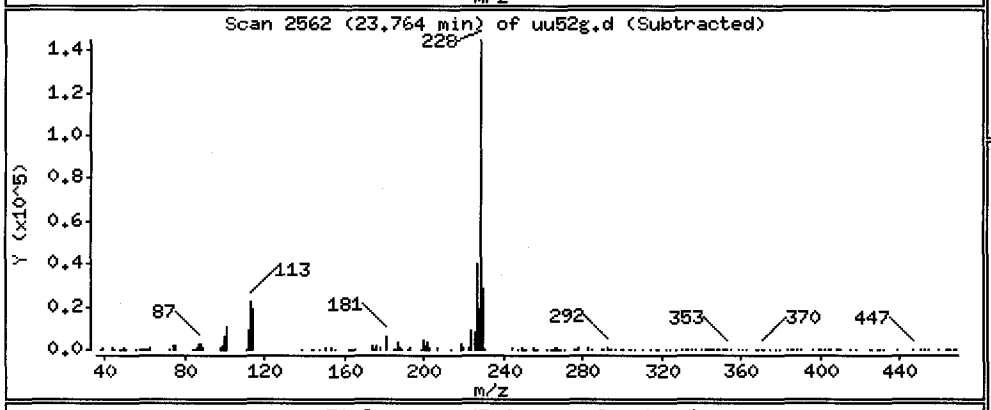
Column phase: ZB-5msi

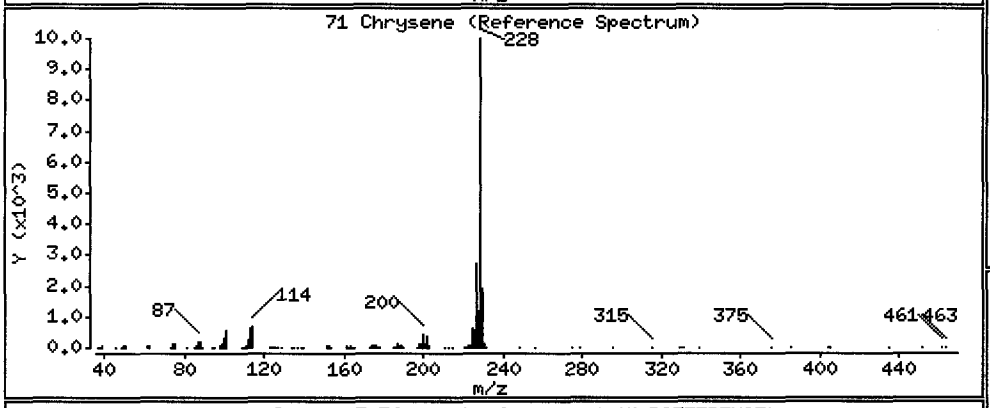
Column diameter: 0.25

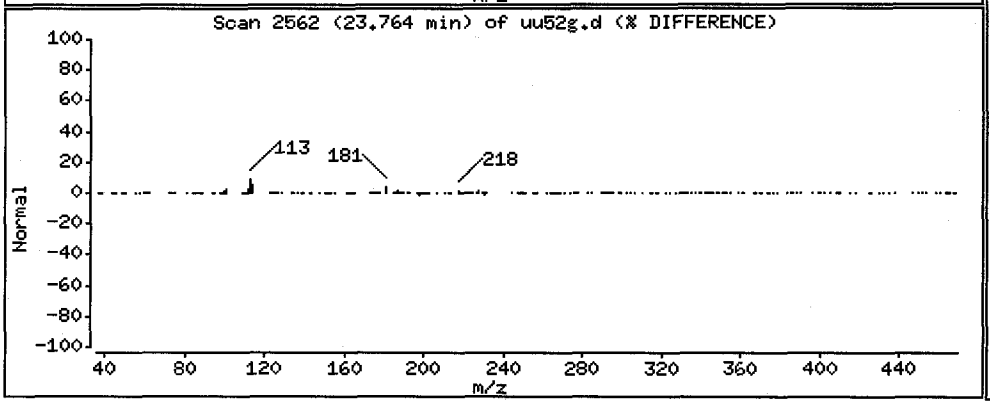
71 Chrysene

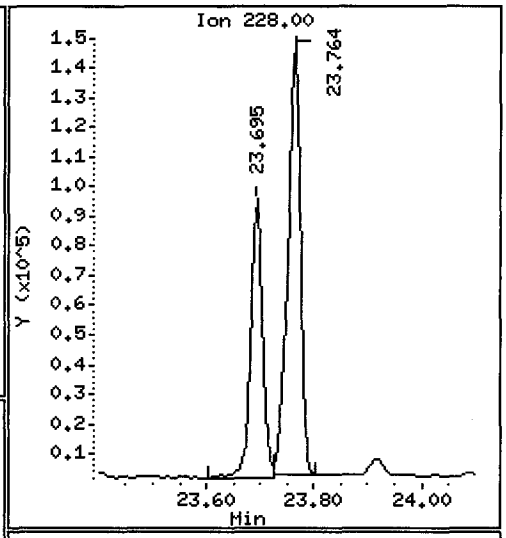
Concentration: 413.8 ug/kg

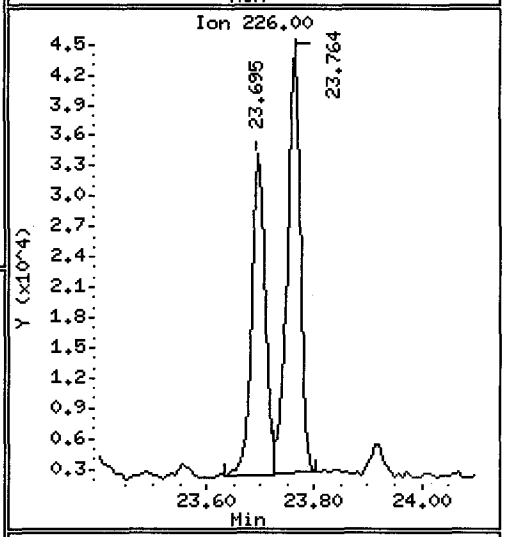


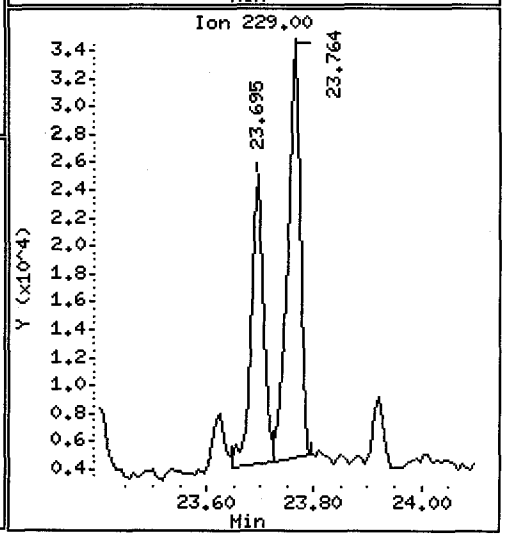












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

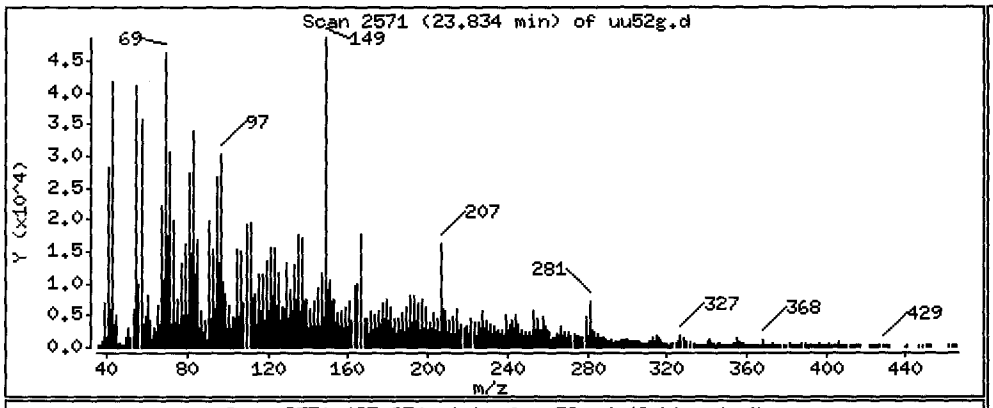
Operator: VTS/YZ

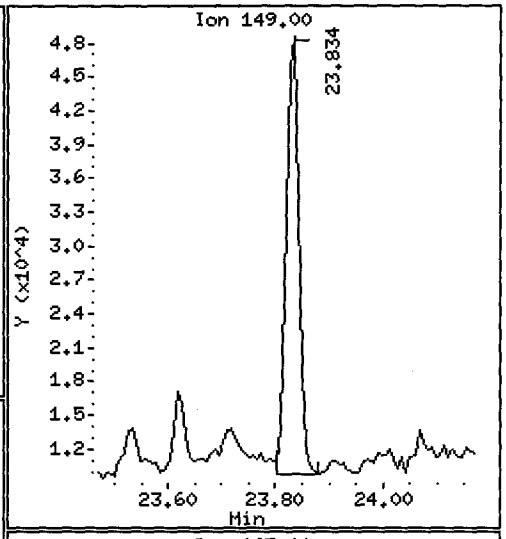
Column phase: ZB-5msi

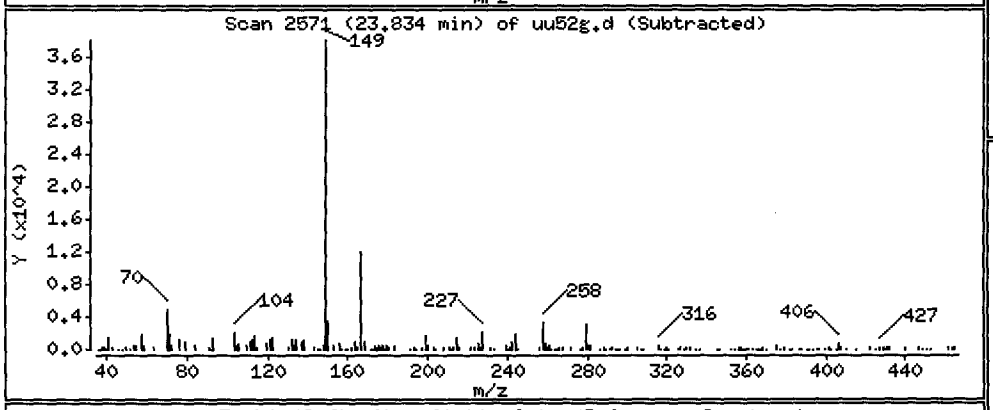
Column diameter: 0.25

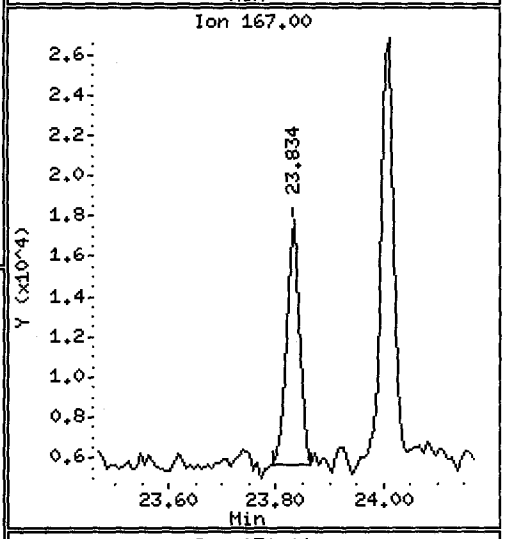
72 bis(2-Ethylhexyl)phthalate

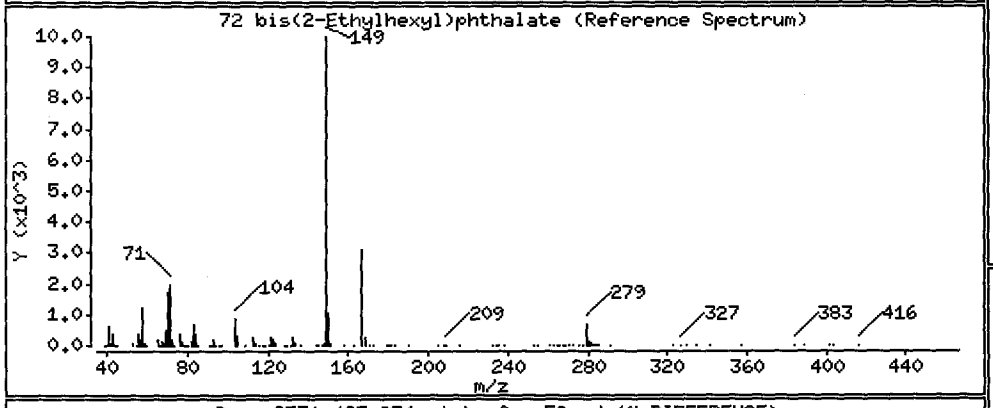
Concentration: 123.5 ug/kg

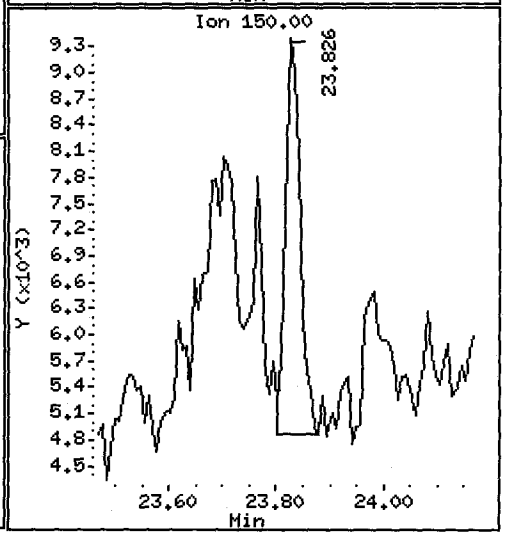


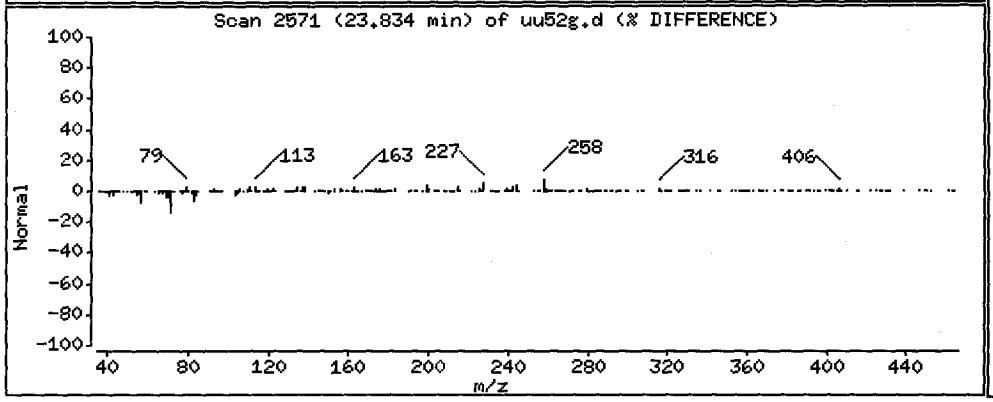






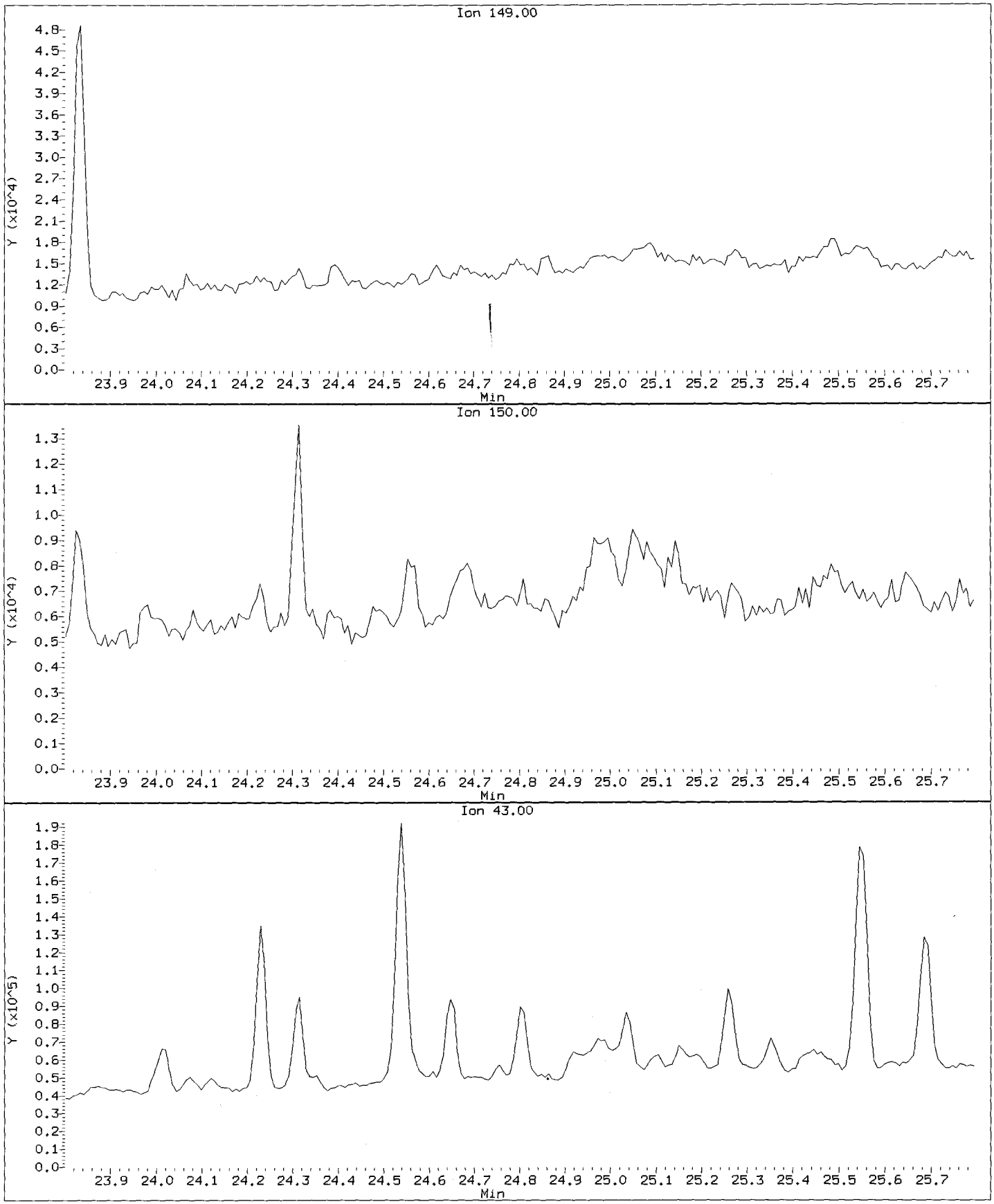






Data File: /chem1/nt10.i/20120526.b/uu52g.d
Injection Date: 26-MAY-2012 20:54
Instrument: nt10.i
Client Sample ID: MS006-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

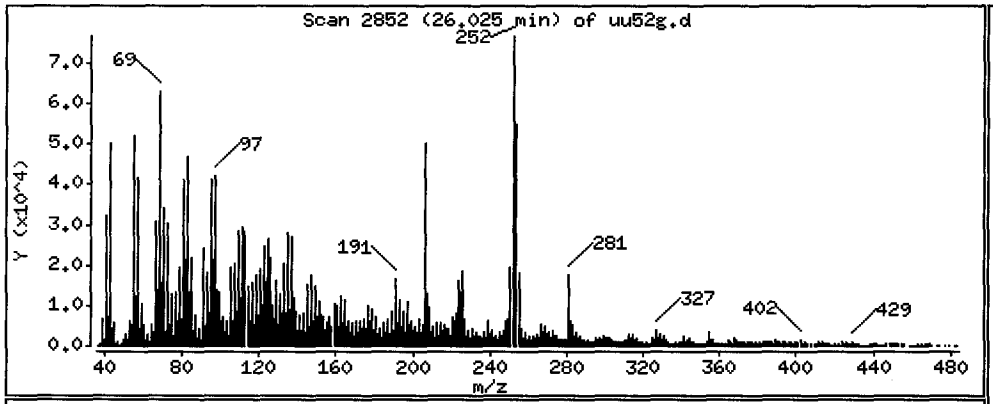
Operator: VTS/YZ

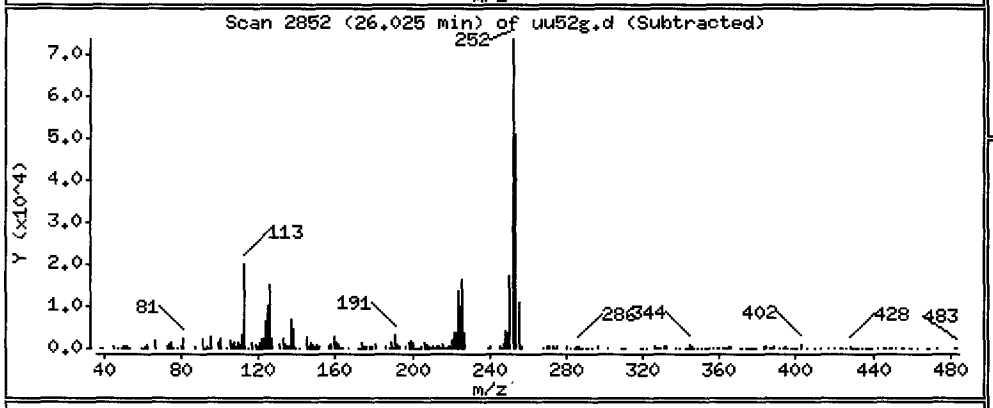
Column phase: ZB-5msi

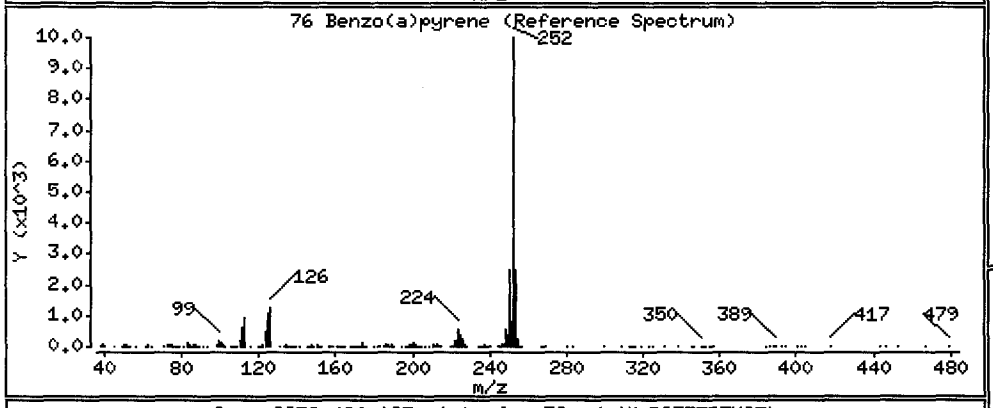
Column diameter: 0.25

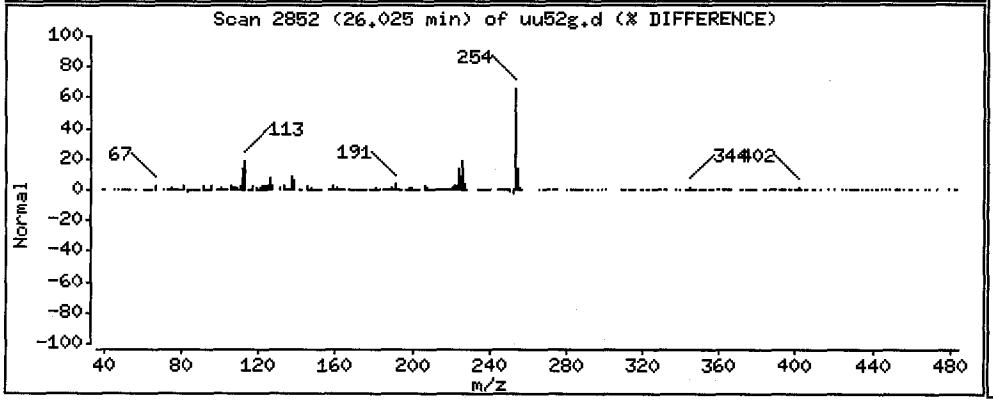
76 Benzo(a)pyrene

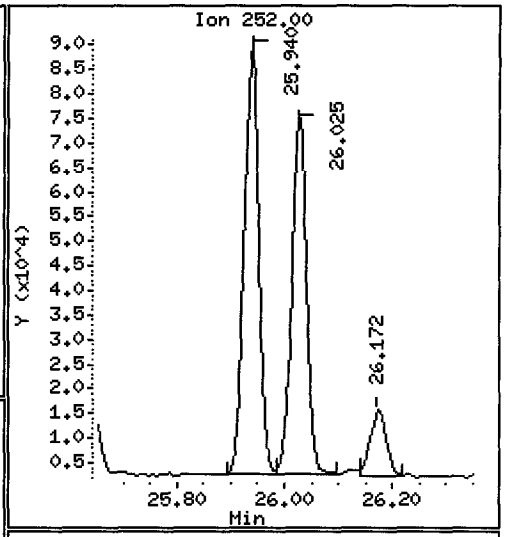
Concentration: 248.3 ug/kg

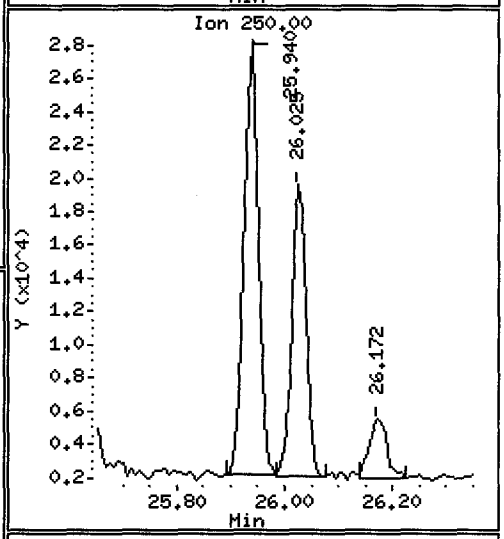


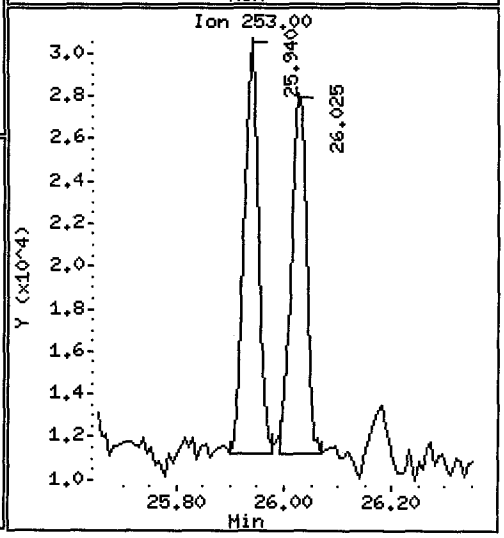












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

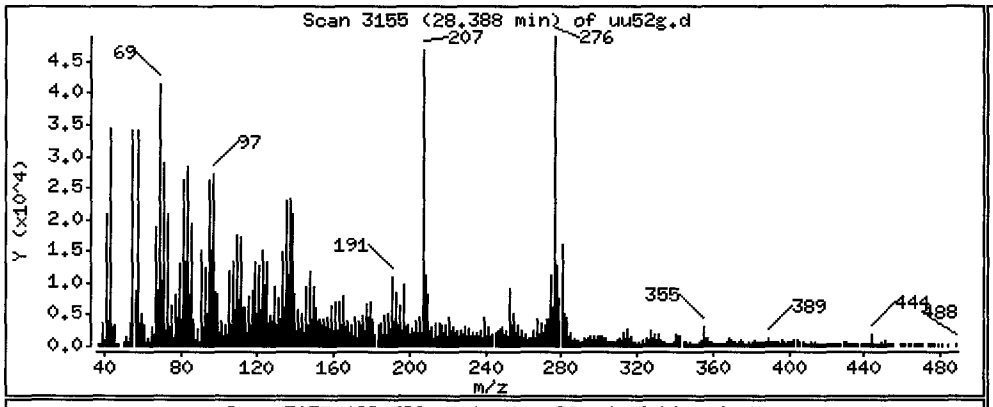
Client ID: MS006-SS-120515 Instrument: nt10.i

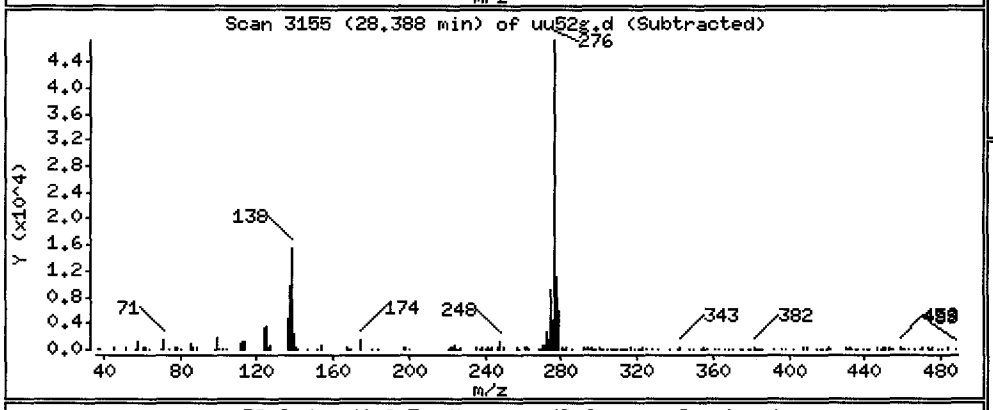
Sample Info: UU52G,3

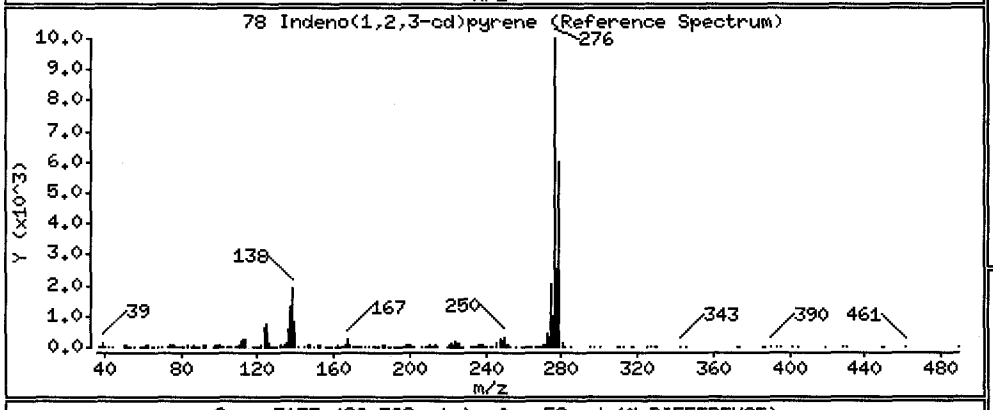
Volume Injected (uL): 1.0 Operator: VTS/YZ

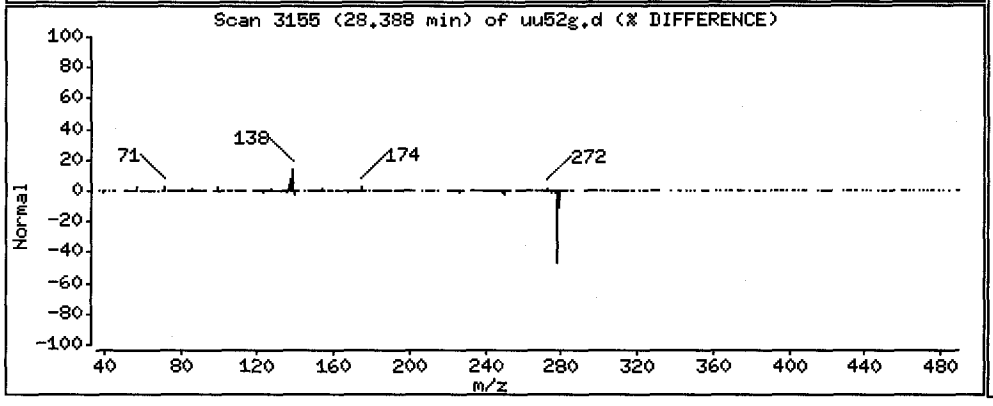
Column phase: ZB-5msi Column diameter: 0.25

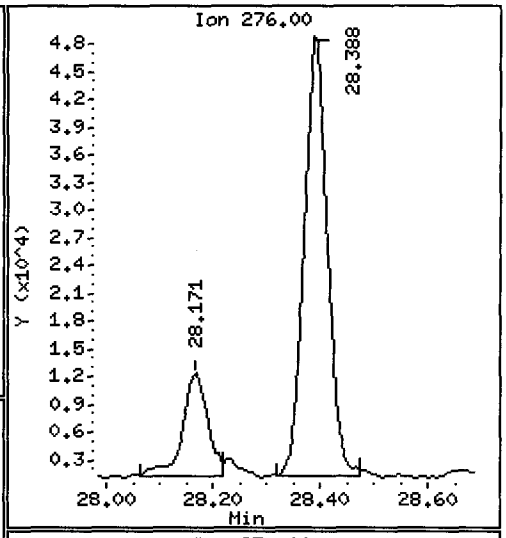
78 Indeno(1,2,3-cd)pyrene Concentration: 220.3 ug/kg

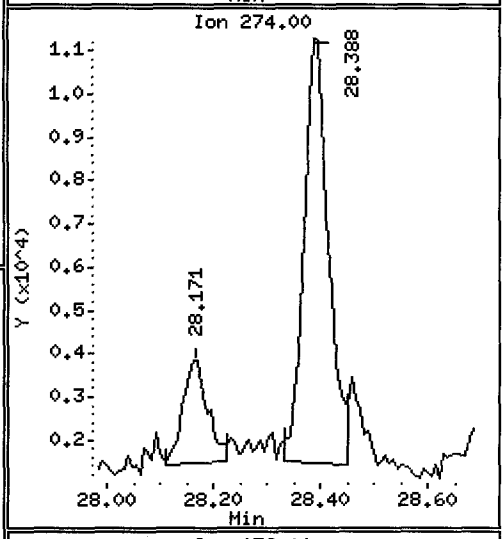


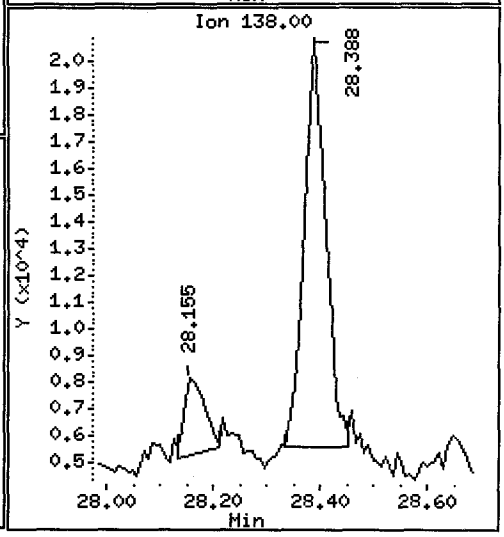












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

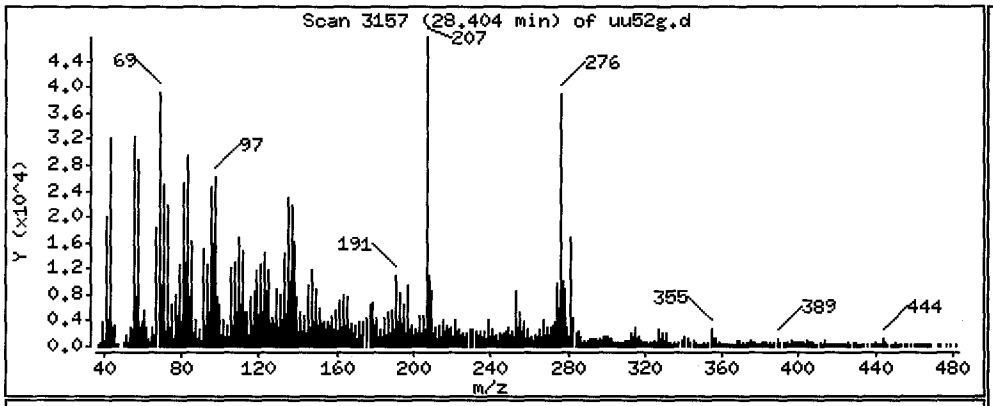
Operator: VTS/YZ

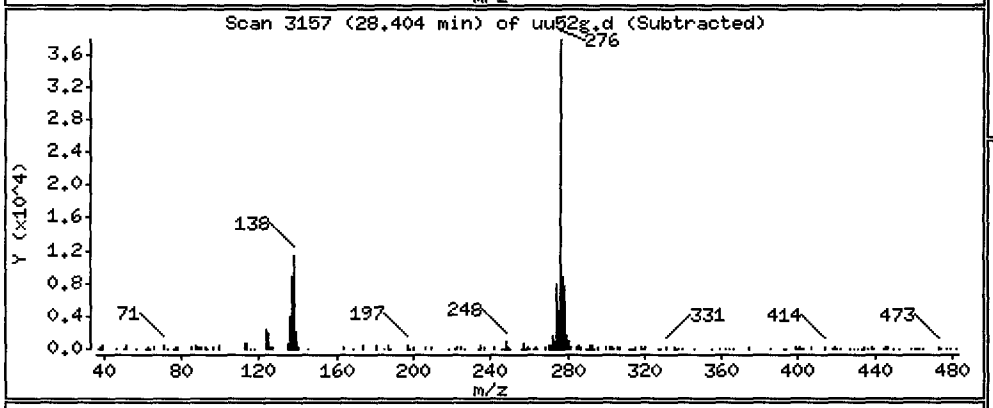
Column phase: ZB-5msi

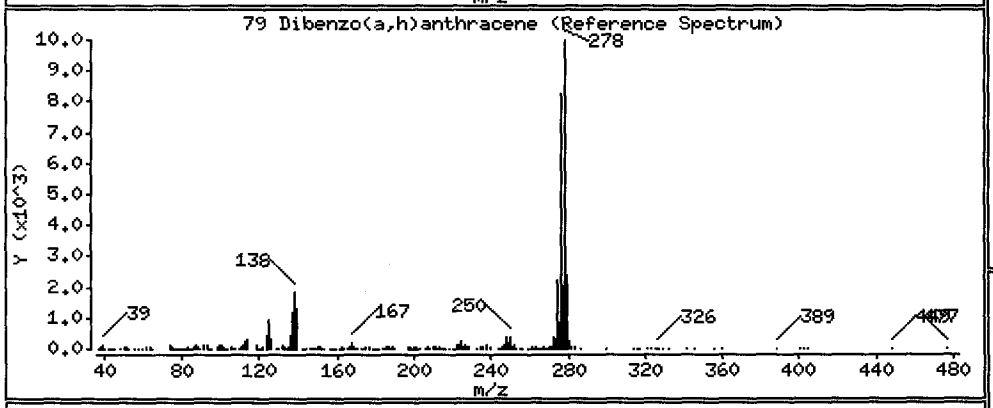
Column diameter: 0.25

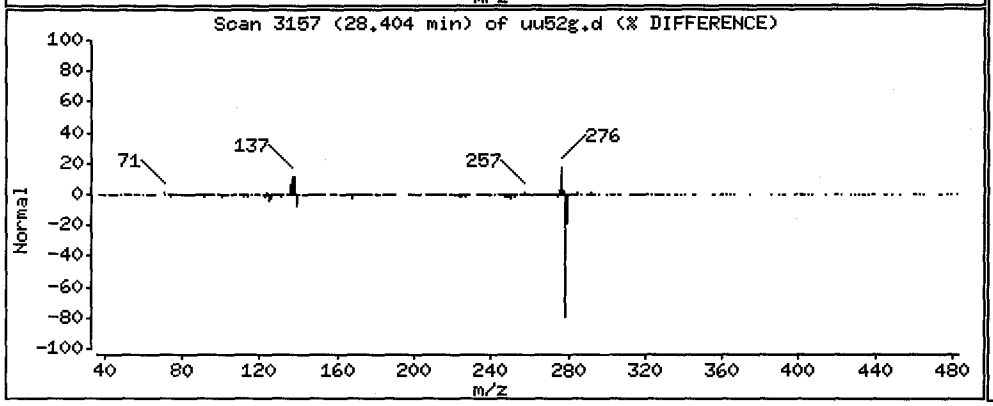
79 Dibenzo(a,h)anthracene

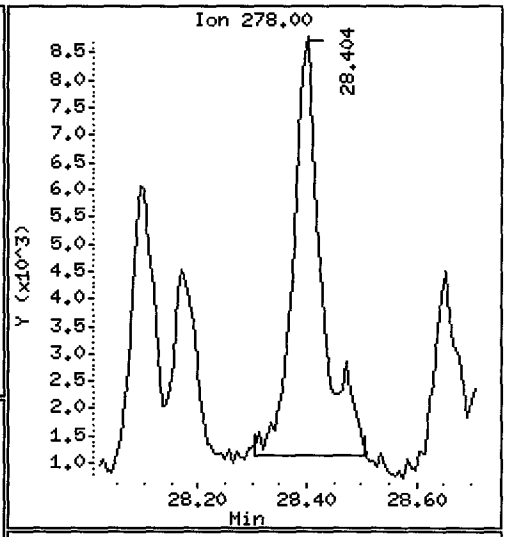
Concentration: 55.04 ug/kg

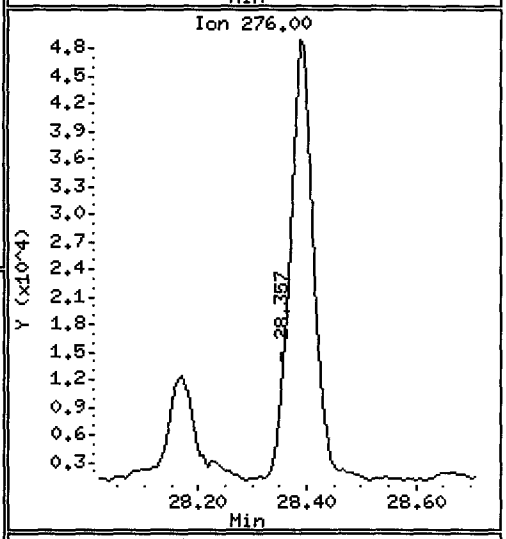


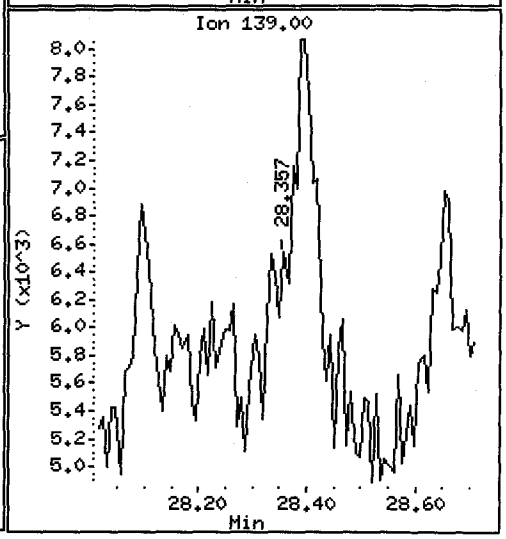












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

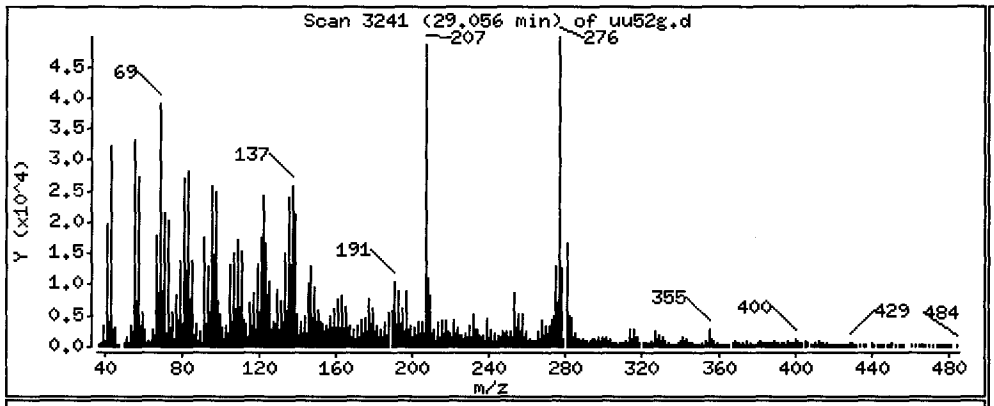
Operator: VTS/YZ

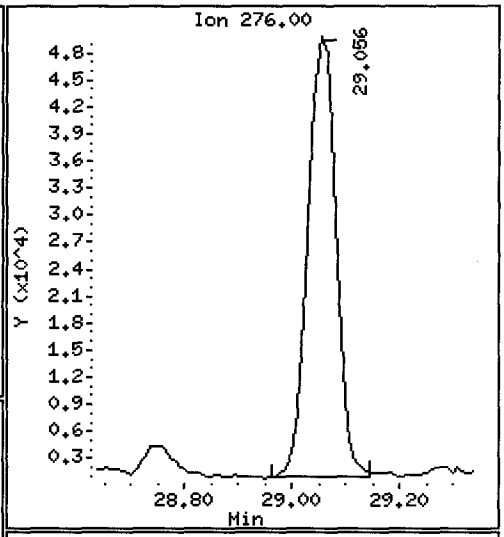
Column phase: ZB-5msi

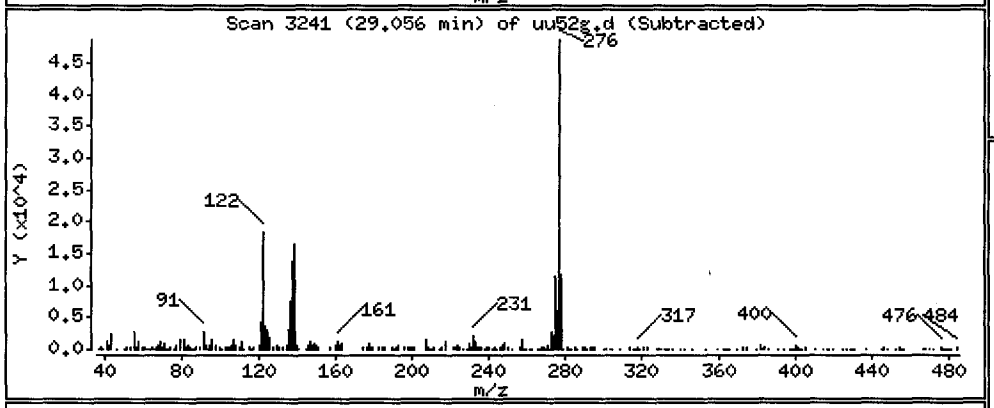
Column diameter: 0.25

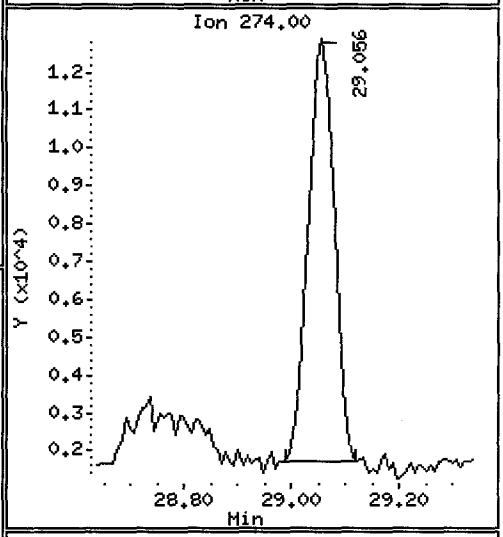
80 Benzo(g,h,i)perylene

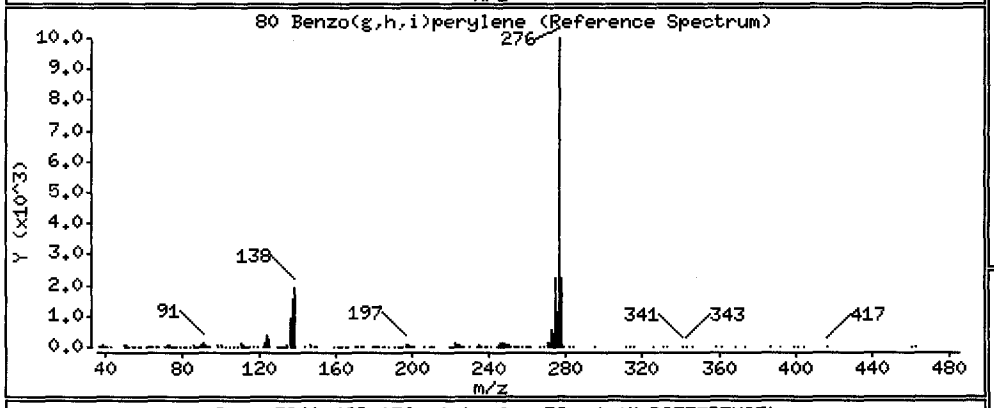
Concentration: 313.4 ug/kg

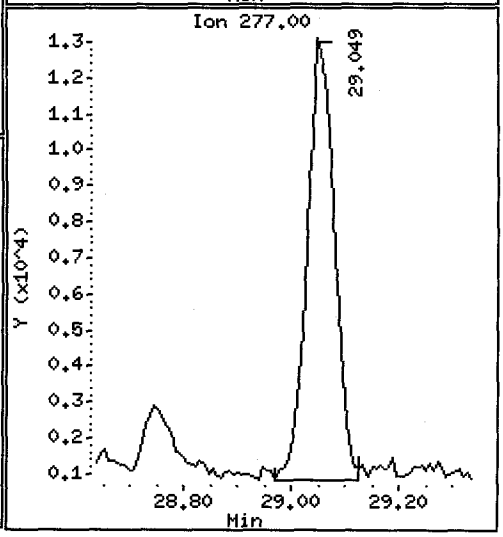


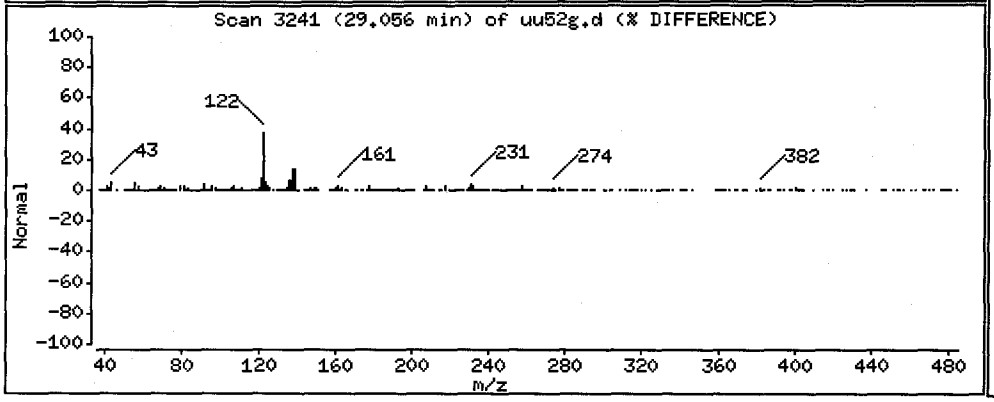












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

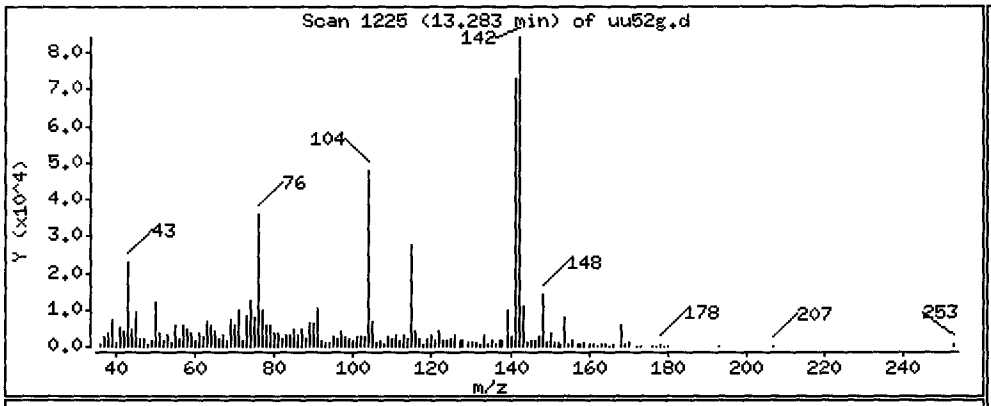
Operator: VTS/YZ

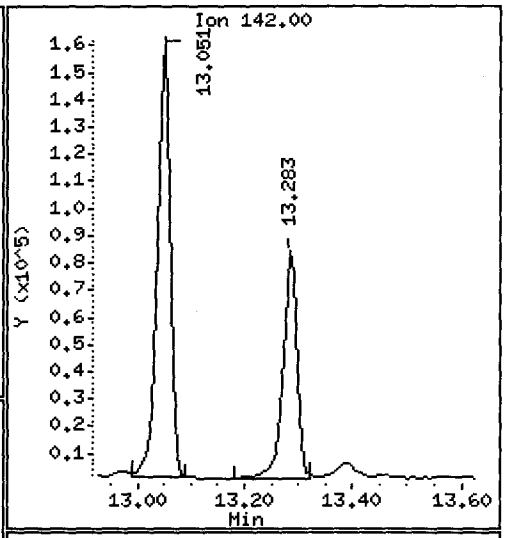
Column phase: ZB-5msi

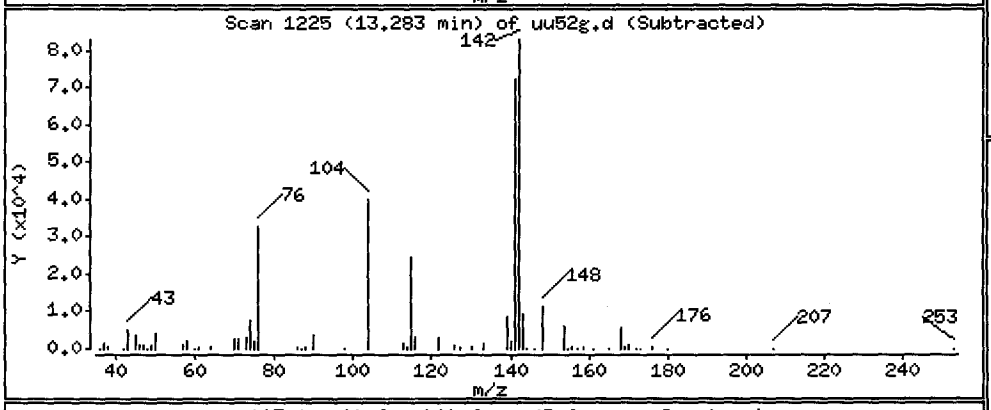
Column diameter: 0.25

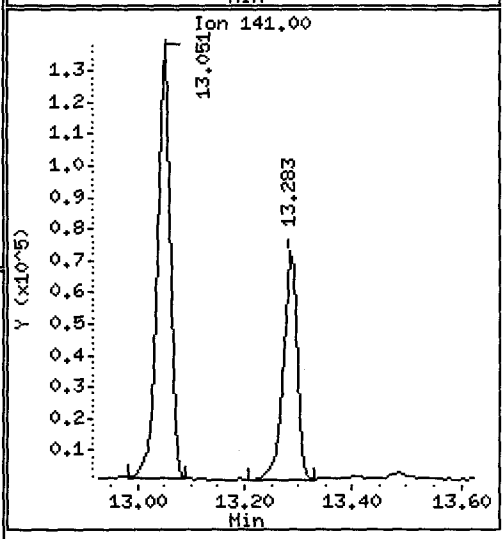
105 1-methylnaphthalene

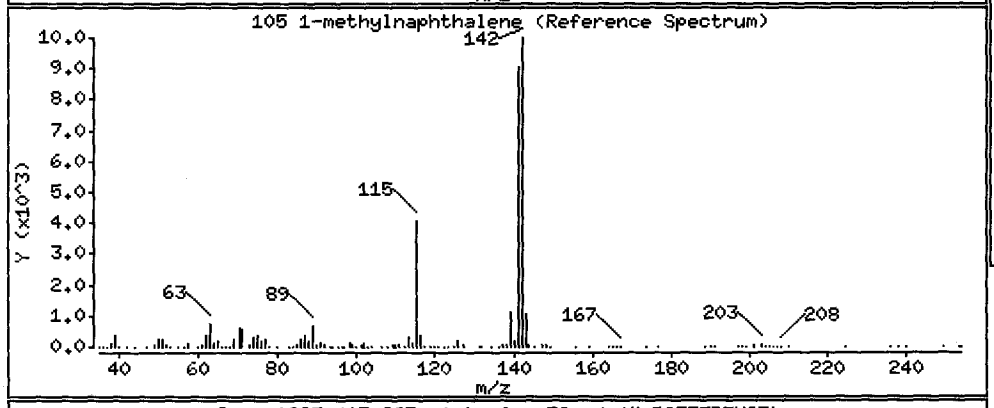
Concentration: 334.8 ug/kg

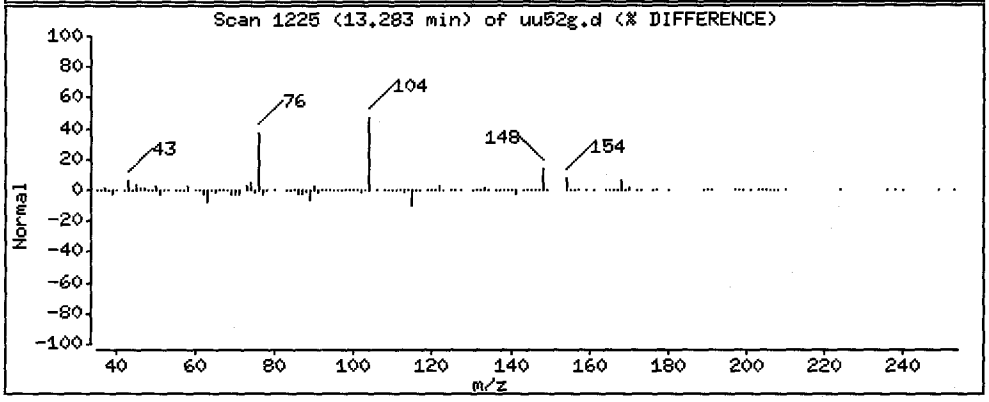












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

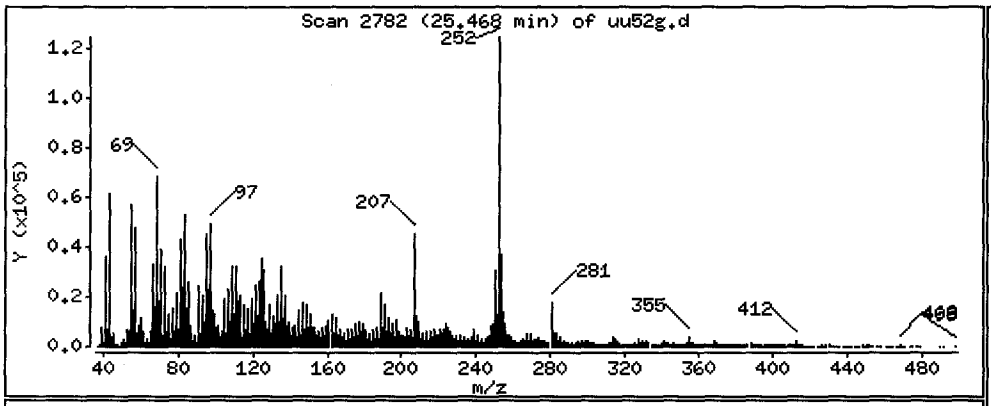
Operator: VTS/YZ

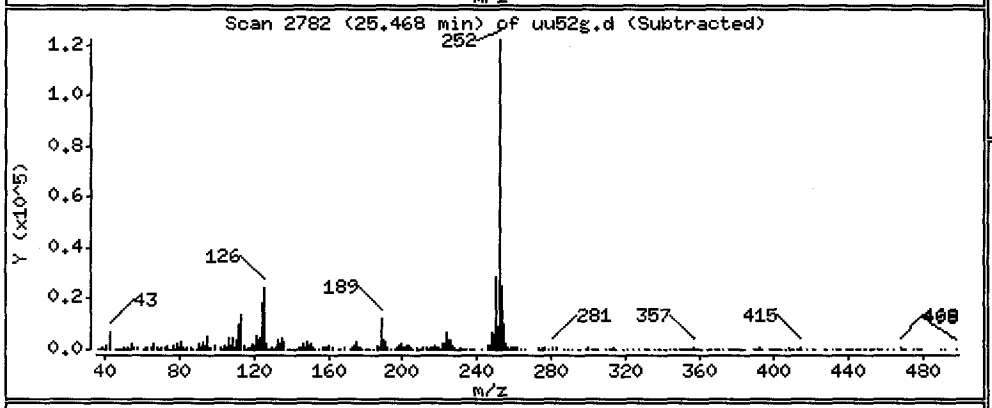
Column phase: ZB-5msi

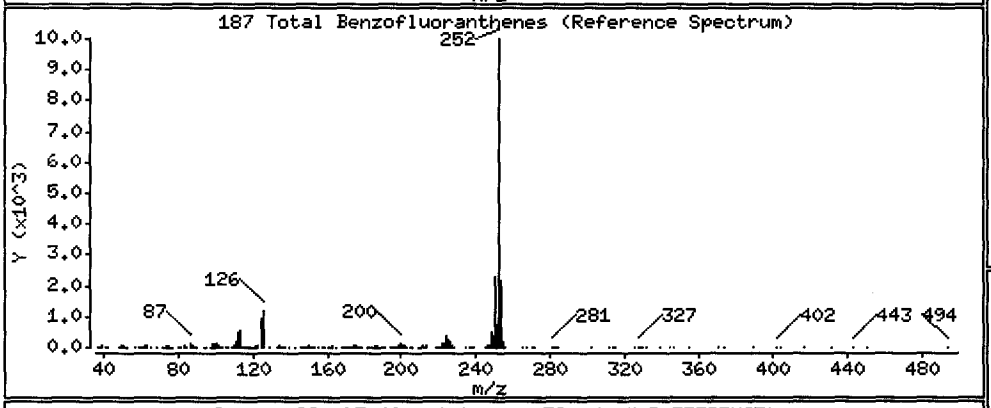
Column diameter: 0.25

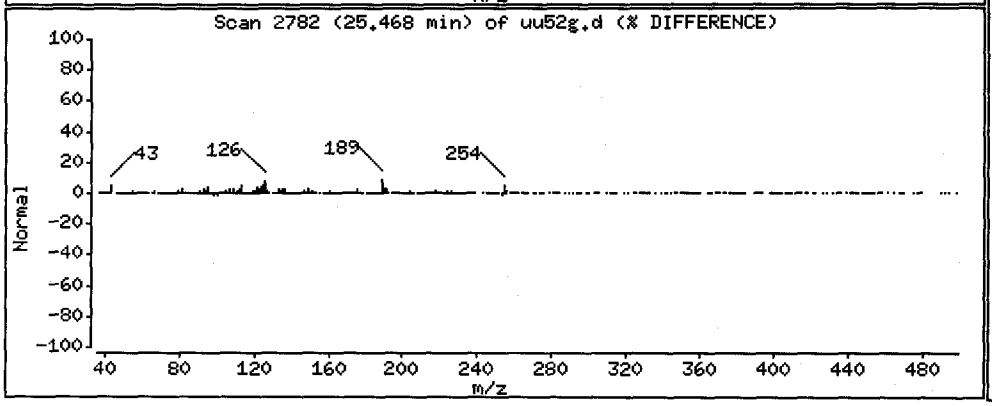
187 Total Benzofluoranthenes

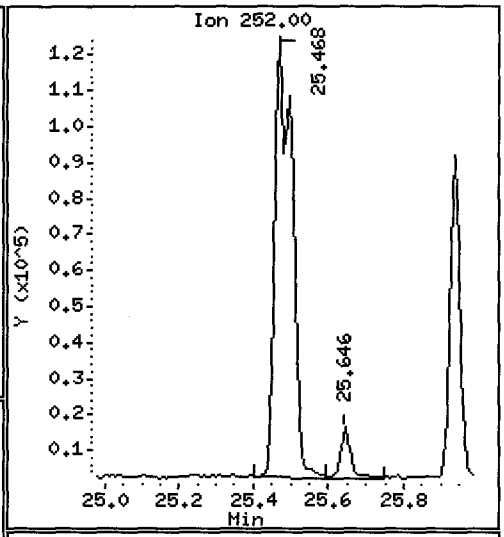
Concentration: 651.4 ug/kg

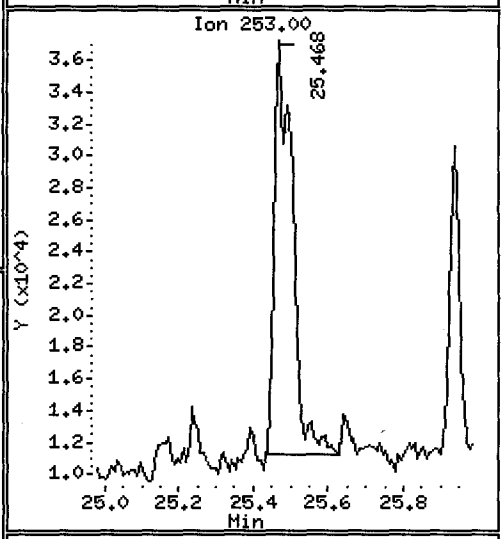


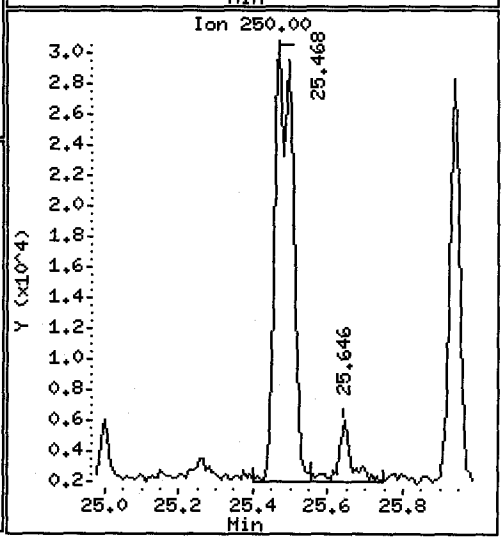












Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

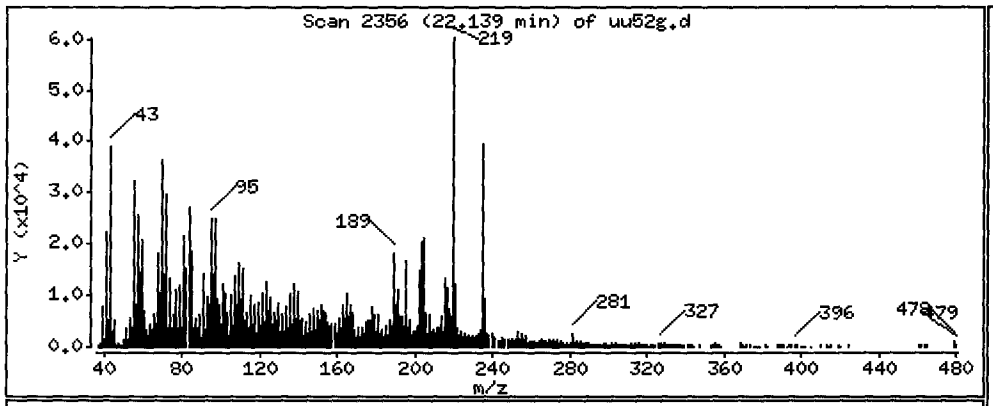
Client ID: MS006-SS-120515 Instrument: nt10.i

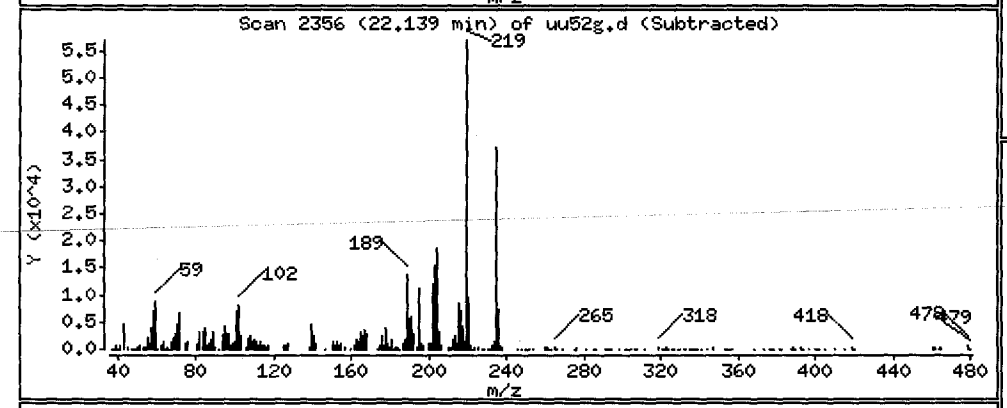
Sample Info: UU52G,3

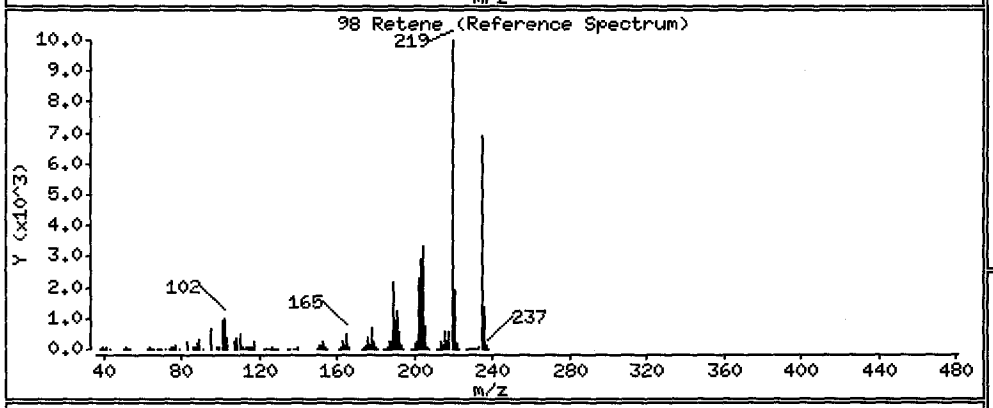
Volume Injected (uL): 1.0 Operator: VTS/YZ

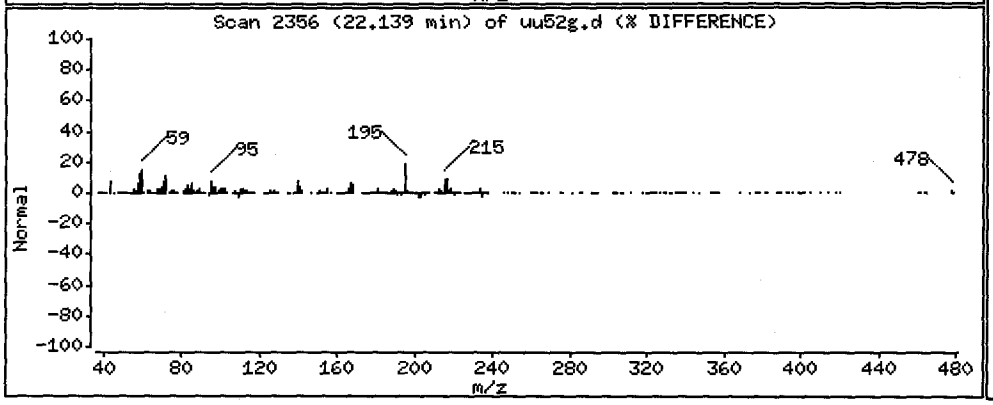
Column phase: ZB-5msi Column diameter: 0.25

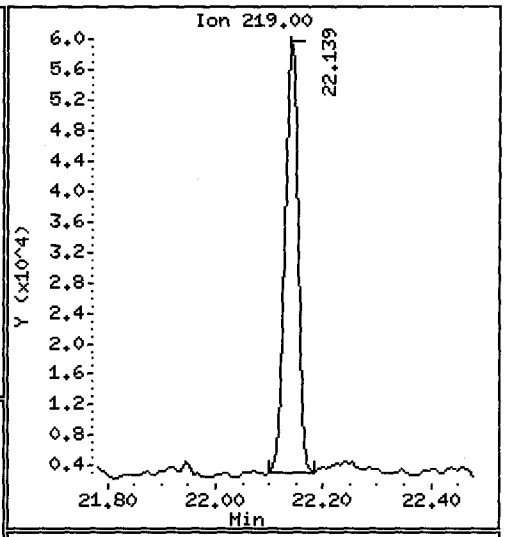
98 Retene Concentration: 276.3 ug/kg

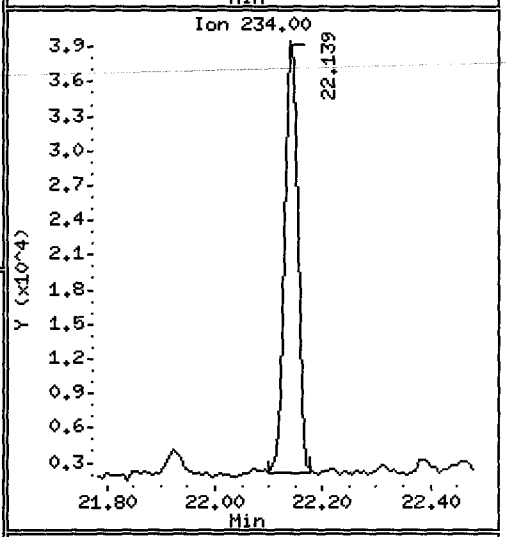


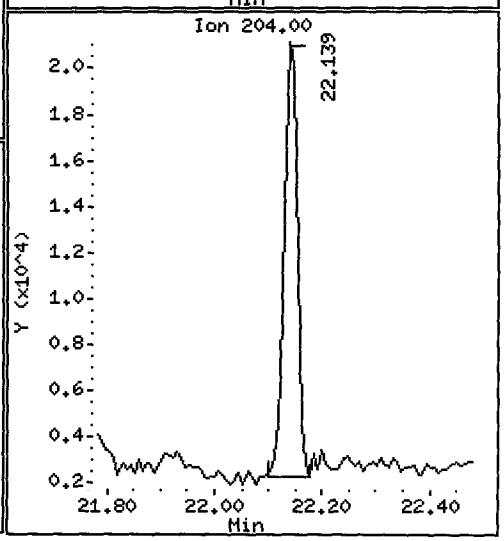






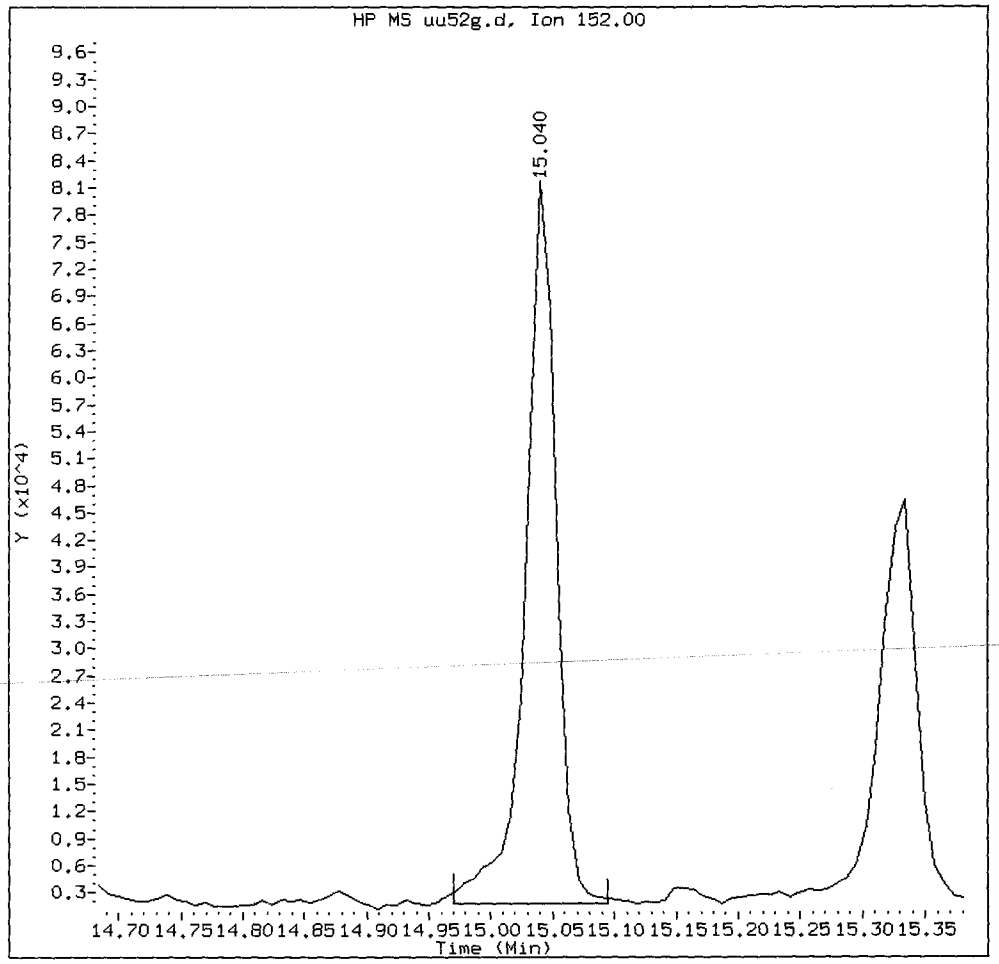






UU52G, /chem1/nt10.i/20120526.b/uu52g.d

Acenaphthylene Amount: 0.75 Area: 143385



MANUAL INTEGRATION for Acenaphthylene

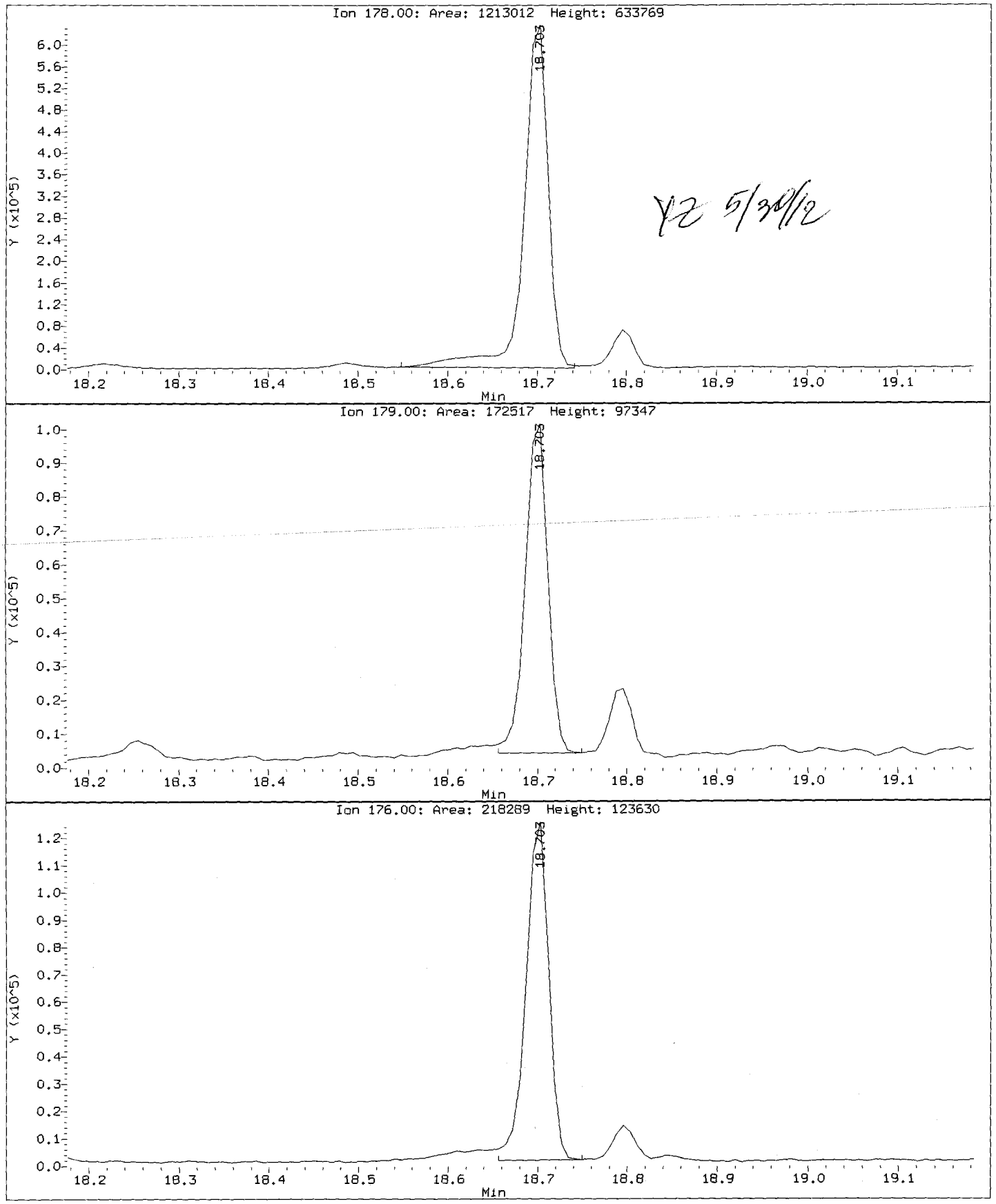
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/30/12

Data File: /chem1/nt10.i/20120526.b/uu52g.d
Injection Date: 26-MAY-2012 20:54
Instrument: nt10.i
Client Sample ID: MS006-SS-120515

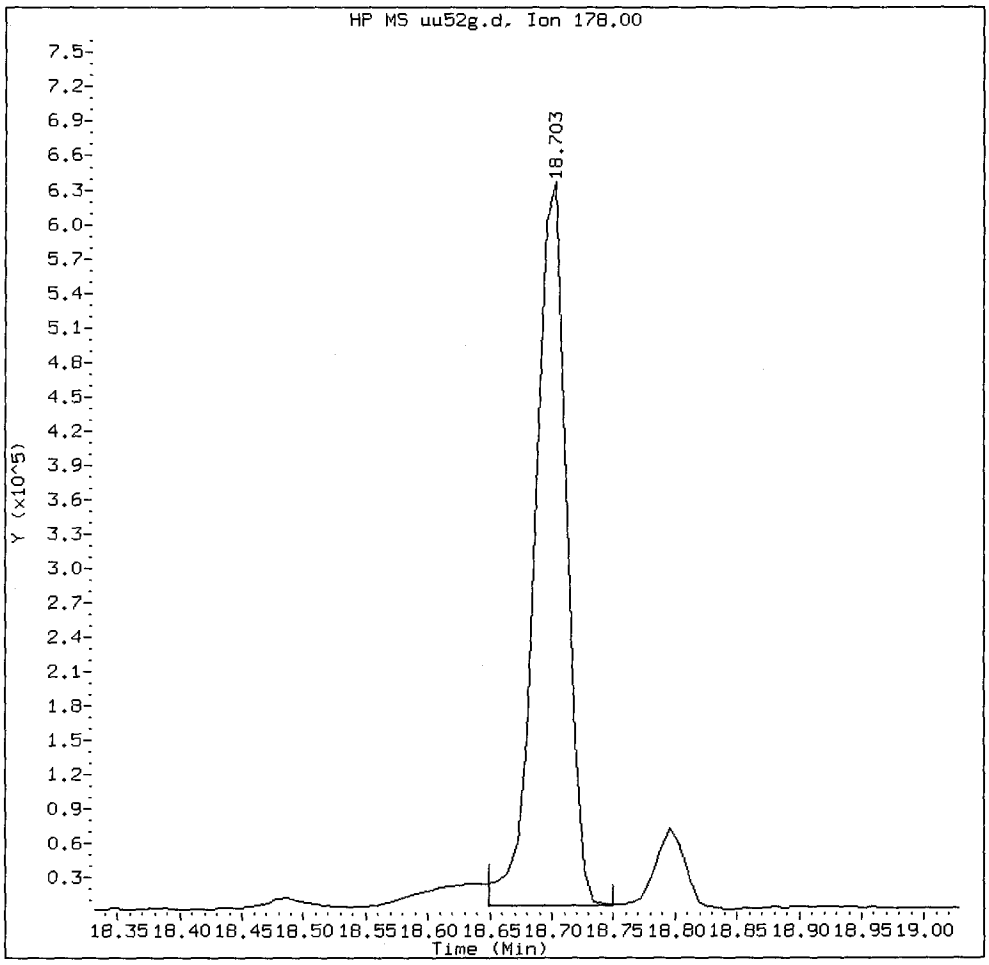
Compound: Phenanthrene
CAS Number: 85-01-8



YZ 5/30/12

UU52G, /chem1/nt10.i/20120526.b/uu52g.d

Phenanthrene Amount: 7.34 Area: 1146010



MANUAL INTEGRATION for Phenanthrene

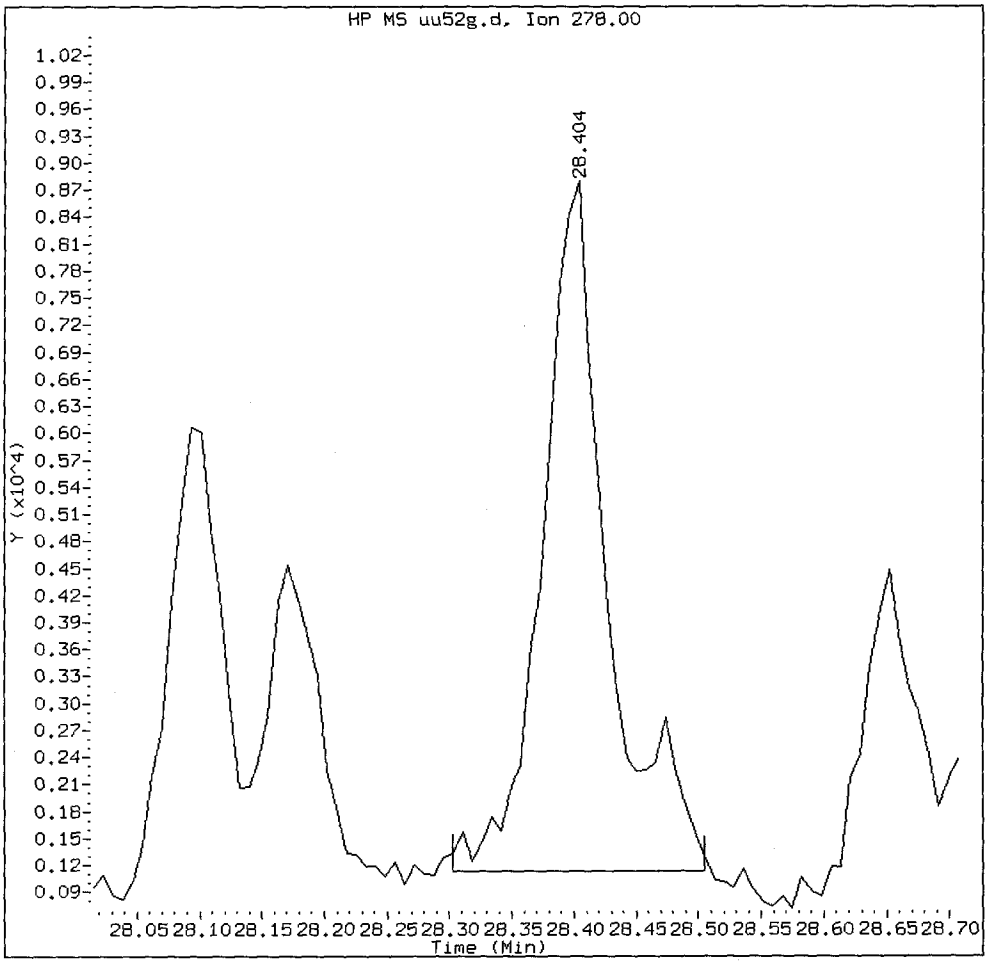
1. Baseline correction /
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: JZ Date: 5/30/12

UU52G, /chem1/nt10.i/20120526.b/uu52g.d

Dibenzo(a,h)anthracene Amount: 0.18 Area: 28561



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

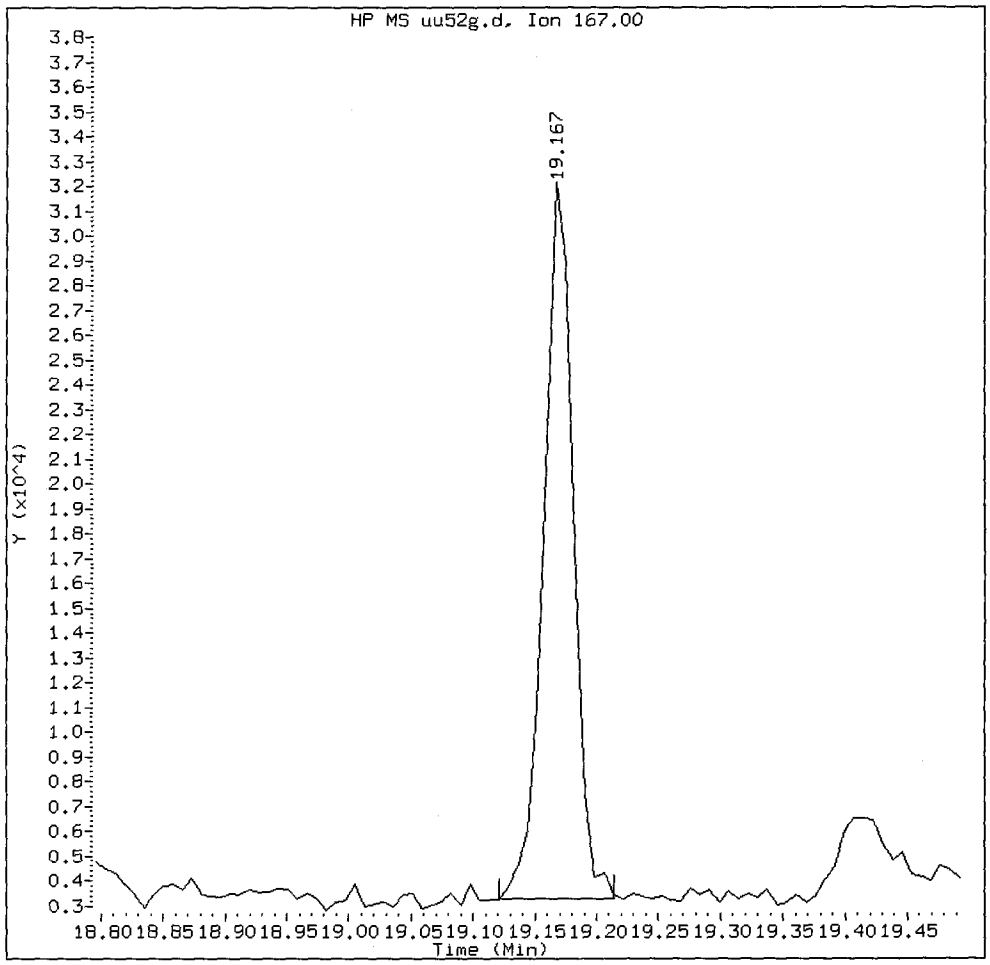
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/30/12

UU52G, /chem1/nt10.i/20120526.b/uu52g.d

Carbazole Amount: 0.32 Area: 48791



MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/9/12

CO-ELUTION SUMMARY FOR FILE - uu52g.d

Lab ID: UU52G, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 6/4/12

Data file : /chem1/nt10.i/20120526.b/uu52h.d
Lab Smp Id: UU52H Client Smp ID: MS007-SS-120515
Inj Date : 26-MAY-2012 21:31
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52H,3
Misc Info : 12-8900
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 10
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	63.40000	Weight of sample extracted (g)
M	83.90000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.583	6.537	(0.743)	106219	1.56391	459.6
$ 2	Phenol-d5	99	8.275	8.237	(0.934)	139107	1.64420	483.2
3	Phenol	94	8.299	8.260	(0.936)	132785	1.47244	432.8
$ 5	2-Chlorophenol-d4	132	8.499	8.476	(0.959)	125929	1.69892	499.3
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.863	8.855	(1.000)	194227	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	9.243	9.236	(1.043)	50496	1.03847	305.2
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	9.197	9.166	(1.038)	15191	0.40095	117.8
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.764	9.725	(1.102)	446673	6.02365	1770
$	18 Nitrobenzene-d5	82	10.043	10.027	(0.872)	72052	1.06323	312.5
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.103	11.087	(0.964)	190648	4.35579	1280
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.512	11.504	(1.000)	756334	4.00000	
	28 Naphthalene	128	11.550	11.542	(1.003)	1444452	7.57560	2227
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.051	13.043	(1.134)	131540	0.99236	291.7
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.910	13.902	(0.904)	171038	1.12673	331.1
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	15.048	15.032	(0.978)	95237	0.48425	142.3(M)
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.388	15.373	(1.000)	437900	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	15.458	15.442	(1.005)	50993	0.42987	126.3
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.806	15.798	(1.027)	123523	0.71076	208.9
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	16.486	16.470	(1.071)	17562	0.13389	39.35
	49 Fluorene	166	16.579	16.563	(1.077)	54703	0.41080	120.7
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.165	17.142	(1.115)	33708	1.86496	548.1
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.657	18.633	(1.000)	626572	4.00000	
	60 Phenanthrene	178	18.703	18.687	(1.002)	583528	3.61164	1061
	61 Anthracene	178	18.804	18.780	(1.008)	97353	0.57680	169.5

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	19.175	19.144	(1.028)	32390	0.20741	60.96(M)
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	21.140	21.101	(1.133)	665243	3.62638	1066
65	Pyrene	202	21.542	21.519	(0.908)	700309	3.27112	961.4
$ 66	Terphenyl-d14	244	21.860	21.844	(0.921)	158571	1.18236	347.5
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.695	23.679	(0.999)	125213	0.63264	185.9
* 69	Chrysene-d12	240	23.726	23.710	(1.000)	703620	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.764	23.749	(1.002)	169876	0.97567	286.8
72	bis(2-Ethylhexyl)phthalate	149	23.834	23.818	(0.961)	61208	0.39738	116.8
* 134	Di-n-octylphthalate-d4	153	24.809	24.794	(1.000)	1121633	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	26.025	26.002	(0.996)	158903	0.92290	271.2
* 77	Perylene-d12	264	26.133	26.102	(1.000)	665896	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.396	28.342	(1.087)	132436	0.66496	195.4
79	Dibenzo(a,h)anthracene	278	28.404	28.365	(1.087)	31302	0.19952	58.64(M)
80	Benzo(g,h,i)perylene	276	29.049	29.002	(1.112)	144624	0.84681	248.9
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.291	13.275	(1.155)	75342	0.55734	163.8
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	25.467	25.483	(0.975)	339079	1.83516	539.4
99	Perylene	252	Compound Not Detected.					
98	Retene	219	22.146	22.131	(0.933)	28665	0.28753	84.51

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52h.d
Lab Smp Id: UU52H
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8900

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS007-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	194227	2.49
27 Naphthalene-d8	730932	365466	1461864	756334	3.48
42 Acenaphthene-d10	420698	210349	841396	437900	4.09
59 Phenanthrene-d10	638950	319475	1277900	626572	-1.94
69 Chrysene-d12	645065	322532	1290130	703620	9.08
134 Di-n-octylphthala	1016118	508059	2032236	1121633	10.38
77 Perylene-d12	650033	325016	1300066	665896	2.44

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.09
27 Naphthalene-d8	11.50	11.00	12.00	11.51	0.07
42 Acenaphthene-d10	15.37	14.87	15.87	15.39	0.10
59 Phenanthrene-d10	18.63	18.13	19.13	18.66	0.12
69 Chrysene-d12	23.71	23.21	24.21	23.73	0.07
134 Di-n-octylphthala	24.79	24.29	25.29	24.81	0.06
77 Perylene-d12	26.10	25.60	26.60	26.13	0.12

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

Analytical Resources, Inc.

RECOVERY REPORT

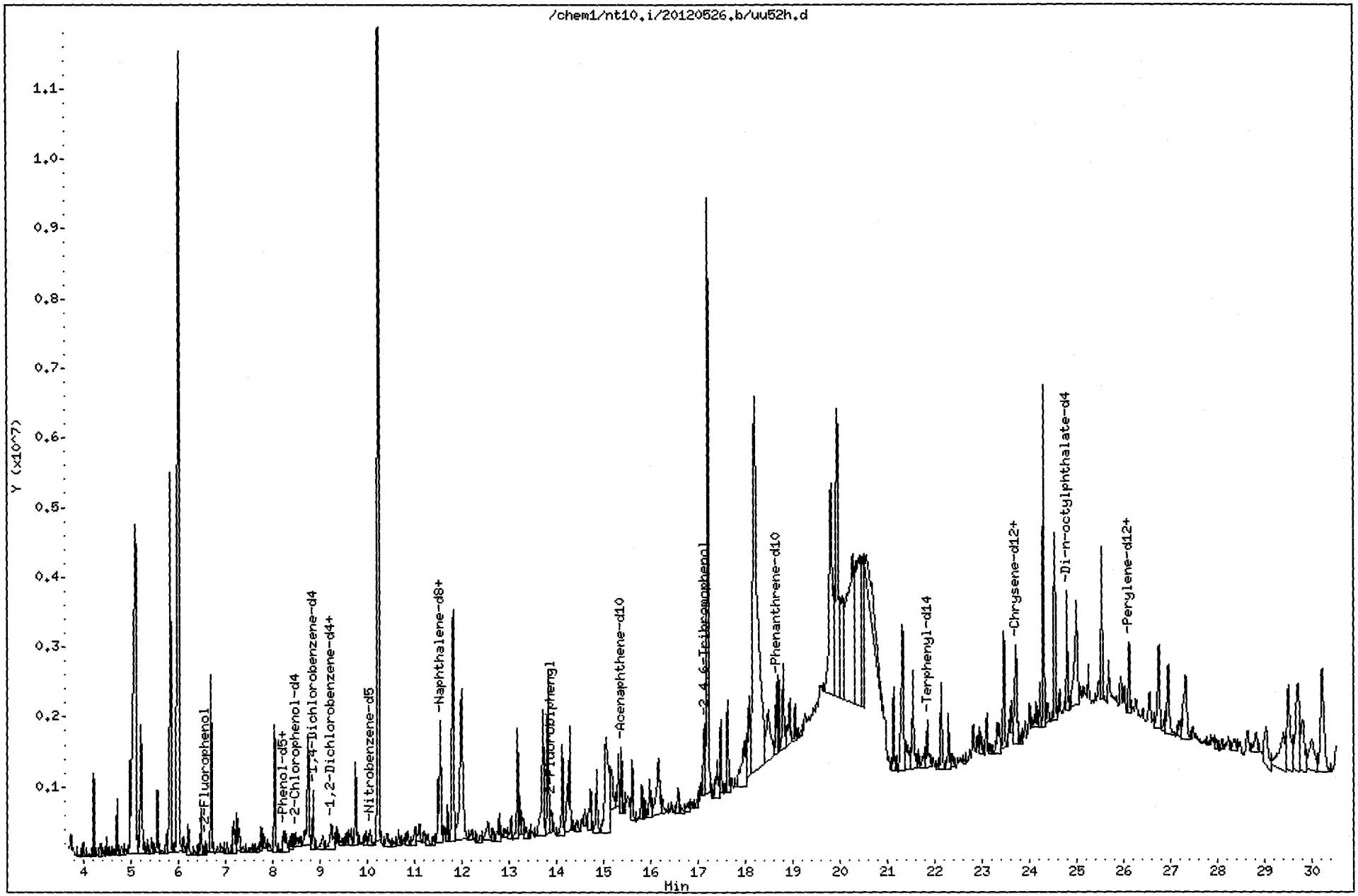
Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52H Client Smp ID: MS007-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8900

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	734.8	459.6	62.56	30-160
$ 2 Phenol-d5	734.8	483.2	65.77	30-160
$ 5 2-Chlorophenol-d4	734.8	499.3	67.96	30-160
$ 10 1,2-Dichlorobenzen	489.8	305.2	62.31	30-160
$ 18 Nitrobenzene-d5	489.8	312.5	63.79	30-160
$ 36 2-Fluorobiphenyl	489.8	331.1	67.60	30-160
$ 55 2,4,6-Tribromophen	734.8	548.1	74.60	30-160
$ 66 Terphenyl-d14	489.8	347.5	70.94	30-160

Data File: /chem1/nt10.i/20120526.b/uu52h.d
Date : 26-MAY-2012 21:31
Client ID: MS007-SS-120515
Sample Info: UU52H,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25

UU52:55933



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

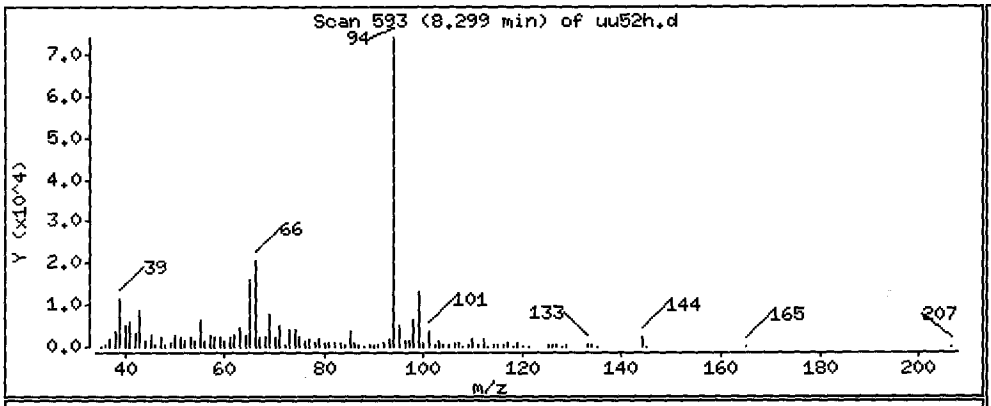
Client ID: MS007-SS-120515 Instrument: nt10.i

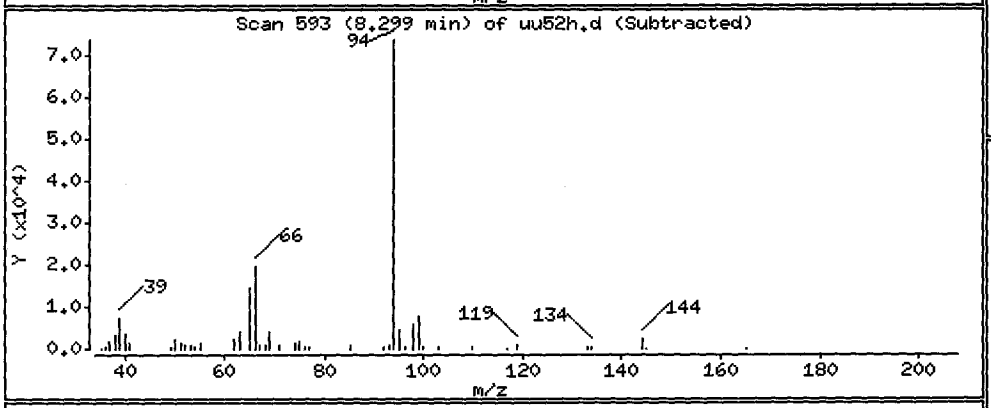
Sample Info: UU52H,3

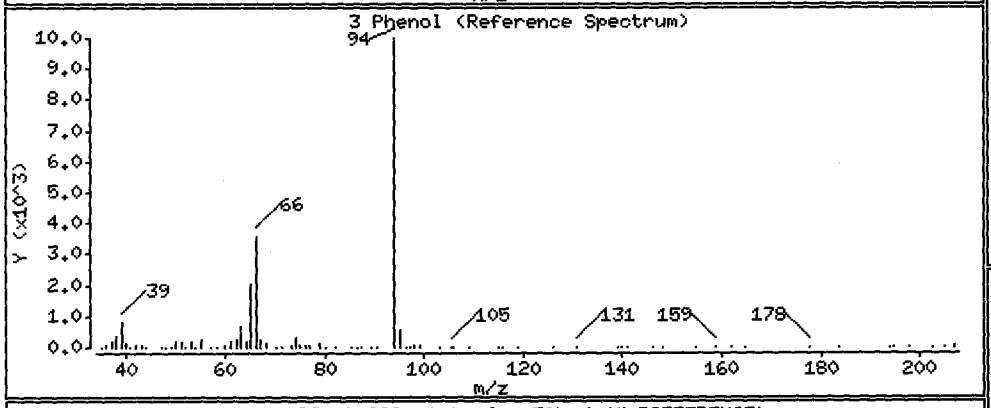
Volume Injected (uL): 1.0 Operator: VTS/YZ

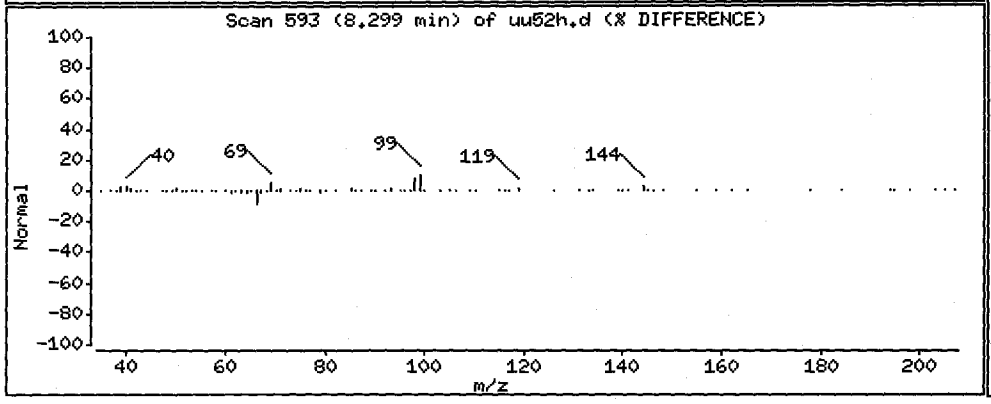
Column phase: ZB-5msi Column diameter: 0.25

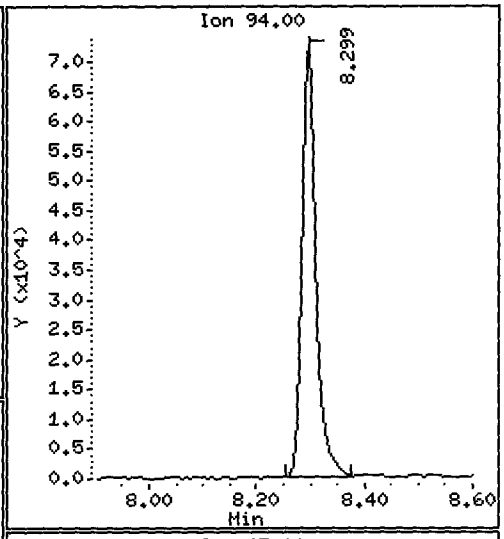
3 Phenol Concentration: 432.8 ug/kg

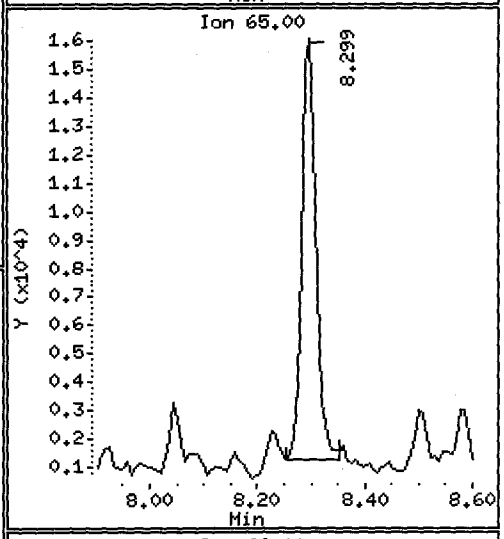


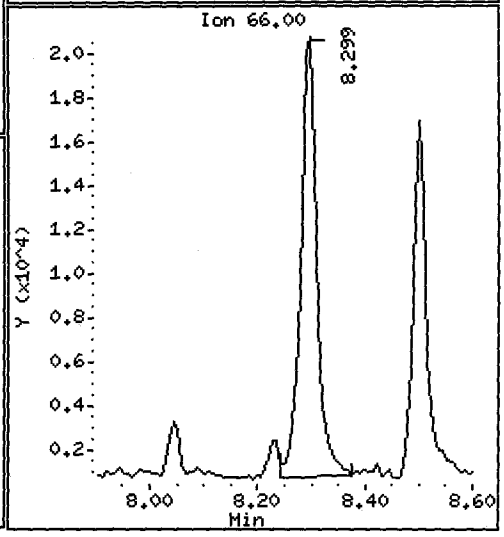












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

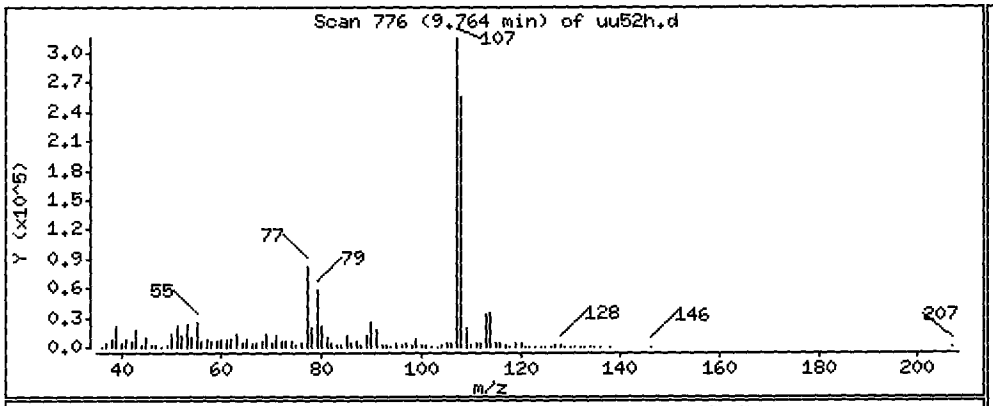
Operator: VTS/YZ

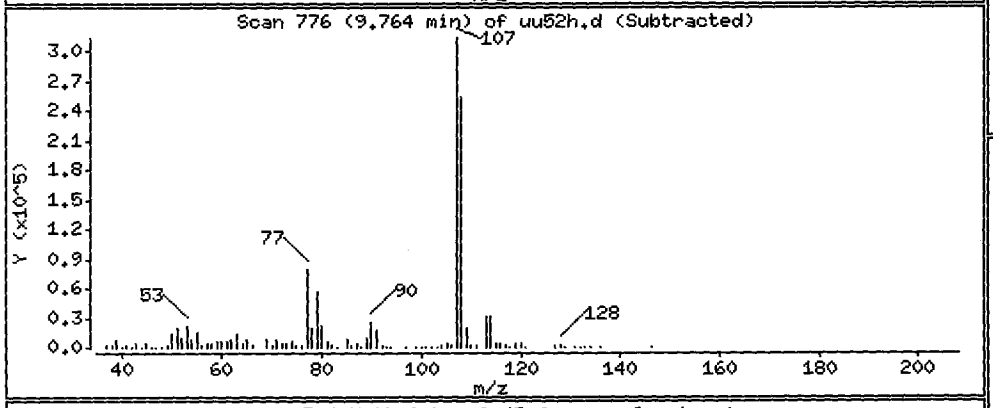
Column phase: ZB-5msi

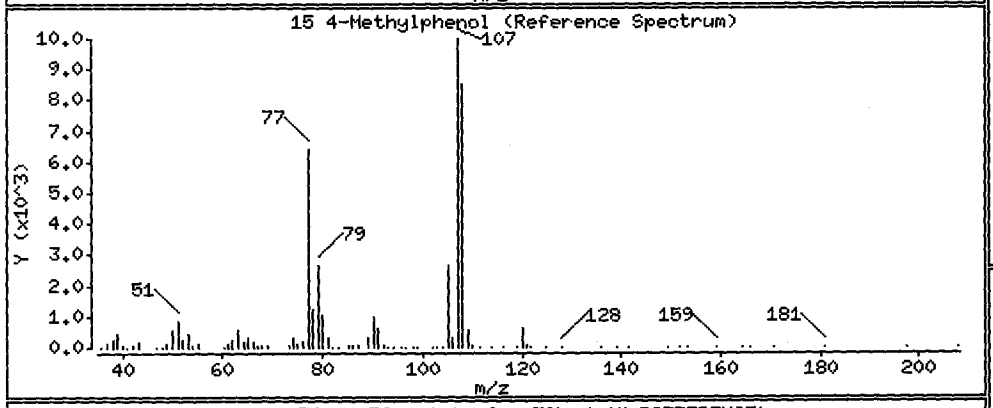
Column diameter: 0.25

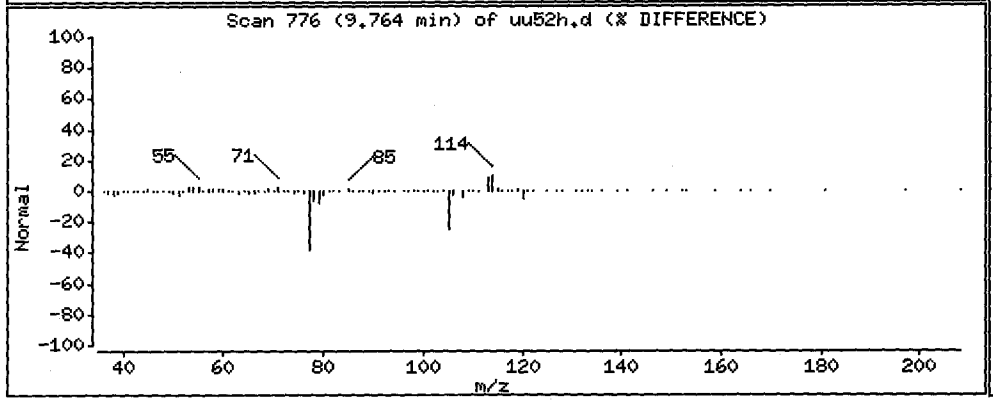
15 4-Methylphenol

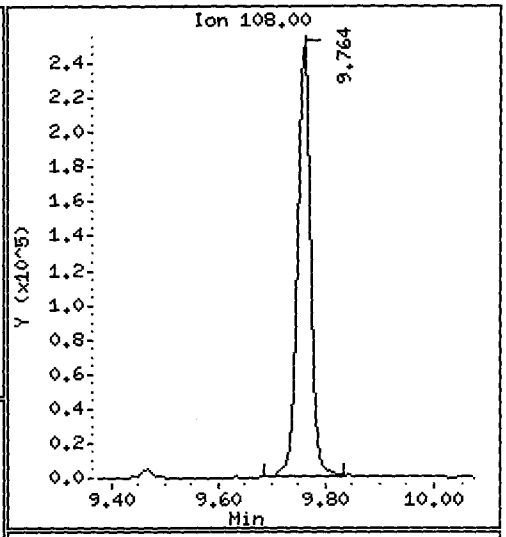
Concentration: 1770 ug/kg

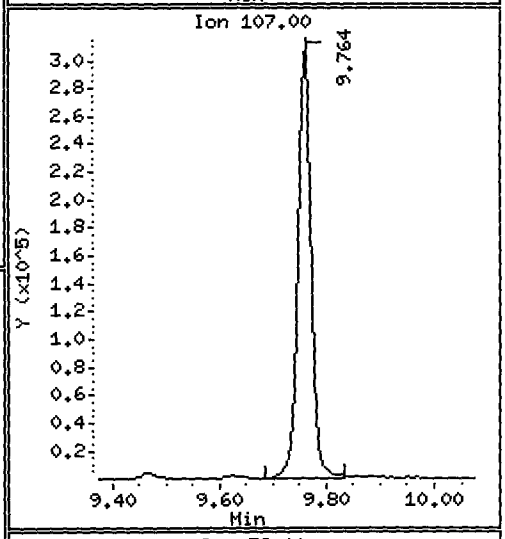


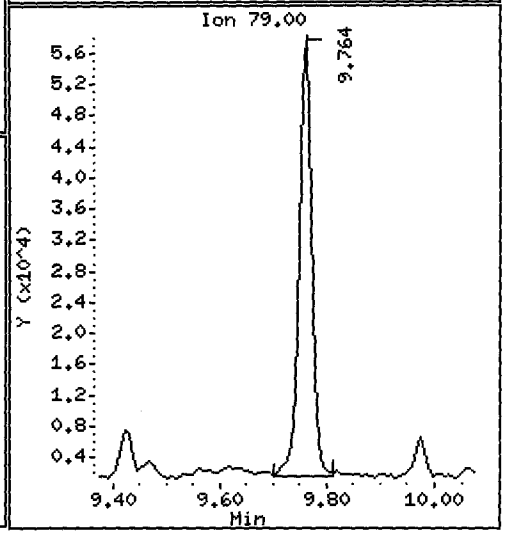












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

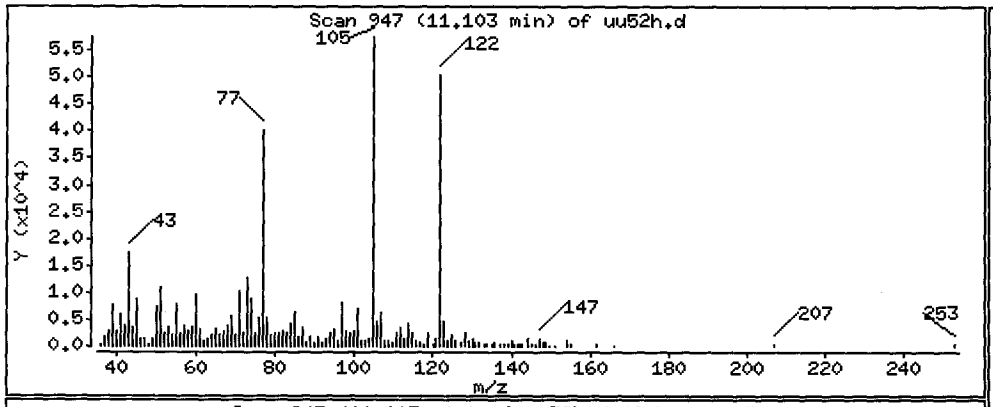
Operator: VTS/YZ

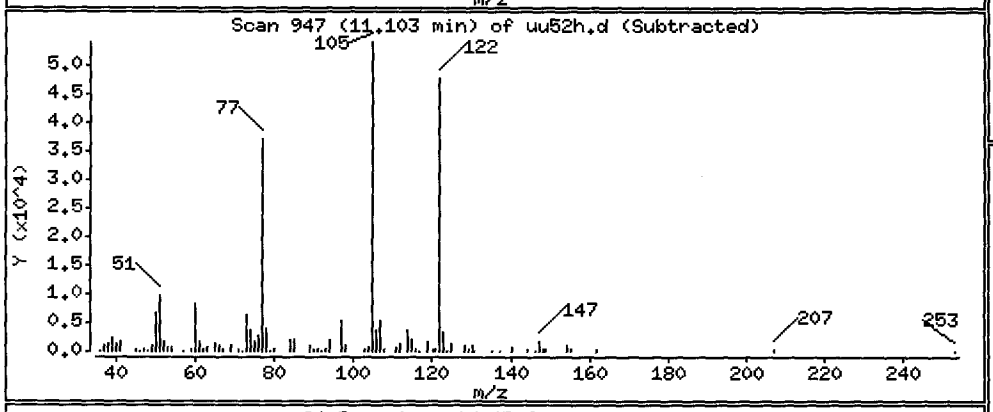
Column phase: ZB-5msi

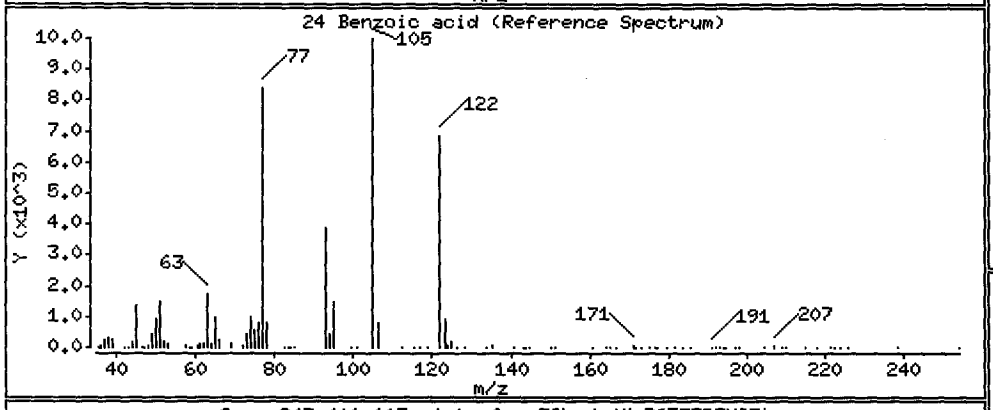
Column diameter: 0.25

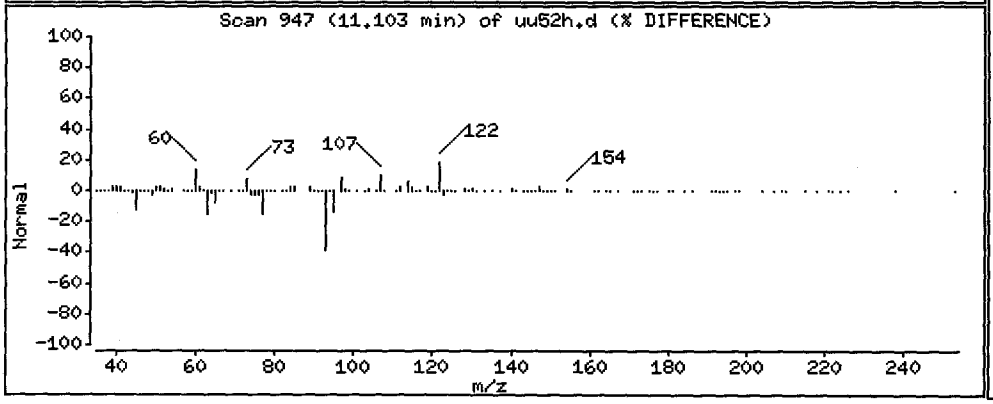
24 Benzoic acid

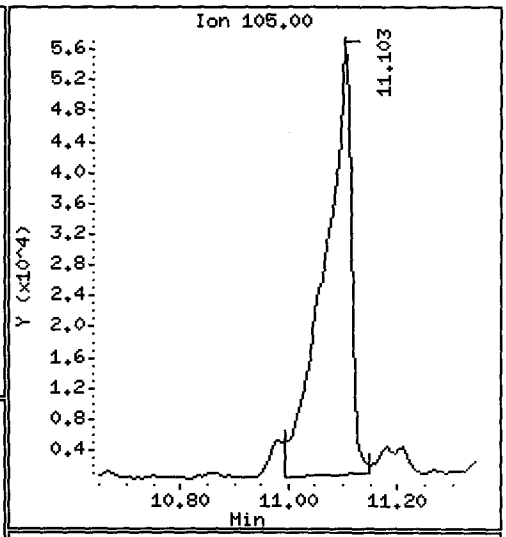
Concentration: 1280 ug/kg

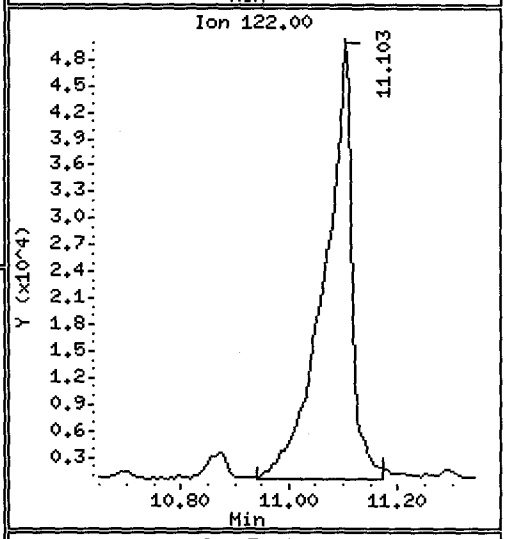


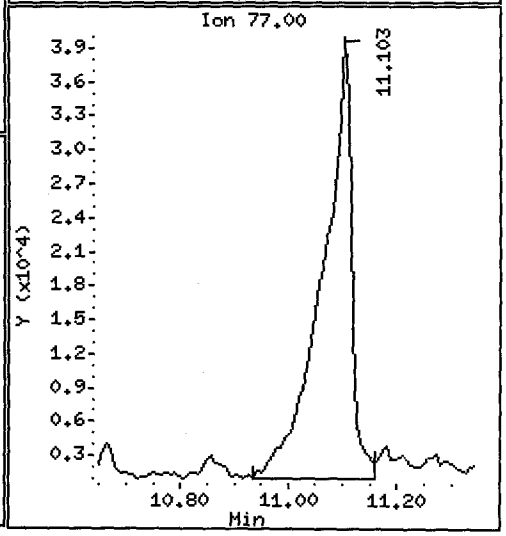












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

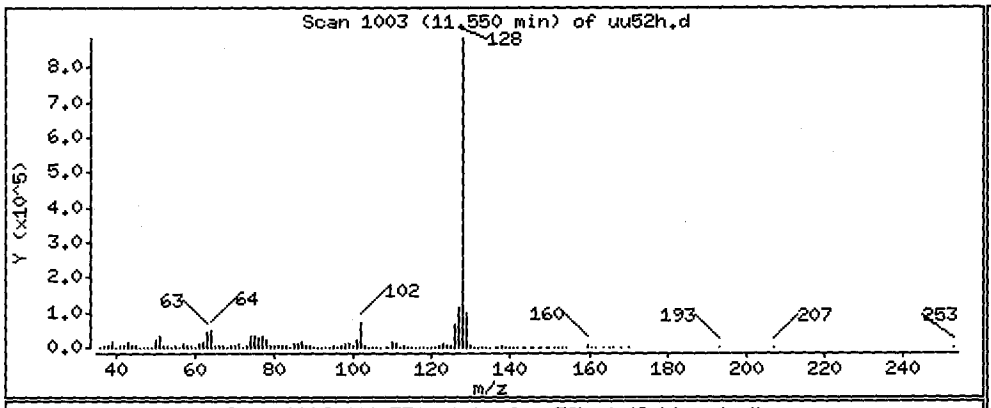
Operator: VTS/YZ

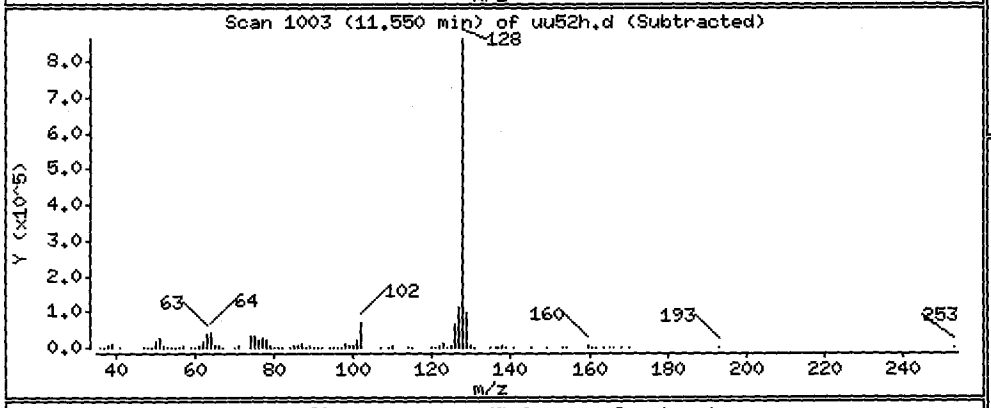
Column phase: ZB-5msi

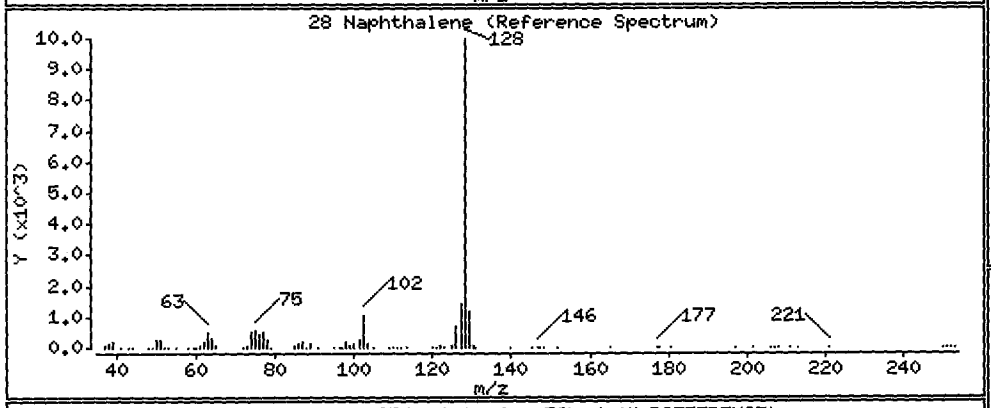
Column diameter: 0.25

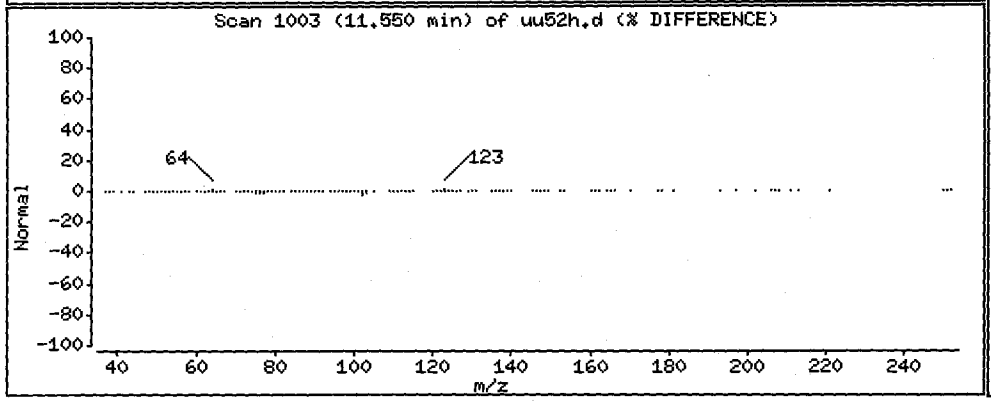
28 Naphthalene

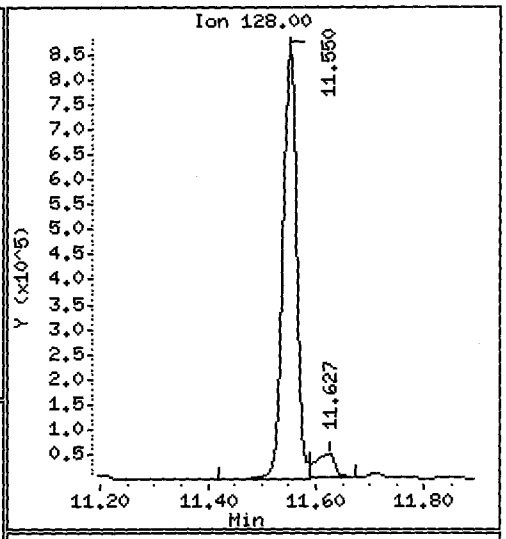
Concentration: 2227 ug/kg

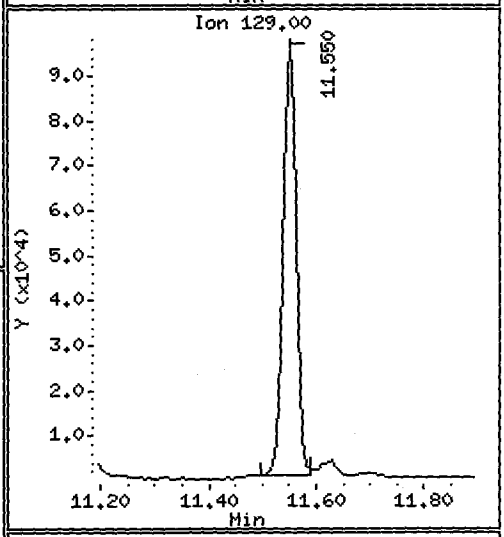


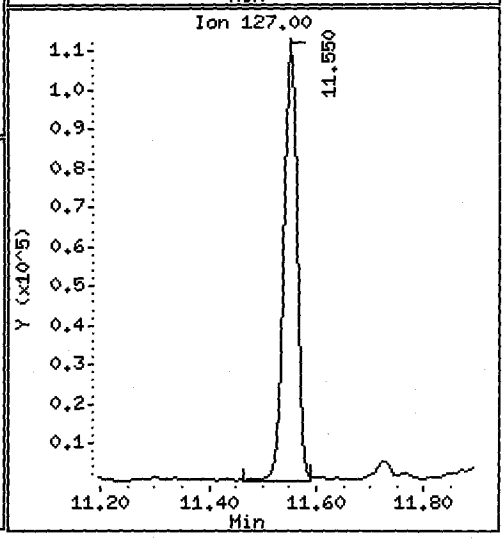












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

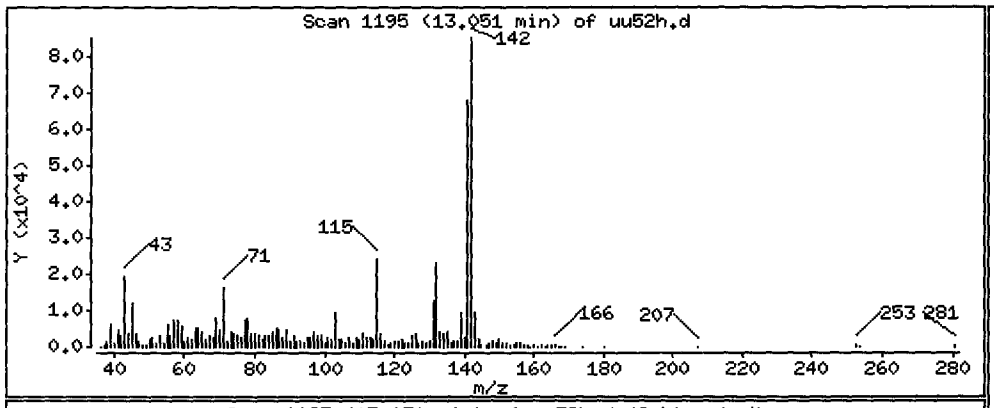
Client ID: MS007-SS-120515 Instrument: nt10.i

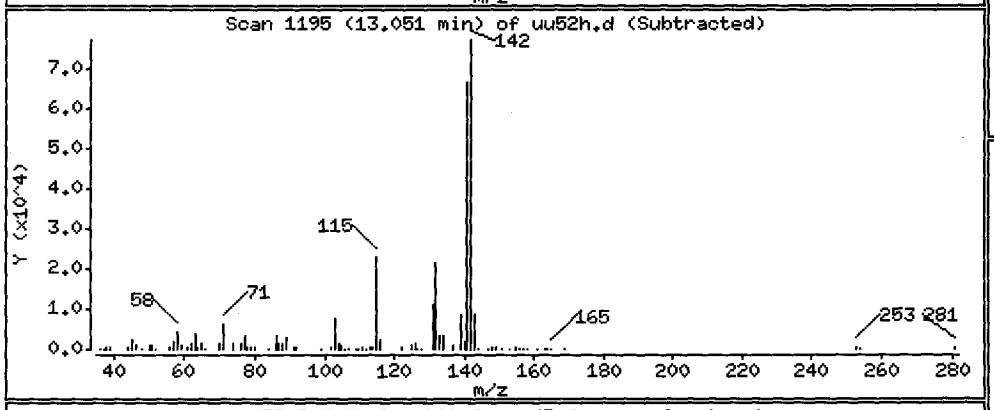
Sample Info: UU52H,3

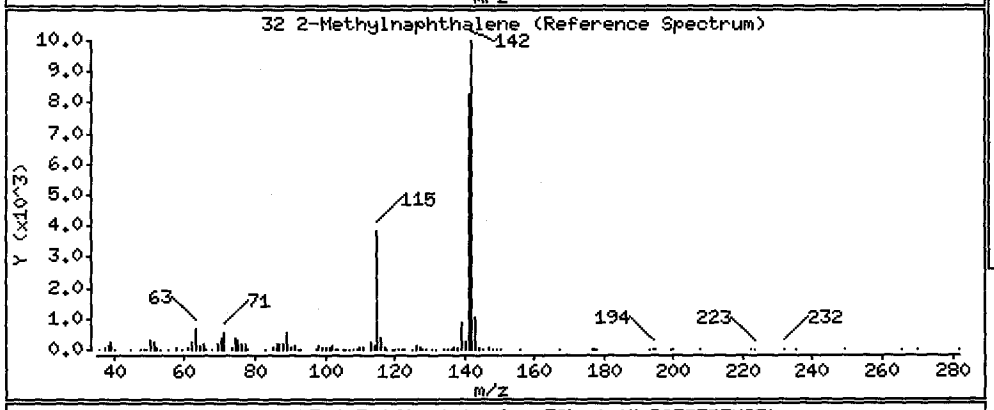
Volume Injected (uL): 1.0 Operator: VTS/YZ

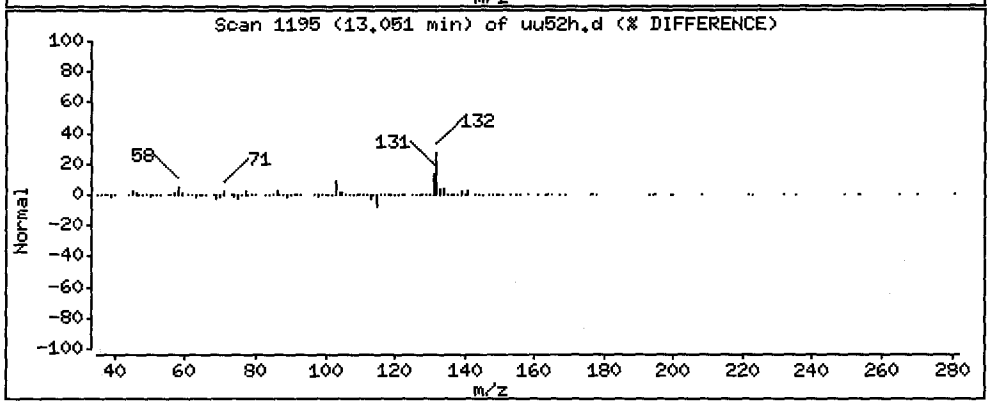
Column phase: ZB-5msi Column diameter: 0.25

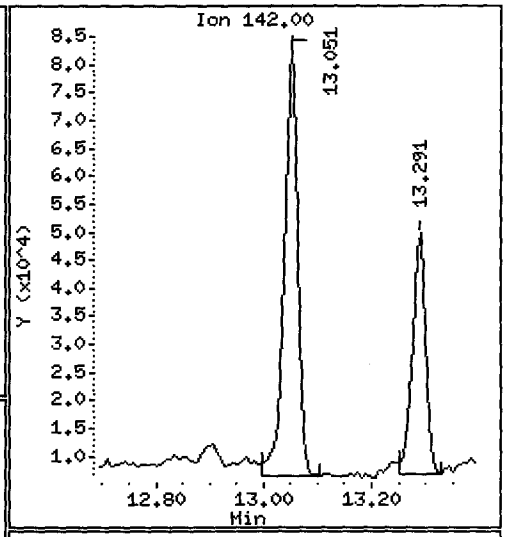
32 2-Methylnaphthalene Concentration: 291.7 ug/kg

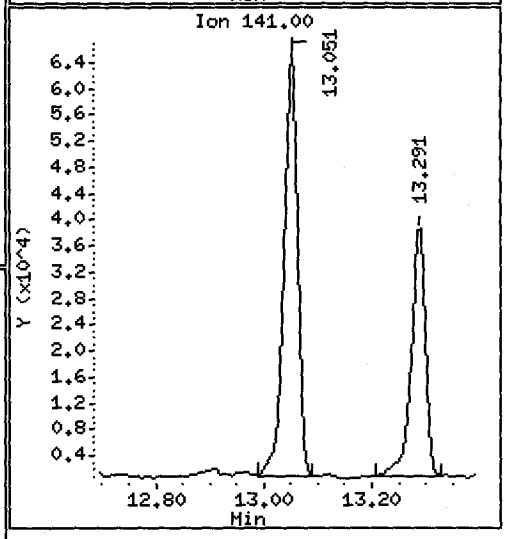












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

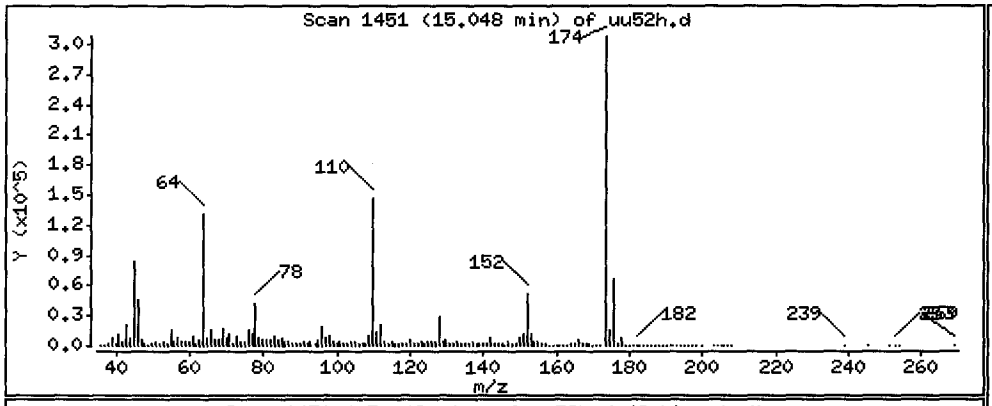
Client ID: MS007-SS-120515 Instrument: nt10.i

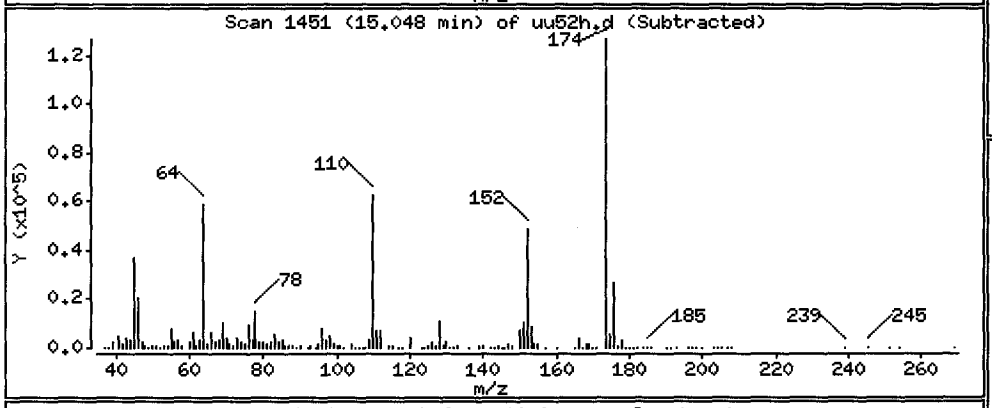
Sample Info: UU52H,3

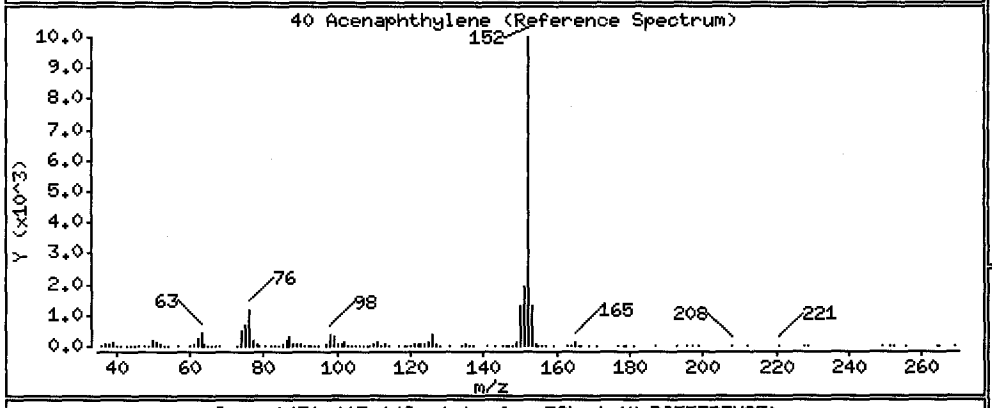
Volume Injected (uL): 1.0 Operator: VTS/YZ

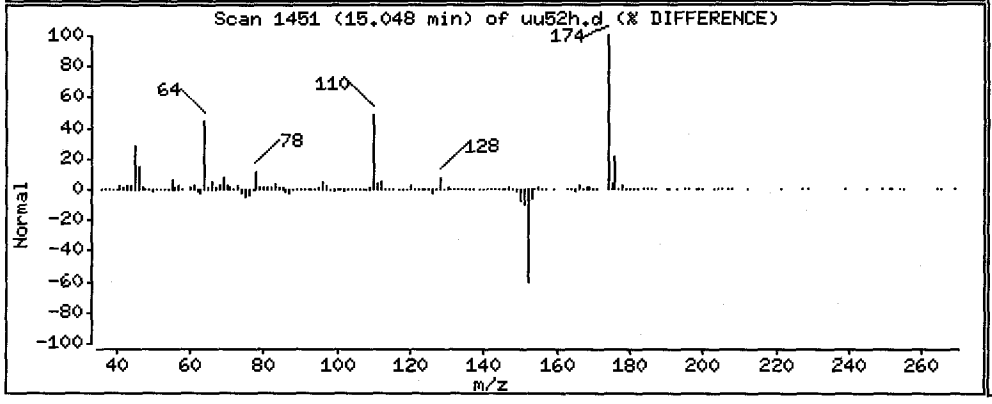
Column phase: ZB-5msi Column diameter: 0.25

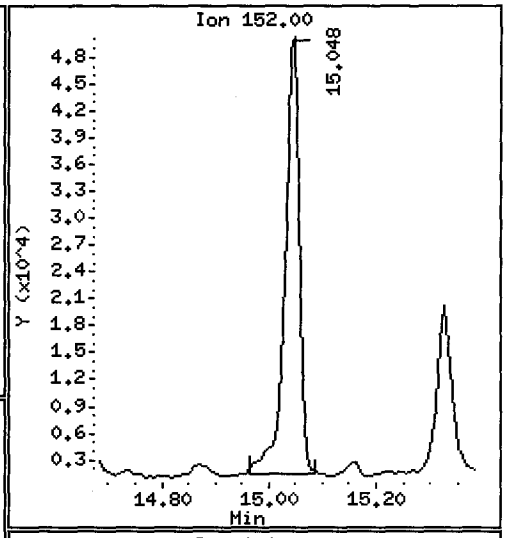
40 Acenaphthylene Concentration: 142.3 ug/kg

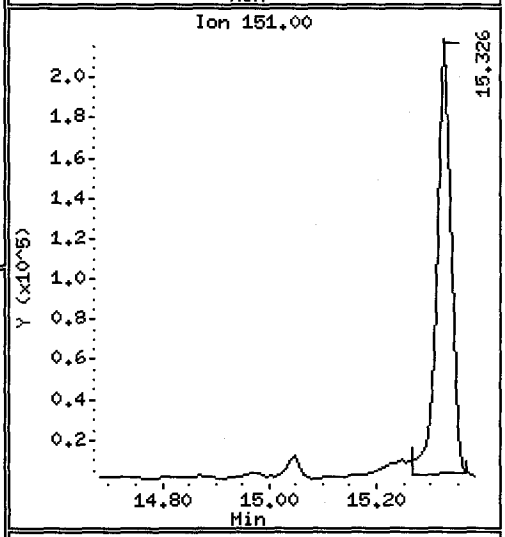


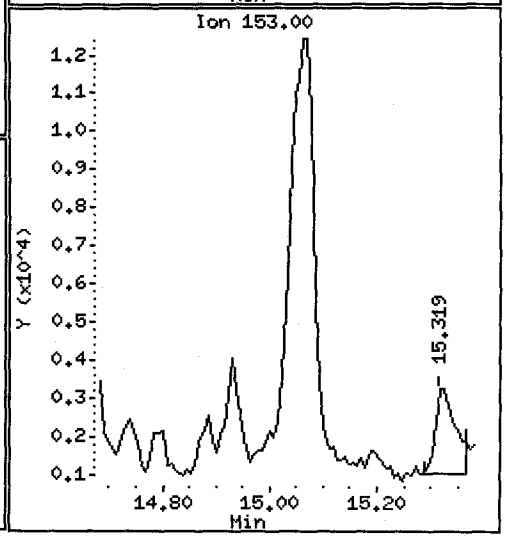












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

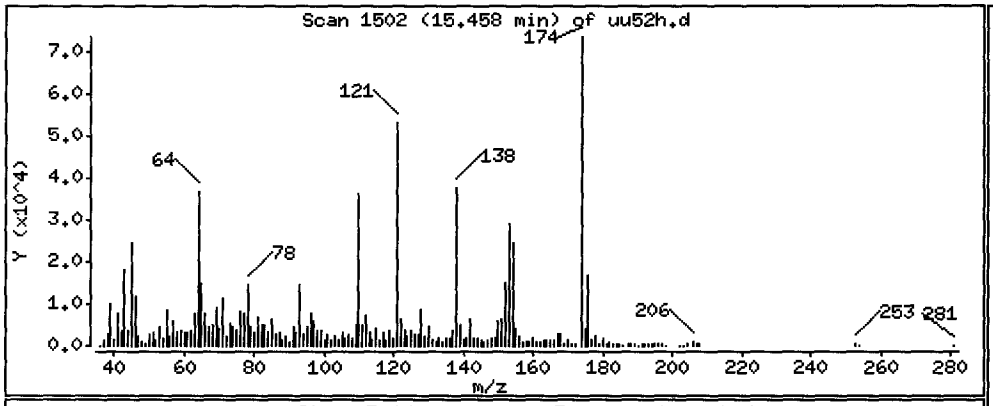
Operator: VTS/YZ

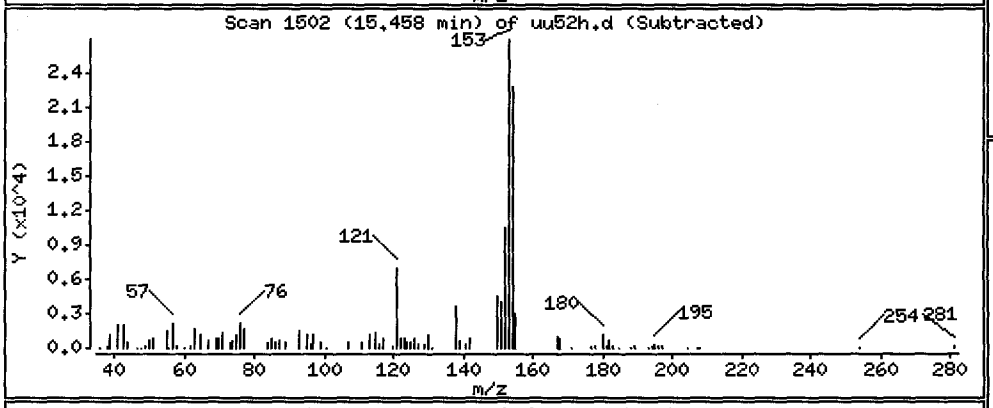
Column phase: ZB-5msi

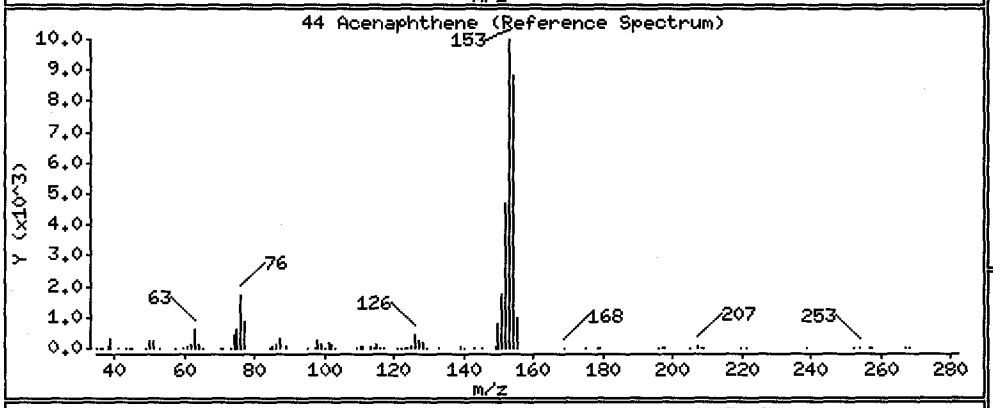
Column diameter: 0.25

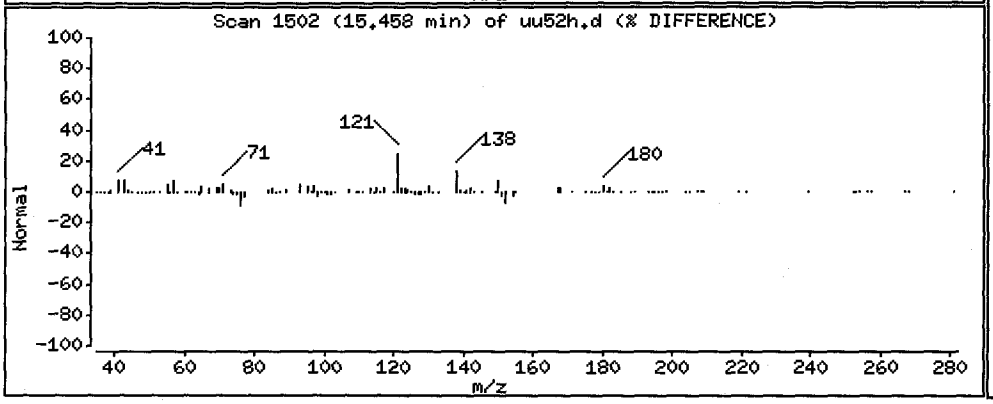
44 Acenaphthene

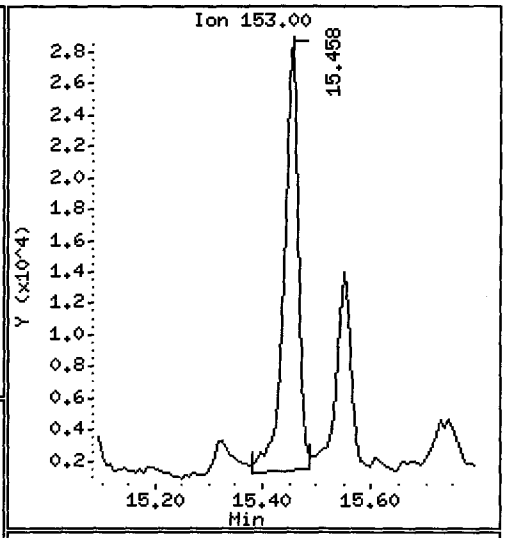
Concentration: 126.3 ug/kg

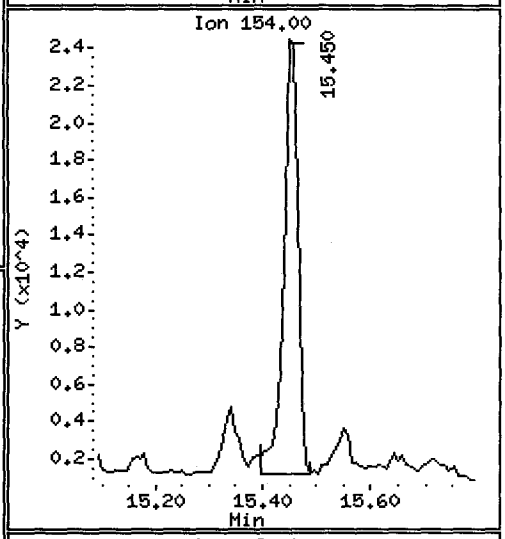


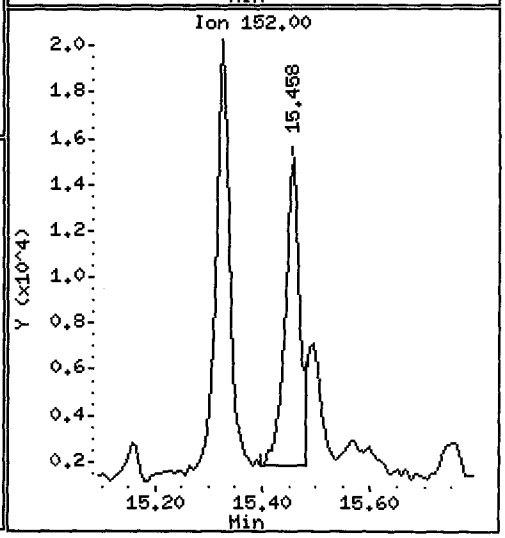












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

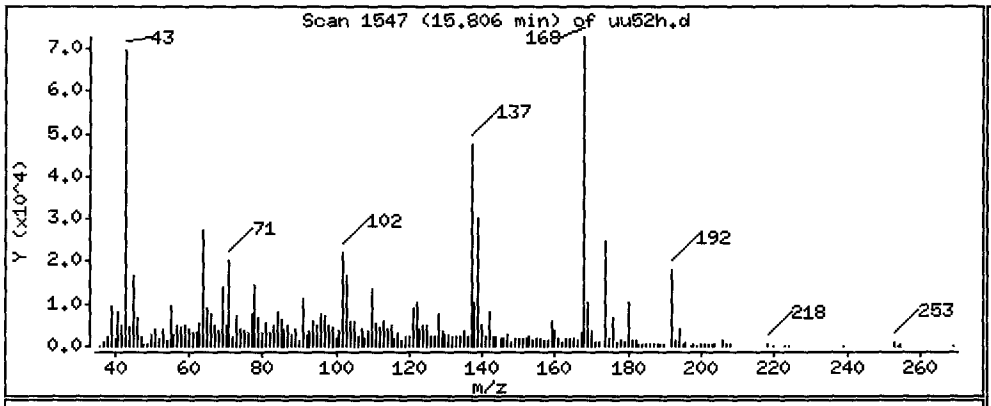
Operator: VTS/YZ

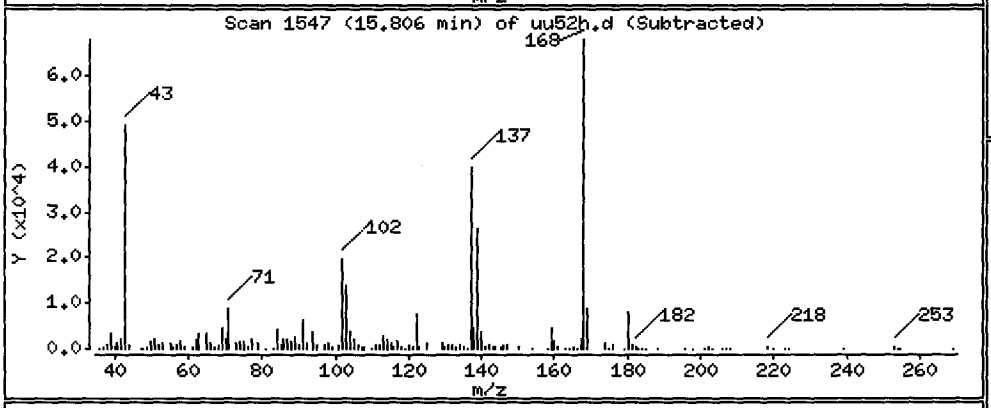
Column phase: ZB-5msi

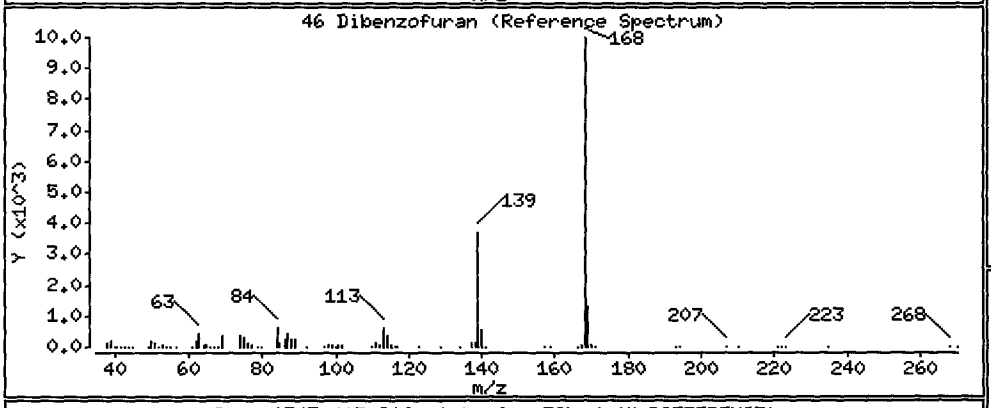
Column diameter: 0.25

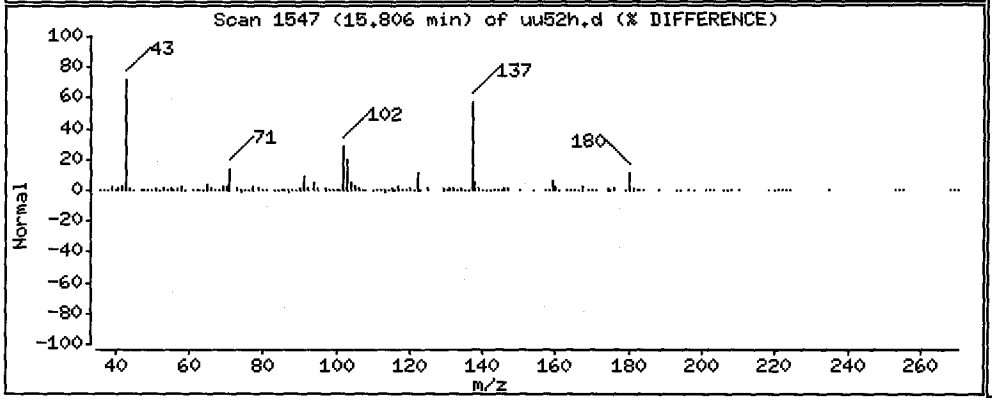
46 Dibenzofuran

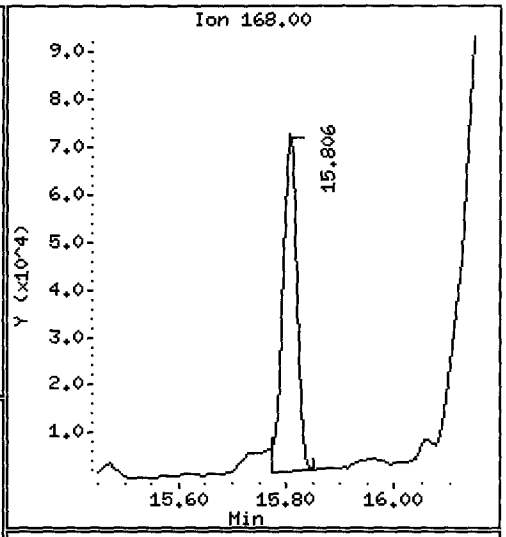
Concentration: 208.9 ug/kg

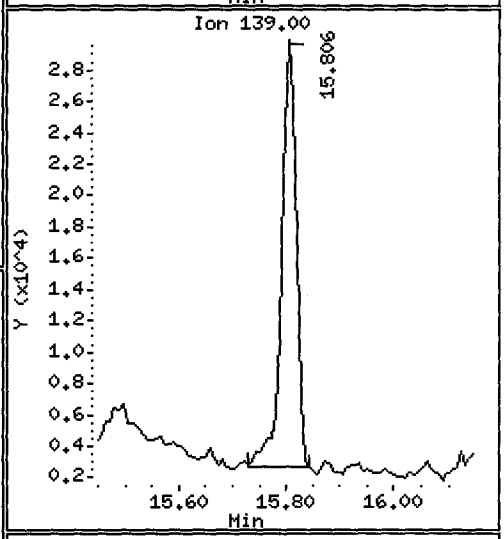


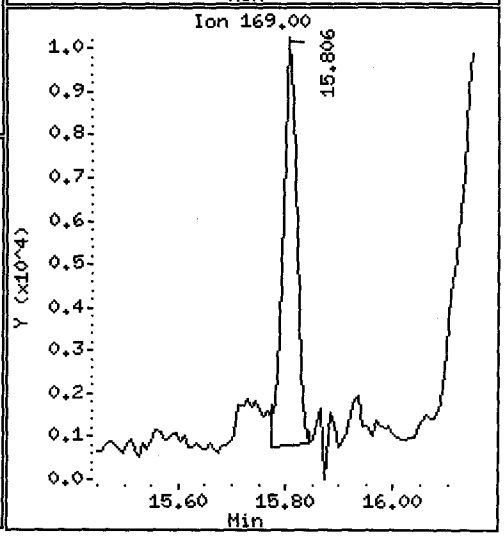












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

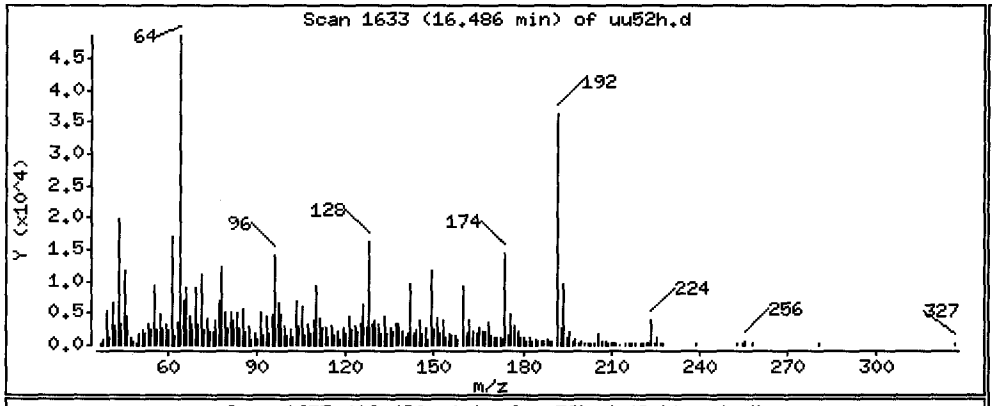
Operator: VTS/YZ

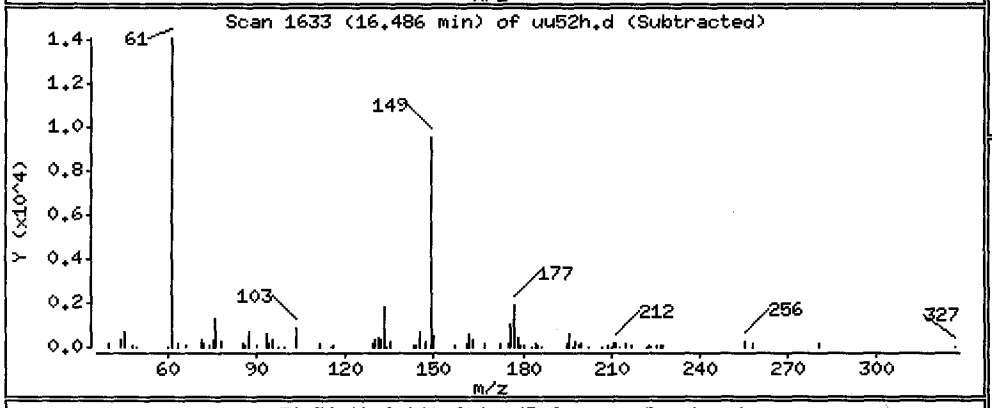
Column phase: ZB-5msi

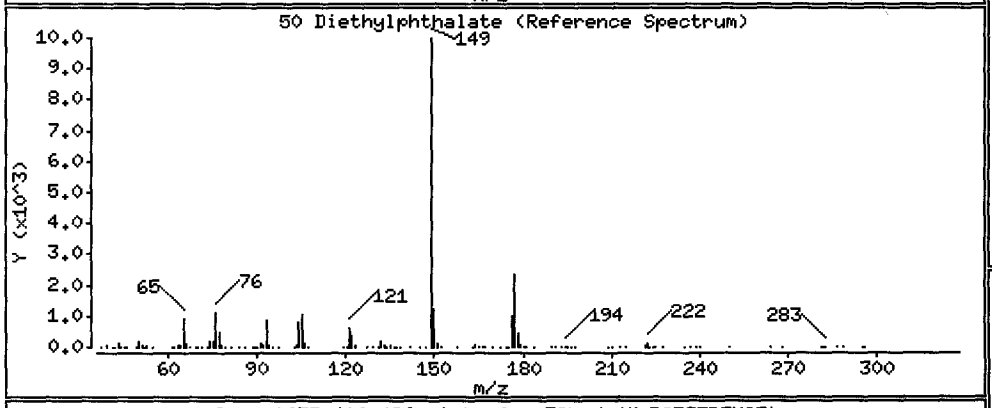
Column diameter: 0.25

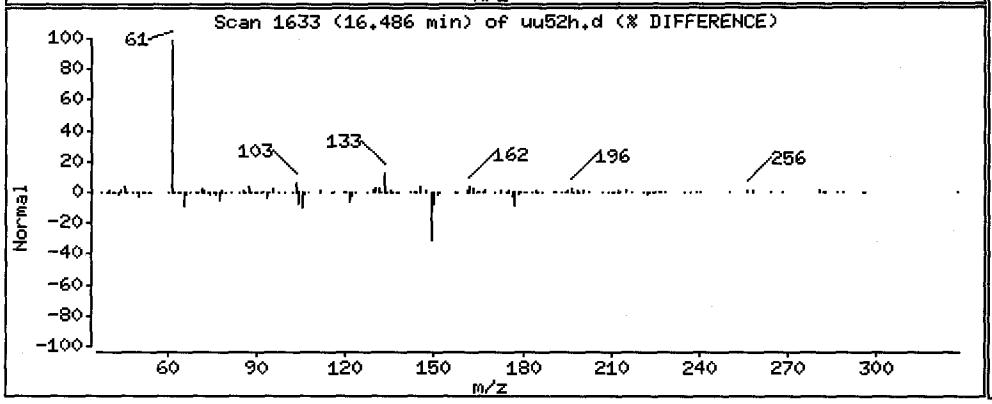
50 Diethylphthalate

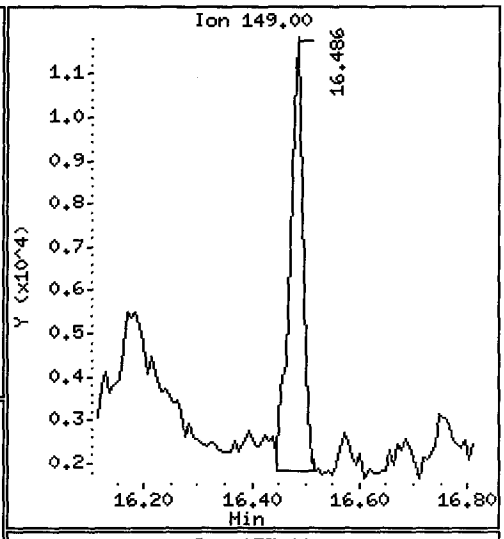
Concentration: 39.35 ug/kg

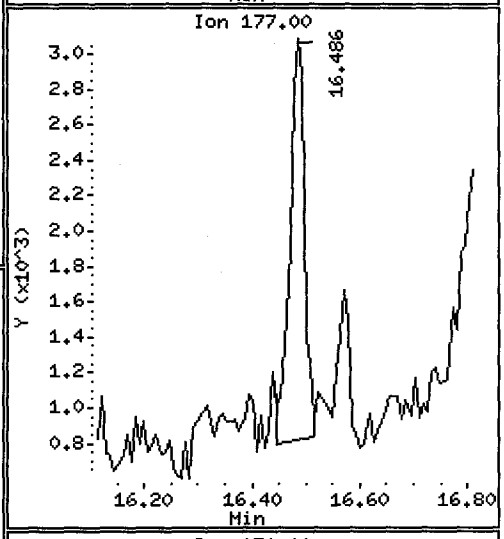


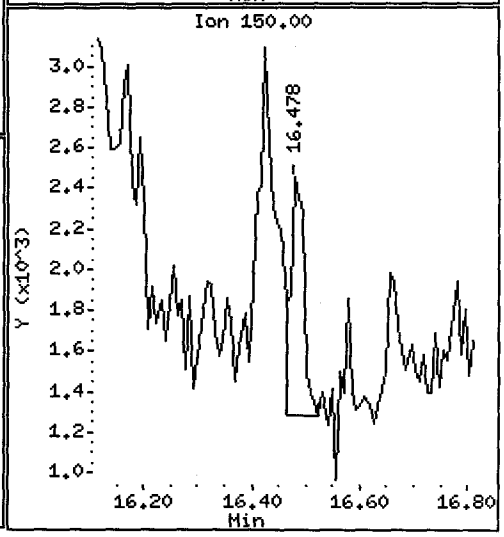












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

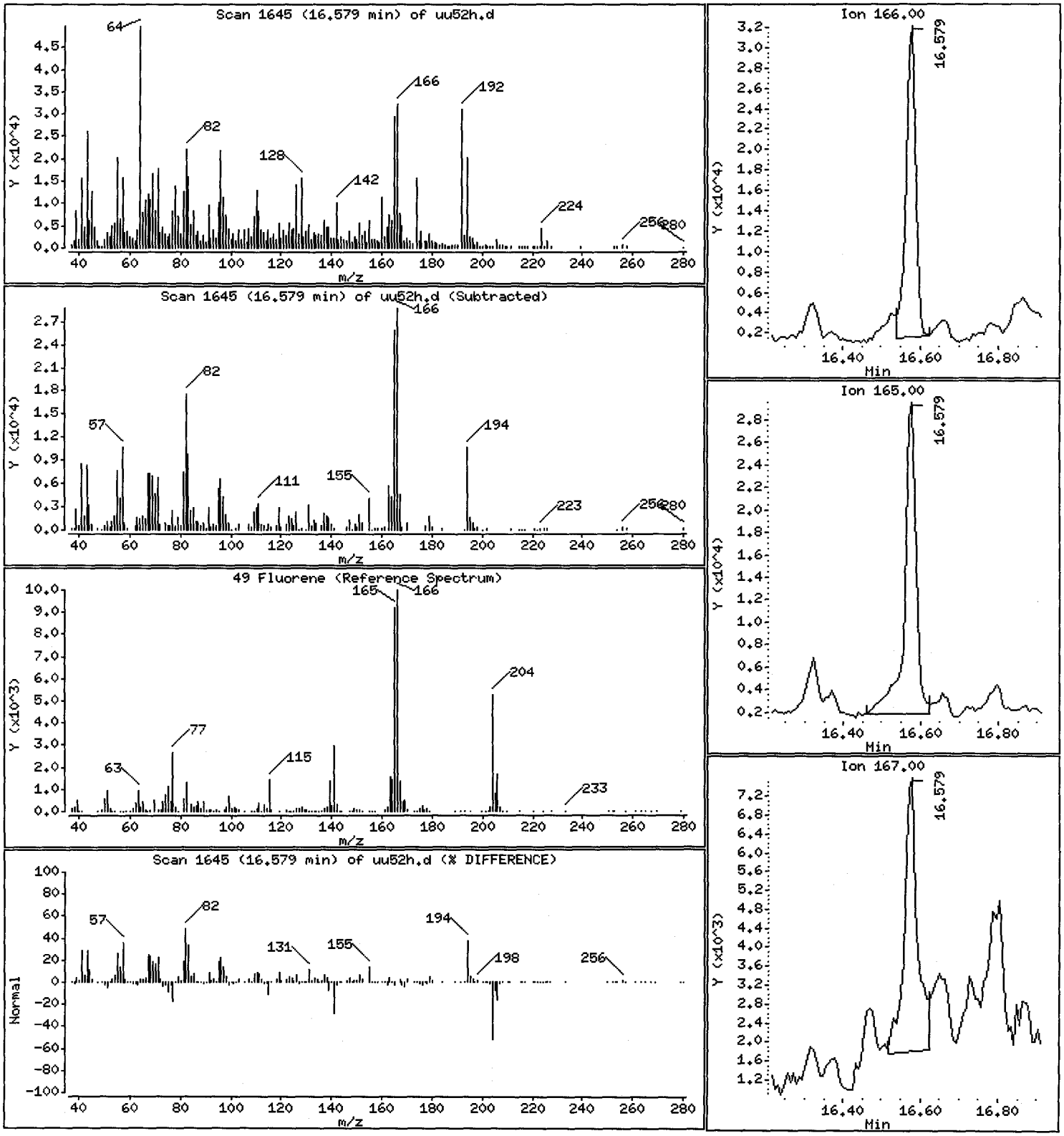
Operator: VTS/YZ

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 120.7 ug/kg



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

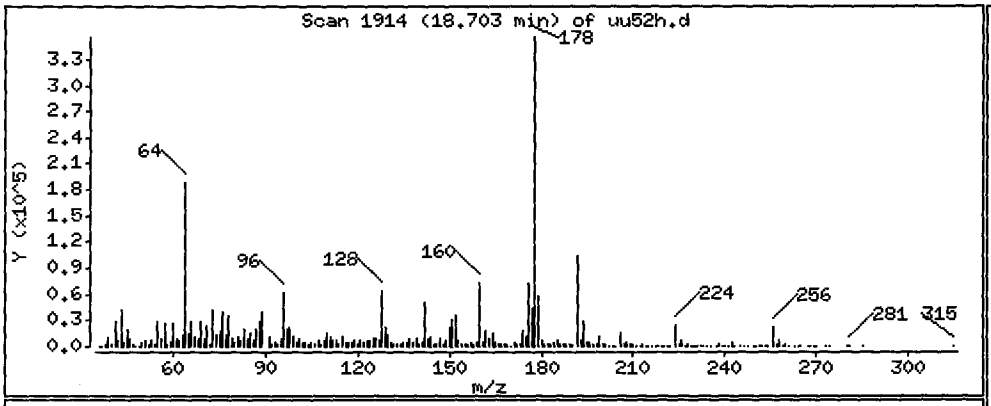
Operator: VTS/YZ

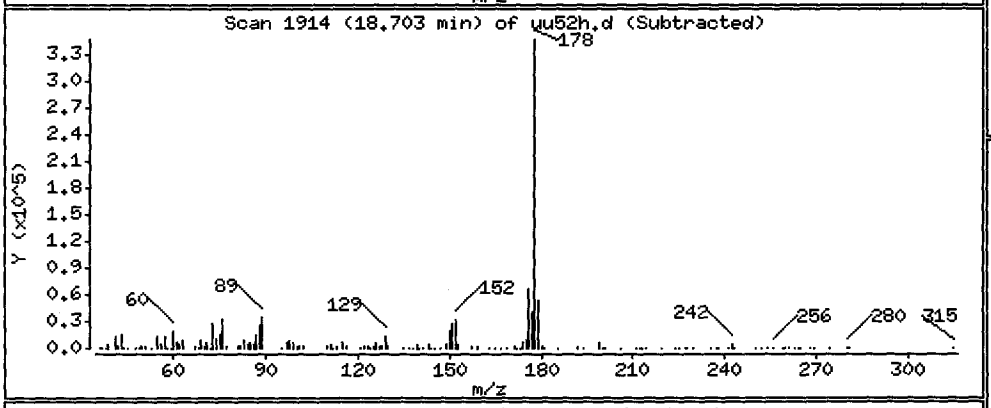
Column phase: ZB-5msi

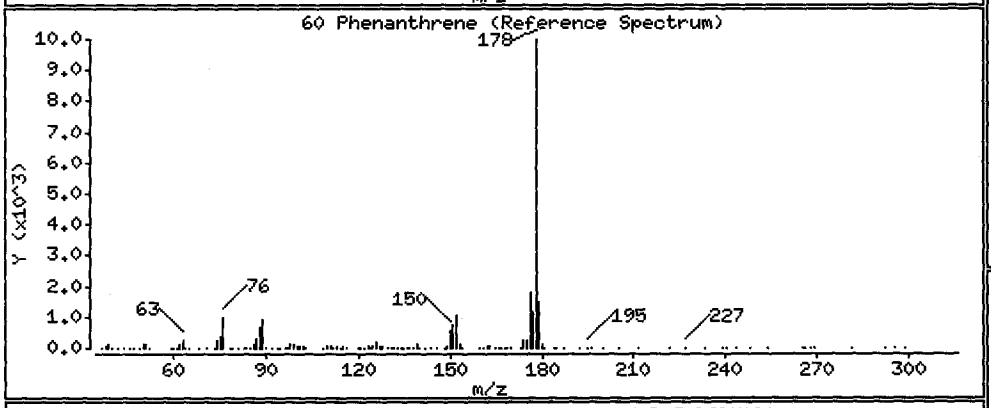
Column diameter: 0.25

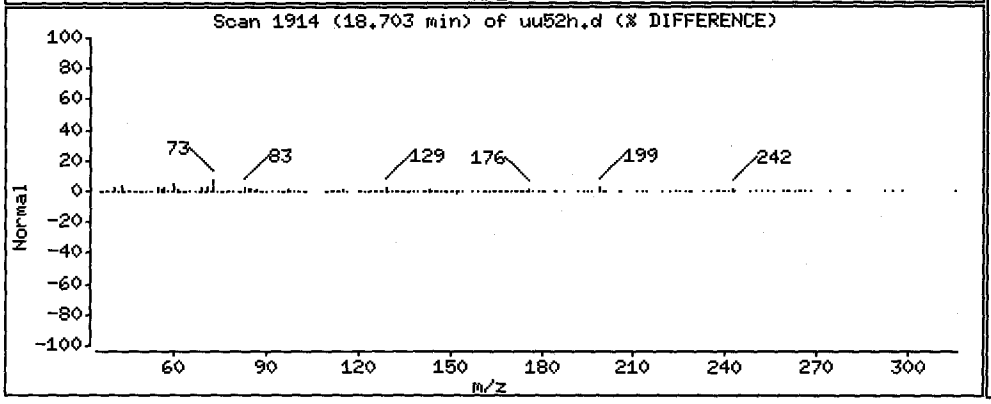
60 Phenanthrene

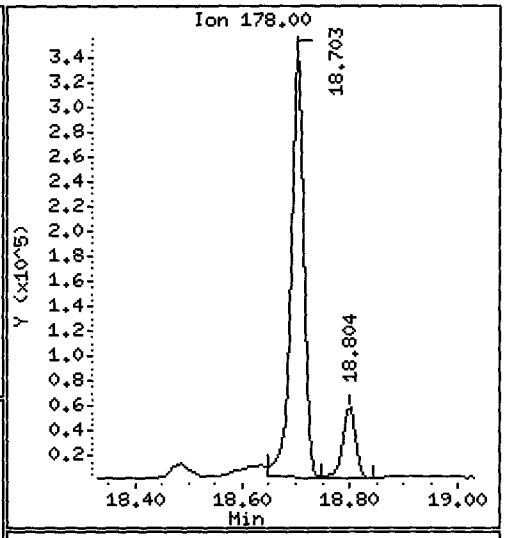
Concentration: 1061 ug/kg

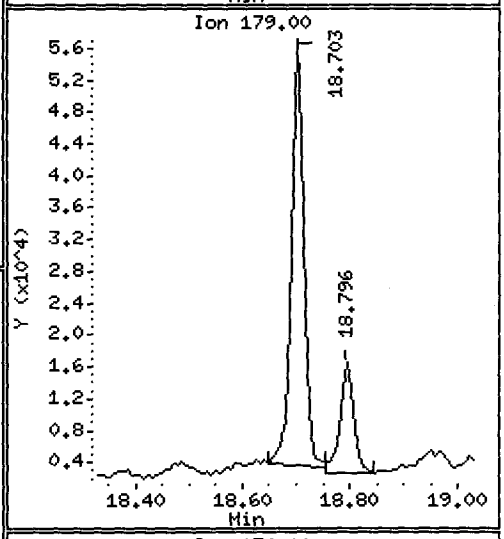


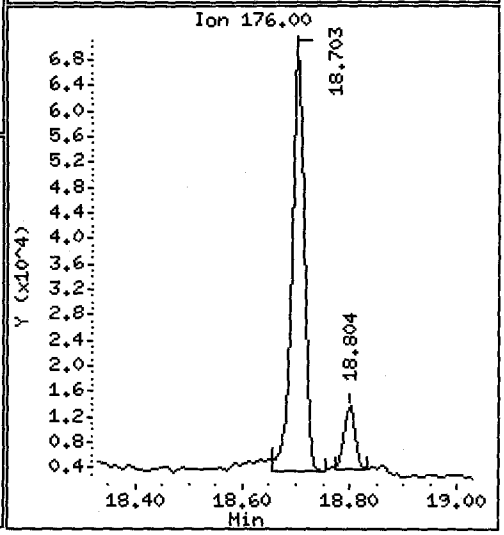












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

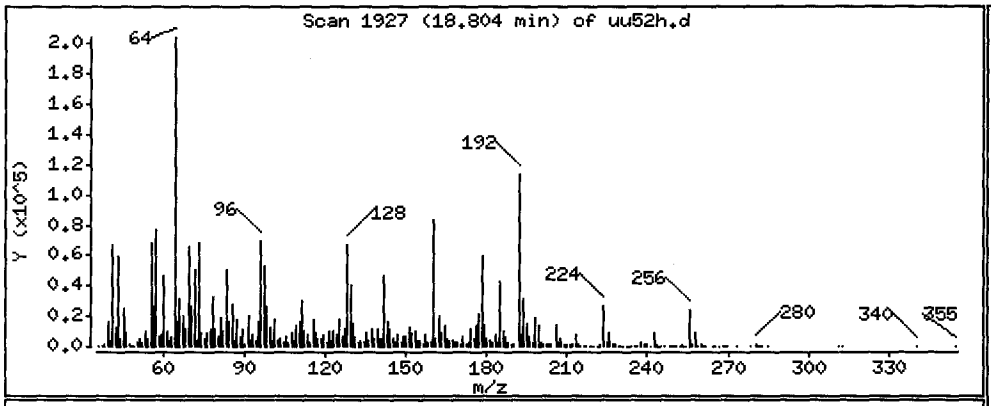
Client ID: MS007-SS-120515 Instrument: nt10.i

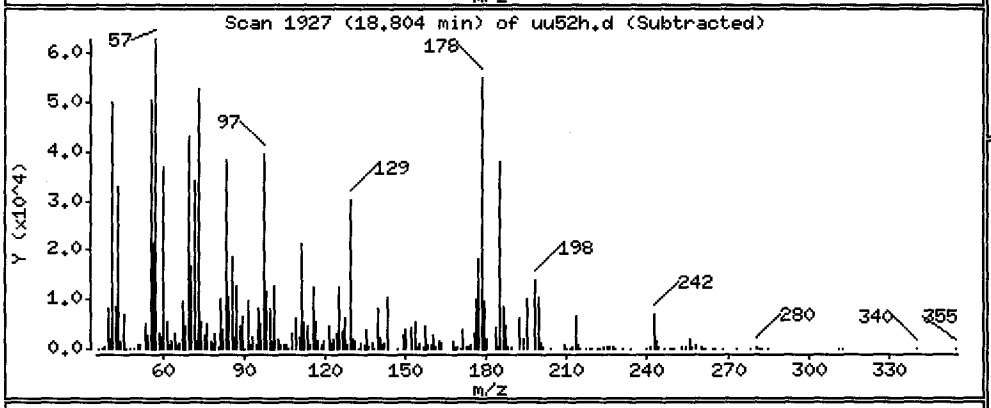
Sample Info: UU52H,3

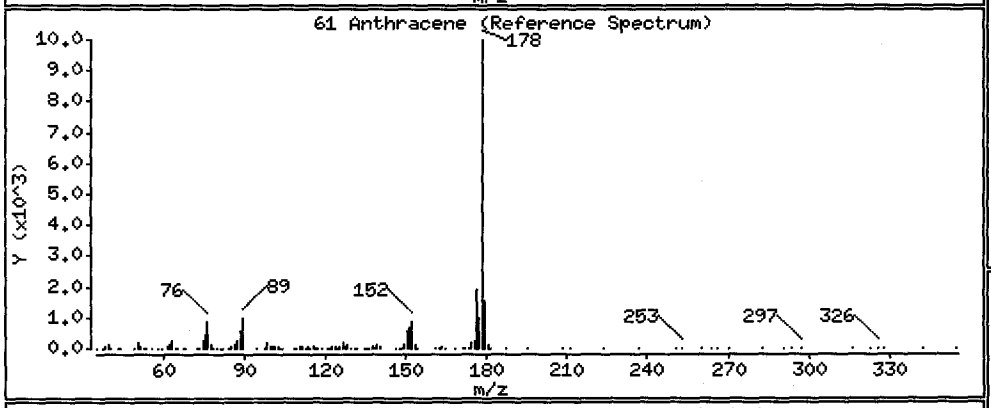
Volume Injected (uL): 1.0 Operator: VTS/YZ

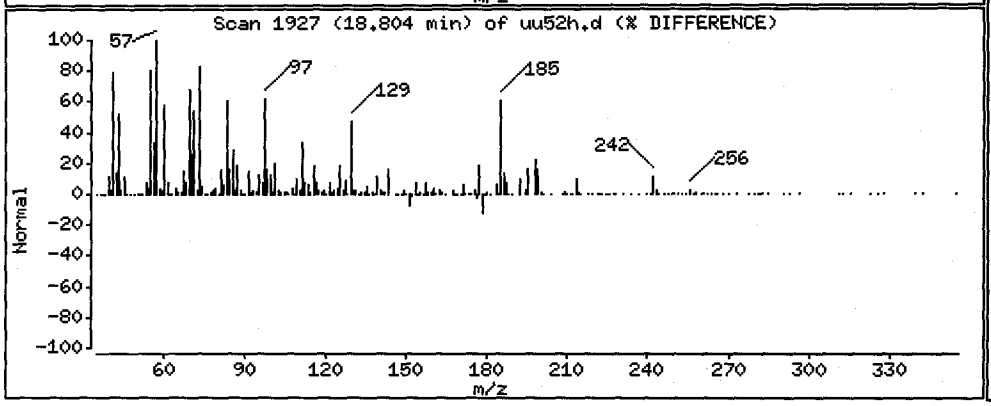
Column phase: ZB-5msi Column diameter: 0.25

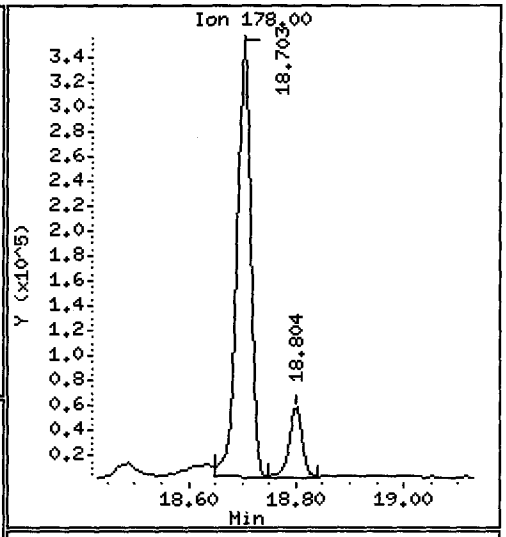
61 Anthracene Concentration: 169.5 ug/kg

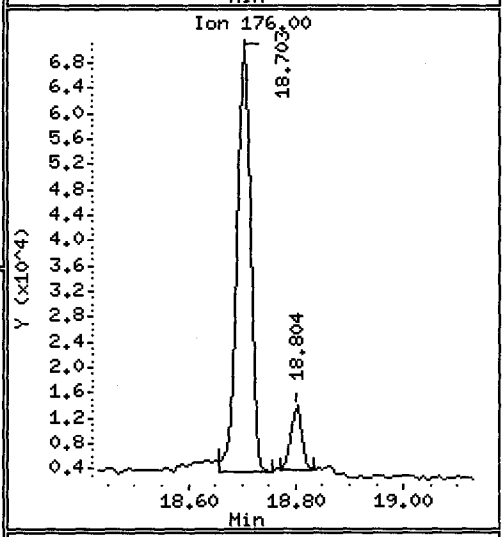


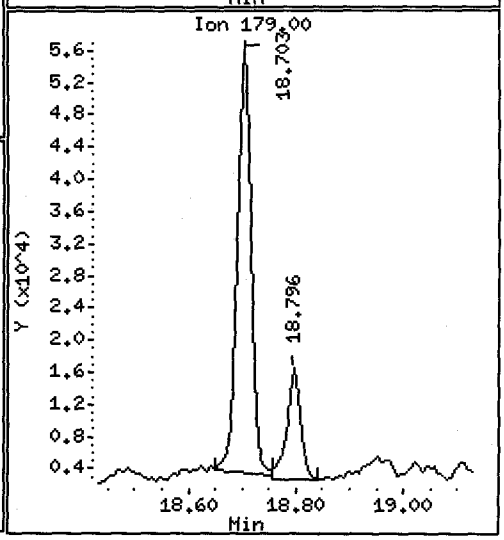












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

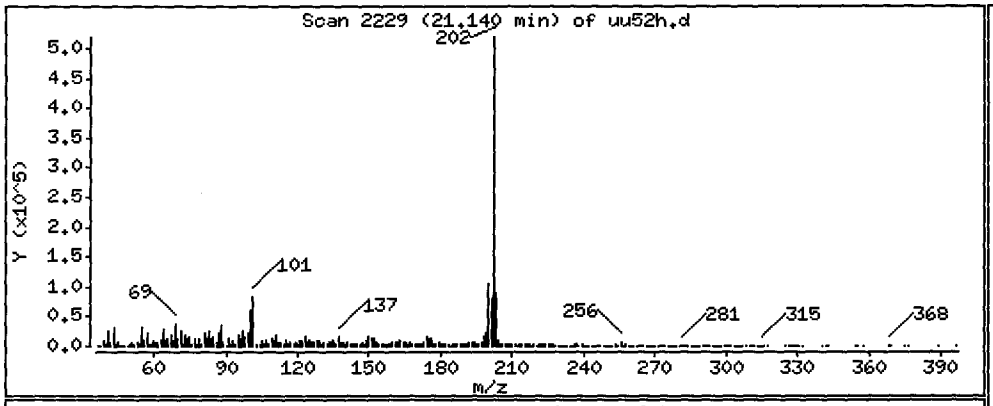
Client ID: MS007-SS-120515 Instrument: nt10.i

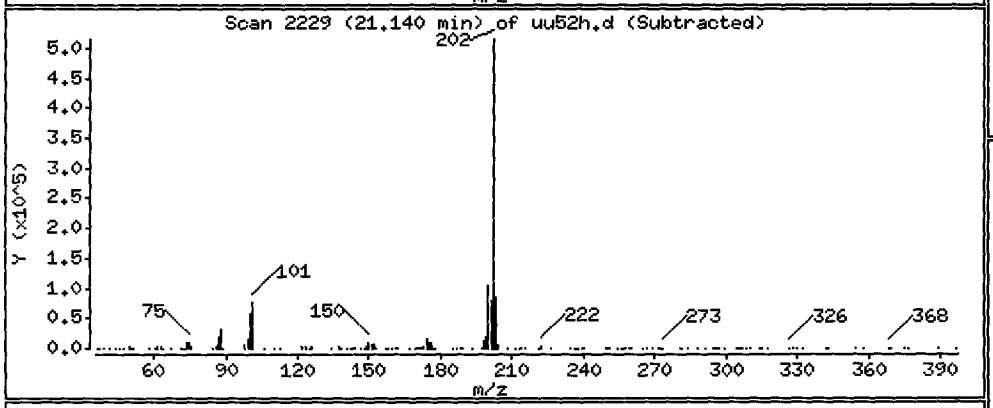
Sample Info: UU52H,3

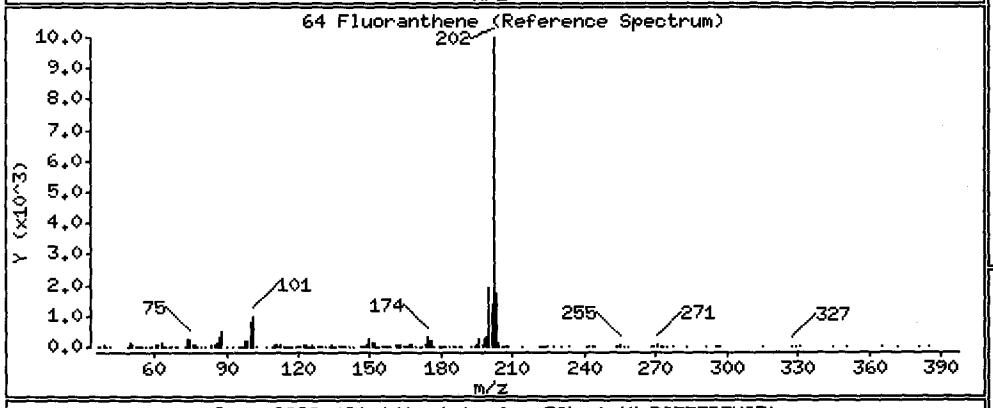
Volume Injected (uL): 1.0 Operator: VTS/YZ

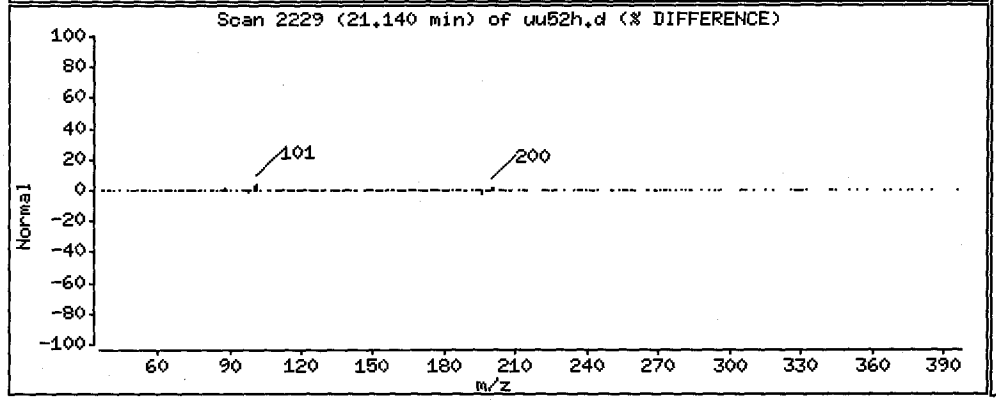
Column phase: ZB-5msi Column diameter: 0.25

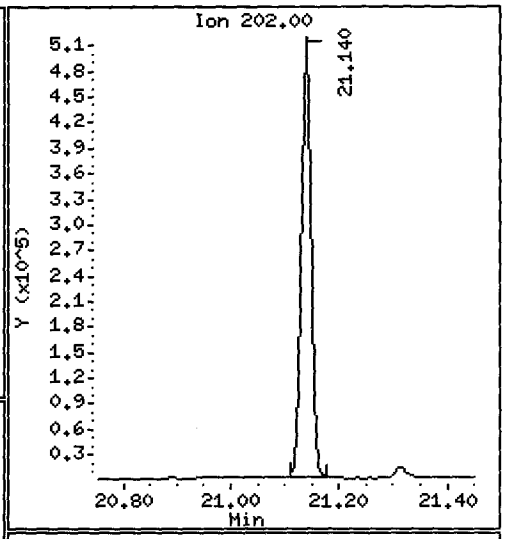
64 Fluoranthene Concentration: 1066 ug/kg

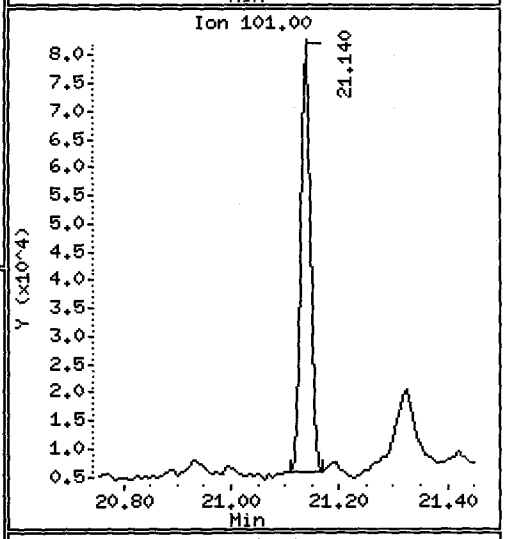


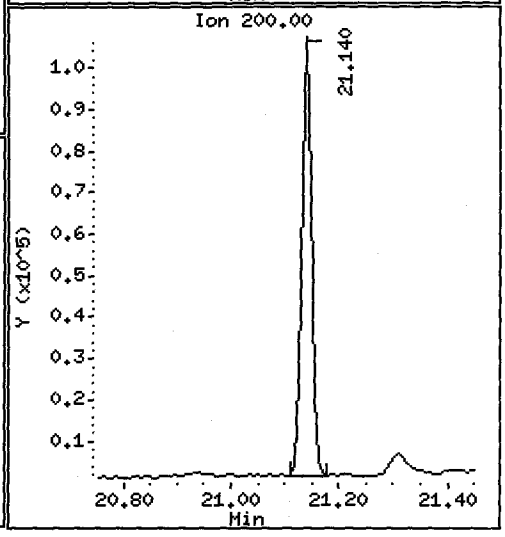












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

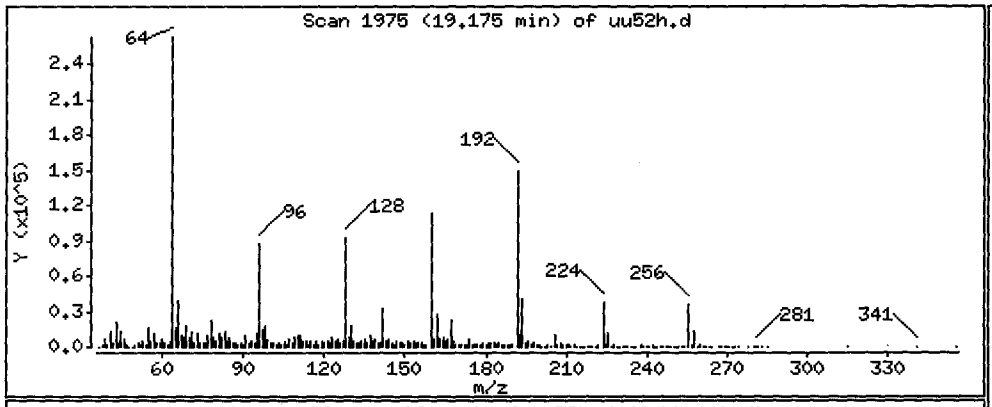
Operator: VTS/YZ

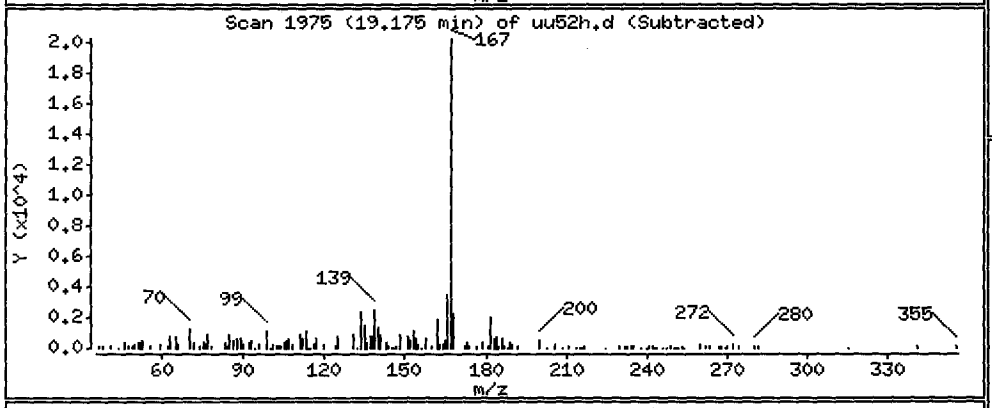
Column phase: ZB-5msi

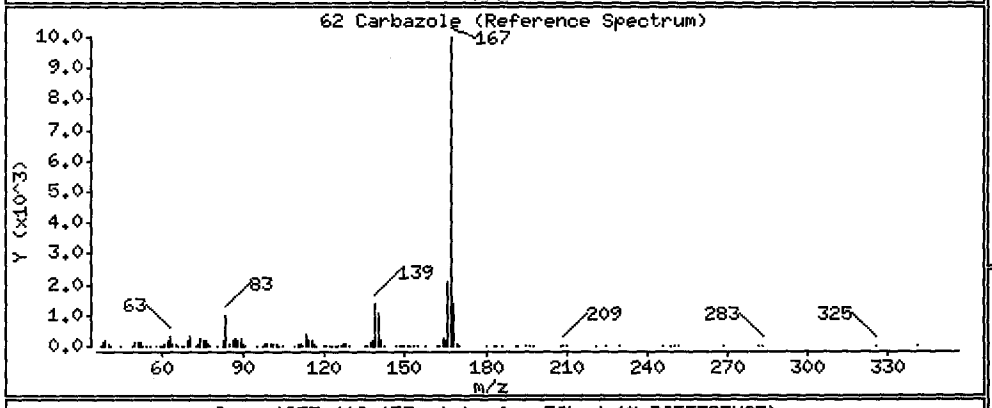
Column diameter: 0.25

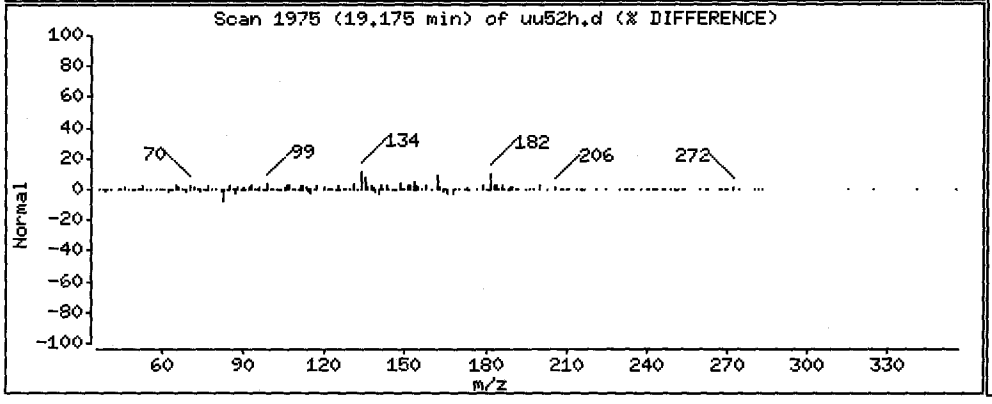
62 Carbazole

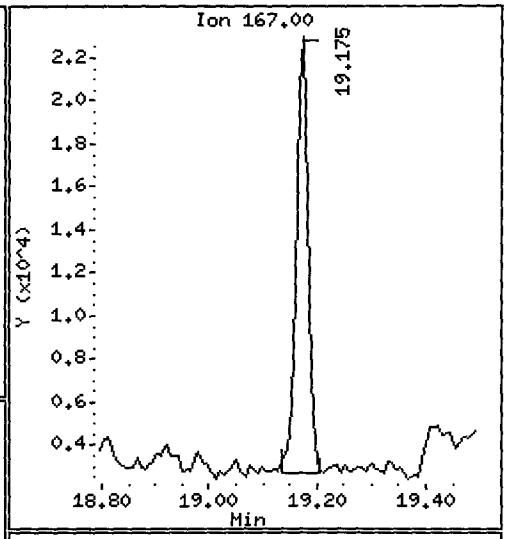
Concentration: 60.96 ug/kg

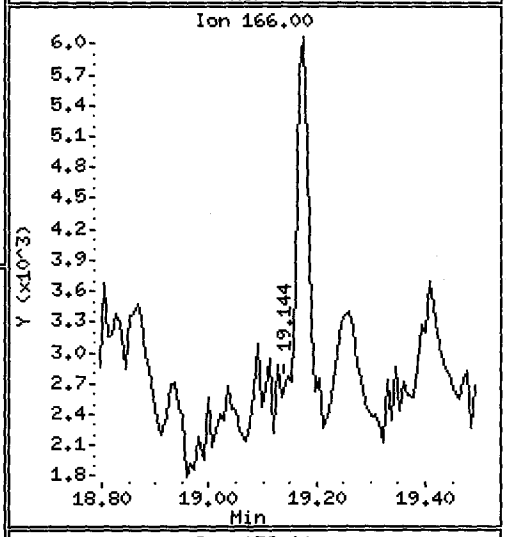


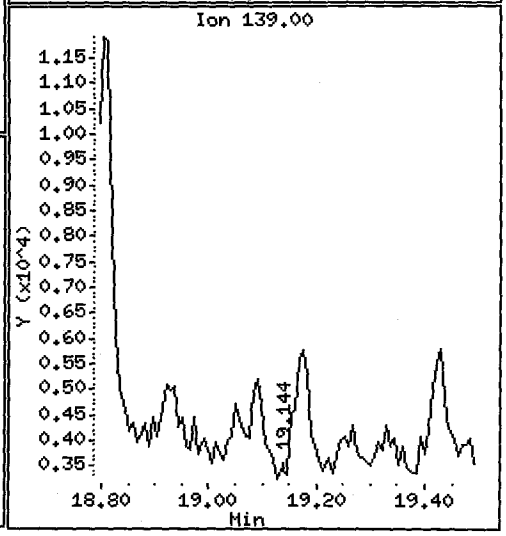












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

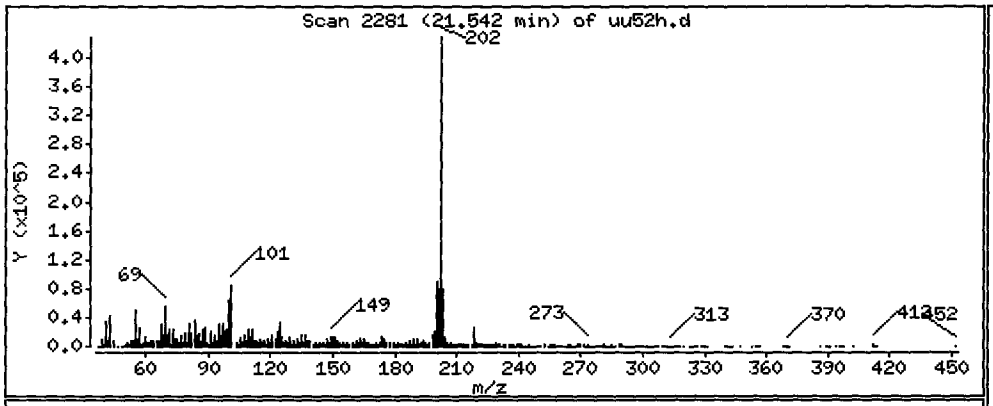
Client ID: MS007-SS-120515 Instrument: nt10.i

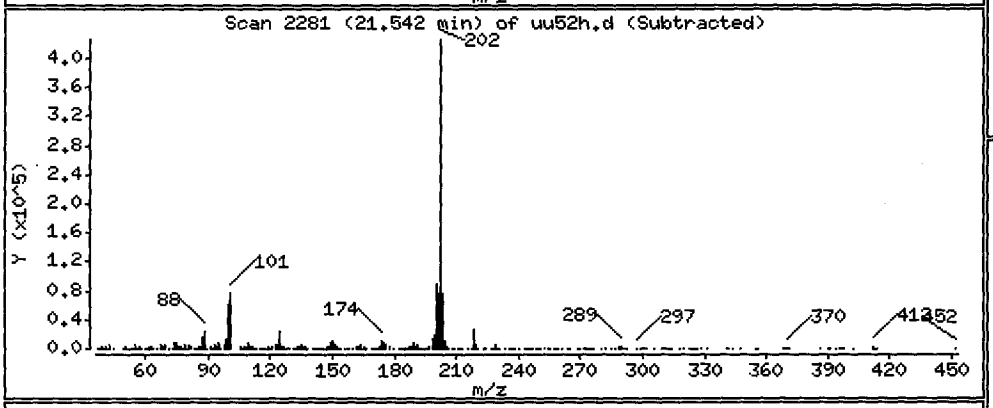
Sample Info: UU52H,3

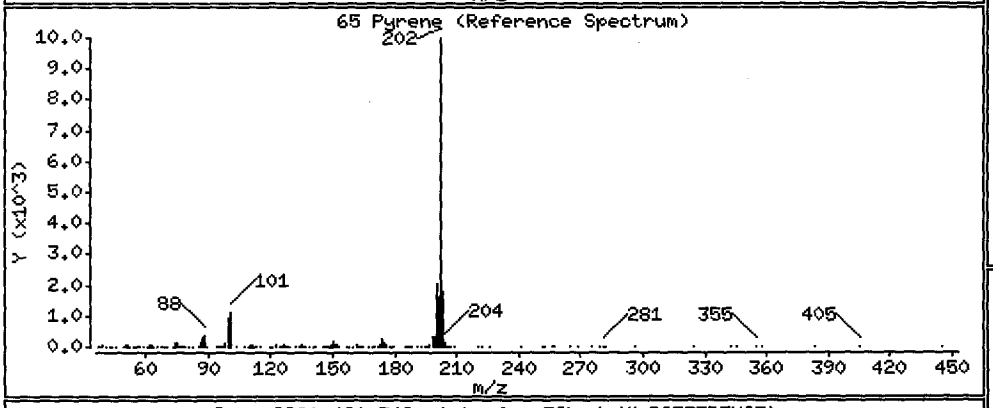
Volume Injected (uL): 1.0 Operator: VTS/YZ

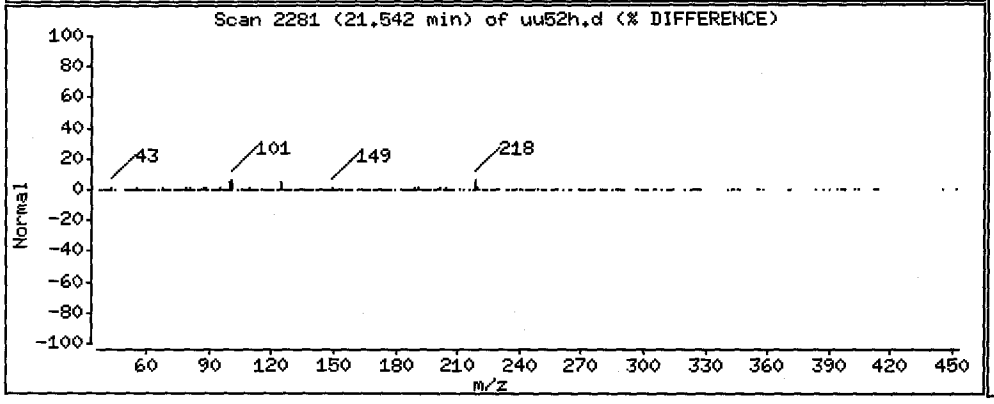
Column phase: ZB-5msi Column diameter: 0.25

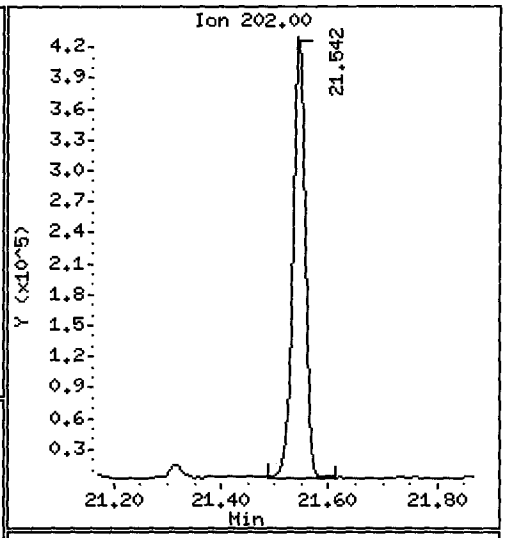
65 Pyrene Concentration: 961.4 ug/kg

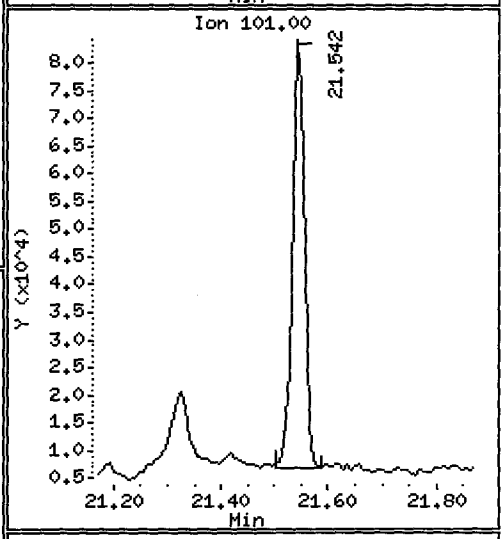


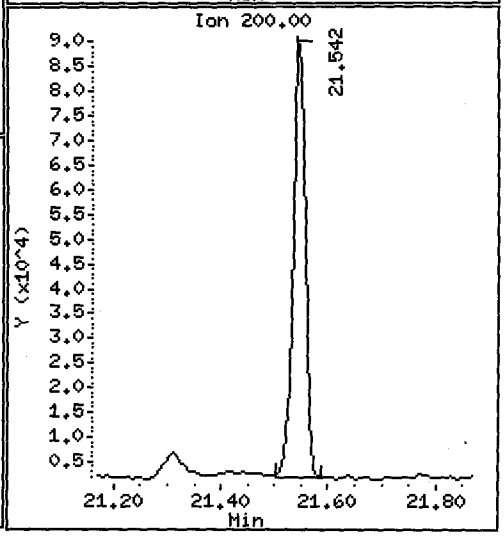












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

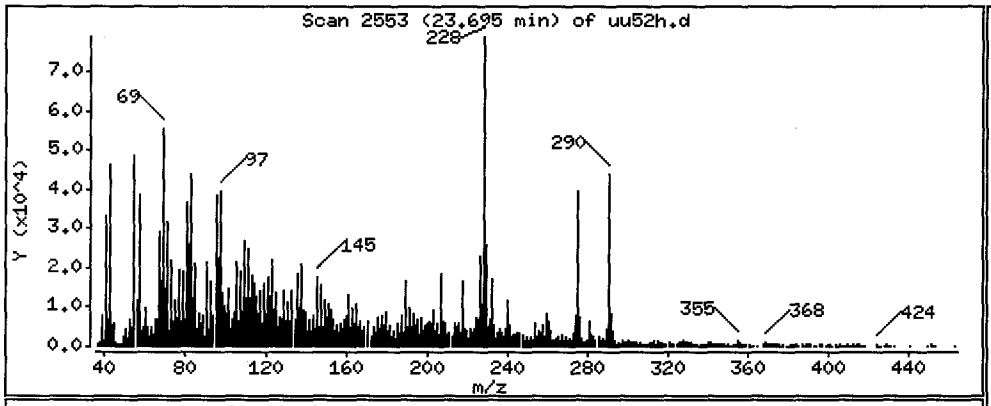
Client ID: MS007-SS-120515 Instrument: nt10.i

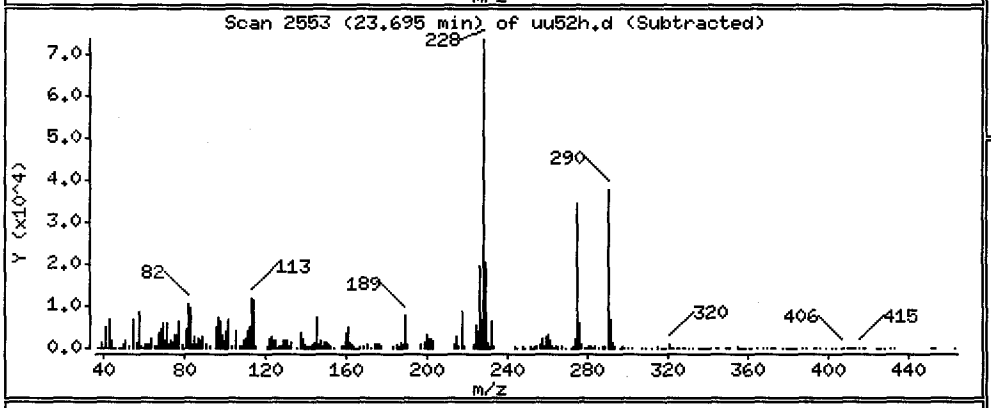
Sample Info: UU52H,3

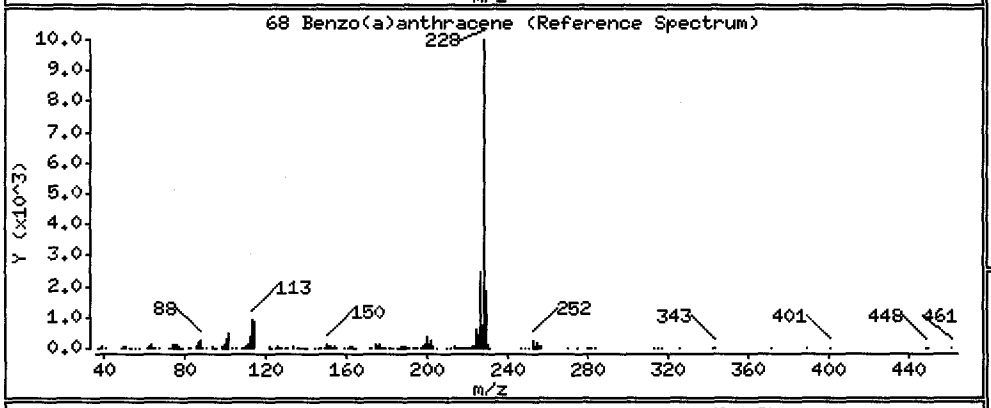
Volume Injected (uL): 1.0 Operator: VTS/YZ

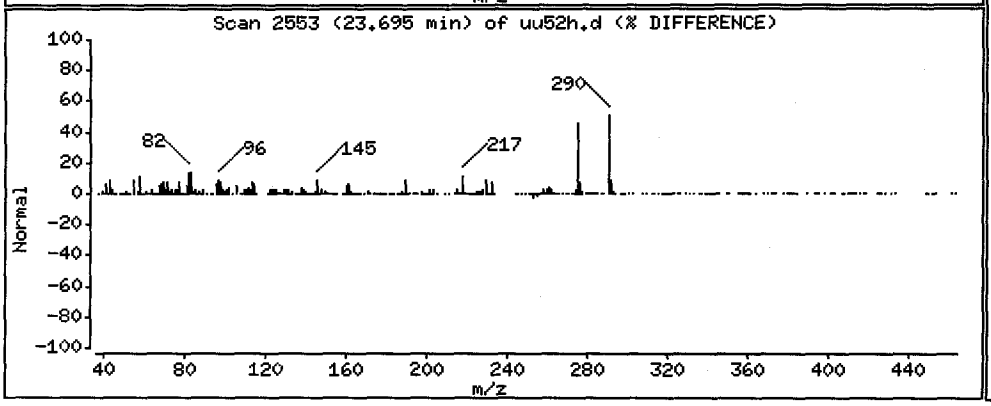
Column phase: ZB-5msi Column diameter: 0.25

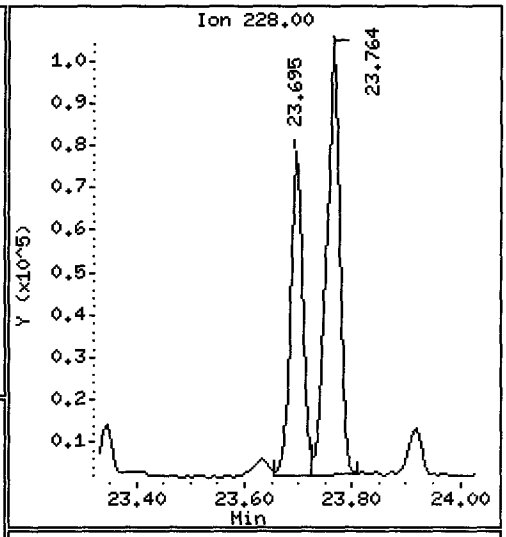
68 Benzo(a)anthracene Concentration: 185.9 ug/kg

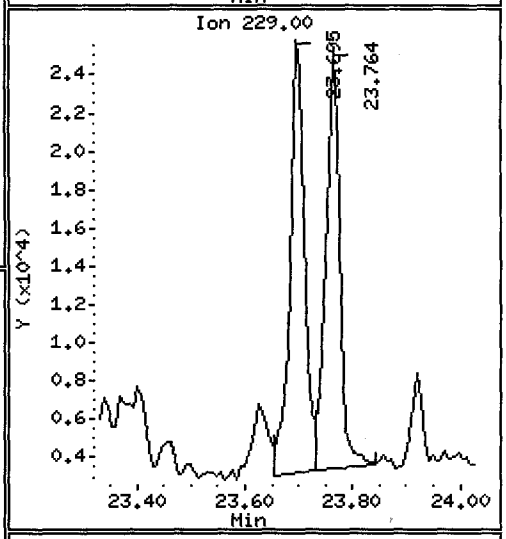


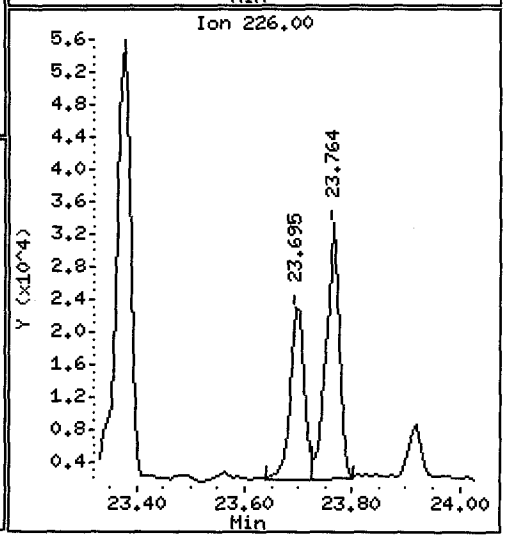












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

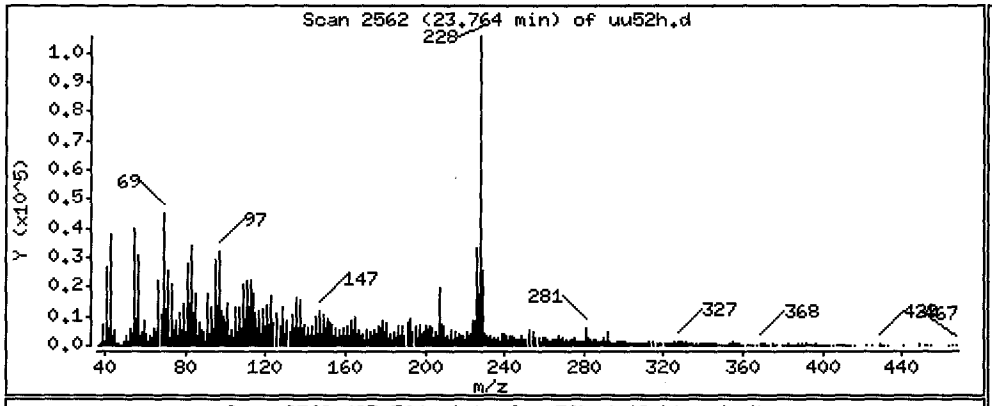
Operator: VTS/YZ

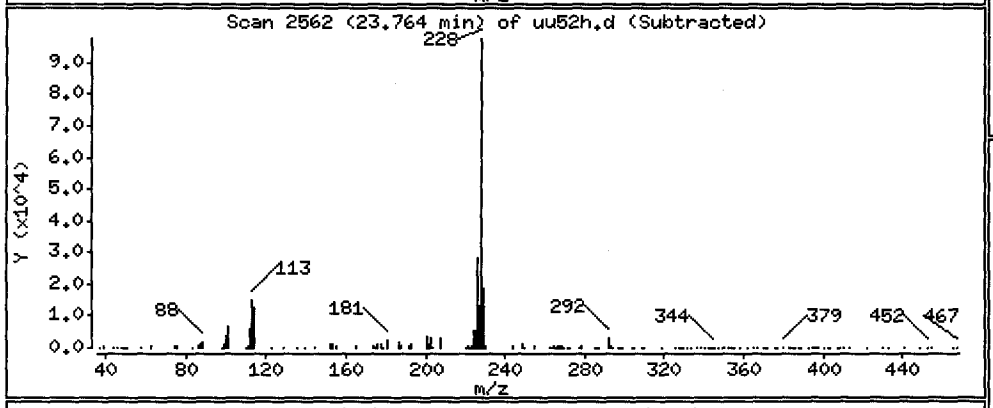
Column phase: ZB-5msi

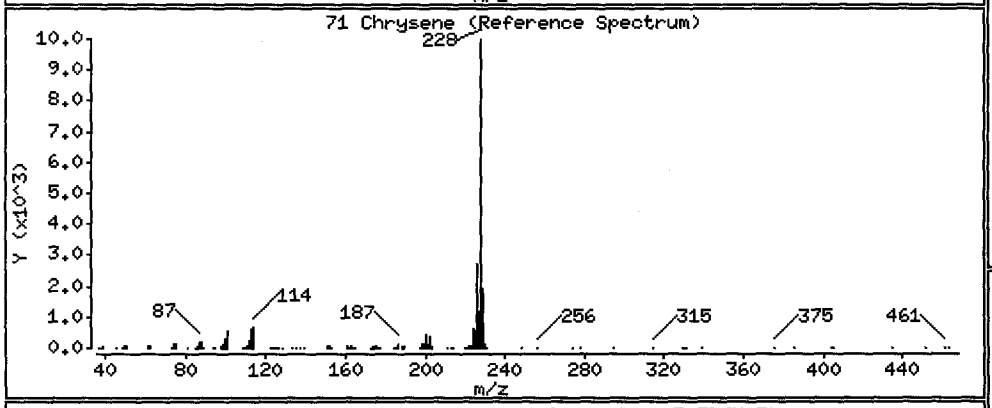
Column diameter: 0.25

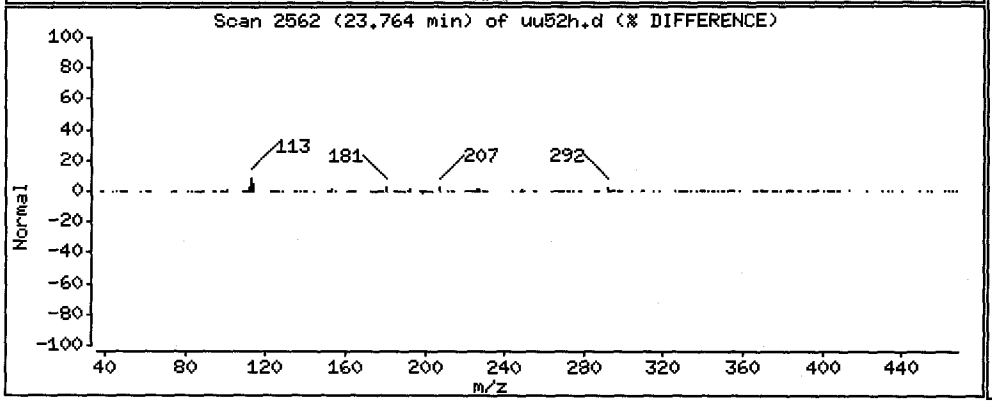
71 Chrysene

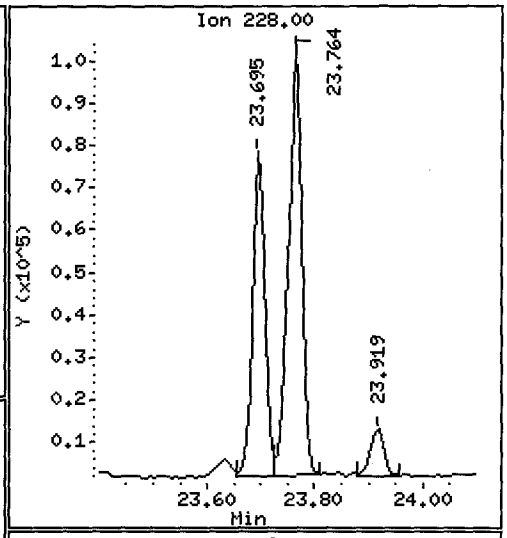
Concentration: 286.8 ug/kg

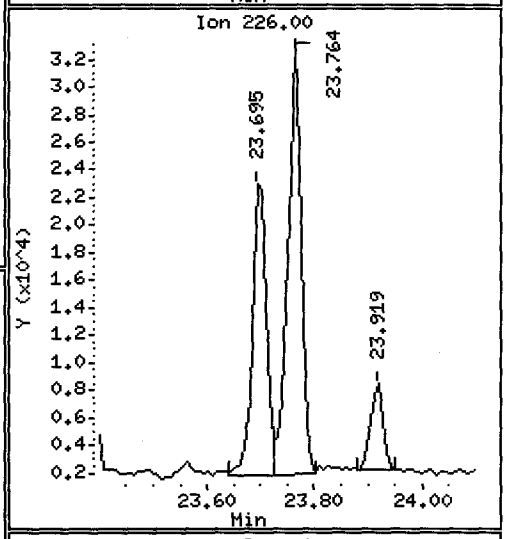


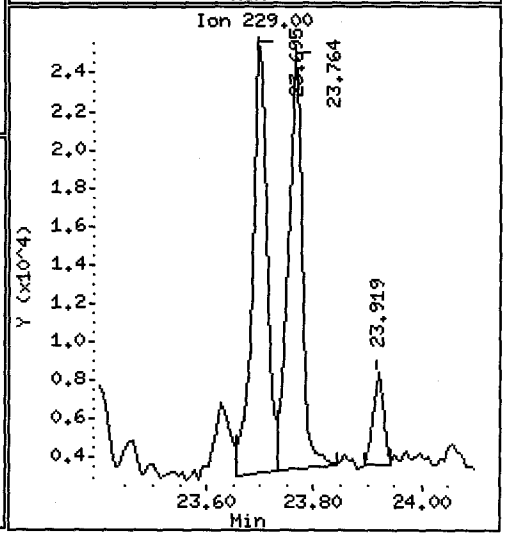












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

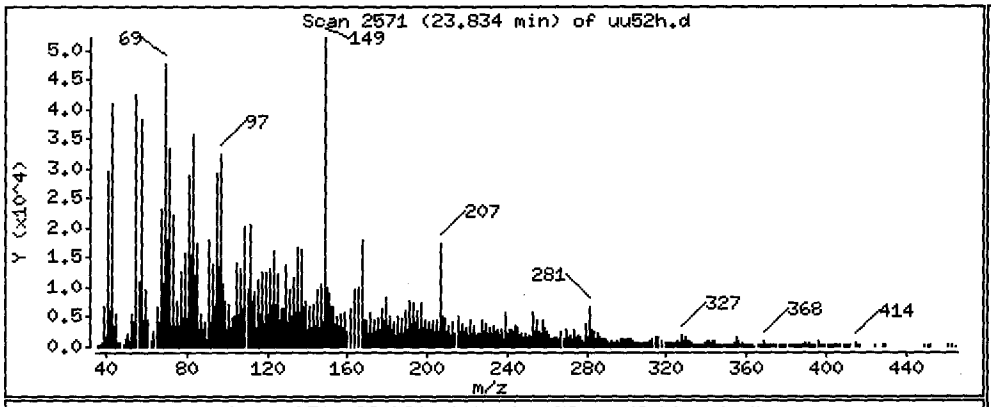
Client ID: MS007-SS-120515 Instrument: nt10.i

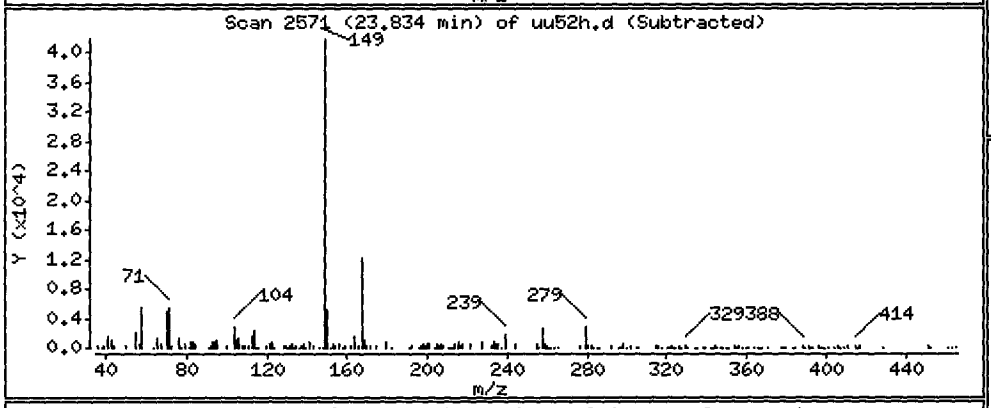
Sample Info: UU52H,3

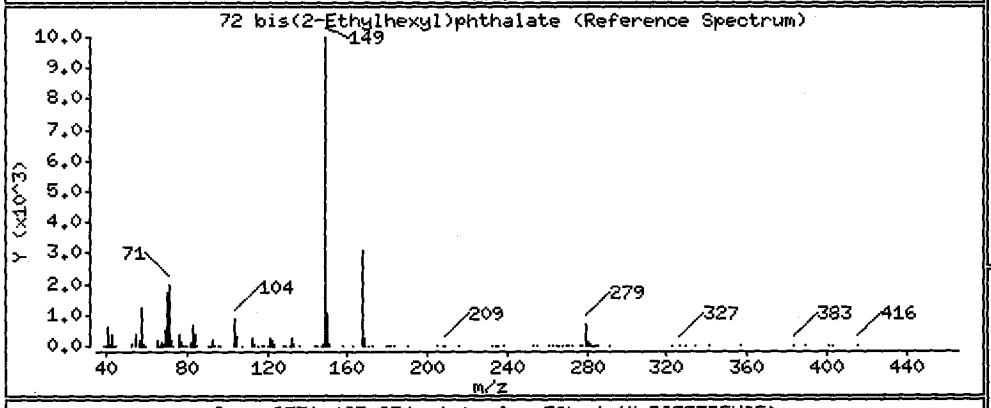
Volume Injected (uL): 1.0 Operator: VTS/YZ

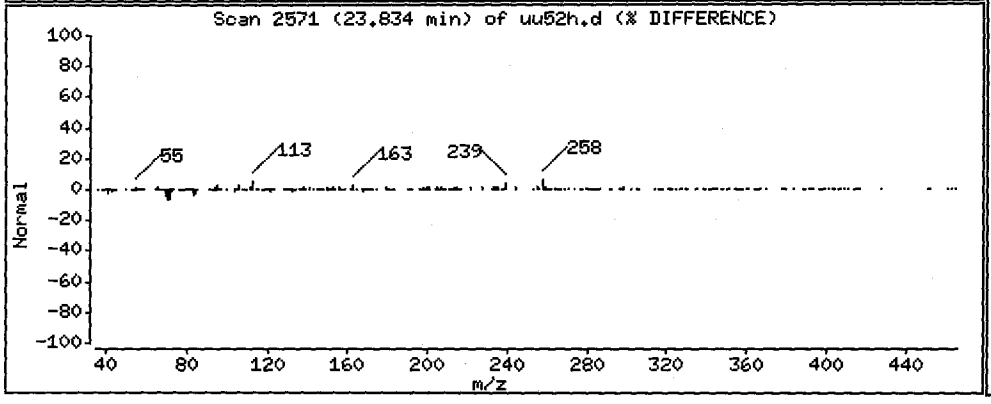
Column phase: ZB-5msi Column diameter: 0.25

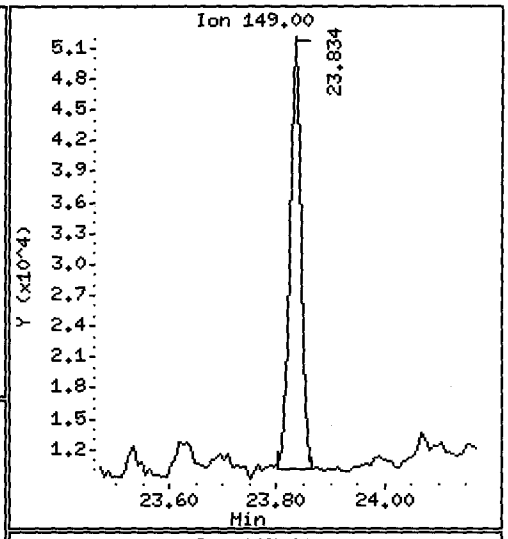
72 bis(2-Ethylhexyl)phthalate Concentration: 116.8 ug/kg

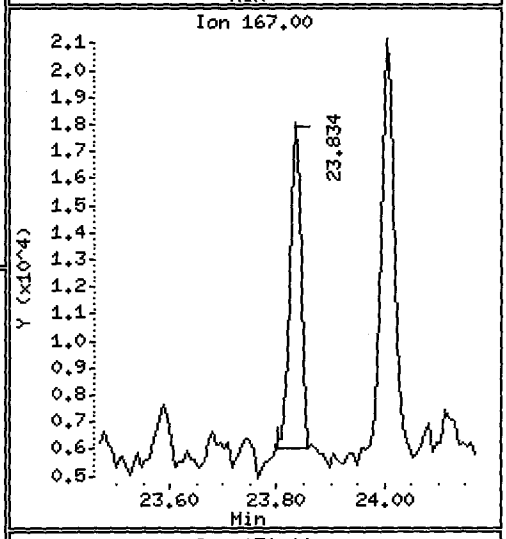


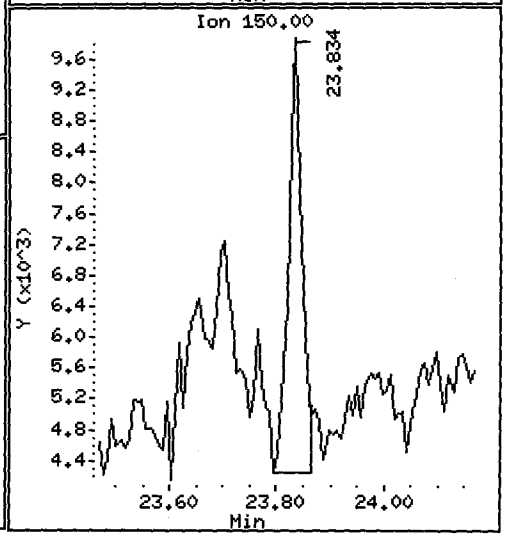






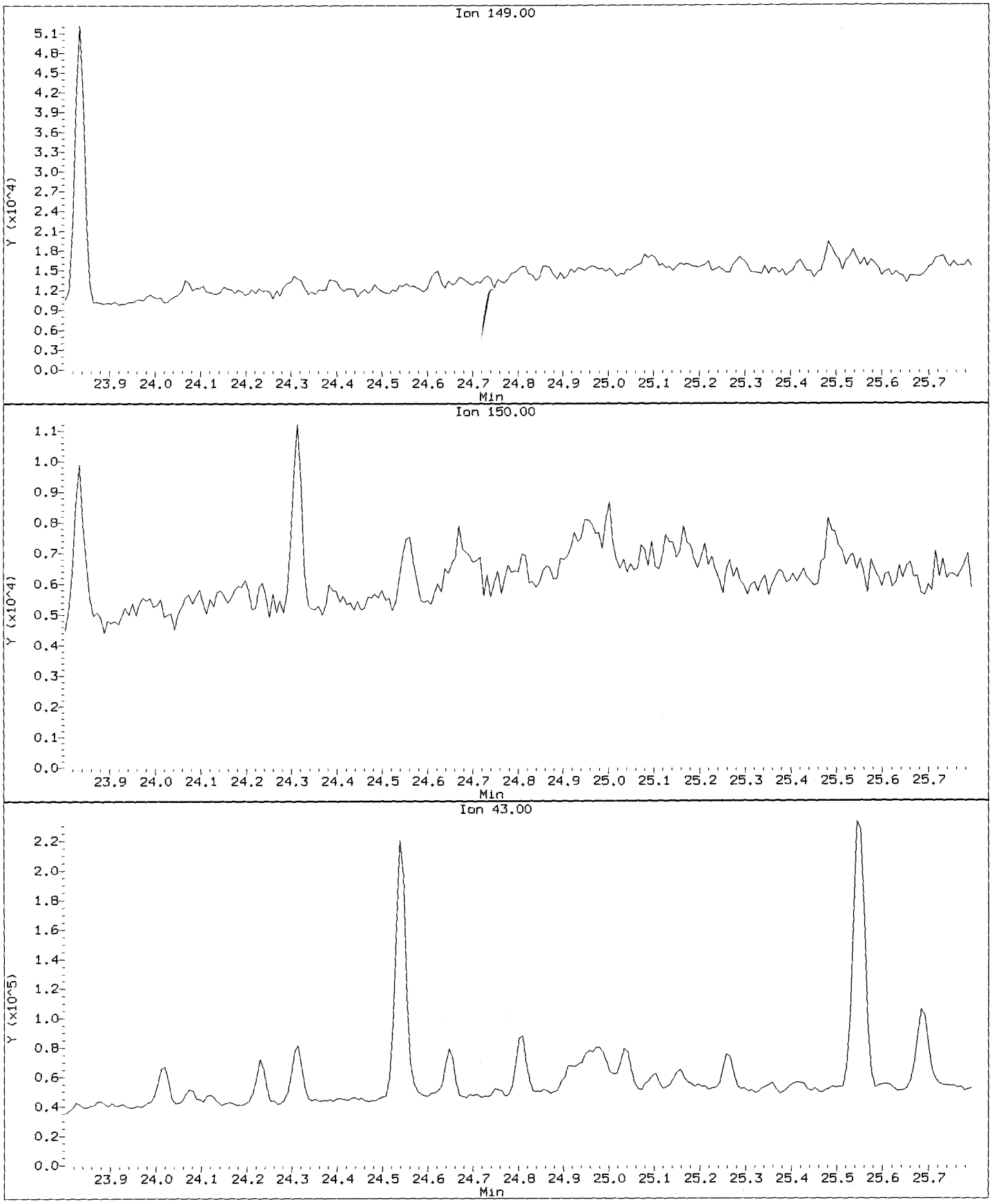






Data File: /chem1/nt10.i/20120526.b/uu52h.d
Injection Date: 26-MAY-2012 21:31
Instrument: nt10.i
Client Sample ID: MS007-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

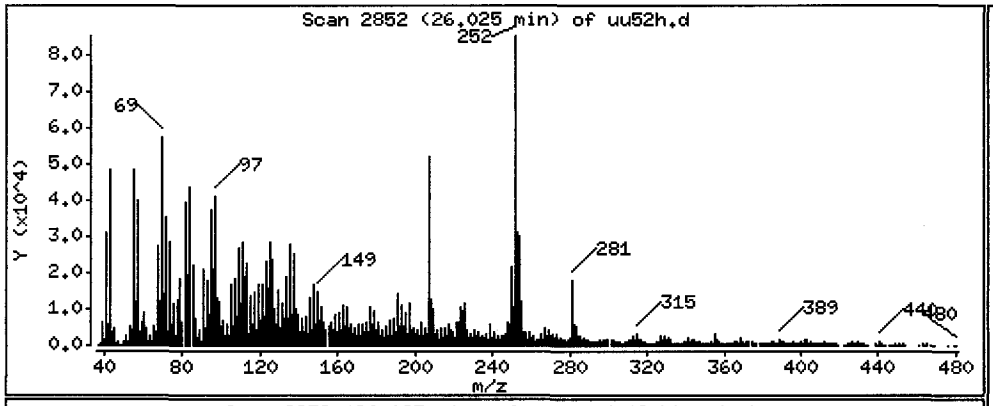
Operator: VTS/YZ

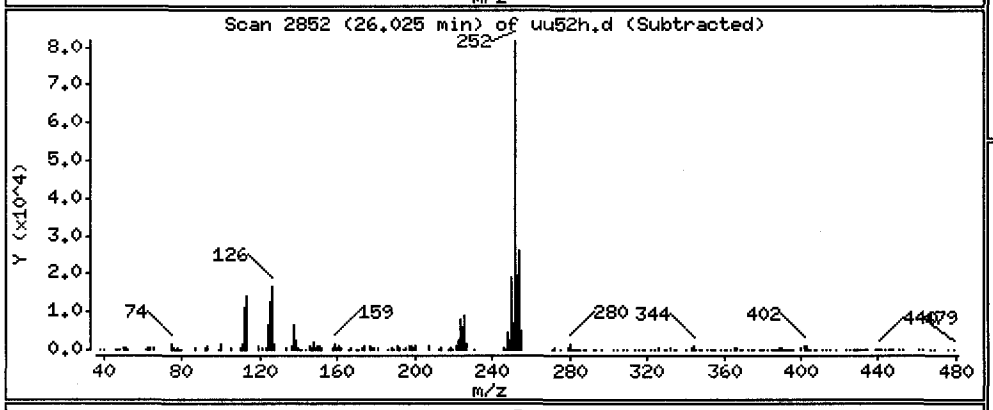
Column phase: ZB-5msi

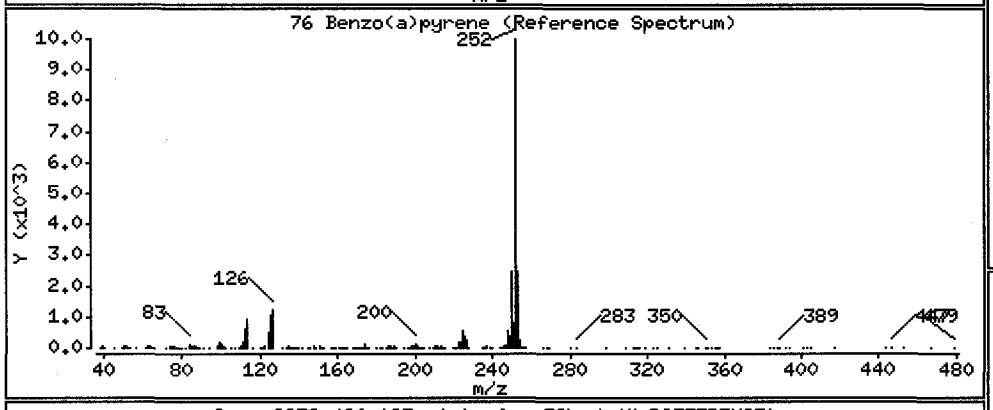
Column diameter: 0.25

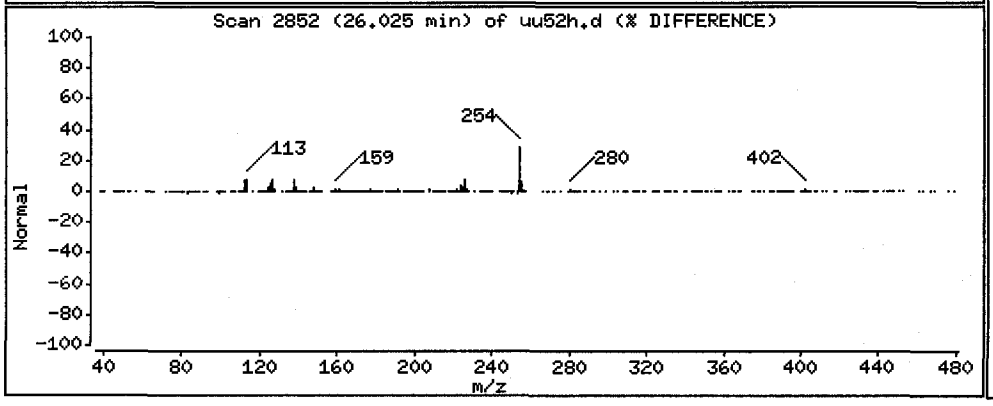
76 Benzo(a)pyrene

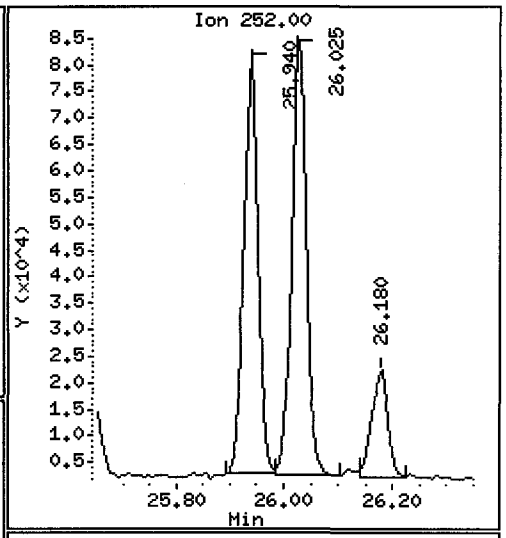
Concentration: 271.2 ug/kg

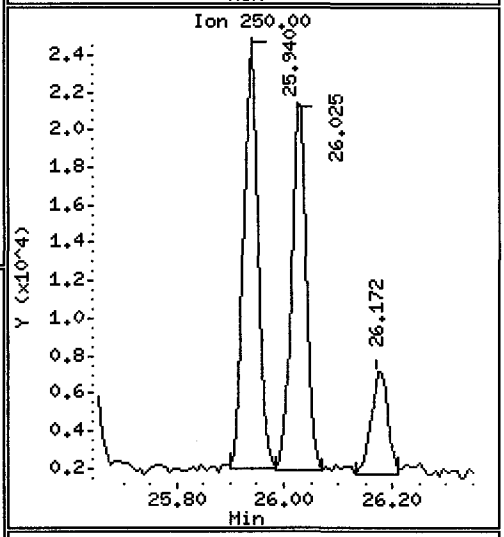


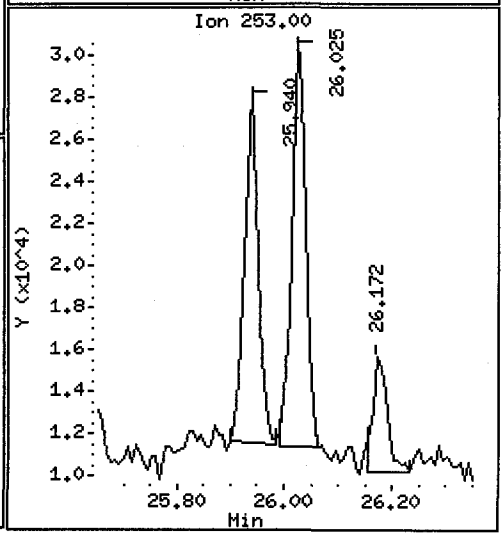












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

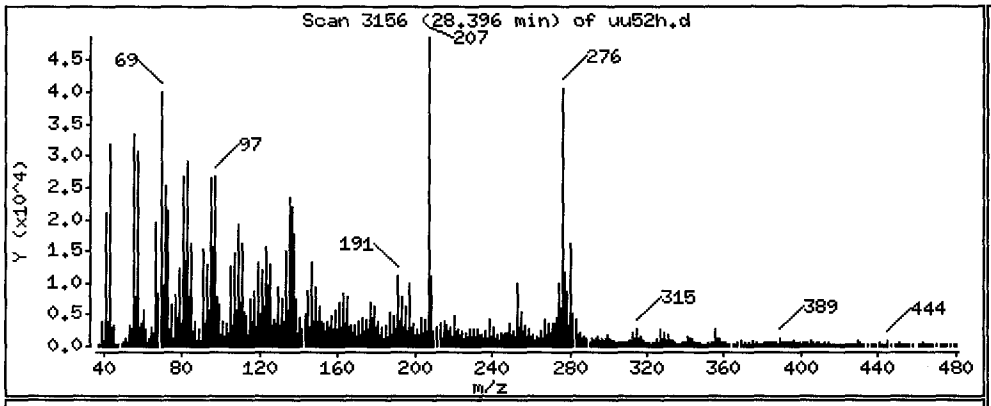
Client ID: MS007-SS-120515 Instrument: nt10.i

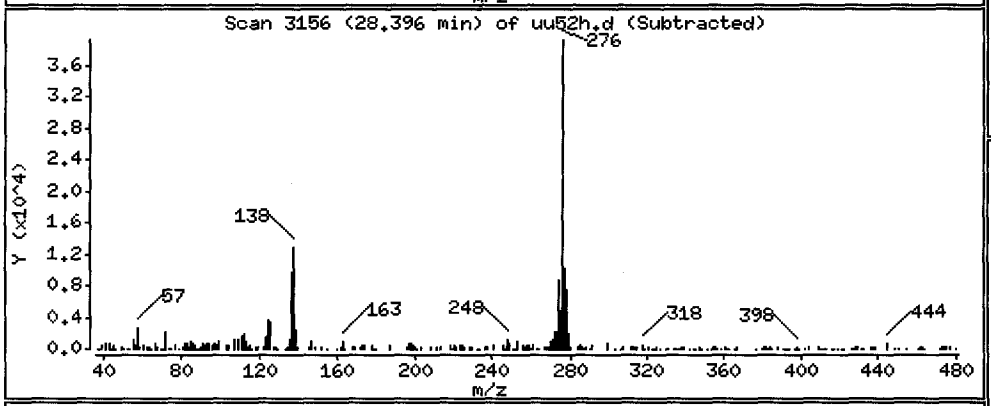
Sample Info: UU52H,3

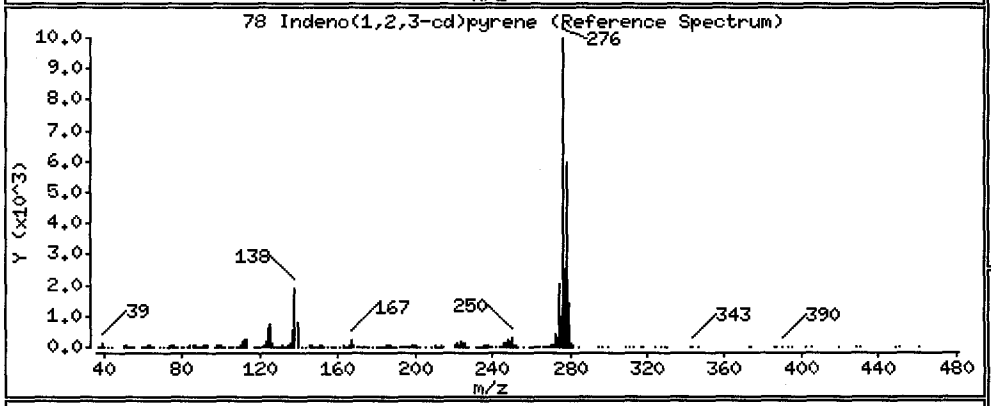
Volume Injected (uL): 1.0 Operator: VTS/YZ

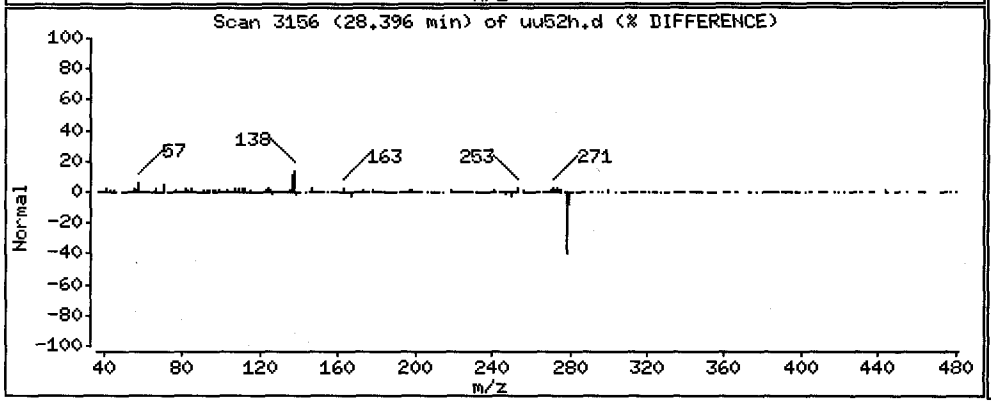
Column phase: ZB-5msi Column diameter: 0.25

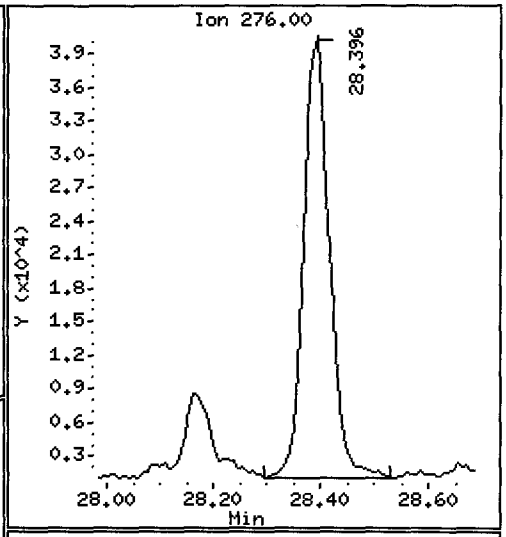
78 Indeno(1,2,3-cd)pyrene Concentration: 195.4 ug/kg

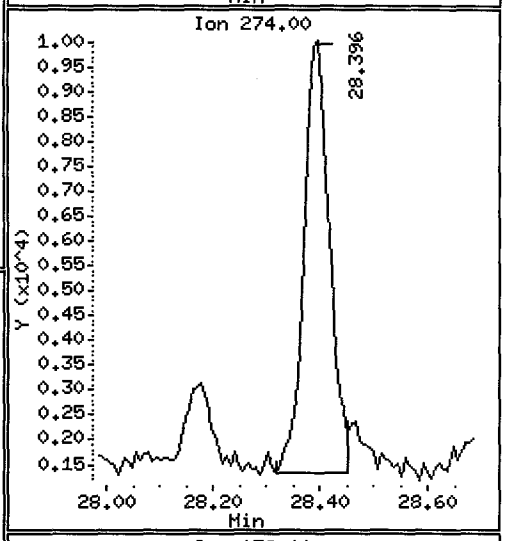


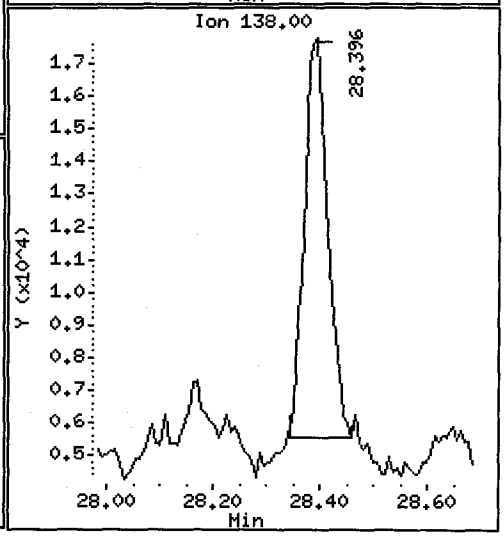












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

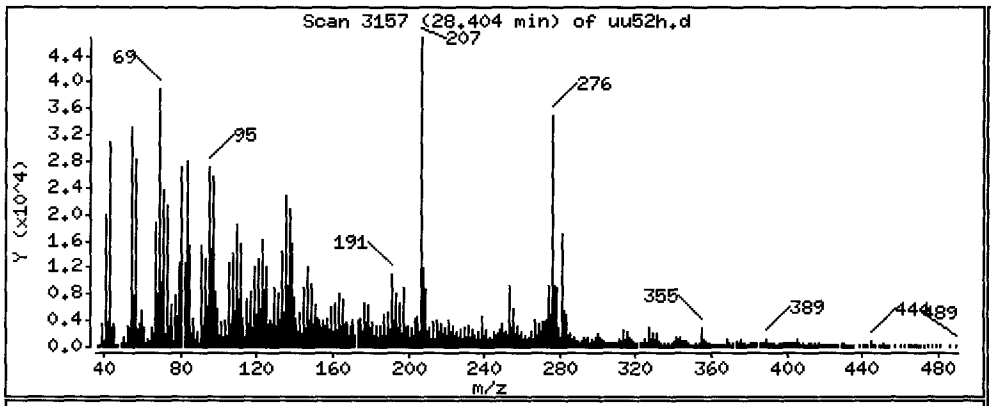
Operator: VTS/YZ

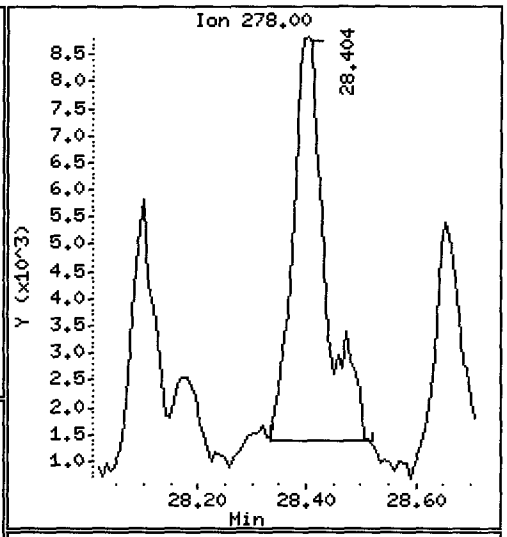
Column phase: ZB-5msi

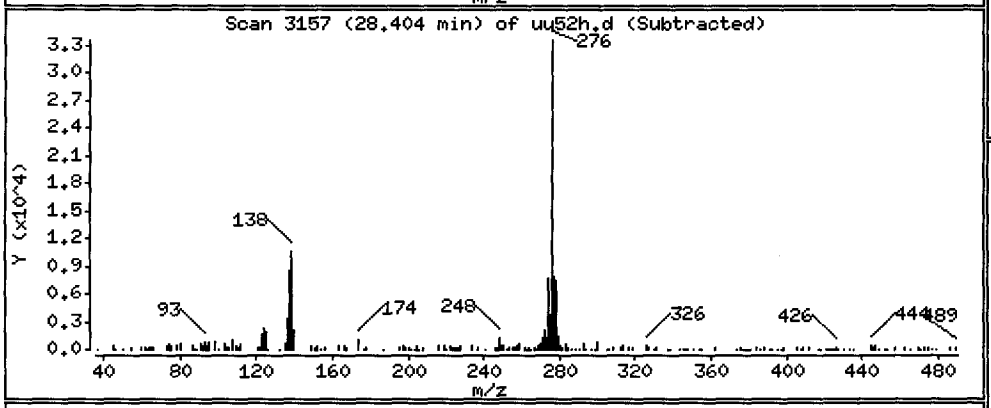
Column diameter: 0.25

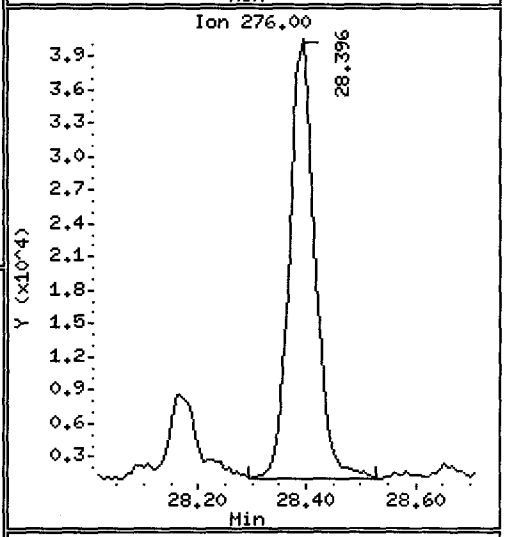
79 Dibenzo(a,h)anthracene

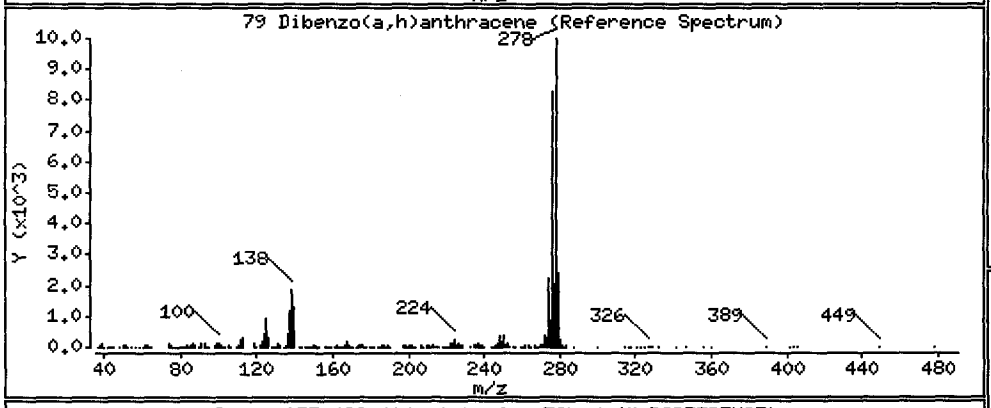
Concentration: 58.64 ug/kg

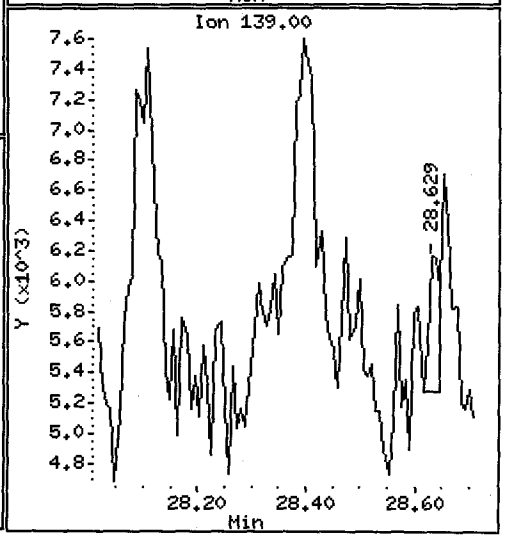


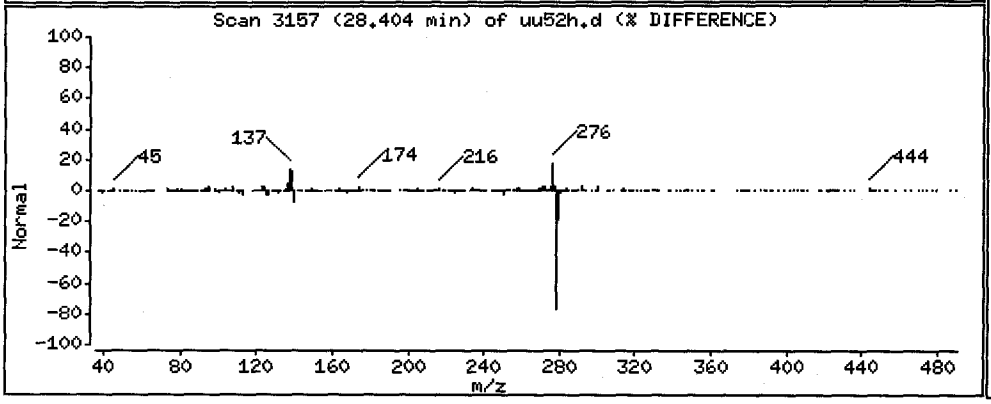












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

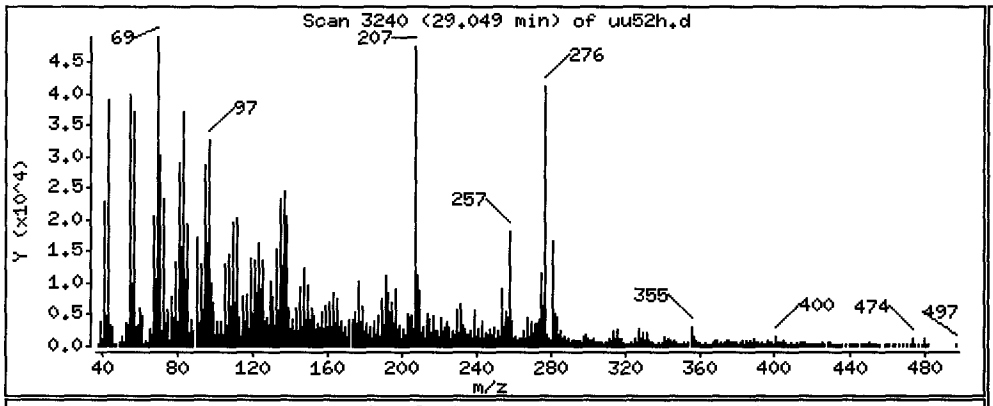
Operator: VTS/YZ

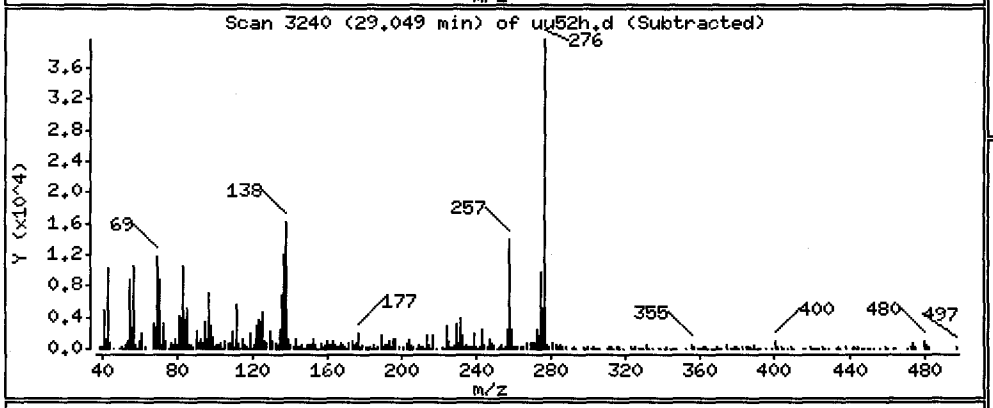
Column phase: ZB-5msi

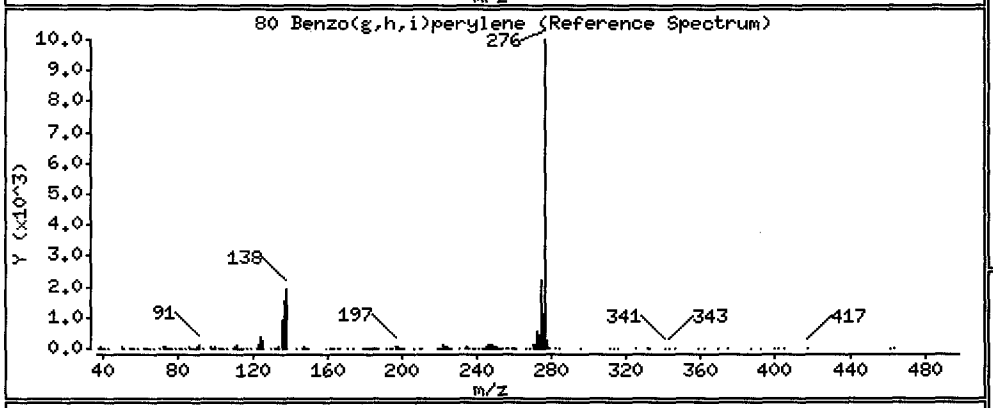
Column diameter: 0.25

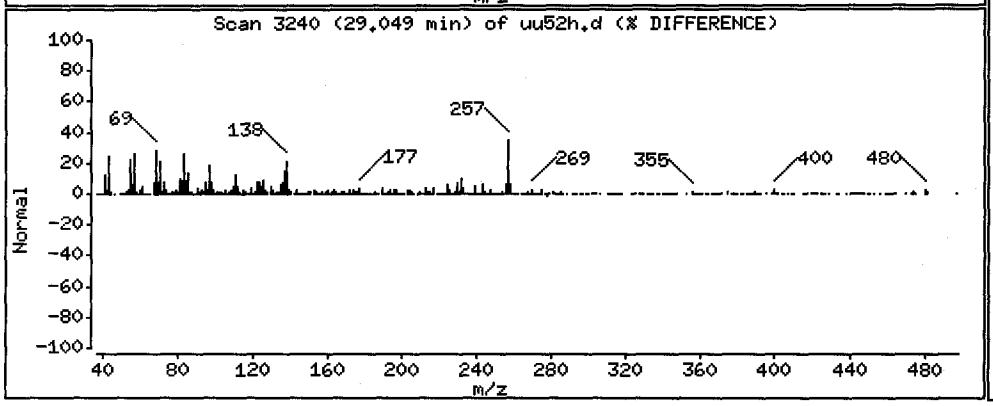
80 Benzo(g,h,i)perylene

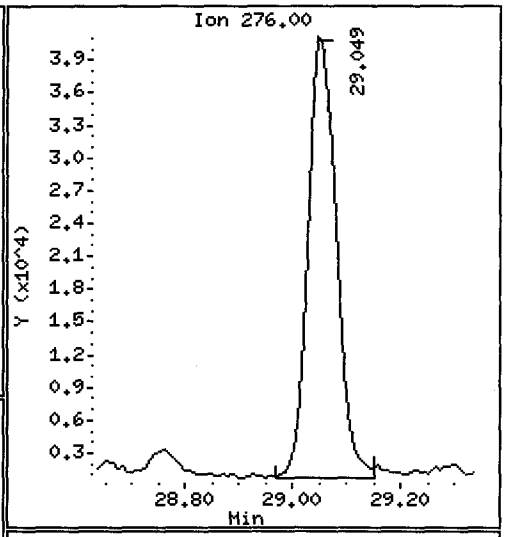
Concentration: 248.9 ug/kg

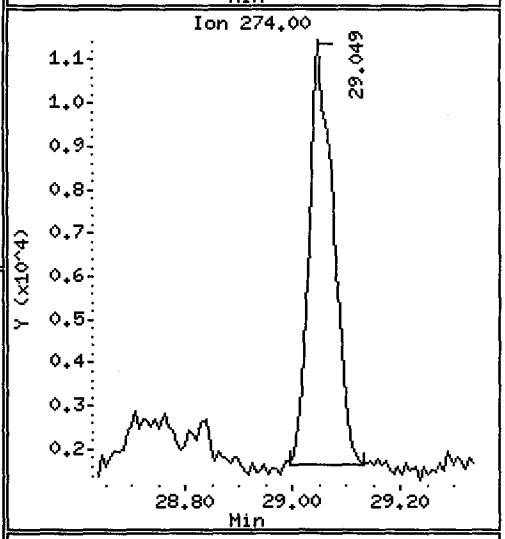


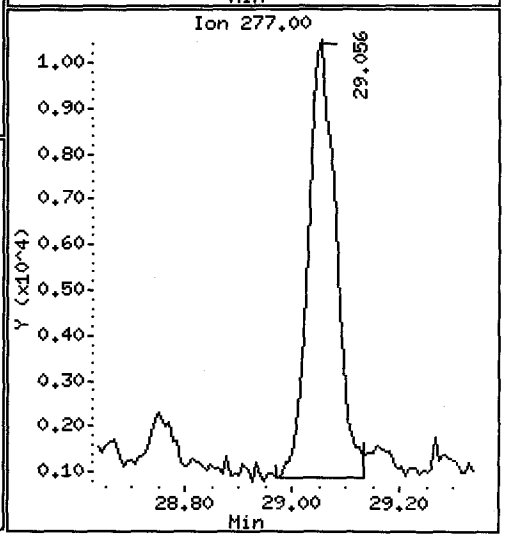












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

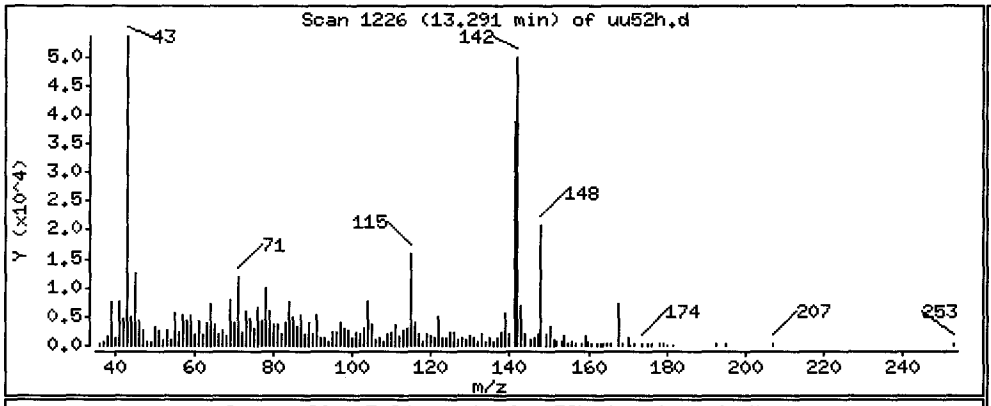
Client ID: MS007-SS-120515 Instrument: nt10.i

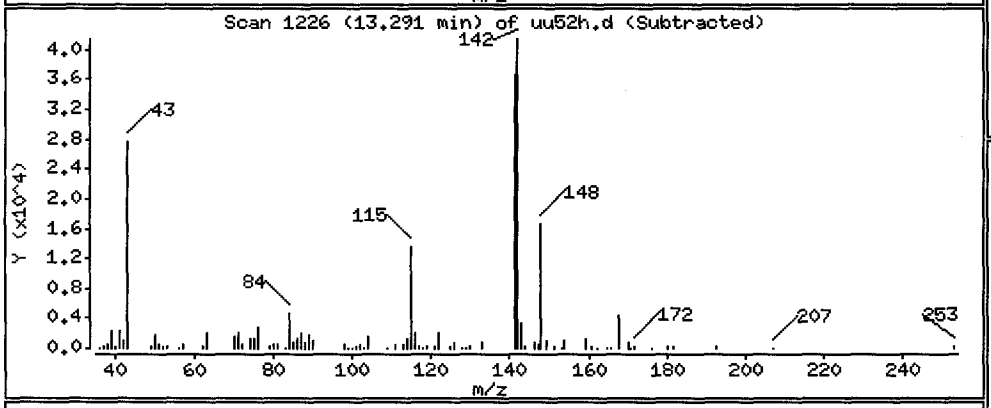
Sample Info: UU52H,3

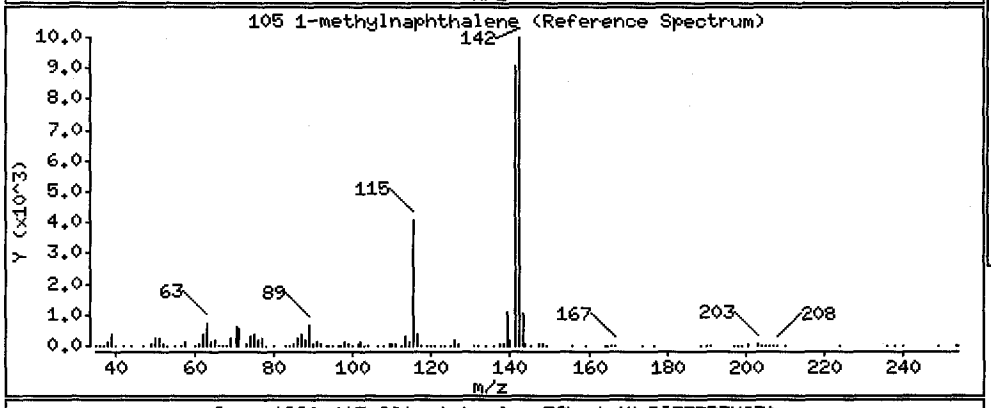
Volume Injected (uL): 1.0 Operator: VTS/YZ

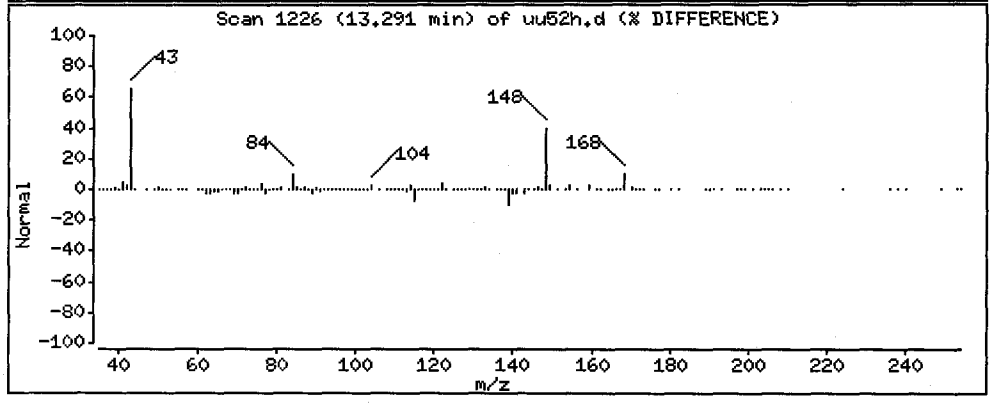
Column phase: ZB-5msi Column diameter: 0.25

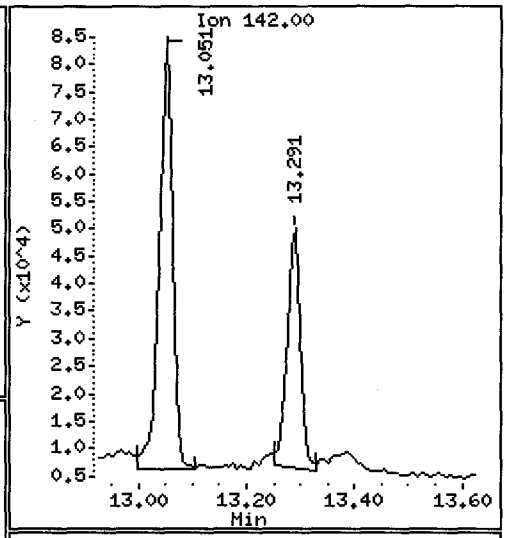
105 1-methylnaphthalene Concentration: 163.8 ug/kg

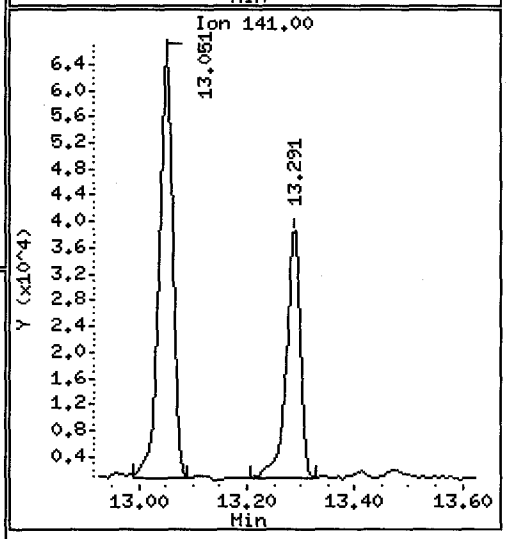












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

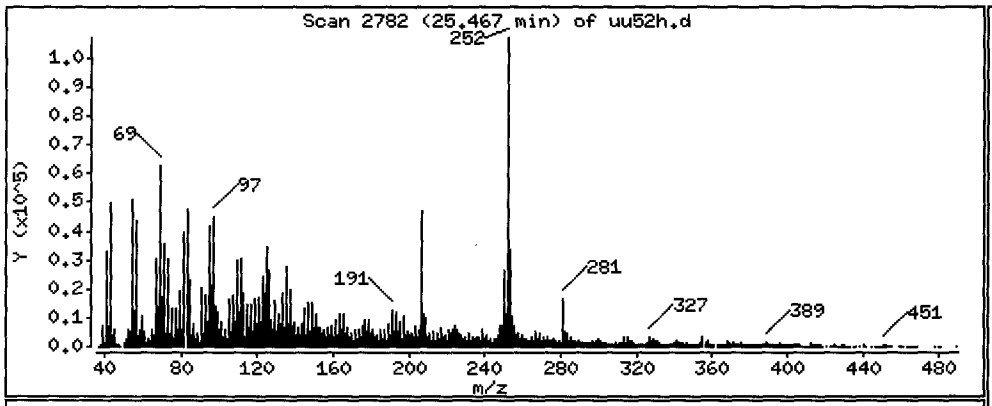
Operator: VTS/YZ

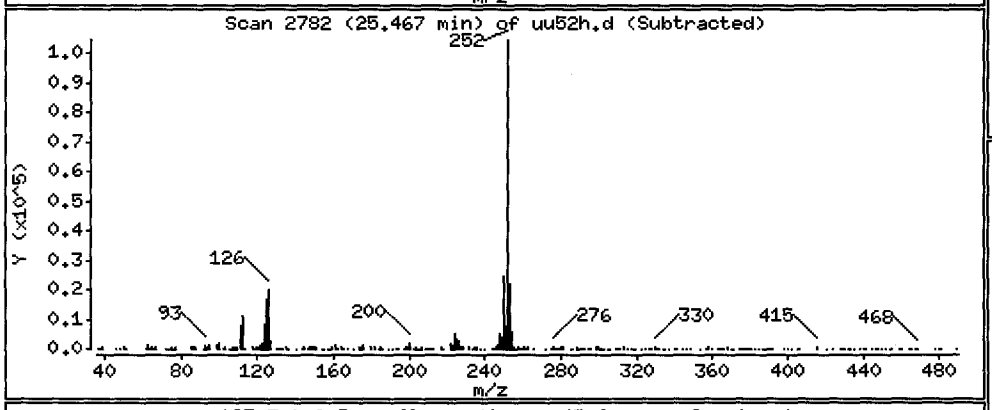
Column phase: ZB-5msi

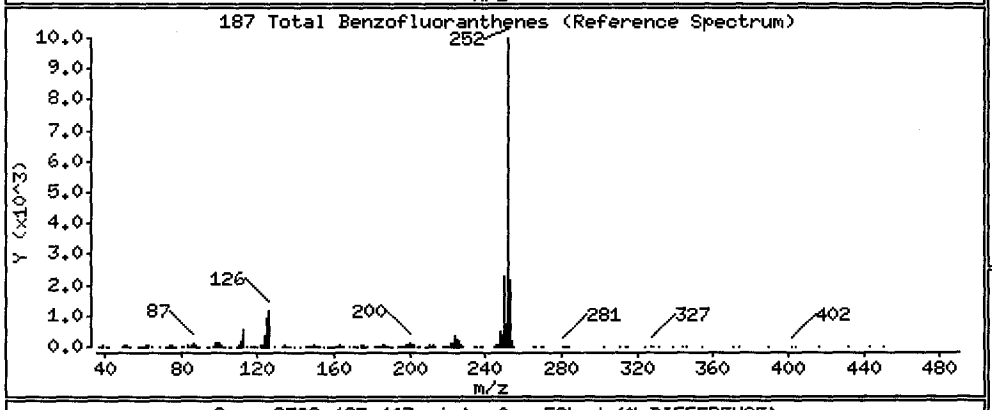
Column diameter: 0.25

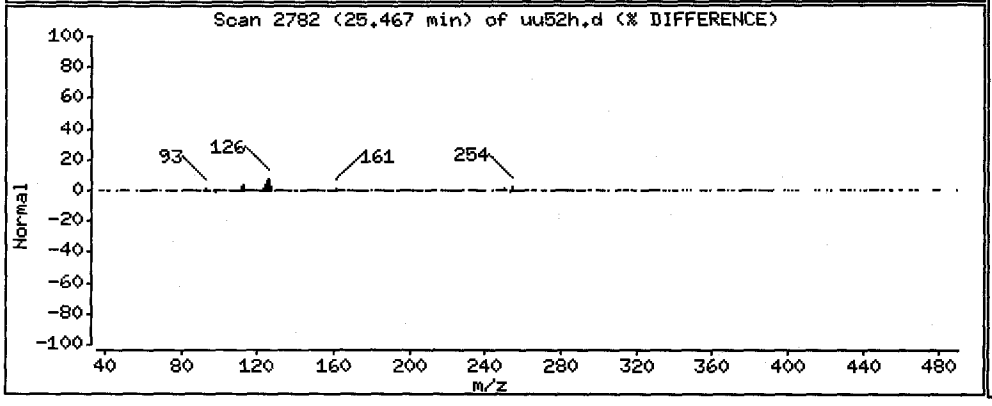
187 Total Benzofluoranthenes

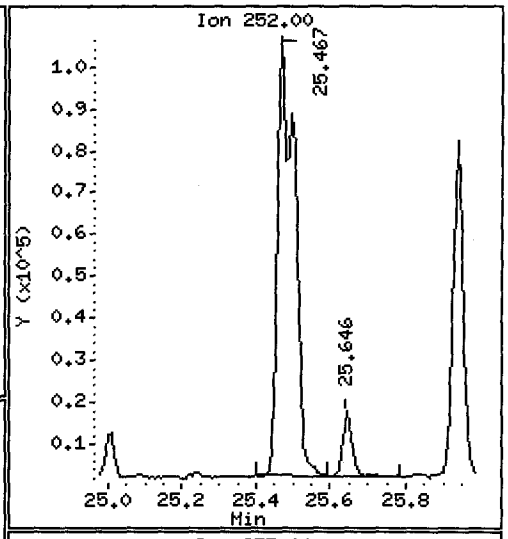
Concentration: 539.4 ug/kg

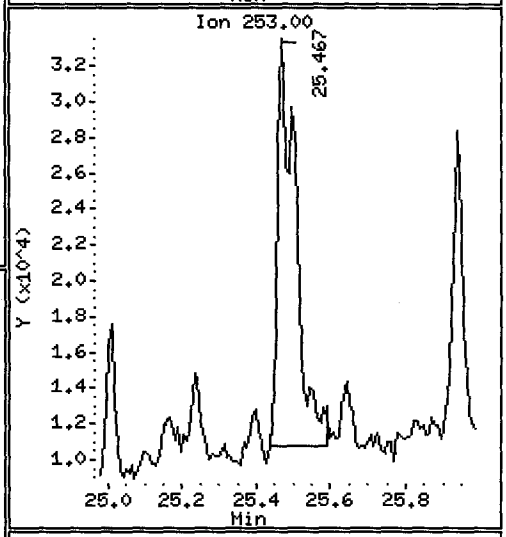


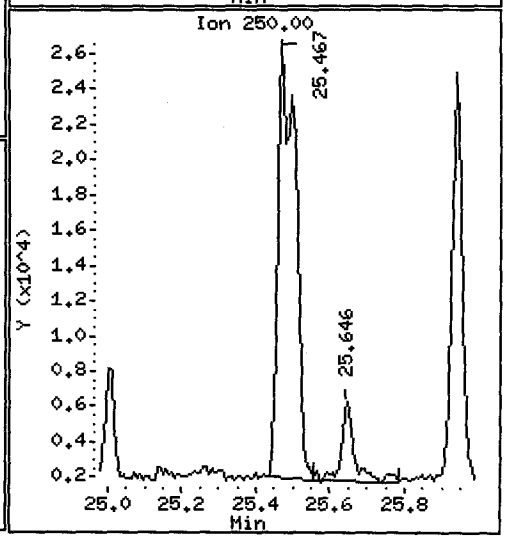












Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

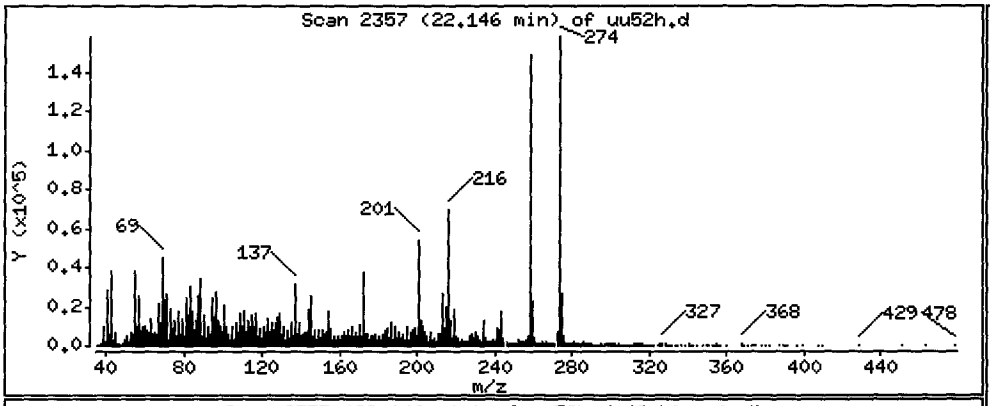
Operator: VTS/YZ

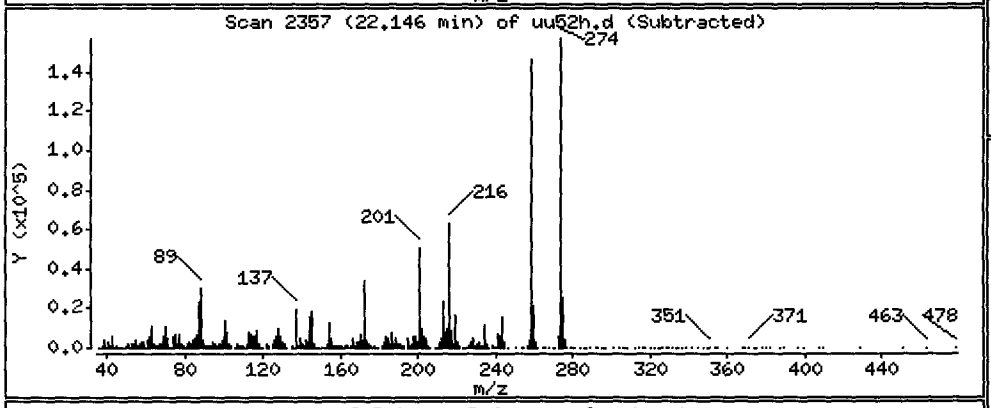
Column phase: ZB-5msi

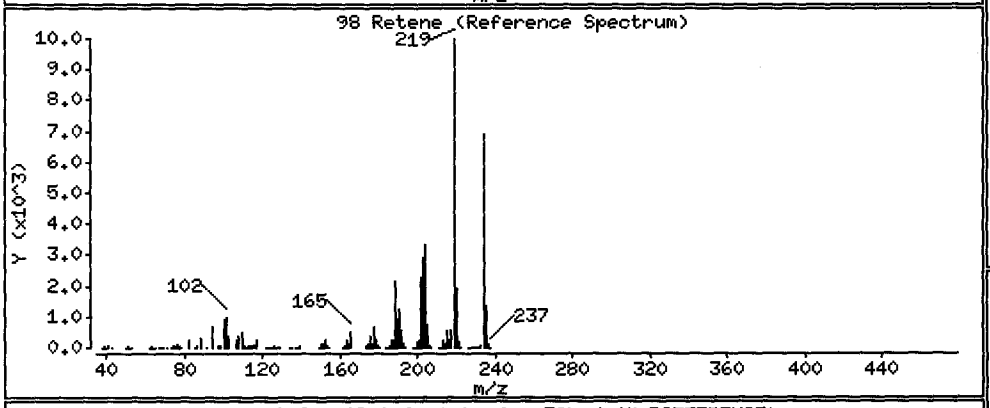
Column diameter: 0.25

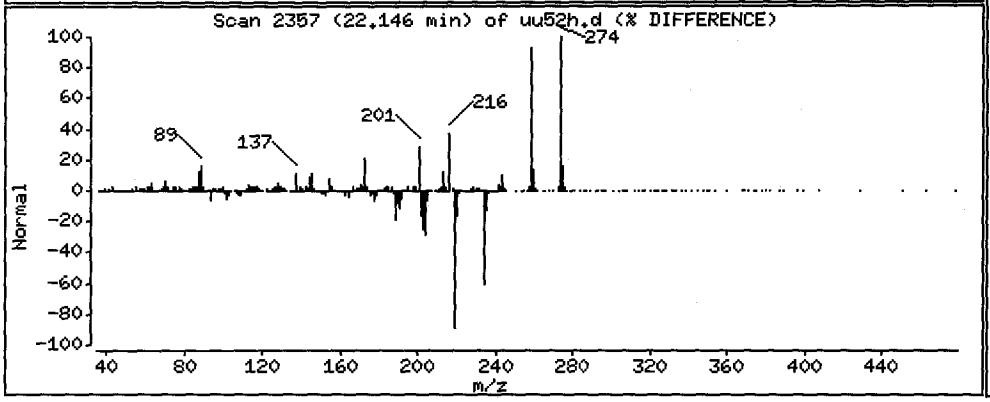
98 Retene

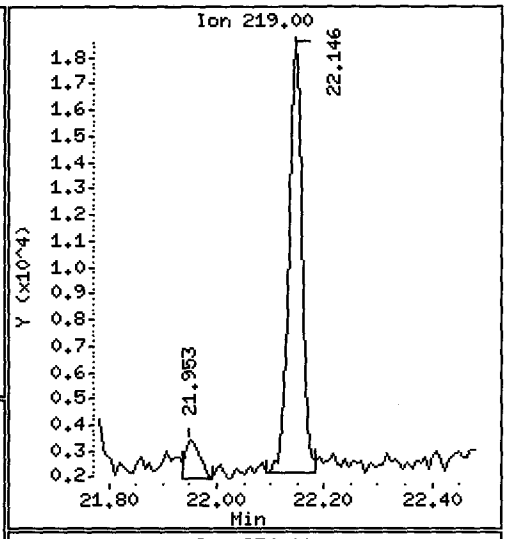
Concentration: 84.51 ug/kg

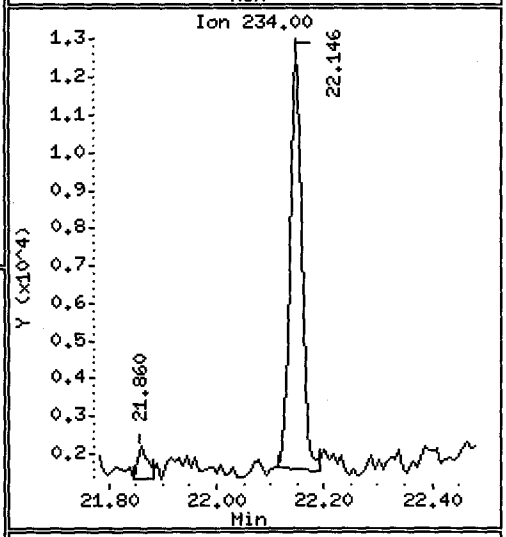


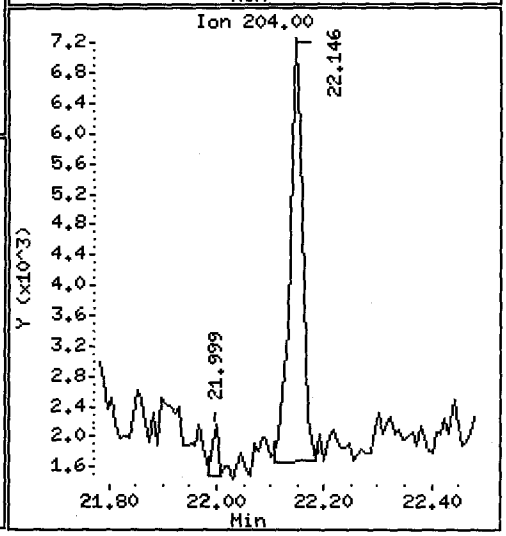






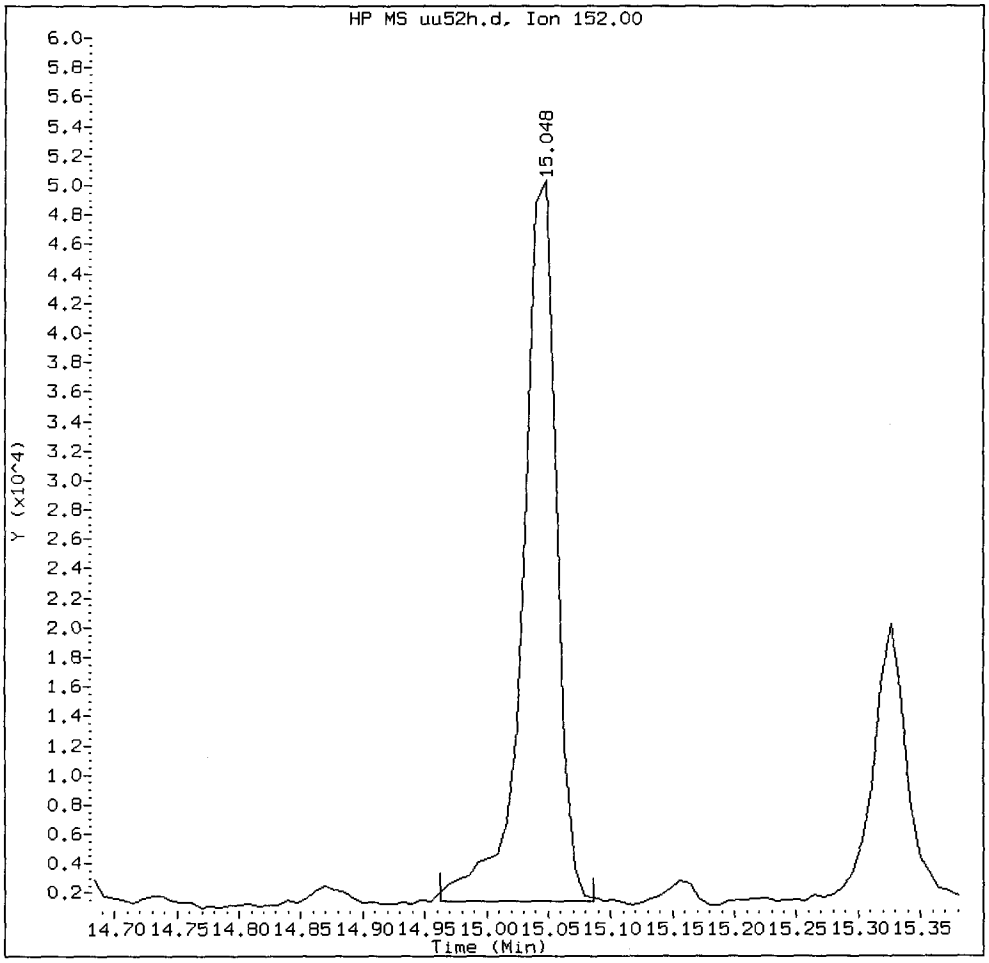






UU52H, /chem1/nt10.i/20120526.b/uu52h.d

Acenaphthylene Amount: 0.48 Area: 95237



MANUAL INTEGRATION for Acenaphthylene

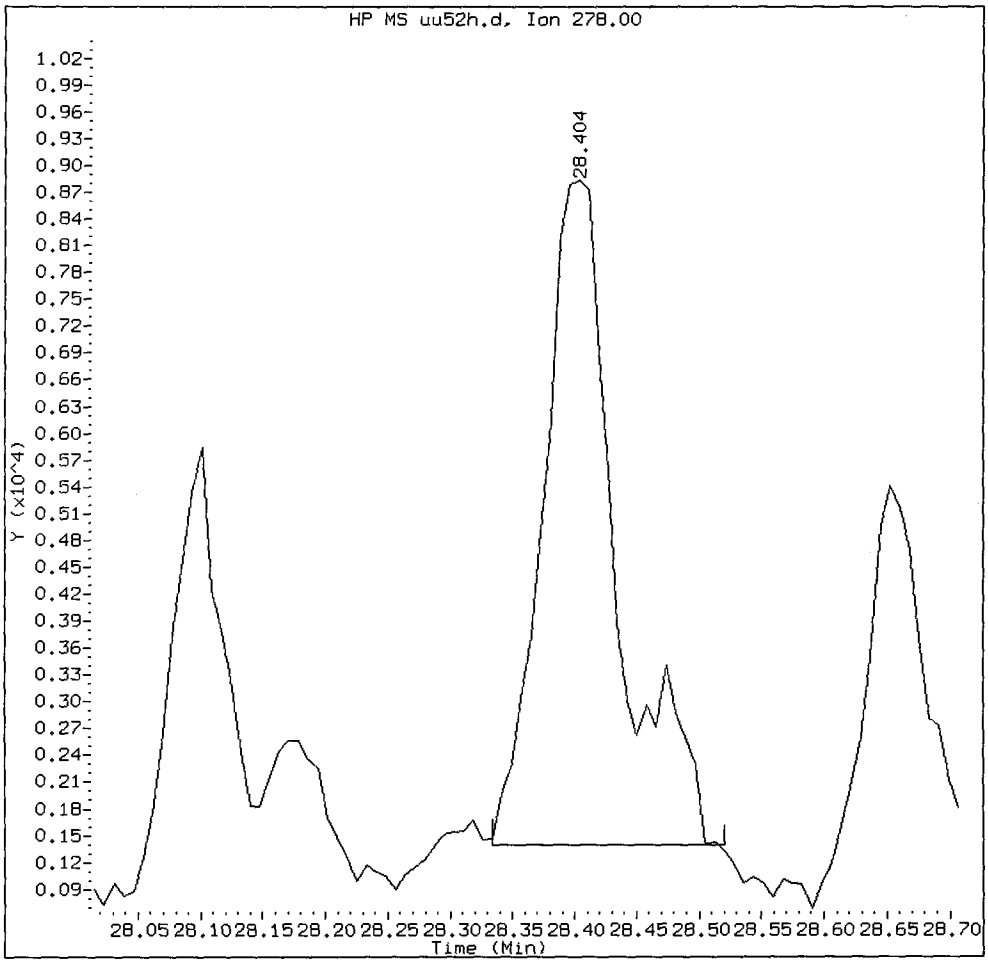
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ Date: 5/30/12

UU52H, /chem1/nt10.i/20120526.b/uu52h.d

Dibenzo(a,h)anthracene Amount: 0.20 Area: 31302



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

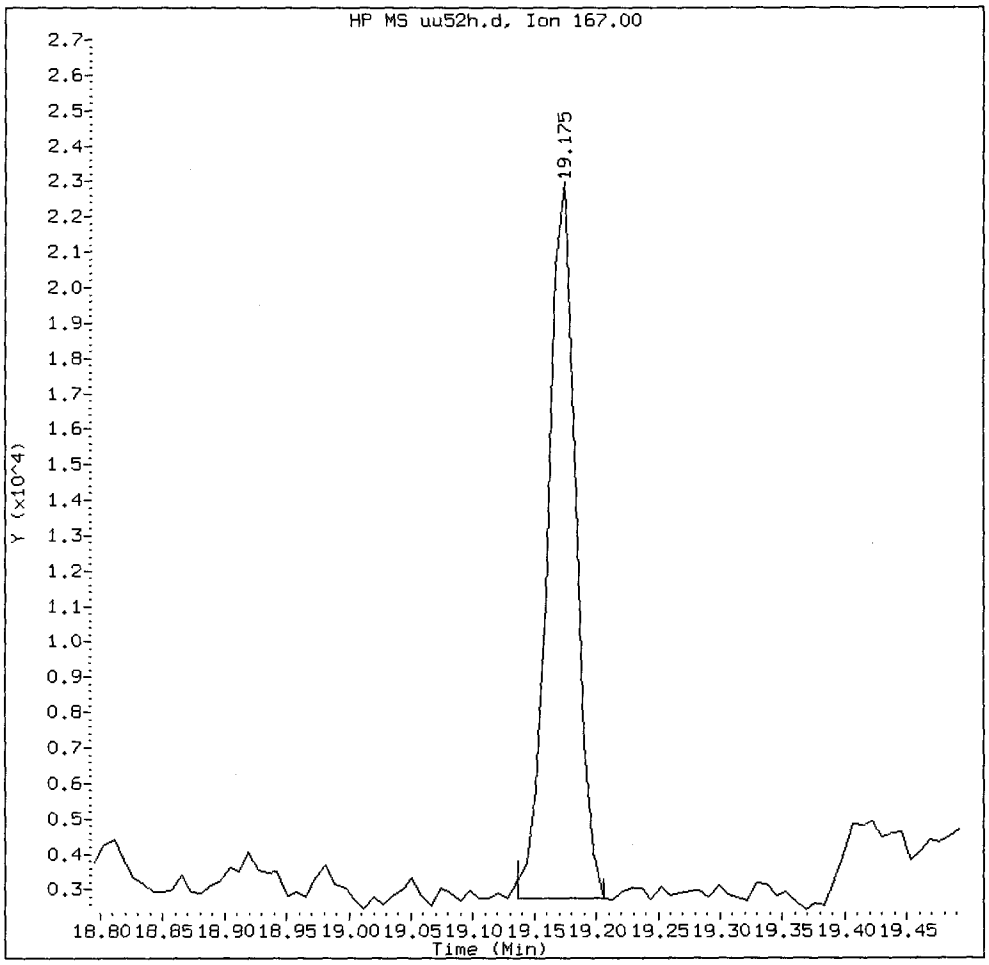
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VR Date: 5/30/12

UU52H, /chem1/nt10.i/20120526.b/uu52h.d

Carbazole Amount: 0.21 Area: 32390



MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/4/12

CO-ELUTION SUMMARY FOR FILE - uu52h.d

Lab ID: UU52H, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc. YZ 6/4/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120529.b/uu52hms.d
Lab Smp Id: UU52HMS Client Smp ID: MS007-SS-120515 MS
Inj Date : 29-MAY-2012 11:41
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52HMS
Misc Info : 12-8900
Comment : 1ul Injection
Method : /chem1/nt10.i/20120529.b/ABN.m
Meth Date : 30-May-2012 12:34 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 1 QC Sample: MS
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	63.10000	Weight of sample extracted (g)
M	83.90000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.583	6.560	(0.742)	101244	1.49213	440.6
$ 2	Phenol-d5	99	8.275	8.260	(0.933)	127108	1.50385	444.1
3	Phenol	94	8.299	8.283	(0.935)	172409	1.91371	565.1
$ 5	2-Chlorophenol-d4	132	8.499	8.492	(0.958)	116564	1.57412	464.8
4	Bis(2-Chloroethyl)ether	93	8.415	8.399	(0.949)	66833	0.99632	294.2
6	2-Chlorophenol	128	8.530	8.507	(0.962)	76783	0.96513	285.0
7	1,3-Dichlorobenzene	146	8.801	8.794	(0.992)	73928	0.92812	274.1
* 8	1,4-Dichlorobenzene-d4	152	8.871	8.863	(1.000)	194036	4.00000	
9	1,4-Dichlorobenzene	146	8.902	8.894	(1.003)	75383	0.96961	286.3
$ 10	1,2-Dichlorobenzene-d4	152	9.251	9.244	(1.043)	47260	0.97287	287.3
12	1,2-Dichlorobenzene	146	9.275	9.275	(1.045)	73190	0.96481	284.9
11	Benzyl alcohol	108	9.197	9.182	(1.037)	55657	1.47046	434.2
14	2,2'-oxybis(1-Chloropropane)	121	9.500	9.492	(1.071)	25332	1.02579	302.9
13	2-Methylphenol	108	9.461	9.453	(1.066)	70923	0.99882	295.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	9.896	9.896	(1.115)	16906	0.55970	165.3
	16 N-Nitroso-di-n-propylamine	70	9.779	9.756	(1.102)	43991	1.05136	310.5
	15 4-Methylphenol	108	9.764	9.748	(1.101)	462677	6.24562	1844(R)
$	18 Nitrobenzene-d5	82	10.043	10.035	(0.872)	65762	0.98310	290.3
	19 Nitrobenzene	77	10.074	10.059	(0.875)	68080	1.03410	305.4
	20 Isophorone	82	10.571	10.540	(0.918)	128239	1.03327	305.1
	21 2-Nitrophenol	139	10.749	10.733	(0.934)	39891	0.96092	283.8
	22 2,4-Dimethylphenol	107	10.856	10.857	(0.943)	220951	3.35970	992.1
	23 Bis(2-Chloroethoxy)methane	93	11.041	11.034	(0.959)	81494	1.10256	325.6
	24 Benzoic acid	105	11.095	11.126	(0.964)	428637	9.83134	2903
	25 2,4-Dichlorophenol	162	11.257	11.226	(0.978)	219916	3.47654	1027
	26 1,2,4-Trichlorobenzene	180	11.427	11.427	(0.993)	64102	1.06445	314.3
*	27 Naphthalene-d8	136	11.512	11.512	(1.000)	746578	4.00000	
	28 Naphthalene	128	11.558	11.550	(1.004)	1229770	6.53395	1929(R)
	29 4-Chloroaniline	127	11.558	11.705	(1.004)	154500	1.84249	544.1
	30 Hexachlorobutadiene	225	11.952	11.952	(1.038)	34653	1.07012	316.0
	31 4-Chloro-3-methylphenol	107	12.811	12.772	(1.113)	201937	3.55781	1051
	32 2-Methylnaphthalene	142	13.051	13.051	(1.134)	233582	1.78521	527.2
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	13.748	13.724	(0.893)	148535	3.50391	1035
	35 2,4,5-Trichlorophenol	196	13.840	13.809	(0.899)	165113	3.63850	1074
$	36 2-Fluorobiphenyl	172	13.910	13.910	(0.904)	159234	1.06782	315.3
	37 2-Chloronaphthalene	162	14.111	14.104	(0.917)	140323	1.10077	325.1
	38 2-Nitroaniline	65	14.382	14.398	(0.935)	9450	0.30995	91.53
	39 Dimethylphthalate	163	14.909	14.909	(0.969)	150279	1.13699	335.8
	40 Acenaphthylene	152	15.048	15.048	(0.978)	291348	1.50803	445.3
	41 2,6-Dinitrotoluene	165	15.040	15.025	(0.977)	118419	3.67744	1086
*	42 Acenaphthene-d10	164	15.388	15.388	(1.000)	430169	4.00000	
	43 3-Nitroaniline	138	15.458	15.319	(1.005)	193639	5.32606	1573
	44 Acenaphthene	153	15.458	15.458	(1.005)	180825	1.55173	458.2
	45 2,4-Dinitrophenol	184	15.574	15.558	(1.012)	25162	1.20910	357.0
	46 Dibenzofuran	168	15.813	15.813	(1.028)	299092	1.75192	517.3
	47 4-Nitrophenol	109	15.798	15.736	(1.027)	49645	3.54810	1048
	48 2,4-Dinitrotoluene	165	15.914	15.891	(1.034)	134060	3.22684	952.9
	50 Diethylphthalate	149	16.486	16.478	(1.071)	165739	1.28626	379.8
	49 Fluorene	166	16.579	16.579	(1.077)	212646	1.62559	480.0
	51 4-Chlorophenyl-phenylether	204	16.594	16.579	(1.078)	80584	1.29736	383.1
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	16.810	16.795	(0.901)	71647	2.78565	822.6
	54 N-Nitrosodiphenylamine	169	16.872	16.872	(0.904)	35929	0.41204	121.7(R)
$	55 2,4,6-Tribromophenol	330	17.165	17.157	(1.115)	31329	1.76449	521.1
	56 4-Bromophenyl-phenylether	248	17.674	17.659	(0.947)	38264	1.10269	325.6
	57 Hexachlorobenzene	284	17.999	17.991	(0.965)	44453	1.11106	328.1
	58 Pentachlorophenol	266	18.401	18.394	(0.986)	76477	3.69386	1091
*	59 Phenanthrene-d10	188	18.657	18.649	(1.000)	648205	4.00000	
	60 Phenanthrene	178	18.703	18.703	(1.002)	747122	4.46986	1320(R)
	61 Anthracene	178	18.804	18.796	(1.008)	289577	1.65844	489.7

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	19.175	19.144	(1.028)	228173	1.41232	417.1
63	Di-n-butylphthalate	149	20.034	20.018	(1.074)	313544	1.37897	407.2
64	Fluoranthene	202	21.140	21.117	(1.133)	864441	4.55498	1345(R)
65	Pyrene	202	21.550	21.535	(0.908)	867459	4.10425	1212(R)
$ 66	Terphenyl-d14	244	21.860	21.852	(0.921)	144084	1.08823	321.4
67	Butylbenzylphthalate	149	22.804	22.797	(0.961)	137056	1.39792	412.8
68	Benzo(a)anthracene	228	23.703	23.695	(0.999)	376148	1.92505	568.5
* 69	Chrysene-d12	240	23.726	23.726	(1.000)	694641	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.772	23.765	(1.002)	400588	2.33049	688.2
72	bis(2-Ethylhexyl)phthalate	149	23.834	23.834	(0.961)	248712	1.62995	481.3
* 134	Di-n-octylphthalate-d4	153	24.810	24.802	(1.000)	1111139	4.00000	
73	Di-n-octylphthalate	149	24.817	24.817	(1.000)	342824	1.26816	374.5
74	Benzo(b)fluoranthene	252	25.475	25.444	(0.975)	430059	2.22735	657.7
75	Benzo(k)fluoranthene	252	25.506	25.483	(0.976)	442671	2.08216	614.9(H)
76	Benzo(a)pyrene	252	26.033	26.025	(0.996)	367101	2.06559	610.0
* 77	Perylene-d12	264	26.134	26.126	(1.000)	687334	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.396	28.389	(1.087)	379406	1.84557	545.0
79	Dibenzo(a,h)anthracene	278	28.412	28.396	(1.087)	212193	1.31033	386.9
80	Benzo(g,h,i)perylene	276	29.064	29.041	(1.112)	380629	2.15917	637.6
90	N-Nitrosodimethylamine	74	4.297	4.266	(0.484)	112429	2.78683	823.0
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	4.336	4.290	(0.489)	173597	4.98363	1472
105	1-methylnaphthalene	142	13.291	13.291	(1.155)	199418	1.49446	441.3
111	Azobenzene (1,2-DP-Hydrazine)	77	16.941	16.926	(1.101)	118047	0.90417	267.0
187	Total Benzofluoranthenes	252	25.475	25.506	(0.975)	807627	4.23470	1251
99	Perylene	252	26.180	26.149	(1.002)	205240	1.14877	339.2
98	Retene	219	22.146	22.146	(0.933)	30149	0.30633	90.46

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52hms.d
Lab Smp Id: UU52HMS
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8900

Calibration Date: 29-MAY-2012
Calibration Time: 11:01
Client Smp ID: MS007-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	194036	2.39
27 Naphthalene-d8	730932	365466	1461864	746578	2.14
42 Acenaphthene-d10	420698	210349	841396	430169	2.25
59 Phenanthrene-d10	638950	319475	1277900	648205	1.45
69 Chrysene-d12	645065	322532	1290130	694641	7.69
134 Di-n-octylphthala	1016118	508059	2032236	1111139	9.35
77 Perylene-d12	650033	325016	1300066	687334	5.74

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.87	0.09
27 Naphthalene-d8	11.51	11.01	12.01	11.51	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.65	18.15	19.15	18.66	0.04
69 Chrysene-d12	23.73	23.23	24.23	23.73	0.00
134 Di-n-octylphthala	24.80	24.30	25.30	24.81	0.03
77 Perylene-d12	26.13	25.63	26.63	26.13	0.03

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

Analytical Resources, Inc.

RECOVERY REPORT

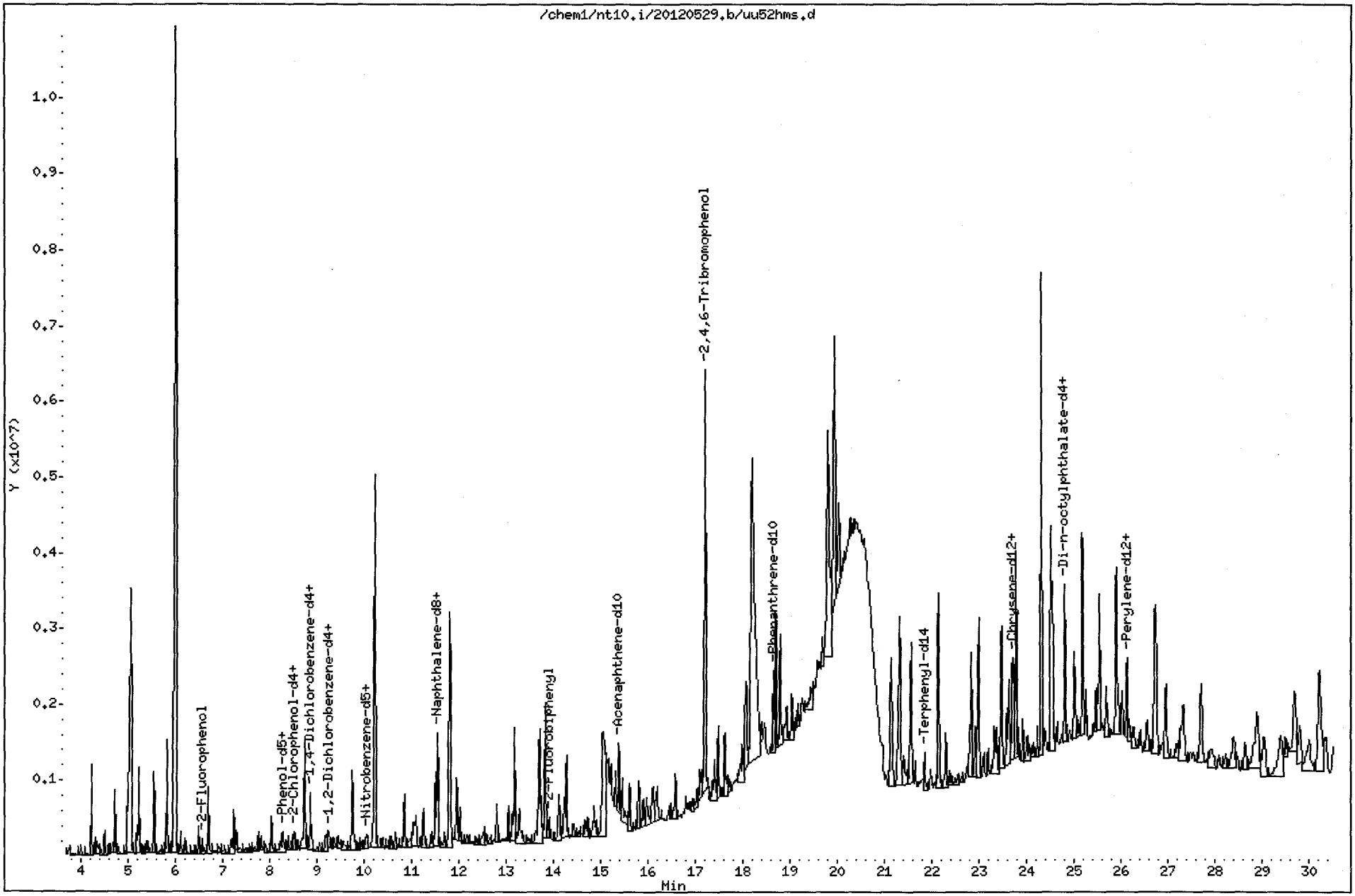
Client Name: Anchor QEA
Client SDG: UU52
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: UU52HMS
Client Smp ID: MS007-SS-120515 MS
Level: LOW
Operator: VTS/YZ
Data Type: MS DATA
SampleType: MS
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8900

SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	492.2	565.1	114.82	30-160
7	1,3-Dichlorobenzen	492.2	274.1	55.69	30-160
9	1,4-Dichlorobenzen	492.2	286.3	58.18	30-160
11	Benzyl alcohol	492.2	434.2	88.23	30-160
12	1,2-Dichlorobenzen	492.2	284.9	57.89	30-160
13	2-Methylphenol	492.2	295.0	59.93	30-160
15	4-Methylphenol	984.3	1844	187.37*	30-160
17	Hexachloroethane	492.2	165.3	33.58	30-160
22	2,4-Dimethylphenol	1477	992.1	67.19	30-160
24	Benzoic acid	2707	2903	107.25	30-160
26	1,2,4-Trichloroben	492.2	314.3	63.87	30-160
28	Naphthalene	492.2	1929	392.04*	30-160
30	Hexachlorobutadien	492.2	316.0	64.21	30-160
32	2-Methylnaphthalen	492.2	527.2	107.11	30-160
39	Dimethylphthalate	492.2	335.8	68.22	30-160
40	Acenaphthylene	492.2	445.3	90.48	30-160
44	Acenaphthene	492.2	458.2	93.10	30-160
46	Dibenzofuran	492.2	517.3	105.12	30-160
49	Fluorene	492.2	480.0	97.54	30-160
50	Diethylphthalate	492.2	379.8	77.18	30-160
54	N-Nitrosodiphenyla	492.2	121.7	24.72*	30-160
57	Hexachlorobenzene	492.2	328.1	66.66	30-160
58	Pentachlorophenol	1477	1091	73.88	30-160
60	Phenanthrene	492.2	1320	268.19*	30-160
61	Anthracene	492.2	489.7	99.51	30-160
63	Di-n-butylphthalat	492.2	407.2	82.74	30-160
64	Fluoranthene	492.2	1345	273.30*	30-160
65	Pyrene	492.2	1212	246.25*	30-160
67	Butylbenzylphthala	492.2	412.8	83.88	30-160
68	Benzo(a)anthracene	492.2	568.5	115.50	30-160
71	Chrysene	492.2	688.2	139.83	30-160
72	bis(2-Ethylhexyl)p	492.2	481.3	97.80	30-160
73	Di-n-octylphthalat	492.2	374.5	76.09	30-160

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	492.2	610.0	123.94	30-160
78 Indeno(1,2,3-cd)py	492.2	545.0	110.73	30-160
79 Dibenzo(a,h)anthra	492.2	386.9	78.62	30-160
80 Benzo(g,h,i)peryle	492.2	637.6	129.55	30-160
105 1-methylnaphthalen	492.2	441.3	89.67	30-160
187 Total Benzofluoran	984.3	1251	127.04	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	738.3	440.6	59.69	30-160
$ 2 Phenol-d5	738.3	444.1	60.15	30-160
$ 5 2-Chlorophenol-d4	738.3	464.8	62.96	30-160
$ 10 1,2-Dichlorobenzen	492.2	287.3	58.37	30-160
$ 18 Nitrobenzene-d5	492.2	290.3	58.99	30-160
$ 36 2-Fluorobiphenyl	492.2	315.3	64.07	30-160
$ 55 2,4,6-Tribromophen	738.3	521.1	70.58	30-160
$ 66 Terphenyl-d14	492.2	321.4	65.29	30-160

Data File: /chem1/nt10.i/20120529.b/uu52hms.d
Date : 29-MAY-2012 11:41
Client ID: MS007-SS-120515 MS
Instrument: nt10.i
Sample Info: UU52HMS
Volume Injected (uL): 1.0
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - uu52hms.d

Lab ID: UU52HMS, Method: ABN.m, Instrument: nt10.i, Date: 29-MAY-2012

RT	CO-ELUTION COMPOUNDS
15.458	Acenaphthene and 3-Nitroaniline

Analytical Resources, Inc. YZ 6/4/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120529.b/uu52hmsd.d
Lab Smp Id: UU52HMSD Client Smp ID: MS007-SS-120515 MSD
Inj Date : 29-MAY-2012 12:19
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52HMSD,3
Misc Info : 12-8900
Comment : 1ul Injection
Method : /chem1/nt10.i/20120529.b/ABN.m
Meth Date : 30-May-2012 12:34 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 2 QC Sample: MSD
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	63.20000	Weight of sample extracted (g)
M	83.90000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.575	6.560	(0.741)	110832	1.59579	470.5
$ 2	Phenol-d5	99	8.268	8.260	(0.932)	141462	1.63511	482.1
3	Phenol	94	8.291	8.283	(0.935)	170430	1.84814	544.9
$ 5	2-Chlorophenol-d4	132	8.499	8.492	(0.958)	125303	1.65314	487.4
4	Bis(2-Chloroethyl)ether	93	8.407	8.399	(0.948)	73510	1.07061	315.7
6	2-Chlorophenol	128	8.530	8.507	(0.962)	86235	1.05895	312.2
7	1,3-Dichlorobenzene	146	8.793	8.794	(0.991)	81422	0.99865	294.4
* 8	1,4-Dichlorobenzene-d4	152	8.871	8.863	(1.000)	198613	4.00000	
9	1,4-Dichlorobenzene	146	8.902	8.894	(1.003)	81307	1.02171	301.2
$ 10	1,2-Dichlorobenzene-d4	152	9.243	9.244	(1.042)	50697	1.01958	300.6
12	1,2-Dichlorobenzene	146	9.275	9.275	(1.045)	79683	1.02619	302.6
11	Benzyl alcohol	108	9.189	9.182	(1.036)	58988	1.52255	448.9
14	2,2'-oxybis(1-Chloropropane)	121	9.500	9.492	(1.071)	27273	1.07894	318.1
13	2-Methylphenol	108	9.461	9.453	(1.066)	78682	1.08256	319.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
17	Hexachloroethane	117	9.896	9.896	(1.115)	24370	0.78821	232.4
16	N-Nitroso-di-n-propylamine	70	9.771	9.756	(1.101)	48611	1.13500	334.6
15	4-Methylphenol	108	9.756	9.748	(1.100)	447575	5.90253	1740(R)
$ 18	Nitrobenzene-d5	82	10.035	10.035	(0.872)	74989	1.08072	318.6
19	Nitrobenzene	77	10.074	10.059	(0.875)	72545	1.06229	313.2
20	Isophorone	82	10.563	10.540	(0.918)	139910	1.08676	320.4
21	2-Nitrophenol	139	10.748	10.733	(0.934)	44934	1.04347	307.7
22	2,4-Dimethylphenol	107	10.856	10.857	(0.943)	249149	3.65222	1077
23	Bis(2-Chloroethoxy)methane	93	11.041	11.034	(0.959)	90259	1.17722	347.1
24	Benzoic acid	105	11.080	11.126	(0.962)	389454	8.62877	2544
25	2,4-Dichlorophenol	162	11.257	11.226	(0.978)	237172	3.61448	1066
26	1,2,4-Trichlorobenzene	180	11.427	11.427	(0.993)	69580	1.11386	328.4
* 27	Naphthalene-d8	136	11.512	11.512	(1.000)	774430	4.00000	
28	Naphthalene	128	11.558	11.550	(1.004)	976870	5.00359	1475(R)
29	4-Chloroaniline	127	11.558	11.705	(1.004)	124139	1.42718	420.8
30	Hexachlorobutadiene	225	11.960	11.952	(1.039)	38164	1.13616	335.0
31	4-Chloro-3-methylphenol	107	12.811	12.772	(1.113)	225570	3.83126	1130
32	2-Methylnaphthalene	142	13.051	13.051	(1.134)	244879	1.80424	532.0
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					
34	2,4,6-Trichlorophenol	196	13.747	13.724	(0.893)	170648	3.88126	1144
35	2,4,5-Trichlorophenol	196	13.840	13.809	(0.899)	182326	3.87380	1142
$ 36	2-Fluorobiphenyl	172	13.910	13.910	(0.904)	178662	1.15516	340.6
37	2-Chloronaphthalene	162	14.111	14.104	(0.917)	157369	1.19024	350.9
38	2-Nitroaniline	65	14.421	14.398	(0.937)	93699	2.96308	873.6
39	Dimethylphthalate	163	14.908	14.909	(0.969)	173458	1.26532	373.1
40	Acenaphthylene	152	15.048	15.048	(0.978)	311997	1.55703	459.1
41	2,6-Dinitrotoluene	165	15.040	15.025	(0.977)	120902	3.61997	1067
* 42	Acenaphthene-d10	164	15.388	15.388	(1.000)	446161	4.00000	
43	3-Nitroaniline	138	15.295	15.319	(0.994)	4529	0.12011	35.41
44	Acenaphthene	153	15.458	15.458	(1.005)	194073	1.60572	473.4
45	2,4-Dinitrophenol	184	15.574	15.558	(1.012)	47113	2.17951	642.6
46	Dibenzofuran	168	15.813	15.813	(1.028)	322580	1.82177	537.1
47	4-Nitrophenol	109	15.798	15.736	(1.027)	49409	3.40466	1004
48	2,4-Dinitrotoluene	165	15.914	15.891	(1.034)	152879	3.54792	1046
50	Diethylphthalate	149	16.486	16.478	(1.071)	173074	1.29504	381.8
49	Fluorene	166	16.579	16.579	(1.077)	231739	1.70805	503.6
51	4-Chlorophenyl-phenylether	204	16.594	16.579	(1.078)	95870	1.48813	438.8
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	16.810	16.795	(0.901)	110416	4.38035	1291
54	N-Nitrosodiphenylamine	169	16.872	16.872	(0.904)	74878	0.87618	258.3
$ 55	2,4,6-Tribromophenol	330	17.165	17.157	(1.115)	35081	1.90499	561.7
56	4-Bromophenyl-phenylether	248	17.674	17.659	(0.947)	44525	1.30922	386.0
57	Hexachlorobenzene	284	17.999	17.991	(0.965)	51896	1.32348	390.2
58	Pentachlorophenol	266	18.401	18.394	(0.986)	84836	4.17548	1231
* 59	Phenanthrene-d10	188	18.657	18.649	(1.000)	635278	4.00000	
60	Phenanthrene	178	18.703	18.703	(1.002)	811532	4.95400	1461(R)
61	Anthracene	178	18.804	18.796	(1.008)	320099	1.87055	551.5

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	19.175	19.144	(1.028)	274089	1.73104	510.4
63	Di-n-butylphthalate	149	20.034	20.018	(1.074)	334562	1.50135	442.6
64	Fluoranthene	202	21.140	21.117	(1.133)	957834	5.14979	1518(R)
65	Pyrene	202	21.550	21.535	(0.908)	977579	4.49857	1326(R)
$ 66	Terphenyl-d14	244	21.860	21.852	(0.921)	166736	1.22482	361.1
67	Butylbenzylphthalate	149	22.804	22.797	(0.961)	148764	1.47577	435.1
68	Benzo(a)anthracene	228	23.702	23.695	(0.999)	436945	2.17495	641.2
* 69	Chrysene-d12	240	23.726	23.726	(1.000)	714204	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.772	23.765	(1.002)	485623	2.74781	810.1(R)
72	bis(2-Ethylhexyl)phthalate	149	23.834	23.834	(0.961)	267342	1.73674	512.0
* 134	Di-n-octylphthalate-d4	153	24.809	24.802	(1.000)	1120932	4.00000	
73	Di-n-octylphthalate	149	24.817	24.817	(1.000)	384408	1.40956	415.6
74	Benzo(b)fluoranthene	252	25.475	25.444	(0.975)	525084	2.64706	780.4
75	Benzo(k)fluoranthene	252	25.506	25.483	(0.976)	542646	2.48441	732.5(H)
76	Benzo(a)pyrene	252	26.033	26.025	(0.996)	482776	2.64411	779.6
* 77	Perylene-d12	264	26.133	26.126	(1.000)	706143	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.396	28.389	(1.087)	469042	2.22081	654.8
79	Dibenzo(a,h)anthracene	278	28.419	28.396	(1.087)	274886	1.65226	487.1
80	Benzo(g,h,i)perylene	276	29.064	29.041	(1.112)	446533	2.46555	726.9
90	N-Nitrosodimethylamine	74	4.282	4.266	(0.483)	121010	2.93040	864.0
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	4.313	4.290	(0.486)	167828	4.70698	1388
105	1-methylnaphthalene	142	13.291	13.291	(1.155)	212617	1.53607	452.9
111	Azobenzene (1,2-DP-Hydrazine)	77	16.941	16.926	(1.101)	141445	1.04455	308.0
187	Total Benzofluoranthenes	252	25.475	25.506	(0.975)	986483	5.03474	1484
99	Perylene	252	26.180	26.149	(1.002)	245864	1.33949	394.9
98	Retene	219	22.146	22.146	(0.933)	32395	0.32013	94.39

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52hmsd.d
Lab Smp Id: UU52HMSD
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8900

Calibration Date: 29-MAY-2012
Calibration Time: 11:01
Client Smp ID: MS007-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	198613	4.80
27 Naphthalene-d8	730932	365466	1461864	774430	5.95
42 Acenaphthene-d10	420698	210349	841396	446161	6.05
59 Phenanthrene-d10	638950	319475	1277900	635278	-0.57
69 Chrysene-d12	645065	322532	1290130	714204	10.72
134 Di-n-octylphthala	1016118	508059	2032236	1120932	10.32
77 Perylene-d12	650033	325016	1300066	706143	8.63

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.87	0.08
27 Naphthalene-d8	11.51	11.01	12.01	11.51	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.65	18.15	19.15	18.66	0.04
69 Chrysene-d12	23.73	23.23	24.23	23.73	0.00
134 Di-n-octylphthala	24.80	24.30	25.30	24.81	0.03
77 Perylene-d12	26.13	25.63	26.63	26.13	0.03

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

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA
Client SDG: UU52
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: UU52HMSD
Client Smp ID: MS007-SS-120515 MSD
Level: LOW
Operator: VTS/YZ
Data Type: MS DATA
SampleType: MSD
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8900

SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	491.4	544.9	110.89	30-160
7	1,3-Dichlorobenzen	491.4	294.4	59.92	30-160
9	1,4-Dichlorobenzen	491.4	301.2	61.30	30-160
11	Benzyl alcohol	491.4	448.9	91.35	30-160
12	1,2-Dichlorobenzen	491.4	302.6	61.57	30-160
13	2-Methylphenol	491.4	319.2	64.95	30-160
15	4-Methylphenol	982.8	1740	177.08*	30-160
17	Hexachloroethane	491.4	232.4	47.29	30-160
22	2,4-Dimethylphenol	1474	1077	73.04	30-160
24	Benzoic acid	2703	2544	94.13	30-160
26	1,2,4-Trichloroben	491.4	328.4	66.83	30-160
28	Naphthalene	491.4	1475	300.22*	30-160
30	Hexachlorobutadien	491.4	335.0	68.17	30-160
32	2-Methylnaphthalen	491.4	532.0	108.25	30-160
39	Dimethylphthalate	491.4	373.1	75.92	30-160
40	Acenaphthylene	491.4	459.1	93.42	30-160
44	Acenaphthene	491.4	473.4	96.34	30-160
46	Dibenzofuran	491.4	537.1	109.31	30-160
49	Fluorene	491.4	503.6	102.48	30-160
50	Diethylphthalate	491.4	381.8	77.70	30-160
54	N-Nitrosodiphenyla	491.4	258.3	52.57	30-160
57	Hexachlorobenzene	491.4	390.2	79.41	30-160
58	Pentachlorophenol	1474	1231	83.51	30-160
60	Phenanthrene	491.4	1461	297.24*	30-160
61	Anthracene	491.4	551.5	112.23	30-160
63	Di-n-butylphthalat	491.4	442.6	90.08	30-160
64	Fluoranthene	491.4	1518	308.99*	30-160
65	Pyrene	491.4	1326	269.91*	30-160
67	Butylbenzylphthala	491.4	435.1	88.55	30-160
68	Benzo(a)anthracene	491.4	641.2	130.50	30-160
71	Chrysene	491.4	810.1	164.87*	30-160
72	bis(2-Ethylhexyl)p	491.4	512.0	104.20	30-160
73	Di-n-octylphthalat	491.4	415.6	84.57	30-160

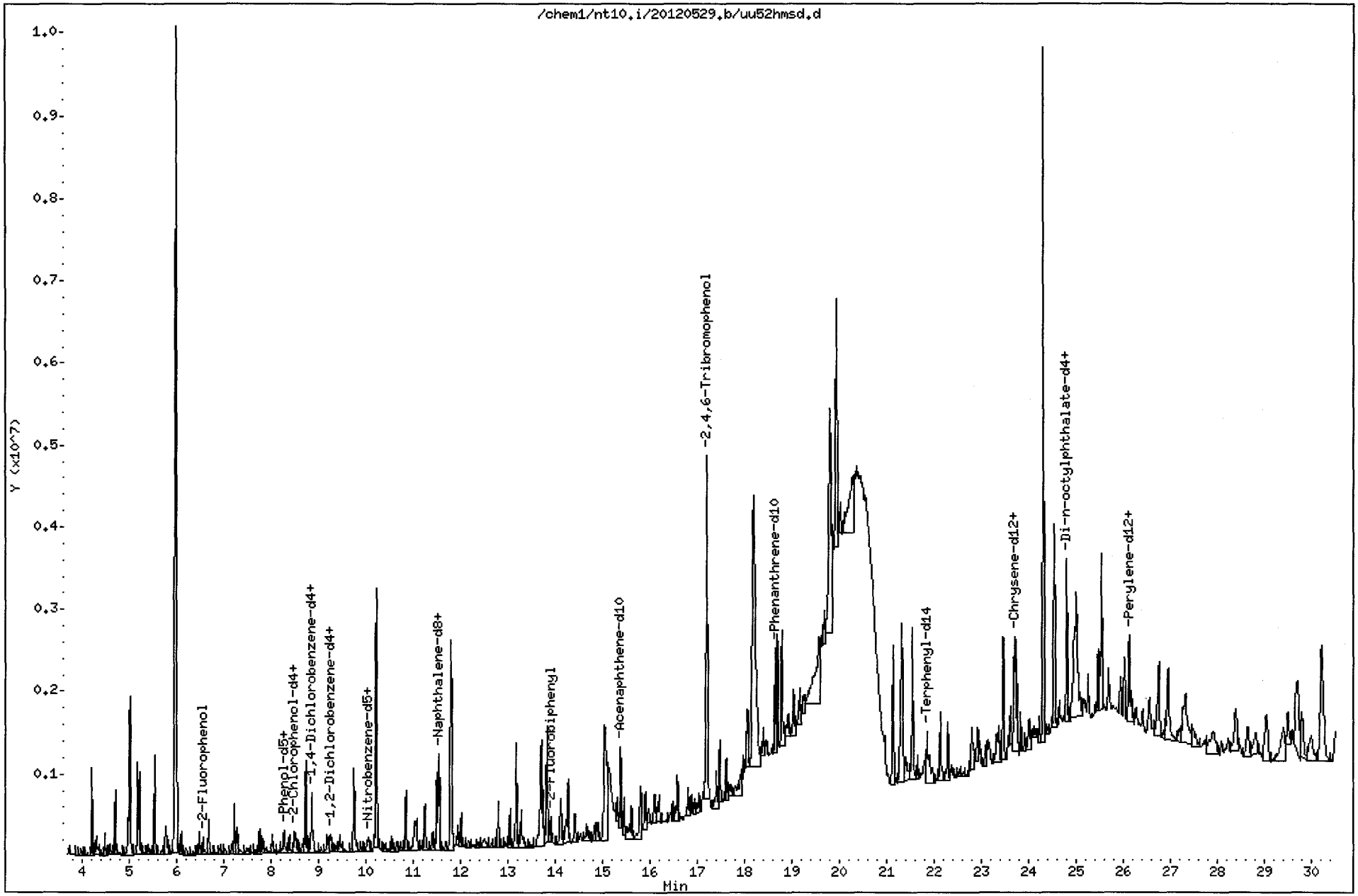
SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	491.4	779.6	158.65	30-160
78 Indeno(1,2,3-cd)py	491.4	654.8	133.25	30-160
79 Dibenzo(a,h)anthra	491.4	487.1	99.14	30-160
80 Benzo(g,h,i)peryle	491.4	726.9	147.93	30-160
105 1-methylnaphthalen	491.4	452.9	92.16	30-160
187 Total Benzofluoran	982.8	1484	151.04	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	737.1	470.5	63.83	30-160
$ 2 Phenol-d5	737.1	482.1	65.40	30-160
$ 5 2-Chlorophenol-d4	737.1	487.4	66.13	30-160
$ 10 1,2-Dichlorobenzen	491.4	300.6	61.17	30-160
$ 18 Nitrobenzene-d5	491.4	318.6	64.84	30-160
$ 36 2-Fluorobiphenyl	491.4	340.6	69.31	30-160
$ 55 2,4,6-Tribromophen	737.1	561.7	76.20	30-160
$ 66 Terphenyl-d14	491.4	361.1	73.49	30-160

Data File: /chem1/nt10.i/20120529.b/uu52hmsd.d
Date : 29-MAY-2012 12:19
Client ID: MS007-SS-120515 MSD
Sample Info: UU52HMSD,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25

UU52:60941



CO-ELUTION SUMMARY FOR FILE - uu52hmsd.d

Lab ID: UU52HMSD, Method: ABN.m, Instrument: nt10.i, Date: 29-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 6/4/12

Data file : /chem1/nt10.i/20120529.b/uu52i.d
Lab Smp Id: UU52I Client Smp ID: MS008-SS-120515
Inj Date : 29-MAY-2012 12:56
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52I,3
Misc Info : 12-8901
Comment : 1ul Injection
Method : /chem1/nt10.i/20120529.b/ABN.m
Meth Date : 04-Jun-2012 11:20 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 3
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	91.40000	Weight of sample extracted (g)
M	89.00000	% Moisture

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1	2-Fluorophenol	112	6.575	6.560	(0.742)	91528	1.32519	395.4
$	2	Phenol-d5	99	8.268	8.260	(0.933)	115454	1.34193	400.4
	3	Phenol	94	8.299	8.283	(0.936)	59234	0.64591	192.7
$	5	2-Chlorophenol-d4	132	8.499	8.492	(0.959)	106200	1.40891	420.4
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.863	8.863	(1.000)	197513	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	9.244	9.244	(1.043)	41947	0.84830	253.1
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	9.197	9.182	(1.038)	8380	0.21750	64.90
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.756	9.748	(1.101)	154409	2.04765	611.0
$	18 Nitrobenzene-d5	82	10.035	10.035	(0.872)	60426	0.85200	254.2
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.064	11.126	(0.961)	113932	2.49478	744.4
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.512	11.512	(1.000)	791554	4.00000	
	28 Naphthalene	128	11.558	11.550	(1.004)	305764	1.53226	457.2
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.059	13.051	(1.134)	30415	0.21925	65.42
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.910	13.910	(0.904)	148739	0.98611	294.2
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	15.048	15.048	(0.978)	25499	0.13048	38.94(M)
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.388	15.388	(1.000)	435113	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	15.458	15.458	(1.005)	22635	0.19203	57.30
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.813	15.813	(1.028)	39712	0.22997	68.62
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	16.579	16.579	(1.077)	29393	0.22214	66.29
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.165	17.157	(1.115)	29285	1.63063	486.6
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.657	18.649	(1.000)	618705	4.00000	
	60 Phenanthrene	178	18.703	18.703	(1.002)	258186	1.61832	482.9
	61 Anthracene	178	18.804	18.796	(1.008)	63527	0.38117	113.7

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	19.167	19.144	(1.027)	31906	0.20690	61.74(M)
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	21.125	21.117	(1.132)	361547	1.99593	595.6
65	Pyrene	202	21.543	21.535	(0.908)	329576	1.53479	458.0
$ 66	Terphenyl-d14	244	21.860	21.852	(0.921)	138794	1.03177	307.9
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.703	23.695	(0.999)	129677	0.65321	194.9
* 69	Chrysene-d12	240	23.726	23.726	(1.000)	705752	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.772	23.765	(1.002)	138542	0.79330	236.7
72	bis(2-Ethylhexyl)phthalate	149	23.834	23.834	(0.961)	50237	0.33203	99.07
* 134	Di-n-octylphthalate-d4	153	24.810	24.802	(1.000)	1101771	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	26.033	26.025	(0.996)	127739	0.71530	213.4
* 77	Perylene-d12	264	26.134	26.126	(1.000)	690654	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.404	28.389	(1.087)	97168	0.47039	140.4
79	Dibenzo(a,h)anthracene	278	28.404	28.396	(1.087)	28829	0.17717	52.87(M)
80	Benzo(g,h,i)perylene	276	29.072	29.041	(1.112)	102604	0.57924	172.8
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.291	13.291	(1.155)	18250	0.12900	38.49
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	25.475	25.506	(0.975)	268207	1.39955	417.6
99	Perylene	252	Compound Not Detected.					
98	Retene	219	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52i.d
Lab Smp Id: UU52I
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8901

Calibration Date: 29-MAY-2012
Calibration Time: 11:01
Client Smp ID: MS008-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	197513	4.22
27 Naphthalene-d8	730932	365466	1461864	791554	8.29
42 Acenaphthene-d10	420698	210349	841396	435113	3.43
59 Phenanthrene-d10	638950	319475	1277900	618705	-3.17
69 Chrysene-d12	645065	322532	1290130	705752	9.41
134 Di-n-octylphthala	1016118	508059	2032236	1101771	8.43
77 Perylene-d12	650033	325016	1300066	690654	6.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.86	0.00
27 Naphthalene-d8	11.51	11.01	12.01	11.51	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.65	18.15	19.15	18.66	0.04
69 Chrysene-d12	23.73	23.23	24.23	23.73	0.00
134 Di-n-octylphthala	24.80	24.30	25.30	24.81	0.03
77 Perylene-d12	26.13	25.63	26.63	26.13	0.03

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

Analytical Resources, Inc.

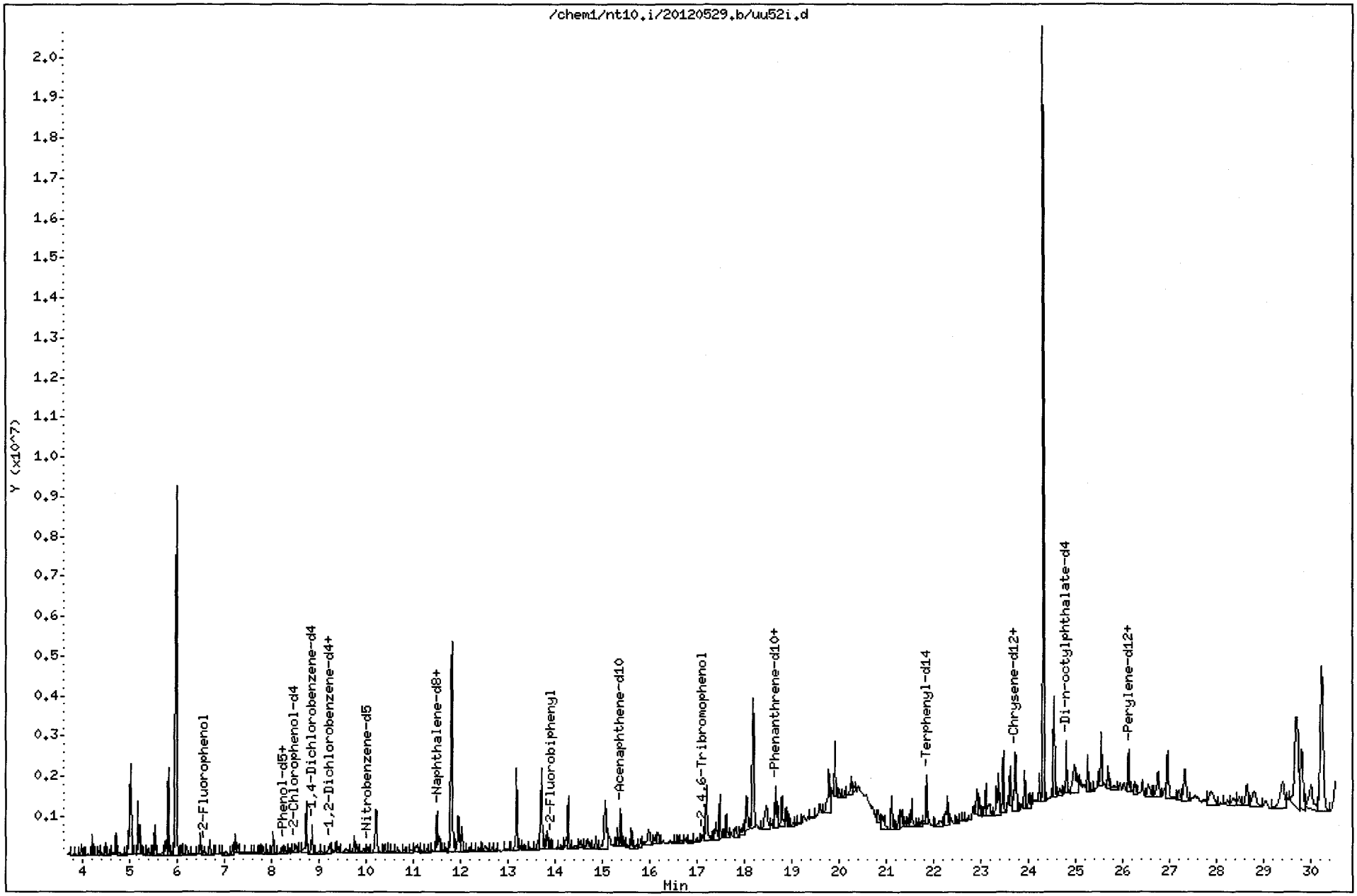
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52I Client Smp ID: MS008-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8901

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	746.0	395.4	53.01	30-160
$ 2 Phenol-d5	746.0	400.4	53.68	30-160
$ 5 2-Chlorophenol-d4	746.0	420.4	56.36	30-160
$ 10 1,2-Dichlorobenzen	497.3	253.1	50.90	30-160
$ 18 Nitrobenzene-d5	497.3	254.2	51.12	30-160
$ 36 2-Fluorobiphenyl	497.3	294.2	59.17	30-160
$ 55 2,4,6-Tribromophen	746.0	486.6	65.23	30-160
$ 66 Terphenyl-d14	497.3	307.9	61.91	30-160

Data File: /chem1/nt10.i/20120529.b/uu52i.d
Date : 29-MAY-2012 12:56
Client ID: MS008-SS-120515
Sample Info: UU52I,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52 : 00991

Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

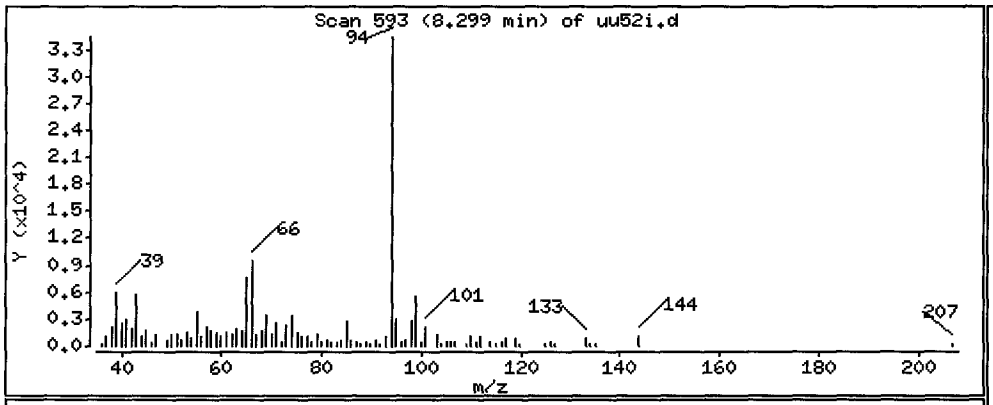
Operator: VTS/YZ

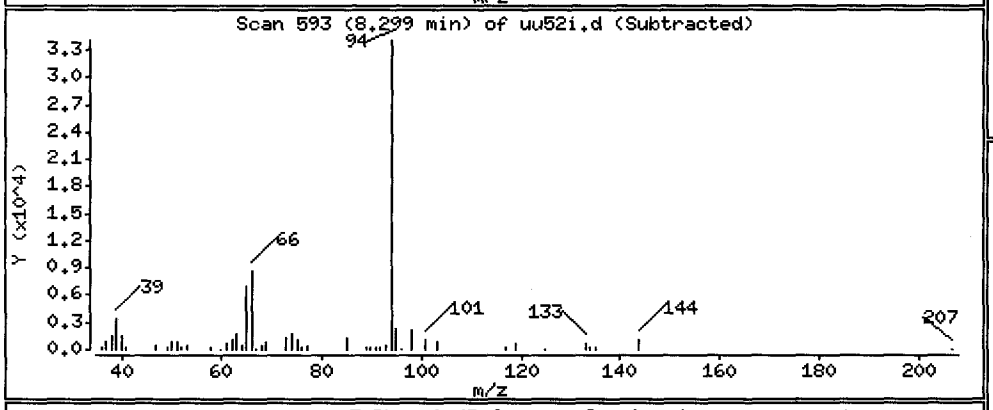
Column phase: ZB-5msi

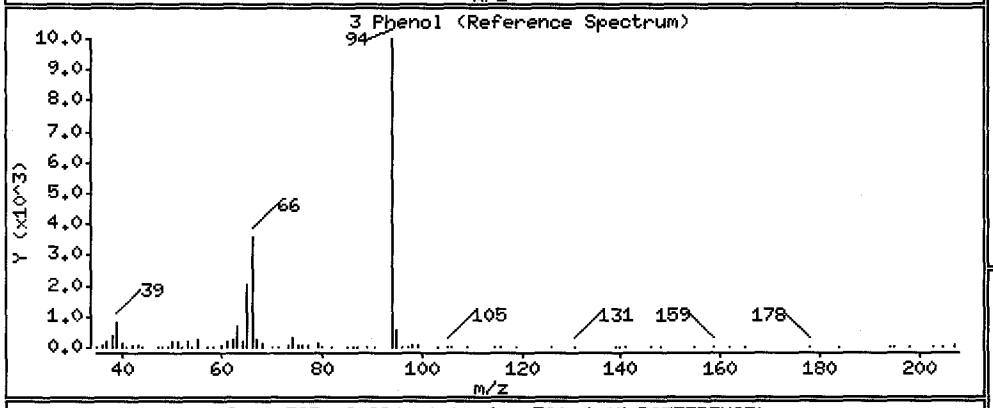
Column diameter: 0.25

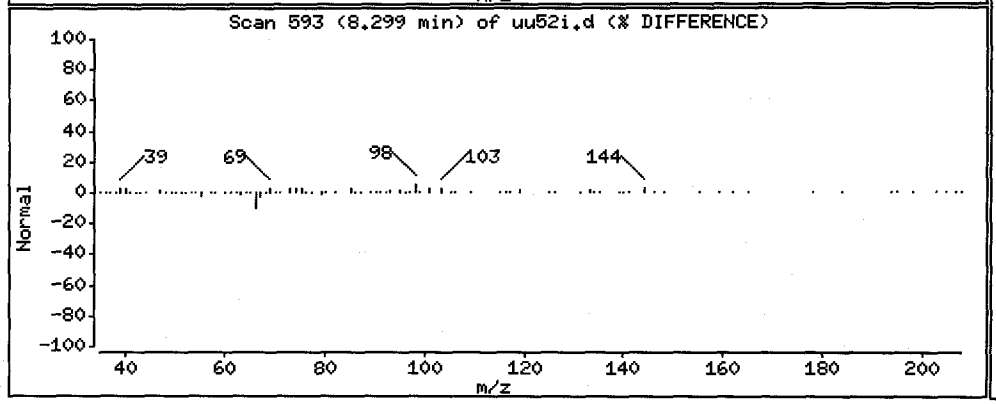
3 Phenol

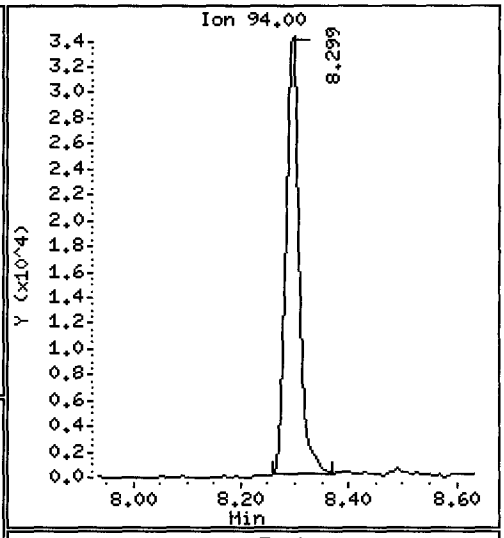
Concentration: 192.7 ug/kg

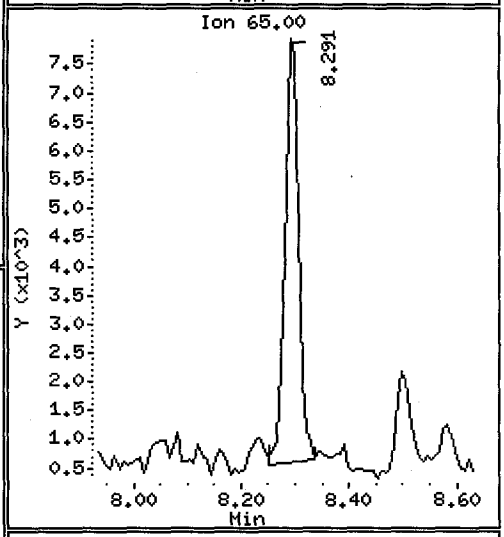


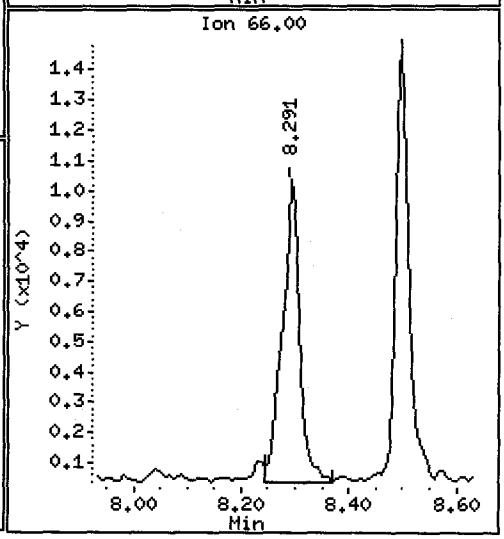












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

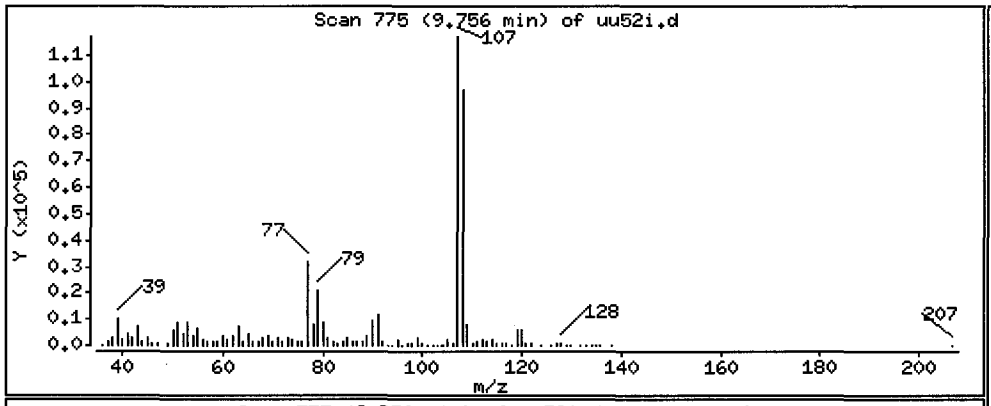
Operator: VTS/YZ

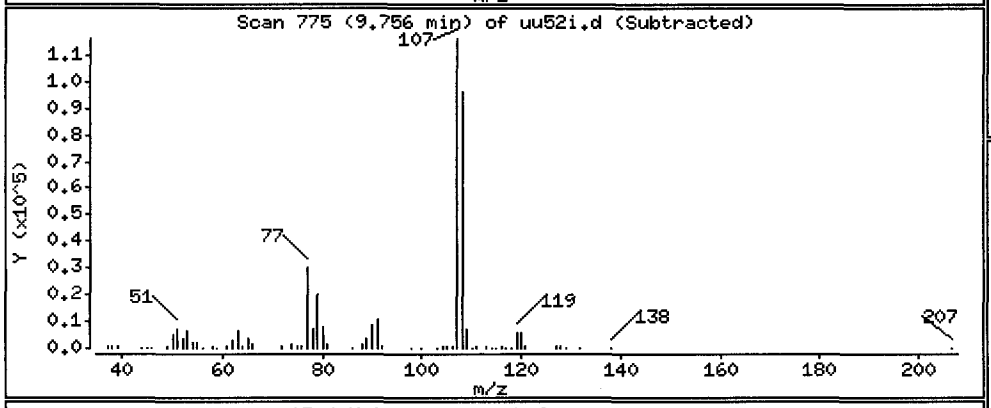
Column phase: ZB-5msi

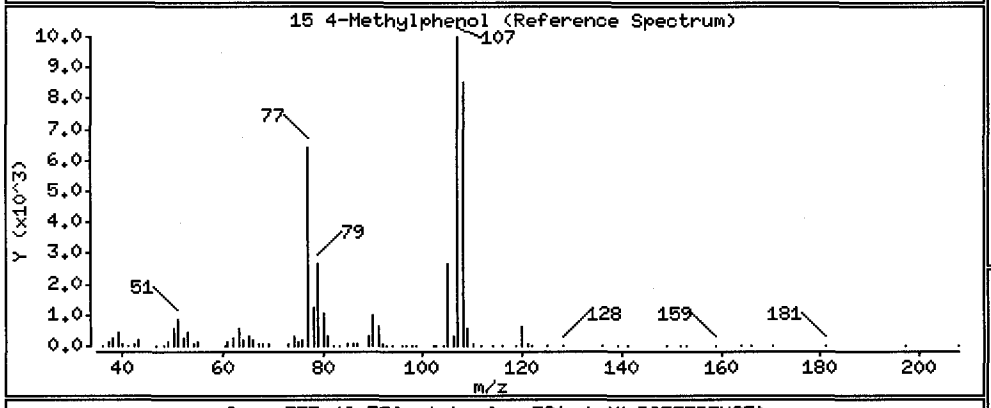
Column diameter: 0.25

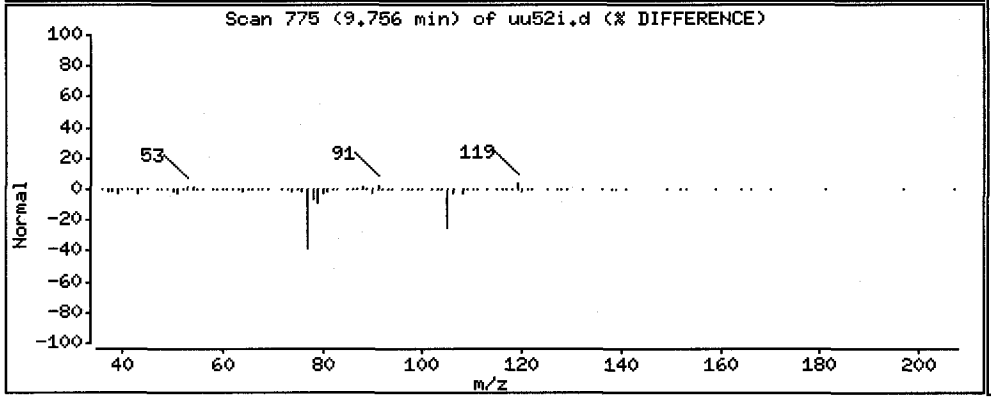
15 4-Methylphenol

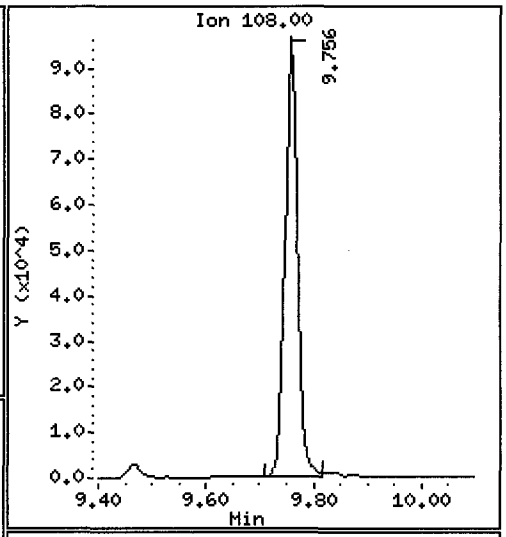
Concentration: 611.0 ug/kg

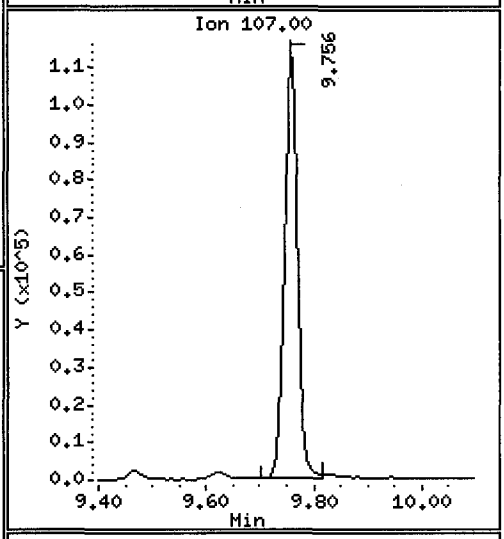


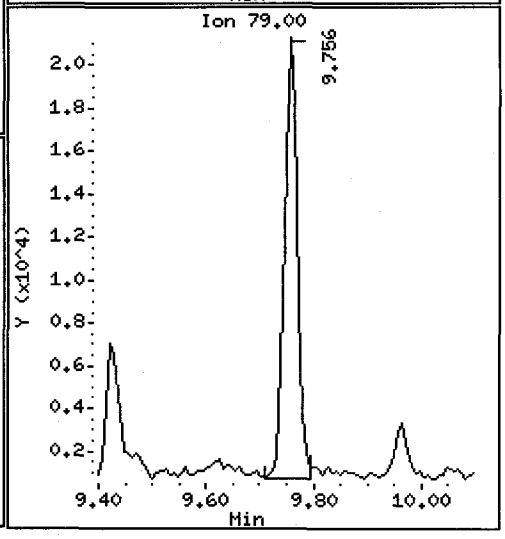












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

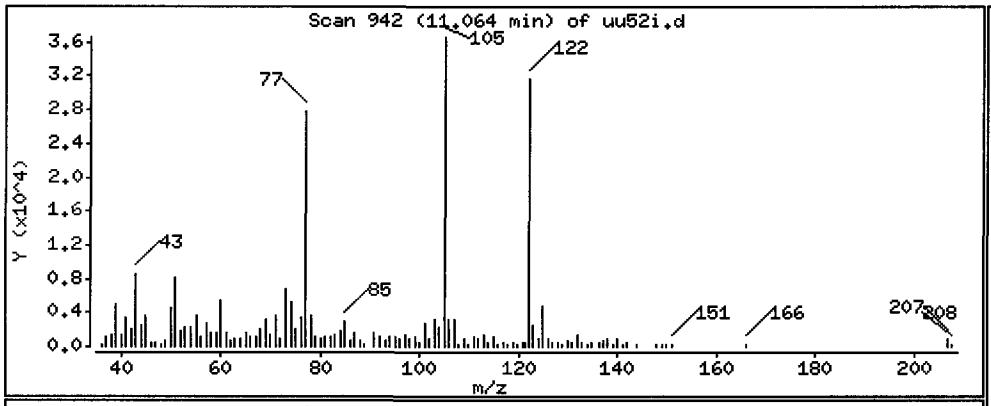
Operator: VTS/YZ

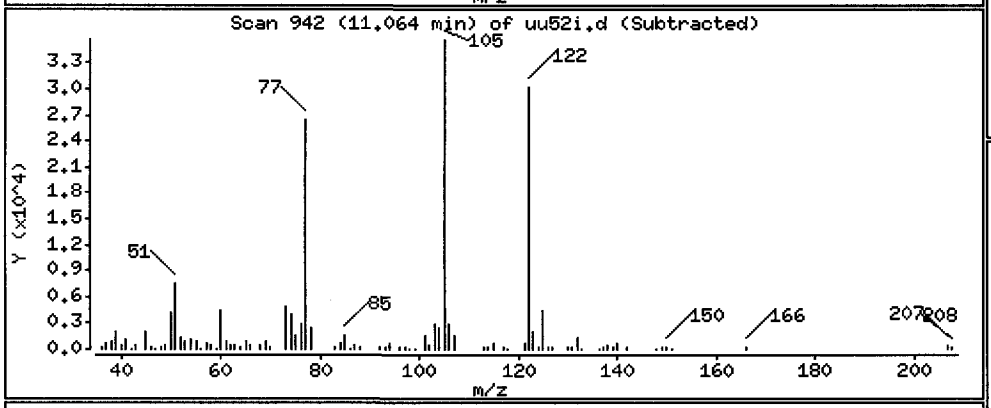
Column phase: ZB-5msi

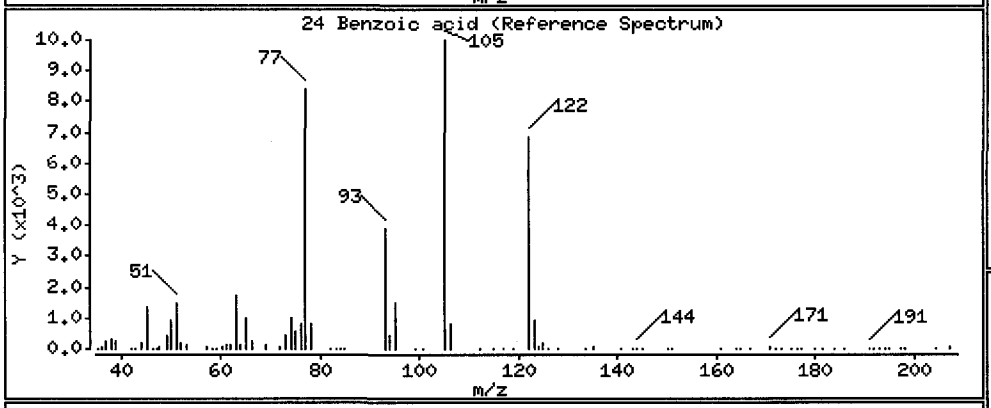
Column diameter: 0.25

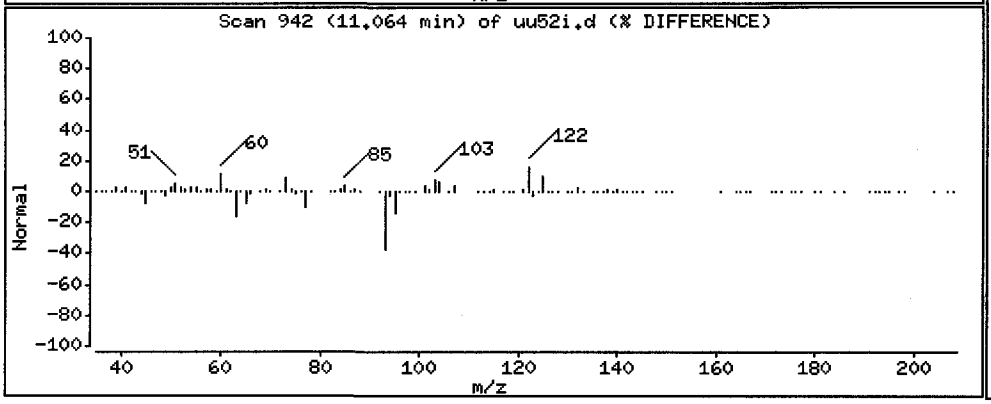
24 Benzoic acid

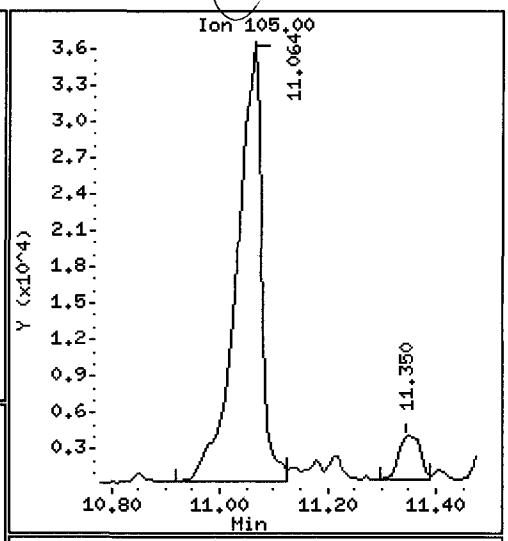
Concentration: 744.4 ug/kg

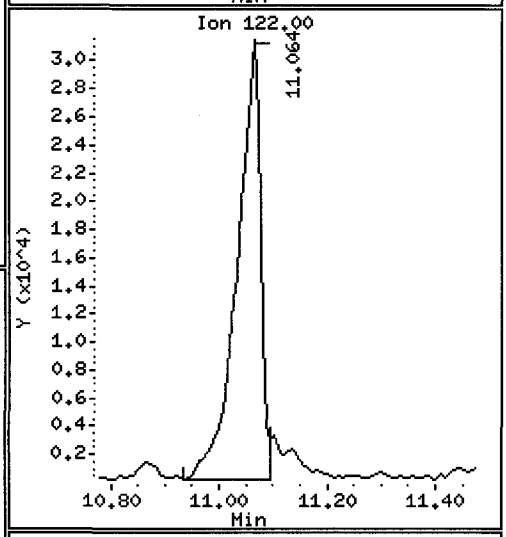


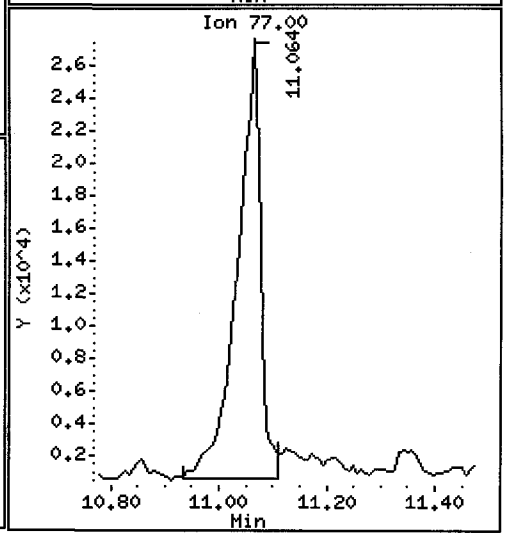












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

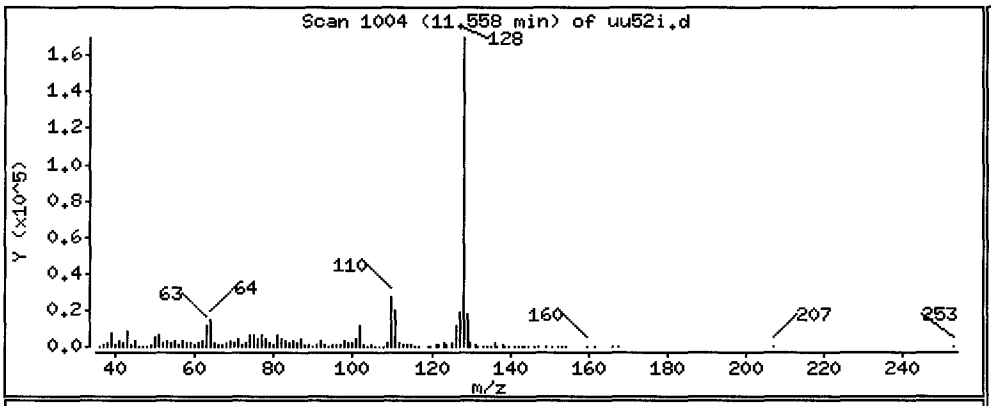
Client ID: MS008-SS-120515 Instrument: nt10.i

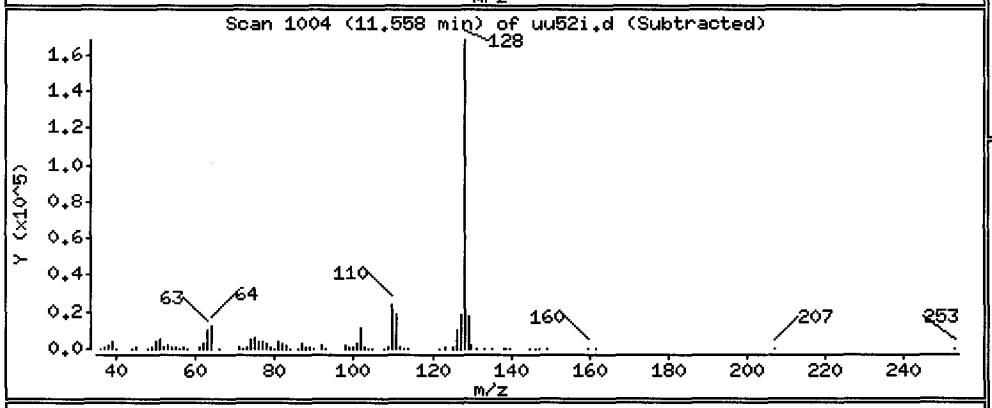
Sample Info: UU52I,3

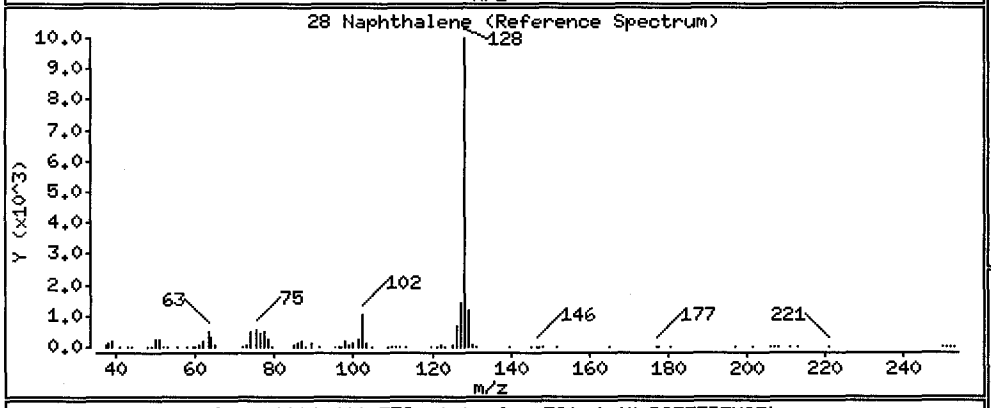
Volume Injected (uL): 1.0 Operator: VTS/YZ

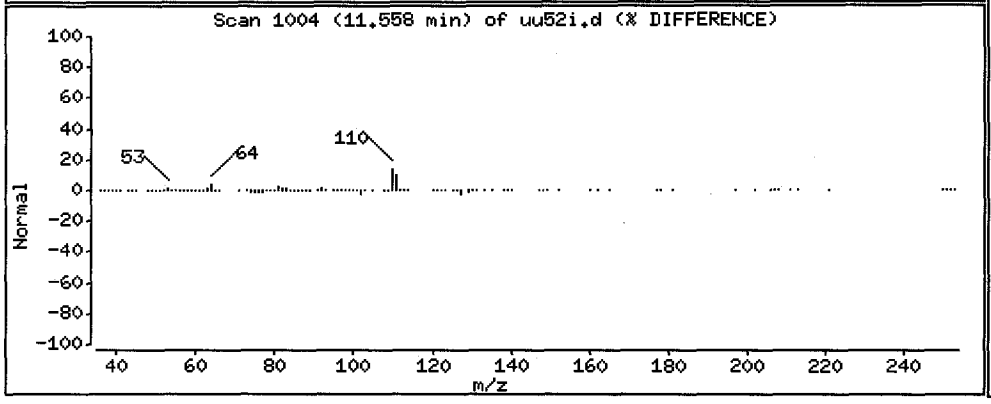
Column phase: ZB-5msi Column diameter: 0.25

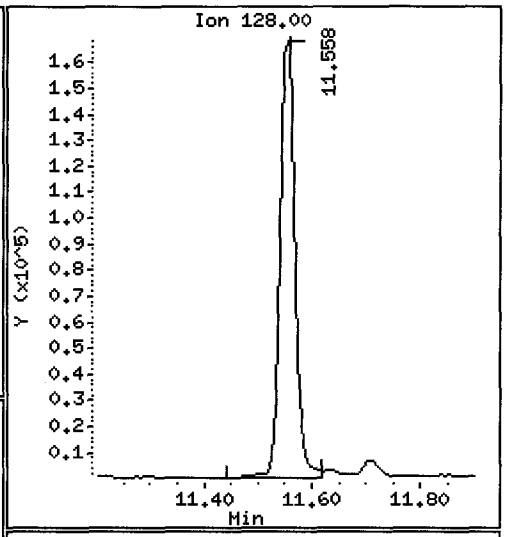
28 Naphthalene Concentration: 457.2 ug/kg

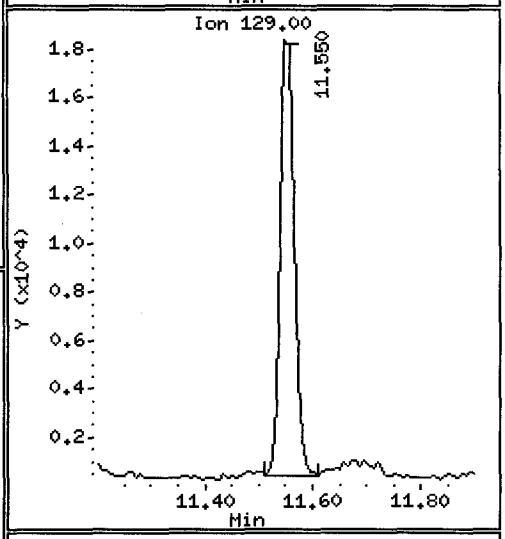


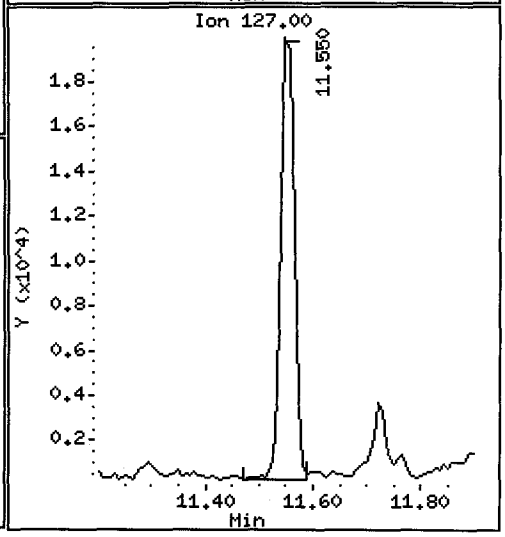












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

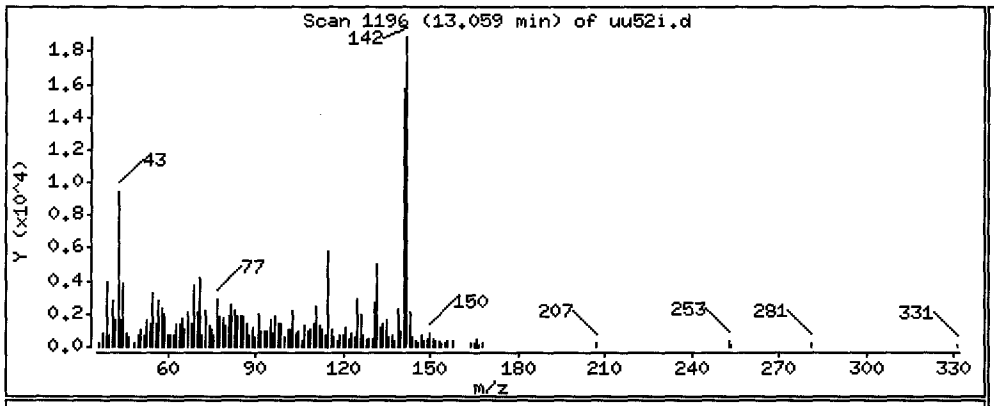
Operator: VTS/YZ

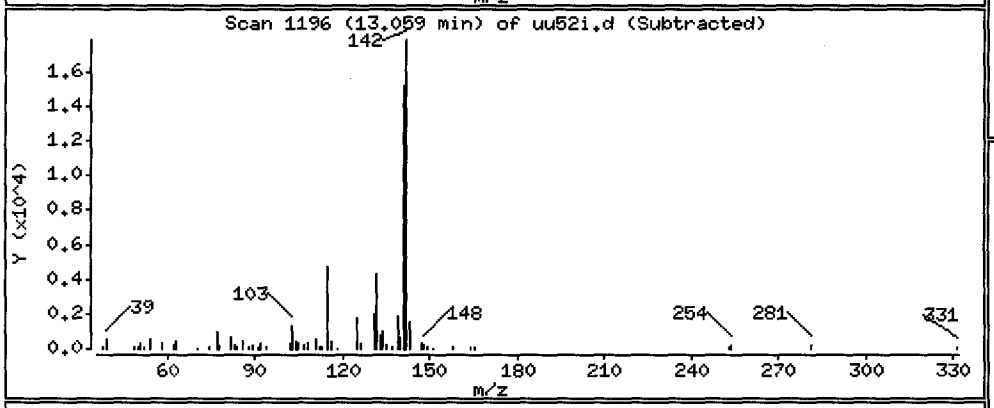
Column phase: ZB-5msi

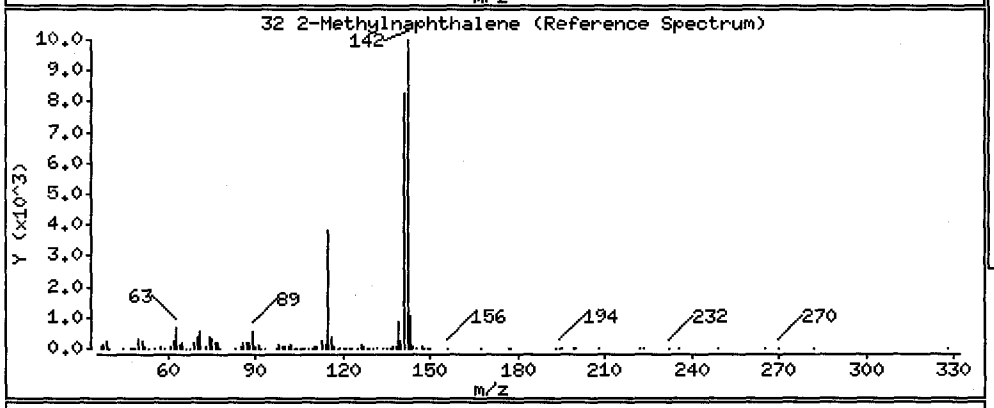
Column diameter: 0.25

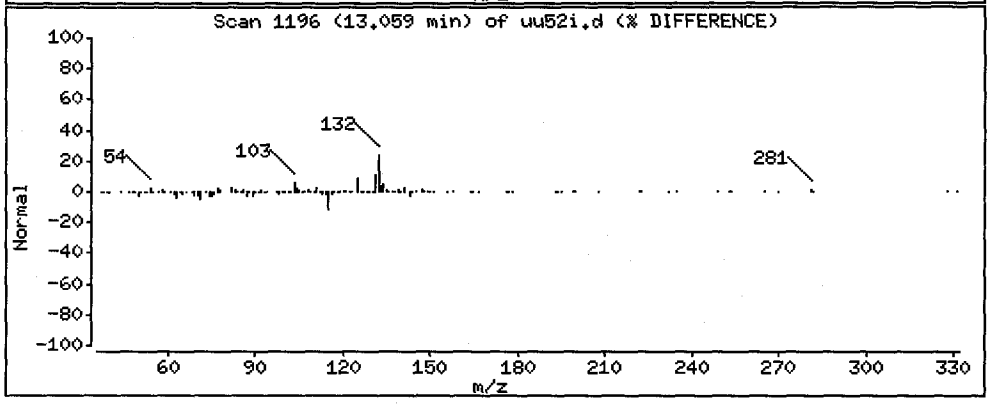
32 2-Methylnaphthalene

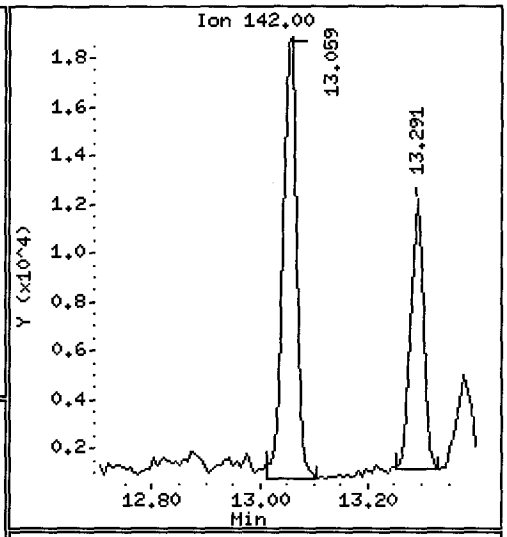
Concentration: 65.42 ug/kg

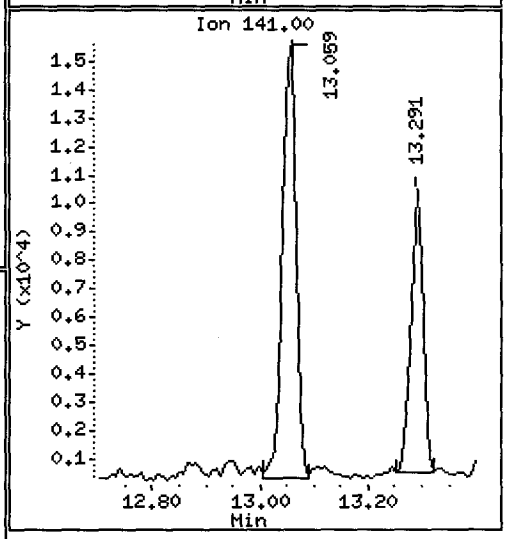












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

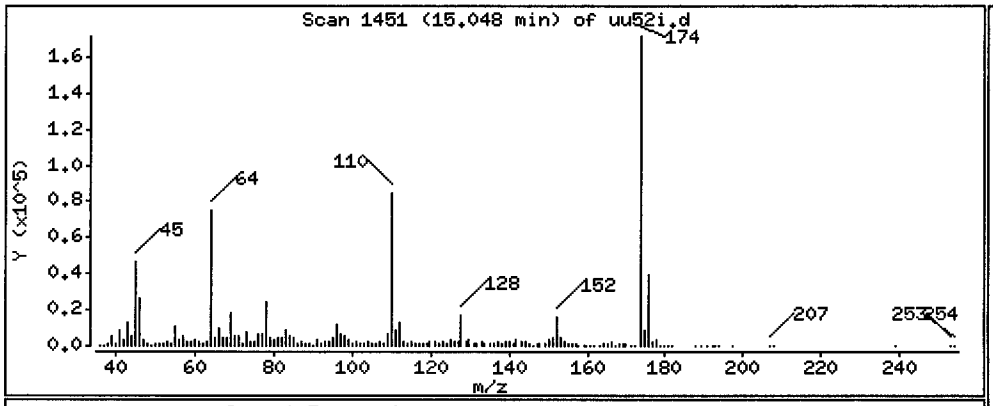
Operator: VTS/YZ

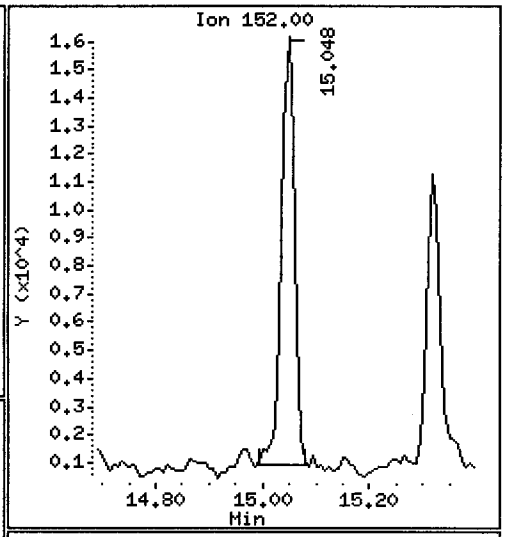
Column phase: ZB-5msi

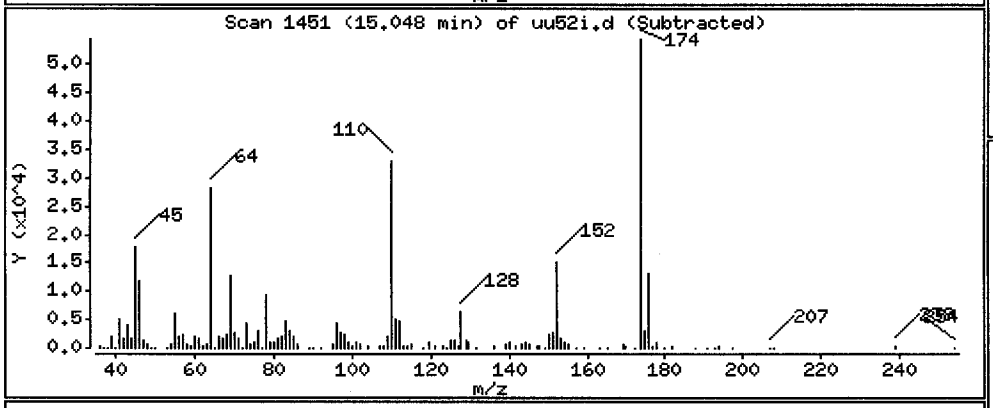
Column diameter: 0.25

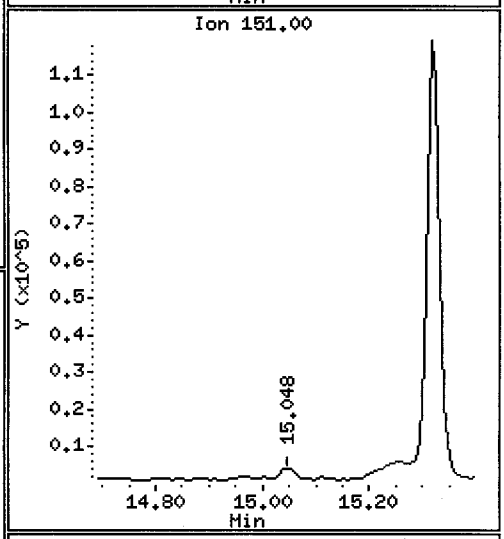
40 Acenaphthylene

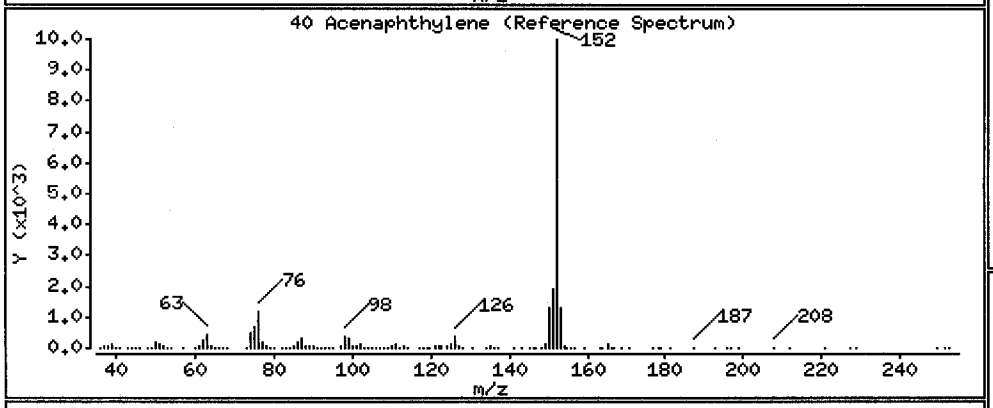
Concentration: 38.94 ug/kg

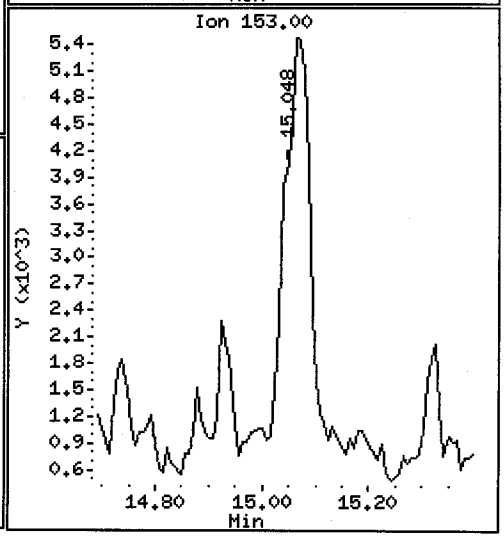


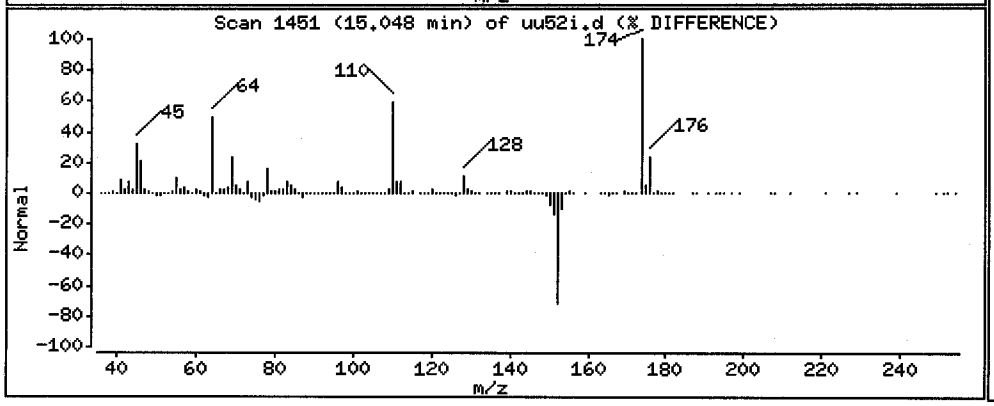












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

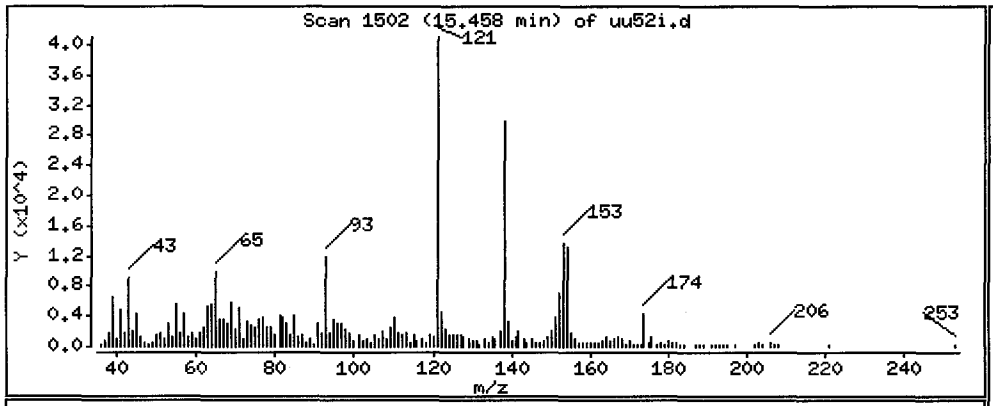
Client ID: MS008-SS-120515 Instrument: nt10.i

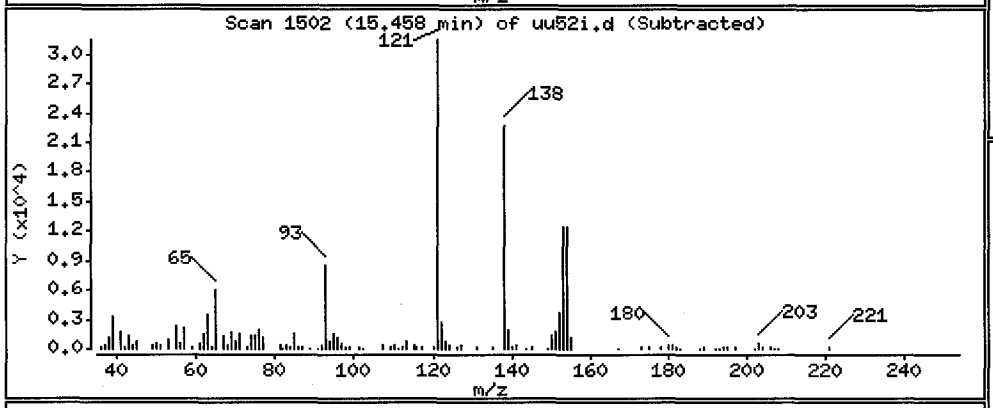
Sample Info: UU52I,3

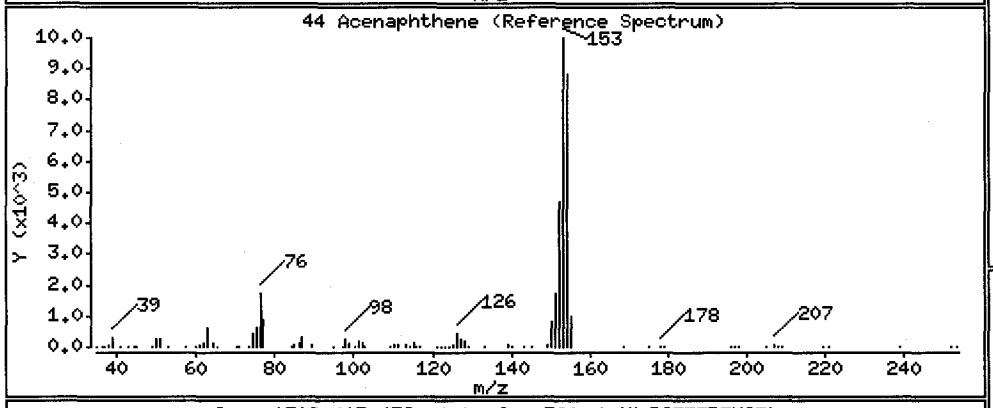
Volume Injected (uL): 1.0 Operator: VTS/YZ

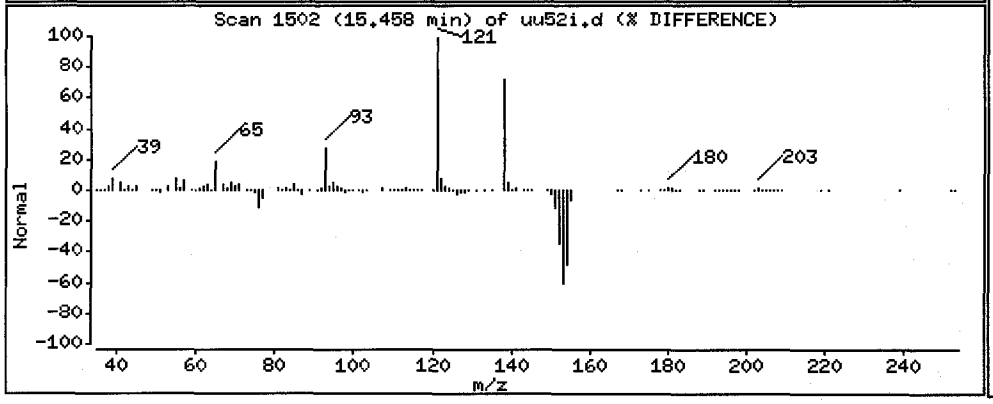
Column phase: ZB-5msi Column diameter: 0.25

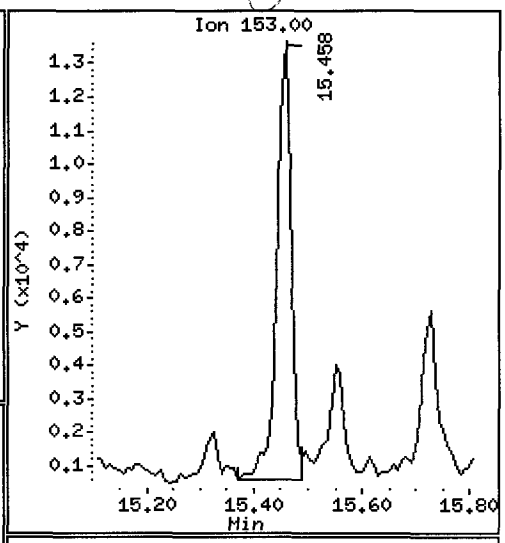
44 Acenaphthene Concentration: 57.30 ug/kg

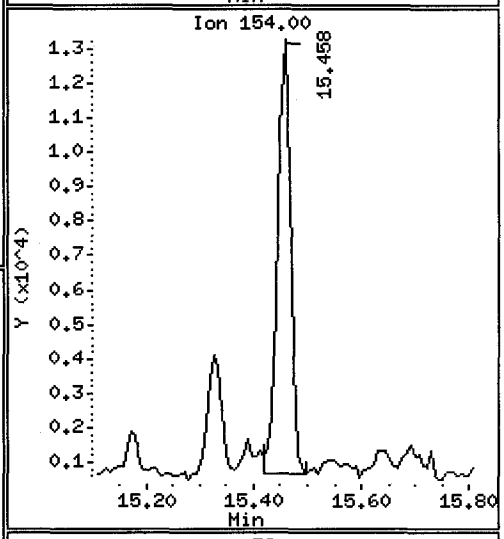


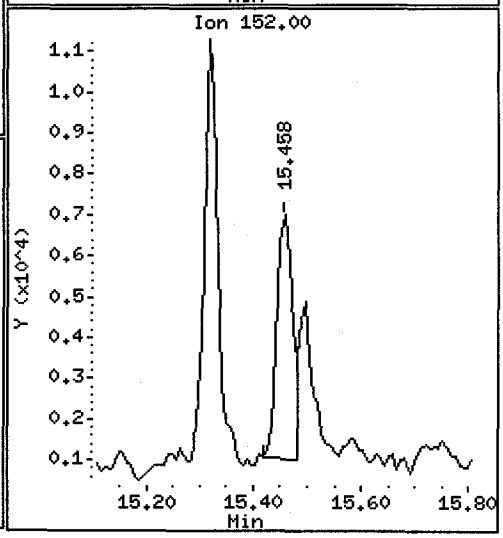












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

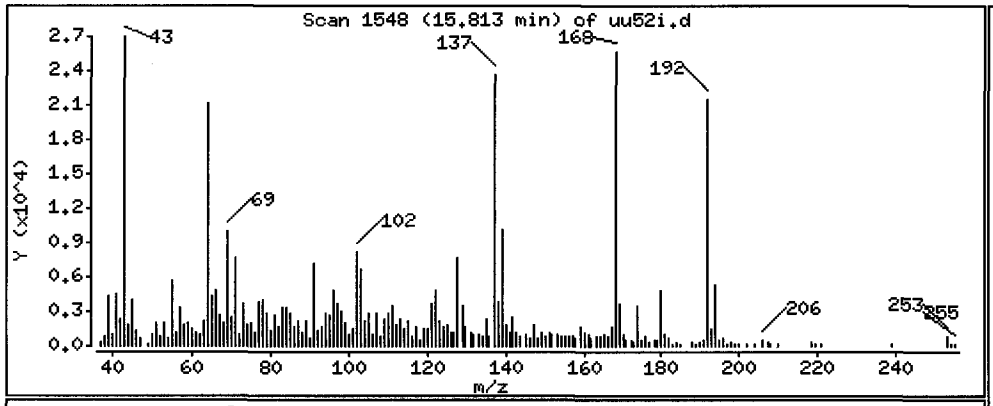
Client ID: MS008-SS-120515 Instrument: nt10.i

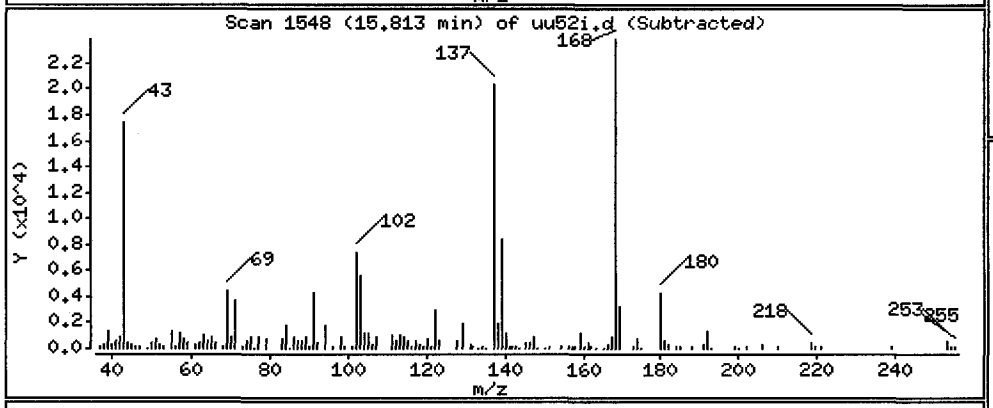
Sample Info: UU52I,3

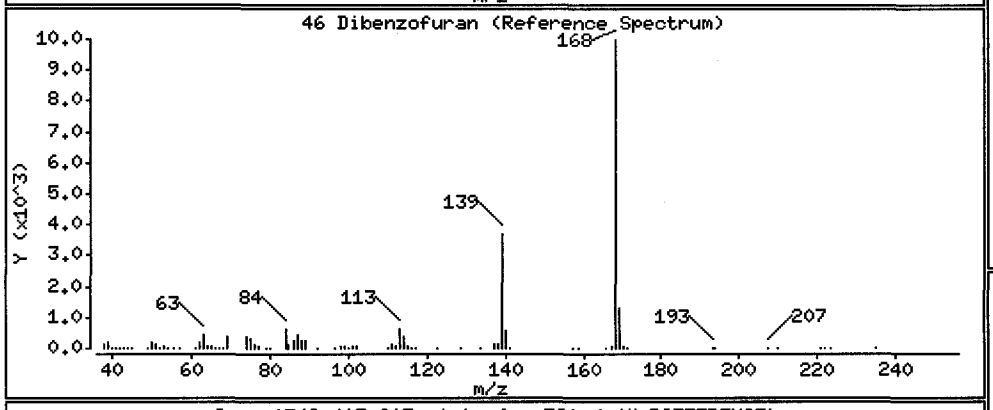
Volume Injected (uL): 1.0 Operator: VTS/YZ

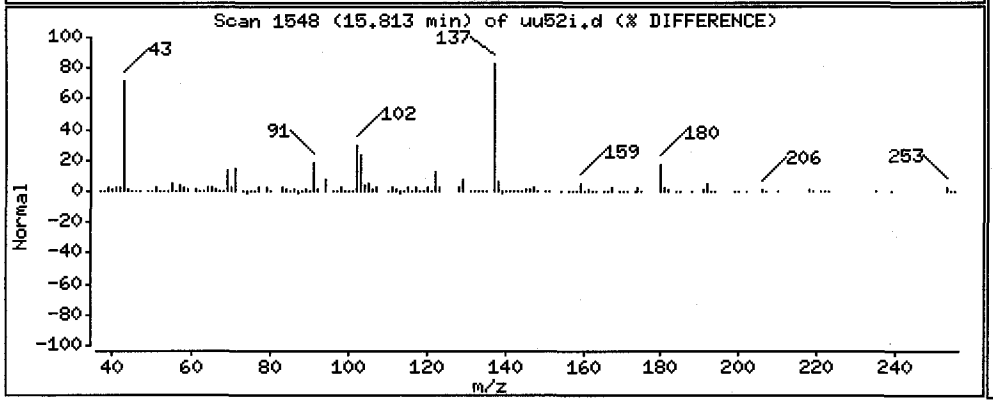
Column phase: ZB-5msi Column diameter: 0.25

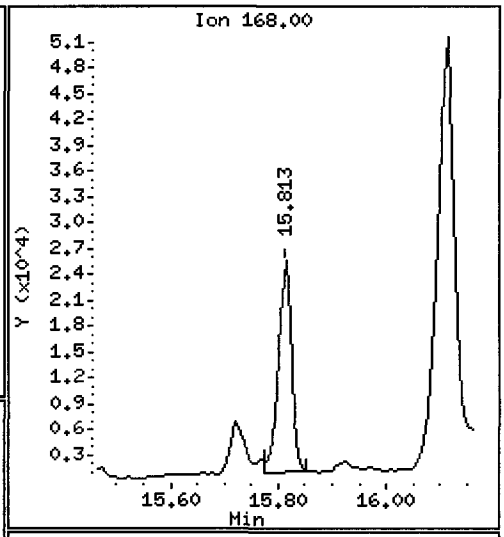
46 Dibenzofuran Concentration: 68.62 ug/kg

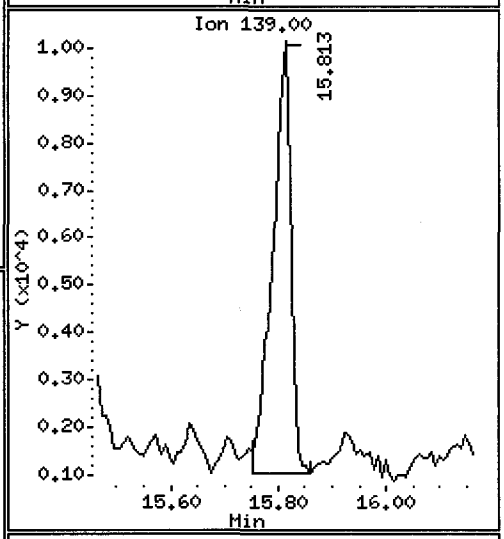


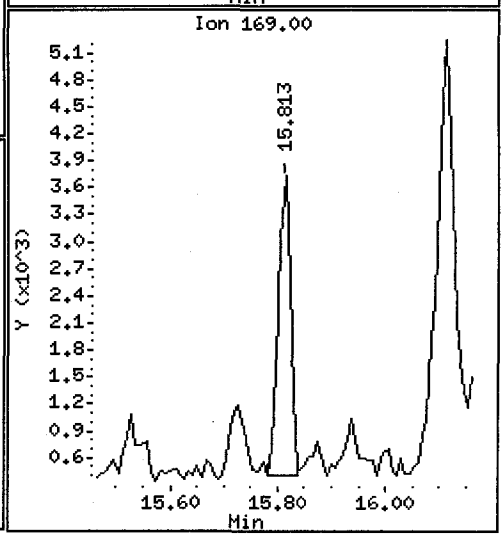












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

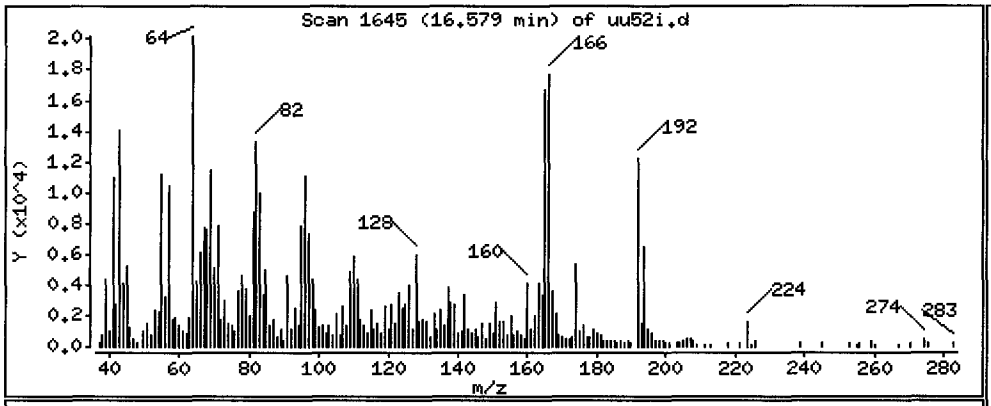
Operator: VTS/YZ

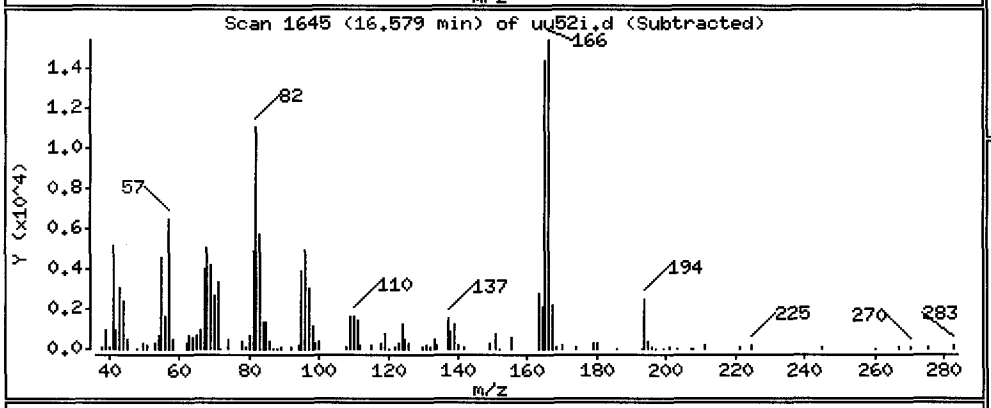
Column phase: ZB-5msi

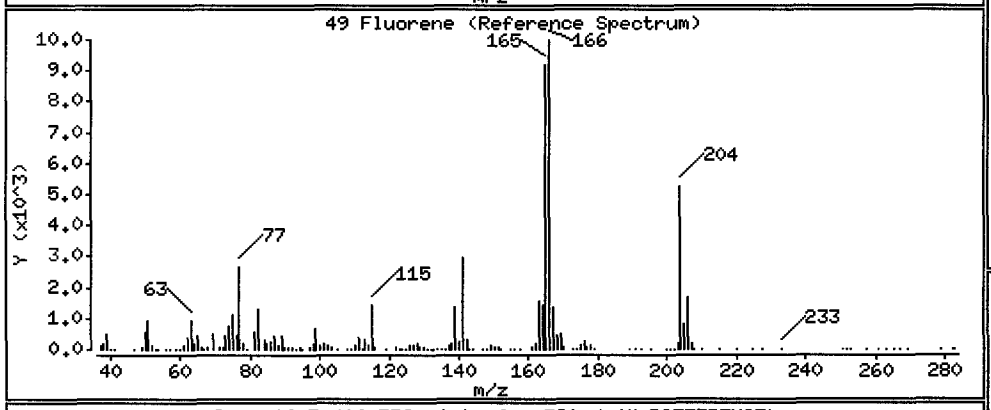
Column diameter: 0.25

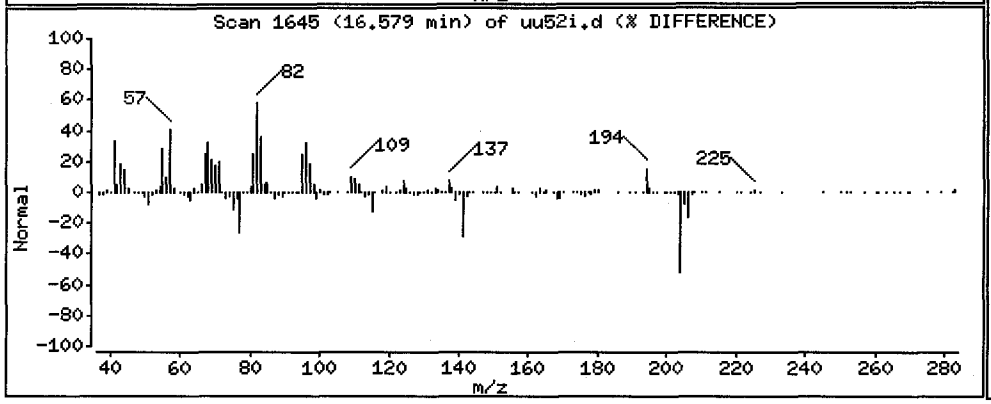
49 Fluorene

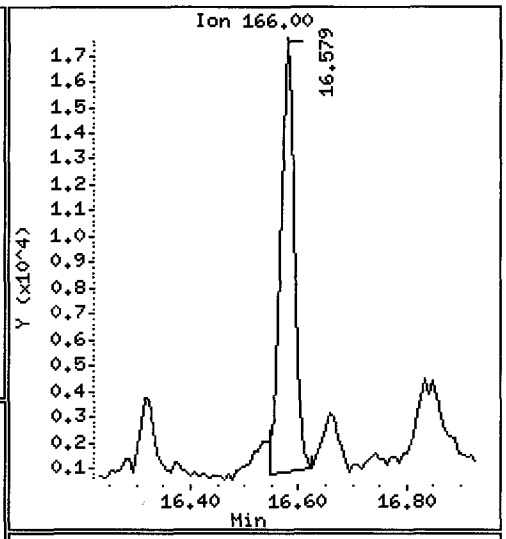
Concentration: 66.29 ug/kg

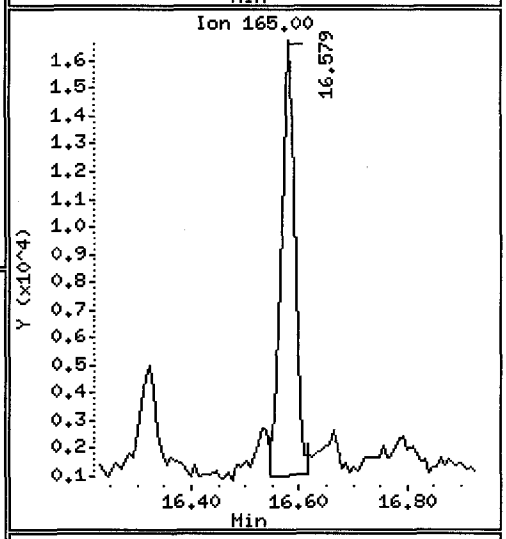


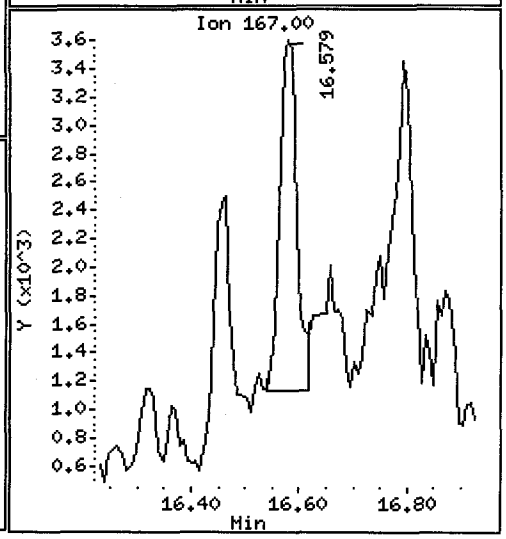












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

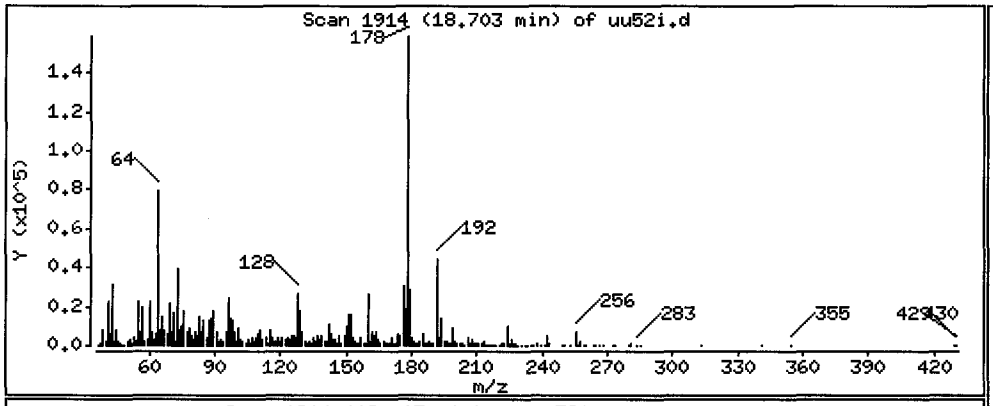
Operator: VTS/YZ

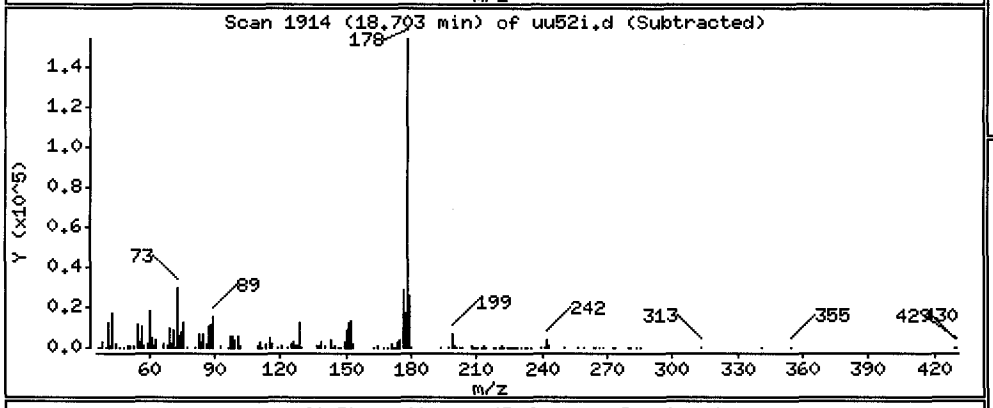
Column phase: ZB-5msi

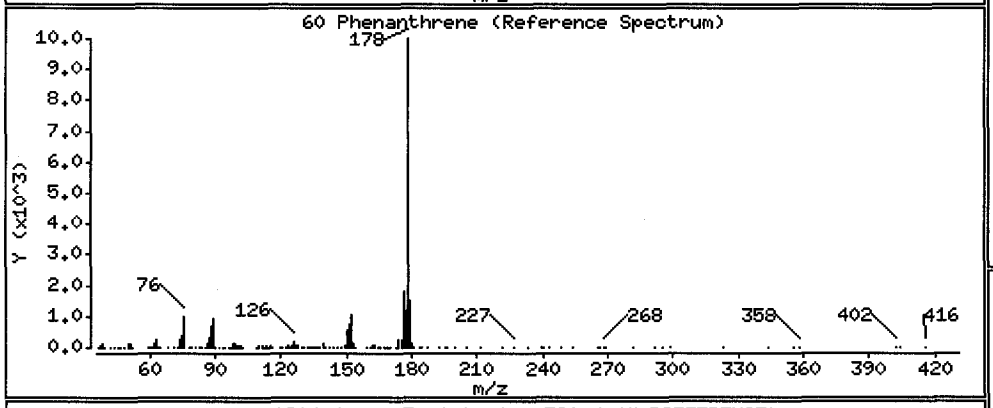
Column diameter: 0.25

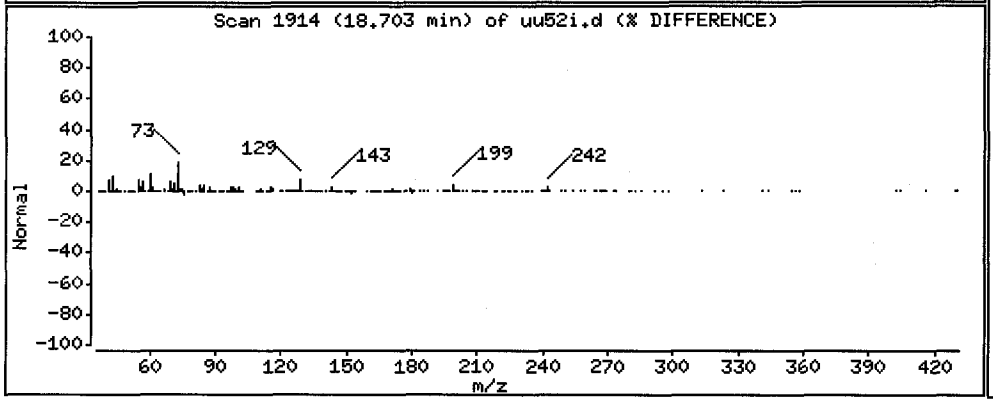
60 Phenanthrene

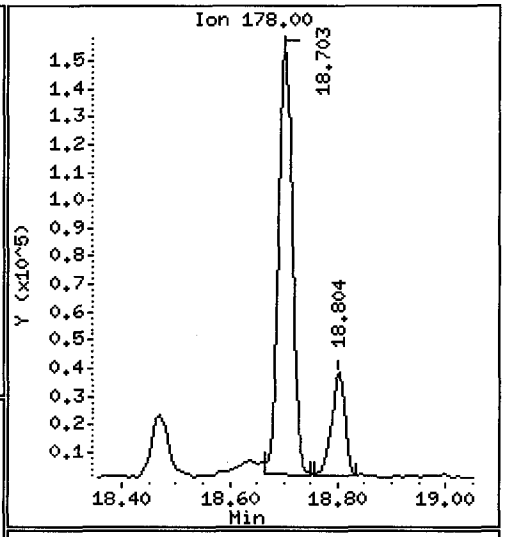
Concentration: 482.9 ug/kg

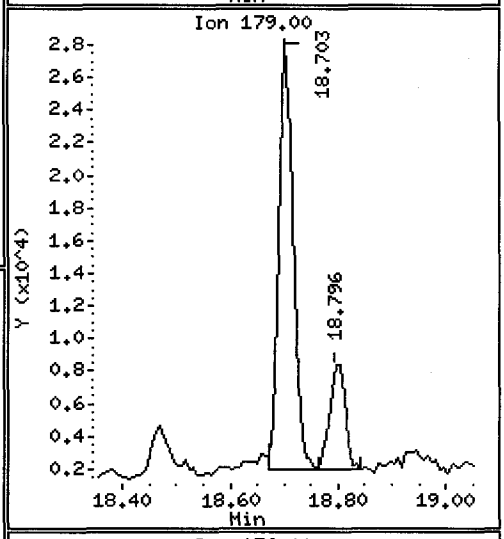


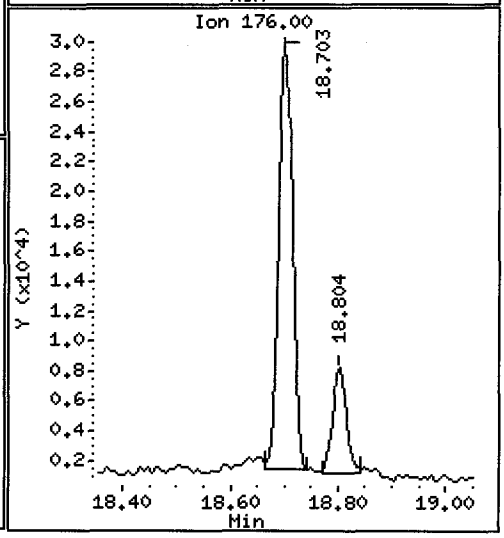












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

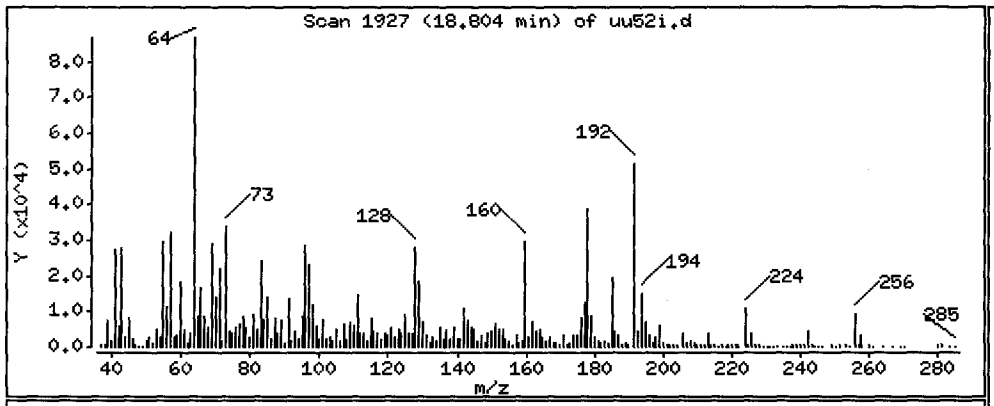
Client ID: MS008-SS-120515 Instrument: nt10.i

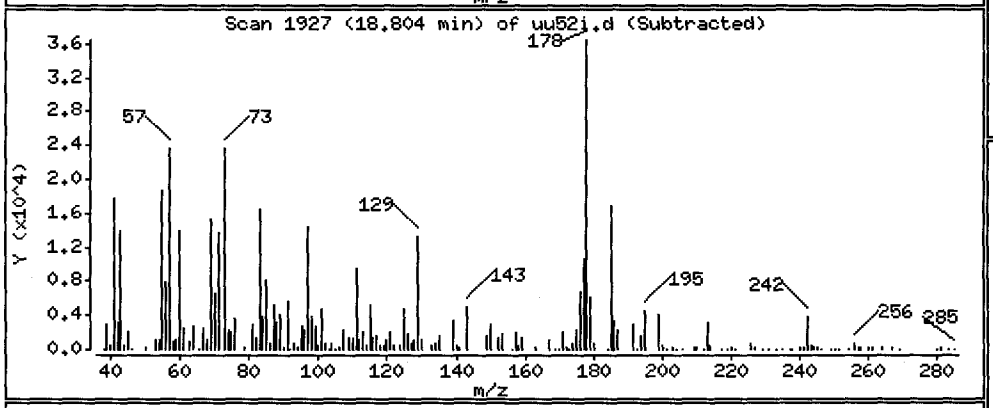
Sample Info: UU52I,3

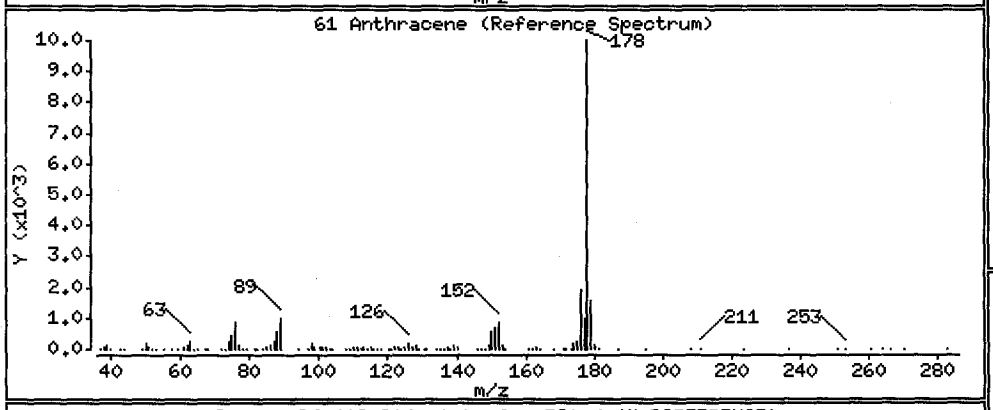
Volume Injected (uL): 1.0 Operator: VTS/YZ

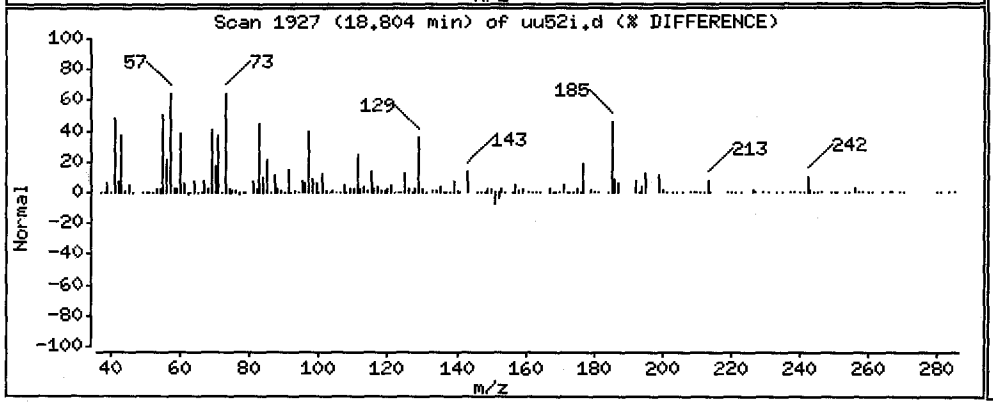
Column phase: ZB-5msi Column diameter: 0.25

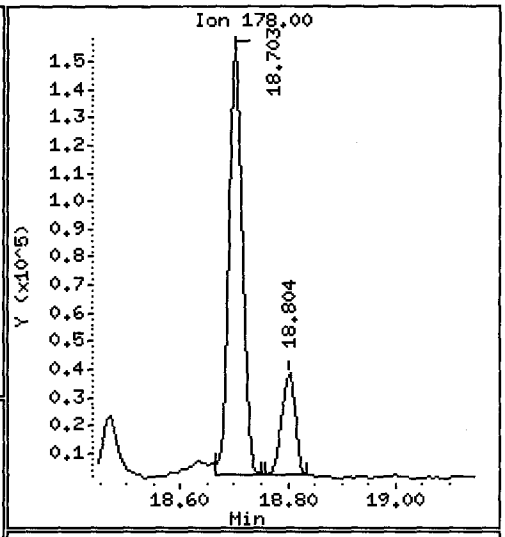
61 Anthracene Concentration: 113.7 ug/kg

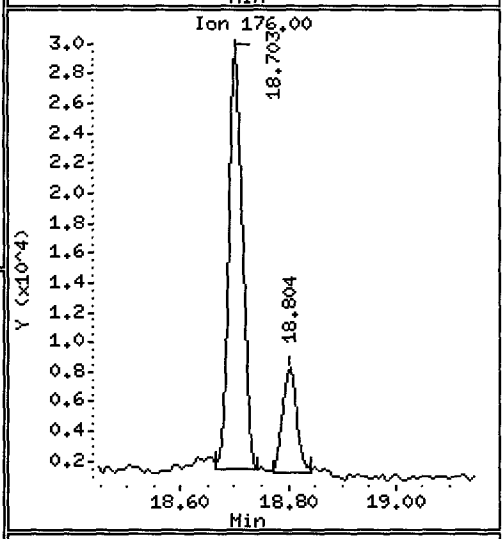


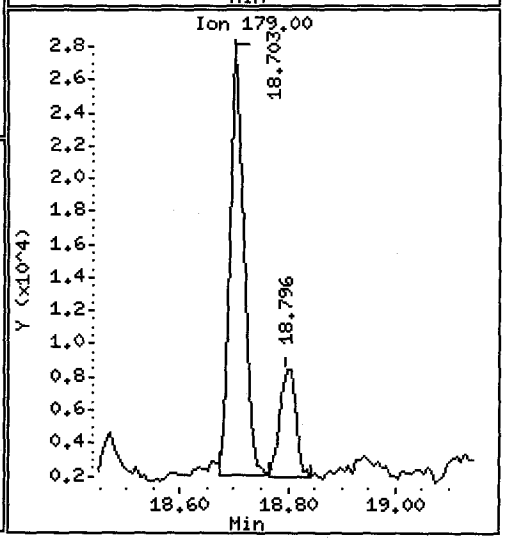












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

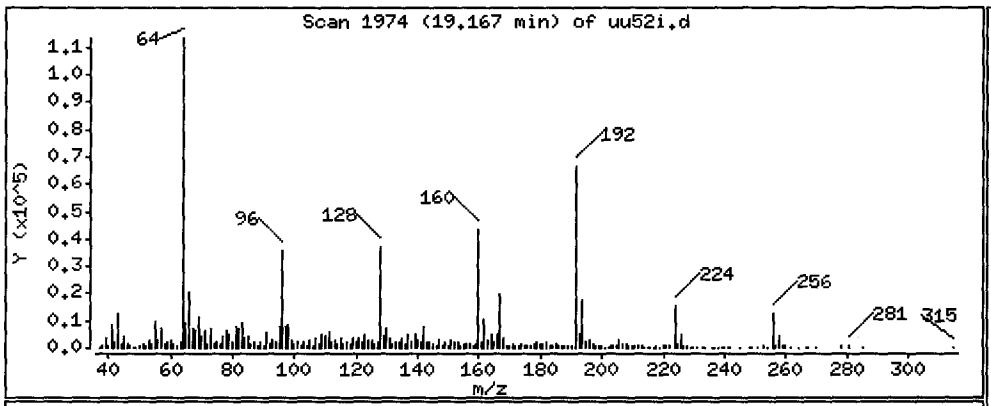
Operator: VTS/YZ

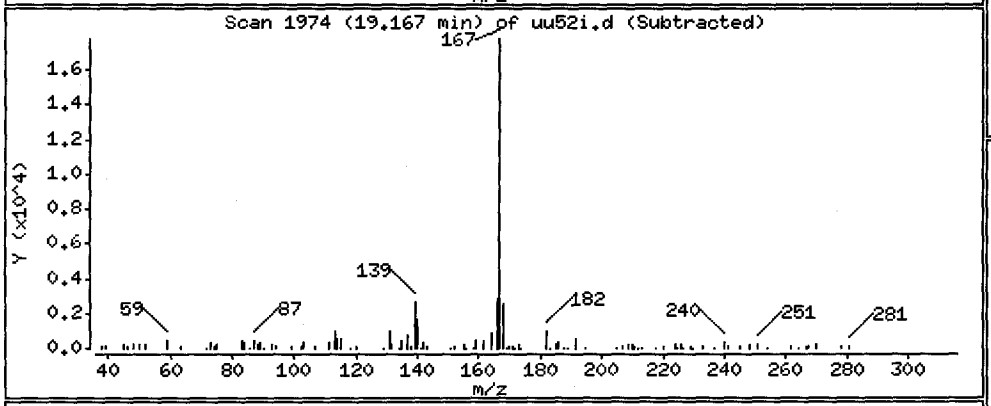
Column phase: ZB-5msi

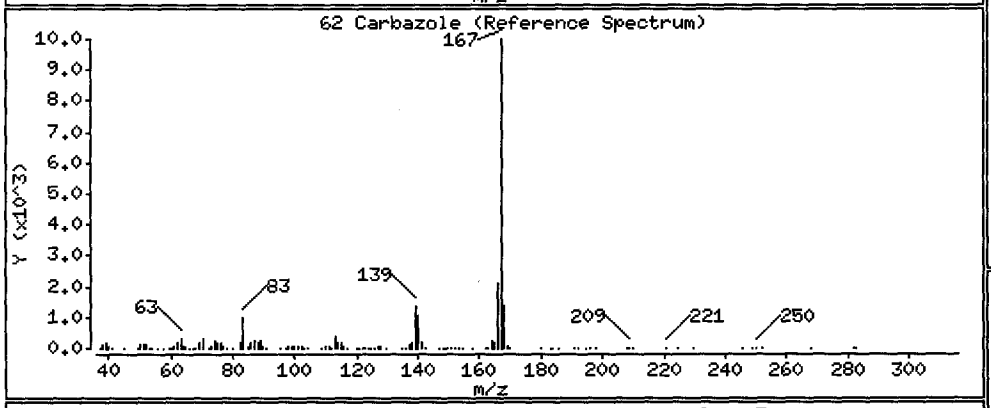
Column diameter: 0.25

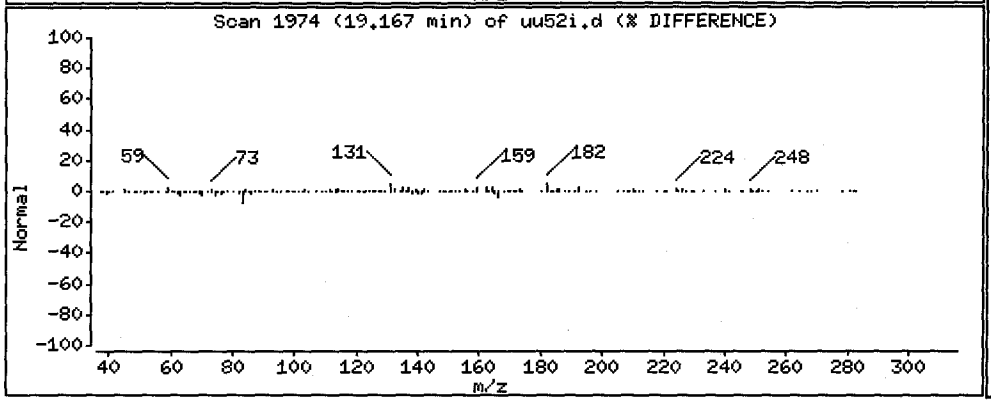
62 Carbazole

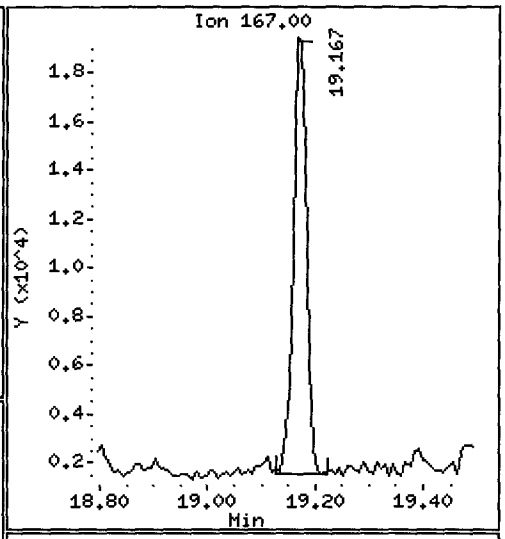
Concentration: 61.74 ug/kg

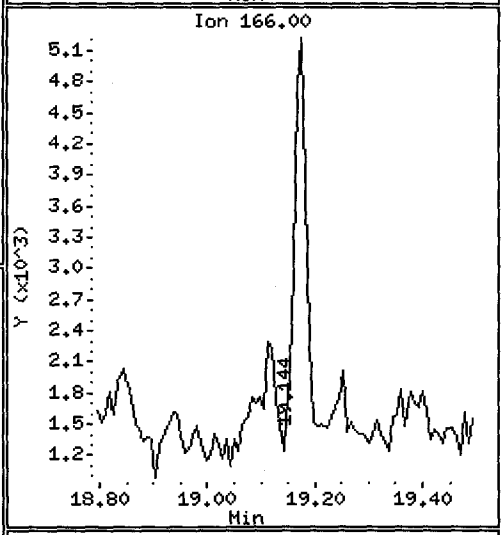


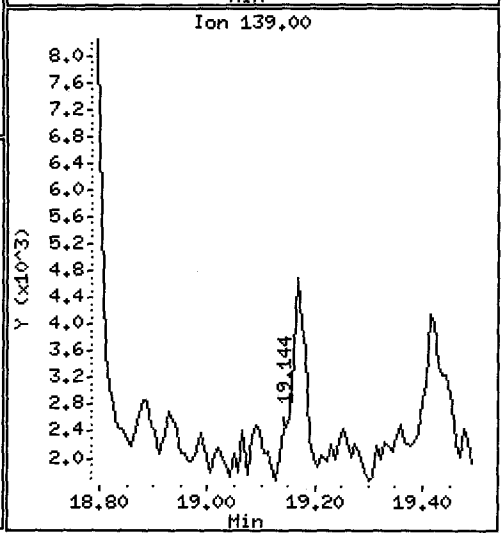












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

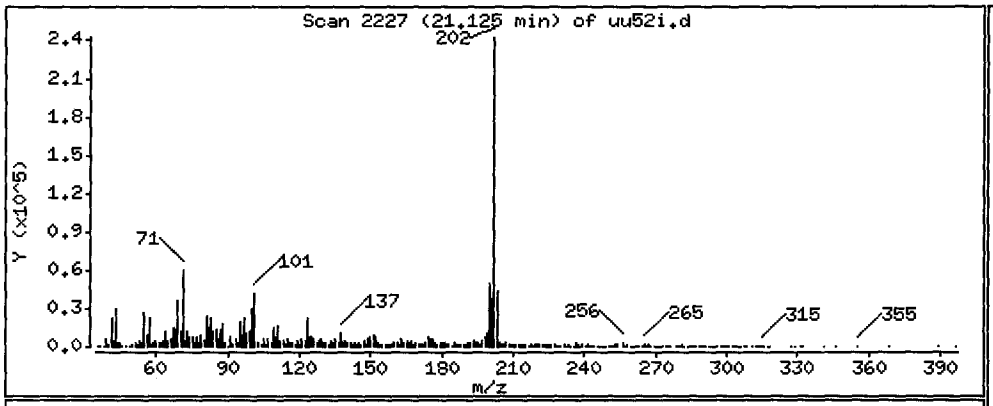
Operator: VTS/YZ

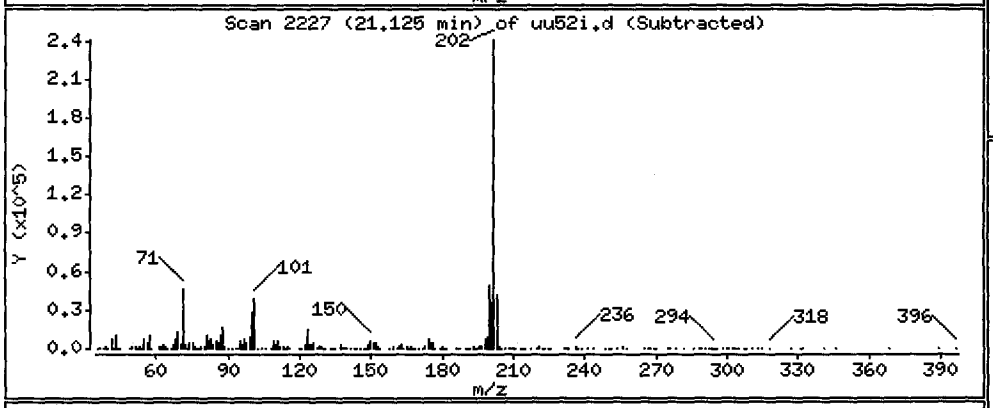
Column phase: ZB-5msi

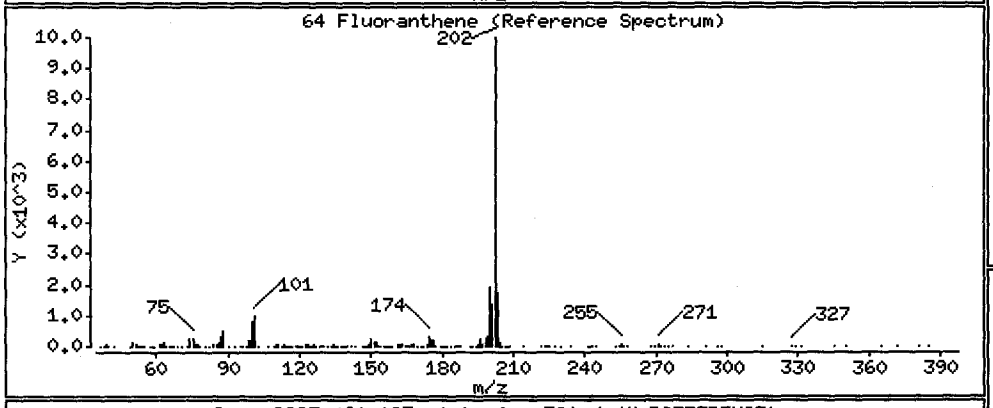
Column diameter: 0.25

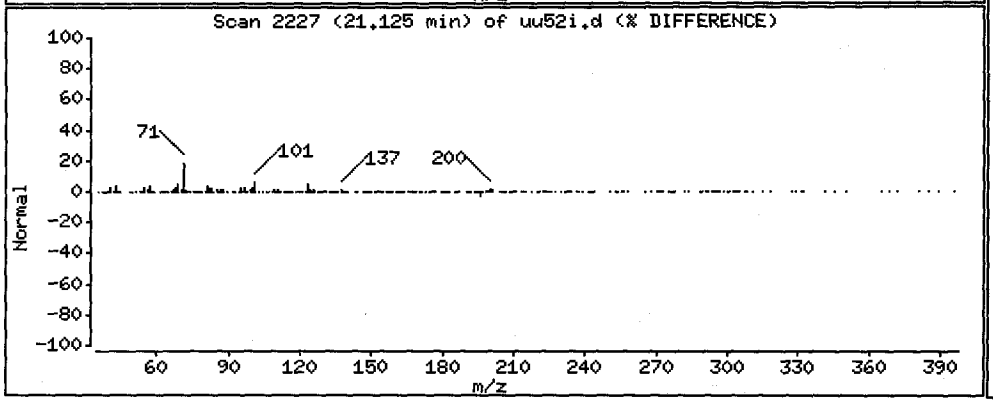
64 Fluoranthene

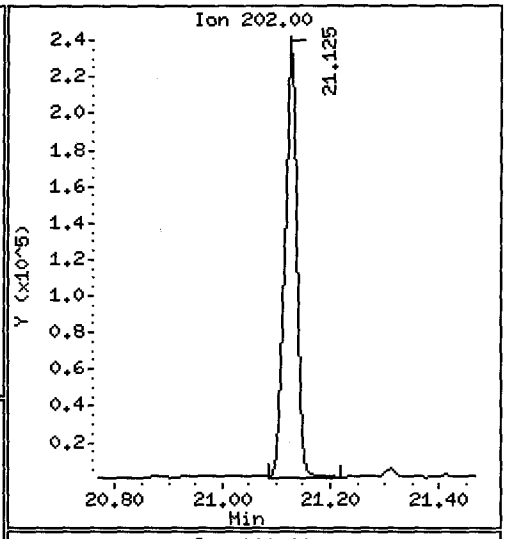
Concentration: 595.6 ug/kg

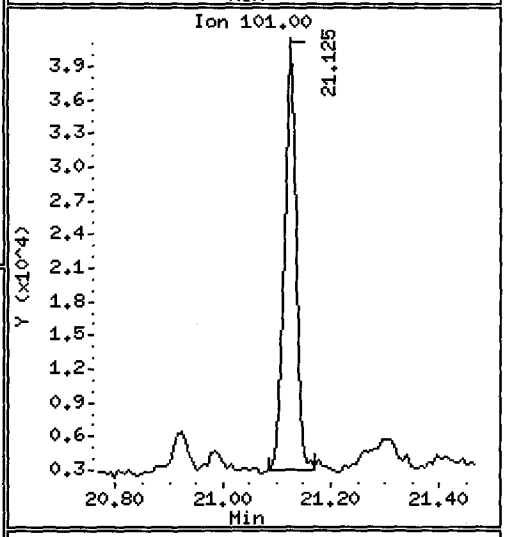


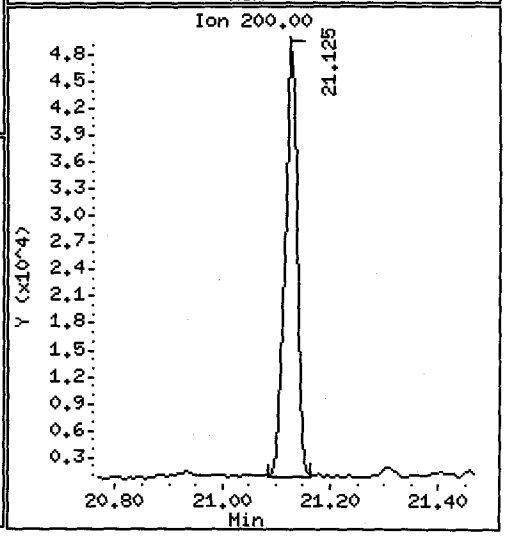












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

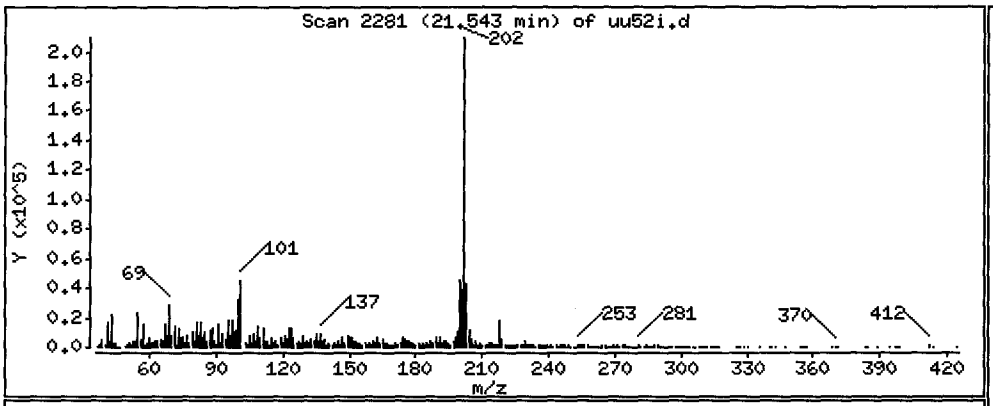
Client ID: MS008-SS-120515 Instrument: nt10.i

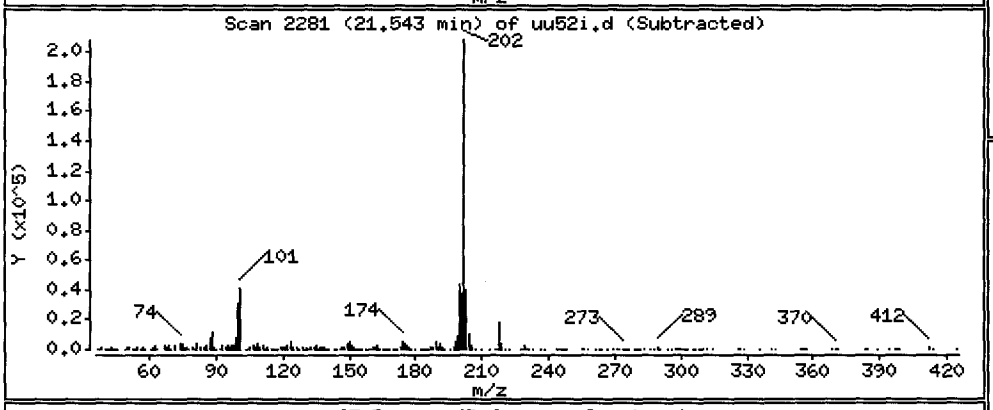
Sample Info: UU52I,3

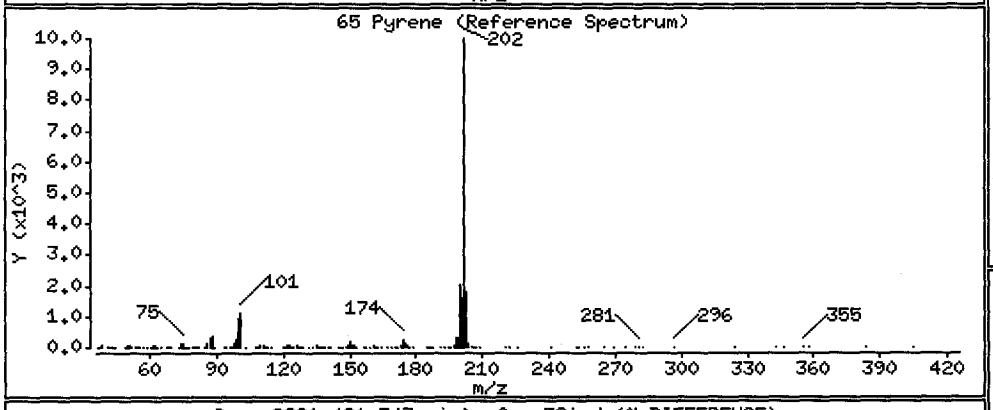
Volume Injected (uL): 1.0 Operator: VTS/YZ

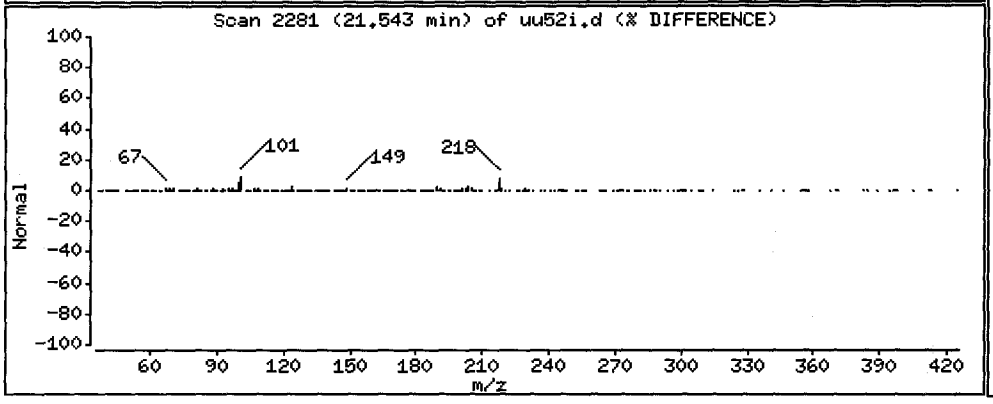
Column phase: ZB-5msi Column diameter: 0.25

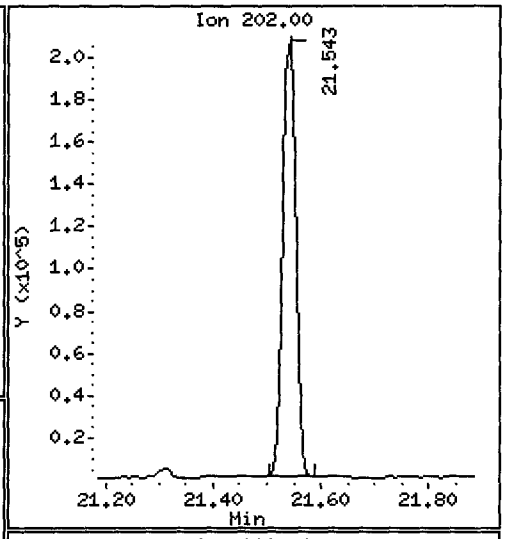
65 Pyrene Concentration: 458.0 ug/kg

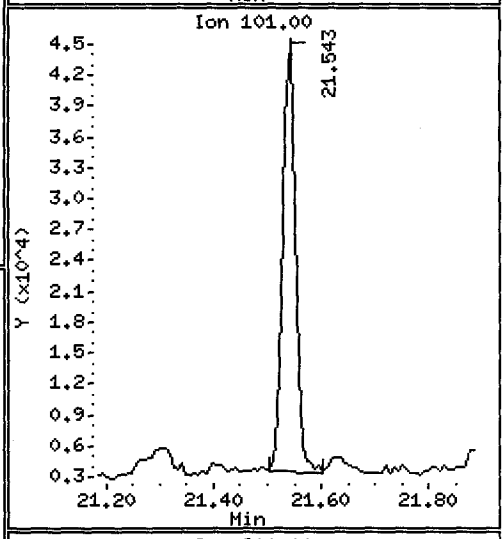


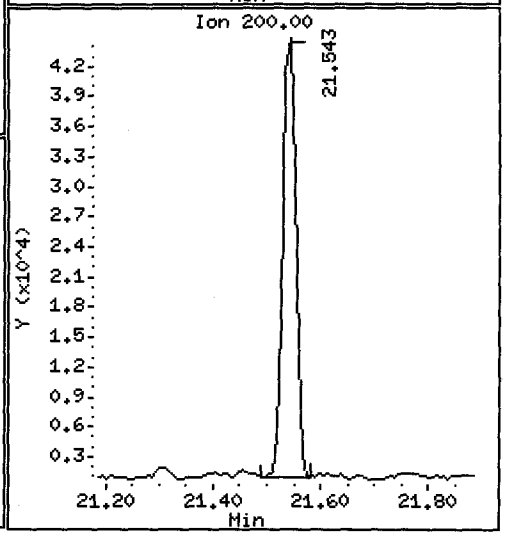












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

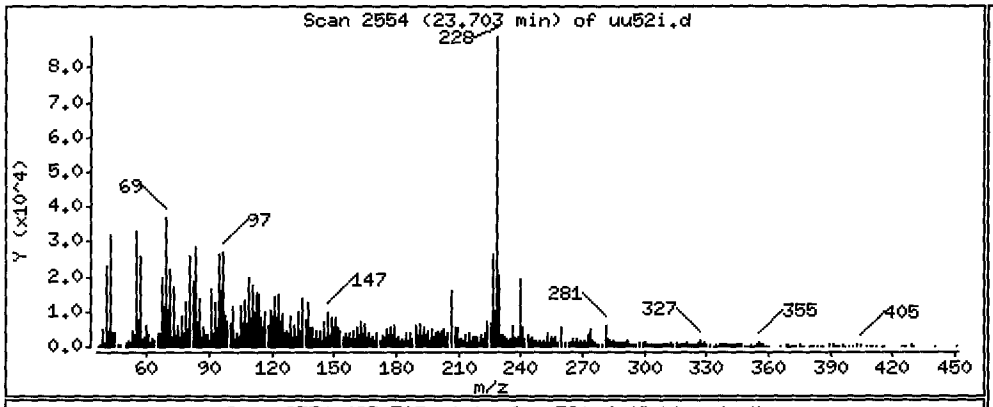
Client ID: MS008-SS-120515 Instrument: nt10.i

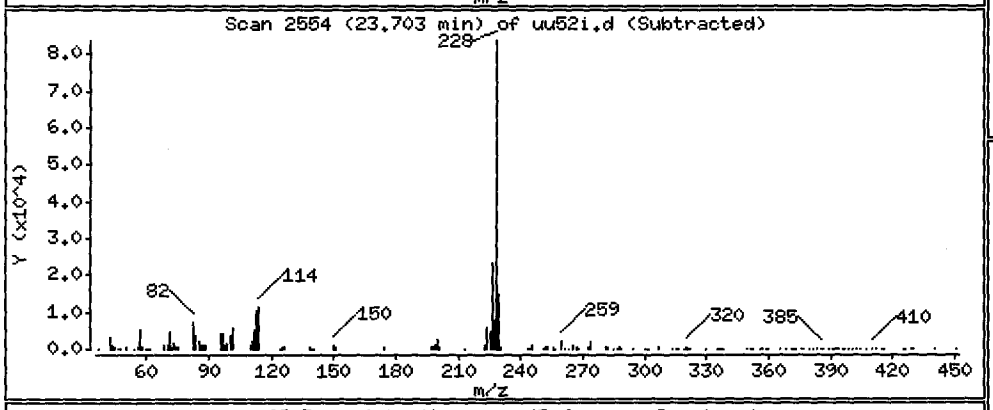
Sample Info: UU52I,3

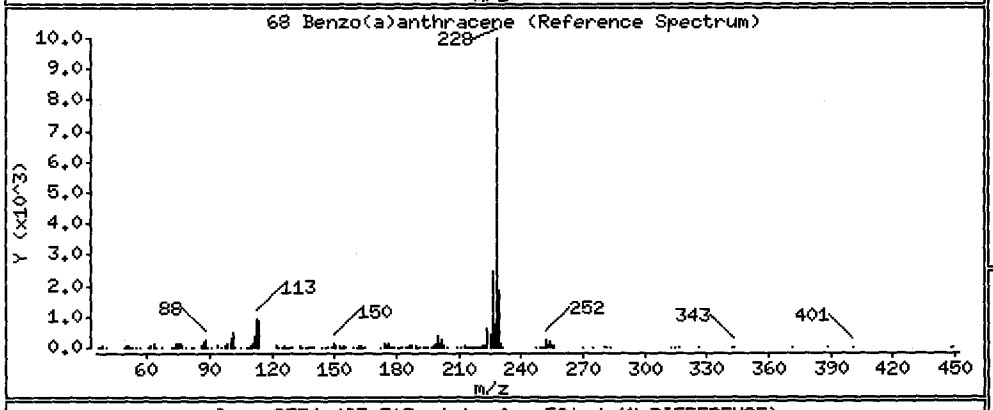
Volume Injected (uL): 1.0 Operator: VTS/YZ

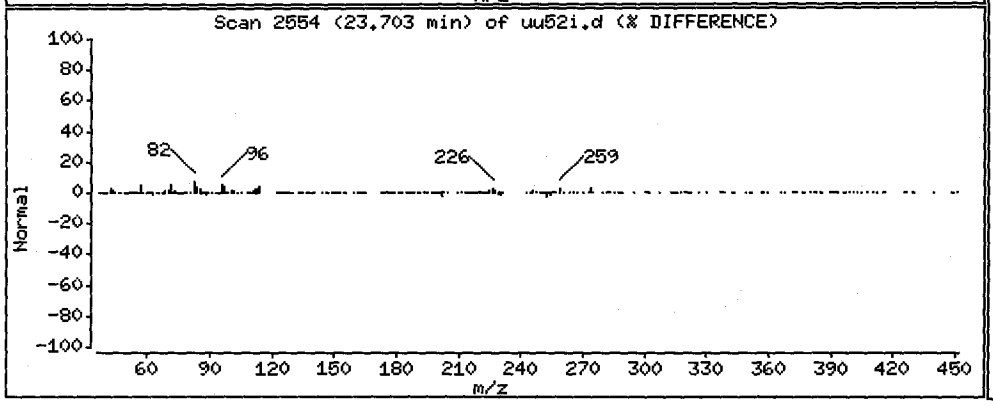
Column phase: ZB-5msi Column diameter: 0.25

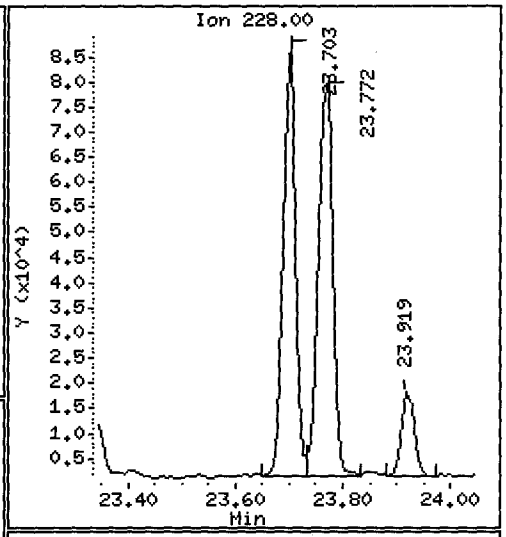
68 Benzo(a)anthracene Concentration: 194.9 ug/kg

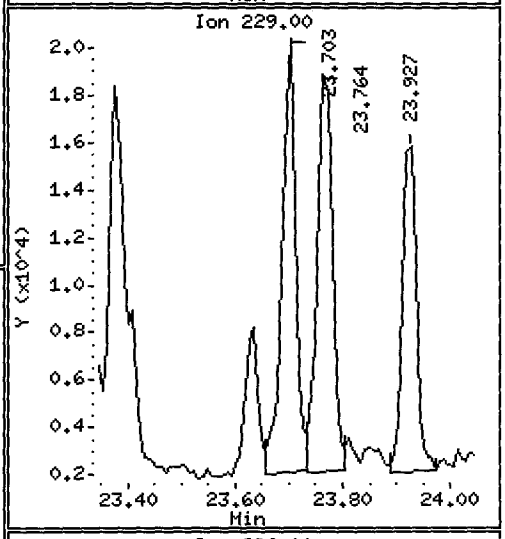


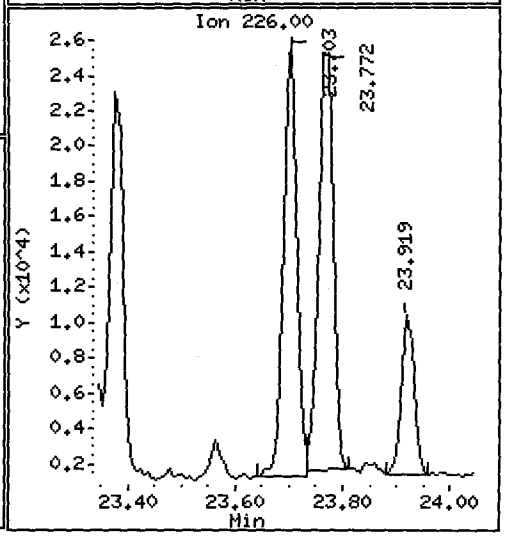












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

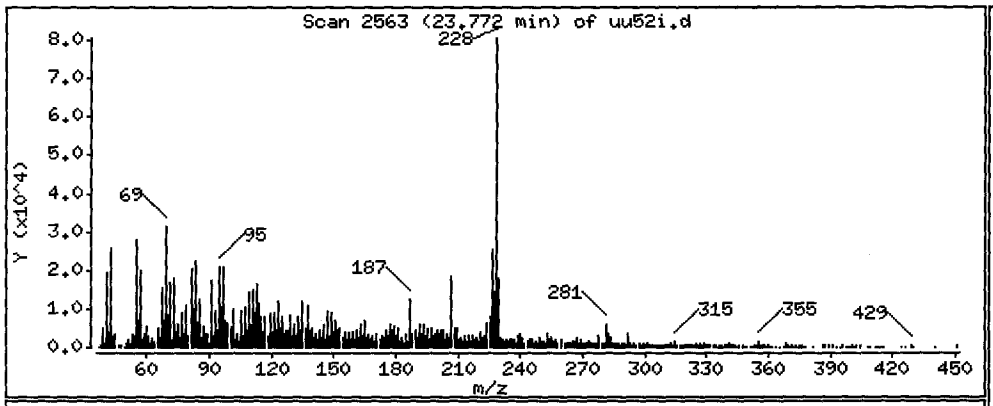
Operator: VTS/YZ

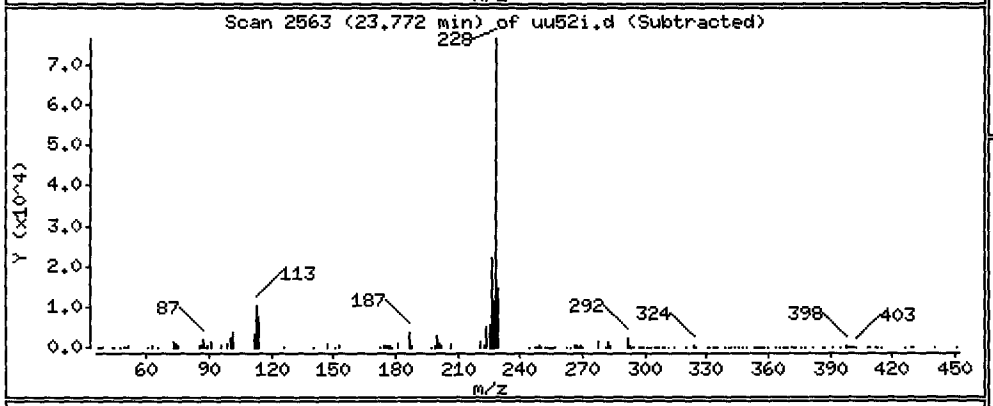
Column phase: ZB-5msi

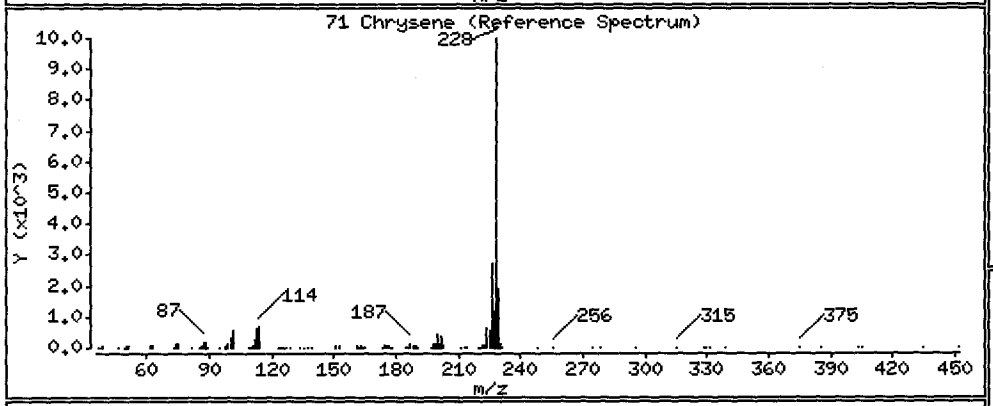
Column diameter: 0.25

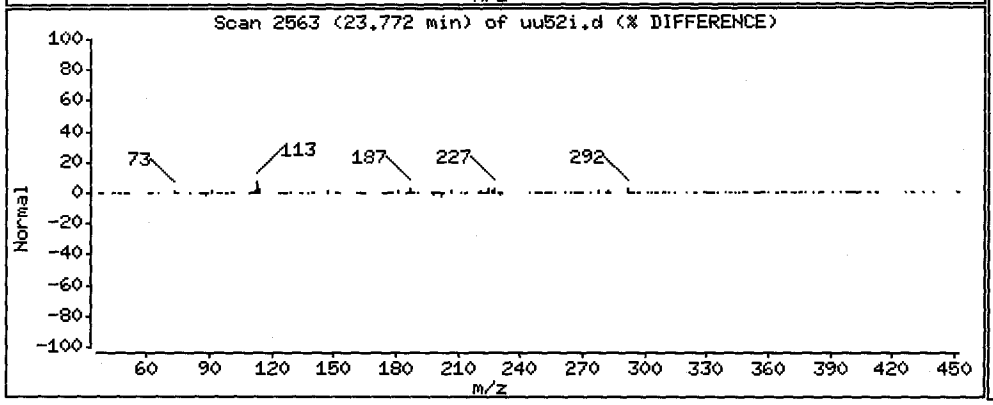
71 Chrysene

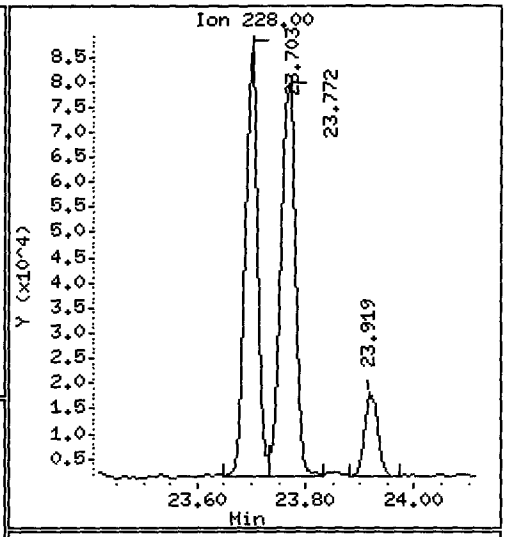
Concentration: 236.7 ug/kg

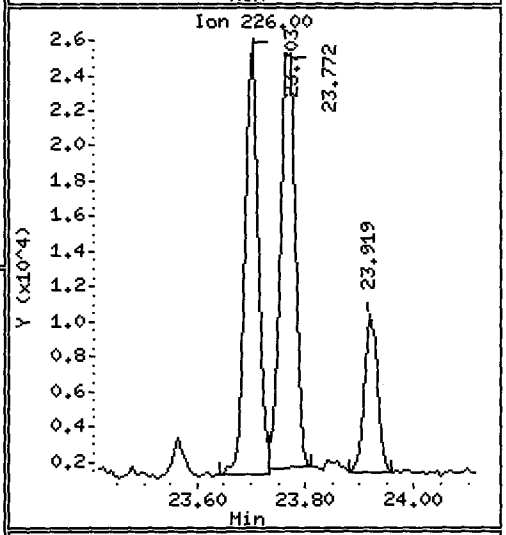


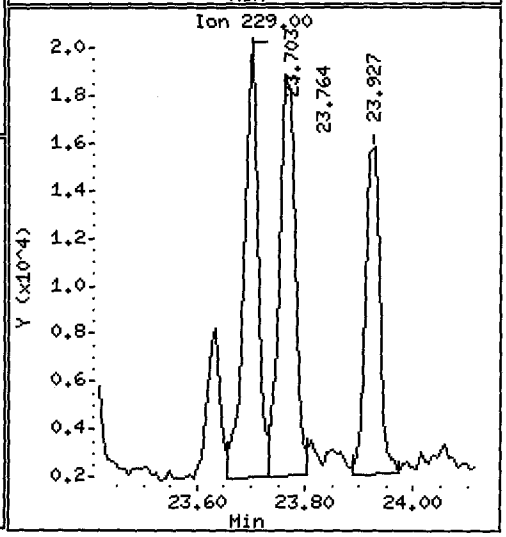






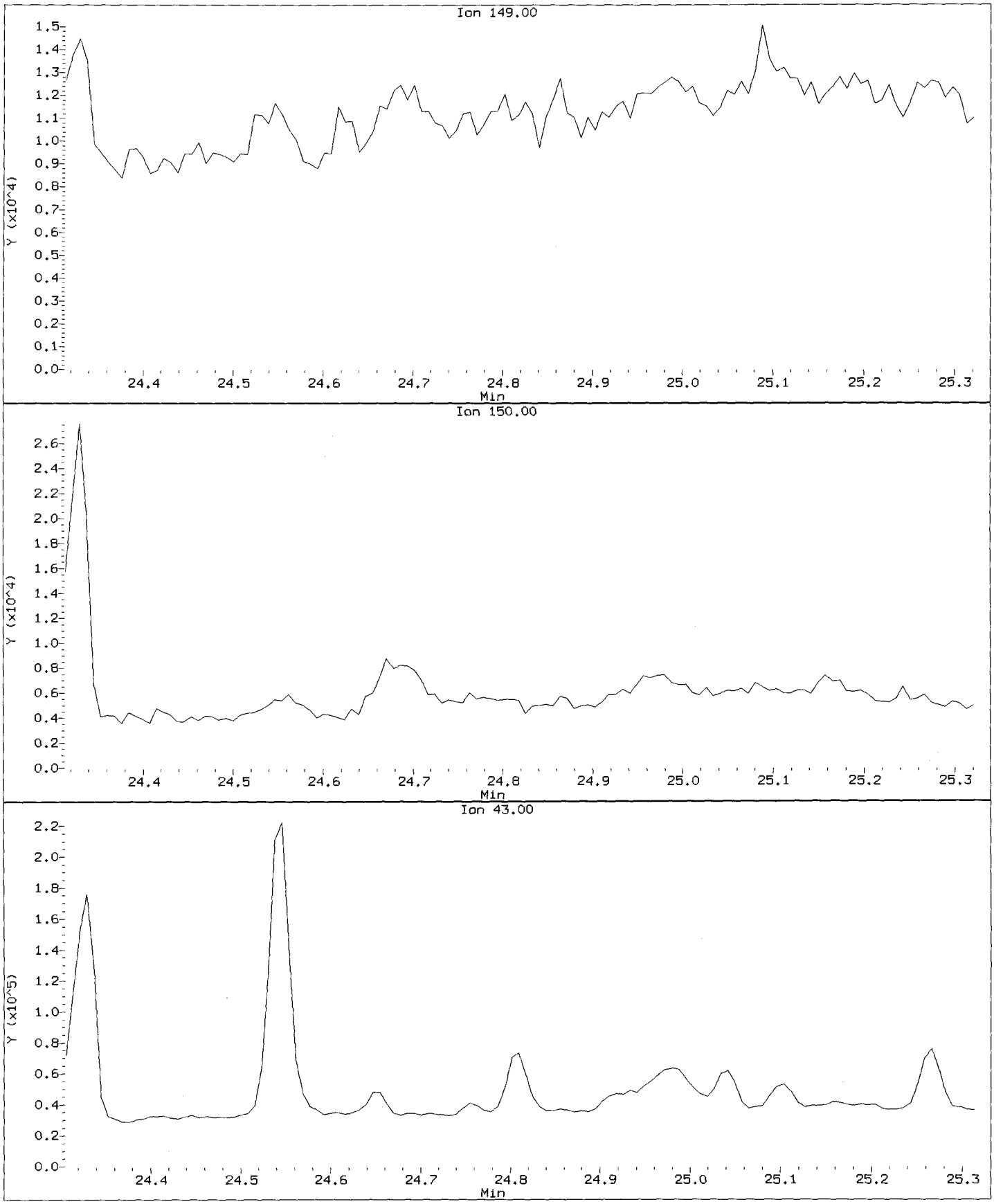






Data File: /chem1/nt10.i/20120529.b/uu52i.d
Injection Date: 29-MAY-2012 12:56
Instrument: nt10.i
Client Sample ID: MS008-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

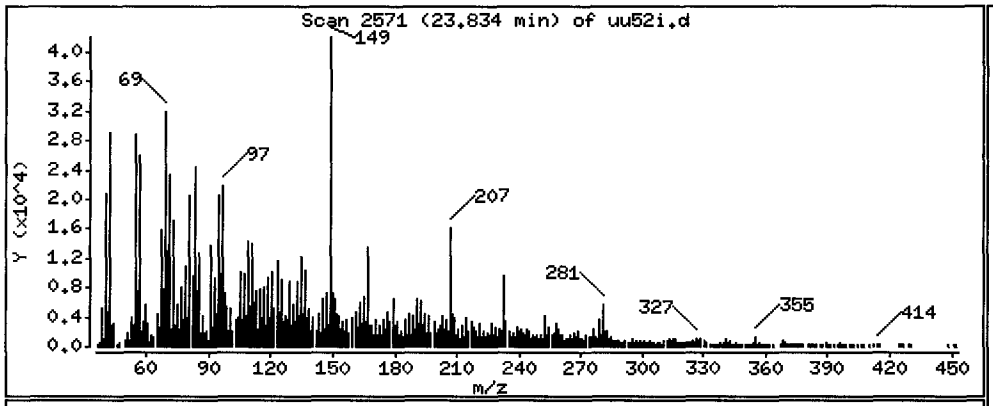
Client ID: MS008-SS-120515 Instrument: nt10.i

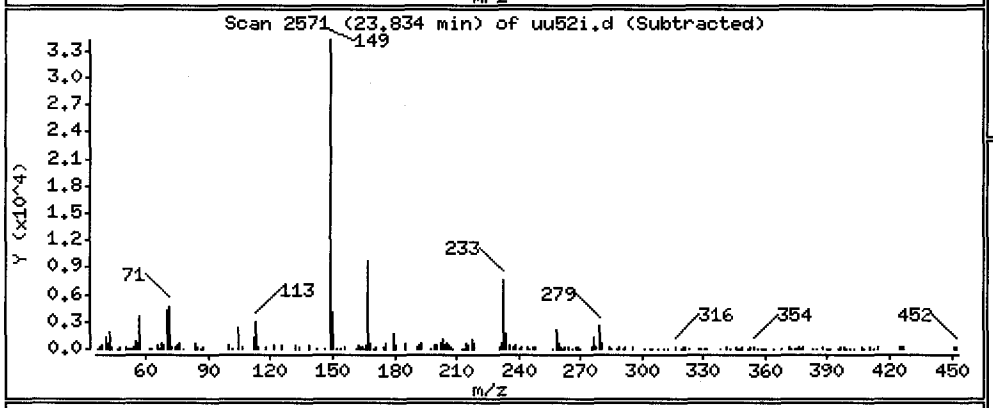
Sample Info: UU52I,3

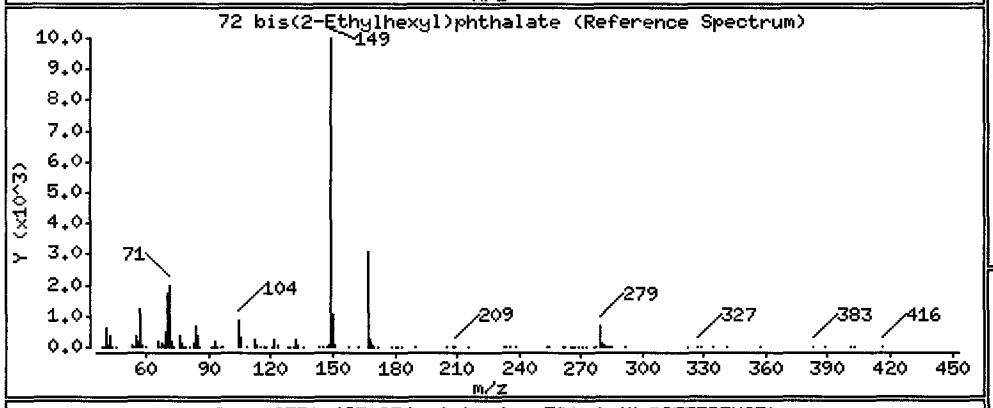
Volume Injected (uL): 1.0 Operator: VTS/YZ

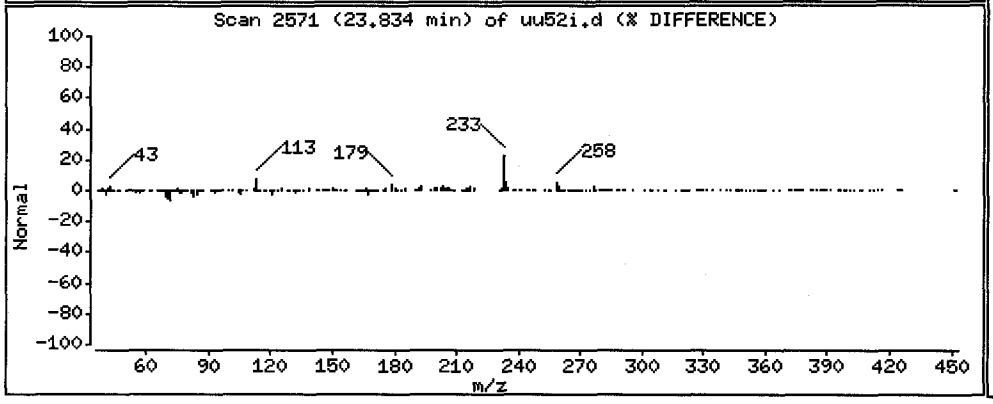
Column phase: ZB-5msi Column diameter: 0.25

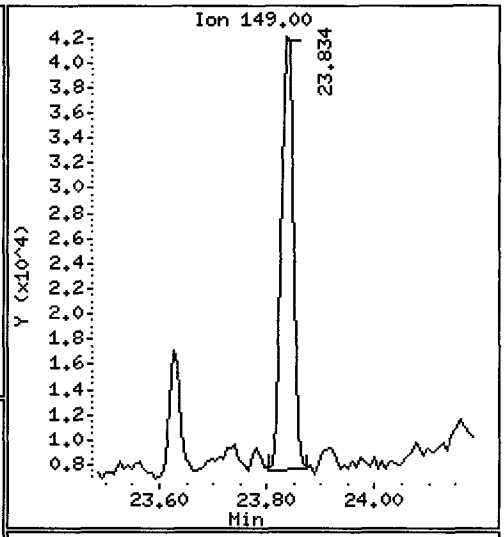
72 bis(2-Ethylhexyl)phthalate Concentration: 99.07 ug/kg

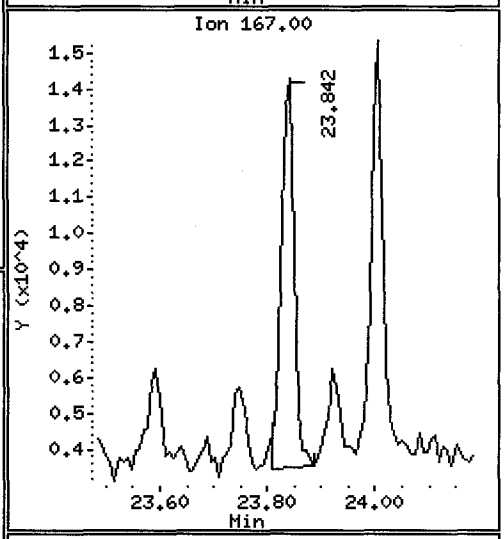


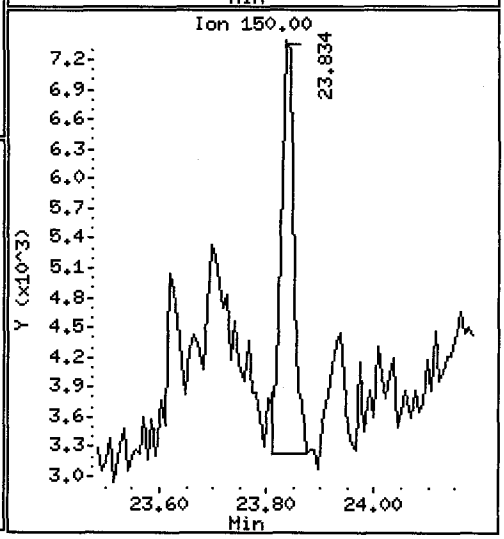












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

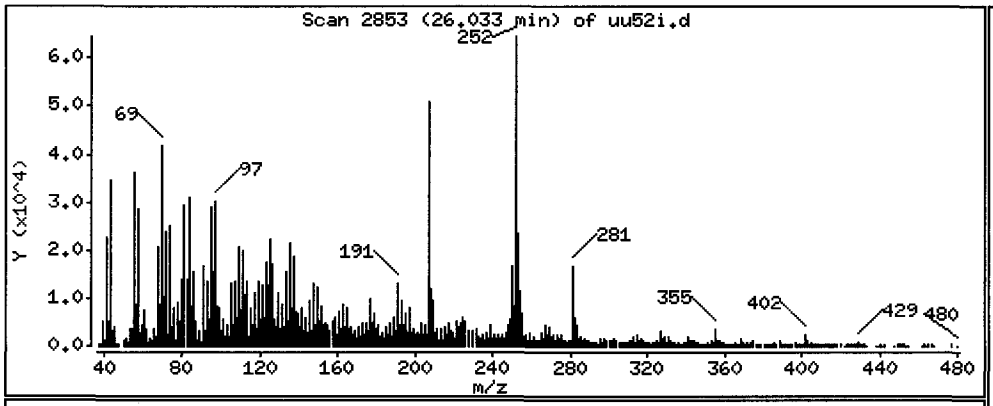
Client ID: MS008-SS-120515 Instrument: nt10.i

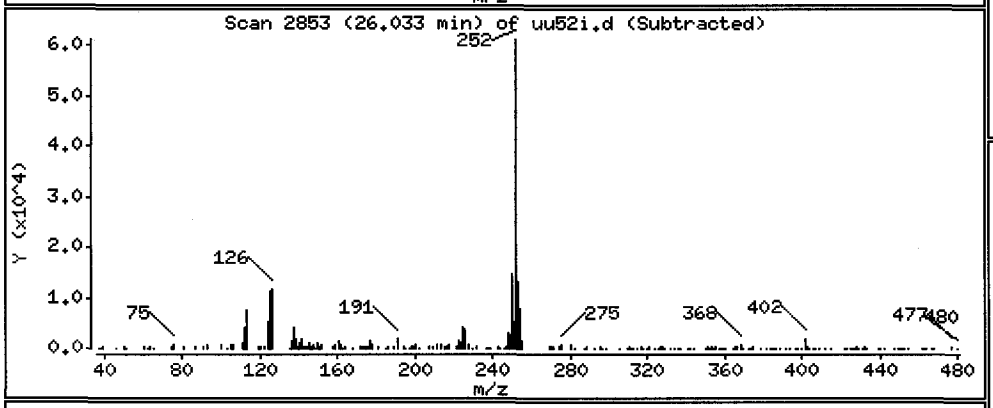
Sample Info: UU52I,3

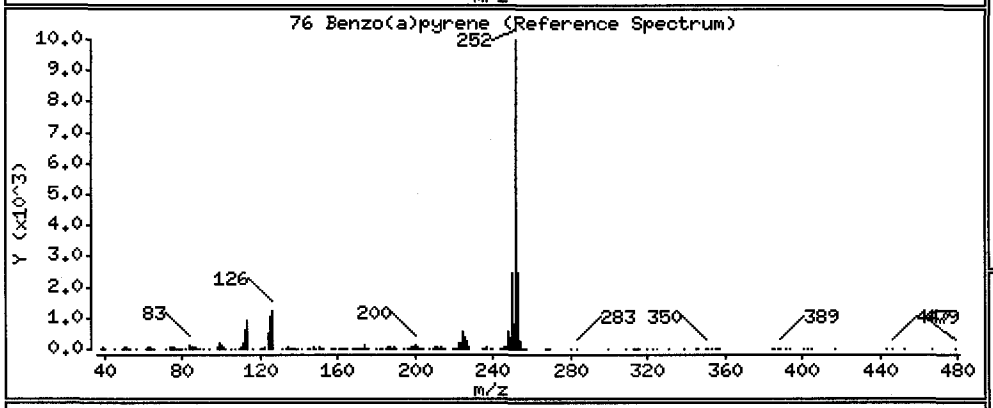
Volume Injected (uL): 1.0 Operator: VTS/YZ

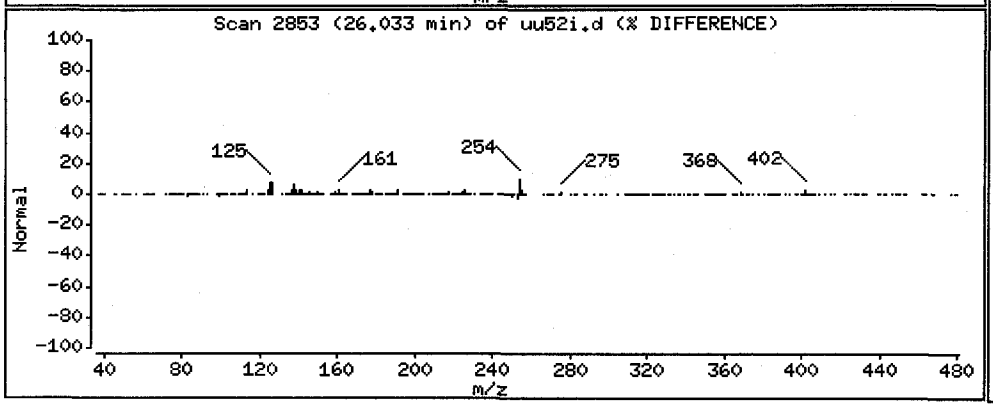
Column phase: ZB-5msi Column diameter: 0.25

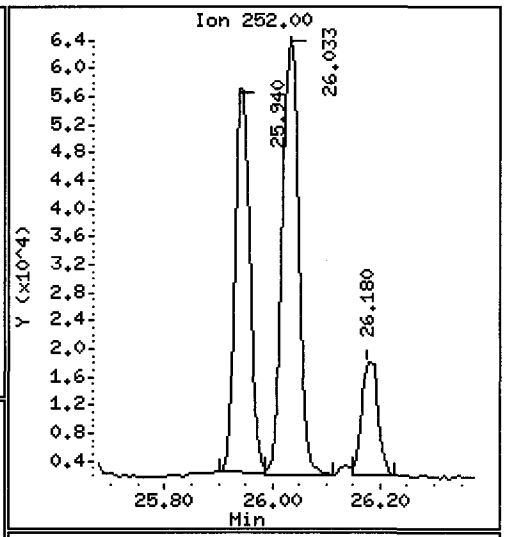
76 Benzo(a)pyrene Concentration: 213.4 ug/kg

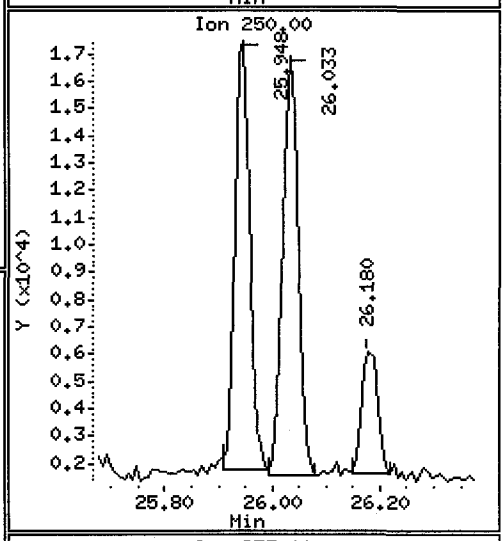


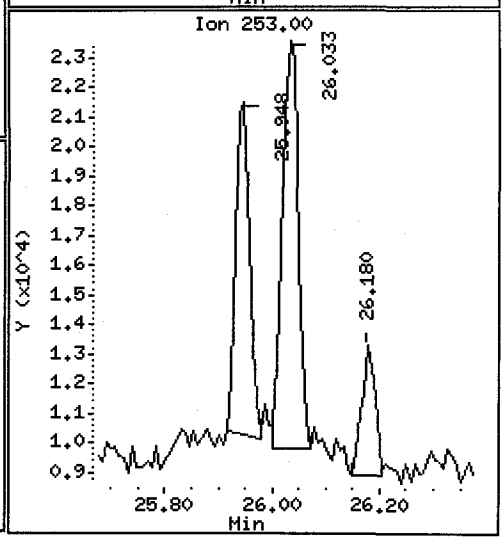












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

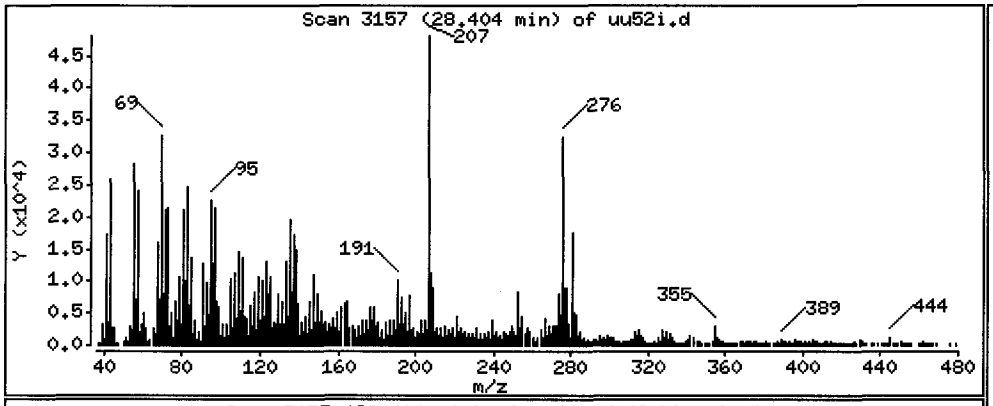
Operator: VTS/YZ

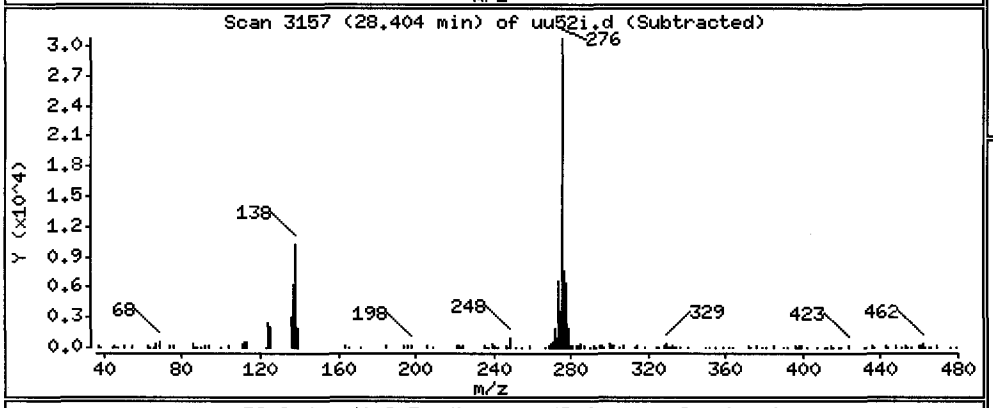
Column phase: ZB-5msi

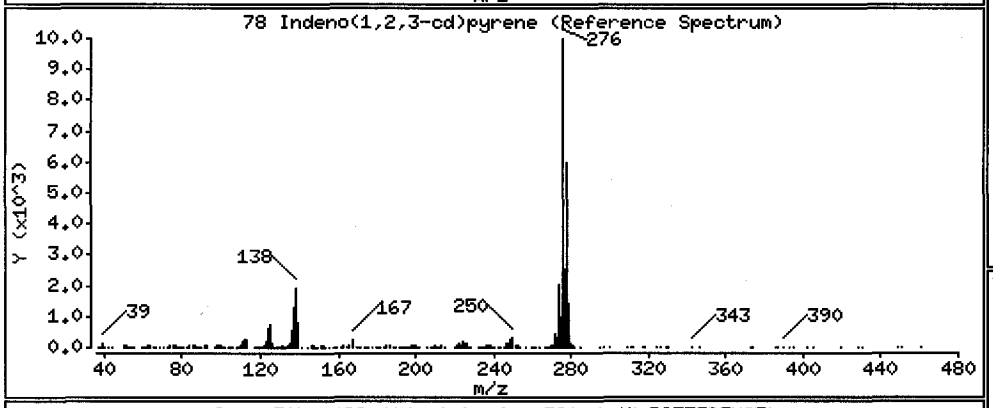
Column diameter: 0.25

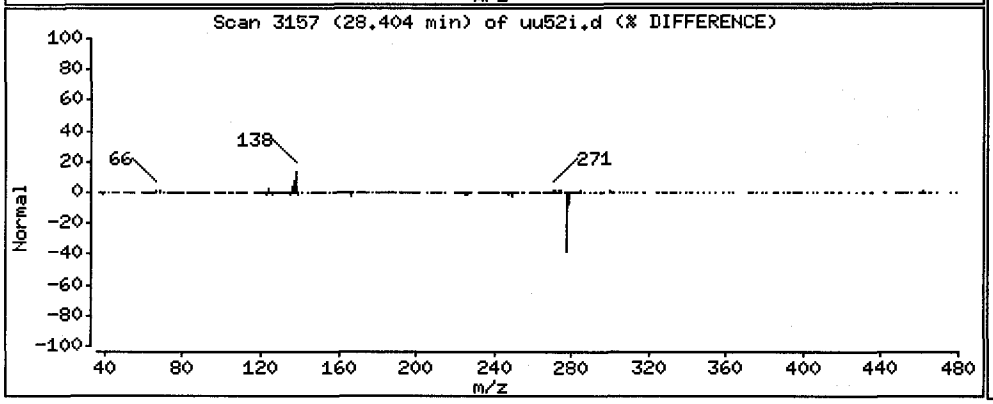
78 Indeno(1,2,3-cd)pyrene

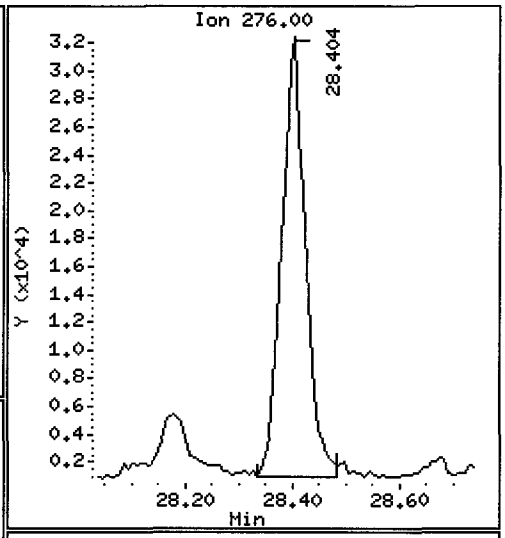
Concentration: 140.4 ug/kg

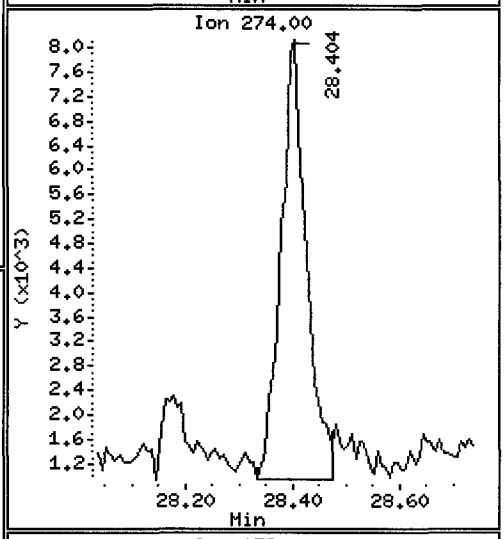


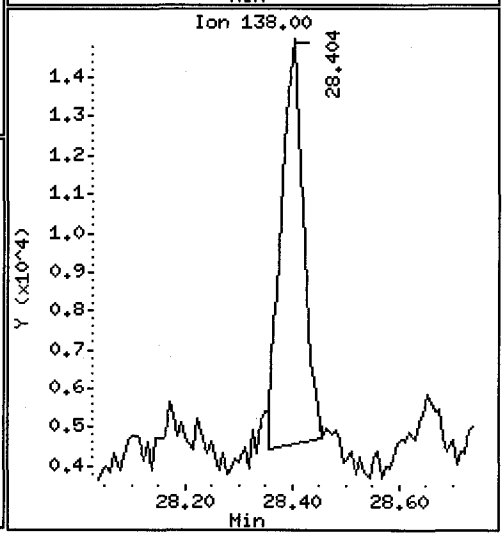












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

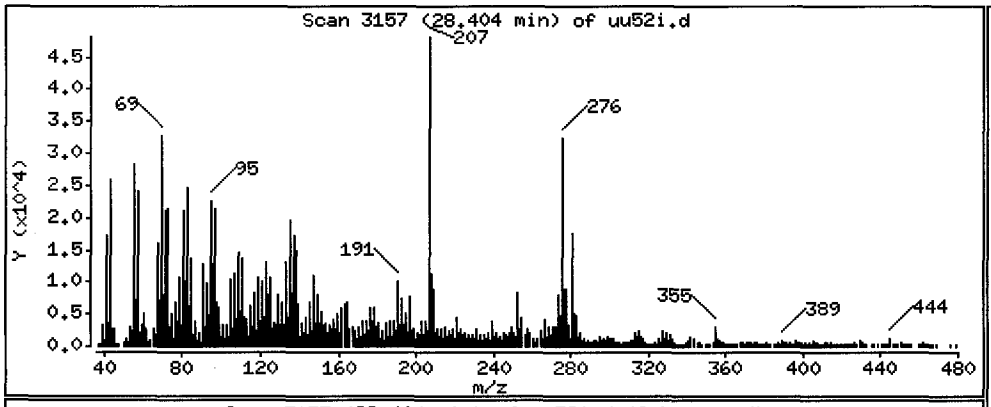
Operator: VTS/YZ

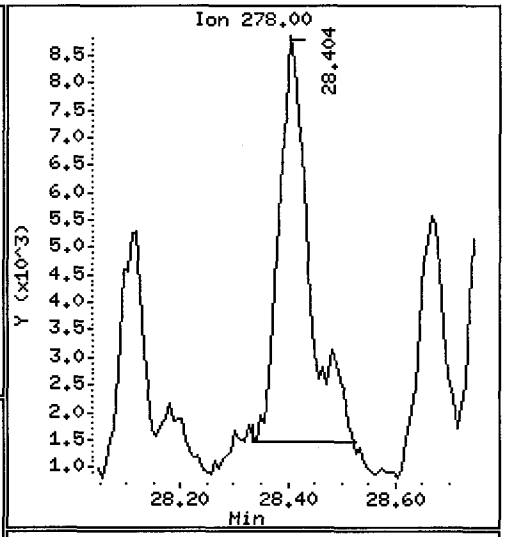
Column phase: ZB-5msi

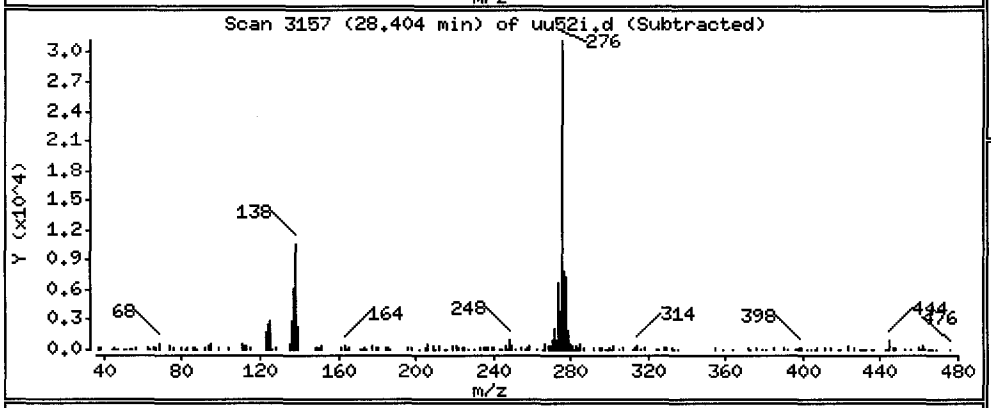
Column diameter: 0.25

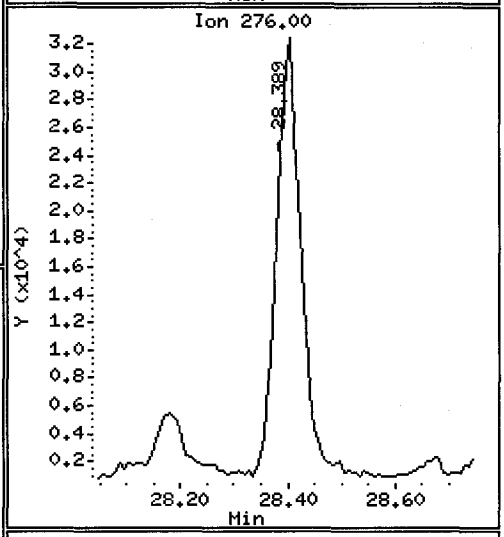
79 Dibenzo(a,h)anthracene

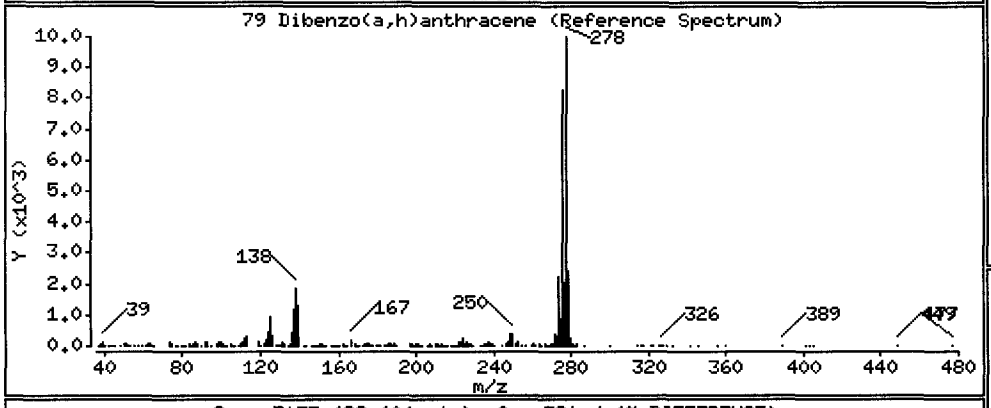
Concentration: 52.87 ug/kg

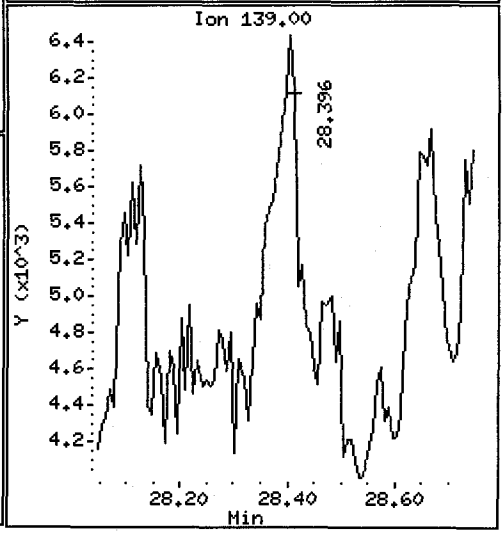


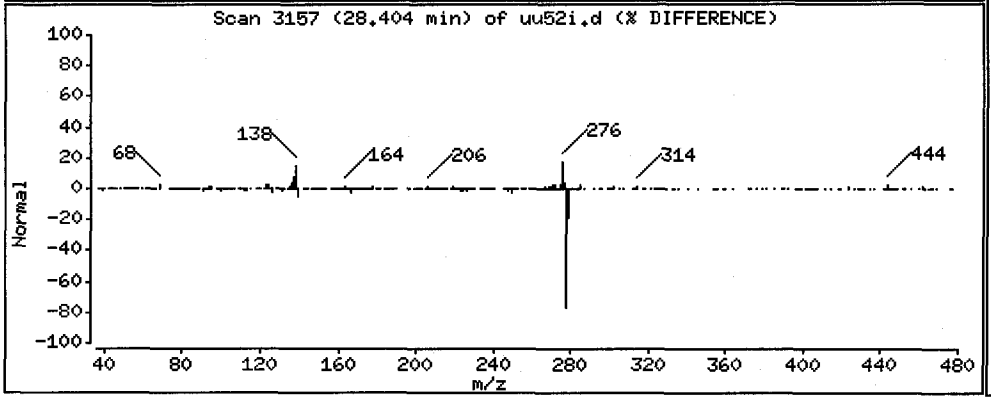












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

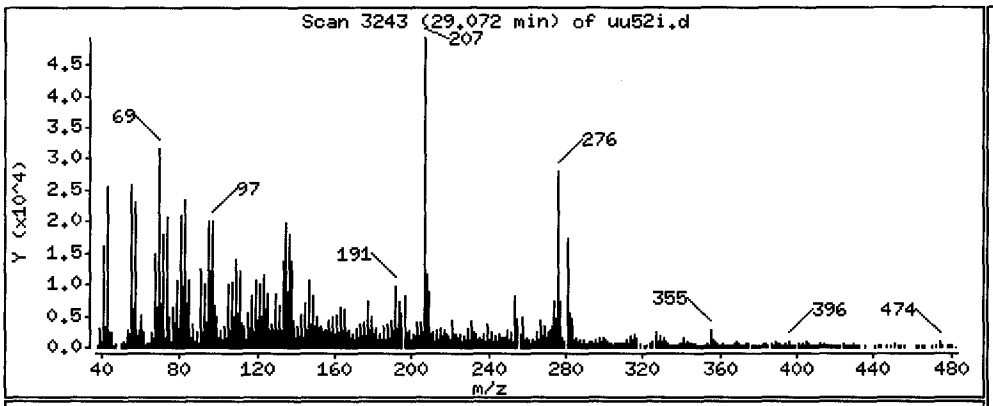
Client ID: MS008-SS-120515 Instrument: nt10.i

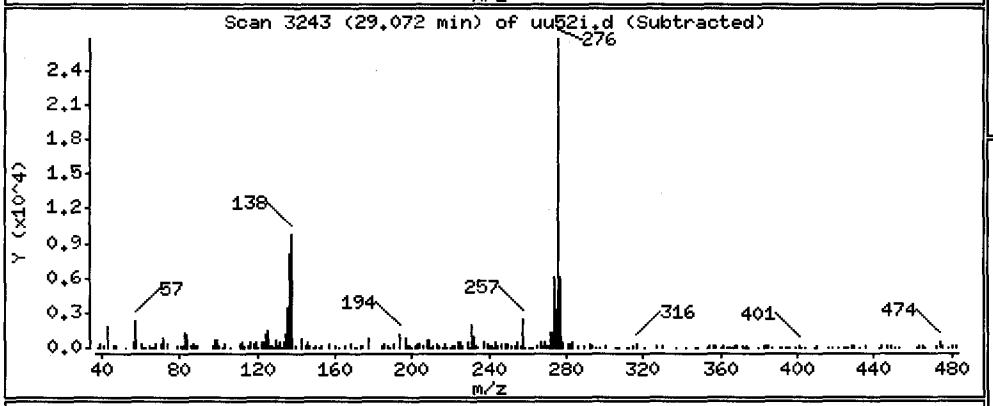
Sample Info: UU52I,3

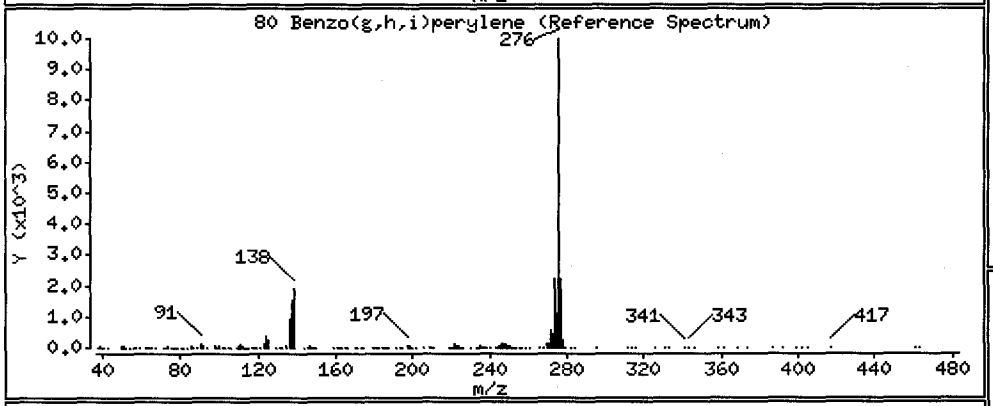
Volume Injected (uL): 1.0 Operator: VTS/YZ

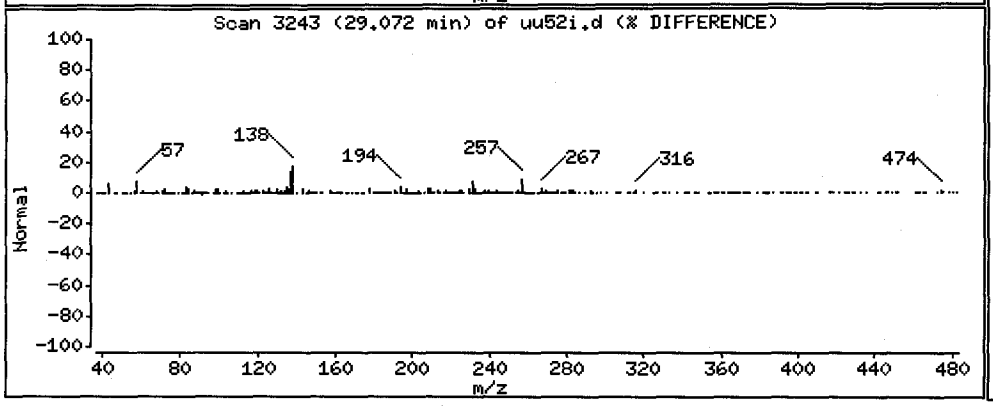
Column phase: ZB-5msi Column diameter: 0.25

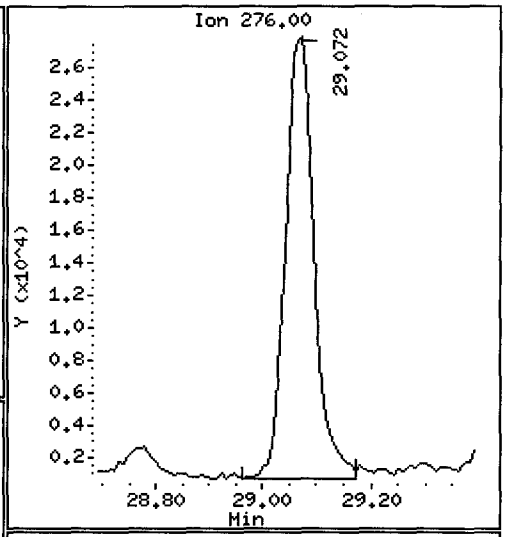
80 Benzo(g,h,i)perylene Concentration: 172.8 ug/kg

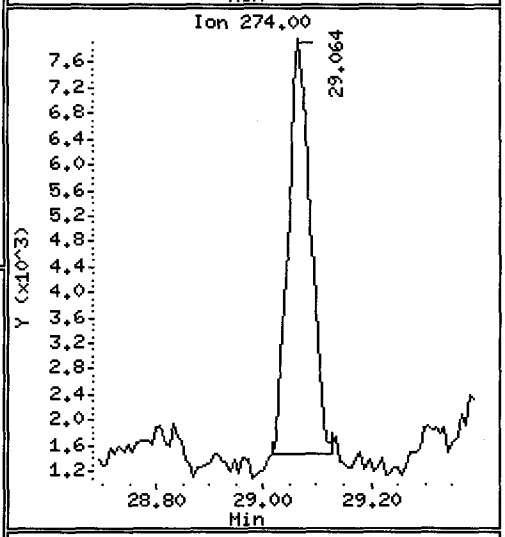


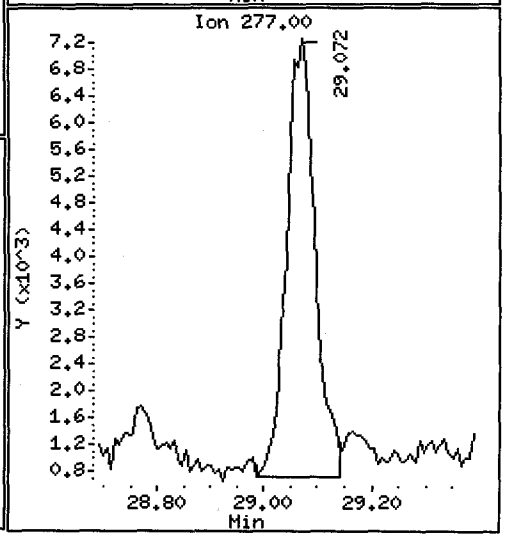












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

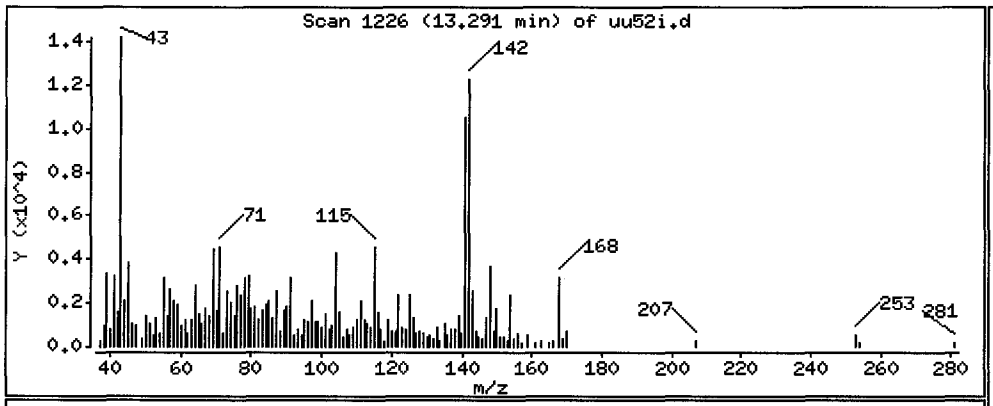
Operator: VTS/YZ

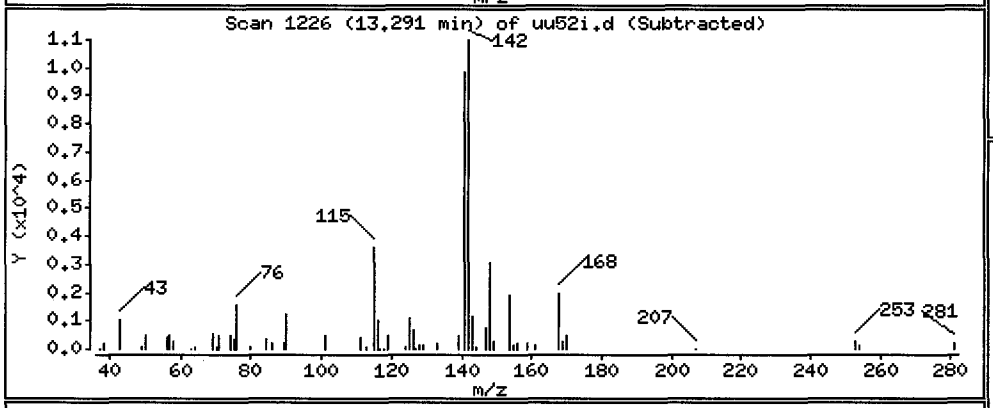
Column phase: ZB-5msi

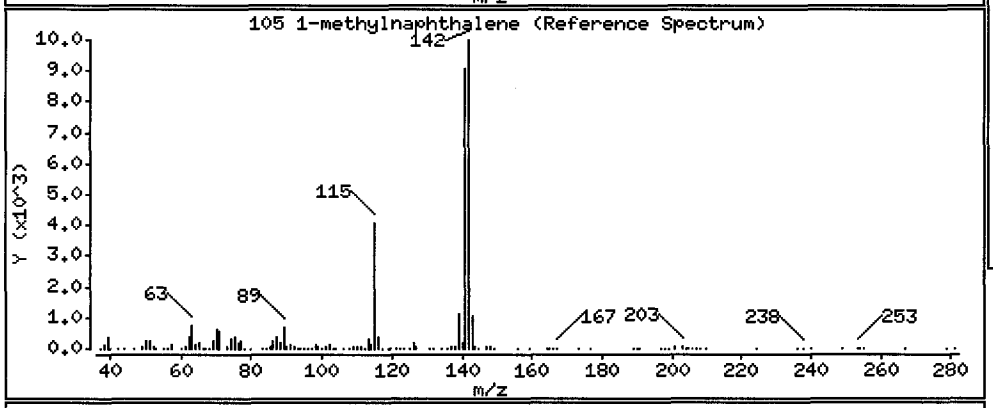
Column diameter: 0.25

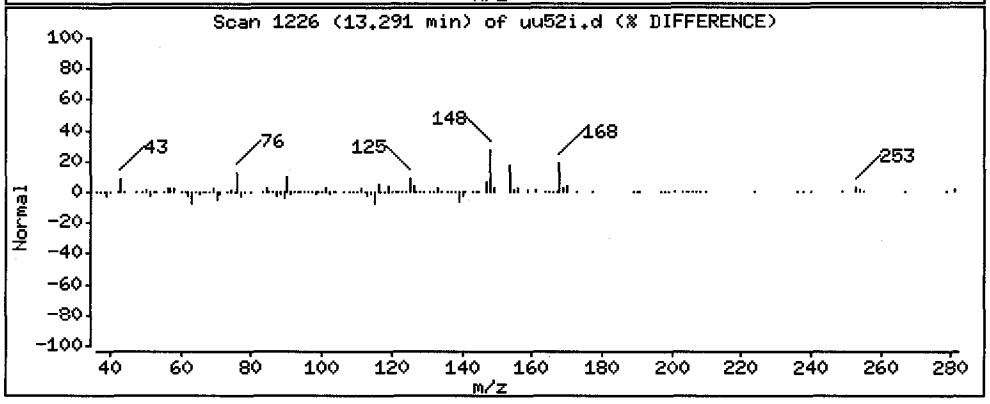
105 1-methylnaphthalene

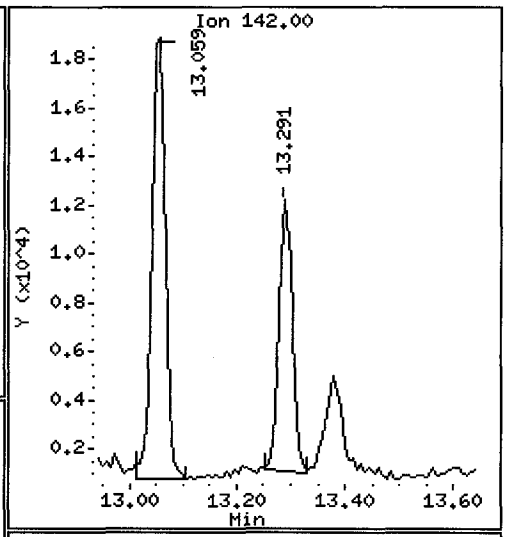
Concentration: 38.49 ug/kg

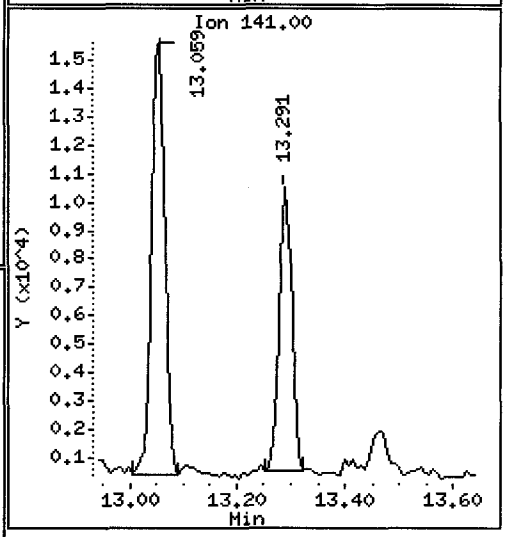












Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

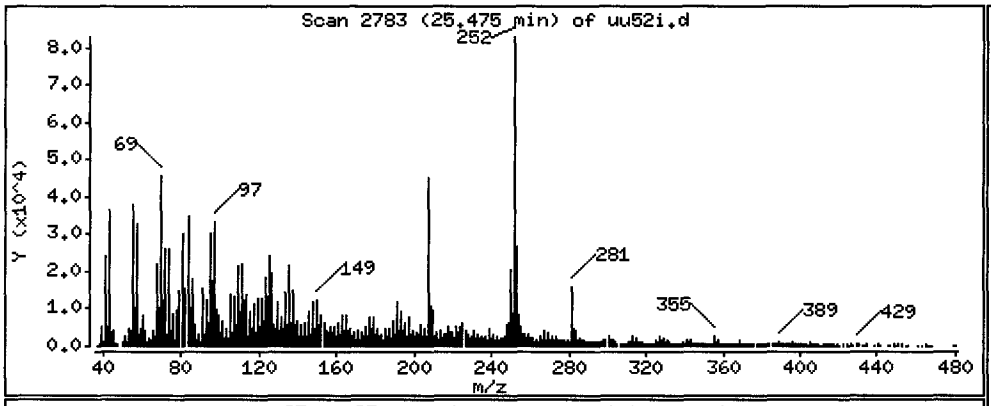
Operator: VTS/YZ

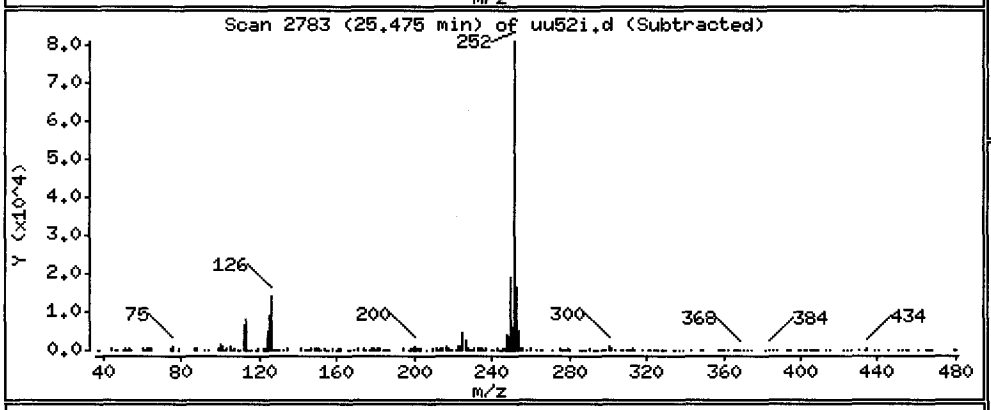
Column phase: ZB-5msi

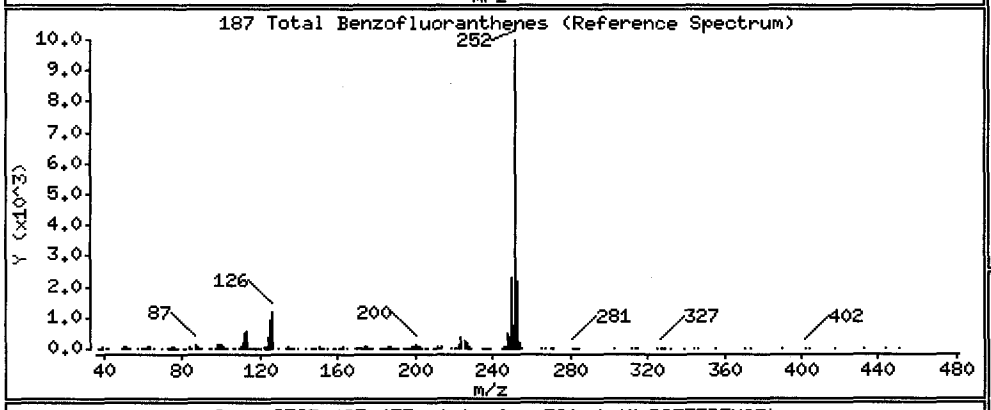
Column diameter: 0.25

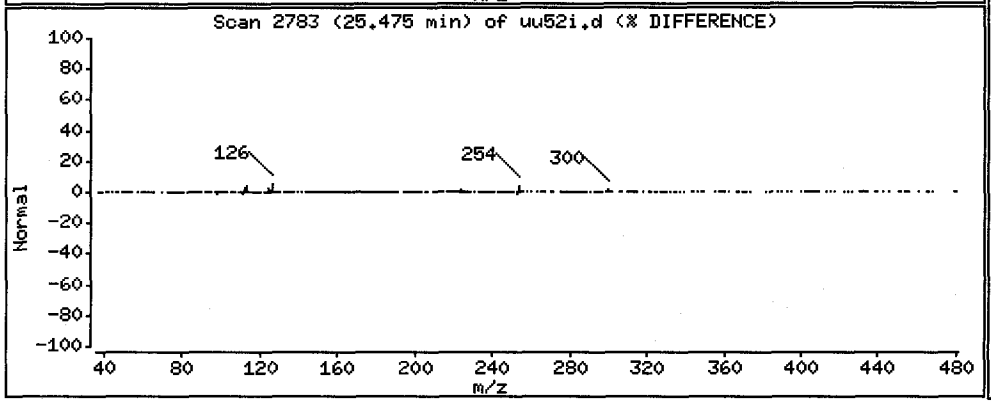
187 Total Benzofluoranthenes

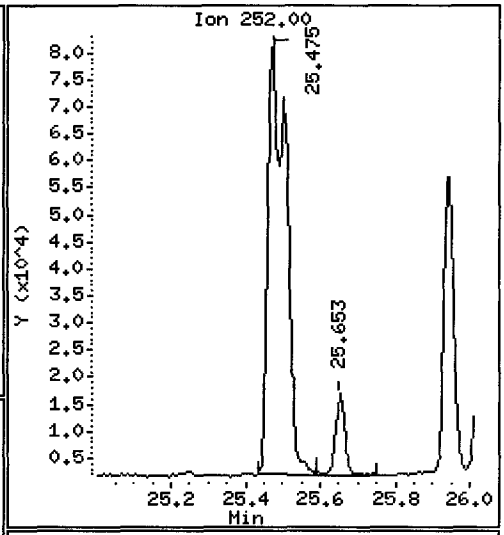
Concentration: 417.6 ug/kg

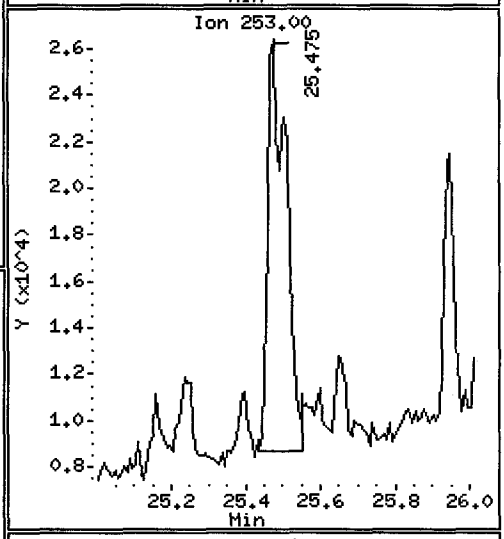


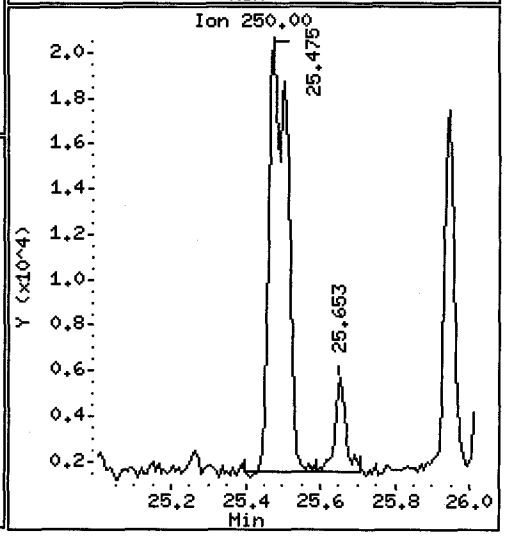






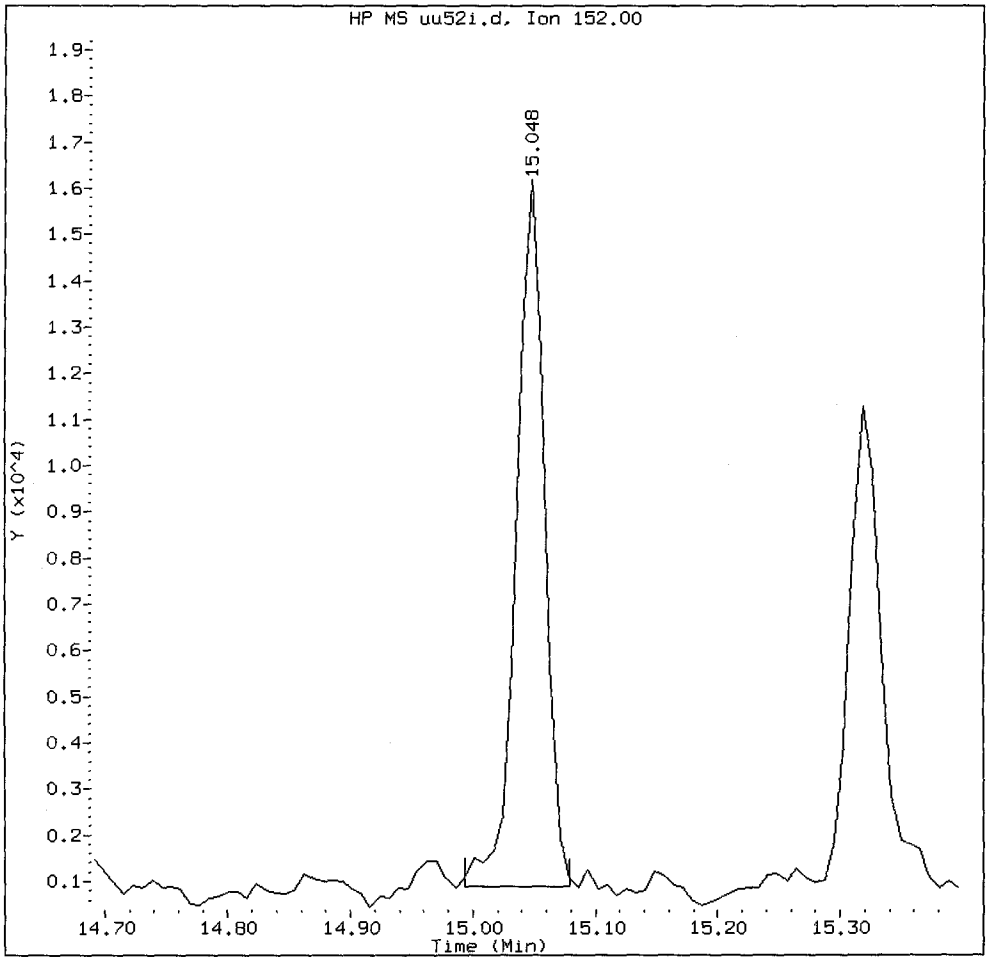






UU52I, /chem1/nt10.i/20120529.b/uu52i.d

Acenaphthylene Amount: 0.13 Area: 25499



MANUAL INTEGRATION for Acenaphthylene

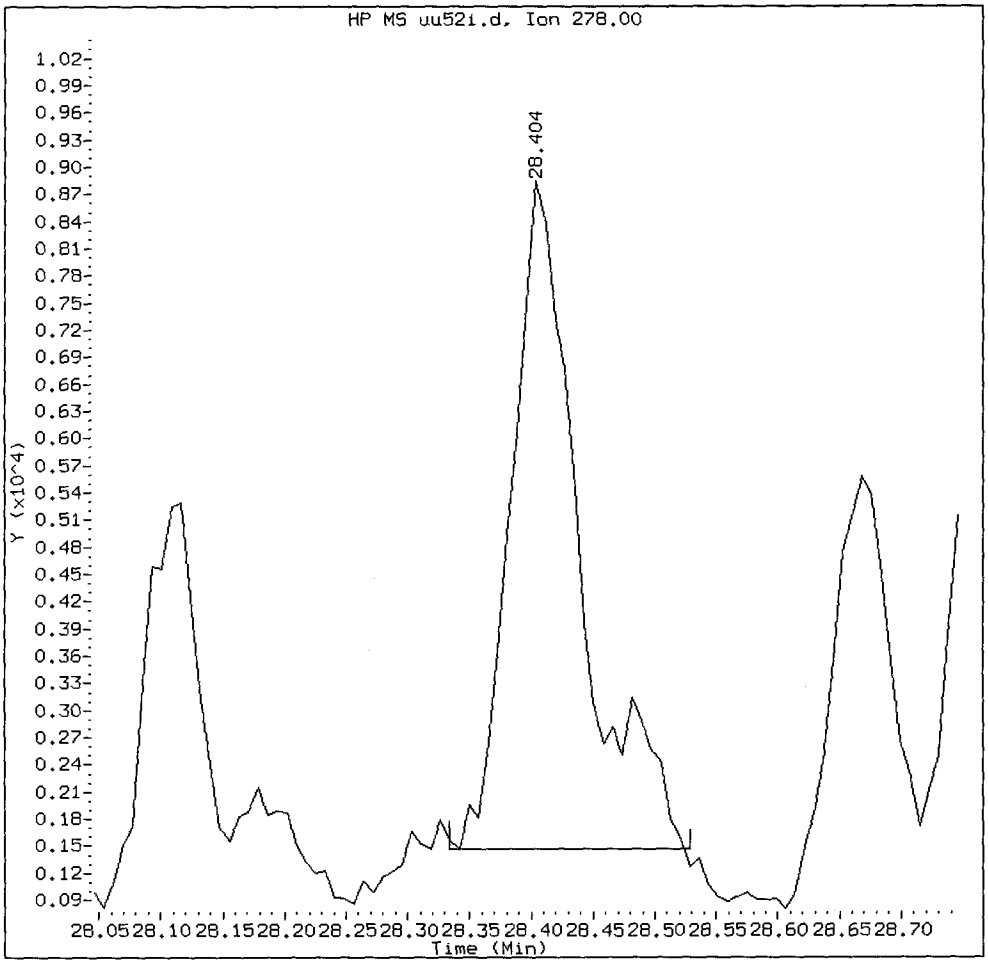
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: JZ Date: 5/31/12

UU52I, /chem1/nt10.i/20120529.b/uu52i.d

Dibenzo(a,h)anthracene Amount: 0.18 Area: 28829



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

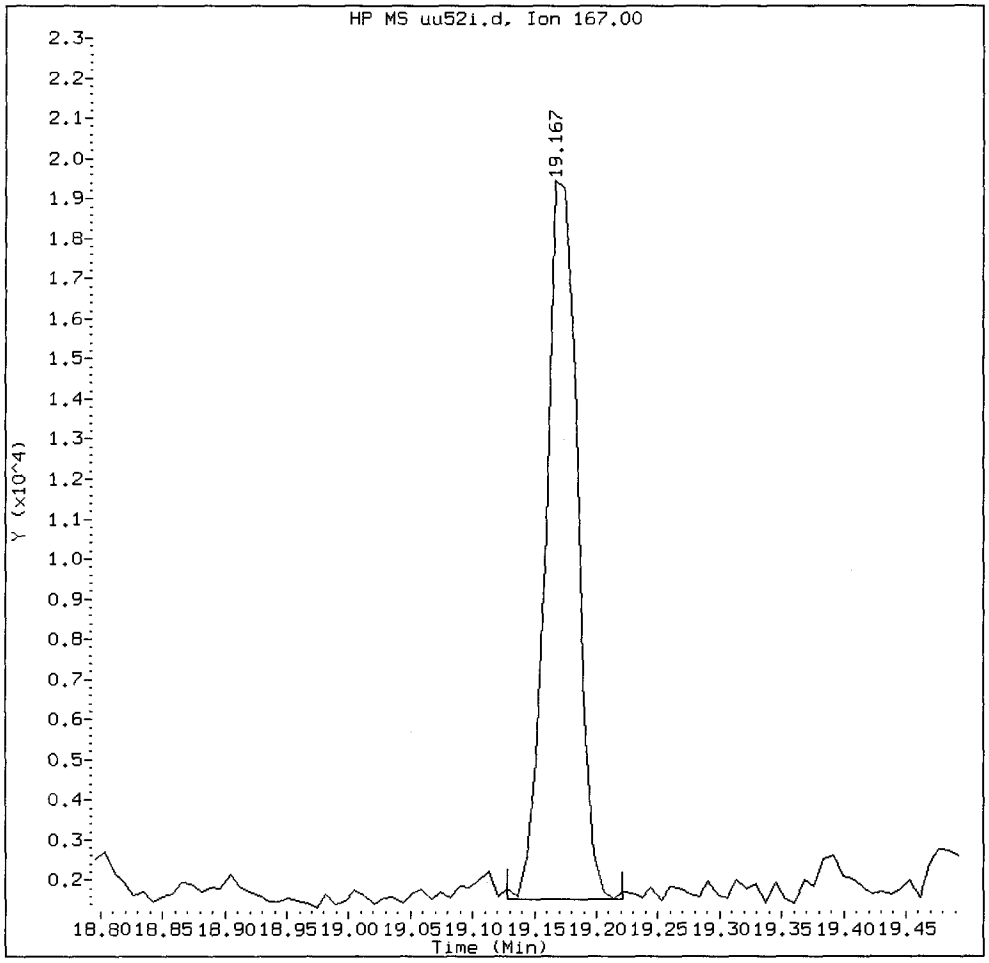
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/31/12

UU52I, /chem1/nt10.i/20120529.b/uu52i.d

Carbazole Amount: 0.21 Area: 31906



MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/4/12

CO-ELUTION SUMMARY FOR FILE - uu52i.d

Lab ID: UU52I, Method: ABN.m, Instrument: nt10.i, Date: 29-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

YZ 6/4/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120529.b/uu52j.d
Lab Smp Id: UU52J Client Smp ID: MS009-SS-120515
Inj Date : 29-MAY-2012 13:33
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52J,3
Misc Info : 12-8902
Comment : 1ul Injection
Method : /chem1/nt10.i/20120529.b/ABN.m
Meth Date : 30-May-2012 12:34 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 4
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	102.00000	Weight of sample extracted (g)
M	90.20000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.575	6.560	(0.741)	105640	1.56574	469.9
$ 2	Phenol-d5	99	8.275	8.260	(0.933)	133648	1.59020	477.2
3	Phenol	94	8.298	8.283	(0.935)	30766	0.34343	103.1
$ 5	2-Chlorophenol-d4	132	8.499	8.492	(0.958)	124226	1.68710	506.3
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.871	8.863	(1.000)	192942	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	9.251	9.244	(1.043)	49251	1.01961	306.0
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	9.197	9.182	(1.037)	4252	0.11297	33.91
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.756	9.748	(1.100)	117294	1.59231	477.9
$	18 Nitrobenzene-d5	82	10.035	10.035	(0.872)	70683	1.01810	305.6
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.049	11.126	(0.960)	60532	1.35653	407.1
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.512	11.512	(1.000)	774858	4.00000	
	28 Naphthalene	128	11.558	11.550	(1.004)	187913	0.96197	288.7
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.059	13.051	(1.134)	16822	0.12387	37.18
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.910	13.910	(0.904)	172395	1.13356	340.2
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.388	15.388	(1.000)	438714	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.813	15.813	(1.028)	30592	0.17570	52.73
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	16.579	16.579	(1.077)	19121	0.14333	43.01
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.165	17.157	(1.115)	32832	1.81312	544.2
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.656	18.649	(1.000)	619554	4.00000	
	60 Phenanthrene	178	18.703	18.703	(1.002)	132859	0.83162	249.6
	61 Anthracene	178	18.803	18.796	(1.008)	28686	0.17189	51.59
	62 Carbazole	167	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	21.140	21.117	(1.133)	176384	0.97240	291.8
65	Pyrene	202	21.550	21.535	(0.908)	171444	0.79990	240.1
$ 66	Terphenyl-d14	244	21.860	21.852	(0.921)	156445	1.16518	349.7
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.702	23.695	(0.999)	37264	0.18806	56.44
* 69	Chrysene-d12	240	23.733	23.726	(1.000)	704418	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.772	23.765	(1.002)	69928	0.40117	120.4
72	bis(2-Ethylhexyl)phthalate	149	23.834	23.834	(0.961)	46422	0.30485	91.49
* 134	Di-n-octylphthalate-d4	153	24.809	24.802	(1.000)	1108887	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	26.033	26.025	(0.996)	48439	0.27168	81.54
* 77	Perylene-d12	264	26.133	26.126	(1.000)	689542	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.404	28.389	(1.087)	42701	0.20705	62.14
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	29.064	29.041	(1.112)	48606	0.27484	82.49
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	25.475	25.506	(0.975)	118682	0.62030	186.2
99	Perylene	252	Compound Not Detected.					
98	Retene	219	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52j.d
Lab Smp Id: UU52J
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8902

Calibration Date: 29-MAY-2012
Calibration Time: 11:01
Client Smp ID: MS009-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	192942	1.81
27 Naphthalene-d8	730932	365466	1461864	774858	6.01
42 Acenaphthene-d10	420698	210349	841396	438714	4.28
59 Phenanthrene-d10	638950	319475	1277900	619554	-3.04
69 Chrysene-d12	645065	322532	1290130	704418	9.20
134 Di-n-octylphthala	1016118	508059	2032236	1108887	9.13
77 Perylene-d12	650033	325016	1300066	689542	6.08

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.87	0.08
27 Naphthalene-d8	11.51	11.01	12.01	11.51	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.65	18.15	19.15	18.66	0.04
69 Chrysene-d12	23.73	23.23	24.23	23.73	0.03
134 Di-n-octylphthala	24.80	24.30	25.30	24.81	0.03
77 Perylene-d12	26.13	25.63	26.63	26.13	0.03

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

Analytical Resources, Inc.

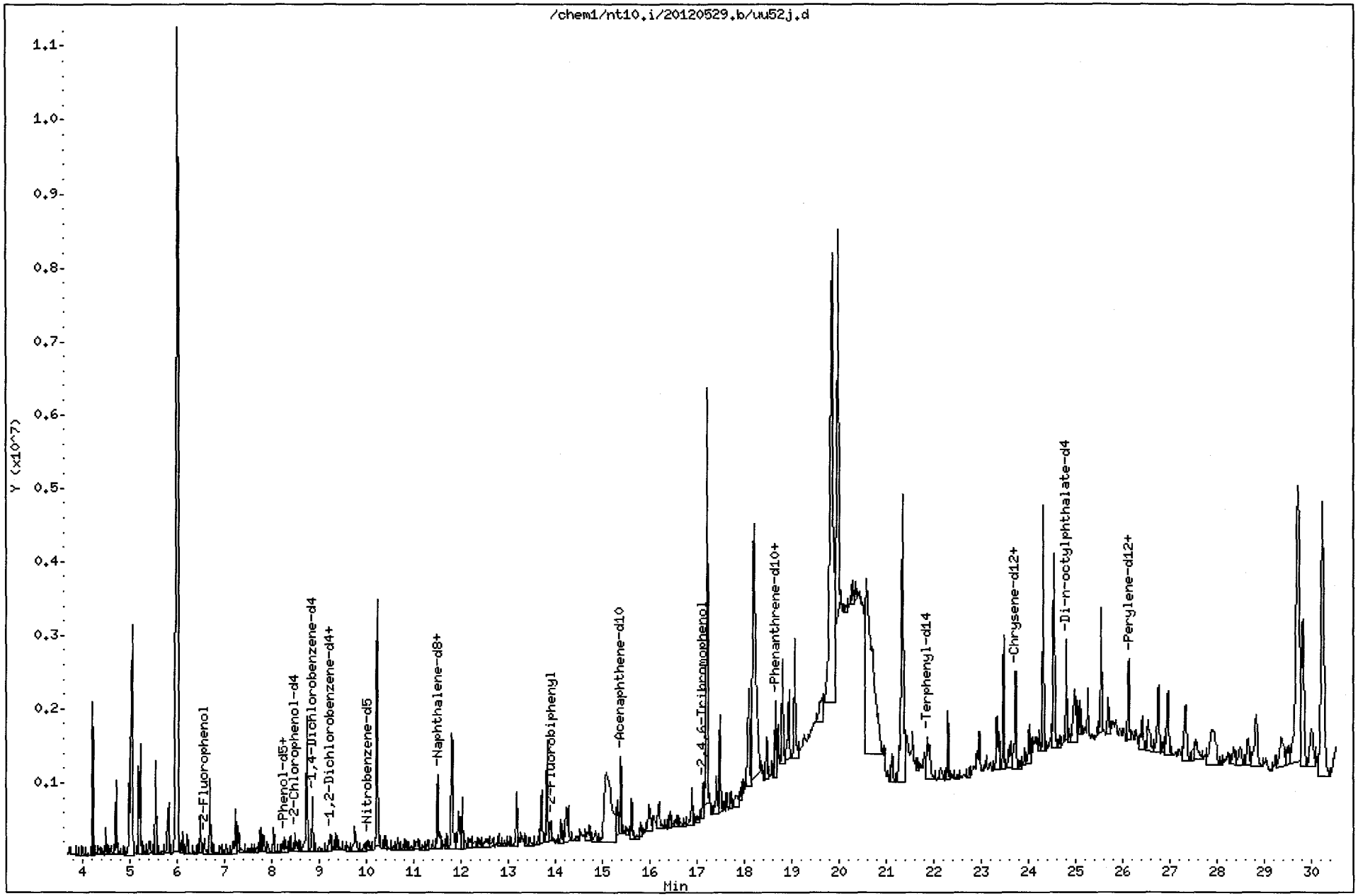
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52J Client Smp ID: MS009-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8902

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.3	469.9	62.63	30-160
$ 2 Phenol-d5	750.3	477.2	63.61	30-160
$ 5 2-Chlorophenol-d4	750.3	506.3	67.48	30-160
$ 10 1,2-Dichlorobenzen	500.2	306.0	61.18	30-160
$ 18 Nitrobenzene-d5	500.2	305.6	61.09	30-160
$ 36 2-Fluorobiphenyl	500.2	340.2	68.01	30-160
$ 55 2,4,6-Tribromophen	750.3	544.2	72.52	30-160
$ 66 Terphenyl-d14	500.2	349.7	69.91	30-160

Data File: /chem1/nt10.i/20120529.b/uu52j.d
Date : 29-MAY-2012 13:33
Client ID: MS009-SS-120515
Sample Info: UU52J,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52:91025

Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

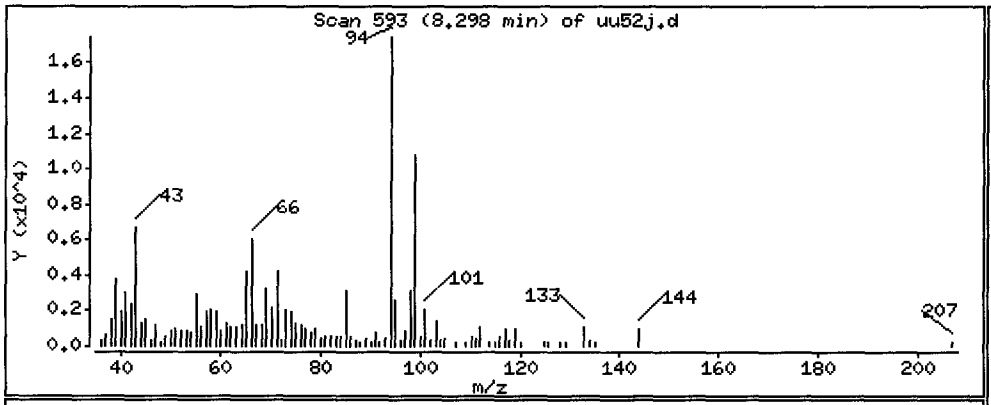
Operator: VTS/YZ

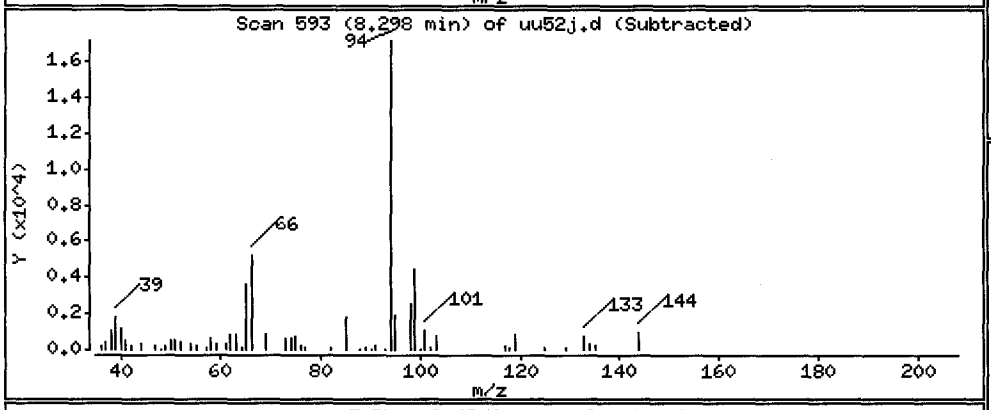
Column phase: ZB-5msi

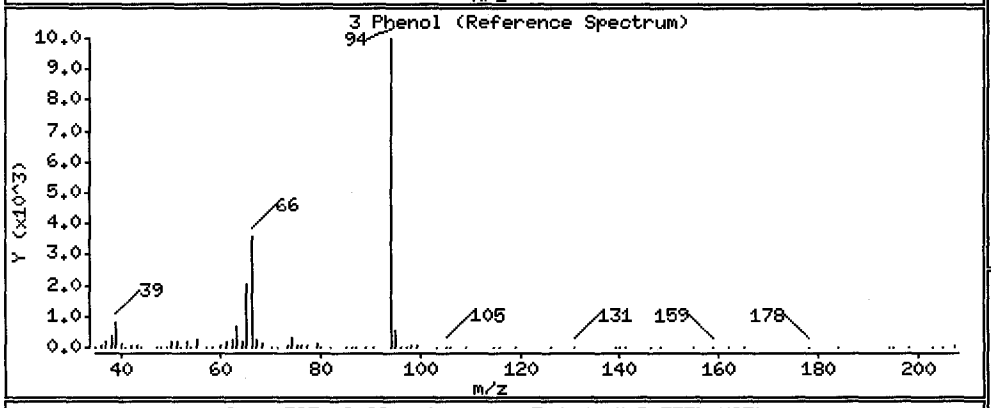
Column diameter: 0.25

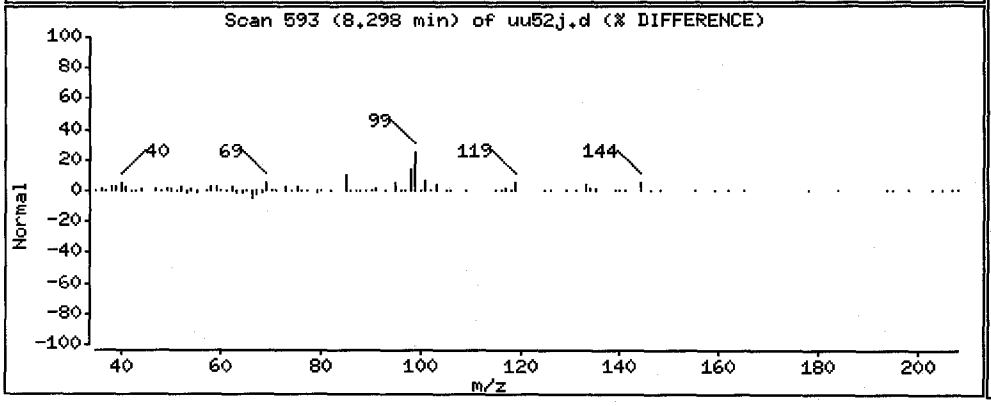
3 Phenol

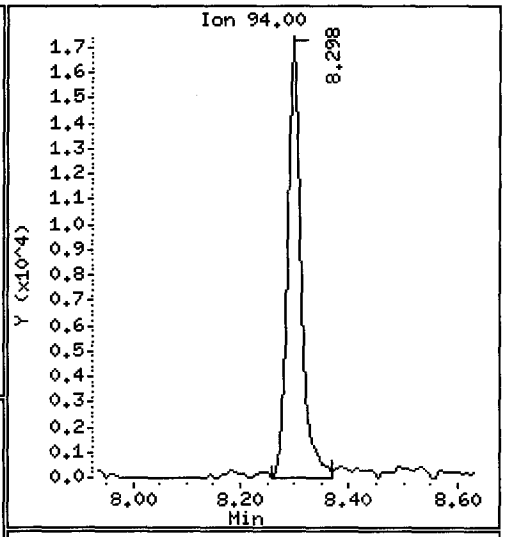
Concentration: 103.1 ug/kg

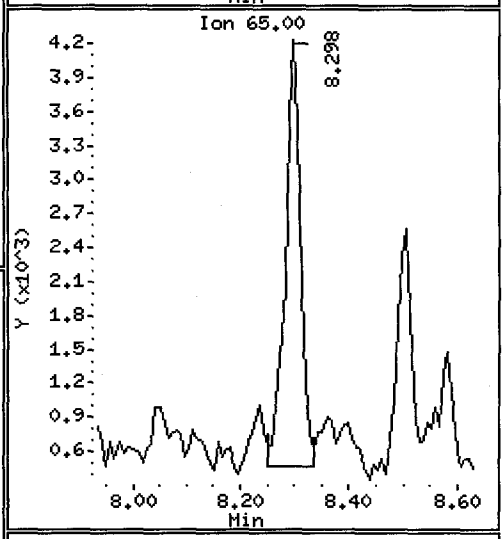


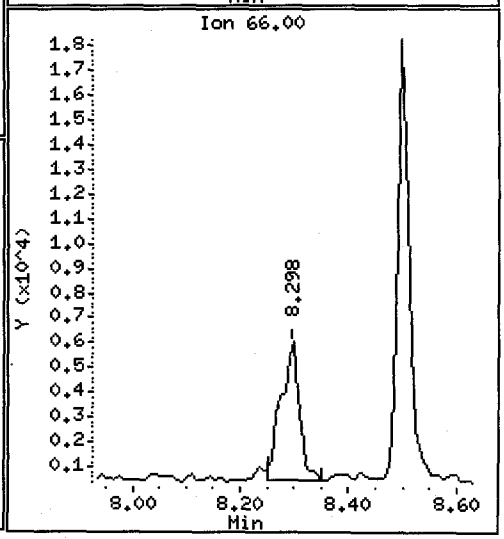












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

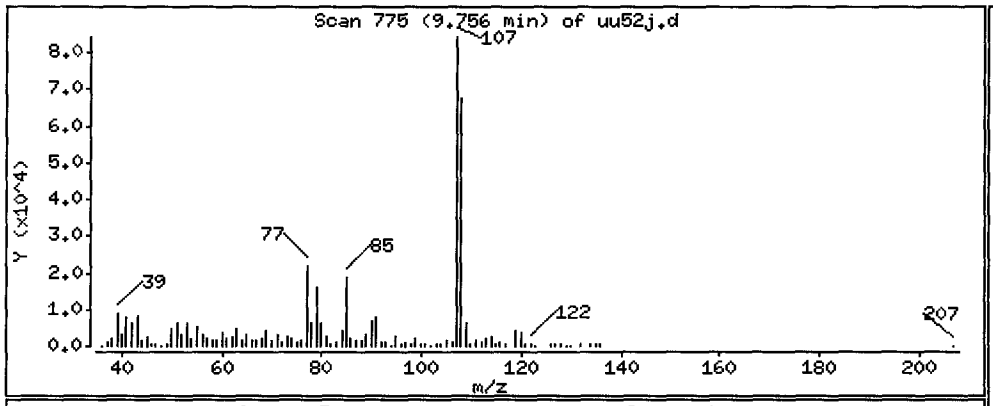
Client ID: MS009-SS-120515 Instrument: nt10.i

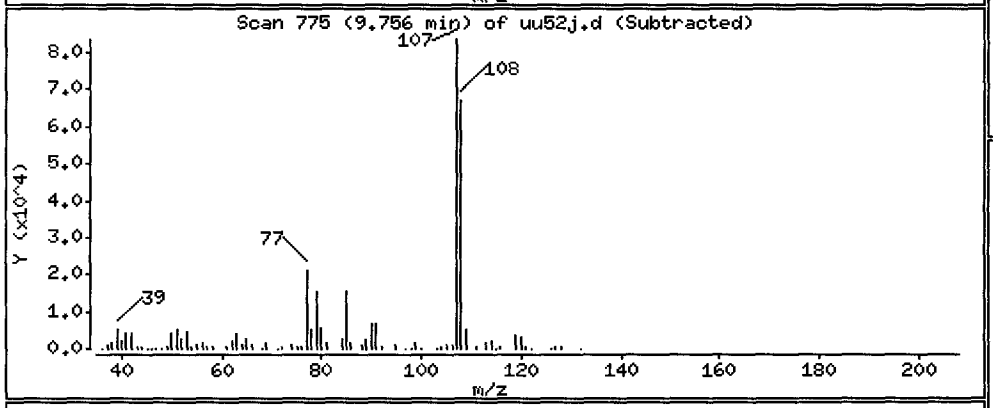
Sample Info: UU52J,3

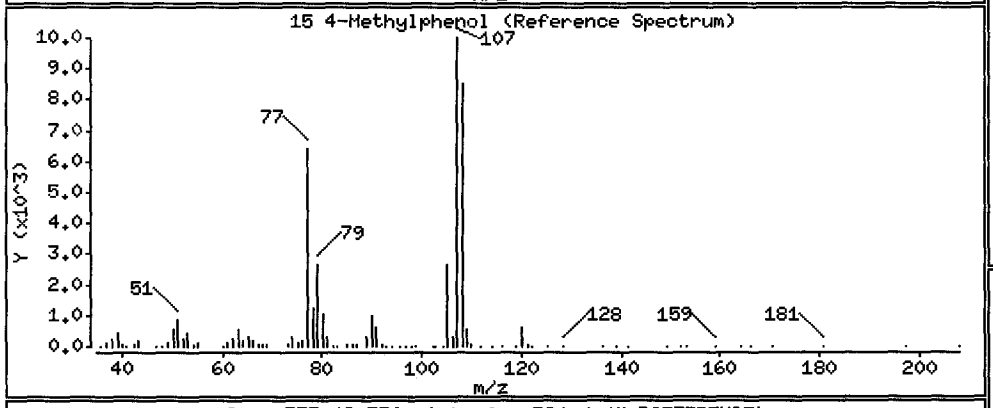
Volume Injected (uL): 1.0 Operator: VTS/YZ

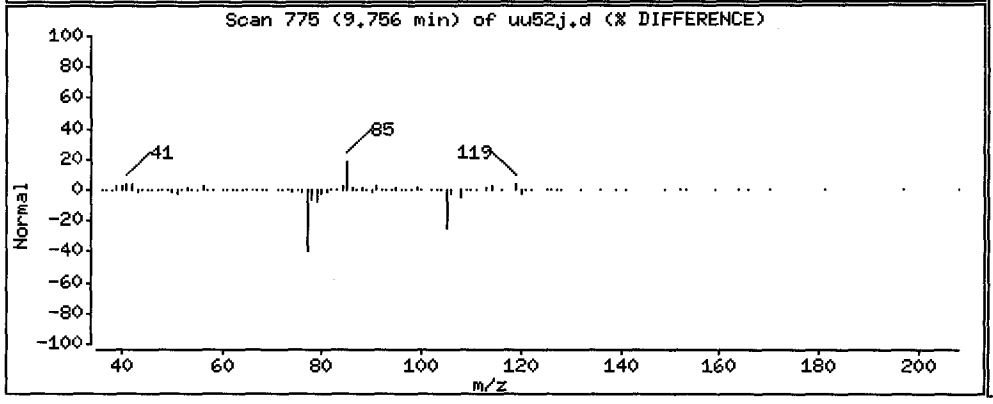
Column phase: ZB-5msi Column diameter: 0.25

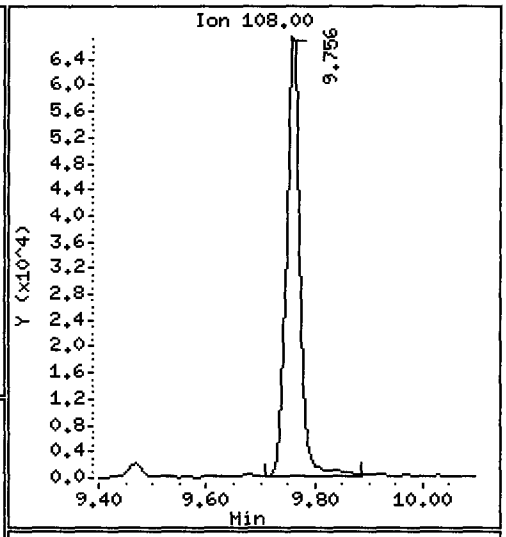
15 4-Methylphenol Concentration: 477.9 ug/kg

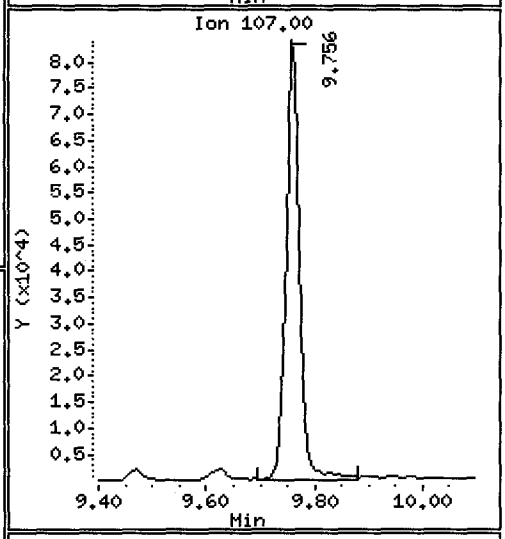


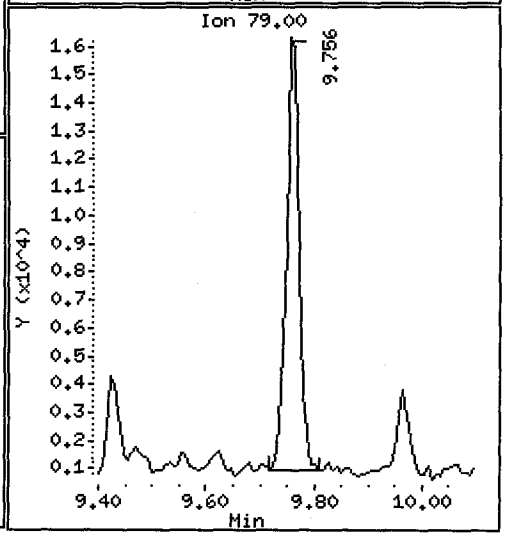












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

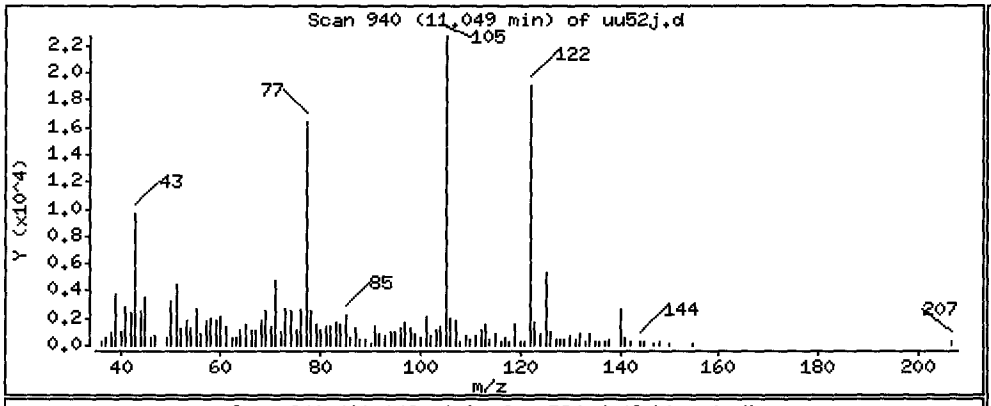
Operator: VTS/YZ

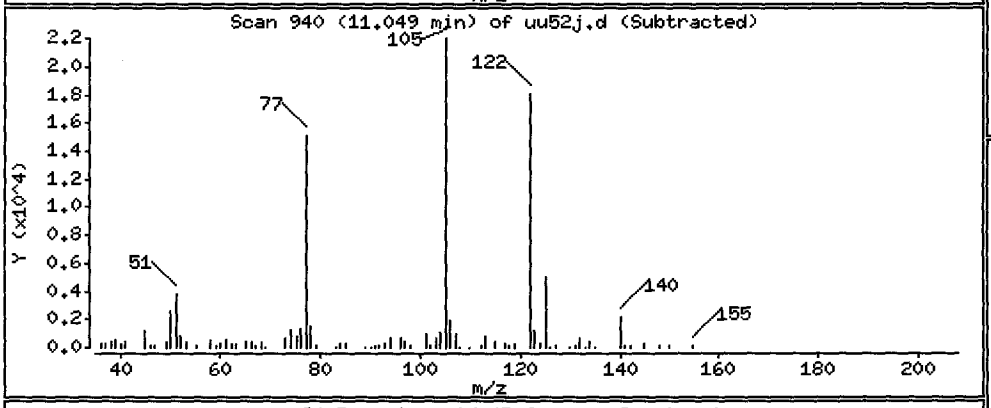
Column phase: ZB-5msi

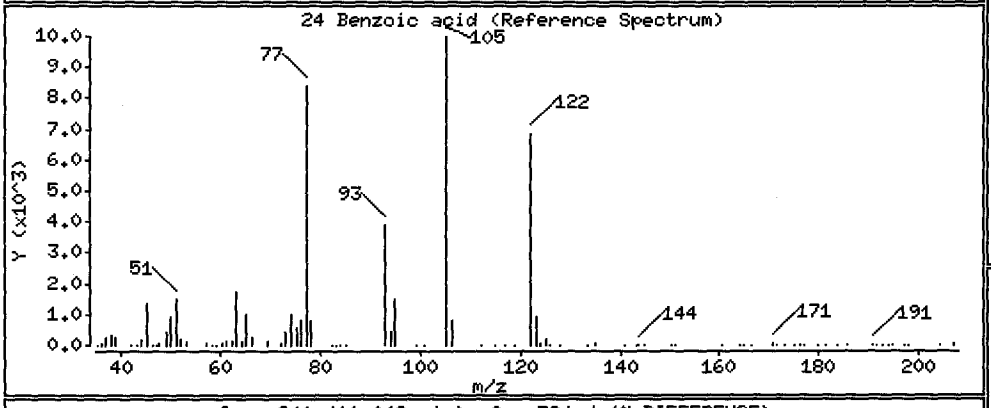
Column diameter: 0.25

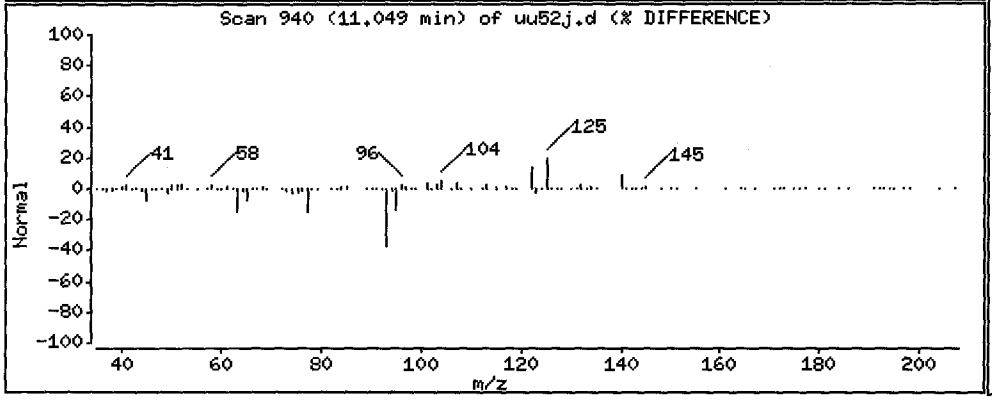
24 Benzoic acid

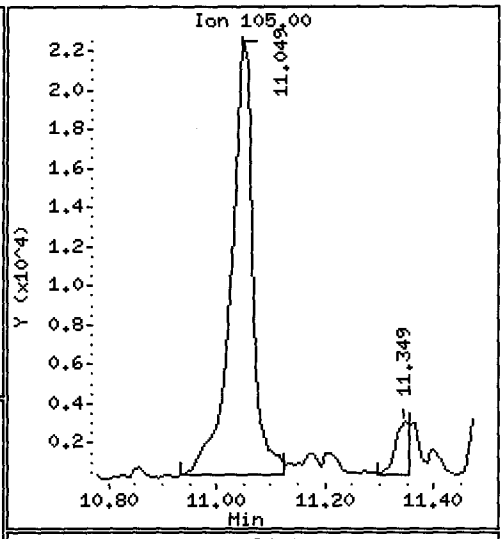
Concentration: 407.1 ug/kg

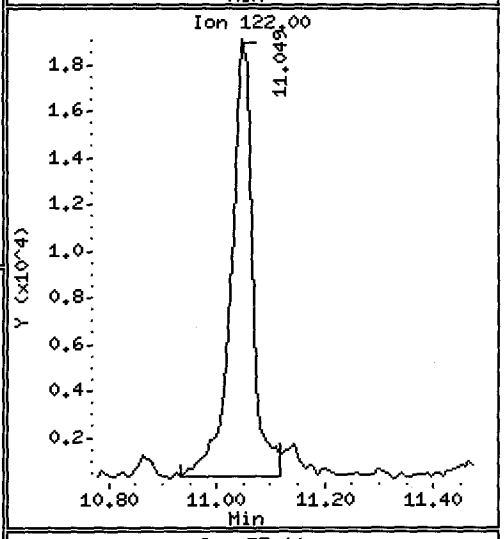


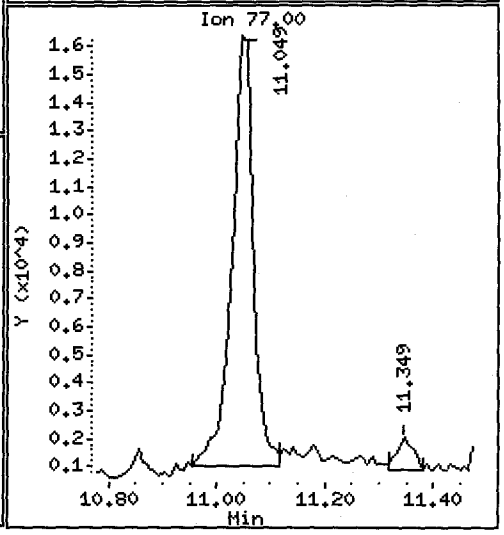












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

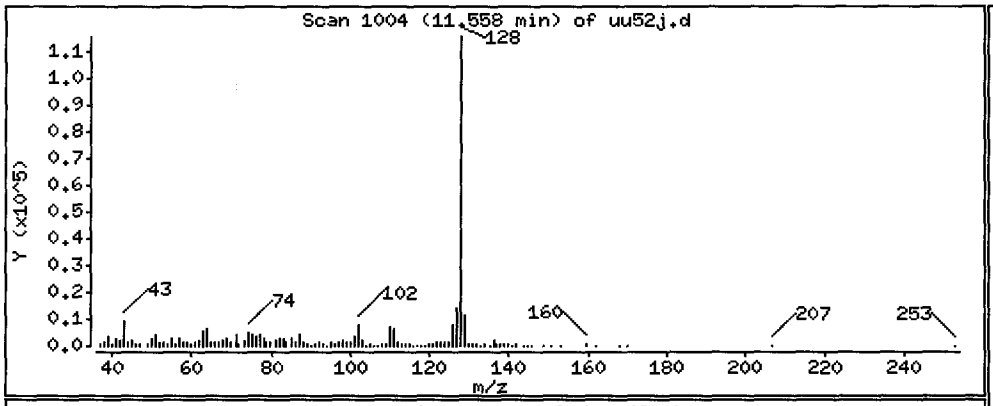
Operator: VTS/YZ

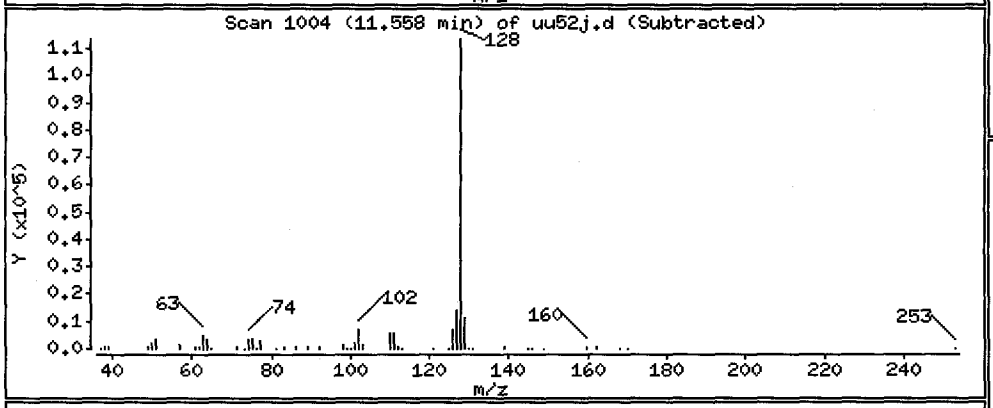
Column phase: ZB-5msi

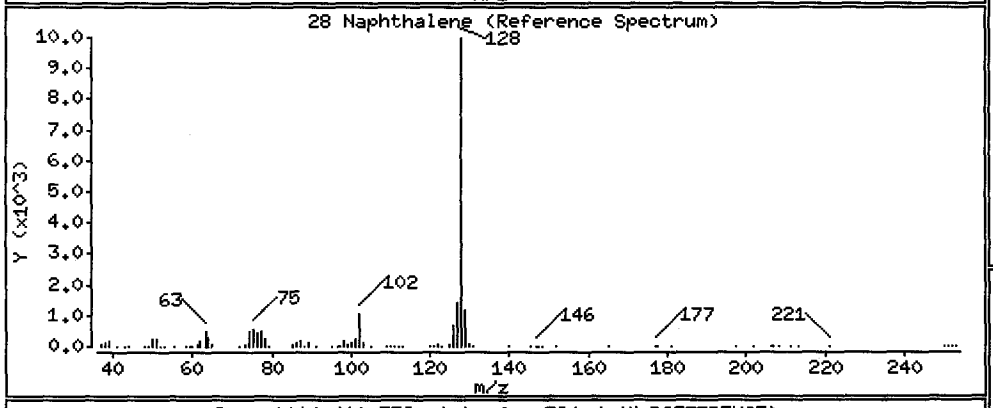
Column diameter: 0.25

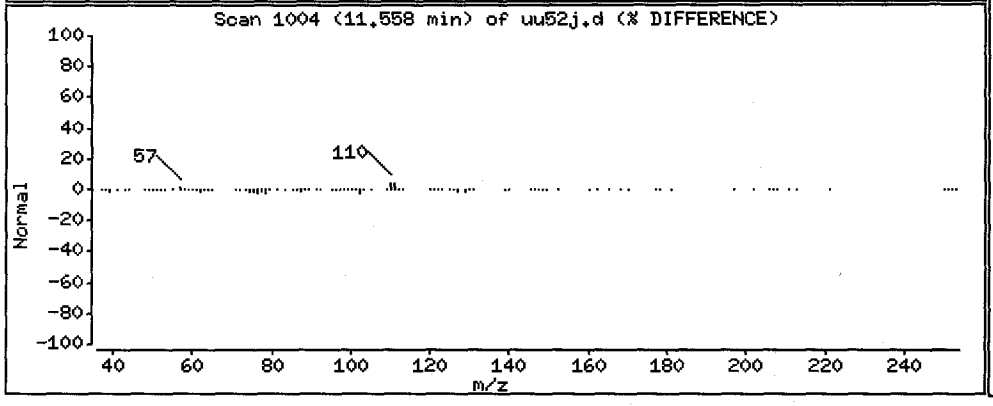
28 Naphthalene

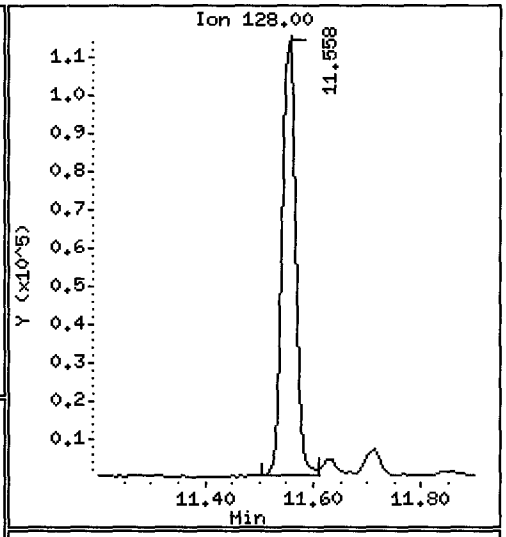
Concentration: 288.7 ug/kg

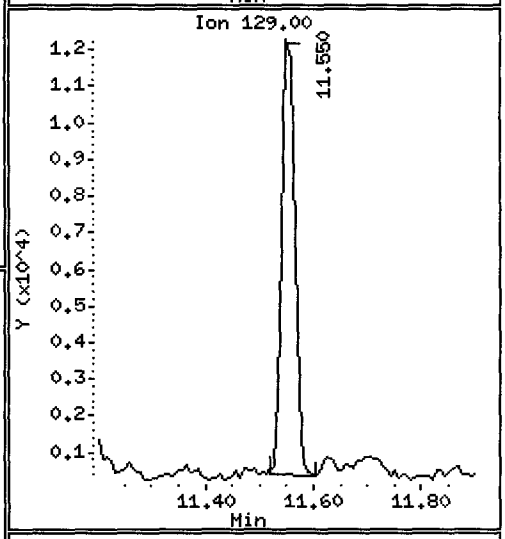


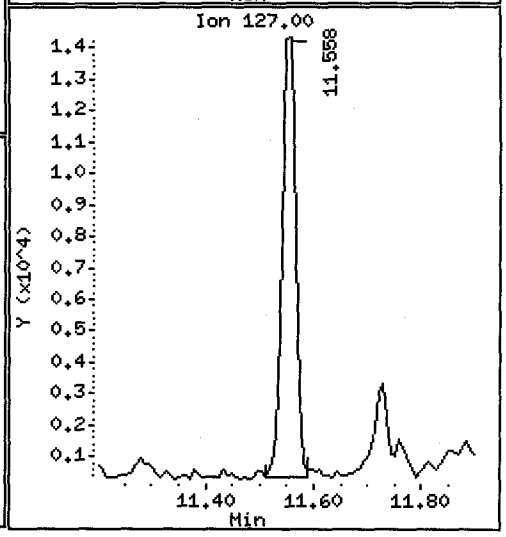












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

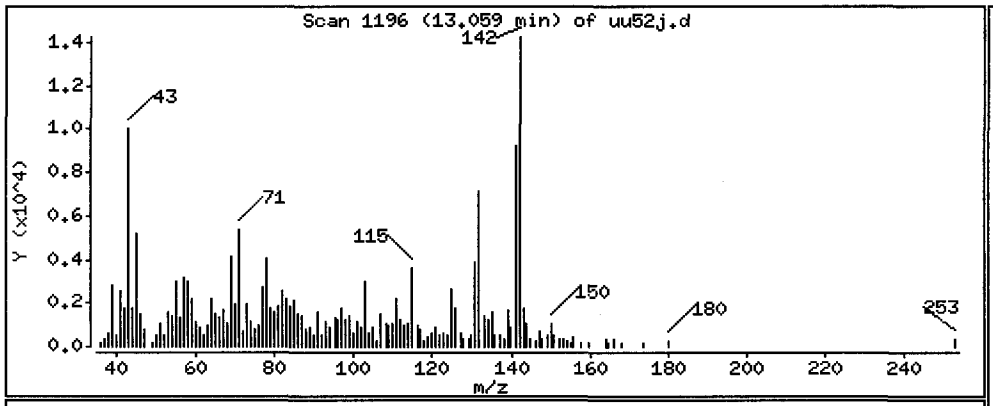
Client ID: MS009-SS-120515 Instrument: nt10.i

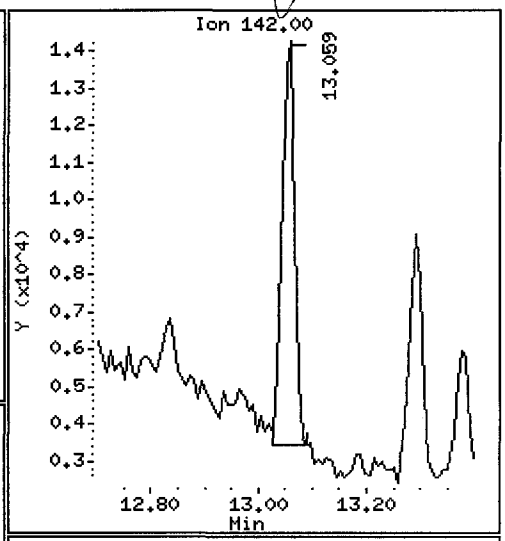
Sample Info: UU52J,3

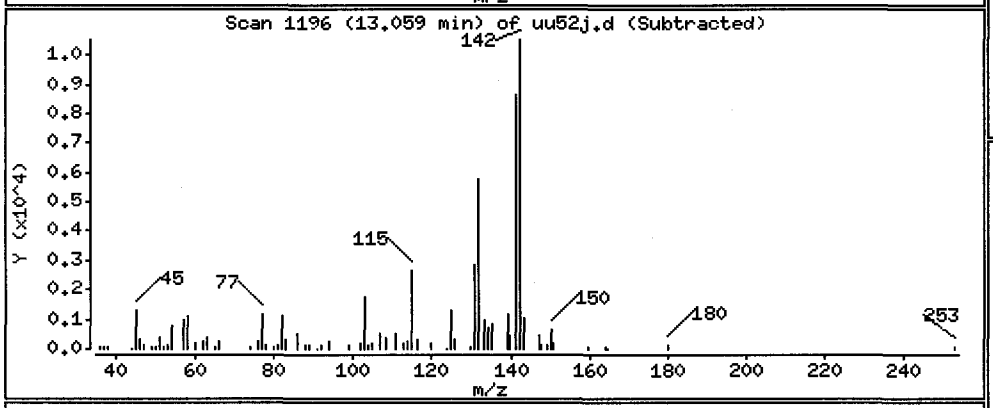
Volume Injected (uL): 1.0 Operator: VTS/YZ

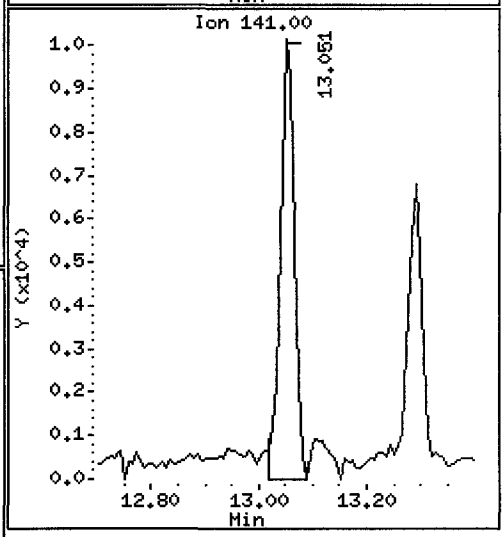
Column phase: ZB-5msi Column diameter: 0.25

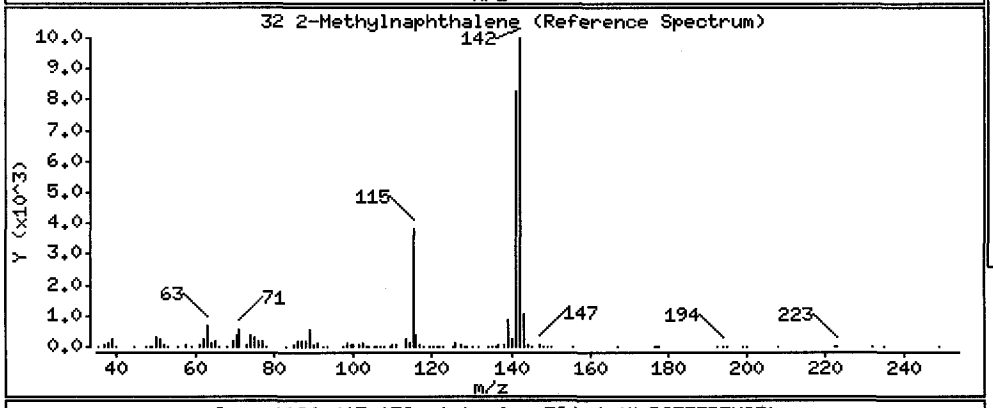
32 2-Methylnaphthalene Concentration: 37.18 ug/kg

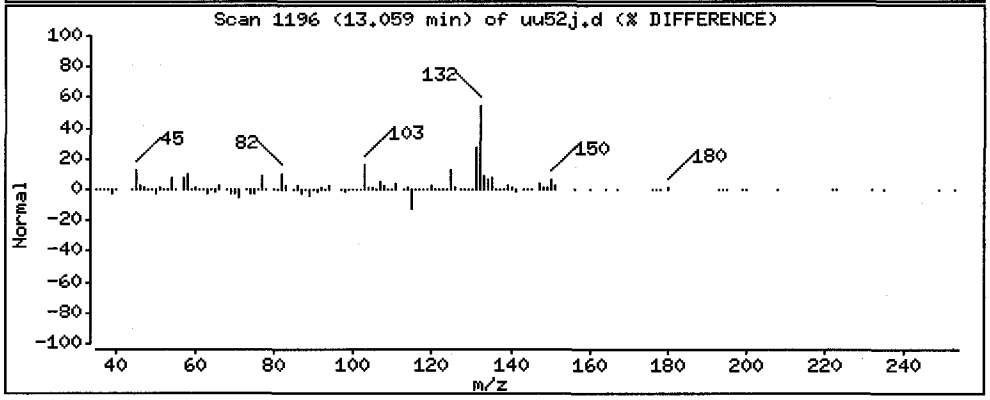












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

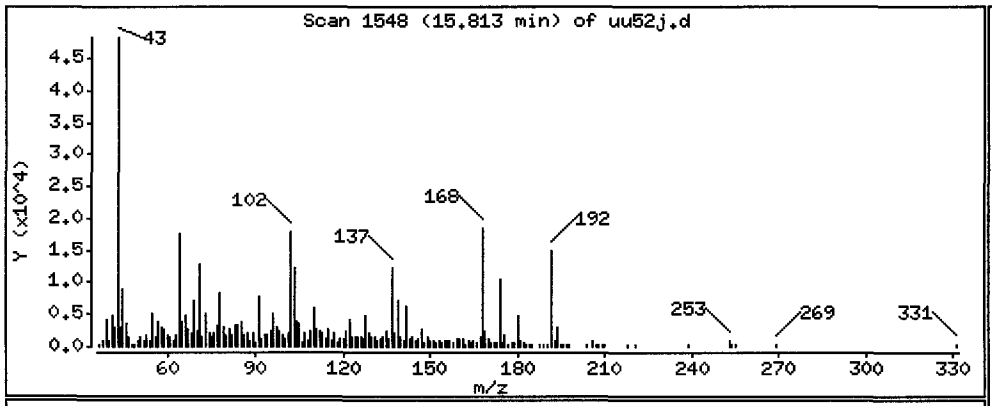
Operator: VTS/YZ

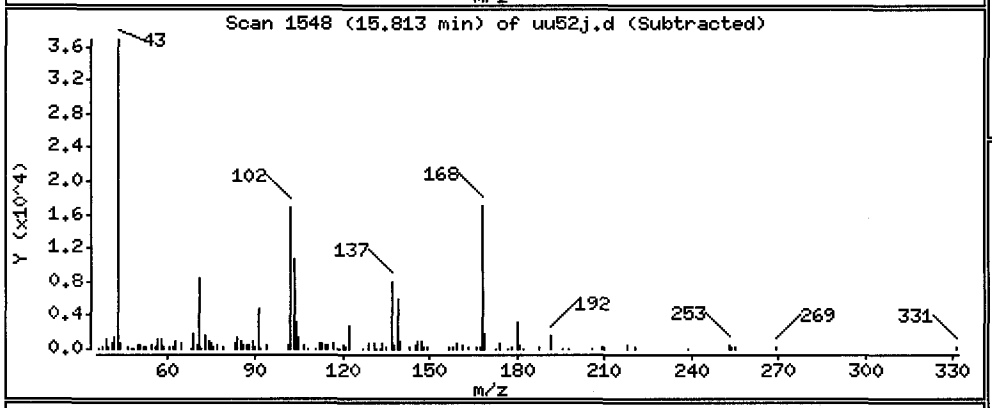
Column phase: ZB-5msi

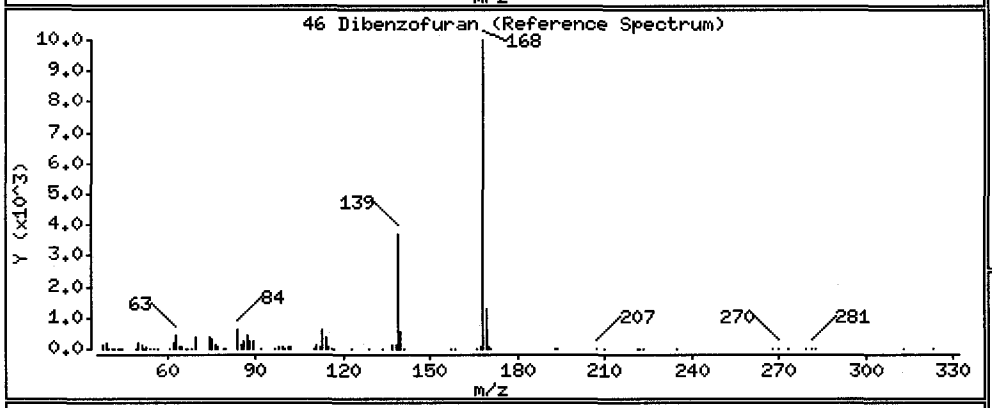
Column diameter: 0.25

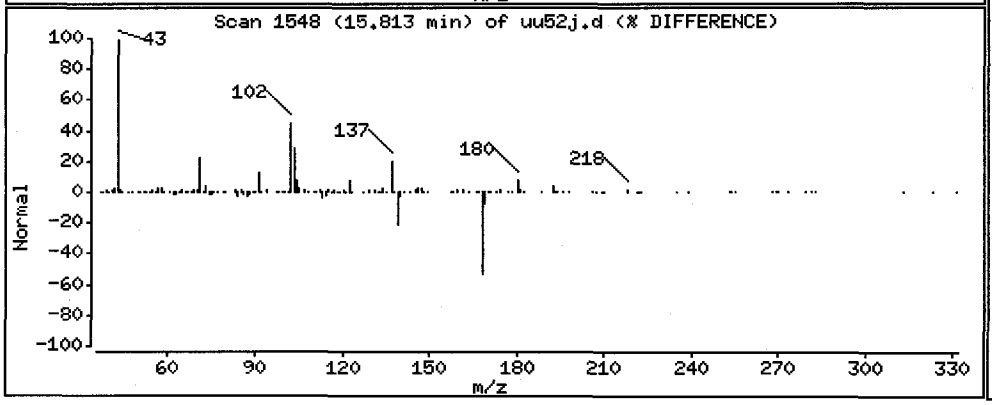
46 Dibenzofuran

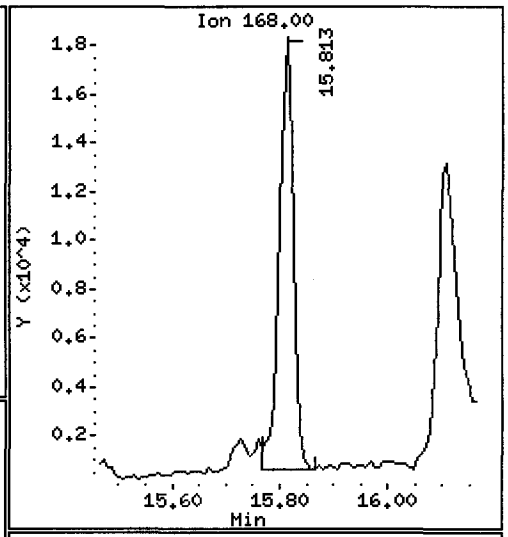
Concentration: 52.73 ug/kg

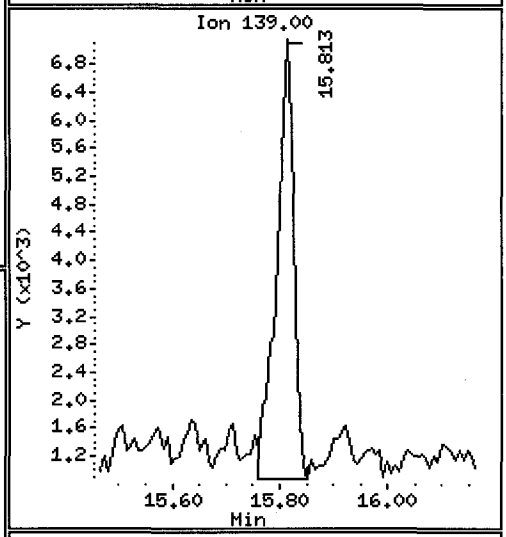


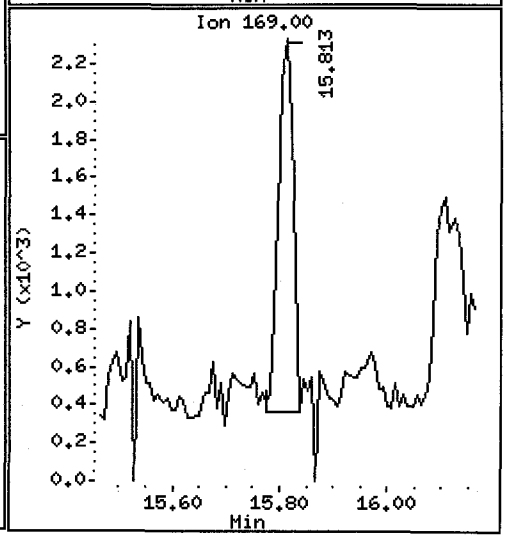












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

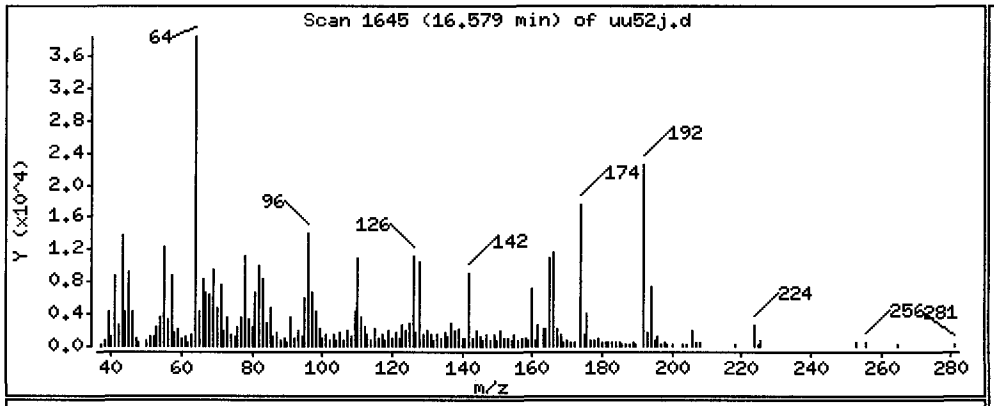
Operator: VTS/YZ

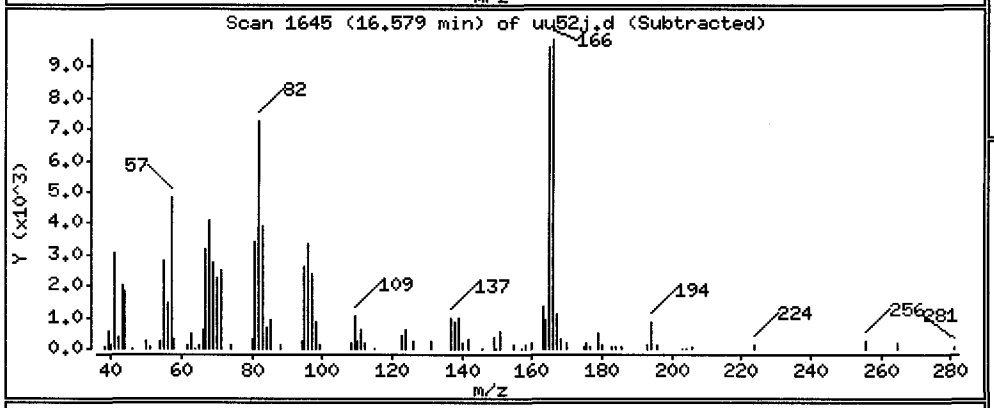
Column phase: ZB-5msi

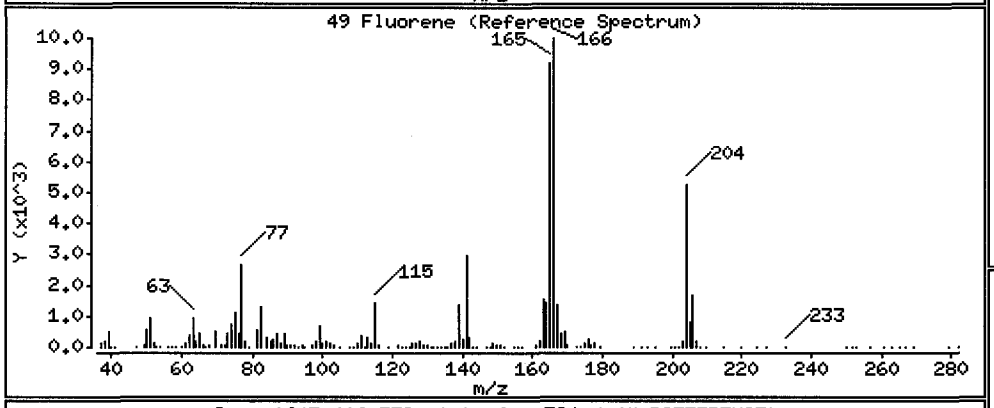
Column diameter: 0.25

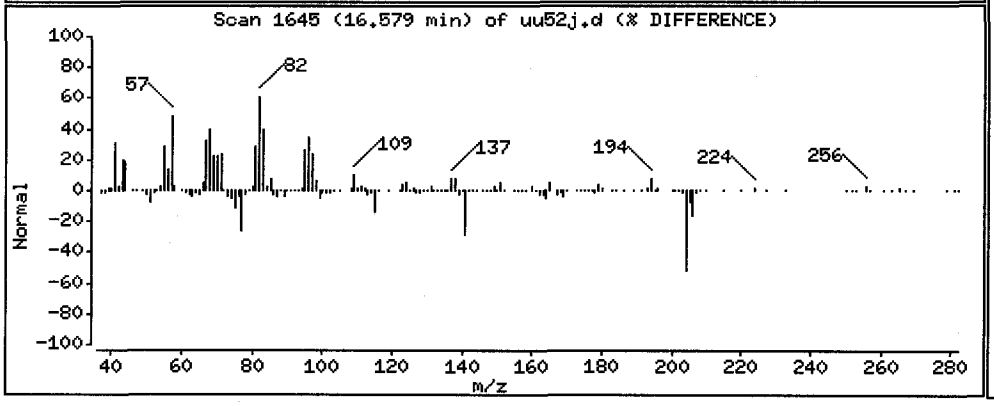
49 Fluorene

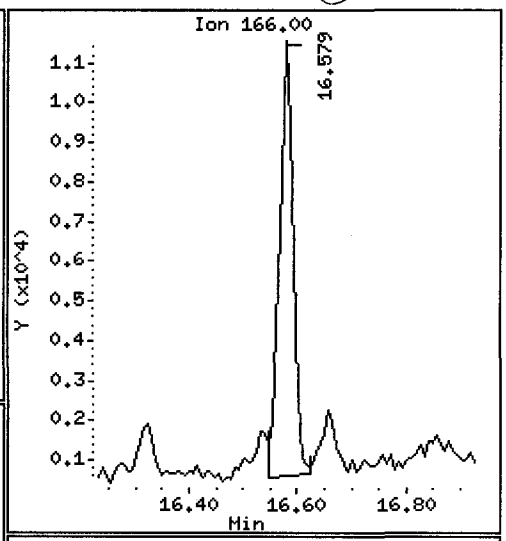
Concentration: 43.01 ug/kg

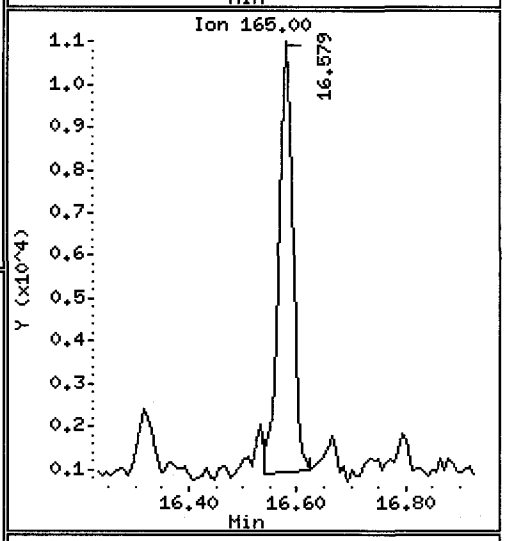


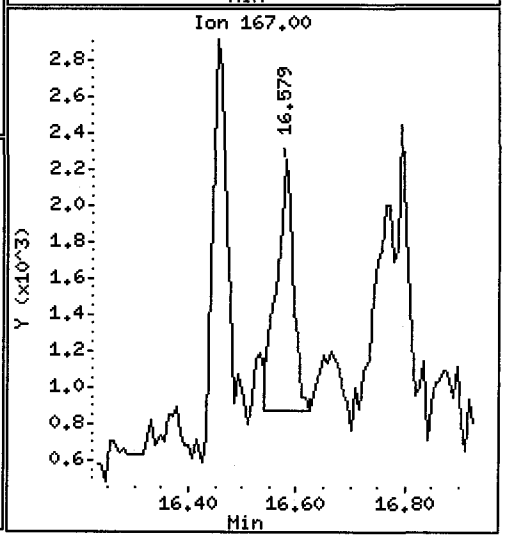












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

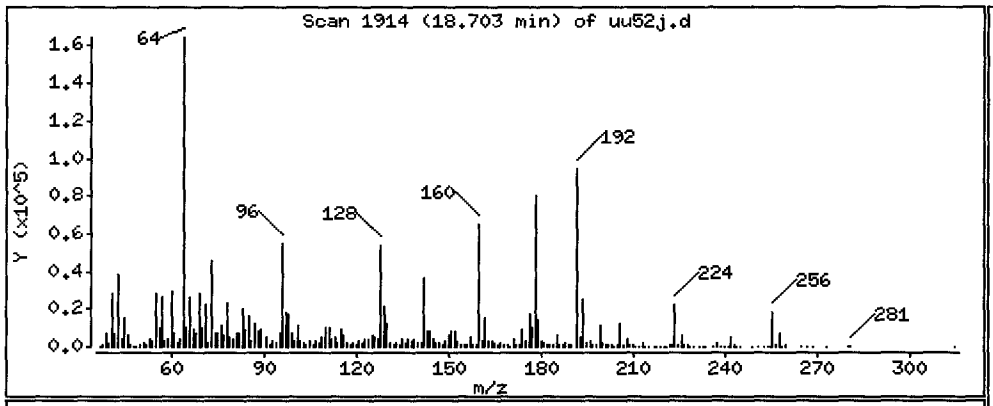
Operator: VTS/YZ

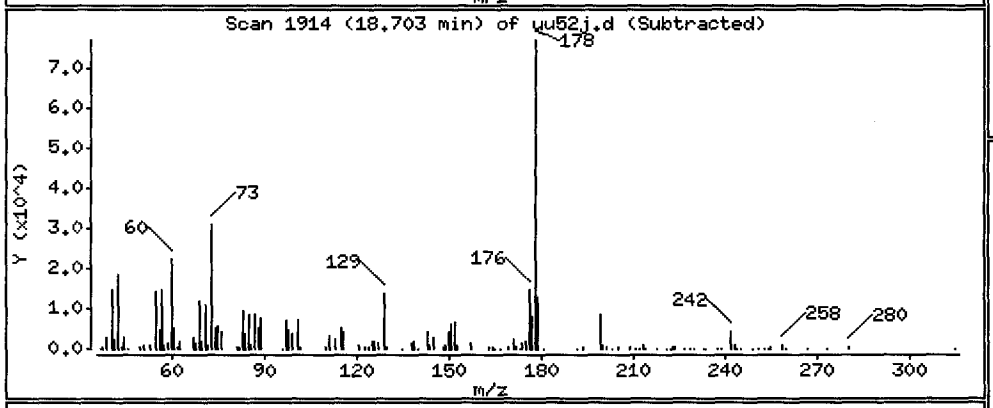
Column phase: ZB-5msi

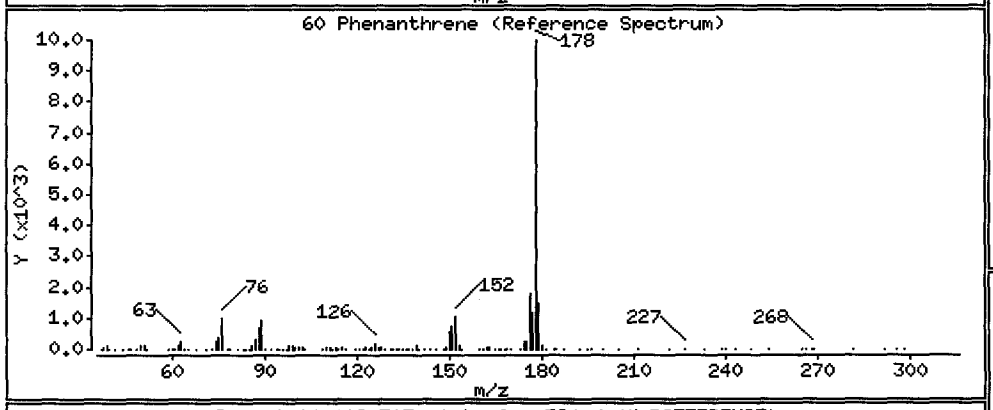
Column diameter: 0.25

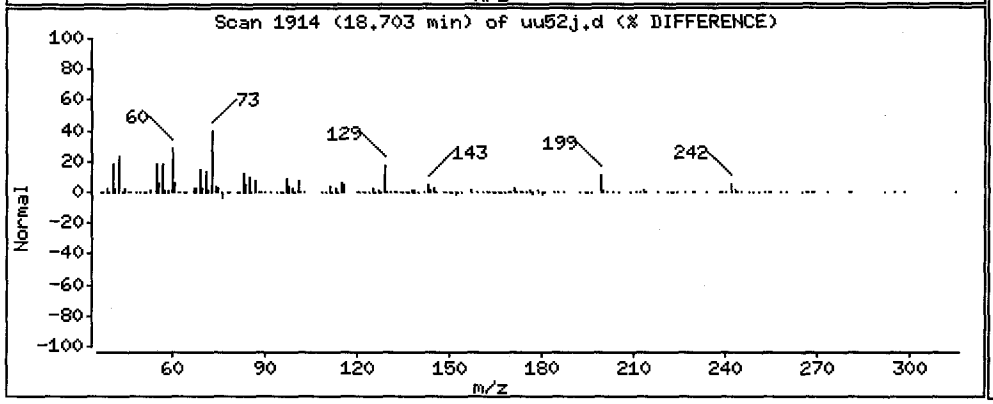
60 Phenanthrene

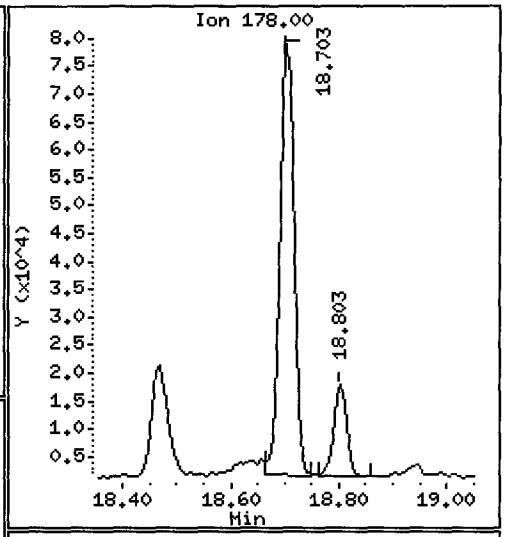
Concentration: 249.6 ug/kg

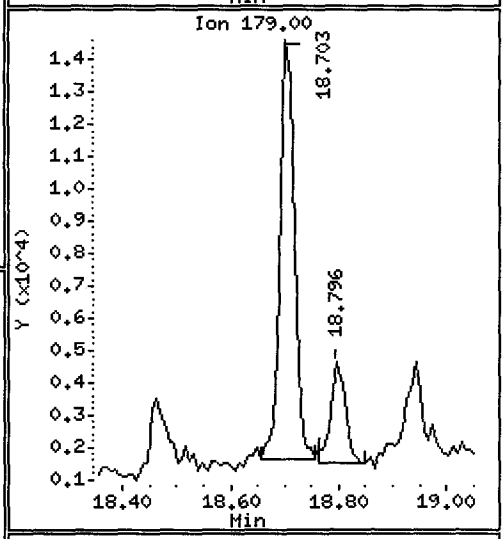


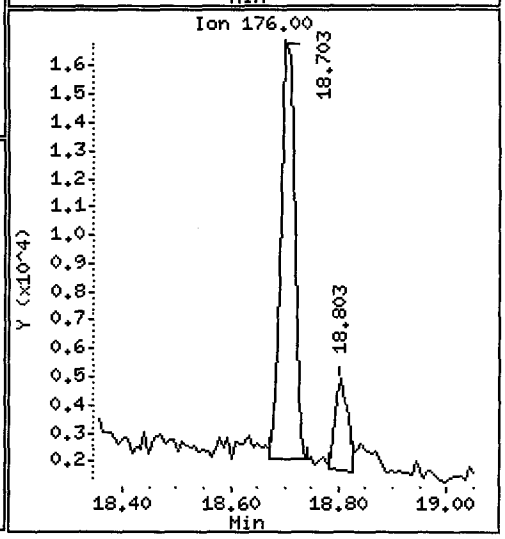












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

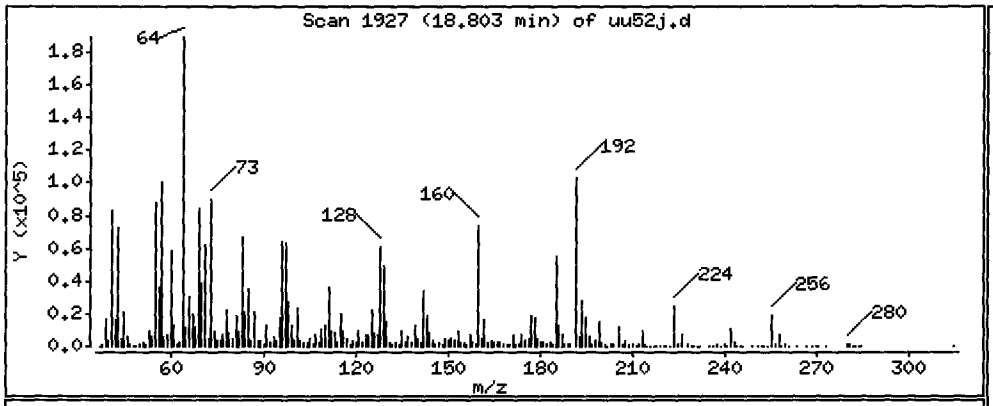
Client ID: MS009-SS-120515 Instrument: nt10.i

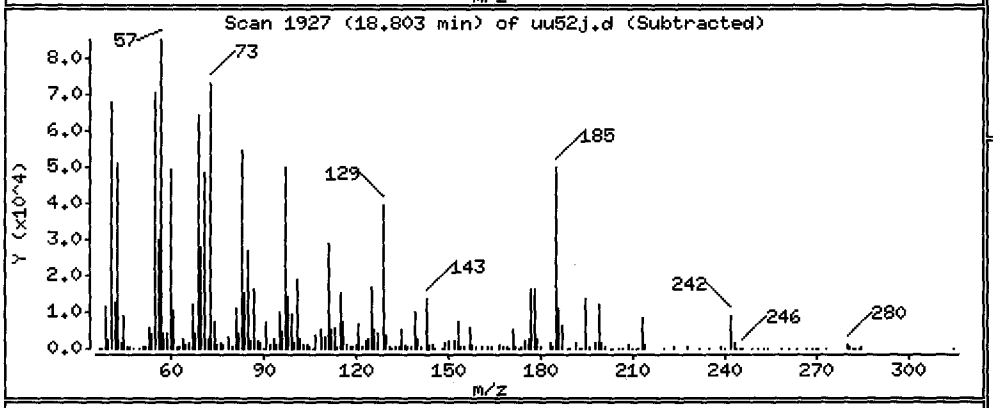
Sample Info: UU52J,3

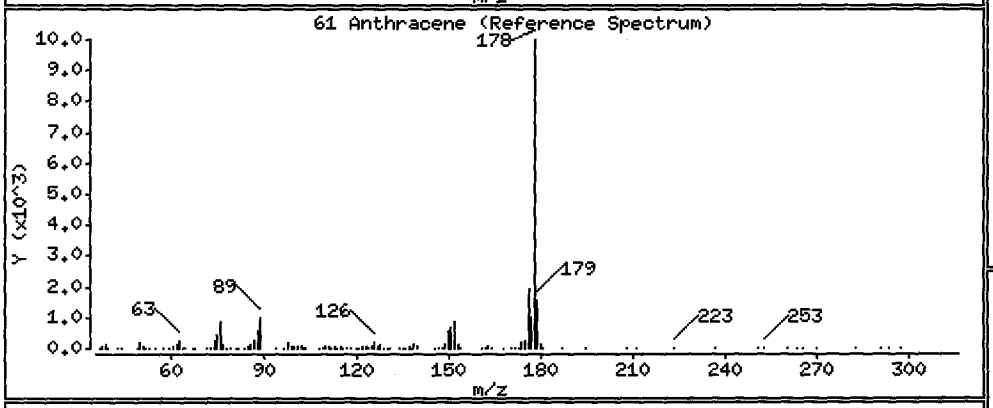
Volume Injected (uL): 1.0 Operator: VTS/YZ

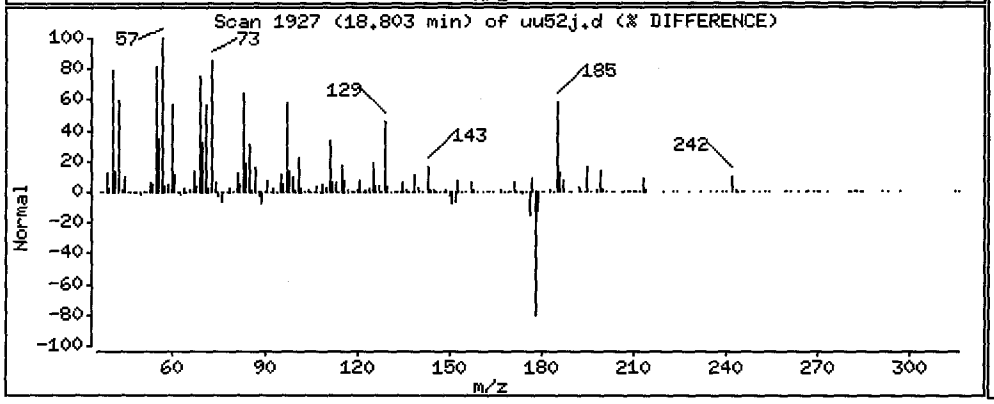
Column phase: ZB-5msi Column diameter: 0.25

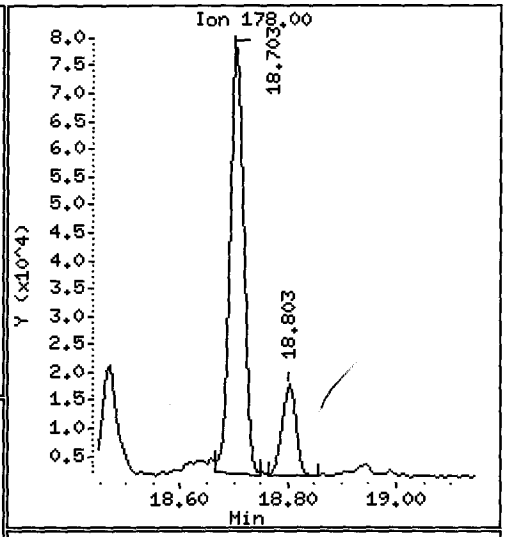
61 Anthracene Concentration: 51.59 ug/kg

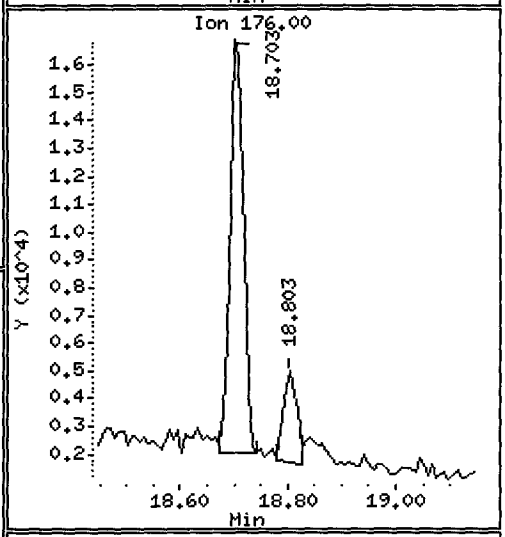


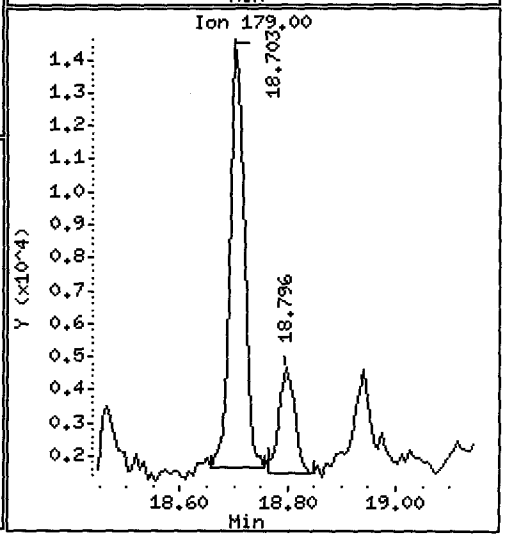












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

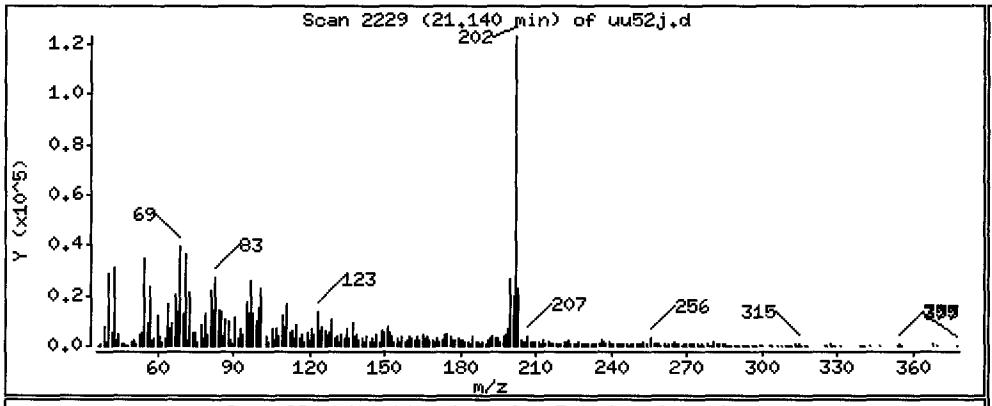
Operator: VTS/YZ

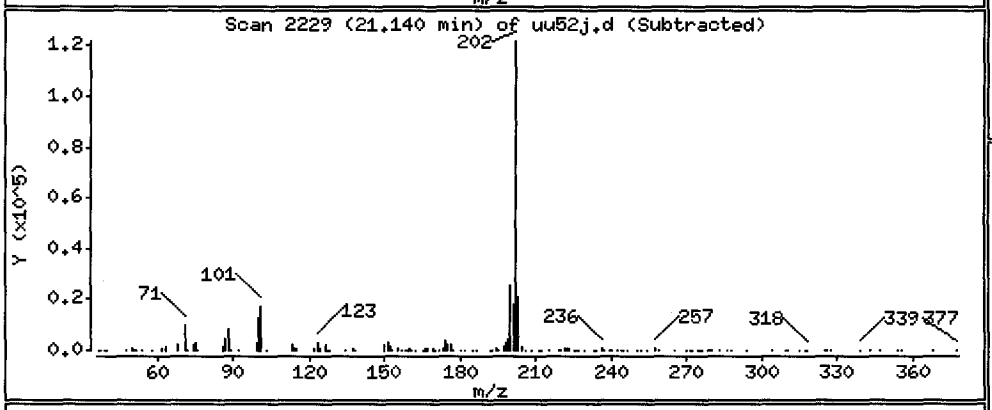
Column phase: ZB-5msi

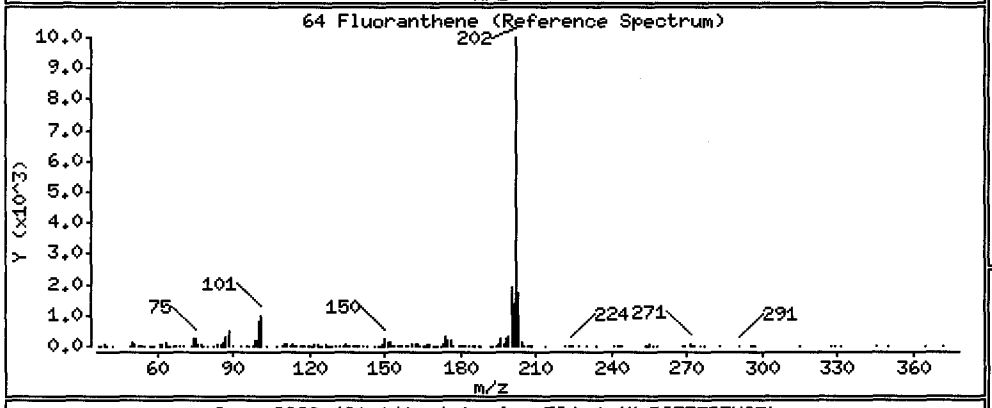
Column diameter: 0.25

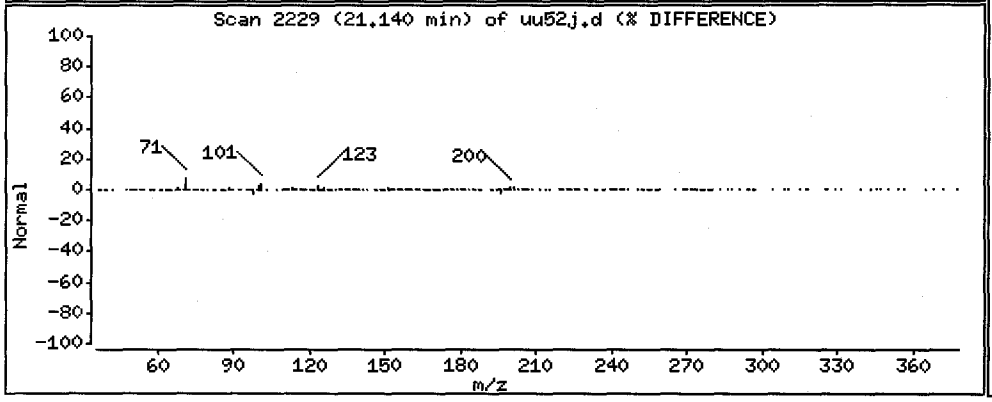
64 Fluoranthene

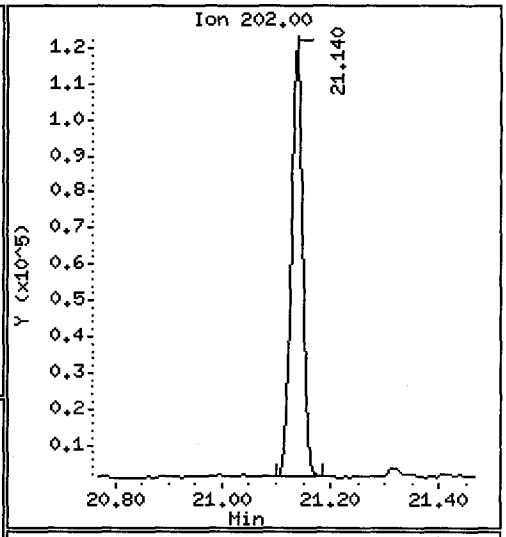
Concentration: 291.8 ug/kg

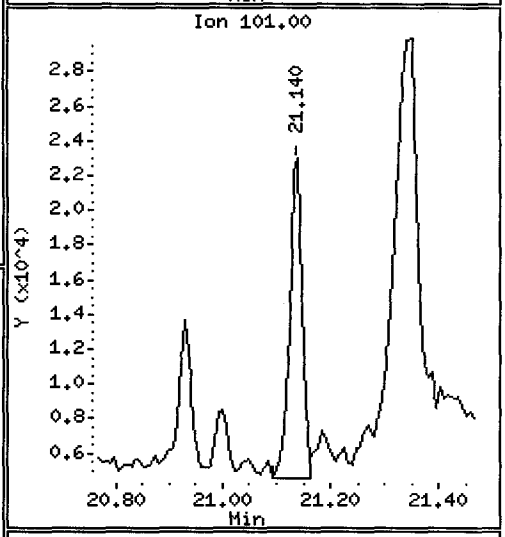


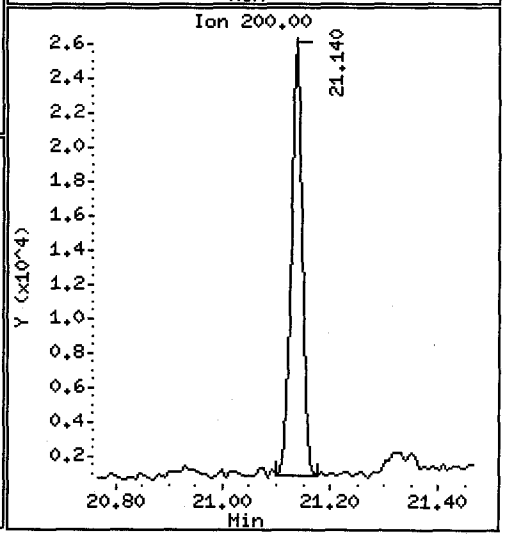












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

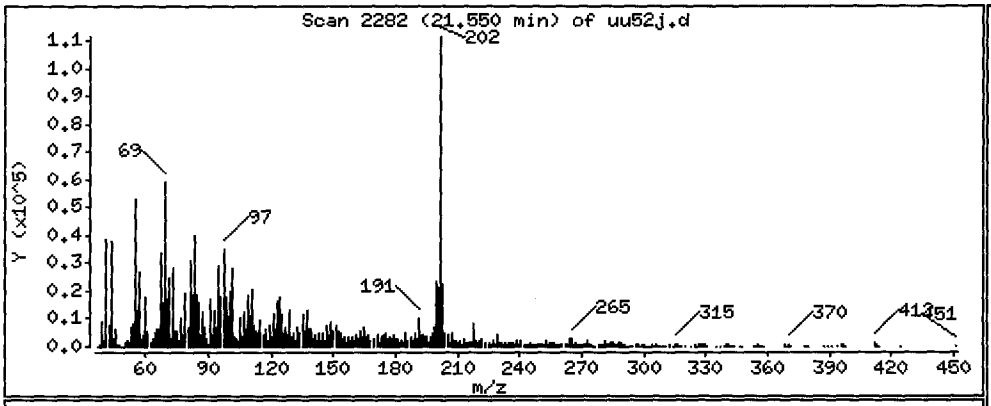
Operator: VTS/YZ

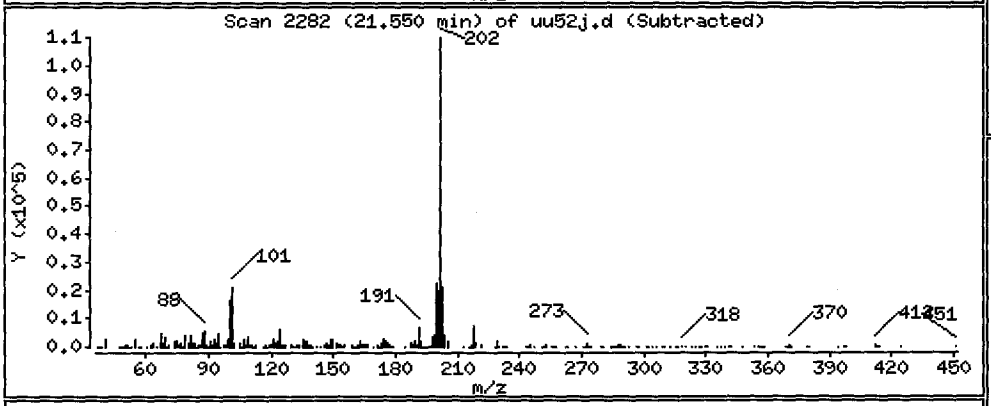
Column phase: ZB-5msi

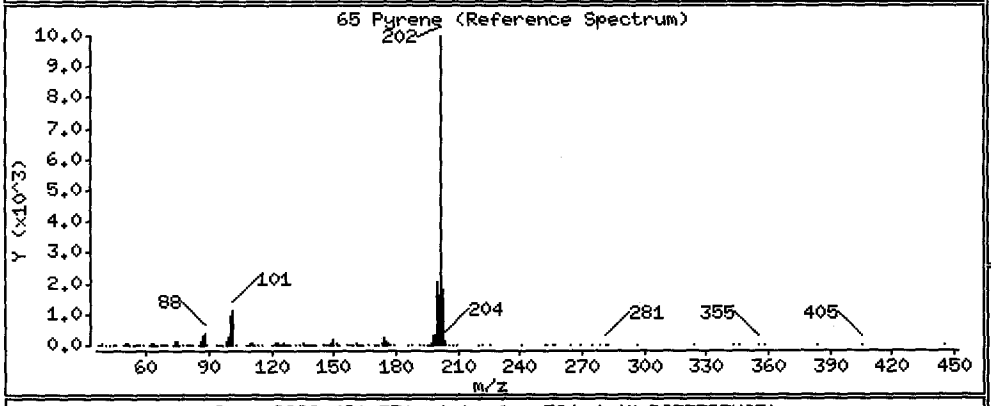
Column diameter: 0.25

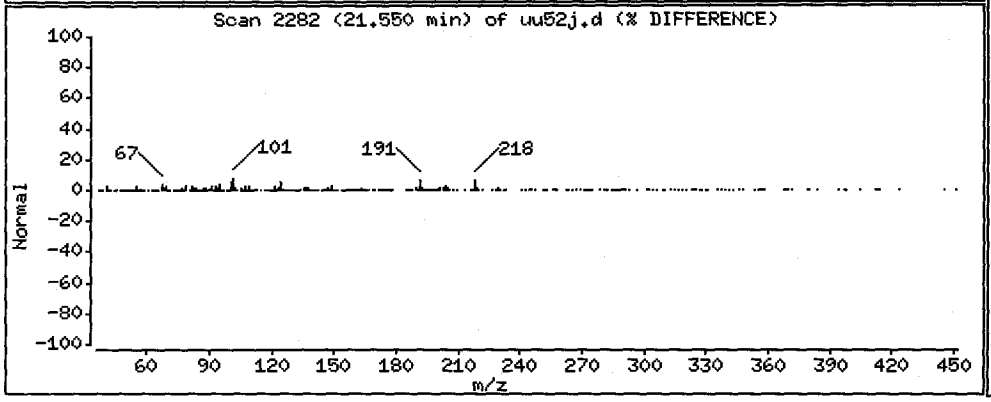
65 Pyrene

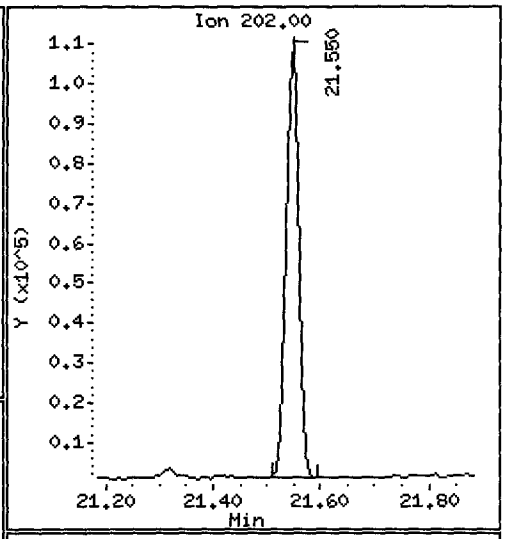
Concentration: 240.1 ug/kg

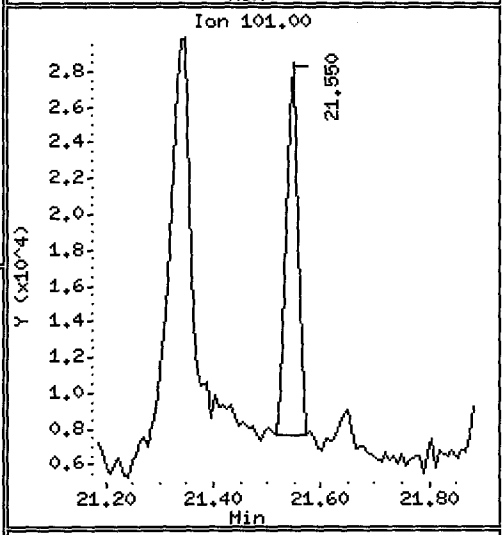


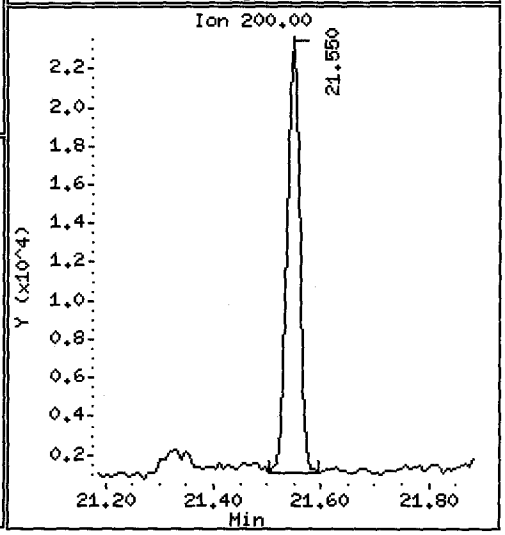












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

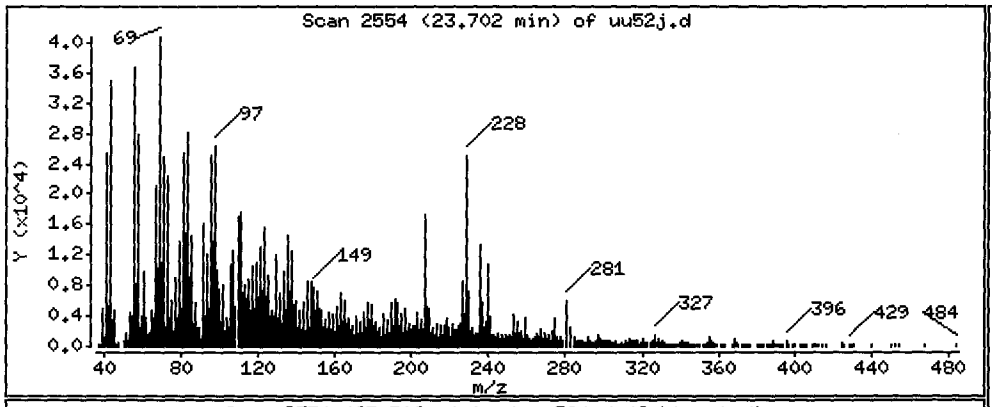
Client ID: MS009-SS-120515 Instrument: nt10.i

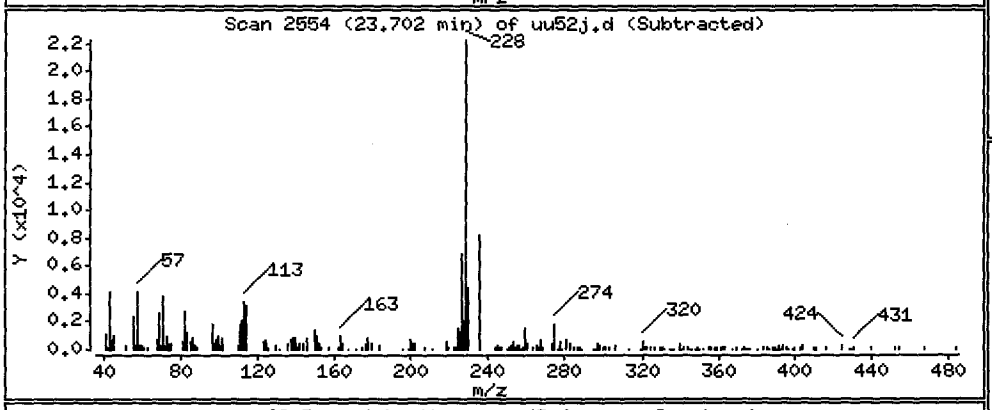
Sample Info: UU52J,3

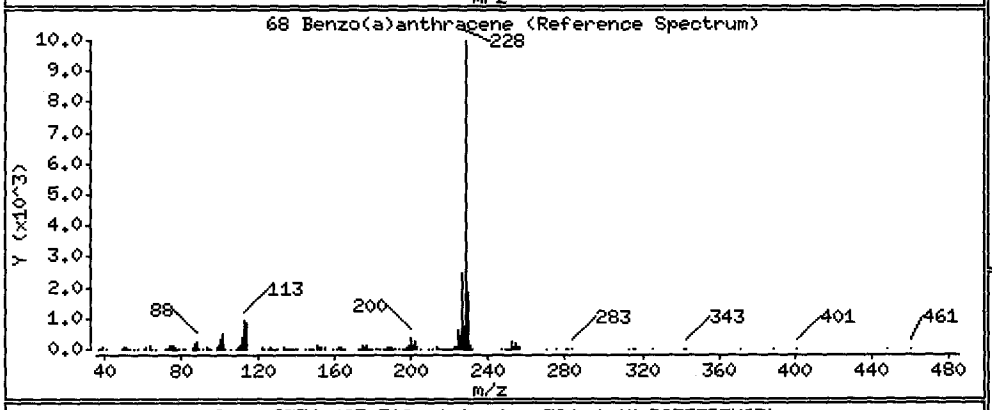
Volume Injected (uL): 1.0 Operator: VTS/YZ

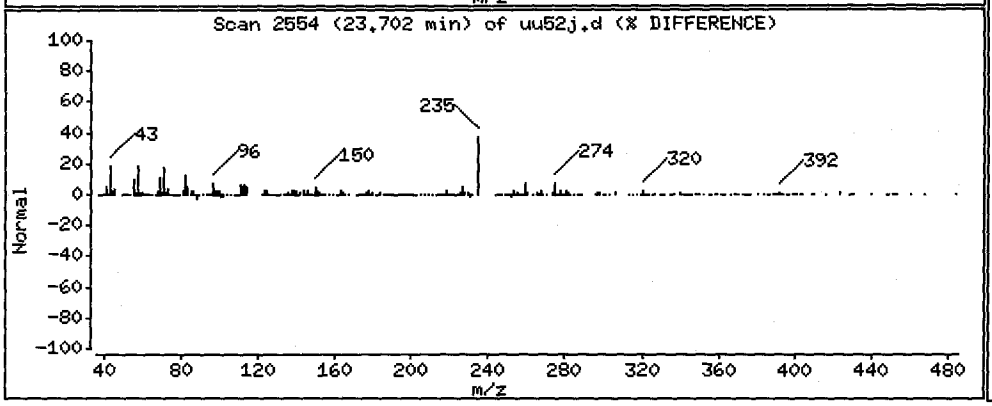
Column phase: ZB-5msi Column diameter: 0.25

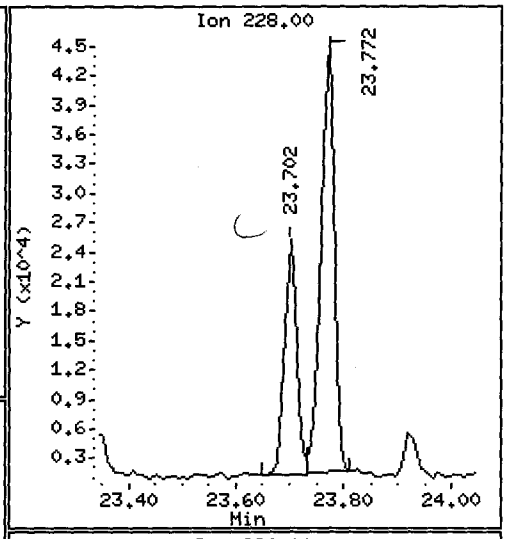
68 Benzo(a)anthracene Concentration: 56.44 ug/kg

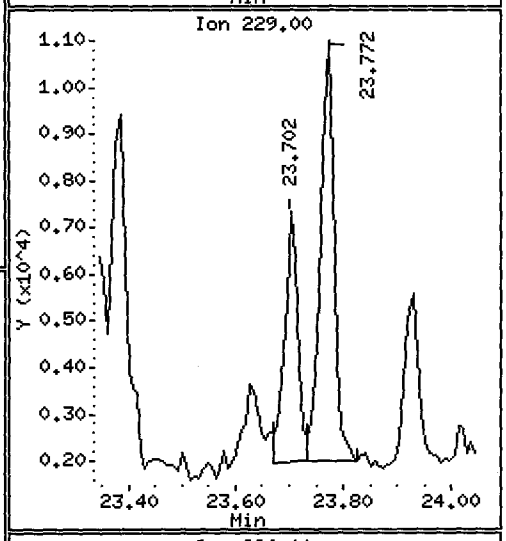


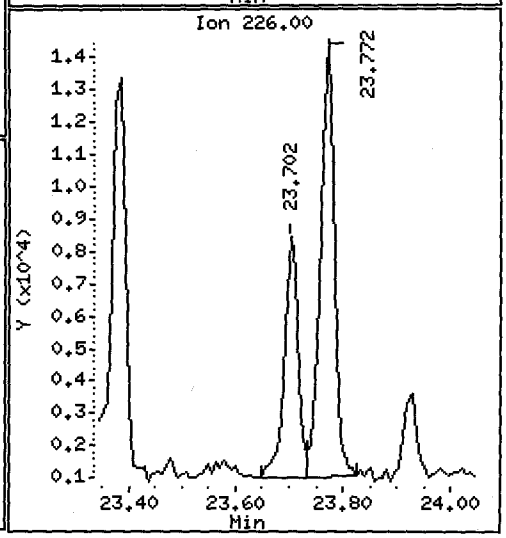












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

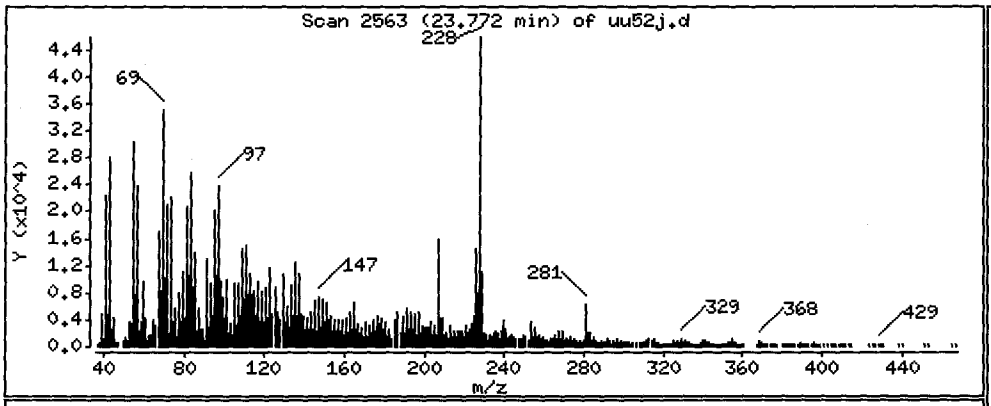
Client ID: MS009-SS-120515 Instrument: nt10.i

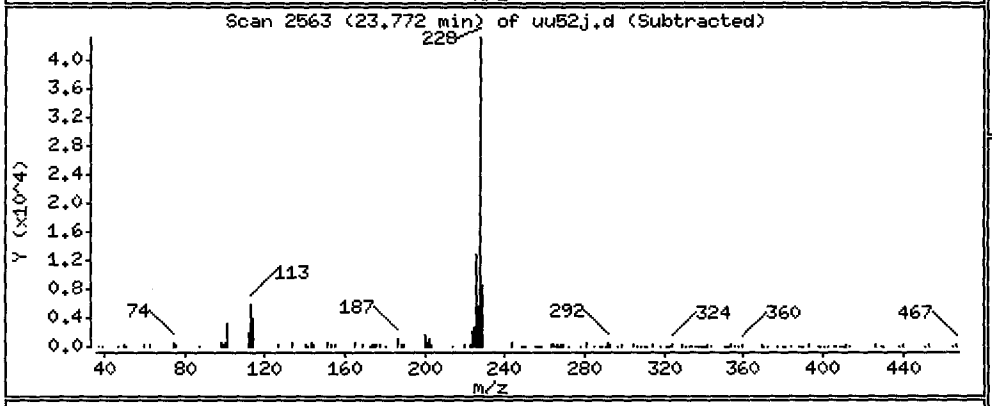
Sample Info: UU52J,3

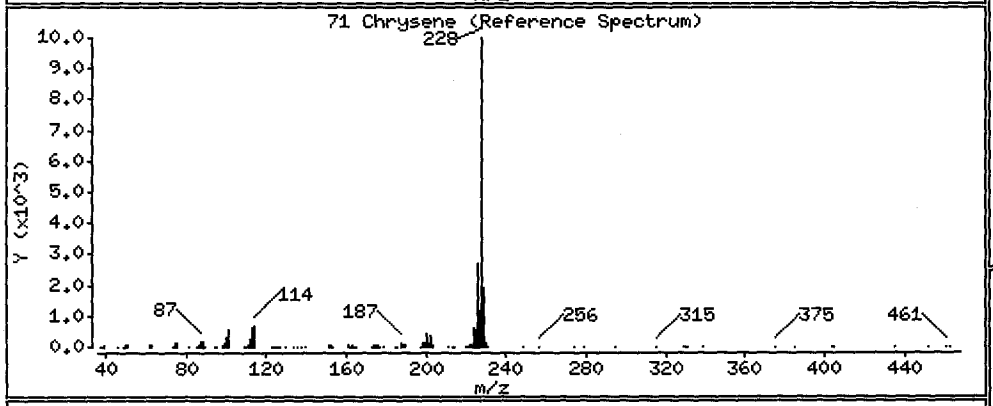
Volume Injected (uL): 1.0 Operator: VTS/YZ

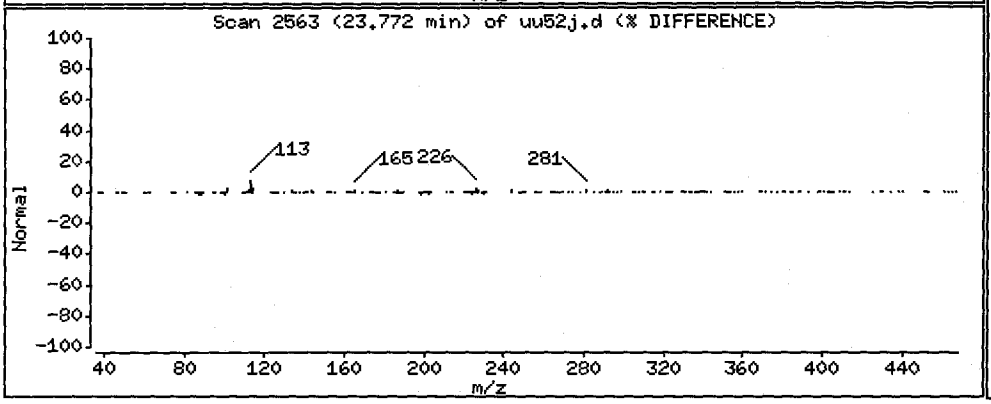
Column phase: ZB-5msi Column diameter: 0.25

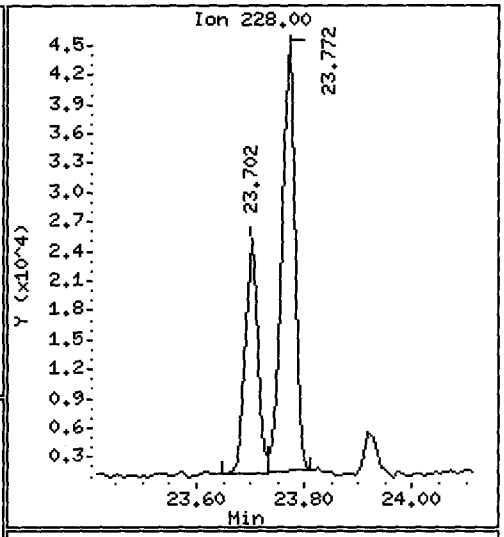
71 Chrysene Concentration: 120.4 ug/kg

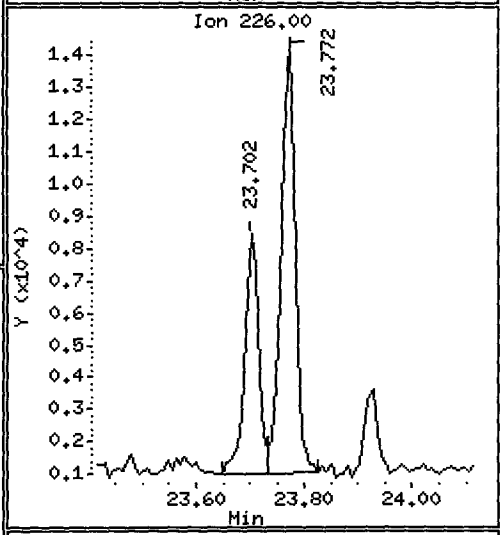


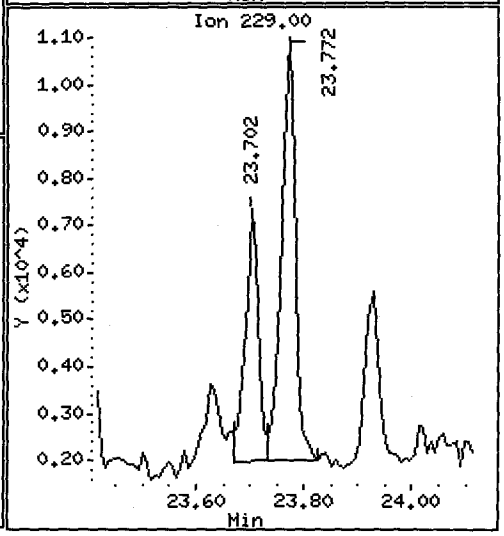












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

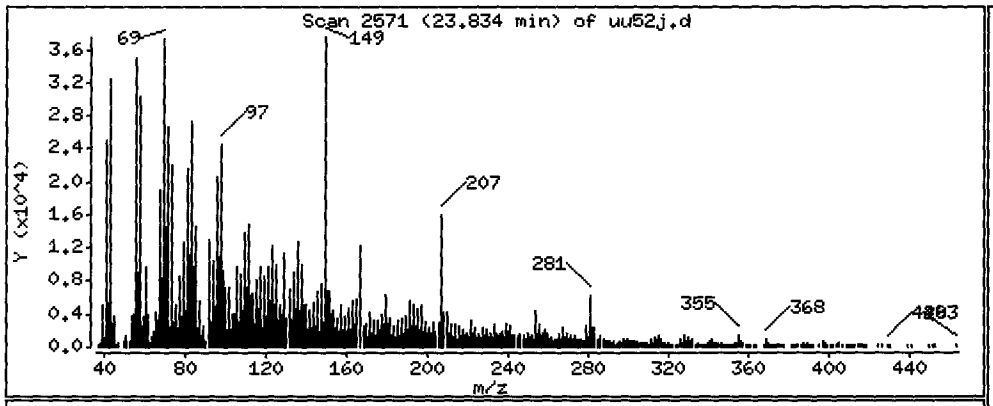
Client ID: MS009-SS-120515 Instrument: nt10.i

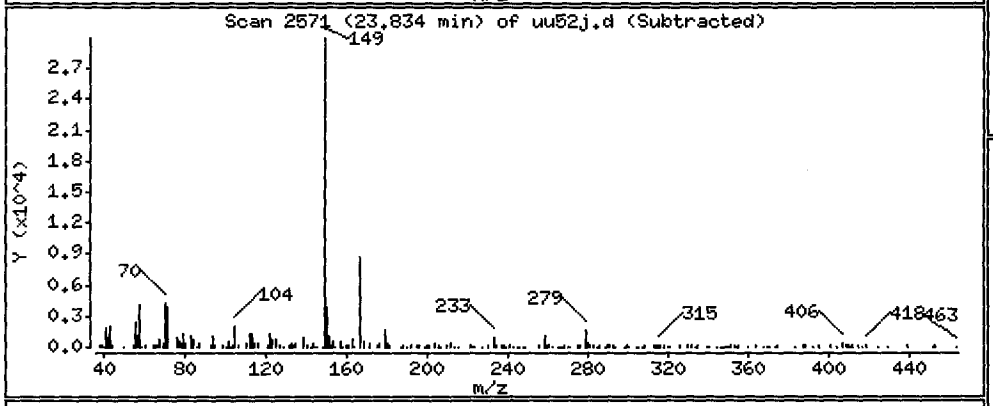
Sample Info: UU52J,3

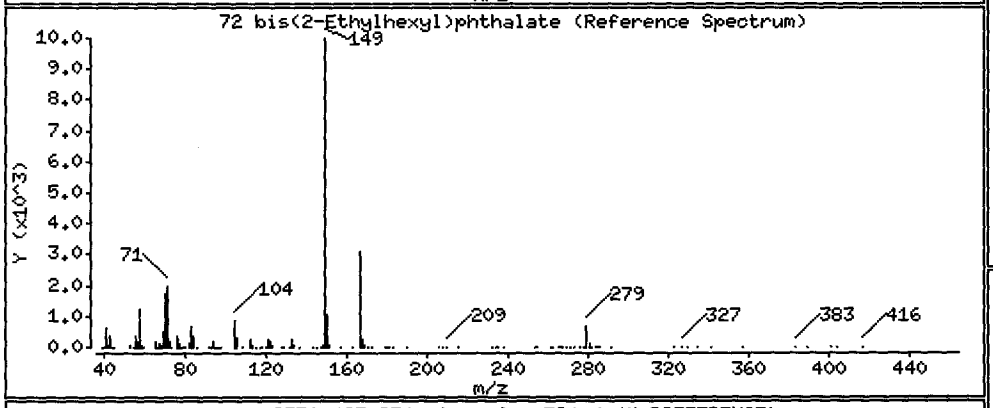
Volume Injected (uL): 1.0 Operator: VTS/YZ

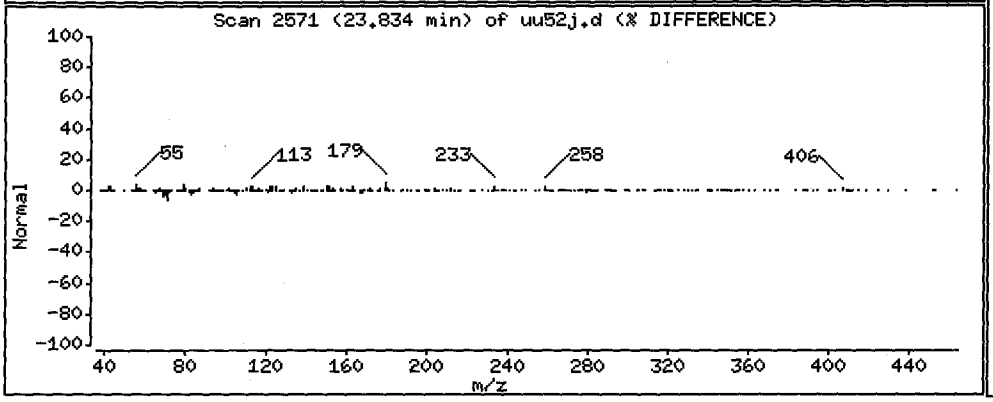
Column phase: ZB-5msi Column diameter: 0.25

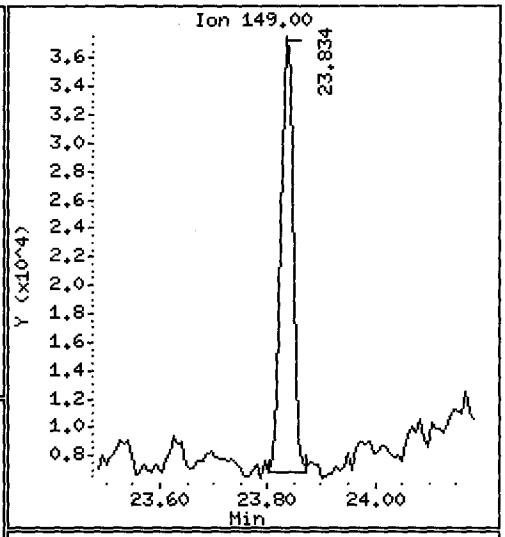
72 bis(2-Ethylhexyl)phthalate Concentration: 91.49 ug/kg

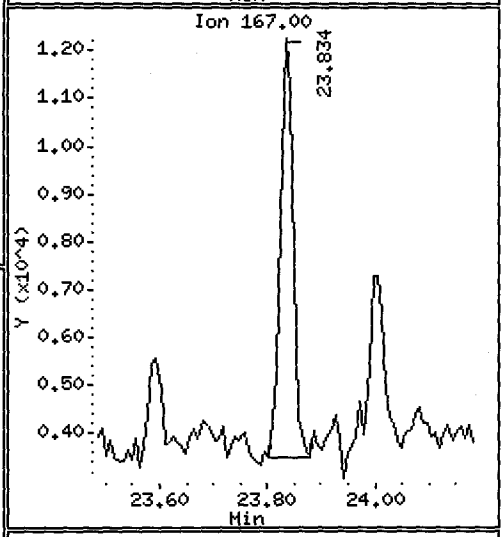


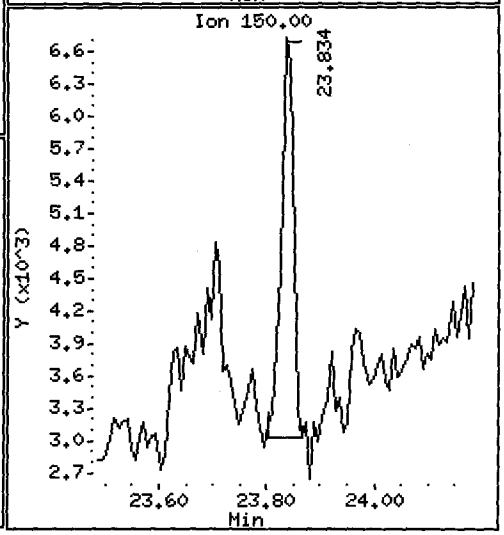






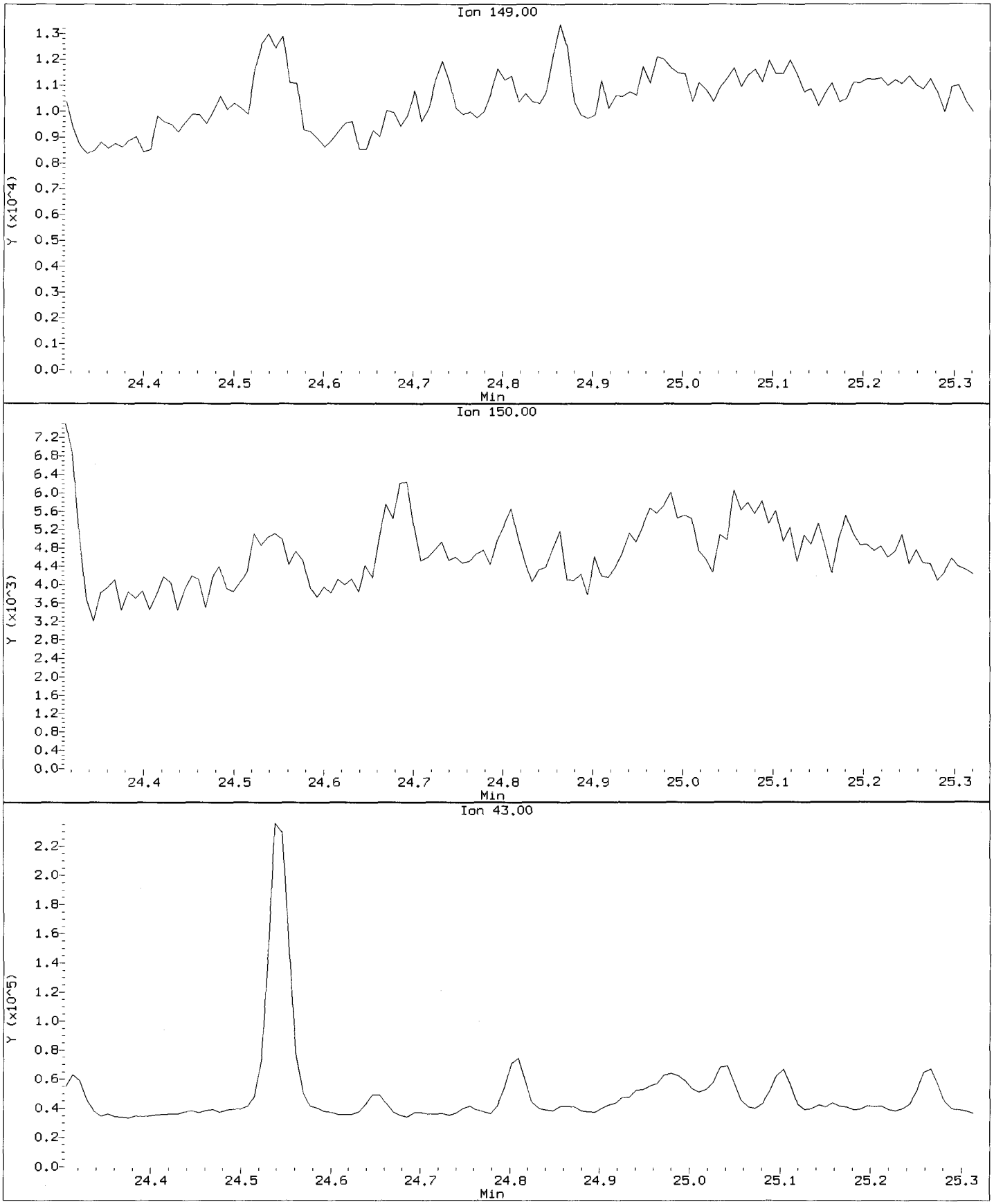






Data File: /chem1/nt10.i/20120529.b/uu52j.d
Injection Date: 29-MAY-2012 13:33
Instrument: nt10.i
Client Sample ID: MS009-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

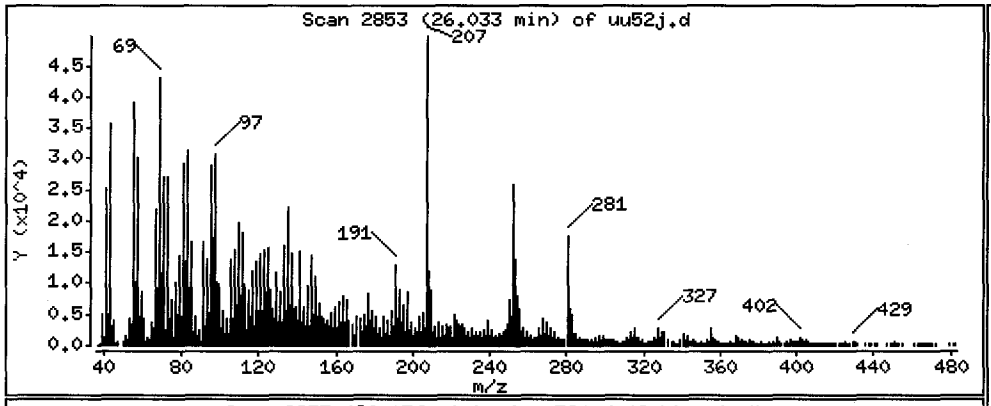
Operator: VTS/YZ

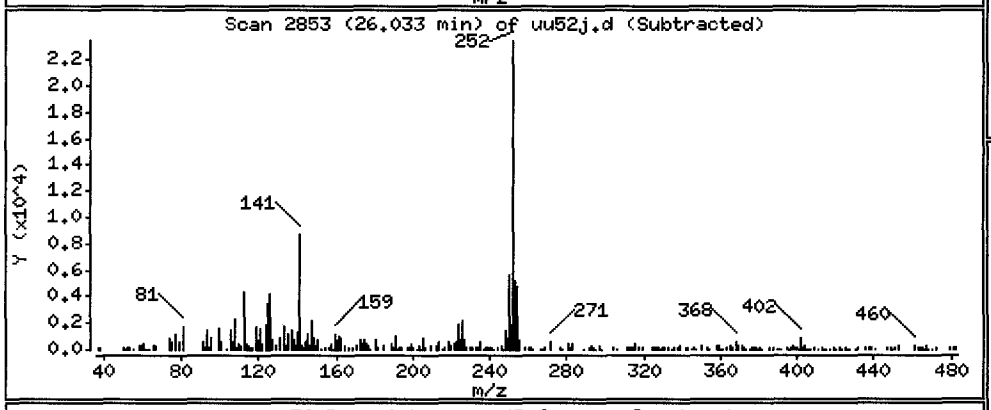
Column phase: ZB-5msi

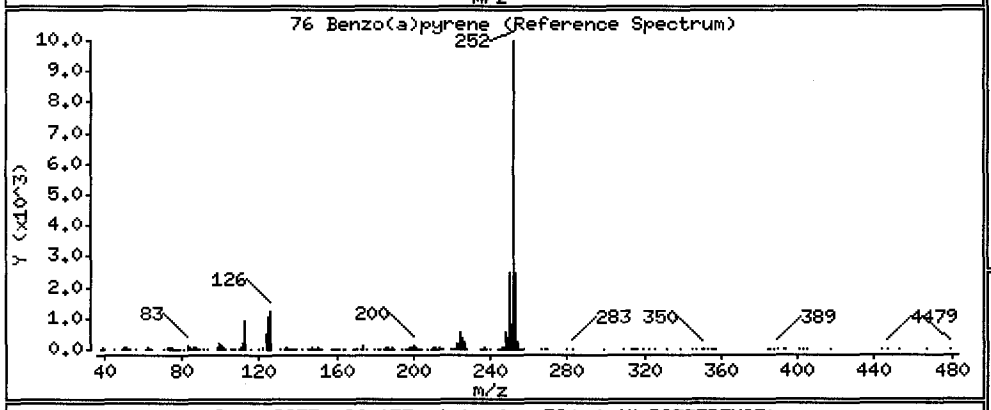
Column diameter: 0.25

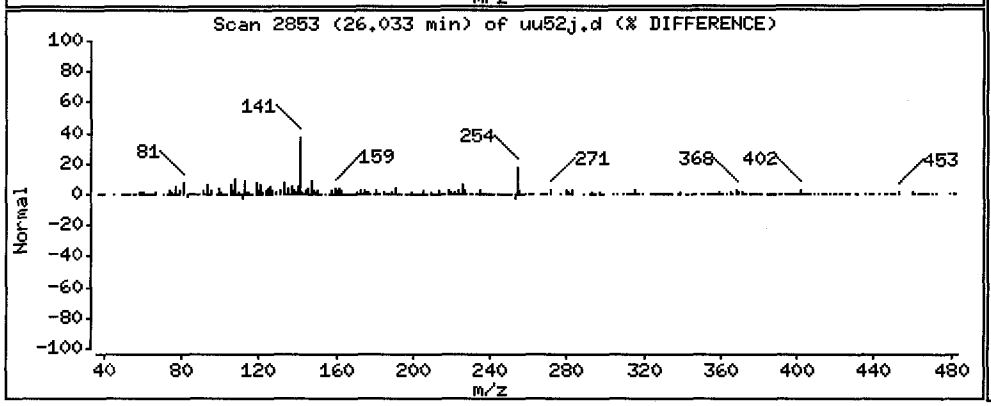
76 Benzo(a)pyrene

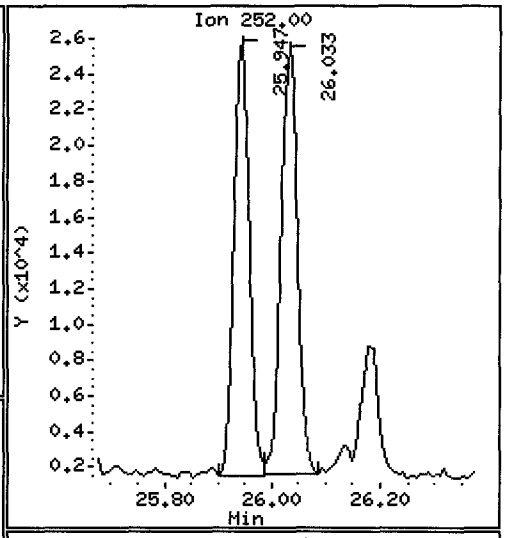
Concentration: 81.54 ug/kg

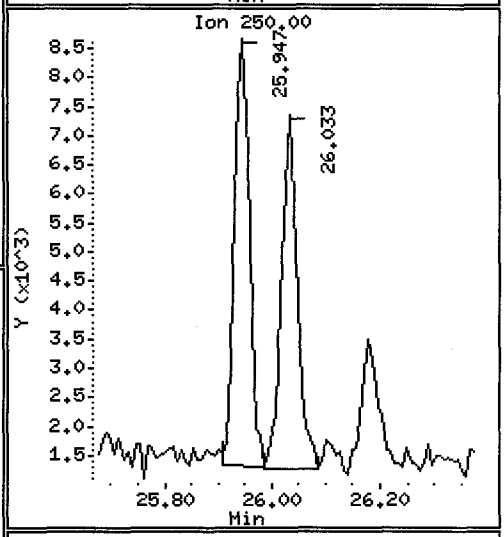


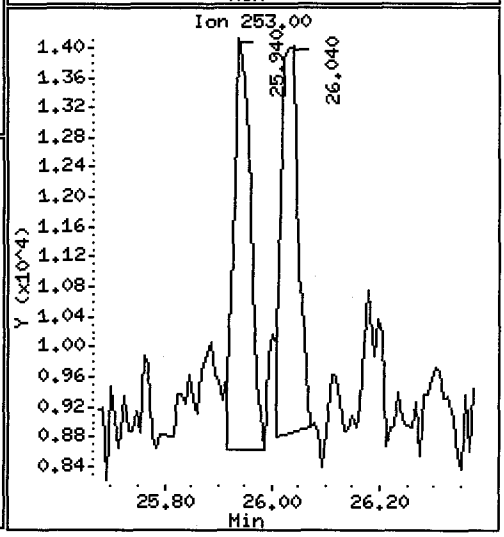












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

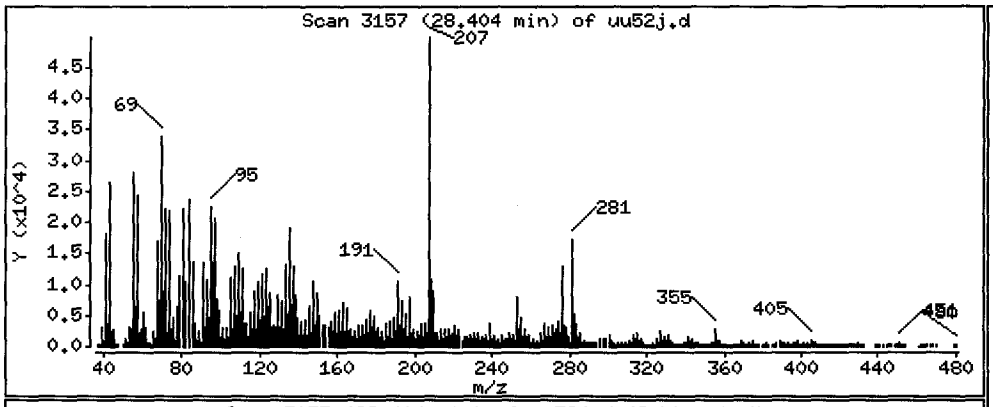
Client ID: MS009-SS-120515 Instrument: nt10.i

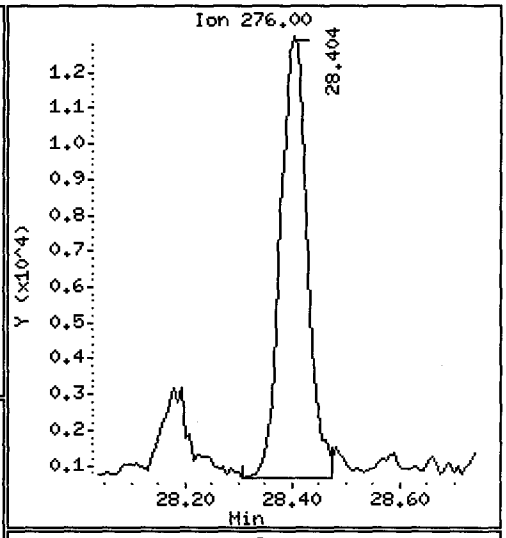
Sample Info: UU52J,3

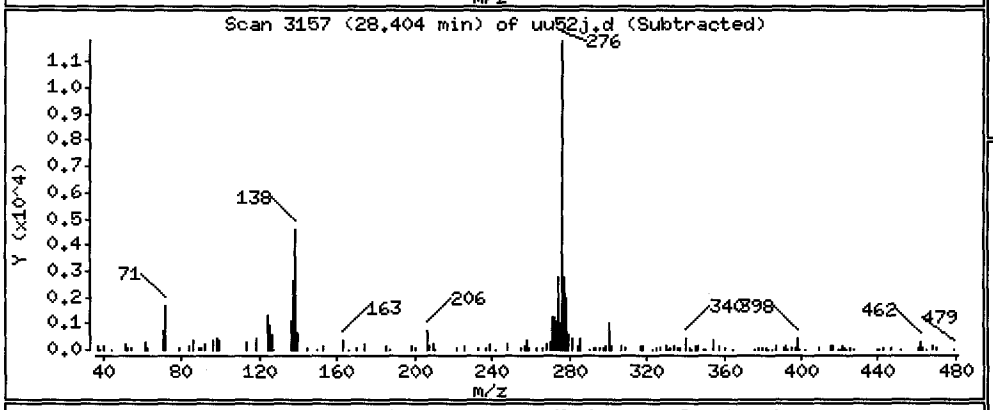
Volume Injected (uL): 1.0 Operator: VTS/YZ

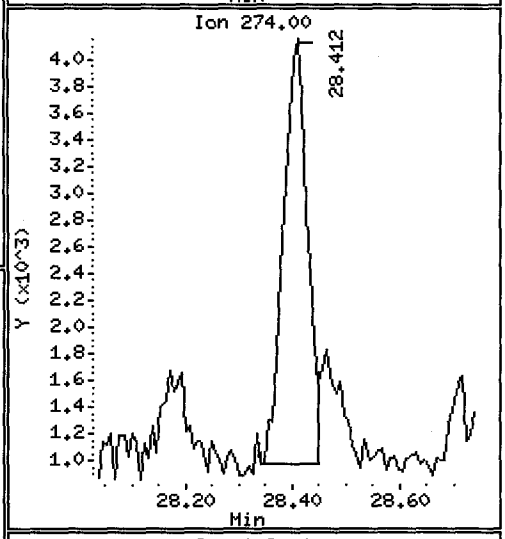
Column phase: ZB-5msi Column diameter: 0.25

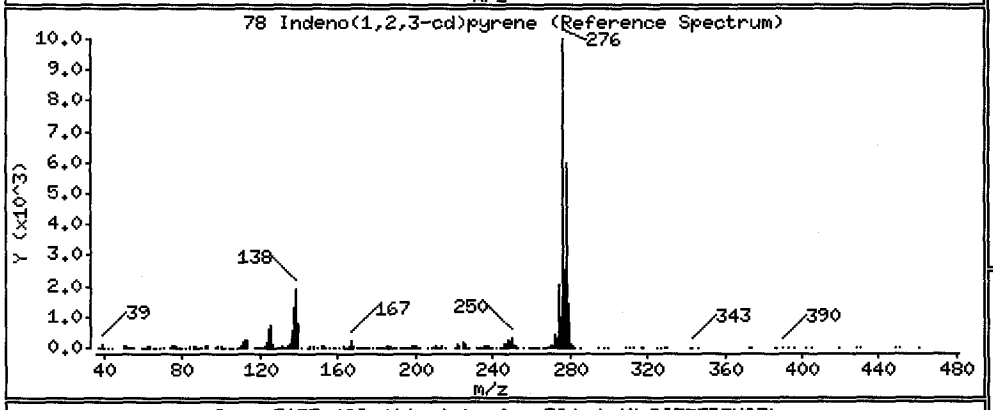
78 Indeno(1,2,3-cd)pyrene Concentration: 62.14 ug/kg

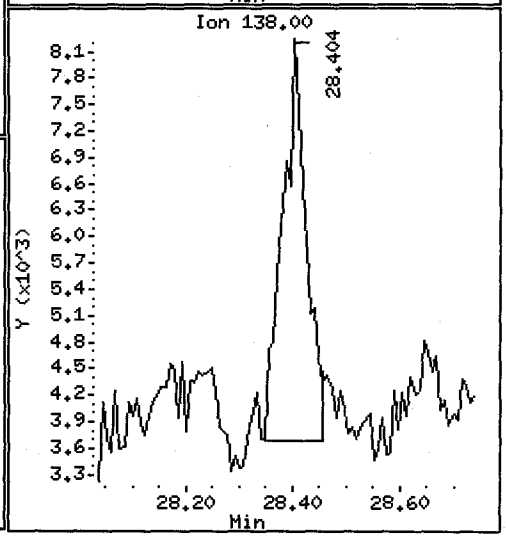


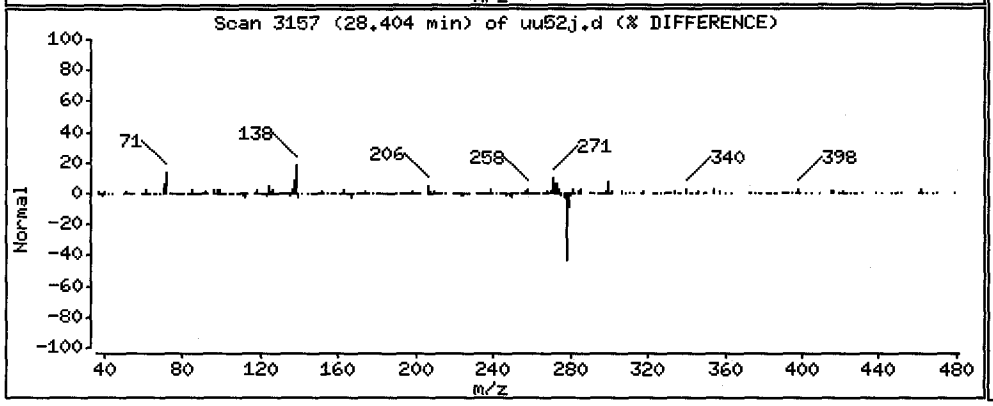












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

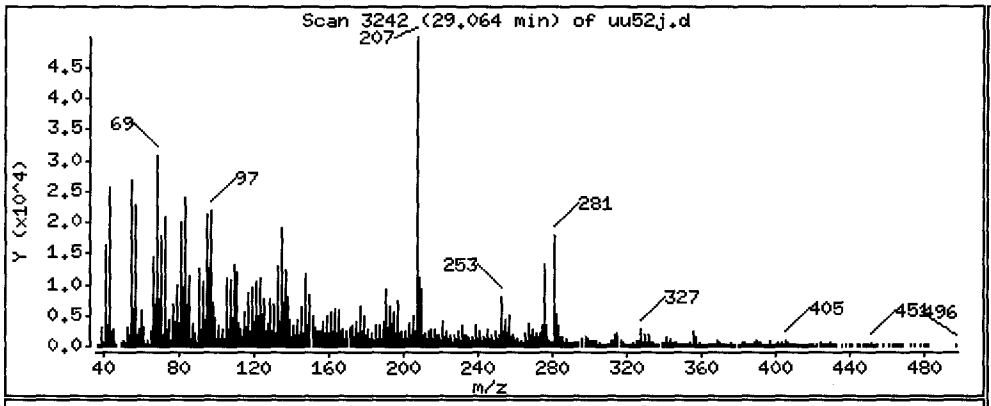
Client ID: MS009-SS-120515 Instrument: nt10.i

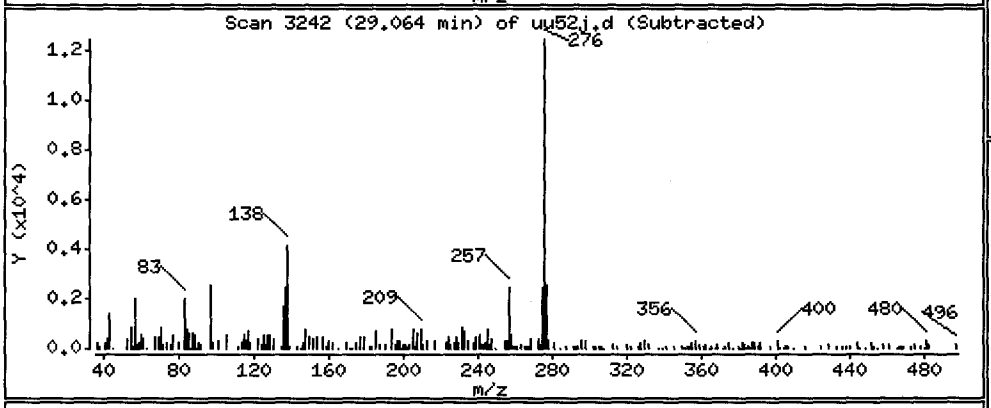
Sample Info: UU52J,3

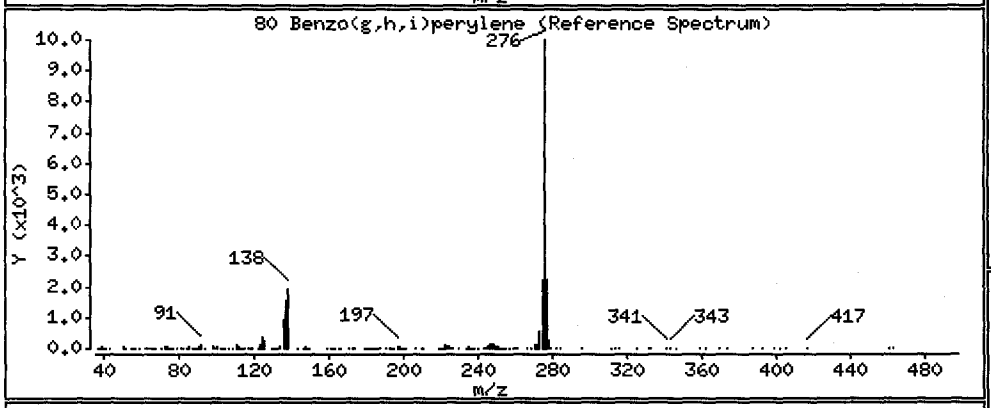
Volume Injected (uL): 1.0 Operator: VTS/YZ

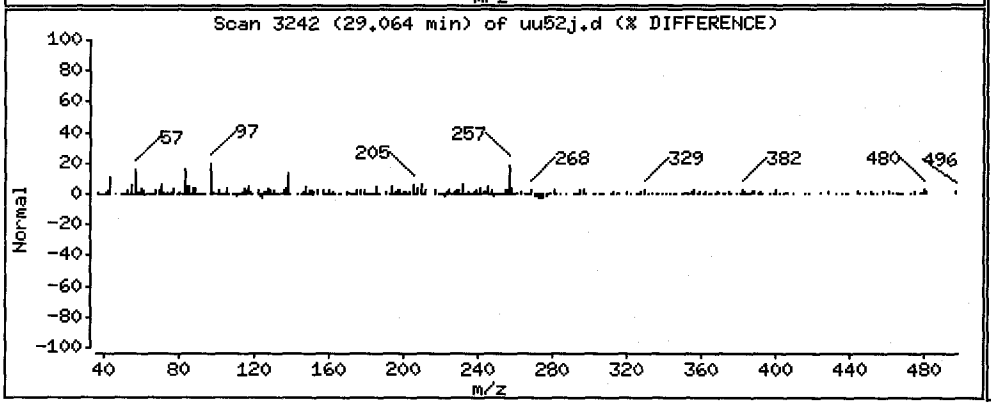
Column phase: ZB-5msi Column diameter: 0.25

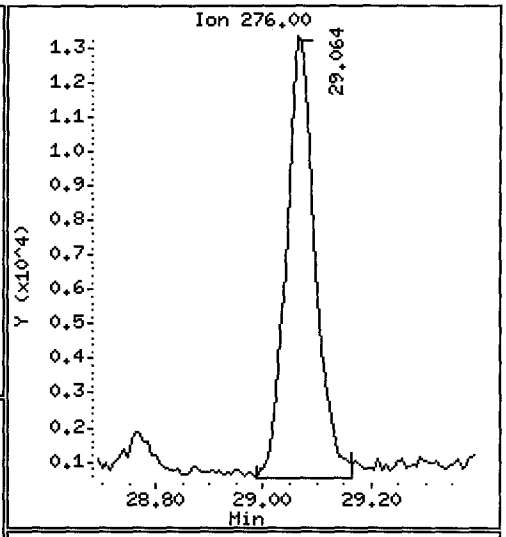
80 Benzo(g,h,i)perylene Concentration: 82.49 ug/kg

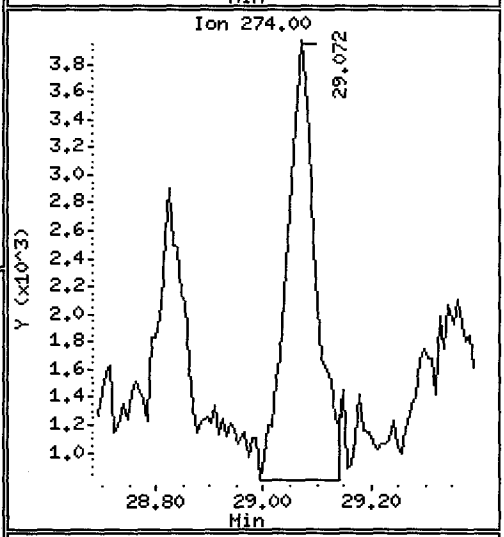


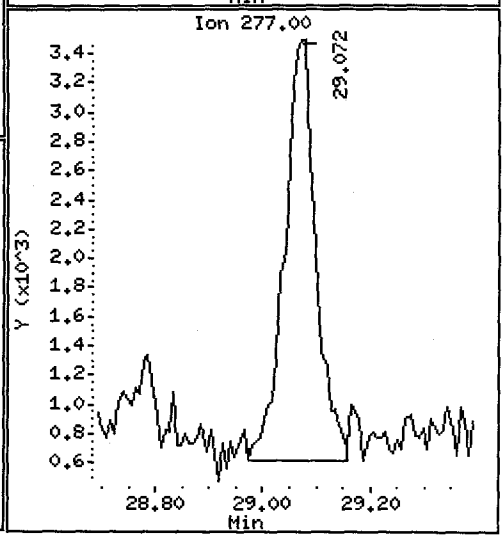












Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

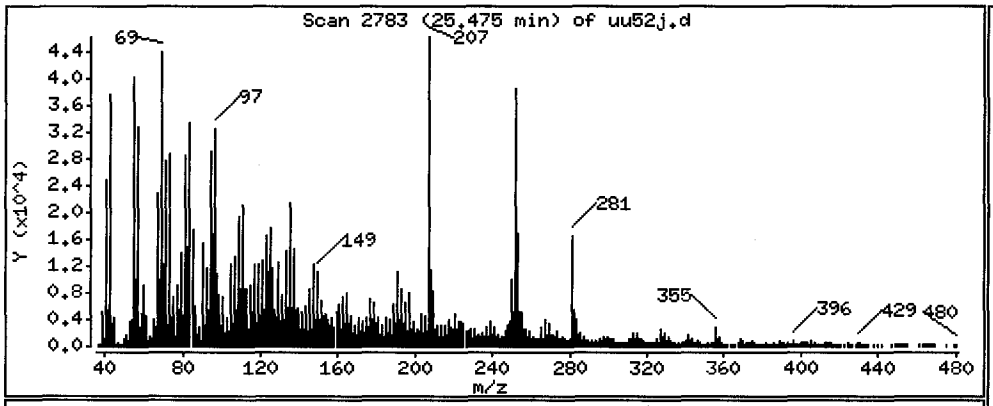
Client ID: MS009-SS-120515 Instrument: nt10.i

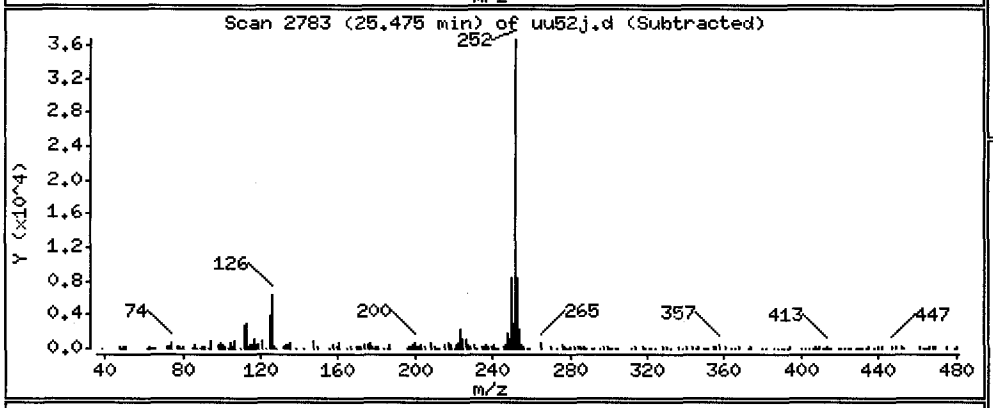
Sample Info: UU52J,3

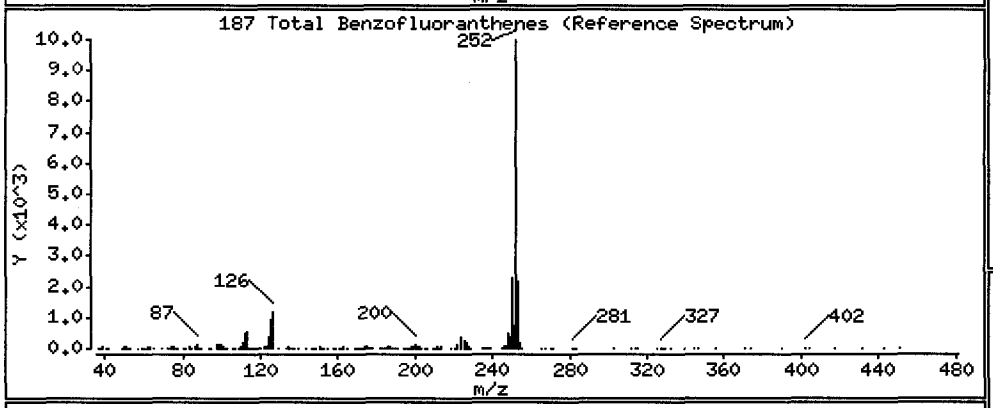
Volume Injected (uL): 1.0 Operator: VTS/YZ

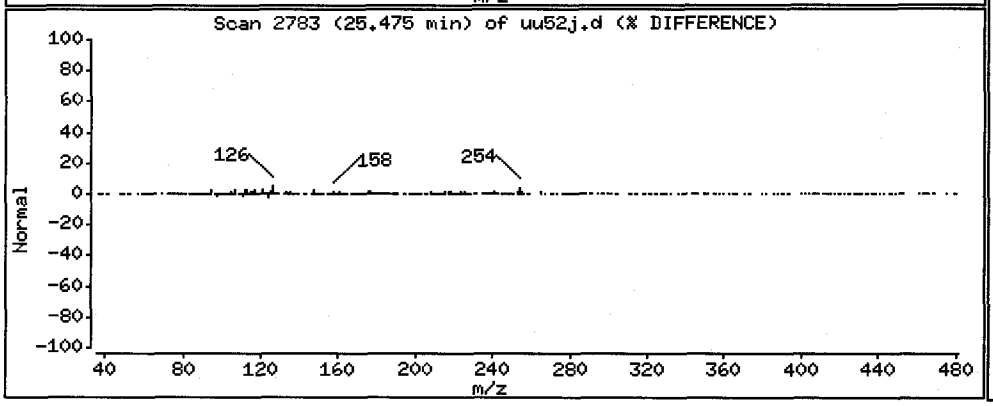
Column phase: ZB-5msi Column diameter: 0.25

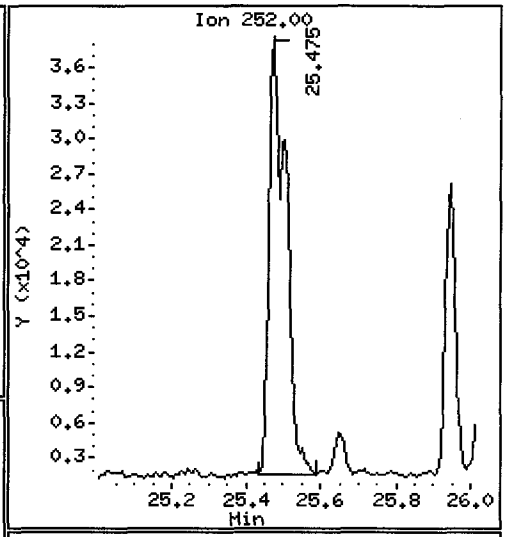
187 Total Benzofluoranthenes Concentration: 186.2 ug/kg

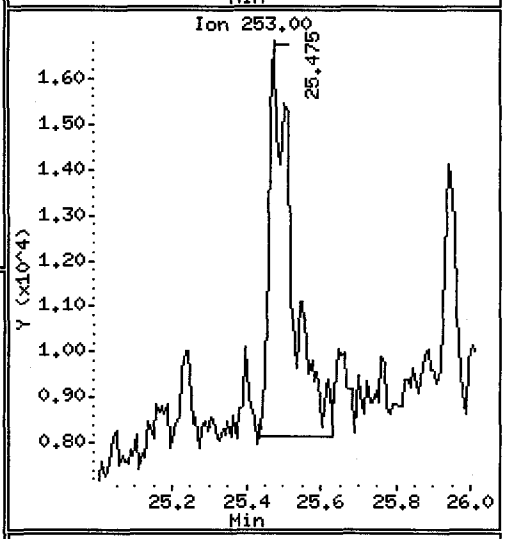


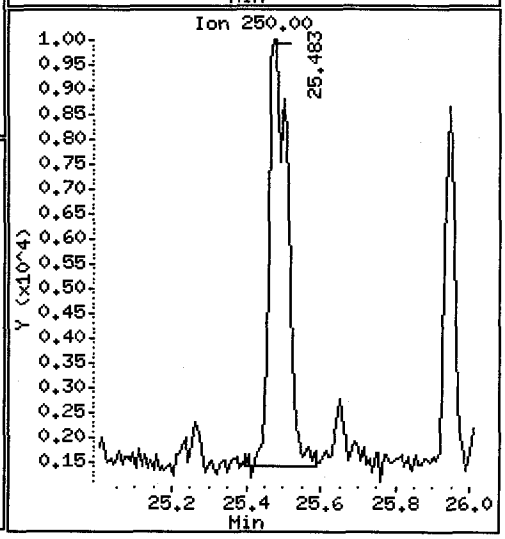












CO-ELUTION SUMMARY FOR FILE - uu52j.d

Lab ID: UU52J, Method: ABN.m, Instrument: nt10.i, Date: 29-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 6/4/12

Data file : /chem1/nt10.i/20120530.b/uu52g6.d
Lab Smp Id: UU52G Client Smp ID: MS006-SS-120515
Inj Date : 30-MAY-2012 13:04
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52G,6
Misc Info : 12-8899
Comment : 1ul Injection
Method : /chem1/nt10.i/20120530.b/ABN.m
Meth Date : 30-May-2012 14:19 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 4
Dil Factor: 6.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	6.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	109.00000	Weight of sample extracted (g)
M	90.80000	% Moisture

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1	2-Fluorophenol	112	6.575	6.560	(0.741)	53936	0.82913	496.1
$	2	Phenol-d5	99	8.268	8.260	(0.932)	70101	0.86510	517.6
	3	Phenol	94	8.299	8.283	(0.935)	71744	0.83063	497.0
$	5	2-Chlorophenol-d4	132	8.499	8.499	(0.958)	62666	0.88270	528.1
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.871	8.863	(1.000)	186026	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	9.244	9.243	(1.042)	24966	0.53607	320.7
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	9.197	9.181	(1.037)	7168	0.19753 J	118.2
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.756	9.748	(1.100)	33825	0.47626	285.0
$	18 Nitrobenzene-d5	82	10.035	10.035	(0.872)	37184	0.56576	338.5
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.095	11.080	(0.964)	372312	8.70776	5210
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.512	11.512	(1.000)	733531	4.00000	
	28 Naphthalene	128	11.558	11.558	(1.004)	1944963	10.5177	6293
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.059	13.059	(1.134)	126431	0.98347	588.4
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.910	13.910	(0.904)	89064	0.60177	360.1
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	15.048	15.048	(0.978)	68471	0.35708	213.7(M)
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.388	15.388	(1.000)	426946	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	15.458	15.458	(1.005)	17224	0.14892	89.10
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.813	15.813	(1.028)	151838	0.89610	536.2
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	16.579	16.579	(1.077)	28972	0.22315	133.5
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.165	17.165	(1.115)	17230	0.97774	585.0
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.657	18.657	(1.000)	591988	4.00000	
	60 Phenanthrene	178	18.703	18.703	(1.002)	552278	3.61792	2165
	61 Anthracene	178	18.796	18.803	(1.007)	52014	0.32618	195.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	19.167	19.144	(1.027)	26899	0.18231	109.1(M)
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	21.125	21.125	(1.132)	517352	2.98495	1786
65	Pyrene	202	21.543	21.542	(0.908)	483349	2.23918	1340
$ 66	Terphenyl-d14	244	21.860	21.860	(0.921)	82496	0.61007	365.0
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.695	23.695	(0.999)	69110	0.34631	207.2
* 69	Chrysene-d12	240	23.726	23.726	(1.000)	709441	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.764	23.772	(1.002)	117300	0.66818	399.8
72	bis(2-Ethylhexyl)phthalate	149	23.834	23.834	(0.961)	32912	0.21989	131.6
* 134	Di-n-octylphthalate-d4	153	24.810	24.809	(1.000)	1089932	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	26.025	26.033	(0.996)	68231	0.39856	238.5
* 77	Perylene-d12	264	26.134	26.133	(1.000)	662093	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.381	28.388	(1.086)	85685	0.43269	258.9
79	Dibenzo(a,h)anthracene	278	28.396	28.404	(1.087)	16389	0.10506	62.86(M)
80	Benzo(g,h,i)perylene	276	29.056	29.049	(1.112)	108135	0.63679	381.0
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.291	13.291	(1.155)	73274	0.55889	334.4
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	25.468	25.506	(0.975)	197943	1.07746	644.7
99	Perylene	252	Compound Not Detected.					
98	Retene	219	22.146	22.146	(0.933)	44776	0.44545	266.5

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52g6.d
Lab Smp Id: UU52G
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120530.b/ABN.m
Misc Info: 12-8899

Calibration Date: 30-MAY-2012
Calibration Time: 12:27
Client Smp ID: MS006-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	189516	94758	379032	186026	-1.84
27 Naphthalene-d8	730932	365466	1461864	733531	0.36
42 Acenaphthene-d10	420698	210349	841396	426946	1.49
59 Phenanthrene-d10	638950	319475	1277900	591988	-7.35
69 Chrysene-d12	645065	322532	1290130	709441	9.98
134 Di-n-octylphthala	1016118	508059	2032236	1089932	7.26
77 Perylene-d12	650033	325016	1300066	662093	1.86

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.86	8.36	9.36	8.87	0.09
27 Naphthalene-d8	11.51	11.01	12.01	11.51	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.66	18.16	19.16	18.66	0.00
69 Chrysene-d12	23.73	23.23	24.23	23.73	0.00
134 Di-n-octylphthala	24.81	24.31	25.31	24.81	0.00
77 Perylene-d12	26.13	25.63	26.63	26.13	0.00

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

Analytical Resources, Inc.

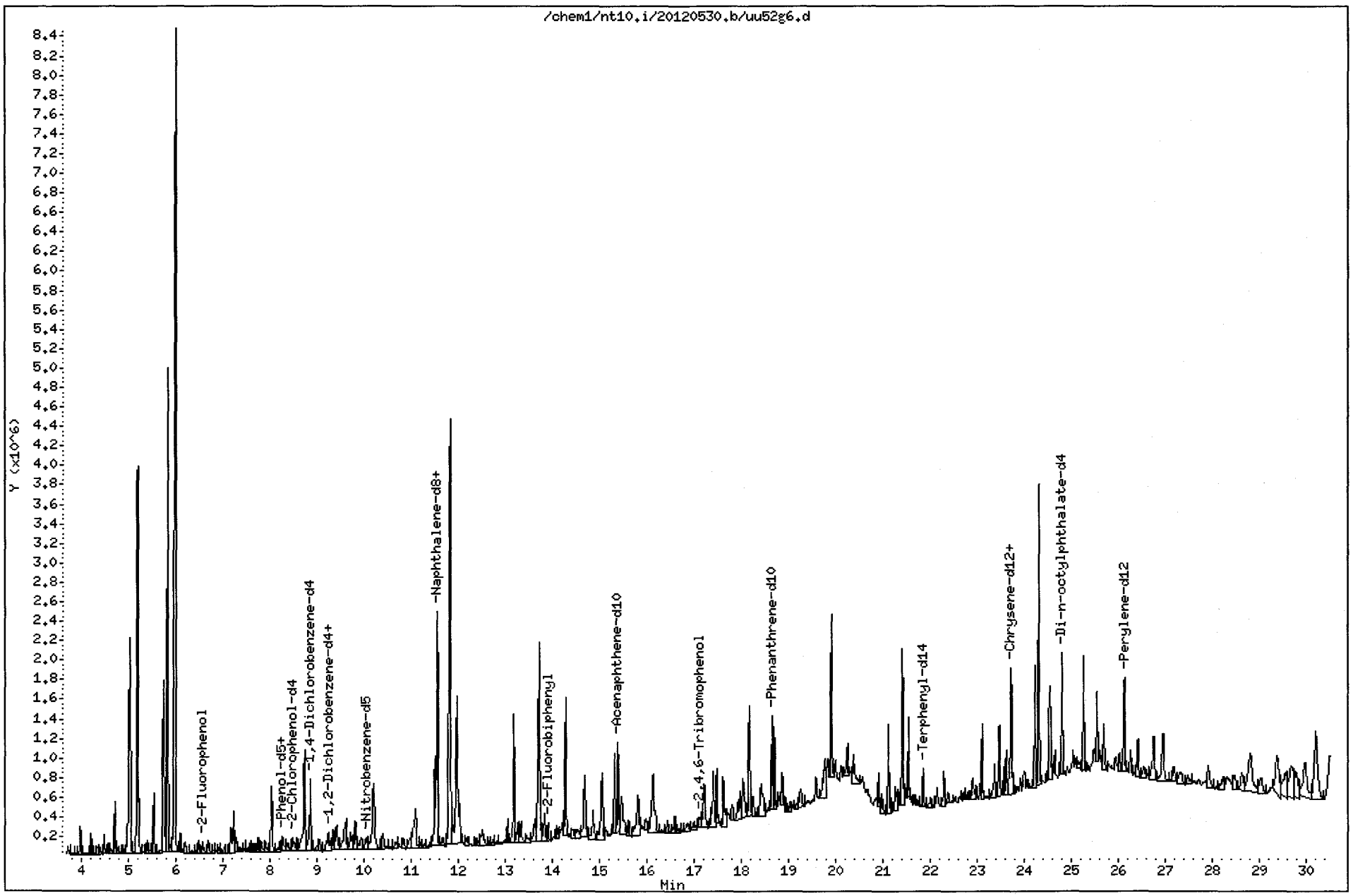
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52G Client Smp ID: MS006-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120530.b/ABN.m
Misc Info: 12-8899

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	747.9	496.1	66.33	30-160
$ 2 Phenol-d5	747.9	517.6	69.21	30-160
$ 5 2-Chlorophenol-d4	747.9	528.1	70.62	30-160
$ 10 1,2-Dichlorobenzen	498.6	320.7	64.33	30-160
$ 18 Nitrobenzene-d5	498.6	338.5	67.89	30-160
$ 36 2-Fluorobiphenyl	498.6	360.1	72.21	30-160
$ 55 2,4,6-Tribromophen	747.9	585.0	78.22	30-160
$ 66 Terphenyl-d14	498.6	365.0	73.21	30-160

Data File: /chem1/nt10.i/20120530.b/uu52g6.d
Date : 30-MAY-2012 13:04
Client ID: MS006-SS-120515
Sample Info: UU52G,6
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



UU52 : 61051

Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

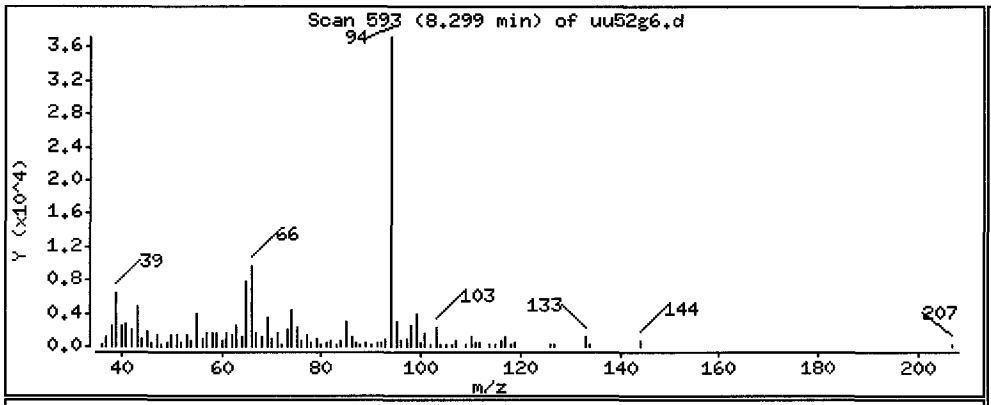
Operator: VTS/YZ

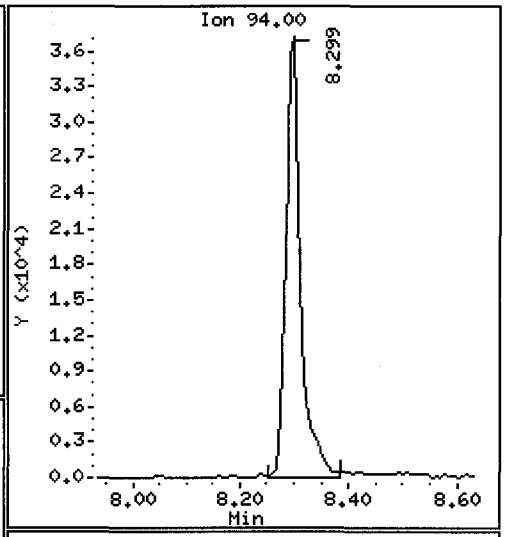
Column phase: ZB-5msi

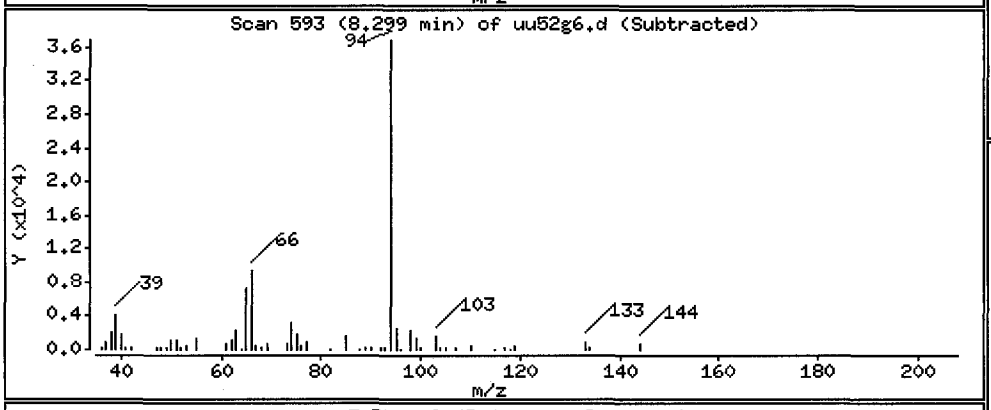
Column diameter: 0.25

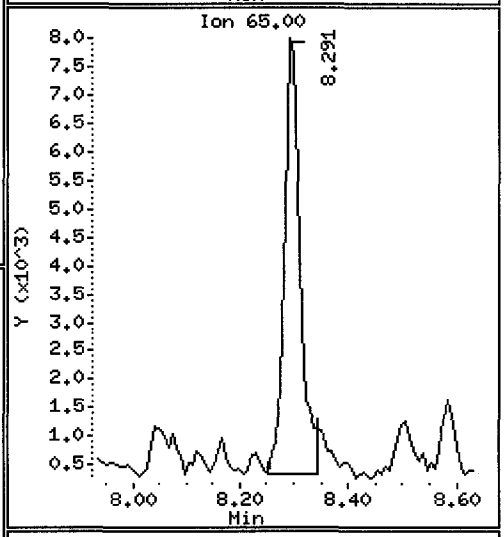
3 Phenol

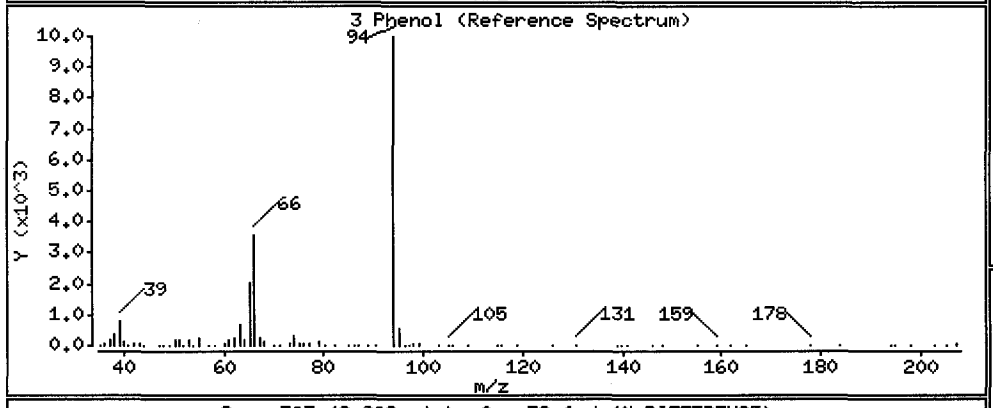
Concentration: 497.0 ug/kg

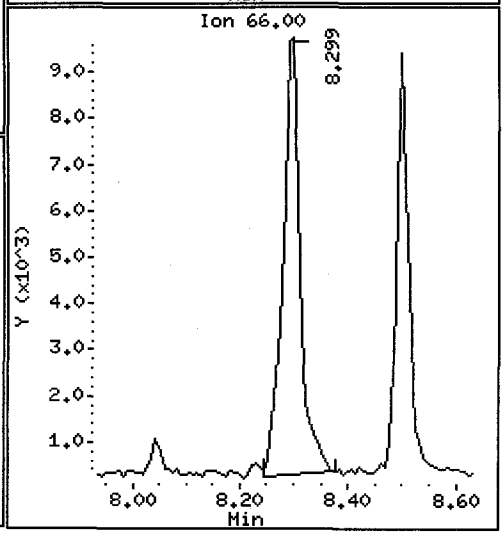


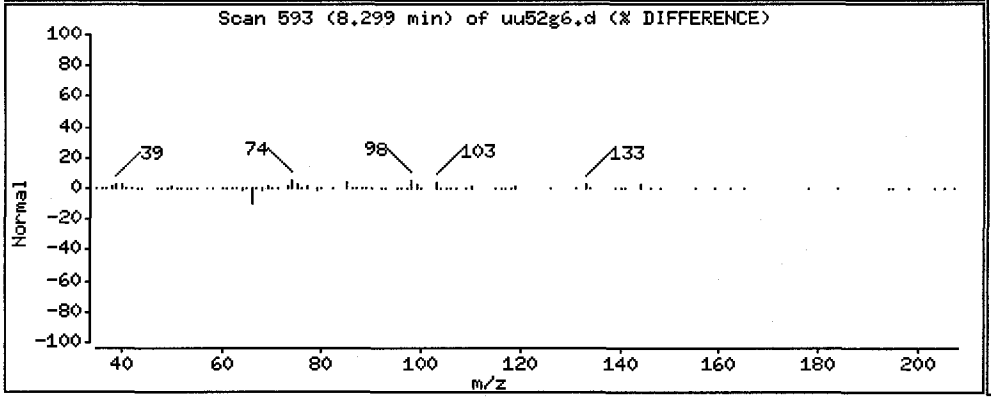












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

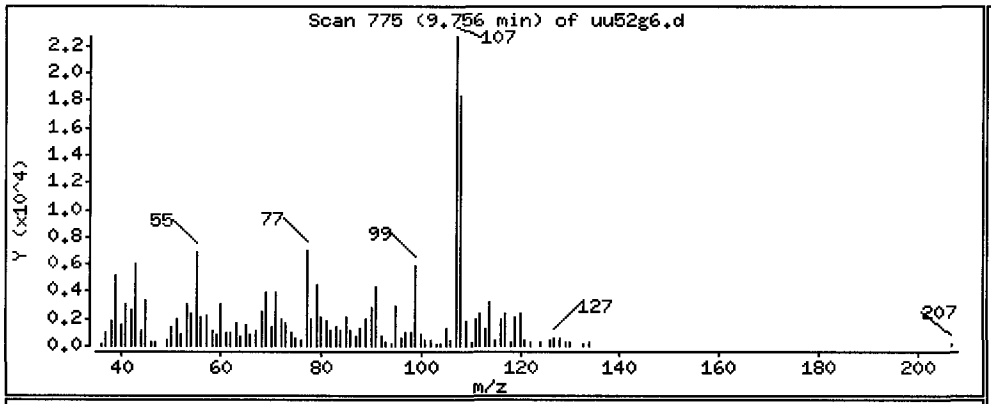
Client ID: MS006-SS-120515 Instrument: nt10.i

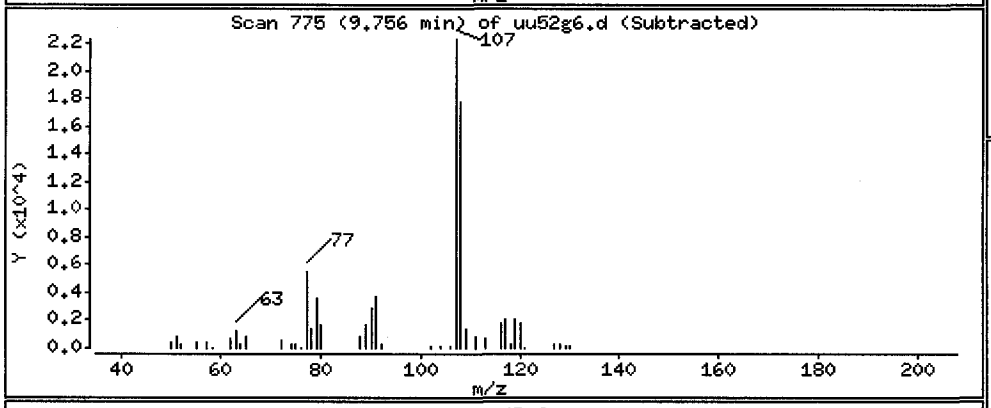
Sample Info: UU52G,6

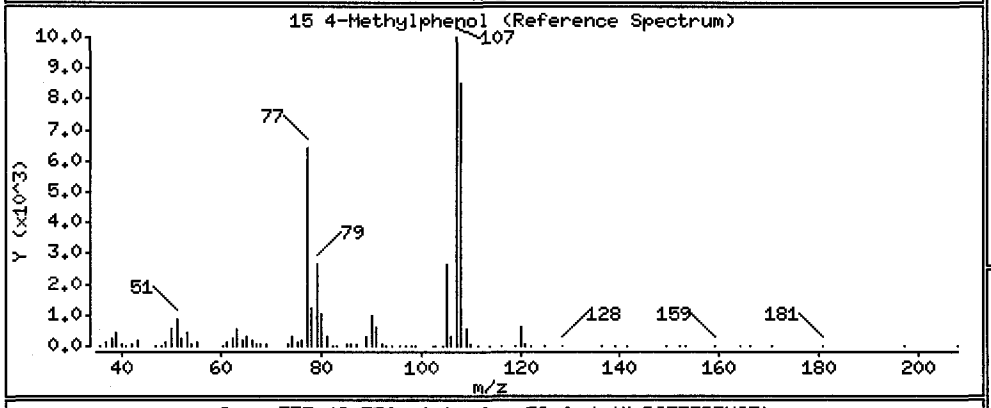
Volume Injected (uL): 1.0 Operator: VTS/YZ

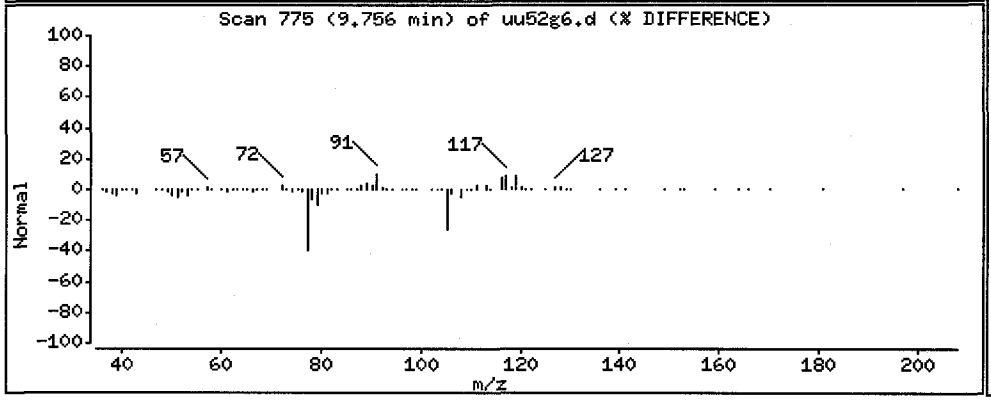
Column phase: ZB-5msi Column diameter: 0.25

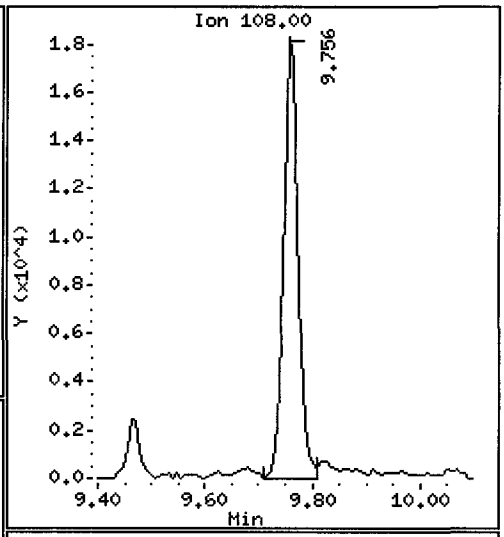
15 4-Methylphenol Concentration: 285.0 ug/kg

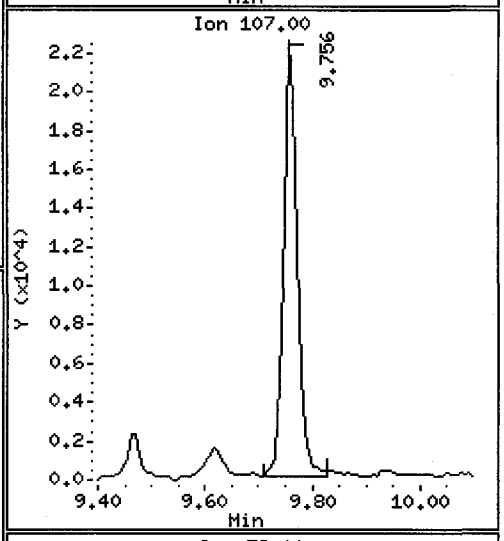


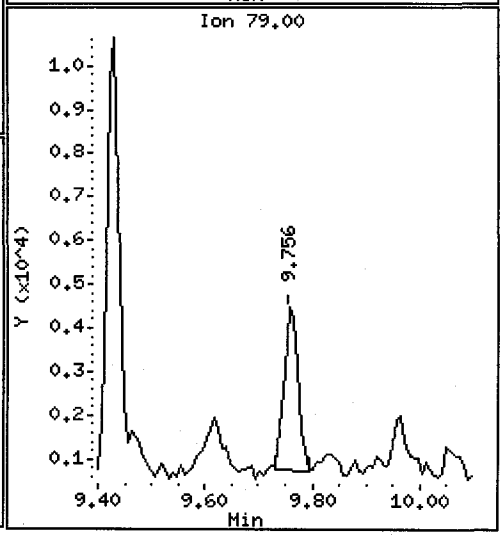












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

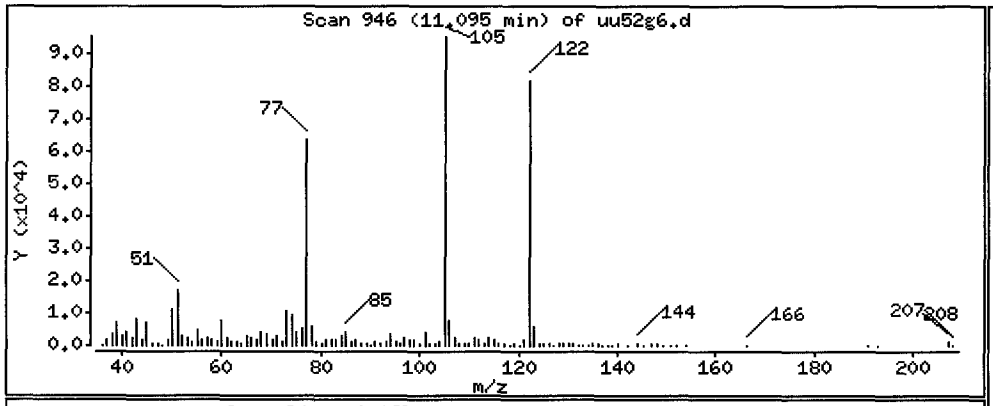
Client ID: MS006-SS-120515 Instrument: nt10.i

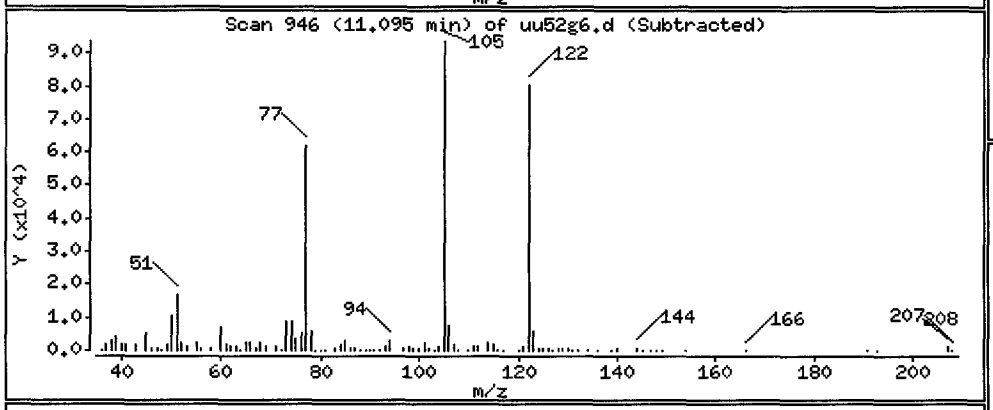
Sample Info: UU52G,6

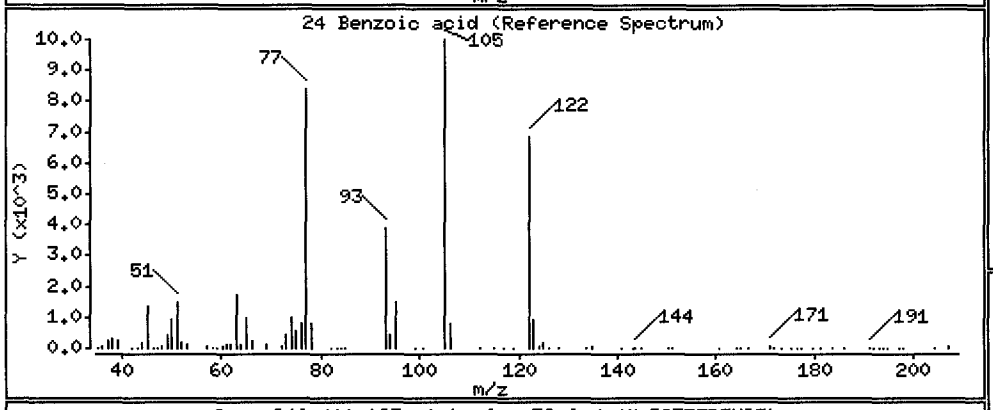
Volume Injected (uL): 1.0 Operator: VTS/YZ

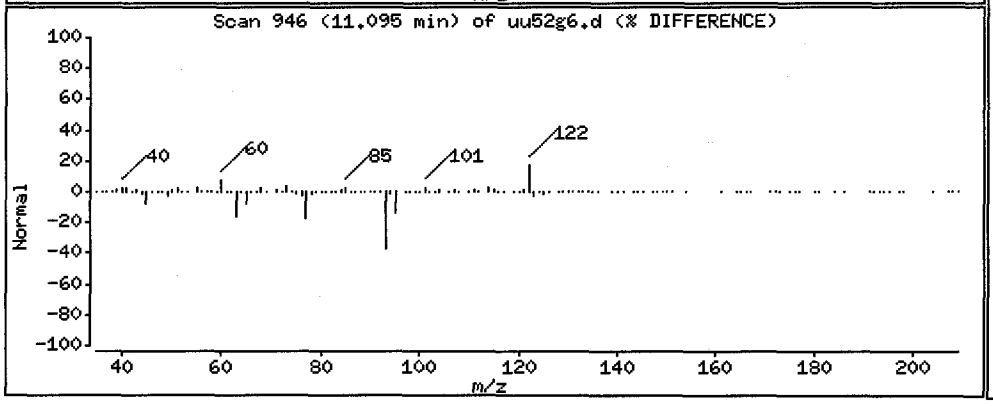
Column phase: ZB-5msi Column diameter: 0.25

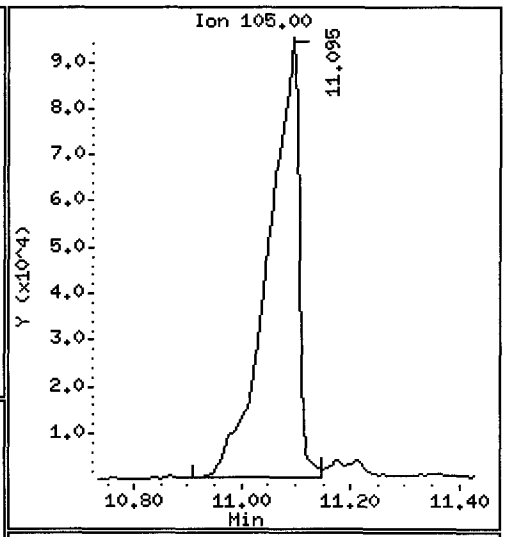
24 Benzoic acid Concentration: 5210 ug/kg

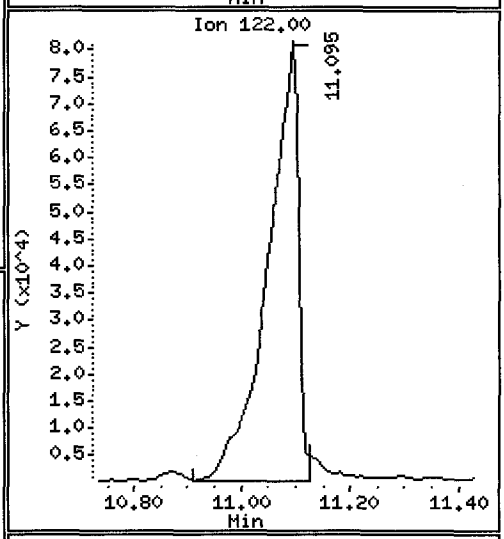


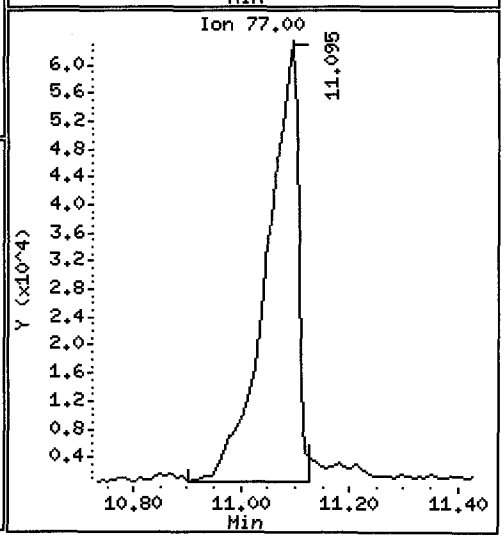












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

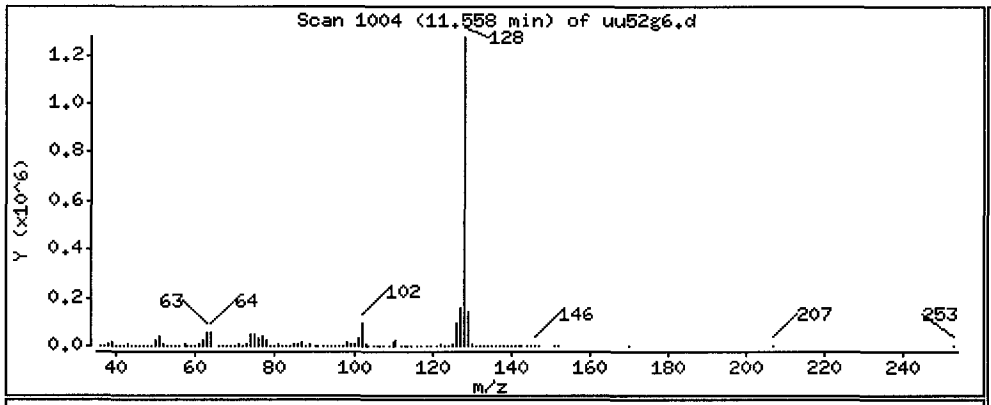
Client ID: MS006-SS-120515 Instrument: nt10.i

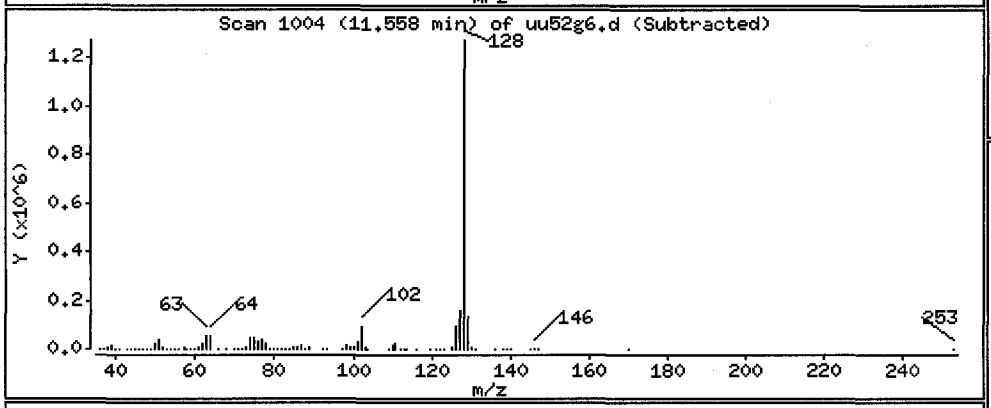
Sample Info: UU52G,6

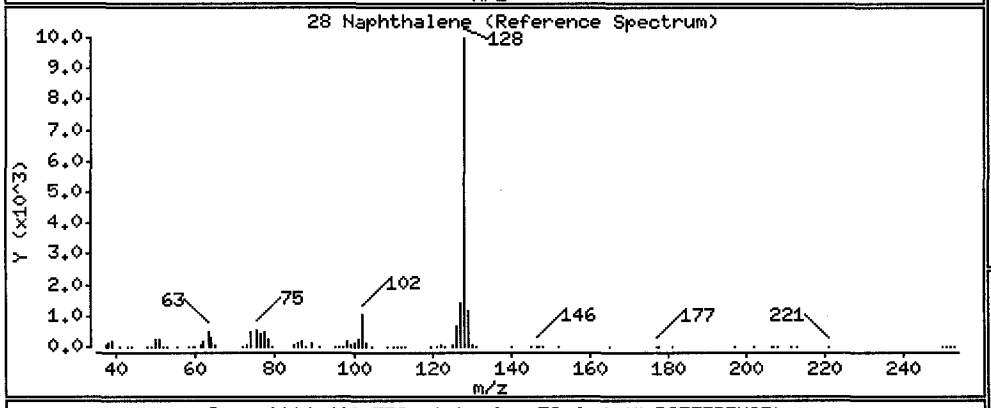
Volume Injected (uL): 1.0 Operator: VTS/YZ

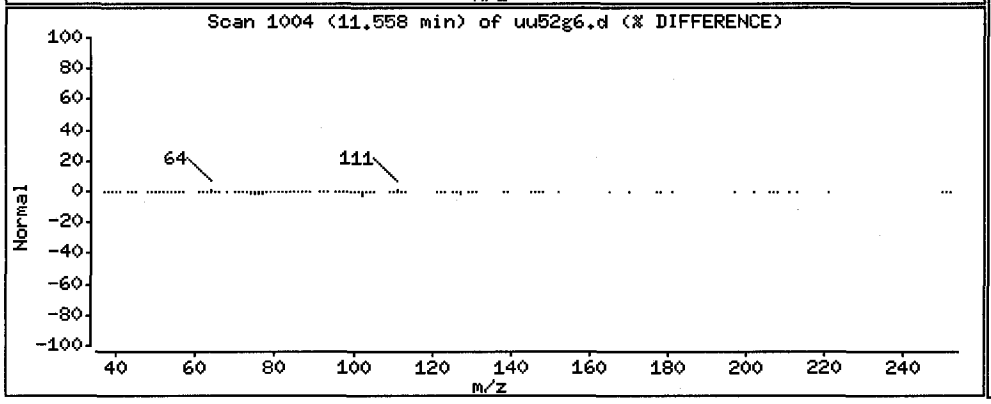
Column phase: ZB-5msi Column diameter: 0.25

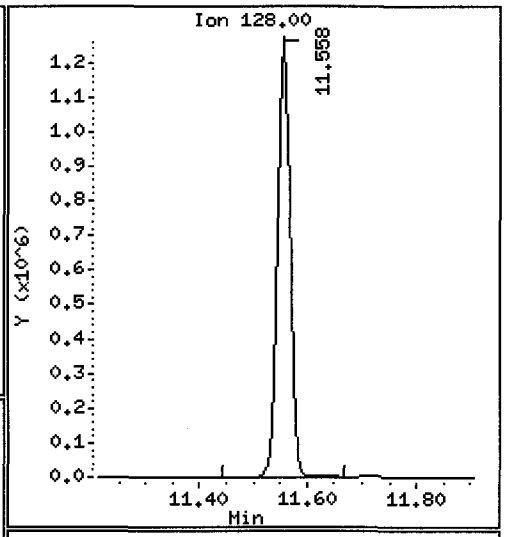
28 Naphthalene Concentration: 6293 ug/kg

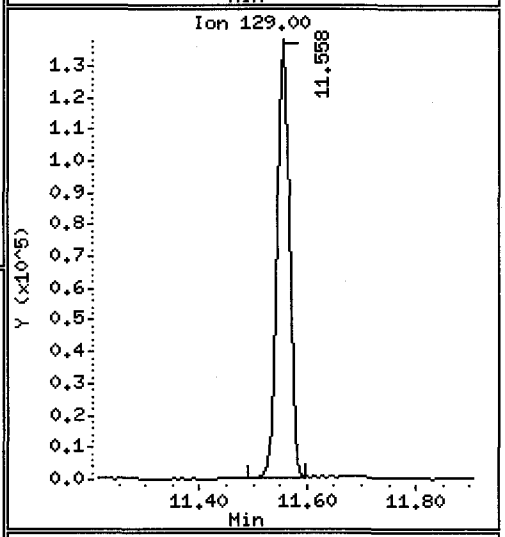


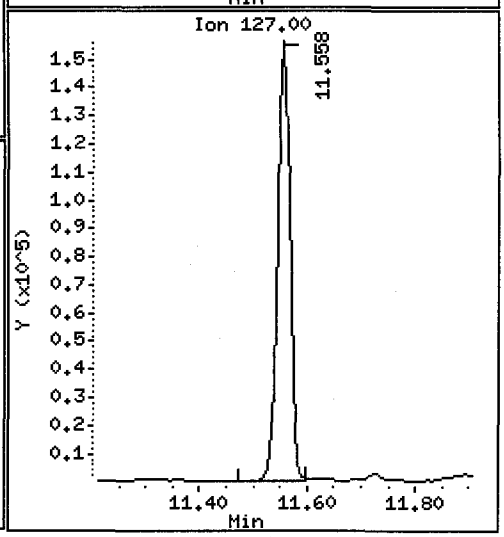












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

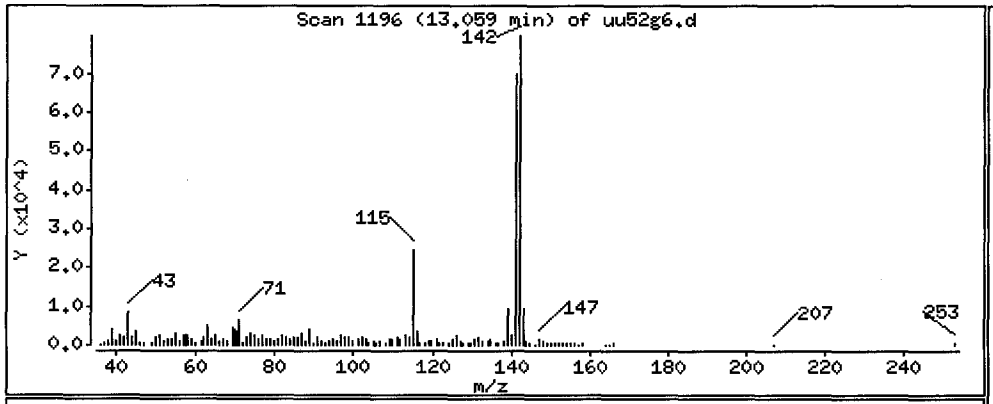
Operator: VTS/YZ

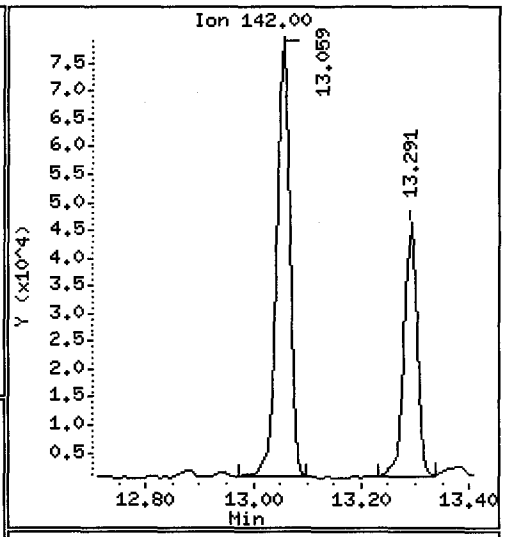
Column phase: ZB-5msi

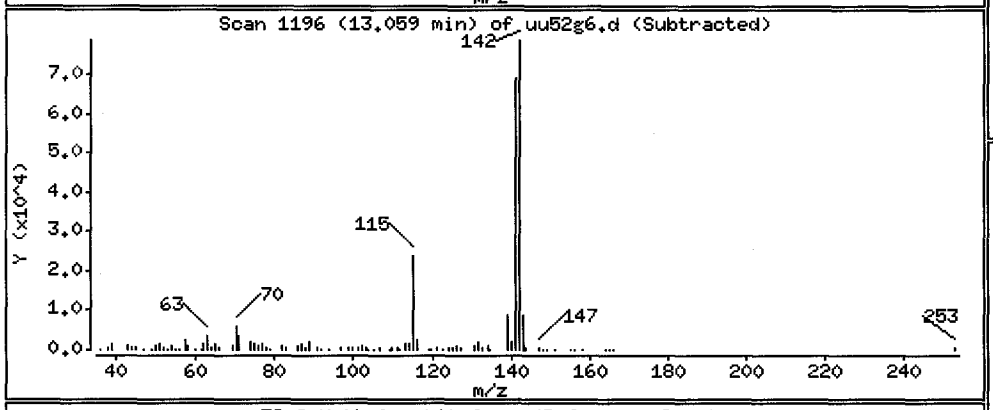
Column diameter: 0.25

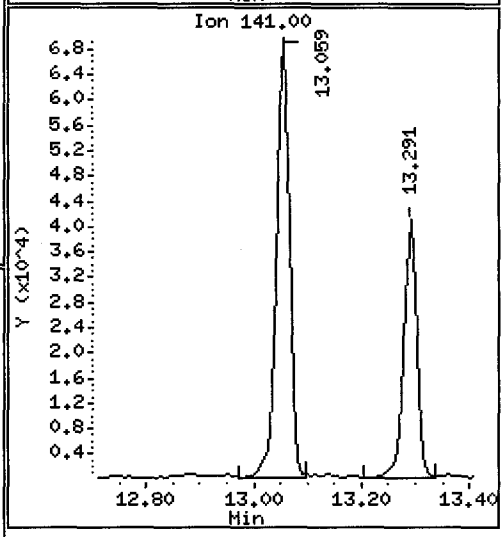
32 2-Methylnaphthalene

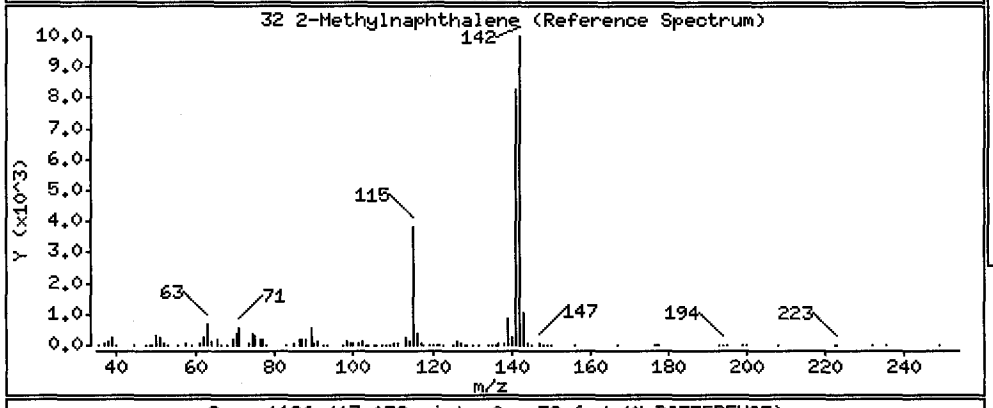
Concentration: 588.4 ug/kg

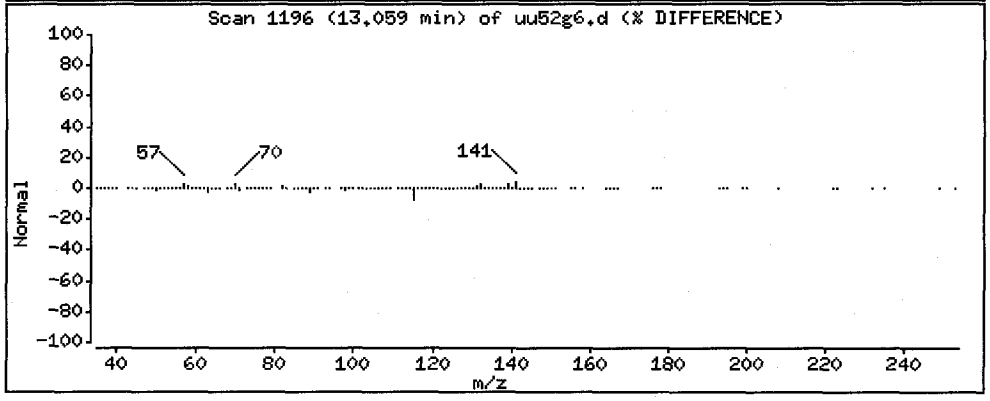












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

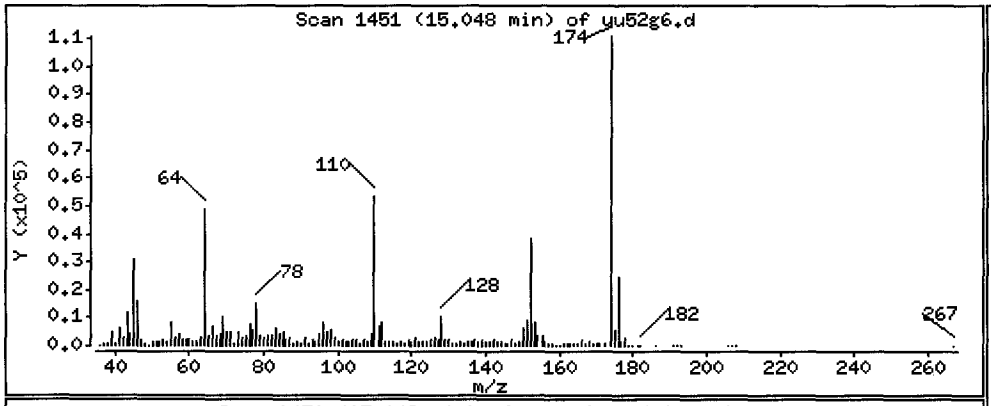
Client ID: MS006-SS-120515 Instrument: nt10.i

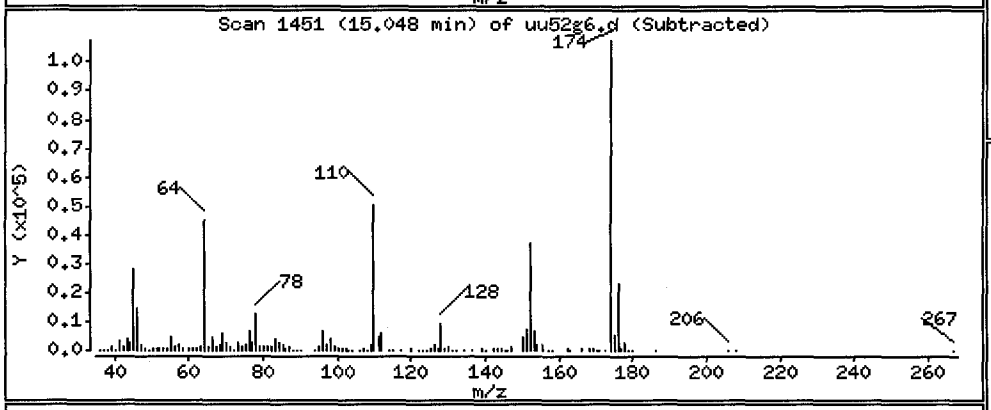
Sample Info: UU52G,6

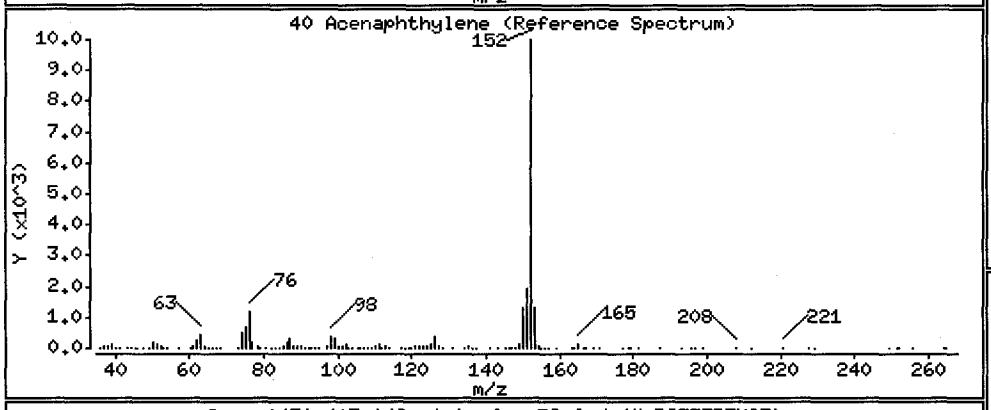
Volume Injected (uL): 1.0 Operator: VTS/YZ

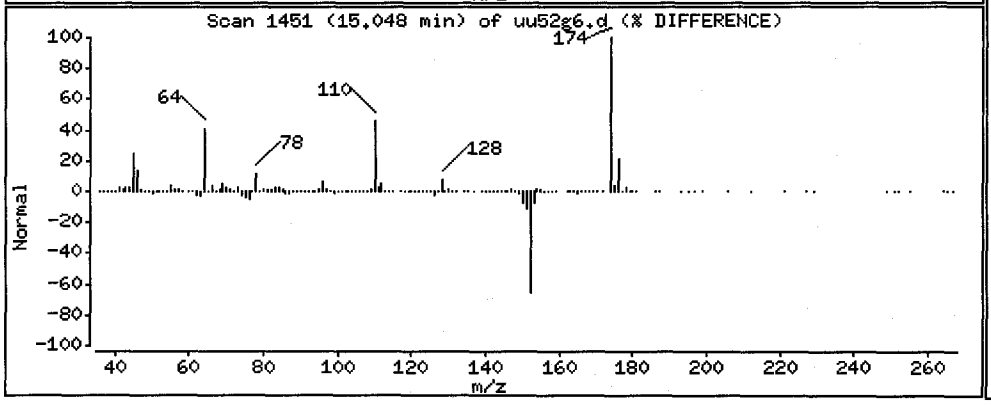
Column phase: ZB-5msi Column diameter: 0.25

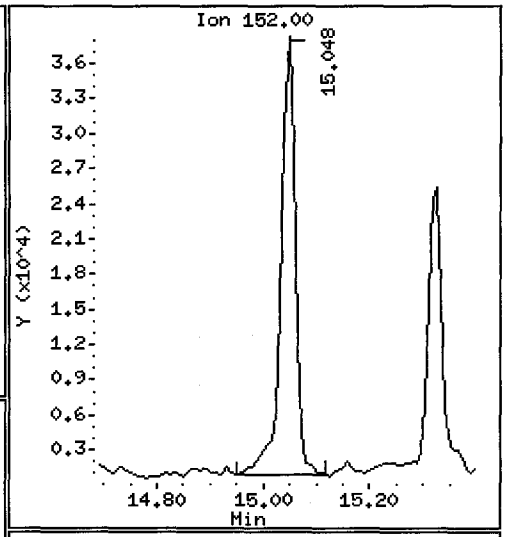
40 Acenaphthylene Concentration: 213.7 ug/kg

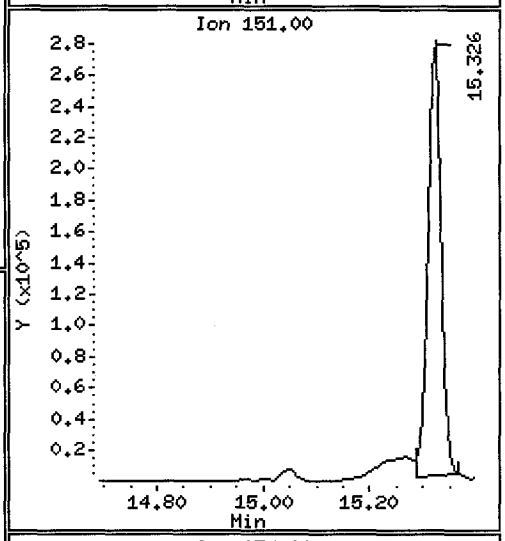


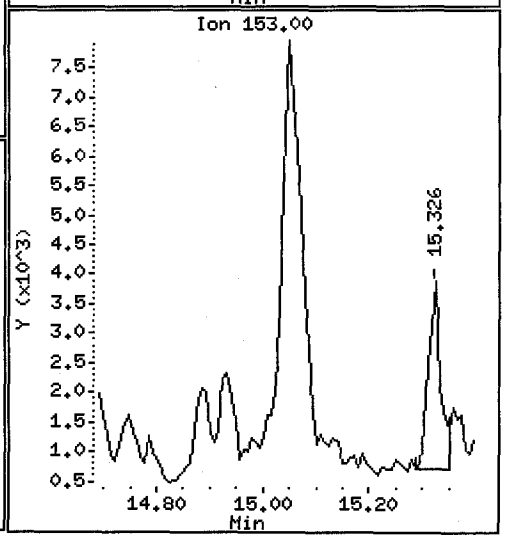












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

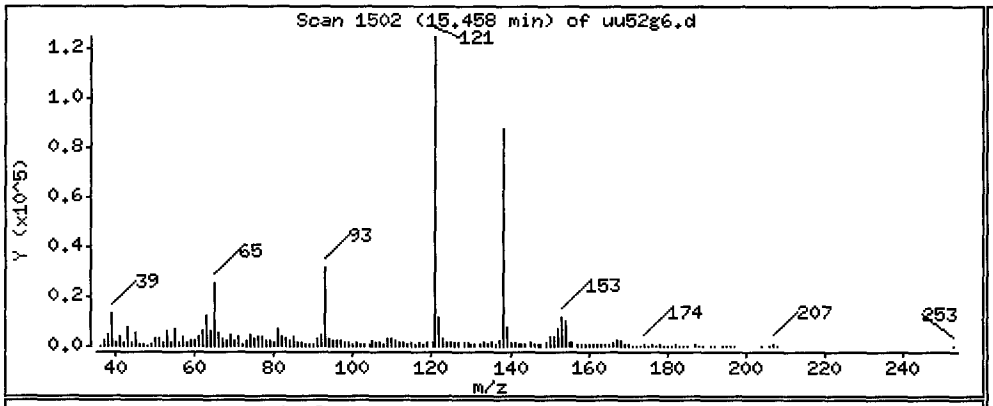
Operator: VTS/YZ

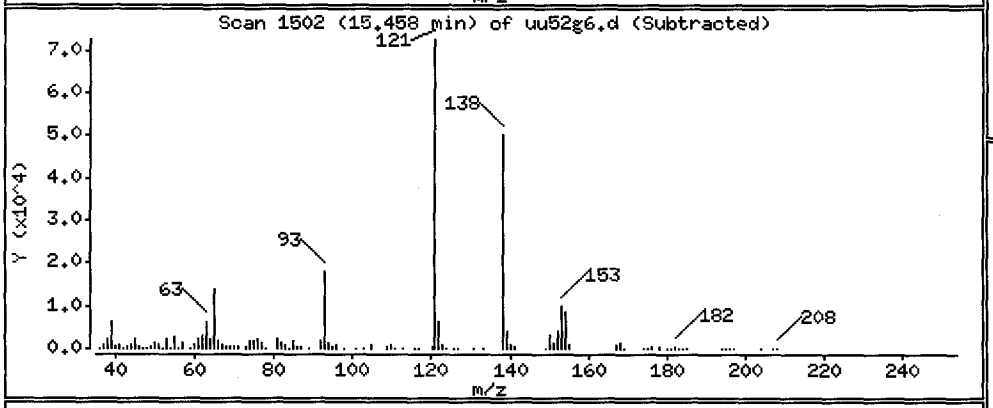
Column phase: ZB-5msi

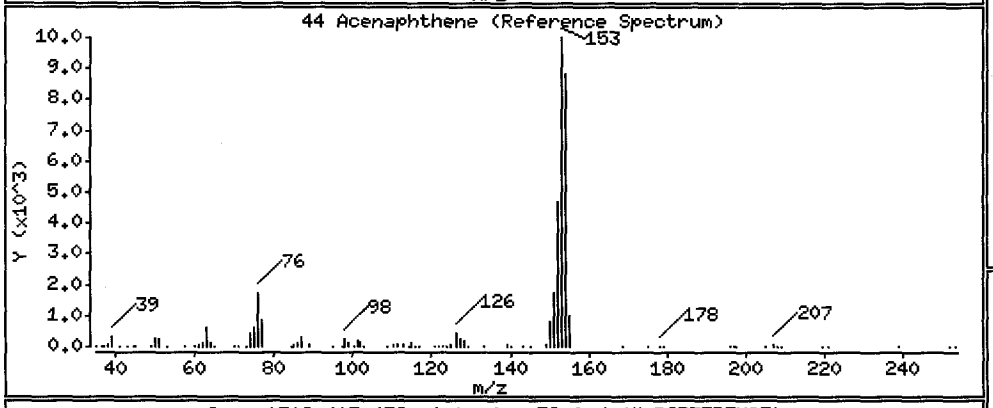
Column diameter: 0.25

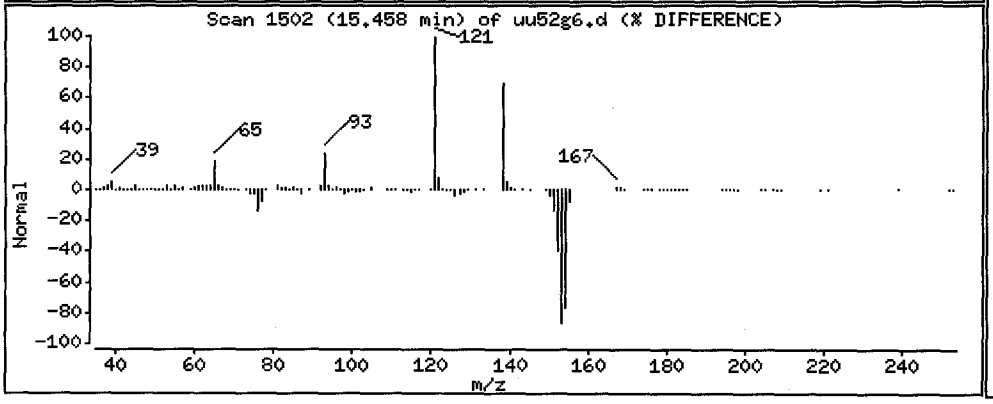
44 Acenaphthene

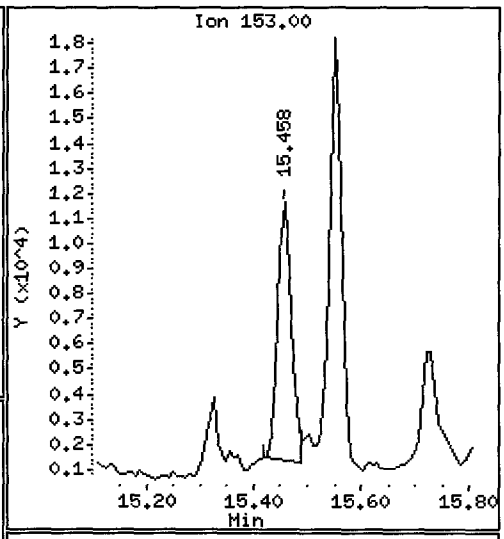
Concentration: 89.10 ug/kg

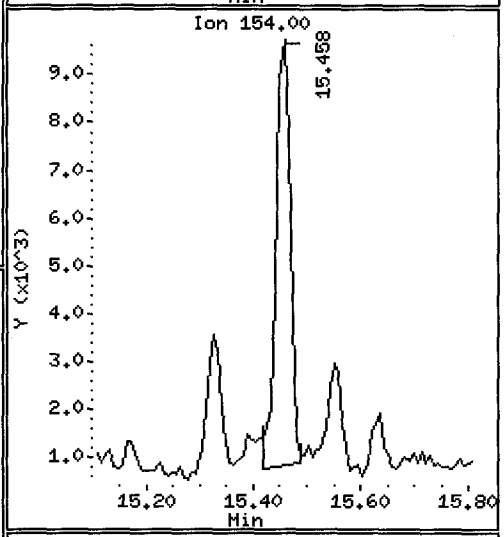


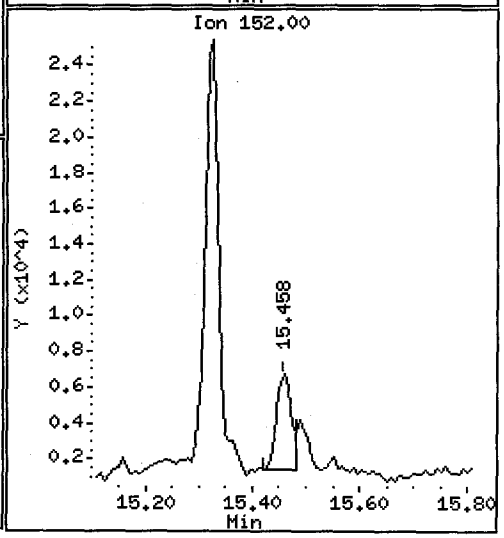












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

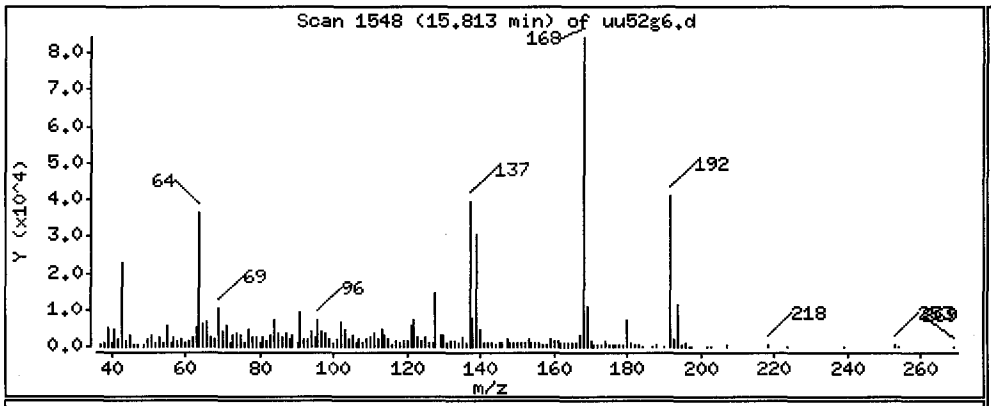
Operator: VTS/YZ

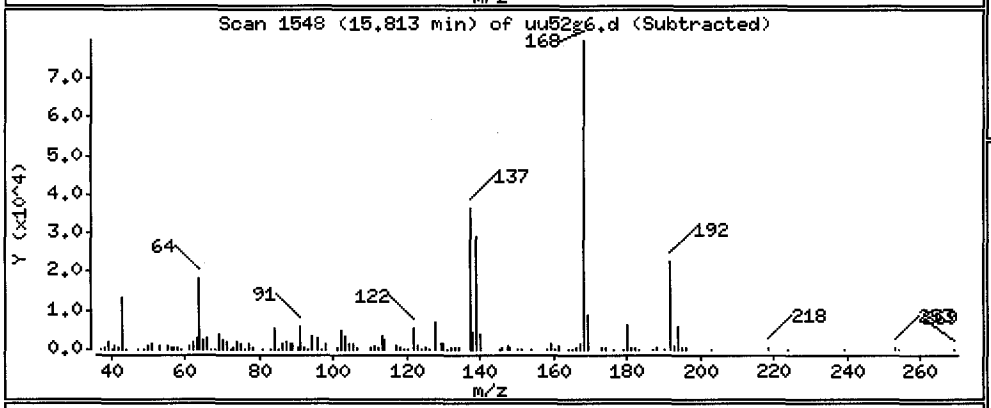
Column phase: ZB-5msi

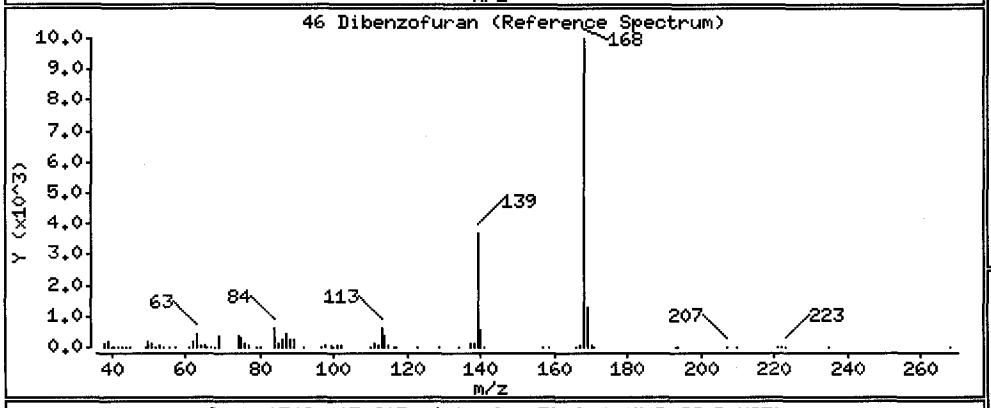
Column diameter: 0.25

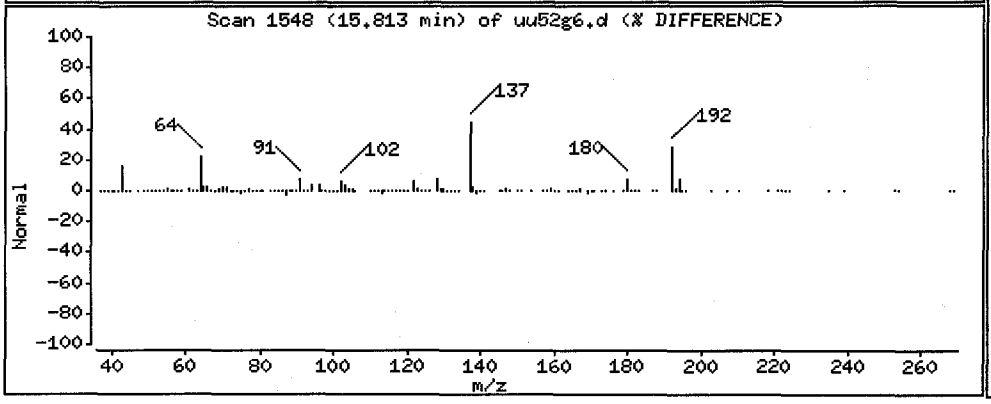
46 Dibenzofuran

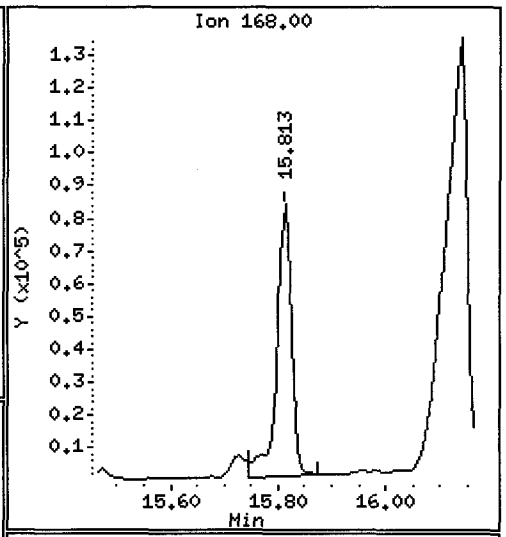
Concentration: 536.2 ug/kg

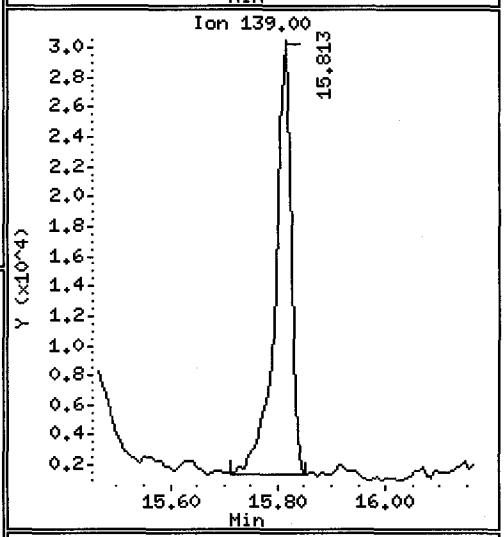


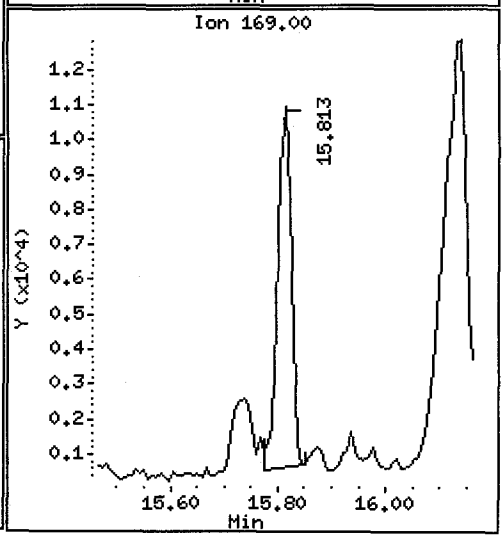












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

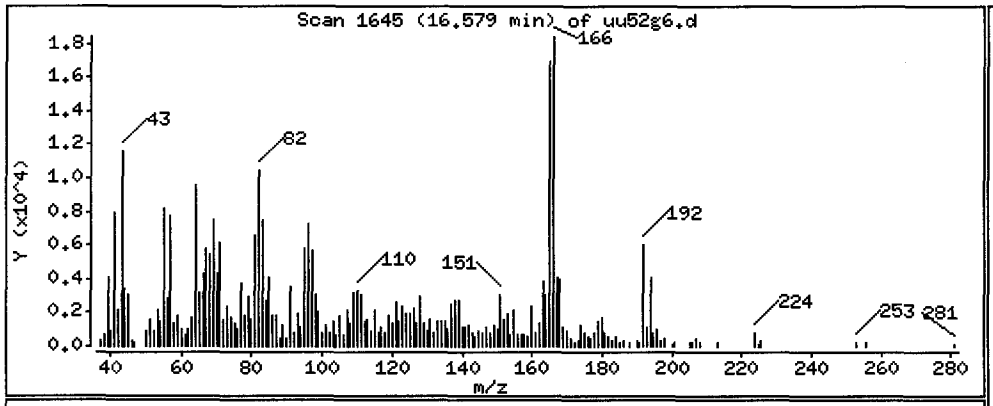
Operator: VTS/YZ

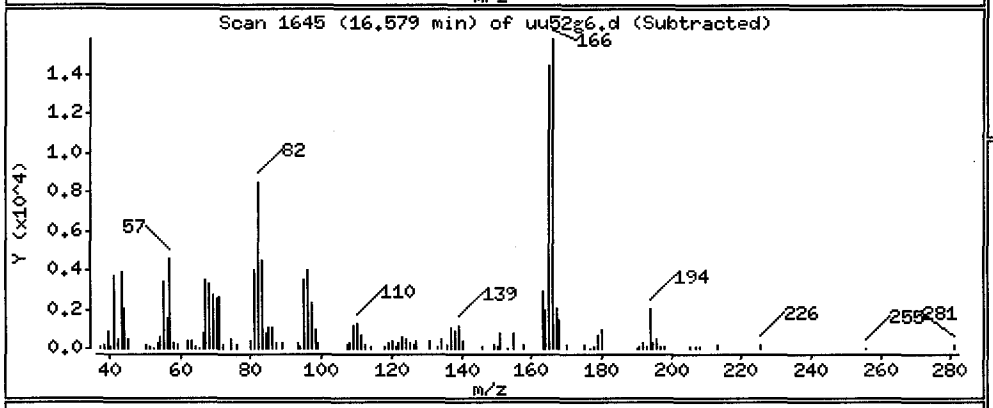
Column phase: ZB-5msi

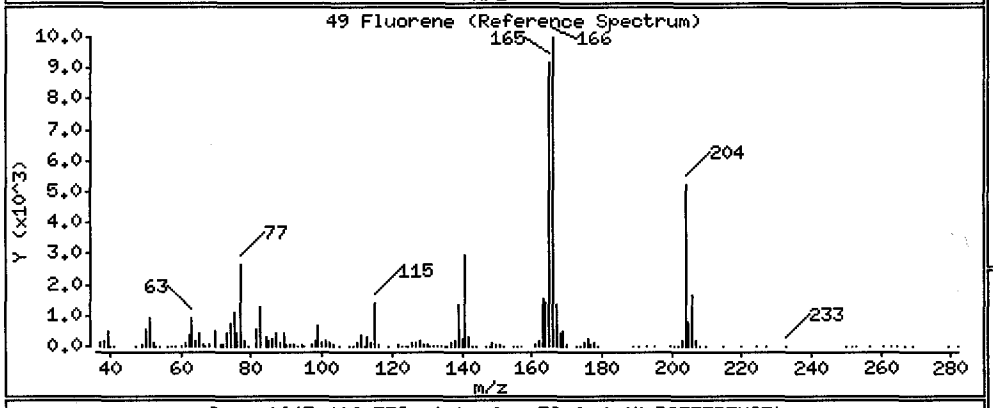
Column diameter: 0.25

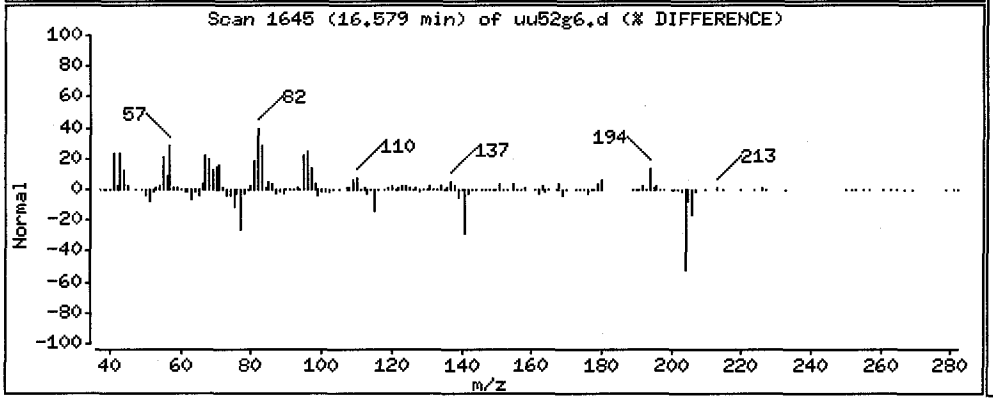
49 Fluorene

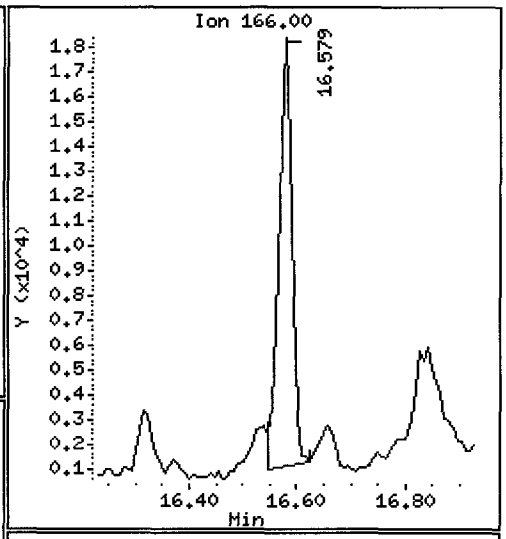
Concentration: 133.5 ug/kg

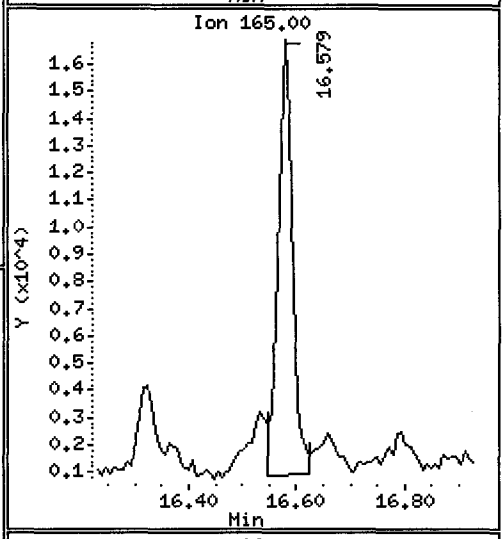


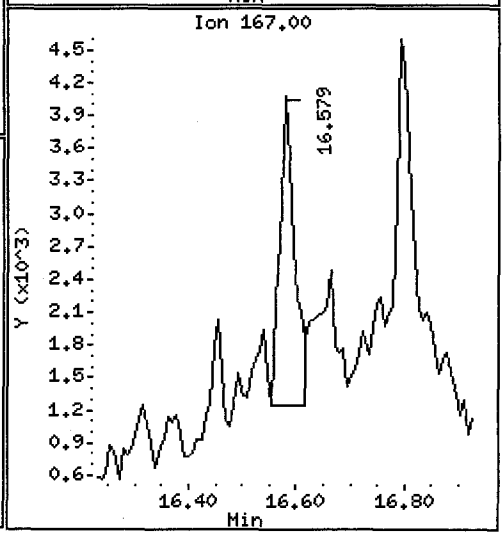












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

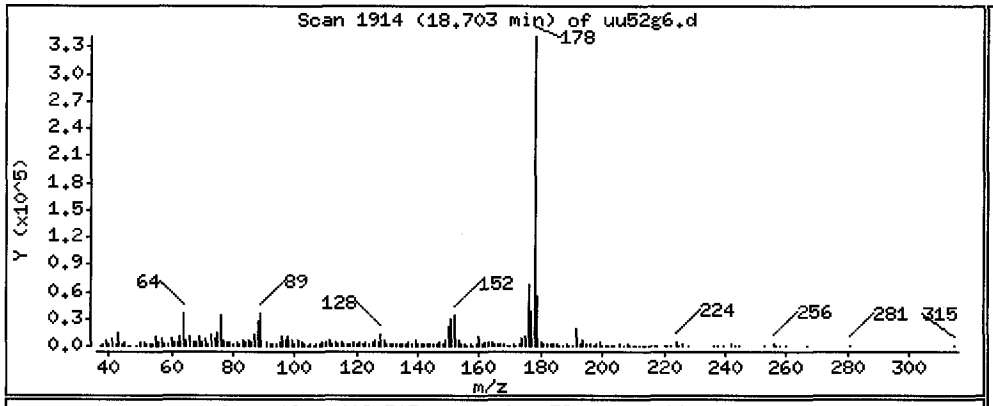
Operator: VTS/YZ

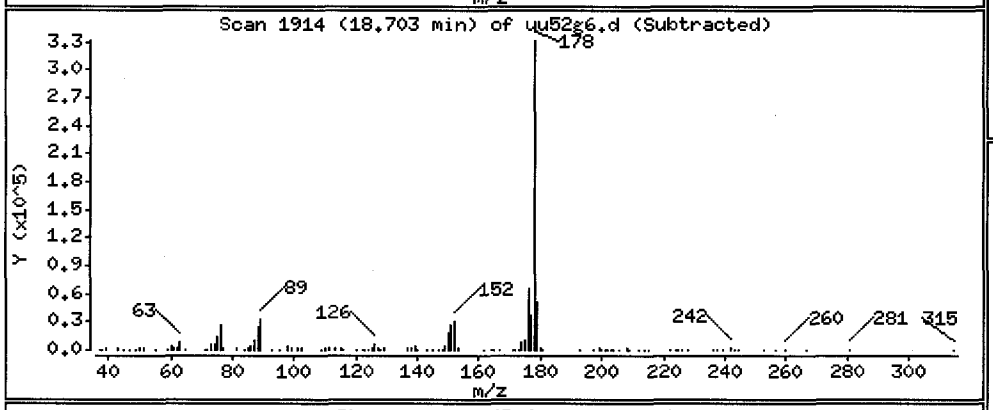
Column phase: ZB-5msi

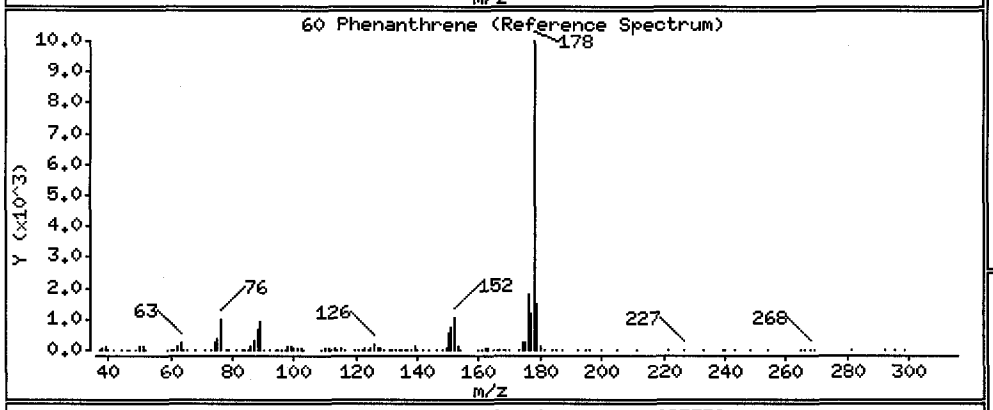
Column diameter: 0.25

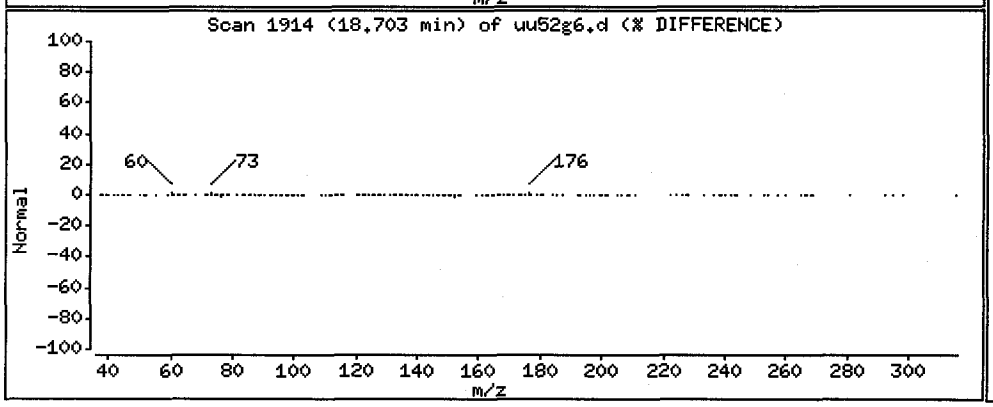
60 Phenanthrene

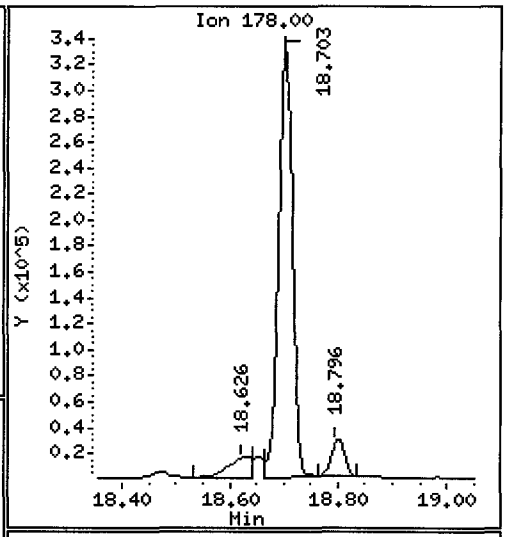
Concentration: 2165 ug/kg

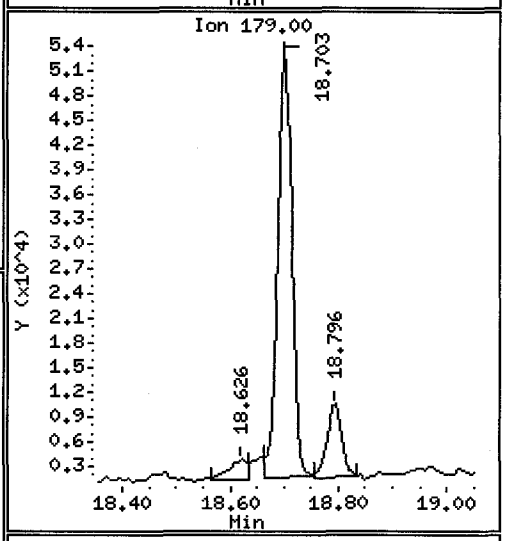


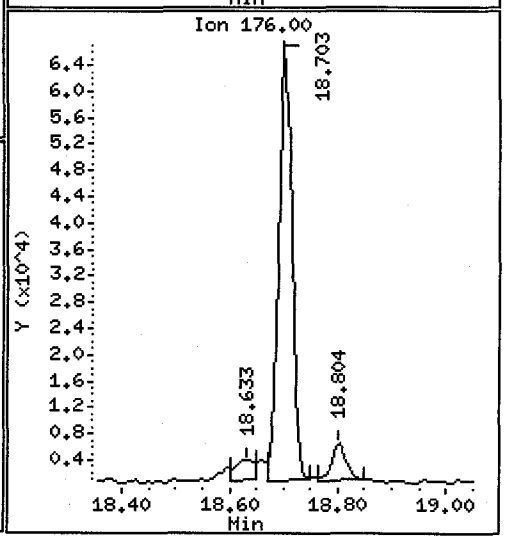












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

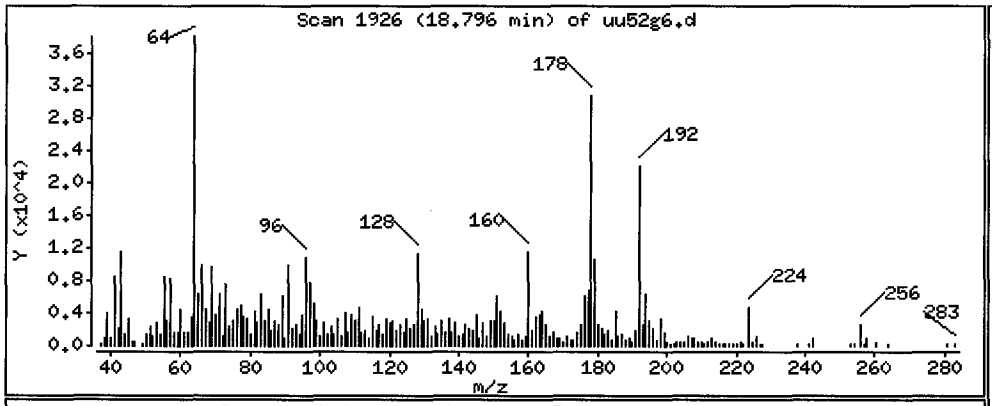
Operator: VTS/YZ

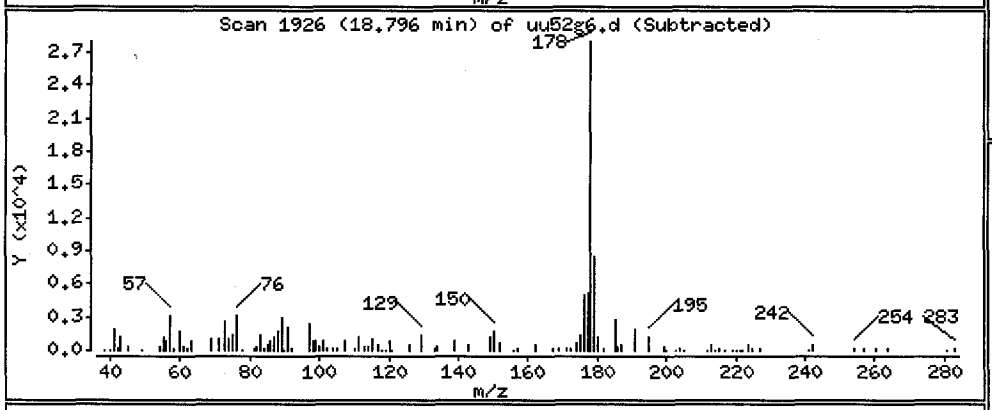
Column phase: ZB-5msi

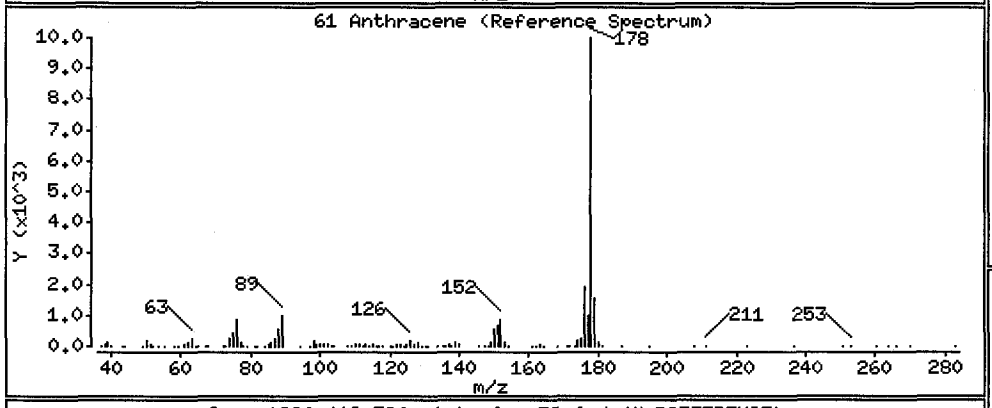
Column diameter: 0.25

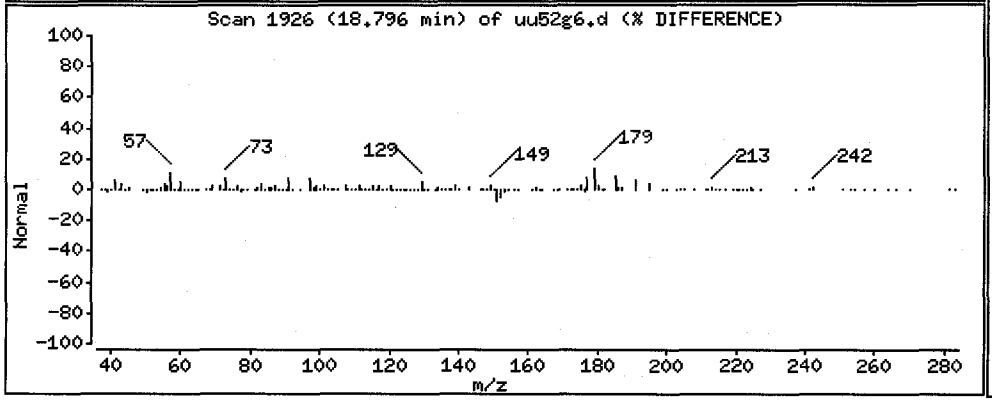
61 Anthracene

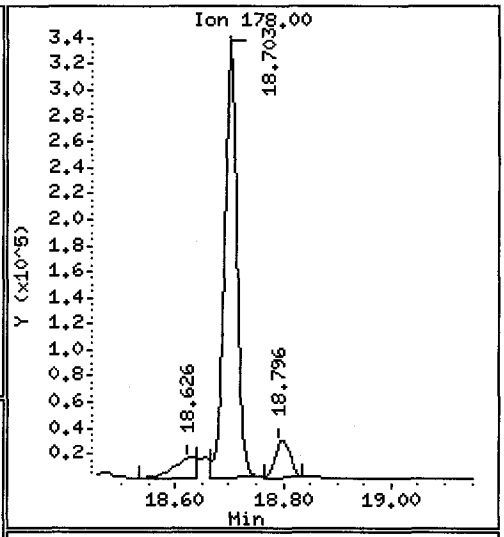
Concentration: 195.2 ug/kg

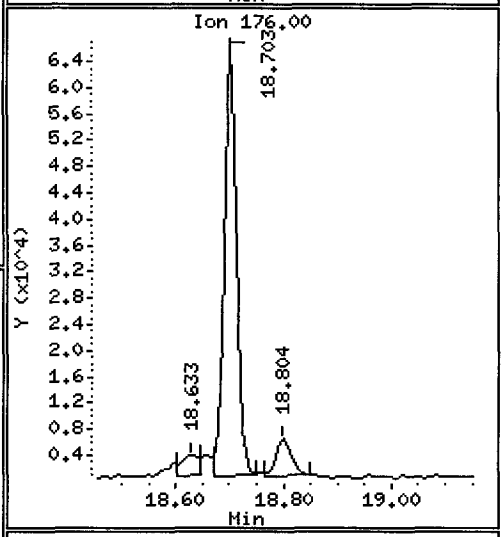


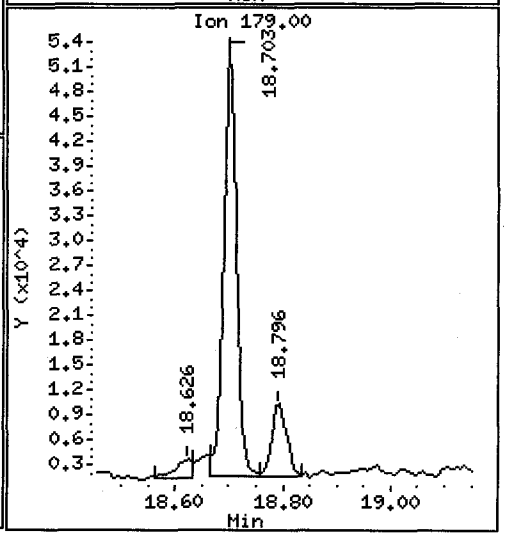












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

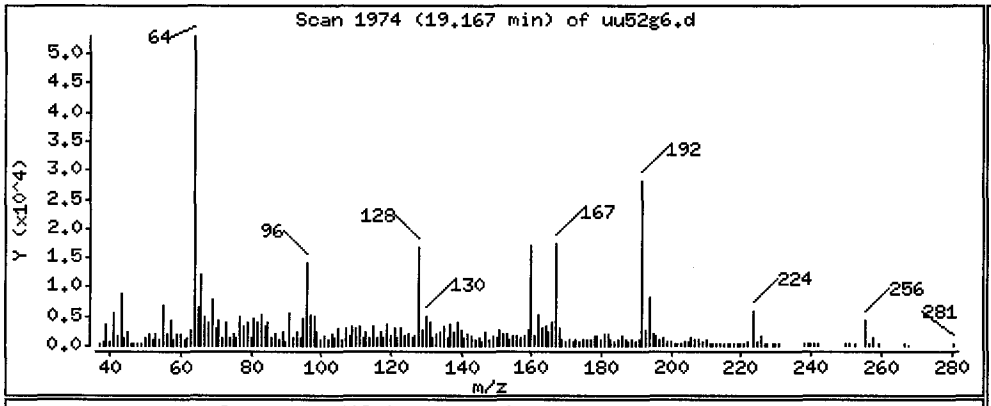
Client ID: MS006-SS-120515 Instrument: nt10.i

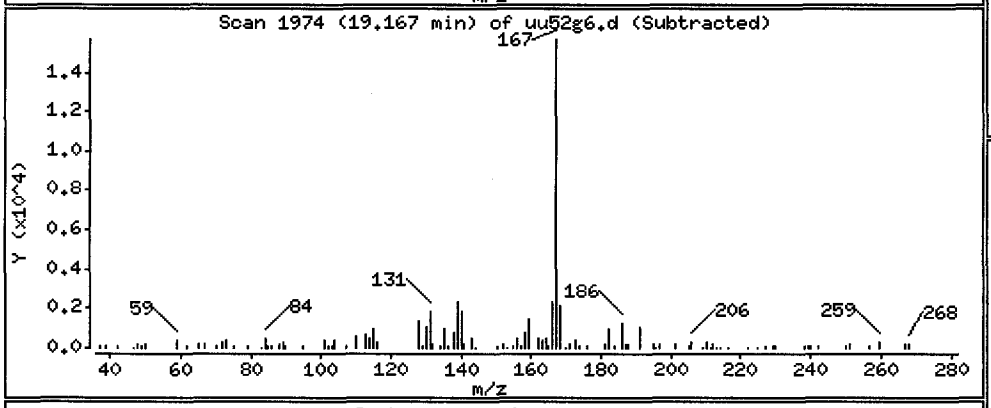
Sample Info: UU52G,6

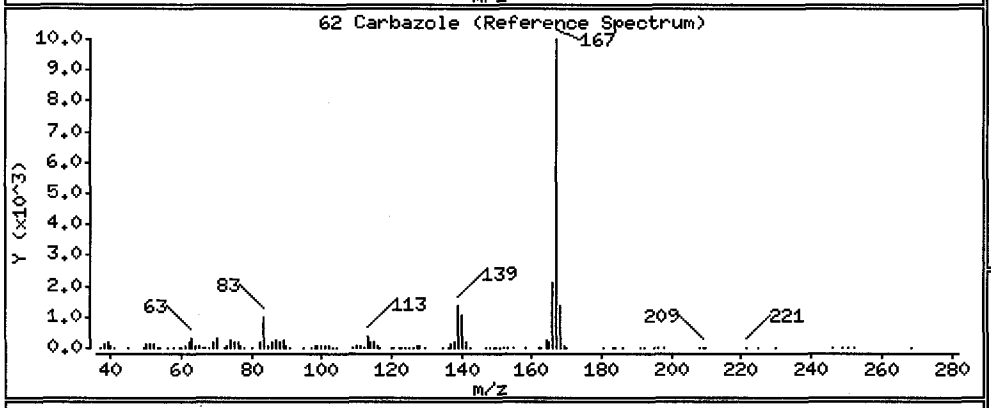
Volume Injected (uL): 1.0 Operator: VTS/YZ

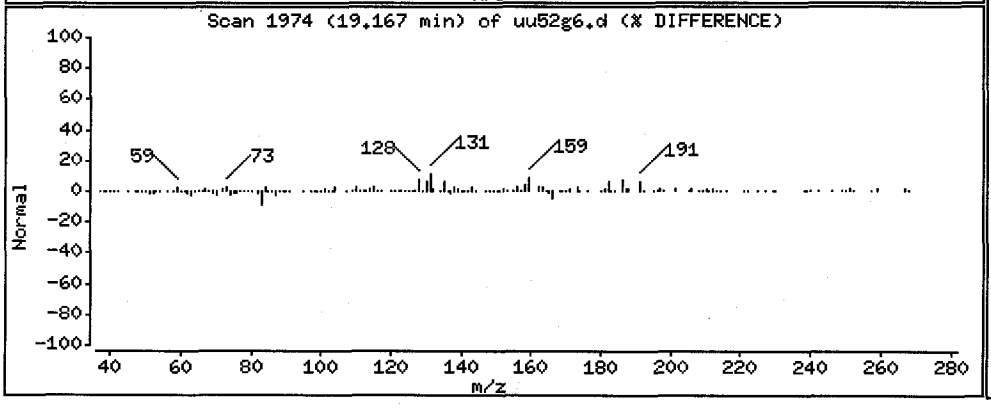
Column phase: ZB-5msi Column diameter: 0.25

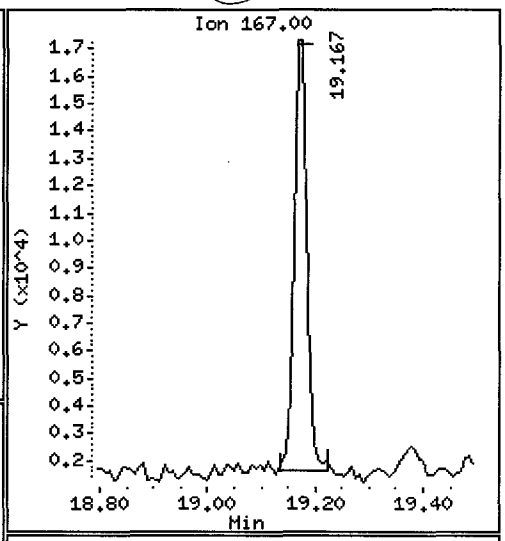
62 Carbazole Concentration: 109.1 ug/kg

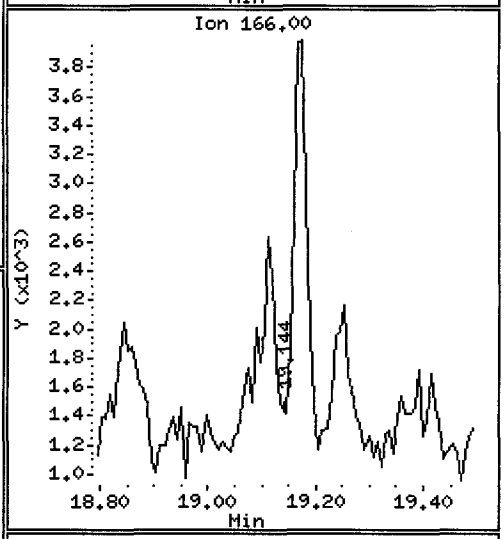


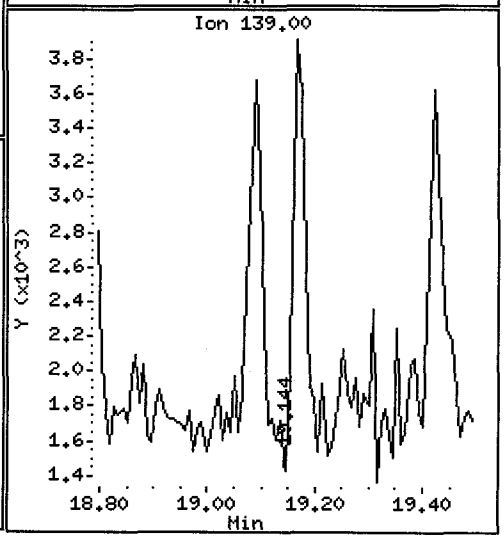












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

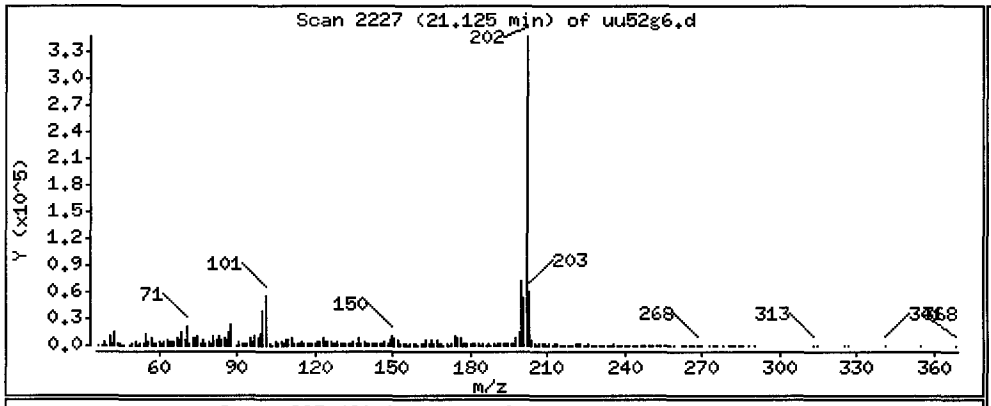
Client ID: MS006-SS-120515 Instrument: nt10.i

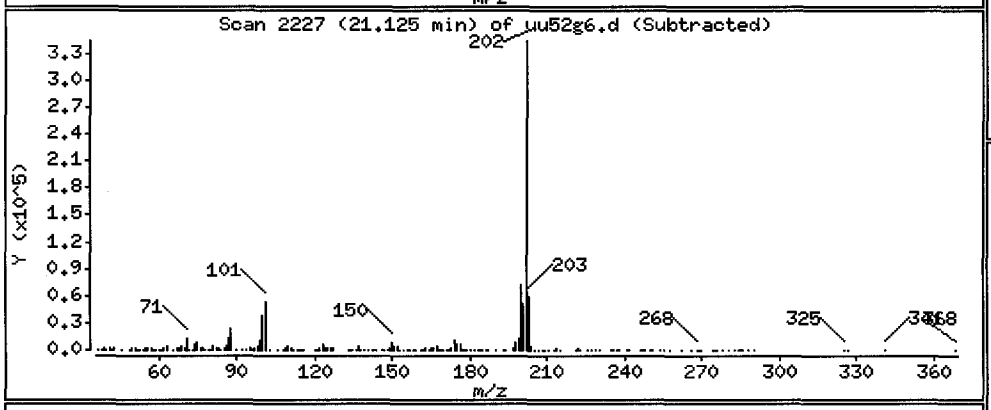
Sample Info: UU52G,6

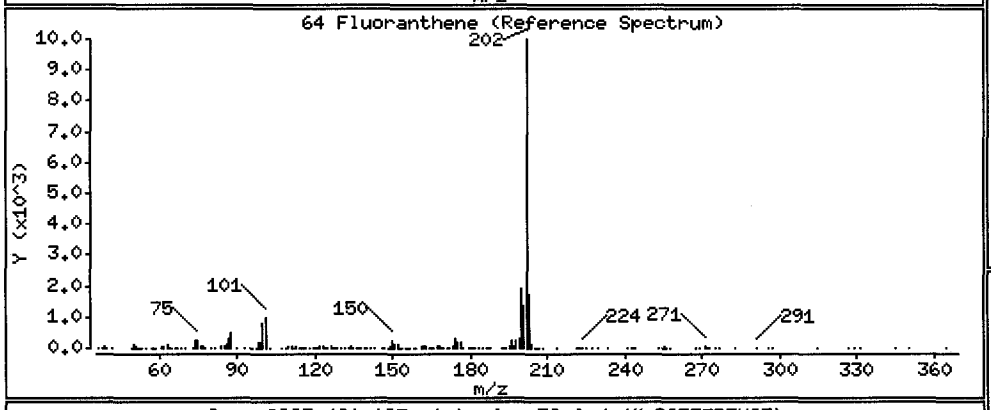
Volume Injected (uL): 1.0 Operator: VTS/YZ

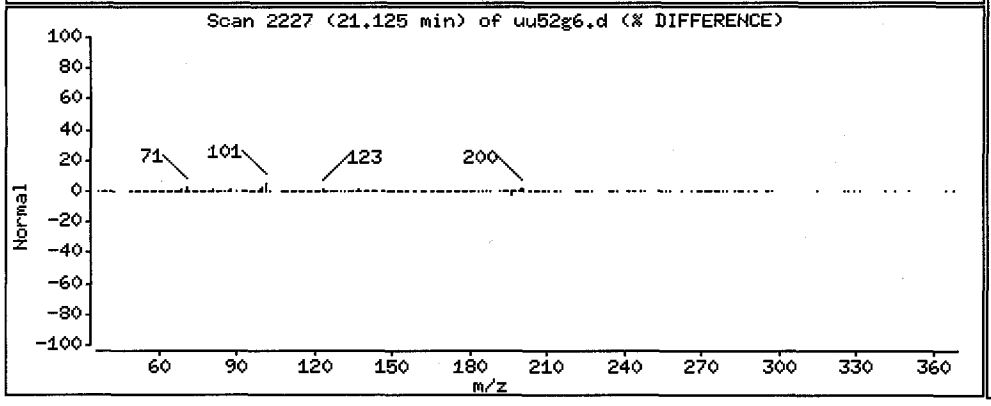
Column phase: ZB-5msi Column diameter: 0.25

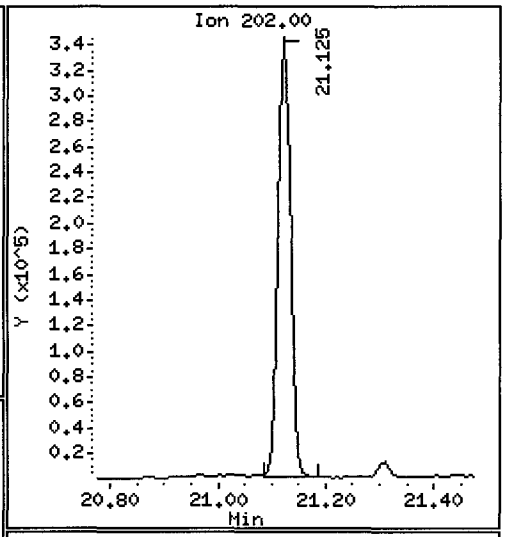
64 Fluoranthene Concentration: 1786 ug/kg

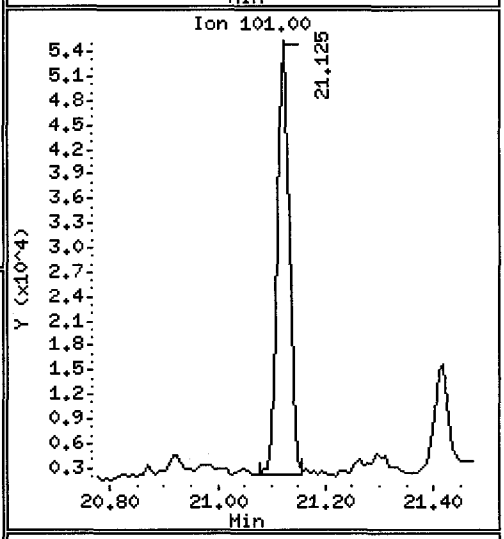


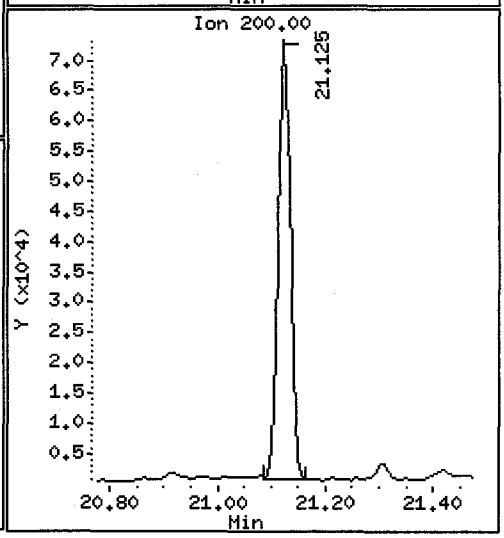












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

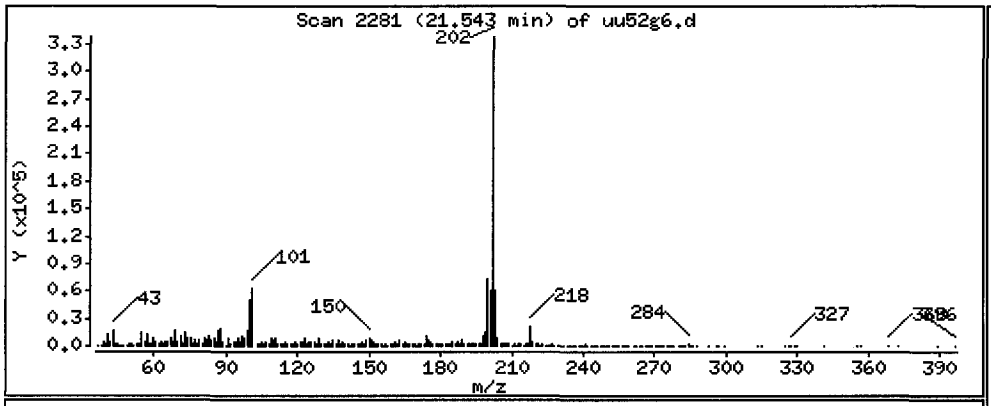
Operator: VTS/YZ

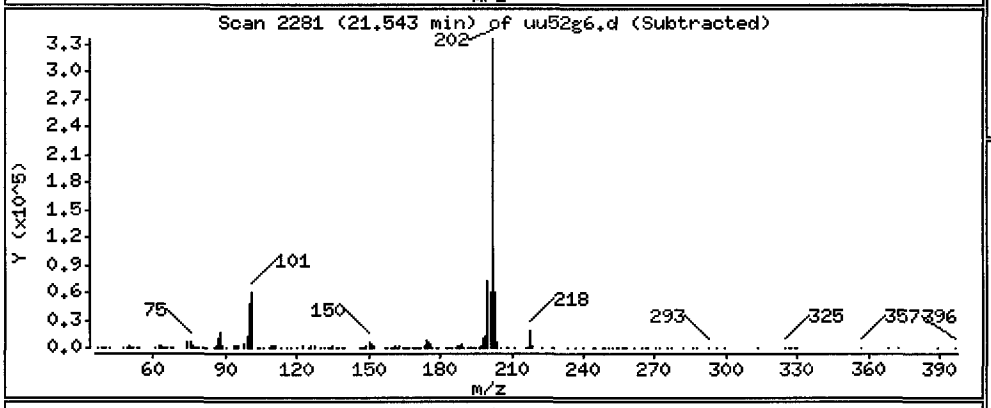
Column phase: ZB-5msi

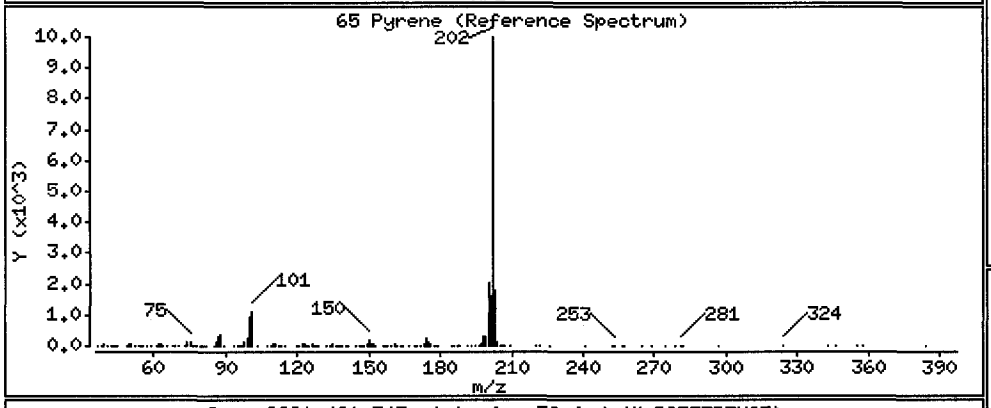
Column diameter: 0.25

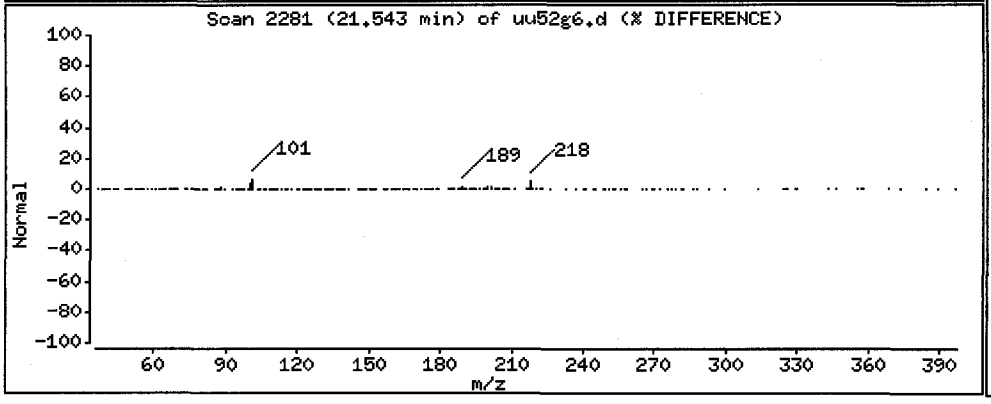
65 Pyrene

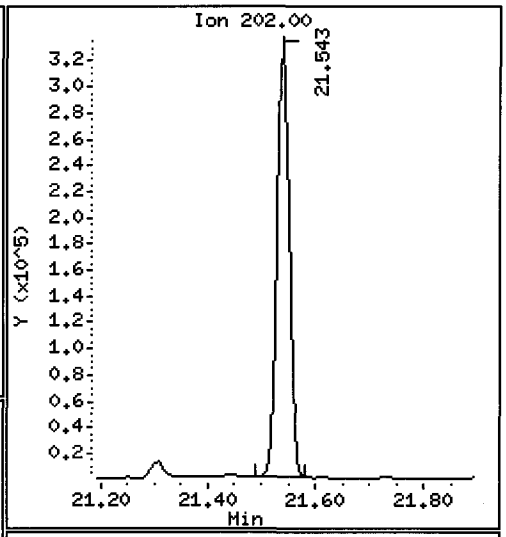
Concentration: 1340 ug/kg

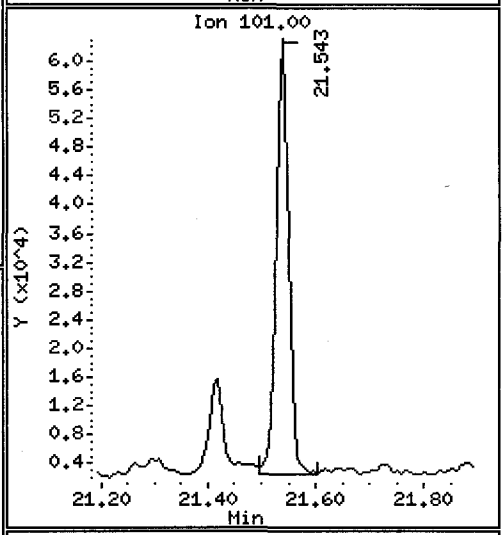


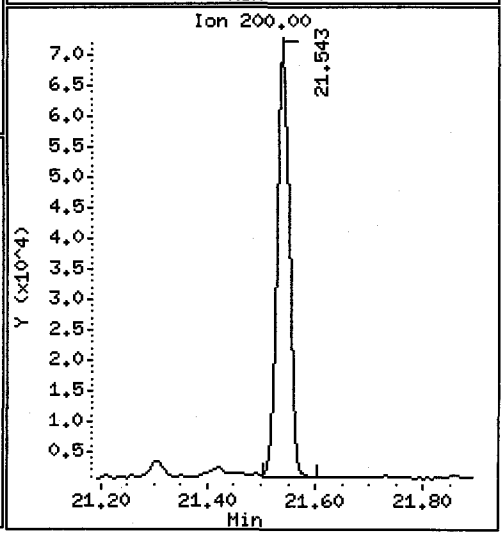












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

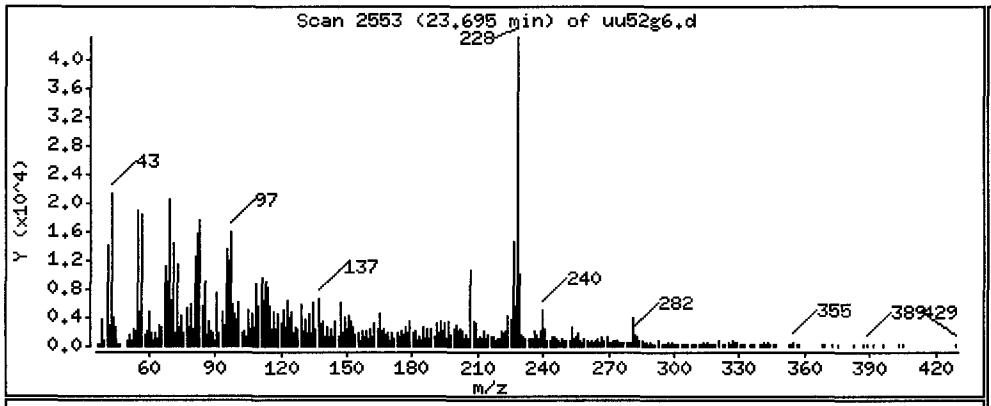
Client ID: MS006-SS-120515 Instrument: nt10.i

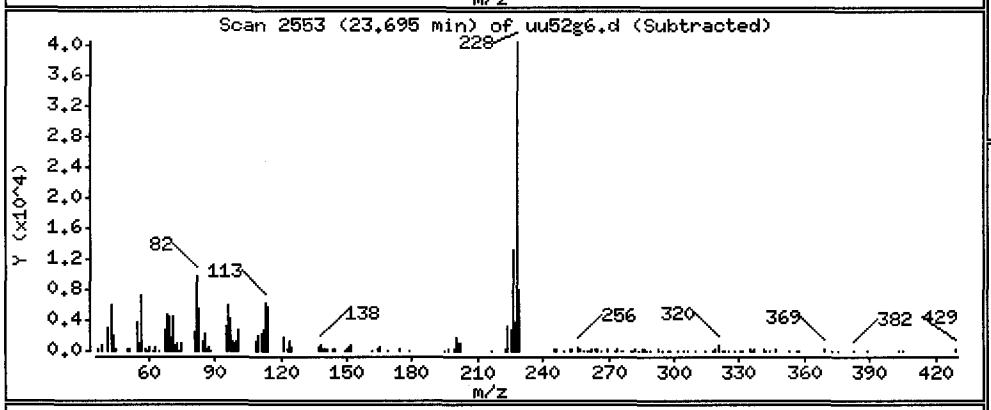
Sample Info: UU52G,6

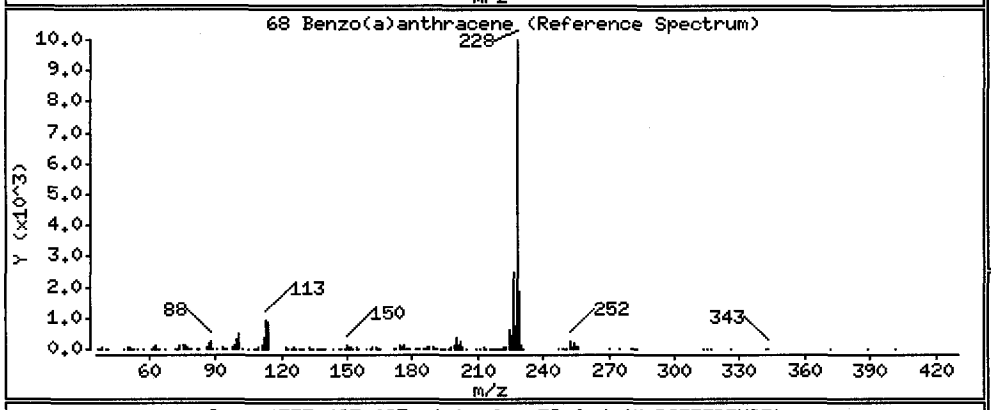
Volume Injected (uL): 1.0 Operator: VTS/YZ

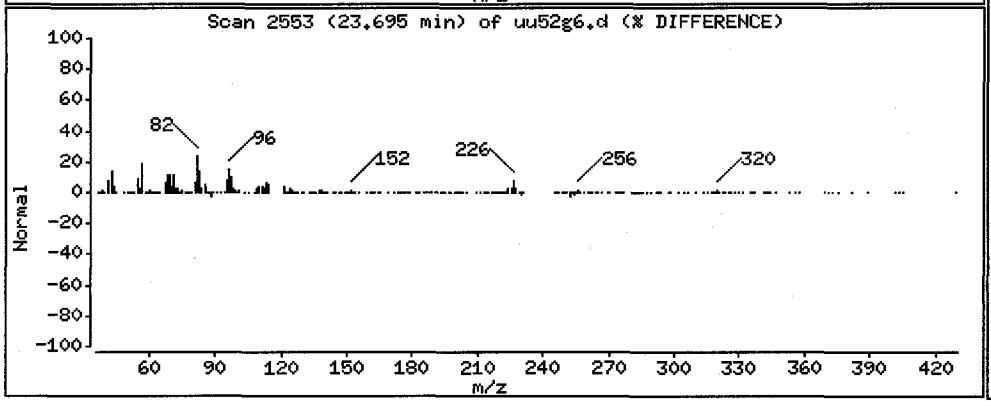
Column phase: ZB-5msi Column diameter: 0.25

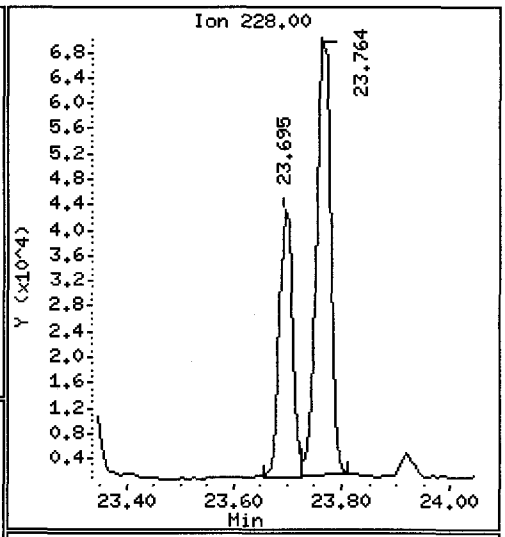
68 Benzo(a)anthracene Concentration: 207.2 ug/kg

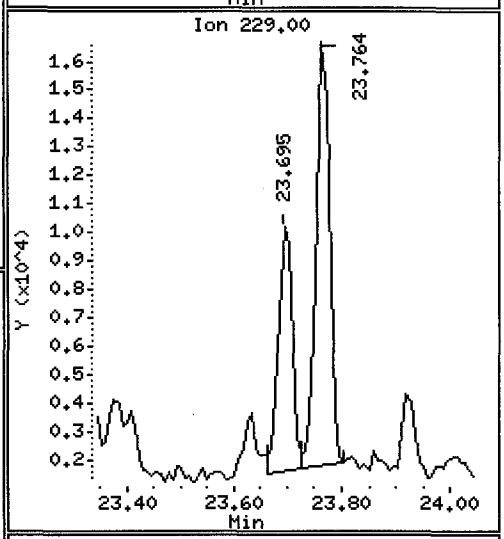


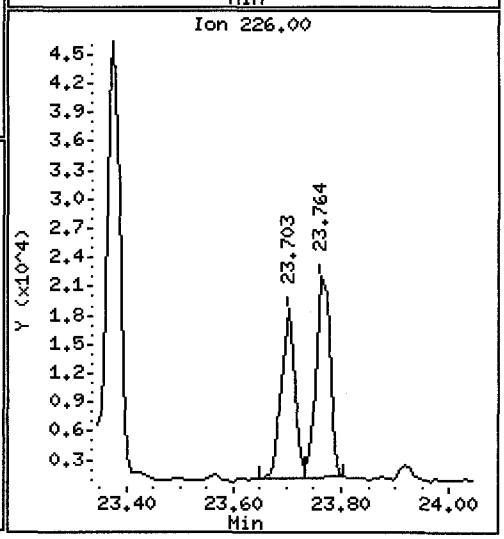












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

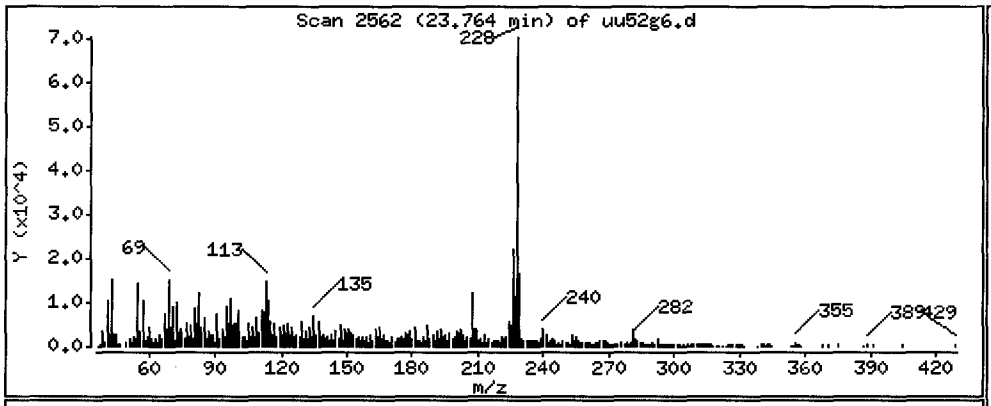
Client ID: MS006-SS-120515 Instrument: nt10.i

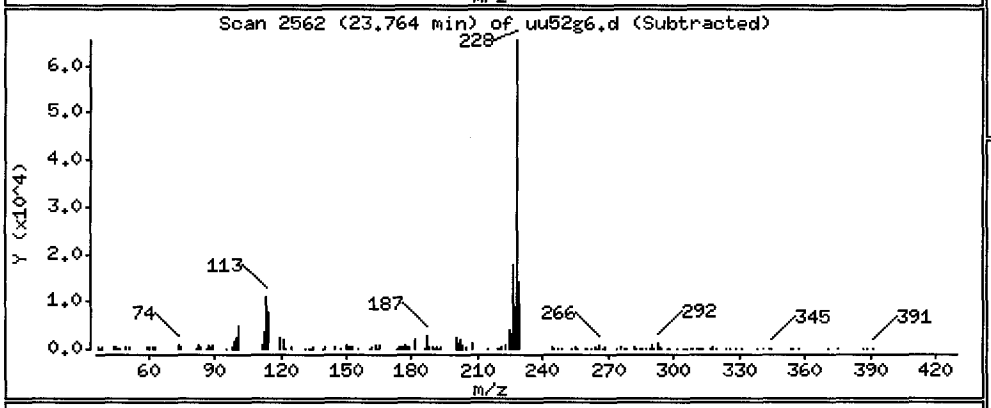
Sample Info: UU52G,6

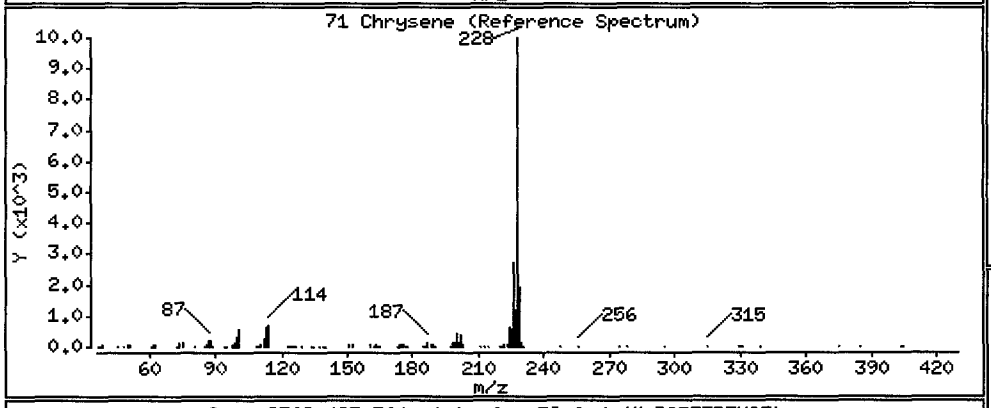
Volume Injected (uL): 1.0 Operator: VTS/YZ

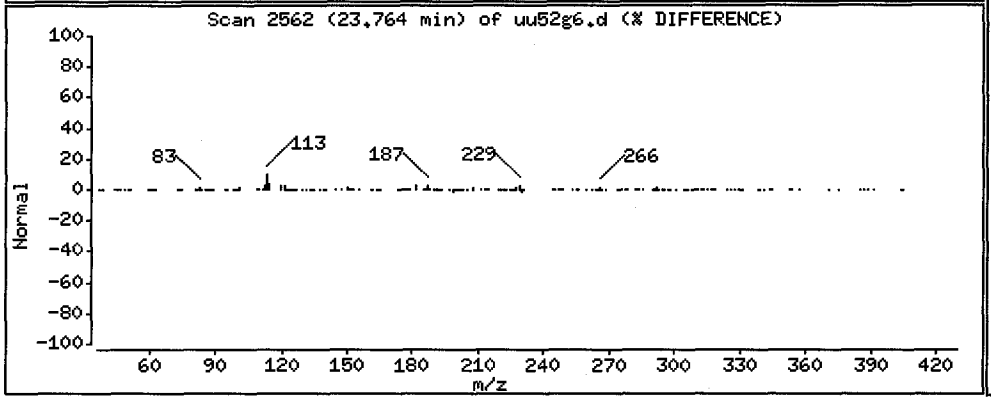
Column phase: ZB-5msi Column diameter: 0.25

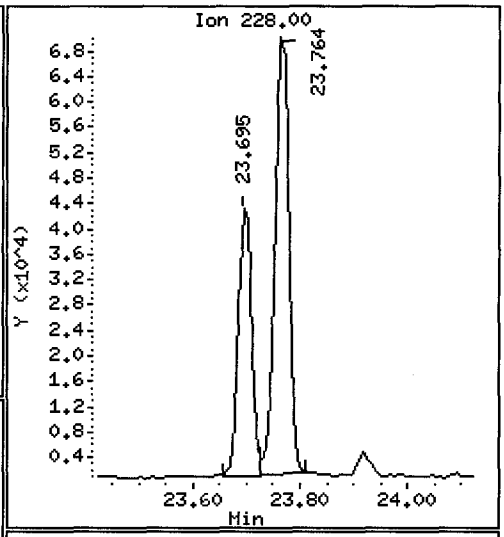
71 Chrysene Concentration: 399.8 ug/kg

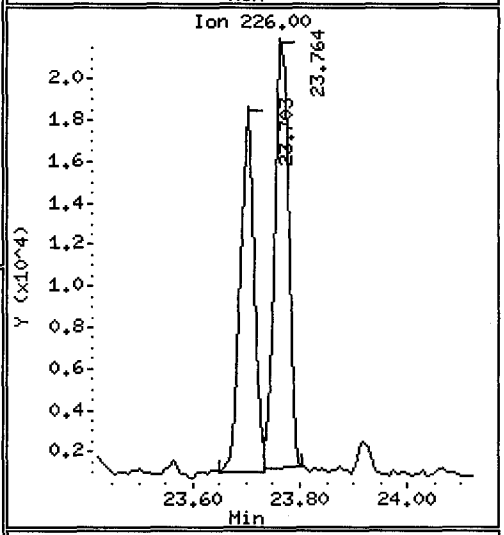


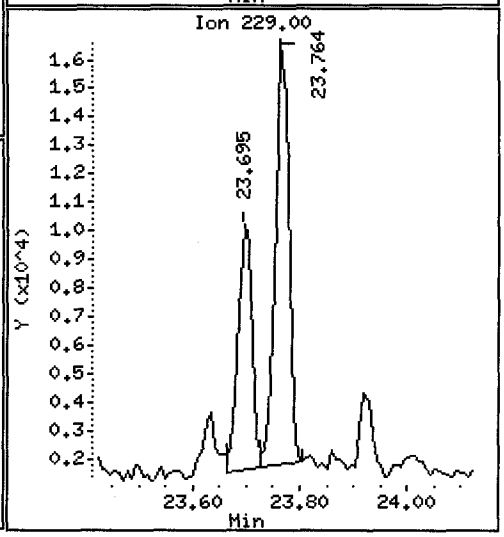












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

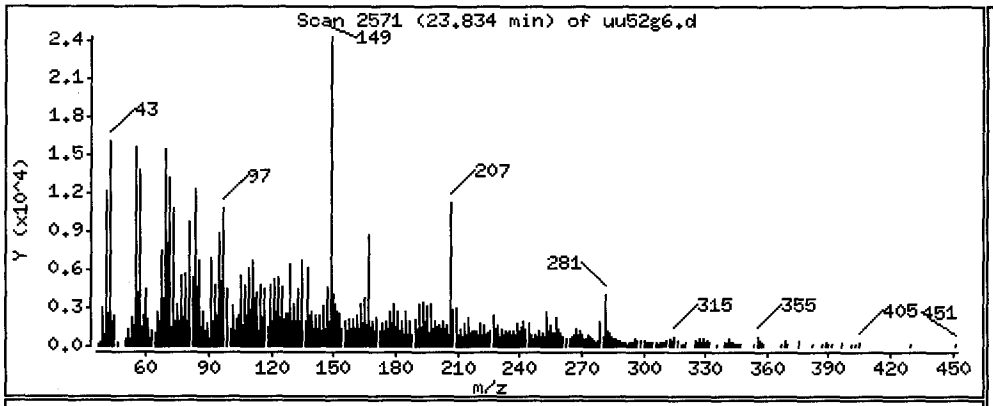
Operator: VTS/YZ

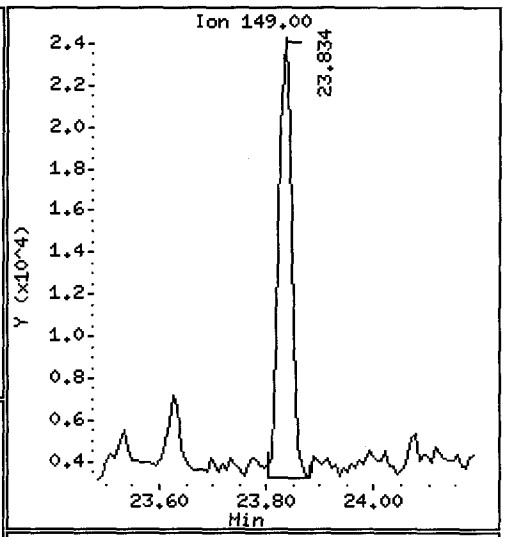
Column phase: ZB-5msi

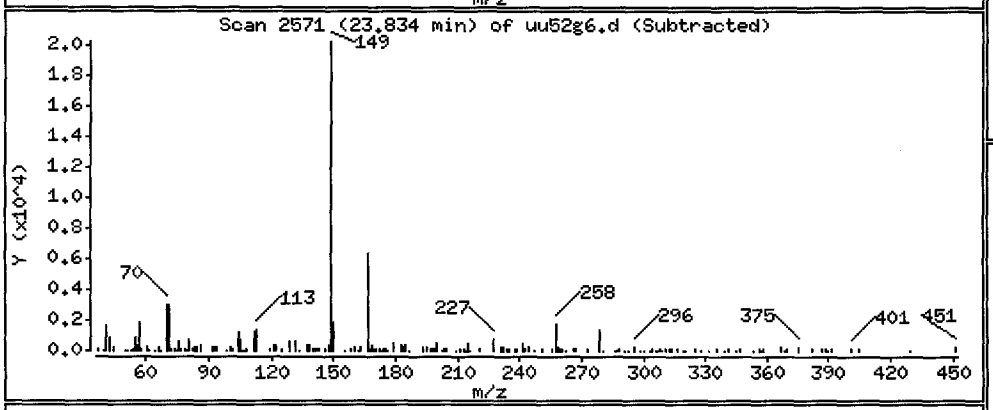
Column diameter: 0.25

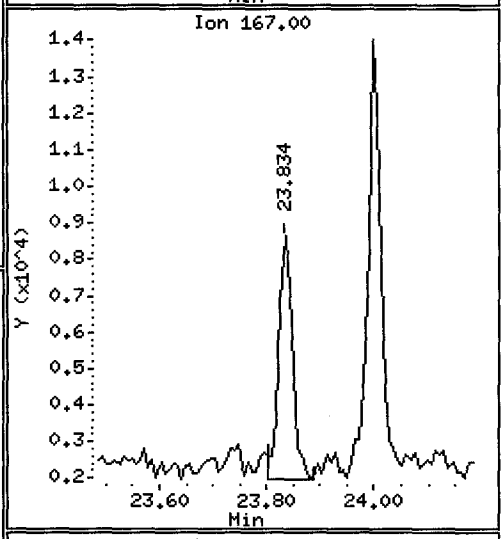
72 bis(2-Ethylhexyl)phthalate

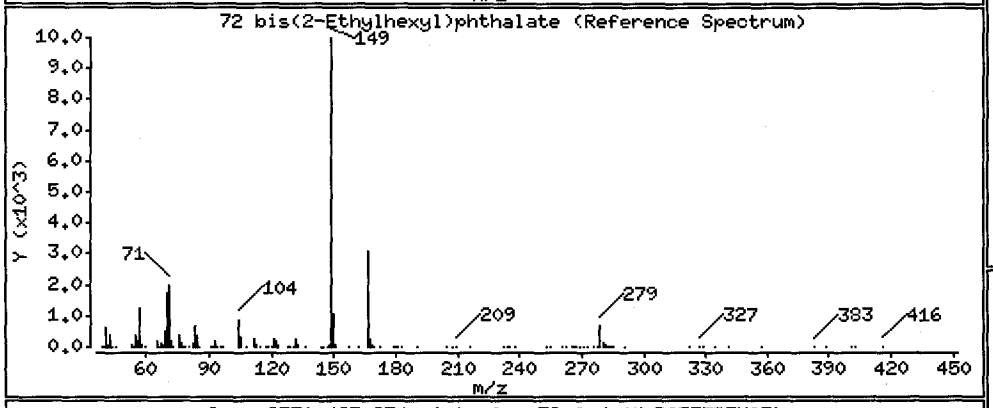
Concentration: 131.6 ug/kg

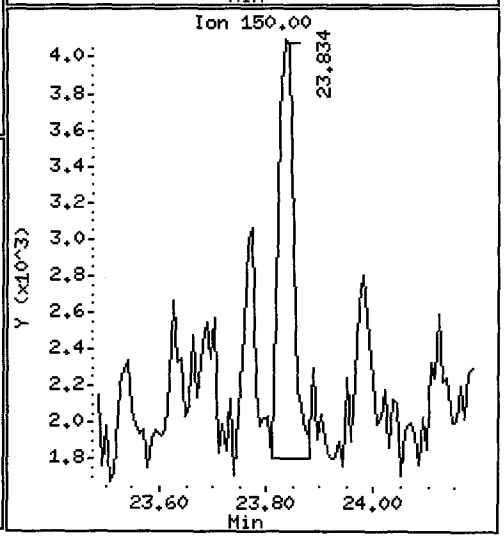


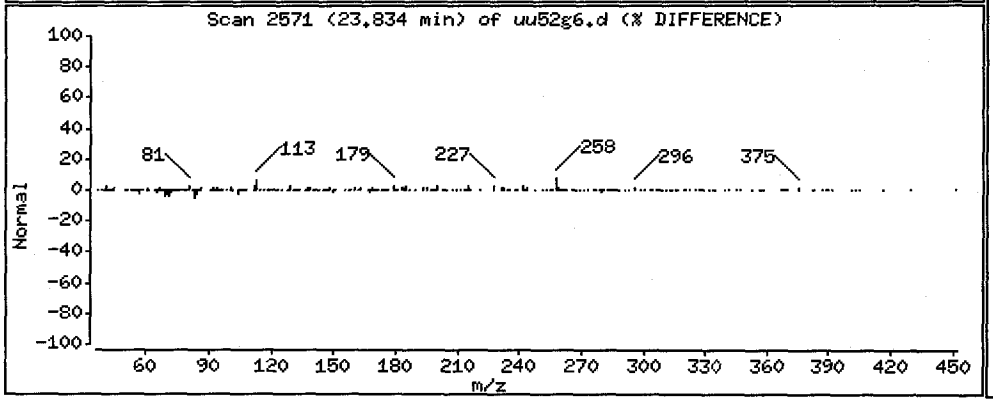












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

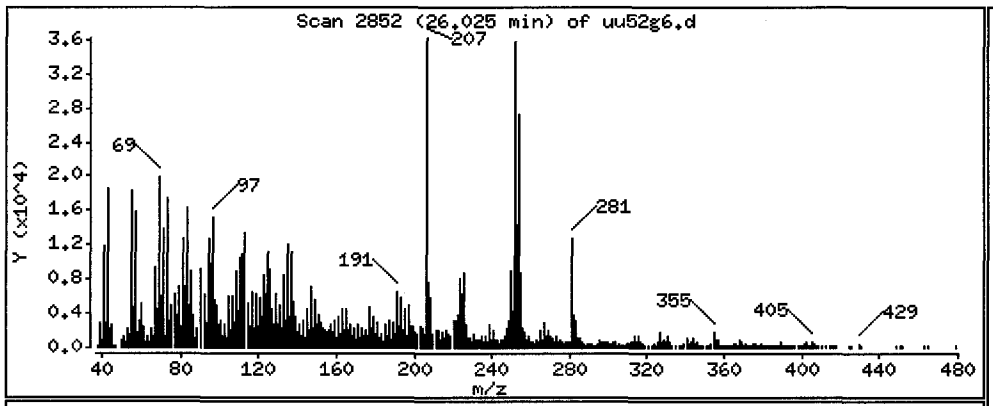
Operator: VTS/YZ

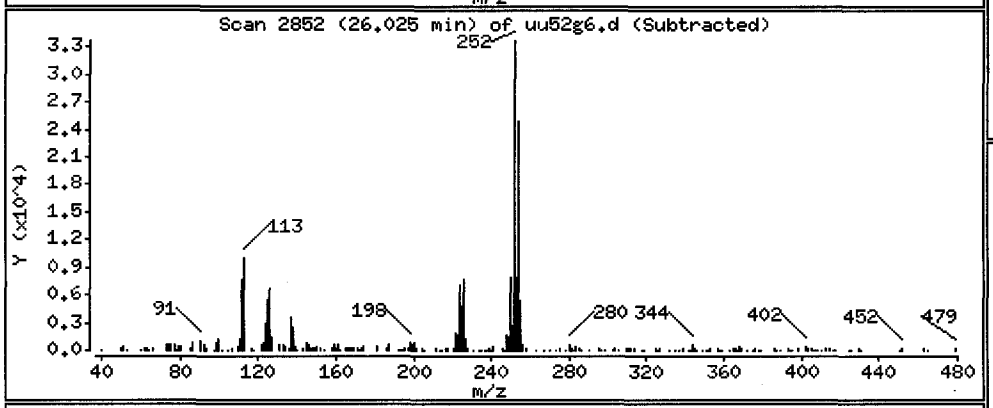
Column phase: ZB-5msi

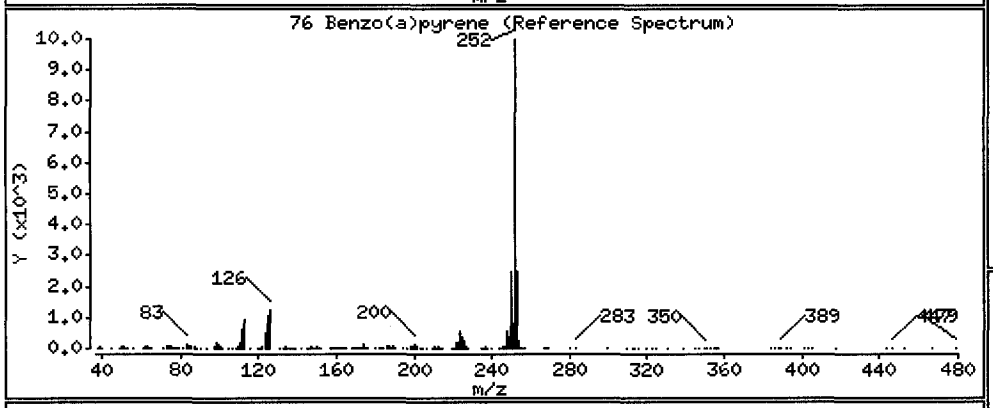
Column diameter: 0.25

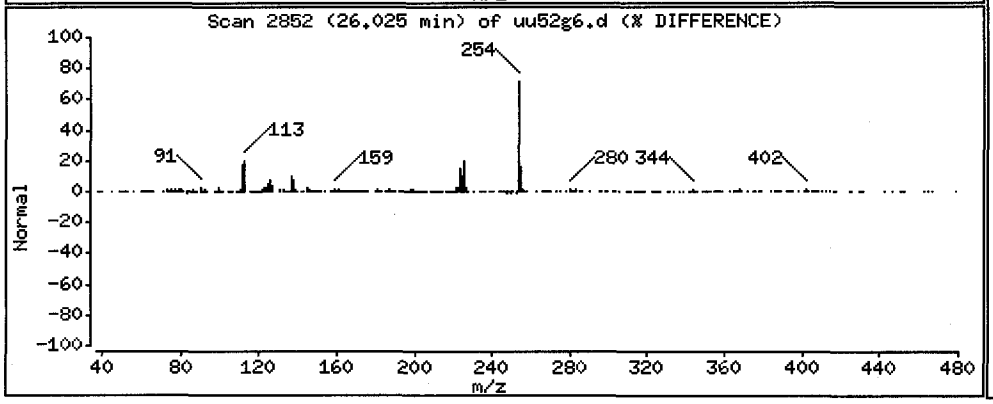
76 Benzo(a)pyrene

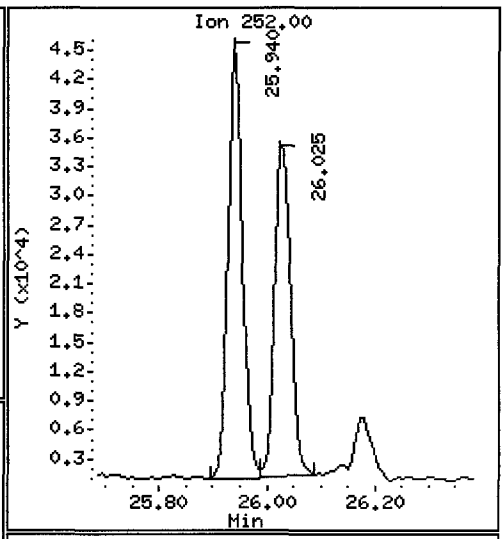
Concentration: 238.5 ug/kg

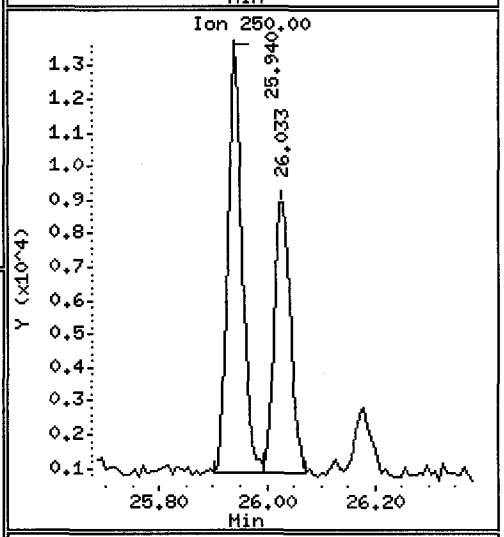


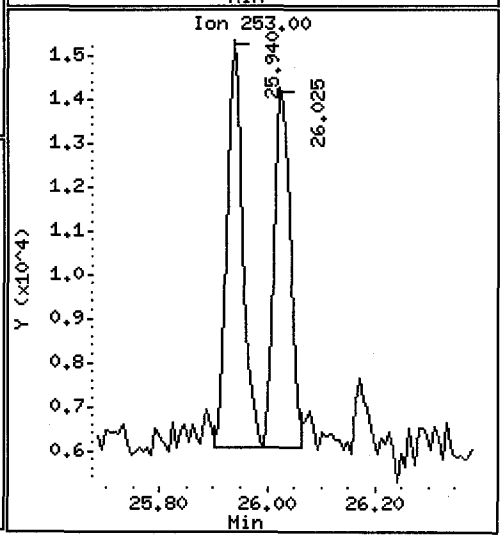












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

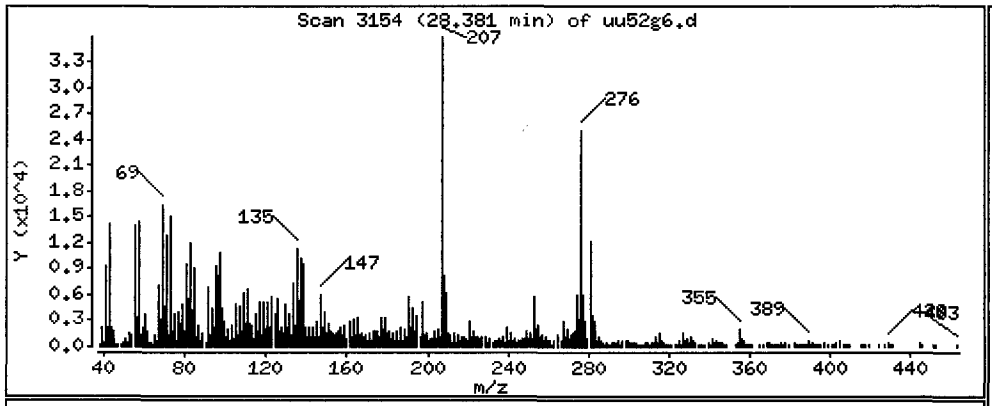
Client ID: MS006-SS-120515 Instrument: nt10.i

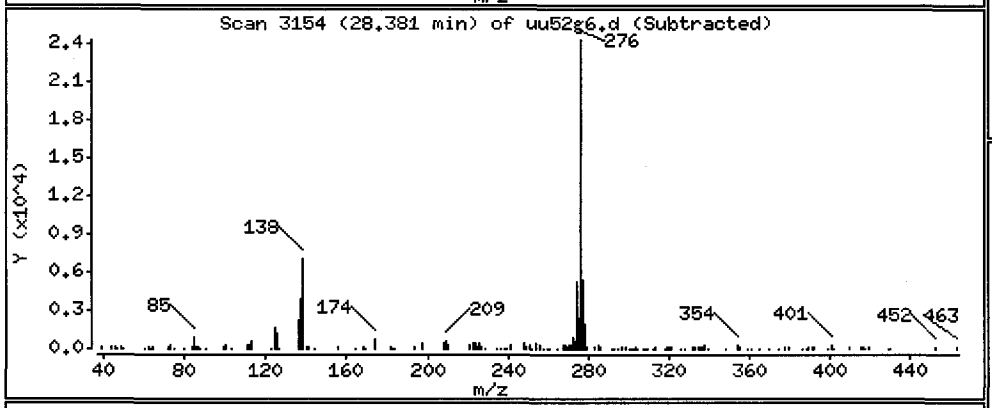
Sample Info: UU52G,6

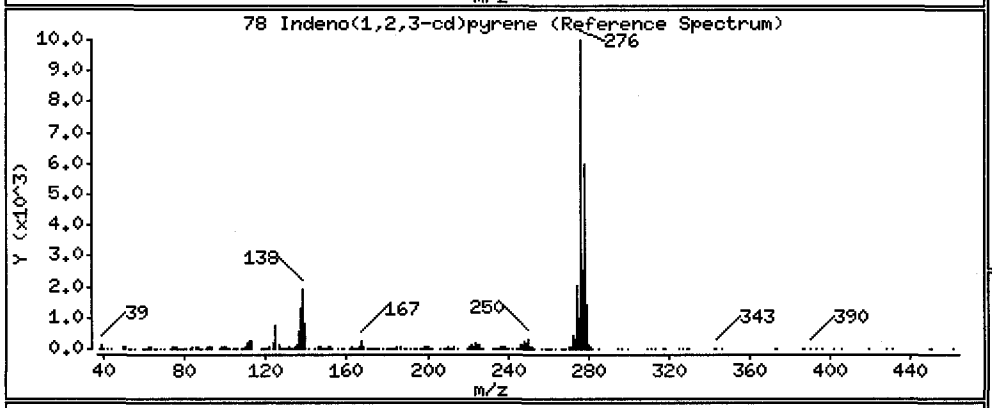
Volume Injected (uL): 1.0 Operator: VTS/YZ

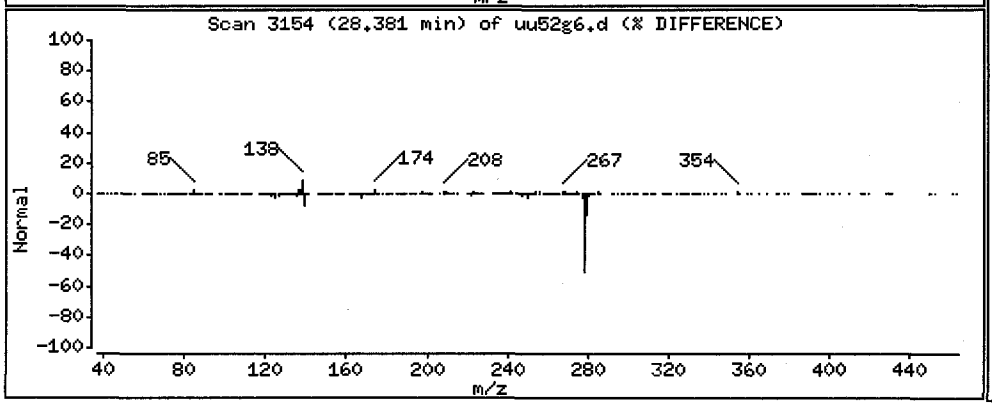
Column phase: ZB-5msi Column diameter: 0.25

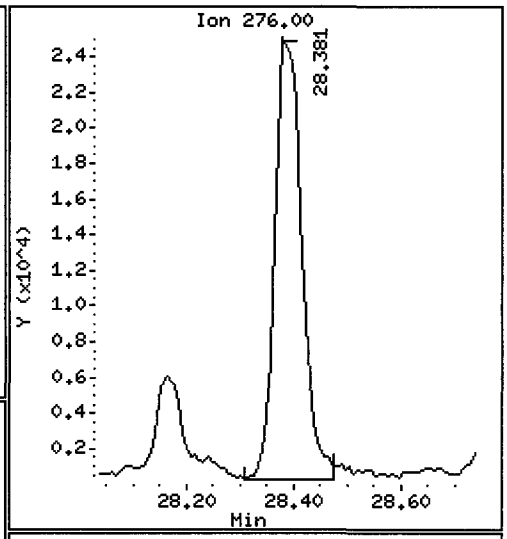
78 Indeno(1,2,3-cd)pyrene Concentration: 258.9 ug/kg

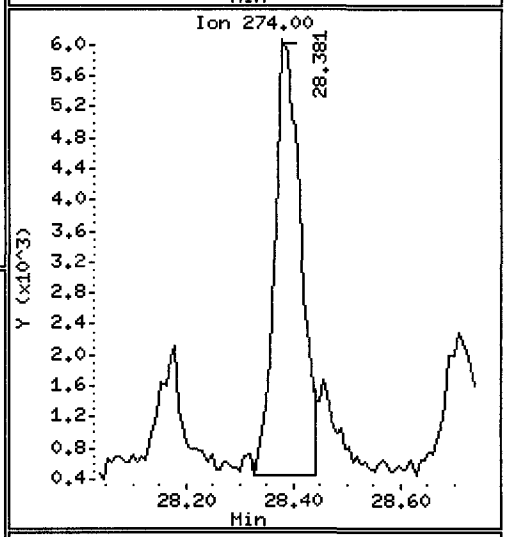


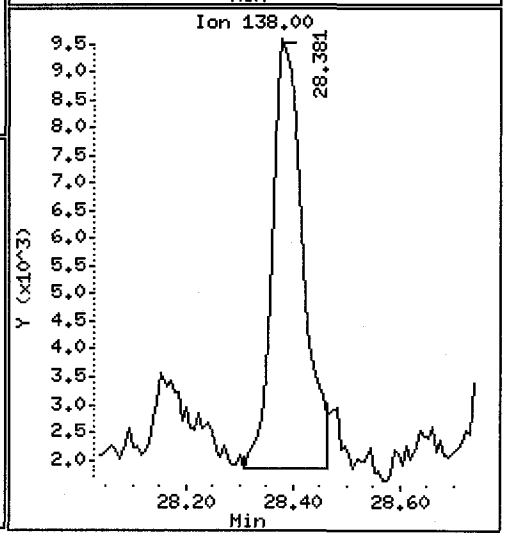












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

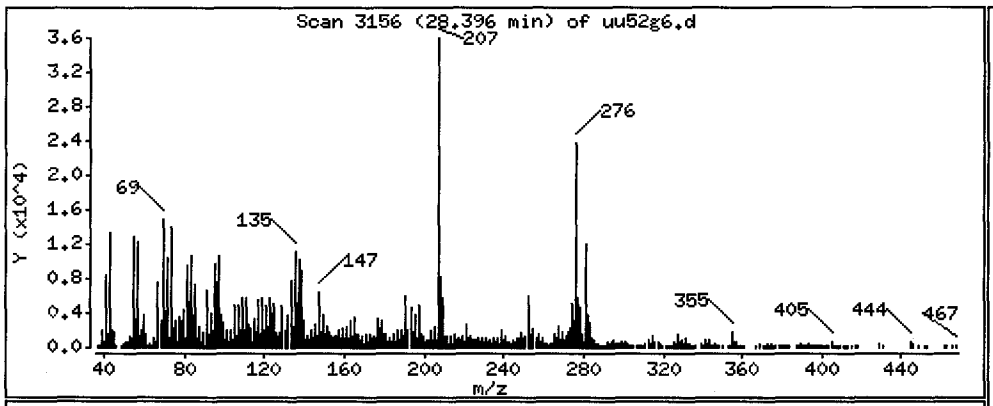
Operator: VTS/YZ

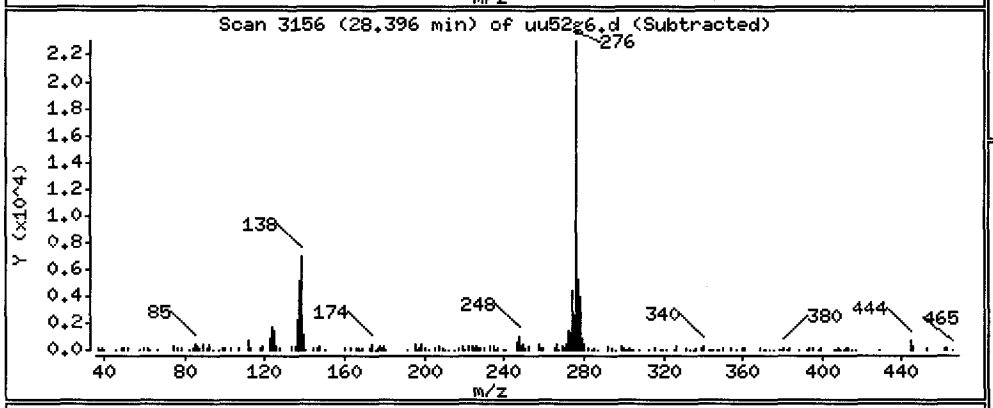
Column phase: ZB-5msi

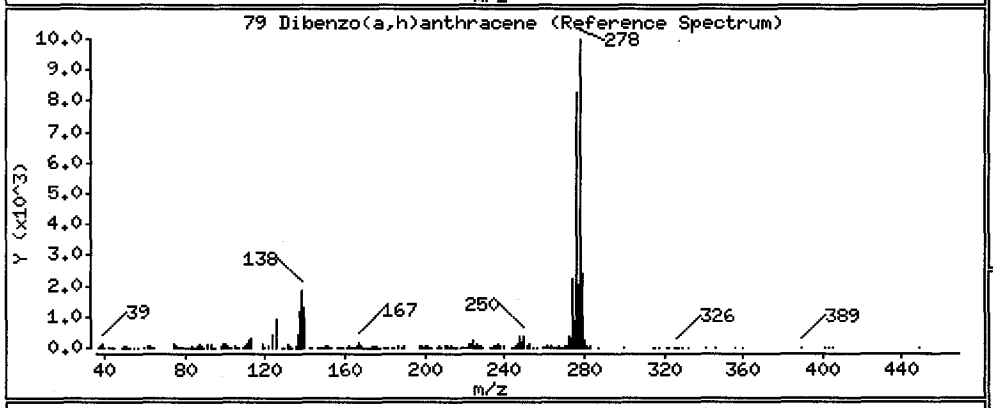
Column diameter: 0.25

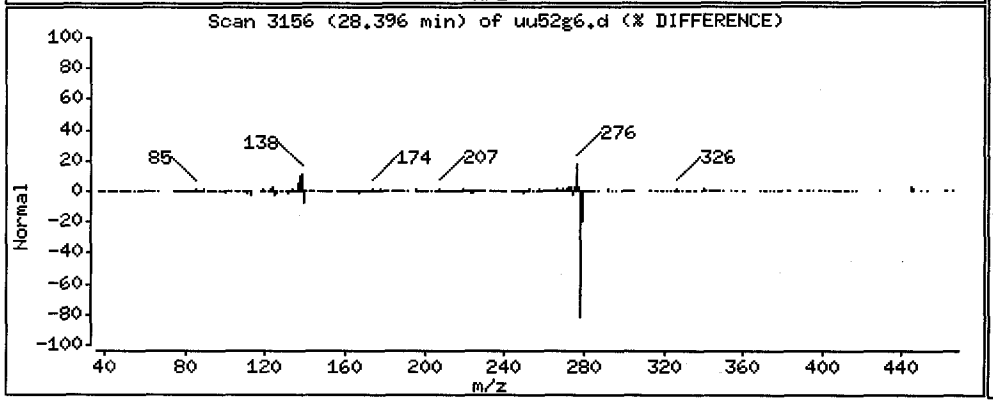
79 Dibenzo(a,h)anthracene

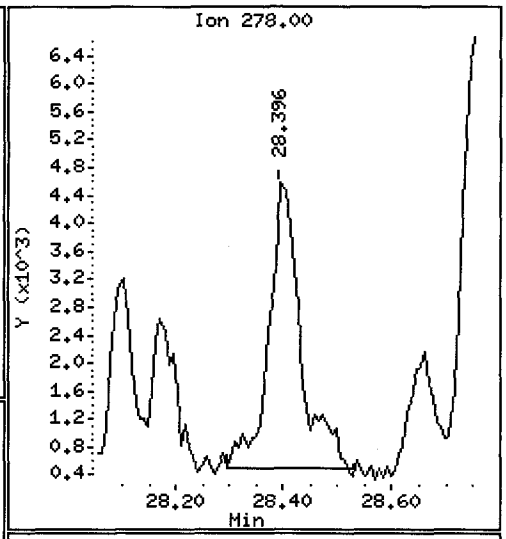
Concentration: 62.86 ug/kg

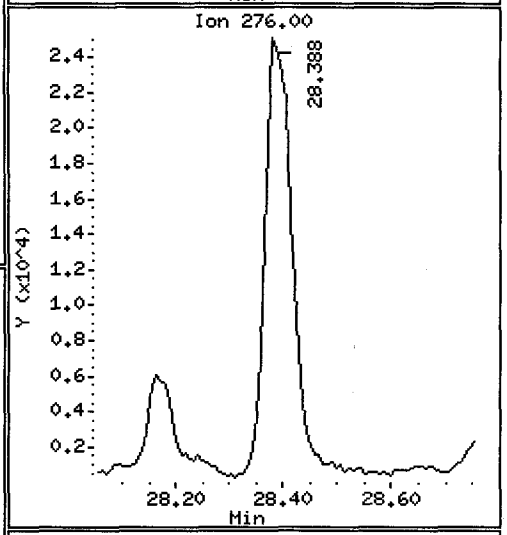


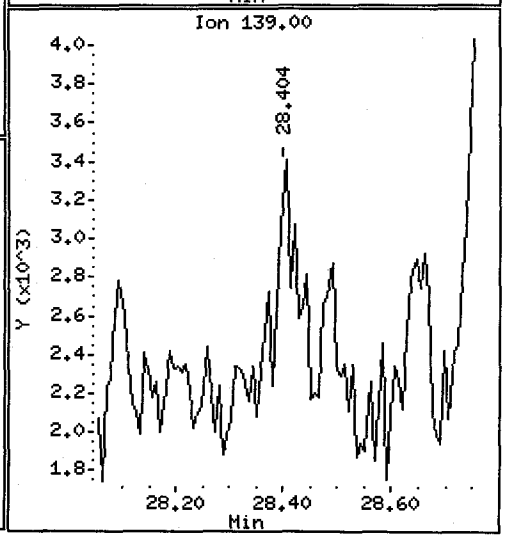












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

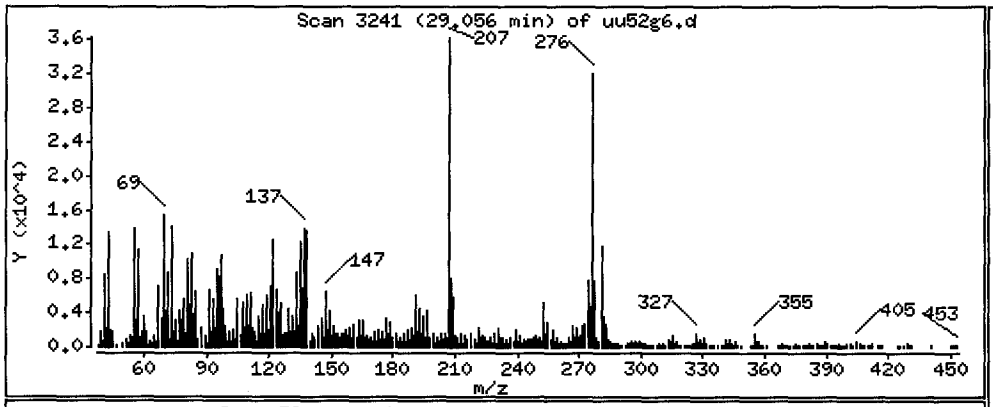
Client ID: MS006-SS-120515 Instrument: nt10.i

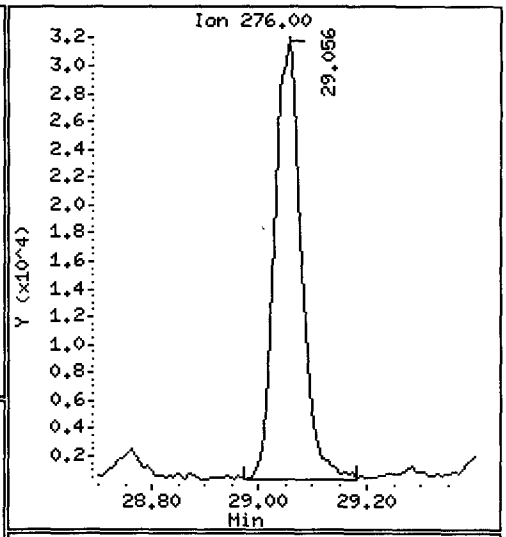
Sample Info: UU52G,6

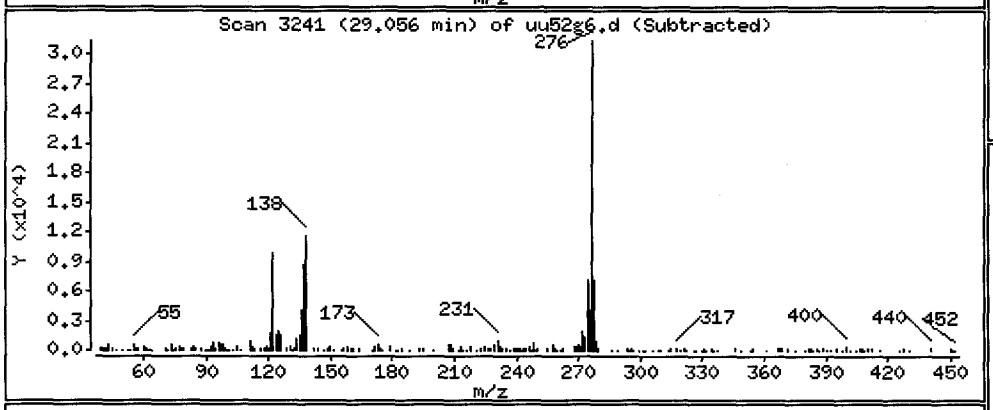
Volume Injected (uL): 1.0 Operator: VTS/YZ

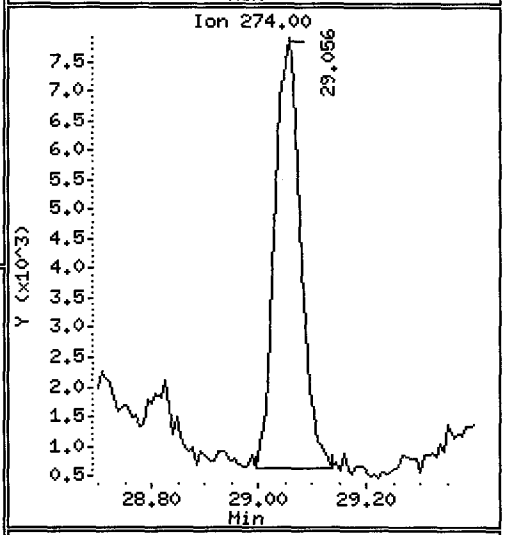
Column phase: ZB-5msi Column diameter: 0.25

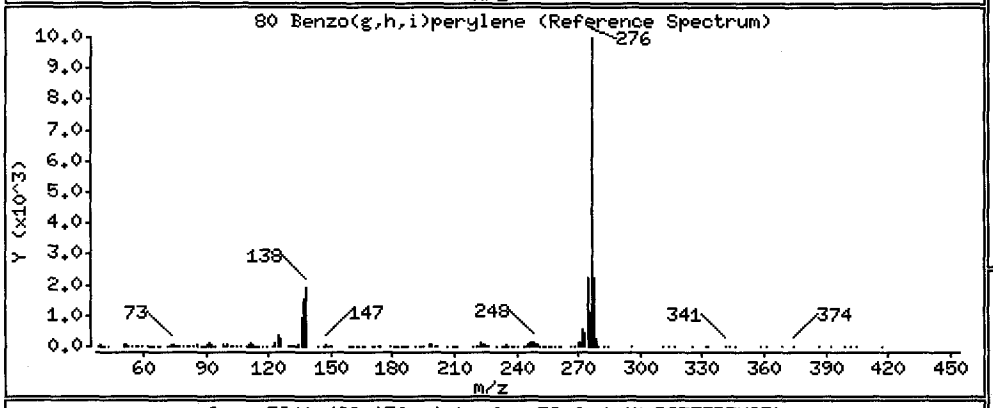
80 Benzo(g,h,i)perylene Concentration: 381.0 ug/kg

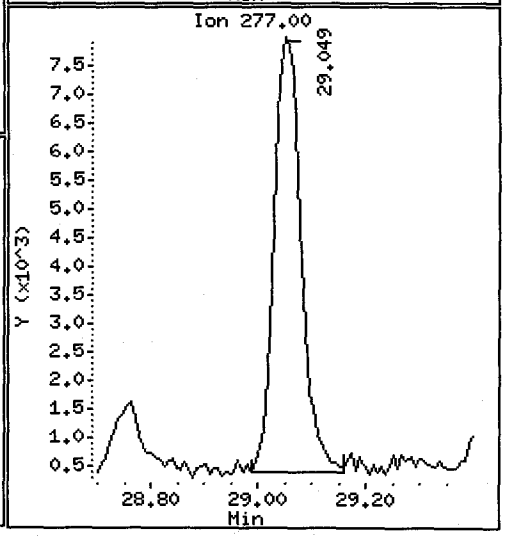


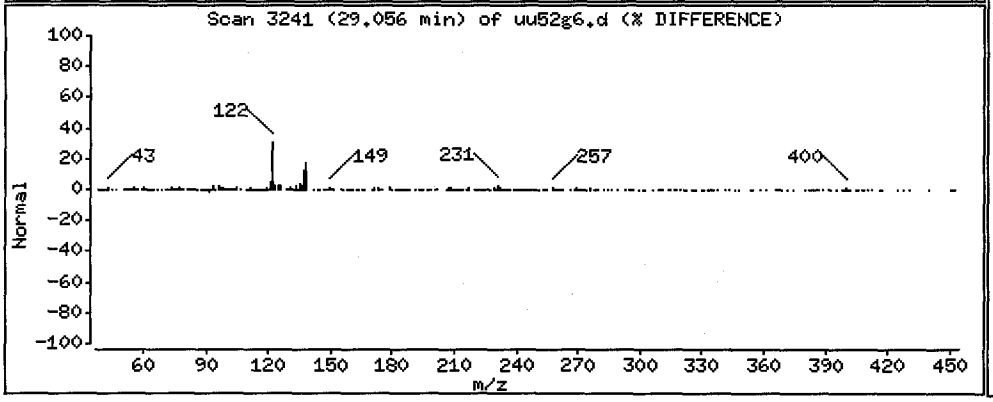












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

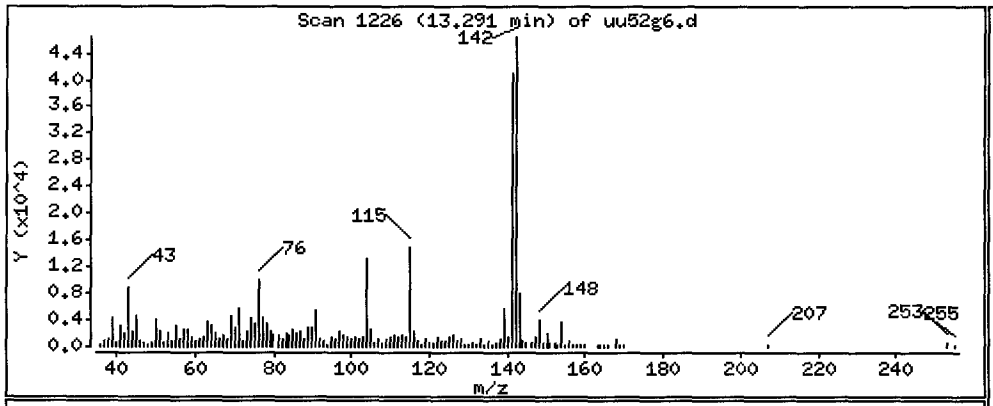
Operator: VTS/YZ

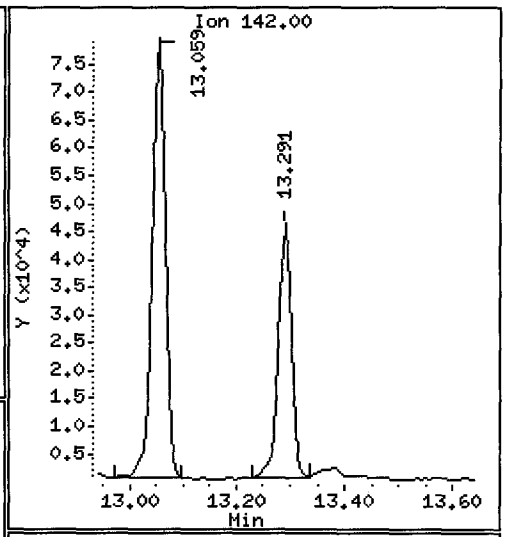
Column phase: ZB-5msi

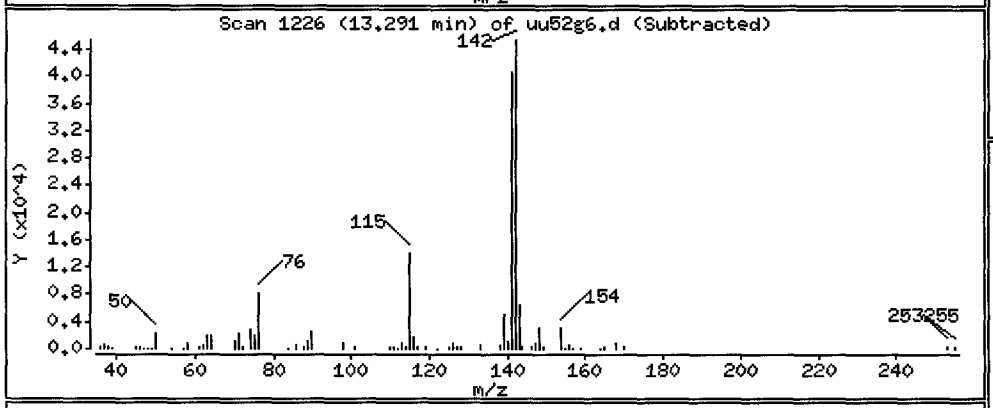
Column diameter: 0.25

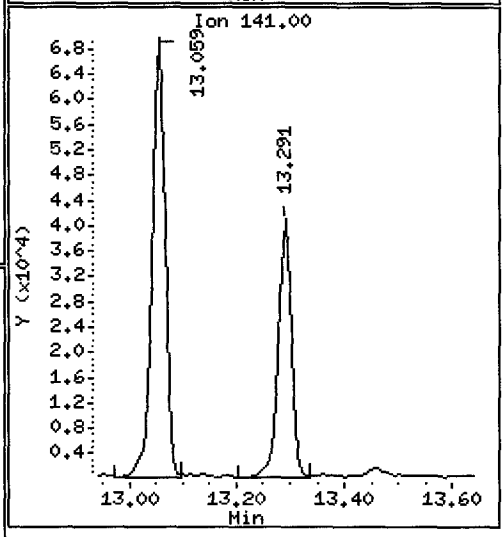
105 1-methylnaphthalene

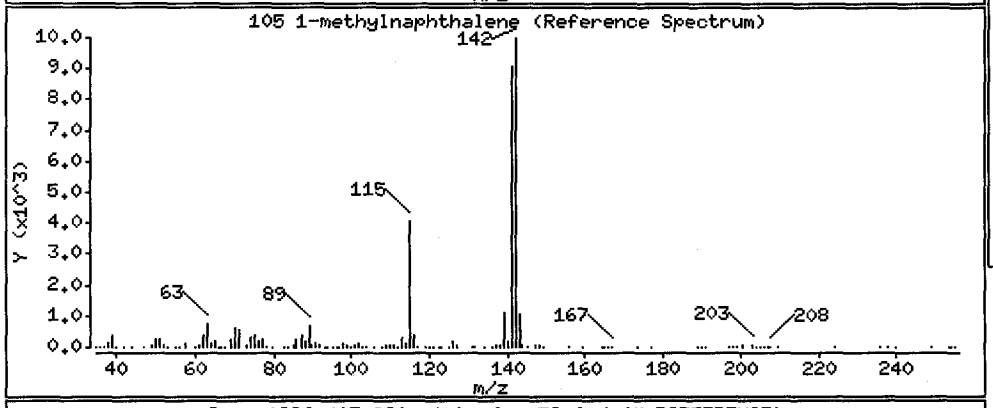
Concentration: 334.4 ug/kg

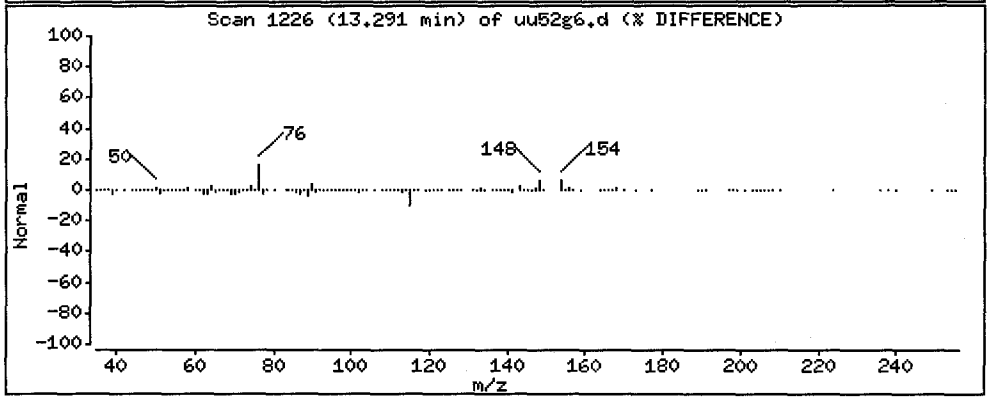












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

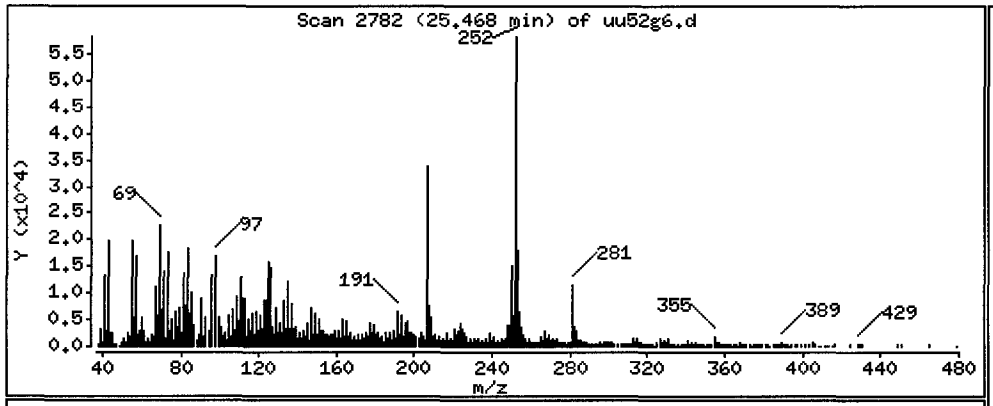
Client ID: MS006-SS-120515 Instrument: nt10.i

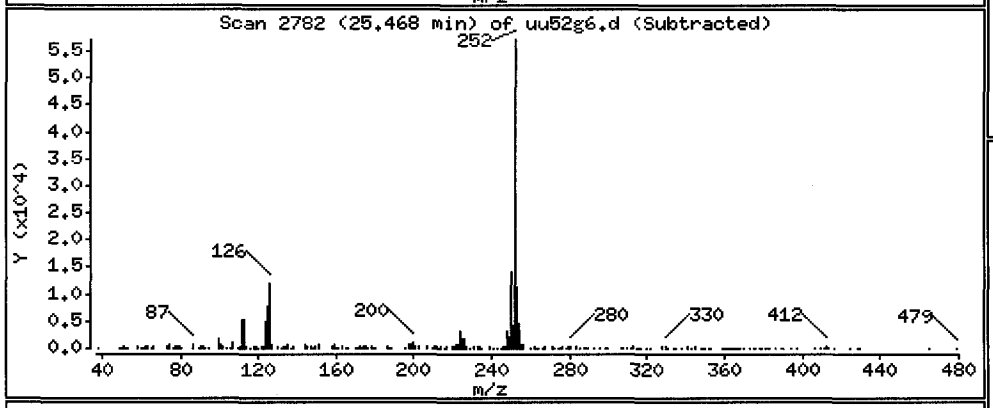
Sample Info: UU52G,6

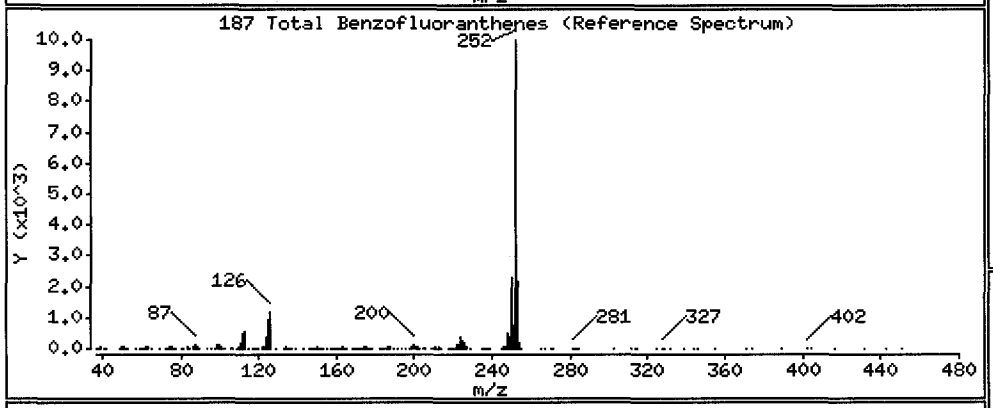
Volume Injected (uL): 1.0 Operator: VTS/YZ

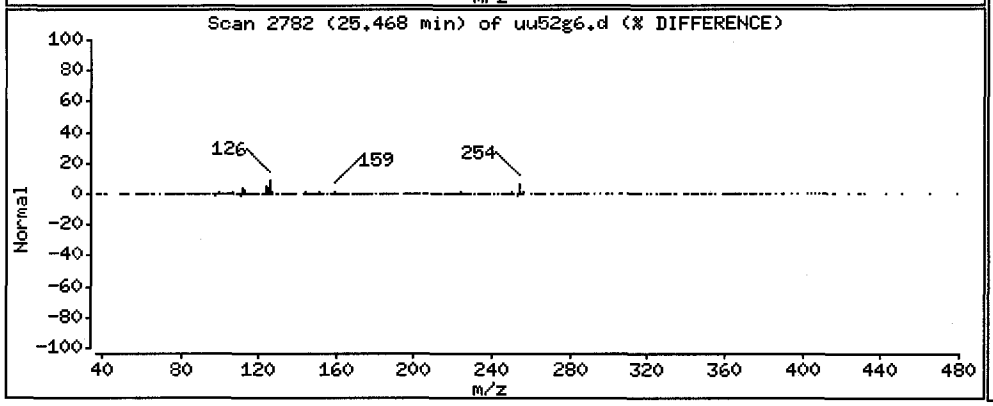
Column phase: ZB-5msi Column diameter: 0.25

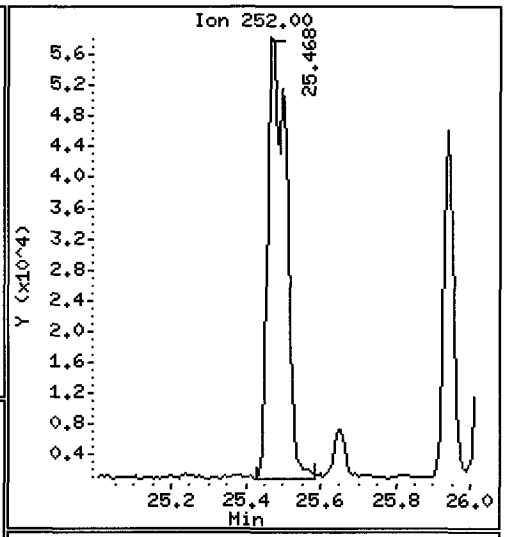
187 Total Benzofluoranthenes Concentration: 644.7 ug/kg

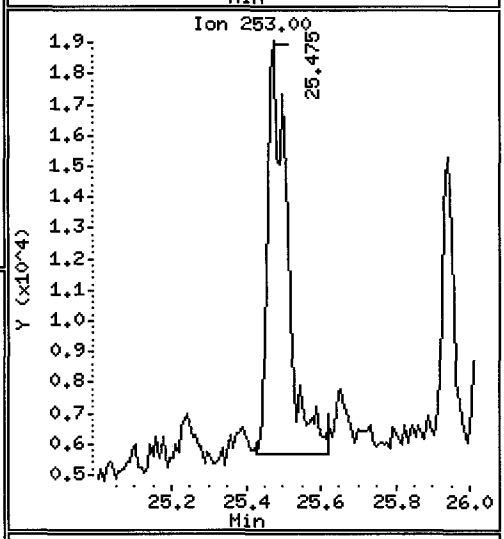


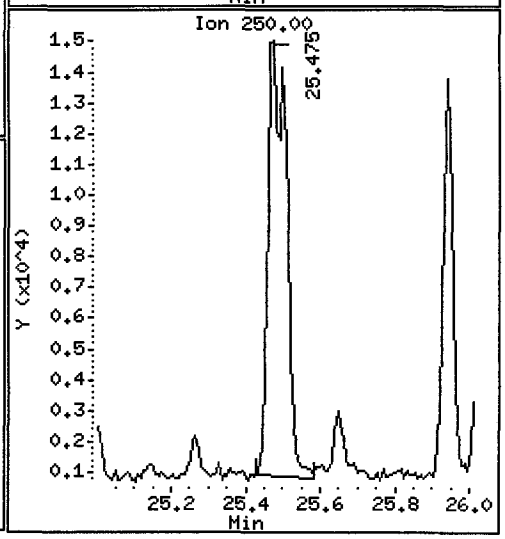












Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

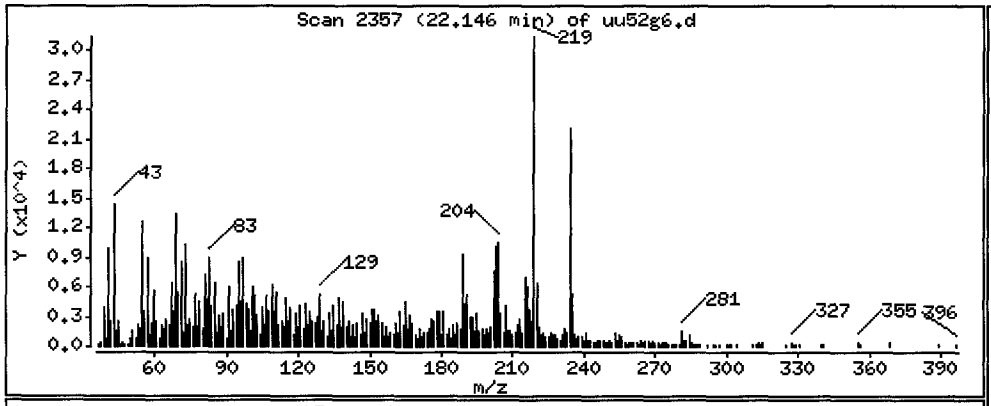
Client ID: MS006-SS-120515 Instrument: nt10.i

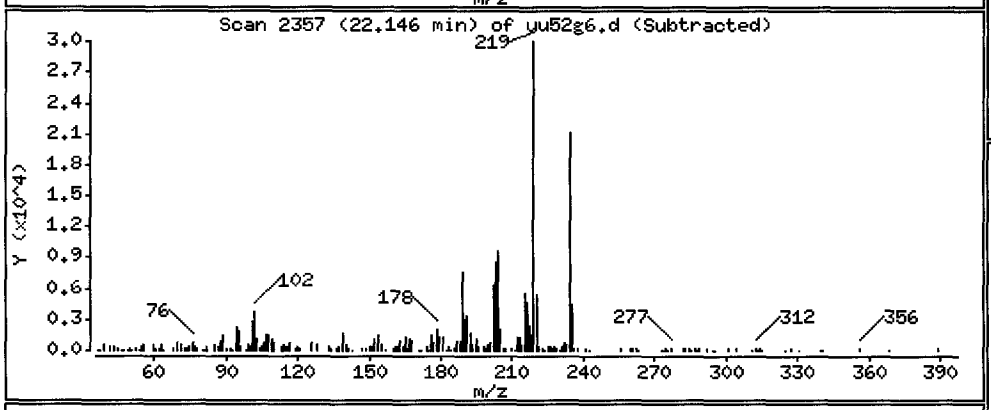
Sample Info: UU52G,6

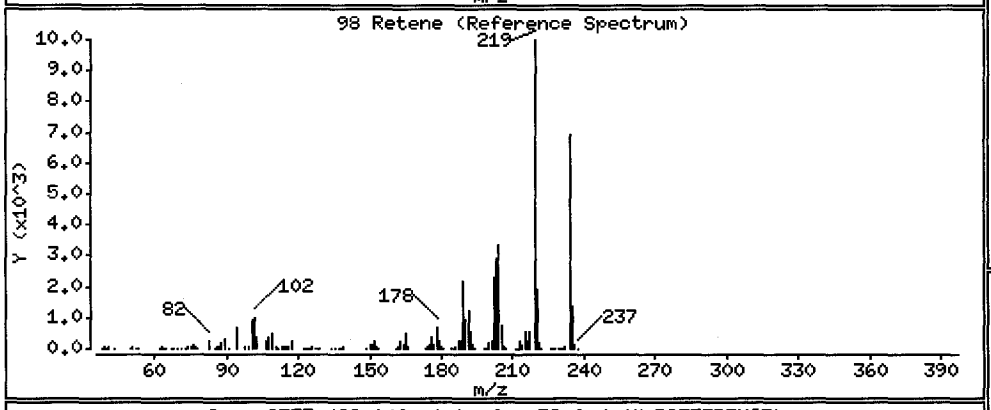
Volume Injected (uL): 1.0 Operator: VTS/YZ

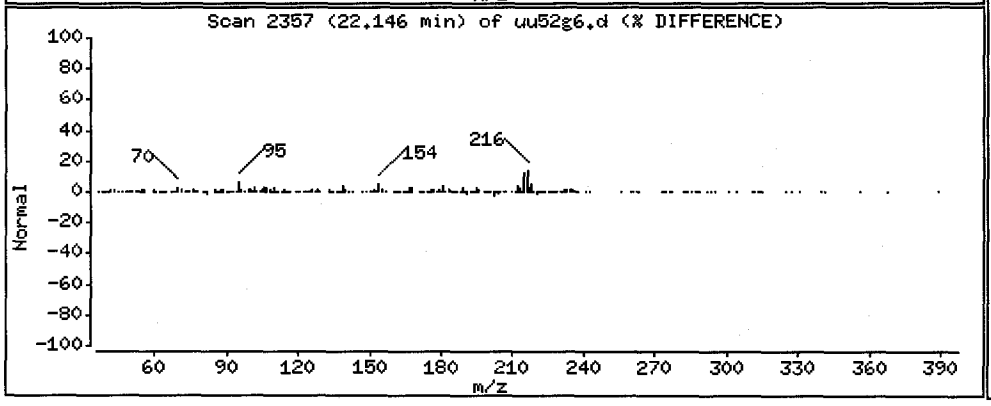
Column phase: ZB-5msi Column diameter: 0.25

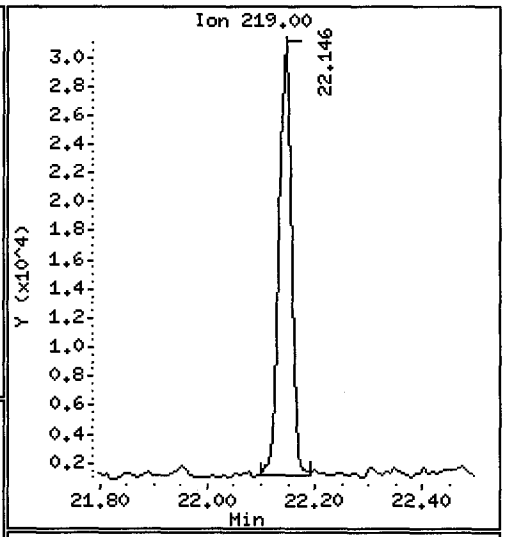
98 Retene Concentration: 266.5 ug/kg

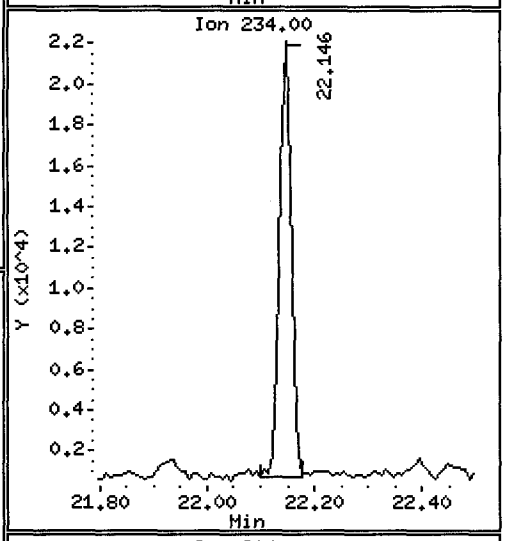


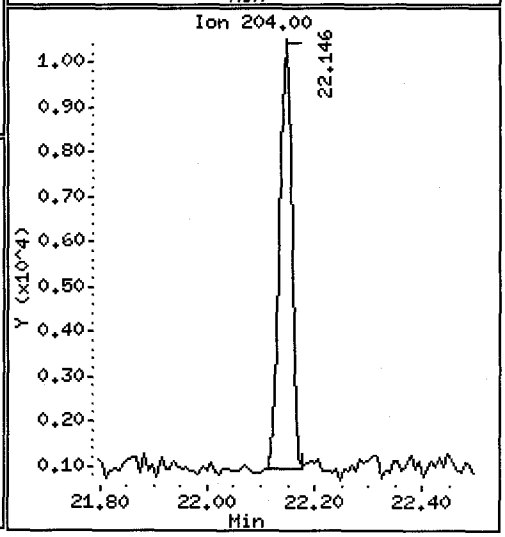






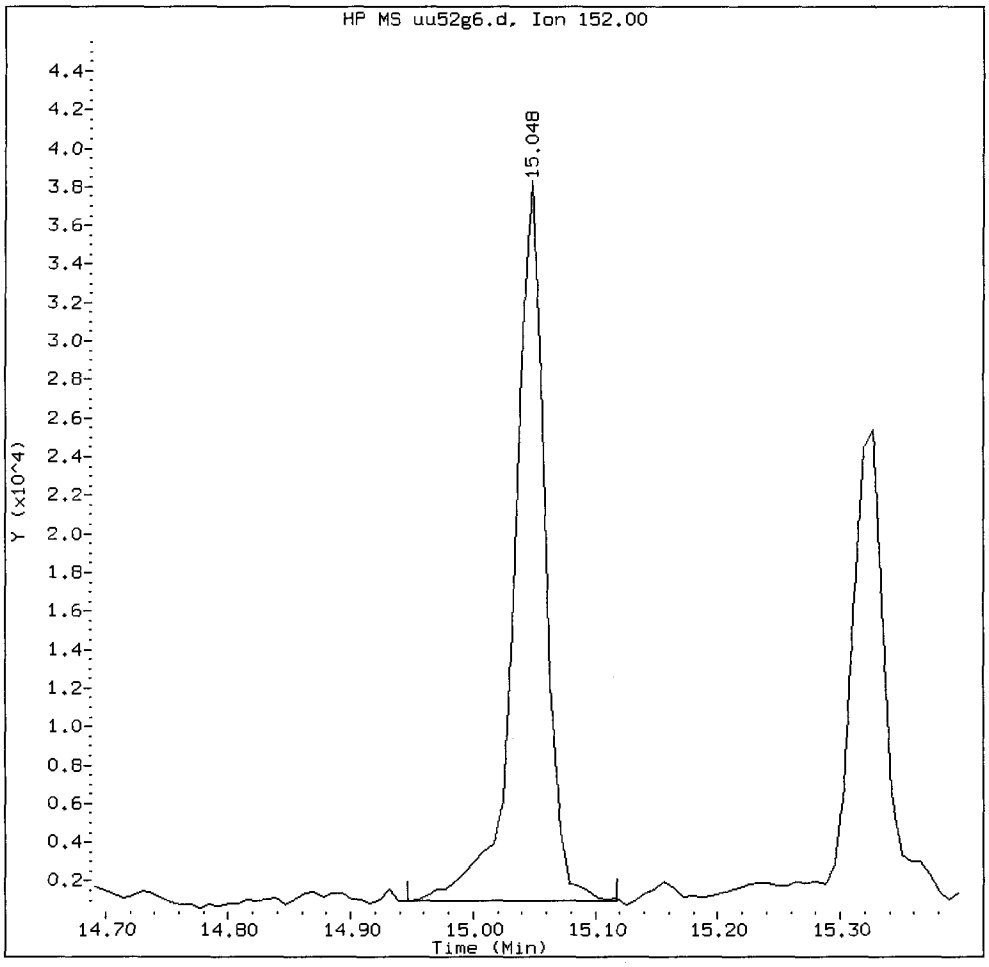






UU52G, /chem1/nt10.i/20120530.b/uu52g6.d

Acenaphthylene Amount: 0.36 Area: 68471



MANUAL INTEGRATION for Acenaphthylene

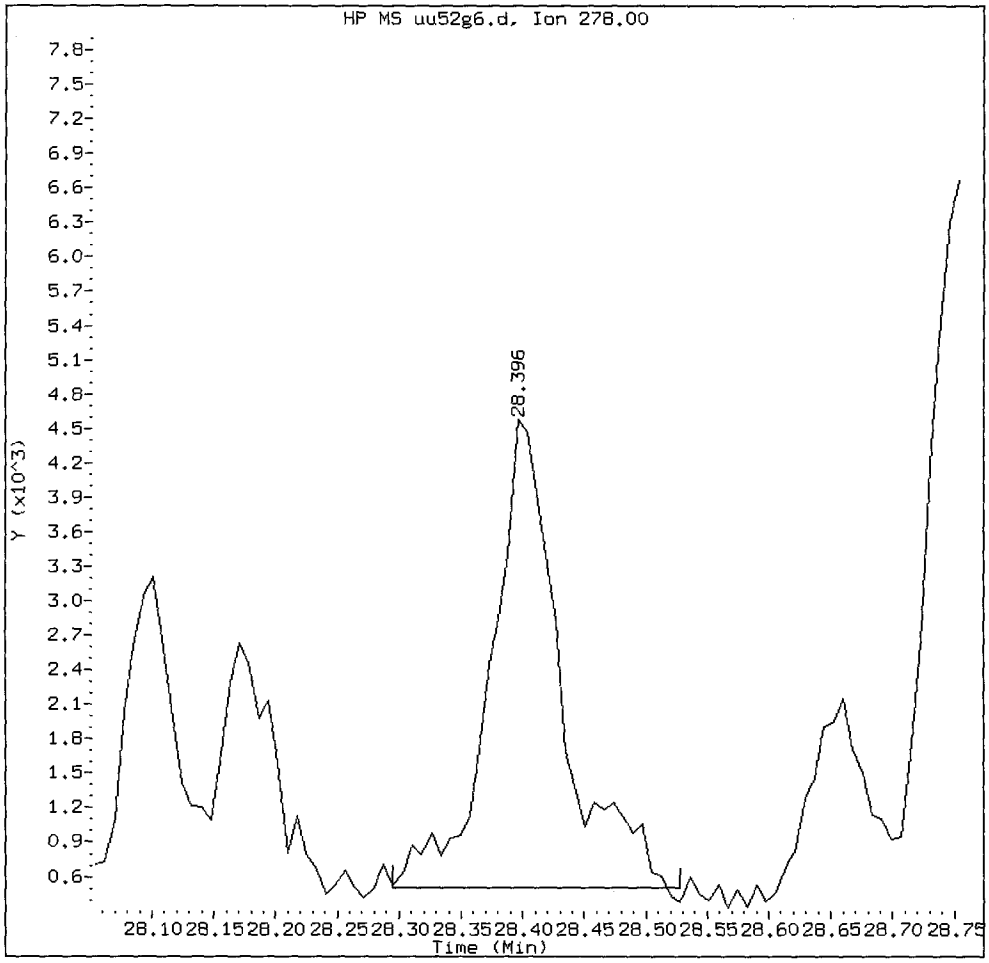
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YE Date: 5/30/12

UU52G, /chem1/nt10.i/20120530.b/uu52g6.d

Dibenzo(a,h)anthracene Amount: 0.11 Area: 16389



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

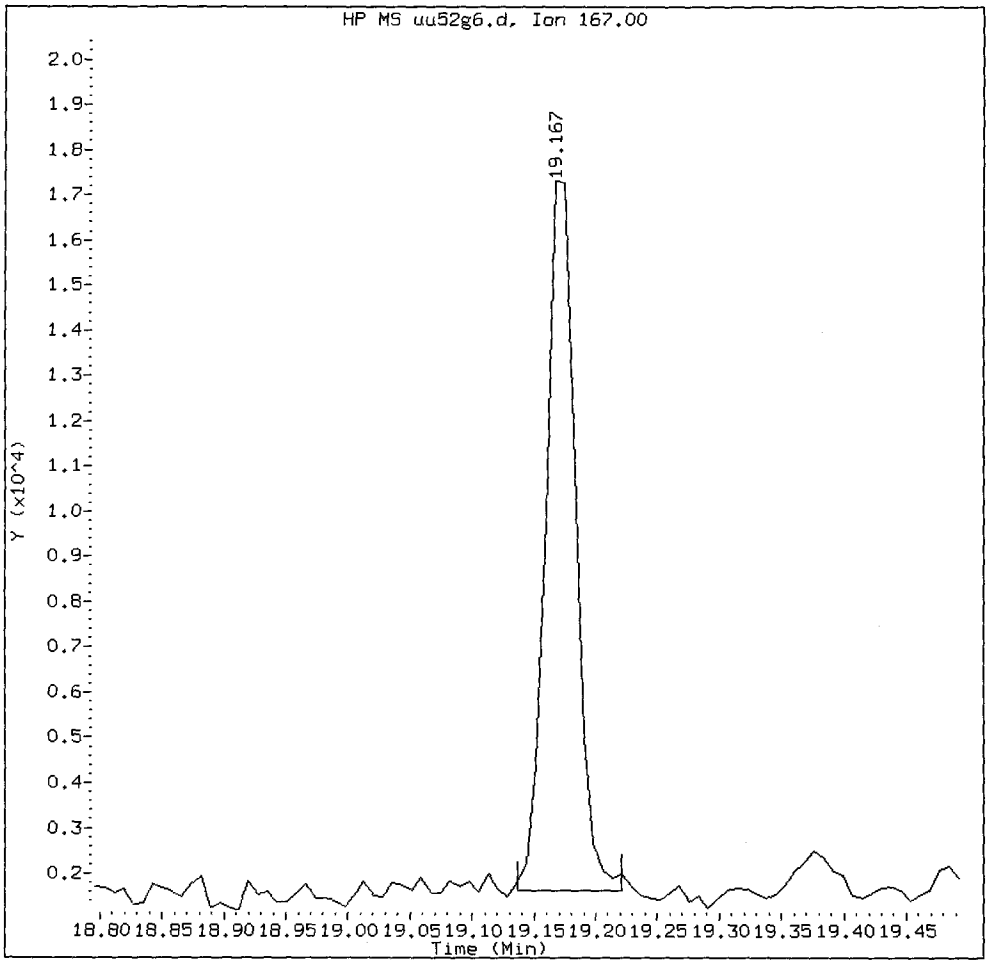
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation ✓

5. Other _____

Analyst: YZ Date: 5/31/12

UU52G, /chem1/nt10.i/20120530.b/uu52g6.d

Carbazole Amount: 0.18 Area: 26899



MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - uu52g6.d

Lab ID: UU52G, Method: ABN.m, Instrument: nt10.i, Date: 30-MAY-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 20120207
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: GPCVER
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: LCS
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120207.b/ABN.m
Misc Info:

SPIKE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
3	Phenol	2500	1760	70.42	30-160
4	Bis(2-Chloroethyl)	2500	1658	66.31	30-160
6	2-Chlorophenol	2500	1677	67.07	30-160
7	1,3-Dichlorobenzen	2500	1650	66.01	30-160
9	1,4-Dichlorobenzen	2500	1662	66.50	30-160
11	Benzyl alcohol	2500	2561	102.45	30-160
12	1,2-Dichlorobenzen	2500	1659	66.34	30-160
13	2-Methylphenol	2500	1698	67.93	30-160
14	2,2'-oxybis(1-Chlo	2500	1583	63.31	30-160
15	4-Methylphenol	5000	3361	67.23	30-160
16	N-Nitroso-di-n-pro	2500	1753	70.12	30-160
17	Hexachloroethane	2500	1686	67.42	30-160
19	Nitrobenzene	2500	1709	68.35	30-160
20	Isophorone	2500	1780	71.19	30-160
21	2-Nitrophenol	2500	1772	70.87	30-160
22	2,4-Dimethylphenol	7500	4561	60.81	30-160
23	Bis(2-Chloroethoxy	2500	1726	69.02	30-160
24	Benzoic acid	13750	7435	54.07	30-160
25	2,4-Dichlorophenol	7500	2956	39.41	30-160
26	1,2,4-Trichloroben	2500	1644	65.74	30-160
28	Naphthalene	2500	1752	70.08	30-160
29	4-Chloroaniline	7500	5380	71.74	30-160
30	Hexachlorobutadien	2500	1672	66.87	30-160
31	4-Chloro-3-methylp	7500	5858	78.10	30-160
32	2-Methylnaphthalen	2500	1786	71.42	30-160
33	Hexachlorocyclopen	7500	4180	55.73	30-160
34	2,4,6-Trichlorophe	7500	5844	77.92	30-160
35	2,4,5-Trichlorophe	7500	6120	81.60	30-160
37	2-Chloronaphthalen	2500	1750	69.99	30-160
38	2-Nitroaniline	7500	6320	84.27	30-160
39	Dimethylphthalate	2500	1718	68.74	30-160
40	Acenaphthylene	2500	1785	71.40	30-160
41	2,6-Dinitrotoluene	7500	5738	76.51	30-160

SPIKE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
43	3-Nitroaniline	7500	5227	69.69	30-160
44	Acenaphthene	2500	1833	73.32	30-160
45	2,4-Dinitrophenol	13750	9210	66.98	30-160
46	Dibenzofuran	2500	1802	72.10	30-160
47	4-Nitrophenol	7500	6838	91.17	30-160
48	2,4-Dinitrotoluene	7500	6015	80.20	30-160
49	Fluorene	2500	1797	71.88	30-160
50	Diethylphthalate	2500	1964	78.55	30-160
51	4-Chlorophenyl-phe	2500	1231	49.24	30-160
52	4-Nitroaniline	7500	5862	78.16	30-160
53	4,6-Dinitro-2-meth	13750	12160	88.40	30-160
54	N-Nitrosodiphenyla	2500	1797	71.87	30-160
56	4-Bromophenyl-phen	2500	1946	77.84	30-160
57	Hexachlorobenzene	2500	1915	76.61	30-160
58	Pentachlorophenol	7500	4943	65.90	30-160
60	Phenanthrene	2500	1963	78.52	30-160
61	Anthracene	2500	2016	80.64	30-160
62	Carbazole	2500	2022	80.88	30-160
63	Di-n-butylphthalat	2500	2101	84.04	30-160
64	Fluoranthene	2500	2114	84.56	30-160
65	Pyrene	2500	2063	82.53	30-160
67	Butylbenzylphthala	2500	1816	72.65	30-160
68	Benzo(a)anthracene	2500	1886	75.43	30-160
70	3,3'-Dichlorobenzi	7500	4203	56.04	30-160
71	Chrysene	2500	1948	77.94	30-160
72	bis(2-Ethylhexyl)p	2500	1687	67.50	30-160
73	Di-n-octylphthalat	2500	1654	66.14	30-160
74	Benzo(b)fluoranthe	2500	1879	75.17	30-160
75	Benzo(k)fluoranthe	2500	1886	75.43	30-160
76	Benzo(a)pyrene	2500	2012	80.48	30-160
78	Indeno(1,2,3-cd)py	2500	1851	74.03	30-160
79	Dibenzo(a,h)anthra	2500	1882	75.28	30-160
80	Benzo(g,h,i)peryle	2500	1877	75.07	30-160
91	Aniline	7500	2295	30.59	30-160
111	Azobenzene (1,2-DP	2500	1684	67.35	30-160
90	N-Nitrosodimethyla	7500	4811	64.15	30-160
105	1-methylnaphthalen	2500	1751	70.06	30-160
103	Pyridine	5000	9787	195.74*	30-160
187	Total Benzofluoran	5000	3748	74.97	30-160

SURROGATE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	3750	2384	63.57	30-160

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	1.701	BB	0.0274	8386.57617	4793.82813	6.92801
2	1.822	BB	0.0269	8546.20215	5008.97949	7.05987
3	2.142	BB	0.0276	8302.71094	4713.16016	6.85873
4	2.697	BV	0.0228	7718.45801	5054.82422	6.37609
5	2.724	VV	0.0254	9934.63184	5985.40039	8.20683
6	2.749	VB	0.0271	1.05984e4	5872.40576	8.75516
7	3.467	BB	0.0305	9532.32715	4951.70068	7.87449
8	3.587	BB	0.0326	9510.16797	4707.68457	7.85619
9	4.388	BB	0.0418	1.94536e4	6525.24414	16.07032
10	5.024	BB	0.0446	1.45443e4	5363.76367	12.01483
11	5.178	PB	0.0369	5178.09131	2165.51538	4.27753
12	5.792	PV	0.0493	6230.93164	1641.23413	5.14727
13	5.868	VB	0.0419	3116.71411	1073.94446	2.57467
Totals :				1.21053e5	5.78577e4	

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 5/17/2012 4:45:36 PM          Seq. Line :   4
Sample Name     : UU52 A                        Location : Vial 4
Acq. Operator   : WW                               Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\17MAY12B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/1/2011 12:25:26 PM by SP
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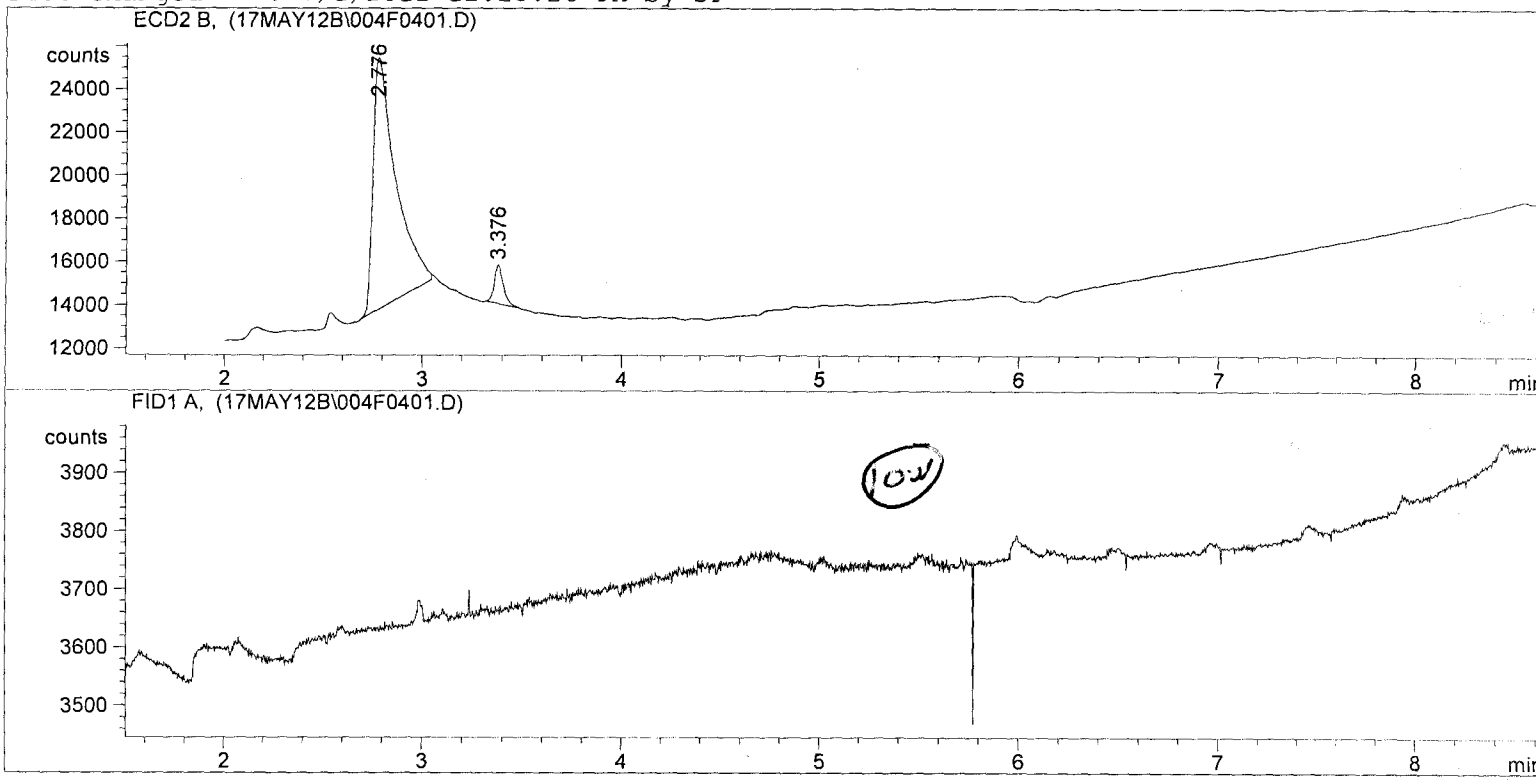


Area Percent Report

```
Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: ECD2 B,

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  counts*s   [counts]      %
----|-------|----|-------|----------|----------|--------|
   1   2.776 PB    0.1081 9.32030e4  1.16761e4  94.18513
   2   3.376 BB    0.0477 5754.23291 1780.95996  5.81487

Totals :                  9.89572e4  1.34570e4

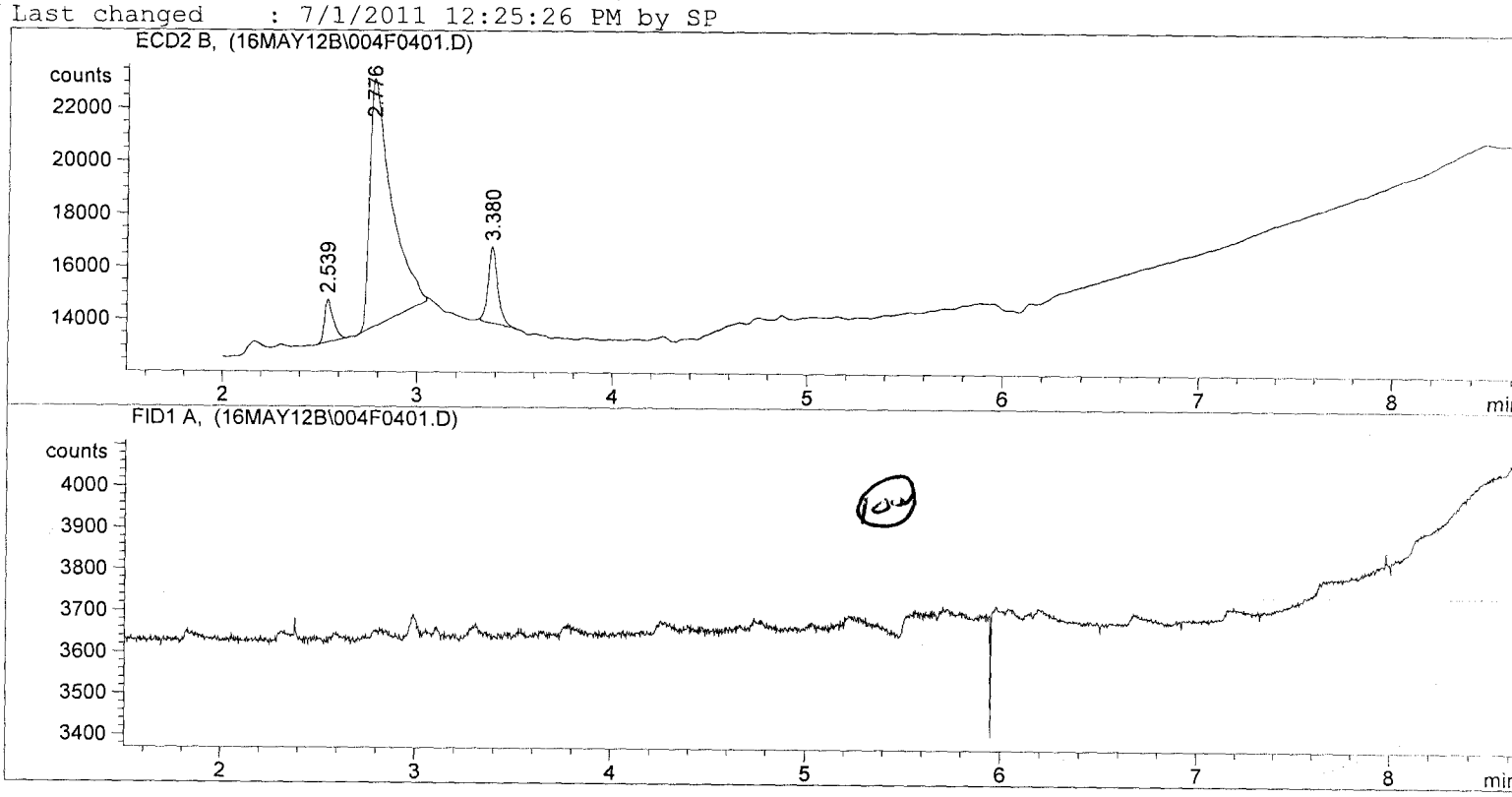
 Results obtained with enhanced integrator!

Signal 2: FID1 A,
```

*** End of Report ***

Injection Date : 5/16/2012 8:08:34 PM Seq. Line : 4
Sample Name : UU52 B Location : Vial 4
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	2.539	PB	0.0455	5064.98047	1620.05688	5.74942
2	2.776	PB	0.1058	7.31606e4	9404.25293	83.04697
3	3.380	BB	0.0507	9869.87793	2897.52539	11.20361
Totals :				8.80955e4	1.39218e4	

Results obtained with enhanced integrator!

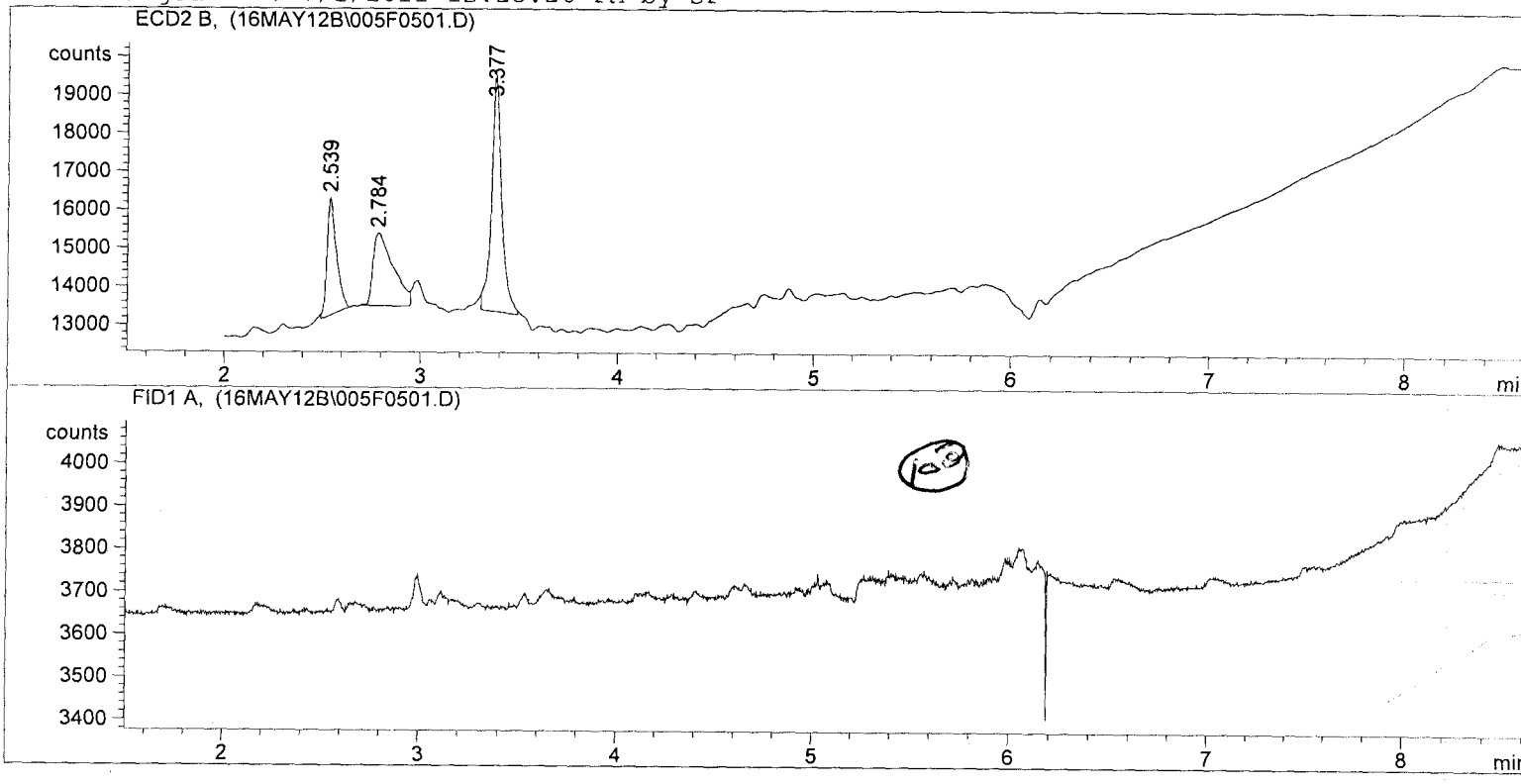
Signal 2: FID1 A,

*** End of Report ***

UU52 : 010854

Injection Date : 5/16/2012 8:21:48 PM Seq. Line : 5
Sample Name : UU52 C Location : Vial 5
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	2.539	BB	0.0481	1.02791e4	3067.37427	22.10699
2	2.784	BB	0.1018	1.38508e4	1906.08594	29.78858
3	3.377	BB	0.0523	2.23672e4	6170.35449	48.10443
Totals :				4.64971e4	1.11438e4	

Results obtained with enhanced integrator!

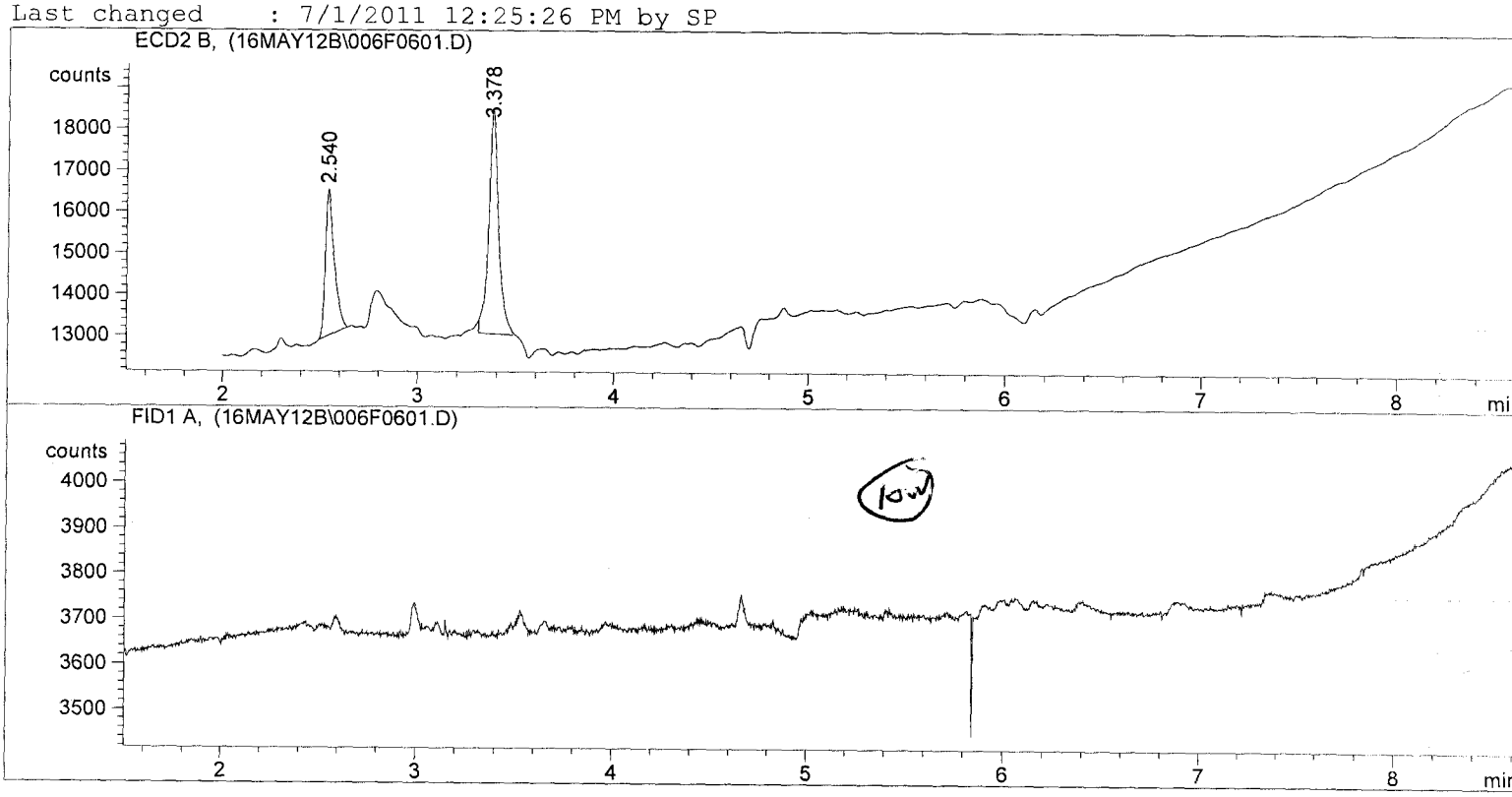
Signal 2: FID1 A,

*** End of Report ***

Injection Date : 5/16/2012 8:35:01 PM
Sample Name : UU52 D
Acq. Operator : AC

Seq. Line : 6
Location : Vial 6
Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	2.540	BB	0.0450	1.12396e4	3540.40503	36.87132
2	3.378	BB	0.0522	1.92437e4	5444.90137	63.12868
Totals :				3.04833e4	8985.30640	

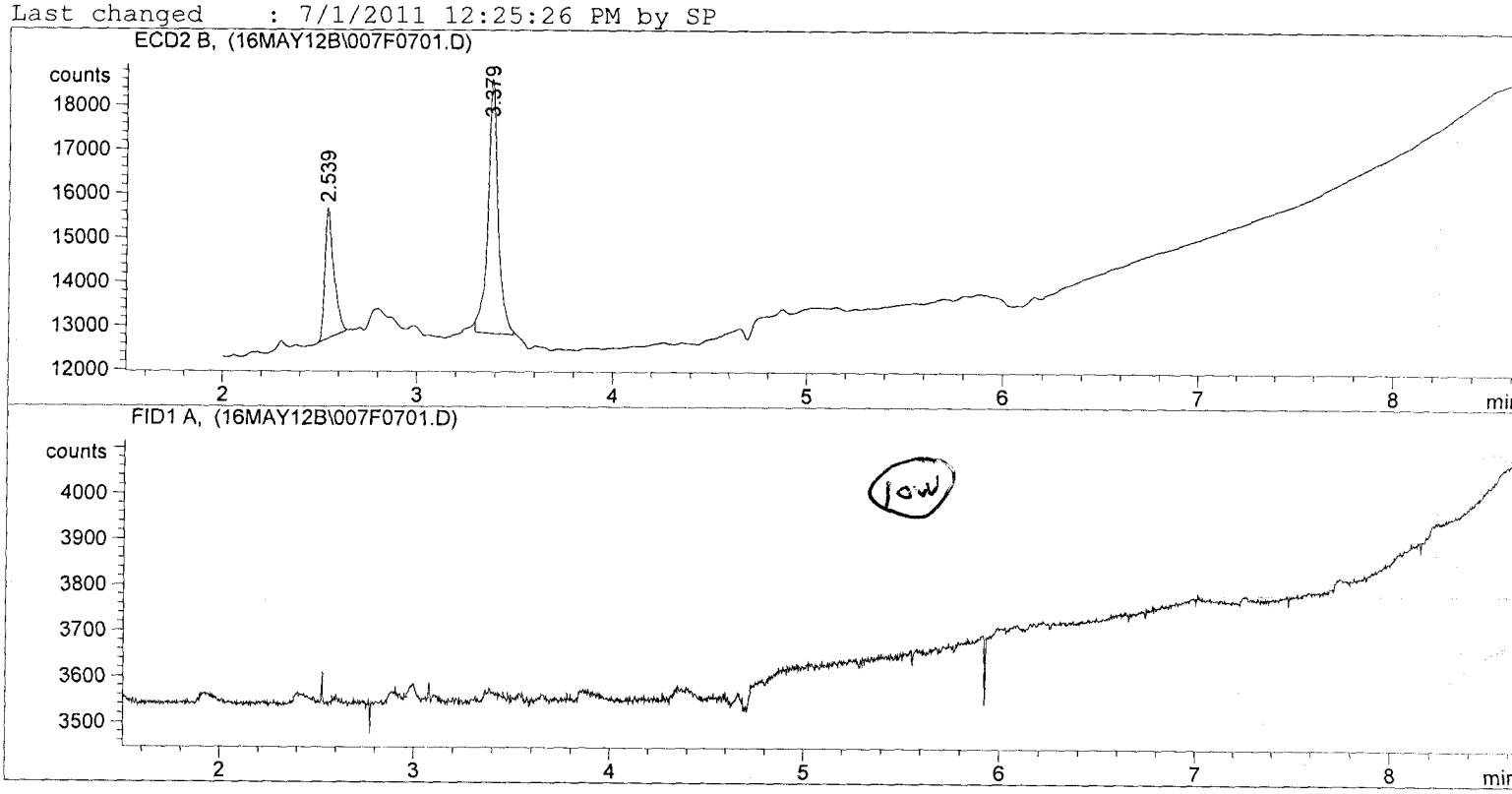
Results obtained with enhanced integrator!

Signal 2: FID1 A,

*** End of Report ***

Injection Date : 5/16/2012 8:48:14 PM Seq. Line : 7
Sample Name : UU52 E Location : Vial 7
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	2.539	PB	0.0457	9559.85547	2955.92041	31.03658
2	3.379	BB	0.0529	2.12420e4	5779.72803	68.96342

Totals : 3.08019e4 8735.64844

Results obtained with enhanced integrator!

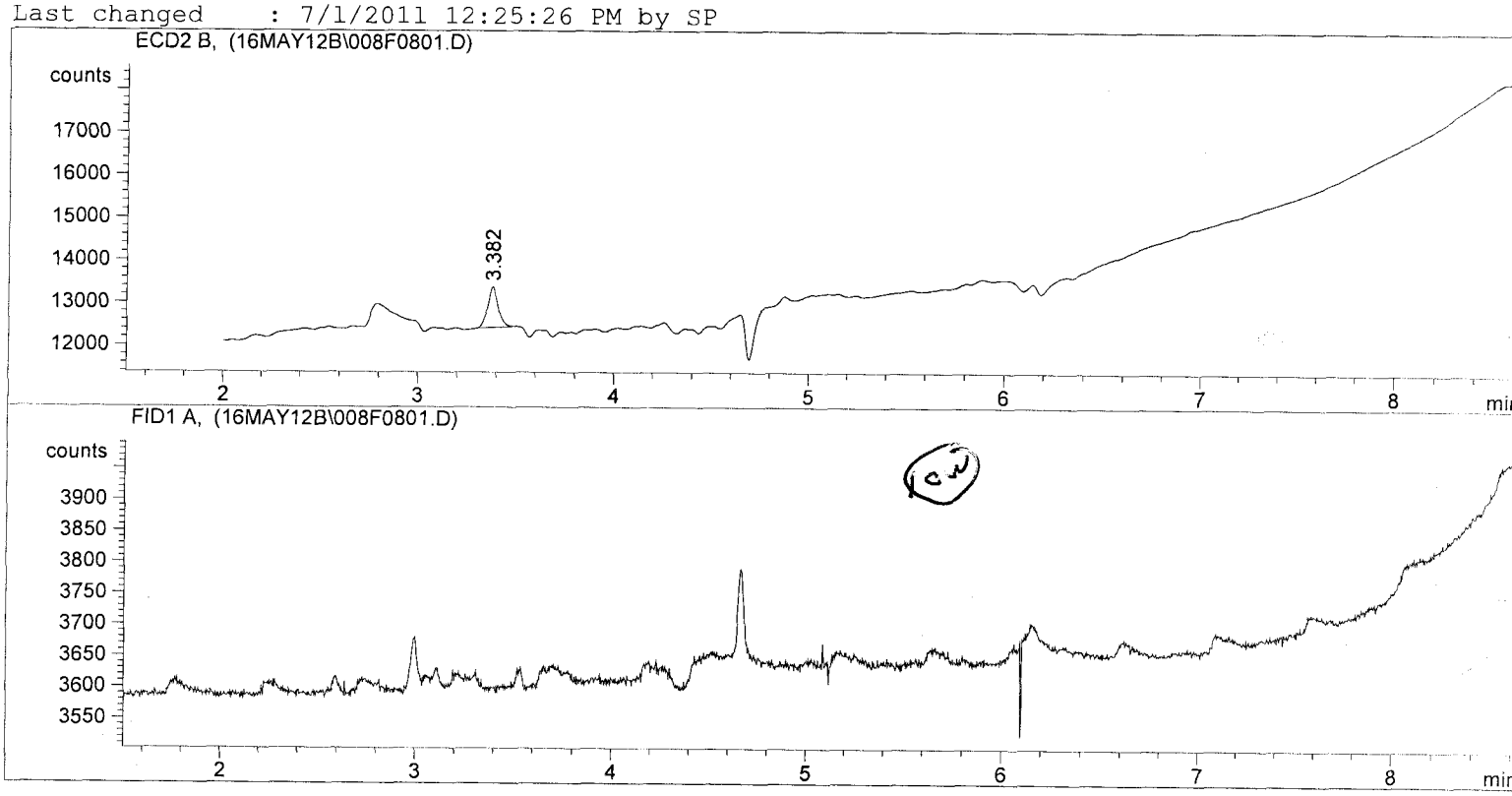
Signal 2: FID1 A,

*** End of Report ***

UU52:01087

Injection Date : 5/16/2012 9:01:29 PM Seq. Line : 8
Sample Name : UU52 F Location : Vial 8
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	3.382	BB	0.0517	3502.42529	957.90704	1.000e2

Totals : 3502.42529 957.90704

Results obtained with enhanced integrator!

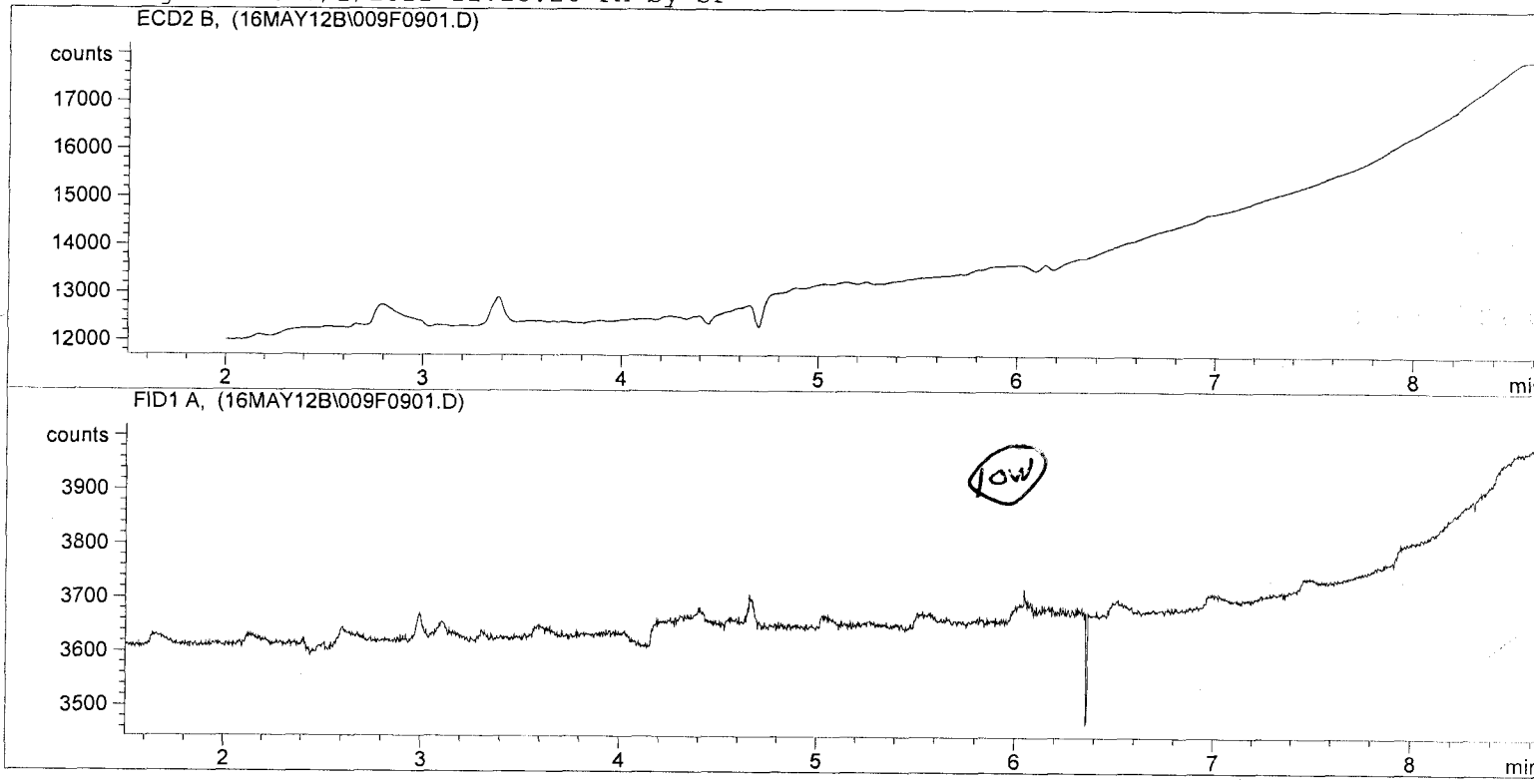
Signal 2: FID1 A,

*** End of Report ***

UU52:01088

Injection Date : 5/16/2012 9:14:41 PM Seq. Line : 9
Sample Name : UU52 G Location : Vial 9
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

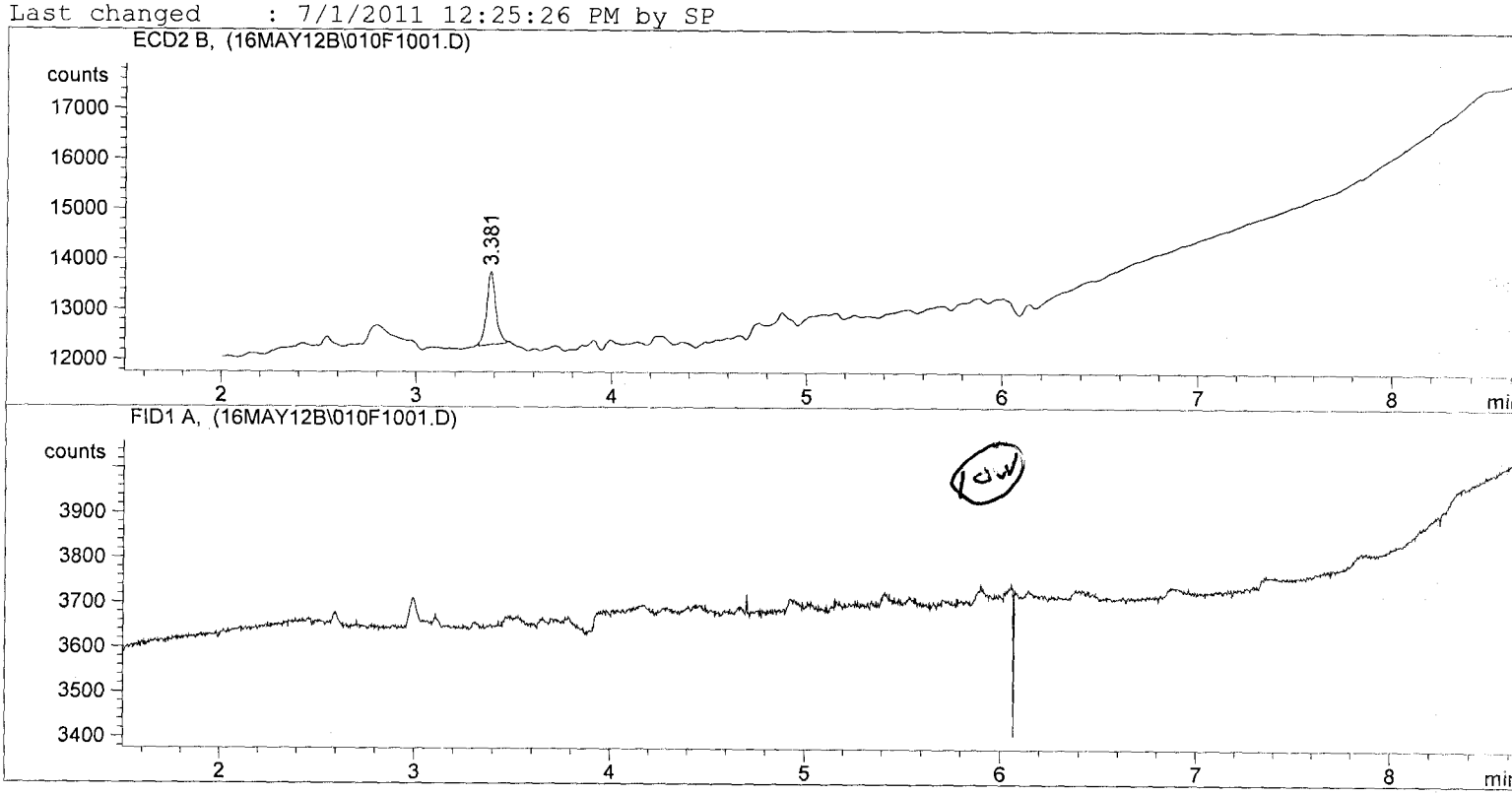
No peaks found

*** End of Report ***

UU52:01089

Injection Date : 5/16/2012 9:27:53 PM Seq. Line : 10
Sample Name : UU52 H Location : Vial 10
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	3.381	BB	0.0478	4729.76709	1461.35803	1.000e2

Totals : 4729.76709 1461.35803

Results obtained with enhanced integrator!

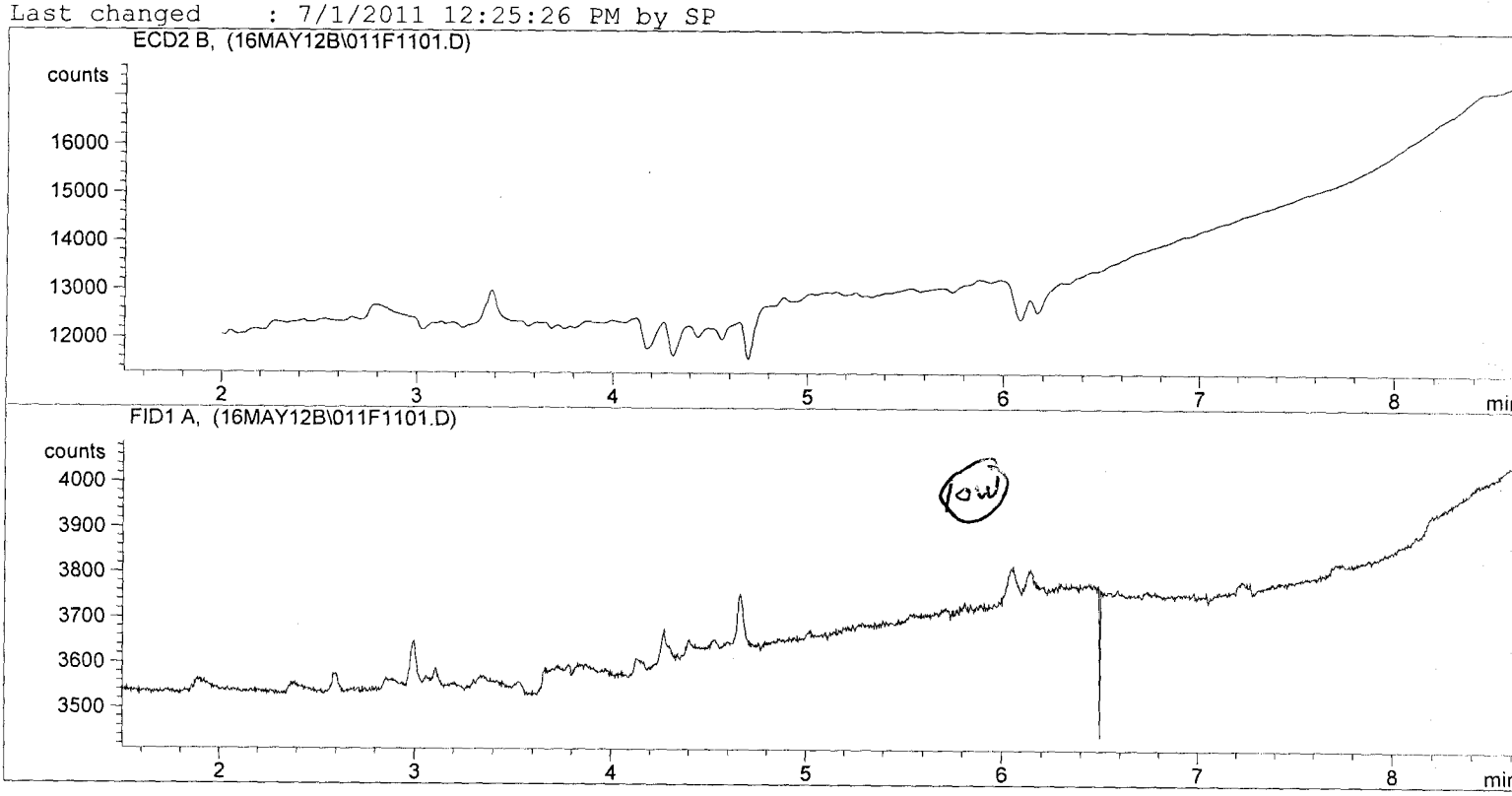
Signal 2: FID1 A,

*** End of Report ***

UU52:010F1001

Injection Date : 5/16/2012 9:41:06 PM
Sample Name : UU52 I
Acq. Operator : AC
Seq. Line : 11
Location : Vial 11
Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP



Area Percent Report

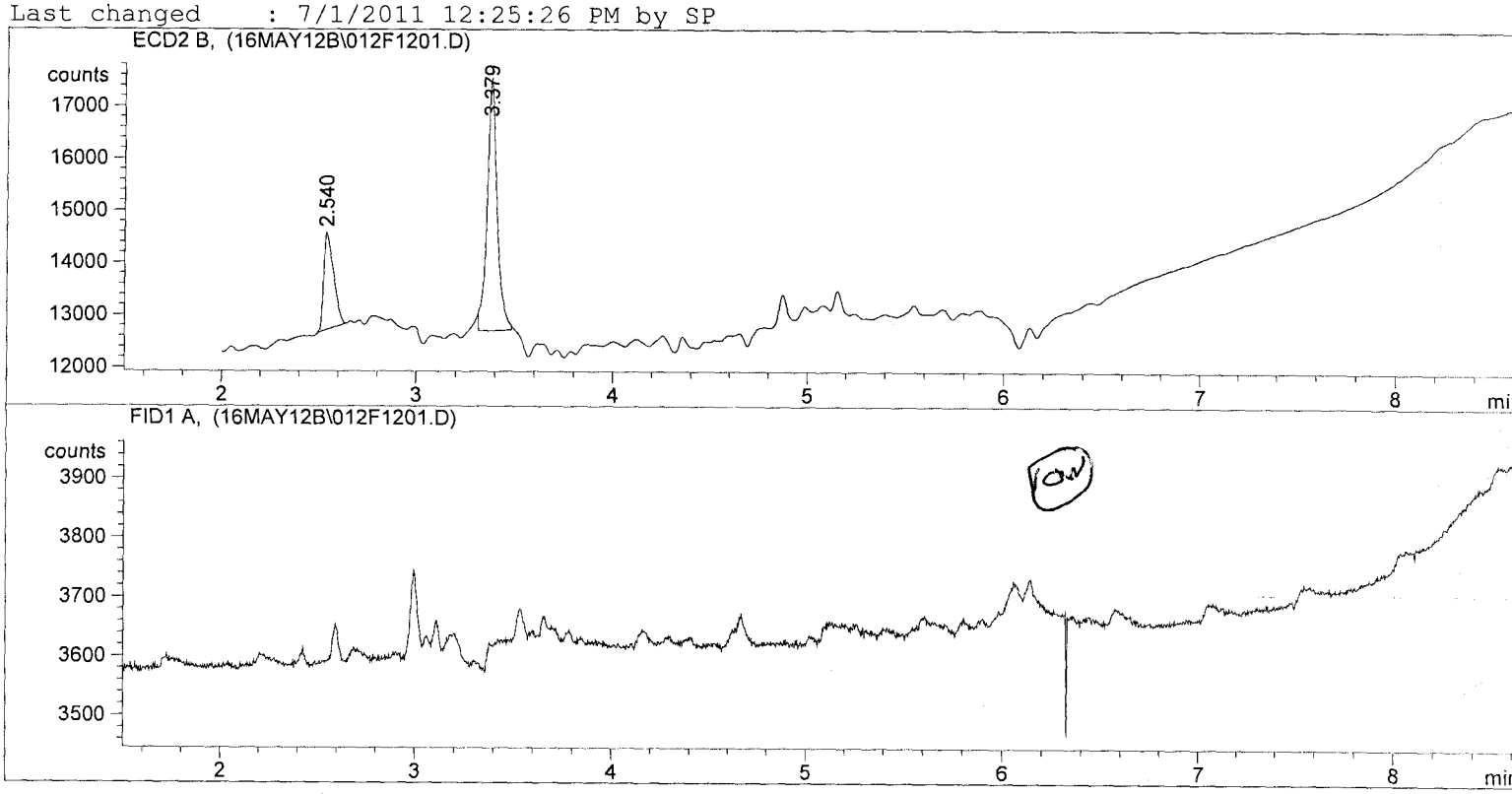
Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

No peaks found

*** End of Report ***

Injection Date : 5/16/2012 9:54:23 PM Seq. Line : 12
Sample Name : UU52 J Location : Vial 12
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	2.540	PP	0.0494	6603.12891	1861.72583	28.09105
2	3.379	BB	0.0508	1.69030e4	4833.55859	71.90895

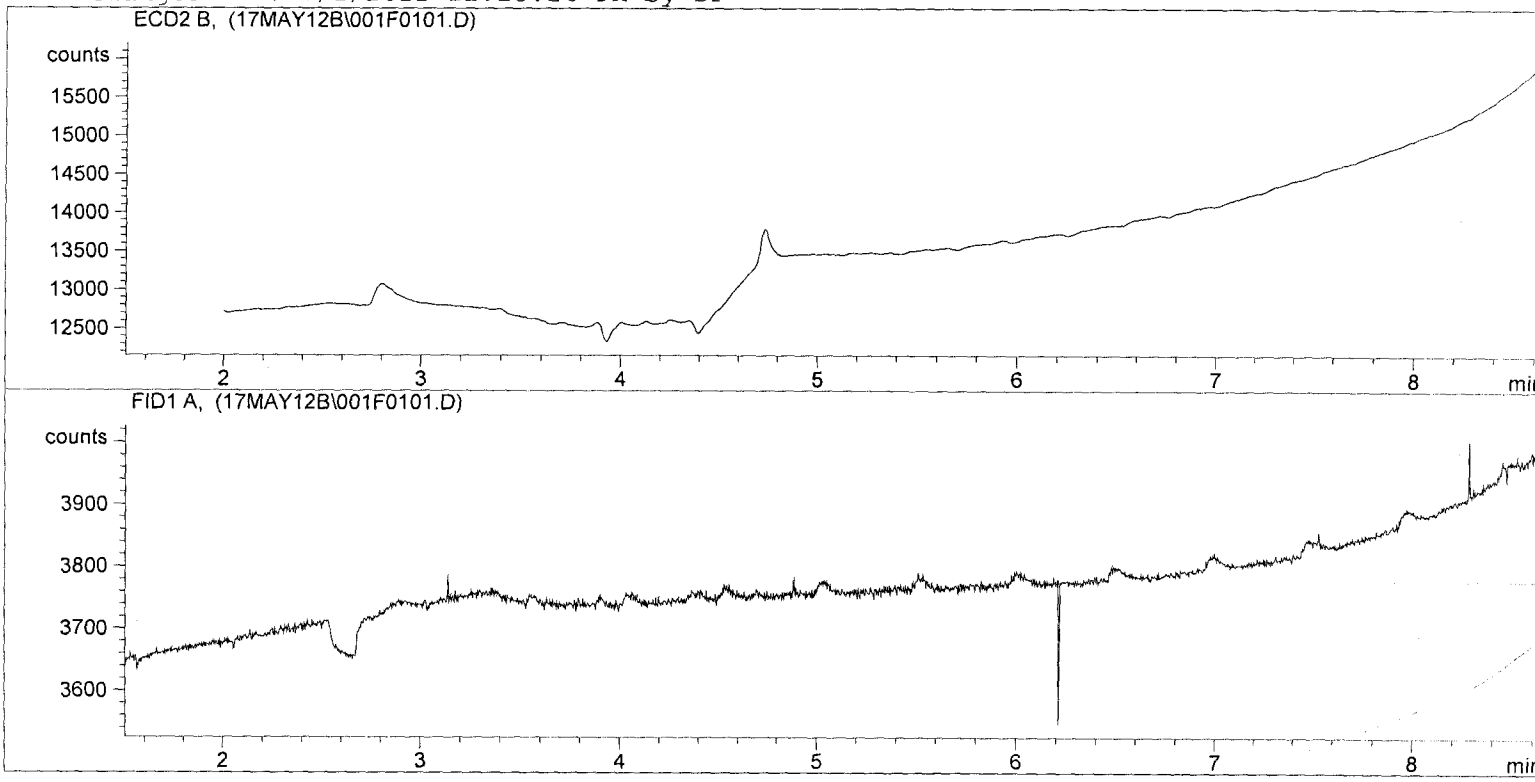
Totals : 2.35062e4 6695.28442

Results obtained with enhanced integrator!

Signal 2: FID1 A,

*** End of Report ***

Injection Date	: 5/17/2012 4:05:54 PM	Seq. Line	: 1
Sample Name	: DCM RINSE	Location	: Vial 1
Acq. Operator	: WW	Inj	: 1
		Inj Volume	: 1 µl
Sequence File	: C:\HPCHEM\1\SEQUENCE\17MAY12B.S		
Method	: C:\HPCHEM\1\METHODS\SCREEN.M		
Last changed	: 7/1/2011 12:25:26 PM by SP		



Area Percent Report

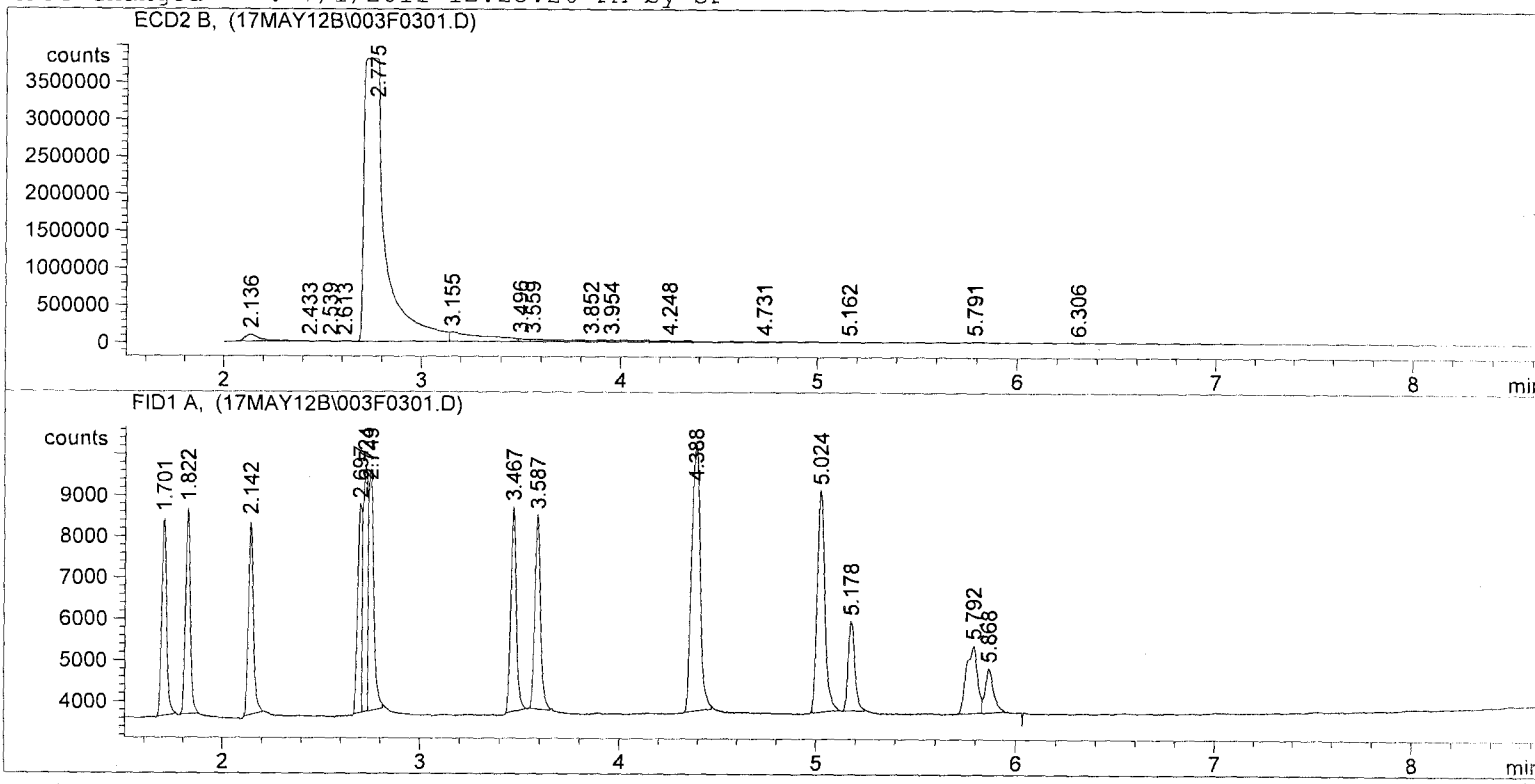
Sorted By	:	Signal
Multiplier	:	1.0000
Dilution	:	1.0000

No peaks found

*** End of Report ***

Injection Date : 5/17/2012 4:32:21 PM Seq. Line : 3
Sample Name : PNA STD 10PPM Location : Vial 3
Acq. Operator : WW Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\17MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	2.136	PV	0.0831	5.69628e5	9.76138e4	1.74465
2	2.433	VV	0.0644	2.98273e4	6394.37695	0.09135
3	2.539	VV	0.0647	3.89932e4	8476.16211	0.11943
4	2.613	VV	0.0434	1.62080e4	5504.79980	0.04964
5	2.775	VV	0.1119	2.87043e7	3.81072e6	87.91517
6	3.155	VV	0.1554	1.62254e6	1.28421e5	4.96951
7	3.496	VV	0.0446	1.27109e5	3.84045e4	0.38931
8	3.559	VV	0.0873	2.12977e5	3.25573e4	0.65230
9	3.852	VV	0.1767	3.76702e5	2.52997e4	1.15376
10	3.954	VV	0.1758	3.67395e5	2.58456e4	1.12525
11	4.248	VV	0.1438	2.36493e5	2.01746e4	0.72433
12	4.731	VV	0.3548	2.79479e5	9511.43652	0.85598
13	5.162	VP	0.0559	7787.46973	1981.50745	0.02385
14	5.791	BP	0.0579	3.90318e4	9922.42188	0.11955
15	6.306	BB	0.0557	2.15220e4	5618.81152	0.06592

Totals : 3.26500e7 4.22645e6

UU52 - Ramp Pedding (Samples A-E)
Run 1: 2 at 5/23/12

MARS

CEM

05/23/2012 09:15

MARS #01

REAL TIME DATA

FILE: TPH1200 (74 Vessels)

TIME	PRESSURE	TEMPERATURE
0:00:00	0000 PSI	077
0:01:01	0000 PSI	077
0:02:01	0000 PSI	081
0:03:01	0000 PSI	084
0:04:01	0000 PSI	086
0:05:01	0000 PSI	087
0:06:01	0000 PSI	090
0:07:01	0000 PSI	092
0:08:01	0000 PSI	102
0:09:01	0000 PSI	104
0:10:01	0000 PSI	109
0:11:01	0000 PSI	114
0:12:01	0000 PSI	107
0:13:01	0000 PSI	106
0:14:01	0000 PSI	112
0:15:01	0000 PSI	112
0:16:01	0000 PSI	106
0:17:01	0000 PSI	109
0:18:01	0000 PSI	110
0:19:01	0000 PSI	111
0:20:01	0000 PSI	114

UU52 - Bumpsalda (samples A-E)
Run 2:2

MARS

CEM

05/23/2012 10:52

MARSH #1

REAL TIME DATA

FILE: TPH1200 (2 UU PSEPLS)

TIME	PRESSURE	TEMPERATURE
0:00:00	0000 PSI	068
0:01:00	0000 PSI	073
0:02:00	0000 PSI	079
0:03:00	0000 PSI	087
0:04:00	0000 PSI	090
0:05:00	0000 PSI	097
0:06:00	0000 PSI	100
0:07:00	0000 PSI	108
0:08:00	0000 PSI	106
0:09:00	0000 PSI	112
0:10:00	0000 PSI	111
0:11:00	0000 PSI	113
0:12:00	0000 PSI	109
0:13:00	0000 PSI	104
0:14:00	0000 PSI	110
0:15:00	0000 PSI	114
0:16:00	0000 PSI	106
0:17:00	0000 PSI	115
0:18:00	0000 PSI	112
0:19:00	0000 PSI	107
0:20:00	0000 PSI	115

UU52 - Bam Pedda (Sanks Gr - J)
Rim 1:2

MARS

CEM

05/23/2012 07:01

MARS #2

REAL TIME DATA

FILE: 1200W (25 Mess 8/5)

TIME	PRESSURE	TEMPERATURE
0:00:00	0000 PSI	065
0:01:01	0000 PSI	067
0:02:01	0000 PSI	071
0:03:01	0000 PSI	073
0:04:01	0000 PSI	079
0:05:01	0000 PSI	081
0:06:01	0000 PSI	084
0:07:01	0000 PSI	087
0:08:01	0000 PSI	092
0:09:01	0000 PSI	094
0:10:01	0000 PSI	095
0:11:01	0000 PSI	096
0:12:01	0000 PSI	096
0:13:01	0000 PSI	093
0:14:01	0000 PSI	097
0:15:01	0000 PSI	099
0:16:01	0000 PSI	103
0:17:01	0000 PSI	100
0:18:01	0000 PSI	103
0:19:01	0000 PSI	105
0:20:01	0000 PSI	106

UU52 - Ram pedestal (F - J)
Rm 2:2

MARS

CEM

MAR SH#2

05/23/2012 09:03

REAL TIME DATA

FILE: 1200W (2 Vessels)

TIME	PRESSURE	TEMPERATURE
0:00:00	0000 PSI	079
0:01:01	0000 PSI	082
0:02:01	0000 PSI	087
0:03:01	0000 PSI	092
0:04:01	0000 PSI	094
0:05:01	0000 PSI	098
0:06:01	0000 PSI	098
0:07:01	0000 PSI	097
0:08:01	0000 PSI	103
0:09:01	0000 PSI	102
0:10:01	0000 PSI	103
0:11:01	0000 PSI	105
0:12:01	0000 PSI	111
0:13:01	0000 PSI	113
0:14:01	0000 PSI	115
0:15:01	0000 PSI	108
0:16:01	0000 PSI	110
0:17:01	0000 PSI	118
0:18:01	0000 PSI	111
0:19:01	0000 PSI	104
0:20:01	0000 PSI	115

Q-FLAG SUMMARY FOR DATABATCH - /chem2/nt6.i/20120524.b

Instrument: nt6.i Date: 24-MAY-2012 Method: SW846052312.m

INITIAL CAL: 23-MAY-2012

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 24-MAY-2012

Compound	%D
NO Q-FLAGS	

05/24/12

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i
Lab File ID: 05241201.D
Analysis Type:
Lab Sample ID: CC0524
Method: /chem2/nt6.i/20120524.b/SW846052312.m

Injection Date: 24-MAY-2012 10:50
Init. Cal. Date(s): 23-MAY-2012 23-MAY-2012
Init. Cal. Times: 13:34 18:46
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 2-Fluorophenol	1.16232	1.10227	1.10227	0.010	-5.16665	20.00000	Averaged
$ 2 Phenol-d5	1.38626	1.31414	1.31414	0.010	-5.20277	20.00000	Averaged
3 Phenol	1.65584	1.65854	1.65854	0.800	0.16328	20.00000	Averaged
$ 5 2-Chlorophenol-d4	1.34352	1.27189	1.27189	0.010	-5.33199	20.00000	Averaged
4 Bis(2-Chloroethyl)ether	1.14983	1.12395	1.12395	0.700	-2.25143	20.00000	Averaged
6 2-Chlorophenol	1.51155	1.51189	1.51189	0.800	0.02284	20.00000	Averaged
7 1,3-Dichlorobenzene	1.54962	1.48582	1.48582	0.100	-4.11728	20.00000	Averaged
9 1,4-Dichlorobenzene	1.54874	1.48471	1.48471	0.100	-4.13492	20.00000	Averaged
$ 10 1,2-Dichlorobenzene-d4	0.97983	0.91594	0.91594	0.010	-6.52077	20.00000	Averaged
12 1,2-Dichlorobenzene	1.48257	1.43314	1.43314	0.100	-3.33419	20.00000	Averaged
11 Benzyl alcohol	0.86466	0.75392	0.75392	0.100	-12.80719	20.00000	Averaged
14 2,2'-oxybis(1-Chloropropane	1.28965	1.26252	1.26252	0.010	-2.10327	20.00000	Averaged
13 2-Methylphenol	1.26348	1.26324	1.26324	0.700	-0.01926	20.00000	Averaged
17 Hexachloroethane	0.55466	0.53368	0.53368	0.300	-3.78295	20.00000	Averaged
16 N-Nitroso-di-n-propylamine	0.77647	0.76183	0.76183	0.500	-1.88590	20.00000	Averaged
15 4-Methylphenol	1.30469	1.32021	1.32021	0.600	1.18969	20.00000	Averaged
$ 18 Nitrobenzene-d5	0.32054	0.30533	0.30533	0.010	-4.74397	20.00000	Averaged
19 Nitrobenzene	0.32955	0.31020	0.31020	0.200	-5.86970	20.00000	Averaged
20 Isophorone	0.48476	0.46645	0.46645	0.400	-3.77723	20.00000	Averaged
21 2-Nitrophenol	0.23195	0.23302	0.23302	0.100	0.45958	20.00000	Averaged
22 2,4-Dimethylphenol	0.34708	0.34998	0.34998	0.200	0.83586	20.00000	Averaged
23 Bis(2-Chloroethoxy)methane	0.36353	0.34449	0.34449	0.300	-5.23789	20.00000	Averaged
24 Benzoic acid	47.23346	50.00000	0.20285	0.100	-5.53309	20.00000	Linear
25 2,4-Dichlorophenol	0.34369	0.35608	0.35608	0.200	3.60555	20.00000	Averaged
26 1,2,4-Trichlorobenzene	0.36910	0.34922	0.34922	0.100	-5.38664	20.00000	Averaged
28 Naphthalene	1.01682	1.00511	1.00511	0.700	-1.15232	20.00000	Averaged
29 4-Chloroaniline	0.46956	0.44898	0.44898	0.010	-4.38355	20.00000	Averaged
30 Hexachlorobutadiene	0.22538	0.21249	0.21249	0.010	-5.71810	20.00000	Averaged
31 4-Chloro-3-methylphenol	0.27483	0.29851	0.29851	0.200	8.61306	20.00000	Averaged
32 2-Methylnaphthalene	0.63209	0.60492	0.60492	0.400	-4.29932	20.00000	Averaged
33 Hexachlorocyclopentadiene	0.31515	0.31555	0.31555	0.050	0.12613	20.00000	Averaged
34 2,4,6-Trichlorophenol	0.41002	0.42620	0.42620	0.200	3.94697	20.00000	Averaged
35 2,4,5-Trichlorophenol	0.39610	0.42852	0.42852	0.200	8.18614	20.00000	Averaged
$ 36 2-Fluorobiphenyl	1.21486	1.13025	1.13025	0.010	-6.96413	20.00000	Averaged
37 2-Chloronaphthalene	1.04401	1.01674	1.01674	0.800	-2.61238	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i
Lab File ID: 05241201.D
Analysis Type:
Lab Sample ID: CC0524
Method: /chem2/nt6.i/20120524.b/SW846052312.m

Injection Date: 24-MAY-2012 10:50
Init. Cal. Date(s): 23-MAY-2012 23-MAY-2012
Init. Cal. Times: 13:34 18:46
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
38 2-Nitroaniline	0.25631	0.24668	0.24668	0.010	-3.75492	20.00000	Averaged
39 Dimethylphthalate	1.05989	0.99790	0.99790	0.010	-5.84943	20.00000	Averaged
40 Acenaphthylene	1.63360	1.58914	1.58914	0.900	-2.72107	20.00000	Averaged
41 2,6-Dinitrotoluene	0.26221	0.24789	0.24789	0.200	-5.46055	20.00000	Averaged
43 3-Nitroaniline	0.29996	0.28445	0.28445	0.010	-5.16781	20.00000	Averaged
44 Acenaphthene	1.09603	1.01454	1.01454	0.900	-7.43543	20.00000	Averaged
45 2,4-Dinitrophenol	49.26144	50.00000	0.16133	0.010	-1.47713	20.00000	Quadratic
46 Dibenzofuran	1.53529	1.44640	1.44640	0.800	-5.78979	20.00000	Averaged
47 4-Nitrophenol	22.50200	25.00000	0.09503	0.010	-9.99200	20.00000	Linear
48 2,4-Dinitrotoluene	0.33791	0.32372	0.32372	0.200	-4.19976	20.00000	Averaged
50 Diethylphthalate	1.00974	0.93871	0.93871	0.010	-7.03418	20.00000	Averaged
49 Fluorene	1.24434	1.20057	1.20057	0.900	-3.51764	20.00000	Averaged
51 4-Chlorophenyl-phenylether	0.61030	0.56846	0.56846	0.400	-6.85601	20.00000	Averaged
52 4-Nitroaniline	0.28225	0.27484	0.27484	0.010	-2.62484	20.00000	Averaged
53 4,6-Dinitro-2-methylphenol	0.14418	0.15042	0.15042	0.010	4.32691	20.00000	Averaged
54 N-Nitrosodiphenylamine	0.50404	0.46461	0.46461	0.010	-7.82235	20.00000	Averaged
$ 55 2,4,6-Tribromophenol	0.25957	0.23544	0.23544	0.010	-9.29736	20.00000	Averaged
56 4-Bromophenyl-phenylether	0.25220	0.22708	0.22708	0.100	-9.96050	20.00000	Averaged
57 Hexachlorobenzene	0.31508	0.28636	0.28636	0.100	-9.11730	20.00000	Averaged
58 Pentachlorophenol	22.68177	25.00000	0.12267	0.050	-9.27292	20.00000	Quadratic
60 Phenanthrene	1.03978	1.01168	1.01168	0.700	-2.70242	20.00000	Averaged
61 Anthracene	1.05063	1.03015	1.03015	0.700	-1.94865	20.00000	Averaged
62 Carbazole	0.81558	0.77679	0.77679	0.010	-4.75590	20.00000	Averaged
63 Di-n-butylphthalate	0.96446	0.96772	0.96772	0.010	0.33854	20.00000	Averaged
64 Fluoranthene	1.11247	1.12760	1.12760	0.600	1.35967	20.00000	Averaged
65 Pyrene	1.03280	0.98274	0.98274	0.600	-4.84701	20.00000	Averaged
$ 66 Terphenyl-d14	0.69228	0.61965	0.61965	0.010	-10.49233	20.00000	Averaged
67 Butylbenzylphthalate	0.39231	0.37115	0.37115	0.010	-5.39350	20.00000	Averaged
68 Benzo(a)anthracene	1.04465	0.96159	0.96159	0.800	-7.95112	20.00000	Averaged
70 3,3'-Dichlorobenzidine	0.39477	0.34877	0.34877	0.010	-11.65201	20.00000	Averaged
71 Chrysene	0.95981	0.92747	0.92747	0.700	-3.36900	20.00000	Averaged
72 bis(2-Ethylhexyl)phthalate	0.56228	0.52478	0.52478	0.010	-6.66888	20.00000	Averaged
73 Di-n-octylphthalate	0.93469	0.89408	0.89408	0.010	-4.34482	20.00000	Averaged
74 Benzo(b)fluoranthene	1.07881	1.04911	1.04911	0.700	-2.75296	20.00000	Averaged
75 Benzo(k)fluoranthene	1.02618	0.99426	0.99426	0.700	-3.11087	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i
Lab File ID: 05241201.D
Analysis Type:
Lab Sample ID: CC0524
Method: /chem2/nt6.i/20120524.b/SW846052312.m

Injection Date: 24-MAY-2012 10:50
Init. Cal. Date(s): 23-MAY-2012 23-MAY-2012
Init. Cal. Times: 13:34 18:46
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
187 Total Benzofluoranthenes	0.97823	0.95841	0.95841	0.010	-2.02588	20.00000	Averaged
76 Benzo(a)pyrene	0.93668	0.90591	0.90591	0.700	-3.28461	20.00000	Averaged
78 Indeno(1,2,3-cd)pyrene	1.37952	1.33330	1.33330	0.500	-3.35042	20.00000	Averaged
79 Dibenzo(a,h)anthracene	1.10920	1.10794	1.10794	0.400	-0.11393	20.00000	Averaged
80 Benzo(g,h,i)perylene	1.16367	1.13165	1.13165	0.500	-2.75194	20.00000	Averaged
90 N-Nitrosodimethylamine	0.69180	0.64797	0.64797	0.010	-6.33573	20.00000	Averaged
103 Pyridine	1.15583	1.15725	1.15725	0.010	0.12345	20.00000	Averaged
91 Aniline	1.82183	1.78771	1.78771	0.010	-1.87316	20.00000	Averaged
105 1-methylnaphthalene	0.48559	0.45346	0.45346	0.010	-6.61558	20.00000	Averaged
111 Azobenzene (1,2-DP-Hydrazin	0.93617	0.91908	0.91908	0.010	-1.82565	20.00000	Averaged
143 1,4-Dioxane	0.41940	0.39033	0.39033	0.010	-6.93106	20.00000	Averaged
$ 137 d8-1,4-Dioxane	0.44747	0.41474	0.41474	0.010	-7.31541	20.00000	Averaged
144 alpha-Terpineol	0.19211	0.17852	0.17852	0.010	-7.07361	20.00000	Averaged
177 p-Benzoquinone	0.05488	0.05349	0.05349	0.010	-2.52726	20.00000	Averaged
98 Retene	0.37090	0.34100	0.34100	0.010	-8.05971	20.00000	Averaged
99 Perylene	0.90576	0.84432	0.84432	0.010	-6.78309	20.00000	Averaged
133 Butylatedhydroxytoluene	0.78067	0.74521	0.74521	0.010	-4.54192	20.00000	Averaged
115 Tributyl Phosphate	0.59290	0.55070	0.55070	0.010	-7.11779	20.00000	Averaged
116 Dibutyl Phenyl Phosphate	0.47909	0.45629	0.45629	0.010	-4.75906	20.00000	Averaged
117 Butyl Diphenyl Phosphate	0.12025	0.10988	0.10988	0.010	-8.62888	20.00000	Averaged
118 Triphenyl Phosphate	0.23152	0.21238	0.21238	0.010	-8.26679	20.00000	Averaged
123 Acetophenone	1.56612	1.53119	1.53119	0.010	-2.23025	20.00000	Averaged
168 Pentachlorobenzene	0.51870	0.47844	0.47844	0.010	-7.76160	20.00000	Averaged
113 Diphenyl Oxide	0.73168	0.66227	0.66227	0.010	-9.48705	20.00000	Averaged
112 Biphenyl	1.11643	1.01690	1.01690	0.010	-8.91494	20.00000	Averaged
120 2,3,4,6-Tetrachlorophenol	0.28317	0.30209	0.30209	0.010	6.67993	20.00000	Averaged
151 1,2,4,5-Tetrachlorobenzene	0.54306	0.51070	0.51070	0.010	-5.95921	20.00000	Averaged
110 Tetrachloroguaiacol	0.13235	0.12608	0.12608	0.010	-4.74005	20.00000	Averaged
109 3,4,5-Trichloroguaiacol	0.13159	0.11856	0.11856	0.010	-9.90007	20.00000	Averaged
181 3,4,6-Trichloroguaiacol	0.57316	0.54320	0.54320	0.010	-5.22655	20.00000	Averaged
108 4,5,6-Trichloroguaiacol	0.21817	0.19753	0.19753	0.010	-9.45789	20.00000	Averaged
184 3,4-Dichloroguaiacol	0.50906	0.47635	0.47635	0.010	-6.42549	20.00000	Averaged
107 4,5-Dichloroguaiacol	0.28069	0.26102	0.26102	0.010	-7.00515	20.00000	Averaged
182 4,6-Dichloroguaiacol	0.63689	0.61464	0.61464	0.010	-3.49320	20.00000	Averaged
185 4-Chloroguaiacol	0.49321	0.49196	0.49196	0.010	-0.25200	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i Injection Date: 24-MAY-2012 10:50
Lab File ID: 05241201.D Init. Cal. Date(s): 23-MAY-2012 23-MAY-2012
Analysis Type: Init. Cal. Times: 13:34 18:46
Lab Sample ID: CC0524 Quant Type: ISTD
Method: /chem2/nt6.i/20120524.b/SW846052312.m

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
186 Carbaryl	0.48418	0.50613	0.50613	0.010	4.53337	20.00000	Averaged
178 2-Benzyl-4-Chlorophenol	0.21443	0.20459	0.20459	0.010	-4.58995	20.00000	Averaged
106 Guaiacol	1.01087	0.97087	0.97087	0.010	-3.95675	20.00000	Averaged

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241201.D
Lab Smp Id: CC0524 Client Smp ID: CC0524
Inj Date : 24-MAY-2012 10:50
Operator : JZ Inst ID: nt6.i
Smp Info : CC0524
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 15:43 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALA.sub
Target Version: 3.50

05/24/12

AMOUNTS

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	5.187	5.187	(0.721)	1159600	25.0000	23.71
$	2	Phenol-d5	99	6.865	6.865	(0.955)	1382492	25.0000	23.70
	3	Phenol	94	6.881	6.881	(0.957)	1744808	25.0000	25.04
$	5	2-Chlorophenol-d4	132	6.907	6.907	(0.961)	1338041	25.0000	23.67
	4	Bis(2-Chloroethyl)ether	93	6.891	6.891	(0.958)	1182405	25.0000	24.44
	6	2-Chlorophenol	128	6.929	6.929	(0.964)	1590532	25.0000	25.01
	7	1,3-Dichlorobenzene	146	7.121	7.121	(0.990)	1563100	25.0000	23.97
*	8	1,4-Dichlorobenzene-d4	152	7.191	7.191	(1.000)	841610	20.0000	
	9	1,4-Dichlorobenzene	146	7.217	7.217	(1.004)	1561930	25.0000	23.97
$	10	1,2-Dichlorobenzene-d4	152	7.490	7.490	(1.042)	963578	25.0000	23.37
	12	1,2-Dichlorobenzene	146	7.516	7.516	(1.045)	1507679	25.0000	24.17
	11	Benzyl alcohol	108	7.532	7.532	(1.048)	793132	25.0000	21.80
	14	2,2'-oxybis(1-Chloropropane)	45	7.783	7.783	(1.082)	1328189	25.0000	24.47
	13	2-Methylphenol	108	7.816	7.816	(1.087)	1328942	25.0000	25.00
	17	Hexachloroethane	117	8.003	8.003	(1.113)	561438	25.0000	24.05
	16	N-Nitroso-di-n-propylamine	70	8.008	8.008	(1.114)	801450	25.0000	24.53
	15	4-Methylphenol	108	8.056	8.056	(1.120)	1388877	25.0000	25.30
$	18	Nitrobenzene-d5	82	8.147	8.147	(0.880)	1179748	25.0000	23.81
	19	Nitrobenzene	77	8.179	8.179	(0.883)	1198574	25.0000	23.53
	20	Isophorone	82	8.574	8.574	(0.926)	1802270	25.0000	24.06
	21	2-Nitrophenol	139	8.702	8.702	(0.940)	900335	25.0000	25.11
	22	2,4-Dimethylphenol	107	8.879	8.879	(0.959)	1352274	25.0000	25.21
	23	Bis(2-Chloroethoxy)methane	93	9.002	9.002	(0.972)	1331037	25.0000	23.69
	24	Benzoic acid	105	9.188	9.188	(0.992)	1567583	50.0000	47.23
	25	2,4-Dichlorophenol	162	9.114	9.114	(0.984)	1375829	25.0000	25.90
	26	1,2,4-Trichlorobenzene	180	9.210	9.210	(0.995)	1349321	25.0000	23.65
*	27	Naphthalene-d8	136	9.258	9.258	(1.000)	3091072	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	9.285	9.285	(1.003)	3883570	25.0000	24.71
	29 4-Chloroaniline	127	9.466	9.466	(1.022)	1734775	25.0000	23.90
	30 Hexachlorobutadiene	225	9.627	9.627	(1.040)	821023	25.0000	23.57
	31 4-Chloro-3-methylphenol	107	10.337	10.337	(1.117)	1153381	25.0000	27.15
	32 2-Methylnaphthalene	141	10.412	10.412	(1.125)	2337296	25.0000	23.93
	33 Hexachlorocyclopentadiene	237	10.796	10.796	(0.892)	781674	25.0000	25.03
	34 2,4,6-Trichlorophenol	196	10.957	10.957	(0.905)	1055790	25.0000	25.99
	35 2,4,5-Trichlorophenol	196	11.021	11.021	(0.910)	1061543	25.0000	27.05
$	36 2-Fluorobiphenyl	172	11.074	11.074	(0.915)	2799866	25.0000	23.26
	37 2-Chloronaphthalene	162	11.181	11.181	(0.924)	2518670	25.0000	24.35
	38 2-Nitroaniline	65	11.448	11.448	(0.946)	611085	25.0000	24.06
	39 Dimethylphthalate	163	11.838	11.838	(0.978)	2471995	25.0000	23.54
	40 Acenaphthylene	152	11.849	11.849	(0.979)	3936641	25.0000	24.32
	41 2,6-Dinitrotoluene	165	11.918	11.918	(0.985)	614072	25.0000	23.63
*	42 Acenaphthene-d10	164	12.105	12.105	(1.000)	1981765	20.0000	
	43 3-Nitroaniline	138	12.127	12.127	(1.002)	704652	25.0000	23.71
	44 Acenaphthene	153	12.153	12.153	(1.004)	2513216	25.0000	23.14
	45 2,4-Dinitrophenol	184	12.292	12.292	(1.015)	799277	50.0000	49.26
	46 Dibenzofuran	168	12.420	12.420	(1.026)	3583042	25.0000	23.55
	47 4-Nitrophenol	109	12.517	12.517	(1.034)	235401	25.0000	22.50
	48 2,4-Dinitrotoluene	165	12.538	12.538	(1.036)	801912	25.0000	23.95
	50 Diethylphthalate	149	12.987	12.987	(1.073)	2325390	25.0000	23.24
	49 Fluorene	166	12.971	12.971	(1.071)	2974062	25.0000	24.12
	51 4-Chlorophenyl-phenylether	204	13.019	13.019	(1.075)	1408192	25.0000	23.29
	52 4-Nitroaniline	138	13.115	13.115	(1.083)	680845	25.0000	24.34
	53 4,6-Dinitro-2-methylphenol	198	13.190	13.190	(0.912)	1205358	50.0000	52.16
	54 N-Nitrosodiphenylamine	169	13.232	13.232	(0.915)	1861527	25.0000	23.04
$	55 2,4,6-Tribromophenol	330	13.398	13.398	(1.107)	583231	25.0000	22.68
	56 4-Bromophenyl-phenylether	248	13.788	13.788	(0.954)	909816	25.0000	22.51
	57 Hexachlorobenzene	284	13.986	13.986	(0.967)	1147331	25.0000	22.72
	58 Pentachlorophenol	266	14.306	14.306	(0.990)	491477	25.0000	22.68
*	59 Phenanthrene-d10	188	14.456	14.456	(1.000)	3205322	20.0000	
	60 Phenanthrene	178	14.493	14.493	(1.003)	4053452	25.0000	24.32
	61 Anthracene	178	14.563	14.563	(1.007)	4127462	25.0000	24.51
	62 Carbazole	167	14.873	14.873	(1.029)	3112323	25.0000	23.81
	63 Di-n-butylphthalate	149	15.626	15.626	(1.081)	3877328	25.0000	25.08
	64 Fluoranthene	202	16.411	16.411	(1.135)	4517883	25.0000	25.34
	65 Pyrene	202	16.753	16.753	(0.894)	4743059	25.0000	23.79
$	66 Terphenyl-d14	244	17.106	17.106	(0.913)	2990634	25.0000	22.38
	67 Butylbenzylphthalate	149	18.014	18.014	(0.962)	1791298	25.0000	23.65
	68 Benzo(a)anthracene	228	18.708	18.708	(0.999)	4640996	25.0000	23.01
*	69 Chrysene-d12	240	18.735	18.735	(1.000)	3861093	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.751	18.751	(1.001)	1683311	25.0000	22.09
	71 Chrysene	228	18.772	18.772	(1.002)	4476312	25.0000	24.16
	72 bis(2-Ethylhexyl)phthalate	149	19.034	19.034	(0.953)	2397812	25.0000	23.33
*	134 Di-n-octylphthalate-d4	153	19.964	19.964	(1.000)	3655319	20.0000	
	73 Di-n-octylphthalate	149	19.974	19.974	(1.001)	4085203	25.0000	23.91

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	20.354	20.354	(0.975)	5297393	25.0000	24.31
75	Benzo(k)fluoranthene	252	20.386	20.386	(0.977)	5020431	25.0000	24.22
187	Total Benzofluoranthenes	252	20.386	20.386	(0.977)	9678884	50.0000	48.99
76	Benzo(a)pyrene	252	20.792	20.792	(0.996)	4574336	25.0000	24.18
* 77	Perylene-d12	264	20.872	20.872	(1.000)	4039539	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	22.223	22.223	(1.065)	6732378	25.0000	24.16
79	Dibenzo(a,h)anthracene	278	22.245	22.245	(1.066)	5594443	25.0000	24.97
80	Benzo(g,h,i)perylene	276	22.528	22.528	(1.079)	5714181	25.0000	24.31
90	N-Nitrosodimethylamine	74	2.281	2.281	(0.317)	681671	25.0000	23.42
103	Pyridine	79	2.254	2.254	(0.314)	1217447	25.0000	25.03
91	Aniline	93	6.752	6.752	(0.939)	1880692	25.0000	24.53
105	1-methylnaphthalene	141	10.577	10.577	(1.143)	1752112	25.0000	23.35
111	Azobenzene (1,2-DP-Hydrazine)	77	13.265	13.265	(1.096)	2276755	25.0000	24.54
143	1,4-Dioxane	88	1.806	1.806	(0.251)	410629	25.0000	23.27
$ 137	d8-1,4-Dioxane	96	1.774	1.774	(0.247)	436309	25.0000	23.17
144	alpha-Terpineol	59	9.354	9.354	(1.010)	689767	25.0000	23.23
177	p-Benzoquinone	82	5.834	5.834	(0.630)	206677	25.0000	24.37
98	Retene	219	17.341	17.341	(0.926)	1645811	25.0000	22.99
99	Perylene	252	20.904	20.904	(1.002)	4263315	25.0000	23.30
133	Butylatedhydroxytoluene	205	12.324	12.324	(1.018)	1846034	25.0000	23.86
115	Tributyl Phosphate	99	13.382	13.382	(0.926)	2206465	25.0000	23.22
116	Dibutyl Phenyl Phosphate	175	15.081	15.081	(1.043)	1828179	25.0000	23.81
117	Butyl Diphenyl Phosphate	94	16.737	16.737	(0.893)	530306	25.0000	22.84
118	Triphenyl Phosphate	326	18.318	18.318	(0.978)	1025043	25.0000	22.93
123	Acetophenone	105	7.922	7.922	(1.102)	1610834	25.0000	24.44
168	Pentachlorobenzene	250	12.458	12.458	(1.029)	1185192	25.0000	23.06
113	Diphenyl Oxide	170	11.395	11.395	(0.941)	1640576	25.0000	22.63
112	Biphenyl	154	11.197	11.197	(0.925)	2519073	25.0000	22.77
120	2,3,4,6-Tetrachlorophenol	232	12.725	12.725	(1.051)	748340	25.0000	26.67
151	1,2,4,5-Tetrachlorobenzene	216	10.754	10.754	(0.888)	1265114	25.0000	23.51
110	Tetrachloroguaiacol	247	14.440	14.440	(0.999)	1010282	50.0000	47.63
109	3,4,5-Trichloroguaiacol	213	12.826	12.826	(0.887)	475031	25.0000	22.52
181	3,4,6-Trichloroguaiacol	211	12.944	12.944	(1.800)	571455	25.0000	23.69
108	4,5,6-Trichloroguaiacol	213	13.857	13.857	(1.145)	489326	25.0000	22.64
184	3,4-Dichloroguaiacol	192	11.299	11.299	(1.571)	501125	25.0000	23.39
107	4,5-Dichloroguaiacol	192	12.095	12.095	(0.999)	1293217	50.0000	46.50
182	4,6-Dichloroguaiacol	192	12.095	12.095	(1.682)	1293217	50.0000	48.25
185	4-Chloroguaiacol	115	10.225	10.225	(1.422)	258776	12.5000	12.47
186	Carbaryl	144	15.300	15.300	(1.058)	2027876	25.0000	26.13
178	2-Benzyl-4-Chlorophenol	218	15.278	15.278	(1.057)	819712	25.0000	23.85
106	Guaiacol	124	8.206	8.206	(1.141)	1021366	25.0000	24.01

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241201.D
Lab Smp Id: CC0524
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: CC0524
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	841610	-12.67
27 Naphthalene-d8	3430476	1715238	6860952	3091072	-9.89
42 Acenaphthene-d10	2259168	1129584	4518336	1981765	-12.28
59 Phenanthrene-d10	3446677	1723338	6893354	3205322	-7.00
69 Chrysene-d12	3961525	1980762	7923050	3861093	-2.54
134 Di-n-octylphthala	3758743	1879372	7517486	3655319	-2.75
77 Perylene-d12	4154109	2077054	8308218	4039539	-2.76

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.00
27 Naphthalene-d8	9.26	8.76	9.76	9.26	0.00
42 Acenaphthene-d10	12.11	11.61	12.61	12.11	0.00
59 Phenanthrene-d10	14.46	13.96	14.96	14.46	0.00
69 Chrysene-d12	18.73	18.23	19.23	18.73	0.00
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	0.00
77 Perylene-d12	20.87	20.37	21.37	20.87	0.00

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

Data File: /chem2/nt6.i/20120524.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: CC0524

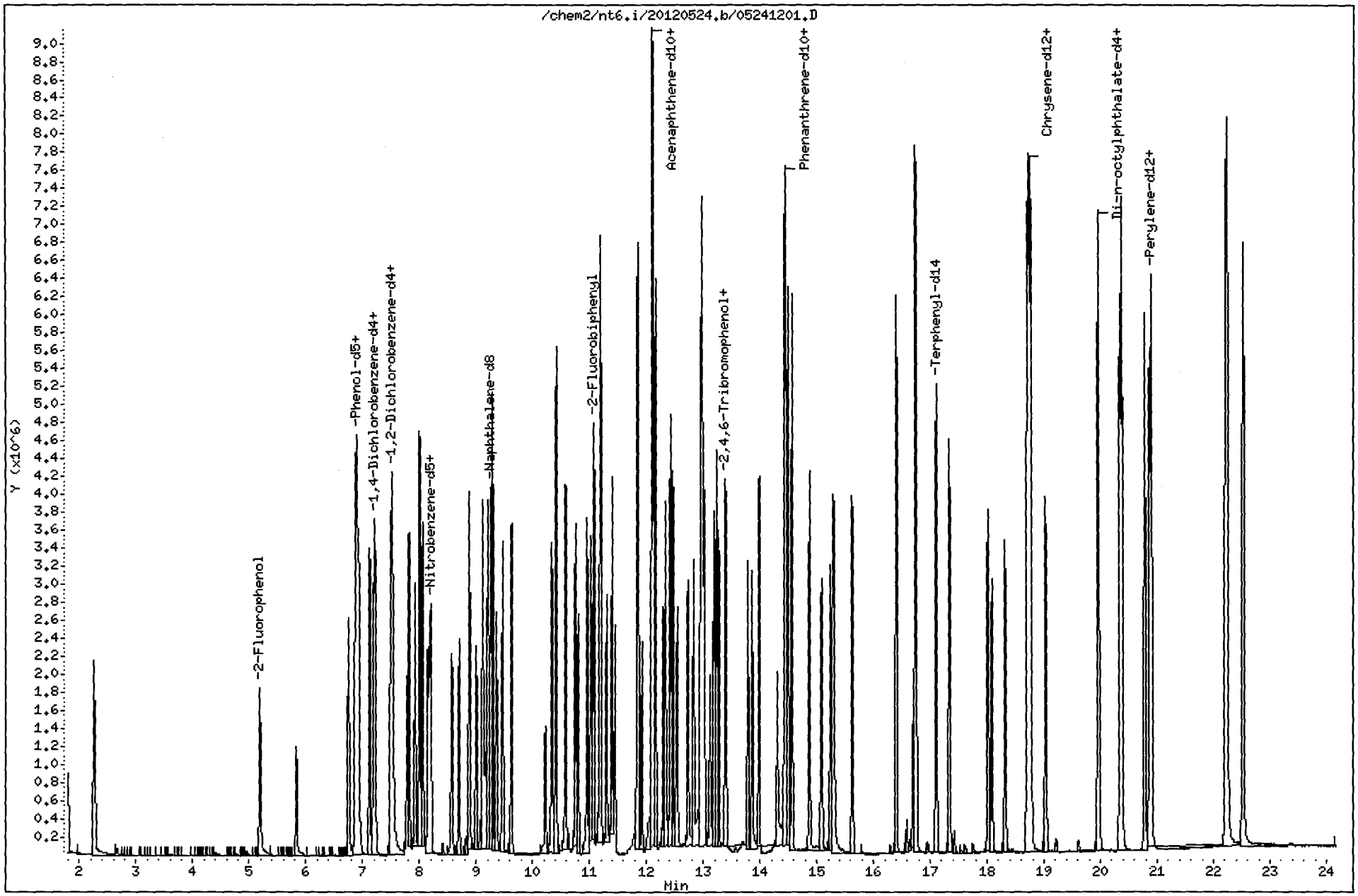
Sample Info: CC0524

Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ

Column diameter: 0.32



CO-ELUTION SUMMARY FOR FILE - 05241201.D

Lab ID: CC0524, Method: SW846052312.m, Instrument: nt6.i, Date: 24-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem2/nt6.i/20120524.b/tune.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: DFTPP0524

Instrument: nt6.i

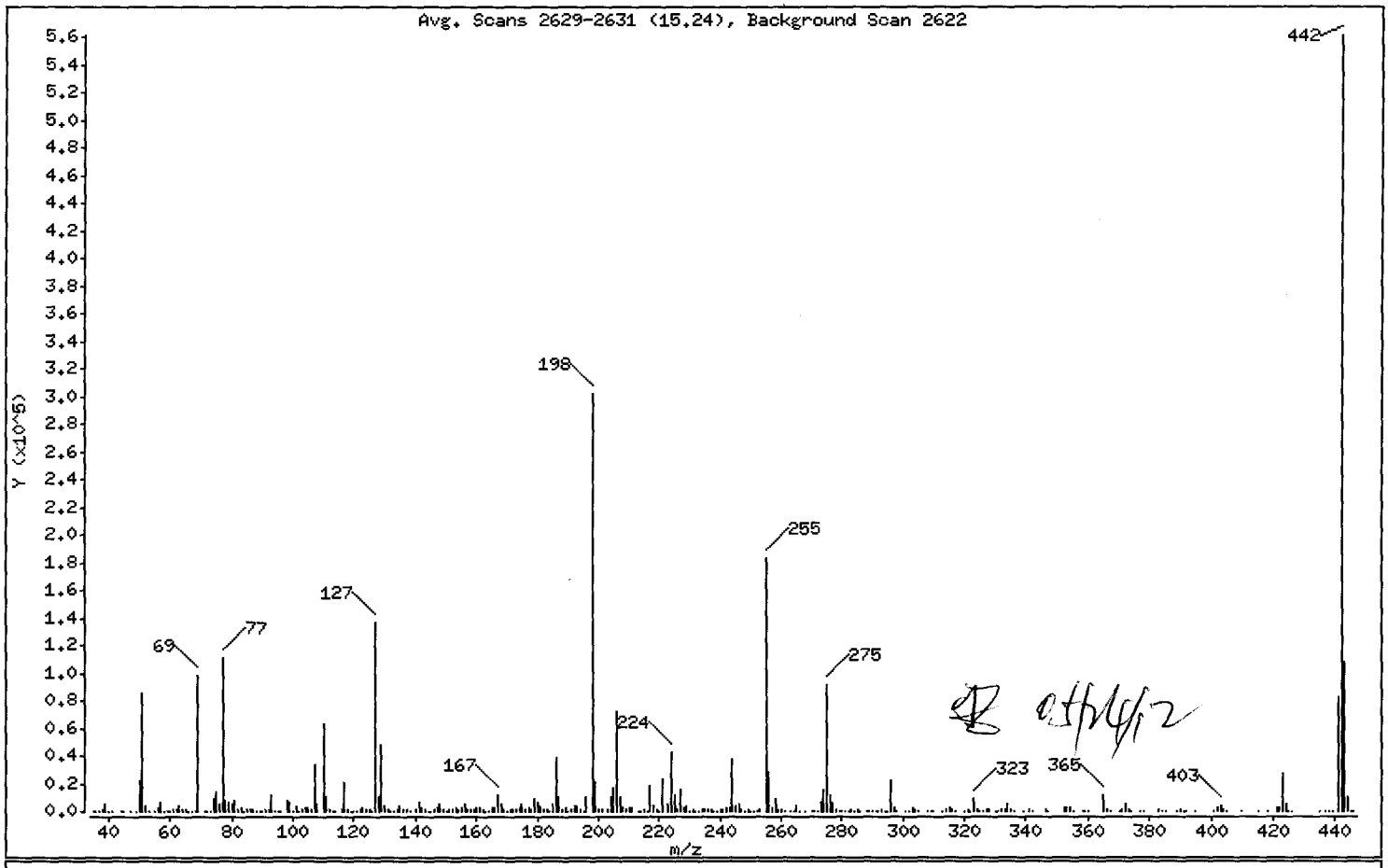
Sample Info: DFTPP0524

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	28.31
68	Less than 2.00% of mass 69	0.12 (0.36)
69	Mass 69 relative abundance	32.26
70	Less than 2.00% of mass 69	0.00 (0.00)
127	10.00 - 80.00% of mass 198	45.16
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 60.00% of mass 198	30.24
365	Greater than 1.00% of mass 198	3.91
441	0.01 - 24.00% of mass 442	27.14 (14.61)
442	50.00 - 200.00% of mass 198	185.73
443	15.00 - 24.00% of mass 442	35.77 (19.26)

Data File: /chem2/nt6.i/20120524.b/tune.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: DFTPP0524 Instrument: nt6.i

Sample Info: DFTPP0524

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.32

Data File: 05241201.D
Spectrum: Avg. Scans 2629-2631 (15,24), Background Scan 2622
Location of Maximum: 442.00
Number of points: 328

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	260	127.00	136512	214.00	51	305.00	57
36.00	42	128.00	10208	215.00	870	308.00	349
37.00	168	129.00	47168	216.00	365	309.00	179
38.00	1192	130.00	3840	217.00	17656	310.00	409
39.00	5798	131.00	753	218.00	4198	313.00	319
40.00	312	132.00	425	219.00	657	314.00	835
41.00	126	133.00	226	220.00	96	315.00	2727
44.00	57	134.00	1101	221.00	23016	316.00	1339
45.00	322	135.00	3553	223.00	4752	317.00	398
47.00	57	136.00	1435	224.00	43152	320.00	119
49.00	210	137.00	1763	225.00	11063	321.00	714
50.00	21440	138.00	566	226.00	1238	322.00	305
51.00	85584	140.00	1409	227.00	14949	323.00	9152
52.00	4515	141.00	6283	228.00	2238	324.00	1598
53.00	199	142.00	2074	229.00	4073	325.00	142
55.00	341	143.00	1259	230.00	565	326.00	56
56.00	2266	144.00	69	231.00	1595	327.00	1822
57.00	6633	145.00	445	232.00	206	328.00	957
58.00	355	146.00	966	233.00	381	330.00	51
59.00	79	147.00	3131	234.00	1024	331.00	56
60.00	221	148.00	5774	235.00	1183	332.00	983
61.00	1014	149.00	1338	236.00	689	333.00	956
62.00	1336	150.00	344	237.00	1414	334.00	5542
63.00	3361	151.00	1221	238.00	362	335.00	1552
64.00	674	152.00	1280	239.00	604	336.00	161
65.00	1791	153.00	2018	240.00	763	339.00	278
66.00	17	154.00	1367	241.00	1076	341.00	1202
67.00	264	155.00	3220	242.00	2241	342.00	435
68.00	352	156.00	5572	243.00	2869	346.00	1825
69.00	97520	157.00	1262	244.00	37008	347.00	488
71.00	232	158.00	1275	245.00	4437	352.00	2912
72.00	170	159.00	766	246.00	5393	353.00	2266
73.00	240	160.00	2096	247.00	1177	354.00	3057
74.00	8472	161.00	3012	248.00	310	355.00	580
75.00	14611	162.00	1442	249.00	1426	358.00	76

Data File: /chem2/nt6.i/20120524.b/tune.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: DFTPP0524 Instrument: nt6.i

Sample Info: DFTPP0524

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.32

Data File: 05241201.D
Spectrum: Avg. Scans 2629-2631 (15.24), Background Scan 2622
Location of Maximum: 442.00
Number of points: 328

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	5595	163.00	259	250.00	340	359.00	103
77.00	110520	164.00	422	251.00	466	360.00	75
78.00	7989	165.00	2865	252.00	344	365.00	11832
79.00	6109	166.00	2104	253.00	967	366.00	1823
80.00	5148	167.00	11480	255.00	183232	367.00	320
81.00	7345	168.00	4890	256.00	27776	370.00	372
82.00	1715	169.00	1064	257.00	1960	371.00	722
83.00	2045	170.00	469	258.00	9146	372.00	5453
84.00	466	171.00	695	259.00	1508	373.00	1421
85.00	1070	172.00	669	260.00	704	374.00	72
86.00	1904	173.00	1415	261.00	475	377.00	73
87.00	973	174.00	2702	263.00	159	378.00	63
88.00	546	175.00	4631	264.00	110	383.00	1705
89.00	60	176.00	1756	265.00	3496	384.00	302
90.00	117	177.00	1968	266.00	516	385.00	118
91.00	1468	178.00	674	268.00	79	389.00	59
92.00	1654	179.00	9459	270.00	366	390.00	923
93.00	11563	180.00	6138	271.00	348	391.00	574
94.00	575	181.00	3431	272.00	515	392.00	292
95.00	237	182.00	1065	273.00	6198	395.00	56
96.00	476	183.00	1180	274.00	15949	401.00	441
98.00	7386	184.00	579	275.00	91392	402.00	2519
99.00	6652	185.00	4759	276.00	11892	403.00	3847
100.00	515	186.00	38744	277.00	6420	404.00	1585
101.00	3788	187.00	10343	278.00	1007	405.00	236
102.00	631	188.00	1201	279.00	220	410.00	60
103.00	1592	189.00	2045	280.00	64	415.00	216
104.00	2431	190.00	455	281.00	250	418.00	57
105.00	2821	191.00	932	282.00	153	421.00	3143
106.00	893	192.00	3492	283.00	943	422.00	3051
107.00	33072	193.00	3308	284.00	475	423.00	27056
108.00	5096	194.00	646	285.00	1200	424.00	5324
110.00	63360	195.00	528	286.00	403	425.00	538
111.00	9949	196.00	10017	288.00	56	426.00	57
112.00	1740	198.00	302272	289.00	325	435.00	56

Data File: /chem2/nt6.i/20120524.b/tune.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: DFTPP0524

Instrument: nt6.i

Sample Info: DFTPP0524

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 05241201.D

Spectrum: Avg. Scans 2629-2631 (15.24), Background Scan 2622

Location of Maximum: 442.00

Number of points: 328

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	518	199.00	21200	290.00	324	437.00	116
114.00	198	200.00	1478	291.00	317	438.00	149
116.00	1076	201.00	1747	292.00	316	439.00	423
117.00	20792	203.00	1727	293.00	1548	441.00	82048
118.00	1652	204.00	9990	294.00	566	442.00	561408
119.00	186	205.00	17352	295.00	236	443.00	108120
120.00	276	206.00	71816	296.00	22536	444.00	9788
121.00	88	207.00	10394	297.00	2765	445.00	472
122.00	1907	208.00	2279	298.00	145	446.00	52
123.00	2741	209.00	711	301.00	253		
124.00	1407	210.00	2307	302.00	504		
125.00	1502	211.00	2869	303.00	2744		
126.00	155	213.00	213	304.00	960		

Data File: /chem2/nt6.i/20120524.b/tune.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: DFTPP0524

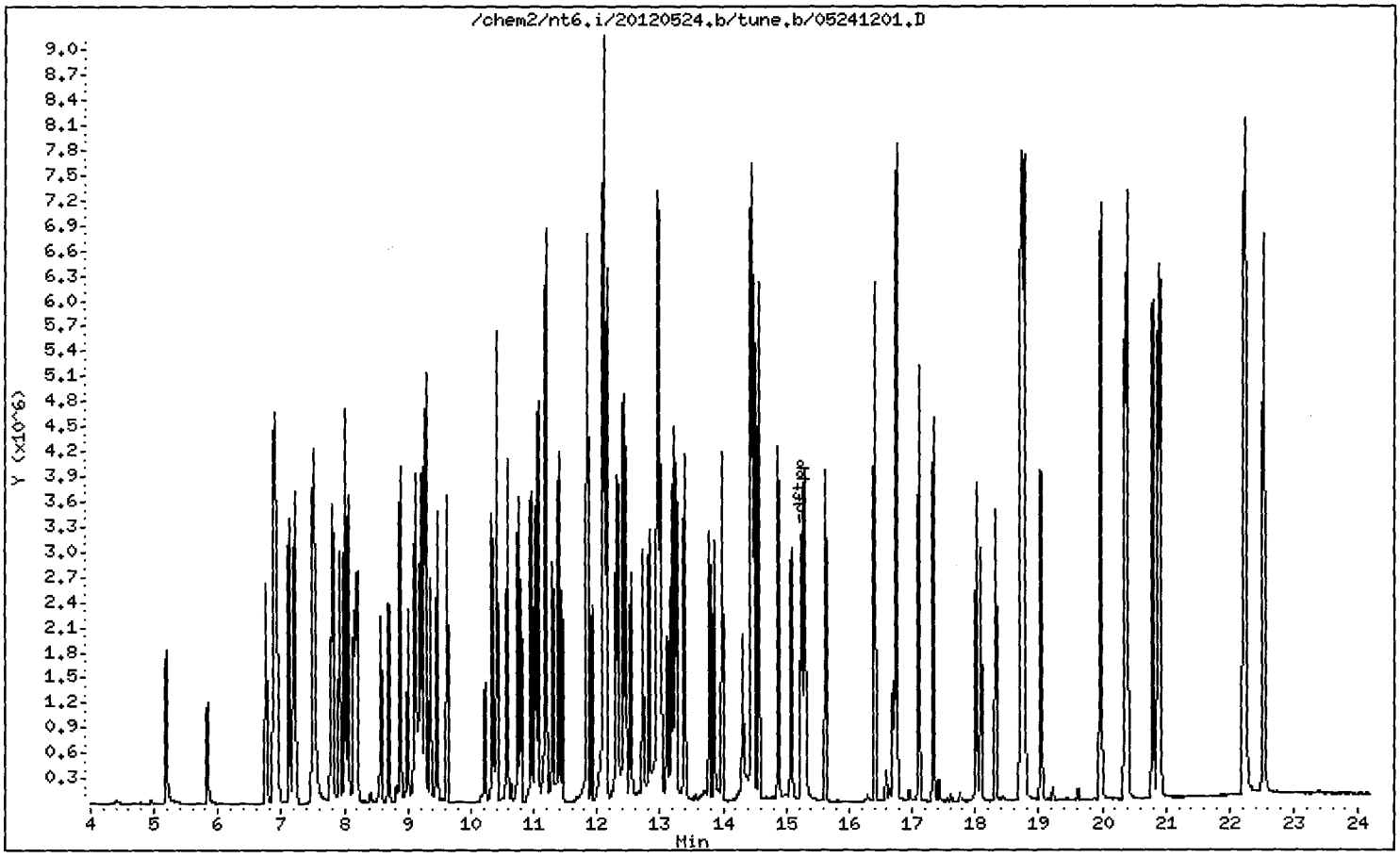
Instrument: nt6.i

Sample Info: DFTPP0524

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem2/nt6.i/20120524.b/ddt.b/05241201.D ARI ID: DDT0524
Method: /chem2/nt6.i/20120524.b/ddt.b/sw846ddt.m Misc: 12-
Analysis Date: 24-MAY-2012 10:50 Instrument: nt6.i

COMPOUND	RT	AREA
Pentachlorophenol	14.306	491477
Benzidine	16.694	1155260
4,4'-DDE	----	----
4,4'-DDD	17.618	26981
4,4'-DDT	18.083	1164099

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

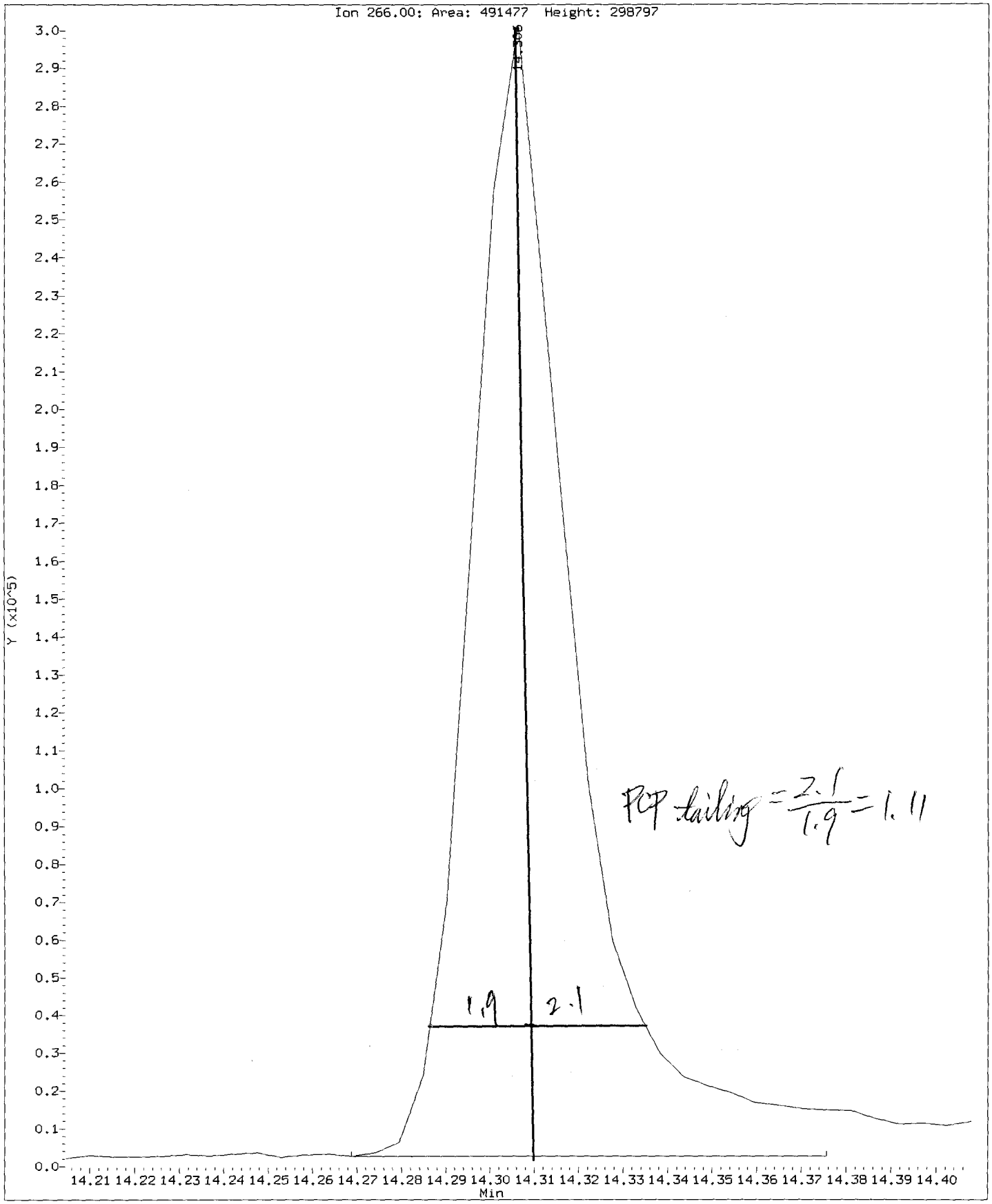
$$\text{DDT Percent Breakdown} = \frac{(0 + 26981) * 100}{(0 + 26981 + 1164099)}$$

DDT Percent Breakdown = 2.3 %

5/24/12

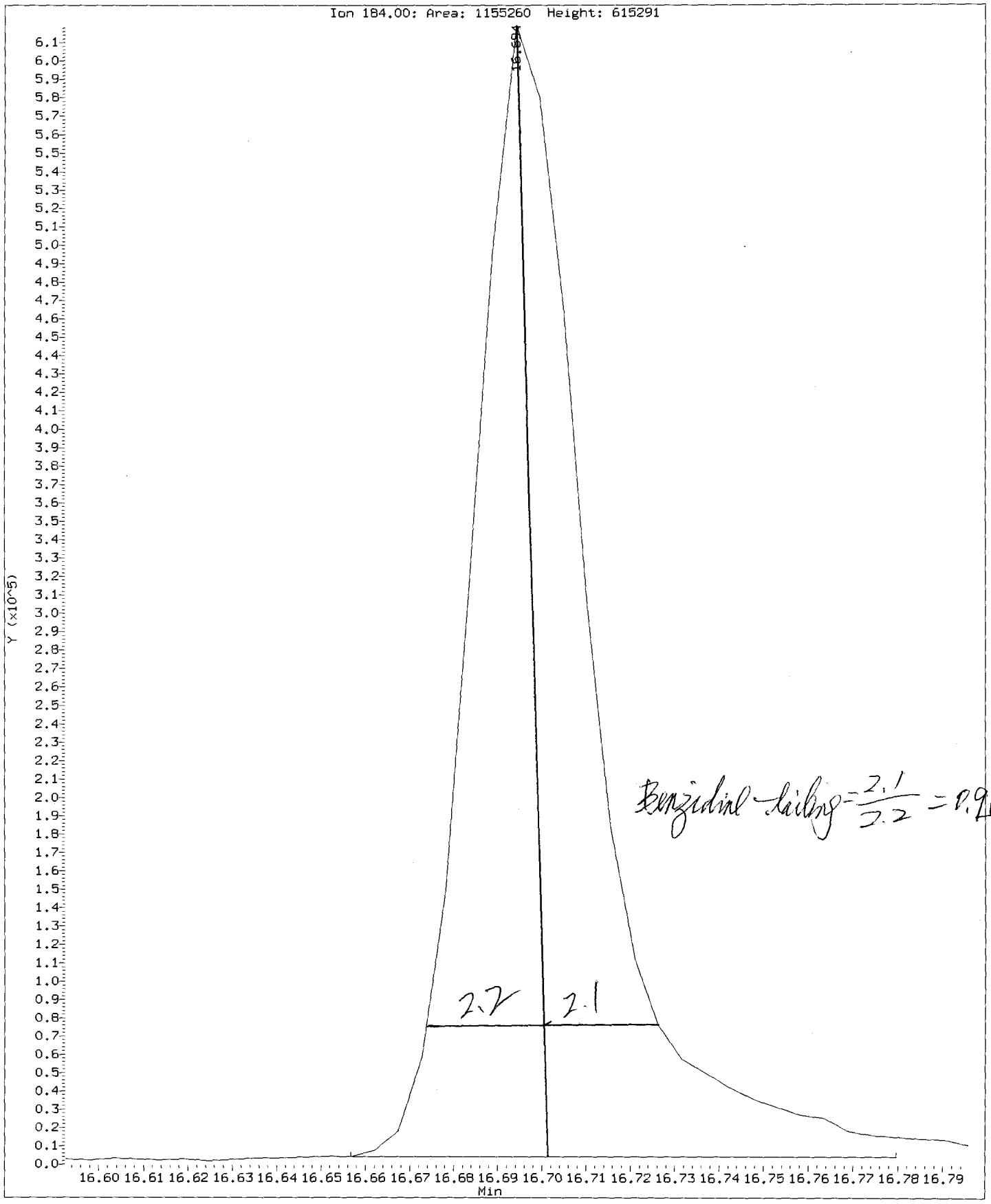
Data File: /chem2/nt6.i/20120524.b/ddt.b/05241201.D
Injection Date: 24-MAY-2012 10:50
Instrument: nt6.i
Client Sample ID: DDT0524

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem2/nt6.i/20120524.b/ddt.b/05241201.D
Injection Date: 24-MAY-2012 10:50
Instrument: nt6.i
Client Sample ID: DDT0524

Compound: Benzidine
CAS Number:



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241202.D
Lab Smp Id: UU62MBW1 Client Smp ID: UU62MBW1
Inj Date : 24-MAY-2012 11:26
Operator : JZ Inst ID: nt6.i
Smp Info : UU62MBW1,
Misc Info : 12-8937
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 17:57 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLReteneMBLCS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$	1	2-Fluorophenol	112	5.184	5.187	(0.721)	1600180	28.3423	28.34
$	2	Phenol-d5	99	6.861	6.865	(0.954)	1850494	27.4811	27.48
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	6.904	6.907	(0.960)	1767111	27.0777	27.08
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	7.193	7.191	(1.000)	971489	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	7.492	7.490	(1.042)	704957	14.8117	14.81
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/L)
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	8.144	8.147	(0.880)	982735	18.1684	18.17
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	9.255	9.258	(1.000)	3374983	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	11.071	11.074	(0.915)	2215708	17.1452	17.15
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	12.102	12.105	(1.000)	2127525	20.0000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	13.395	13.398	(1.107)	747851	27.0839	27.08
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	14.453	14.456	(1.000)	3333166	20.0000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	17.108	17.106	(0.914)	2600499	20.2076	20.21
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	18.726	18.735	(1.000)	3717834	20.0000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134 Di-n-octylphthalate-d4	153	19.960	19.964	(1.000)	3450320	20.0000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	Compound Not Detected.					
	75 Benzo(k)fluoranthene	252	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	20.869	20.872	(1.000)	4238968	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					
	98 Retene	219	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241202.D
Lab Smp Id: UU62MBW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: UU62MBW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	971489	0.80
27 Naphthalene-d8	3430476	1715238	6860952	3374983	-1.62
42 Acenaphthene-d10	2259168	1129584	4518336	2127525	-5.83
59 Phenanthrene-d10	3446677	1723338	6893354	3333166	-3.29
69 Chrysene-d12	3961525	1980762	7923050	3717834	-6.15
134 Di-n-octylphthala	3758743	1879372	7517486	3450320	-8.21
77 Perylene-d12	4154109	2077054	8308218	4238968	2.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.03
27 Naphthalene-d8	9.26	8.76	9.76	9.25	-0.03
42 Acenaphthene-d10	12.11	11.61	12.61	12.10	-0.03
59 Phenanthrene-d10	14.46	13.96	14.96	14.45	-0.02
69 Chrysene-d12	18.73	18.23	19.23	18.73	-0.05
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	-0.02
77 Perylene-d12	20.87	20.37	21.37	20.87	-0.02

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

Analytical Resources, Inc.

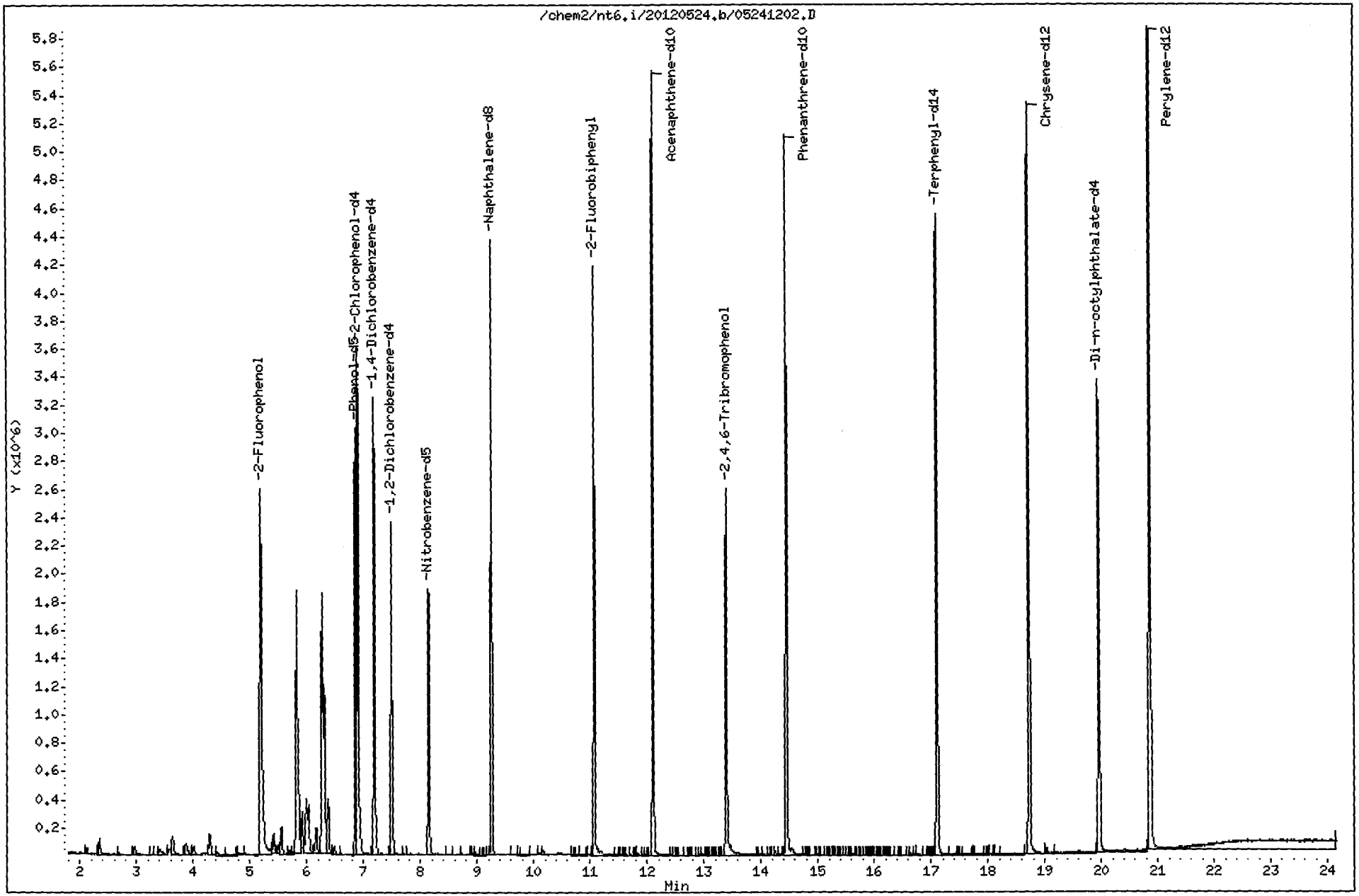
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU62
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: UU62MBW1 Client Smp ID: UU62MBW1
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: BLANK
SpikeList File: LLLCS.spk Quant Type: ISTD
Sublist File: LLReteneMBLCS.sub
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	28.34	75.58	46-100
$ 2 Phenol-d5	37.50	27.48	73.28	50-100
$ 5 2-Chlorophenol-d4	37.50	27.08	72.21	53-100
$ 10 1,2-Dichlorobenzen	25.00	14.81	59.25	38-100
$ 18 Nitrobenzene-d5	25.00	18.17	72.67	46-100
$ 36 2-Fluorobiphenyl	25.00	17.15	68.58	49-100
$ 55 2,4,6-Tribromophen	37.50	27.08	72.22	52-123
$ 66 Terphenyl-d14	25.00	20.21	80.83	53-119

Data File: /chem2/nt6.i/20120524.b/05241202.D
Date : 24-MAY-2012 11:26
Client ID: UU62MBW1
Sample Info: UU62MBW1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



UU52:91123

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241203.D
Lab Smp Id: UU62LCSW1 Client Smp ID: UU62LCSW1
Inj Date : 24-MAY-2012 11:59
Operator : JZ Inst ID: nt6.i
Smp Info : UU62LCSW1,
Misc Info : 12-8937
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 18:14 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLReteneMBLCS.sub
Target Version: 3.50

JZ 05/24/12

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$	1 2-Fluorophenol	112	5.186	5.187	(0.721)	1278293	25.9488	25.95
$	2 Phenol-d5	99	6.863	6.865	(0.955)	1671212	28.4445	28.44
	3 Phenol	94	6.879	6.881	(0.957)	1166615	16.6235	16.62
$	5 2-Chlorophenol-d4	132	6.906	6.907	(0.961)	1494231	26.2413	26.24
	4 Bis(2-Chloroethyl)ether	93	6.890	6.891	(0.958)	874042	17.9354	17.94
	6 2-Chlorophenol	128	6.927	6.929	(0.964)	996166	15.5497	15.55
	7 1,3-Dichlorobenzene	146	7.120	7.121	(0.990)	708017	10.7803	10.78
*	8 1,4-Dichlorobenzene-d4	152	7.189	7.191	(1.000)	847652	20.0000	
	9 1,4-Dichlorobenzene	146	7.216	7.217	(1.004)	748649	11.4054	11.41
$	10 1,2-Dichlorobenzene-d4	152	7.494	7.490	(1.042)	578529	13.9311	13.93
	12 1,2-Dichlorobenzene	146	7.515	7.516	(1.045)	745937	11.8713	11.87
	11 Benzyl alcohol	108	7.531	7.532	(1.048)	581010	15.8545	15.85
	14 2,2'-oxybis(1-Chloropropane)	45	7.782	7.783	(1.082)	933746	17.0833	17.08
	13 2-Methylphenol	108	7.809	7.816	(1.086)	823438	15.3771	15.38
	17 Hexachloroethane	117	8.001	8.003	(1.113)	227851	9.69247	9.692
	16 N-Nitroso-di-n-propylamine	70	8.006	8.008	(1.114)	596250	18.1183	18.12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
	15 4-Methylphenol	108	8.060	8.056	(1.121)	1775887	32.1160	32.12
$	18 Nitrobenzene-d5	82	8.145	8.147	(0.880)	859858	17.4513	17.45
	19 Nitrobenzene	77	8.177	8.179	(0.883)	853708	16.8528	16.85
	20 Isophorone	82	8.578	8.574	(0.927)	1466848	19.6852	19.69
	21 2-Nitrophenol	139	8.701	8.702	(0.940)	567595	15.9193	15.92
	22 2,4-Dimethylphenol	107	8.883	8.879	(0.960)	2279013	42.7164	42.72
	23 Bis(2-Chloroethoxy)methane	93	9.000	9.002	(0.972)	987304	17.6682	17.67
	24 Benzoic acid	105	9.262	9.188	(1.001)	3381172	102.434	102.4
	25 2,4-Dichlorophenol	162	9.112	9.114	(0.984)	2642305	50.0148	50.01
	26 1,2,4-Trichlorobenzene	180	9.208	9.210	(0.995)	696245	12.2715	12.27
*	27 Naphthalene-d8	136	9.257	9.258	(1.000)	3074341	20.0000	
	28 Naphthalene	128	9.289	9.285	(1.003)	2368189	15.1513	15.15
	29 4-Chloroaniline	127	9.470	9.466	(1.023)	3385175	46.8994	46.90
	30 Hexachlorobutadiene	225	9.625	9.627	(1.040)	335553	9.68570	9.686
	31 4-Chloro-3-methylphenol	107	10.336	10.337	(1.117)	2374532	56.2062	56.21
	32 2-Methylnaphthalene	141	10.410	10.412	(1.125)	1352620	13.9211	13.92
	33 Hexachlorocyclopentadiene	237	10.800	10.796	(0.892)	838981	28.4741	28.47
	34 2,4,6-Trichlorophenol	196	10.955	10.957	(0.905)	2177917	56.8134	56.81
	35 2,4,5-Trichlorophenol	196	11.019	11.021	(0.910)	2241838	60.5360	60.54
$	36 2-Fluorobiphenyl	172	11.073	11.074	(0.914)	1992532	17.5426	17.54
	37 2-Chloronaphthalene	162	11.185	11.181	(0.924)	1662648	17.0337	17.03
	38 2-Nitroaniline	65	11.452	11.448	(0.946)	1357120	56.6331	56.63
	39 Dimethylphthalate	163	11.842	11.838	(0.978)	2163989	21.8377	21.84
	40 Acenaphthylene	152	11.853	11.849	(0.979)	2792780	18.2854	18.29
	41 2,6-Dinitrotoluene	165	11.928	11.918	(0.985)	1568118	63.9658	63.97
*	42 Acenaphthene-d10	164	12.109	12.105	(1.000)	1869892	20.0000	
	43 3-Nitroaniline	138	12.136	12.127	(1.002)	1682200	59.9839	59.98
	44 Acenaphthene	153	12.157	12.153	(1.004)	1759153	17.1670	17.17
	45 2,4-Dinitrophenol	184	12.296	12.292	(1.015)	1800285	107.713	107.7
	46 Dibenzofuran	168	12.419	12.420	(1.026)	2524115	17.5845	17.58
	47 4-Nitrophenol	109	12.515	12.517	(1.034)	619871	62.7984	62.80
	48 2,4-Dinitrotoluene	165	12.547	12.538	(1.036)	2094094	66.2845	66.28
	50 Diethylphthalate	149	12.996	12.987	(1.073)	2077950	22.0109	22.01
	49 Fluorene	166	12.969	12.971	(1.071)	2158504	18.5535	18.55
	51 4-Chlorophenyl-phenylether	204	13.017	13.019	(1.075)	1101194	19.2989	19.30
	52 4-Nitroaniline	138	13.135	13.115	(1.085)	1611941	61.0836	61.08
	53 4,6-Dinitro-2-methylphenol	198	13.199	13.190	(0.913)	2608577	118.353	118.4
	54 N-Nitrosodiphenylamine	169	13.236	13.232	(0.916)	1435847	18.6350	18.63
$	55 2,4,6-Tribromophenol	330	13.397	13.398	(1.106)	786950	32.4267	32.43
	56 4-Bromophenyl-phenylether	248	13.787	13.788	(0.954)	751480	19.4922	19.49
	57 Hexachlorobenzene	284	13.984	13.986	(0.967)	956386	19.8559	19.86
	58 Pentachlorophenol	266	14.305	14.306	(0.990)	1345402	60.5575	60.56
*	59 Phenanthrene-d10	188	14.454	14.456	(1.000)	3057363	20.0000	
	60 Phenanthrene	178	14.492	14.493	(1.003)	3153509	19.8397	19.84
	61 Anthracene	178	14.561	14.563	(1.007)	3084959	19.2081	19.21
	62 Carbazole	167	14.871	14.873	(1.029)	2787154	22.3552	22.36
	63 Di-n-butylphthalate	149	15.624	15.626	(1.081)	3416309	23.1717	23.17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	16.404	16.411	(1.135)	3680394	21.6416	21.64
	65 Pyrene	202	16.752	16.753	(0.894)	3722489	19.2912	19.29
$	66 Terphenyl-d14	244	17.104	17.106	(0.913)	2586318	19.9959	20.00
	67 Butylbenzylphthalate	149	18.012	18.014	(0.962)	1541915	21.0366	21.04
	68 Benzo(a)anthracene	228	18.707	18.708	(0.999)	3595651	18.4224	18.42
*	69 Chrysene-d12	240	18.733	18.735	(1.000)	3736704	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.755	18.751	(1.001)	3780098	51.2504	51.25
	71 Chrysene	228	18.771	18.772	(1.002)	3563248	19.8703	19.87
	72 bis(2-Ethylhexyl)phthalate	149	19.033	19.034	(0.953)	2116125	21.3033	21.30
*	134 Di-n-octylphthalate-d4	153	19.962	19.964	(1.000)	3533231	20.0000	
	73 Di-n-octylphthalate	149	19.973	19.974	(1.001)	3567160	21.6028	21.60
	74 Benzo(b)fluoranthene	252	20.352	20.354	(0.975)	3742889	17.6002	17.60
	75 Benzo(k)fluoranthene	252	20.384	20.386	(0.977)	4406273	21.7822	21.78
	76 Benzo(a)pyrene	252	20.785	20.792	(0.996)	3352476	18.1564	18.16
*	77 Perylene-d12	264	20.870	20.872	(1.000)	3942542	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	22.217	22.223	(1.064)	4937628	18.1571	18.16
	79 Dibenzo(a,h)anthracene	278	22.243	22.245	(1.066)	3915613	17.9078	17.91
	80 Benzo(g,h,i)perylene	276	22.521	22.528	(1.079)	4370802	19.0539	19.05
	90 N-Nitrosodimethylamine	74	2.280	2.281	(0.317)	1448154	49.3910	49.39
	91 Aniline	93	6.756	6.752	(0.940)	1271519	16.4675	16.47
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	10.581	10.577	(1.143)	1429054	19.1451	19.15
	111 Azobenzene (1,2-DP-Hydrazine)	77	13.268	13.265	(1.096)	1864969	21.3073	21.31
	187 Total Benzofluoranthenes	252	20.384	20.386	(0.977)	7651676	39.6797	39.68
	98 Retene	219	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241203.D
Lab Smp Id: UU62LCSW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: UU62LCSW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	847652	-12.05
27 Naphthalene-d8	3430476	1715238	6860952	3074341	-10.38
42 Acenaphthene-d10	2259168	1129584	4518336	1869892	-17.23
59 Phenanthrene-d10	3446677	1723338	6893354	3057363	-11.30
69 Chrysene-d12	3961525	1980762	7923050	3736704	-5.68
134 Di-n-octylphthala	3758743	1879372	7517486	3533231	-6.00
77 Perylene-d12	4154109	2077054	8308218	3942542	-5.09

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	-0.02
27 Naphthalene-d8	9.26	8.76	9.76	9.26	-0.02
42 Acenaphthene-d10	12.11	11.61	12.61	12.11	0.03
59 Phenanthrene-d10	14.46	13.96	14.96	14.45	-0.01
69 Chrysene-d12	18.73	18.23	19.23	18.73	-0.01
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	-0.01
77 Perylene-d12	20.87	20.37	21.37	20.87	-0.01

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

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU62
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: UU62LCSW1 Client Smp ID: UU62LCSW1
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: LCS
SpikeList File: LLRetenLCS.spk Quant Type: ISTD
Sublist File: LLReteneMBLCS.sub
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
3	Phenol	25.00	16.62	66.49	50-100
4	Bis(2-Chloroethyl)	25.00	17.94	71.74	52-100
6	2-Chlorophenol	25.00	15.55	62.20	56-100
7	1,3-Dichlorobenzen	25.00	10.78	43.12	23-100
9	1,4-Dichlorobenzen	25.00	11.41	45.62	25-100
11	Benzyl alcohol	25.00	15.85	63.42	19-100
12	1,2-Dichlorobenzen	25.00	11.87	47.49	30-100
13	2-Methylphenol	25.00	15.38	61.51	52-100
14	2,2'-oxybis(1-Chlo	25.00	17.08	68.33	32-111
15	4-Methylphenol	50.00	32.12	64.23	53-102
16	N-Nitroso-di-n-pro	25.00	18.12	72.47	43-104
17	Hexachloroethane	25.00	9.692	38.77	12-100
19	Nitrobenzene	25.00	16.85	67.41	33-125
20	Isophorone	25.00	19.69	78.74	57-115
21	2-Nitrophenol	25.00	15.92	63.68	56-102
22	2,4-Dimethylphenol	75.00	42.72	56.96	29-100
23	Bis(2-Chloroethoxy	25.00	17.67	70.67	54-101
24	Benzoic acid	137.5	102.4	74.50	10-131
25	2,4-Dichlorophenol	75.00	50.01	66.69	56-104
26	1,2,4-Trichloroben	25.00	12.27	49.09	27-100
28	Naphthalene	25.00	15.15	60.61	45-100
29	4-Chloroaniline	75.00	46.90	62.53	10-139
30	Hexachlorobutadien	25.00	9.686	38.74	10-100
31	4-Chloro-3-methylp	75.00	56.21	74.94	53-109
32	2-Methylnaphthalen	25.00	13.92	55.68	46-100
33	Hexachlorocyclopen	75.00	28.47	37.97	10-100
34	2,4,6-Trichlorophe	75.00	56.81	75.75	58-108
35	2,4,5-Trichlorophe	75.00	60.54	80.71	58-107
37	2-Chloronaphthalen	25.00	17.03	68.13	56-104
38	2-Nitroaniline	75.00	56.63	75.51	50-107
39	Dimethylphthalate	25.00	21.84	87.35	58-107
40	Acenaphthylene	25.00	18.29	73.14	57-100
41	2,6-Dinitrotoluene	75.00	63.97	85.29	58-112

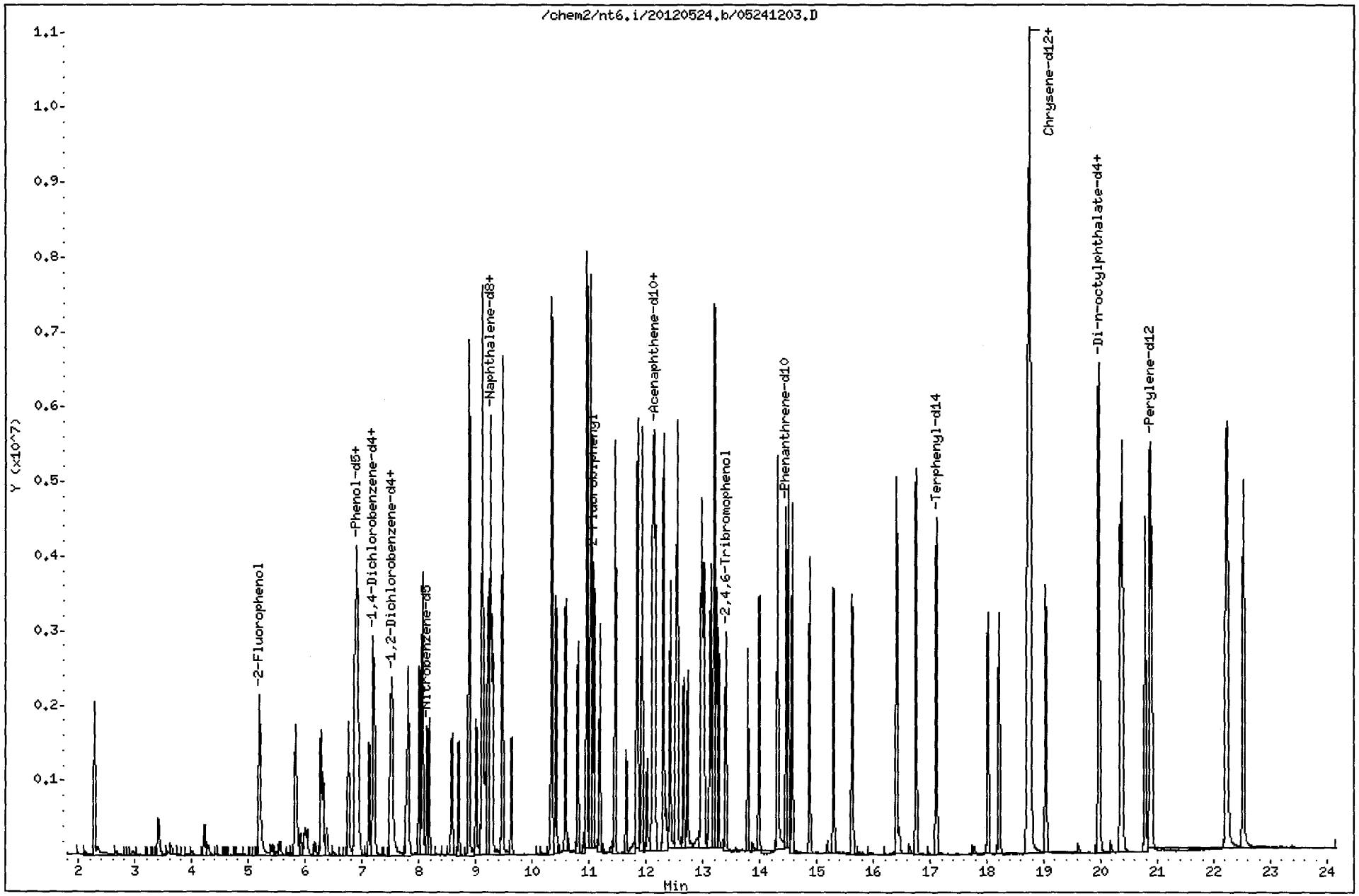
SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43	3-Nitroaniline	75.00	59.98	79.98	21-150
44	Acenaphthene	25.00	17.17	68.67	51-100
45	2,4-Dinitrophenol	137.5	107.7	78.34	12-169
46	Dibenzofuran	25.00	17.58	70.34	57-100
47	4-Nitrophenol	75.00	62.80	83.73	35-119
48	2,4-Dinitrotoluene	75.00	66.28	88.38	58-117
49	Fluorene	25.00	18.55	74.21	56-104
50	Diethylphthalate	25.00	22.01	88.04	52-111
51	4-Chlorophenyl-phe	25.00	19.30	77.20	55-104
52	4-Nitroaniline	75.00	61.08	81.44	49-112
53	4,6-Dinitro-2-meth	137.5	118.4	86.07	13-139
54	N-Nitrosodiphenyla	25.00	18.63	74.54	60-136
56	4-Bromophenyl-phen	25.00	19.49	77.97	50-103
57	Hexachlorobenzene	25.00	19.86	79.42	54-106
58	Pentachlorophenol	75.00	60.56	80.74	46-114
60	Phenanthrene	25.00	19.84	79.36	56-102
61	Anthracene	25.00	19.21	76.83	56-101
62	Carbazole	25.00	22.36	89.42	60-108
63	Di-n-butylphthalat	25.00	23.17	92.69	56-112
64	Fluoranthene	25.00	21.64	86.57	57-110
65	Pyrene	25.00	19.29	77.16	48-119
67	Butylbenzylphthala	25.00	21.04	84.15	51-114
68	Benzo(a)anthracene	25.00	18.42	73.69	55-105
70	3,3'-Dichlorobenzi	75.00	51.25	68.33	10-128
71	Chrysene	25.00	19.87	79.48	55-104
72	bis(2-Ethylhexyl)p	25.00	21.30	85.21	28-164
73	Di-n-octylphthalat	25.00	21.60	86.41	57-107
74	Benzo(b)fluoranthe	25.00	17.60	70.40	53-112
75	Benzo(k)fluoranthe	25.00	21.78	87.13	50-116
76	Benzo(a)pyrene	25.00	18.16	72.63	45-103
78	Indeno(1,2,3-cd)py	25.00	18.16	72.63	35-118
79	Dibenzo(a,h)anthra	25.00	17.91	71.63	42-119
80	Benzo(g,h,i)peryle	25.00	19.05	76.22	39-123
91	Aniline	75.00	16.47	21.96	10-100
111	Azobenzene (1,2-DP	25.00	21.31	85.23	57-109
90	N-Nitrosodimethyla	75.00	49.39	65.85	49-100
105	1-methylnaphthalen	25.00	19.15	76.58	46-100
144	alpha-Terpineol	25.00	0.000	not added in *	30-160
187	Total Benzofluoran	50.00	39.68	79.36	30-160
98	Retene	25.00	0.000	not added in *	30-160

SURROGATE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	37.50	25.95	69.20	46-100

AB 05/24/12

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 2 Phenol-d5	37.50	28.44	75.85	50-100
$ 5 2-Chlorophenol-d4	37.50	26.24	69.98	53-100
$ 10 1,2-Dichlorobenzen	25.00	13.93	55.72	38-100
$ 18 Nitrobenzene-d5	25.00	17.45	69.81	46-100
$ 36 2-Fluorobiphenyl	25.00	17.54	70.17	49-100
$ 55 2,4,6-Tribromophen	37.50	32.43	86.47	52-123
$ 66 Terphenyl-d14	25.00	20.00	79.98	53-119

Data File: /chem2/nt6.i/20120524.b/05241203.D
Date : 24-MAY-2012 11:59
Client ID: UU62LCSW1
Instrument: nt6.i
Sample Info: UU62LCSW1,
Volume Injected (uL): 1.0
Operator: JZ
Column phase: ZB-5msi
Column diameter: 0.32



UU52 : 61131

CO-ELUTION SUMMARY FOR FILE - 05241203.D

Lab ID: UU62LCSW1, Method: SW846052312.m, Instrument: nt6.i, Date: 24-MAY-201

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241204.D
Lab Smp Id: UU62LCSDW1 Client Smp ID: UU62LCSDW1
Inj Date : 24-MAY-2012 12:33
Operator : JZ Inst ID: nt6.i
Smp Info : UU62LCSDW1,
Misc Info : 12-8937
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 18:14 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 4 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLReteneMBLCS.sub
Target Version: 3.50

JZ 05/24/12

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	5.190	5.187	(0.721)	1304531	24.6127	24.61
$ 2	Phenol-d5	99	6.862	6.865	(0.954)	1695252	26.8176	26.82
3	Phenol	94	6.883	6.881	(0.957)	1217973	16.1306	16.13
$ 5	2-Chlorophenol-d4	132	6.905	6.907	(0.960)	1515195	24.7318	24.73
4	Bis(2-Chloroethyl)ether	93	6.894	6.891	(0.958)	913877	17.4295	17.43
6	2-Chlorophenol	128	6.931	6.929	(0.964)	1035015	15.0161	15.02
7	1,3-Dichlorobenzene	146	7.124	7.121	(0.990)	761282	10.7734	10.77
* 8	1,4-Dichlorobenzene-d4	152	7.193	7.191	(1.000)	912008	20.0000	
9	1,4-Dichlorobenzene	146	7.214	7.217	(1.003)	797708	11.2952	11.30
$ 10	1,2-Dichlorobenzene-d4	152	7.492	7.490	(1.042)	595547	13.3290	13.33
12	1,2-Dichlorobenzene	146	7.514	7.516	(1.045)	811063	11.9970	12.00
11	Benzyl alcohol	108	7.530	7.532	(1.047)	635938	16.1288	16.13
14	2,2'-oxybis(1-Chloropropane)	45	7.786	7.783	(1.082)	982815	16.7122	16.71
13	2-Methylphenol	108	7.807	7.816	(1.085)	851561	14.7801	14.78
17	Hexachloroethane	117	8.000	8.003	(1.112)	239328	9.46229	9.462
16	N-Nitroso-di-n-propylamine	70	8.005	8.008	(1.113)	634158	17.9104	17.91

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
	15 4-Methylphenol	108	8.064	8.056	(1.121)	1854560	31.1721	31.17
$	18 Nitrobenzene-d5	82	8.149	8.147	(0.881)	895115	16.5181	16.52
	19 Nitrobenzene	77	8.176	8.179	(0.883)	912196	16.3731	16.37
	20 Isophorone	82	8.582	8.574	(0.927)	1650433	20.1388	20.14
	21 2-Nitrophenol	139	8.700	8.702	(0.940)	605766	15.4479	15.45
	22 2,4-Dimethylphenol	107	8.881	8.879	(0.960)	2171343	37.0047	37.00
	23 Bis(2-Chloroethoxy)methane	93	8.999	9.002	(0.972)	1090463	17.7433	17.74
	24 Benzoic acid	105	9.271	9.188	(1.002)	3745583	103.176	103.2
	25 2,4-Dichlorophenol	162	9.111	9.114	(0.984)	2783619	47.9079	47.91
	26 1,2,4-Trichlorobenzene	180	9.207	9.210	(0.995)	773247	12.3918	12.39
*	27 Naphthalene-d8	136	9.255	9.258	(1.000)	3381197	20.0000	
	28 Naphthalene	128	9.287	9.285	(1.003)	2564474	14.9181	14.92
	29 4-Chloroaniline	127	9.469	9.466	(1.023)	3640857	45.8640	45.86
	30 Hexachlorobutadiene	225	9.624	9.627	(1.040)	362095	9.50329	9.503
	31 4-Chloro-3-methylphenol	107	10.340	10.337	(1.117)	2572994	55.3766	55.38
	32 2-Methylnaphthalene	141	10.414	10.412	(1.125)	1499579	14.0330	14.03
	33 Hexachlorocyclopentadiene	237	10.799	10.796	(0.892)	928120	27.7640	27.76
	34 2,4,6-Trichlorophenol	196	10.959	10.957	(0.905)	2344202	53.8995	53.90
	35 2,4,5-Trichlorophenol	196	11.023	11.021	(0.910)	2489917	59.2618	59.26
$	36 2-Fluorobiphenyl	172	11.071	11.074	(0.914)	2144163	16.6390	16.64
	37 2-Chloronaphthalene	162	11.184	11.181	(0.924)	1858839	16.7853	16.79
	38 2-Nitroaniline	65	11.456	11.448	(0.946)	1554069	57.1614	57.16
	39 Dimethylphthalate	163	11.841	11.838	(0.978)	2482183	22.0783	22.08
	40 Acenaphthylene	152	11.851	11.849	(0.979)	3120303	18.0072	18.01
	41 2,6-Dinitrotoluene	165	11.926	11.918	(0.985)	1794524	64.5207	64.52
*	42 Acenaphthene-d10	164	12.108	12.105	(1.000)	2121467	20.0000	
	43 3-Nitroaniline	138	12.140	12.127	(1.003)	1922761	60.4314	60.43
	44 Acenaphthene	153	12.156	12.153	(1.004)	1970113	16.9458	16.95
	45 2,4-Dinitrophenol	184	12.300	12.292	(1.016)	2059328	108.459	108.5
	46 Dibenzofuran	168	12.418	12.420	(1.026)	2806390	17.2326	17.23
	47 4-Nitrophenol	109	12.519	12.517	(1.034)	706262	63.0658	63.07
	48 2,4-Dinitrotoluene	165	12.546	12.538	(1.036)	2393238	66.7701	66.77
	50 Diethylphthalate	149	12.995	12.987	(1.073)	2392727	22.3397	22.34
	49 Fluorene	166	12.968	12.971	(1.071)	2411472	18.2699	18.27
	51 4-Chlorophenyl-phenylether	204	13.016	13.019	(1.075)	1238941	19.1381	19.14
	52 4-Nitroaniline	138	13.139	13.115	(1.085)	1812028	60.5230	60.52
	53 4,6-Dinitro-2-methylphenol	198	13.198	13.190	(0.913)	2971763	120.717	120.7
	54 N-Nitrosodiphenylamine	169	13.235	13.232	(0.915)	1633530	18.9814	18.98
$	55 2,4,6-Tribromophenol	330	13.401	13.398	(1.107)	869638	31.5845	31.58
	56 4-Bromophenyl-phenylether	248	13.785	13.788	(0.953)	852276	19.7926	19.79
	57 Hexachlorobenzene	284	13.983	13.986	(0.967)	1089333	20.2487	20.25
	58 Pentachlorophenol	266	14.303	14.306	(0.989)	1557483	62.5020	62.50
*	59 Phenanthrene-d10	188	14.458	14.456	(1.000)	3414818	20.0000	
	60 Phenanthrene	178	14.490	14.493	(1.002)	3535942	19.9171	19.92
	61 Anthracene	178	14.565	14.563	(1.007)	3479464	19.3967	19.40
	62 Carbazole	167	14.870	14.873	(1.028)	3072344	22.0631	22.06
	63 Di-n-butylphthalate	149	15.623	15.626	(1.081)	3838820	23.3119	23.31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	16.408	16.411	(1.135)	4044962	21.2955	21.30
	65 Pyrene	202	16.750	16.753	(0.894)	4077719	19.9244	19.92
$	66 Terphenyl-d14	244	17.103	17.106	(0.913)	2768074	20.1780	20.18
	67 Butylbenzylphthalate	149	18.016	18.014	(0.962)	1676831	21.5698	21.57
	68 Benzo(a)anthracene	228	18.705	18.708	(0.999)	3848908	18.5929	18.59
*	69 Chrysene-d12	240	18.732	18.735	(1.000)	3963208	20.0000	
	70 3,3'-Dichlorobenzidine	252	18.753	18.751	(1.001)	3906431	49.9362	49.94
	71 Chrysene	228	18.769	18.772	(1.002)	3796433	19.9607	19.96
	72 bis(2-Ethylhexyl)phthalate	149	19.031	19.034	(0.953)	2291366	21.5933	21.59
*	134 Di-n-octylphthalate-d4	153	19.961	19.964	(1.000)	3774442	20.0000	
	73 Di-n-octylphthalate	149	19.971	19.974	(1.001)	3798553	21.5340	21.53
	74 Benzo(b)fluoranthene	252	20.351	20.354	(0.975)	4351552	19.0587	19.06
	75 Benzo(k)fluoranthene	252	20.383	20.386	(0.977)	4299400	19.7959	19.80
	76 Benzo(a)pyrene	252	20.789	20.792	(0.996)	3594400	18.1313	18.13
*	77 Perylene-d12	264	20.869	20.872	(1.000)	4232897	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	22.215	22.223	(1.064)	5530454	18.9420	18.94
	79 Dibenzo(a,h)anthracene	278	22.242	22.245	(1.066)	4497164	19.1567	19.16
	80 Benzo(g,h,i)perylene	276	22.525	22.528	(1.079)	4787532	19.4389	19.44
	90 N-Nitrosodimethylamine	74	2.289	2.281	(0.318)	1506032	47.7404	47.74
	91 Aniline	93	6.755	6.752	(0.939)	1767086	21.2706	21.27
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	10.580	10.577	(1.143)	1576761	19.2069	19.21
	111 Azobenzene (1,2-DP-Hydrazine)	77	13.267	13.265	(1.096)	2093535	21.0823	21.08
	187 Total Benzofluoranthenes	252	20.383	20.386	(0.977)	8119509	39.2175	39.22
	98 Retene	219	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241204.D
Lab Smp Id: UU62LCSDW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: UU62LCSDW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	912008	-5.37
27 Naphthalene-d8	3430476	1715238	6860952	3381197	-1.44
42 Acenaphthene-d10	2259168	1129584	4518336	2121467	-6.10
59 Phenanthrene-d10	3446677	1723338	6893354	3414818	-0.92
69 Chrysene-d12	3961525	1980762	7923050	3963208	0.04
134 Di-n-octylphthala	3758743	1879372	7517486	3774442	0.42
77 Perylene-d12	4154109	2077054	8308218	4232897	1.90

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.04
27 Naphthalene-d8	9.26	8.76	9.76	9.26	-0.03
42 Acenaphthene-d10	12.11	11.61	12.61	12.11	0.02
59 Phenanthrene-d10	14.46	13.96	14.96	14.46	0.02
69 Chrysene-d12	18.73	18.23	19.23	18.73	-0.01
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	-0.01
77 Perylene-d12	20.87	20.37	21.37	20.87	-0.01

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

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU62
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: UU62LCSDW1 Client Smp ID: UU62LCSDW1
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: LCSD
SpikeList File: LLRetenLCS.spk Quant Type: ISTD
Sublist File: LLReteneMBLCS.sub
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
3 Phenol	25.00	16.13	64.52	50-100
4 Bis(2-Chloroethyl)	25.00	17.43	69.72	52-100
6 2-Chlorophenol	25.00	15.02	60.06	56-100
7 1,3-Dichlorobenzen	25.00	10.77	43.09	23-100
9 1,4-Dichlorobenzen	25.00	11.30	45.18	25-100
11 Benzyl alcohol	25.00	16.13	64.52	19-100
12 1,2-Dichlorobenzen	25.00	12.00	47.99	30-100
13 2-Methylphenol	25.00	14.78	59.12	52-100
14 2,2'-oxybis(1-Chlo	25.00	16.71	66.85	32-111
15 4-Methylphenol	50.00	31.17	62.34	53-102
16 N-Nitroso-di-n-pro	25.00	17.91	71.64	43-104
17 Hexachloroethane	25.00	9.462	37.85	12-100
19 Nitrobenzene	25.00	16.37	65.49	33-125
20 Isophorone	25.00	20.14	80.56	57-115
21 2-Nitrophenol	25.00	15.45	61.79	56-102
22 2,4-Dimethylphenol	75.00	37.00	49.34	29-100
23 Bis(2-Chloroethoxy	25.00	17.74	70.97	54-101
24 Benzoic acid	137.5	103.2	75.04	10-131
25 2,4-Dichlorophenol	75.00	47.91	63.88	56-104
26 1,2,4-Trichloroben	25.00	12.39	49.57	27-100
28 Naphthalene	25.00	14.92	59.67	45-100
29 4-Chloroaniline	75.00	45.86	61.15	10-139
30 Hexachlorobutadien	25.00	9.503	38.01	10-100
31 4-Chloro-3-methylp	75.00	55.38	73.84	53-109
32 2-Methylnaphthalen	25.00	14.03	56.13	46-100
33 Hexachlorocyclopen	75.00	27.76	37.02	10-100
34 2,4,6-Trichlorophe	75.00	53.90	71.87	58-108
35 2,4,5-Trichlorophe	75.00	59.26	79.02	58-107
37 2-Chloronaphthalen	25.00	16.79	67.14	56-104
38 2-Nitroaniline	75.00	57.16	76.22	50-107
39 Dimethylphthalate	25.00	22.08	88.31	58-107
40 Acenaphthylene	25.00	18.01	72.03	57-100
41 2,6-Dinitrotoluene	75.00	64.52	86.03	58-112

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43	3-Nitroaniline	75.00	60.43	80.58	21-150
44	Acenaphthene	25.00	16.95	67.78	51-100
45	2,4-Dinitrophenol	137.5	108.5	78.88	12-169
46	Dibenzofuran	25.00	17.23	68.93	57-100
47	4-Nitrophenol	75.00	63.07	84.09	35-119
48	2,4-Dinitrotoluene	75.00	66.77	89.03	58-117
49	Fluorene	25.00	18.27	73.08	56-104
50	Diethylphthalate	25.00	22.34	89.36	52-111
51	4-Chlorophenyl-phe	25.00	19.14	76.55	55-104
52	4-Nitroaniline	75.00	60.52	80.70	49-112
53	4,6-Dinitro-2-meth	137.5	120.7	87.79	13-139
54	N-Nitrosodiphenyla	25.00	18.98	75.93	60-136
56	4-Bromophenyl-phen	25.00	19.79	79.17	50-103
57	Hexachlorobenzene	25.00	20.25	80.99	54-106
58	Pentachlorophenol	75.00	62.50	83.34	46-114
60	Phenanthrene	25.00	19.92	79.67	56-102
61	Anthracene	25.00	19.40	77.59	56-101
62	Carbazole	25.00	22.06	88.25	60-108
63	Di-n-butylphthalat	25.00	23.31	93.25	56-112
64	Fluoranthene	25.00	21.30	85.18	57-110
65	Pyrene	25.00	19.92	79.70	48-119
67	Butylbenzylphthala	25.00	21.57	86.28	51-114
68	Benzo(a)anthracene	25.00	18.59	74.37	55-105
70	3,3'-Dichlorobenzi	75.00	49.94	66.58	10-128
71	Chrysene	25.00	19.96	79.84	55-104
72	bis(2-Ethylhexyl)p	25.00	21.59	86.37	28-164
73	Di-n-octylphthalat	25.00	21.53	86.14	57-107
74	Benzo(b)fluoranthe	25.00	19.06	76.23	53-112
75	Benzo(k)fluoranthe	25.00	19.80	79.18	50-116
76	Benzo(a)pyrene	25.00	18.13	72.53	45-103
78	Indeno(1,2,3-cd)py	25.00	18.94	75.77	35-118
79	Dibenzo(a,h)anthra	25.00	19.16	76.63	42-119
80	Benzo(g,h,i)peryle	25.00	19.44	77.76	39-123
91	Aniline	75.00	21.27	28.36	10-100
111	Azobenzene (1,2-DP	25.00	21.08	84.33	57-109
90	N-Nitrosodimethyla	75.00	47.74	63.65	49-100
105	1-methylnaphthalen	25.00	19.21	76.83	46-100
144	alpha-Terpineol	25.00	0.000	not added in *	30-160
187	Total Benzofluoran	50.00	39.22	78.44	30-160
98	Retene	25.00	0.000	not added in *	30-160

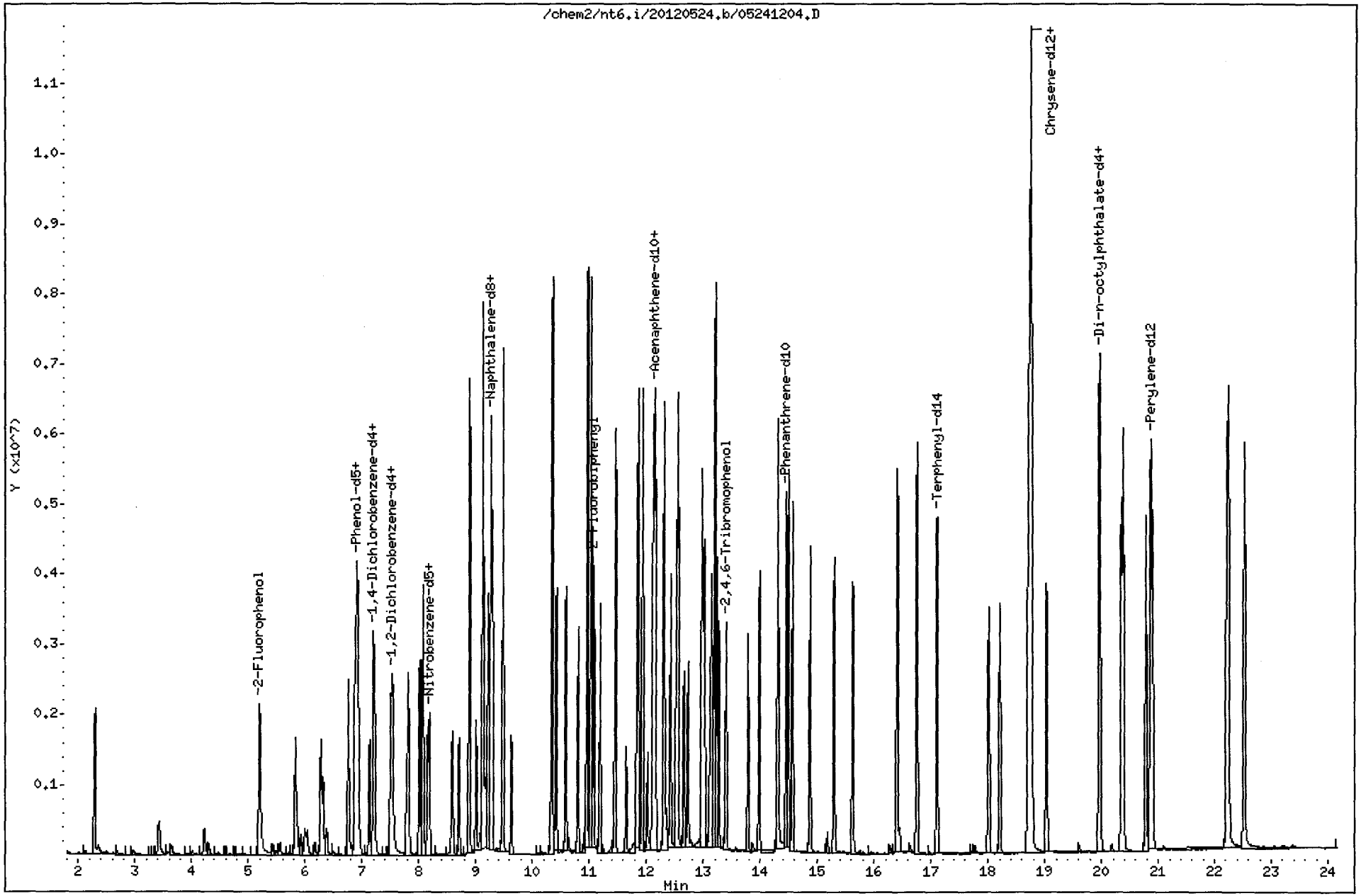
SURROGATE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	37.50	24.61	65.63	46-100

5/24/12

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 2 Phenol-d5	37.50	26.82	71.51	50-100
$ 5 2-Chlorophenol-d4	37.50	24.73	65.95	53-100
$ 10 1,2-Dichlorobenzen	25.00	13.33	53.32	38-100
$ 18 Nitrobenzene-d5	25.00	16.52	66.07	46-100
$ 36 2-Fluorobiphenyl	25.00	16.64	66.56	49-100
$ 55 2,4,6-Tribromophen	37.50	31.58	84.23	52-123
$ 66 Terphenyl-d14	25.00	20.18	80.71	53-119

Data File: /chem2/nt6.i/20120524.b/05241204.D
Date : 24-MAY-2012 12:33
Client ID: UU62LCSDW1
Sample Info: UU62LCSDW1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



UU52:091119

CO-ELUTION SUMMARY FOR FILE - 05241204.D

Lab ID: UU62LCSDW1, Method: SW846052312.m, Instrument: nt6.i, Date: 24-MAY-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241206.D
Lab Smp Id: UU62J Client Smp ID: MS-SSRB-120515
Inj Date : 24-MAY-2012 13:40
Operator : JZ Inst ID: nt6.i
Smp Info : UU62J
Misc Info : 12-8937
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 18:14 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLReten.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$ 1	2-Fluorophenol	112	5.189	5.187	(0.721)	1489975	28.6010	28.60
$ 2	Phenol-d5	99	6.861	6.865	(0.954)	1703055	27.4101	27.41
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	6.904	6.907	(0.960)	1646833	27.3484	27.35
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	7.193	7.191	(1.000)	896401	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	7.492	7.490	(1.042)	657794	14.9784	14.98
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/L)
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	8.144	8.147	(0.880)	931594	18.2899	18.29
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	Compound Not Detected.					
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	9.255	9.258	(1.000)	3178107	20.0000	
	28	Naphthalene	128	Compound Not Detected.					
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	Compound Not Detected.					
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	11.071	11.074	(0.915)	2071460	16.9097	16.91
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	12.102	12.105	(1.000)	2016726	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	12.978	12.987	(1.072)	97873	0.96125	0.9612
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	13.395	13.398	(1.107)	772438	29.5113	29.51
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	14.453	14.456	(1.000)	3170811	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	17.108	17.106	(0.914)	2702763	20.7374	20.74
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	18.726	18.735	(1.000)	3765318	20.0000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134 Di-n-octylphthalate-d4	153	19.960	19.964	(1.000)	3520284	20.0000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	Compound Not Detected.					
	75 Benzo(k)fluoranthene	252	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	20.863	20.872	(1.000)	4272719	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					
	98 Retene	219	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241206.D
Lab Smp Id: UU62J
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: MS-SSRB-120515
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	896401	-6.99
27 Naphthalene-d8	3430476	1715238	6860952	3178107	-7.36
42 Acenaphthene-d10	2259168	1129584	4518336	2016726	-10.73
59 Phenanthrene-d10	3446677	1723338	6893354	3170811	-8.00
69 Chrysene-d12	3961525	1980762	7923050	3765318	-4.95
134 Di-n-octylphthala	3758743	1879372	7517486	3520284	-6.34
77 Perylene-d12	4154109	2077054	8308218	4272719	2.86

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.03
27 Naphthalene-d8	9.26	8.76	9.76	9.25	-0.03
42 Acenaphthene-d10	12.11	11.61	12.61	12.10	-0.03
59 Phenanthrene-d10	14.46	13.96	14.96	14.45	-0.02
69 Chrysene-d12	18.73	18.23	19.23	18.73	-0.05
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	-0.02
77 Perylene-d12	20.87	20.37	21.37	20.86	-0.04

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

Analytical Resources, Inc.

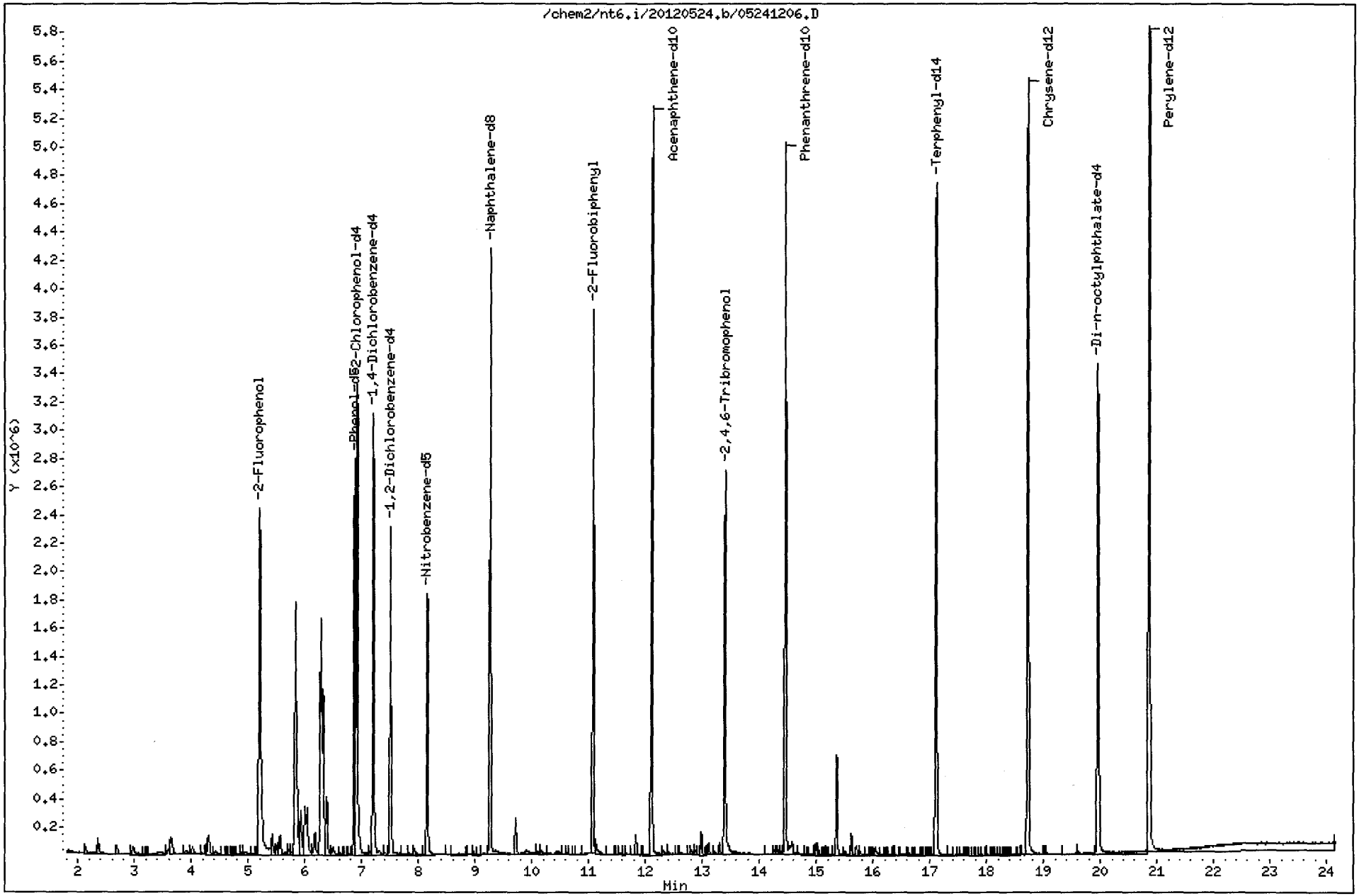
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU62
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: UU62J Client Smp ID: MS-SSRB-120515
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LLLCS.spk Quant Type: ISTD
Sublist File: LLReten.sub
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	28.60	76.27	38-100
$ 2 Phenol-d5	37.50	27.41	73.09	41-100
$ 5 2-Chlorophenol-d4	37.50	27.35	72.93	44-100
$ 10 1,2-Dichlorobenzen	25.00	14.98	59.91	32-100
$ 18 Nitrobenzene-d5	25.00	18.29	73.16	39-100
$ 36 2-Fluorobiphenyl	25.00	16.91	67.64	42-100
$ 55 2,4,6-Tribromophen	37.50	29.51	78.70	48-118
$ 66 Terphenyl-d14	25.00	20.74	82.95	28-121

Data File: /chem2/nt6.i/20120524.b/05241206.D
Date : 24-MAY-2012 13:40
Client ID: MS-SSRB-120515
Sample Info: UU62J
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



UU52:01117

Data File: /chem2/nt6.i/20120524.b/05241206.D

Date : 24-MAY-2012 13:40

Client ID: MS-SSRB-120515

Instrument: nt6.i

Sample Info: UU62J

Volume Injected (uL): 1.0

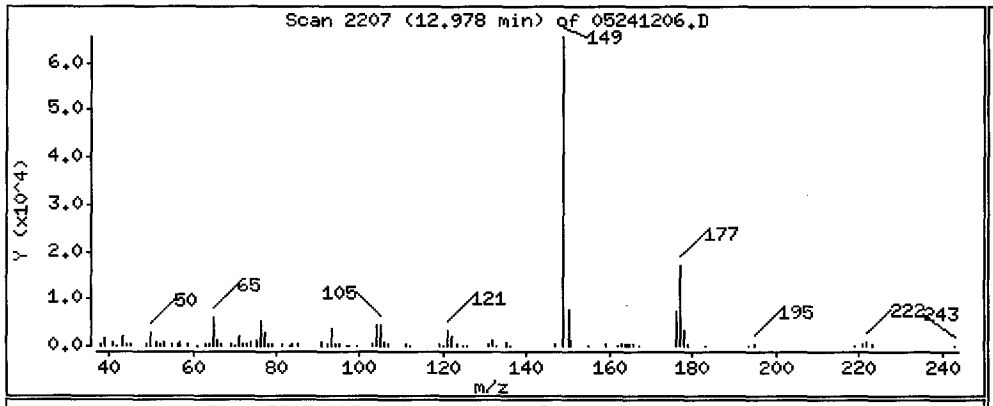
Operator: JZ

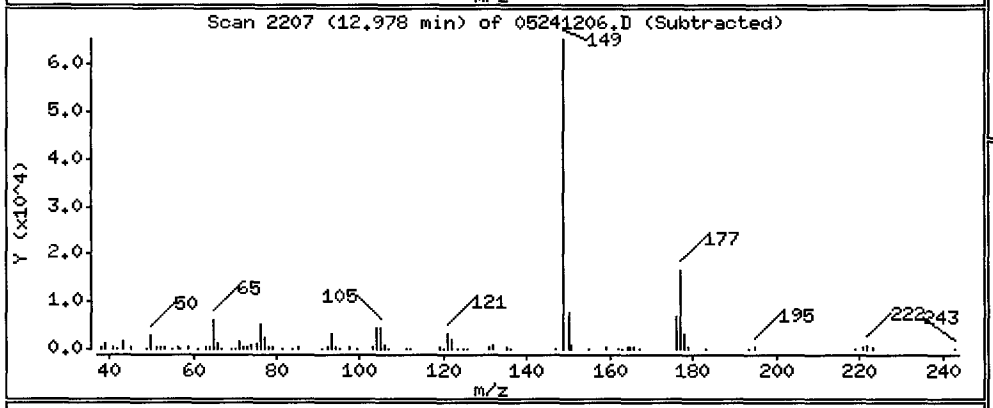
Column phase: ZB-5msi

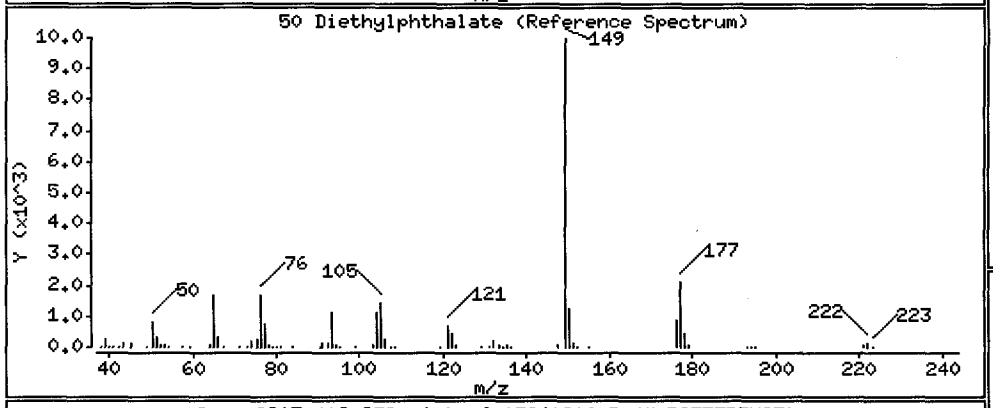
Column diameter: 0.32

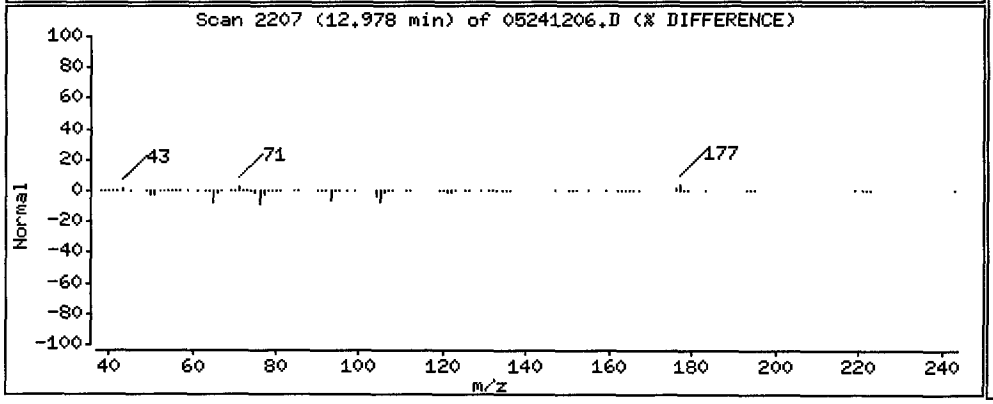
50 Diethylphthalate

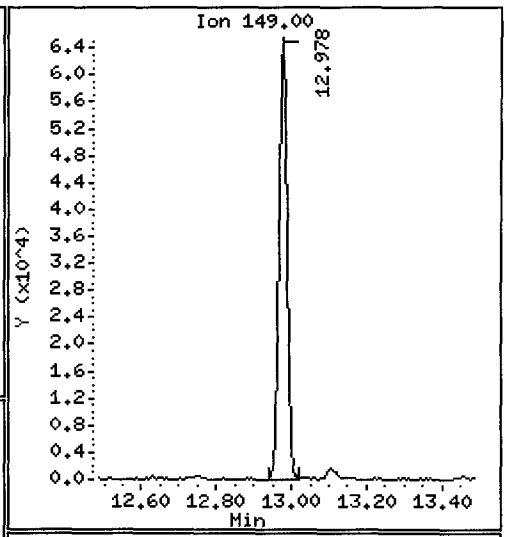
Concentration: 0.9612 ug/L

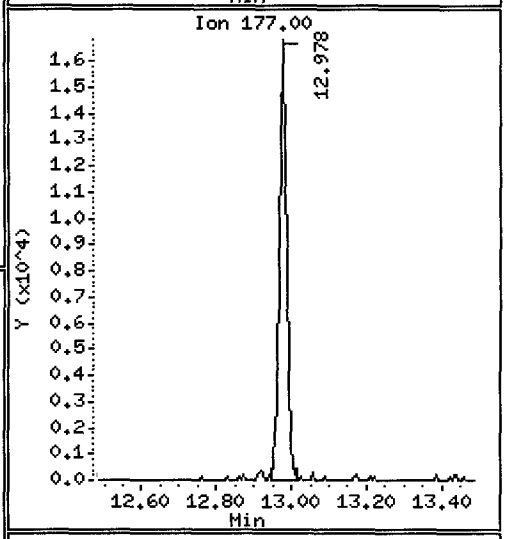


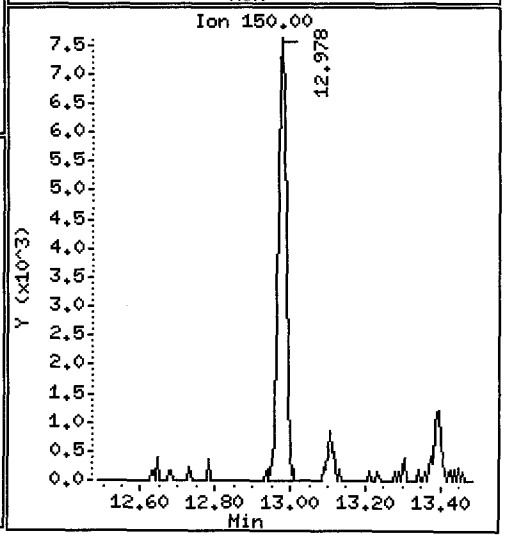












CO-ELUTION SUMMARY FOR FILE - 05241206.D

Lab ID: UU62J, Method: SW846052312.m, Instrument: nt6.i, Date: 24-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241207.D
Lab Smp Id: UU62K Client Smp ID: MS-SSFB-120515
Inj Date : 24-MAY-2012 14:14
Operator : JZ Inst ID: nt6.i
Smp Info : UU62K
Misc Info : 12-8938
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 18:14 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLReten.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$	1	2-Fluorophenol	112	5.190	5.187	(0.722)	1417828	25.7346	25.73
$	2	Phenol-d5	99	6.862	6.865	(0.954)	1718783	26.1575	26.16
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	6.905	6.907	(0.960)	1640665	25.7629	25.76
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	7.193	7.191	(1.000)	948003	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	7.493	7.490	(1.042)	665537	14.3299	14.33
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	8.144	8.147	(0.880)	931891	17.3698	17.37
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	9.256	9.258	(1.000)	3347510	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					
34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$ 36	2-Fluorobiphenyl	172	11.072	11.074	(0.915)	2040595	15.6868	15.69
37	2-Chloronaphthalene	162	Compound Not Detected.					
38	2-Nitroaniline	65	Compound Not Detected.					
39	Dimethylphthalate	163	11.825	11.838	(0.977)	92450	0.81460	0.8146
40	Acenaphthylene	152	Compound Not Detected.					
41	2,6-Dinitrotoluene	165	Compound Not Detected.					
* 42	Acenaphthene-d10	164	12.103	12.105	(1.000)	2141551	20.0000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	Compound Not Detected.					
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	Compound Not Detected.					
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	Compound Not Detected.					
50	Diethylphthalate	149	12.979	12.987	(1.072)	147011	1.35969	1.360
49	Fluorene	166	Compound Not Detected.					
51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$ 55	2,4,6-Tribromophenol	330	13.390	13.398	(1.106)	784407	28.2218	28.22
56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	14.448	14.456	(1.000)	3383727	20.0000	
60	Phenanthrene	178	Compound Not Detected.					
61	Anthracene	178	Compound Not Detected.					
62	Carbazole	167	Compound Not Detected.					
63	Di-n-butylphthalate	149	15.623	15.626	(1.081)	604665	3.70567	3.706
64	Fluoranthene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
65	Pyrene	202	Compound Not Detected.					
$ 66	Terphenyl-d14	244	17.103	17.106	(0.913)	2728362	19.7849	19.78
67	Butylbenzylphthalate	149	18.011	18.014	(0.962)	41844	0.53545	0.5355
68	Benzo(a)anthracene	228	Compound Not Detected.					
* 69	Chrysene-d12	240	18.727	18.735	(1.000)	3983969	20.0000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	Compound Not Detected.					
72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
* 134	Di-n-octylphthalate-d4	153	19.961	19.964	(1.000)	3747644	20.0000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	Compound Not Detected.					
* 77	Perylene-d12	264	20.864	20.872	(1.000)	4429070	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	141	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	Compound Not Detected.					
98	Retene	219	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241207.D
Lab Smp Id: UU62K
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8938

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: MS-SSFB-120515
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	963757	481878	1927514	948003	-1.63
27 Naphthalene-d8	3430476	1715238	6860952	3347510	-2.42
42 Acenaphthene-d10	2259168	1129584	4518336	2141551	-5.21
59 Phenanthrene-d10	3446677	1723338	6893354	3383727	-1.83
69 Chrysene-d12	3961525	1980762	7923050	3983969	0.57
134 Di-n-octylphthala	3758743	1879372	7517486	3747644	-0.30
77 Perylene-d12	4154109	2077054	8308218	4429070	6.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.19	6.69	7.69	7.19	0.04
27 Naphthalene-d8	9.26	8.76	9.76	9.26	-0.03
42 Acenaphthene-d10	12.11	11.61	12.61	12.10	-0.02
59 Phenanthrene-d10	14.46	13.96	14.96	14.45	-0.05
69 Chrysene-d12	18.73	18.23	19.23	18.73	-0.04
134 Di-n-octylphthala	19.96	19.46	20.46	19.96	-0.01
77 Perylene-d12	20.87	20.37	21.37	20.86	-0.04

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

Analytical Resources, Inc.

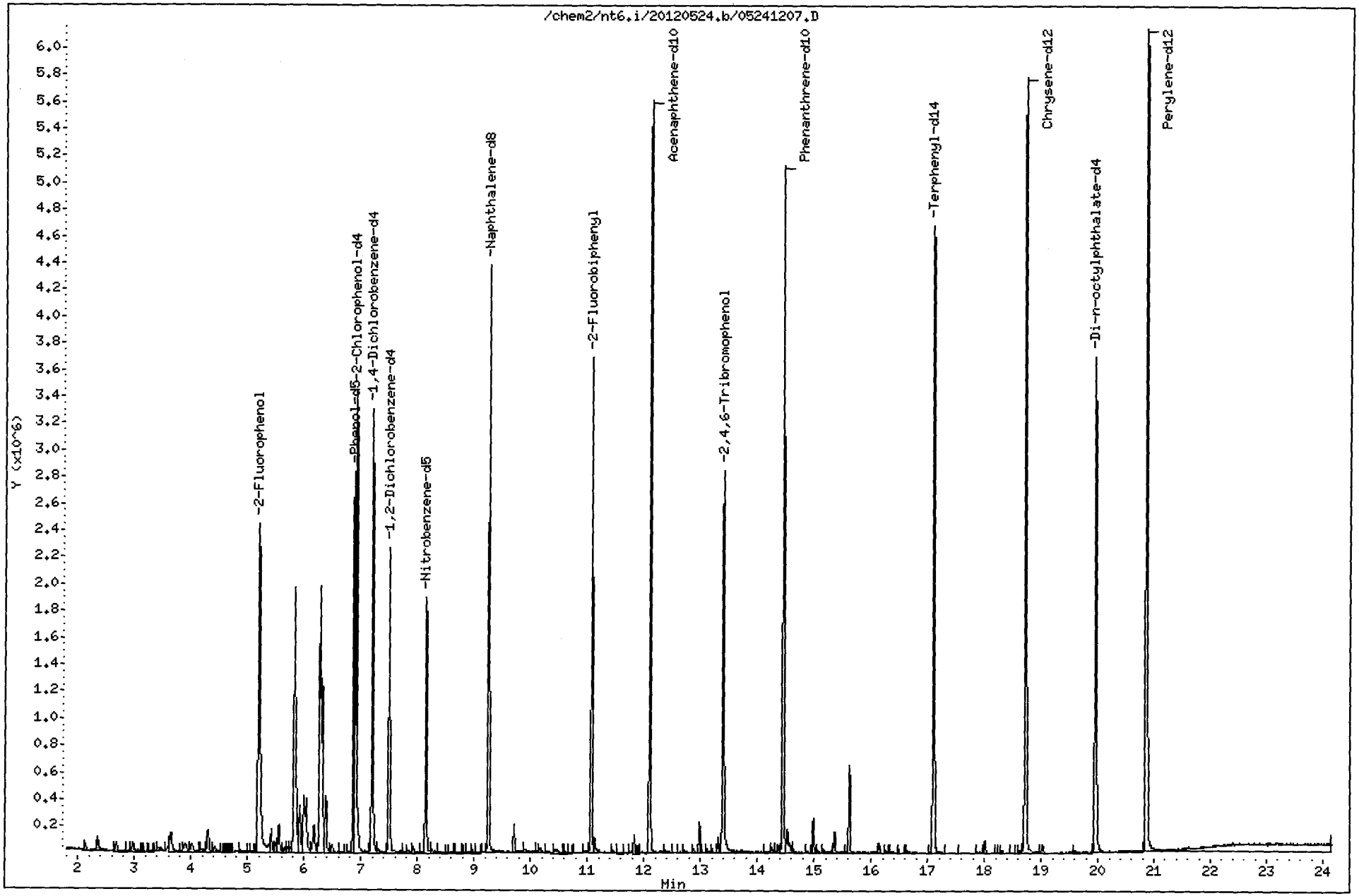
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU62
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: UU62K Client Smp ID: MS-SSFB-120515
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LLLCS.spk Quant Type: ISTD
Sublist File: LLReten.sub
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8938

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	25.73	68.63	38-100
$ 2 Phenol-d5	37.50	26.16	69.75	41-100
$ 5 2-Chlorophenol-d4	37.50	25.76	68.70	44-100
$ 10 1,2-Dichlorobenzen	25.00	14.33	57.32	32-100
$ 18 Nitrobenzene-d5	25.00	17.37	69.48	39-100
$ 36 2-Fluorobiphenyl	25.00	15.69	62.75	42-100
$ 55 2,4,6-Tribromophen	37.50	28.22	75.26	48-118
$ 66 Terphenyl-d14	25.00	19.78	79.14	28-121

Data File: /chem2/nt6.i/20120524.b/05241207.D
Date : 24-MAY-2012 14:14
Client ID: MS-SSFB-120515
Sample Info: UU62K
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



UU62:01155

Data File: /chem2/nt6.i/20120524.b/05241207.D

Date : 24-MAY-2012 14:14

Client ID: MS-SSFB-120515

Instrument: nt6.i

Sample Info: UU62K

Volume Injected (uL): 1.0

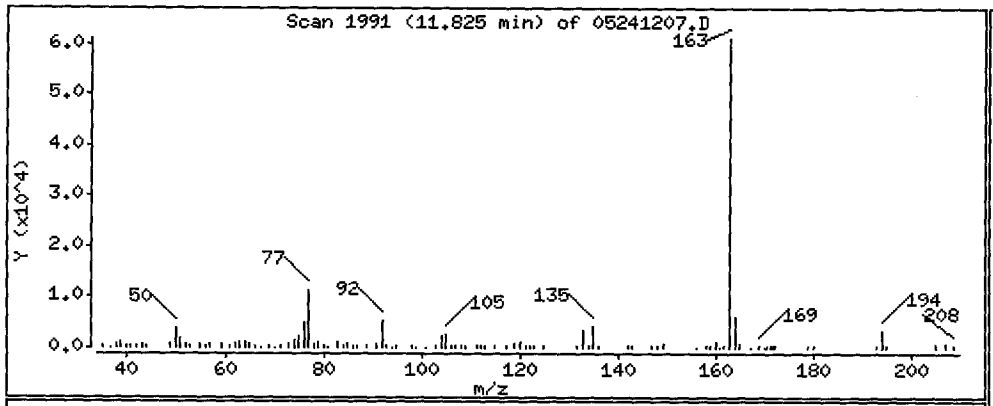
Operator: JZ

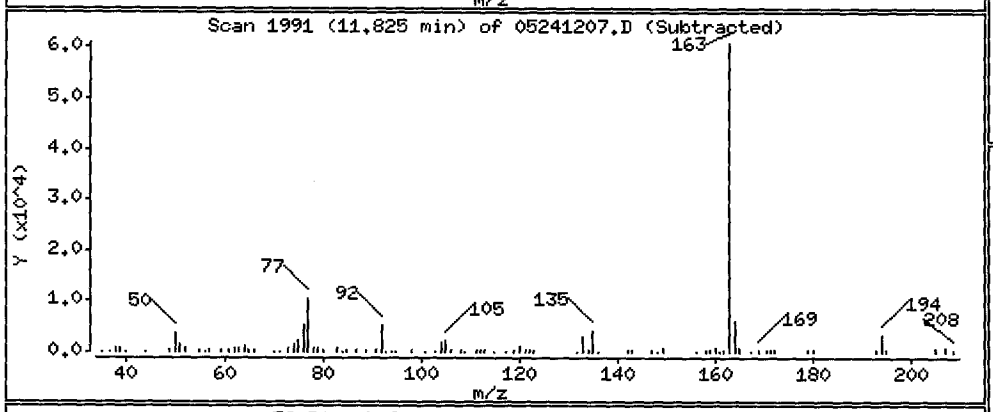
Column phase: ZB-5msi

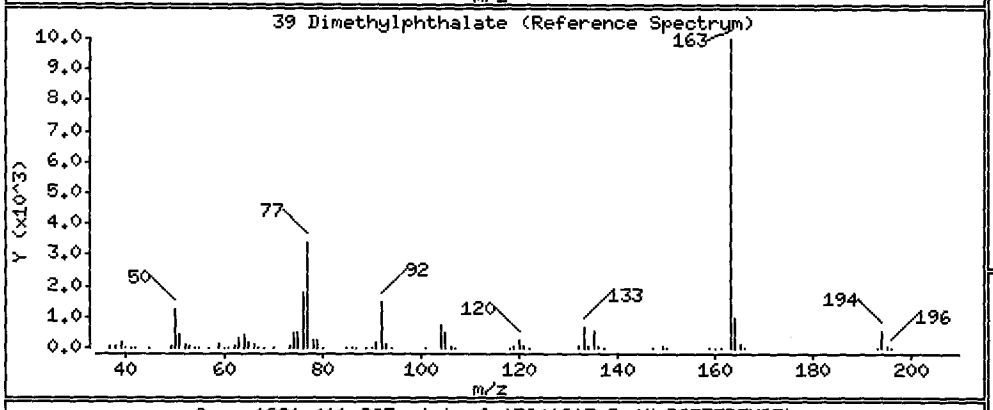
Column diameter: 0.32

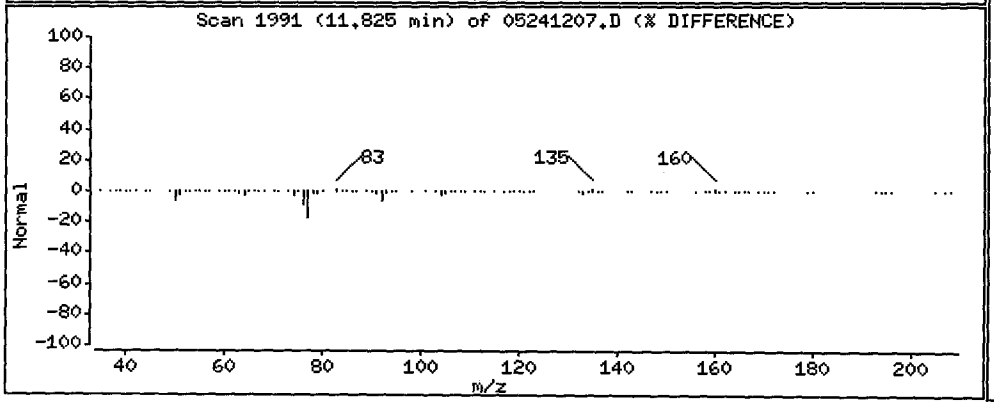
39 Dimethylphthalate

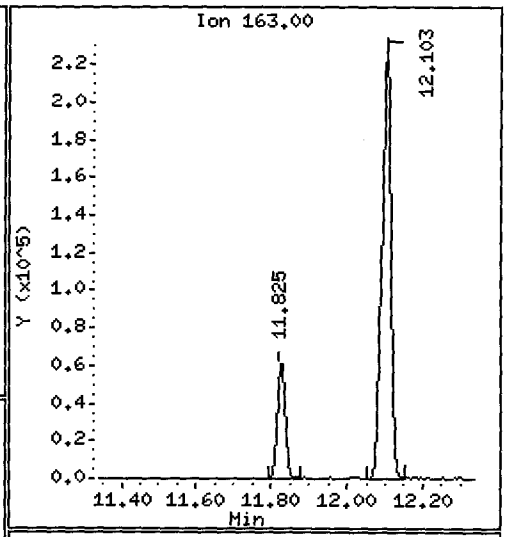
Concentration: 0.8146 ug/L

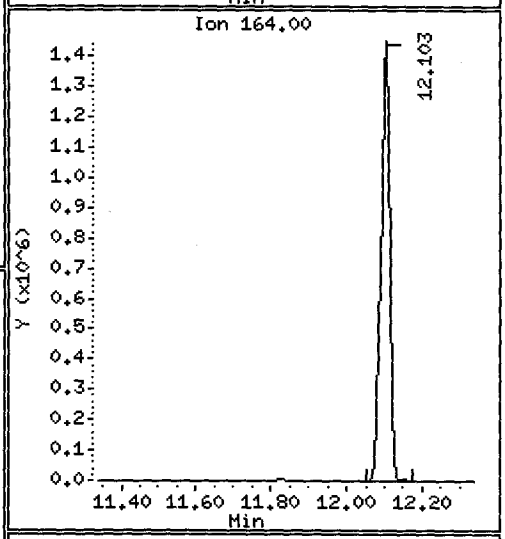


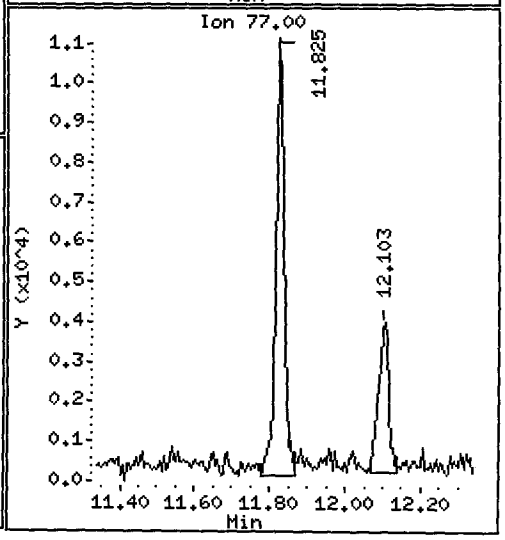












Data File: /chem2/nt6.i/20120524.b/05241207.D

Date : 24-MAY-2012 14:14

Client ID: MS-SSFB-120515

Instrument: nt6.i

Sample Info: UU62K

Volume Injected (uL): 1.0

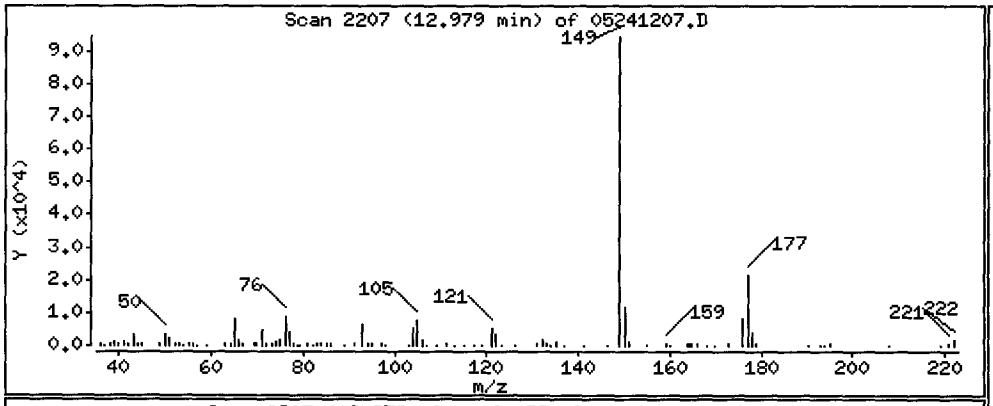
Operator: JZ

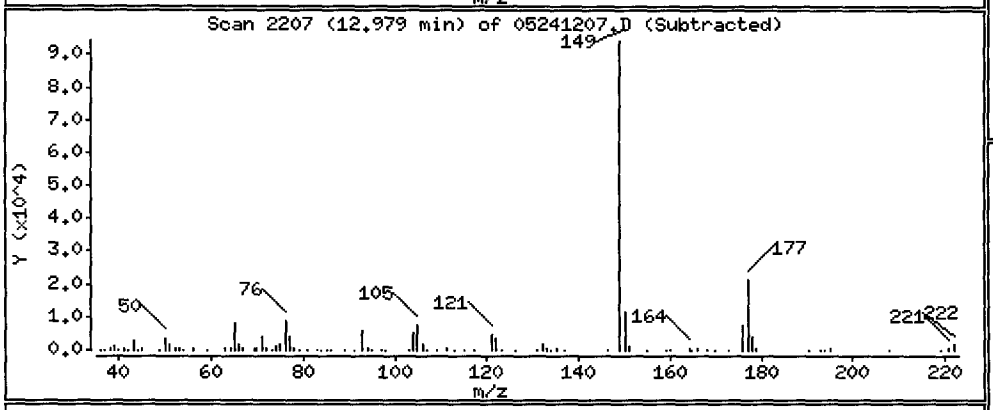
Column phase: ZB-5msi

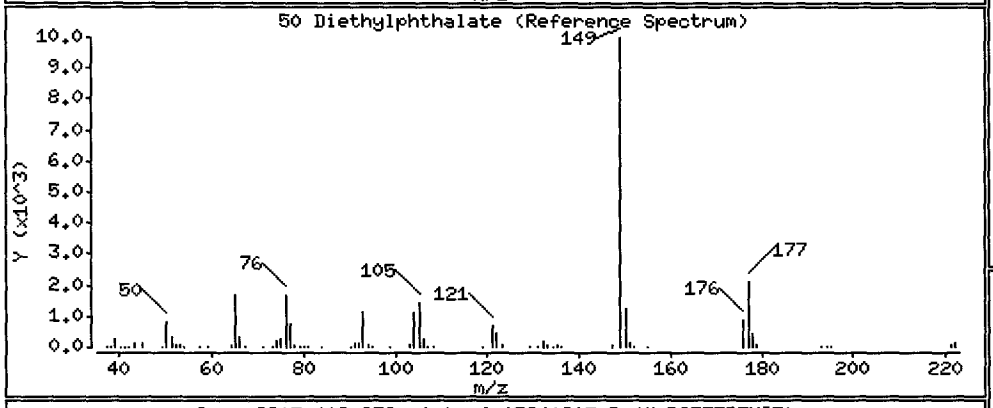
Column diameter: 0.32

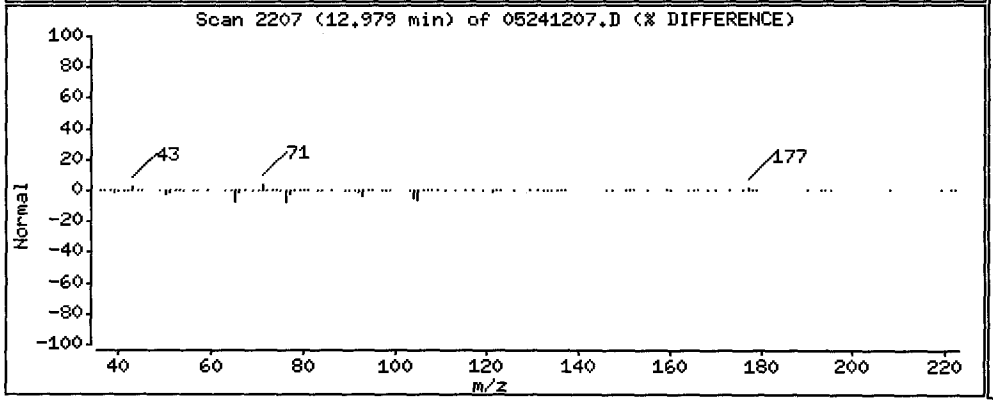
50 Diethylphthalate

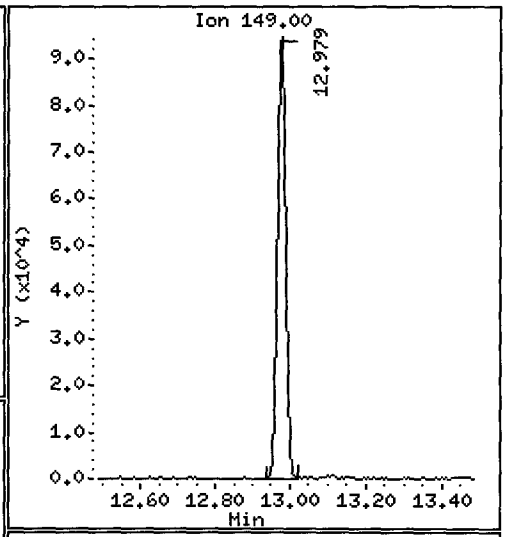
Concentration: 1.360 ug/L

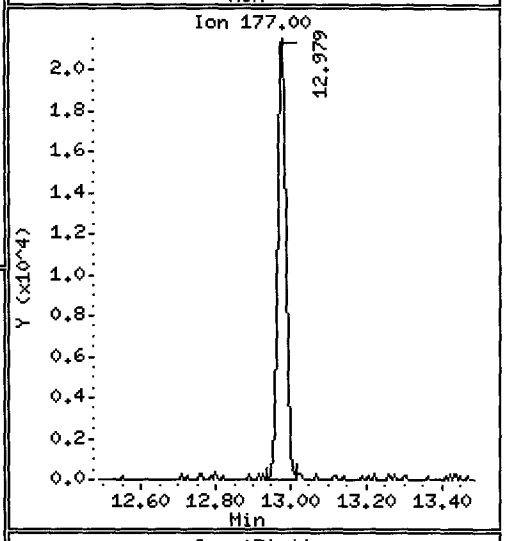


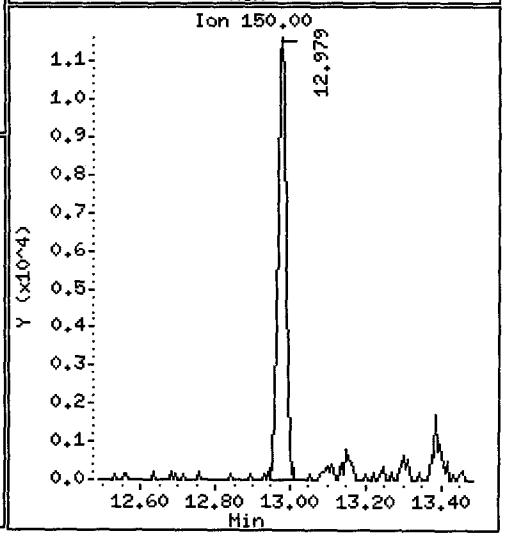












Data File: /chem2/nt6.i/20120524.b/05241207.D

Date : 24-MAY-2012 14:14

Client ID: MS-SSFB-120515

Instrument: nt6.i

Sample Info: UU62K

Volume Injected (uL): 1.0

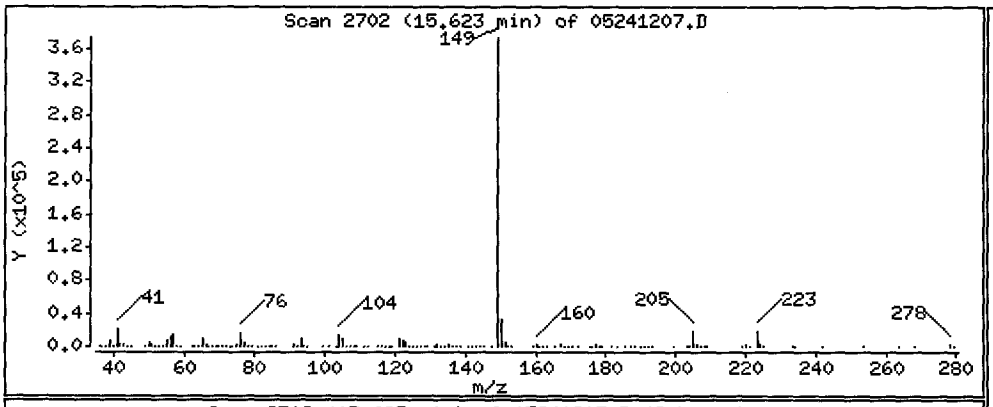
Operator: JZ

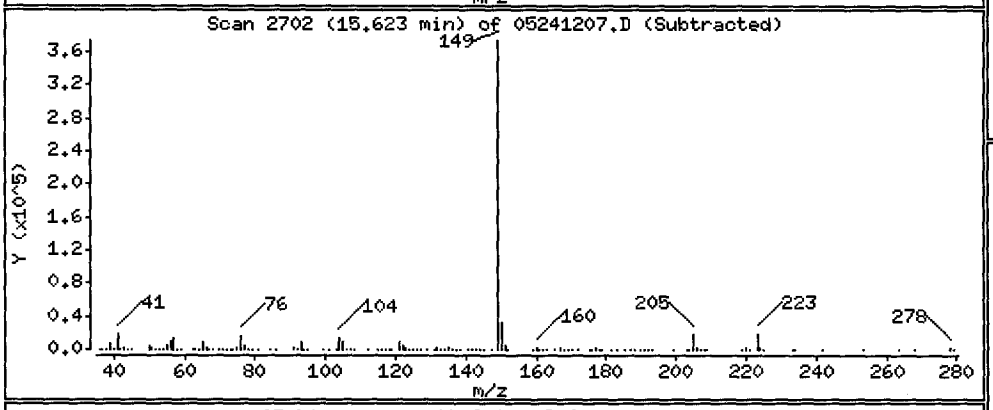
Column phase: ZB-5msi

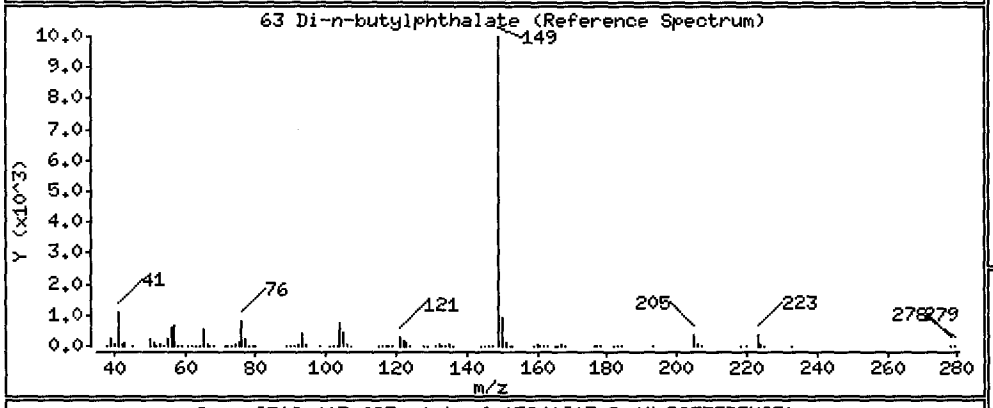
Column diameter: 0.32

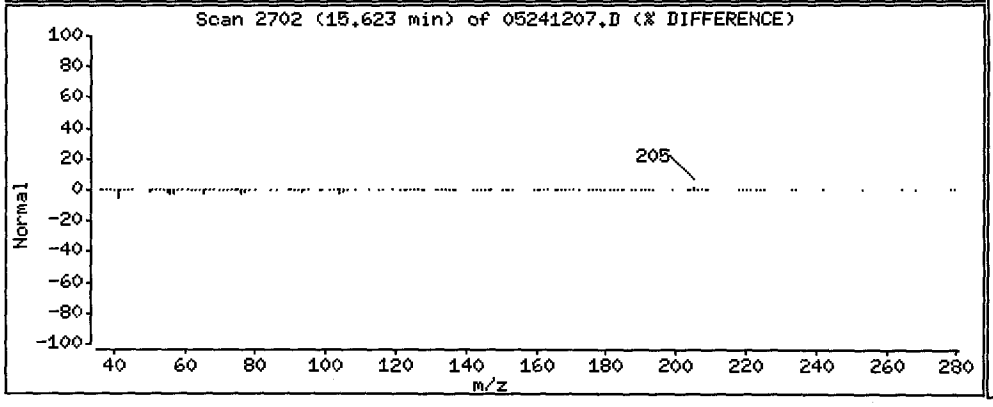
63 Di-n-butylphthalate

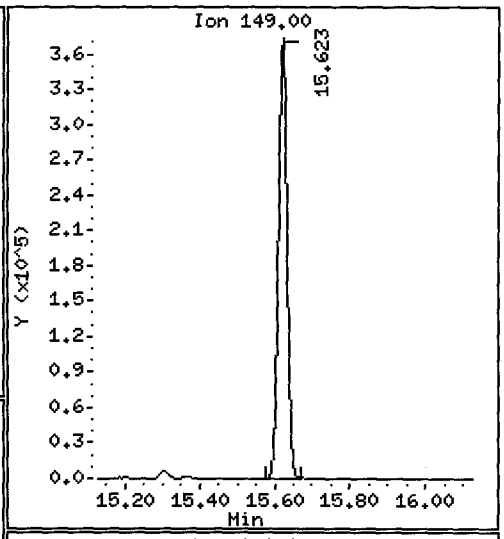
Concentration: 3.706 ug/L

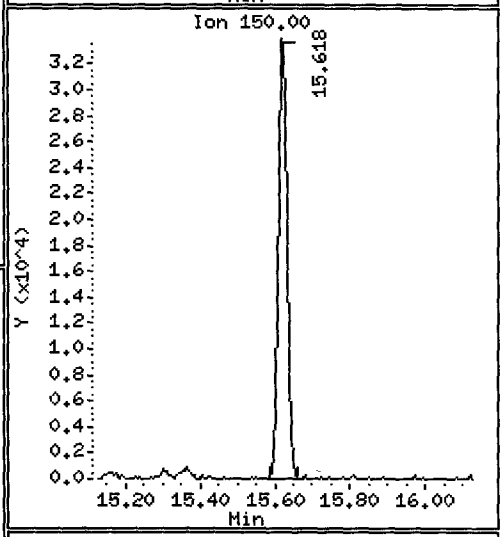


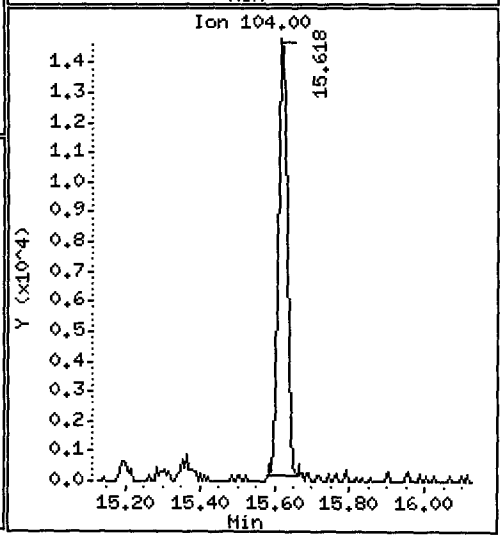












Data File: /chem2/nt6.i/20120524.b/05241207.D

Date : 24-MAY-2012 14:14

Client ID: MS-SSFB-120515

Instrument: nt6.i

Sample Info: UU62K

Volume Injected (uL): 1.0

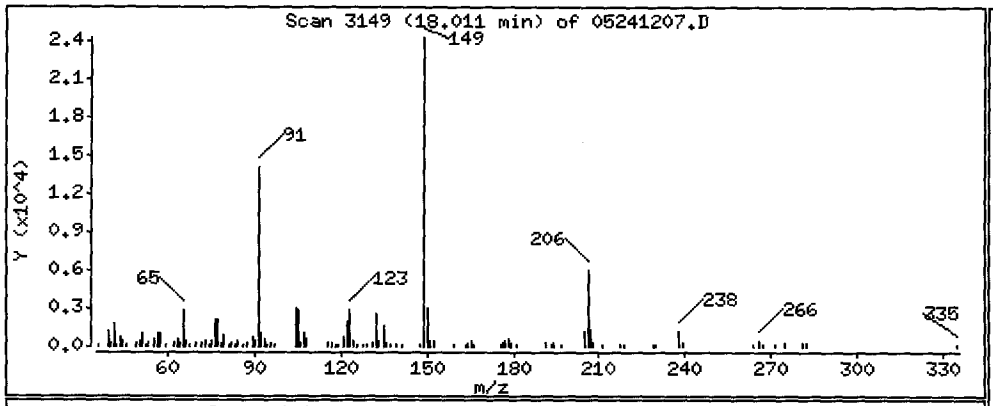
Operator: JZ

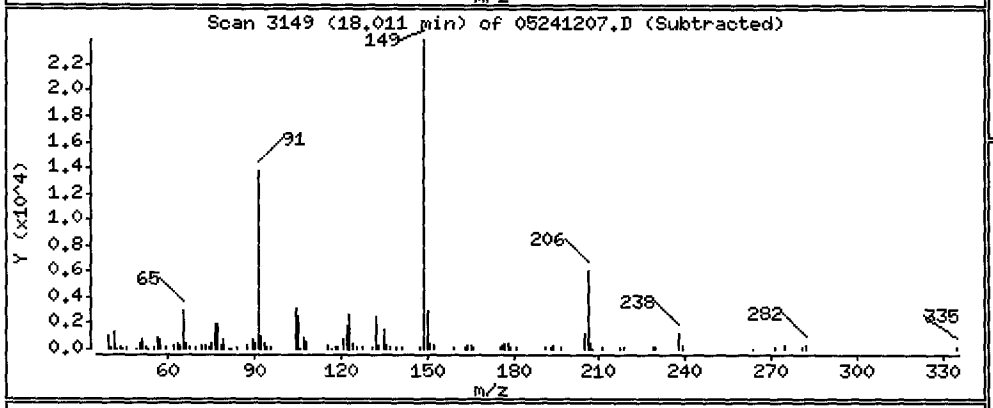
Column phase: ZB-5msi

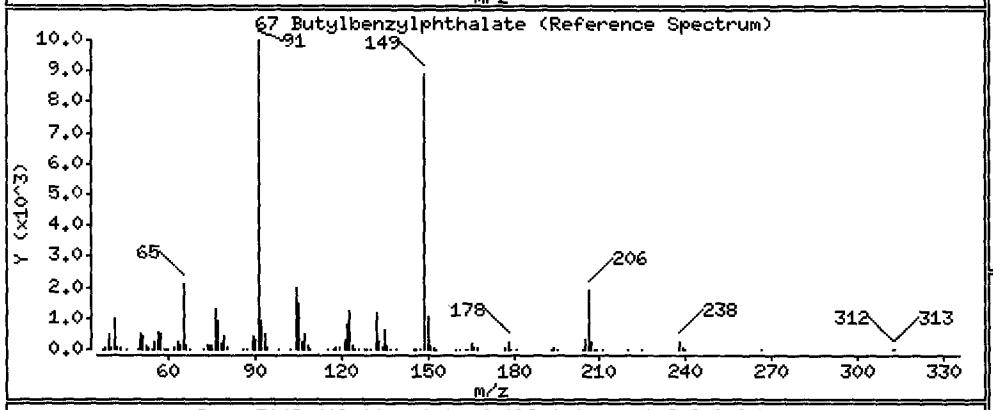
Column diameter: 0.32

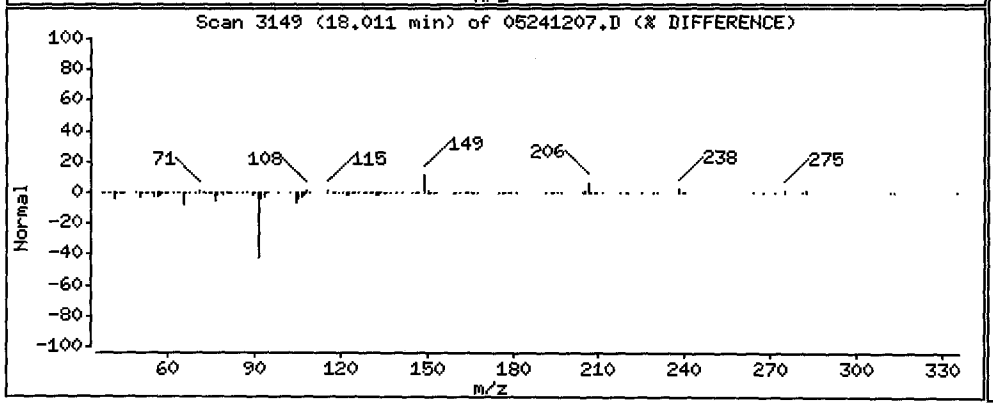
67 Butylbenzylphthalate

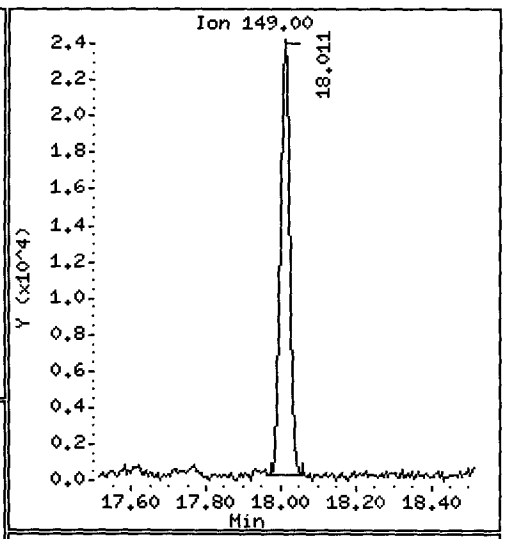
Concentration: 0.5355 ug/L

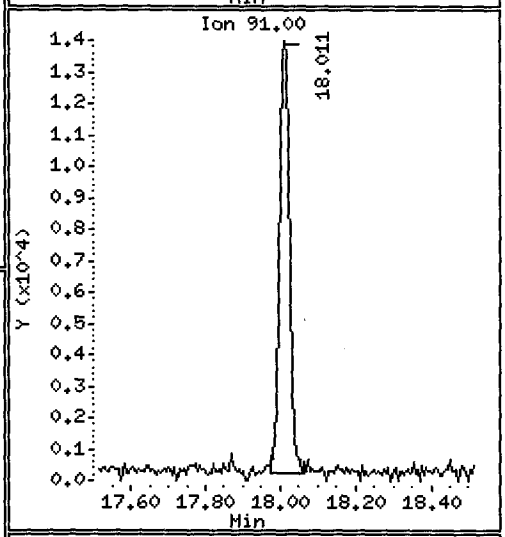


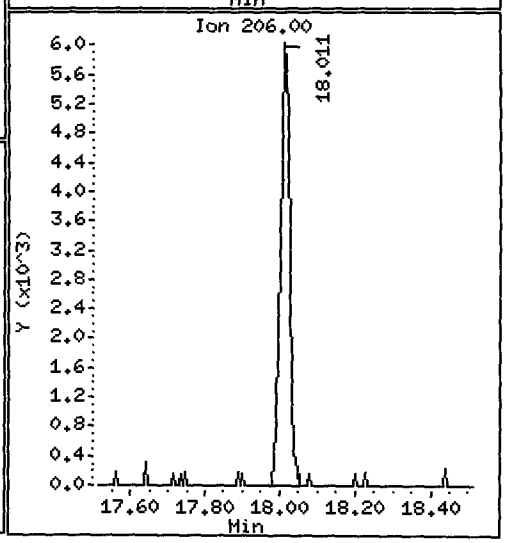












CO-ELUTION SUMMARY FOR FILE - 05241207.D

Lab ID: UU62K, Method: SW846052312.m, Instrument: nt6.i, Date: 24-MAY-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Pesticide Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

Pest PSDDA – Soil/Sed
Microwave (3546) (SOP # 3304S)
PSDDA (1-2ppb)

Preparation Test Pest # 5 (PESSDMP) very high sulfur content

ARI Job No(s) UU52 Page 1 of 1 Batch set up by: _____

Bottle #	ARI Sample I.D.	Weight Extracted (eq. to 12.5 dry wt)	(REQ) Sulfur Clean 2mL+0.5mL Ethyl Acetate 1 2 3	(REQ) Silica Gel Clean (1:2.5)	Final Effective Volume	Volume to Lab	Comment	Verify Client ID
	UU52 MBS	12.5g	2.5mL	(1:2.5) 1mL	2.5mL	1mL	(10g Actual Wt)	AC 5-22-12 Analyst/Date
	SBS	12.5g	2.5mL	(1:2.5) 1mL	2.5mL	1mL	(10g Actual Wt)	Microwave QR/NL 05/23/12
6	~~SBS Dup.~~ A	~~12.5g~~ 130.43	2.5mL	(1:2.5) 1mL	2.5mL	1mL	~~(10g Actual Wt)~~	Analyst/Date
5,6	~~QLS~~ B	~~12.5g~~ 129.09	2.5mL	(1:2.5) 1mL	2.5mL	1mL	~~(10g Actual Wt)~~	KD 100°C Hexane Exchange (2 X 20mL)
5,6	C	123.43	2.5mL	(1:2.5) 1mL	2.5mL	1mL		YL 5/23/12
5,6	CMS	123.70	2.5mL	(1:2.5) 1mL	2.5mL	1mL		Analyst/Date
5,6	CMSD	123.14	2.5mL	(1:2.5) 1mL	2.5mL	1mL		TurboVap 1 2 3 Pre-Cleanups
5	D	135.72	2.5mL	(1:2.5) 1mL	2.5mL	1mL		
5	E	131.57	2.5mL	(1:2.5) 1mL	2.5mL	1mL		
5	F	141.65	2.5mL	(1:2.5) 1mL	2.5mL	1mL		
5	G	136.63	2.5mL	(1:2.5) 1mL	2.5mL	1mL		5-24-12 IS Analyst/Date
5	H	78.46	2.5mL	(1:2.5) 1mL	2.5mL	1mL		TurboVap 1 2 3 Post Cleanups
5	I	114.44	2.5mL	(1:2.5) 1mL	2.5mL	1mL		
5	J	127.31	2.5mL	(1:2.5) 1mL	2.5mL	1mL		
Analyst/Date		AC 5-22-12	IS 5-24-12	IS 5-24-12	IS 5-24-12	IS 5-24-12		5-24-12 IS Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	N (1914-2)	2µg/mL	50µL	5/28/12	QR	SP
Spike	3 (1922-2)	1/2/10µg/mL	50µL	12/13/12	QR	SP
~~QLS Spike~~	~~10 ( )~~	~~0.25-2.5µg/mL~~	~~25µL~~			

Extraction Time: 1140 Balance ID: B1464-2614

SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require ~~two~~ multiple vessels). 3. Add 1:1 Hex/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 15 min in cold water. 7. Decant 1:1 Hex/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing neutral glasswool. 8. Rinse with Hexane 9. Microwave a 2nd time using 8:2 Hex/Ace (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with Hexane. 11. KD (~~Smaller~~ Large drying column) to 5mL at 100°C. 12. Exchange to Hexane (2 X with 20mL). 13. TurboVap. 14. Clean-ups. 15. TurboVap. 16. Vial in Hexane.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU52 Client ID: Anchor QEA, LLC

Parameter: Pest PSDDA Client Project: Jeld Wen Maulsby Marsh

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	AC 5-16-12
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)= B < 5% sticks D = 30% grass/sticks E = 10% grass F = 60% grass/sticks G = 50% grass/sticks H = 30% I = 50%	AC 5-16-12
☐ Oily, obvious fuel/sulfur odors= B-	
☒ Other (Details)= UU52 - A-J - Samples, Surrogates, Spikes has to be split into multi vessels prior to microwaved due to sample weight, all samples will combine after microwaved Samples with multi flask case: A, B, Cms, E, F, G, I, J	NLS/23/12
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

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Analytical Chemists and Consultants

Organic Extractions Benchsheet

Pest – Water
Separatory Funnel (3510C) (SOP # 3311S)
In-House (0.05-0.1ppb)

Preparation Test Pest # 1(PESWSI)
ARI Job No(s) uu37, uu46, uu62 Page 1 of 1
Batch set up by: SP

Bottle #	ARI Sample I.D.	Volume Extracted	Sulfur Clean 4.5mL+0.5mL (5mL) Ethyl Acetate 1 2 3	Silica Gel Clean (1:5)	Final Effective Volume	Volume to Lab	Comment	Verify Client ID / Verify pH is 5-9 / KD 80-85°C / Hexane Exchange (2 X 20mL) 100°C / TurboVap 1 2 3 Pre-Cleanups (4mL=10mL Hexane Exchange) / TurboVap 1 2 3 Post Cleanups
	uu37 MBW	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		Verify Client ID: N2 5/18/12 Analyst/Date
	SBW	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		Verify pH is 5-9: see note MLS 18/12 Analyst/Date
	SBW Dup.	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		
	QLS	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		
14	A	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		KD 80-85°C
14	B	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		Hexane Exchange (2 X 20mL) 100°C: RR 5/21/12 Analyst/Date
5	F	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		
14	uu46 A	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		
12	B	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL	see Analyst note	
12	C	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		TurboVap (1) 2 3 Pre-Cleanups (4mL=10mL Hexane Exchange): SP 5/22/12 Analyst/Date
5	uu62 J	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		
7	K	500mL	(5mL) (Y) N	(1:5) (Y) N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		TurboVap 1 2 (3) Post Cleanups: SP 5/23/12 Analyst/Date
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
Analyst/Date		ML 5/18/12	SP 5/23/12	SP 5/23/12	SP 5/22/12	SP 5/23/12		

(Opt) SP 5/22/12 REQ — (Opt) SP 5/22/12 REQ

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	N (1914-2)	2µg/mL	100µL	5/28/12	ML	SP
Spike	3 (1922-2)	1/2/10µg/mL	100µL	12/13/12	ML	SP
QLS Spike	10 (1922-4)	0.25-2.5µg/mL	50µL	12/13/12	ML	SP
Extraction Time: 0900						

SPECIAL INSTRUCTIONS: 1. Verify pH is 5-9 2. Adjust pH (if necessary=Analyst Notes). 3. Add Surr/Spike.
4. Extract 3X with 30mL DCM. 5. KD (NO Drying Column) at 80°. 6. Exchange (2 X with 20mL) Hexane at 100°.
7. TurboVap to 4mL=10mL Hexane Exchange. 8. TurboVap. 9. Clean-ups? 10. TurboVap (if Silica Clean).
11. Vial with Hexane.

A. Archive Y N

4444

both ; -bs (uu37, ~~uu46~~ 5/17/12 uu46 on 14)

uu62 10164

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU62

Client ID: Anchor QEA, LLC

Parameter: Pest

Client Project: Jeld Wen - Maulsby Marsh

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☒ No Anomalies J, K	MC/18/12
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

Pesticide Raw Data
Initial Calibration

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A ~~FID-4B~~ FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 5/23/2012 Internal Standard ID 1878-3 Expiration 8/1/2012

Endrin/DDT Breakdown <15%?	YES / NO / NA	ICV Exceeding ±20%?	YES / NO (1)
ICal Meets %RSD & r^2 Criteria	YES / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	YES / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped?	YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
INDA	1982-1	12/13/2012	INDA	1897-4	5/28/2012
WND	1938-1	5/28/2012	WND	1935-2	5/28/2012
Toxaphene	1924-5	5/28/2012	HCB/HCBD	1886-2	5/28/2012
Techlor	1924-4	5/28/2012	2,4-DDx	1936-6	1/10/2013
IB	1982-2	5/16/2013			
DS	1878-2	5/28/2012			

Detail problems, corrective actions and/or other pertinent information below:

(1) 2,4'-DDE col 2 @ 122.48R, col. 1 ± 20%

Analyst: [signature] **Date:** 5/24/2012

Reviewer: [signature] **Date:** 5/24/12

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/ical-2.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	23-MAY-2012 13:54	0523A004.d	1	DS	
2	23-MAY-2012 14:12	0523A005.d	1	IB	
3	23-MAY-2012 14:29	0523A006.d	1	INDAE	
4	23-MAY-2012 14:47	0523A007.d	1	INDAA	
5	23-MAY-2012 15:05	0523A008.d	1	INDAB	
6	23-MAY-2012 15:23	0523A009.d	1	INDAC	
7	23-MAY-2012 15:41	0523A010.d	1	INDAD	
8	23-MAY-2012 15:58	0523A011.d	1	INDAF	
9	23-MAY-2012 16:16	0523A012.d	1	INDAG	
10	23-MAY-2012 16:34	0523A013.d	1	INDA ICV	
11	23-MAY-2012 16:52	0523A014.d	1	HCB/HCBD ICV	
12	23-MAY-2012 17:10	0523A015.d	1	TOXAPH 2500	
13	23-MAY-2012 17:27	0523A016.d	1	WNDE	
14	23-MAY-2012 17:45	0523A017.d	1	WNDA	
15	23-MAY-2012 18:03	0523A018.d	1	WNDB	
16	23-MAY-2012 18:21	0523A019.d	1	WNDC	
17	23-MAY-2012 18:39	0523A020.d	1	WNDD	
18	23-MAY-2012 18:56	0523A021.d	1	WNDF	
19	23-MAY-2012 19:14	0523A022.d	1	WNDG	
20	23-MAY-2012 19:32	0523A023.d	1	WND ICV	
21	23-MAY-2012 19:50	0523A024.d	1	2/4-DDTS ICV	
22	23-MAY-2012 20:08	0523A025.d	1	~~TECH 200~~ WND ASSAY	
23	23-MAY-2012 20:25	0523A026.d	1	~~DDT-RT~~ TECH 200	

AR 5/24/2012

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A017.d
Level 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A018.d
Level 3: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A019.d
Level 4: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A020.d
Level 5: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A016.d
Level 6: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A021.d
Level 7: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A022.d

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
1 Hexachlorobutadiene	1.65636	1.50163	1.57876	1.47074	1.41861	1.32785		
	1.39798						1.47885	7.562
3 Hexachlorobenzene	1.35717	1.23818	1.29125	1.21861	1.21724	1.16879		
	1.21654						1.24397	4.961
4 alpha-BHC	1.32952	1.28947	1.40059	1.37678	1.38380	1.34940		
	1.40626						1.36226	3.088
5 gamma-BHC (Lindane)	1.23891	1.10980	1.17985	1.14103	1.15693	1.12818		
	1.18162						1.16233	3.676
6 beta-BHC	0.62504	0.51533	0.53712	0.50492	0.50135	0.48268		
	0.50180						0.52403	9.063
7 delta-BHC	0.96154	0.87508	0.95807	0.93364	1.00362	1.00169		
	1.07290						0.97236	6.399

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
8 Heptachlor	1.34024	1.19727	1.25048	1.18065	1.11896	1.05732		
	1.04330						1.16974	9.079
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
9 Aldrin	1.10834	1.01443	1.06032	1.00791	0.99236	0.94979		
	0.96398						1.01387	5.429
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
11 Heptachlor epoxide b	1.10178	1.04733	1.03236	0.96761	0.94708	0.89310		
	0.89590						0.98359	8.078
12 gamma-Chlordane	0.99086	0.90832	0.96200	0.90015	0.88933	0.85705		
	0.88079						0.91264	5.174
13 alpha-Chlordane	0.99263	0.88405	0.90013	0.84392	0.83263	0.79915		
	0.82738						0.86856	7.438
14 Endosulfan I	1.00548	0.87872	0.89336	0.83530	0.81450	0.77709		
	0.78839						0.85612	9.198
15 4,4'-DDE	0.89530	0.78678	0.80828	0.75308	0.75728	0.72797		
	0.75037						0.78272	7.173

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
16 Dieldrin	1.00557	0.90149	0.93257	0.88795	0.85917	0.80434		
	0.80415						0.88504	8.094
17 Endrin	1.61393	1.43188	1.40621	1.36344	1.35023	1.28452		
	1.16341						1.37337	10.080
18 4,4'-DDD	1.30959	1.15375	1.13555	1.09241	1.14711	1.12344		
	1.07175						1.14766	6.731
19 Endosulfan II	1.63655	1.46456	1.42963	1.38066	1.35523	1.29779		
	1.17600						1.39149	10.310
20 4,4'-DDT	1.23923	1.11351	1.11530	1.09696	1.13748	1.12855		
	1.07961						1.13009	4.585
21 Endrin aldehyde	1.26354	1.11599	1.08050	1.03768	1.03127	0.98237		
	0.90735						1.05981	10.594
22 Endosulfan sulfate	1.20465	1.10100	1.09062	1.06200	1.05315	1.02103		
	0.95133						1.06911	7.279
23 Methoxychlor	0.59047	0.53992	0.50984	0.47905	0.44187	0.40079		
	+++++						0.49366	13.826
24 Endrin ketone	1.58157	1.44702	1.42930	1.36698	1.35114	1.28218		
	1.17655						1.37639	9.353

Analytical Resources, Inc.

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	___ RRF	% RSD
	80.000 Level 7							
26 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
27 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
28 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Toxaphene(1)	+++++	+++++	+++++	+++++	0.04349	+++++	+++++	0.04349	0.000

Analytical Resources, Inc.

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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(2)	+++++	+++++	+++++	+++++	0.06490	+++++		
	+++++						0.06490	0.000
(3)	+++++	+++++	+++++	+++++	0.06823	+++++		
	+++++						0.06823	0.000
(4)	+++++	+++++	+++++	+++++	0.05423	+++++		
	+++++						0.05423	0.000
(5)	+++++	+++++	+++++	+++++	0.07384	+++++		
	+++++						0.07384	0.000
38 2,4-DDE	0.56456	0.56262	0.50524	0.50560	0.48138	0.45709		
	0.48705						0.50908	7.990
39 2,4-DDD	1.10232	1.00479	0.92062	0.88353	0.86256	0.81665		
	0.78417						0.91066	12.161
40 2,4-DDT	1.17035	1.06156	0.97871	0.96115	0.95821	0.91241		
	0.88276						0.98931	9.864
41 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
42 Oxychlordane	0.87084	0.83597	0.77337	0.77940	0.74349	0.71053		
	0.75984						0.78192	6.999

Analytical Resources, Inc.

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
43 trans-Nonachlor	2.02516	1.79344	1.62468	1.56637	1.54157	1.45834	1.40613	1.63081	13.112
44 cis-Nonachlor	1.89636	1.75305	1.64779	1.62483	1.59707	1.52164	1.47120	1.64456	8.706
45 Mirex	1.29427	1.10952	0.99581	0.94061	0.90192	0.85210	0.82394	0.98831	16.711
46 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Tech-Chlordane(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
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Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 Tetrachloro-m-xylene	1.06053	0.98470	1.04125	0.99245	0.97711	0.92893	0.96432	0.99276	4.530
$ 25 Decachlorobiphenyl	1.33438	1.19536	1.13047	1.07991	1.03746	1.01138	0.96371	1.10753	11.380

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/ical-2.b

ARI Job No.: DS Method: PEST0523B.m Instrument: ecd6.i Date: 23-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1354	0523A004.d	DS		1	NO MANUAL INTEGRATION
1412	0523A005.d	IB		1	NO MANUAL INTEGRATION
1429	0523A006.d	INDAE		1	NO MANUAL INTEGRATION
1447	0523A007.d	INDAA		1	NO MANUAL INTEGRATION
1505	0523A008.d	INDAB		1	NO MANUAL INTEGRATION
1523	0523A009.d	INDAC		1	NO MANUAL INTEGRATION
1541	0523A010.d	INDAD		1	NO MANUAL INTEGRATION
1558	0523A011.d	INDAF		1	NO MANUAL INTEGRATION
1616	0523A012.d	INDAG		1	NO MANUAL INTEGRATION
1634	0523A013.d	INDA ICV		1	NO MANUAL INTEGRATION
1652	0523A014.d	HCB/HCBD ICV		1	NO MANUAL INTEGRATION
1710	0523A015.d	TOXAPH 2500		1	NO MANUAL INTEGRATION
1727	0523A016.d	WNDE		1	NO MANUAL INTEGRATION
1745	0523A017.d	WNDA		1	NO MANUAL INTEGRATION
1803	0523A018.d	WNDB		1	NO MANUAL INTEGRATION
1821	0523A019.d	WNDC		1	NO MANUAL INTEGRATION
1839	0523A020.d	WNDD		1	NO MANUAL INTEGRATION
1856	0523A021.d	WNDF		1	NO MANUAL INTEGRATION
1914	0523A022.d	WNDG		1	NO MANUAL INTEGRATION
1932	0523A023.d	WND ICV		1	NO MANUAL INTEGRATION
1950	0523A024.d	2/4-DDTS ICV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/ical-2.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2008	0523A025.d	TECH 200		1	NO MANUAL INTEGRATION
2025	0523A026.d	DDT RT		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0523A006	0523A007	0523A008	0523A009	0523A010	0523A011	0523A012
INJ.DATE:	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012
INJ.TIME:	14:29	14:47	15:05	15:23	15:41	15:58	16:16

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	2.112	2.112	2.112	2.112	2.112	2.112	2.113	2.113	2.063-2.163	2.112	0.000
* 52 1Bromo-2nitrobenzene	2.855	2.855	2.855	2.855	2.855	2.855	2.855	2.855	2.805-2.905	2.855	0.000
* 55 Hexabromobiphenyl	9.355	9.355	9.355	9.355	9.355	9.355	9.355	9.355	9.305-9.405	9.355	0.000
$ 2 Tetrachloro-m-xylene	3.588	3.589	3.589	3.588	3.588	3.588	3.588	3.588	3.538-3.638	3.588	0.000
3 Hexachlorobenzene	3.996	3.997	3.997	3.997	3.996	3.995	3.995	3.995	3.945-4.045	3.996	0.001
4 alpha-BHC	4.107	4.107	4.107	4.107	4.107	4.107	4.108	4.108	4.058-4.158	4.107	0.000
5 gamma-BHC (Lindane)	4.428	4.428	4.428	4.428	4.428	4.428	4.429	4.429	4.379-4.479	4.428	0.000
6 beta-BHC	4.503	4.505	4.505	4.504	4.503	4.502	4.502	4.502	4.452-4.552	4.503	0.001
7 delta-BHC	4.783	4.785	4.785	4.784	4.784	4.783	4.782	4.782	4.732-4.832	4.784	0.001
8 Heptachlor	4.849	4.849	4.849	4.848	4.849	4.849	4.849	4.849	4.799-4.899	4.849	0.000
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.538-14.638	+++++	+++++
9 Aldrin	5.170	5.170	5.170	5.170	5.170	5.170	5.171	5.171	5.121-5.221	5.170	0.000
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.630-12.730	+++++	+++++
11 Heptachlor epoxide b	5.732	5.732	5.732	5.732	5.733	5.732	5.733	5.733	5.683-5.783	5.732	0.000
12 gamma-Chlordane	5.918	5.918	5.919	5.919	5.918	5.918	5.918	5.918	5.868-5.968	5.918	0.000
13 alpha-Chlordane	6.057	6.057	6.058	6.057	6.057	6.057	6.057	6.057	6.007-6.107	6.057	0.000
14 Endosulfan I	6.117	6.116	6.118	6.117	6.117	6.117	6.118	6.118	6.068-6.168	6.117	0.000

Reviewer 1 AR Date: 5/23/2012
Reviewer 2 Date: 5/24/2012

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	15 4,4'-DDE	6.209	6.212	6.212	6.211	6.211	6.209	6.208	6.208	6.158-6.258	6.210	0.001
	16 Dieldrin	6.377	6.377	6.377	6.377	6.377	6.377	6.377	6.377	6.327-6.427	6.377	0.000
	17 Endrin	6.664	6.664	6.664	6.664	6.664	6.665	6.664	6.664	6.614-6.714	6.664	0.000
	18 4,4'-DDD	6.749	6.751	6.752	6.752	6.751	6.749	6.749	6.749	6.699-6.799	6.750	0.001
	19 Endosulfan II	6.857	6.857	6.857	6.857	6.857	6.858	6.857	6.857	6.807-6.907	6.857	0.000
	20 4,4'-DDT	7.035	7.035	7.035	7.035	7.035	7.035	7.034	7.034	6.984-7.084	7.035	0.001
	21 Endrin aldehyde	7.158	7.158	7.159	7.158	7.159	7.158	7.158	7.158	7.108-7.208	7.158	0.000
	22 Endosulfan sulfate	7.404	7.404	7.405	7.404	7.404	7.405	7.404	7.404	7.354-7.454	7.404	0.000
	23 Methoxychlor	7.629	7.630	7.630	7.630	7.630	7.630	7.629	7.629	7.579-7.679	7.630	0.000
	24 Endrin ketone	7.881	7.882	7.882	7.882	7.882	7.882	7.881	7.881	7.831-7.931	7.882	0.000
$	25 Decachlorobiphenyl	8.908	8.909	8.908	8.909	8.908	8.909	8.908	8.908	8.858-8.958	8.908	0.000
	26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.475	5.425-5.525	+++++	+++++
	27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.001-5.101	+++++	+++++
	28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.121-5.221	+++++	+++++
	29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
	30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
	31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.025	6.975-7.075	+++++	+++++
	32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.230	8.180-8.280	+++++	+++++
	33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.664-9.764	+++++	+++++
	34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.741-11.841	+++++	+++++
	35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.607	6.557-6.657	+++++	+++++
	38 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.909	5.859-5.959	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
39 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.399	6.349-6.449	+++++	+++++
40 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.685	6.635-6.735	+++++	+++++
41 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.770	1.720-1.820	+++++	+++++
42 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.644	5.594-5.694	+++++	+++++
43 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.006	5.956-6.056	+++++	+++++
44 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.734	6.684-6.784	+++++	+++++
45 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.863	7.813-7.913	+++++	+++++
46 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.449-21.549	+++++	+++++
56 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.991	5.941-6.041	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.821-4.921	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.590-6.690	+++++	+++++
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.065-8.165	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.236-11.336	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.477-6.577	+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.292-6.392	+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.791-6.891	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0523A016	0523A017	0523A018	0523A019	0523A020	0523A021	0523A022
INJ.DATE:	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012
INJ.TIME:	17:27	17:45	18:03	18:21	18:39	18:56	19:14

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.113	2.063-2.163	+++++	+++++
*	52 1Bromo-2nitrobenzene	2.855	2.854	2.855	2.855	2.855	2.855	2.855	2.855	2.805-2.905	2.855	0.000
*	55 Hexabromobiphenyl	9.355	9.355	9.355	9.355	9.355	9.355	9.355	9.355	9.305-9.405	9.355	0.000
$	2 Tetrachloro-m-xylene	3.589	3.590	3.589	3.589	3.589	3.588	3.587	3.588	3.538-3.638	3.589	0.001
	3 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.995	3.945-4.045	+++++	+++++
	4 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.108	4.058-4.158	+++++	+++++
	5 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.429	4.379-4.479	+++++	+++++
	6 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.502	4.452-4.552	+++++	+++++
	7 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.782	4.732-4.832	+++++	+++++
	8 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.849	4.799-4.899	+++++	+++++
	37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.538-14.638	+++++	+++++
	9 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.121-5.221	+++++	+++++
	10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.630-12.730	+++++	+++++
	11 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.733	5.683-5.783	+++++	+++++
	12 gamma-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.918	5.868-5.968	+++++	+++++
	13 alpha-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.057	6.007-6.107	+++++	+++++
	14 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.118	6.068-6.168	+++++	+++++

Reviewer 1 _____ Date: 5/23/2012
Reviewer 2 _____ Date: 5/24/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	15 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.208	6.158-6.258	+++++	+++++
	16 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.377	6.327-6.427	+++++	+++++
	17 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.664	6.614-6.714	+++++	+++++
	18 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.749	6.699-6.799	+++++	+++++
	19 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.857	6.807-6.907	+++++	+++++
	20 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.034	6.984-7.084	+++++	+++++
	21 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.158	7.108-7.208	+++++	+++++
	22 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.404	7.354-7.454	+++++	+++++
	23 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.629	7.579-7.679	+++++	+++++
	24 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.881	7.831-7.931	+++++	+++++
$	25 Decachlorobiphenyl	8.908	8.909	8.908	8.909	8.908	8.908	8.909	8.908	8.858-8.958	8.909	0.000
	26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.475	5.425-5.525	+++++	+++++
	27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.001-5.101	+++++	+++++
	28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.121-5.221	+++++	+++++
	29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
	30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
	31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.025	6.975-7.075	+++++	+++++
	32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.230	8.180-8.280	+++++	+++++
	33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.664-9.764	+++++	+++++
	34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.741-11.841	+++++	+++++
	35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.607	6.557-6.657	+++++	+++++
	38 2,4-DDE	5.911	5.912	5.912	5.912	5.911	5.911	5.909	5.909	5.859-5.959	5.911	0.001

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
39 2,4-DDD	6.400	6.401	6.401	6.401	6.401	6.399	6.399	6.399	6.349-6.449	6.400	0.001
40 2,4-DDT	6.685	6.686	6.685	6.686	6.686	6.685	6.685	6.685	6.635-6.735	6.685	0.000
41 Hexachloroethane	1.743	1.742	1.743	1.742	1.743	1.732	1.770	1.770	1.720-1.820	1.745	0.012
42 Oxychlordane	5.644	5.644	5.643	5.643	5.644	5.643	5.644	5.644	5.594-5.694	5.643	0.000
43 trans-Nonachlor	6.007	6.006	6.006	6.006	6.006	6.006	6.006	6.006	5.956-6.056	6.006	0.000
44 cis-Nonachlor	6.733	6.734	6.733	6.733	6.734	6.733	6.734	6.734	6.684-6.784	6.734	0.000
45 Mirex	7.862	7.862	7.862	7.862	7.862	7.862	7.863	7.863	7.813-7.913	7.862	0.000
46 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.449-21.549	+++++	+++++
56 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.991	5.941-6.041	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.821-4.921	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.590-6.690	+++++	+++++
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.065-8.165	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.236-11.336	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.477-6.577	+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.292-6.392	+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.791-6.891	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A017.d
Level 2: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A018.d
Level 3: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A019.d
Level 4: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A020.d
Level 5: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A016.d
Level 6: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A021.d
Level 7: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A022.d

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
1 Hexachlorobutadiene	1.88872	1.77604	1.68503	1.78958	1.77040	1.73608		
	1.70256						1.76406	3.816
3 Hexachlorobenzene	1.20228	1.15344	1.04806	1.07451	1.08289	1.07210		
	1.06897						1.10032	5.073
4 alpha-BHC	1.39612	1.53620	1.50517	1.63944	1.68856	1.70715		
	1.70058						1.59618	7.480
5 gamma-BHC (Lindane)	1.26312	1.25630	1.23450	1.35124	1.40623	1.42837		
	1.43301						1.33897	6.469
6 beta-BHC	0.60743	0.61140	0.56388	0.58391	0.59950	0.60228		
	0.59916						0.59537	2.747
7 delta-BHC	1.08522	1.06357	1.03298	1.13077	1.23200	1.28885		
	1.31839						1.16454	9.829

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
8 Heptachlor	1.46363	1.44091	1.38829	1.50505	1.53322	1.52778		
	1.48762						1.47807	3.492
9 Aldrin	1.30408	1.27599	1.25380	1.38088	1.42377	1.43811		
	1.41363						1.35575	5.619
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
11 Heptachlor epoxide b	1.23789	1.21621	1.11886	1.20880	1.22969	1.23007		
	1.20943						1.20728	3.358
12 gamma-Chlordane	1.38598	1.25282	1.20540	1.29376	1.33807	1.35141		
	1.33602						1.30906	4.773
13 alpha-Chlordane	1.30870	1.20152	1.15871	1.24483	1.26662	1.27409		
	1.26599						1.24578	4.033
14 Endosulfan I	1.72885	1.63360	1.56273	1.68352	1.64388	1.62628		
	1.52812						1.62957	4.174
15 4,4'-DDE	0.70208	0.67872	0.71553	0.78675	0.91177	0.95210		
	0.99862						0.82079	16.014

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
16 Dieldrin	1.27966	1.25003	1.24004	1.33060	1.34586	1.33253		
	1.30342						1.29745	3.235
17 Endrin	0.85628	0.81804	0.84929	0.88010	0.89526	0.87960		
	0.84319						0.86025	3.076
18 4,4'-DDD	0.62939	0.59674	0.62860	0.66438	0.73195	0.74735		
	0.74295						0.67734	9.245
19 Endosulfan II	0.85104	0.80549	0.82486	0.85001	0.86262	0.84951		
	0.81701						0.83722	2.542
20 4,4'-DDT	0.68664	0.65778	0.70238	0.74089	0.79613	0.81592		
	0.80730						0.74386	8.567
21 Endrin aldehyde	0.72128	0.66305	0.66577	0.67406	0.68474	0.67136		
	0.64594						0.67517	3.486
22 Methoxychlor	0.39949	0.39217	0.38207	0.37662	0.37263	0.37087		
	0.35903						0.37898	3.595
23 Endosulfan sulfate	0.77329	0.71618	0.72561	0.73532	0.74824	0.73836		
	0.71546						0.73607	2.756
24 Endrin ketone	1.04699	0.94034	0.92552	0.91862	0.92510	0.90208		
	0.87329						0.93314	5.852

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
26 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
28 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(6)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
30 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
31 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
35 Toxaphene(1)	+++++	+++++	+++++	+++++	0.03802	+++++		
	+++++						0.03802	0.000
(2)	+++++	+++++	+++++	+++++	0.02912	+++++		
	+++++						0.02912	0.000
(3)	+++++	+++++	+++++	+++++	0.02684	+++++		
	+++++						0.02684	0.000
(4)	+++++	+++++	+++++	+++++	0.02887	+++++		
	+++++						0.02887	0.000
(5)	+++++	+++++	+++++	+++++	0.04401	+++++		
	+++++						0.04401	0.000
(6)	+++++	+++++	+++++	+++++	0.03084	+++++		
	+++++						0.03084	0.000
39 2,4-DDE	0.54233	0.50049	0.48899	0.50758	0.54424	0.53370		
	0.53236						0.52138	4.224
40 2,4-DDD	0.53645	0.47855	0.47289	0.49058	0.46188	0.45681		
	0.46607						0.48046	5.643
41 2,4-DDT	0.68718	0.61840	0.60053	0.62111	0.64140	0.63097		
	0.63122						0.63297	4.289

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Oxychlordane	0.78102	0.74991	0.72651	0.72992	0.74863	0.72658	0.72010	0.74038	2.872
44 trans-Nonachlor	1.04852	0.94887	0.91452	0.93142	0.95066	0.92504	0.90973	0.94697	5.008
45 cis-Nonachlor	1.08923	1.02644	1.00781	1.04071	1.07304	1.05193	1.04900	1.04831	2.605
46 Mirex	0.83026	0.73297	0.67997	0.66455	0.66748	0.64619	0.63953	0.69442	9.679
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Tech-Chlordane(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
$ 2 Tetrachloro-m-xylene	1.34854	1.26005	1.15136	1.18735	1.18196	1.15978		
	0.99719						1.18375	9.087
$ 25 Decachlorobiphenyl	1.07817	0.94842	0.90099	0.88298	0.85491	0.82913		
	0.79634						0.89871	10.375

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/ical-1.b

ARI Job No.: DS Method: PEST0523.m Instrument: ecd6.i Date: 23-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1354	0523A004.d	DS		1	NO MANUAL INTEGRATION
1412	0523A005.d	IB		1	NO MANUAL INTEGRATION
1429	0523A006.d	INDAE		1	NO MANUAL INTEGRATION
1447	0523A007.d	INDAA		1	NO MANUAL INTEGRATION
1505	0523A008.d	INDAB		1	NO MANUAL INTEGRATION
1523	0523A009.d	INDAC		1	NO MANUAL INTEGRATION
1541	0523A010.d	INDAD		1	NO MANUAL INTEGRATION
1558	0523A011.d	INDAF		1	NO MANUAL INTEGRATION
1616	0523A012.d	INDAG		1	NO MANUAL INTEGRATION
1634	0523A013.d	INDA ICV		1	NO MANUAL INTEGRATION
1652	0523A014.d	HCB/HCBD ICV		1	NO MANUAL INTEGRATION
1710	0523A015.d	TOXAPH 2500		1	NO MANUAL INTEGRATION
1727	0523A016.d	WNDE		1	NO MANUAL INTEGRATION
1745	0523A017.d	WNDA		1	NO MANUAL INTEGRATION
1803	0523A018.d	WNDB		1	NO MANUAL INTEGRATION
1821	0523A019.d	WNDC		1	NO MANUAL INTEGRATION
1839	0523A020.d	WNDD		1	NO MANUAL INTEGRATION
1856	0523A021.d	WNDF		1	NO MANUAL INTEGRATION
1914	0523A022.d	WNDG		1	NO MANUAL INTEGRATION
1932	0523A023.d	WND ICV		1	NO MANUAL INTEGRATION
1950	0523A024.d	2/4-DDTS ICV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/ical-1.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2008	0523A025.d TECH 200			1	NO MANUAL INTEGRATION
2025	0523A026.d DDT RT			1	NO MANUAL INTEGRATION

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0523A006	0523A007	0523A008	0523A009	0523A010	0523A011	0523A012
INJ.DATE:	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012
INJ.TIME:	14:29	14:47	15:05	15:23	15:41	15:58	16:16

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	2.053	2.053	2.053	2.053	2.053	2.053	2.053	2.053	2.003-2.103	2.053	0.000
* 54 1Bromo-2nitrobenzene	2.797	2.796	2.796	2.796	2.796	2.797	2.797	2.797	2.747-2.847	2.796	0.000
* 58 Hexabromobiphenyl	8.390	8.390	8.390	8.390	8.390	8.390	8.390	8.390	8.340-8.440	8.390	0.000
$ 2 Tetrachloro-m-xylene	3.407	3.408	3.408	3.408	3.407	3.406	3.406	3.407	3.357-3.457	3.407	0.001
3 Hexachlorobenzene	3.718	3.720	3.720	3.720	3.719	3.718	3.717	3.718	3.668-3.768	3.719	0.001
4 alpha-BHC	3.847	3.846	3.847	3.847	3.846	3.846	3.847	3.847	3.797-3.897	3.846	0.000
5 gamma-BHC (Lindane)	4.106	4.106	4.107	4.106	4.106	4.106	4.106	4.106	4.056-4.156	4.106	0.000
6 beta-BHC	4.184	4.188	4.187	4.186	4.185	4.183	4.182	4.184	4.134-4.234	4.185	0.002
7 delta-BHC	4.340	4.342	4.342	4.342	4.340	4.338	4.337	4.340	4.290-4.390	4.340	0.002
8 Heptachlor	4.518	4.517	4.518	4.517	4.517	4.518	4.518	4.518	4.468-4.568	4.518	0.000
9 Aldrin	4.788	4.787	4.787	4.787	4.787	4.787	4.787	4.788	4.738-4.838	4.787	0.000
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.577-13.677	+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.819-10.919	+++++	+++++
11 Heptachlor epoxide b	5.346	5.346	5.346	5.346	5.345	5.346	5.346	5.346	5.296-5.396	5.346	0.000
12 gamma-Chlordane	5.471	5.471	5.471	5.470	5.470	5.470	5.470	5.471	5.421-5.521	5.470	0.000
13 alpha-Chlordane	5.594	5.594	5.595	5.594	5.593	5.594	5.594	5.594	5.544-5.644	5.594	0.000
14 Endosulfan I	5.722	5.722	5.722	5.722	5.721	5.722	5.722	5.722	5.672-5.772	5.722	0.000

Reviewer 1 AR Date: 5/24/2012
Reviewer 2 Date: 5/24/2012

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	15 4,4'-DDE	5.673	5.676	5.677	5.675	5.674	5.671	5.670	5.673	5.623-5.723	5.674	0.003
	16 Dieldrin	5.947	5.946	5.947	5.946	5.946	5.946	5.946	5.947	5.896-5.997	5.946	0.000
	17 Endrin	6.163	6.163	6.164	6.163	6.163	6.163	6.163	6.163	6.113-6.213	6.163	0.000
	18 4,4'-DDD	6.230	6.233	6.233	6.233	6.231	6.228	6.227	6.230	6.180-6.280	6.231	0.002
	19 Endosulfan II	6.371	6.371	6.372	6.371	6.371	6.371	6.371	6.371	6.321-6.421	6.371	0.000
	20 4,4'-DDT	6.485	6.486	6.486	6.486	6.485	6.484	6.483	6.485	6.435-6.535	6.485	0.001
	21 Endrin aldehyde	6.749	6.749	6.750	6.749	6.748	6.749	6.748	6.749	6.699-6.799	6.749	0.000
	22 Methoxychlor	6.923	6.926	6.925	6.925	6.924	6.923	6.923	6.923	6.873-6.973	6.924	0.001
	23 Endosulfan sulfate	7.138	7.138	7.139	7.138	7.138	7.138	7.138	7.138	7.088-7.188	7.138	0.000
	24 Endrin ketone	7.389	7.389	7.389	7.388	7.388	7.388	7.388	7.389	7.339-7.439	7.388	0.000
$	25 Decachlorobiphenyl	8.250	8.250	8.251	8.250	8.250	8.251	8.250	8.250	8.200-8.300	8.250	0.000
	26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.355	5.305-5.405	+++++	+++++
	27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.831-4.931	+++++	+++++
	28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.309-5.409	+++++	+++++
	29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.348	5.298-5.398	+++++	+++++
	30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.072	6.022-6.122	+++++	+++++
	31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
	32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.830	7.780-7.880	+++++	+++++
	33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.251-8.351	+++++	+++++
	34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.209-11.309	+++++	+++++
	35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.427	6.377-6.477	+++++	+++++
	39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.343	5.293-5.393	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.832	5.782-5.882	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.071	6.021-6.121	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.722	1.672-1.772	+++++	+++++
43 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.254	5.204-5.304	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.582	5.532-5.632	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.199	6.149-6.249	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.065	7.015-7.115	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.106-20.206	+++++	+++++
59 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.558	4.508-4.608	+++++	+++++
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.269-6.369	+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.886-9.986	+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.841-11.941	+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.777-14.877	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.700-9.800	+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.057-9.157	+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.201-10.301	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0523A016	0523A017	0523A018	0523A019	0523A020	0523A021	0523A022
INJ.DATE:	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012
INJ.TIME:	17:27	17:45	18:03	18:21	18:39	18:56	19:14

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.053	2.003-2.103	+++++	+++++
*	54 1Bromo-2nitrobenzene	2.797	2.796	2.796	2.796	2.796	2.796	2.796	2.797	2.747-2.847	2.796	0.000
*	58 Hexabromobiphenyl	8.390	8.390	8.390	8.390	8.389	8.390	8.389	8.390	8.340-8.440	8.390	0.000
$	2 Tetrachloro-m-xylene	3.408	3.409	3.409	3.408	3.408	3.407	3.406	3.406	3.356-3.456	3.408	0.001
	3 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.717	3.667-3.767	+++++	+++++
	4 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.847	3.797-3.897	+++++	+++++
	5 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.106	4.056-4.156	+++++	+++++
	6 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.182	4.132-4.232	+++++	+++++
	7 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.337	4.287-4.387	+++++	+++++
	8 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.518	4.468-4.568	+++++	+++++
	9 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.787	4.737-4.837	+++++	+++++
	38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.577-13.677	+++++	+++++
	10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.819-10.919	+++++	+++++
	11 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.346	5.296-5.396	+++++	+++++
	12 gamma-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.470	5.420-5.520	+++++	+++++
	13 alpha-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.594	5.544-5.644	+++++	+++++
	14 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.722	5.672-5.772	+++++	+++++

Reviewer 1 AP Date: 5/24/2012
Reviewer 2 AB Date: 5/24/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	15 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.670	5.620-5.720	+++++	+++++
	16 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.946	5.896-5.996	+++++	+++++
	17 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.163	6.113-6.213	+++++	+++++
	18 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.227	6.177-6.277	+++++	+++++
	19 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.371	6.321-6.421	+++++	+++++
	20 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.483	6.433-6.533	+++++	+++++
	21 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.748	6.698-6.798	+++++	+++++
	22 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.923	6.873-6.973	+++++	+++++
	23 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.138	7.088-7.188	+++++	+++++
	24 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.388	7.338-7.438	+++++	+++++
$	25 Decachlorobipheny1	8.250	8.250	8.251	8.250	8.250	8.250	8.251	8.250	8.200-8.300	8.250	0.000
	26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.355	5.305-5.405	+++++	+++++
	27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.831-4.931	+++++	+++++
	28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.309-5.409	+++++	+++++
	29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.348	5.298-5.398	+++++	+++++
	30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.072	6.022-6.122	+++++	+++++
	31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
	32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.830	7.780-7.880	+++++	+++++
	33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.251-8.351	+++++	+++++
	34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.209-11.309	+++++	+++++
	35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.424	6.374-6.474	+++++	+++++
	39 2,4-DDE	5.343	5.346	5.345	5.344	5.344	5.342	5.341	5.343	5.293-5.393	5.344	0.002

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	5.832	5.835	5.834	5.834	5.833	5.831	5.830	5.832	5.782-5.883	5.833	0.002
41 2,4-DDT	6.070	6.071	6.070	6.070	6.070	6.069	6.068	6.070	6.020-6.120	6.070	0.001
42 Hexachloroethane	1.708	1.720	1.720	1.720	1.719	1.720	1.719	1.708	1.658-1.758	1.718	0.005
43 Oxychlordane	5.252	5.252	5.252	5.252	5.252	5.252	5.252	5.252	5.202-5.302	5.252	0.000
44 trans-Nonachlor	5.581	5.581	5.581	5.580	5.580	5.581	5.580	5.581	5.531-5.631	5.581	0.000
45 cis-Nonachlor	6.198	6.198	6.198	6.198	6.198	6.198	6.197	6.198	6.148-6.248	6.198	0.000
46 Mirex	7.063	7.063	7.063	7.063	7.063	7.063	7.063	7.063	7.013-7.113	7.063	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.106-20.206	+++++	+++++
59 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.558	4.508-4.608	+++++	+++++
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.269-6.369	+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.886-9.986	+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.841-11.941	+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.777-14.877	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.700-9.800	+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.057-9.157	+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.201-10.301	+++++	+++++

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	2646445	4841592	82.9
Hexabromobiphenyl	3761841	6506091	72.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9546244	16226991	70.0
Hexabromobiphenyl	5592240	8472750	51.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 23-MAY-2012 13:54 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	5.673	42910
Endrin	6.163	7390015
4,4'-DDD	6.230	251827
4,4'-DDT	6.484	6473273
Endrin ketone	7.388	265127
Endrin aldehyde	6.749	74504

DDT Percent Breakdown = 4.4 %
((42910+251827) * 100)/(42910+251827+6473273)

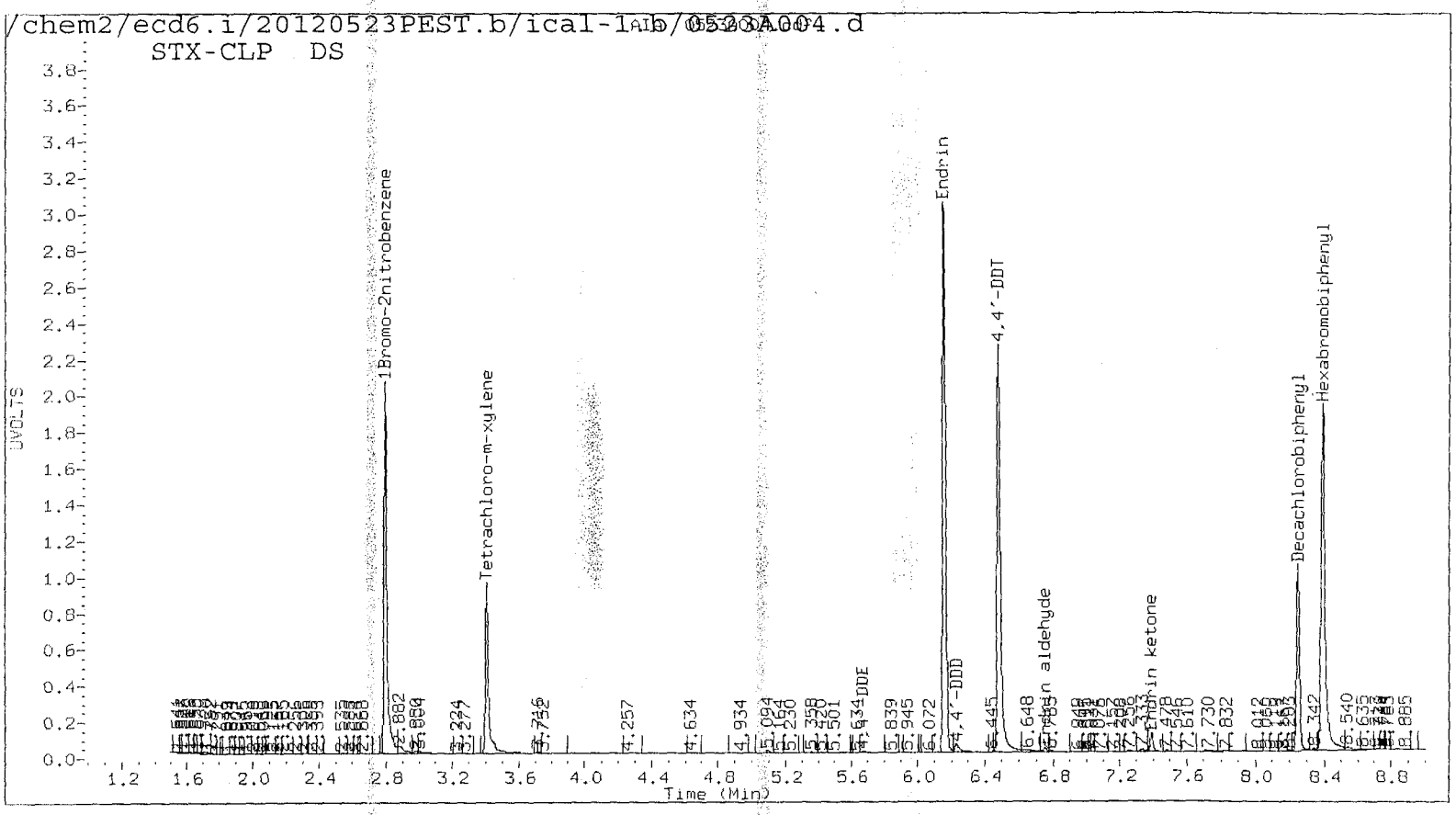
Endrin Percent Breakdown = 4.4 %
((74504+265127) * 100)/(74504+265127+7390015)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.210	154354
Endrin	6.664	13544217
4,4'-DDD	6.750	540642
4,4'-DDT	7.035	11643113
Endrin ketone	7.881	508138
Endrin aldehyde	7.158	236007

DDT Percent Breakdown = 5.6 %
((154354+540642) * 100)/(154354+540642+11643113)

Endrin Percent Breakdown = 5.2 %
((236007+508138) * 100)/(236007+508138+13544217)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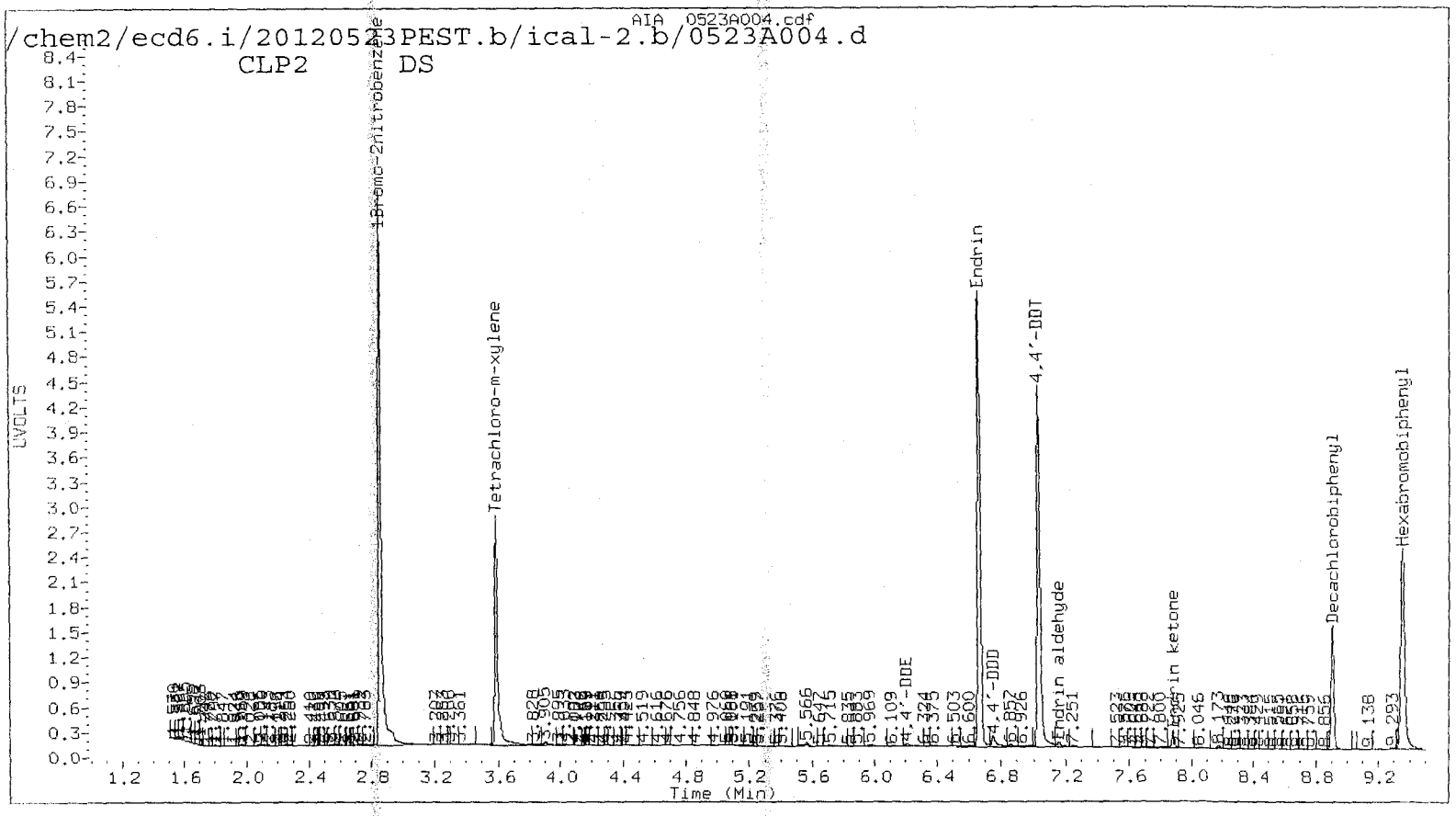
STX-CLP DS
AIA 0523A004.cdf
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD


/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A004.d
CLP2 DS
AIA 0523A004.cdf
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A005.d ARI ID: IB
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A005.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 14:12
Compound Sublist: wpest Report Date: 05/24/2012 10:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4843734	2.854	0.000	16148392	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
----			4.103	-0.005	7417	0.0000	0.0270	---	alpha-BHC
----			4.471	-0.031	3449	0.0000	0.0326	---	beta-BHC
----			4.780	-0.002	12743	0.0000	0.0649	---	delta-BHC
4.107	0.001	2814	4.440	0.011	1046	0.0347	0.0045	154.5*	gamma-BHC (Lindane)
----			4.847	-0.003	8297	0.0000	0.0351	---	Heptachlor
----			5.191	0.020	10199	0.0000	0.0498	---	Aldrin
5.355	0.009	4713	5.714	-0.019	41360	0.0645	0.2083	105.5*	Heptachlor epoxide b
----			6.144	0.027	35288	0.0000	0.2042	---	Endosulfan I
5.946	0.000	1413	6.376	-0.001	82677	0.0180	0.4628	185.0*	Dieldrin
----			6.224	0.016	36379	0.0000	0.2303	---	4,4'-DDE
----			6.659	-0.006	67409	0.0000	0.4711	---	Endrin
6.376	0.006	1340	6.864	0.007	14850	0.0199	0.1024	134.8*	Endosulfan II
----			----			0.0000	0.0000	---	4,4'-DDD
----			----			0.0000	0.0000	---	Endosulfan sulfate
6.488	0.004	1018	7.019	-0.015	10864	0.0171	0.0923	137.6*	4,4'-DDT
6.957	0.034	1538	7.611	-0.018	3010	0.0506	0.0585	14.6	Methoxychlor
7.412	0.024	18078	7.909	0.027	4251	0.2414	0.0296	156.3*	Endrin ketone
6.750	0.002	1529	7.157	-0.002	9829	0.0282	0.0890	103.7*	Endrin aldehyde
5.512	0.043	17962	----			0.2266	0.0000	---	gamma-Chlordane
----			----			0.0000	0.0000	---	alpha-Chlordane
2.046	-0.007	1530	2.106	-0.006	15680	0.0143	0.0525	114.3*	Hexachlorobutadiene
3.717	0.000	36550	3.992	-0.003	11843	0.5486	0.0472	168.3*	Hexachlorobenzene
5.229	-0.023	3048	----			0.0513	0.0000	---	Oxychlordane
----			5.914	0.005	4380	0.0000	0.0426	---	2,4-DDE
----			5.970	-0.036	103136	0.0000	0.6069	---	trans-Nonachlor
----			----			0.0000	0.0000	---	2,4-DDD
----			----			0.0000	0.0000	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
----			7.870	0.007	5530	0.0000	0.0537	---	Mirex
8.389	0.000	6419201	9.355	-0.001	8335866	80.0000	80.0000	0.0	Hexabromobiphenyl
1.719	-0.001	2082	1.743	-0.027	2685	0.0000	0.0000	---	Hexachloroethane
3.407	0.001	2555655	3.589	0.001	7250841	35.6577	36.1831	1.5	Tetrachloro-m-xylene
8.250	0.000	2415063	8.908	0.000	3848415	33.4904	33.3478	0.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	89.1	90.5	89.1~	130- 0
Decachlorobiphenyl	83.7	83.4	83.4~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4843734	0.0
Hexabromobiphenyl	6506091	6419201	-1.3

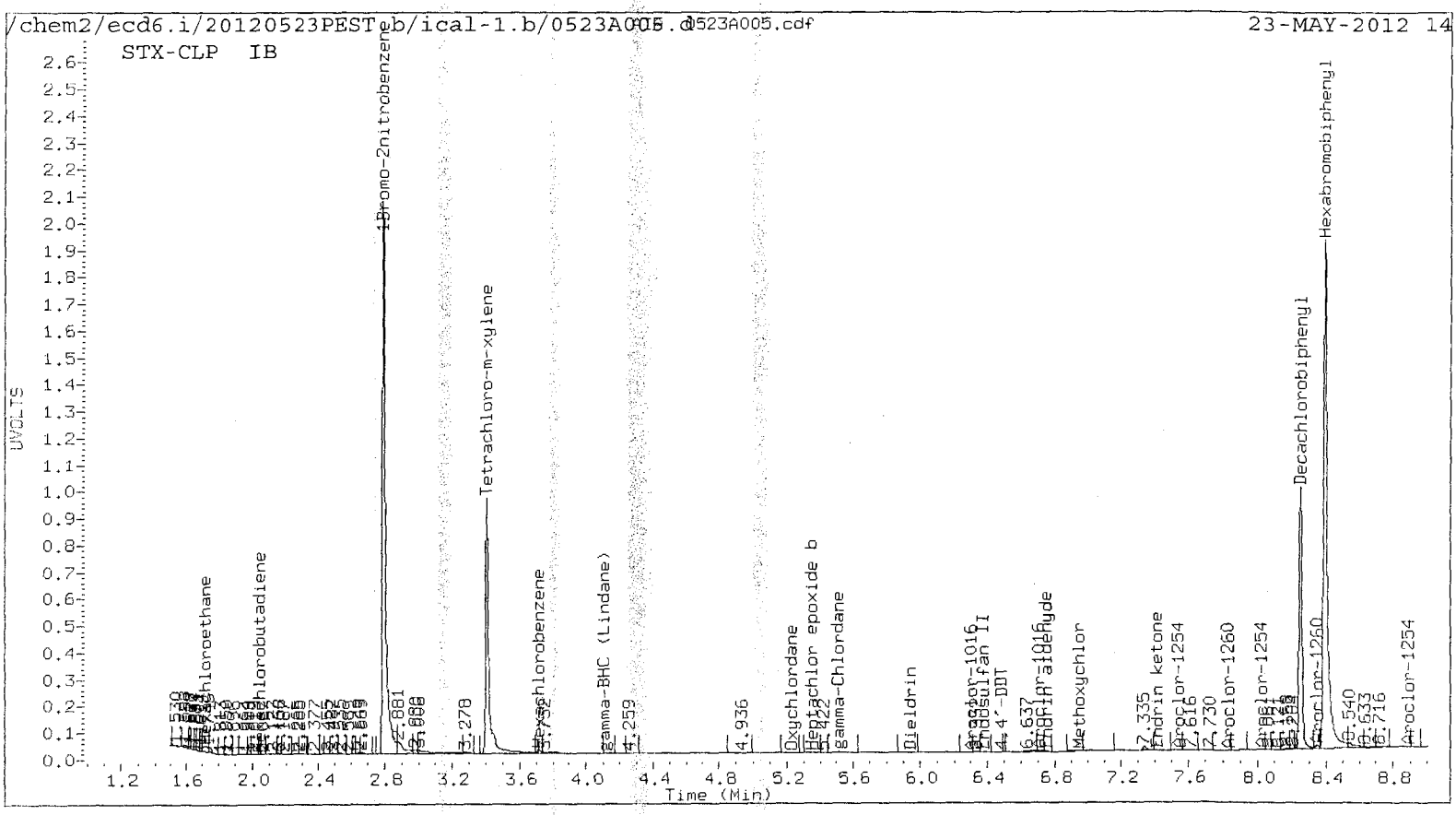
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16148392	-0.5
Hexabromobiphenyl	8472750	8335866	-1.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor		STX-CLP Col RT	Shift	Height	Amount		CLP2 Col RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	6.571	-0.035	21189	4.676
Toxaphene	2	6.488	0.013	1018	0.436	2	6.929	-0.003	57794	8.547
Toxaphene	3	6.711	0.037	2730	1.267	3	7.157	-0.009	9829	1.383
Toxaphene	4	---			0.000	4	7.611	-0.014	3010	0.533
Toxaphene	5	---			0.000	5	---			0.000
Toxaphene	6	7.412	0.037	18078	7.305	NS	---			----
		Total STX-CLPAve (3 peaks): 3.003					Total CLP2Ave (4 peaks): 3.784			RPD = 23
		Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks): 2.197			
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	
Aroclor-1248 1	---	0.000		1	---	0.000
Aroclor-1248 2	---	0.000		2	---	0.000
Aroclor-1248 3	---	0.000		3	---	0.000
Aroclor-1248 4	---	0.000		4	---	0.000
Aroclor-1248 5	---	0.000		5	---	0.000
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	
Aroclor-1254 1	---	0.000		1	---	0.000
Aroclor-1254 2	---	0.000		2	---	0.000
Aroclor-1254 3	---	0.000		3	---	0.000
Aroclor-1254 4	---	0.000		4	---	0.000
Aroclor-1254 5	---	0.000		5	---	0.000
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	
Aroclor-1260 1	---	0.000		1	---	0.000
Aroclor-1260 2	---	0.000		2	---	0.000
Aroclor-1260 3	---	0.000		3	---	0.000
Aroclor-1260 4	---	0.000		4	---	0.000
Aroclor-1260 5	---	0.000		5	---	0.000
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	
Aroclor-1262 1	---	0.000		1	---	0.000
Aroclor-1262 2	---	0.000		2	---	0.000
Aroclor-1262 3	---	0.000		3	---	0.000
Aroclor-1262 4	---	0.000		4	---	0.000
Aroclor-1262 5	---	0.000		5	---	0.000
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	
Aroclor-1268 1	---	0.000		1	---	0.000
Aroclor-1268 2	---	0.000		2	---	0.000
Aroclor-1268 3	---	0.000		3	---	0.000
Aroclor-1268 4	---	0.000		4	---	0.000
Aroclor-1268 5	---	0.000		5	---	0.000
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	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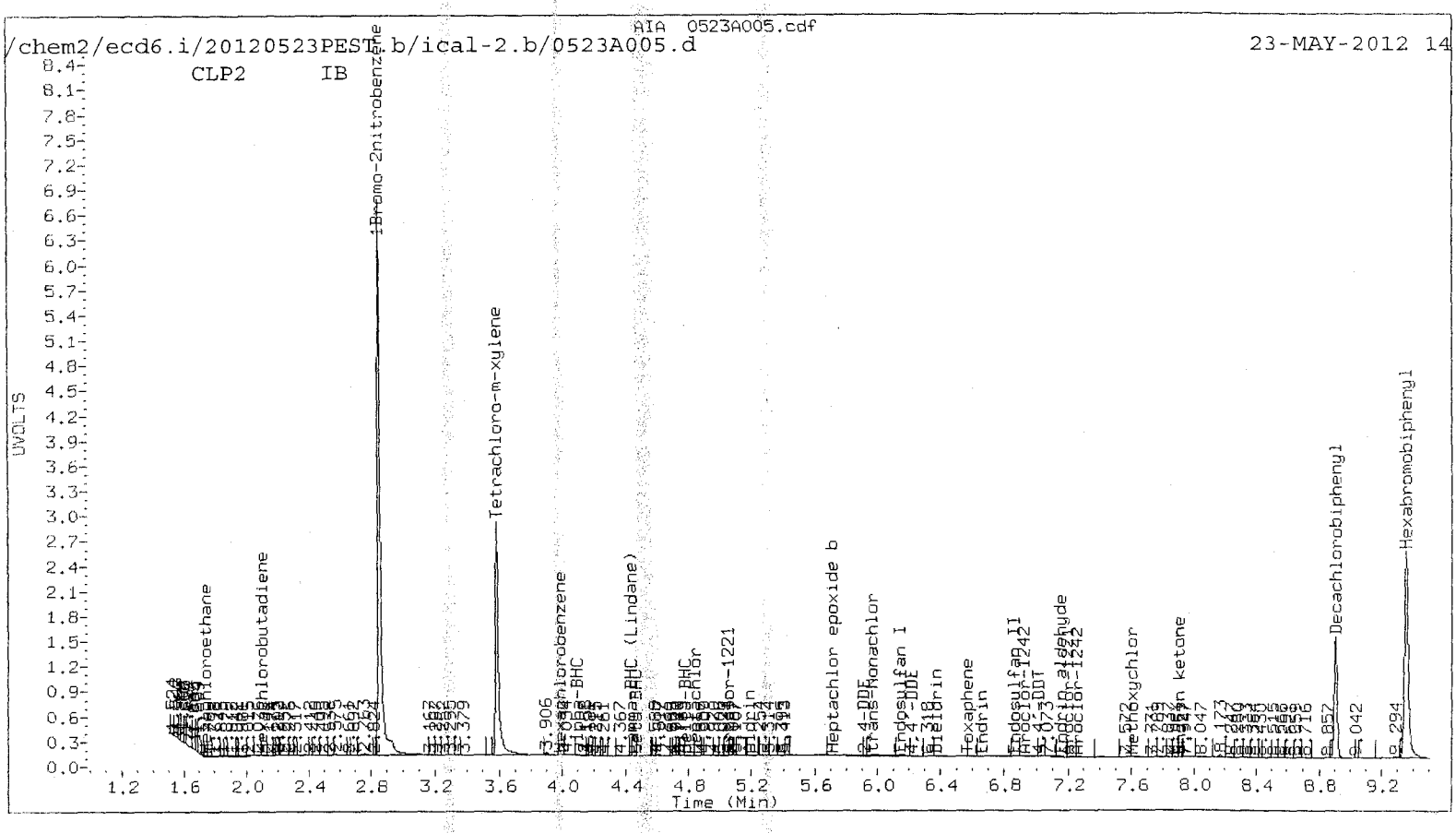
23-MAY-2012 14
STX-CLP IB
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Oxychlordane
Heptachlor epoxide b
gamma-Chlordane
Dieldrin
Aroclor-1016
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 14
CLP2 IB
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Heptachlor epoxide b
trans-Nonachlor
Endosulfan I
4,4'-DDE
Dieldrin
Hexaphene
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A006.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A006.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 14:29
Compound Sublist: INDA Report Date: 05/24/2012 10:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.797	0.000	4841592	2.855	0.000	16226991	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.847	0.000	2043826	4.107	-0.001	5613739	21.1575	20.3163	4.1	alpha-BHC
4.184	0.002	725632	4.503	0.001	2033842	20.1389	19.1342	5.1	beta-BHC
4.340	0.003	1491206	4.783	0.001	4071439	21.1585	20.6429	2.5	delta-BHC
4.106	0.000	1702095	4.428	0.000	4693388	21.0047	19.9071	5.4	gamma-BHC (Lindane)
4.518	0.000	1855801	4.849	-0.001	4539320	20.7462	19.1316	8.1	Heptachlor
4.788	0.000	1723325	5.170	0.000	4025734	21.0034	19.5755	7.0	Aldrin
5.346	0.000	1488419	5.732	-0.001	3842052	20.3713	19.2575	5.6	Heptachlor epoxide b
5.722	0.000	1989749	6.117	0.000	3304208	20.1756	19.0276	5.9	Endosulfan I
5.947	0.000	3258063	6.377	0.000	6970898	41.4926	38.8311	6.6	Dieldrin
5.673	0.003	2207200	6.209	0.001	6144210	44.4334	38.6998	13.8	4,4'-DDE
6.163	0.000	2912313	6.664	-0.001	5720079	41.6277	39.3259	5.7	Endrin
6.371	0.000	2806136	6.857	0.000	5741272	41.2135	38.9578	5.6	Endosulfan II
6.230	0.002	2381080	6.749	0.001	4859578	43.2255	39.9809	7.8	4,4'-DDD
7.138	0.001	2434072	7.404	0.000	4461530	40.6618	39.4028	3.1	Endosulfan sulfate
6.485	0.001	2589858	7.035	0.001	4818799	42.8107	40.2616	6.1	4,4'-DDT
6.923	0.000	6060837	7.629	0.000	9359710	196.6453	179.0205	9.4	Methoxychlor
7.389	0.000	3009400	7.881	0.000	5723944	39.6557	39.2662	1.0	Endrin ketone
6.749	0.001	2227505	7.158	0.000	4368862	40.5671	38.9228	4.1	Endrin aldehyde
5.471	0.001	1619597	5.918	0.000	3607799	20.4431	19.4892	4.8	gamma-Chlordane
5.594	0.000	1533113	6.057	0.000	3377761	20.3346	19.1727	5.9	alpha-Chlordane
2.053	0.000	2142890	2.112	0.000	5754928	20.0719	19.1853	4.5	Hexachlorobutadiene
3.718	0.001	1310727	3.996	0.001	4938033	19.6831	19.5703	0.6	Hexachlorobenzene
8.390	0.000	6506091	9.355	-0.001	8472750	80.0000	80.0000	0.0	Hexabromobiphenyl
3.407	0.001	2861286	3.588	0.000	7927803	39.9397	39.3697	1.4	Tetrachloro-m-xylene
8.250	0.000	2781056	8.908	0.000	4395070	38.0507	37.4695	1.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	99.8	98.4	98.4~	115- 0
Decachlorobiphenyl	95.1	93.7	93.7~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

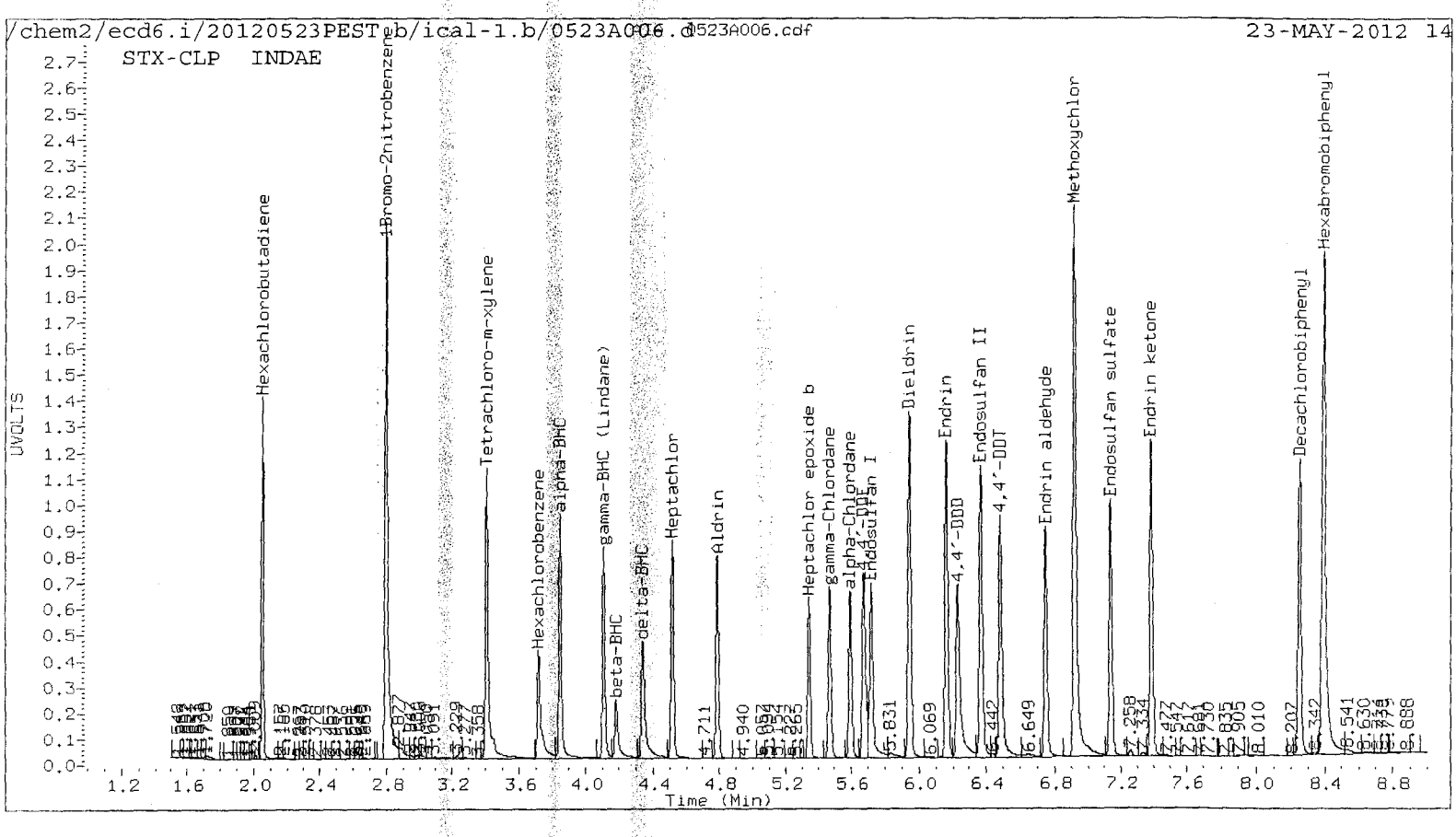
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4841592	0.0
Hexabromobiphenyl	6506091	6506091	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16226991	0.0
Hexabromobiphenyl	8472750	8472750	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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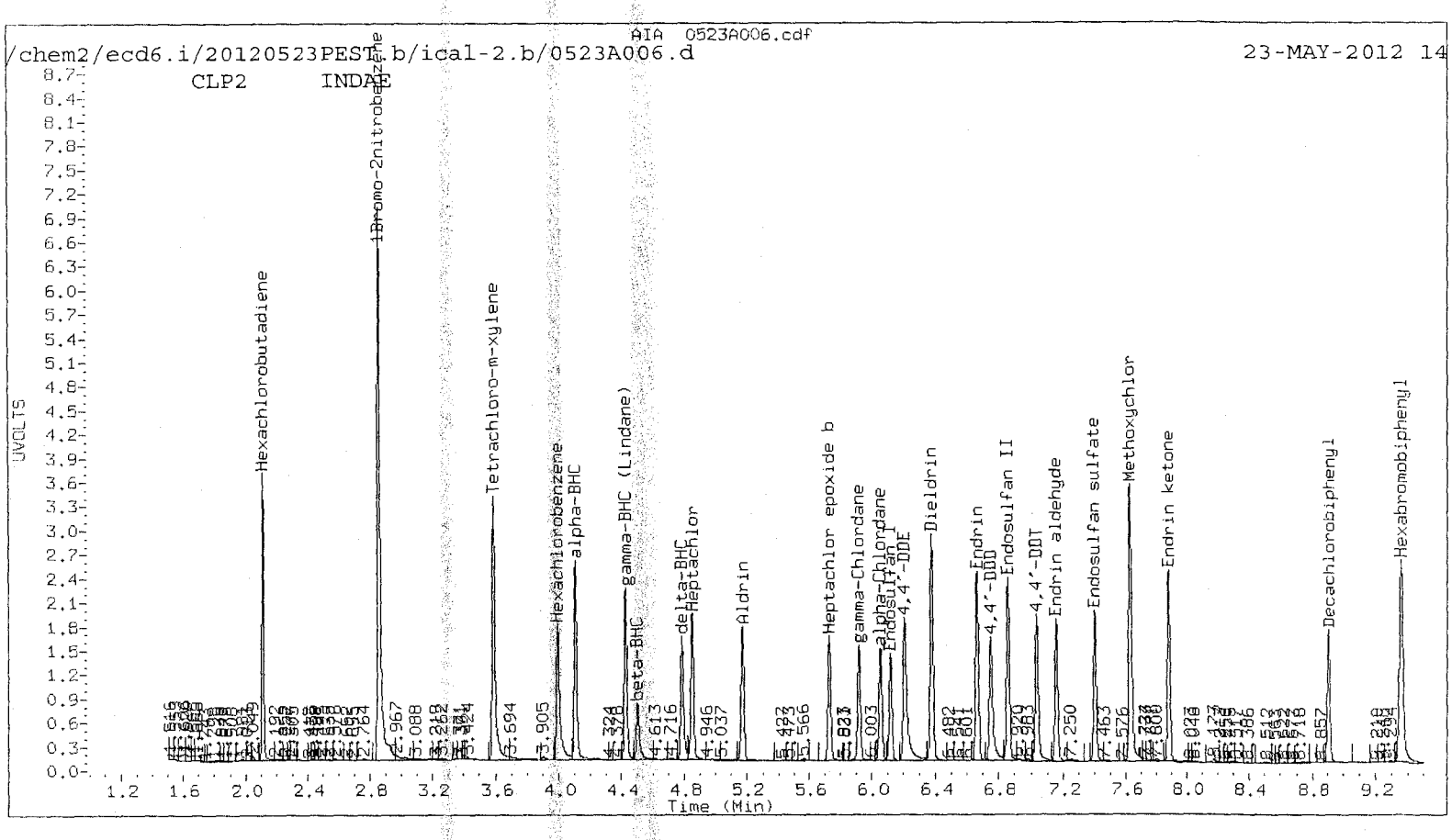
0523A006.cdf
23-MAY-2012 14
STX-CLP INDAE
UWQLTS
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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23-MAY-2012 14
CLP2 INDAE
UWQLTS
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A007.d ARI ID: INDAA
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A007.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 14:47
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4662553	2.855	0.000	16229726	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.846	0.000	101711	4.107	-0.001	337153	1.0933	1.2200	10.9	alpha-BHC
4.188	0.005	44253	4.505	0.003	158503	1.2753	1.4909	15.6	beta-BHC
4.342	0.005	79061	4.785	0.003	243836	1.1649	1.2361	5.9	delta-BHC
4.106	0.000	92021	4.428	-0.001	314175	1.1792	1.3324	12.2	gamma-BHC (Lindane)
4.517	-0.001	106629	4.849	-0.001	339870	1.2378	1.4322	14.6	Heptachlor
4.787	0.000	95005	5.170	-0.001	281063	1.2024	1.3665	12.8	Aldrin
5.346	0.000	90183	5.732	-0.001	279399	1.2817	1.4002	8.8	Heptachlor epoxide b
5.722	0.000	125951	6.116	-0.001	254978	1.3262	1.4681	10.2	Endosulfan I
5.946	0.000	186453	6.377	0.000	510005	2.4657	2.8405	14.1	Dieldrin
5.676	0.007	102296	6.212	0.004	454077	2.1384	2.8596	28.9	4,4'-DDE
6.163	0.000	168281	6.664	-0.001	411451	2.4885	2.9379	16.6	Endrin
6.371	0.001	167251	6.857	0.000	417218	2.5413	2.9403	14.6	Endosulfan II
6.233	0.006	123691	6.751	0.003	333864	2.3230	2.8528	20.5	4,4'-DDD
7.138	0.001	151972	7.404	0.000	307110	2.6264	2.8169	7.0	Endosulfan sulfate
6.486	0.003	134942	7.035	0.001	315925	2.3077	2.7414	17.2	4,4'-DDT
6.926	0.003	392552	7.630	0.001	752659	13.1764	14.9513	12.6	Methoxychlor
7.389	0.000	205761	7.882	0.000	403201	2.8050	2.8727	2.4	Endrin ketone
6.749	0.001	141750	7.158	0.000	322123	2.6707	2.9806	11.0	Endrin aldehyde
5.471	0.001	100972	5.918	0.000	251271	1.3234	1.3571	2.5	gamma-Chlordane
5.594	0.000	95342	6.057	-0.001	251721	1.3131	1.4286	8.4	alpha-Chlordane
2.053	-0.001	137598	2.112	-0.001	420036	1.3383	1.4000	4.5	Hexachlorobutadiene
3.720	0.004	87589	3.997	0.002	344165	1.3658	1.3638	0.2	Hexachlorobenzene
8.390	0.001	6288842	9.355	0.000	8157989	80.0000	80.0000	0.0	Hexabromobiphenyl
3.408	0.002	196488	3.589	0.001	537877	2.8480	2.6707	6.4	Tetrachloro-m-xylene
8.250	0.000	211888	8.909	0.000	340184	2.9992	3.0121	0.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	7.1	6.7	6.7~	115- 0
Decachlorobiphenyl	7.5	7.5	7.5~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

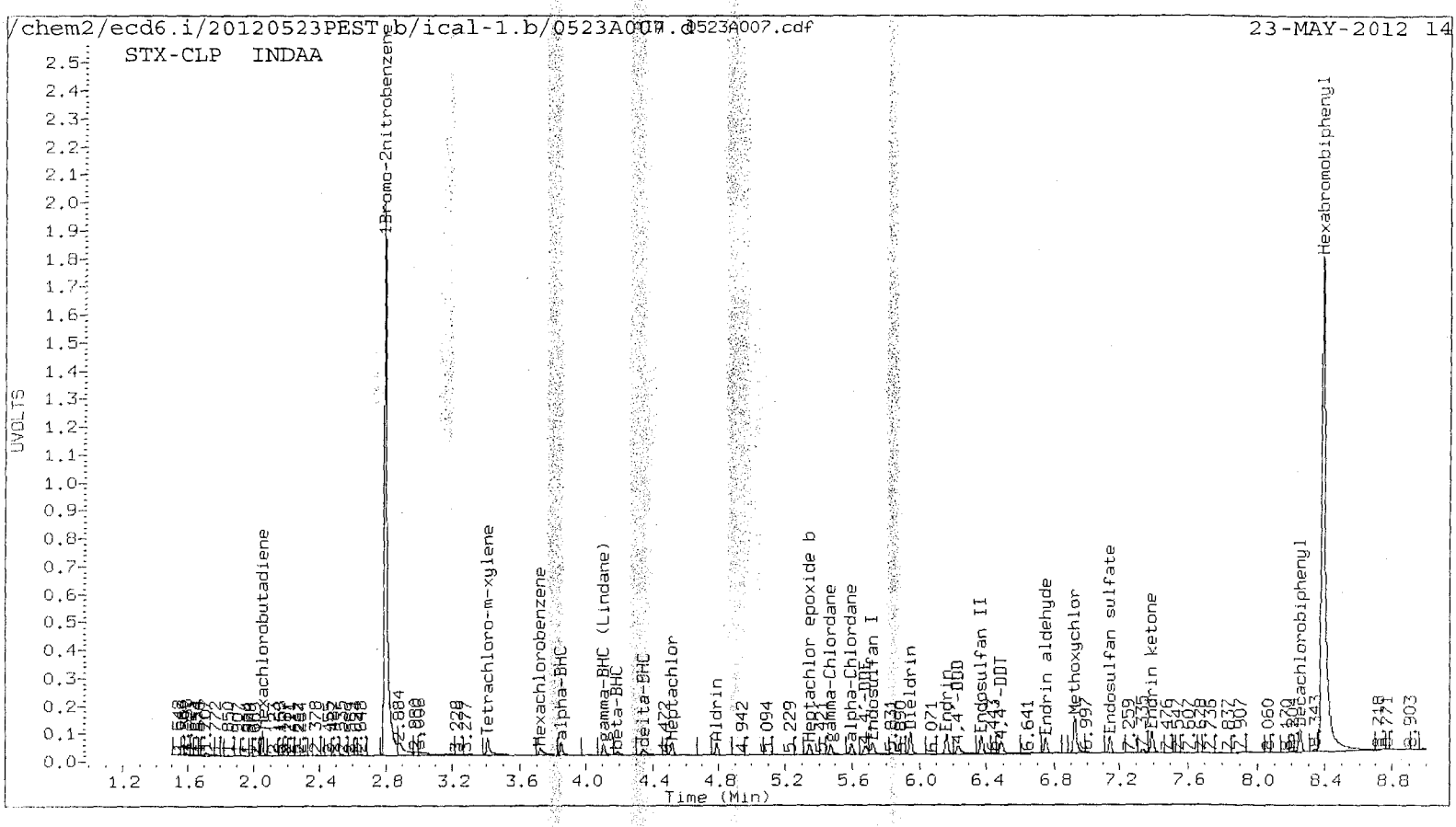
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4662553	-3.7
Hexabromobiphenyl	6506091	6288842	-3.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16229726	0.0
Hexabromobiphenyl	8472750	8157989	-3.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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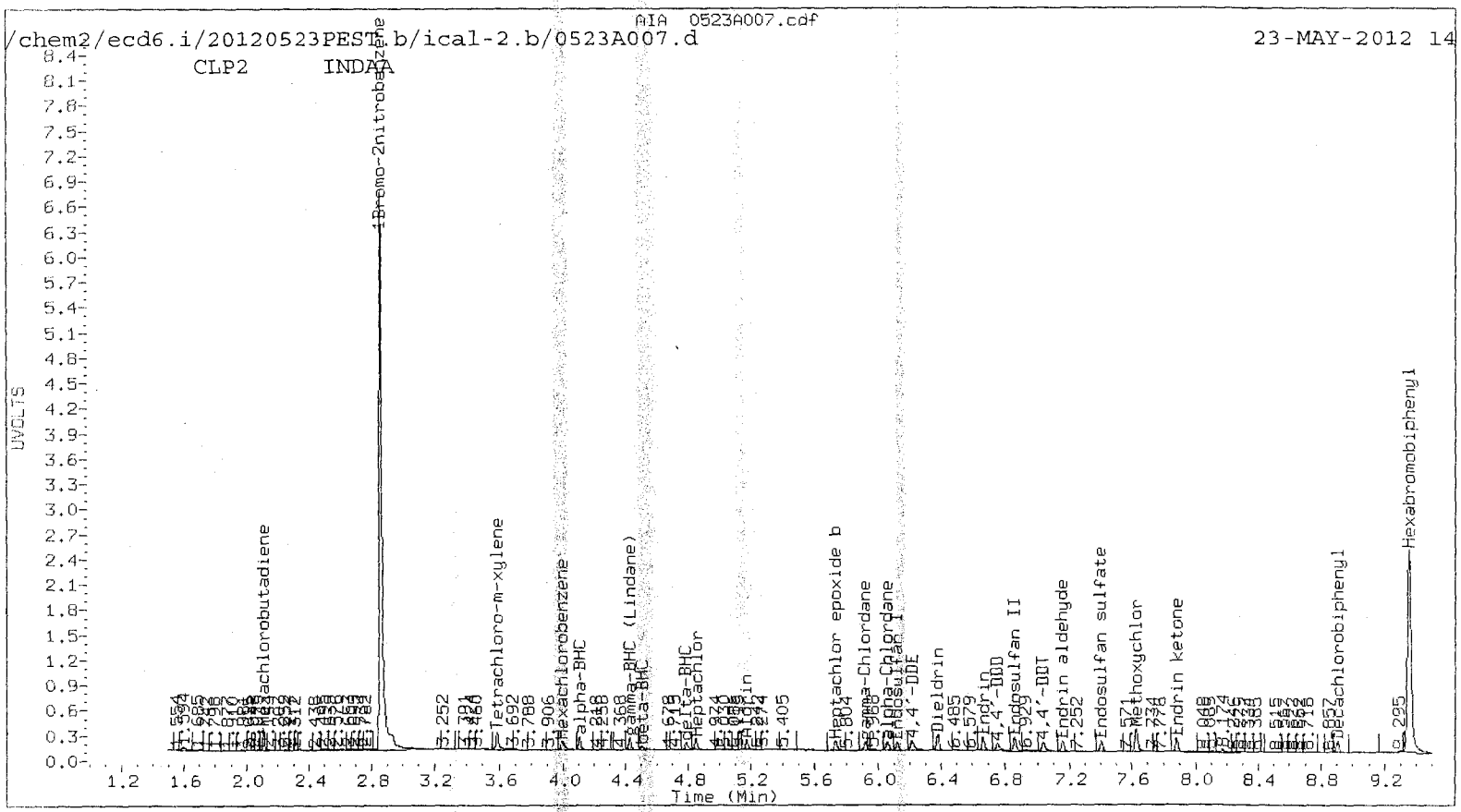
23-MAY-2012 14
STX-CLP INDAA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 14
CLP2 INDAA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-Xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A008.d ARI ID: INDAB
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A008.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 15:05
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4901931	2.855	0.000	16989055	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.847	0.000	235324	4.107	-0.001	684591	2.4061	2.3664	1.7	alpha-BHC
4.187	0.005	93658	4.505	0.003	273591	2.5673	2.4585	4.3	beta-BHC
4.342	0.005	162923	4.785	0.002	464588	2.2832	2.2499	1.5	delta-BHC
4.107	0.000	192447	4.428	0.000	589200	2.3457	2.3870	1.7	gamma-BHC (Lindane)
4.518	0.000	220726	4.849	-0.001	635638	2.4371	2.5588	4.9	Heptachlor
4.787	0.000	195463	5.170	-0.001	538568	2.3529	2.5014	6.1	Aldrin
5.346	0.001	186306	5.732	-0.001	556037	2.5185	2.6620	5.5	Heptachlor epoxide b
5.722	0.000	250244	6.118	0.000	466522	2.5062	2.5660	2.4	Endosulfan I
5.947	0.001	382974	6.377	0.000	957220	4.8173	5.0930	5.6	Dieldrin
5.677	0.007	207940	6.212	0.003	835415	4.1345	5.0259	19.5	4,4'-DDE
6.164	0.001	342575	6.664	-0.001	776642	4.7547	5.2130	9.2	Endrin
6.372	0.001	337318	6.857	0.000	794367	4.8105	5.2625	9.0	Endosulfan II
6.233	0.006	249899	6.752	0.003	625787	4.4051	5.0265	13.2	4,4'-DDD
7.139	0.001	299918	7.405	0.001	597175	4.8649	5.1491	5.7	Endosulfan sulfate
6.486	0.003	275462	7.035	0.001	603961	4.4214	4.9266	10.8	4,4'-DDT
6.925	0.002	821153	7.630	0.001	1464236	25.8700	27.3426	5.5	Methoxychlor
7.389	0.001	393789	7.882	0.000	784857	5.0386	5.2566	4.2	Endrin ketone
6.750	0.001	277667	7.159	0.001	605309	4.9102	5.2650	7.0	Endrin aldehyde
5.471	0.001	191913	5.919	0.001	482232	2.3926	2.4881	3.9	gamma-Chlordane
5.595	0.001	184055	6.058	0.000	469350	2.4112	2.5446	5.4	alpha-Chlordane
2.053	-0.001	272064	2.112	-0.001	797226	2.5170	2.5385	0.9	Hexachlorobutadiene
3.720	0.004	176690	3.997	0.003	657359	2.6207	2.4884	5.2	Hexachlorobenzene
8.390	0.001	6700380	9.355	0.000	8678314	80.0000	80.0000	0.0	Hexabromobiphenyl
3.408	0.002	386041	3.589	0.001	1045575	5.3223	4.9594	7.1	Tetrachloro-m-xylene
8.251	0.000	397174	8.908	0.000	648359	5.2766	5.3965	2.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	13.3	12.4	12.4~	115- 0
Decachlorobiphenyl	13.2	13.5	13.2~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

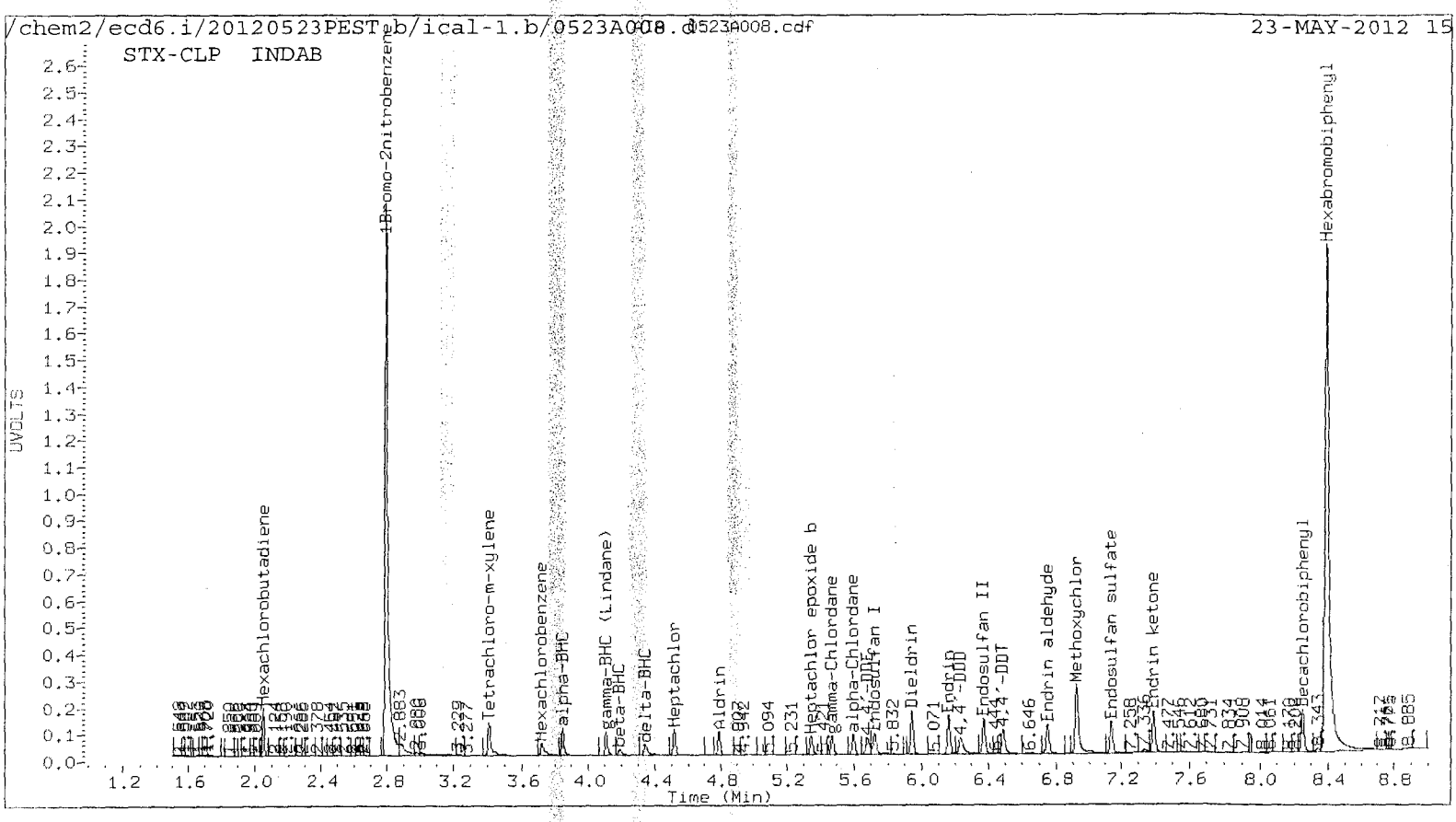
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4901931	1.2
Hexabromobiphenyl	6506091	6700380	3.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16989055	4.7
Hexabromobiphenyl	8472750	8678314	2.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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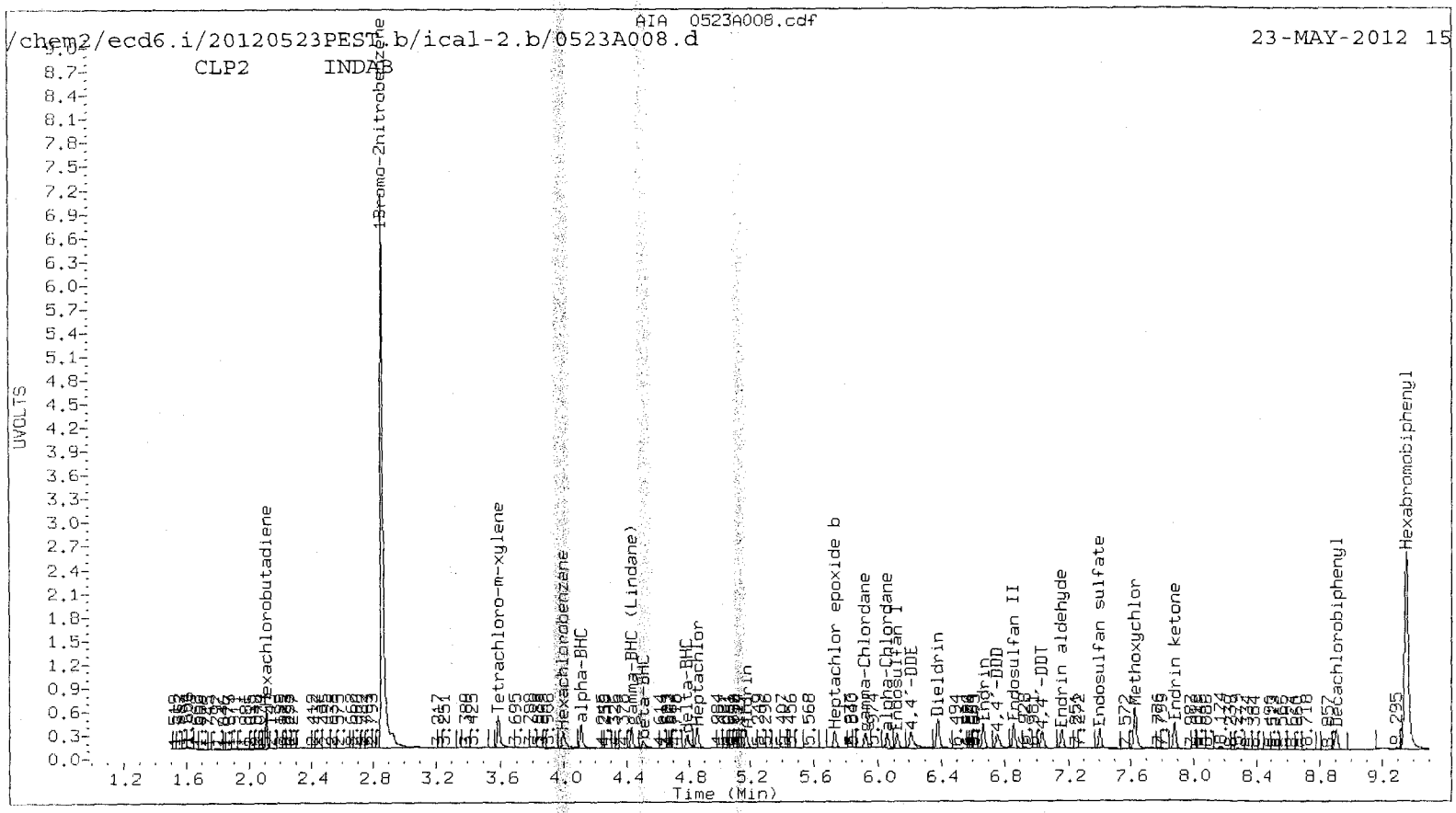
AIA 0523A008.cdf
23-MAY-2012 15
STX-CLP INDAB
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A008.cdf
23-MAY-2012 15
CLP2 INDAB
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A009.d ARI ID: INDAC
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A009.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 15:23
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	5097624	2.855	0.000	15963413	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.847	0.000	479551	4.107	-0.001	1397386	4.7149	5.1407	8.6	alpha-BHC
4.186	0.004	179654	4.504	0.002	535896	4.7356	5.1249	7.9	beta-BHC
4.342	0.005	329109	4.784	0.002	955882	4.4351	4.9265	10.5	delta-BHC
4.106	0.000	393314	4.428	-0.001	1177150	4.6099	5.0753	9.6	gamma-BHC (Lindane)
4.517	0.000	442312	4.848	-0.001	1247616	4.6963	5.3451	12.9	Heptachlor
4.787	0.000	399463	5.170	-0.001	1057892	4.6240	5.2290	12.3	Aldrin
5.346	0.000	356471	5.732	-0.001	1029998	4.6338	5.2479	12.4	Heptachlor epoxide b
5.722	0.000	497889	6.117	0.000	891315	4.7949	5.2175	8.4	Endosulfan I
5.946	0.000	790155	6.377	0.000	1860875	9.5575	10.5371	9.7	Dieldrin
5.675	0.005	455937	6.211	0.003	1612866	8.7175	10.3265	16.9	4,4'-DDE
6.163	0.000	708238	6.664	-0.001	1520477	9.8726	10.2391	3.6	Endrin
6.371	0.001	687864	6.857	0.000	1545804	9.8524	10.2741	4.2	Endosulfan II
6.233	0.005	524194	6.752	0.003	1227819	9.2804	9.8945	6.4	4,4'-DDD
7.138	0.001	605096	7.404	0.000	1179240	9.8580	10.2012	3.4	Endosulfan sulfate
6.486	0.002	585722	7.035	0.001	1205932	9.4423	9.8691	4.4	4,4'-DDT
6.925	0.002	1593071	7.630	0.001	2756371	50.4075	51.6396	2.4	Methoxychlor
7.388	0.000	771804	7.882	0.000	1545443	9.9184	10.3844	4.6	Endrin ketone
6.749	0.000	555196	7.158	0.000	1168298	9.8608	10.1952	3.3	Endrin aldehyde
5.470	0.001	384042	5.919	0.001	959804	4.6040	5.2704	13.5	gamma-Chlordane
5.594	0.000	369166	6.057	-0.001	898070	4.6505	5.1818	10.8	alpha-Chlordane
2.053	-0.001	536853	2.112	-0.001	1575145	4.7760	5.3378	11.1	Hexachlorobutadiene
3.720	0.003	333914	3.997	0.002	1288296	4.7625	5.1900	8.6	Hexachlorobenzene
8.390	0.000	6671309	9.355	0.000	8650070	80.0000	80.0000	0.0	Hexabromobiphenyl
3.408	0.002	733647	3.588	0.000	2077735	9.7264	10.4885	7.5	Tetrachloro-m-xylene
8.250	0.000	751347	8.909	0.000	1222335	10.0254	10.2072	1.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	24.3	26.2	24.3~	115- 0
Decachlorobiphenyl	25.1	25.5	25.1~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

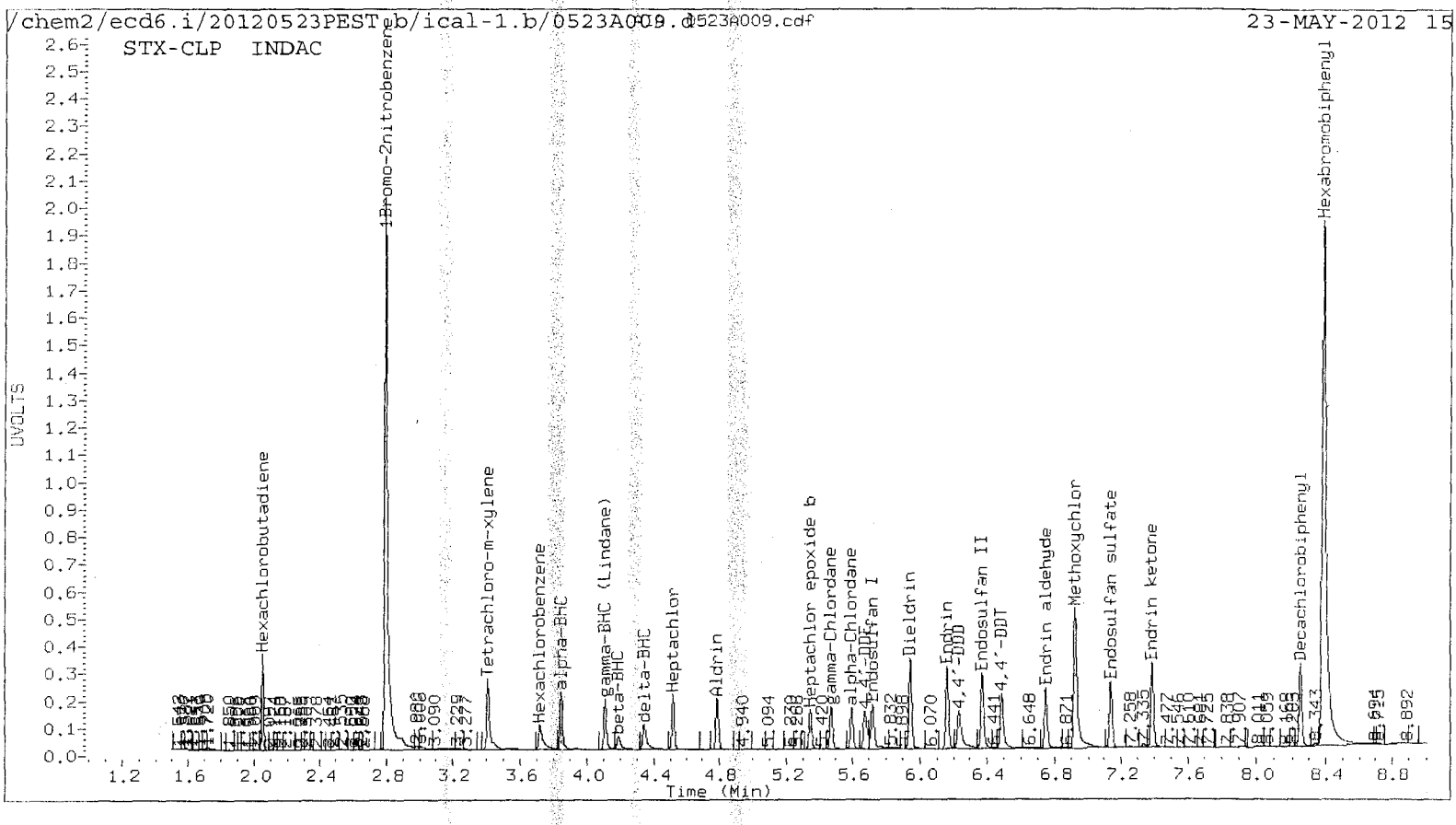
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5097624	5.3
Hexabromobiphenyl	6506091	6671309	2.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15963413	-1.6
Hexabromobiphenyl	8472750	8650070	2.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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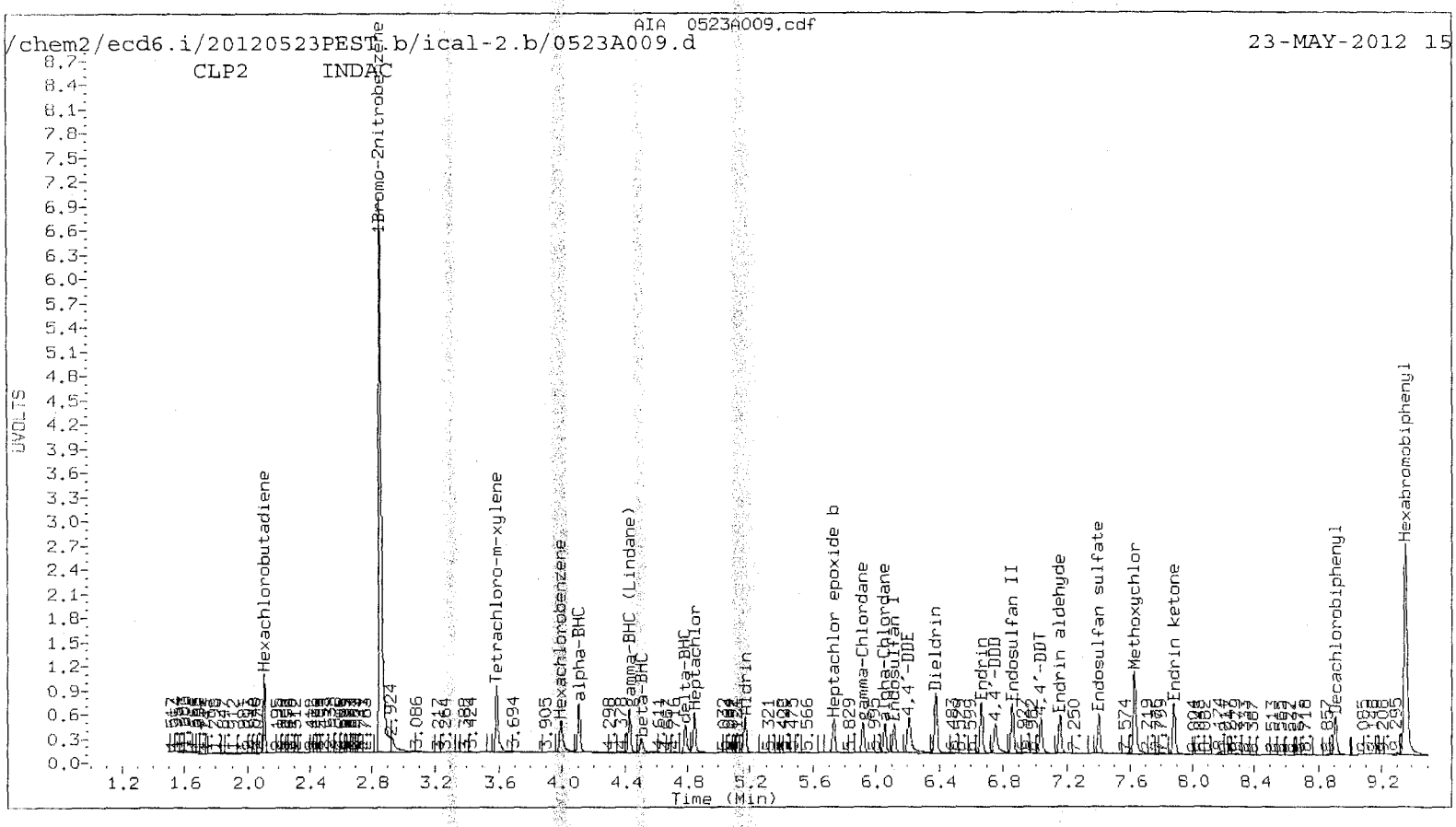
AIA 0523A009.cdf
23-MAY-2012 15
STX-CLP INDAC
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 15
CLP2 INDAC
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A010.d ARI ID: INDAD
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A010.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 15:41
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4846850	2.855	0.000	16200736	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.846	-0.001	993264	4.107	-0.001	2788103	10.2710	10.1066	1.6	alpha-BHC
4.185	0.003	353763	4.503	0.001	1022509	9.8075	9.6353	1.8	beta-BHC
4.340	0.003	685083	4.784	0.001	1890714	9.7100	9.6018	1.1	delta-BHC
4.106	0.000	818658	4.428	-0.001	2310686	10.0917	9.8167	2.8	gamma-BHC (Lindane)
4.517	-0.001	911843	4.849	-0.001	2390915	10.1825	10.0932	0.9	Heptachlor
4.787	0.000	836615	5.170	-0.001	2041103	10.1854	9.9411	2.4	Aldrin
5.345	0.000	732359	5.733	0.000	1959508	10.0126	9.8375	1.8	Heptachlor epoxide b
5.721	0.000	1019972	6.117	0.000	1691554	10.3311	9.7568	5.7	Endosulfan I
5.946	-0.001	1612307	6.377	0.000	3596377	20.5110	20.0659	2.2	Dieldrin
5.674	0.005	953312	6.211	0.003	3050124	19.1704	19.2426	0.4	4,4'-DDE
6.163	-0.001	1438323	6.664	0.000	2937191	20.4615	19.8554	3.0	Endrin
6.371	0.000	1389143	6.857	0.000	2974275	20.3055	19.8443	2.3	Endosulfan II
6.231	0.003	1085771	6.751	0.002	2353314	19.6173	19.0372	3.0	4,4'-DDD
7.138	0.000	1201708	7.404	0.000	2287814	19.9797	19.8670	0.6	Endosulfan sulfate
6.485	0.001	1210817	7.035	0.002	2363116	19.9201	19.4136	2.6	4,4'-DDT
6.924	0.001	3077505	7.630	0.001	5159905	99.3770	97.0402	2.4	Methoxychlor
7.388	0.000	1501282	7.882	0.000	2944817	19.6890	19.8633	0.9	Endrin ketone
6.748	0.000	1101601	7.159	0.001	2235417	19.9671	19.5823	1.9	Endrin aldehyde
5.470	0.000	783831	5.918	0.000	1822894	9.8831	9.8631	0.2	gamma-Chlordane
5.593	0.000	754191	6.057	0.000	1709018	9.9924	9.7164	2.8	alpha-Chlordane
2.053	-0.001	1084226	2.112	-0.001	2978384	10.1446	9.9452	2.0	Hexachlorobutadiene
3.719	0.002	651001	3.996	0.001	2467801	9.7654	9.7962	0.3	Hexachlorobenzene
8.390	0.000	6537086	9.355	-0.001	8616973	80.0000	80.0000	0.0	Hexabromobiphenyl
3.407	0.001	1438731	3.588	0.000	4019617	20.0610	19.9939	0.3	Tetrachloro-m-xylene
8.250	0.000	1443026	8.908	0.000	2326383	19.6500	19.5013	0.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	50.2	50.0	50.0~	115- 0
Decachlorobiphenyl	49.1	48.8	48.8~	115- 0

~ Indicates recovery outside QC Limits

UU52:01227

INTERNAL STANDARD SUMMARY

Column 1

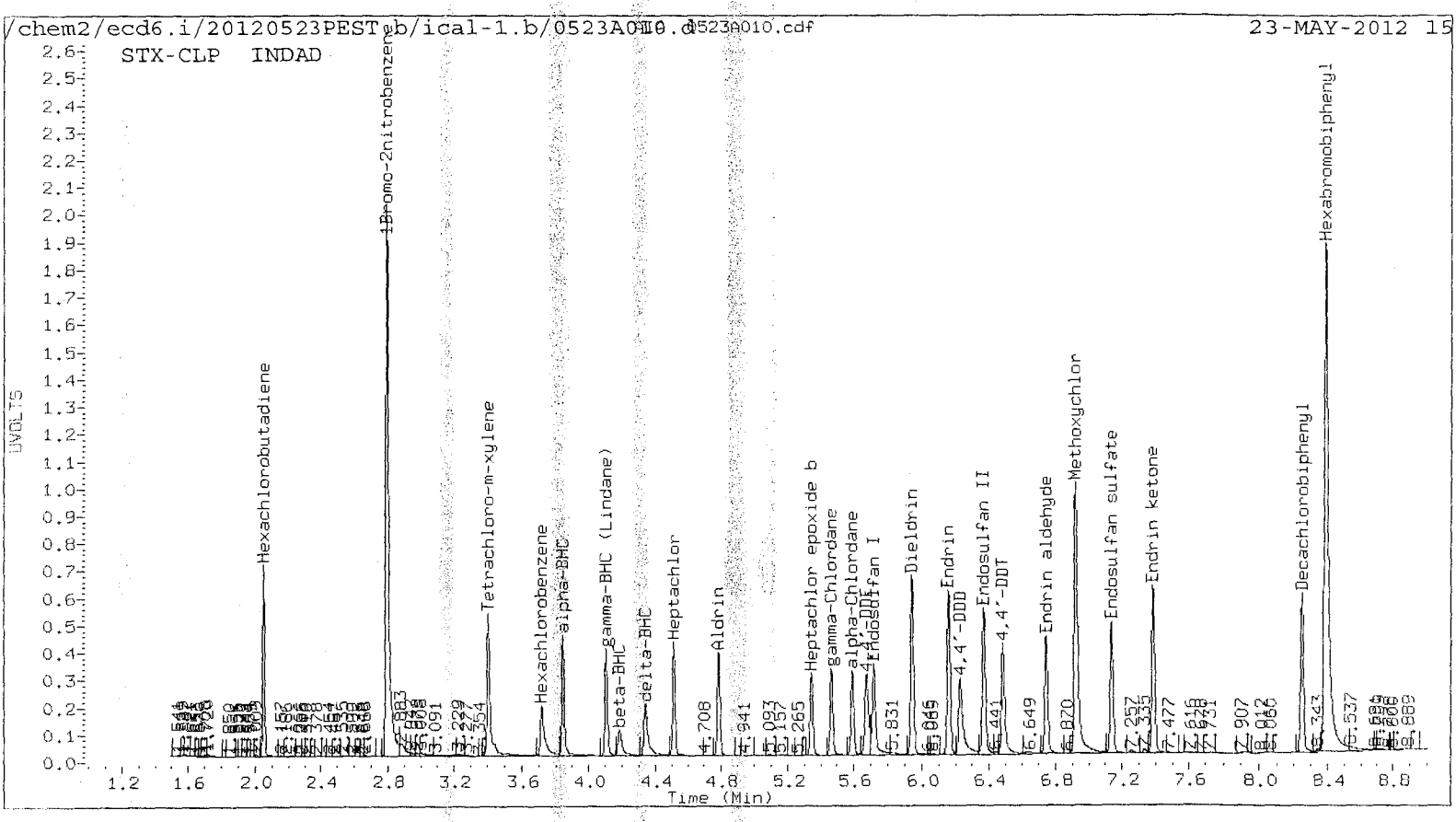
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4846850	0.1
Hexabromobiphenyl	6506091	6537086	0.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16200736	-0.2
Hexabromobiphenyl	8472750	8616973	1.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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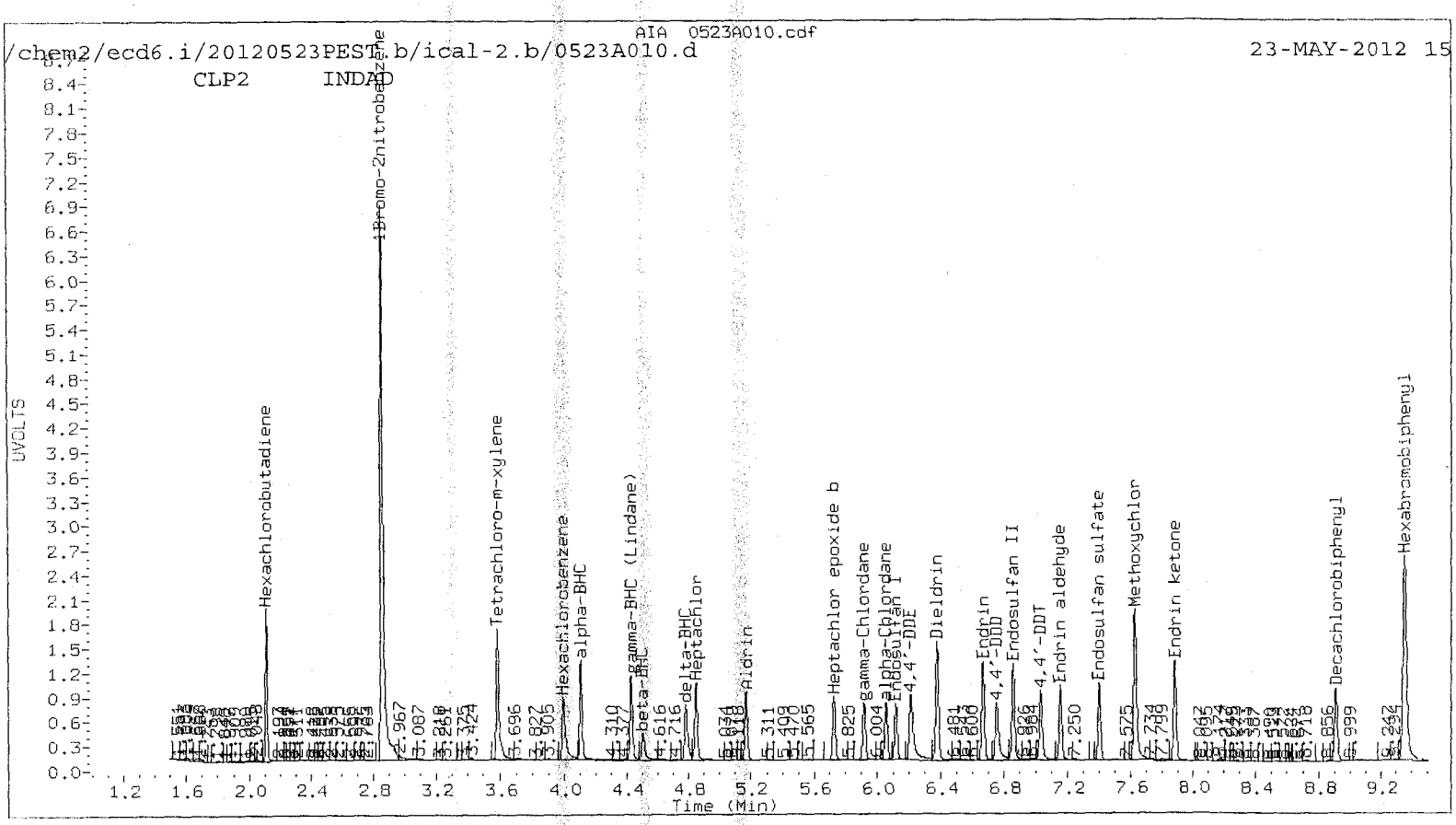
0523A010.cdf
23-MAY-2012 15
STX-CLP INDAD
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 15
CLP2 INDAD
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A011.d ARI ID: INDAF
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A011.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 15:58
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.797	0.000	4867401	2.855	0.000	16682441	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.846	0.000	4154693	4.107	0.000	11255646	42.7810	39.6224	7.7	alpha-BHC
4.183	0.001	1465758	4.502	0.000	4026104	40.4643	36.8432	9.4	beta-BHC
4.338	0.001	3136677	4.783	0.000	8355316	44.2699	41.2064	7.2	delta-BHC
4.106	0.000	3476213	4.428	-0.001	9410438	42.6707	38.8249	9.4	gamma-BHC (Lindane)
4.518	0.000	3718148	4.849	0.000	8819322	41.3451	36.1556	13.4	Heptachlor
4.787	0.000	3499920	5.170	-0.001	7922388	42.4298	37.4716	12.4	Aldrin
5.346	0.000	2993614	5.732	0.000	7449545	40.7550	36.3198	11.5	Heptachlor epoxide b
5.722	0.000	3957874	6.117	0.000	6481871	39.9192	36.3075	9.5	Endosulfan I
5.946	0.000	6485958	6.377	0.000	13418392	82.1630	72.7059	12.2	Dieldrin
5.671	0.002	4634253	6.209	0.001	12144345	92.7979	74.4039	22.0	4,4'-DDE
6.163	0.000	5814366	6.665	0.000	11084332	81.7990	74.8243	8.9	Endrin
6.371	0.000	5615499	6.858	0.000	11198816	81.1746	74.6130	8.4	Endosulfan II
6.228	0.001	4940166	6.749	0.000	9694313	88.2691	78.3118	12.0	4,4'-DDD
7.138	0.000	4880727	7.405	0.001	8810610	80.2489	76.4021	4.9	Endosulfan sulfate
6.484	0.000	5393463	7.035	0.001	9738463	87.7497	79.8911	9.4	4,4'-DDT
6.923	0.000	12257760	7.630	0.001	17292597	391.4383	324.7559	18.6	Methoxychlor
7.388	0.000	5962994	7.882	0.001	11064087	77.3376	74.5239	3.7	Endrin ketone
6.749	0.000	4437890	7.158	0.000	8476984	79.5487	74.1538	7.0	Endrin aldehyde
5.470	0.000	3288931	5.918	0.000	7148864	41.2940	37.5635	9.5	gamma-Chlordane
5.594	0.000	3100743	6.057	0.000	6665901	40.9089	36.8037	10.6	alpha-Chlordane
2.053	0.000	4225104	2.112	0.000	11075928	39.3656	35.9159	9.2	Hexachlorobutadiene
3.718	0.001	2609181	3.995	0.000	9749094	38.9742	37.5825	3.6	Hexachlorobenzene
8.390	0.001	6610265	9.355	-0.001	8629150	80.0000	80.0000	0.0	Hexabromobiphenyl
3.406	0.000	5645105	3.588	0.000	15496769	78.3802	74.8564	4.6	Tetrachloro-m-xylene
8.251	0.000	5480778	8.909	0.000	8727379	73.8068	73.0553	1.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	196.0	187.1	187.1~	115- 0
Decachlorobiphenyl	184.5	182.6	182.6~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

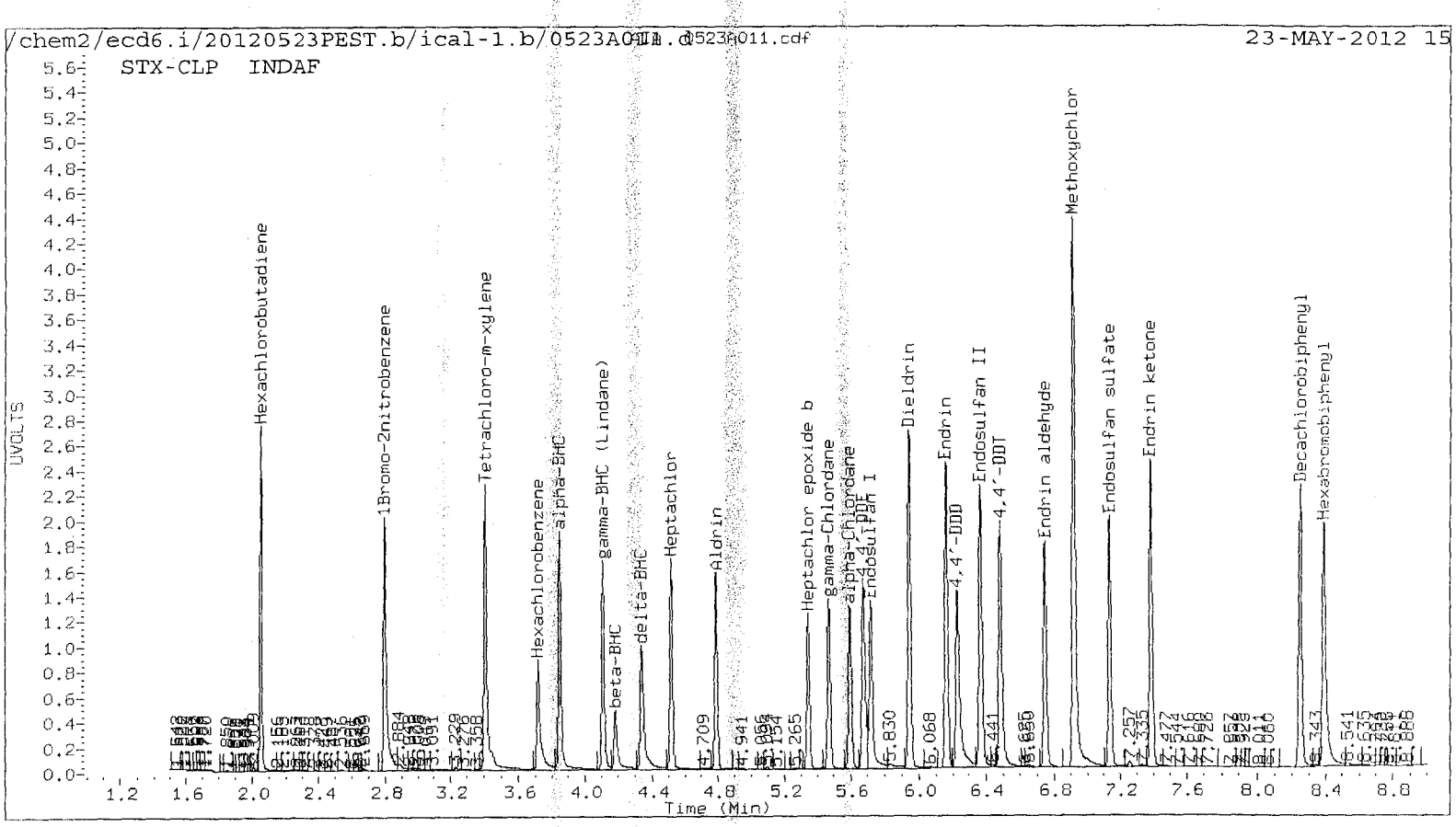
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4867401	0.5
Hexabromobiphenyl	6506091	6610265	1.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16682441	2.8
Hexabromobiphenyl	8472750	8629150	1.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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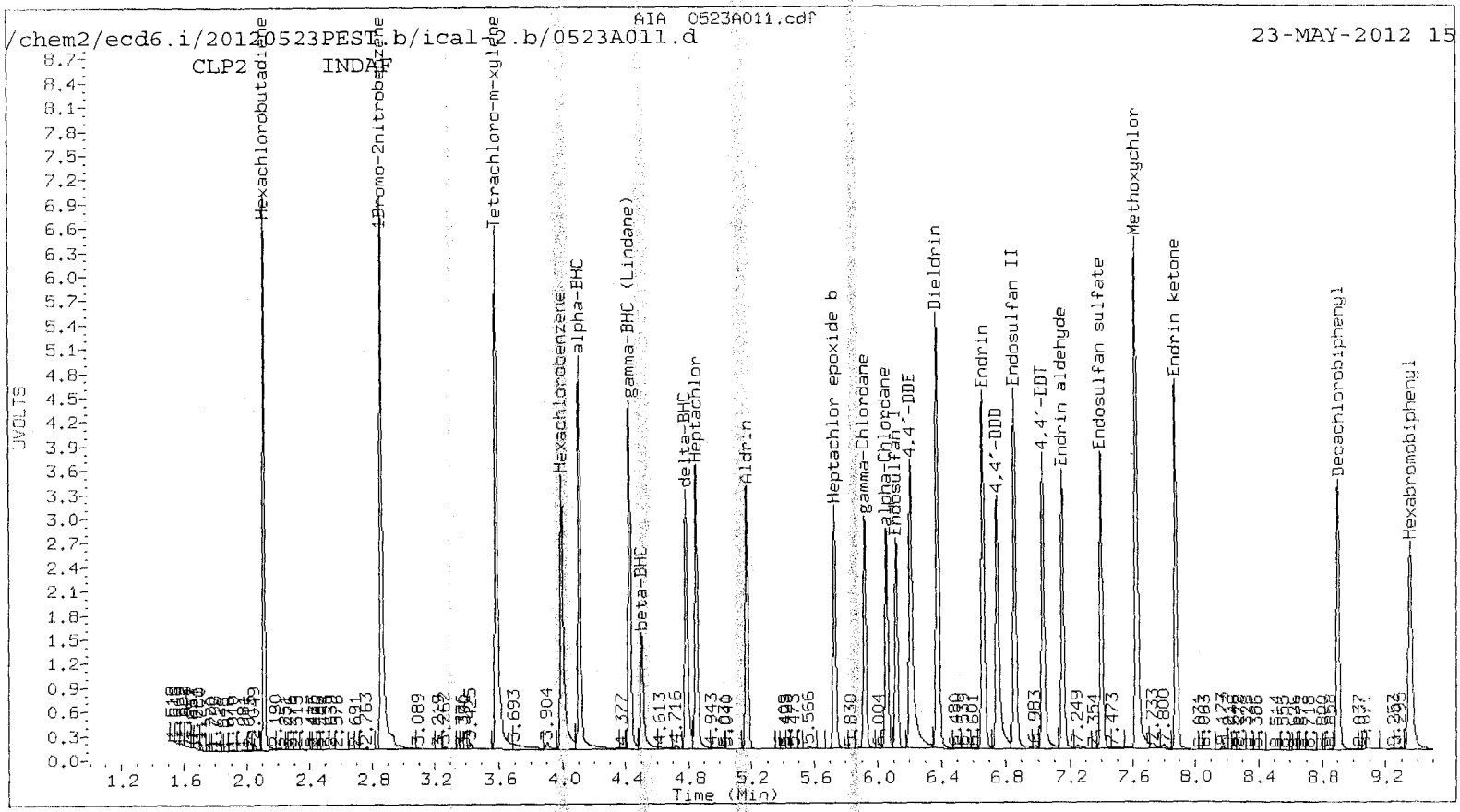
0523A011.cdf
23-MAY-2012 15
STX-CLP INDAF
UVOLTS
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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23-MAY-2012 15
CLP2 INDAF
UVOLTS
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A012.d ARI ID: INDAG
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A012.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 16:16
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.797	0.001	4944488	2.855	0.000	15540466	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.847	0.000	8408496	4.108	0.000	21853886	85.2327	82.5837	3.2	alpha-BHC
4.182	0.000	2962525	4.502	0.000	7798154	80.5095	76.6054	5.0	beta-BHC
4.337	0.000	6518750	4.782	0.000	16673404	90.5689	88.2716	2.6	delta-BHC
4.106	0.000	7085521	4.429	0.000	18362931	85.6191	81.3276	5.1	gamma-BHC (Lindane)
4.518	0.000	7355541	4.849	0.000	16213440	80.5171	71.3527	12.1	Heptachlor
4.787	0.000	6989667	5.171	0.000	14980751	83.4153	76.0634	9.2	Aldrin
5.346	0.000	5980009	5.733	0.000	13922744	80.1425	72.8676	9.5	Heptachlor epoxide b
5.722	0.000	7555767	6.118	0.000	12252001	75.0195	73.6714	1.8	Endosulfan I
5.946	0.000	12889489	6.377	0.000	24993829	160.7362	145.3776	10.0	Dieldrin
5.670	0.000	9875323	6.208	0.000	23322294	194.6640	153.3869	23.7	4,4'-DDE
6.163	0.000	11557288	6.664	0.000	20579878	156.8271	135.5383	14.6	Endrin
6.371	0.000	11198451	6.857	0.000	20802640	156.1381	135.2219	14.4	Endosulfan II
6.227	0.000	10183310	6.749	0.000	18958552	175.4994	149.4176	16.1	4,4'-DDD
7.138	0.000	9806489	7.404	0.000	16828418	155.5205	142.3734	8.8	Endosulfan sulfate
6.483	0.000	11065375	7.034	0.000	19097615	173.6454	152.8528	12.7	4,4'-DDT
6.923	0.000	24605198	7.629	0.000	31657500	757.8766	580.0423	26.6	Methoxychlor
7.388	0.000	11969831	7.881	0.000	20812352	149.7387	136.7689	9.1	Endrin ketone
6.748	0.000	8853574	7.158	0.000	16050444	153.0717	136.9826	11.1	Endrin aldehyde
5.470	0.000	6605916	5.918	0.000	13687865	81.6471	77.2077	5.6	gamma-Chlordane
5.594	0.000	6259683	6.057	0.000	12857873	81.2980	76.2074	6.5	alpha-Chlordane
2.053	0.000	8418309	2.113	0.000	21725328	77.2112	75.6256	2.1	Hexachlorobutadiene
3.717	0.000	5285530	3.995	0.000	18905591	77.7207	78.2361	0.7	Hexachlorobenzene
8.390	0.001	6853296	9.355	-0.001	8844674	80.0000	80.0000	0.0	Hexabromobiphenyl
3.406	0.000	9861175	3.588	0.000	29972046	134.7842	155.4174	14.2	Tetrachloro-m-xylene
8.250	0.000	10915123	8.908	0.000	17047413	141.7757	139.2235	1.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	337.0	388.5	337.0~	115- 0
Decachlorobiphenyl	354.4	348.1	348.1~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

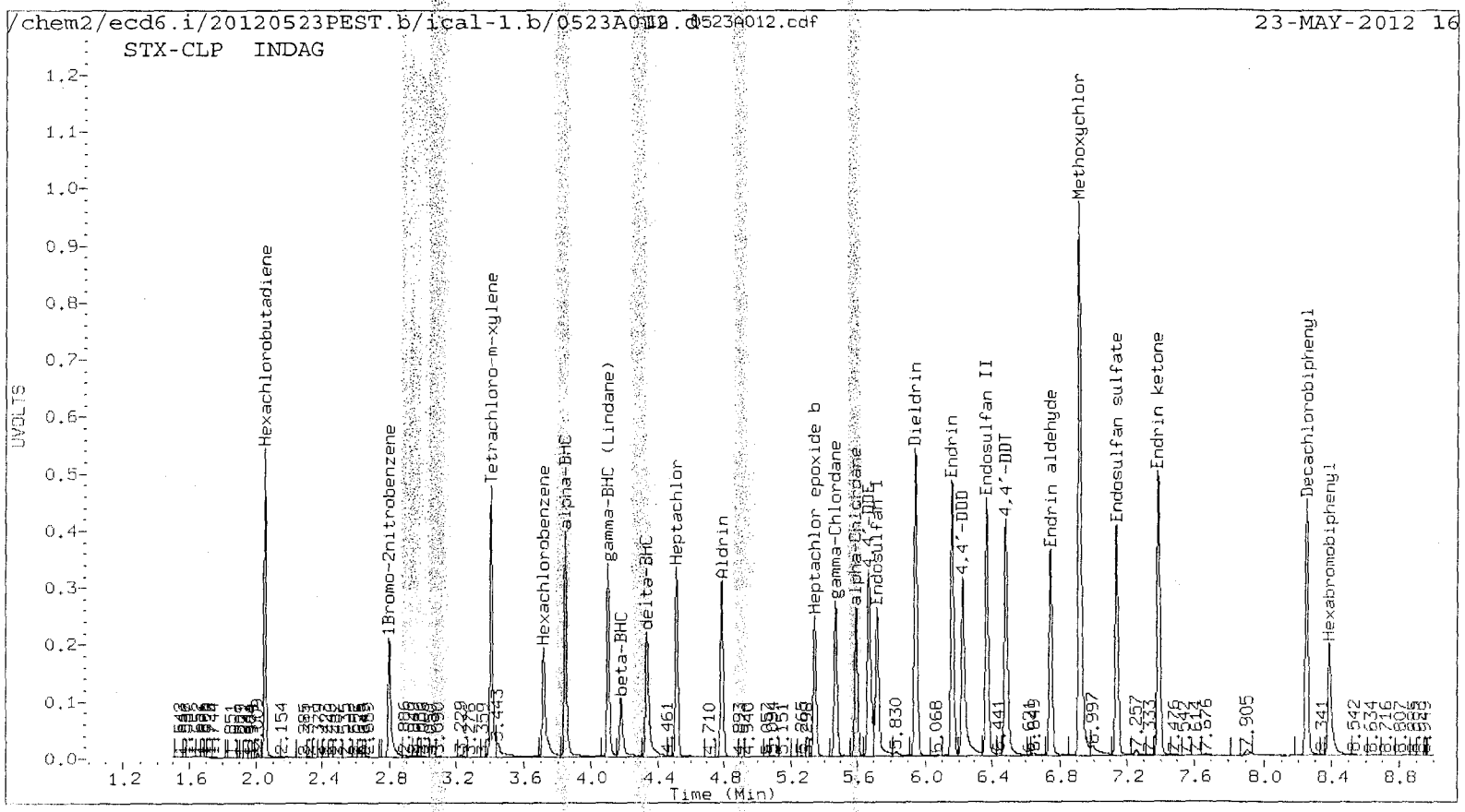
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4944488	2.1
Hexabromobiphenyl	6506091	6853296	5.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15540466	-4.2
Hexabromobiphenyl	8472750	8844674	4.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col				CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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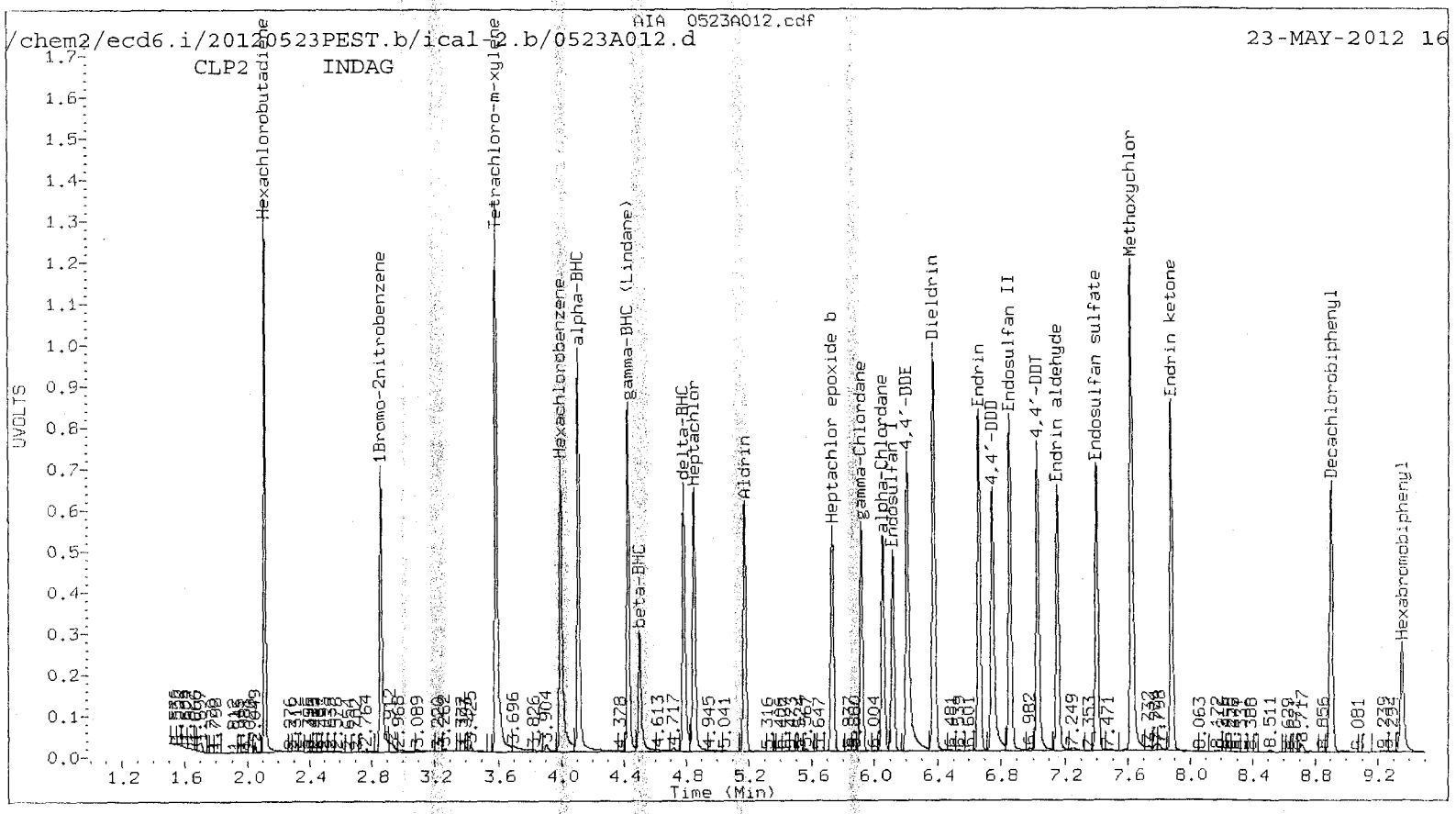
0523A012.cdf
23-MAY-2012 16
STX-CLP INDAG
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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0523A012.cdf
23-MAY-2012 16
CLP2 INDAG
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A015.d ARI ID: TOXAPH 2500
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A015.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 17:10
Compound Sublist: TOXAPH Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4791619	2.855	0.000	16477086	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
8.391	0.001	6609775	9.356	0.000	8490411	80.0000	80.0000	0.0	Hexabromobiphenyl
3.407	0.001	2344294	3.589	0.001	6723393	33.0645	32.8818	0.6	Tetrachloro-m-xylene
8.251	0.000	2573992	8.908	0.000	3958796	34.6652	33.6799	2.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	82.7	82.2	82.2~	150- 0
Decachlorobiphenyl	86.7	84.2	84.2~	150- 0

~ Indicates recovery outside QC Limits

UU52:01236

INTERNAL STANDARD SUMMARY

Column 1

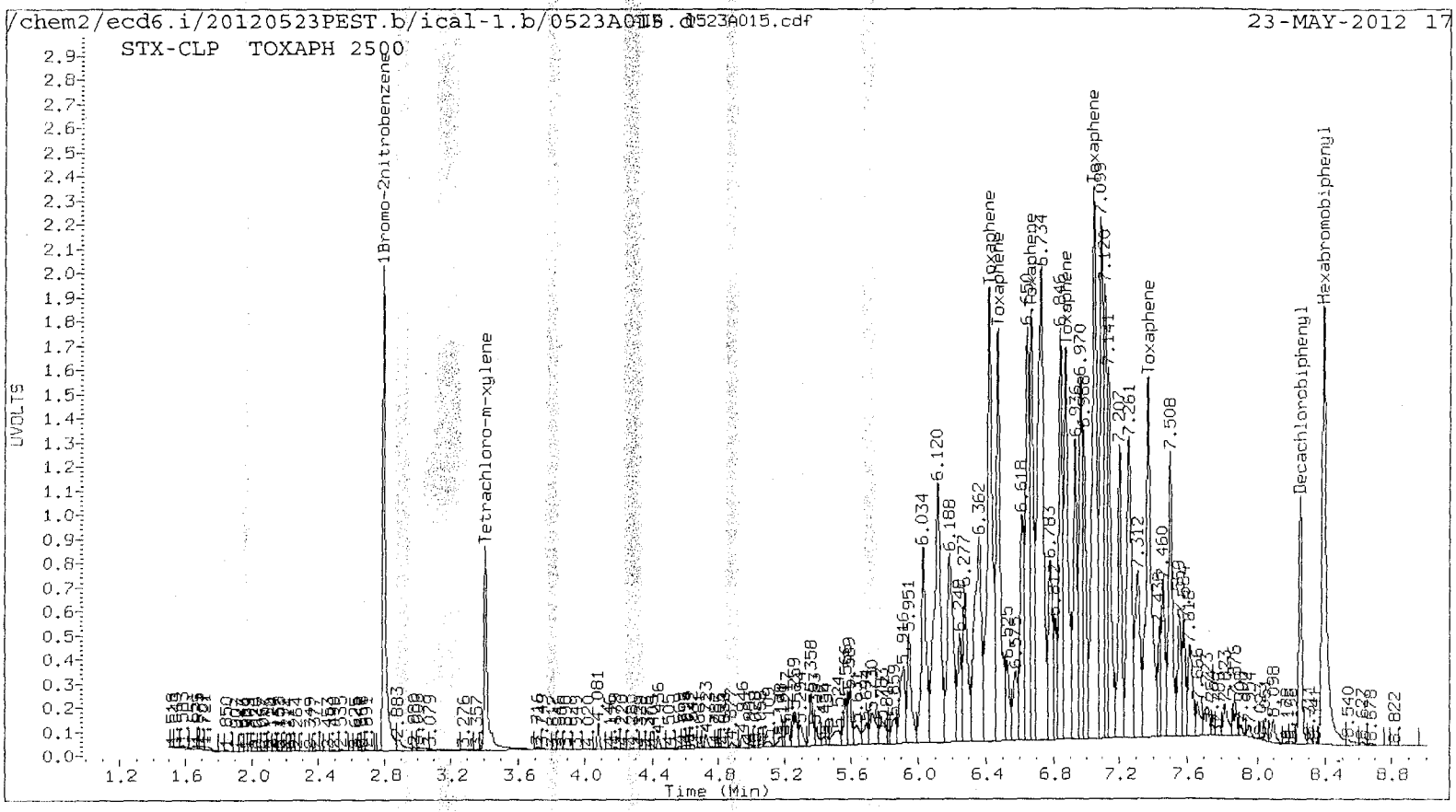
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4791619	-1.0
Hexabromobiphenyl	6506091	6609775	1.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16477086	1.5
Hexabromobiphenyl	8472750	8490411	0.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	6.424	0.000	7853407	2500.000	1	6.607	0.000	11538802	2500.000	
Toxaphene	2	6.475	0.000	6015509	2500.000	2	6.931	0.000	17218598	2500.000	
Toxaphene	3	6.673	0.000	5544783	2500.000	3	7.165	0.000	18102742	2500.000	
Toxaphene	4	6.877	0.000	5963483	2500.000	4	7.625	0.000	14389141	2500.000	
Toxaphene	5	7.056	0.000	9090085	2500.000	5	7.670	0.000	19591746	2500.000	
Toxaphene	6	7.375	0.000	6370712	2500.000	NS	---			----	
Total STX-CLPAve (6 peaks): 2500.000						Total CLP2Ave (5 peaks): 2500.000				RPD = 0	
Corrected Ave (6 peaks): 2500.000						Corrected Ave (5 peaks): 2500.000				RPD = 0	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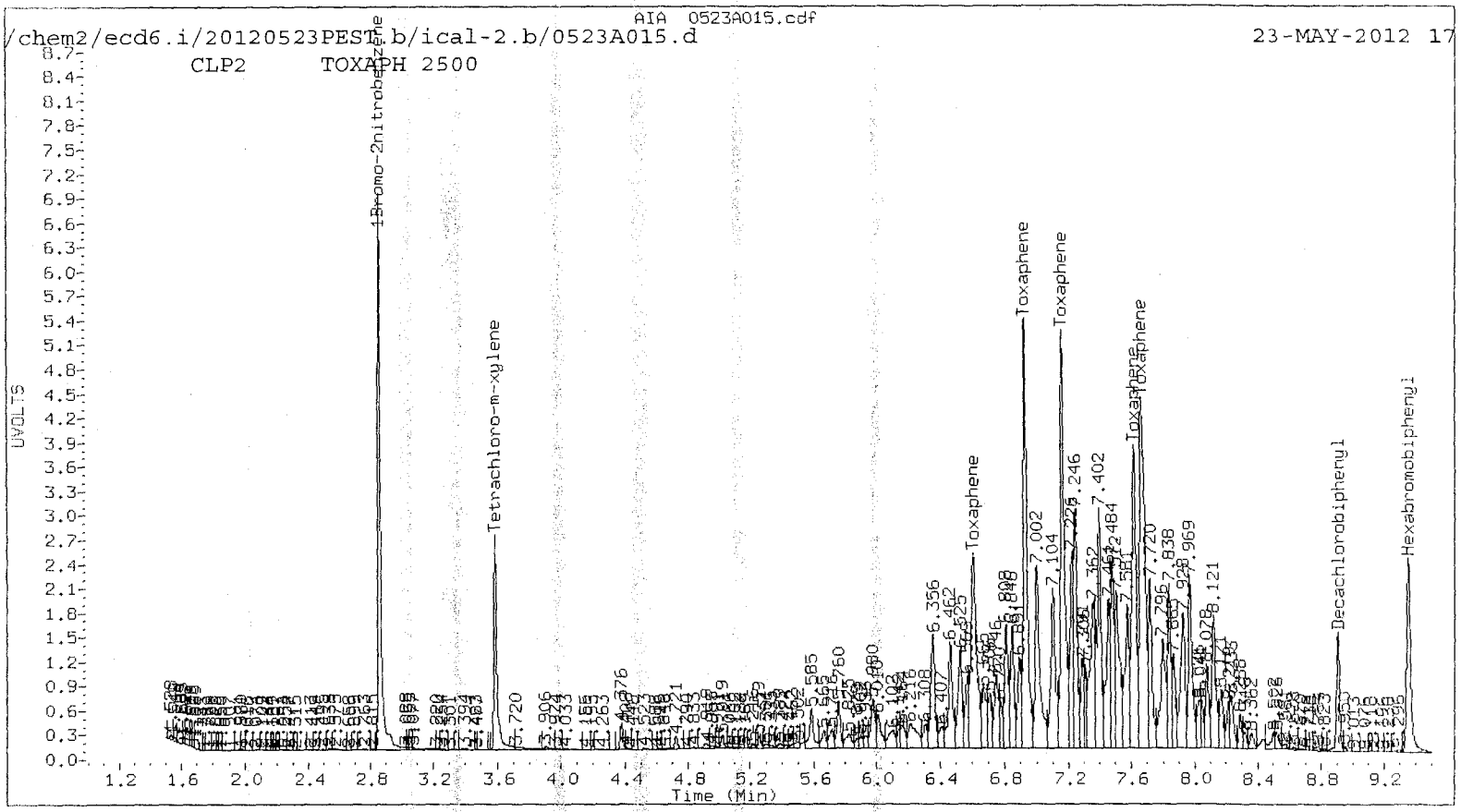
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)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AIA 0523A015.cdf
23-MAY-2012 17
CLP2 TOXAPH 2500
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A016.d ARI ID: WNDE
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A016.d Client ID:
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Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.708	-0.012	1684	1.743	-0.027	2287	0.0000	0.0000	---	Hexachloroethane
2.797	0.001	4835108	2.855	0.001	16832865	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
5.252	0.000	2484749	5.644	0.000	6257539	40.4455	38.0341	6.1	Oxychlordane
5.343	0.002	1806359	5.911	0.002	4051512	41.7532	37.8239	9.9	2,4-DDE
5.581	0.000	3155299	6.007	0.000	6711636	40.1560	37.8112	6.0	trans-Nonachlor
5.832	0.002	1533008	6.400	0.002	3755364	38.4530	37.8870	1.5	2,4-DDD
6.070	0.001	2128849	6.685	0.000	4171793	40.5326	38.7425	4.5	2,4-DDT
6.198	0.000	3561502	6.733	0.000	6953265	40.9438	38.8449	5.3	cis-Nonachlor
7.063	0.000	2215404	7.862	0.000	3926734	38.4481	36.5034	5.2	Mirex
8.390	0.000	6638127	9.355	-0.001	8707514	80.0000	80.0000	0.0	Hexabromobiphenyl
3.408	0.002	2519639	3.589	0.001	7470290	35.2179	35.7624	1.5	Tetrachloro-m-xylene
8.250	0.000	2589198	8.908	0.000	4073118	34.7210	33.7885	2.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	88.0	89.4	88.0~	150- 0
Decachlorobiphenyl	86.8	84.5	84.5~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

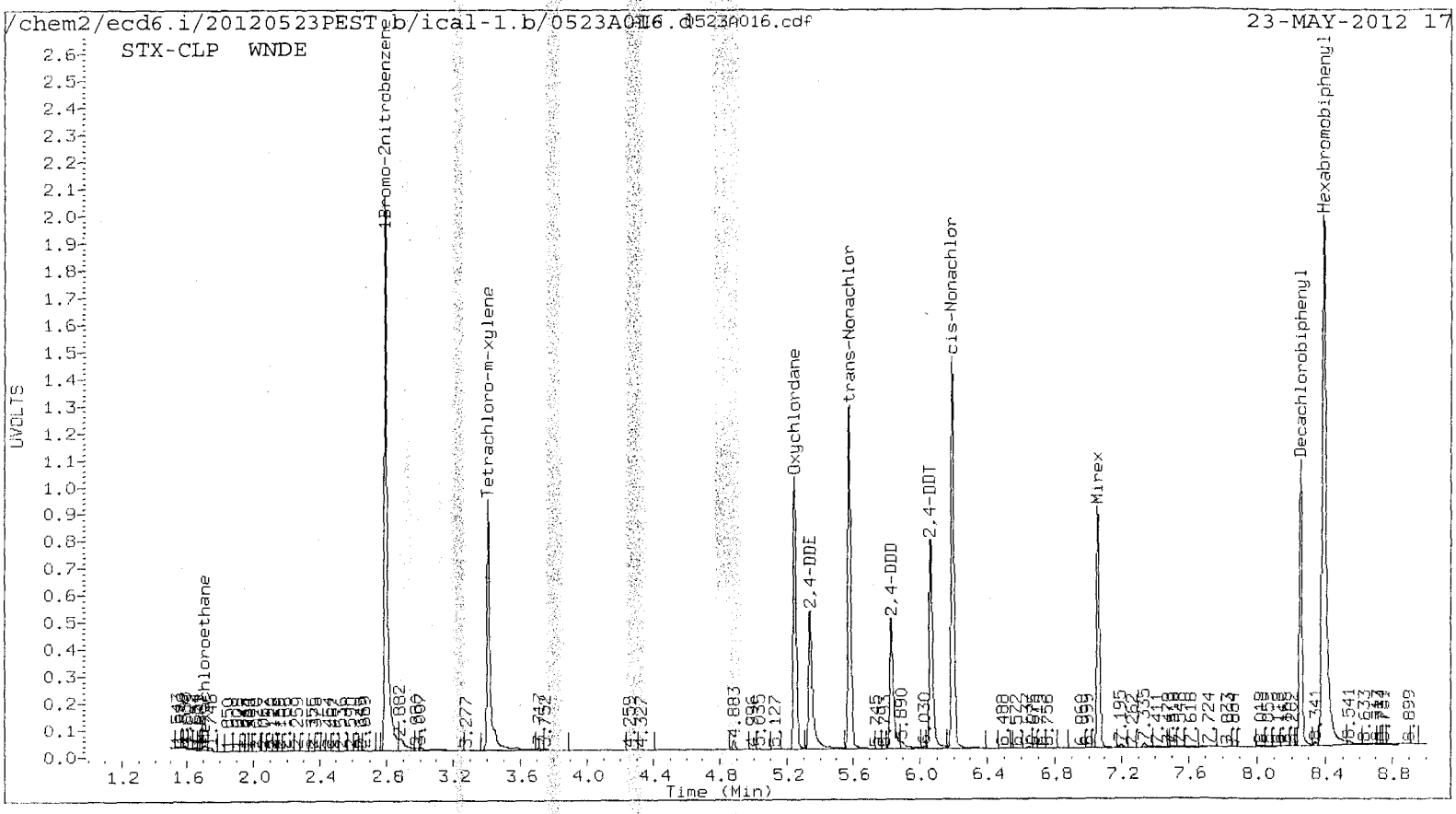
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4835108	-0.1
Hexabromobiphenyl	6506091	6638127	2.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16832865	3.7
Hexabromobiphenyl	8472750	8707514	2.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount



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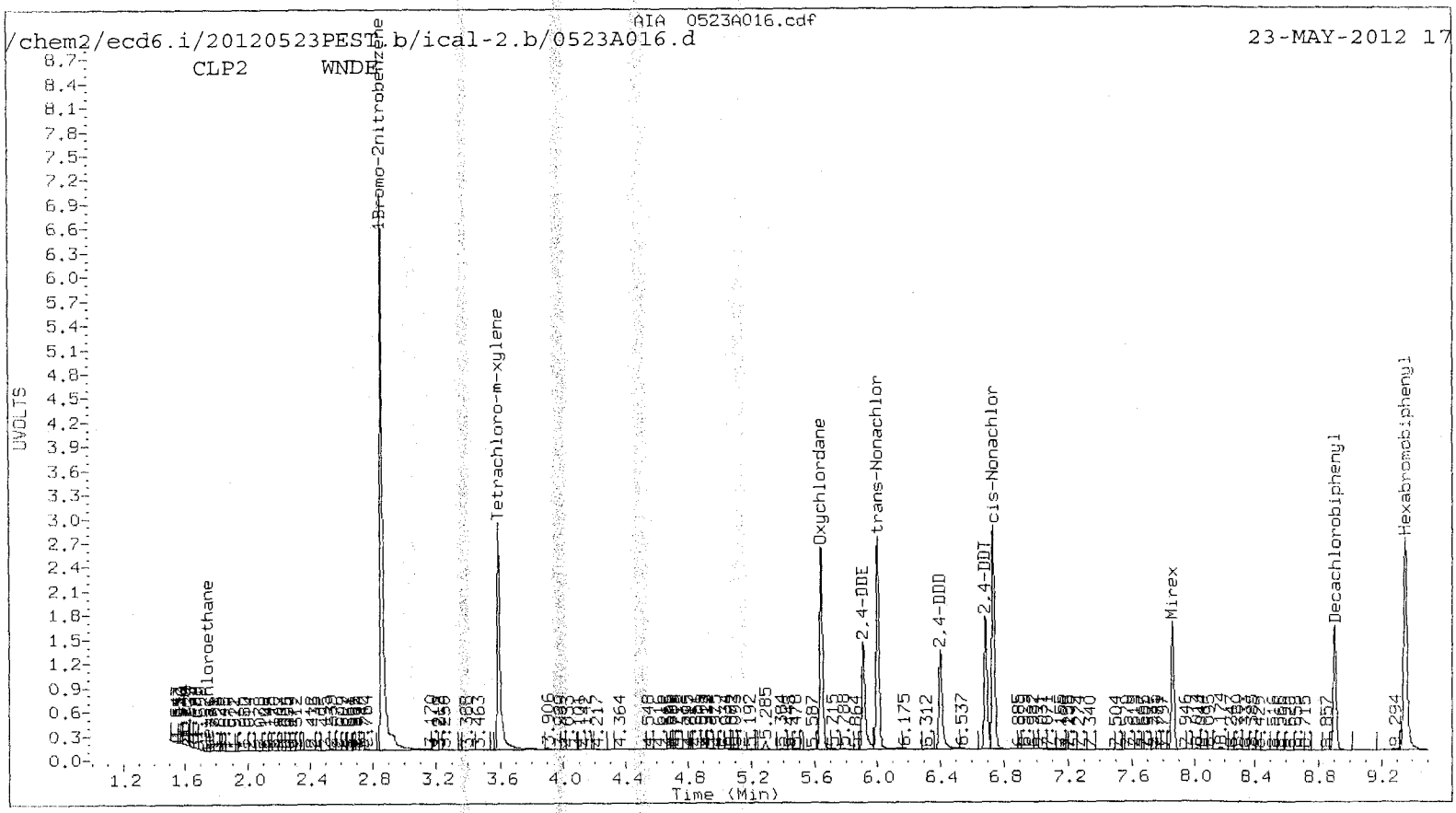


Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A017.d ARI ID: WNDA
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A017.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 17:45
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.720	0.001	671	1.742	-0.028	5350	0.0000	0.0000	---	Hexachloroethane
2.796	0.000	4751592	2.854	0.000	16405407	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
5.252	0.001	160052	5.644	0.000	446452	2.6372	2.7843	5.4	Oxychlordane
5.346	0.004	111139	5.912	0.002	289432	2.6005	2.7725	6.4	2,4-DDE
5.581	0.001	214870	6.006	0.000	538166	2.7681	3.1045	11.5	trans-Nonachlor
5.835	0.004	109933	6.401	0.002	292931	2.7913	3.0262	8.1	2,4-DDD
6.071	0.002	140821	6.686	0.001	311009	2.7141	2.9575	8.6	2,4-DDT
6.198	0.001	223213	6.734	0.000	503939	2.5976	2.8828	10.4	cis-Nonachlor
7.063	0.000	170143	7.862	0.000	343940	2.9890	3.2739	9.1	Mirex
8.390	0.000	6557663	9.355	0.000	8503685	80.0000	80.0000	0.0	Hexabromobiphenyl
3.409	0.003	175117	3.590	0.002	492485	2.4907	2.4191	2.9	Tetrachloro-m-xylene
8.250	0.000	205878	8.909	0.001	295996	2.7947	2.5143	10.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	6.2	6.0	6.0~	150- 0
Decachlorobiphenyl	7.0	6.3	6.3~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

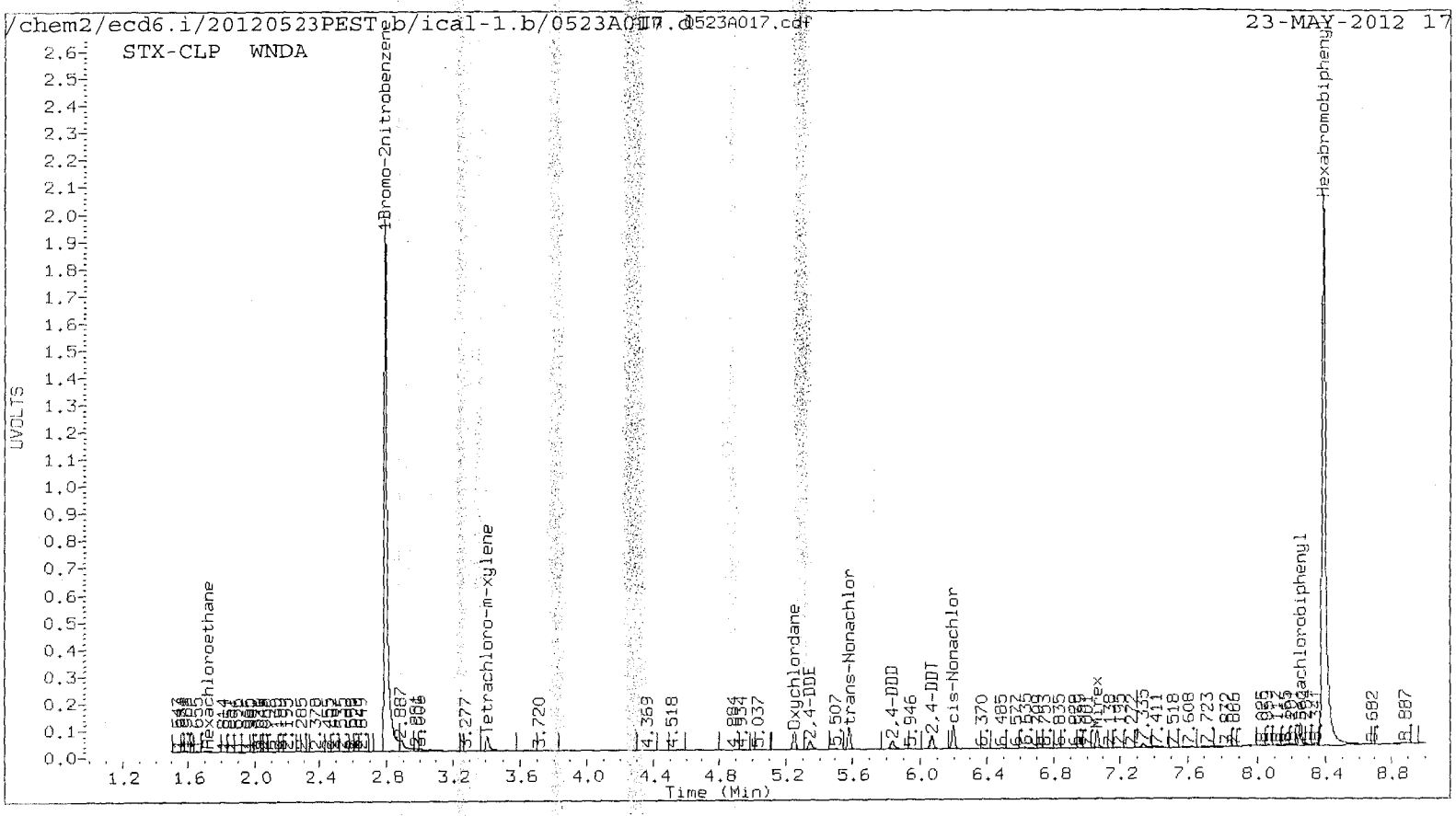
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4751592	-1.9
Hexabromobiphenyl	6506091	6557663	0.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16405407	1.1
Hexabromobiphenyl	8472750	8503685	0.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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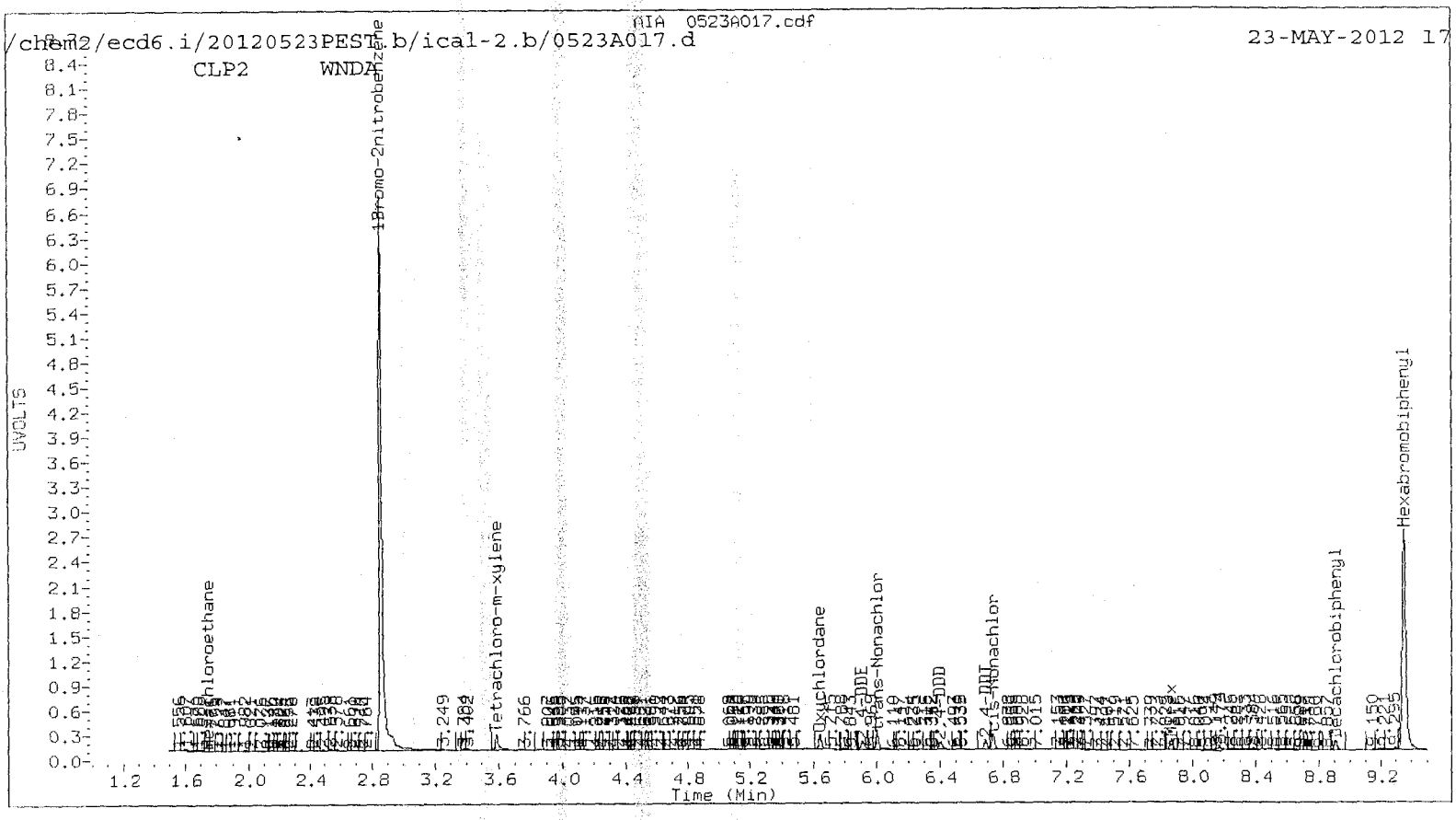
0523A017.cdf
23-MAY-2012 17
STX-CLP WNDA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Hexachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 17
CLP2 WNDA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
cis-Nonachlor
Hexachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A018.d ARI ID: WNDB
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A018.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 18:03
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.720	0.001	716	1.743	-0.027	6360	0.0000	0.0000	---	Hexachloroethane
2.796	0.000	4969001	2.855	0.000	16776826	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
5.252	0.000	310432	5.643	-0.001	876559	5.0644	5.3456	5.4	Oxychlordane
5.345	0.004	207183	5.912	0.003	589932	4.7996	5.5259	14.1	2,4-DDE
5.581	0.000	392794	6.006	0.000	973333	5.0101	5.4986	9.3	trans-Nonachlor
5.834	0.004	198101	6.401	0.002	545319	4.9801	5.5168	10.2	2,4-DDD
6.070	0.002	255993	6.685	0.000	576129	4.8849	5.3652	9.4	2,4-DDT
6.198	0.000	424902	6.733	0.000	951412	4.8957	5.3298	8.5	cis-Nonachlor
7.063	0.000	303419	7.862	-0.001	602158	5.2776	5.6132	6.2	Mirex
8.390	0.000	6623328	9.355	0.000	8683498	80.0000	80.0000	0.0	Hexabromobiphenyl
3.409	0.003	343862	3.589	0.001	979087	4.6768	4.7028	0.6	Tetrachloro-m-xylene
8.251	0.000	371153	8.908	0.000	591458	4.9883	4.9200	1.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	11.7	11.8	11.7~	150- 0
Decachlorobiphenyl	12.5	12.3	12.3~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

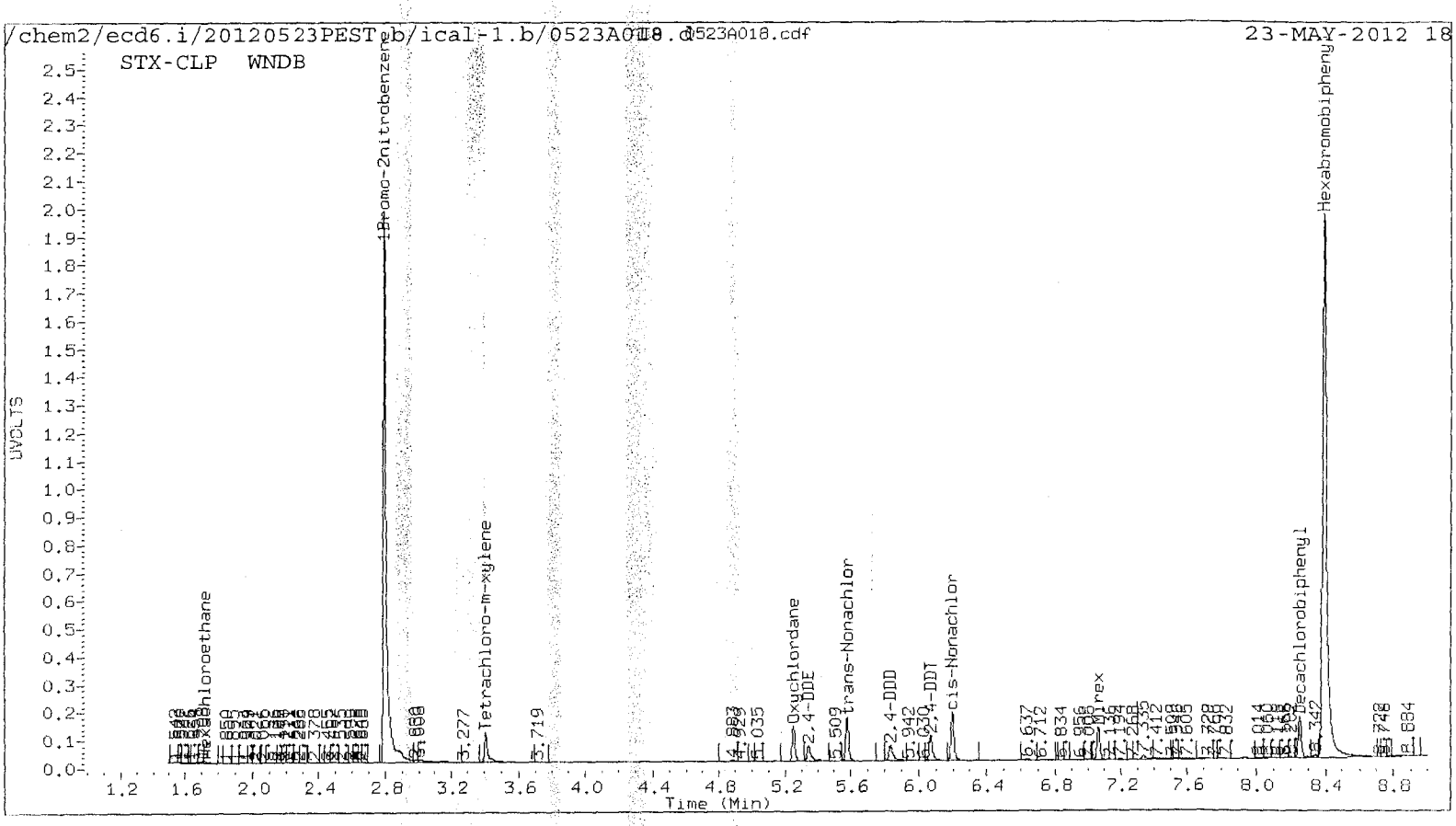
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4969001	2.6
Hexabromobiphenyl	6506091	6623328	1.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16776826	3.4
Hexabromobiphenyl	8472750	8683498	2.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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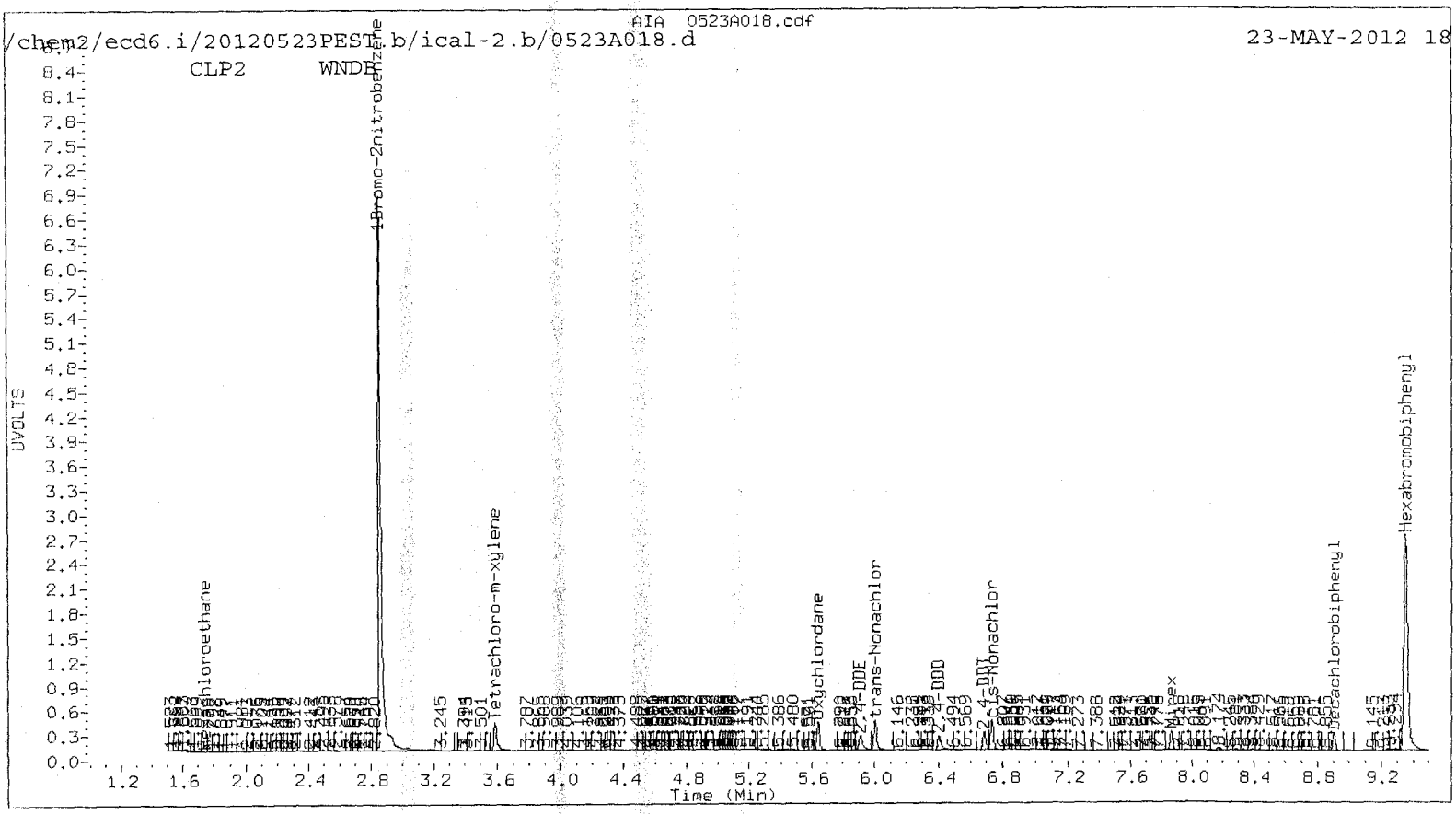
0523A018.cdf
23-MAY-2012 18
STX-CLP WNDB
UVOLTS
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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23-MAY-2012 18
CLP2 WNDB
UVOLTS
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A019.d ARI ID: WNDC
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A019.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 18:21
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.720	0.001	771	1.742	-0.027	3926	0.0000	0.0000	---	Hexachloroethane
2.796	0.000	5151057	2.855	0.001	17441474	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
5.252	0.000	621951	5.643	-0.001	1686093	9.8127	9.8907	0.8	Oxychlordane
5.344	0.003	418608	5.912	0.002	1101527	9.3786	9.9247	5.7	2,4-DDE
5.580	0.000	782897	6.006	-0.001	1834116	9.6574	9.9624	3.1	trans-Nonachlor
5.834	0.004	404832	6.401	0.002	1039292	9.8425	10.1093	2.7	2,4-DDD
6.070	0.002	514099	6.686	0.001	1104875	9.4875	9.8929	4.2	2,4-DDT
6.198	0.000	862764	6.733	0.000	1860209	9.6137	10.0196	4.1	cis-Nonachlor
7.063	0.000	582103	7.862	0.000	1124184	9.7919	10.0759	2.9	Mirex
8.390	0.000	6848602	9.355	0.000	9031272	80.0000	80.0000	0.0	Hexabromobiphenyl
3.408	0.002	645430	3.589	0.002	1954069	8.4681	9.0283	6.4	Tetrachloro-m-xylene
8.250	0.000	700459	8.909	0.000	1118341	9.1044	8.9446	1.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	21.2	22.6	21.2~	150- 0
Decachlorobiphenyl	22.8	22.4	22.4~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

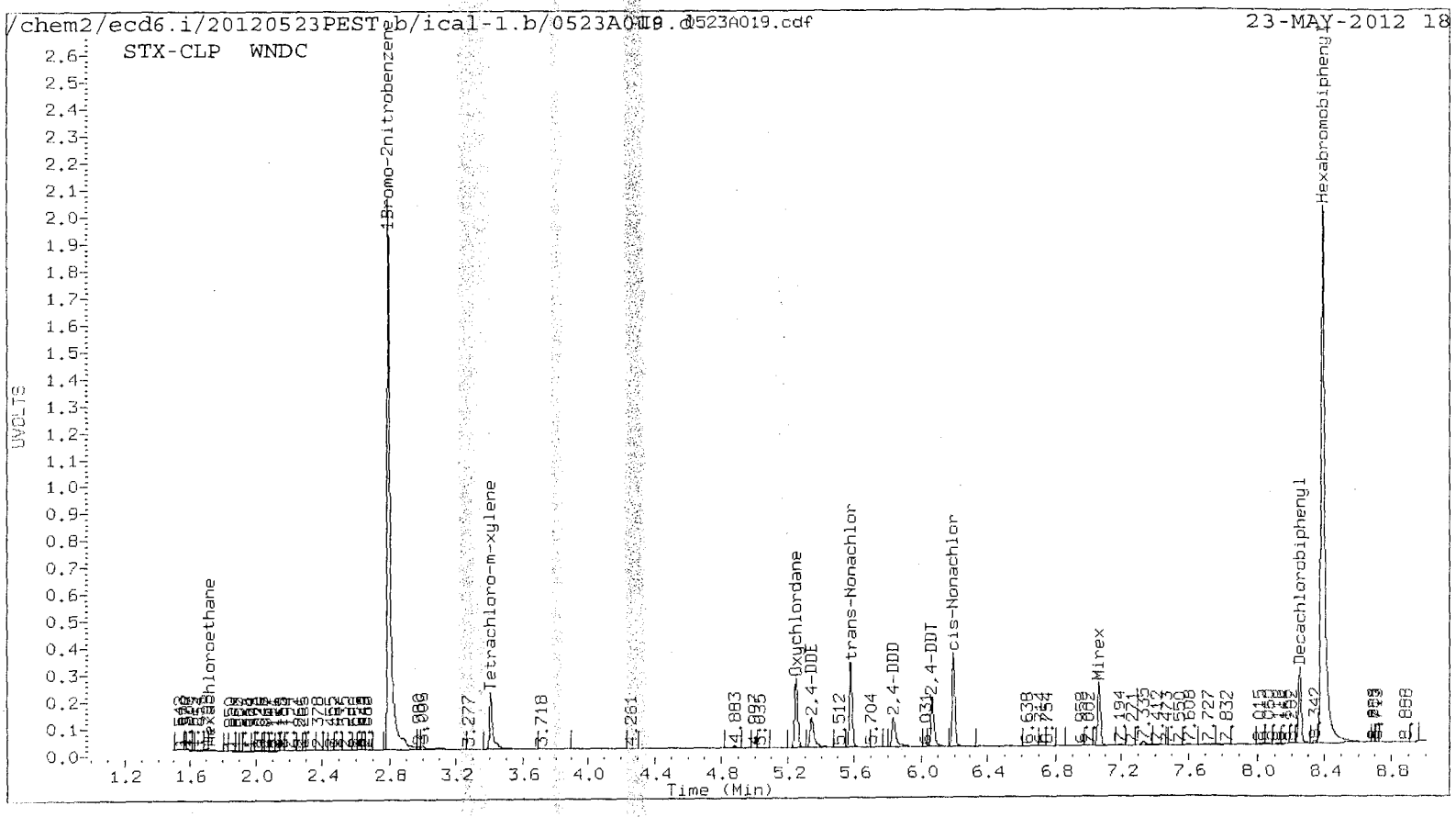
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5151057	6.4
Hexabromobiphenyl	6506091	6848602	5.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	17441474	7.5
Hexabromobiphenyl	8472750	9031272	6.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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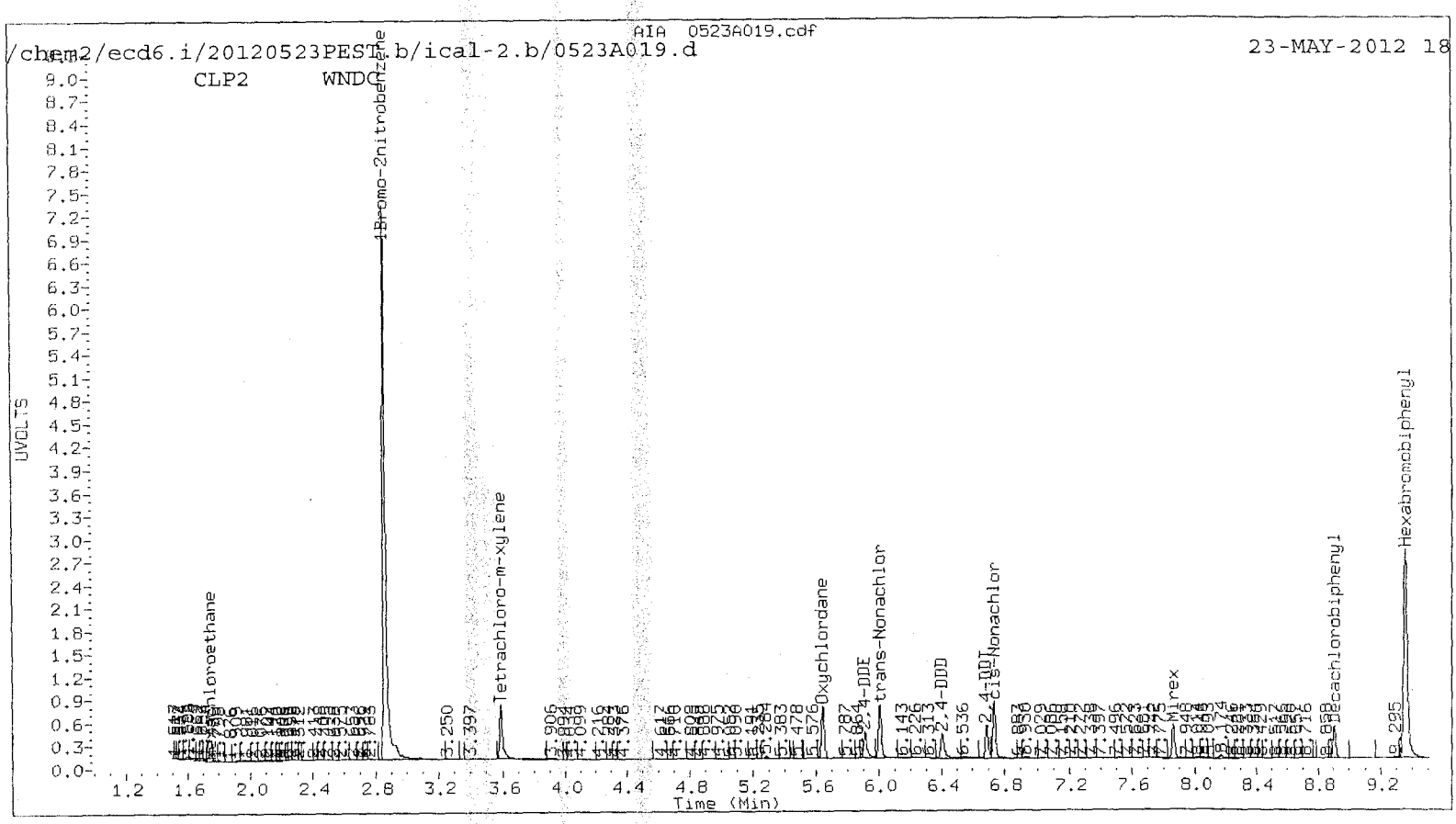
AIA 0523A019.cdf
23-MAY-2012 18
STX-CLP WNDC
UVOLTS
Time (Min)
Chloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A019.cdf
23-MAY-2012 18
CLP2 WNDC
UVOLTS
Time (Min)
Chloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
4,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A020.d ARI ID: WNDD
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A020.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 18:39
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.719	0.000	980	1.743	-0.027	2643	0.0000	0.0000	---	Hexachloroethane
2.796	0.000	5139758	2.855	0.000	16765159	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
5.252	0.000	1244004	5.644	0.000	3266712	19.7173	19.9357	1.1	Oxychlordane
5.344	0.003	865078	5.911	0.002	2119113	19.4706	19.8634	2.0	2,4-DDE
5.580	0.000	1587428	6.006	0.000	3518750	19.6717	19.2097	2.4	trans-Nonachlor
5.833	0.003	836100	6.401	0.002	1984803	20.4213	19.4042	5.1	2,4-DDD
6.070	0.001	1058554	6.686	0.001	2159167	19.6251	19.4308	1.0	2,4-DDT
6.198	0.000	1773690	6.734	0.000	3650085	19.8551	19.7600	0.5	cis-Nonachlor
7.063	0.000	1132590	7.862	-0.001	2113030	19.1396	19.0347	0.5	Mirex
8.389	0.000	6817214	9.355	-0.001	8985763	80.0000	80.0000	0.0	Hexabromobiphenyl
3.408	0.002	1273314	3.589	0.001	3833481	16.7427	18.4261	9.6	Tetrachloro-m-xylene
8.250	0.000	1338360	8.908	0.000	2144309	17.4759	17.2373	1.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	41.9	46.1	41.9~	150- 0
Decachlorobiphenyl	43.7	43.1	43.1~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

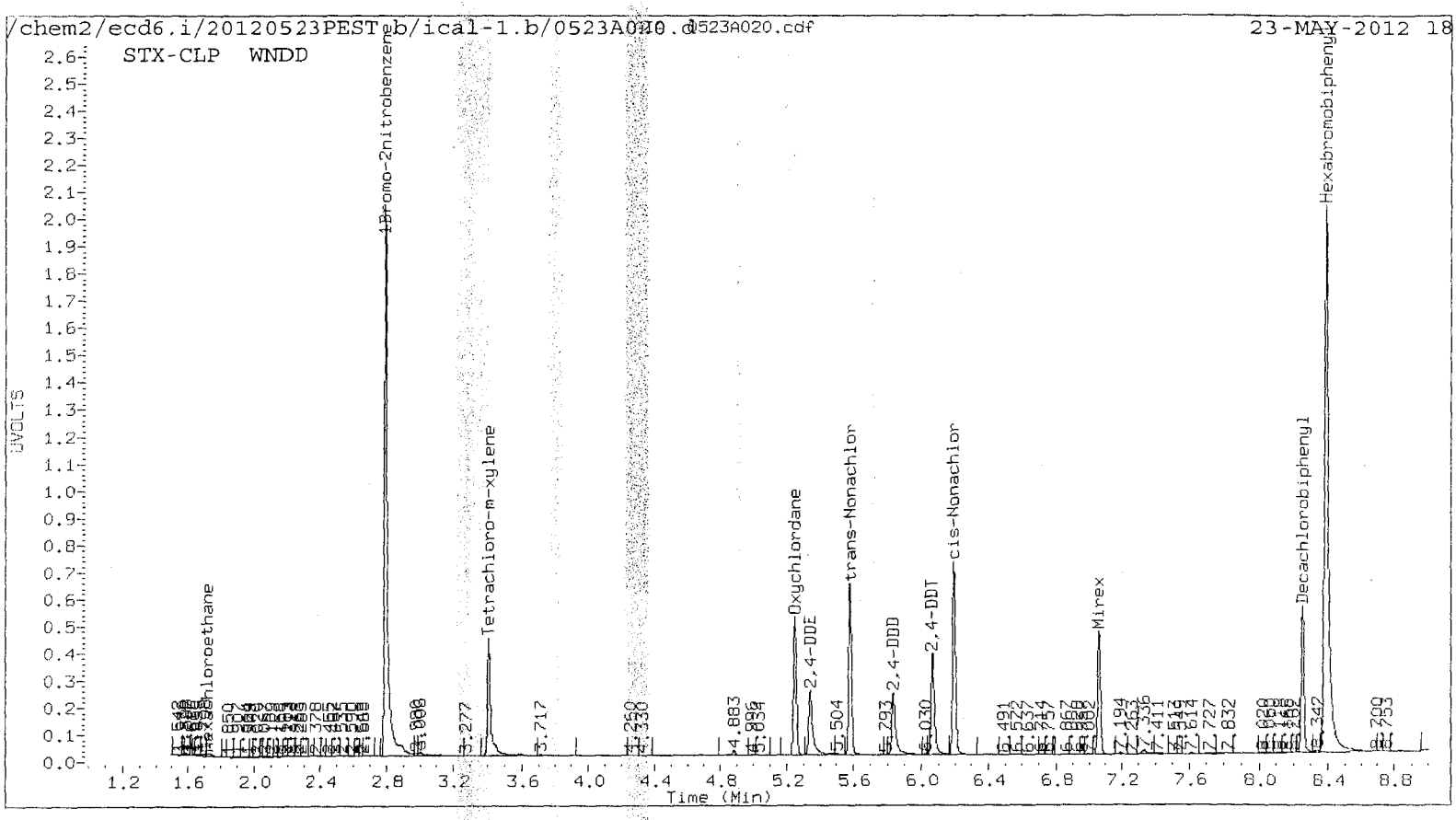
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5139758	6.2
Hexabromobiphenyl	6506091	6817214	4.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16765159	3.3
Hexabromobiphenyl	8472750	8985763	6.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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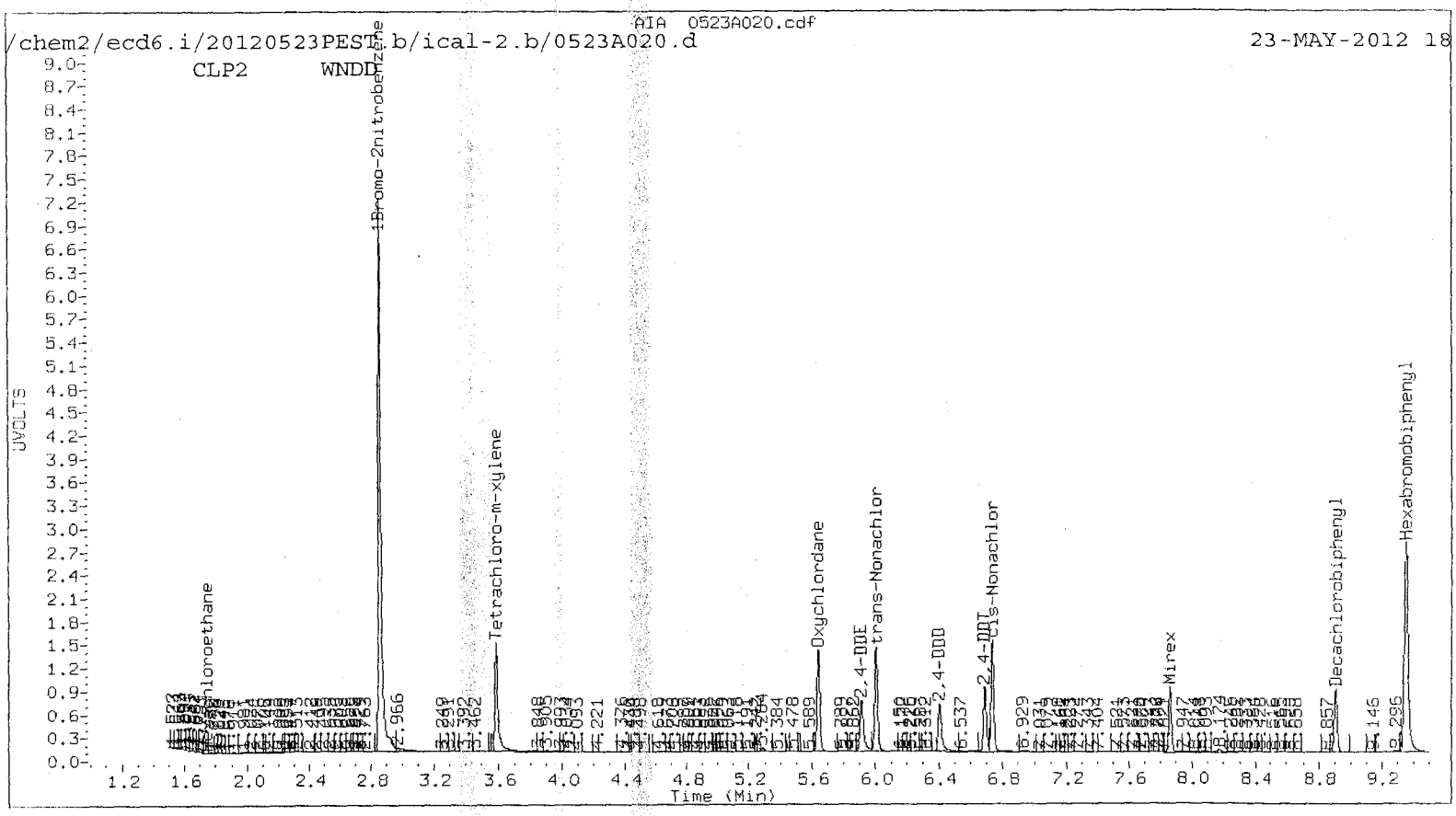
0523A020.cdf
23-MAY-2012 18
STX-CLP WNDD
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)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23-MAY-2012 18
CLP2 WNDD
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A021.d ARI ID: WNDF
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A021.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 18:56
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.720	0.000	1878	1.732	-0.038	1290	0.0000	0.0000	---	Hexachloroethane
2.796	0.000	4866835	2.855	0.000	17245332	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
5.252	0.000	4874124	5.643	0.000	12253281	78.5091	72.6956	7.7	Oxychlordane
5.342	0.001	3580207	5.911	0.001	7882613	81.8897	71.8300	13.1	2,4-DDE
5.581	0.000	6205415	6.006	0.000	13100457	78.1477	71.5392	8.8	trans-Nonachlor
5.831	0.001	3064380	6.399	0.000	7336096	76.0613	71.7413	5.8	2,4-DDD
6.069	0.000	4232688	6.685	0.000	8196343	79.7465	73.7819	7.8	2,4-DDT
6.198	0.000	7056608	6.733	0.000	13669155	80.2761	74.0205	8.1	cis-Nonachlor
7.063	0.000	4334801	7.862	-0.001	7654587	74.4434	68.9746	7.6	Mirex
8.390	0.000	6708266	9.355	0.000	8983150	80.0000	80.0000	0.0	Hexabromobiphenyl
3.407	0.001	4847655	3.588	0.001	14619710	67.3158	68.3147	1.5	Tetrachloro-m-xylene
8.250	0.000	5034638	8.908	0.000	8129576	66.8084	65.3695	2.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	168.3	170.8	168.3~	150- 0
Decachlorobiphenyl	167.0	163.4	163.4~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

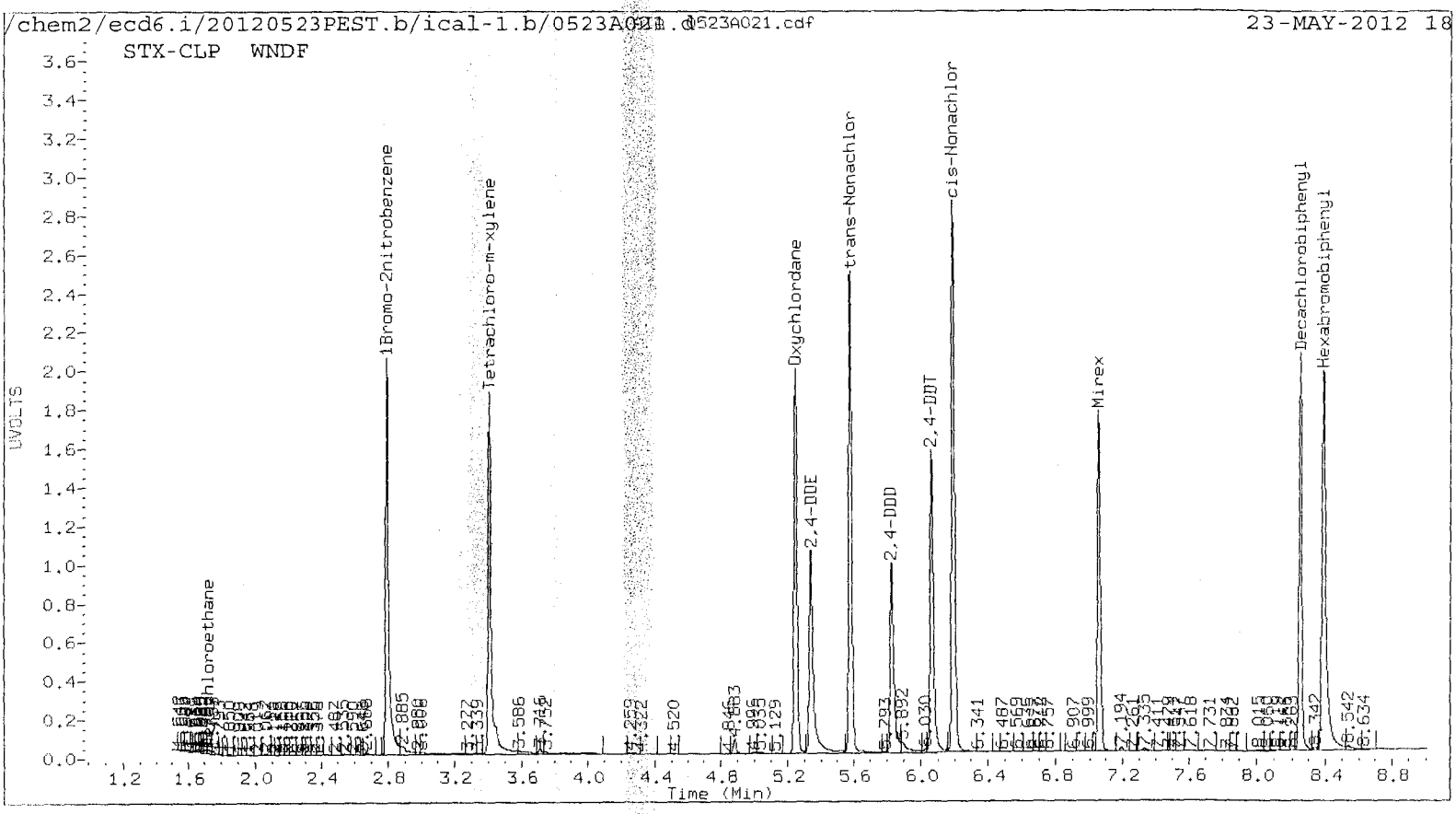
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4866835	0.5
Hexabromobiphenyl	6506091	6708266	3.1

Column 2

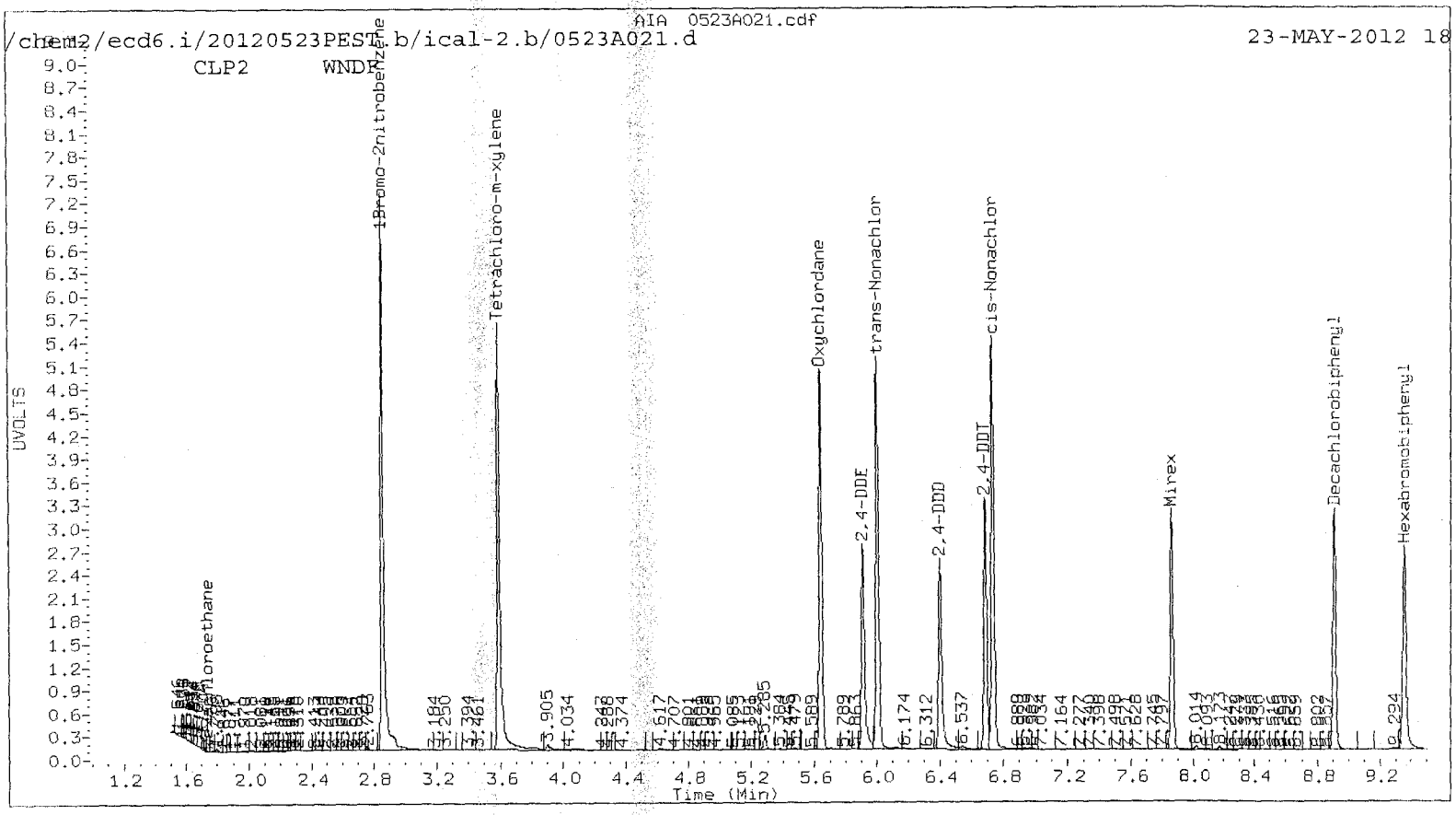
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	17245332	6.3
Hexabromobiphenyl	8472750	8983150	6.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount



AIA 0523A021.cdf



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A022.d ARI ID: WNDG
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A022.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 19:14
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.719	0.000	3456	1.770	0.000	10682	0.0000	0.0000	---	Hexachloroethane
2.796	0.000	4729578	2.855	0.000	15111899	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
5.252	0.000	9440579	5.644	0.000	22965237	155.6168	155.4817	0.1	Oxychlordane
5.341	0.000	6979272	5.909	0.000	14720365	163.3676	153.0759	6.5	2,4-DDE
5.580	0.000	11926612	6.006	0.000	24656545	153.7081	137.9560	10.8	trans-Nonachlor
5.830	0.000	6110160	6.399	0.000	13750429	155.2059	137.7752	11.9	2,4-DDD
6.068	0.000	8275364	6.685	0.000	15479328	159.5573	142.7686	11.1	2,4-DDT
6.197	0.000	13752448	6.734	0.000	25797699	160.1050	143.1338	11.2	cis-Nonachlor
7.063	0.000	8384360	7.863	0.000	14447903	147.3537	133.3898	9.9	Mirex
8.389	0.000	6555048	9.355	0.000	8767543	80.0000	80.0000	0.0	Hexabromobiphenyl
3.406	0.000	9514710	3.587	0.000	27715764	135.9580	147.7934	8.3	Tetrachloro-m-xylene
8.251	0.000	9704386	8.909	0.000	15533401	131.7847	127.9749	2.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	339.9	369.5	339.9~	150- 0
Decachlorobiphenyl	329.5	319.9	319.9~	150- 0

~ Indicates recovery outside QC Limits

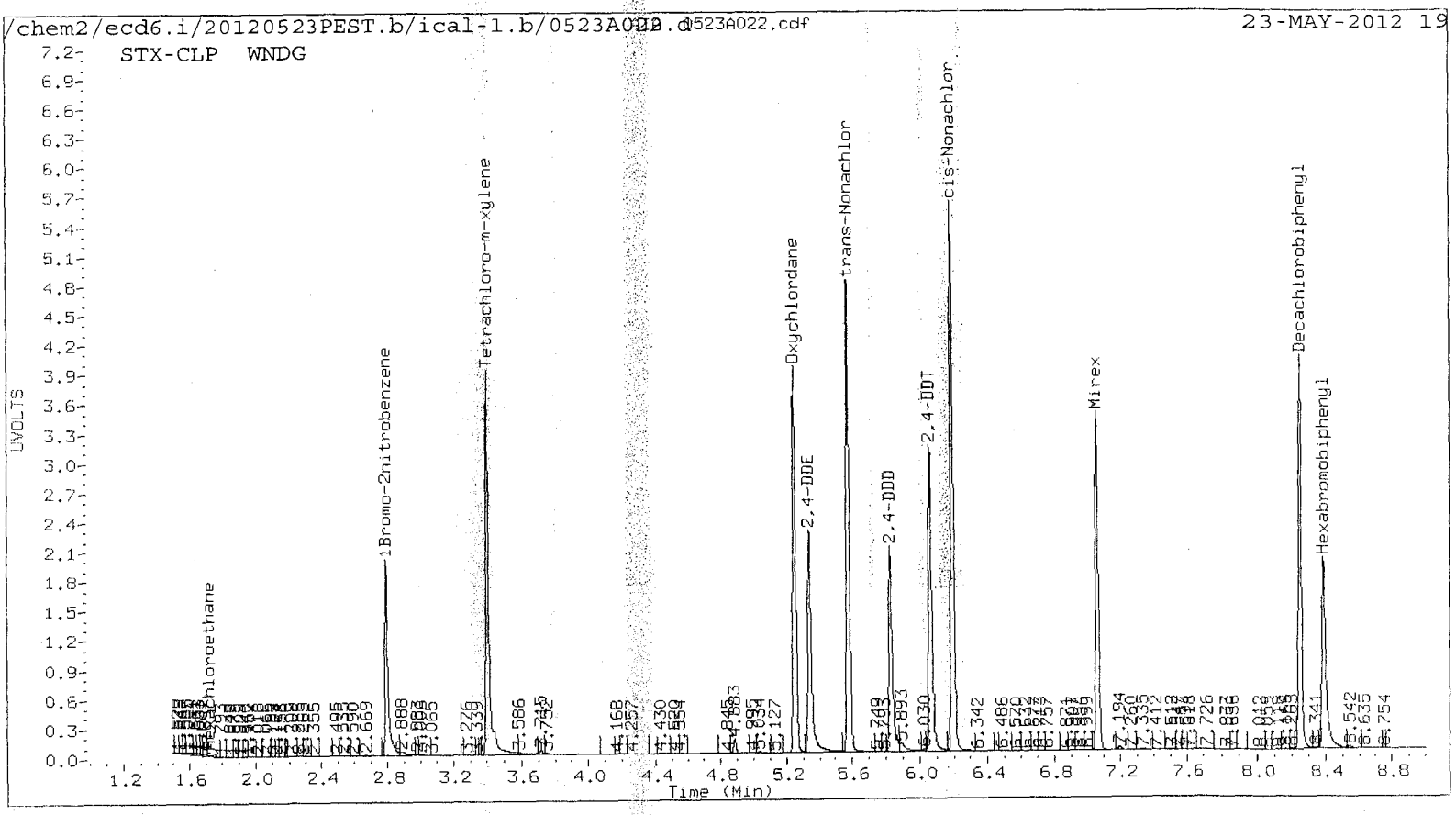
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	4841592	4729578	-2.3
Hexabromobiphenyl	6506091	6555048	0.8

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	16226991	15111899	-6.9
Hexabromobiphenyl	8472750	8767543	3.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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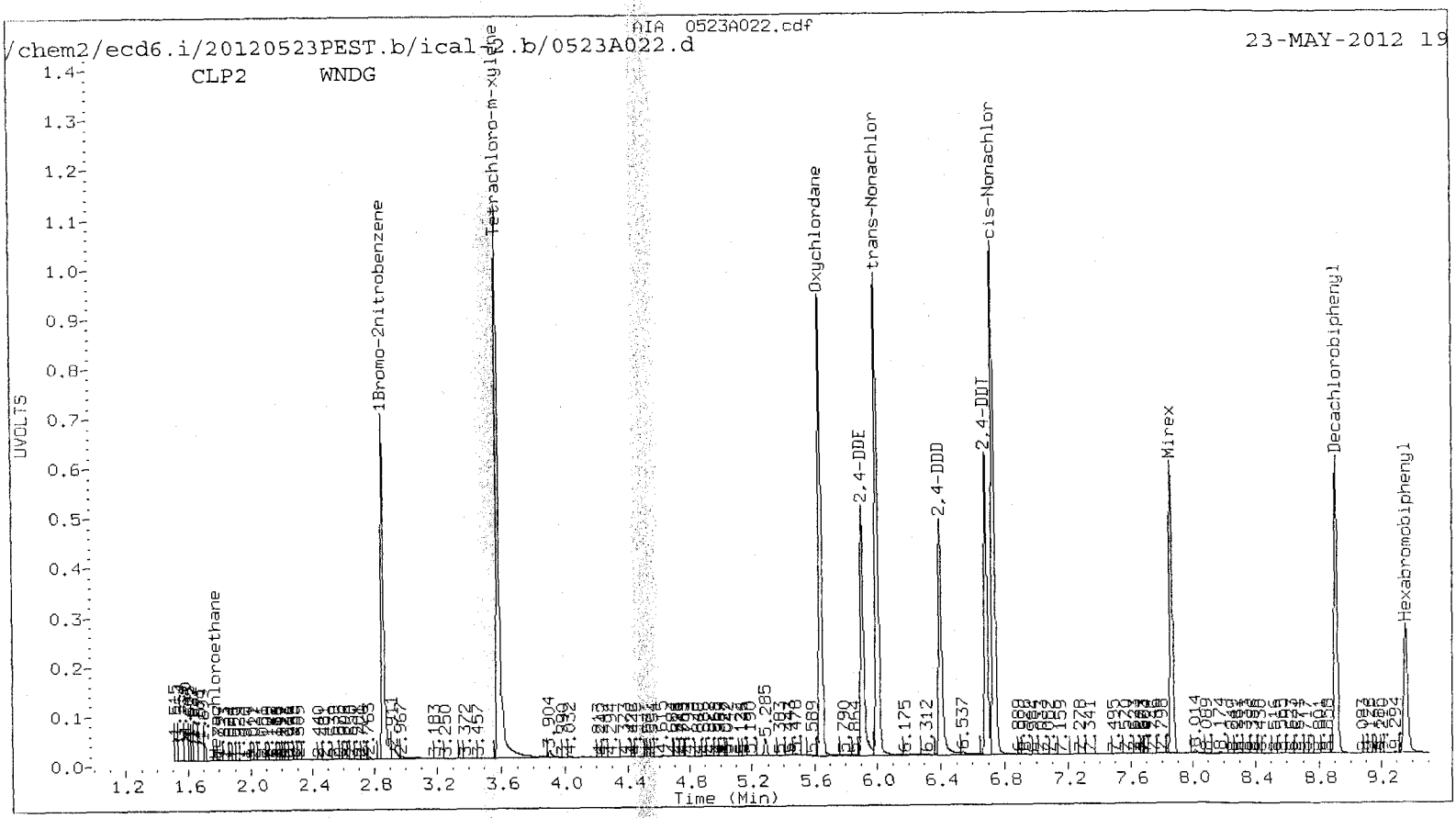
0523A022.cdf
23-MAY-2012 19
STX-CLP WNDG
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 19
CLP2 WNDG
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A025.d ARI ID: WND ASSAY
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A025.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 20:08
Compound Sublist: WND Report Date: 05/24/2012 10:39
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.720	0.001	899	1.770	0.000	6947	0.0000	0.0000	---	Hexachloroethane
2.797	0.001	4602996	2.855	0.001	16499244	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
5.252	0.000	2329206	5.644	0.000	6100747	39.7784	37.8309	5.0	Oxychlordane
5.345	0.004	1686660	5.912	0.003	3882022	40.9039	36.9744	10.1	2,4-DDE
5.581	0.001	3038443	6.007	0.000	6772217	40.5707	37.7448	7.2	trans-Nonachlor
5.834	0.004	1543766	6.401	0.003	3587514	40.6274	35.8069	12.6	2,4-DDD
6.070	0.002	1856634	6.686	0.001	3712658	37.0883	34.1102	8.4	2,4-DDT
6.198	0.001	3299011	6.734	0.001	6708178	39.7915	37.0752	7.1	cis-Nonachlor
7.063	0.000	2065376	7.863	0.000	3769199	37.6073	34.6645	8.1	Mirex
8.392	0.003	6326954	9.357	0.002	8801559	80.0000	80.0000	0.0	Hexabromobiphenyl
3.408	0.002	2315465	3.589	0.001	7254307	33.9961	35.4307	4.1	Tetrachloro-m-xylene
8.251	0.001	2428829	8.909	0.000	4124811	34.1724	33.8517	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	85.0	88.6	85.0~	150- 0
Decachlorobiphenyl	85.4	84.6	84.6~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

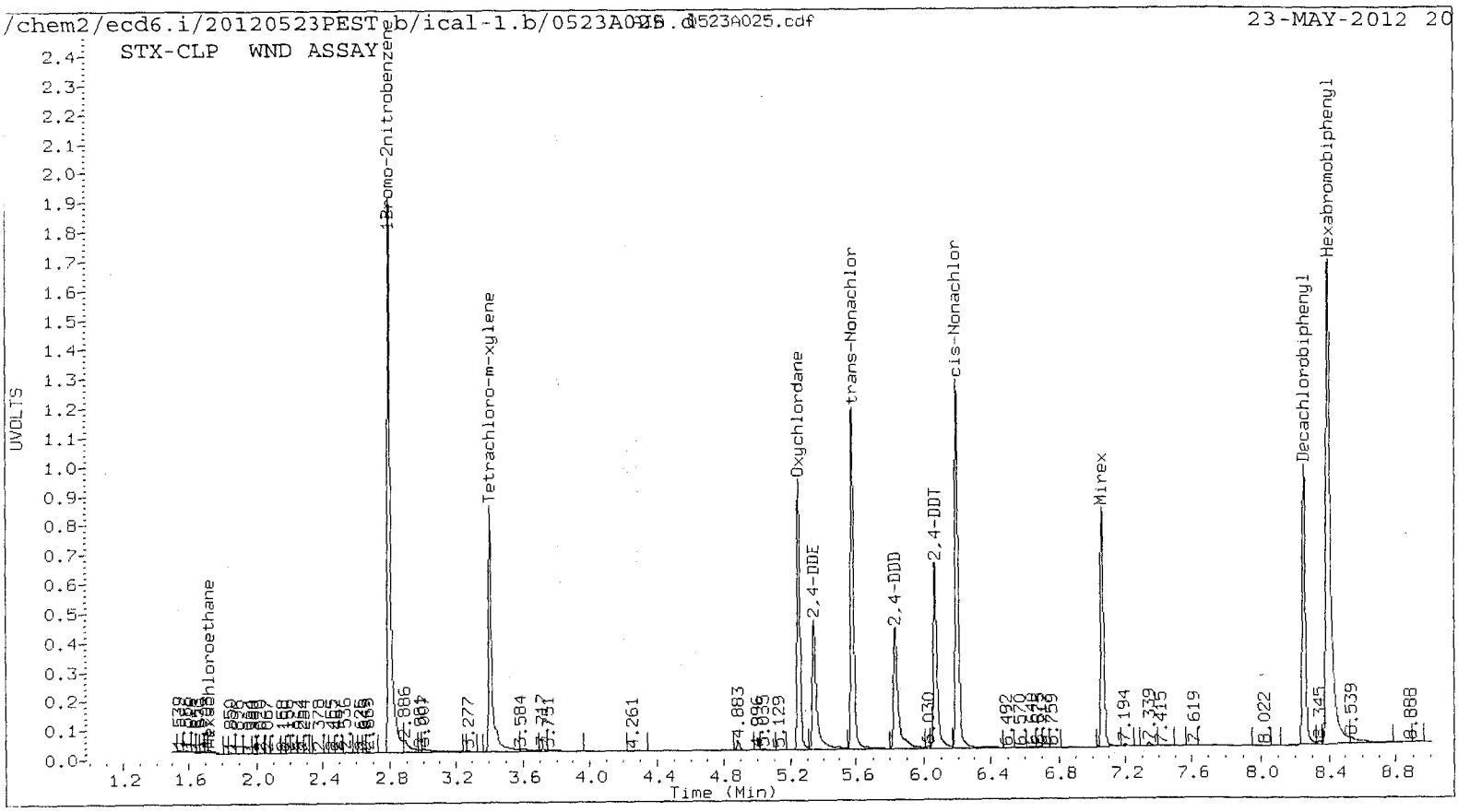
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4602996	-4.9
Hexabromobiphenyl	6506091	6326954	-2.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16499244	1.7
Hexabromobiphenyl	8472750	8801559	3.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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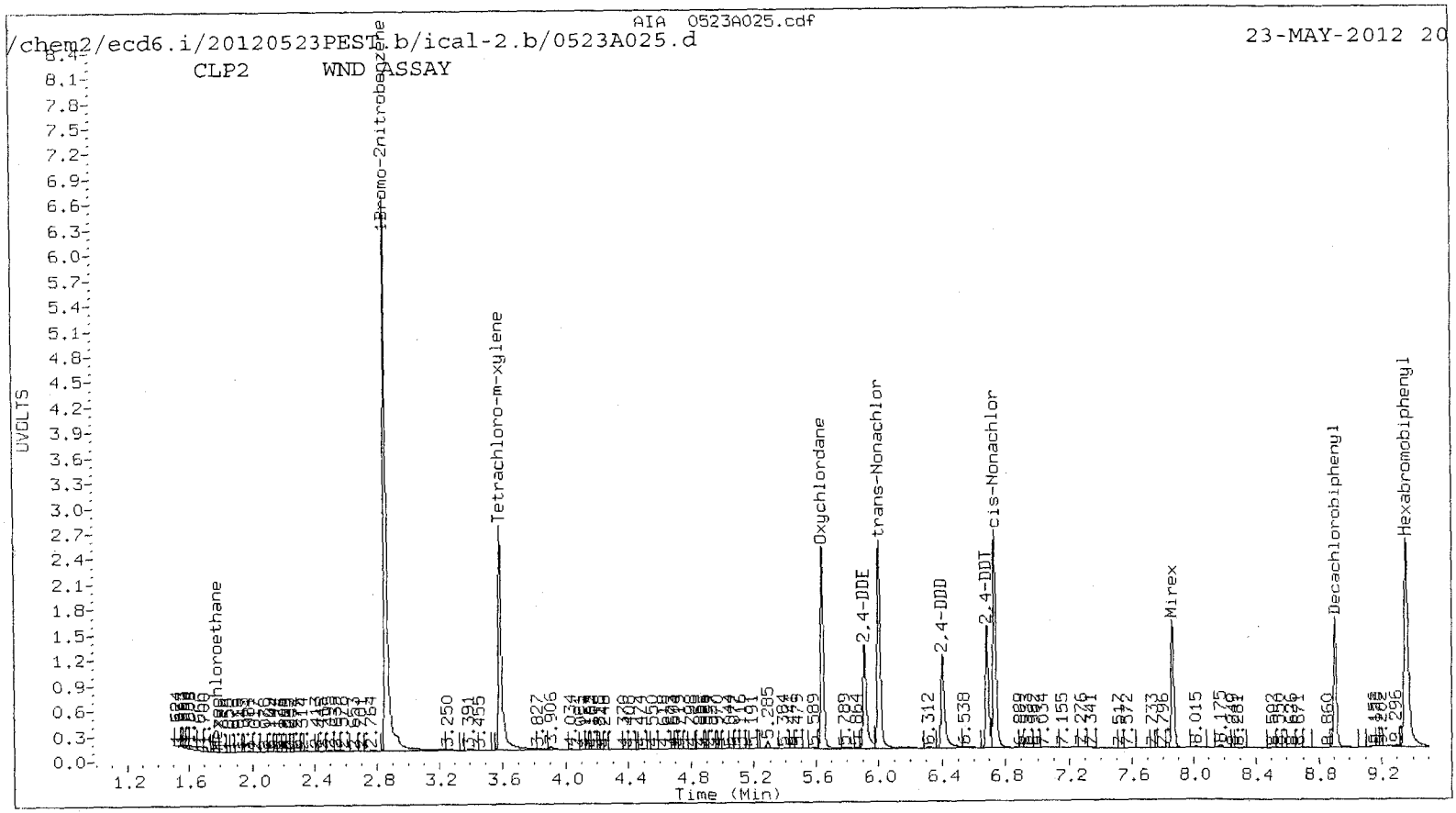
0523A025.cdf
23-MAY-2012 20
STX-CLP WND ASSAY
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0523A025.cdf
/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A025.d
23-MAY-2012 20
CLP2 WND ASSAY
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A026.d ARI ID: TECH 200
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A026.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 20:25
Compound Sublist: wpest Report Date: 05/24/2012 10:39
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4562991	2.855	0.000	15945583	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.868	0.021	4566	4.138	0.030	107658	0.0502	0.3965	155.1*	alpha-BHC
4.201	0.018	22822	4.488	-0.014	8161	0.6721	0.0781	158.3*	beta-BHC
4.354	0.017	20484	4.776	-0.006	12166	0.3084	0.0628	132.4*	delta-BHC
4.082	-0.024	52422	4.444	0.015	73059	0.6864	0.3154	74.1*	gamma-BHC (Lindane)
4.518	0.000	764991	4.849	0.000	2019507	9.0741	8.6617	4.6	Heptachlor
4.803	0.016	10336	5.189	0.019	8218	0.1337	0.0407	106.7*	Aldrin
5.356	0.011	187675	5.759	0.026	109557	2.7255	0.5588	131.9*	Heptachlor epoxide b
5.746	0.024	51193	6.117	-0.001	93422	0.5508	0.5475	0.6	Endosulfan I
5.969	0.023	64282	6.384	0.007	493987	0.8686	2.8003	105.3*	Dieldrin
5.673	0.003	124031	6.191	-0.017	222137	2.6493	1.4238	60.2*	4,4'-DDE
6.144	-0.019	24645	6.664	0.000	85347	0.3646	0.5703	44.0*	Endrin
6.376	0.005	41123	6.840	-0.017	104854	0.6252	0.6915	10.1	Endosulfan II
6.273	0.046	46367	----			0.8713	0.0000	---	4,4'-DDD
7.145	0.007	18680	7.427	0.023	14630	0.3230	0.1256	88.0*	Endosulfan sulfate
6.537	0.053	128160	7.042	0.008	58596	2.1929	0.4758	128.7*	4,4'-DDT
6.941	0.017	10757	7.614	-0.015	2291	0.3613	0.0426	157.8*	Methoxychlor
7.415	0.027	12454	7.888	0.007	35341	0.1699	0.2356	32.4	Endrin ketone
6.778	0.030	8806	7.192	0.034	227112	0.1660	1.9666	168.9*	Endrin aldehyde
5.472	0.002	1881074	5.919	0.001	3838053	25.1933	21.0989	17.7	gamma-Chlordane
5.590	-0.003	2972544	6.058	0.000	3216479	41.8338	18.5794	77.0*	alpha-Chlordane
2.067	0.013	12736	2.111	-0.002	14490	0.1266	0.0492	88.1*	Hexachlorobutadiene
3.718	0.001	49842	3.998	0.003	30473	0.7942	0.1229	146.4*	Hexachlorobenzene
5.287	0.036	296791	5.622	-0.022	23697	5.1022	0.1520	188.4*	Oxychlordane
5.392	0.051	347500	5.956	0.047	171367	8.4832	1.6889	133.6*	2,4-DDE
----			6.007	0.001	3209415	0.0000	18.0608	---	trans-Nonachlor
5.823	-0.007	51398	----			1.3616	0.0000	---	2,4-DDD
6.109	0.041	78135	6.693	0.008	32652	1.5712	0.3029	135.4*	2,4-DDT
6.198	0.001	358108	6.734	0.001	682292	4.3480	3.8075	13.3	cis-Nonachlor
7.018	-0.045	3063	7.833	-0.029	59967	0.0561	0.5568	163.4*	Mirex
8.393	0.004	6285326	9.357	0.002	8717161	80.0000	80.0000	0.0	Hexabromobiphenyl
1.721	0.001	2424	1.771	0.001	11565	0.0000	0.0000	---	Hexachloroethane
3.408	0.002	2197447	3.589	0.001	5651184	32.5462	28.5592	13.0	Tetrachloro-m-xylene
8.252	0.001	2383811	8.909	0.000	4031615	33.7611	33.4072	1.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	81.4	71.4	71.4~	130- 0
Decachlorobiphenyl	84.4	83.5	83.5~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4562991	-5.8
Hexabromobiphenyl	6506091	6285326	-3.4

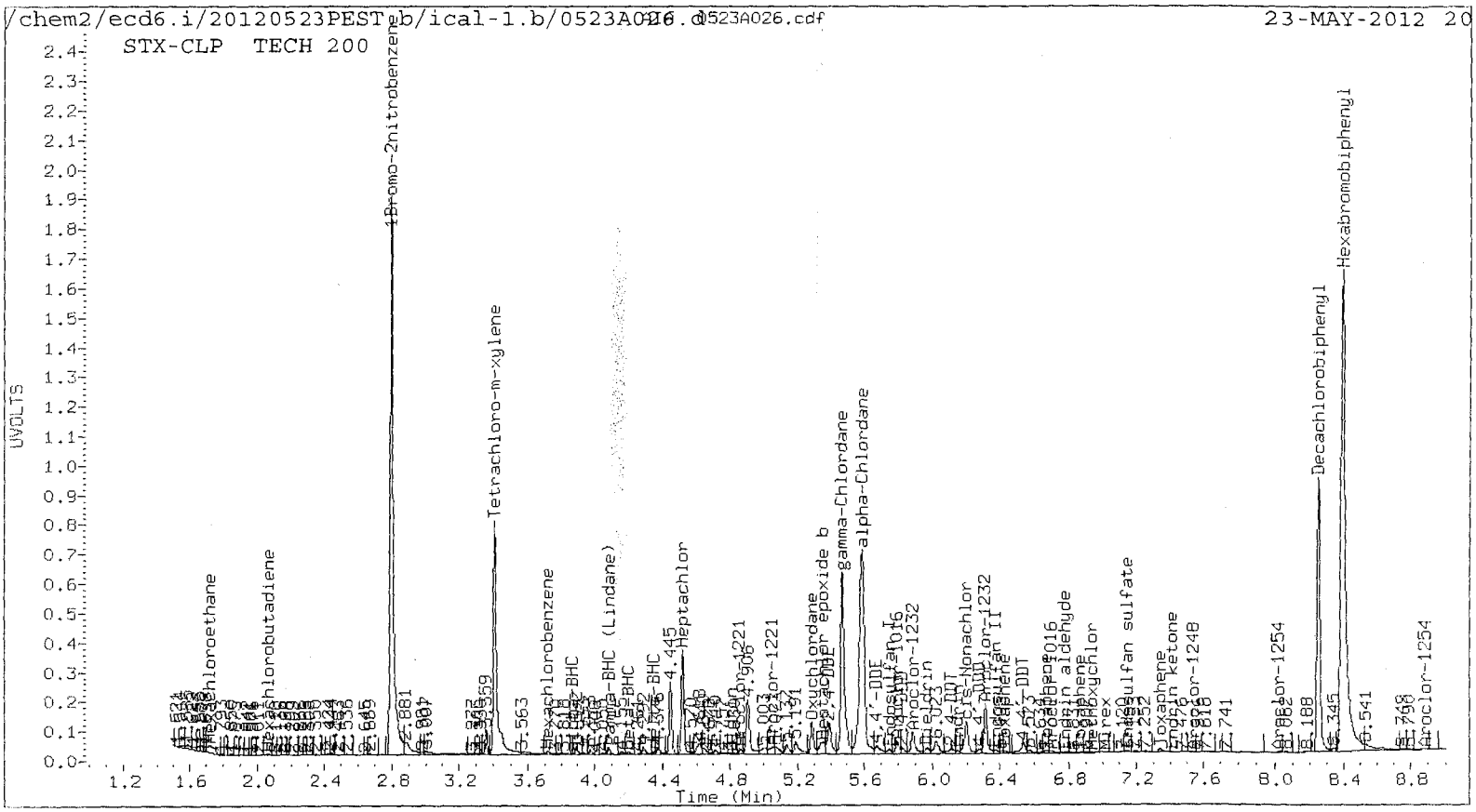
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15945583	-1.7
Hexabromobiphenyl	8472750	8717161	2.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.430	0.006	18562	6.214	1	6.586	-0.021	41377	8.732
Toxaphene	2	---			0.000	2	6.904	-0.028	1044538	147.713
Toxaphene	3	6.670	-0.004	19581	9.284	3	7.192	0.027	227112	30.548
Toxaphene	4	6.865	-0.012	10318	4.549	4	7.614	-0.011	2291	0.388
Toxaphene	5	7.018	-0.038	3063	0.886	5	7.668	-0.002	20492	2.547
Toxaphene	6	7.339	-0.036	49325	20.355	NS	---			----
Total STX-CLPAve (5 peaks): 8.258						Total CLP2Ave (5 peaks): 37.986				RPD = 129*
Corrected Ave (4 peaks): 5.233						Corrected Ave (4 peaks): 10.554				RPD = 67*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	
Aroclor-1248 1	---	0.000		1	---	0.000
Aroclor-1248 2	---	0.000		2	---	0.000
Aroclor-1248 3	---	0.000		3	---	0.000
Aroclor-1248 4	---	0.000		4	---	0.000
Aroclor-1248 5	---	0.000		5	---	0.000
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	
Aroclor-1254 1	---	0.000		1	---	0.000
Aroclor-1254 2	---	0.000		2	---	0.000
Aroclor-1254 3	---	0.000		3	---	0.000
Aroclor-1254 4	---	0.000		4	---	0.000
Aroclor-1254 5	---	0.000		5	---	0.000
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	
Aroclor-1260 1	---	0.000		1	---	0.000
Aroclor-1260 2	---	0.000		2	---	0.000
Aroclor-1260 3	---	0.000		3	---	0.000
Aroclor-1260 4	---	0.000		4	---	0.000
Aroclor-1260 5	---	0.000		5	---	0.000
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	
Aroclor-1262 1	---	0.000		1	---	0.000
Aroclor-1262 2	---	0.000		2	---	0.000
Aroclor-1262 3	---	0.000		3	---	0.000
Aroclor-1262 4	---	0.000		4	---	0.000
Aroclor-1262 5	---	0.000		5	---	0.000
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	
Aroclor-1268 1	---	0.000		1	---	0.000
Aroclor-1268 2	---	0.000		2	---	0.000
Aroclor-1268 3	---	0.000		3	---	0.000
Aroclor-1268 4	---	0.000		4	---	0.000
Aroclor-1268 5	---	0.000		5	---	0.000
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks	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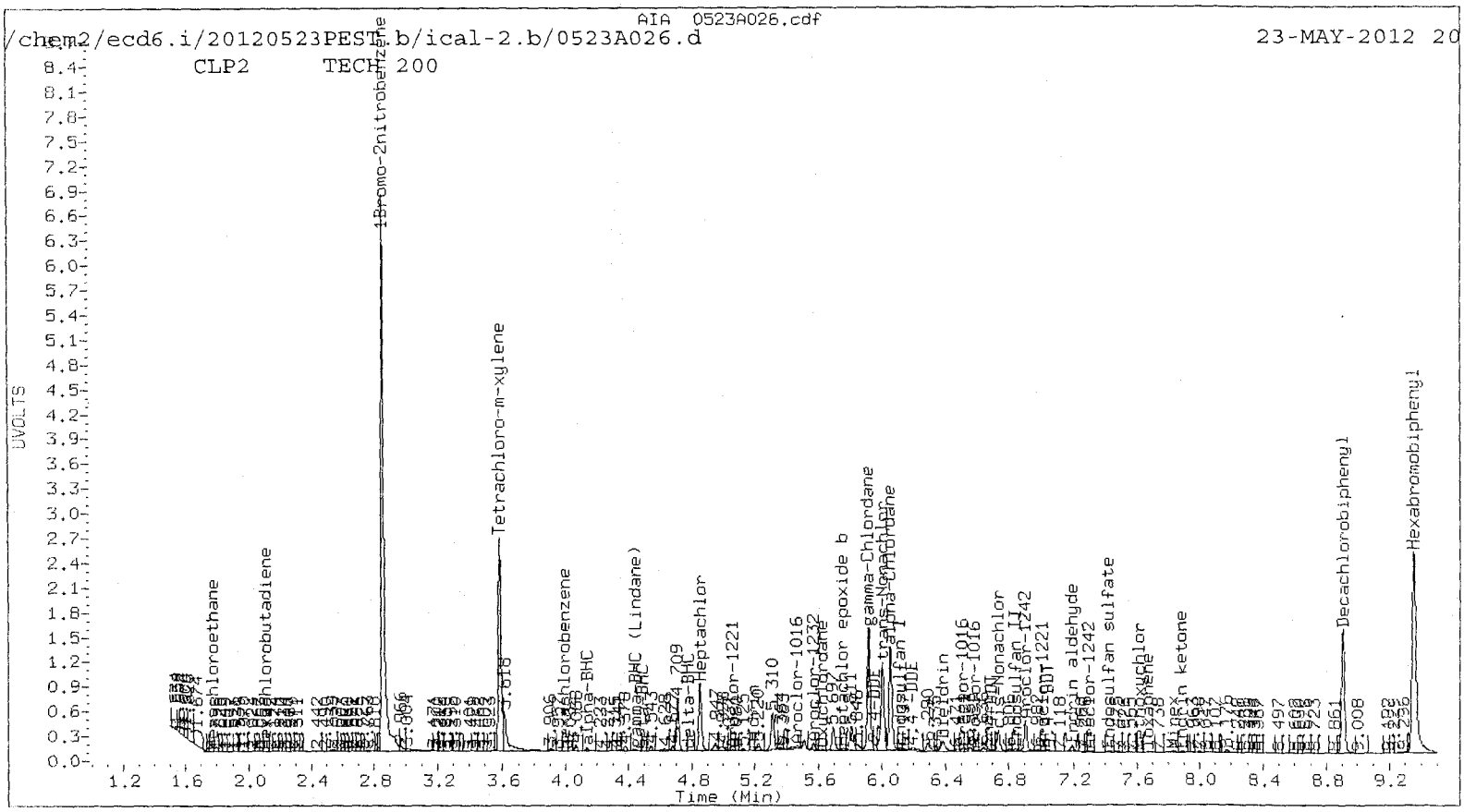
0523A026.cdf
23-MAY-2012 20
STX-CLP TECH 200
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
4Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
Heptachlor
4.445
Aroclor-1221
Oxychlordane
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Aroclor-1232
Dieldrin
4,4'-DDT
Endrin aldehyde
Endosulfan II
Aroclor-1248
Endosulfan sulfate
Toxaphene
Endrin ketone
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl
Aroclor-1254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23-MAY-2012 20
CLP2 TECH 200
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
4Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
Heptachlor
Aroclor-1221
Oxychlordane
Aroclor-1016
Aroclor-1232
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Aroclor-1248
Dieldrin
4,4'-DDT
Endrin aldehyde
Endosulfan II
Aroclor-1242
Endosulfan sulfate
Toxaphene
Endrin ketone
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/24/2012

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A013.d ARI ID: INDA ICV
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A013.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 16:34
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
2.796	0.000	4744837	2.854	0.000	15077669	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.846	0.000	3740489	4.106	-0.001	10016820	39.5109	39.0145	1.3	alpha-BHC
4.182	-0.001	1418882	4.501	-0.001	3844948	40.1820	38.9303	3.2	beta-BHC
4.336	-0.001	3152314	4.781	-0.002	8096829	45.6398	44.1816	3.2	delta-BHC
4.106	0.000	3321451	4.427	-0.001	8882954	41.8241	40.5493	3.1	gamma-BHC (Lindane)
4.517	-0.001	3518724	4.848	-0.001	8066590	40.1383	36.5894	9.3	Heptachlor
4.787	0.000	3319989	5.170	-0.001	7324048	41.2882	38.3286	7.4	Aldrin
5.345	0.000	2867166	5.731	-0.001	6872610	40.0418	37.0733	7.7	Heptachlor epoxide b
5.721	-0.001	3248579	6.117	-0.001	6025435	33.6116	37.3431	10.5	Endosulfan I
5.946	-0.001	3116730	6.376	-0.001	6592318	40.5021	39.5214	2.5	Dieldrin
5.669	-0.001	2281319	6.208	0.000	5954112	46.8620	40.3612	14.9	4,4'-DDE
6.162	-0.001	2815270	6.664	-0.001	5555736	40.5389	38.5579	5.0	Endrin
6.370	-0.001	2644000	6.857	0.000	5358089	39.1200	36.7021	6.4	Endosulfan II
6.228	0.001	2250397	6.748	0.000	4648327	41.1559	38.6052	6.4	4,4'-DDD
7.138	0.000	2303614	7.404	0.000	4349758	38.7677	38.7796	0.0	Endosulfan sulfate
6.483	0.000	2516300	7.034	0.000	4637108	41.9031	39.1106	6.9	4,4'-DDT
6.923	0.000	1250896	7.629	0.000	2140991	40.8865	41.3381	1.1	Methoxychlor
7.388	0.000	2786124	7.882	0.000	5326344	36.9856	36.8849	0.3	Endrin ketone
6.748	-0.001	2009177	7.158	0.000	3955687	36.8622	35.5757	3.6	Endrin aldehyde
5.469	0.000	3093617	5.918	0.000	6669679	39.8450	38.7757	2.7	gamma-Chlordane
5.593	0.000	2988150	6.057	-0.001	6378947	40.4417	38.9679	3.7	alpha-Chlordane
2.052	-0.002	2714	2.110	-0.003	18116	~~0.0259~~	~~0.0650~~	~~85.9*~~	Hexachlorobutadiene
3.715	-0.002	40895	3.987	-0.008	15471	~~0.6266~~	~~0.0660~~	~~161.9*~~	Hexachlorobenzene
8.388	-0.002	6458219	9.354	-0.001	8393228	80.0000	80.0000	0.0	Hexabromobiphenyl
3.407	0.000	2075561	3.587	0.000	6793897	29.5628	36.3105	20.5	Tetrachloro-m-xylene
8.250	0.000	2434582	8.908	0.000	3931074	33.5571	33.8313	0.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	73.9	90.8	73.9~	115- 0
Decachlorobiphenyl	83.9	84.6	83.9~	115- 0

~ Indicates recovery outside QC Limits

UU52:01268

INTERNAL STANDARD SUMMARY

Column 1

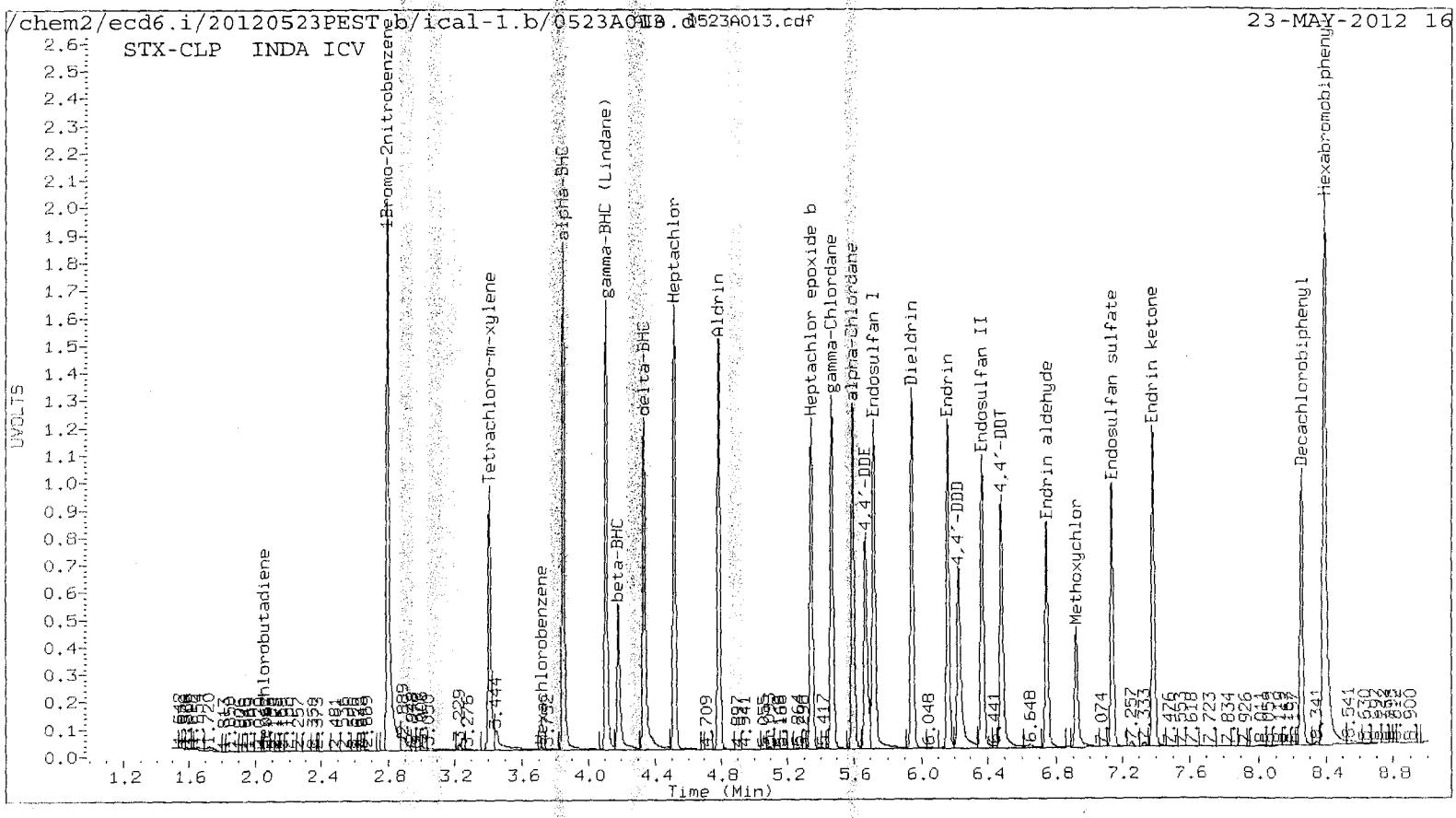
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4744837	-2.0
Hexabromobiphenyl	6506091	6458219	-0.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15077669	-7.1
Hexabromobiphenyl	8472750	8393228	-0.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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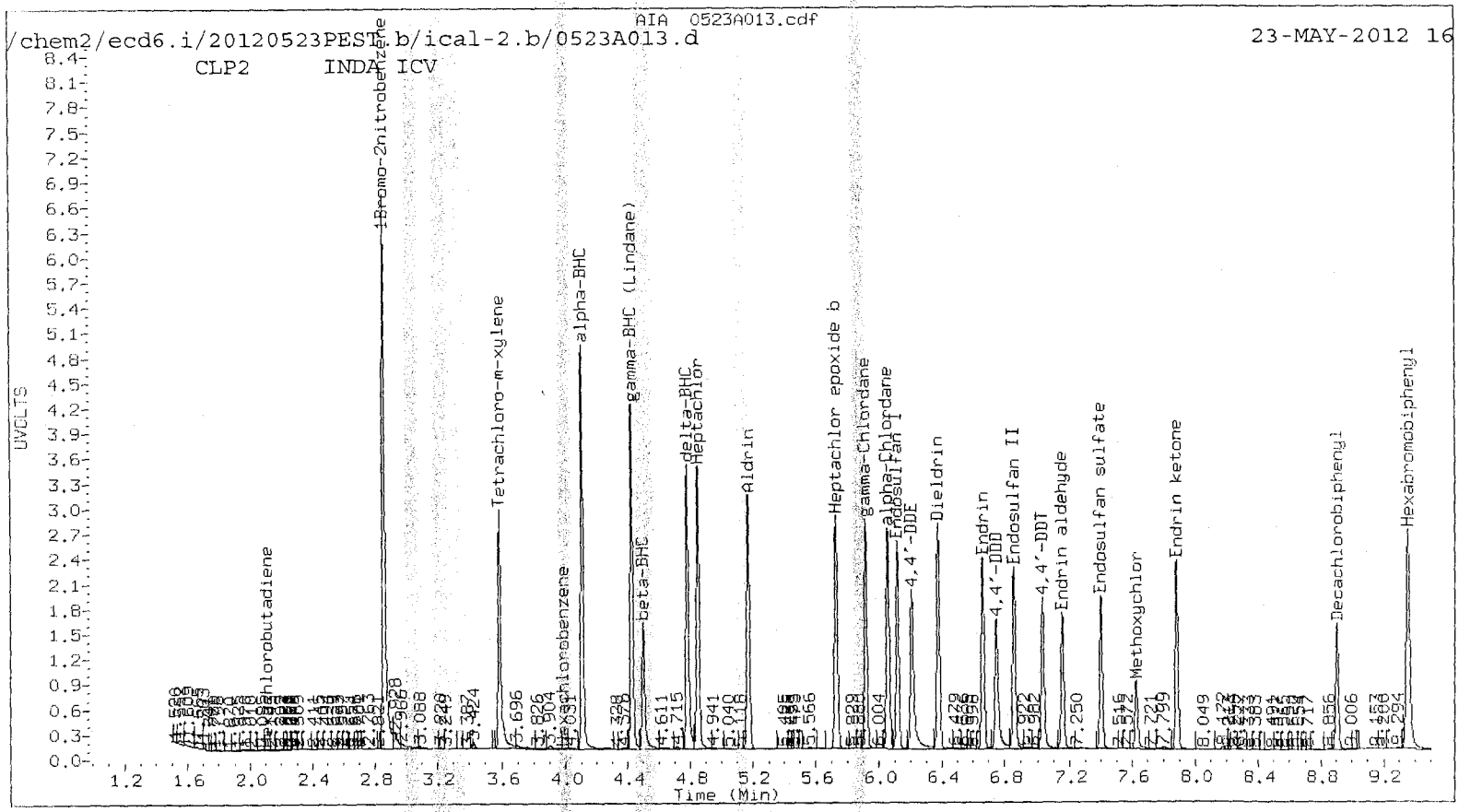
AIA 0523A013.cdf
23-MAY-2012 16
STX-CLP INDA ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 16
CLP2 INDA ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

AR 5/24/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A014.d ARI ID: HCB/HCBD ICV
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A014.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 16:52
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

HCB 40.8 & HCBD 46.8

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
2.796	0.000	4813617	2.854	0.000	15147530	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.882	0.035	74200	----			~~8.7726~~	0.0000	---	alpha-BHC
4.196	0.013	8533	4.501	-0.001	7590	0.2382	0.0765	~~102.8*~~	beta-BHC
4.320	-0.017	22232	4.781	-0.002	6349	0.3173	0.0345	160.8*	delta-BHC
4.107	0.001	15516	----			0.1926	0.0000	---	gamma-BHC (Lindane)
4.521	0.003	8762	4.841	-0.008	7809	0.0985	0.0353	94.6*	Heptachlor
4.809	0.022	6216	5.190	0.019	91775	0.0762	0.4781	145.0*	Aldrin
5.353	0.007	3288	5.718	-0.015	44903	0.0453	0.2411	136.8*	Heptachlor epoxide b
----			6.135	0.017	24824	0.0000	0.1531	---	Endosulfan I
5.946	0.000	4698	6.375	-0.002	17842	0.0602	0.1065	55.6*	Dieldrin
5.666	-0.004	9735	6.207	-0.001	67201	0.1971	0.4534	78.8*	4,4'-DDE
6.121	-0.042	1742	6.683	0.019	16250	0.0241	0.1090	127.6*	Endrin
6.370	-0.001	1446	6.853	-0.004	31013	0.0206	0.2054	163.6*	Endosulfan II
6.227	0.000	5374	6.746	-0.003	33975	0.0945	0.2728	97.1*	4,4'-DDD
7.139	0.001	4247	7.385	-0.019	6543	0.0687	0.0564	19.6	Endosulfan sulfate
6.481	-0.003	5176	7.036	0.002	29597	0.0828	0.2414	97.8*	4,4'-DDT
6.922	-0.001	4680	7.624	-0.005	15622	0.1470	0.2917	65.9*	Methoxychlor
7.408	0.019	17271	7.874	-0.007	14340	0.2203	0.0960	78.6*	Endrin ketone
6.746	-0.002	2882	7.156	-0.002	22890	0.0508	0.1991	118.7*	Endrin aldehyde
5.482	0.013	28861	5.937	0.019	233541	0.3664	1.3515	114.7*	gamma-Chlordane
5.630	0.036	3656	6.080	0.023	17613	~~0.0488~~	0.1071	~~74.8*~~	alpha-Chlordane
2.053	0.000	4860171	2.113	0.000	12472927	45.7885	44.5444	2.8	Hexachlorobutadiene
3.716	-0.001	2811369	3.994	-0.001	10233887	42.4635	43.4490	2.3	Hexachlorobenzene
8.387	-0.003	6719941	9.354	-0.001	8680249	80.0000	80.0000	0.0	Hexabromobiphenyl
3.405	-0.001	2881297	3.587	-0.001	7867666	40.4528	41.8554	3.4	Tetrachloro-m-xylene
8.250	-0.001	2792370	8.909	0.000	4460695	36.9897	37.1199	0.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	101.1	104.6	101.1~	115- 0
Decachlorobiphenyl	92.5	92.8	92.5~	115- 0

~ Indicates recovery outside QC Limits

UU52:01271

INTERNAL STANDARD SUMMARY

Column 1

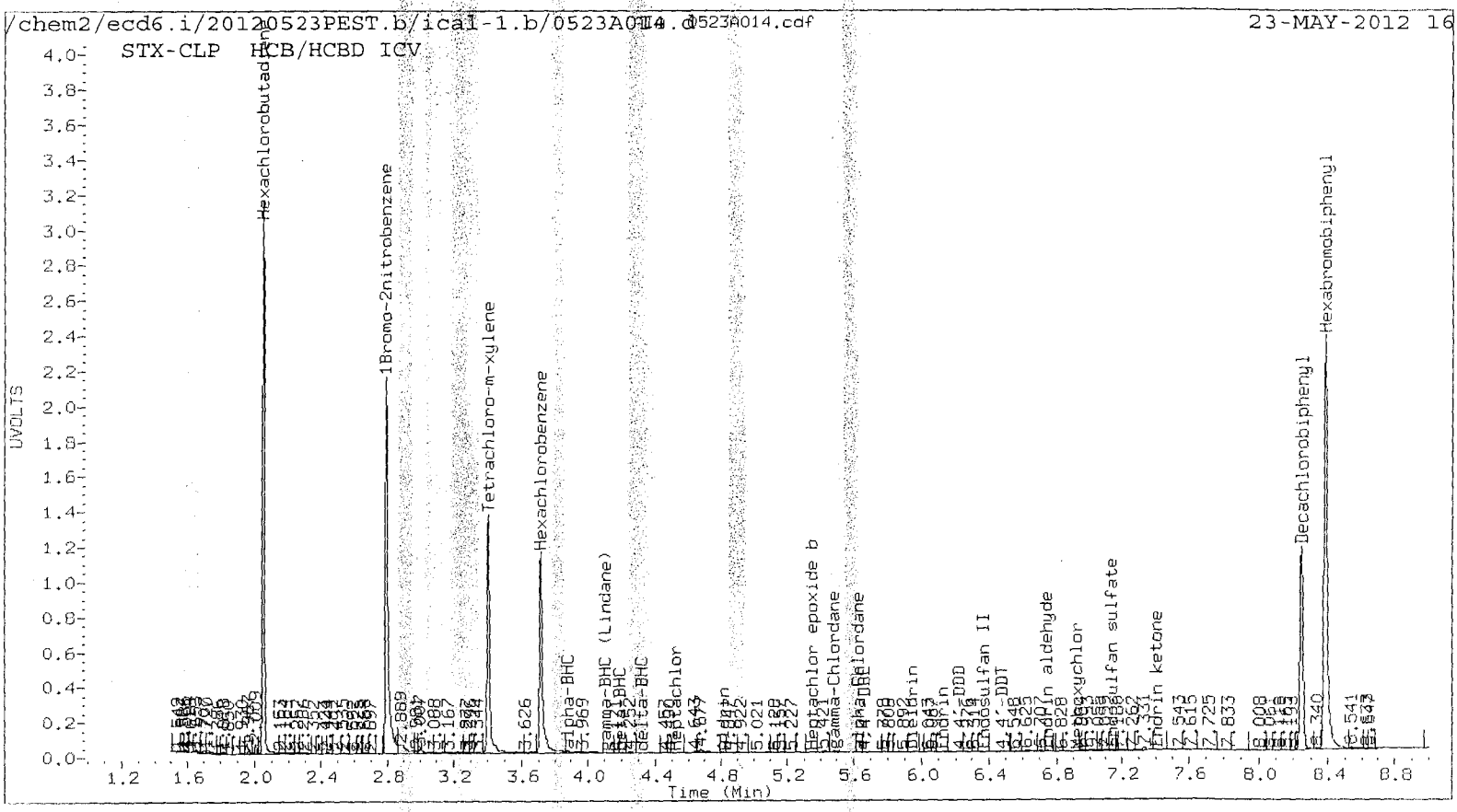
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4813617	-0.6
Hexabromobiphenyl	6506091	6719941	3.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15147530	-6.7
Hexabromobiphenyl	8472750	8680249	2.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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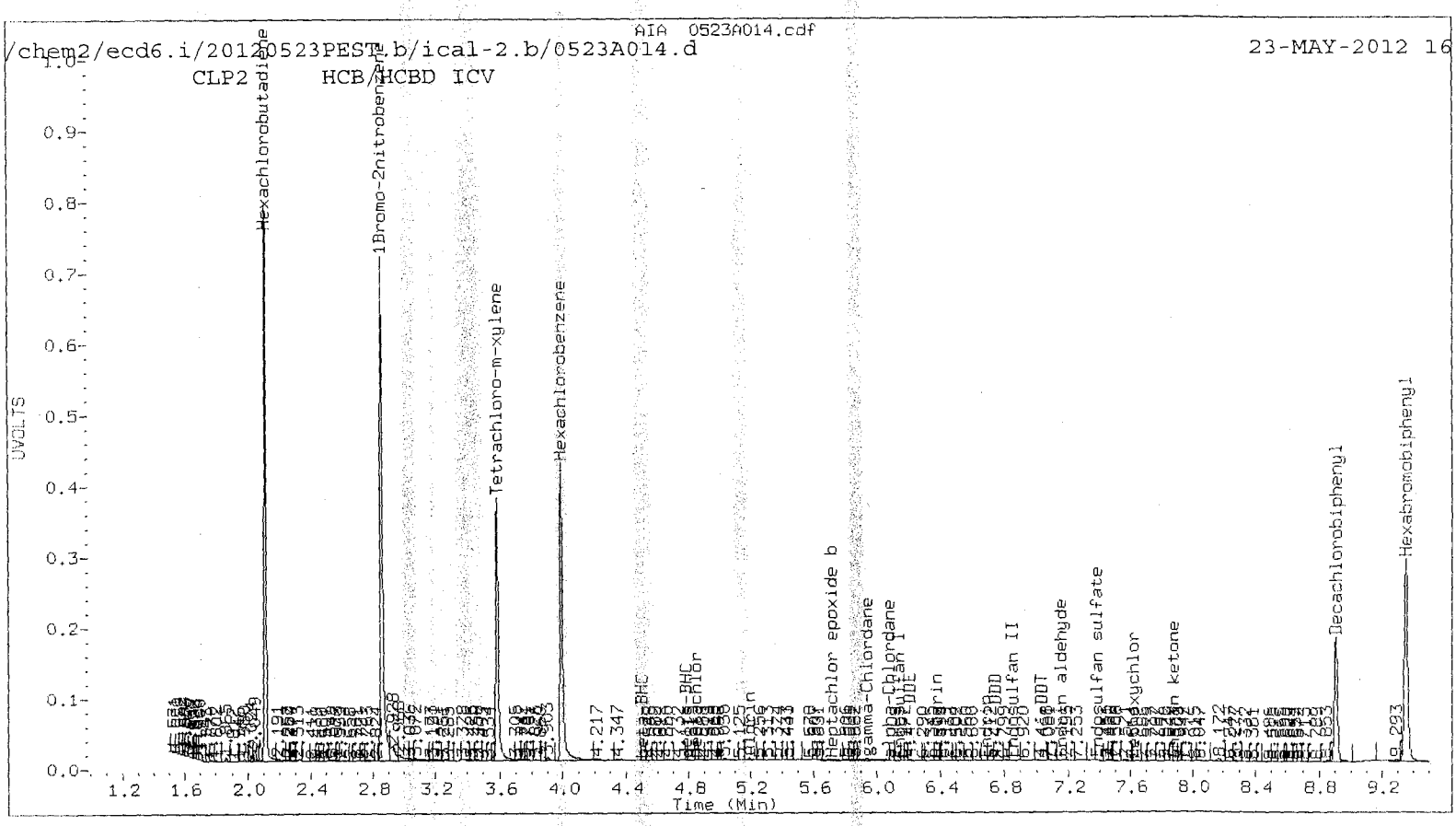
23-MAY-2012 16
STX-CLP HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endrin
Endosulfan II
DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 16
CLP2 HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
DDE
Endrin
Endosulfan II
DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

AR 5/23/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A023.d ARI ID: WND ICV
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A023.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 19:32
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

50ppb

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
1.721	0.002	1363	1.770	0.000	8294	0.0000	0.0000	---	Hexachloroethane
2.796	0.000	4525140	2.855	0.000	16193143	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
5.251	0.000	3122271	5.643	0.000	7974775	53.6853	50.3865	6.3	Oxychlordane
5.340	-0.001	13190248	5.909	0.000	27150924	~~322.0590~~	~~263.4879~~	20.0	2,4-DDE
5.580	0.000	4049948	6.006	0.000	9335345	54.4447	53.7092	1.4	trans-Nonachlor
5.830	0.000	12579834	6.399	0.001	25636065	~~333.3169~~	~~264.1292~~	23.2	2,4-DDD
6.069	0.000	15913707	6.685	0.000	28488322	~~320.0573~~	~~270.1829~~	16.9	2,4-DDT
6.198	0.000	4446500	6.733	0.000	8786545	53.9970	50.1291	7.4	cis-Nonachlor
7.063	0.000	2722870	7.863	0.000	4878990	49.9166	46.3189	7.5	Mirex
8.390	0.001	6284187	9.356	0.000	8526437	80.0000	80.0000	0.0	Hexabromobiphenyl
3.407	0.001	2408999	3.588	0.000	7319008	35.9779	36.4224	1.2	Tetrachloro-m-xylene
8.251	0.000	2508707	8.908	0.000	4138276	35.5364	35.0581	1.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	89.9	91.1	89.9~	150- 0
Decachlorobiphenyl	88.8	87.6	87.6~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

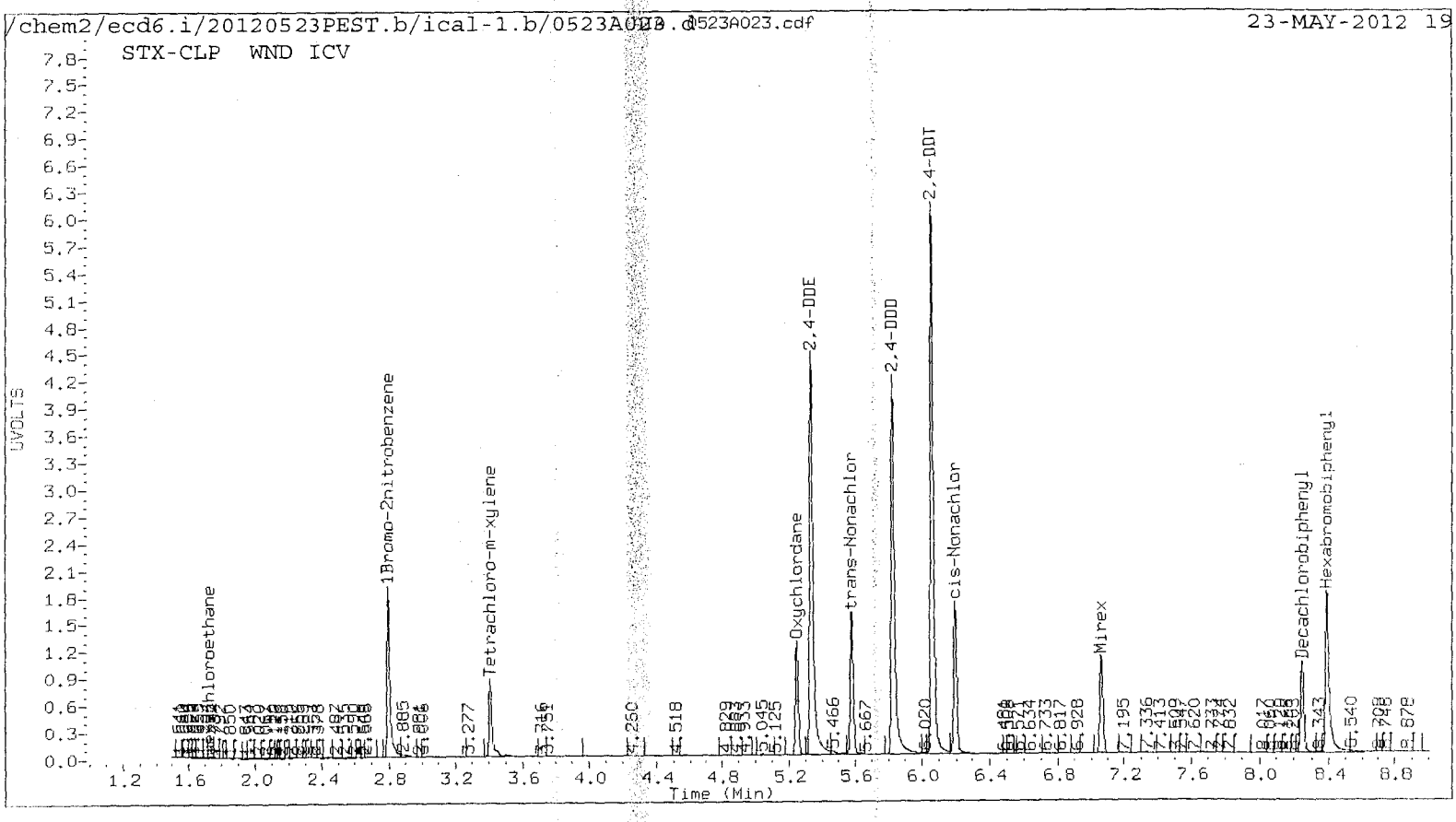
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4525140	-6.5
Hexabromobiphenyl	6506091	6284187	-3.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16193143	-0.2
Hexabromobiphenyl	8472750	8526437	0.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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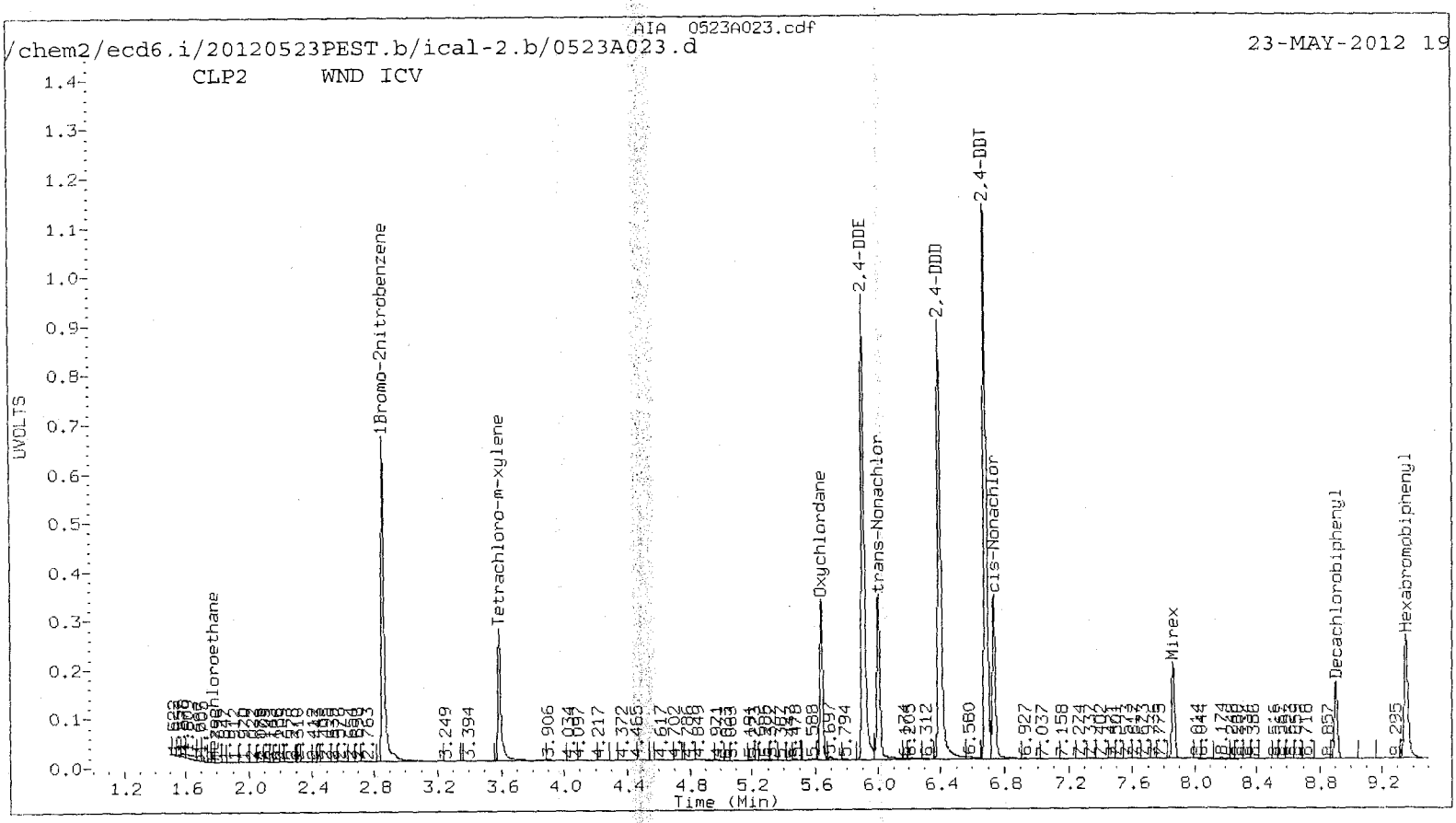
23-MAY-2012 19
STX-CLP WND ICV
UVOLTS
Time (Min)
Chloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
cis-Nonachlor
2,4-DDT
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A023.cdf
23-MAY-2012 19
CLP2 WND ICV
UVOLTS
Time (Min)
Chloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
cis-Nonachlor
2,4-DDT
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

AR 5f23b2z

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A024.d ARI ID: 2/4-DDTS ICV
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A024.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 19:50
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

50 ppb

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col		RPD	Compound/Flag
1.721	0.001	3034	1.742	-0.028	6815	0.0000	0.0000		---	Hexachloroethane
2.796	0.000	4534400	2.855	0.000	15076973	80.0000	80.0000		0.0	1Bromo-2nitrobenzene
5.258	0.007	1403	5.630	-0.014	5932	~~0.0231~~	~~0.0403~~	NS	~~54.2*~~	Oxychlordane
5.340	-0.001	2417190	5.909	-0.001	5870298	56.4624	61.1862	122%	8.0	2,4-DDE
5.629	0.048	3931	----			~~0.0506~~	~~0.0000~~	NS	---	trans-Nonachlor
5.829	-0.001	2209283	6.398	-0.001	5057267	56.0015	51.3668	✓	8.6	2,4-DDD
6.068	-0.001	2847308	6.684	-0.001	5751501	54.7844	53.7742		1.9	2,4-DDT
6.226	0.029	18076	6.745	0.011	80826	~~0.2100~~	~~0.4546~~	NS	~~73.6*~~	cis-Nonachlor
----			7.850	-0.013	3694	~~0.0000~~	~~0.0346~~		---	Mirex
8.387	-0.002	6568755	9.354	-0.002	8649007	80.0000	80.0000		0.0	Hexabromobiphenyl
3.405	-0.001	5854	3.589	0.001	8032	~~0.0872~~	~~0.0429~~		~~68.1*~~	Tetrachloro-m-xylene
8.251	0.001	4680	8.906	-0.002	3815	~~0.0634~~	~~0.0319~~	NS	~~66.2*~~	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.2	0.1	0.1~	150- 0
Decachlorobiphenyl	0.2	0.1	0.1~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

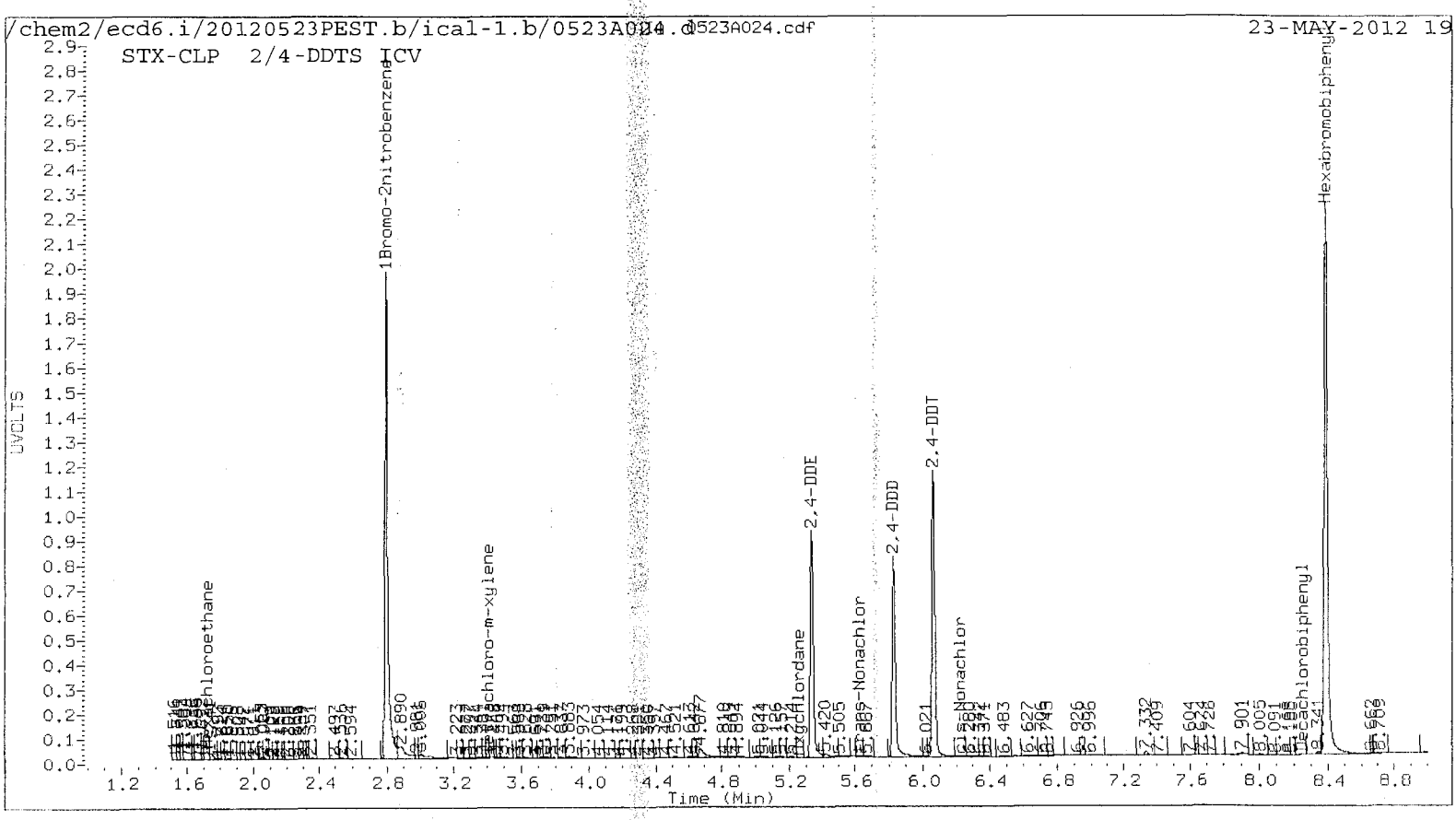
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4534400	-6.3
Hexabromobiphenyl	6506091	6568755	1.0

Column 2

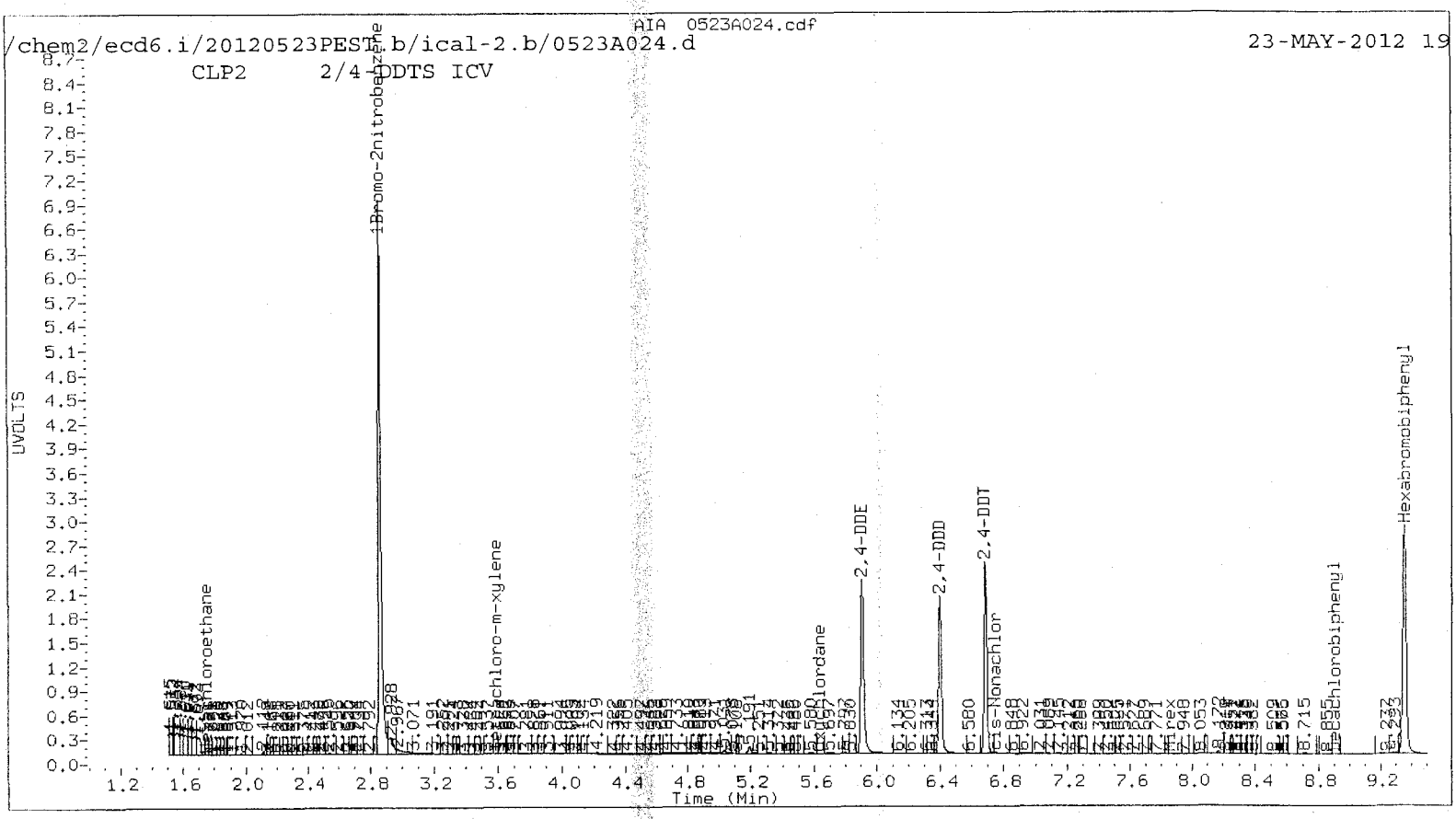
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15076973	-7.1
Hexabromobiphenyl	8472750	8649007	2.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount



AIA 0523A024.cdf



Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 ~~FID-7~~ FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): ~~5/25/2012~~ ~~1878-3~~ AR 5/29/12 Internal Standard ID 1878-3 Expiration 8/1/2012

Endrin/DDT Breakdown <15%?	YES / NO / NA	ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria	YES / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	YES / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped?	YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
INDA	1982-1	12/13/2012	INDA	1897-4	5/28/12
WND	1982-3	1/21/2013	HCB/HCBD	1886-2	5/28/12
AR 5/29/12 ~~Toxaphene~~			WND	1935-2	5/28/12
Toxaphene	1924-5	5/28/12	op DDTs	1936-6	1/10/2013
DS	1878-2	5/28/12			
IB	1982-2	5/16/2013			
Technlordane	1924-4	5/28/12			

Detail problems, corrective actions and/or other pertinent information below:

Col 1 4,4'-DDE quadratic - forced

Analyst: _____ **Date:** 5/29/2012

Reviewer: _____ **Date:** 5/29/12

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A017.d
Level 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A018.d
Level 3: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A019.d
Level 4: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A020.d
Level 5: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A016.d
Level 6: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A021.d
Level 7: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A022.d

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
1 Hexachlorobutadiene	2.91911	2.57877	2.45230	2.36284	2.63356	2.37915	2.37127	2.52814	8.016
3 Hexachlorobenzene	1.77193	1.55661	1.46839	1.42382	1.62132	1.42748	1.41606	1.52652	8.709
4 alpha-BHC	1.68968	1.56515	1.57592	1.61859	1.77818	1.71551	1.71103	1.66487	4.789
5 gamma-BHC (Lindane)	1.47022	1.34730	1.32848	1.33684	1.43315	1.40787	1.41085	1.39067	3.881
6 beta-BHC	0.77651	0.72234	0.69329	0.66864	0.69014	0.65759	0.65116	0.69424	6.287
7 delta-BHC	1.22178	1.12992	1.15981	1.15128	1.30197	1.29989	1.33375	1.22834	6.812

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
8 Heptachlor	1.32761	1.28843	1.21128	1.25702	1.29836	1.26258		
	1.21489						1.26574	3.390
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
9 Aldrin	1.62648	1.49827	1.49178	1.51583	1.65007	1.58552		
	1.57079						1.56268	4.019
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
11 Heptachlor epoxide b	1.47012	1.35814	1.28484	1.24394	1.29933	1.24314		
	1.21837						1.30256	6.689
12 gamma-Chlordane	1.51441	1.38765	1.34451	1.35105	1.41189	1.39728		
	1.40257						1.40134	4.001
13 alpha-Chlordane	1.49475	1.35633	1.45951	1.32537	1.42514	1.39023		
	1.39345						1.40640	4.154
14 Endosulfan I	1.37667	1.25039	1.31719	1.20131	1.27183	1.23083		
	1.21167						1.26570	4.947
15 4,4'-DDE	1.50933	1.38793	1.47610	1.40342	1.59024	1.52213		
	1.50578						1.48499	4.733

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
16 Dieldrin	1.43928	1.32499	1.32098	1.31646	1.40466	1.32487	1.28972	1.34585	4.035
17 Endrin	1.04979	0.94291	0.93298	0.93240	1.01973	0.90546	0.88797	0.95304	6.243
18 4,4'-DDD	0.98821	0.87431	0.86287	0.83813	0.89046	0.81283	0.80196	0.86697	7.189
19 Endosulfan II	1.12037	1.00305	1.00097	1.01073	1.06304	0.97333	0.93519	1.01524	5.947
20 4,4'-DDT	0.47835	0.45131	0.49254	0.51784	0.58345	0.61053	0.65072	0.54068	13.826
21 Endrin aldehyde	1.00531	0.88064	0.84381	0.83054	0.87899	0.79253	0.77807	0.85856	8.804
22 Endosulfan sulfate	0.92238	0.83797	0.82787	0.83077	0.88949	0.82951	0.83256	0.85293	4.404
23 Methoxychlor	0.27747	0.26382	0.27164	0.27385	0.28796	0.27628	0.28145	0.27607	2.755
24 Endrin ketone	1.00700	0.92070	0.89839	0.90757	0.94827	0.88657	0.87986	0.92119	4.796

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(3)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Aroclor-1268(1)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Toxaphene(1)	+++++ +++++	+++++	+++++	+++++	0.04710	+++++	0.04710	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(2)	+++++	+++++	+++++	+++++	0.05196	+++++		
	+++++						0.05196	0.000
(3)	+++++	+++++	+++++	+++++	0.02234	+++++		
	+++++						0.02234	0.000
(4)	+++++	+++++	+++++	+++++	0.04374	+++++		
	+++++						0.04374	0.000
(5)	+++++	+++++	+++++	+++++	0.01686	+++++		
	+++++						0.01686	0.000
38 2,4-DDE	0.94934	0.91486	0.84586	0.84646	0.89835	0.87334		
	0.85928						0.88393	4.385
39 2,4-DDD	0.72470	0.66264	0.60525	0.59057	0.60008	0.56786		
	0.56429						0.61648	9.364
40 2,4-DDT	0.56874	0.53458	0.51363	0.52252	0.54254	0.54935		
	0.57306						0.54349	4.085
41 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
42 Oxychlordane	1.09556	1.05511	0.98585	0.99247	1.03484	1.02691		
	1.01016						1.02870	3.702

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
43 trans-Nonachlor	1.29490	1.24526	1.10026	1.15126	1.14730	1.14321	1.15133	1.17622	5.786
44 cis-Nonachlor	1.30313	1.27356	1.22391	1.24925	1.28290	1.28582	1.30353	1.27458	2.278
45 Mirex	1.01475	0.85912	0.77889	0.77323	0.76999	0.76987	0.78870	0.82208	11.026
46 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
$ 2 Tetrachloro-m-xylene	2.06021	1.90428	1.86022	1.85806	2.13050	1.85441		
	1.79176						1.92278	6.451
$ 25 Decachlorobiphenyl	1.67509	1.43412	1.35395	1.25892	1.34592	1.18598		
	1.15910						1.34473	13.031

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd8.i/20120525PEST.b/ical-2.b

ARI Job No.: DS Method: PEST0525B.m Instrument: ecd8.i Date: 25-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1434	0524A004.d	DS		1	4,4'-DDE,
1453	0524A005.d	IB		1	NO MANUAL INTEGRATION
1512	0524A006.d	INDAE		1	NO MANUAL INTEGRATION
1531	0524A007.d	INDAA		1	NO MANUAL INTEGRATION
1550	0524A008.d	INDAB		1	NO MANUAL INTEGRATION
1609	0524A009.d	INDAC		1	NO MANUAL INTEGRATION
1628	0524A010.d	INDAD		1	NO MANUAL INTEGRATION
1647	0524A011.d	INDAF		1	NO MANUAL INTEGRATION
1706	0524A012.d	IDNAG		1	NO MANUAL INTEGRATION
1725	0524A013.d	INDA ICV		1	NO MANUAL INTEGRATION
1743	0524A014.d	HCB/HCBD ICV		1	NO MANUAL INTEGRATION
1802	0524A015.d	TOXAPH 2500		1	NO MANUAL INTEGRATION
1821	0524A016.d	WNDE		1	NO MANUAL INTEGRATION
1840	0524A017.d	WNDA		1	NO MANUAL INTEGRATION
1859	0524A018.d	WNDB		1	NO MANUAL INTEGRATION
1918	0524A019.d	WNDC		1	NO MANUAL INTEGRATION
1937	0524A020.d	WNDD		1	NO MANUAL INTEGRATION
1956	0524A021.d	WNDF		1	NO MANUAL INTEGRATION
2014	0524A022.d	WNDG		1	NO MANUAL INTEGRATION
2033	0524A023.d	WND ICV		1	NO MANUAL INTEGRATION
2052	0524A024.d	OPDDTS ICV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd8.i/20120525PEST.b/ical-2.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2111	0524A025.d	DDT RT		1	NO MANUAL INTEGRATION
2130	0524A026.d	TECH 200		1	NO MANUAL INTEGRATION

Report Date : 29-May-2012 08:21

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0524A006	0524A007	0524A008	0524A009	0524A010	0524A011	0524A012
INJ.DATE:	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012
INJ.TIME:	15:12	15:31	15:50	16:09	16:28	16:47	17:06

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	2.035	2.035	2.037	2.037	2.036	2.036	2.037	2.037	1.987-2.087	2.036	0.001
* 52 1Bromo-2nitrobenzene	3.295	3.295	3.295	3.295	3.295	3.296	3.296	3.296	3.246-3.346	3.295	0.000
* 55 Hexabromobiphenyl	10.431	10.432	10.433	10.433	10.433	10.433	10.432	10.433	10.383-10.483	10.432	0.001
$ 2 Tetrachloro-m-xylene	4.297	4.298	4.298	4.298	4.298	4.299	4.299	4.299	4.249-4.349	4.298	0.001
3 Hexachlorobenzene	4.790	4.791	4.792	4.791	4.791	4.791	4.791	4.791	4.741-4.841	4.791	0.001
4 alpha-BHC	4.928	4.928	4.929	4.929	4.928	4.929	4.929	4.929	4.879-4.979	4.929	0.001
5 gamma-BHC (Lindane)	5.281	5.282	5.283	5.283	5.282	5.283	5.283	5.283	5.233-5.333	5.282	0.001
6 beta-BHC	5.366	5.367	5.368	5.368	5.367	5.367	5.366	5.366	5.316-5.416	5.367	0.001
7 delta-BHC	5.652	5.654	5.655	5.654	5.654	5.654	5.653	5.653	5.603-5.703	5.653	0.001
8 Heptachlor	5.712	5.713	5.714	5.713	5.713	5.714	5.713	5.713	5.663-5.763	5.713	0.001
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.538-14.638	+++++	+++++
9 Aldrin	6.027	6.028	6.029	6.029	6.028	6.029	6.028	6.028	5.978-6.078	6.028	0.001
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.630-12.730	+++++	+++++
11 Heptachlor epoxide b	6.566	6.567	6.567	6.567	6.567	6.568	6.567	6.567	6.517-6.617	6.567	0.001
12 gamma-Chlordane	6.745	6.746	6.746	6.746	6.745	6.747	6.746	6.746	6.696-6.796	6.746	0.001
13 alpha-Chlordane	6.880	6.881	6.882	6.882	6.881	6.882	6.882	6.882	6.832-6.932	6.881	0.001
14 Endosulfan I	6.941	6.942	6.942	6.942	6.942	6.943	6.942	6.942	6.892-6.992	6.942	0.001

Reviewer 1 _____ Date: 5/29/2012
Reviewer 2 _____ Date: 5/29/12

Report Date : 29-May-2012 08:21

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	7.024	7.028	7.028	7.027	7.026	7.025	7.023	7.023	6.973-7.073	7.026	0.002
16 Dieldrin	7.197	7.199	7.199	7.199	7.198	7.200	7.199	7.199	7.149-7.249	7.199	0.001
17 Endrin	7.488	7.489	7.490	7.490	7.489	7.490	7.490	7.490	7.440-7.540	7.489	0.001
18 4,4'-DDD	7.566	7.569	7.569	7.569	7.568	7.566	7.564	7.564	7.514-7.614	7.567	0.002
19 Endosulfan II	7.684	7.686	7.686	7.686	7.686	7.686	7.686	7.686	7.636-7.736	7.686	0.001
20 4,4'-DDT	7.858	7.861	7.861	7.861	7.860	7.859	7.858	7.858	7.808-7.908	7.860	0.001
21 Endrin aldehyde	7.997	7.999	7.999	7.999	7.998	7.998	7.999	7.999	7.949-8.049	7.998	0.001
22 Endosulfan sulfate	8.257	8.259	8.259	8.259	8.258	8.259	8.258	8.258	8.208-8.308	8.258	0.001
23 Methoxychlor	8.487	8.489	8.489	8.489	8.489	8.489	8.487	8.487	8.437-8.537	8.488	0.001
24 Endrin ketone	8.779	8.781	8.780	8.781	8.780	8.781	8.780	8.780	8.730-8.830	8.780	0.000
$ 25 Decachlorobiphenyl	9.921	9.922	9.922	9.922	9.922	9.922	9.921	9.921	9.871-9.971	9.922	0.001
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.619	5.569-5.669	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.588	4.538-4.638	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.174	5.124-5.224	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.749	5.699-5.799	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.914	5.864-5.964	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.552	6.502-6.602	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.335	7.285-7.385	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.526	7.476-7.576	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.793	8.743-8.843	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.759	7.709-7.809	+++++	+++++
38 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.736	6.686-6.786	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
39 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.215	7.165-7.265	+++++	+++++
40 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.503	7.453-7.553	+++++	+++++
41 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.752	1.702-1.802	+++++	+++++
42 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.482	6.432-6.532	+++++	+++++
43 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.832	6.782-6.882	+++++	+++++
44 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.557	7.507-7.607	+++++	+++++
45 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.759	8.709-8.809	+++++	+++++
46 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.449-21.549	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.821-4.921	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.590-6.690	+++++	+++++
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.065-8.165	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.236-11.336	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.477-6.577	+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.292-6.392	+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.791-6.891	+++++	+++++

Report Date : 29-May-2012 08:21

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0524A016	0524A017	0524A018	0524A019	0524A020	0524A021	0524A022
INJ.DATE:	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012
INJ.TIME:	18:21	18:40	18:59	19:18	19:37	19:56	20:14

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.037	1.987-2.087	+++++	+++++
*	52 1Bromo-2nitrobenzene	3.295	3.296	3.295	3.295	3.297	3.297	3.296	3.296	3.246-3.346	3.296	0.001
*	55 Hexabromobiphenyl	10.431	10.430	10.431	10.431	10.433	10.435	10.433	10.433	10.383-10.483	10.432	0.002
$	2 Tetrachloro-m-xylene	4.297	4.298	4.298	4.298	4.299	4.299	4.300	4.299	4.249-4.349	4.298	0.001
	3 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.791	4.741-4.841	+++++	+++++
	4 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.929	4.879-4.979	+++++	+++++
	5 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.283	5.233-5.333	+++++	+++++
	6 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.366	5.316-5.416	+++++	+++++
	7 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.653	5.603-5.703	+++++	+++++
	8 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.713	5.663-5.763	+++++	+++++
	37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.538-14.638	+++++	+++++
	9 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.028	5.978-6.078	+++++	+++++
	10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.630-12.730	+++++	+++++
	11 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.567	6.517-6.617	+++++	+++++
	12 gamma-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.746	6.696-6.796	+++++	+++++
	13 alpha-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.882	6.832-6.932	+++++	+++++
	14 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.942	6.892-6.992	+++++	+++++

Reviewer 1 _____ Date: 5/29/2012

Reviewer 2 _____ Date: 5/29/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	15 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.023	6.973-7.073	+++++	+++++
	16 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.199	7.149-7.249	+++++	+++++
	17 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.490	7.440-7.540	+++++	+++++
	18 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.564	7.514-7.614	+++++	+++++
	19 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.686	7.636-7.736	+++++	+++++
	20 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.858	7.808-7.908	+++++	+++++
	21 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.999	7.949-8.049	+++++	+++++
	22 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.258	8.208-8.308	+++++	+++++
	23 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.487	8.437-8.537	+++++	+++++
	24 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.780	8.730-8.830	+++++	+++++
$	25 Decachlorobiphenyl	9.921	9.921	9.922	9.922	9.924	9.925	9.923	9.921	9.871-9.971	9.922	0.001
	26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.619	5.569-5.669	+++++	+++++
	27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.588	4.538-4.638	+++++	+++++
	28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.174	5.124-5.224	+++++	+++++
	29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.749	5.699-5.799	+++++	+++++
	30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.914	5.864-5.964	+++++	+++++
	31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.552	6.502-6.602	+++++	+++++
	32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.335	7.285-7.385	+++++	+++++
	33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.526	7.476-7.576	+++++	+++++
	34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.793	8.743-8.843	+++++	+++++
	35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.759	7.709-7.809	+++++	+++++
	38 2,4-DDE	6.735	6.735	6.736	6.735	6.737	6.738	6.736	6.736	6.686-6.786	6.736	0.001

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
39 2,4-DDD	7.215	7.216	7.216	7.216	7.218	7.217	7.215	7.215	7.165-7.265	7.216	0.001
40 2,4-DDT	7.501	7.501	7.502	7.501	7.504	7.504	7.503	7.503	7.453-7.553	7.502	0.001
41 Hexachloroethane	1.747	1.751	1.749	1.751	1.749	1.754	1.752	1.752	1.702-1.802	1.750	0.002
42 Oxychlordane	6.480	6.479	6.480	6.479	6.482	6.483	6.482	6.482	6.432-6.532	6.481	0.001
43 trans-Nonachlor	6.829	6.829	6.830	6.829	6.831	6.833	6.832	6.832	6.782-6.882	6.830	0.001
44 cis-Nonachlor	7.555	7.554	7.555	7.554	7.557	7.558	7.557	7.557	7.507-7.607	7.556	0.001
45 Mirex	8.758	8.757	8.758	8.758	8.760	8.761	8.759	8.759	8.709-8.809	8.759	0.002
46 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.449-21.549	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.821-4.921	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.590-6.690	+++++	+++++
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.065-8.165	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.236-11.336	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.477-6.577	+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.292-6.392	+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.791-6.891	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A017.d
Level 2: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A018.d
Level 3: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A019.d
Level 4: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A020.d
Level 5: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A016.d
Level 6: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A021.d
Level 7: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A022.d

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
1 Hexachlorobutadiene	2.34878	2.22828	2.72236	2.25813	2.52789	2.35305	2.64564	2.44059	7.908
3 Hexachlorobenzene	1.51117	1.37478	1.32049	1.33270	1.48020	1.36080	1.43647	1.40237	5.297
4 alpha-BHC	1.33331	1.30654	1.35607	1.48914	1.69579	1.72746	1.84513	1.53620	14.214
5 gamma-BHC (Lindane)	1.18744	1.12664	1.09843	1.17937	1.34846	1.35528	1.44505	1.24867	10.640
6 beta-BHC	0.73035	0.65030	0.52207	0.57279	0.55449	0.54845	0.56099	0.59135	12.361
7 delta-BHC	1.10318	1.05349	1.03892	1.13704	1.32126	1.37226	1.52269	1.22126	15.176

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD	
8 Heptachlor	1.16702	1.12084	1.11214	1.19922	1.33371	1.31416	1.37270	1.23140	8.703	
9 Aldrin	1.34812	1.30074	1.32391	1.41685	1.57726	1.60024	1.68526	1.46462	10.514	
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Heptachlor epoxide b	1.32784	1.23103	1.22111	1.27111	1.36780	1.35610	1.40643	1.31163	5.455	
12 gamma-Chlordane	1.30541	1.22266	1.20343	1.25727	1.38157	1.36690	1.45247	1.31282	6.981	
13 alpha-Chlordane	1.29118	1.23307	1.34518	1.30036	1.42301	1.39638	1.48530	1.35350	6.421	
14 Endosulfan I	2.01649	2.28009	2.10309	2.12921	2.17621	1.95338	1.80460	2.06615	7.571	
15 4,4'-DDE	0.71917	0.71540	0.84000	0.86831	1.17420	1.25640	1.47844	1.00742	29.430	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
16 Dieldrin	1.28561	1.30371	1.31936	1.40713	1.53463	1.45964	1.50374	1.40197	7.211
17 Endrin	0.81805	0.78017	0.78481	0.82808	0.97751	0.91175	0.98350	0.86913	10.070
18 4,4'-DDD	0.85445	0.73465	0.63328	0.62739	0.71596	0.66127	0.72561	0.70752	11.068
19 Endosulfan II	0.90660	0.84697	0.81824	0.85598	0.97883	0.90018	0.94946	0.89375	6.438
20 4,4'-DDT	0.38951	0.40328	0.39039	0.44897	0.54873	0.55365	0.62298	0.47965	19.716
21 Endrin aldehyde	0.74496	0.68383	0.65992	0.67296	0.75668	0.70730	0.75328	0.71127	5.692
22 Methoxychlor	0.26067	0.24817	0.25211	0.25583	0.28711	0.28482	0.31703	0.27225	9.211
23 Endosulfan sulfate	0.74751	0.70039	0.69434	0.69404	0.80702	0.76194	0.82559	0.74726	7.279
24 Endrin ketone	1.13707	0.96228	0.87888	0.84297	0.92050	0.85841	0.90396	0.92915	10.762

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
35 Toxaphene(1)	+++++	+++++	+++++	+++++	0.04017	+++++		
	+++++						0.04017	0.000
(2)	+++++	+++++	+++++	+++++	0.02802	+++++		
	+++++						0.02802	0.000
(3)	+++++	+++++	+++++	+++++	0.02539	+++++		
	+++++						0.02539	0.000
(4)	+++++	+++++	+++++	+++++	0.04226	+++++		
	+++++						0.04226	0.000
(5)	+++++	+++++	+++++	+++++	0.03298	+++++		
	+++++						0.03298	0.000
(6)	+++++	+++++	+++++	+++++	0.02391	+++++		
	+++++						0.02391	0.000
39 2,4-DDE	0.64988	0.61961	0.57249	0.59082	0.66134	0.66488		
	0.69400						0.63614	6.845
40 2,4-DDD	0.49881	0.48537	0.41561	0.41210	0.45904	0.44475		
	0.46367						0.45419	7.205
41 2,4-DDT	0.46557	0.44832	0.40077	0.42378	0.46850	0.47784		
	0.51216						0.45670	8.007

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

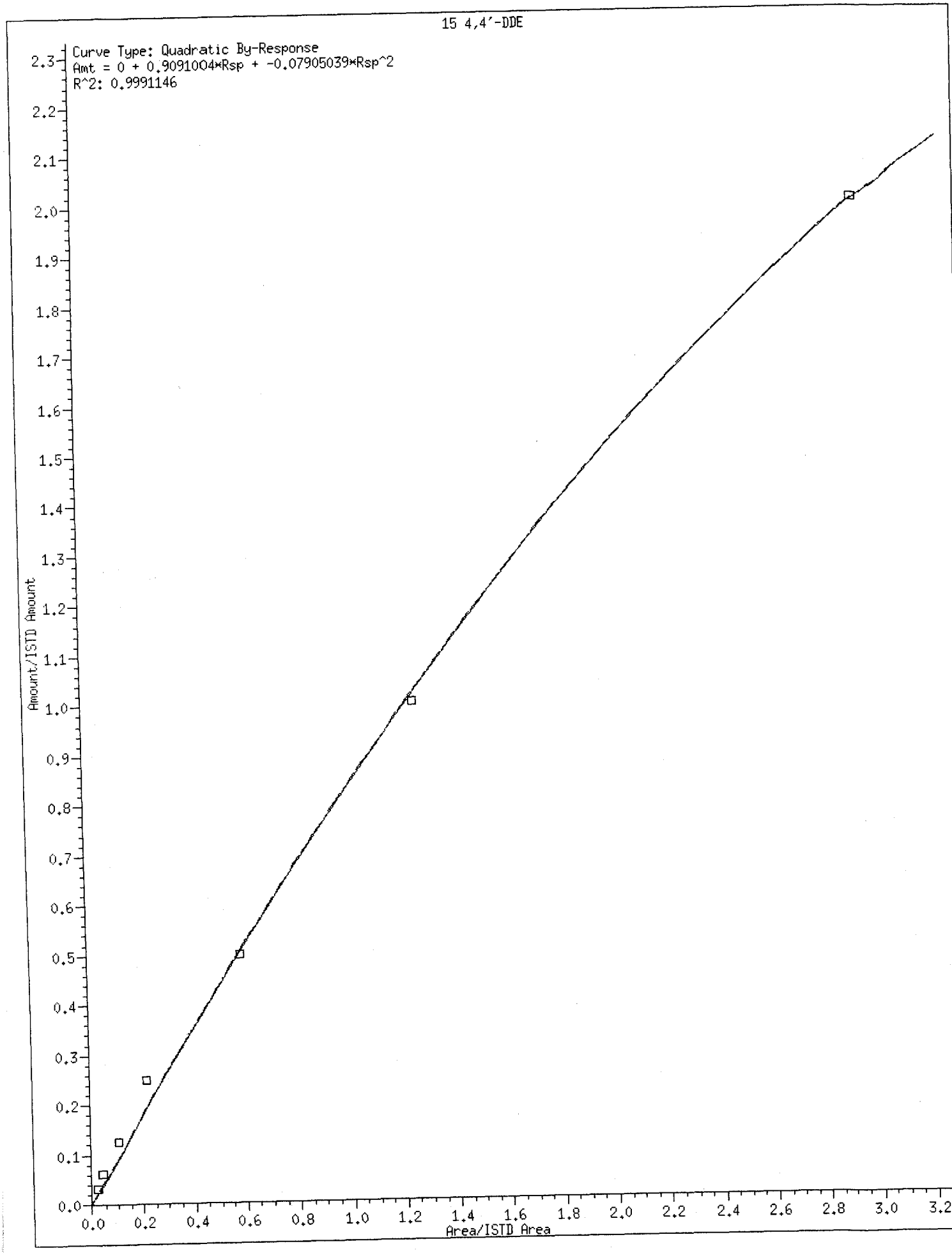
Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Oxychlordane	0.80130	0.77864	0.72384	0.76824	0.82434	0.85339	0.89108	0.80583	6.940
44 trans-Nonachlor	0.94111	0.87461	0.78610	0.85154	0.93144	0.97849	1.02639	0.91281	8.904
45 cis-Nonachlor	0.97468	0.94956	0.89805	0.99130	1.07707	1.16703	1.22741	1.04073	11.610
46 Mirex	0.74177	0.64061	0.56842	0.57644	0.59676	0.58873	0.61132	0.61772	9.660
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
$ 2 Tetrachloro-m-xylene	1.15602	1.07347	1.05521	1.08545	1.22492	1.14344		
	1.18849						1.13243	5.587
$ 25 Decachlorobiphenyl	1.56359	1.35337	1.26811	1.24542	1.40361	1.27810		
	1.34970						1.35170	8.065


15 4,4'-DDE
Curve Type: Quadratic By-Response
Amt = 0 + 0.909100 4*Rsp + -0.07905039*Rsp^2
R^2: 0.9991146
Amount/ISTD Amount
Area/ISTD Area
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

Calibration File Names:
Level 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A017.d
Level 2: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A018.d
Level 3: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A019.d
Level 4: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A020.d
Level 5: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A016.d
Level 6: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A021.d
Level 7: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A022.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	40 Level 6	80 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Hexachlorobutadiene	2.34878	2.22828	2.72236	2.25813	2.52789	2.35305	2.64564	AVRG		2.44059		7.90839
3 Hexachlorobenzene	1.51117	1.37478	1.32049	1.33270	1.48020	1.36080	1.43647	AVRG		1.40237		5.29687
4 alpha-BHC	1.33331	1.30654	1.35607	1.48914	1.69579	1.72746	1.84513	AVRG		1.53620		14.21367
5 gamma-BHC (Lindane)	1.18744	1.12664	1.09843	1.17937	1.34846	1.35528	1.44505	AVRG		1.24867		10.63983

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	40 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7										
6 beta-BHC	0.73035	0.65030	0.52207	0.57279	0.55449	0.54845					
	0.56099						AVRG		0.59135		12.36122
7 delta-BHC	1.10318	1.05349	1.03892	1.13704	1.32126	1.37226					
	1.52269						AVRG		1.22126		15.17567
8 Heptachlor	1.16702	1.12084	1.11214	1.19922	1.33371	1.31416					
	1.37270						AVRG		1.23140		8.70286
9 Aldrin	1.34812	1.30074	1.32391	1.41685	1.57726	1.60024					
	1.68526						AVRG		1.46462		10.51374
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
11 Heptachlor epoxide b	1.32784	1.23103	1.22111	1.27111	1.36780	1.35610					
	1.40643						AVRG		1.31163		5.45471

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	40 Level 6	80 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
12 gamma-Chlordane	1.30541	1.22266	1.20343	1.25727	1.38157	1.36690	1.45247	AVRG		1.31282		6.98053
13 alpha-Chlordane	1.29118	1.23307	1.34518	1.30036	1.42301	1.39638	1.48530	AVRG		1.35350		6.42129
14 Endosulfan I	2.01649	2.28009	2.10309	2.12921	2.17621	1.95338	1.80460	AVRG		2.06615		7.57083
15 4,4'-DDE	20007	39965	91795	186729	491054	1122077	2596728	QUAD	0.000e+00	0.90910	-0.07905	0.99911
16 Dieldrin	1.28561	1.30371	1.31936	1.40713	1.53463	1.45964	1.50374	AVRG		1.40197		7.21136
17 Endrin	0.81805	0.78017	0.78481	0.82808	0.97751	0.91175	0.98350	AVRG		0.86913		10.07001
18 4,4'-DDD	0.85445	0.73465	0.63328	0.62739	0.71596	0.66127	0.72561	AVRG		0.70752		11.06831

Report Date : 29-May-2012 09:10

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	40 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7										
19 Endosulfan II	0.90660	0.84697	0.81824	0.85598	0.97883	0.90018	AVRG		0.89375		6.43801
	0.94946										
20 4,4'-DDT	0.38951	0.40328	0.39039	0.44897	0.54873	0.55365	AVRG		0.47965		19.71634
	0.62298										
21 Endrin aldehyde	0.74496	0.68383	0.65992	0.67296	0.75668	0.70730	AVRG		0.71127		5.69218
	0.75328										
22 Methoxychlor	0.26067	0.24817	0.25211	0.25583	0.28711	0.28482	AVRG		0.27225		9.21119
	0.31703										
23 Endosulfan sulfate	0.74751	0.70039	0.69434	0.69404	0.80702	0.76194	AVRG		0.74726		7.27914
	0.82559										
24 Endrin ketone	1.13707	0.96228	0.87888	0.84297	0.92050	0.85841	AVRG		0.92915		10.76204
	0.90396										
26 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	+++++										

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	40 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7										
(4)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
35 Toxaphene(1)	+++++ +++++	+++++	+++++	+++++	0.04017	+++++	AVRG		0.04017		0.000e+00
(2)	+++++ +++++	+++++	+++++	+++++	0.02802	+++++	AVRG		0.02802		0.000e+00
(3)	+++++ +++++	+++++	+++++	+++++	0.02539	+++++	AVRG		0.02539		0.000e+00
(4)	+++++ +++++	+++++	+++++	+++++	0.04226	+++++	AVRG		0.04226		0.000e+00
(5)	+++++ +++++	+++++	+++++	+++++	0.03298	+++++	AVRG		0.03298		0.000e+00

Report Date : 29-May-2012 09:10

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	40 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7										
(6)	+++++ +++++	+++++	+++++	+++++	0.02391	+++++	AVRG		0.02391		0.000e+00
39 2,4-DDE	0.64988 0.69400	0.61961	0.57249	0.59082	0.66134	0.66488	AVRG		0.63614		6.84503
40 2,4-DDD	0.49881 0.46367	0.48537	0.41561	0.41210	0.45904	0.44475	AVRG		0.45419		7.20462
41 2,4-DDT	0.46557 0.51216	0.44832	0.40077	0.42378	0.46850	0.47784	AVRG		0.45670		8.00674
42 Hexachloroethane	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
43 Oxychlordane	0.80130 0.89108	0.77864	0.72384	0.76824	0.82434	0.85339	AVRG		0.80583		6.94015
44 trans-Nonachlor	0.94111 1.02639	0.87461	0.78610	0.85154	0.93144	0.97849	AVRG		0.91281		8.90355

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	40 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
	80 Level 7										
45 cis-Nonachlor	0.97468 1.22741	0.94956	0.89805	0.99130	1.07707	1.16703	AVRG		1.04073		11.61010
46 Mirex	0.74177 0.61132	0.64061	0.56842	0.57644	0.59676	0.58873	AVRG		0.61772		9.66047
47 bis-(2-ethylhexyl) Phthalate	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
48 Trifluralin	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
49 Dacthal	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
50 Oxadiazon	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
51 Kelthane	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	40 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7										
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 2 Tetrachloro-m-xylene	1.15602	1.07347	1.05521	1.08545	1.22492	1.14344					
	1.18849						AVRG		1.13243		5.58734
$ 25 Decachlorobiphenyl	1.56359	1.35337	1.26811	1.24542	1.40361	1.27810					
	1.34970						AVRG		1.35170		8.06450

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd8.i/20120525PEST.b/ical-1.b

ARI Job No.: DS Method: PEST0525.m Instrument: ecd8.i Date: 25-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1434	0524A004.d	DS		1	4,4'-DDE, 4,4'-DDD,
1453	0524A005.d	IB		1	NO MANUAL INTEGRATION
1512	0524A006.d	INDAE		1	NO MANUAL INTEGRATION
1531	0524A007.d	INDAA		1	Endosulfan I,
1550	0524A008.d	INDAB		1	NO MANUAL INTEGRATION
1609	0524A009.d	INDAC		1	NO MANUAL INTEGRATION
1628	0524A010.d	INDAD		1	Hexachlorobutadiene,
1647	0524A011.d	INDAF		1	NO MANUAL INTEGRATION
1706	0524A012.d	IDNAG		1	Hexachlorobutadiene,
1725	0524A013.d	INDA ICV		1	NO MANUAL INTEGRATION
1743	0524A014.d	HCB/HCBD ICV		1	Hexachlorobutadiene,
1802	0524A015.d	TOXAPH 2500		1	NO MANUAL INTEGRATION
1821	0524A016.d	WNDE		1	NO MANUAL INTEGRATION
1840	0524A017.d	WNDA		1	NO MANUAL INTEGRATION
1859	0524A018.d	WNDB		1	NO MANUAL INTEGRATION
1918	0524A019.d	WNDC		1	NO MANUAL INTEGRATION
1937	0524A020.d	WNDD		1	NO MANUAL INTEGRATION
1956	0524A021.d	WNDF		1	NO MANUAL INTEGRATION
2014	0524A022.d	WNDG		1	NO MANUAL INTEGRATION
2033	0524A023.d	WND ICV		1	NO MANUAL INTEGRATION
2052	0524A024.d	OPDDTS ICV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd8.i/20120525PEST.b/ical-1.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2111	0524A025.d	DDT RT		1	NO MANUAL INTEGRATION
2130	0524A026.d	TECH 200		1	NO MANUAL INTEGRATION

Report Date : 29-May-2012 09:22

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0524A006	0524A007	0524A008	0524A009	0524A010	0524A011	0524A012
INJ.DATE:	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012
INJ.TIME:	15:12	15:31	15:50	16:09	16:28	16:47	17:06

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	1.727	1.728	1.728	1.728	1.727	1.728	1.728	1.728	1.678-1.778	1.728	0.000
* 54 1Bromo-2nitrobenzene	3.028	3.029	3.029	3.029	3.029	3.029	3.029	3.030	2.980-3.080	3.029	0.000
* 58 Hexabromobiphenyl	9.138	9.138	9.137	9.137	9.138	9.138	9.137	9.138	9.088-9.188	9.138	0.000
$ 2 Tetrachloro-m-xylene	3.896	3.896	3.897	3.896	3.896	3.896	3.897	3.897	3.847-3.947	3.896	0.000
3 Hexachlorobenzene	4.287	4.288	4.288	4.288	4.287	4.287	4.287	4.287	4.237-4.337	4.287	0.000
4 alpha-BHC	4.452	4.452	4.453	4.453	4.452	4.453	4.453	4.453	4.403-4.503	4.453	0.000
5 gamma-BHC (Lindane)	4.754	4.755	4.756	4.755	4.755	4.755	4.755	4.755	4.705-4.805	4.755	0.000
6 beta-BHC	4.846	4.848	4.848	4.848	4.847	4.846	4.846	4.846	4.796-4.896	4.847	0.001
7 delta-BHC	5.010	5.012	5.013	5.012	5.011	5.011	5.011	5.011	4.961-5.061	5.011	0.001
8 Heptachlor	5.200	5.201	5.202	5.201	5.200	5.201	5.201	5.201	5.151-5.251	5.201	0.000
9 Aldrin	5.476	5.476	5.477	5.477	5.476	5.477	5.477	5.477	5.427-5.527	5.477	0.001
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.577-13.677	+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.819-10.919	+++++	+++++
11 Heptachlor epoxide b	6.028	6.028	6.029	6.029	6.028	6.029	6.028	6.028	5.978-6.078	6.028	0.001
12 gamma-Chlordane	6.142	6.142	6.143	6.143	6.142	6.143	6.142	6.142	6.092-6.192	6.143	0.000
13 alpha-Chlordane	6.261	6.262	6.262	6.263	6.262	6.263	6.262	6.262	6.212-6.312	6.262	0.001
14 Endosulfan I	6.384	6.385	6.385	6.385	6.385	6.385	6.385	6.385	6.335-6.435	6.385	0.000

Reviewer 1 AL Date: 5/29/2012
Reviewer 2 BB Date: 5/29/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	6.339	6.346	6.345	6.344	6.343	6.339	6.336	6.336	6.286-6.386	6.342	0.004
16 Dieldrin	6.601	6.601	6.602	6.602	6.601	6.602	6.601	6.601	6.551-6.651	6.601	0.000
17 Endrin	6.811	6.812	6.812	6.813	6.812	6.813	6.812	6.812	6.762-6.862	6.812	0.001
18 4,4'-DDD	6.878	6.888	6.885	6.882	6.881	6.877	6.874	6.874	6.824-6.924	6.881	0.005
19 Endosulfan II	7.015	7.016	7.017	7.017	7.016	7.016	7.015	7.015	6.965-7.065	7.016	0.001
20 4,4'-DDT	7.125	7.129	7.129	7.128	7.127	7.125	7.123	7.123	7.073-7.173	7.127	0.002
21 Endrin aldehyde	7.395	7.397	7.397	7.397	7.396	7.397	7.396	7.396	7.346-7.446	7.396	0.001
22 Methoxychlor	7.562	7.565	7.565	7.564	7.564	7.563	7.561	7.561	7.511-7.611	7.563	0.002
23 Endosulfan sulfate	7.795	7.797	7.796	7.797	7.796	7.796	7.796	7.796	7.746-7.846	7.796	0.001
24 Endrin ketone	8.056	8.058	8.057	8.058	8.057	8.057	8.057	8.057	8.007-8.107	8.057	0.001
$ 25 Decachlorobiphenyl	8.980	8.981	8.981	8.981	8.980	8.981	8.980	8.980	8.930-9.030	8.981	0.001
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.066	5.016-5.116	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.080	4.030-4.130	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.266	4.216-4.316	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.170	5.120-5.220	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.516	5.466-5.566	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.848	5.798-5.898	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.598	6.548-6.648	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.599	6.549-6.649	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.995	7.945-8.045	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.068	7.018-7.118	+++++	+++++
39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.027	5.977-6.077	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.491	6.441-6.541	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.718	6.668-6.768	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.769	1.719-1.819	+++++	+++++
43 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.939	5.889-5.989	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.249	6.199-6.299	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.844	6.794-6.894	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.709	7.659-7.759	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.106-20.206	+++++	+++++
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.269-6.369	+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.886-9.986	+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.841-11.941	+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.777-14.877	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.700-9.800	+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.057-9.157	+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.201-10.301	+++++	+++++

Report Date : 29-May-2012 09:23

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0524A016	0524A017	0524A018	0524A019	0524A020	0524A021	0524A022
INJ.DATE:	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012	25-MAY-2012
INJ.TIME:	18:21	18:40	18:59	19:18	19:37	19:56	20:14

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.728	1.678-1.778	+++++	+++++
* 54 1Bromo-2nitrobenzene	3.028	3.029	3.029	3.029	3.030	3.030	3.030	3.030	2.980-3.080	3.029	0.001
* 58 Hexabromobiphenyl	9.137	9.135	9.136	9.136	9.139	9.140	9.138	9.138	9.088-9.188	9.137	0.002
$ 2 Tetrachloro-m-xylene	3.896	3.896	3.896	3.896	3.898	3.898	3.898	3.897	3.847-3.947	3.897	0.001
3 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.287	4.237-4.337	+++++	+++++
4 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.453	4.403-4.503	+++++	+++++
5 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.755	4.705-4.805	+++++	+++++
6 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.846	4.796-4.896	+++++	+++++
7 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.011	4.961-5.061	+++++	+++++
8 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.201	5.151-5.251	+++++	+++++
9 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.477	5.427-5.527	+++++	+++++
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.577-13.677	+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.819-10.919	+++++	+++++
11 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.028	5.978-6.078	+++++	+++++
12 gamma-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.142	6.092-6.192	+++++	+++++
13 alpha-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.262	6.212-6.312	+++++	+++++
14 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.385	6.335-6.435	+++++	+++++

Reviewer 1 AR Date: 5/29/2012
Reviewer 2 Date: 5/29/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	15 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.336	6.286-6.386	+++++	+++++
	16 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.601	6.551-6.651	+++++	+++++
	17 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.812	6.762-6.862	+++++	+++++
	18 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.874	6.824-6.924	+++++	+++++
	19 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.015	6.965-7.065	+++++	+++++
	20 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.123	7.073-7.173	+++++	+++++
	21 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.396	7.346-7.446	+++++	+++++
	22 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.561	7.511-7.611	+++++	+++++
	23 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.796	7.746-7.846	+++++	+++++
	24 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.057	8.007-8.107	+++++	+++++
$	25 Decachlorobiphenyl	8.979	8.979	8.980	8.979	8.982	8.983	8.981	8.980	8.930-9.030	8.981	0.002
	26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.066	5.016-5.116	+++++	+++++
	27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.080	4.030-4.130	+++++	+++++
	28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.266	4.216-4.316	+++++	+++++
	29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.170	5.120-5.220	+++++	+++++
	30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.516	5.466-5.566	+++++	+++++
	31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.848	5.798-5.898	+++++	+++++
	32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.598	6.548-6.648	+++++	+++++
	33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.599	6.549-6.649	+++++	+++++
	34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.995	7.945-8.045	+++++	+++++
	35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.068	7.018-7.118	+++++	+++++
	39 2,4-DDE	6.027	6.027	6.028	6.028	6.029	6.028	6.027	6.027	5.977-6.077	6.028	0.001

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	6.492	6.493	6.495	6.494	6.496	6.494	6.491	6.491	6.441-6.541	6.494	0.001
41 2,4-DDT	6.717	6.718	6.719	6.718	6.720	6.720	6.718	6.718	6.668-6.768	6.719	0.001
42 Hexachloroethane	1.765	1.774	1.763	1.772	1.766	1.777	1.769	1.769	1.719-1.819	1.769	0.005
43 Oxychlordane	5.936	5.936	5.937	5.937	5.939	5.939	5.939	5.939	5.889-5.989	5.938	0.001
44 trans-Nonachlor	6.247	6.247	6.248	6.248	6.250	6.250	6.249	6.249	6.199-6.299	6.249	0.001
45 cis-Nonachlor	6.842	6.843	6.843	6.843	6.845	6.845	6.844	6.844	6.794-6.894	6.844	0.001
46 Mirex	7.707	7.707	7.708	7.707	7.710	7.710	7.709	7.709	7.659-7.759	7.708	0.001
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.106-20.206	+++++	+++++
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.269-6.369	+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.886-9.986	+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.841-11.941	+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.777-14.877	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.700-9.800	+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.057-9.157	+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.201-10.301	+++++	+++++

INTERNAL STANDARD SUMMARY

ISTD updated & new macro saved

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1452529	836406	-42.4
Hexabromobiphenyl	1939335	1091107	-43.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1873046	1248621	-33.3
Hexabromobiphenyl	2080354	1339634	-35.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120525PEST

Analysis Date: 25-MAY-2012 14:34 Init. Calib. Date: 25-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.341	9743
Endrin	6.813	1398088
4,4'-DDD	6.880	69143
4,4'-DDT	7.127	741637
Endrin ketone	8.058	60664
Endrin aldehyde	7.398	23226

DDT Percent Breakdown = 9.6 %
((9743+69143) * 100)/(9743+69143+741637)

Endrin Percent Breakdown = 5.7 %
((23226+60664) * 100)/(23226+60664+1398088)

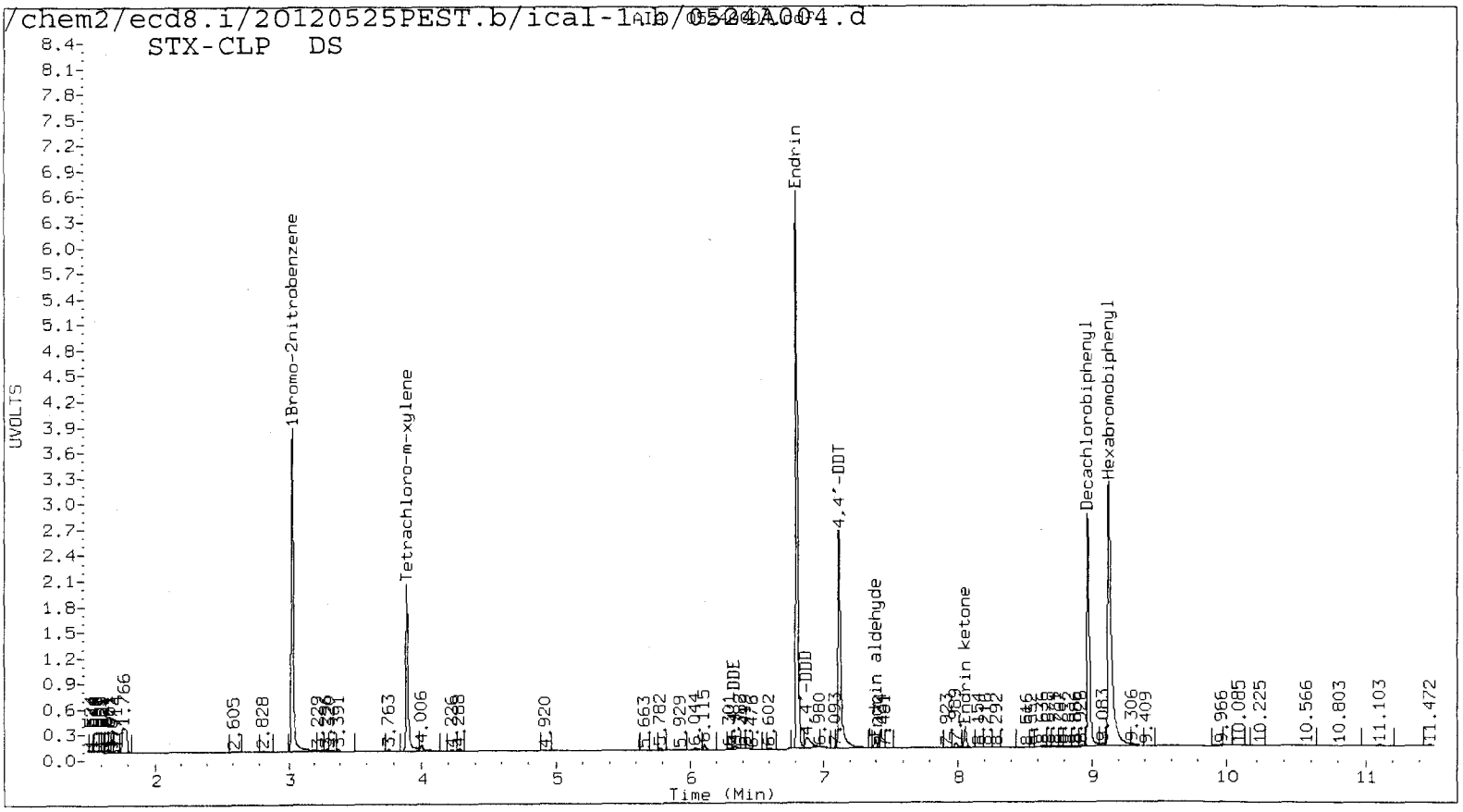
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	7.026	29884
Endrin	7.490	1615155
4,4'-DDD	7.568	102761
4,4'-DDT	7.860	933004
Endrin ketone	8.782	77706
Endrin aldehyde	7.999	40367

DDT Percent Breakdown = 12.4 %
((29884+102761) * 100)/(29884+102761+933004)

Endrin Percent Breakdown = 6.8 %
((40367+77706) * 100)/(40367+77706+1615155)

Form VII Pest-1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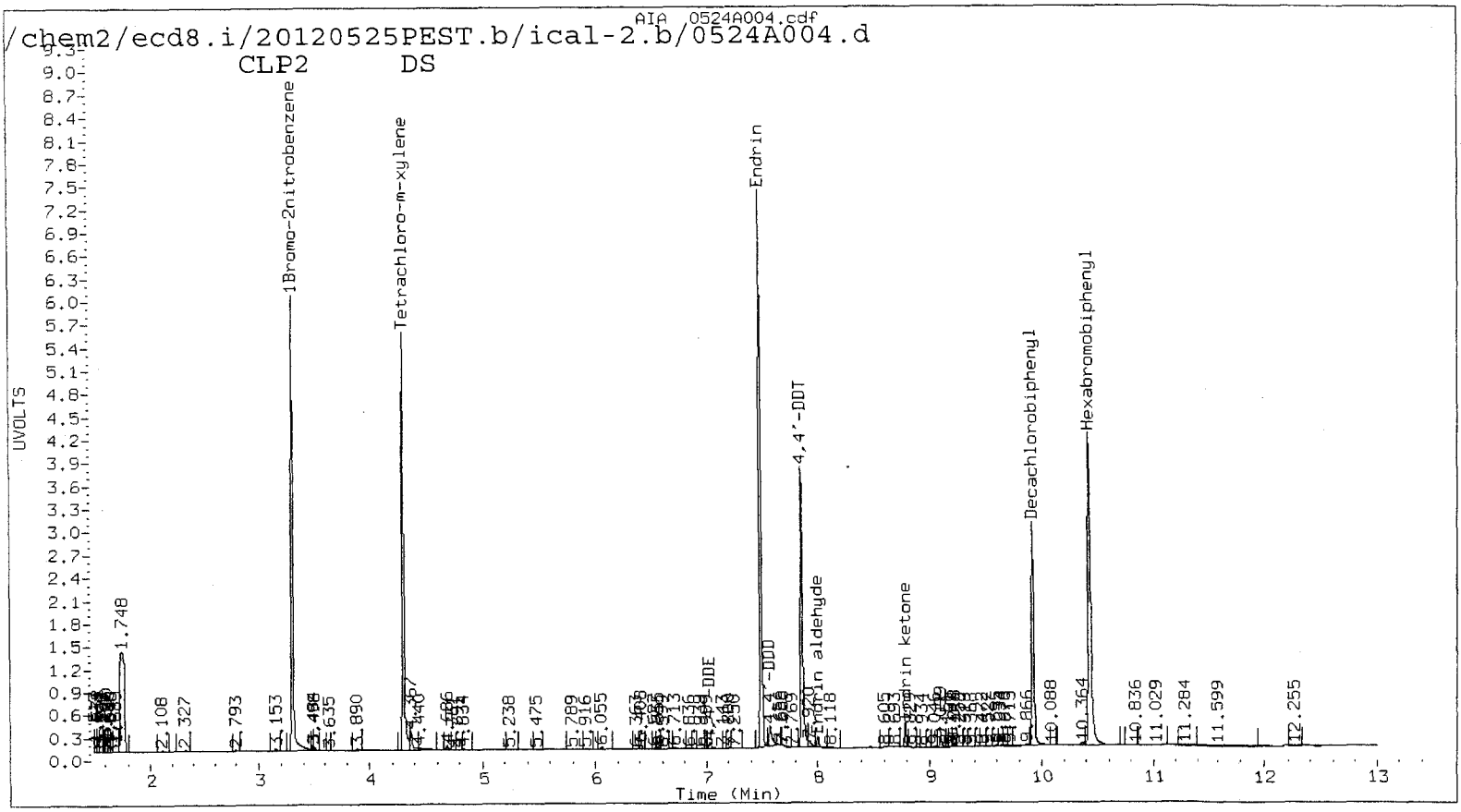
AIA 0524A004.cdf
STX-CLP DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A004.cdf
CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A005.d ARI ID: IB
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A005.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 14:53
Compound Sublist: wpest Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP on col	CLP2 on col	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response				
3.028	-0.002	847392	3.294	-0.002	1216529	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
----			----			0.0000	0.0000	---	alpha-BHC
----			----			0.0000	0.0000	---	beta-BHC
----			----			0.0000	0.0000	---	delta-BHC
----			5.237	-0.046	1103	0.0000	0.0522	---	gamma-BHC (Lindane)
----			----			0.0000	0.0000	---	Heptachlor
----			----			0.0000	0.0000	---	Aldrin
6.044	0.016	2260	6.554	-0.013	4525	0.1627	0.2284	33.6	Heptachlor epoxide b A B
----			----			0.0000	0.0000	---	Endosulfan I
----			----			0.0000	0.0000	---	Dieldrin
----			----			0.0000	0.0000	---	4,4'-DDE
----			----			0.0000	0.0000	---	Endrin
----			----			0.0000	0.0000	---	Endosulfan II
6.900	0.026	11414	----			1.1892	0.0000	---	4,4'-DDD
----			----			0.0000	0.0000	---	Endosulfan sulfate
----			----			0.0000	0.0000	---	4,4'-DDT
----			----			0.0000	0.0000	---	Methoxychlor
8.076	0.020	9194	----			0.7294	0.0000	---	Endrin ketone
----			----			0.0000	0.0000	---	Endrin aldehyde
----			----			0.0000	0.0000	---	gamma-Chlordane
----			----			0.0000	0.0000	---	alpha-Chlordane
1.717	-0.011	6136	----			0.2374	0.0000	---	Hexachlorobutadiene
4.286	-0.001	5376	4.833	0.042	1758	0.3619	0.0757	130.8*	Hexachlorobenzene A B
----			----			0.0000	0.0000	---	Oxychlordane
----			----			0.0000	0.0000	---	2,4-DDE
----			----			0.0000	0.0000	---	trans-Nonachlor
----			----			0.0000	0.0000	---	2,4-DDD
----			----			0.0000	0.0000	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
----			----			0.0000	0.0000	---	Mirex
9.137	-0.001	1085236	10.432	-0.001	1332632	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.774	0.005	22305	1.749	-0.002	5680769	0.0000	0.0000	---	Hexachloroethane
3.895	-0.001	451145	4.297	-0.002	1182415	37.6106	40.4397	7.2	Tetrachloro-m-xylene A B
8.980	0.000	663852	9.922	0.000	777465	36.2040	34.7078	4.2	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	94.0	101.1	94.0	29-110
Decachlorobiphenyl	90.5	86.8	86.8	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	847392	1.3
Hexabromobiphenyl	1091107	1085236	-0.5

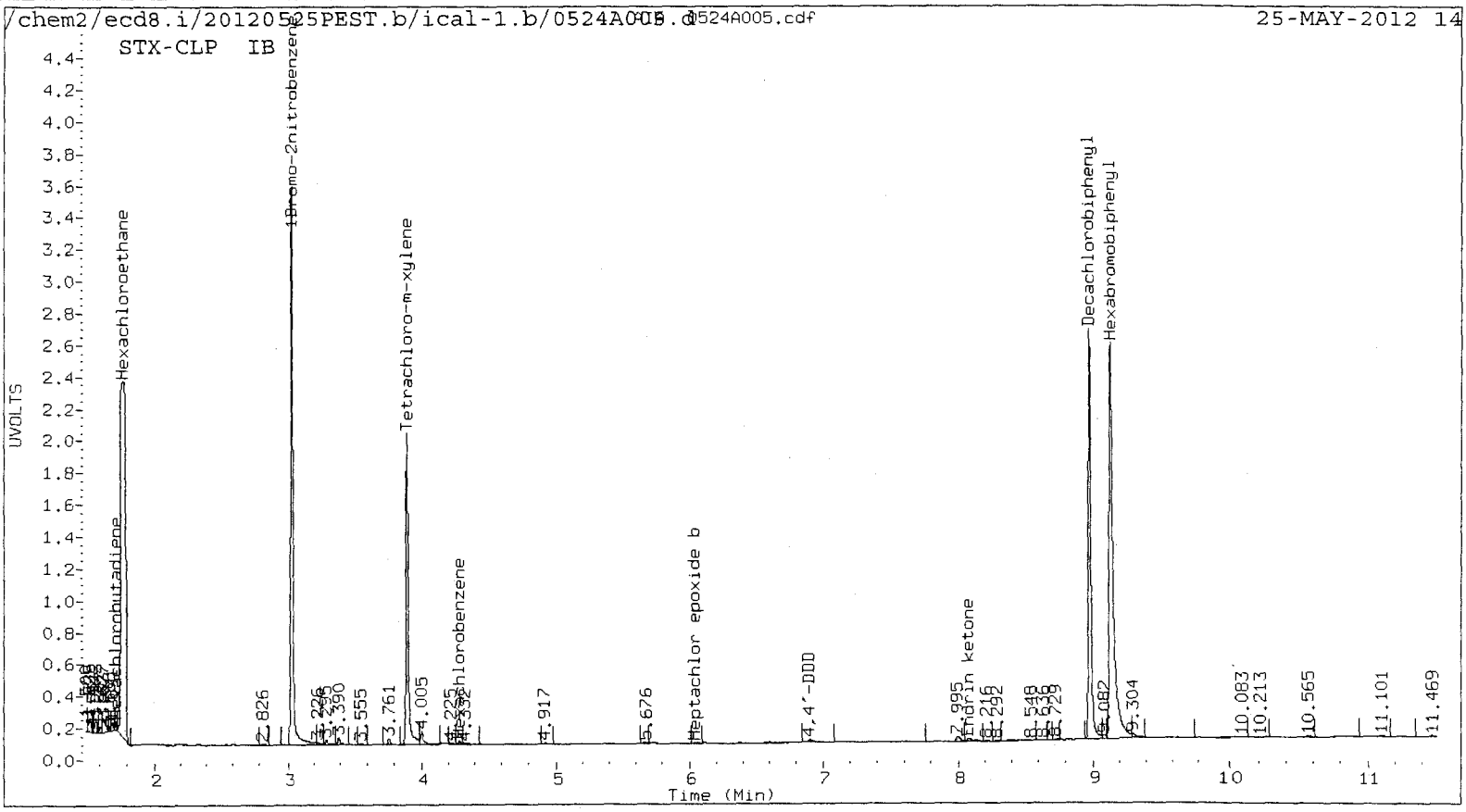
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1216529	-2.6
Hexabromobiphenyl	1339634	1332632	-0.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
Toxaphene	6	---			0.000	NS	---			----
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				

Aroclor-1248 1	---	0.000	1	---	0.000
Aroclor-1248 2	---	0.000	2	---	0.000
Aroclor-1248 3	---	0.000	3	---	0.000
Aroclor-1248 4	---	0.000	4	---	0.000
Aroclor-1248 5	---	0.000	5	---	0.000
	STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1254 1	---	0.000	1	---	0.000
Aroclor-1254 2	---	0.000	2	---	0.000
Aroclor-1254 3	---	0.000	3	---	0.000
Aroclor-1254 4	---	0.000	4	---	0.000
Aroclor-1254 5	---	0.000	5	---	0.000
	STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1260 1	---	0.000	1	---	0.000
Aroclor-1260 2	---	0.000	2	---	0.000
Aroclor-1260 3	---	0.000	3	---	0.000
Aroclor-1260 4	---	0.000	4	---	0.000
Aroclor-1260 5	---	0.000	5	---	0.000
	STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1262 1	---	0.000	1	---	0.000
Aroclor-1262 2	---	0.000	2	---	0.000
Aroclor-1262 3	---	0.000	3	---	0.000
Aroclor-1262 4	---	0.000	4	---	0.000
Aroclor-1262 5	---	0.000	5	---	0.000
	STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1268 1	---	0.000	1	---	0.000
Aroclor-1268 2	---	0.000	2	---	0.000
Aroclor-1268 3	---	0.000	3	---	0.000
Aroclor-1268 4	---	0.000	4	---	0.000
Aroclor-1268 5	---	0.000	5	---	0.000
	STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	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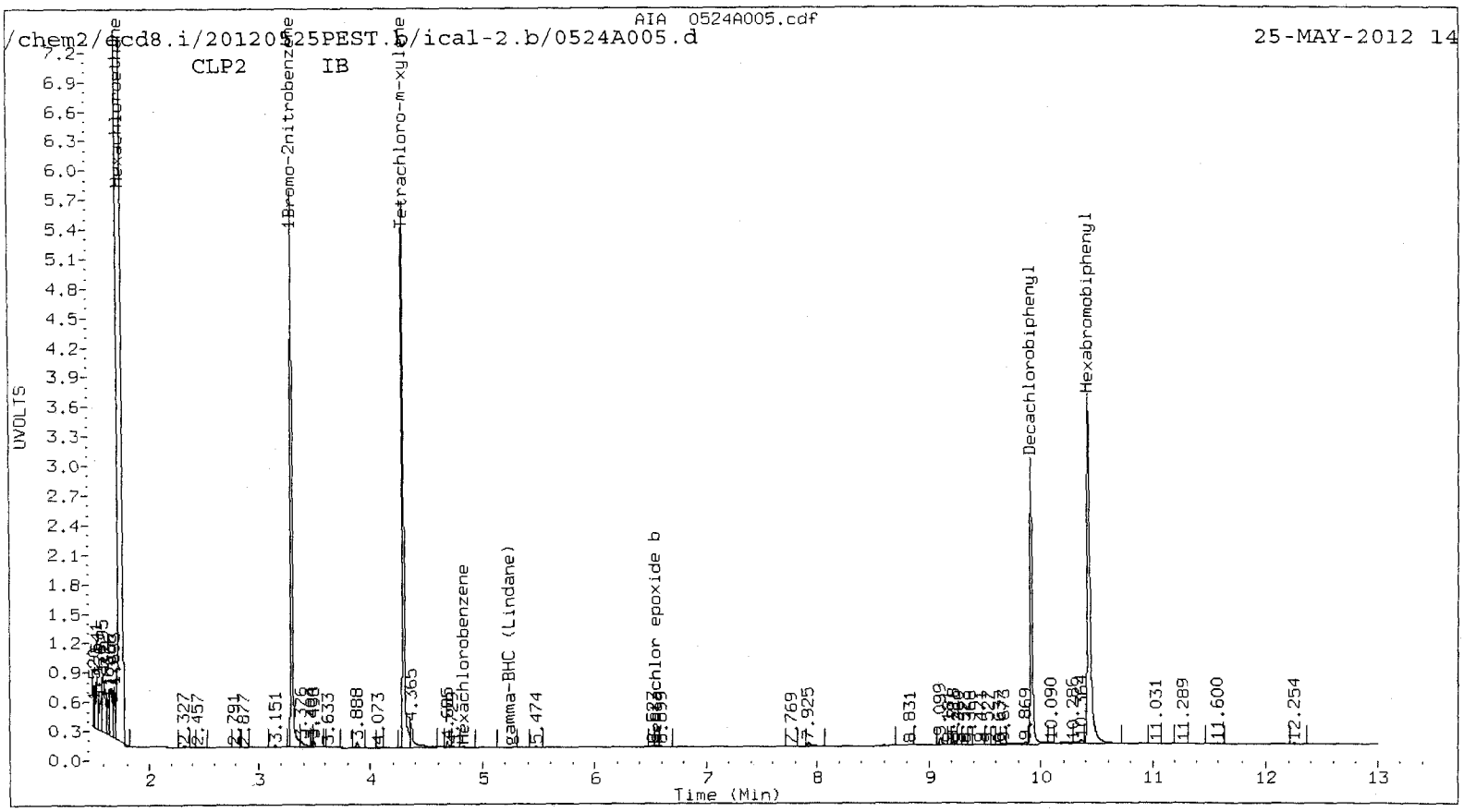
AIA 0524A005.cdf
25-MAY-2012 14
STX-CLP IB
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Heptachlor epoxide b
4,4'-DDD
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
2.826
3.761
4.005
4.917
5.676
7.995
9.082
9.304
10.083
10.213
10.565
11.101
11.469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AIA 0524A005.cdf
25-MAY-2012 14
CLP2 IB
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Heptachlor epoxide b
Decachlorobiphenyl
Hexabromobiphenyl
3.151
3.888
4.073
4.365
5.474
7.769
7.925
8.831
9.869
10.090
10.286
11.031
11.289
11.600
12.254

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A006.d ARI ID: INDAE
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A006.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 15:12
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.028	-0.002	836406	3.295	-0.002	1248621	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.452	-0.001	354593	4.928	-0.002	555068	22.0777	21.3612	3.3	alpha-BHC A B
4.846	0.000	115945	5.366	-0.001	215432	18.7534	19.8820	5.8	beta-BHC A B
5.010	-0.001	276278	5.652	-0.001	406417	21.6376	21.1988	2.0	delta-BHC A B
4.754	-0.001	281964	5.281	-0.001	447366	21.5983	20.6109	4.7	gamma-BHC (Lindane) A B
5.200	-0.001	278881	5.712	-0.001	405290	21.6617	20.5155	5.4	Heptachlor A B
5.476	-0.001	329807	6.027	-0.001	515077	21.5381	21.1185	2.0	Aldrin A B
6.028	-0.001	286008	6.566	-0.001	405594	20.8564	19.9505	4.4	Heptachlor epoxide b A B
6.384	0.000	455048	6.941	-0.001	397007	21.0653	20.0968	4.7	Endosulfan I A B
6.601	0.000	641787	7.197	-0.002	876942	43.7848	41.7478	4.8	Dieldrin A B
6.339	0.003	491054	7.024	0.001	992803	40.5188	42.8350	5.6	4,4'-DDE A B
6.811	0.000	533282	7.488	-0.002	683033	44.9880	42.7993	5.0	Endrin A B
7.015	0.000	534002	7.684	-0.002	712041	43.8077	41.8832	4.5	Endosulfan II A B
6.878	0.004	390594	7.566	0.001	596442	40.4773	41.0837	1.5	4,4'-DDD A B
7.795	-0.001	440270	8.257	-0.001	595793	43.1986	41.7142	3.5	Endosulfan sulfate A B
7.125	0.002	299363	7.858	0.000	390805	45.7615	43.1644	5.8	4,4'-DDT A B
7.562	0.001	783166	8.487	0.000	964416	210.9175	208.6184	1.1	Methoxychlor A B
8.056	-0.001	502181	8.779	-0.001	635167	39.6274	41.1757	3.8	Endrin ketone A B
7.395	-0.001	412807	7.997	-0.002	588760	42.5532	40.9518	3.8	Endrin aldehyde A B
6.142	-0.001	288889	6.745	-0.001	440728	21.0475	20.1506	4.4	gamma-Chlordane A B
6.261	0.000	297554	6.880	-0.002	444865	21.0272	20.2666	3.7	alpha-Chlordane A B
1.727	-0.001	528586	2.035	-0.002	822080	20.7154	20.8340	0.6	Hexachlorobutadiene A B
4.287	0.000	309513	4.790	-0.001	506105	21.1100	21.2422	0.6	Hexachlorobenzene A B
9.138	-0.001	1091107	10.431	-0.002	1339634	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	-0.001	512264	4.297	-0.001	1330096	43.2669	44.3213	2.4	Tetrachloro-m-xylene A B
8.980	0.000	765744	9.921	0.000	901520	41.5362	40.0355	3.7	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	108.2	110.8	108.2	85-115
Decachlorobiphenyl	103.8	100.1	100.1	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

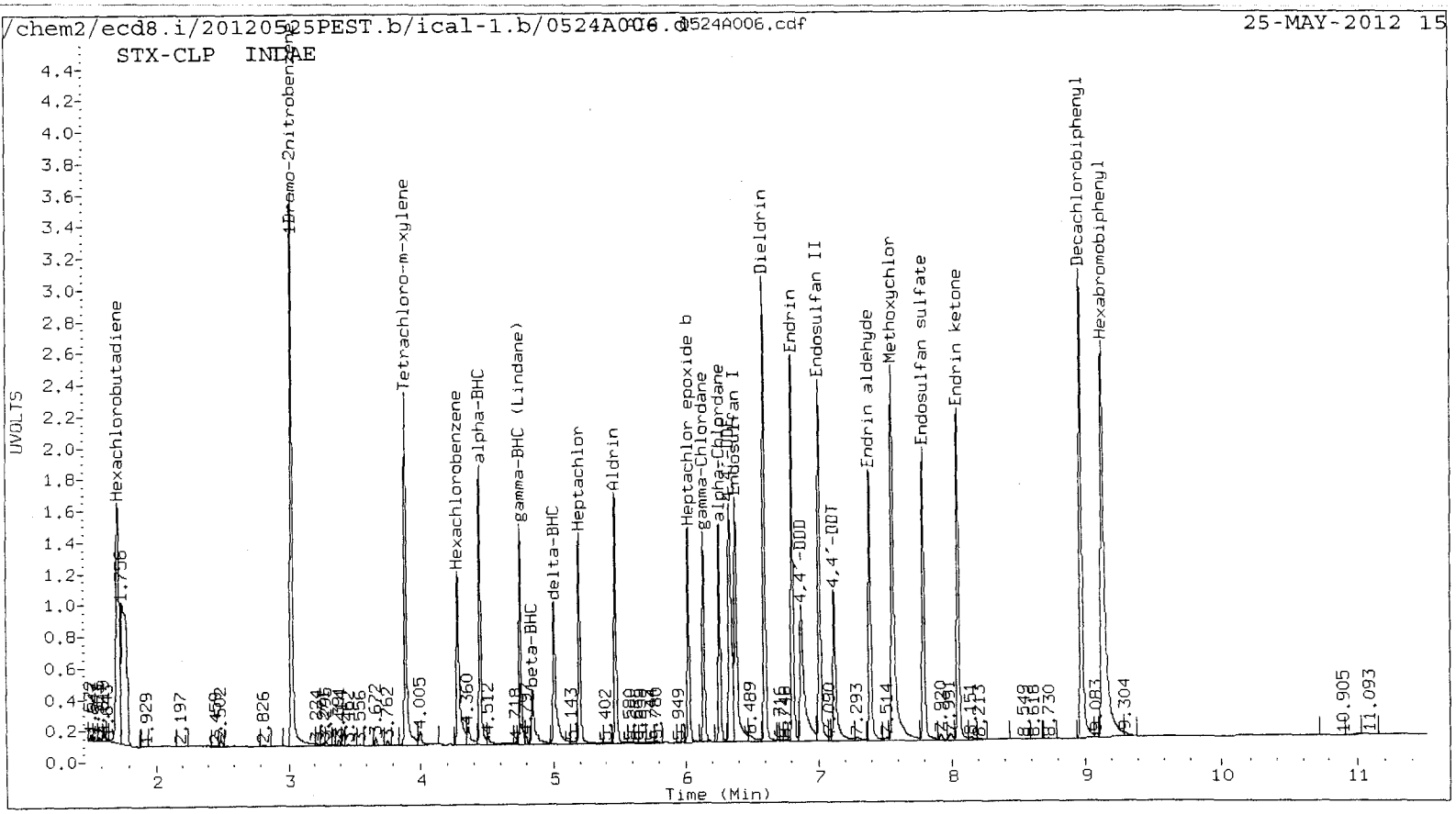
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	836406	0.0
Hexabromobiphenyl	1091107	1091107	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1248621	0.0
Hexabromobiphenyl	1339634	1339634	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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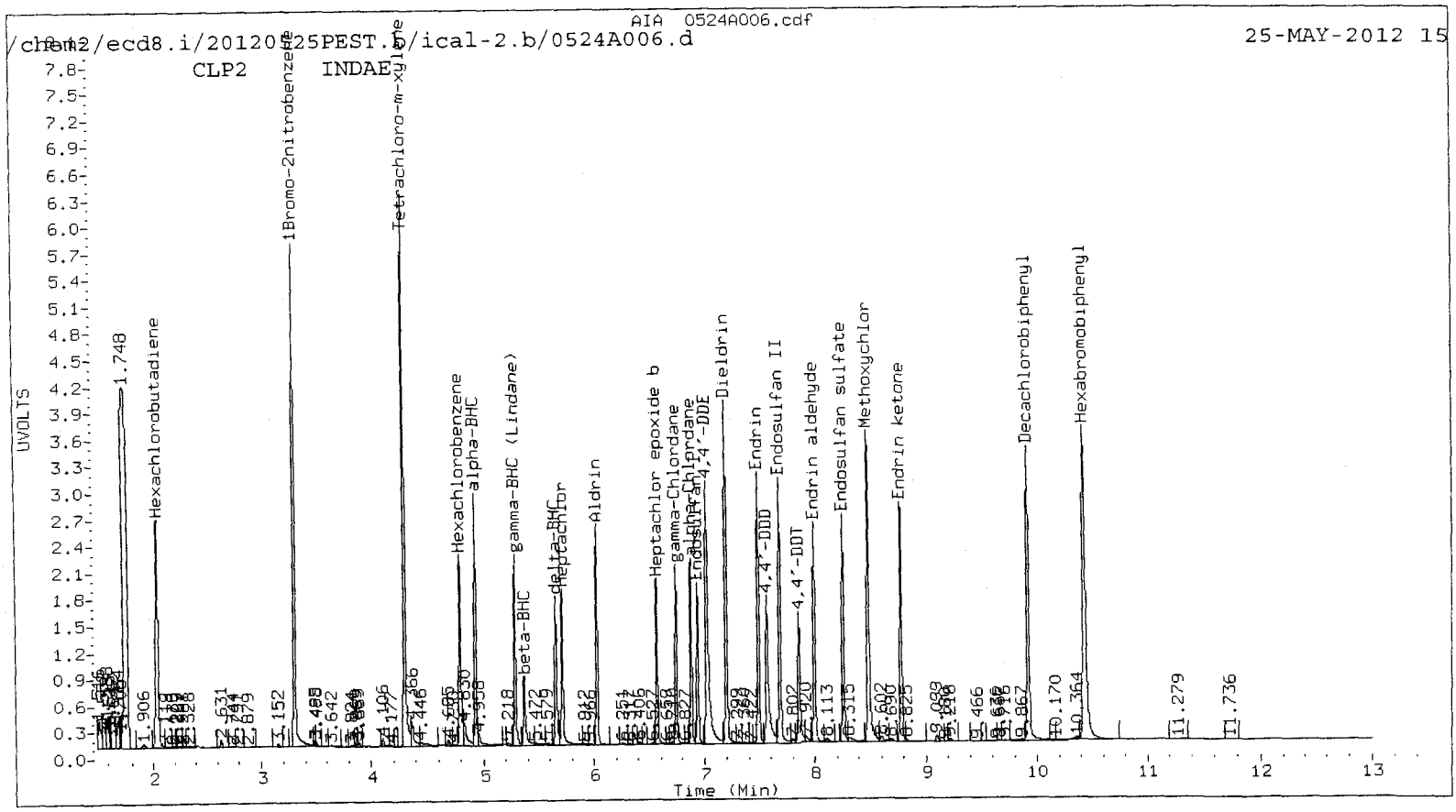
AIA 0524A006.cdf
25-MAY-2012 15
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A006.cdf
25-MAY-2012 15
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A007.d ARI ID: INDAA
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A007.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 15:31
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.029	-0.001	890226	3.295	-0.002	1353989	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.452	-0.001	18546	4.928	-0.001	35747	1.0849	1.2686	15.6	alpha-BHC A B
4.848	0.002	10159	5.367	0.001	16428	1.5438	1.3981	9.9	beta-BHC A B
5.012	0.001	15345	5.654	0.001	25848	1.1291	1.2433	9.6	delta-BHC A B
4.755	-0.001	16517	5.282	-0.001	31104	1.1887	1.3215	10.6	gamma-BHC (Lindane) A B
5.201	0.000	16233	5.713	0.000	28087	1.1847	1.3111	10.1	Heptachlor A B
5.476	-0.001	18752	6.028	-0.001	34410	1.1506	1.3010	12.3	Aldrin A B
6.028	0.000	18470	6.567	0.000	31102	1.2654	1.4108	10.9	Heptachlor epoxide b A B
6.385	0.001	28049	6.942	0.000	29125	1.2200	1.3596	10.8	Endosulfan I A BM
6.601	0.000	35765	7.199	0.000	60899	2.2925	2.6736	15.3	Dieldrin A B
6.346	0.010	20007	7.028	0.005	63863	1.6313	2.5410	43.6*	4,4'-DDE A B
6.812	0.000	31171	7.489	-0.001	48429	2.3531	2.7538	15.7	Endrin A B
7.016	0.001	34545	7.686	0.000	51685	2.5359	2.7589	8.4	Endosulfan II A B
6.888	0.014	32558	7.569	0.005	45588	3.0192	2.8496	5.8	4,4'-DDD A B
7.797	0.001	28483	8.259	0.000	42551	2.5008	2.7035	7.8	Endosulfan sulfate A B
7.129	0.006	14842	7.861	0.003	22067	2.0302	2.2118	8.6	4,4'-DDT A B
7.565	0.004	49662	8.489	0.002	64002	11.9682	12.5637	4.9	Methoxychlor A B
8.058	0.001	43327	8.781	0.000	46455	3.0594	2.7329	11.3	Endrin ketone A B
7.397	0.001	28386	7.999	0.000	46377	2.6184	2.9273	11.1	Endrin aldehyde A B
6.142	0.000	18158	6.746	0.000	32039	1.2430	1.3509	8.3	gamma-Chlordane A B
6.262	0.000	17960	6.881	0.000	31623	1.1924	1.3285	10.8	alpha-Chlordane A B
1.728	0.000	32671	2.035	-0.002	61757	1.2030	1.4433	18.2	Hexachlorobutadiene A B
4.288	0.000	21020	4.791	0.000	37487	1.3470	1.4510	7.4	Hexachlorobenzene A B
9.138	-0.001	1219330	10.432	-0.001	1476221	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	0.000	32160	4.298	-0.001	87172	2.5521	2.6787	4.8	Tetrachloro-m-xylene A B
8.981	0.001	59579	9.922	0.001	77275	2.8919	3.1142	7.4	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	6.4	6.7	6.4~	85-115
Decachlorobiphenyl	7.2	7.8	7.2~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

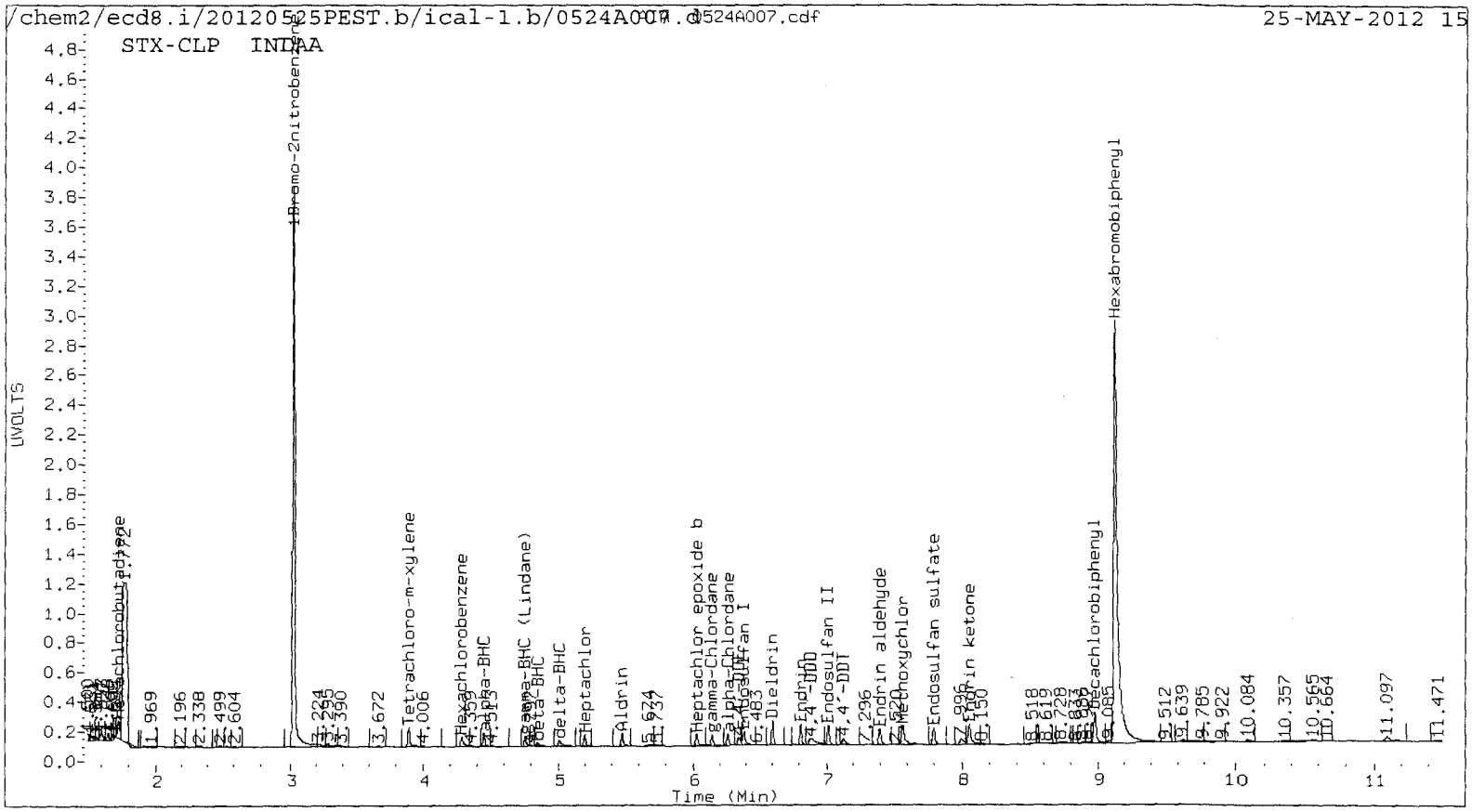
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	890226	6.4
Hexabromobiphenyl	1091107	1219330	11.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1353989	8.4
Hexabromobiphenyl	1339634	1476221	10.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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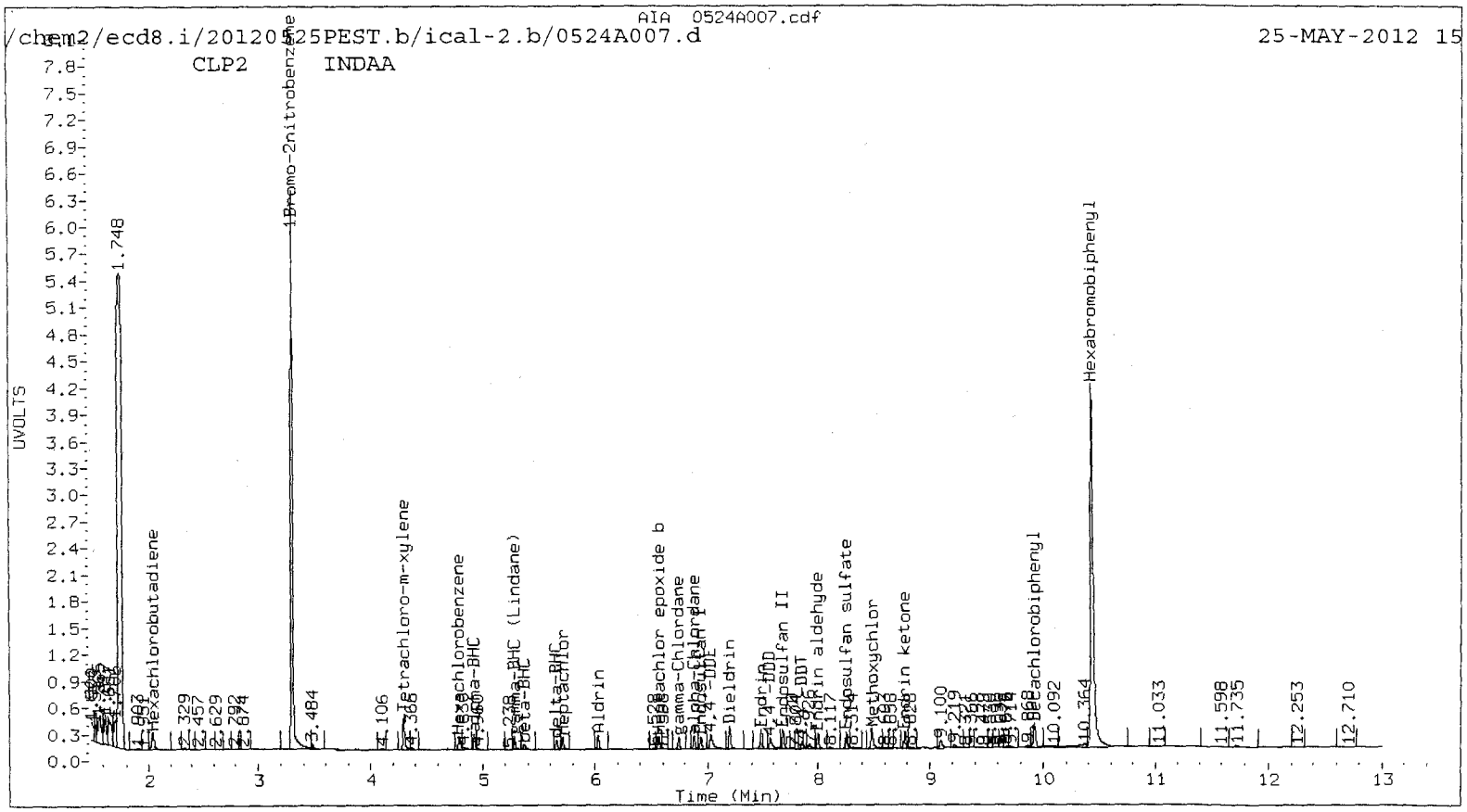
0524A007.cdf
25-MAY-2012 15
STX-CLP INDAA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Hexabromobiphenyl
Decachlorobiphenyl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/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A007.d
25-MAY-2012 15
CLP2 INDAA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Hexabromobiphenyl
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A008.d ARI ID: INDAB
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A008.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 15:50
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.029	-0.001	893818	3.295	-0.001	1375217	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.453	0.000	36494	4.929	0.000	67263	2.1262	2.3503	10.0	alpha-BHC A B
4.848	0.002	18164	5.368	0.002	31043	2.7492	2.6012	5.5	beta-BHC A B
5.013	0.002	29426	5.655	0.002	48559	2.1566	2.2997	6.4	delta-BHC A B
4.756	0.000	31469	5.283	0.000	57901	2.2557	2.4220	7.1	gamma-BHC (Lindane) A B
5.202	0.000	31307	5.714	0.000	55371	2.2755	2.5448	11.2	Heptachlor A B
5.477	0.000	36332	6.029	0.001	64389	2.2203	2.3970	7.7	Aldrin A B
6.029	0.000	34385	6.567	0.000	58367	2.3464	2.6067	10.5	Heptachlor epoxide b A B
6.385	0.000	63687	6.942	0.000	53736	2.7589	2.4698	11.1	Endosulfan I A B
6.602	0.000	72830	7.199	0.000	113884	4.6496	4.9225	5.7	Dieldrin A B
6.345	0.009	39965	7.028	0.005	119294	3.2392	4.6732	36.2	4,4'-DDE A B
6.812	0.000	60279	7.490	0.000	88961	4.4883	4.9469	9.7	Endrin A B
7.017	0.001	65440	7.686	0.000	94635	4.7383	4.9400	4.2	Endosulfan II A B
6.885	0.011	56762	7.569	0.004	82488	5.1918	5.0423	2.9	4,4'-DDD A B
7.796	0.000	54115	8.259	0.000	79060	4.6864	4.9123	4.7	Endosulfan sulfate A B
7.129	0.005	31159	7.861	0.003	42580	4.2039	4.1736	0.7	4,4'-DDT A B
7.565	0.004	95874	8.489	0.002	124453	22.7893	23.8909	4.7	Methoxychlor A B
8.057	0.000	74349	8.780	0.000	86865	5.1782	4.9973	3.6	Endrin ketone A B
7.397	0.001	52835	7.999	0.000	83086	4.8071	5.1286	6.5	Endrin aldehyde A B
6.143	0.001	34151	6.746	0.000	59635	2.3283	2.4756	6.1	gamma-Chlordane A B
6.262	0.001	34442	6.882	0.000	58289	2.2776	2.4110	5.7	alpha-Chlordane A B
1.728	0.000	62240	2.037	-0.001	110824	2.2825	2.5501	11.1	Hexachlorobutadiene A B
4.288	0.001	38400	4.792	0.001	66896	2.4508	2.5493	3.9	Hexachlorobenzene A B
9.137	-0.001	1236219	10.433	-0.001	1509551	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.897	0.000	59968	4.298	0.000	163675	4.7397	4.9519	4.4	Tetrachloro-m-xylene A B
8.981	0.001	104566	9.922	0.001	135305	5.0062	5.3324	6.3	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	11.8	12.4	11.8~	85-115
Decachlorobiphenyl	12.5	13.3	12.5~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

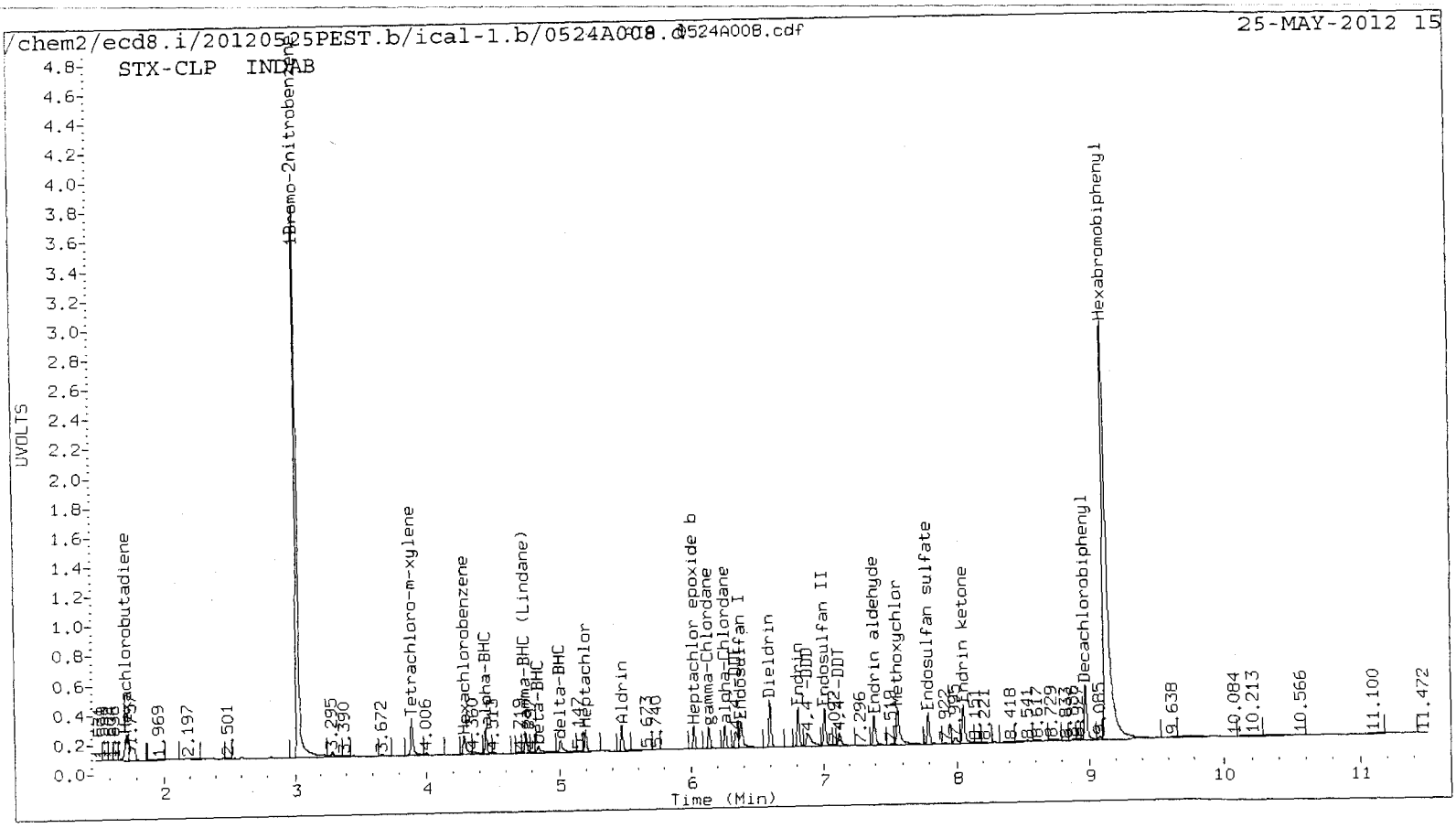
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	893818	6.9
Hexabromobiphenyl	1091107	1236219	13.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1375217	10.1
Hexabromobiphenyl	1339634	1509551	12.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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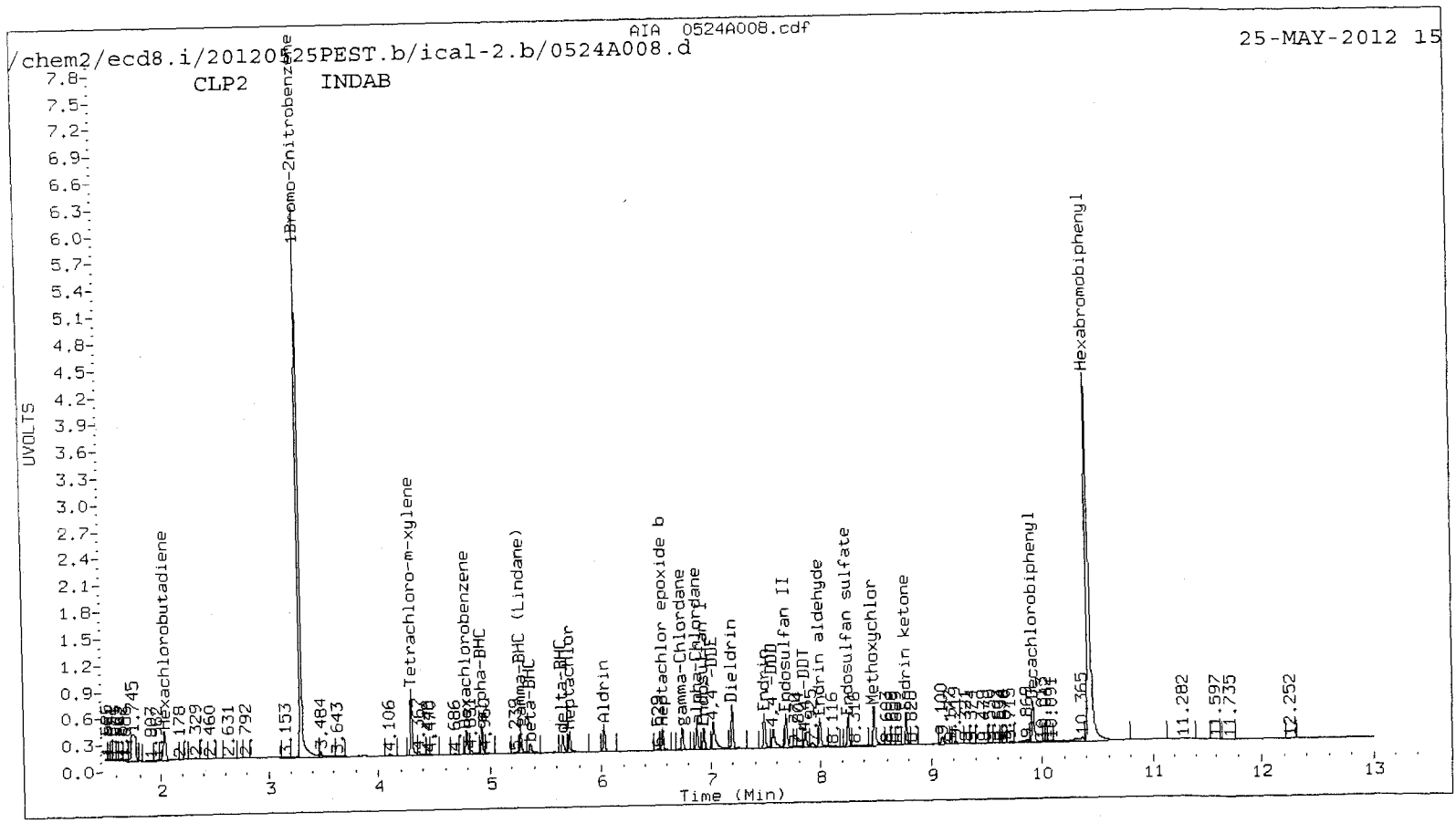
25-MAY-2012 15
STX-CLP INDAB
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDE
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 15
CLP2 INDAB
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDE
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A009.d ARI ID: INDAC
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A009.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Injection Date: 25-MAY-2012 16:09
Compound Sublist: INDA
Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul
Matrix: SOIL
Operator: ar
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.029	-0.001	874235	3.295	-0.001	1357862	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.453	0.000	74095	4.929	0.000	133743	4.4137	4.7329	7.0	alpha-BHC A B
4.848	0.002	28526	5.368	0.001	58837	4.4143	4.9932	12.3	beta-BHC A B
5.012	0.001	56766	5.654	0.001	98429	4.2534	4.7210	10.4	delta-BHC A B
4.755	0.000	60018	5.283	0.000	112743	4.3984	4.7764	8.2	gamma-BHC (Lindane) A B
5.201	0.000	60767	5.713	0.000	102797	4.5158	4.7849	5.8	Heptachlor A B
5.477	0.000	72338	6.029	0.000	126602	4.5196	4.7732	5.5	Aldrin A B
6.029	0.001	66721	6.567	0.000	109040	4.6549	4.9320	5.8	Heptachlor epoxide b A B
6.385	0.001	114912	6.942	0.000	111785	5.0894	5.2034	2.2	Endosulfan I A B
6.602	0.001	144179	7.199	0.000	224213	9.4107	9.8152	4.2	Dieldrin A B
6.344	0.008	91795	7.027	0.004	250542	7.5667	9.9401	27.1	4,4'-DDE A B
6.813	0.001	118793	7.490	0.000	174661	9.0299	9.7896	8.1	Endrin A B
7.017	0.002	123852	7.686	0.000	187389	9.1551	9.8595	7.4	Endosulfan II A B
6.882	0.008	95856	7.569	0.004	161536	8.9507	9.9528	10.6	4,4'-DDD A B
7.797	0.001	105098	8.259	0.001	154982	9.2918	9.7061	4.4	Endosulfan sulfate A B
7.128	0.005	59091	7.861	0.002	92206	8.1391	9.1096	11.3	4,4'-DDT A B
7.564	0.004	190801	8.489	0.002	254268	46.3013	49.1988	6.1	Methoxychlor A B
8.058	0.001	133031	8.781	0.000	168184	9.4589	9.7524	3.1	Endrin ketone A B
7.397	0.001	99888	7.999	0.000	157966	9.2779	9.8282	5.8	Endrin aldehyde A B
6.143	0.000	65755	6.746	0.000	114104	4.5834	4.7972	4.6	gamma-Chlordane A B
6.263	0.001	73500	6.882	0.000	123863	4.9693	5.1888	4.3	alpha-Chlordane A B
1.728	0.000	148749	2.037	-0.001	208118	5.5773	4.8500	13.9	Hexachlorobutadiene A B
4.288	0.000	72151	4.791	0.000	124617	4.7080	4.8096	2.1	Hexachlorobenzene A B
9.137	-0.001	1210916	10.433	0.000	1497654	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	0.000	115313	4.298	-0.001	315740	9.3181	9.6746	3.8	Tetrachloro-m-xylene A B
8.981	0.001	191947	9.922	0.001	253469	9.3816	10.0686	7.1	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	23.3	24.2	23.3~	85-115
Decachlorobiphenyl	23.5	25.2	23.5~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

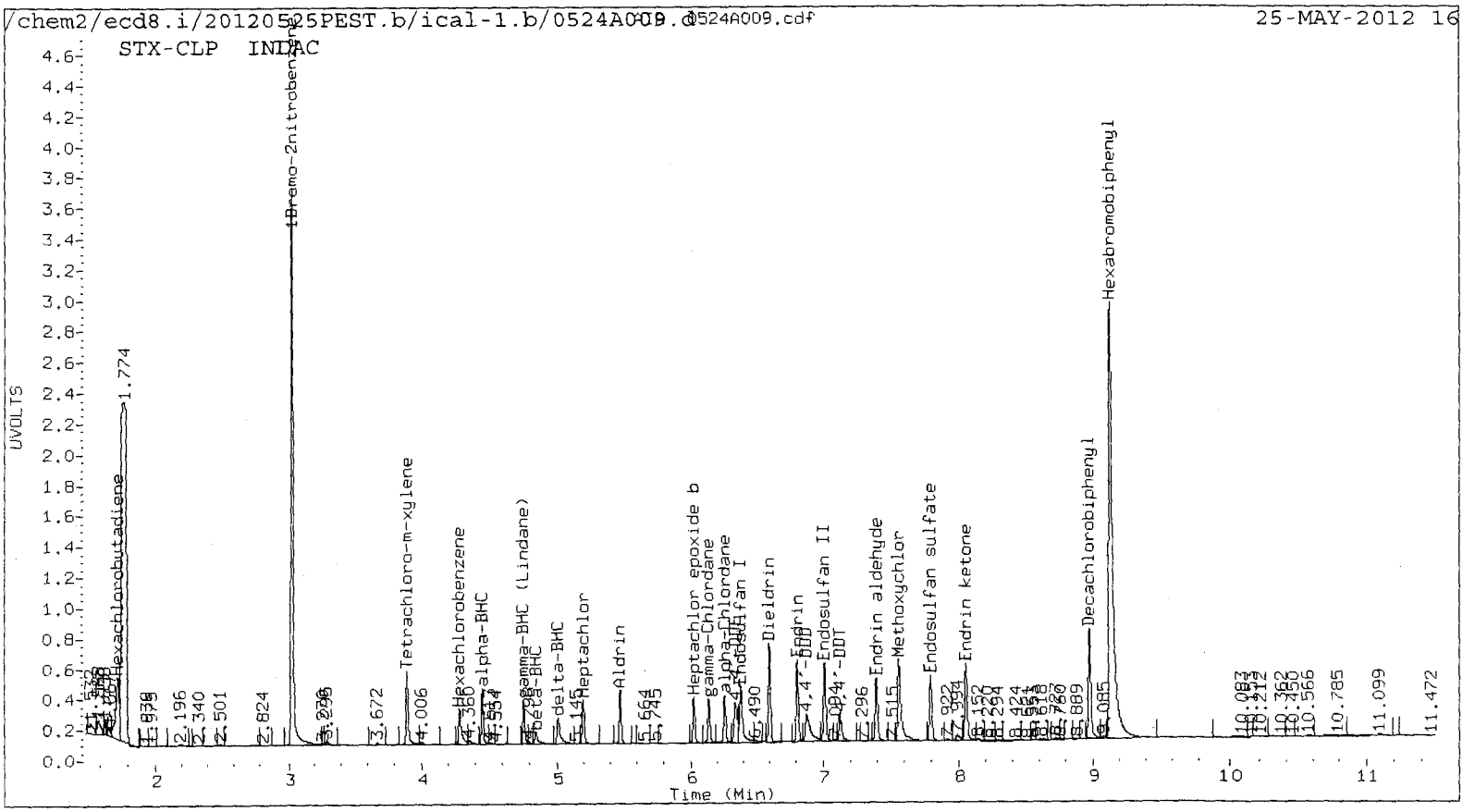
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	874235	4.5
Hexabromobiphenyl	1091107	1210916	11.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1357862	8.7
Hexabromobiphenyl	1339634	1497654	11.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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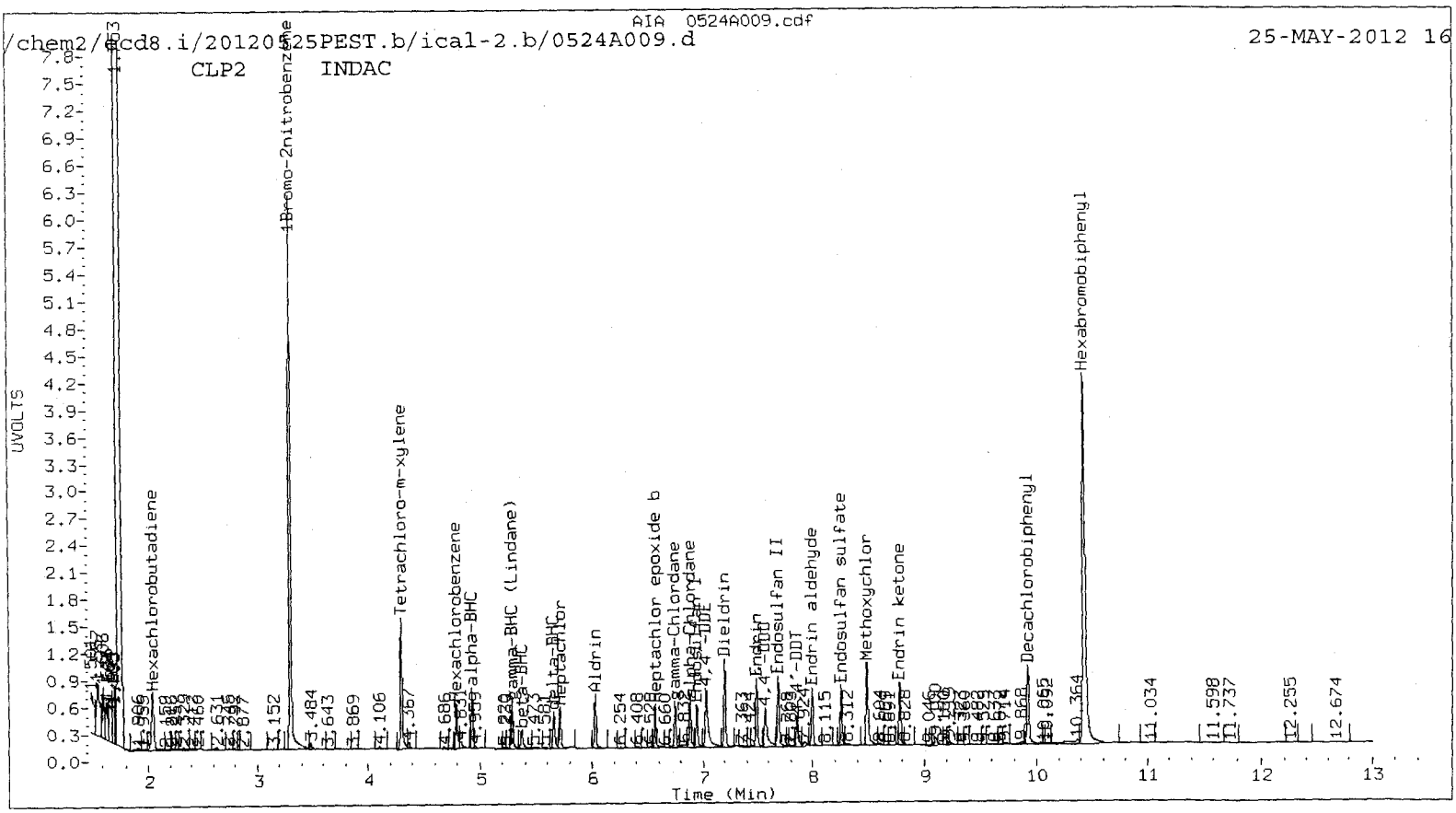
UVOLTS
Time (Min)
Hexachlorobutadiene
1.774
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 16
CLP2 INDAC
UVOLTS
Time (Min)
Hexachlorobutadiene
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A010.d ARI ID: INDAD
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A010.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 16:28
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.029	-0.001	860198	3.295	-0.001	1348234	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.452	-0.001	160119	4.928	-0.001	272779	9.6936	9.7220	0.3	alpha-BHC A B
4.847	0.001	61589	5.367	0.001	112686	9.6861	9.6313	0.6	beta-BHC A B
5.011	0.000	122260	5.654	0.001	194025	9.3104	9.3727	0.7	delta-BHC A B
4.755	-0.001	126812	5.282	0.000	225296	9.4451	9.6129	1.8	gamma-BHC (Lindane) A B
5.200	-0.001	128946	5.713	0.000	211844	9.7387	9.9311	2.0	Heptachlor A B
5.476	-0.001	152346	6.028	0.000	255462	9.6738	9.7002	0.3	Aldrin A B
6.028	0.000	136676	6.567	0.000	209641	9.6911	9.5500	1.5	Heptachlor epoxide b A B
6.385	0.000	228943	6.942	0.000	202456	10.3052	9.4913	8.2	Endosulfan I A B
6.601	0.000	302602	7.198	-0.001	443723	20.0735	19.5632	2.6	Dieldrin A B
6.343	0.007	186729	7.026	0.003	473035	15.4896	18.9014	19.8	4,4'-DDE A B
6.812	0.000	245959	7.489	-0.001	341328	19.0555	19.5669	2.6	Endrin A B
7.016	0.001	254245	7.686	-0.001	370002	19.1548	19.9111	3.9	Endosulfan II A B
6.881	0.007	186349	7.568	0.004	306819	17.7350	19.3348	8.6	4,4'-DDD A B
7.796	0.000	206145	8.258	0.000	304123	18.5755	19.4802	4.8	Endosulfan sulfate A B
7.127	0.004	133354	7.860	0.002	189570	18.7209	19.1554	2.3	4,4'-DDT A B
7.564	0.003	379932	8.489	0.001	501245	93.9686	99.1959	5.4	Methoxychlor A B
8.057	0.000	250382	8.780	0.000	332240	18.1450	19.7043	8.2	Endrin ketone A B
7.396	0.001	199885	7.998	0.000	304041	18.9227	19.3474	2.2	Endrin aldehyde A B
6.142	0.000	135188	6.745	0.000	227692	9.5769	9.6412	0.7	gamma-Chlordane A B
6.262	0.000	139821	6.881	0.000	223363	9.6074	9.4238	1.9	alpha-Chlordane A B
1.727	-0.001	242805	2.036	-0.001	398207	9.2524	9.3461	1.0	Hexachlorobutadiene A BM
4.287	0.000	143298	4.791	0.000	239956	9.5032	9.3273	1.9	Hexachlorobenzene A B
9.138	0.000	1188090	10.433	-0.001	1464302	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	-0.001	233425	4.298	-0.001	626276	19.1703	19.3268	0.8	Tetrachloro-m-xylene A B
8.980	0.000	369918	9.922	0.001	460858	18.4275	18.7237	1.6	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	47.9	48.3	47.9~	85-115
Decachlorobiphenyl	46.1	46.8	46.1~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

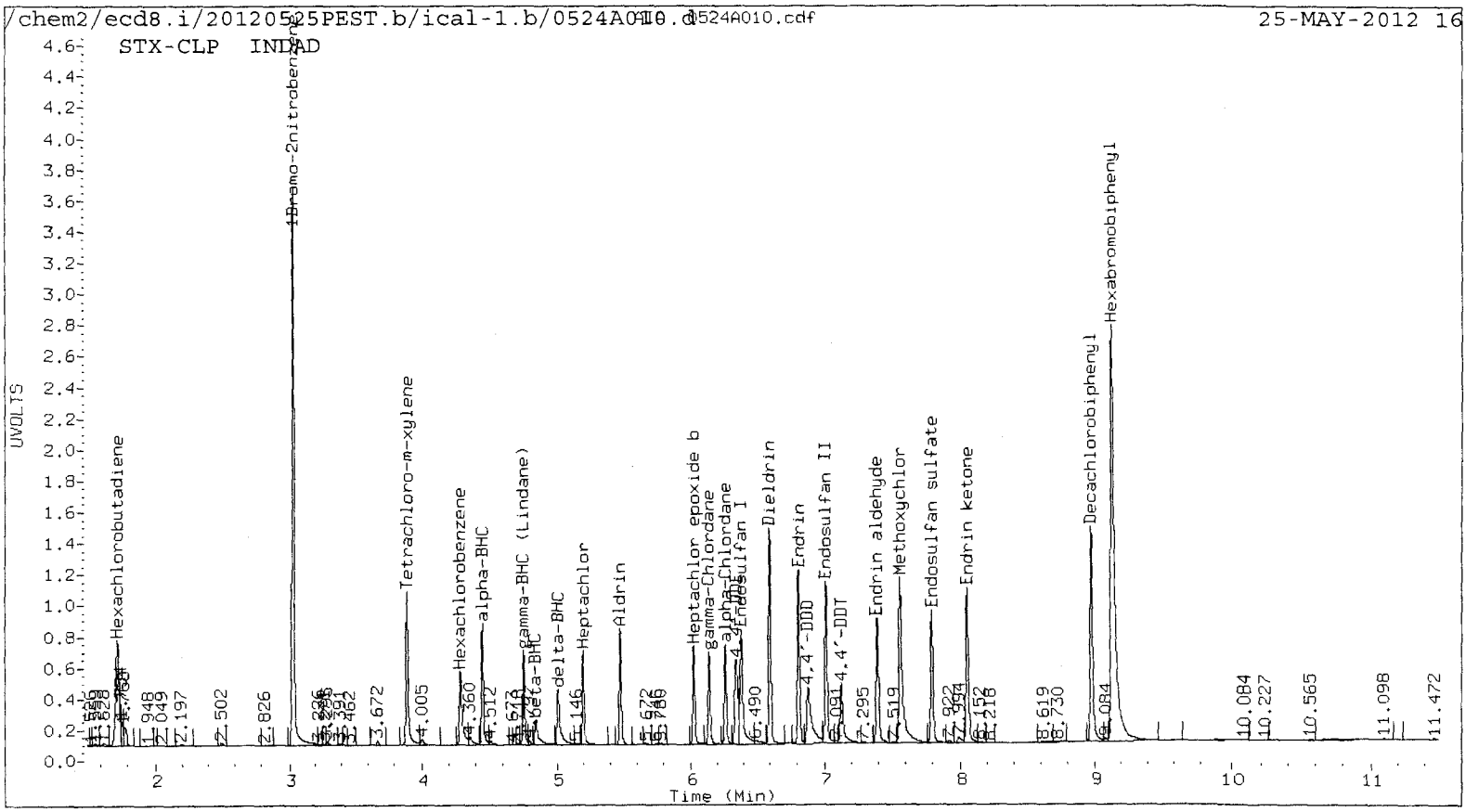
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	860198	2.8
Hexabromobiphenyl	1091107	1188090	8.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1348234	8.0
Hexabromobiphenyl	1339634	1464302	9.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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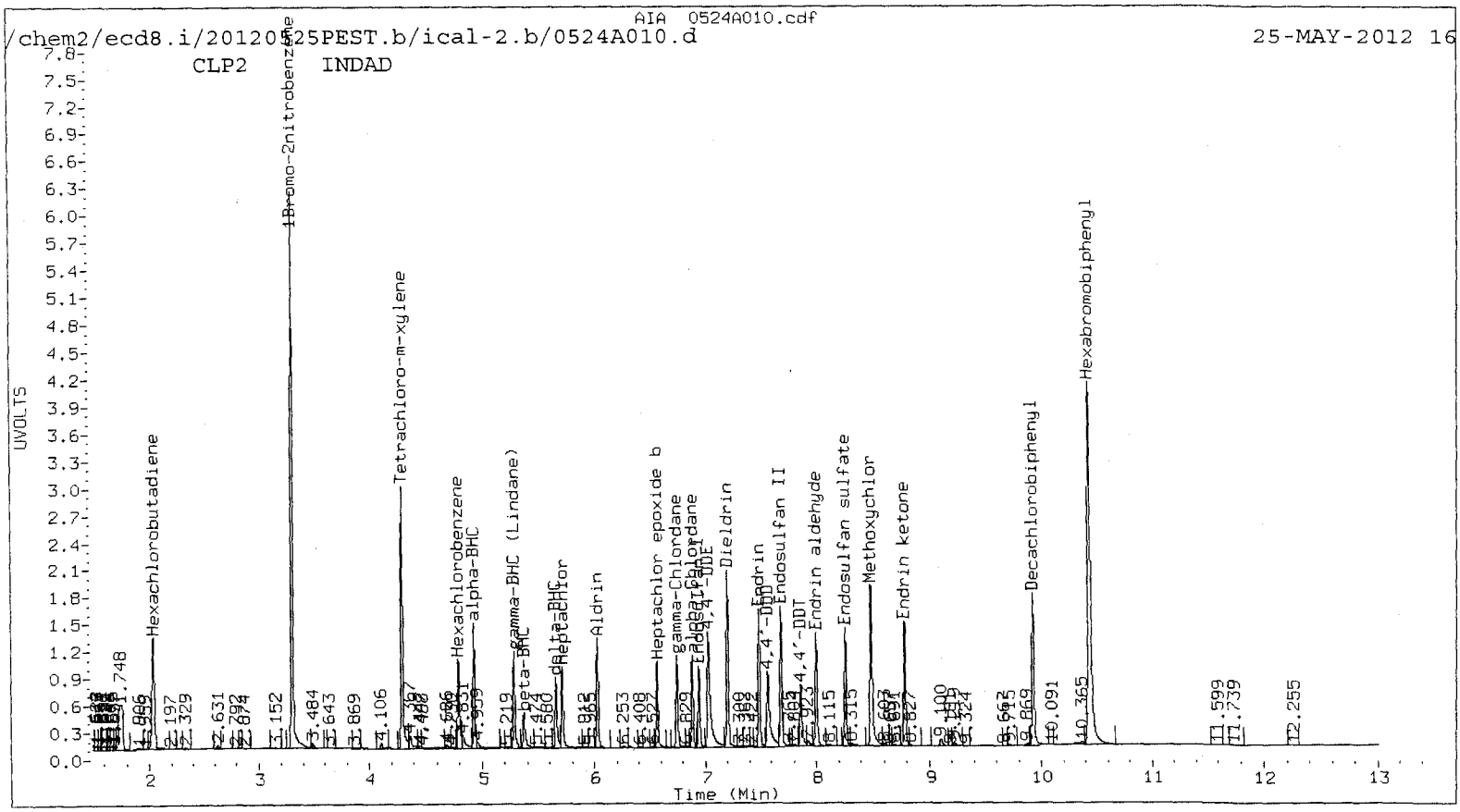
25-MAY-2012 16
STX-CLP INDAD
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 16
CLP2 INDAD
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A011.d ARI ID: INDAF
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A011.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 16:47
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.029	-0.001	893087	3.296	-0.001	1357917	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.453	0.000	771385	4.929	0.000	1164761	44.9799	41.2168	8.7	alpha-BHC A B
4.846	0.000	244908	5.367	0.001	446476	37.0984	37.8883	2.1	beta-BHC A B
5.011	0.001	612776	5.654	0.001	882569	44.9457	42.3298	6.0	delta-BHC A B
4.755	0.000	605193	5.283	0.000	955882	43.4153	40.4945	7.0	gamma-BHC (Lindane) A B
5.201	0.000	586829	5.714	0.000	857238	42.6884	39.9001	6.8	Heptachlor A B
5.477	0.000	714575	6.029	0.001	1076504	43.7037	40.5848	7.4	Aldrin A B
6.029	0.001	605557	6.568	0.001	844040	41.3561	38.1754	8.0	Heptachlor epoxide b A B
6.385	0.001	872271	6.943	0.000	835683	37.8168	38.8981	2.8	Endosulfan I A B
6.602	0.001	1303586	7.200	0.001	1799063	83.2906	78.7529	5.6	Dieldrin A B
6.339	0.003	1122077	7.025	0.002	2066932	81.3929	82.0010	0.7	4,4'-DDE A B
6.813	0.001	1104330	7.490	0.000	1398097	83.9237	76.0067	9.9	Endrin A B
7.016	0.001	1090311	7.686	0.000	1502885	80.5755	76.6974	4.9	Endosulfan II A B
6.877	0.003	800939	7.566	0.002	1255067	74.7706	75.0047	0.3	4,4'-DDD A B
7.796	0.000	922879	8.259	0.000	1280823	81.5719	77.8032	4.7	Endosulfan sulfate A B
7.125	0.002	670592	7.859	0.001	942700	92.3434	90.3357	2.2	4,4'-DDT A B
7.563	0.002	1724904	8.489	0.001	2132946	418.4746	400.3023	4.4	Methoxychlor A B
8.057	0.000	1039726	8.781	0.000	1368926	73.9094	76.9932	4.1	Endrin ketone A B
7.397	0.001	856694	7.998	0.000	1223726	79.5529	73.8481	7.4	Endrin aldehyde A B
6.143	0.001	610381	6.747	0.001	948695	41.6479	39.8842	4.3	gamma-Chlordane A B
6.263	0.001	623544	6.882	0.001	943909	41.2673	39.5402	4.3	alpha-Chlordane A B
1.728	0.000	1050737	2.036	-0.001	1615344	38.5652	37.6426	2.4	Hexachlorobutadiene A B
4.287	0.000	607655	4.791	0.000	969201	38.8142	37.4050	3.7	Hexachlorobenzene A B
9.138	0.000	1211217	10.433	0.000	1544067	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	0.000	1021192	4.299	0.000	2518141	80.7779	77.1556	4.6	Tetrachloro-m-xylene A B
8.981	0.001	1548060	9.922	0.001	1831237	75.6442	70.5561	7.0	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	201.9	192.9	192.9~	85-115
Decachlorobiphenyl	189.1	176.4	176.4~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

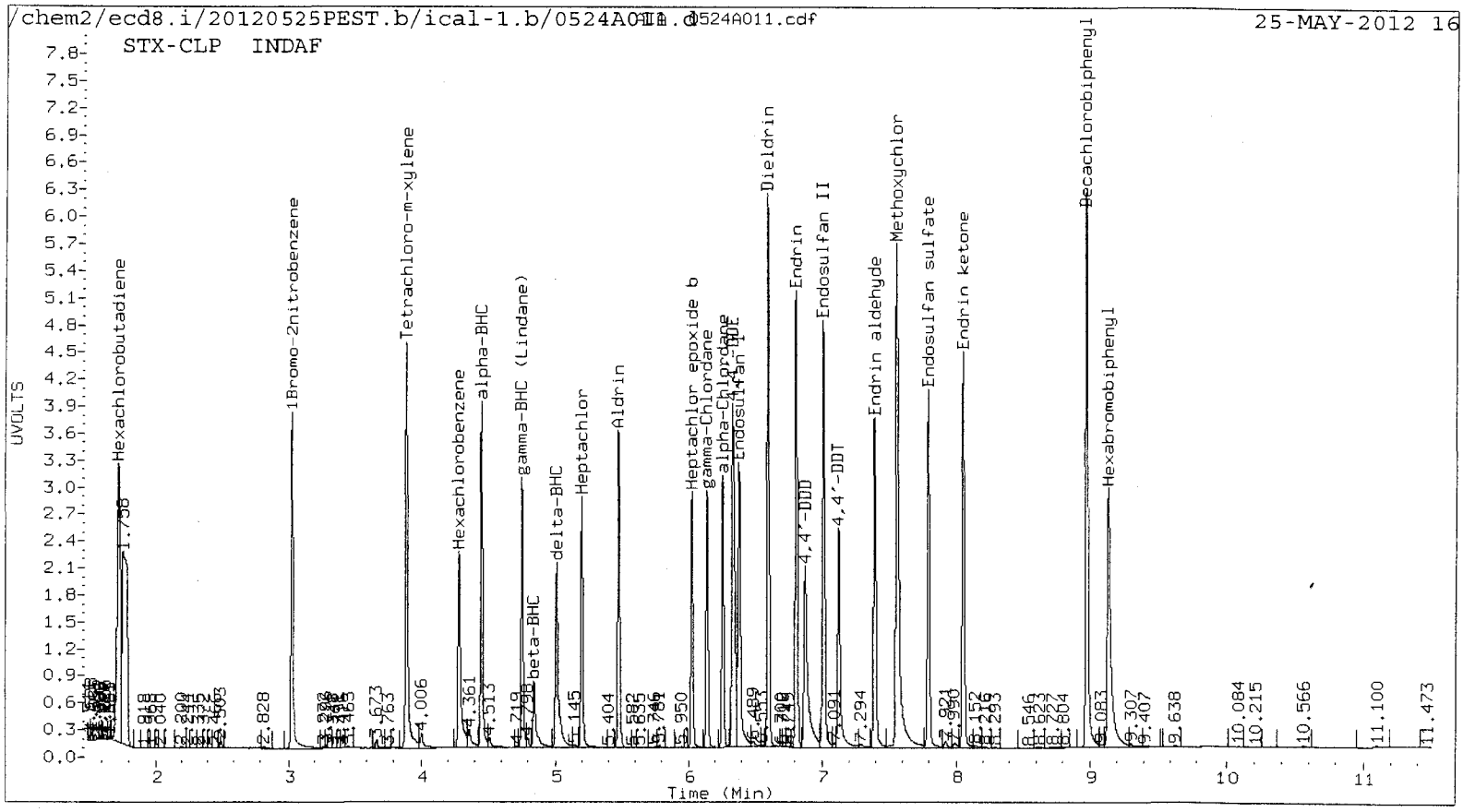
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	893087	6.8
Hexabromobiphenyl	1091107	1211217	11.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1357917	8.8
Hexabromobiphenyl	1339634	1544067	15.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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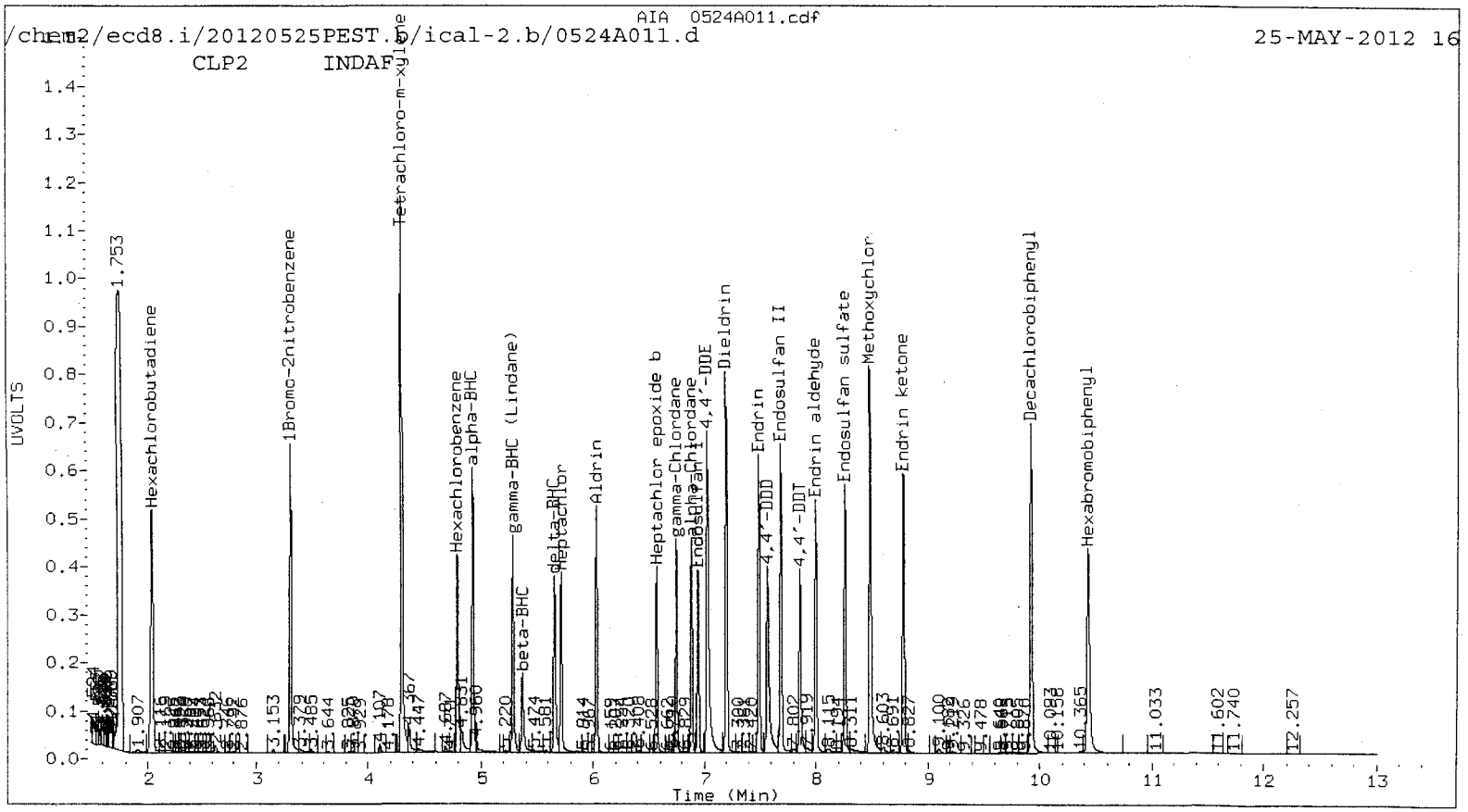
AIA 0524A011.cdf
25-MAY-2012 16
STX-CLP INDAF
UVOLTS
Time (Min)
Hexachlorobutadiene
1.758
1Bromo-2nitrobenzene
2.828
Tetrachloro-m-xylene
4.006
Hexachlorobenzene
4.361
alpha-BHC
4.513
gamma-BHC (Lindane)
4.719
beta-BHC
4.798
delta-BHC
5.145
Heptachlor
5.404
Aldrin
5.882
Heptachlor epoxide b
5.950
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
6.489
Dieldrin
6.708
Endrin
7.091
4,4'-DDD
7.294
Endosulfan II
7.921
4,4'-DDT
7.990
Endrin aldehyde
8.152
Methoxychlor
8.293
Endosulfan sulfate
8.546
8.604
Endrin ketone
9.083
Decachlorobiphenyl
9.307
9.407
Hexabromobiphenyl
9.638
10.084
10.215
10.566
11.100
11.473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25-MAY-2012 16
CLP2 INDAF
UVOLTS
Time (Min)
1.753
Hexachlorobutadiene
1.907
1Bromo-2nitrobenzene
3.153
Tetrachloro-m-xylene
4.467
Hexachlorobenzene
4.607
alpha-BHC
4.831
gamma-BHC (Lindane)
5.220
beta-BHC
5.474
delta-BHC
5.581
Heptachlor
5.844
Aldrin
6.153
Heptachlor epoxide b
6.528
gamma-Chlordane
6.662
alpha-Chlordane
6.829
Endosulfan I
4,4'-DDE
7.107
Dieldrin
7.380
Endrin
7.802
Endosulfan II
7.919
4,4'-DDD
8.115
4,4'-DDT
8.194
Endrin aldehyde
8.311
Endosulfan sulfate
8.603
Methoxychlor
8.691
Endrin ketone
8.827
Decachlorobiphenyl
10.158
10.365
Hexabromobiphenyl
11.033
11.602
11.740
12.257

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A012.d ARI ID: IDNAG
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A012.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Injection Date: 25-MAY-2012 17:06
Compound Sublist: INDA
Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul
Matrix: SOIL
Operator: ar
Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.029	-0.001	878201	3.296	-0.001	1350929	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.453	0.000	1620398	4.929	0.000	2311478	96.0879	82.2182	15.6	alpha-BHC A B
4.846	0.000	492660	5.366	0.000	879673	75.8926	75.0358	1.1	beta-BHC A B
5.011	0.000	1337229	5.653	0.000	1801798	99.7453	86.8648	13.8	delta-BHC A B
4.755	0.000	1269047	5.283	0.000	1905960	92.5821	81.1609	13.1	gamma-BHC (Lindane) A B
5.201	0.000	1205503	5.713	0.000	1641236	89.1797	76.7864	14.9	Heptachlor A B
5.477	0.000	1479994	6.028	0.000	2122025	92.0513	80.4153	13.5	Aldrin A B
6.028	0.000	1235125	6.567	0.000	1645929	85.7818	74.8294	13.6	Heptachlor epoxide b A B
6.385	0.000	1584803	6.942	0.000	1636879	69.8729	76.5851	9.2	Endosulfan I A B
6.601	0.000	2641180	7.199	0.000	3484640	171.6145	153.3271	11.3	Dieldrin A B
6.336	0.000	2596728	7.023	0.000	4068405	159.7559	162.2400	1.5	4,4'-DDE A B
6.812	0.000	2259416	7.490	0.000	2716376	181.0557	149.0759	19.4	Endrin A B
7.015	0.000	2181207	7.686	0.000	2860846	169.9729	147.3846	14.2	Endosulfan II A B
6.874	0.000	1666967	7.564	0.000	2453269	164.0927	148.0027	10.3	4,4'-DDD A B
7.796	0.000	1896653	8.258	0.000	2546892	176.7722	156.1787	12.4	Endosulfan sulfate A B
7.123	0.000	1431195	7.858	0.000	1990621	207.8149	192.5650	7.6	4,4'-DDT A B
7.561	0.000	3641575	8.487	0.000	4304884	931.5881	815.5914	13.3	Methoxychlor A B
8.057	0.000	2076680	8.780	0.000	2691574	155.6614	152.8206	1.8	Endrin ketone A B
7.396	0.000	1730531	7.999	0.000	2380194	169.4495	145.0008	15.6	Endrin aldehyde A B
6.142	0.000	1275557	6.746	0.000	1894777	88.5099	80.0705	10.0	gamma-Chlordane A B
6.262	0.000	1304395	6.882	0.000	1882452	87.7905	79.2636	10.2	alpha-Chlordane A B
1.728	0.000	2323402	2.037	0.000	3203415	86.7213	75.0359	14.4	Hexachlorobutadiene A BM
4.287	0.000	1261511	4.791	0.000	1912998	81.9453	74.2114	9.9	Hexachlorobenzene A B
9.137	-0.001	1148660	10.432	-0.002	1529548	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.897	0.000	2087470	4.299	0.000	4841084	167.9211	149.0976	11.9	Tetrachloro-m-xylene A
8.980	0.000	3100686	9.921	0.000	3545811	159.7630	137.9141	14.7	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	419.8	372.7	372.7~	85-115
Decachlorobiphenyl	399.4	344.8	344.8~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

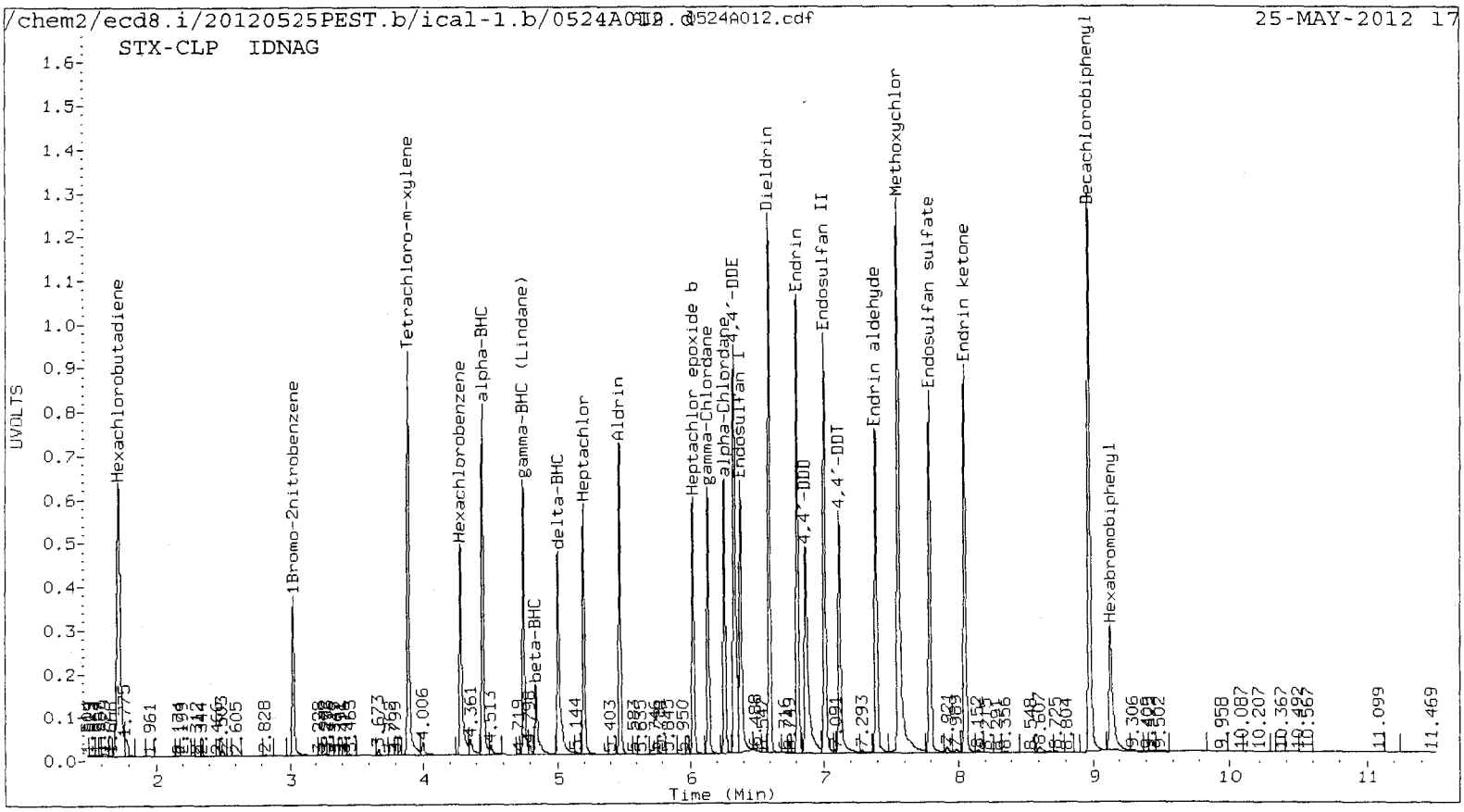
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	878201	5.0
Hexabromobiphenyl	1091107	1148660	5.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1350929	8.2
Hexabromobiphenyl	1339634	1529548	14.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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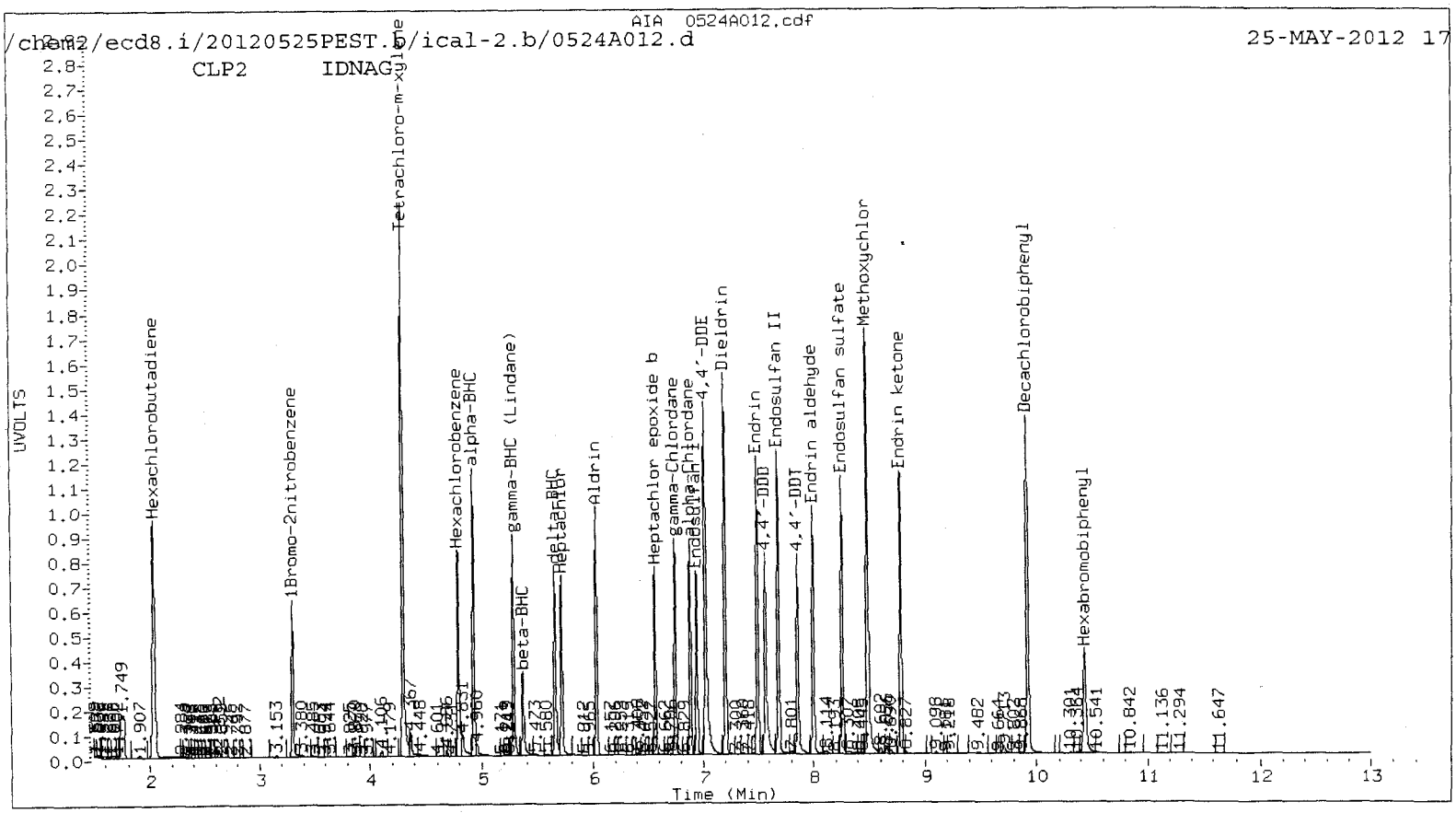
25-MAY-2012 17
STX-CLP IDNAG
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A012.cdf
25-MAY-2012 17
CLP2 IDNAG
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endosulfan II
Endrin
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A015.d ARI ID: TOXAPH 2500
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A015.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 18:02
Compound Sublist: TOXAPH Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.028	-0.002	916675	3.294	-0.002	1457356	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
9.139	0.000	1213703	10.432	-0.001	1606848	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.895	-0.002	428478	4.297	-0.002	1133580	33.0211	32.3629	2.0	Tetrachloro-m-xylene A B
8.980	-0.001	725410	9.921	0.000	873970	35.3737	32.3577	8.9	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	82.6	80.9	80.9	0-110
Decachlorobiphenyl	88.4	80.9	80.9	0-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	916675	9.6
Hexabromobiphenyl	1091107	1213703	11.2

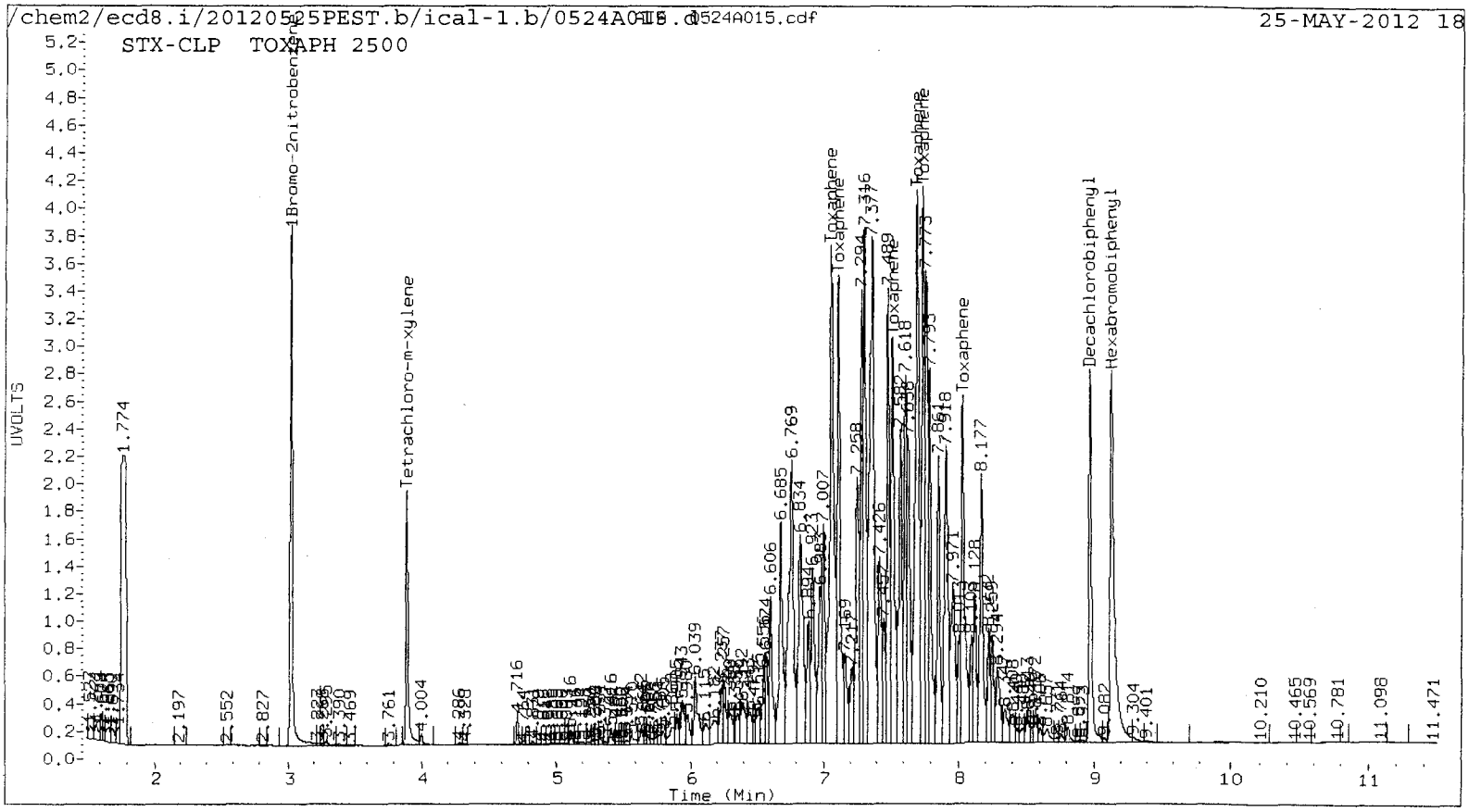
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1457356	16.7
Hexabromobiphenyl	1339634	1606848	19.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.068	0.000	1523624	2500.000	1	7.759	0.000	2365245	2500.000
Toxaphene	2	7.119	0.000	1062718	2500.000	2	8.002	0.000	2609268	2500.000
Toxaphene	3	7.523	0.000	962854	2500.000	3	8.254	0.000	1121826	2500.000
Toxaphene	4	7.705	0.000	1602672	2500.000	4	8.496	0.000	2196199	2500.000
Toxaphene	5	7.750	0.000	1250930	2500.000	5	9.040	0.000	846765	2500.000
Toxaphene	6	8.038	0.000	906765	2500.000	NS	---			----

Total STX-CLPAve (6 peaks): 2500.000 Total CLP2Ave (5 peaks): 2500.000 RPD = 0
Corrected Ave (6 peaks): 2500.000 Corrected Ave (5 peaks): 2500.000 RPD = 0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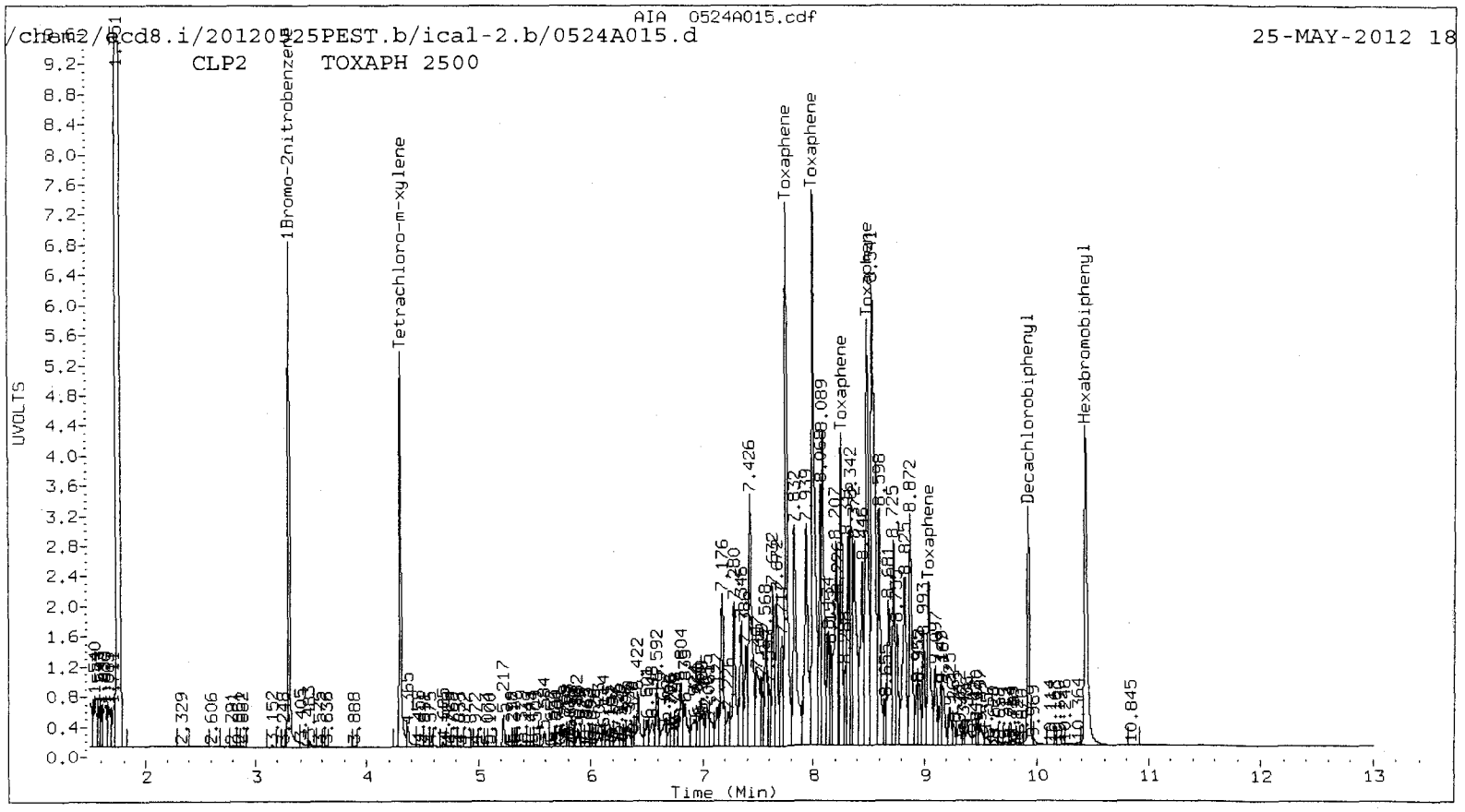
25-MAY-2012 18
STX-CLP TOXAPH 2500
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A015.cdf
25-MAY-2012 18
CLP2 TOXAPH 2500
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A016.d ARI ID: WNDE
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A016.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 18:21
Compound Sublist: WND Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.765	-0.003	3156	1.747	-0.004	763948	0.0000	0.0000	---	Hexachloroethane
3.028	-0.001	834385	3.295	-0.002	1356458	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
5.936	-0.002	469978	6.480	-0.002	701860	40.9186	40.2388	1.7	Oxychlordane A B
6.027	0.000	377046	6.735	-0.001	609285	41.5840	40.6526	2.3	2,4-DDE A B
6.247	-0.002	531042	6.829	-0.002	864245	40.8165	39.0167	4.5	trans-Nonachlor A B
6.492	0.001	261710	7.215	0.000	452031	40.4268	38.9356	3.8	2,4-DDD A B
6.717	-0.001	267104	7.501	-0.002	408690	41.0329	39.9304	2.7	2,4-DDT A B
6.842	-0.002	614069	7.555	-0.002	966388	41.3968	40.2609	2.8	cis-Nonachlor A B
7.707	-0.003	340229	8.758	-0.002	580025	38.6426	37.4656	3.1	Mirex A B
9.137	-0.002	1140256	10.431	-0.002	1506571	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	-0.001	392182	4.297	-0.001	1033712	33.2047	31.7069	4.6	Tetrachloro-m-xylene A B
8.979	-0.001	646500	9.921	0.000	815816	33.5565	32.2150	4.1	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	83.0	79.3	79.3	29-110
Decachlorobiphenyl	83.9	80.5	80.5	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

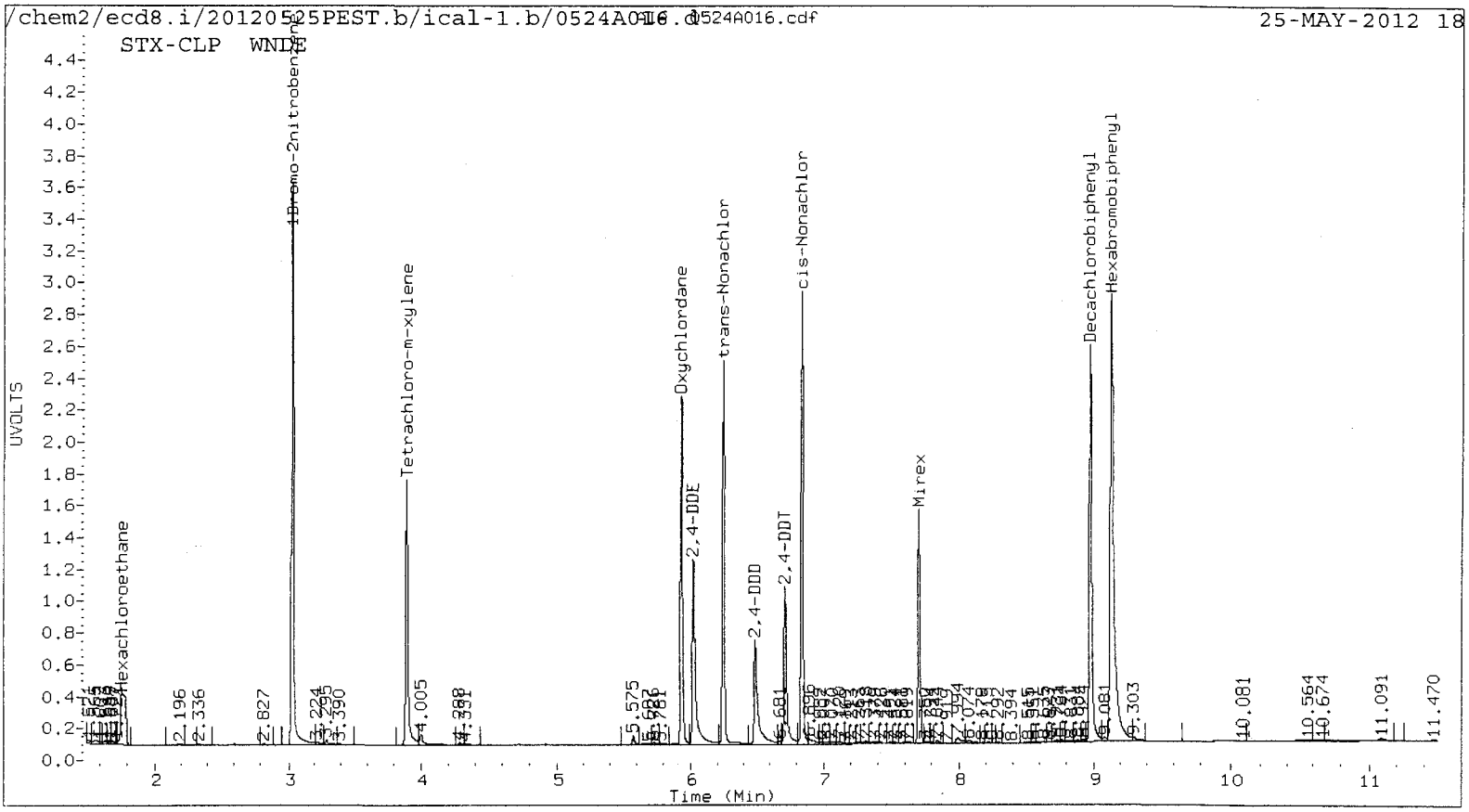
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	834385	-0.2
Hexabromobiphenyl	1091107	1140256	4.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1356458	8.6
Hexabromobiphenyl	1339634	1506571	12.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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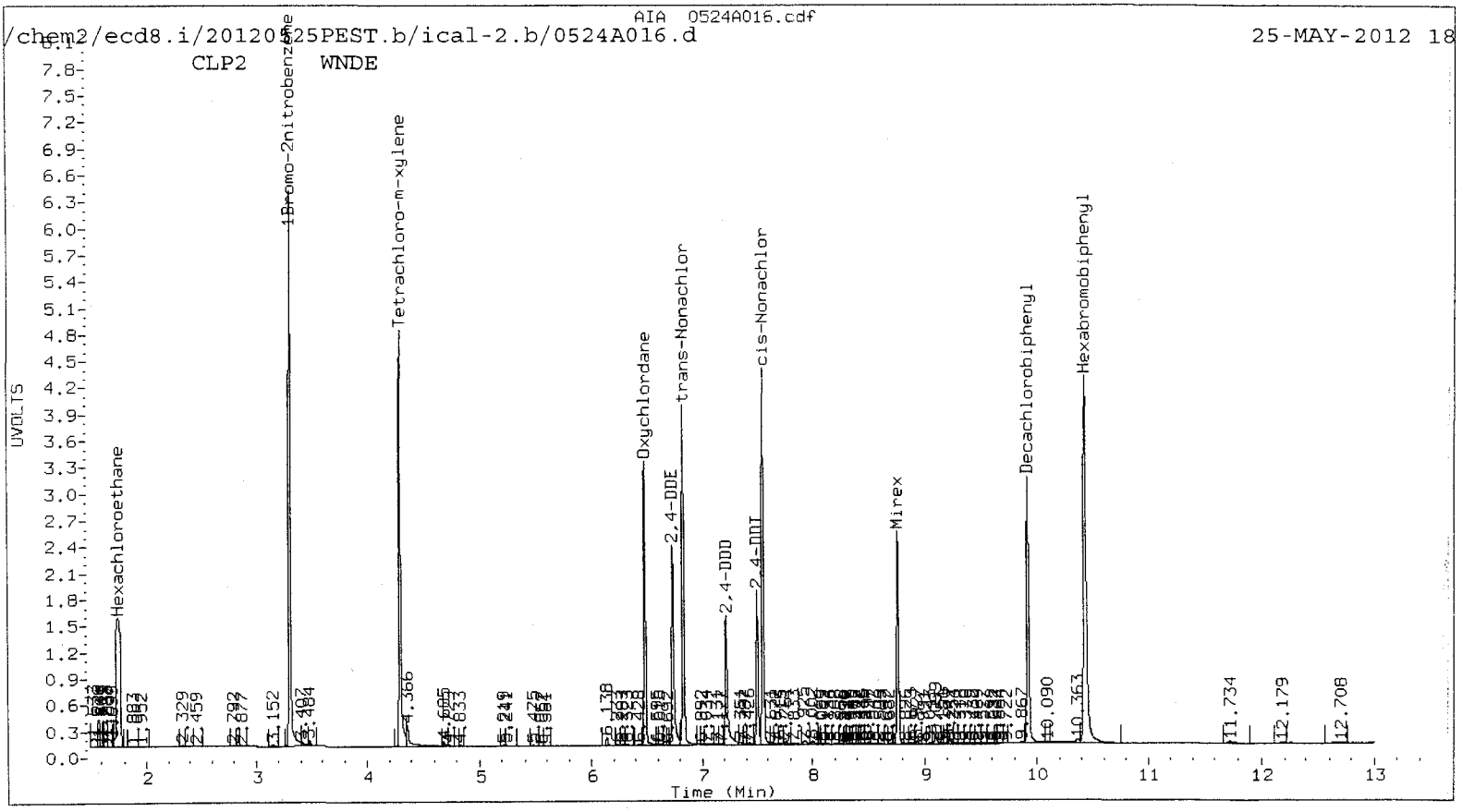
25-MAY-2012 18
STX-CLP WNDE
UVOLTS
Time (Min)
Hexachloroethane
4Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A016.cdf
25-MAY-2012 18
CLP2 WNDE
UVOLTS
Time (Min)
Hexachloroethane
4Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A017.d ARI ID: WNDA
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A017.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 18:40
Compound Sublist: WND Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP on col	CLP2 on col	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response				
1.774	0.005	13763	1.751	-0.001	3479251	0.0000	0.0000	---	Hexachloroethane
3.029	-0.001	917368	3.296	-0.001	1508923	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
5.936	-0.003	31820	6.479	-0.003	51660	2.4859	2.6625	6.9	Oxychlordane A B
6.027	0.000	25807	6.735	-0.001	44765	2.5540	2.6850	5.0	2,4-DDE A B
6.247	-0.002	37372	6.829	-0.002	67068	2.5775	2.7523	6.6	trans-Nonachlor A B
6.493	0.002	19808	7.216	0.001	37535	2.7456	2.9388	6.8	2,4-DDD A B
6.718	0.000	18488	7.501	-0.001	29457	2.5485	2.6161	2.6	2,4-DDT A B
6.843	-0.002	38705	7.554	-0.003	67494	2.3413	2.5560	8.8	cis-Nonachlor A B
7.707	-0.002	29456	8.757	-0.002	52558	3.0020	3.0859	2.8	Mirex A B
9.135	-0.003	1270740	10.430	-0.003	1657404	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	0.000	26365	4.298	-0.001	72980	2.0303	2.0123	0.9	Tetrachloro-m-xylene A B
8.979	-0.001	52472	9.921	0.000	68295	2.4439	2.4514	0.3	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	5.1	5.0	5.0~	29-110
Decachlorobiphenyl	6.1	6.1	6.1~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

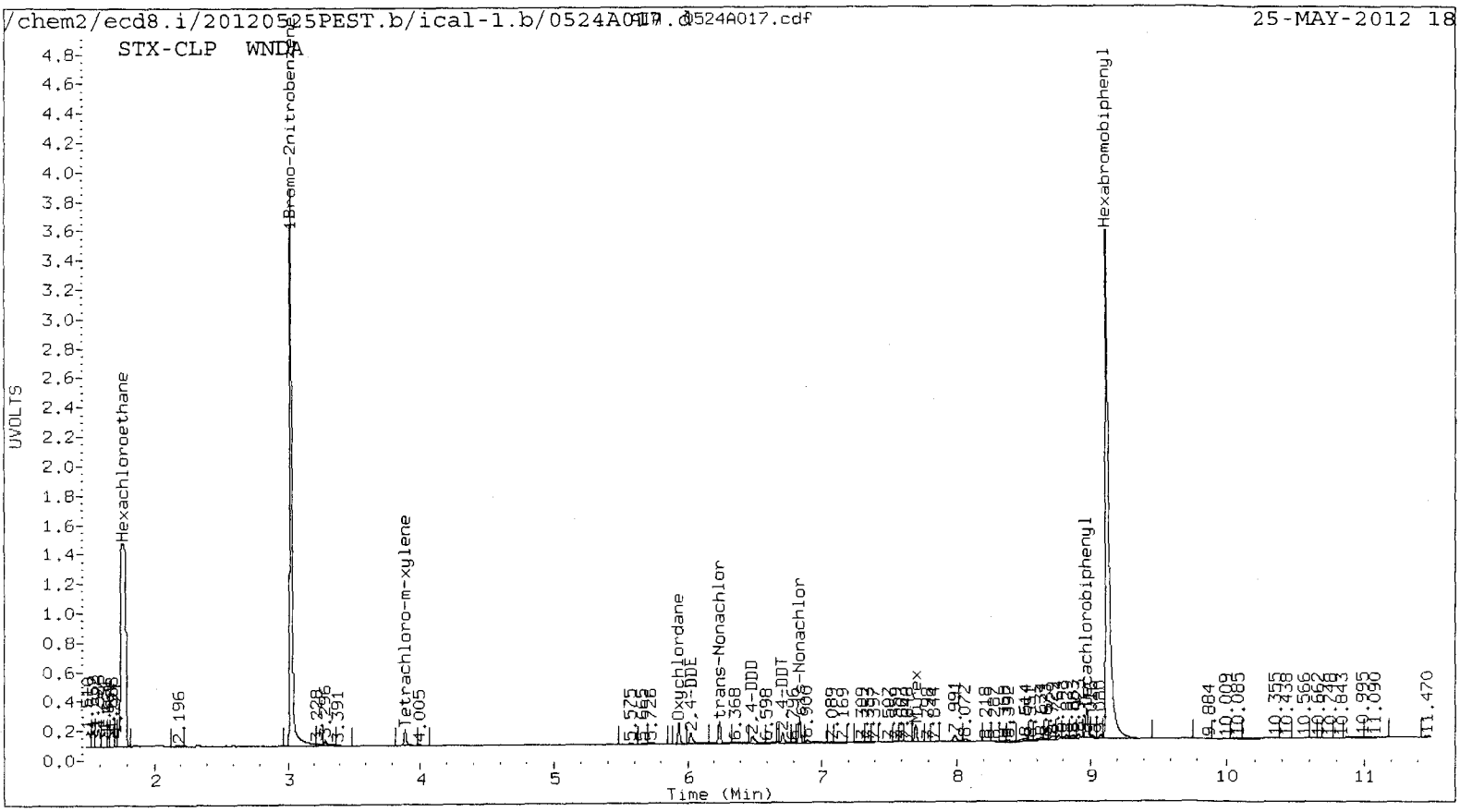
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	917368	9.7
Hexabromobiphenyl	1091107	1270740	16.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1508923	20.8
Hexabromobiphenyl	1339634	1657404	23.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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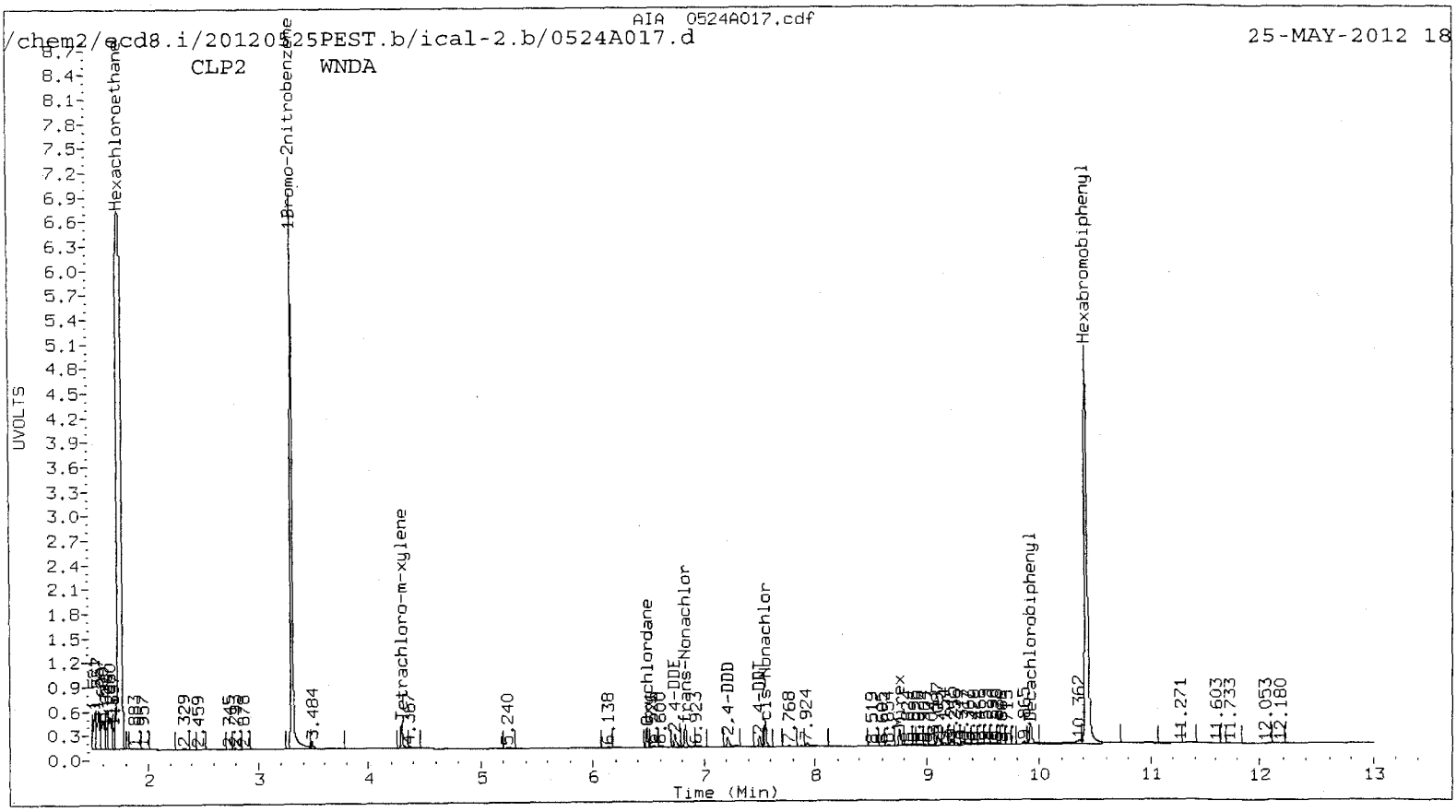
0524A017.cdf
25-MAY-2012 18
STX-CLP WNDA
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4'-DDE
trans-Nonachlor
2,4-DDD
2,4'-DDT
cis-Nonachlor
Hexachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 18
CLP2 WNDA
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4'-DDE
trans-Nonachlor
2,4-DDD
2,4'-DDT
cis-Nonachlor
Hexachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A018.d ARI ID: WNDB
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A018.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 18:59
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.763	-0.005	970	1.749	-0.003	195630	0.0000	0.0000	---	Hexachloroethane
3.029	-0.001	954109	3.295	-0.001	1572890	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
5.937	-0.002	65071	6.480	-0.002	103723	4.8313	5.1283	6.0	Oxychlordane A B
6.028	0.001	51781	6.736	0.000	89936	4.8701	5.1750	6.1	2,4-DDE A B
6.248	-0.001	73091	6.830	-0.002	135254	4.7907	5.2935	10.0	trans-Nonachlor A B
6.495	0.004	40562	7.216	0.001	71973	5.3432	5.3744	0.6	2,4-DDD A B
6.719	0.001	37466	7.502	-0.001	58064	4.9082	4.9181	0.2	2,4-DDT A B
6.843	-0.001	79355	7.555	-0.002	138328	4.5620	4.9960	9.1	cis-Nonachlor A B
7.708	-0.002	53536	8.758	-0.001	93313	5.1853	5.2253	0.8	Mirex A B
9.136	-0.002	1337121	10.431	-0.003	1737844	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	-0.001	53881	4.298	-0.001	149127	3.9895	3.9447	1.1	Tetrachloro-m-xylene A B
8.980	0.000	100513	9.922	0.000	132550	4.4490	4.5376	2.0	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	10.0	9.9	9.9~	29-110
Decachlorobiphenyl	11.1	11.3	11.1~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

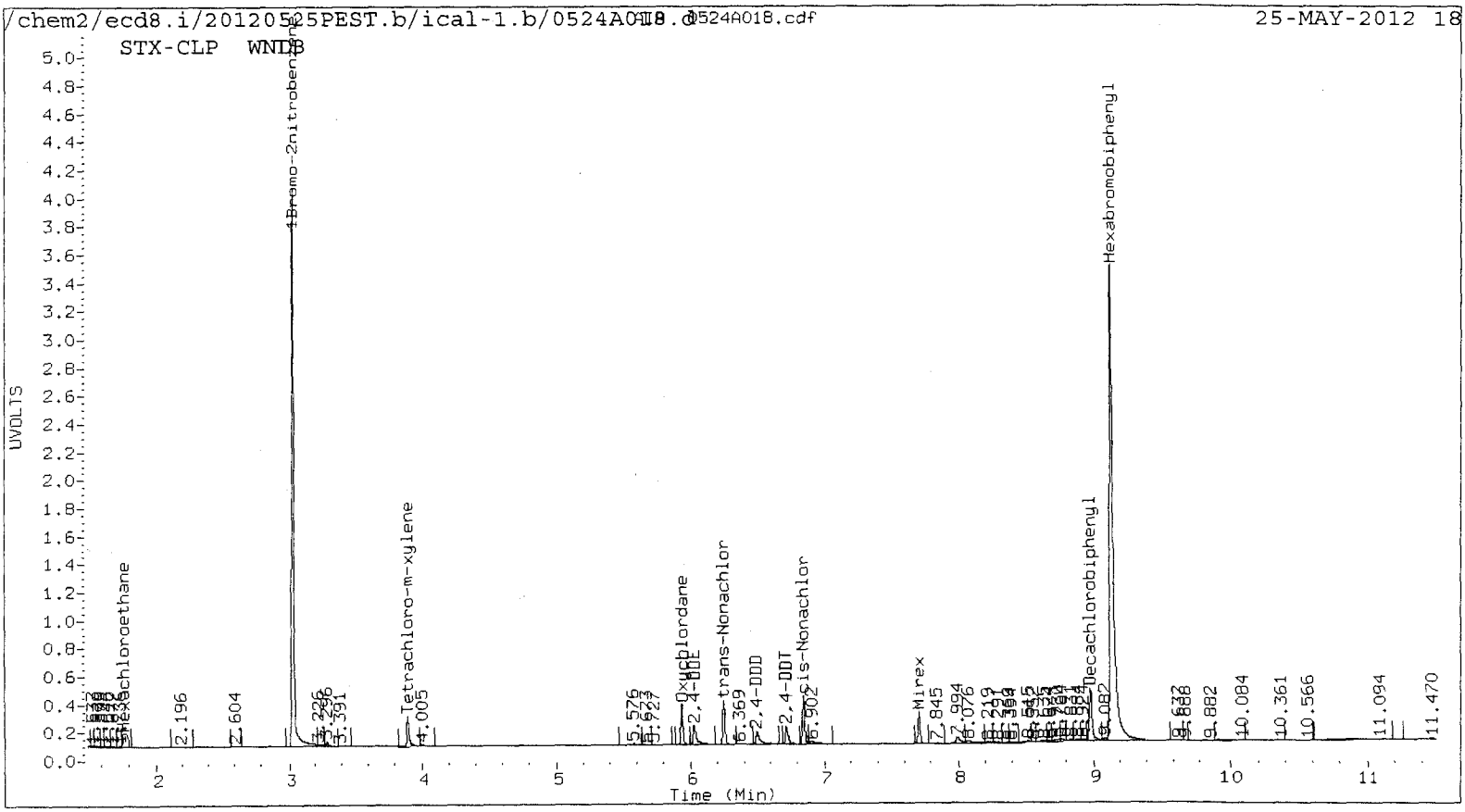
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	954109	14.1
Hexabromobiphenyl	1091107	1337121	22.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1572890	26.0
Hexabromobiphenyl	1339634	1737844	29.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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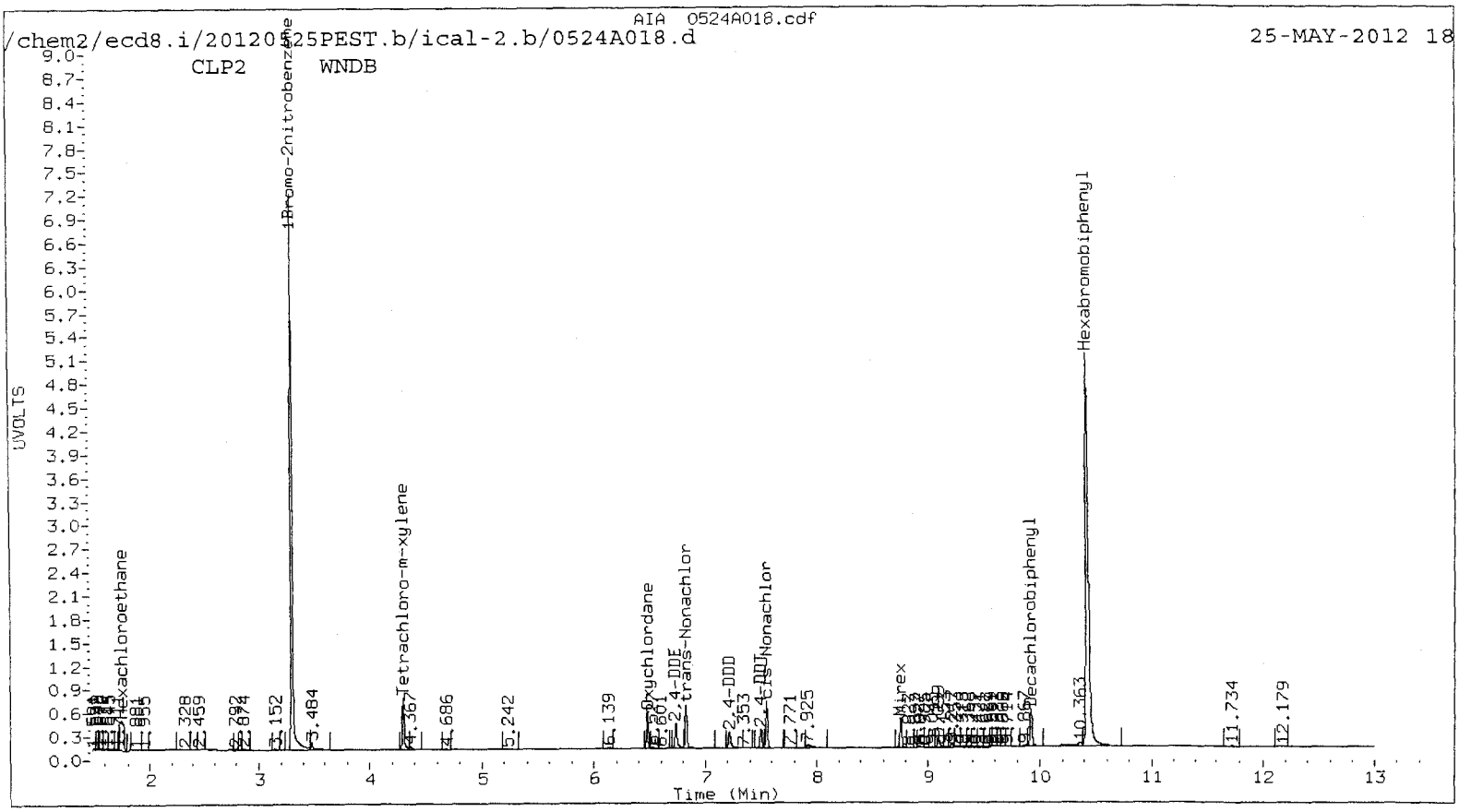
AIA 0524A018.cdf
25-MAY-2012 18
STX-CLP WNDB
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A018.cdf
25-MAY-2012 18
CLP2 WNDB
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A019.d ARI ID: WNDC
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A019.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 19:18
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.772	0.004	15693	1.751	-0.001	3809274	0.0000	0.0000	---	Hexachloroethane
3.029	-0.001	1016707	3.295	-0.002	1666113	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
5.937	-0.002	130385	6.479	-0.003	205318	8.9825	9.5835	6.5	Oxychlordane A B
6.028	0.001	103122	6.735	-0.001	176162	8.9993	9.5693	6.1	2,4-DDE A B
6.248	-0.002	141599	6.829	-0.003	249964	8.6118	9.3542	8.3	trans-Nonachlor A B
6.494	0.003	74864	7.216	0.001	137504	9.1506	9.8177	7.0	2,4-DDD A B
6.718	0.000	72190	7.501	-0.002	116689	8.7752	9.4505	7.4	2,4-DDT A B
6.843	-0.002	161765	7.554	-0.003	278056	8.6290	9.6024	10.7	cis-Nonachlor A B
7.707	-0.003	102390	8.758	-0.002	176954	9.2020	9.4747	2.9	Mirex A B
9.136	-0.002	1441035	10.431	-0.002	1817495	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	-0.001	106976	4.298	-0.001	295031	7.4331	7.3676	0.9	Tetrachloro-m-xylene A B
8.979	-0.001	206660	9.922	0.001	257305	8.4877	8.4223	0.8	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	18.6	18.4	18.4~	29-110
Decachlorobiphenyl	21.2	21.1	21.1	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

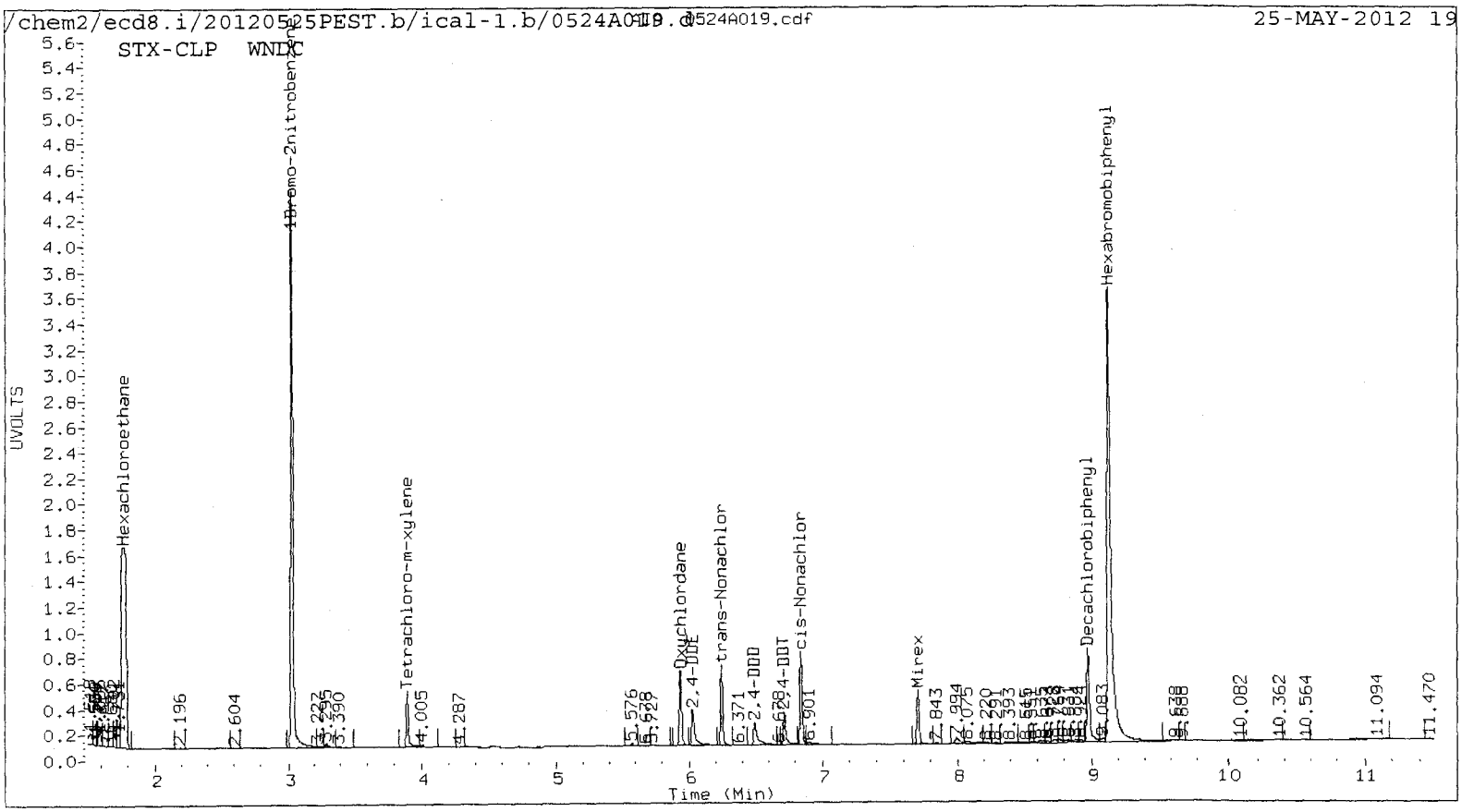
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1016707	21.6
Hexabromobiphenyl	1091107	1441035	32.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1666113	33.4
Hexabromobiphenyl	1339634	1817495	35.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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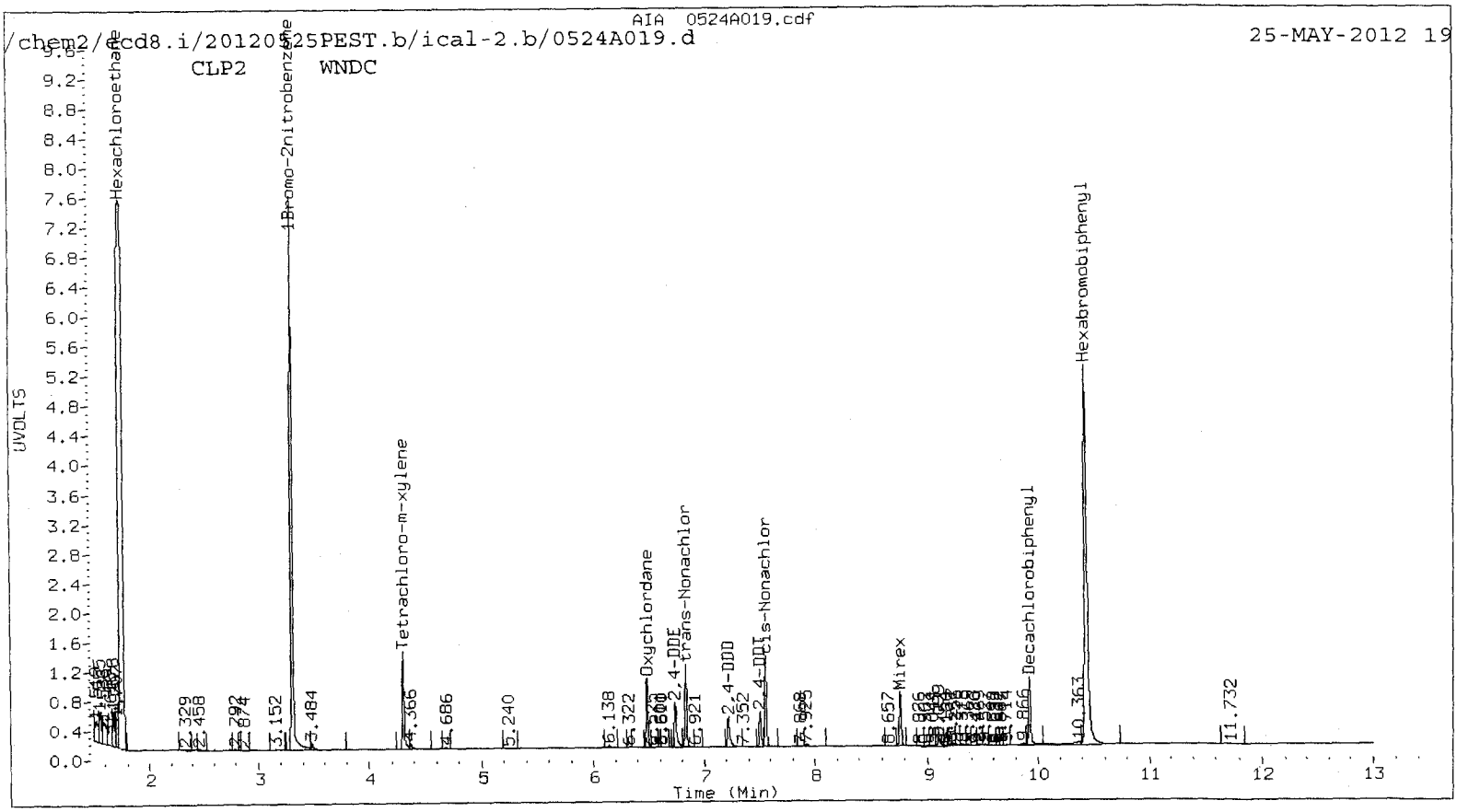
25-MAY-2012 19
STX-CLP WNDC
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A019.cdf
25-MAY-2012 19
CLP2 WNDC
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A020.d ARI ID: WNDD
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A020.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 19:37
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.766	-0.002	1462	1.749	-0.003	315644	0.0000	0.0000	---	Hexachloroethane
3.030	0.000	957727	3.297	0.000	1586601	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
5.939	0.000	253429	6.482	0.000	393665	19.0671	19.2957	1.2	Oxychlordane A B
6.029	0.002	194899	6.737	0.001	335749	18.5749	19.1523	3.1	2,4-DDE A B
6.250	0.000	280908	6.831	0.000	499153	18.6576	19.5757	4.8	trans-Nonachlor A B
6.496	0.004	135945	7.218	0.003	256056	18.1467	19.1594	5.4	2,4-DDD A B
6.720	0.002	139797	7.504	0.001	226550	18.5582	19.2284	3.5	2,4-DDT A B
6.845	0.001	327010	7.557	0.000	541637	19.0501	19.6024	2.9	cis-Nonachlor A B
7.710	0.000	190155	8.760	0.001	335251	18.6633	18.8116	0.8	Mirex A B
9.139	0.000	1319523	10.433	0.000	1734283	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.898	0.001	208195	4.299	0.000	563747	15.3570	14.7835	3.8	Tetrachloro-m-xylene A B
8.982	0.002	362065	9.924	0.003	467926	16.2398	16.0514	1.2	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	38.4	37.0	37.0	29-110
Decachlorobiphenyl	40.6	40.1	40.1	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

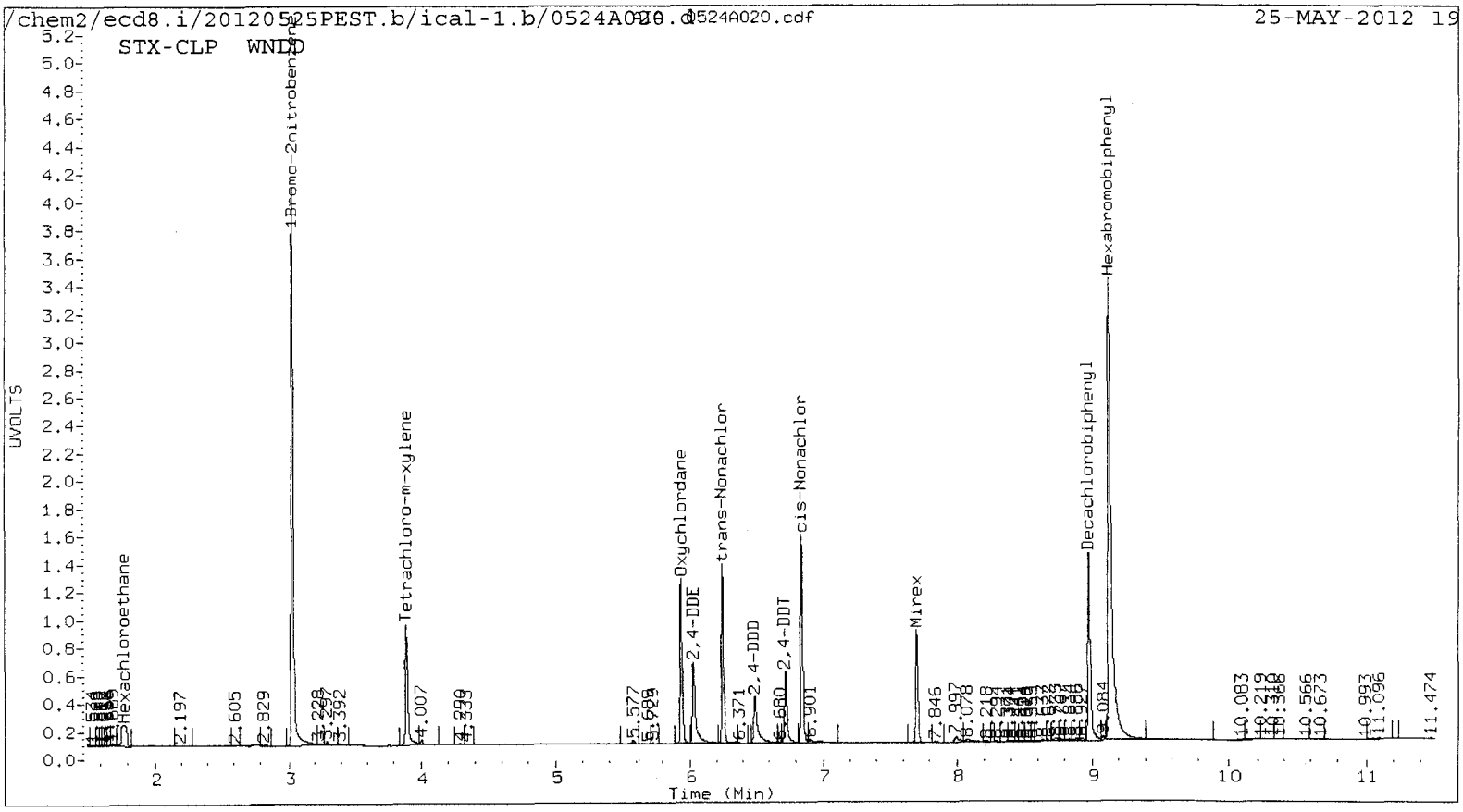
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	957727	14.5
Hexabromobiphenyl	1091107	1319523	20.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1586601	27.1
Hexabromobiphenyl	1339634	1734283	29.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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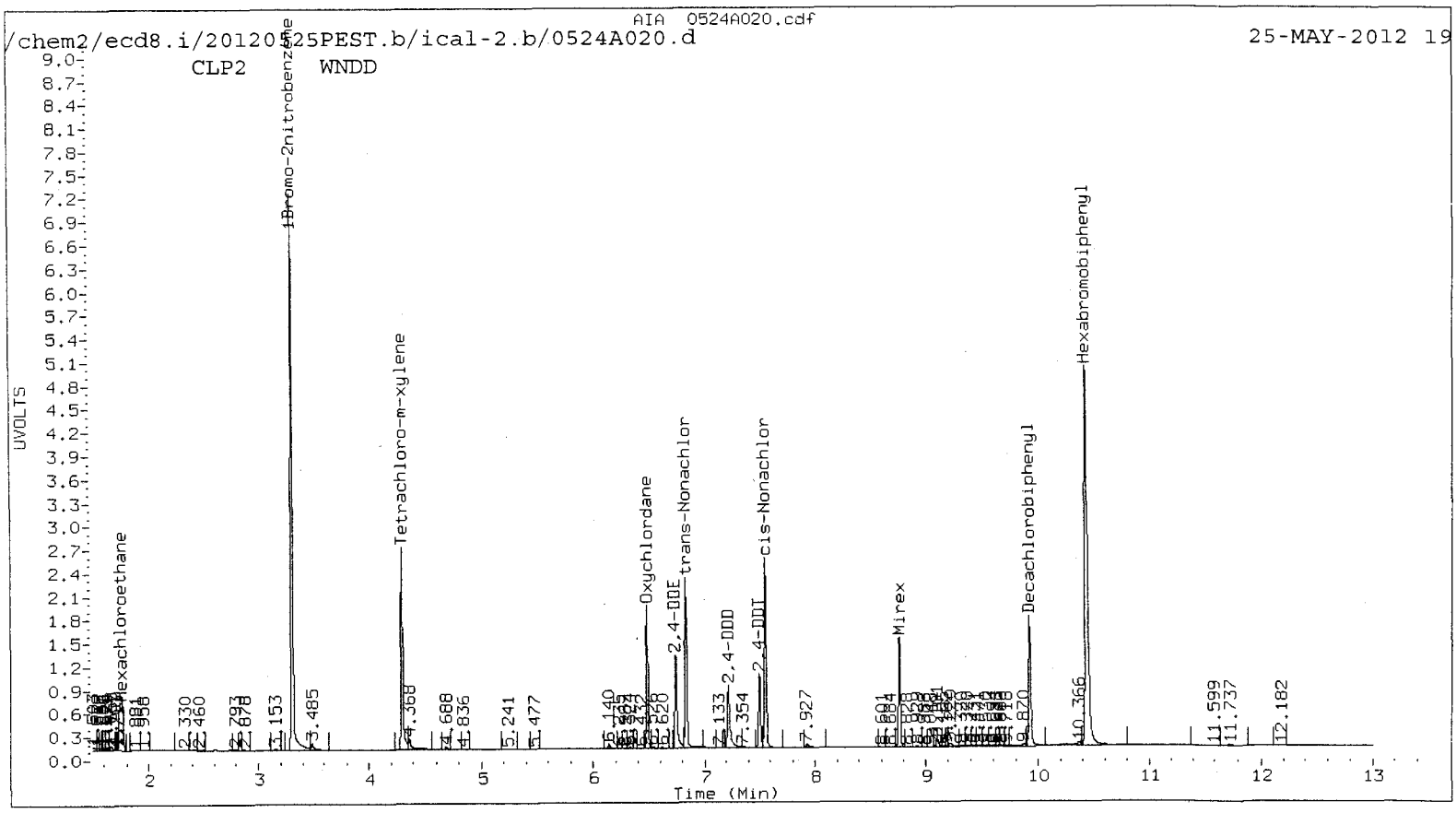
0524A020.cdf
25-MAY-2012 19
STX-CLP WNDD
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 19
CLP2 WNDD
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A021.d ARI ID: WNDF
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A021.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 19:56
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
1.777	0.008	20363	1.754	0.002	4921648	0.0000	0.0000	---	Hexachloroethane
3.030	0.000	978714	3.297	0.000	1573708	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
5.939	0.000	1139905	6.483	0.001	1616055	84.7213	79.8606	5.9	Oxychlordane A B
6.028	0.001	888111	6.738	0.002	1374375	83.6141	79.0414	5.6	2,4-DDE A B
6.250	0.001	1307010	6.833	0.001	2034531	85.7563	77.7550	9.8	trans-Nonachlor A B
6.494	0.002	594067	7.217	0.002	1010597	78.3366	73.6897	6.1	2,4-DDD A B
6.720	0.002	638271	7.504	0.001	977657	83.7024	80.8625	3.5	2,4-DDT A B
6.845	0.001	1558853	7.558	0.001	2288337	89.7090	80.7054	10.6	cis-Nonachlor A B
7.710	0.001	786392	8.761	0.002	1370111	76.2455	74.9191	1.8	Mirex A B
9.140	0.002	1335739	10.435	0.002	1779668	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.898	0.001	925705	4.299	0.001	2306813	66.8184	60.9886	9.1	Tetrachloro-m-xylene A B
8.983	0.003	1491855	9.925	0.003	1838863	66.1021	61.4705	7.3	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	167.0	152.5	152.5~	29-110
Decachlorobiphenyl	165.3	153.7	153.7~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

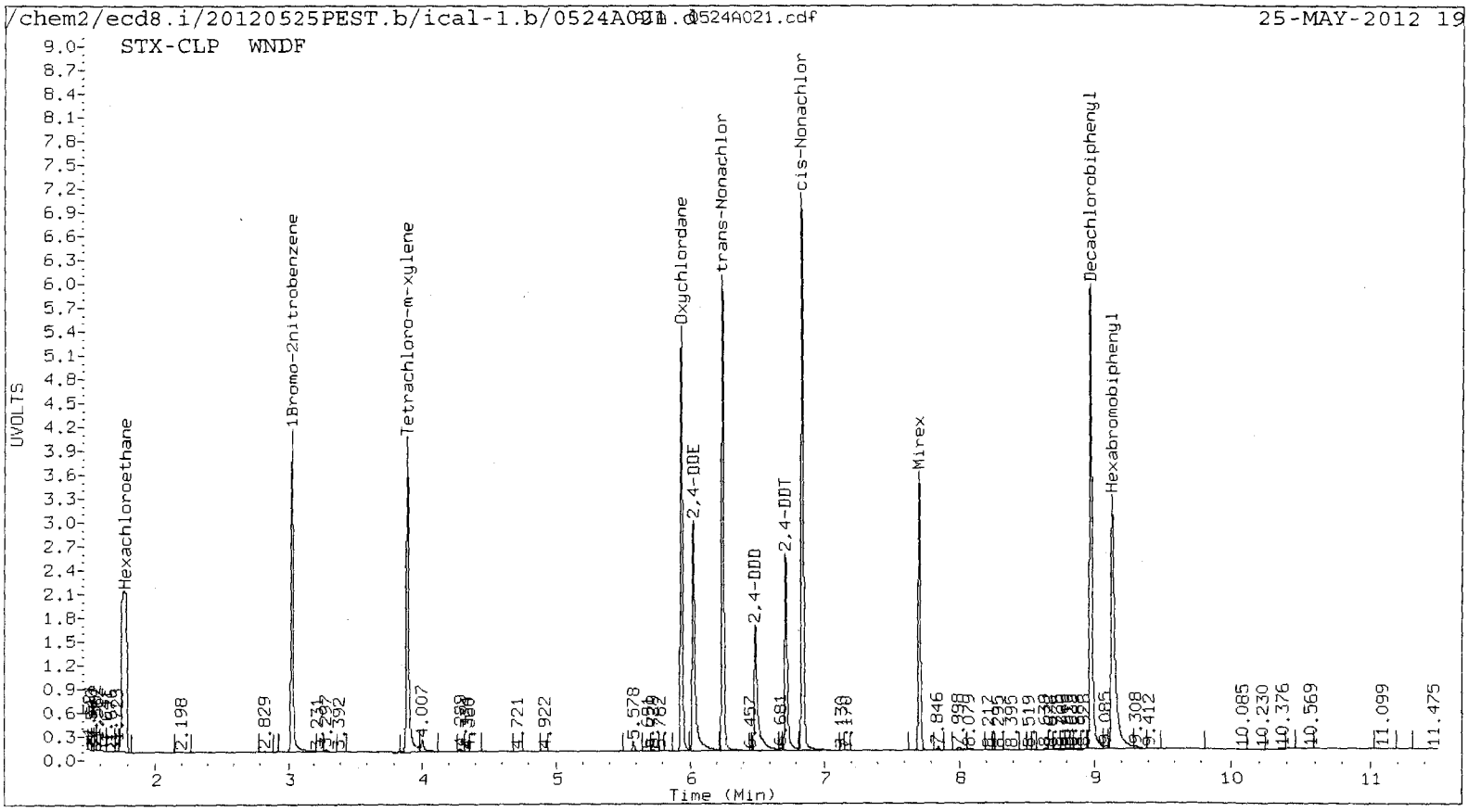
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	978714	17.0
Hexabromobiphenyl	1091107	1335739	22.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1573708	26.0
Hexabromobiphenyl	1339634	1779668	32.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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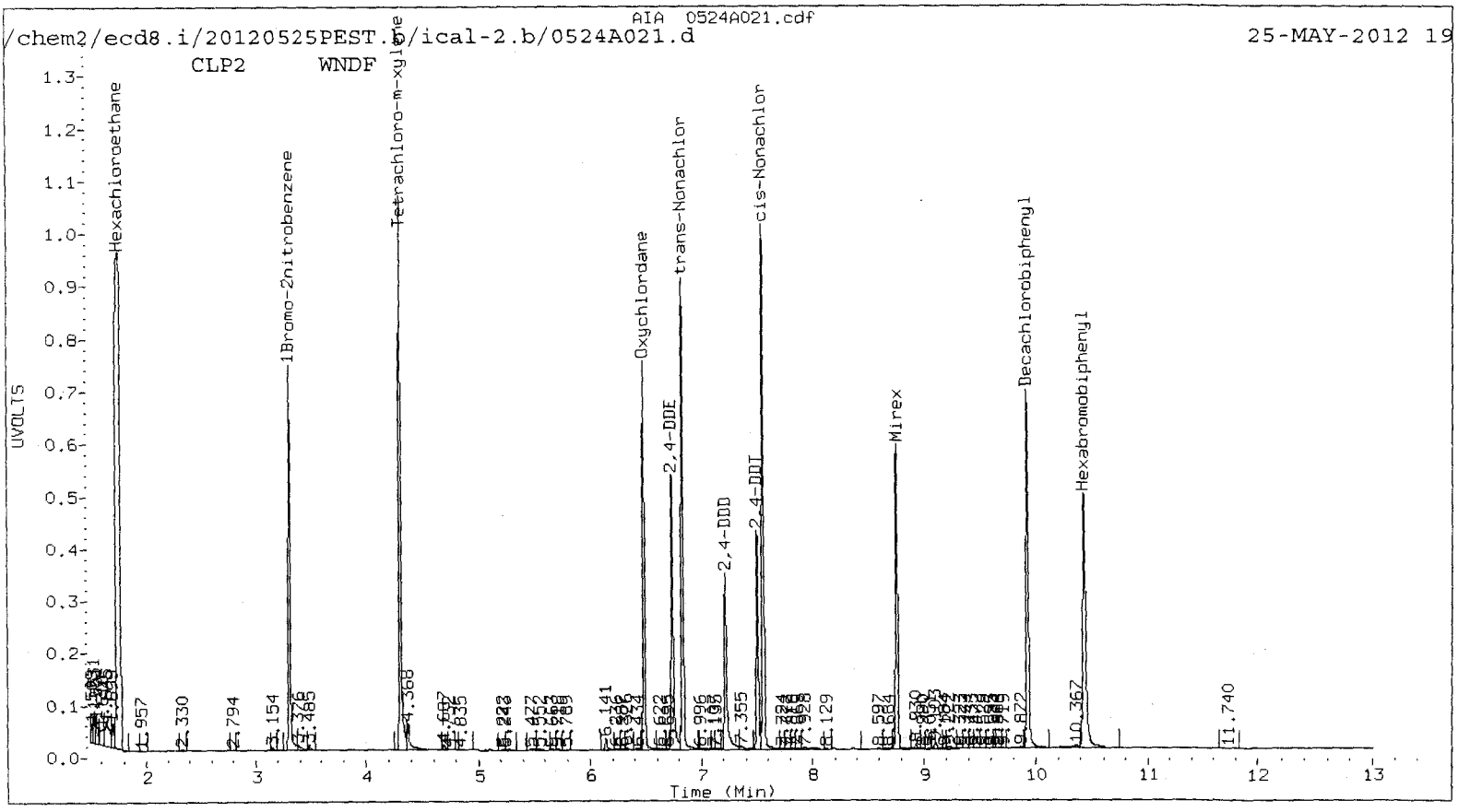
AIA 0524A021.cdf
25-MAY-2012 19
STX-CLP WNDF
UVOLTS
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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25-MAY-2012 19
CLP2 WNDF
UVOLTS
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A022.d ARI ID: WNDG
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A022.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 20:14
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.769	0.000	7888	1.752	0.000	1985631	0.0000	0.0000	---	Hexachloroethane
3.030	0.000	965763	3.296	0.000	1560131	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
5.939	0.000	2355793	6.482	0.000	3151975	176.9256	157.1166	11.9	Oxychlordane A B
6.027	0.000	1834774	6.736	0.000	2681189	174.5520	155.5393	11.5	2,4-DDE A B
6.249	0.000	2713521	6.832	0.000	4007548	179.9080	156.6144	13.8	trans-Nonachlor A B
6.491	0.000	1225822	7.215	0.000	1964186	163.3378	146.4539	10.9	2,4-DDD A B
6.718	0.000	1354026	7.503	0.000	1994720	179.4278	168.7064	6.2	2,4-DDT A B
6.844	0.000	3244974	7.557	0.000	4537321	188.7000	163.6331	14.2	cis-Nonachlor A B
7.709	0.000	1616194	8.759	0.000	2745322	158.3429	153.5039	3.1	Mirex A B
9.138	0.000	1321879	10.433	0.000	1740403	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.898	0.001	1911588	4.300	0.001	4490775	139.8308	119.7625	15.5	Tetrachloro-m-xylene A
8.981	0.001	3049671	9.923	0.001	3594851	136.5436	122.8817	10.5	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	349.6	299.4	299.4~	29-110
Decachlorobiphenyl	341.4	307.2	307.2~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

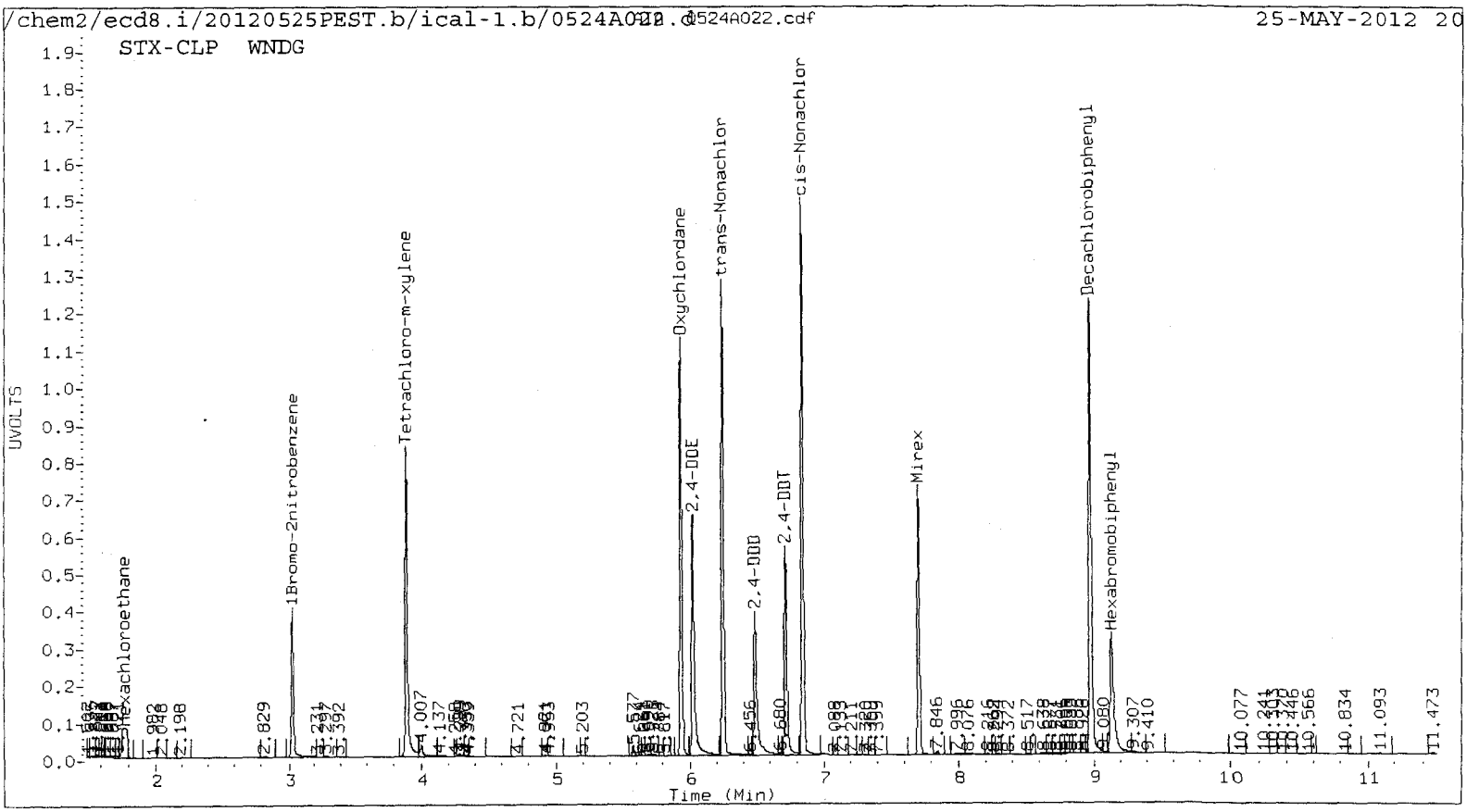
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	965763	15.5
Hexabromobiphenyl	1091107	1321879	21.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1560131	24.9
Hexabromobiphenyl	1339634	1740403	29.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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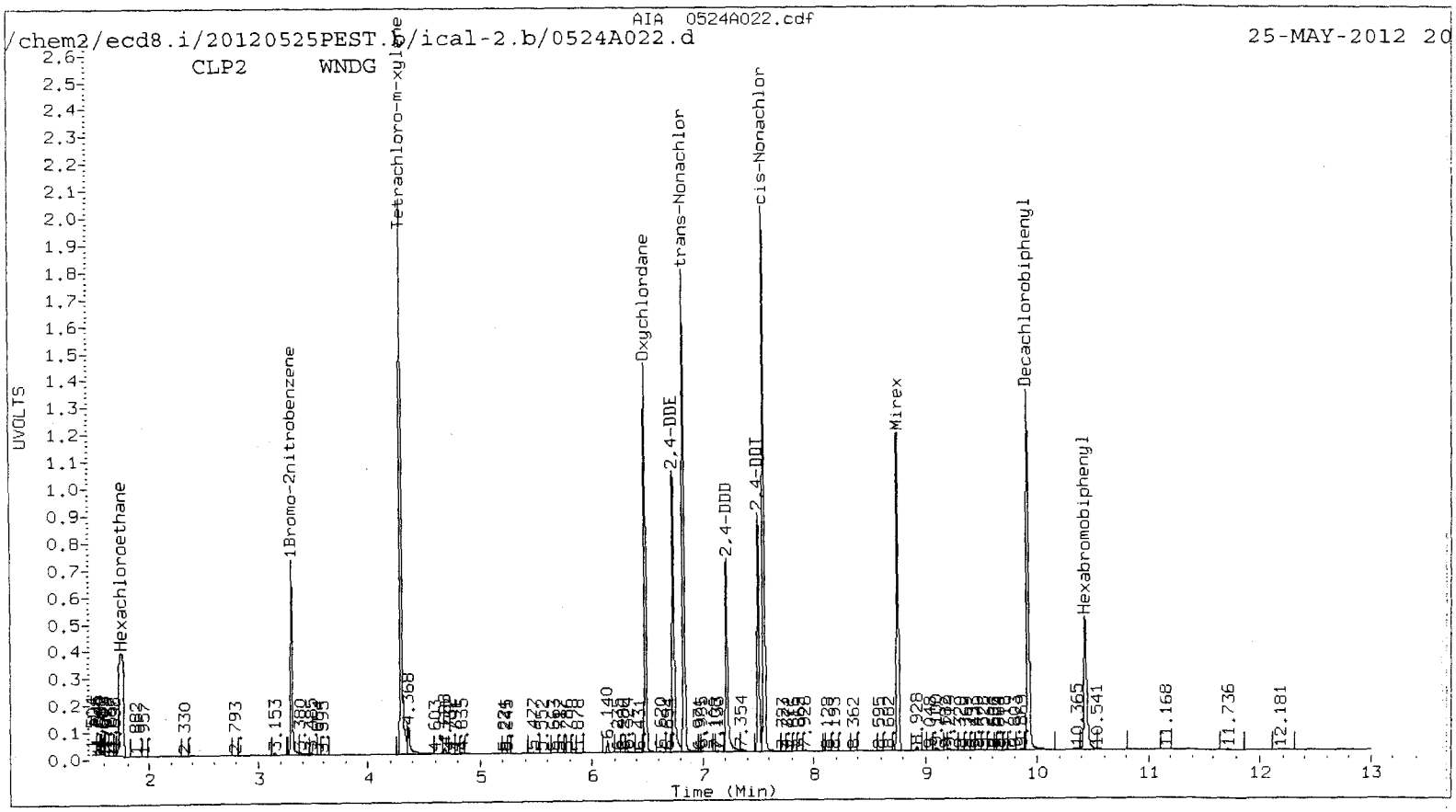
AIA 0524A022.cdf
25-MAY-2012 20
STX-CLP WNDG
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
cis-Nonachlor
2,4-DDE
2,4-DDD
2,4-DDT
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A022.cdf
25-MAY-2012 20
CLP2 WNDG
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
cis-Nonachlor
2,4-DDE
2,4-DDD
2,4-DDT
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A025.d ARI ID: DDT RT
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A025.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 21:11
Compound Sublist: wpest Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.030	0.000	970671	3.296	0.000	1648261	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
----			----			0.0000	0.0000	---	alpha-BHC
----			----			0.0000	0.0000	---	beta-BHC
----			----			0.0000	0.0000	---	delta-BHC
----			5.242	-0.041	2005	0.0000	0.0700	---	gamma-BHC (Lindane)
----			----			0.0000	0.0000	---	Heptachlor
----			----			0.0000	0.0000	---	Aldrin
----			6.556	-0.011	7586	0.0000	0.2827	---	Heptachlor epoxide b
----			----			0.0000	0.0000	---	Endosulfan I
----			----			0.0000	0.0000	---	Dieldrin
6.343	0.007	828475	7.027	0.004	1409394	57.4670	46.0652	22.0	4,4'-DDE A B
----			----			0.0000	0.0000	---	Endrin
----			----			0.0000	0.0000	---	Endosulfan II
6.884	0.010	529654	7.570	0.006	929264	44.4712	47.7368	7.1	4,4'-DDD A B
----			----			0.0000	0.0000	---	Endosulfan sulfate
7.129	0.006	401503	7.861	0.003	641468	49.7268	52.8389	6.1	4,4'-DDT A B
----			----			0.0000	0.0000	---	Methoxychlor
8.083	0.026	7913	----			0.5059	0.0000	---	Endrin ketone
----			----			0.0000	0.0000	---	Endrin aldehyde
----			----			0.0000	0.0000	---	gamma-Chlordane
----			----			0.0000	0.0000	---	alpha-Chlordane
1.720	-0.008	15989	----			0.5399	0.0000	---	Hexachlorobutadiene
----			----			0.0000	0.0000	---	Hexachlorobenzene
----			6.431	-0.051	5824	0.0000	0.2748	---	Oxychlordane
6.028	0.001	542698	6.736	0.000	926072	50.6786	50.8502	0.3	2,4-DDE A B
----			----			0.0000	0.0000	---	trans-Nonachlor
6.493	0.002	381915	7.216	0.001	618699	49.9517	44.6966	11.1	2,4-DDD A B
6.719	0.001	371489	7.503	0.000	597480	48.3207	48.9609	1.3	2,4-DDT A B
----			----			0.0000	0.0000	---	cis-Nonachlor
----			----			0.0000	0.0000	---	Mirex
9.142	0.004	1346689	10.436	0.002	1796277	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.776	0.007	19560	1.753	0.002	4765183	0.0000	0.0000	---	Hexachloroethane
----			4.335	0.036	1029	0.0000	0.0260	---	Tetrachloro-m-xylene
8.983	0.003	17914	9.925	0.003	29176	0.7873	0.9663	20.4	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.1	0.0~	29-110
Decachlorobiphenyl	2.0	2.4	2.0~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	970671	16.1
Hexabromobiphenyl	1091107	1346689	23.4

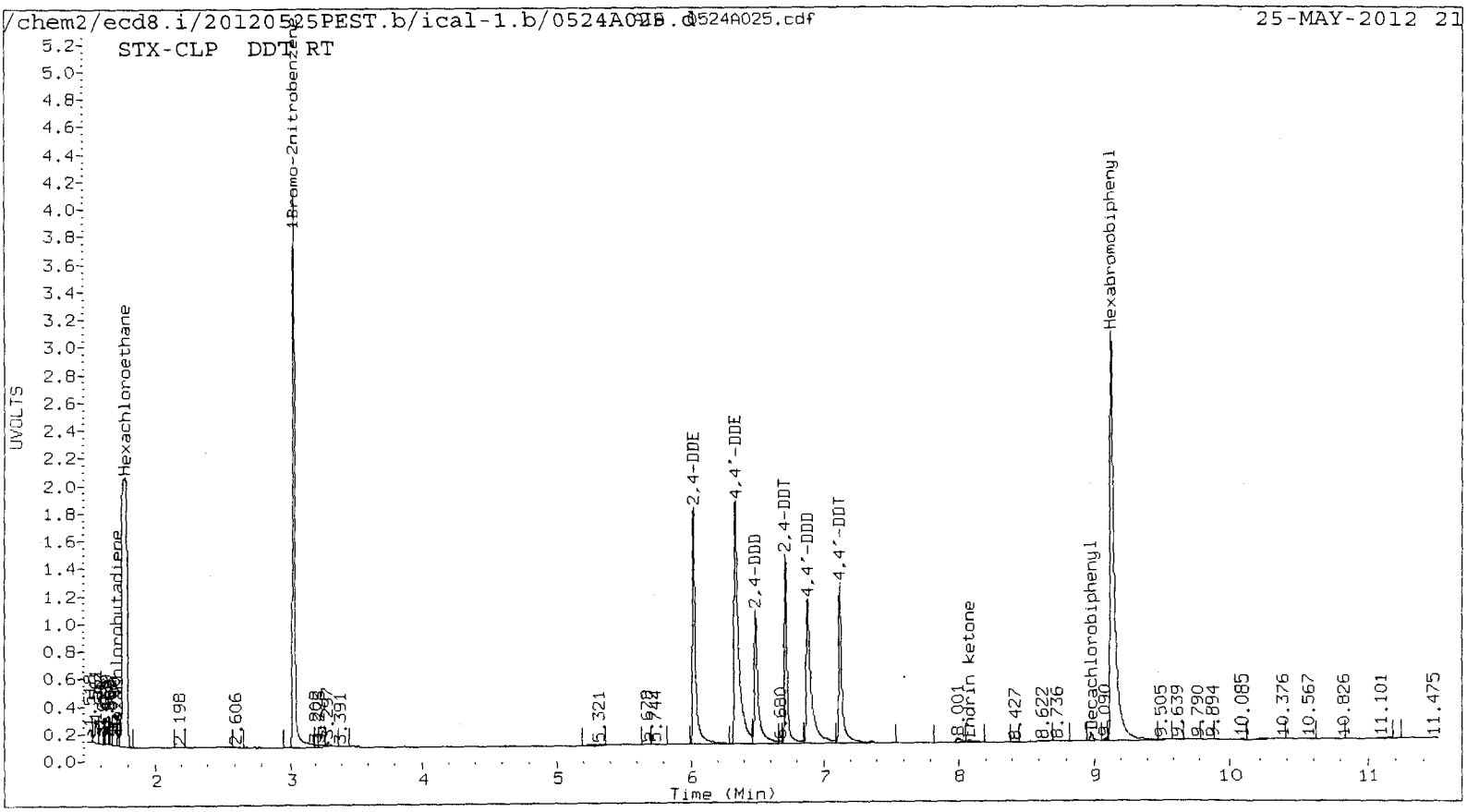
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1648261	32.0
Hexabromobiphenyl	1339634	1796277	34.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
Toxaphene	6	---			0.000	NS	---			----
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			

Aroclor-1248 1	---	0.000	1	---	0.000
Aroclor-1248 2	---	0.000	2	---	0.000
Aroclor-1248 3	---	0.000	3	---	0.000
Aroclor-1248 4	---	0.000	4	---	0.000
Aroclor-1248 5	---	0.000	5	---	0.000
	STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1254 1	---	0.000	1	---	0.000
Aroclor-1254 2	---	0.000	2	---	0.000
Aroclor-1254 3	---	0.000	3	---	0.000
Aroclor-1254 4	---	0.000	4	---	0.000
Aroclor-1254 5	---	0.000	5	---	0.000
	STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1260 1	---	0.000	1	---	0.000
Aroclor-1260 2	---	0.000	2	---	0.000
Aroclor-1260 3	---	0.000	3	---	0.000
Aroclor-1260 4	---	0.000	4	---	0.000
Aroclor-1260 5	---	0.000	5	---	0.000
	STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1262 1	---	0.000	1	---	0.000
Aroclor-1262 2	---	0.000	2	---	0.000
Aroclor-1262 3	---	0.000	3	---	0.000
Aroclor-1262 4	---	0.000	4	---	0.000
Aroclor-1262 5	---	0.000	5	---	0.000
	STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1268 1	---	0.000	1	---	0.000
Aroclor-1268 2	---	0.000	2	---	0.000
Aroclor-1268 3	---	0.000	3	---	0.000
Aroclor-1268 4	---	0.000	4	---	0.000
Aroclor-1268 5	---	0.000	5	---	0.000
	STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	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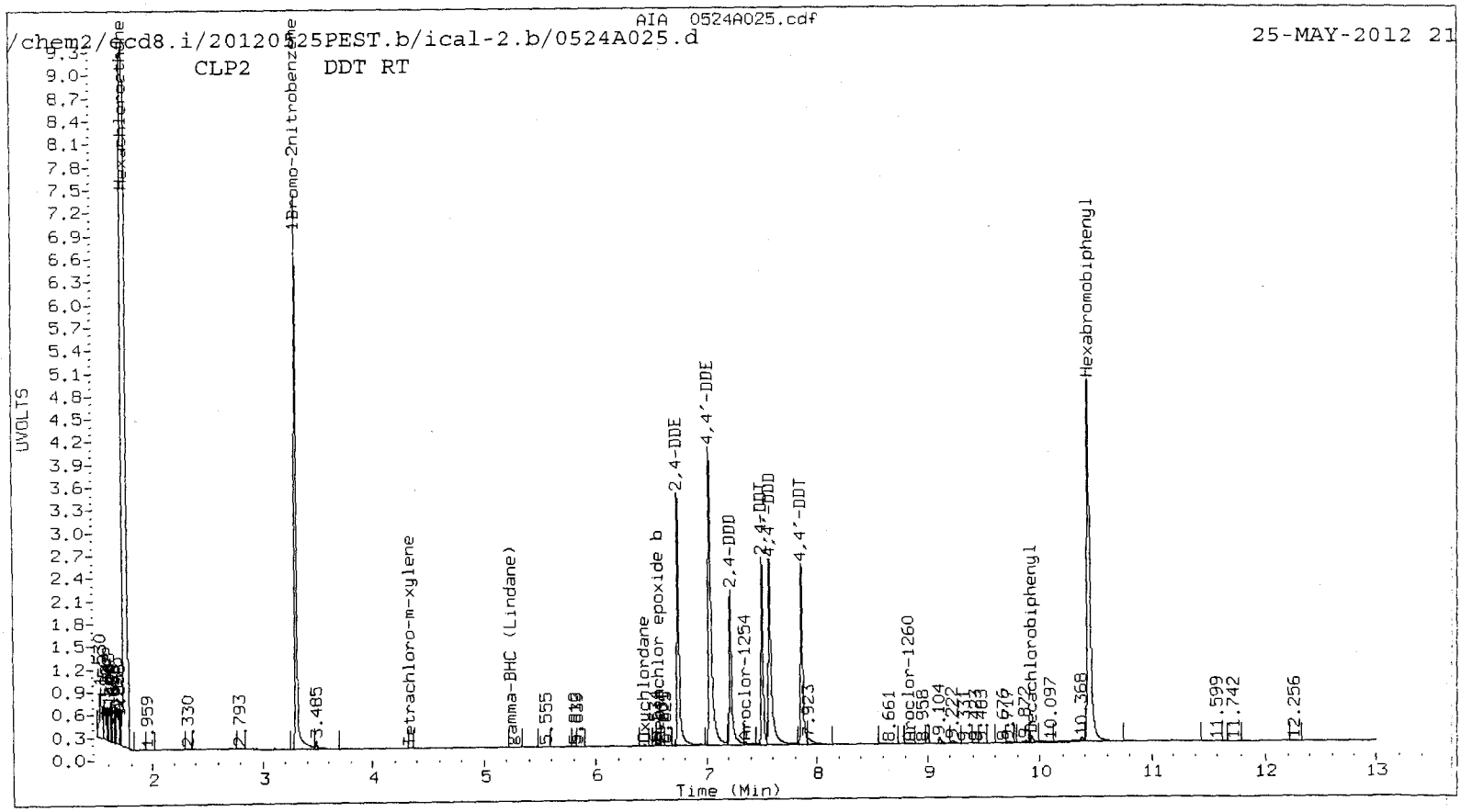
AIA 0524A025.cdf
25-MAY-2012 21
STX-CLP DDT RT
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
2,4-DDE
4,4'-DDE
2,4-DDD
2,4-DDT
4,4'-DDD
4,4'-DDT
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 21
CLP2 DDT RT
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
gamma-BHC (Lindane)
Oxychlordane
Heptachlor epoxide b
2,4-DDE
4,4'-DDE
2,4-DDD
2,4'-DDT
4,4'-DDT
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A026.d ARI ID: TECH 200
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A026.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 21:30
Compound Sublist: wpest Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.029	-0.001	1032950	3.296	-0.001	1750849	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
----			4.962	0.033	15440	0.0000	0.4237	---	alpha-BHC
4.860	0.014	4151	5.400	0.033	16210	0.5437	1.0669	65.0*	beta-BHC A B
5.028	0.017	4408	5.643	-0.010	3680	0.2795	0.1369	68.5*	delta-BHC A B
4.768	0.012	1346	5.296	0.013	7222	0.0835	0.2373	95.9*	gamma-BHC (Lindane) A B
5.201	0.000	133970	5.713	0.000	240385	8.4260	8.6777	2.9	Heptachlor A B
5.488	0.011	2796	5.985	-0.044	16877	0.1479	0.4935	107.8*	Aldrin A B
6.039	0.011	45161	6.593	0.026	25416	2.6666	0.8916	99.8*	Heptachlor epoxide b A B
6.408	0.023	11878	6.942	-0.001	16272	0.4452	0.5874	27.5	Endosulfan I A B
6.620	0.019	14112	7.206	0.007	50674	0.7796	1.7204	75.3*	Dieldrin A B
6.338	0.002	23519	7.034	0.011	29018	1.6526	0.8929	59.7*	4,4'-DDE A B
6.792	-0.019	4812	7.490	0.001	23313	0.3221	1.0520	106.2*	Endrin A B
7.020	0.005	9010	7.672	-0.014	19424	0.5864	0.8228	33.5	Endosulfan II A B
6.918	0.044	15534	----			1.2772	0.0000	---	4,4'-DDD
7.797	0.002	3641	8.261	0.002	1900	0.2834	0.0958	99.0*	Endosulfan sulfate A B
7.141	0.018	3157	7.874	0.016	12178	0.3829	0.9686	86.7*	4,4'-DDT A B
7.587	0.026	1750	----			0.3739	0.0000	---	Methoxychlor
8.078	0.022	17994	8.784	0.004	7865	1.1265	0.3672	101.7*	Endrin ketone A B
7.421	0.025	1687	8.036	0.037	44201	0.1380	2.2141	176.5*	Endrin aldehyde A B
6.144	0.001	428202	6.783	0.038	32151	25.2613	1.0483	184.1*	gamma-Chlordane A B
6.260	-0.001	687610	6.882	0.000	578091	39.3455	18.7815	70.8*	alpha-Chlordane A B
1.708	-0.020	28995	2.040	0.003	1057	0.9201	0.0191	191.9*	Hexachlorobutadiene A B
4.288	0.000	4878	4.791	0.000	3694	0.2694	0.1106	83.6*	Hexachlorobenzene A B
5.930	-0.009	3571	6.501	0.019	6676	0.2578	0.2965	14.0	Oxychlordane A B
5.972	-0.055	66304	6.746	0.010	661508	6.0630	34.1948	139.8*	2,4-DDE A B
----			6.831	0.000	542158	0.0000	19.8228	---	trans-Nonachlor
6.483	-0.009	10944	7.184	-0.031	13898	1.4017	0.9695	36.4	2,4-DDD A B
6.673	-0.045	31130	7.461	-0.042	25043	3.9651	1.9816	66.7*	2,4-DDT A B
6.843	-0.001	72668	7.557	0.000	120538	4.0617	4.0671	0.1	cis-Nonachlor A B
----			8.727	-0.033	8927	0.0000	0.4670	---	Mirex
9.139	0.000	1375257	10.434	0.000	1860213	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.775	0.007	7948	1.752	0.000	1997129	0.0000	0.0000	---	Hexachloroethane
3.897	0.000	437726	4.298	0.000	1084724	29.9366	25.7769	14.9	Tetrachloro-m-xylene A B
8.981	0.001	729118	9.923	0.002	920809	31.3779	29.4485	6.3	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	74.8	64.4	64.4	29-110
Decachlorobiphenyl	78.4	73.6	73.6	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1032950	23.5
Hexabromobiphenyl	1091107	1375257	26.0

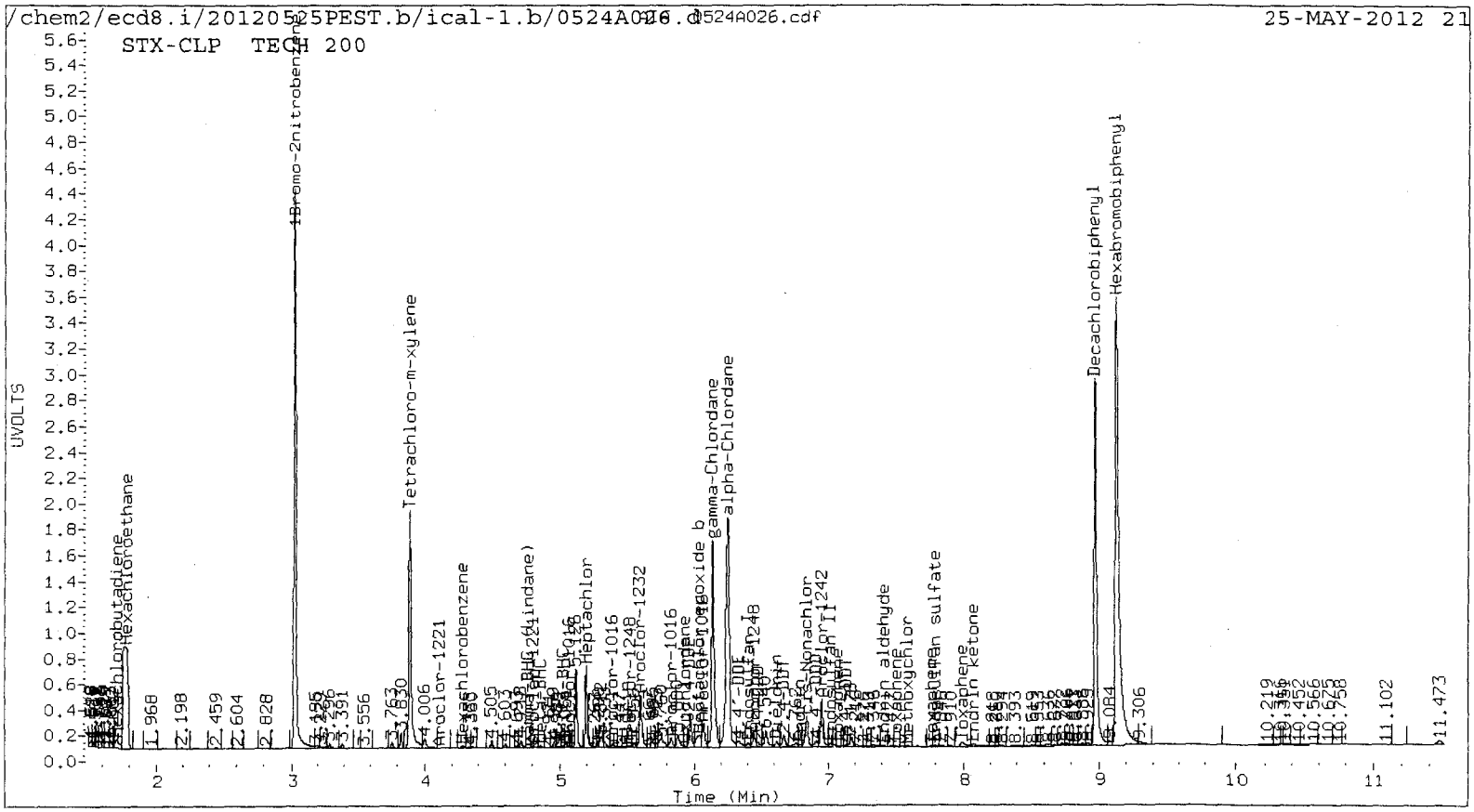
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1750849	40.2
Hexabromobiphenyl	1339634	1860213	38.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.073	0.004	3562	5.158	1	7.734	-0.025	159794	145.894
Toxaphene	2	7.141	0.022	3157	6.554	2	8.036	0.034	44201	36.582
Toxaphene	3	7.511	-0.012	1253	2.871	3	8.261	0.006	1900	3.657
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	7.772	0.021	1978	3.489	5	9.046	0.007	5179	13.208
Toxaphene	6	7.997	-0.041	21664	52.712	NS	---			----
	Total STX-CLPAve (5 peaks): 14.157					Total CLP2Ave (4 peaks): 49.835			RPD = 112*	
	Corrected Ave (4 peaks): 4.518					Corrected Ave (3 peaks): 17.816			RPD = 119*	
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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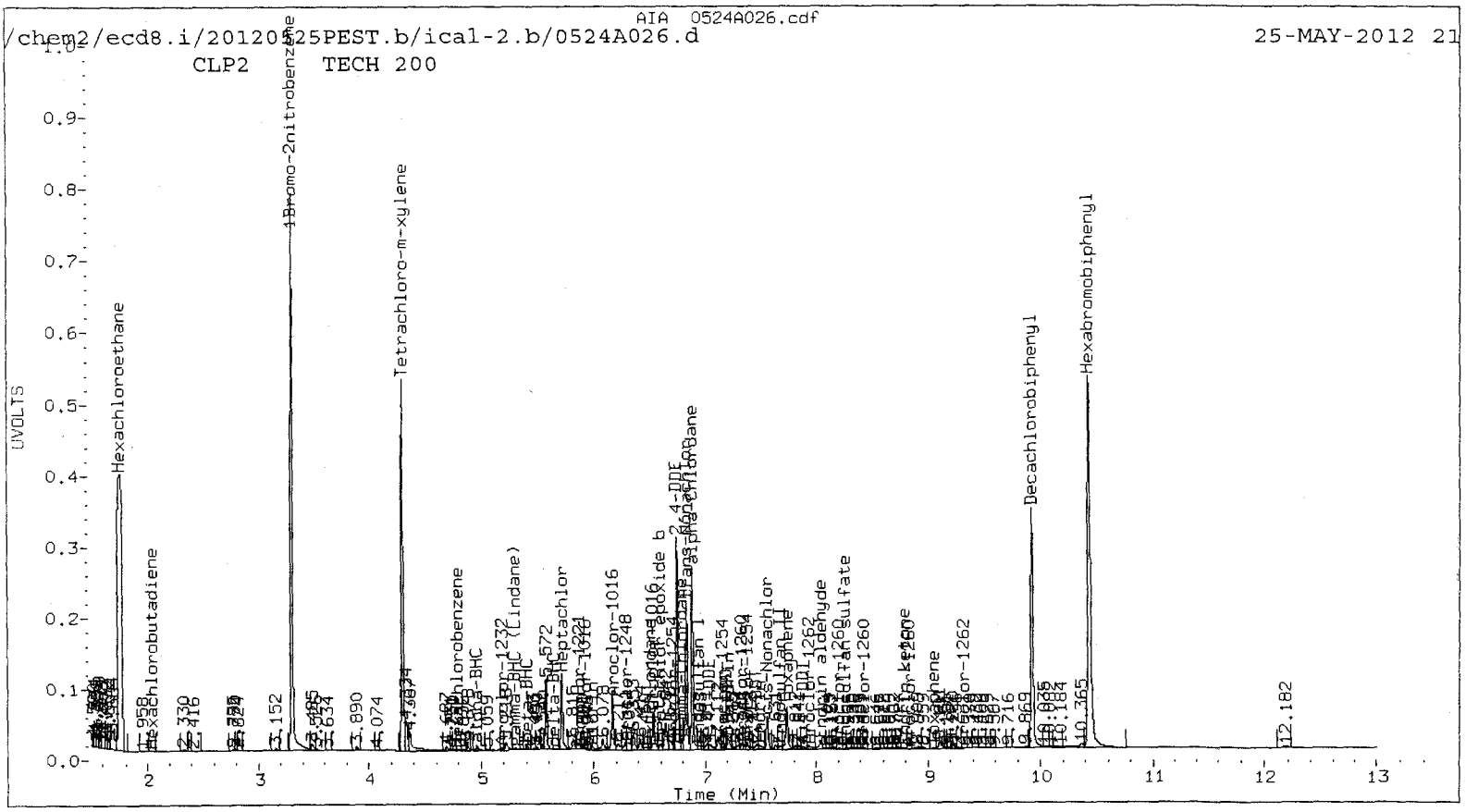
25-MAY-2012 21
STX-CLP TECH 200
UVOLTS
Time (Min)
Hexachloroethane
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobutadiene
Aroclor-1221
Hexachlorobenzene
Heptachlor
gamma-Chlordane
alpha-Chlordane
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A026.cdf
25-MAY-2012 21
CLP2 TECH 200
UVOLTS
Time (Min)
Hexachloroethane
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobutadiene
Hexachlorobenzene
Heptachlor
Decachlorobiphenyl
Hexabromobiphenyl

AR-5bg/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A013.d ARI ID: INDA ICV
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A013.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 17:25
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

40ppb

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.028	-0.002	932869	3.295	-0.002	1487234	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.453	0.000	759722	4.929	0.000	1172696	42.4107	37.8893	11.3	alpha-BHC A B
4.846	0.000	251541	5.367	0.000	468953	36.4783	36.3354	0.4	beta-BHC A B
5.010	-0.001	654624	5.653	0.000	943352	45.9676	41.3109	10.7	delta-BHC A B
4.755	0.000	609793	5.283	0.000	984267	41.8798	38.0714	9.5	gamma-BHC (Lindane) A B
5.201	0.000	587136	5.714	0.001	878394	40.8893	37.3298	9.1	Heptachlor A B
5.477	0.000	729063	6.029	0.000	1104202	42.6883	38.0093	11.6	Aldrin A B
6.029	0.001	611152	6.567	0.000	870609	39.9583	35.9532	10.6	Heptachlor epoxide b A B
6.385	0.001	716362	6.943	0.001	844344	29.7330	35.8839	18.7	Endosulfan I A B
6.602	0.001	637502	7.199	0.000	918051	38.9952	36.6928	6.1	Dieldrin A B
6.337	0.001	567268	7.024	0.001	1062400	41.8867	38.4836	8.5	4,4'-DDE A B
6.812	0.000	544819	7.490	0.000	727017	39.2976	37.5465	4.6	Endrin A B
7.016	0.001	515562	7.686	0.000	760226	36.1627	36.8560	1.9	Endosulfan II A B
6.876	0.002	387276	7.566	0.001	652217	34.3147	37.0275	7.6	4,4'-DDD A B
7.796	0.001	441044	8.258	0.000	678819	37.0003	39.1717	5.7	Endosulfan sulfate A B
7.125	0.001	312174	7.859	0.001	469101	40.8011	42.7034	4.6	4,4'-DDT A B
7.562	0.001	163353	8.488	0.001	234161	37.6149	41.7478	10.4	Methoxychlor A B
8.057	0.000	487442	8.781	0.000	676135	32.8876	36.1257	9.4	Endrin ketone A B
7.397	0.001	404061	7.999	0.000	607288	35.6127	34.8145	2.3	Endrin aldehyde A B
6.143	0.000	625284	6.746	0.001	974452	40.8454	37.4049	8.8	gamma-Chlordane A B
6.262	0.001	636032	6.882	0.000	983945	40.2987	37.6334	6.8	alpha-Chlordane A B
1.704	-0.024	16200	----			~~0.5692~~	~~0.0000~~	---	Hexachlorobutadiene
4.287	0.000	3786	4.804	0.013	1552	~~0.2315~~	~~0.0547~~	~~123.6*~~	Hexachlorobenzene A B
9.135	-0.004	1276127	10.431	-0.003	1625382	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	-0.001	415652	4.298	-0.001	1131559	31.4766	31.6562	0.6	Tetrachloro-m-xylene A B
8.980	0.000	693847	9.922	0.001	866132	32.1795	31.7019	1.5	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	78.7	79.1	78.7~	85-115
Decachlorobiphenyl	80.4	79.3	79.3~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

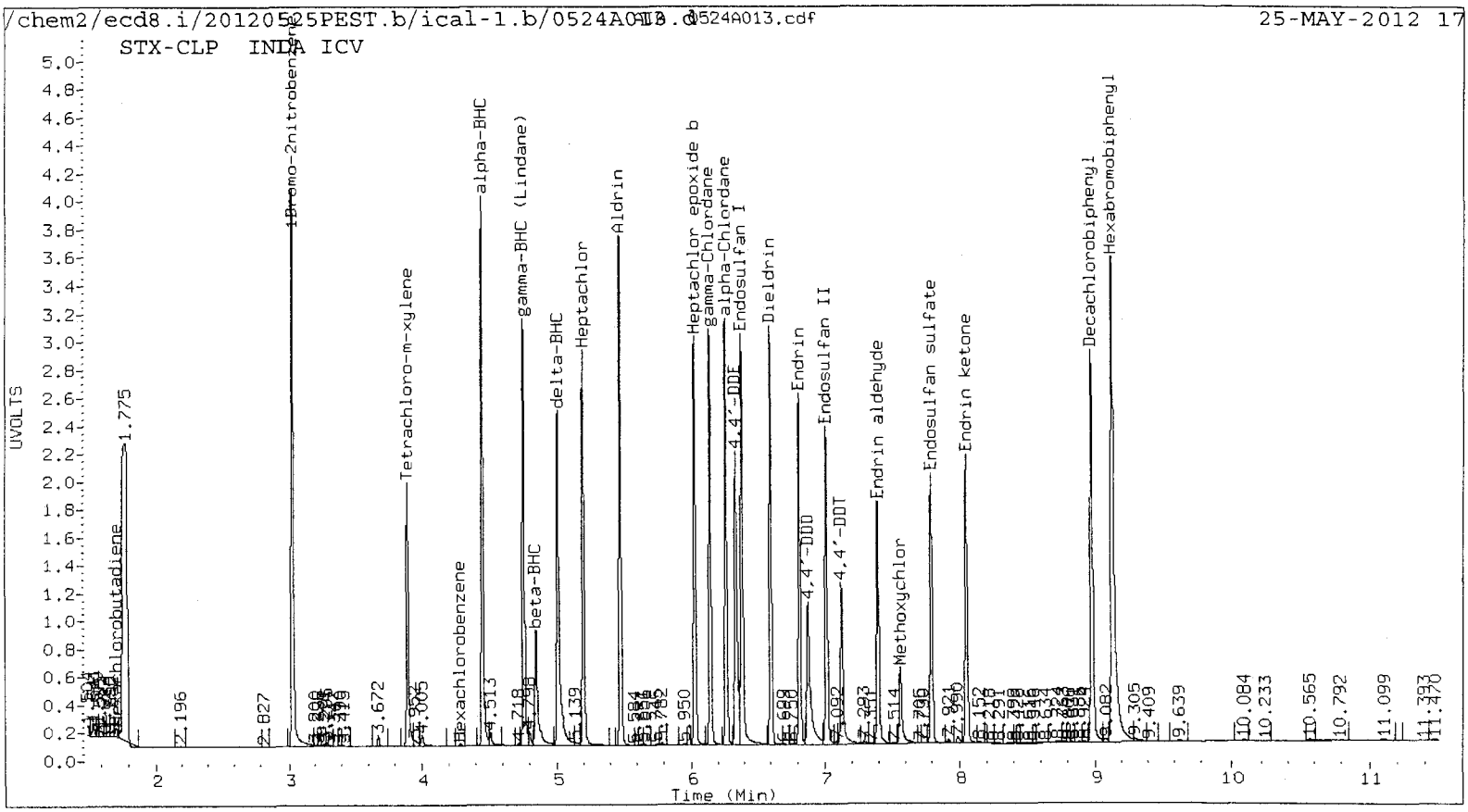
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	932869	11.5
Hexabromobiphenyl	1091107	1276127	17.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1487234	19.1
Hexabromobiphenyl	1339634	1625382	21.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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AIA 0524A013.cdf
25-MAY-2012 17
STX-CLP INDA ICV
UVOLTS
Time (Min)
1.775
Hexachlorobutadiene
2.196
2.827
1Bromo-2nitrobenzene
3.672
Tetrachloro-m-xylene
4.005
Hexachlorobenzene
4.513
alpha-BHC
4.718
gamma-BHC (Lindane)
4.795
beta-BHC
5.139
delta-BHC
Heptachlor
5.950
Aldrin
6.688
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
7.092
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
7.514
Endrin aldehyde
Methoxychlor
7.796
Endosulfan sulfate
7.921
Endrin ketone
9.639
Decachlorobiphenyl
Hexabromobiphenyl
10.084
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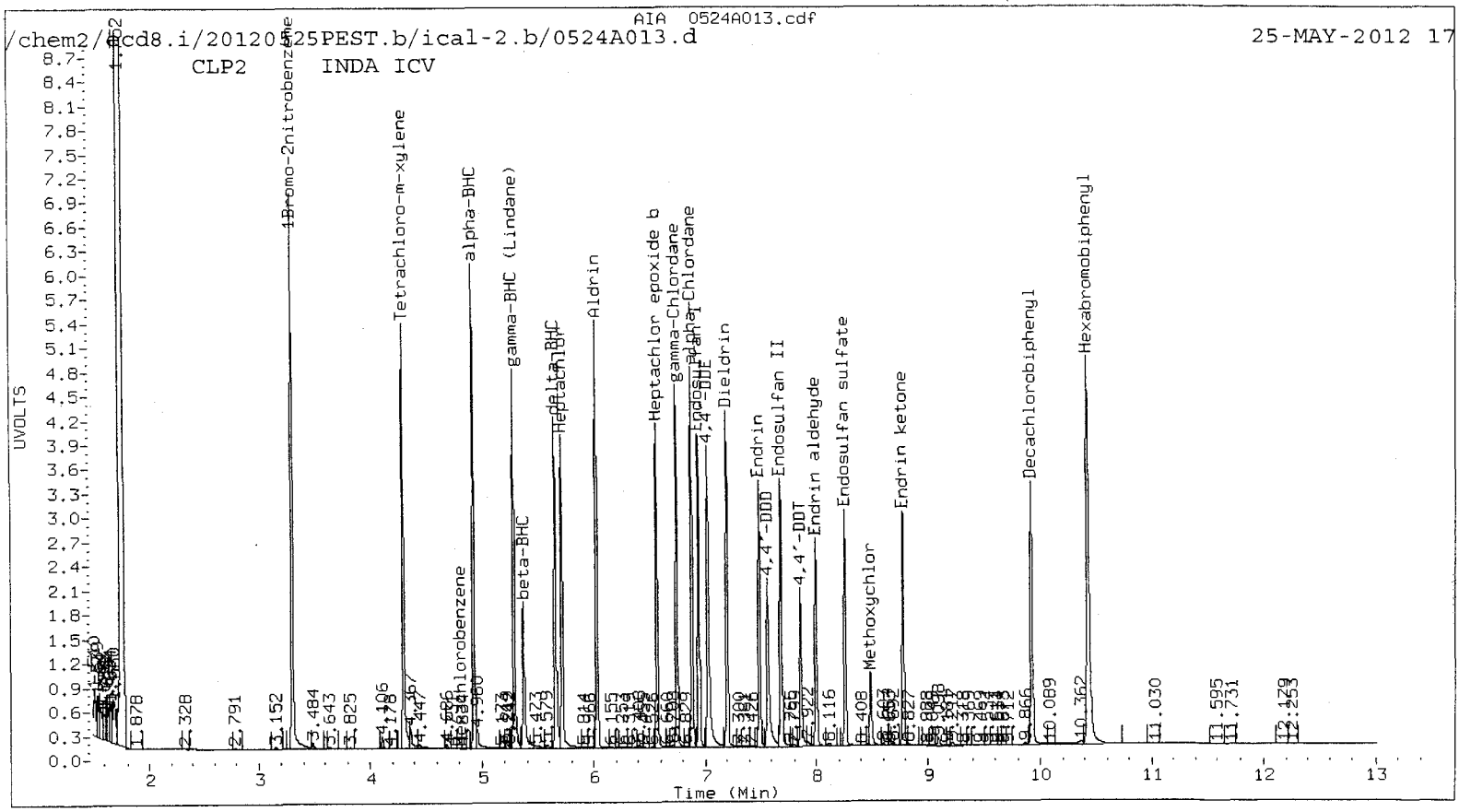
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AIA 0524A013.cdf
25-MAY-2012 17
CLP2 INDA ICV
UVOLTS
Time (Min)
1.878
2.328
2.791
1Bromo-2nitrobenzene
3.152
3.484
3.643
3.825
Tetrachloro-m-xylene
4.106
4.447
4.686
Hexachlorobenzene
4.960
alpha-BHC
5.423
gamma-BHC (Lindane)
5.473
beta-BHC
5.814
delta-BHC
Heptachlor
6.155
Aldrin
6.755
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
7.300
Endrin
Endosulfan II
4,4'-DDD
7.755
4,4'-DDT
Endrin aldehyde
8.116
Endosulfan sulfate
8.408
Methoxychlor
8.827
Endrin ketone
9.866
Decachlorobiphenyl
10.089
10.362
Hexabromobiphenyl
11.030
11.595
11.731
12.179
12.253

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/29/2012

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A014.d ARI ID: HCB/HCBD ICV
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A014.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 17:43
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

HCB 40.8 & HCBD 46.8

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.029	-0.001	892508	3.295	-0.001	1427760	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
----			----			~~0.0000~~	~~0.0000~~	---	alpha-BHC
4.826	-0.020	1065	----			0.1614	0.0000	---	beta-BHC
5.011	0.000	1216	5.609	-0.044	1327	0.0892	0.0605	38.3	delta-BHC A B
----			5.237	-0.045	4942	0.0000	0.1991	---	gamma-BHC (Lindane)
----			----			0.0000	0.0000	---	Heptachlor
----			6.054	0.026	2574	0.0000	0.0923	---	Aldrin
6.043	0.015	1380	6.555	-0.012	1856	0.0943	0.0798	16.6	Heptachlor epoxide b A B
6.365	-0.020	1420	----			0.0616	0.0000	---	Endosulfan I
----			7.227	0.028	1512	0.0000	0.0629	---	Dieldrin
6.335	-0.001	2500	----			0.2037	0.0000	---	4,4'-DDE
----			----			0.0000	0.0000	---	Endrin
----			----			0.0000	0.0000	---	Endosulfan II
6.891	0.017	10480	----			0.9230	0.0000	---	4,4'-DDD
7.797	0.002	2944	----			0.2455	0.0000	---	Endosulfan sulfate
7.125	0.002	2505	7.869	0.011	1922	0.3254	0.1748	~~60.2*~~	4,4'-DDT A B
7.551	-0.010	1920	----			0.4395	0.0000	---	Methoxychlor
8.069	0.013	13898	----			0.9321	0.0000	---	Endrin ketone
7.396	0.000	1817	7.996	-0.003	1491	0.1592	0.0854	~~60.3*~~	Endrin aldehyde A B
6.114	-0.028	3826	----			0.2612	0.0000	---	gamma-Chlordane
----			----			~~0.0000~~	~~0.0000~~	---	alpha-Chlordane
1.728	0.000	1318722	2.036	-0.001	1836197	48.4324	40.6961 ✓	17.4	Hexachlorobutadiene A BM
4.287	0.000	622261	4.790	-0.001	985735	39.7729	36.1821 ✓	9.5	Hexachlorobenzene A B
9.132	-0.006	1283811	10.429	-0.005	1626638	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.896	0.000	471201	4.298	-0.001	1222679	37.2969	35.6302	4.6	Tetrachloro-m-xylene A B
8.979	-0.001	765007	9.922	0.001	947027	35.2675	34.6360	1.8	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	93.2	89.1	89.1	85-115
Decachlorobiphenyl	88.2	86.6	86.6	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

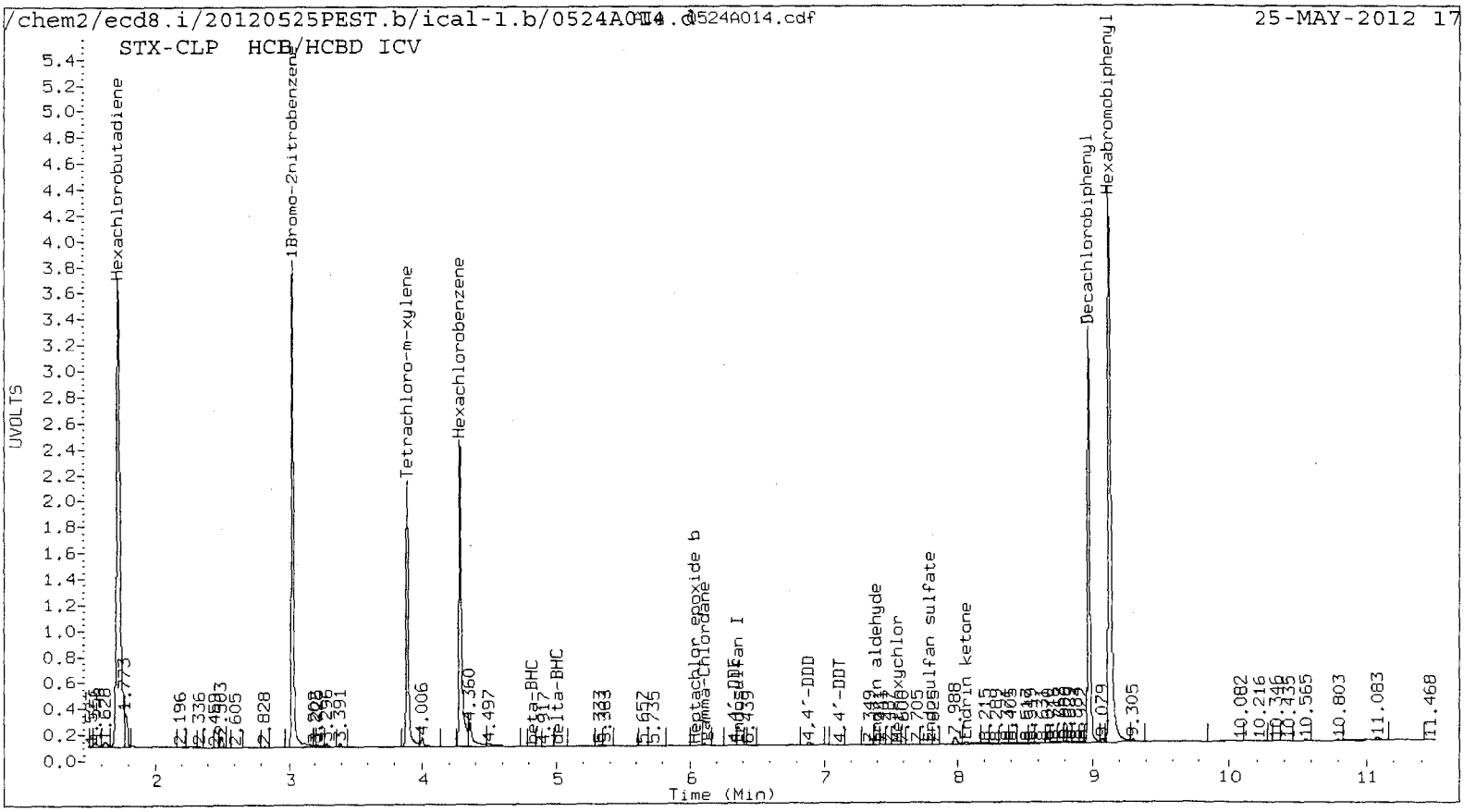
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	892508	6.7
Hexabromobiphenyl	1091107	1283811	17.7

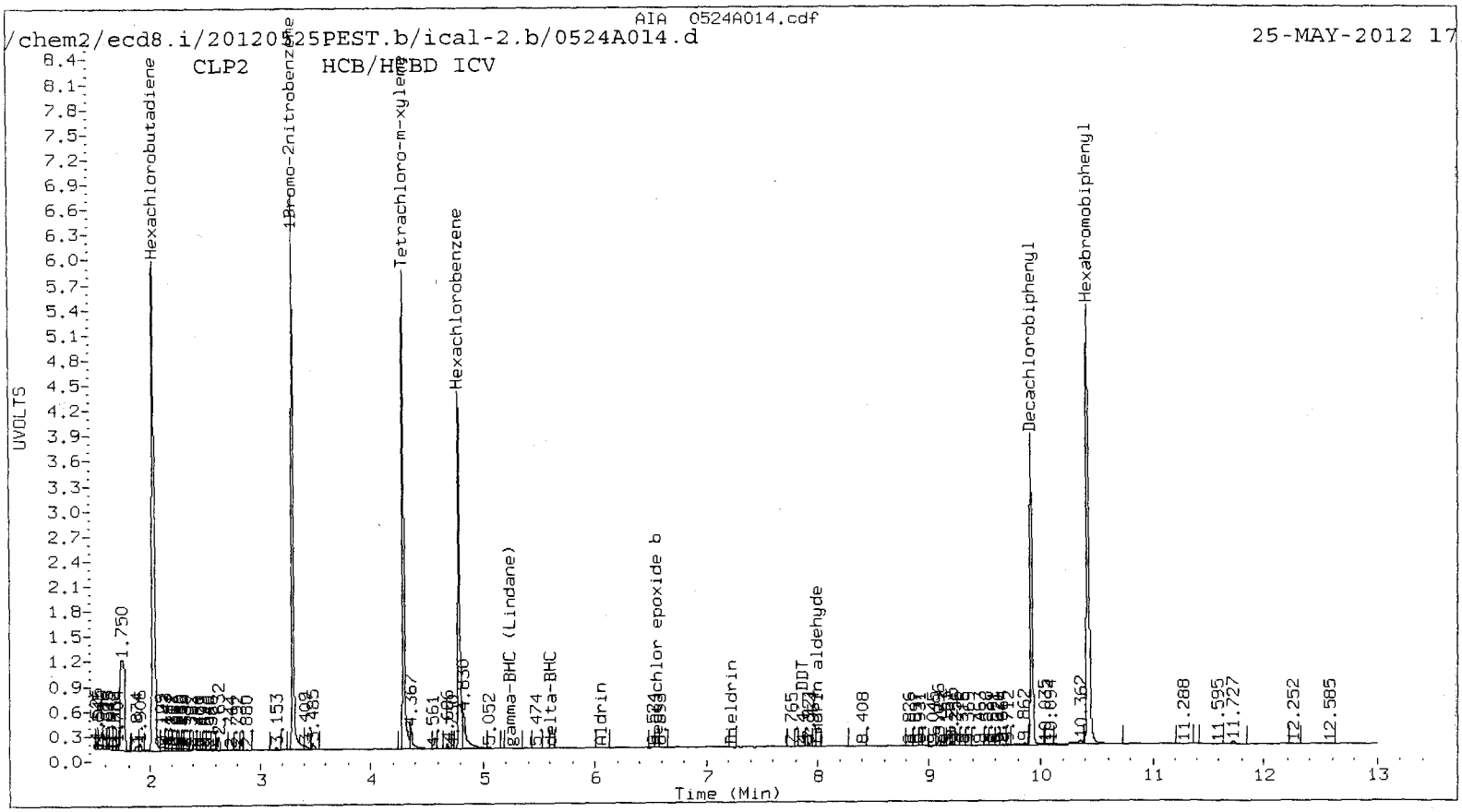
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1427760	14.3
Hexabromobiphenyl	1339634	1626638	21.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount


/chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A014.d
0524A014.cdf
25-MAY-2012 17
STX-CLP HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0524A014.cdf
/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A014.d
25-MAY-2012 17
CLP2 HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/29/2012

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A023.d ARI ID: WND ICV
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A023.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 20:33
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

50ppb

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
1.776	0.008	20892	1.752	0.000	5159601	0.0000	0.0000	---	Hexachloroethane
3.031	0.001	965292	3.297	0.000	1605656	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
5.938	-0.001	747620	6.482	0.000	1091823	58.2781	52.8811 ✓	9.7	Oxychlordane A B
6.026	-0.001	3895811	6.736	0.000	5317346	~~384.6898~~	~~299.7203~~	24.8	2,4-DDE A B
6.249	0.000	867555	6.831	0.000	1512977	59.7014	59.9433	0.4	trans-Nonachlor A B
6.490	-0.001	2574530	7.215	0.000	3912586	~~356.0637~~	~~295.7587~~	18.5	2,4-DDD A B
6.718	0.000	2894196	7.503	0.001	4016794	~~398.0717~~	~~344.4171~~	14.5	2,4-DDT A B
6.844	0.000	988012	7.557	0.000	1544186	59.6339	56.4582 ✓	5.5	cis-Nonachlor A B
7.710	0.000	510747	8.760	0.001	913412	51.9376	51.7784 ✓	0.3	Mirex A B
9.140	0.002	1273565	10.434	0.001	1716700	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.898	0.001	446071	4.299	0.001	1165869	32.6456	30.2105 ✓	7.7	Tetrachloro-m-xylene A B
8.982	0.002	744399	9.924	0.002	949248	34.5935	32.8959 ✓	5.0	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	81.6	75.5 ✓	75.5	29-110
Decachlorobiphenyl	86.5	82.2	82.2	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

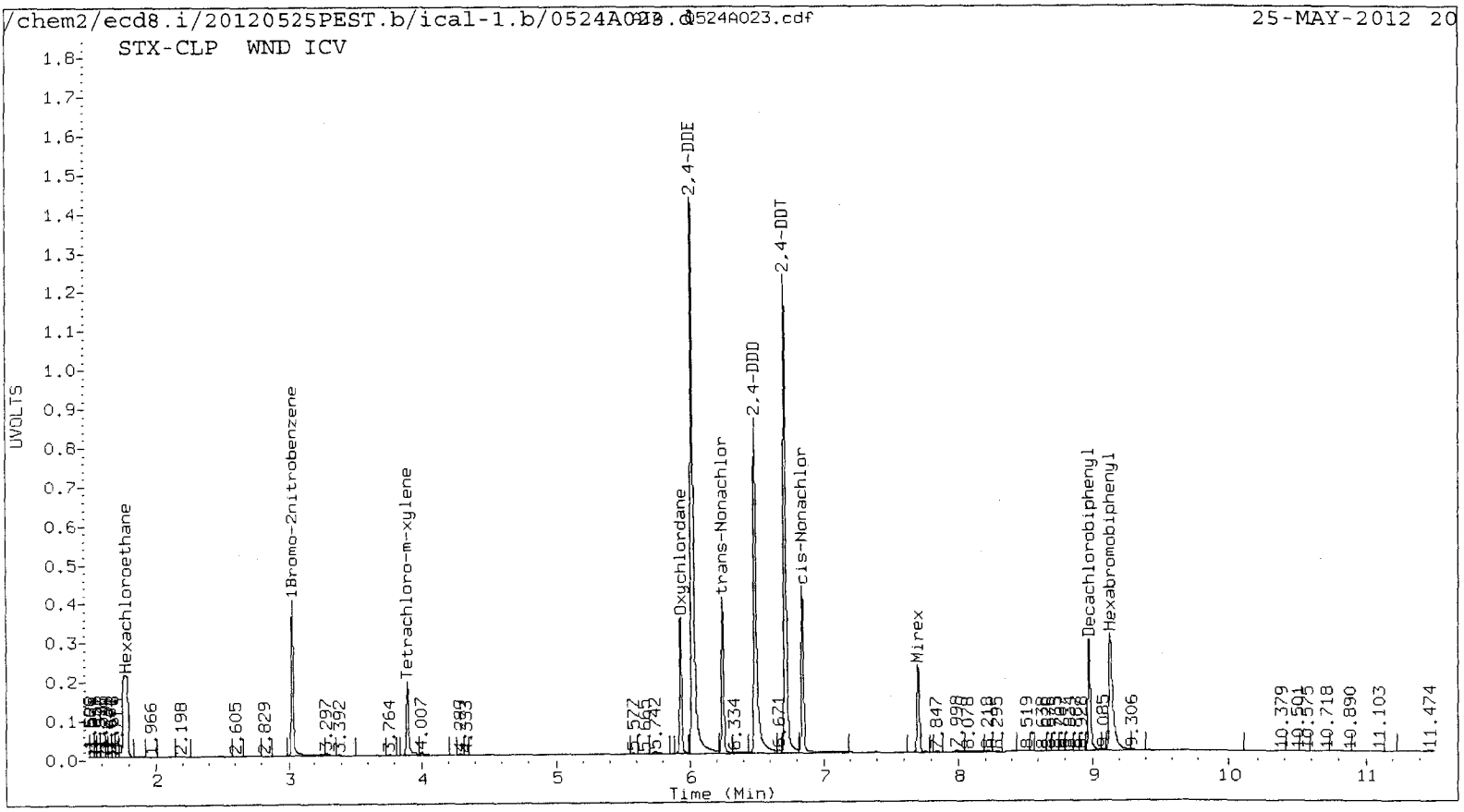
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	965292	15.4
Hexabromobiphenyl	1091107	1273565	16.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1605656	28.6
Hexabromobiphenyl	1339634	1716700	28.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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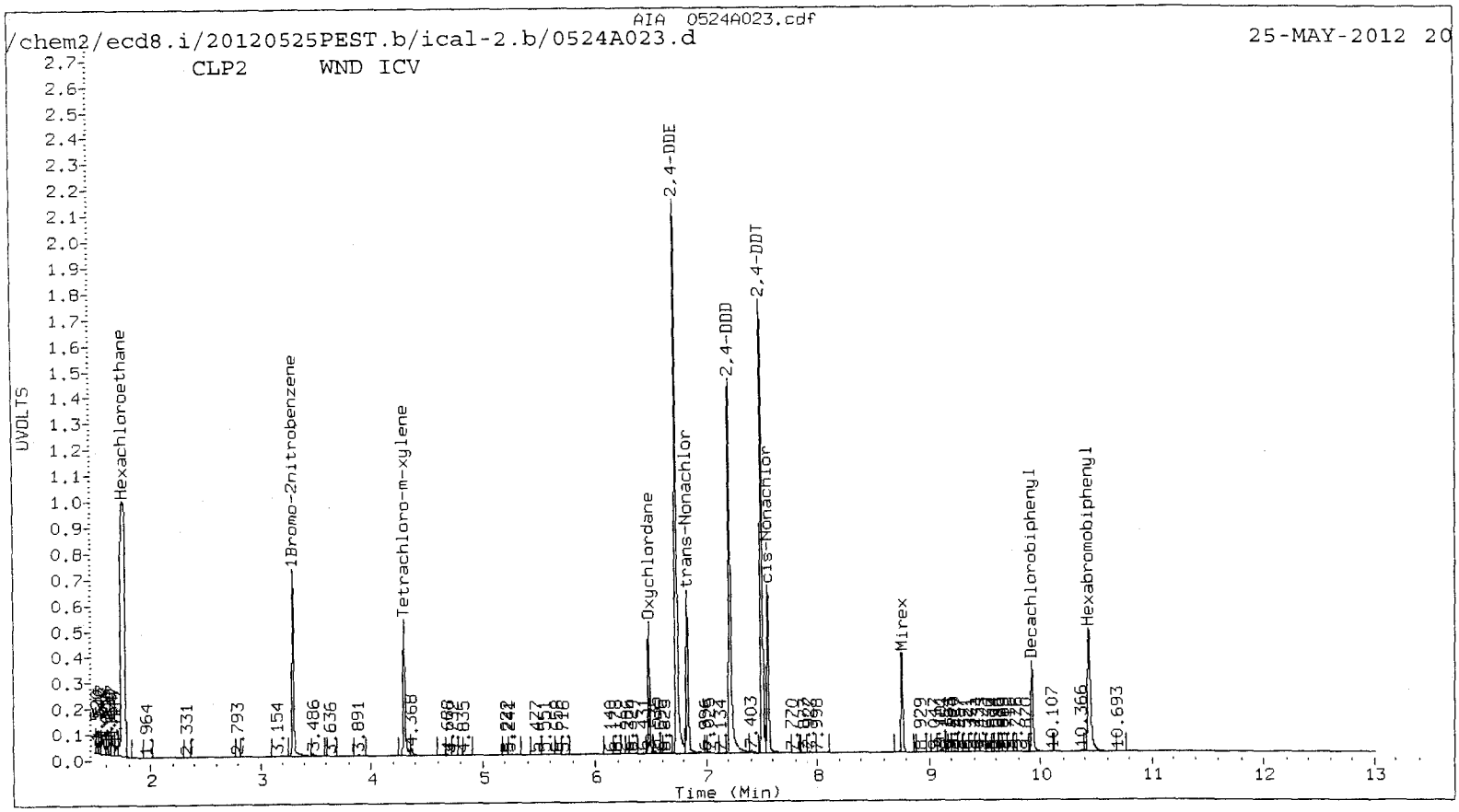
0524A023.cdf
25-MAY-2012 20
STX-CLP WND ICV
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 20
CLP2 WND ICV
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/29/2012

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A024.d ARI ID: OPDDTS ICV
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A024.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 20:52
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

50 ppb

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
1.772	0.003	3322	1.749	-0.003	782460	0.0000	0.0000	---	Hexachloroethane
3.029	-0.001	961204	3.296	-0.001	1621863	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
----			6.429	-0.053	5294	0.0000	0.2538	---	Oxychlordane
6.026	-0.001	597143	6.736	0.000	977377	54.4776	54.5408	0.1	2,4-DDE A B
----			----			0.0000	0.0000	---	trans-Nonachlor
6.490	-0.001	398711	7.215	0.000	694461	50.9465	50.2336	1.4	2,4-DDD A B
6.718	0.000	446247	7.503	0.000	715186	56.7068	58.6810	3.4	2,4-DDT A B
----			7.564	0.007	6570	0.0000	0.2299	---	cis-Nonachlor
----			----			0.0000	0.0000	---	Mirex
9.135	-0.004	1378461	10.432	-0.002	1793995	80.0000	80.0000	0.0	Hexabromobiphenyl A B
----			4.302	0.003	1237	0.0000	0.0317	---	Tetrachloro-m-xylene
----			9.925	0.004	2575	0.0000	0.0854	---	Decachlorobiphenyl

NS

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.1	0.0~	29-110
Decachlorobiphenyl	0.0	0.2	0.0~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

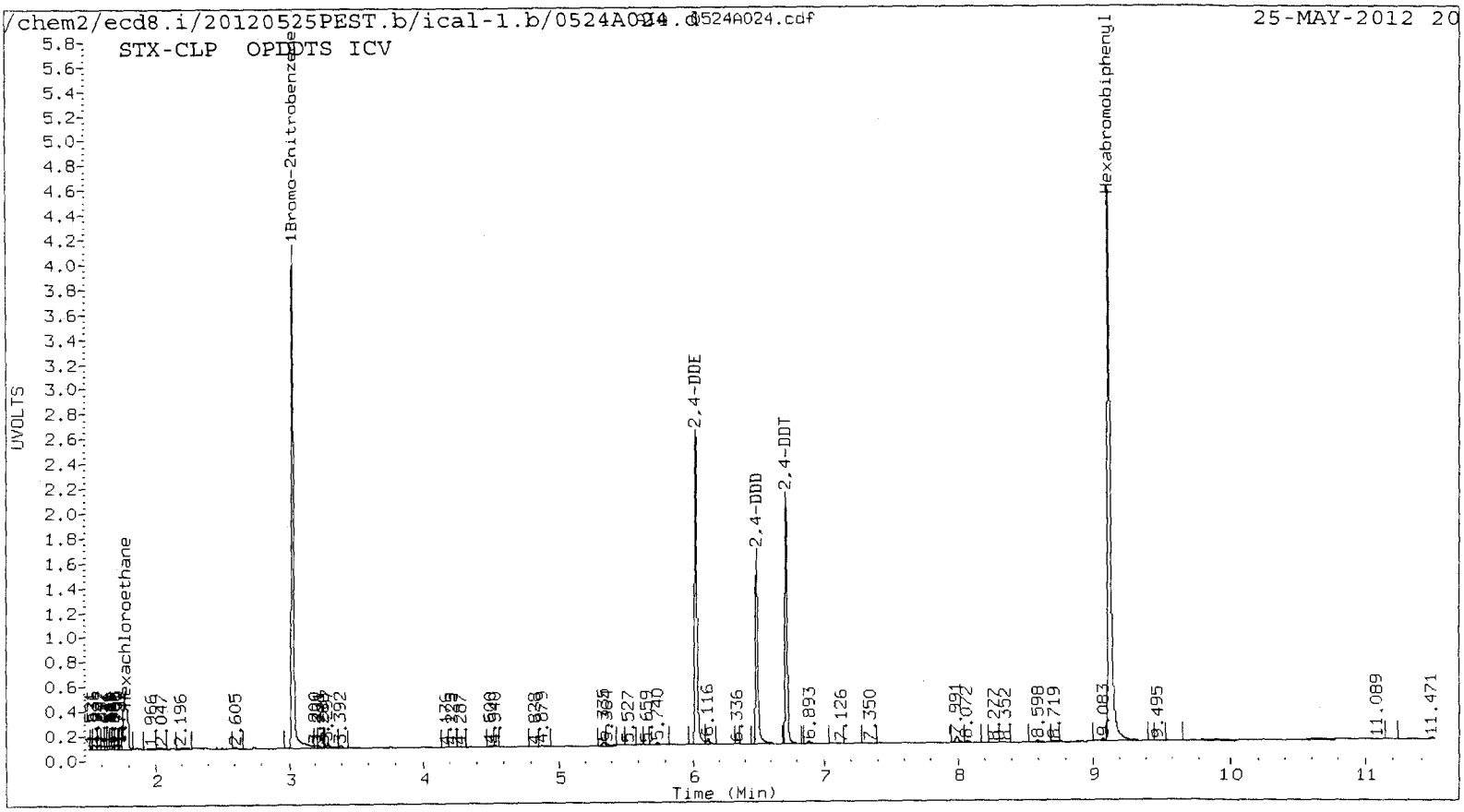
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	961204	14.9
Hexabromobiphenyl	1091107	1378461	26.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1621863	29.9
Hexabromobiphenyl	1339634	1793995	33.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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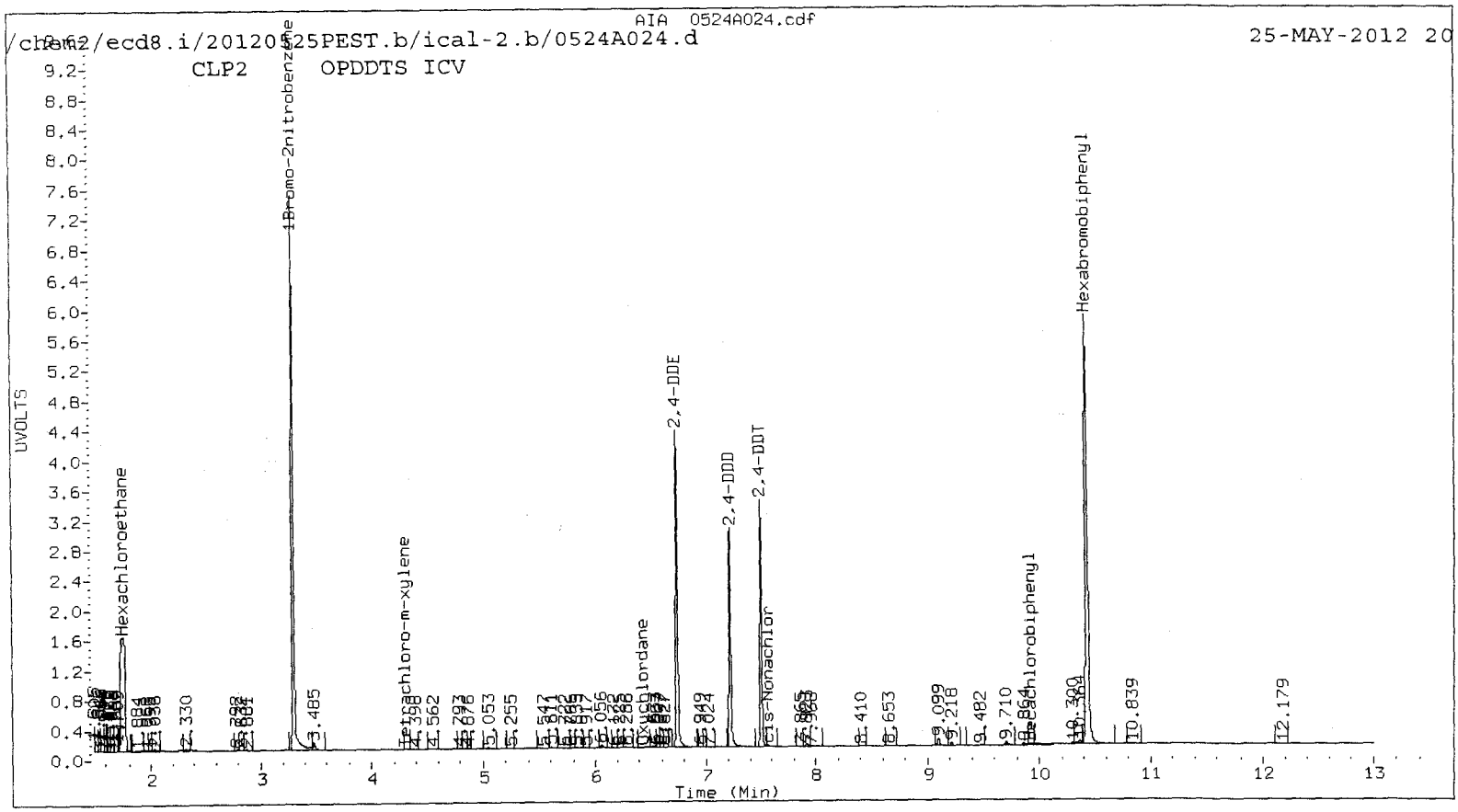
AIA 0524A024.cdf
25-MAY-2012 20
STX-CLP OPDDTS ICV
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
2,4-DDE
2,4-DDD
2,4-DDT
Hexabromobiphenyl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AIA 0524A024.cdf
25-MAY-2012 20
CLP2 OPDDTS ICV
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
2,4-DDD
2,4-DDT
cis-Nonachlor
Polychlorobiphenyl
Hexabromobiphenyl

Pesticide Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UU52, UU62

GC Analyst Notes / Corrective Action Log

ARI Project ID: UU52 Client ID: Anchor

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): 12.5g/25mL FV

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 (ECD8)

Dates: Curve: 5/25/2012 Analysis Start: 5/25/2012

Endrin/DDT Breakdown <15%? (YES) NO / NA ① Method Blank In Control? (YES) / NO

ICal Meets RF & %RSD Criteria? (YES) / NO LCS/LCSD Recovery In Control? (YES) / NO

CCal Meets RF & %RSD Criteria? (YES) NO ① Surrogate Recovery In Control? (YES) NO ②

Manual Integrations for ICal? (YES) / NO Samps Diluted out Manual Integrations for Samples? (YES) / NO

Internal Standard Meets Criteria? (YES) / NO / NA Special Analysis Criteria Met? (YES) / NO / NA Lvl 4 VDP

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

① See adjoining run log

② Samp G 10x Tcmx 1st col positive interference & DCBP 1st col out low due to interference.

Flags - Samp G 10x B-BHC opposite shifts & background interference and Endrin Aldehyde opposite shifts

- Acid cleaned PCB extracts were run prior to these samps & included for file

Additional Details on Reverse: Yes / (No)

Analyst: **Date:** 5/29/2012

Reviewer: **Date:** 5/29/12

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd8.i/20120525PEST.b/ical-2.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	25-MAY-2012 14:34	0524A004.d	1	DS	
2	25-MAY-2012 14:53	0524A005.d	1	IB	
3	25-MAY-2012 15:12	0524A006.d	1	INDAE	
4	25-MAY-2012 15:31	0524A007.d	1	INDAA	
5	25-MAY-2012 15:50	0524A008.d	1	INDAB	
6	25-MAY-2012 16:09	0524A009.d	1	INDAC	
7	25-MAY-2012 16:28	0524A010.d	1	INDAD	
8	25-MAY-2012 16:47	0524A011.d	1	INDAF	
9	25-MAY-2012 17:06	0524A012.d	1	IDNAG	
10	25-MAY-2012 17:25	0524A013.d	1	INDA ICV	
11	25-MAY-2012 17:43	0524A014.d	1	HCB/HCBD ICV	
12	25-MAY-2012 18:02	0524A015.d	1	TOXAPH 2500	
13	25-MAY-2012 18:21	0524A016.d	1	WNDE	
14	25-MAY-2012 18:40	0524A017.d	1	WNDA	
15	25-MAY-2012 18:59	0524A018.d	1	WNDB	
16	25-MAY-2012 19:18	0524A019.d	1	WNDC	
17	25-MAY-2012 19:37	0524A020.d	1	WNDD	
18	25-MAY-2012 19:56	0524A021.d	1	WNDF	
19	25-MAY-2012 20:14	0524A022.d	1	WNDG	
20	25-MAY-2012 20:33	0524A023.d	1	WND ICV	
21	25-MAY-2012 20:52	0524A024.d	1	OPDDTS ICV	
22	25-MAY-2012 21:11	0524A025.d	1	DDT RT	
23	25-MAY-2012 21:30	0524A026.d	1	TECH 200	
24	25-MAY-2012 21:49	0524A027.d	1	DS - Passes	
25	25-MAY-2012 22:08	0524A028.d	1	IB - LRL	
26	25-MAY-2012 22:27	0524A029.d	1	INDAE - HCB↓C_2	
27	25-MAY-2012 22:46	0524A030.d	1	UU57MBW2	
28	25-MAY-2012 23:04	0524A031.d	1	UU57LCSW2	
29	25-MAY-2012 23:23	0524A032.d	1	UU57LCSDW2	
30	25-MAY-2012 23:42	0524A033.d	5	UU57I	
31	26-MAY-2012 00:01	0524A034.d	2	US34G	
32	26-MAY-2012 00:20	0524A035.d	1	WND ICV	
33	26-MAY-2012 00:39	0524A036.d	1	TECH 200	
34	26-MAY-2012 00:58	0524A037.d	1	DS - Passes	
35	26-MAY-2012 01:17	0524A038.d	1	INDAE - HCB↓C_2	
36	26-MAY-2012 01:35	0524A039.d	1	UU52MBS1	UU52MBS1
37	26-MAY-2012 01:54	0524A040.d	1	UU52A	MS001-SS-120515
38	26-MAY-2012 02:13	0524A041.d	1	UU52B	MS101-SS-120515
39	26-MAY-2012 02:32	0524A042.d	1	UU52C Acid Cleaned	MS002-SS-120515
40	26-MAY-2012 02:51	0524A043.d	1	UU52D	MS003-SS-120515
41	26-MAY-2012 03:10	0524A044.d	1	UU52E	MS004-SS-120515
42	26-MAY-2012 03:29	0524A045.d	1	UU52F PCB Exts	MS005-SS-120515
43	26-MAY-2012 03:48	0524A046.d	1	UU52G	MS006-SS-120515
44	26-MAY-2012 04:07	0524A047.d	1	UU52H	MS007-SS-120515
45	26-MAY-2012 04:25	0524A048.d	1	UU52I	MS008-SS-120515
46	26-MAY-2012 04:44	0524A049.d	1	UU52J	MS009-SS-120515
47	26-MAY-2012 05:03	0524A050.d	1	WND ICV	
48	26-MAY-2012 05:22	0524A051.d	1	TECH 200	
49	26-MAY-2012 05:41	0524A052.d	1	DS - Passes	
50	26-MAY-2012 06:00	0524A053.d	1	INDAE - HCB↓C_1 & TCMX↓C_1	

	Inject Date/Time	Filename	DF	LabID	ClientID	
51	26-MAY-2012 06:19	0524A054.d	1	UU52MBS1	UU52MBS1	
52	26-MAY-2012 06:38	0524A055.d	1	UU52LCSS1	UU52LCSS1	
53	26-MAY-2012 06:56	0524A056.d	100	UU52A	MS001-SS-120515	
54	26-MAY-2012 07:15	0524A057.d	100	UU52B	MS101-SS-120515	
55	26-MAY-2012 07:34	0524A058.d	100	UU52C	MS002-SS-120515	
56	26-MAY-2012 07:53	0524A059.d	100	UU52CMS	MS002-SS-120515	MS
57	26-MAY-2012 08:12	0524A060.d	100	UU52CMSD	MS002-SS-120515	MSD
58	26-MAY-2012 08:31	0524A061.d	100	UU52D	MS003-SS-120515	
59	26-MAY-2012 08:50	0524A062.d	100	UU52E	MS004-SS-120515	
60	26-MAY-2012 09:09	0524A063.d	100	UU52F	MS005-SS-120515	
61	26-MAY-2012 09:27	0524A064.d	1	DCM		
62	26-MAY-2012 09:46	0524A065.d	1	WND ICV		
63	26-MAY-2012 10:05	0524A066.d	1	TECH 200		
64	26-MAY-2012 10:24	0524A067.d	1	DS — DDT bal >15% @ 27.5 & 40.6%		
65	26-MAY-2012 10:43	0524A068.d	1	INDAE — DDE ↓C_1, DDT ↓C_2, Methoxychlor ↓C_2, HCBD ↓C_1, HCB ↓C_1,		
66	26-MAY-2012 11:02	0524A069.d	10	UU52G	MS006-SS-120515	TCMX ↓C_1 & DCBP ↓C_1
67	26-MAY-2012 11:21	0524A070.d	100	UU52H	MS007-SS-120515	
68	26-MAY-2012 11:40	0524A071.d	100	UU52I	MS008-SS-120515	
69	26-MAY-2012 11:59	0524A072.d	100	UU52J	MS009-SS-120515	
70	26-MAY-2012 12:18	0524A073.d	1	DCM		
71	26-MAY-2012 12:36	0524A074.d	1	WND ICV		
72	26-MAY-2012 12:55	0524A075.d	1	TECH 200		
73	26-MAY-2012 13:14	0524A076.d	1	DS — DDT bal >15% @ 48.1 & 65.8%		
74	26-MAY-2012 13:33	0524A077.d	1	INDAE — DDE ↓C_1, DDD ↑C_2, DDT ↓bc, Methoxychlor ↓bc,		
75	26-MAY-2012 13:52	0524A078.d	1	TOXAPH 2500 - NR	Endrin ketone ↓C_2, HCBD ↓bc,	
76	26-MAY-2012 14:11	0524A079.d	1	WNDE - NR	HCB ↓bc, TCMX ↓C_1 & DCBP ↓C_1,	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A038.d ARI ID: INDAE
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A038.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 01:17
Compound Sublist: INDA Report Date: 05/29/2012 09:31
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.031	0.001	1070501	3.297	0.001	1741963	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.456	0.003	429239	4.931	0.002	722590	20.8811	19.9326	4.6	alpha-BHC A B
4.851	0.005	147881	5.370	0.004	287963	18.6884	19.0492	1.9	beta-BHC A B
5.015	0.005	330005	5.657	0.004	520086	20.1936	19.4449	3.8	delta-BHC A B
4.758	0.003	332321	5.285	0.003	618698	19.8891	20.4317	2.7	gamma-BHC (Lindane) A B
5.204	0.003	342151	5.716	0.003	617481	20.7646	22.4043	7.6	Heptachlor A B
5.480	0.003	417815	6.032	0.003	670288	21.3187	19.6989	7.9	Aldrin A B
6.031	0.003	354172	6.570	0.003	559602	20.1793	19.7303	2.2	Heptachlor epoxide b A B
6.388	0.004	597302	6.945	0.003	545985	21.6040	19.8108	8.7	Endosulfan I A B
6.605	0.004	806432	7.202	0.003	1194807	42.9864	40.7711	5.3	Dieldrin A B
6.350	0.014	464236	7.031	0.008	1181503	30.3501	36.5395	18.5	4,4'-DDE A B
6.815	0.004	658723	7.493	0.003	915073	44.1555	39.7433	10.5	Endrin A B
7.020	0.004	652423	7.689	0.003	1007618	42.5282	41.0813	3.5	Endosulfan II A B
6.886	0.012	457313	7.572	0.007	799250	37.6566	38.1591	1.3	4,4'-DDD A B
7.800	0.004	532333	8.262	0.004	872322	41.5026	42.3330	2.0	Endosulfan sulfate A B
7.132	0.008	384736	7.864	0.006	608403	46.7312	46.5769	0.3	4,4'-DDT A BN
7.568	0.007	1025797	8.493	0.005	1539273	219.5136	230.7903	5.0	Methoxychlor A B
8.060	0.004	617425	8.784	0.004	971323	38.7134	43.6446	12.0	Endrin ketone A B
7.400	0.004	513777	8.002	0.004	780824	42.0825	37.6445	11.1	Endrin aldehyde A B
6.146	0.003	359847	6.749	0.004	615824	20.4841	20.1820	1.5	gamma-Chlordane A B
6.265	0.004	367832	6.885	0.003	585569	20.3093	19.1215	6.0	alpha-Chlordane A B
1.729	0.001	599657	2.037	0.000	925889	18.3616	16.8193	8.8	Hexachlorobutadiene A B
4.291	0.004	311424	4.794	0.003	510872	16.5955	15.3696	7.7	Hexachlorobenzene A B
9.145	0.007	1373176	10.438	0.005	1932735	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.899	0.002	531188	4.301	0.002	1355338	35.0542	32.3720	8.0	Tetrachloro-m-xylene A B
8.985	0.005	843044	9.926	0.005	1101511	36.3357	33.9057	6.9	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	87.6	80.9	80.9~	85-115
Decachlorobiphenyl	90.8	84.8	84.8~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

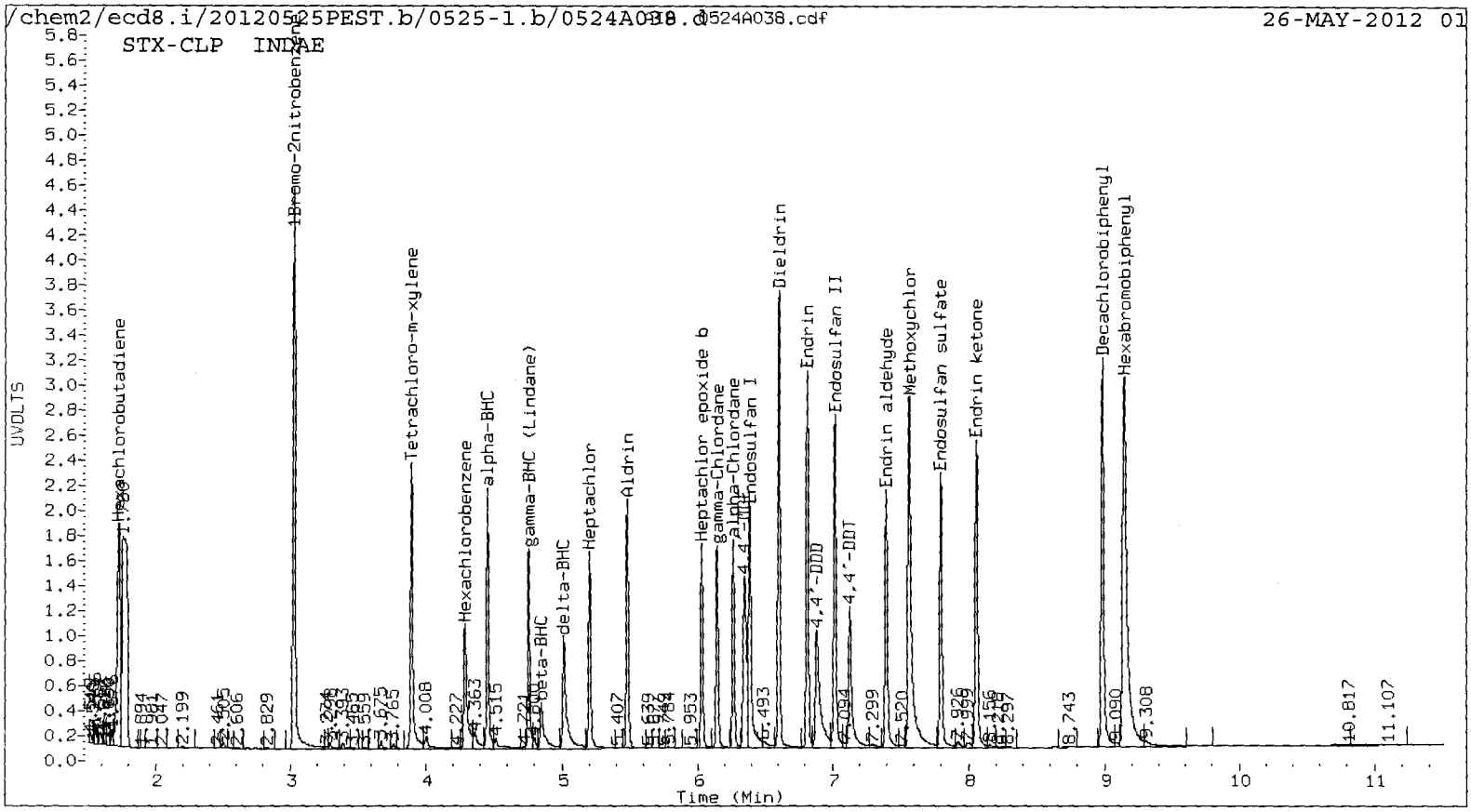
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1070501	28.0
Hexabromobiphenyl	1091107	1373176	25.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1741963	39.5
Hexabromobiphenyl	1339634	1932735	44.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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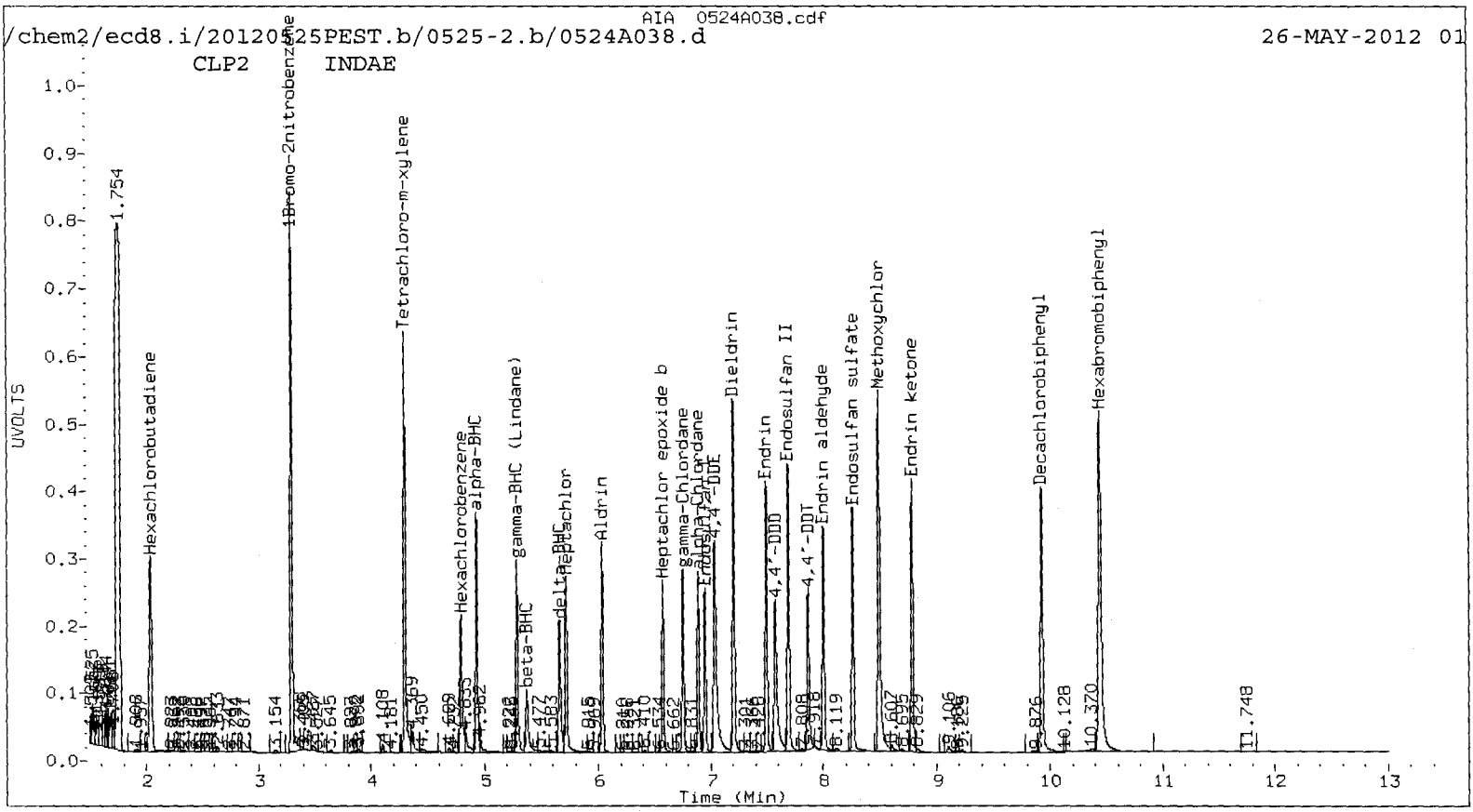
0524A038.cdf
26-MAY-2012 01
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1.754
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
4.008
Hexachlorobenzene
4.363
alpha-BHC
4.515
gamma-BHC (Lindane)
4.721
beta-BHC
4.800
delta-BHC
4.953
Heptachlor
5.407
Aldrin
5.639
5.784
Heptachlor epoxide b
5.953
gamma-Chlordane
6.084
alpha-Chlordane
6.194
4,4'-DDE
6.247
Endosulfan I
6.493
Dieldrin
6.743
Endrin
6.894
4,4'-DDD
7.094
Endosulfan II
7.299
4,4'-DDT
7.520
Endrin aldehyde
7.926
Methoxychlor
7.969
Endosulfan sulfate
8.156
8.257
Endrin ketone
8.743
Decachlorobiphenyl
9.090
Hexabromobiphenyl
9.308
10.817
11.107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26-MAY-2012 01
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1.754
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
4.450
Hexachlorobenzene
4.633
alpha-BHC
4.962
gamma-BHC (Lindane)
5.223
beta-BHC
5.473
delta-BHC
5.583
Heptachlor
5.915
Aldrin
6.534
Heptachlor epoxide b
6.662
gamma-Chlordane
6.831
alpha-Chlordane
6.941
4,4'-DDE
7.301
Dieldrin
7.808
4,4'-DDD
7.918
Endosulfan II
8.119
4,4'-DDT
8.329
Endrin aldehyde
8.607
Endosulfan sulfate
8.829
Methoxychlor
9.106
Endrin ketone
9.876
Decachlorobiphenyl
10.128
10.370
Hexabromobiphenyl
11.748

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A053.d ARI ID: INDAE
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A053.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 06:00
Compound Sublist: INDA Report Date: 05/29/2012 10:50
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.030	0.000	1236508	3.296	0.000	1702782	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.454	0.001	504550	4.930	0.001	731244	21.2495	20.6355	2.9	alpha-BHC A B
4.848	0.002	174787	5.368	0.002	280856	19.1232	19.0066	0.6	beta-BHC A B
5.012	0.002	402777	5.655	0.002	567071	21.3377	21.6895	1.6	delta-BHC A B
4.757	0.001	431729	5.284	0.001	608614	22.3696	20.5612	8.4	gamma-BHC (Lindane) A B
5.203	0.002	438315	5.714	0.001	538743	23.0293	19.9972	14.1	Heptachlor A B
5.479	0.001	474227	6.030	0.002	651998	20.9485	19.6024	6.6	Aldrin A B
6.030	0.002	414043	6.569	0.002	507625	20.4234	18.3096	10.9	Heptachlor epoxide b A B
6.387	0.002	572187	6.944	0.002	487564	17.9171	18.0981	1.0	Endosulfan I A B
6.604	0.003	939908	7.201	0.002	1048746	43.3749	36.6105	16.9	Dieldrin A B
6.340	0.004	594178	7.026	0.003	1171415	33.4877	37.0611	10.1	4,4'-DDE A B
6.815	0.003	782815	7.491	0.002	790436	47.4195	36.3680	26.4	Endrin A B
7.019	0.003	778793	7.688	0.002	890843	45.8761	38.4763	17.5	Endosulfan II A B
6.880	0.006	580478	7.568	0.004	747896	43.1946	37.8269	13.3	4,4'-DDD A B
7.798	0.003	658149	8.260	0.002	750075	46.3695	38.5612	18.4	Endosulfan sulfate A B
7.128	0.004	401580	7.861	0.003	532147	44.0790	43.1574	2.1	4,4'-DDT A BMN
7.565	0.004	1166369	8.490	0.002	1245025	225.5549	197.7534	13.1	Methoxychlor A BM
8.059	0.003	828130	8.783	0.002	772654	46.9236	36.7786	24.2	Endrin ketone A B
7.399	0.003	594461	8.000	0.001	706440	44.0014	36.0801	19.8	Endrin aldehyde A B
6.144	0.002	430395	6.748	0.002	566513	21.2108	18.9932	11.0	gamma-Chlordane A B
6.264	0.002	416242	6.884	0.002	554289	19.8967	18.5166	7.2	alpha-Chlordane A B
1.729	0.001	638094	2.037	0.000	899159	16.9154	16.7096	1.2	Hexachlorobutadiene A B
4.288	0.001	337658	4.792	0.001	538811	15.5778	16.5831	6.3	Hexachlorobenzene A B
9.139	0.001	1519532	10.436	0.002	1824435	80.0000	80.0000	0.0	Hexabromobiphenyl A BM
3.897	0.000	550547	4.299	0.000	1385564	31.4540	33.8554	7.4	Tetrachloro-m-xylene A B
8.983	0.003	822950	9.925	0.004	1016381	32.0534	33.1424	3.3	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	78.6	84.6	78.6~	85-115
Decachlorobiphenyl	80.1	82.9	80.1~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

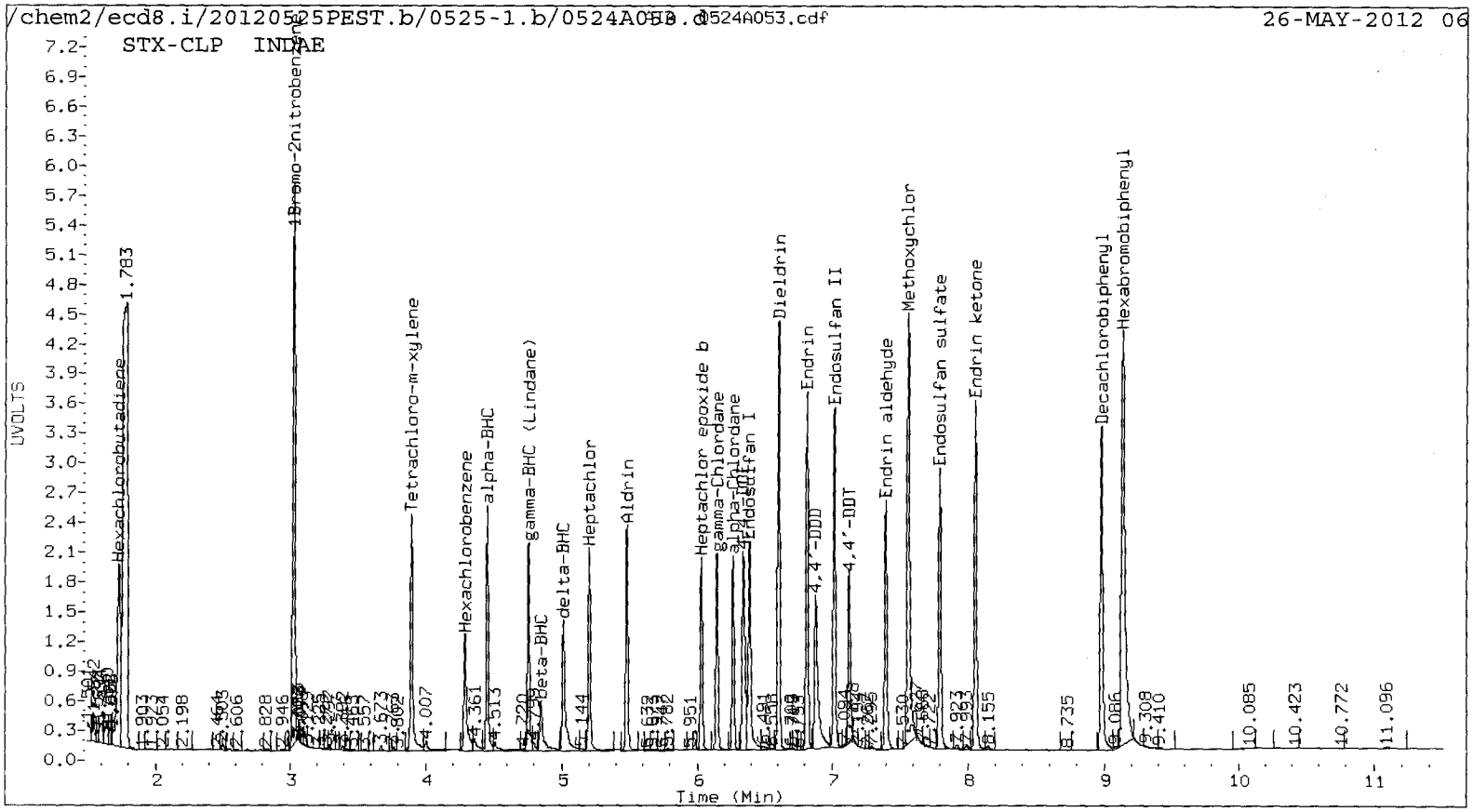
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1236508	47.8
Hexabromobiphenyl	1091107	1519532	39.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1702782	36.4
Hexabromobiphenyl	1339634	1824435	36.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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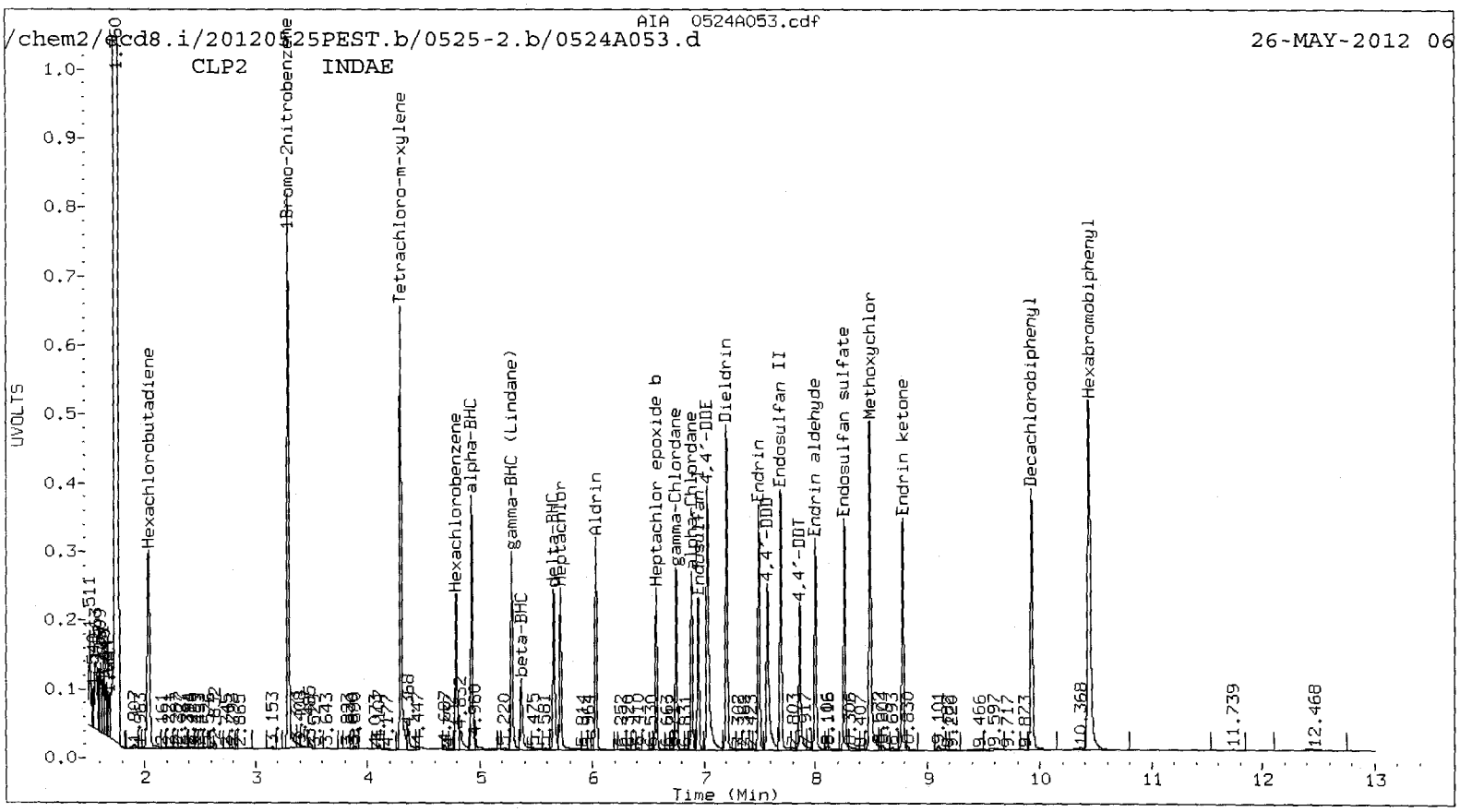
AIA 0524A053.cdf
26-MAY-2012 06
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1.783
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A053.cdf
26-MAY-2012 06
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

AR 5/29/12

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A059.d ARI ID: UU52CMS
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A059.d Client ID: MS002-SS-120515 MS
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 07:53
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.031	0.001	1542820	3.297	0.001	1933553	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.454	0.001	24328	4.932	0.003	19165	0.8212	0.4763	53.2*	alpha-BHC A B
4.867	0.021	196618	5.366	-0.001	5052	17.2407	0.3011	193.1*	beta-BHC A B
5.024	0.013	28930	5.647	-0.006	21618	1.2283	0.7282	51.1*	delta-BHC A B
4.757	0.002	14563	5.268	-0.014	51343	0.6048	1.5275	86.6*	gamma-BHC (Lindane) A B
5.206	0.004	15748	5.717	0.003	8619	0.6631	0.2817	80.7*	Heptachlor A B
5.480	0.003	4644	6.014	-0.015	42939	0.1644	1.1369	149.5*	Aldrin A B
6.034	0.006	14905	6.569	0.002	14407	0.5892	0.4576	25.1	Heptachlor epoxide b A B
6.396	0.012	11632	6.949	0.007	14731	0.2919	0.4815	49.0*	Endosulfan I A B
6.605	0.003	11139	7.202	0.003	16180	0.4120	0.4974	18.8	Dieldrin A B
6.336	0.000	13791	7.025	0.001	15925	0.6496	0.4437	37.7	4,4'-DDE A B
6.818	0.006	5352	7.495	0.005	14622	0.2793	0.5701	68.5*	Endrin A B
7.019	0.004	8183	7.690	0.004	21201	0.4152	0.7760	60.6*	Endosulfan II A B
6.874	0.000	25015	7.565	0.001	15854	1.6034	0.6795	80.9*	4,4'-DDD A B
7.801	0.006	11603	8.256	-0.002	16202	0.7042	0.7059	0.2	Endosulfan sulfate A B
7.128	0.004	13890	7.865	0.007	24748	1.3133	1.7008	25.7	4,4'-DDT A B
7.562	0.002	30292	8.490	0.002	13419	5.0459	1.8062	94.6*	Methoxychlor A B
8.065	0.009	23664	8.786	0.006	15606	1.1550	0.6295	58.9*	Endrin ketone A B
7.396	0.000	25449	8.001	0.002	5506	1.6226	0.2383	148.8*	Endrin aldehyde A B
6.144	0.002	12498	6.768	0.022	17228	0.4937	0.5087	3.0	gamma-Chlordane A B
6.266	0.005	5333	6.885	0.003	9787	0.2043	0.2879	34.0	alpha-Chlordane A B
1.729	0.001	22169	2.038	0.001	7787	0.4710	0.1275	114.8*	Hexachlorobutadiene A B
4.287	0.000	17114	4.793	0.002	17740	0.6328	0.4808	27.3	Hexachlorobenzene A B
5.940	0.001	5620	6.470	-0.012	54714	0.3163	2.2006	149.7*	Oxychlordane A B
5.988	-0.039	4251	6.730	-0.006	7254	0.3031	0.3395	11.3	2,4-DDE A B
6.214	-0.036	76441	6.822	-0.010	46505	3.7977	1.4692	88.4*	trans-Nonachlor A B
6.481	-0.011	6536	7.242	0.027	14806	0.6526	0.8924	31.0	2,4-DDD A B
6.692	-0.026	4299	7.527	0.025	11755	0.4269	0.8037	61.2*	2,4-DDT A B
6.842	-0.002	7284	7.600	0.043	4344	0.3174	0.1266	85.9*	cis-Nonachlor A B
7.694	-0.015	15171	8.761	0.002	6656	1.1138	0.3009	114.9*	Mirex A B
9.133	-0.005	1764083	10.433	-0.001	2152932	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.768	-0.001	24953	1.760	0.008	5888346	0.0000	0.0000	---	Hexachloroethane
3.898	0.002	24169	4.302	0.003	17453	1.1067	0.3756	98.7*	Tetrachloro-m-xylene A B
8.985	0.005	15979	9.929	0.008	14020	0.5361	0.3874	32.2	Decachlorobiphenyl A B

CD

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	2.8	0.9	0.9~	29-110
Decachlorobiphenyl	1.3	1.0	1.0~	18-151
4,4'-DDE	0.0	0.0	0.0~	0- 0
Endrin	1396286.9	2850637.8	1396286.9~	10-200
4,4'-DDD	0.0	0.0	0.0~	0- 0
4,4'-DDT	6566328.6	8504164.1	6566328.6~	0- 0
Endrin ketone	0.0	0.0	0.0~	0- 0
Endrin aldehyde	0.0	0.0	0.0~	0- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1542820	84.5
Hexabromobiphenyl	1091107	1764083	61.7

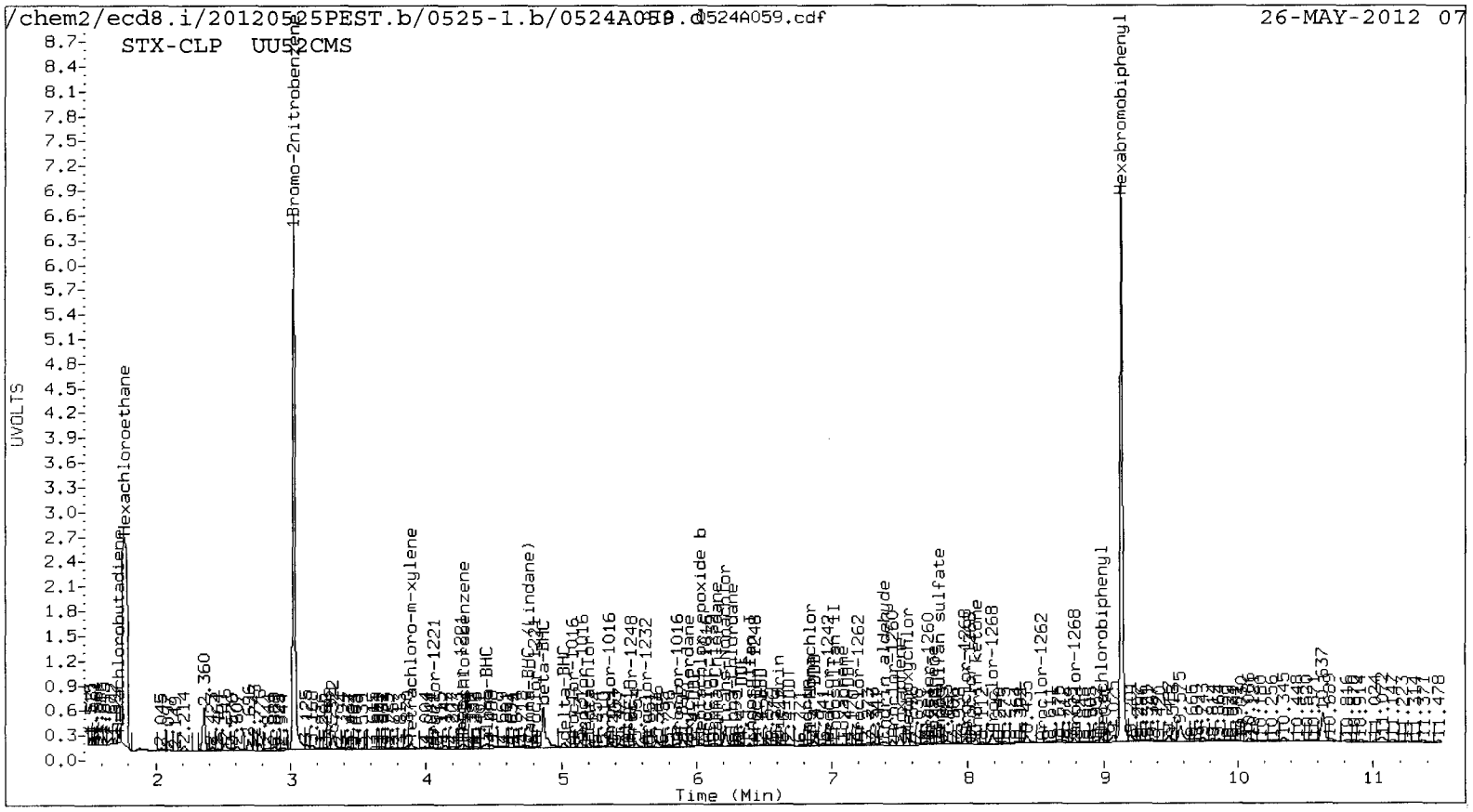
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1933553	54.9
Hexabromobiphenyl	1339634	2152932	60.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.086	0.018	14666	16.556	1	7.752	-0.007	6396	5.046
Toxaphene	2	7.128	0.009	13890	22.481	2	8.001	0.000	5506	3.937
Toxaphene	3	7.510	-0.013	43096	76.986	3	8.256	0.002	16202	26.948
Toxaphene	4	7.694	-0.010	15171	16.282	4	8.490	-0.006	13419	11.401
Toxaphene	5	7.752	0.001	5102	7.016	5	9.030	-0.009	5864	12.922
Toxaphene	6	8.021	-0.016	6680	12.672	NS	---			----
Total STX-CLPAve (6 peaks): 25.332						Total CLP2Ave (5 peaks): 12.051				RPD = 71*
Corrected Ave (5 peaks): 15.001						Corrected Ave (4 peaks): 8.326				RPD = 57*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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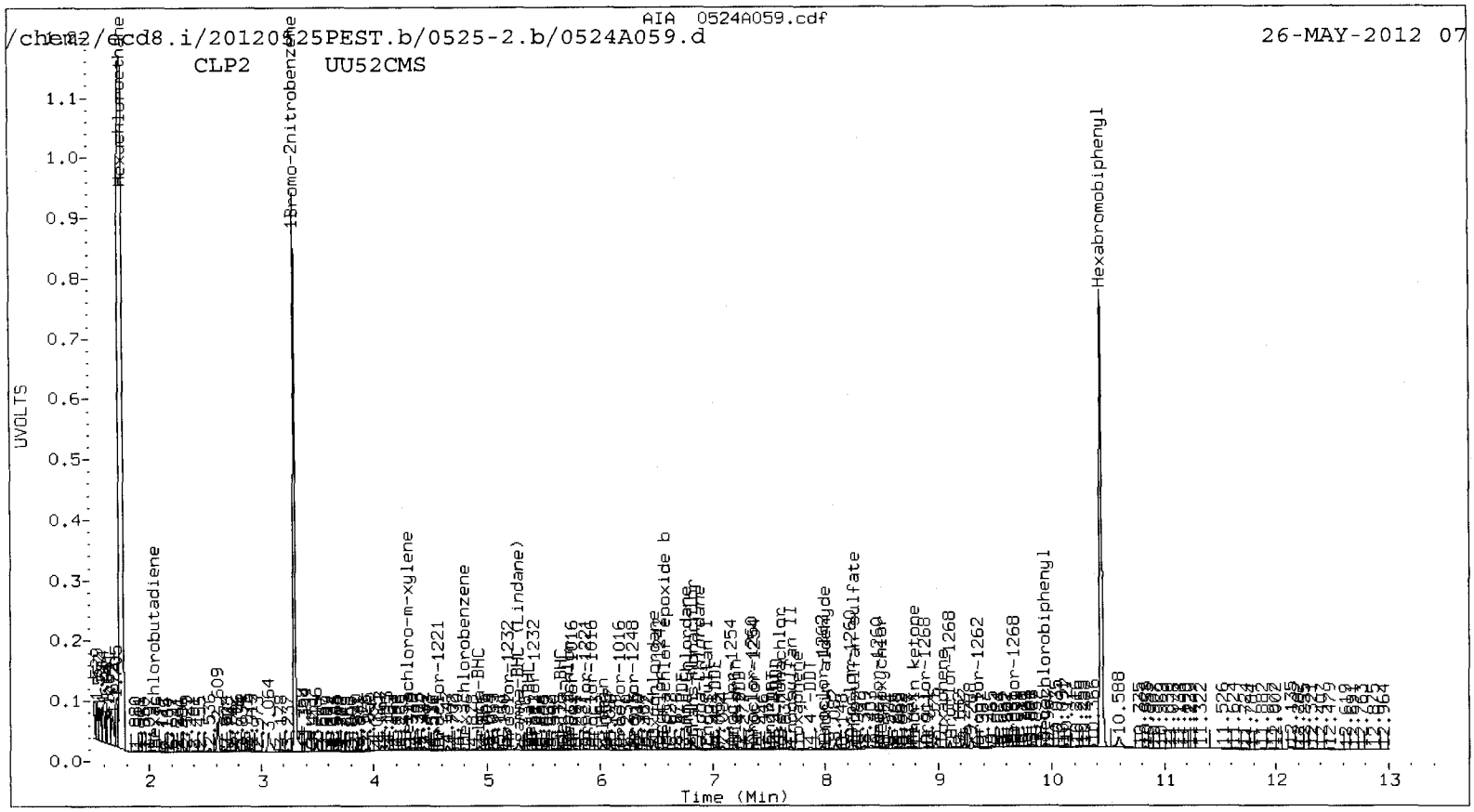
26-MAY-2012 07
STX-CLP UU52CMS
UVOLTS
Time (Min)
Hexachlorobutadiene
Hexachloroethane
1Bromo-2nitrobenzene
Hexabromobiphenyl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26-MAY-2012 07
CLP2 UU52CMS
UVOLTS
Time (Min)
Hexachlorobutadiene
Hexachloroethane
1Bromo-2nitrobenzene
Hexabromobiphenyl
10.588

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A060.d ARI ID: UU52CMSD
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A060.d Client ID: MS002-SS-120515 MSD
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 08:12
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.032	0.002	1496969	3.299	0.002	1900593	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.454	0.001	13409	4.932	0.003	17838	0.4665	0.4510	3.4	alpha-BHC A B
4.868	0.022	139572	5.366	0.000	4422	12.6134	0.2681	191.7*	beta-BHC A B
5.024	0.013	18303	5.648	-0.005	14451	0.8009	0.4952	47.2*	delta-BHC A B
4.758	0.002	9106	5.284	0.001	20196	0.3897	0.6113	44.3*	gamma-BHC (Lindane) A B
5.206	0.004	11307	5.718	0.004	4410	0.4907	0.1467	108.0*	Heptachlor A B
5.481	0.004	3384	6.015	-0.014	34398	0.1235	0.9265	153.0*	Aldrin A B
6.034	0.006	12044	6.571	0.004	14031	0.4907	0.4534	7.9	Heptachlor epoxide b A B
6.396	0.011	10119	6.949	0.007	13464	0.2617	0.4478	52.4*	Endosulfan I A B
6.605	0.004	9915	7.204	0.005	15104	0.3779	0.4724	22.2	Dieldrin A B
6.336	0.000	11166	7.026	0.003	14316	0.5421	0.4058	28.8	4,4'-DDE A B
6.818	0.006	4569	7.495	0.006	13323	0.2405	0.5251	74.3*	Endrin A B
7.020	0.005	6512	7.691	0.005	19269	0.3334	0.7129	72.5*	Endosulfan II A B
6.874	0.000	21599	7.566	0.002	14969	1.3966	0.6485	73.2*	4,4'-DDD A B
7.801	0.006	5186	8.258	-0.001	14734	0.3175	0.6488	68.6*	Endosulfan sulfate A B
7.128	0.005	8980	7.868	0.010	22754	0.8565	1.5807	59.4*	4,4'-DDT A B
7.564	0.003	14286	8.490	0.003	11751	2.4006	1.5988	40.1*	Methoxychlor A B
8.066	0.009	15235	8.786	0.006	13467	0.7502	0.5491	30.9	Endrin ketone A B
7.396	0.000	13400	8.001	0.003	4754	0.8619	0.2080	122.2*	Endrin aldehyde A B
6.146	0.003	11922	6.753	0.007	4719	0.4853	0.1417	109.6*	gamma-Chlordane A B
6.266	0.004	4903	6.886	0.004	9529	0.1936	0.2852	38.3	alpha-Chlordane A B
1.698	-0.030	10435	2.039	0.002	6677	0.2285	0.1112	69.1*	Hexachlorobutadiene A B
4.288	0.001	12529	4.794	0.003	13847	0.4775	0.3818	22.3	Hexachlorobenzene A B
5.941	0.002	4226	6.473	-0.009	44539	0.2399	1.8225	153.5*	Oxychlordane A B
5.986	-0.041	2456	6.732	-0.004	6735	0.1766	0.3207	57.9*	2,4-DDE A B
6.215	-0.035	59742	6.823	-0.009	38762	2.9942	1.2378	83.0*	trans-Nonachlor A B
6.481	-0.010	5279	7.243	0.028	15347	0.5317	0.9351	55.0*	2,4-DDD A B
6.690	-0.028	3664	7.529	0.026	9627	0.3670	0.6653	57.8*	2,4-DDT A B
6.843	-0.001	6030	7.602	0.045	4929	0.2651	0.1452	58.4*	cis-Nonachlor A B
7.696	-0.013	5741	8.762	0.002	6469	0.4252	0.2956	36.0	Mirex A B
9.134	-0.005	1748676	10.432	-0.001	2129930	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.768	-0.001	7337	1.759	0.007	1867269	0.0000	0.0000	---	Hexachloroethane
3.899	0.002	16058	4.302	0.004	16543	0.7578	0.3621	70.7*	Tetrachloro-m-xylene A B
8.985	0.005	12041	9.928	0.007	13701	0.4076	0.3827	6.3	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	1.9	0.9	0.9~	29-110
Decachlorobiphenyl	1.0	1.0	1.0~	18-151
4,4'-DDE	0.0	0.0	0.0~	0- 0
Endrin	1202511.9	2625350.6	1202511.9~	10-200
4,4'-DDD	0.0	0.0	0.0~	0- 0
4,4'-DDT	4282588.7	7903577.2	4282588.7~	0- 0
Endrin ketone	0.0	0.0	0.0~	0- 0
Endrin aldehyde	0.0	0.0	0.0~	0- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1496969	79.0
Hexabromobiphenyl	1091107	1748676	60.3

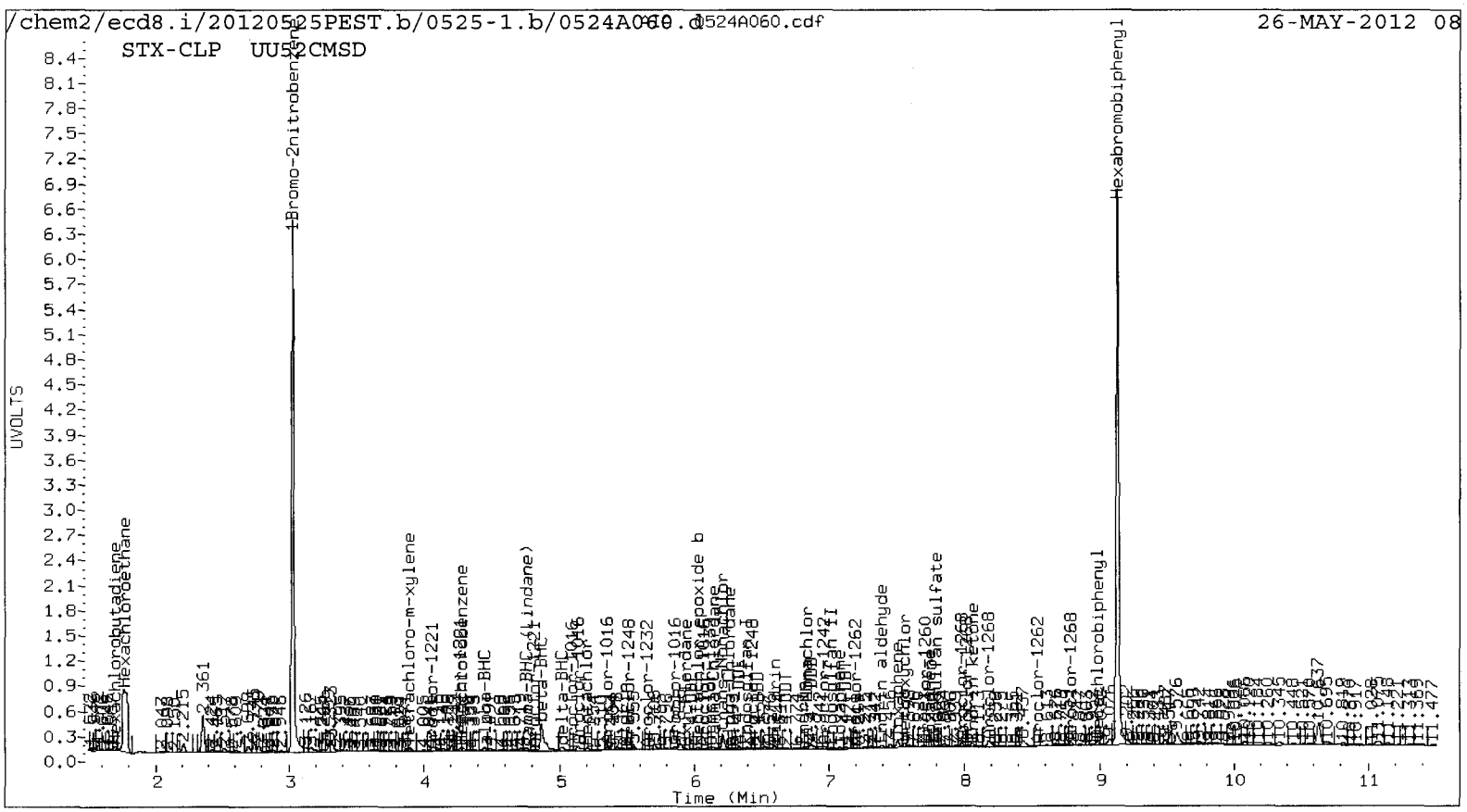
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1900593	52.2
Hexabromobiphenyl	1339634	2129930	59.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.086	0.017	10103	11.506	1	7.770	0.011	5859	4.672
Toxaphene	2	7.128	0.009	8980	14.662	2	8.001	0.000	4754	3.436
Toxaphene	3	7.511	-0.011	29416	53.011	3	8.258	0.003	14734	24.771
Toxaphene	4	7.696	-0.008	5741	6.216	4	8.490	-0.006	11751	10.092
Toxaphene	5	7.752	0.002	1095	1.519	5	9.031	-0.008	8236	18.344
Toxaphene	6	8.021	-0.017	1779	3.404	NS	---			----
	Total STX-CLPAve (6 peaks): 15.053					Total CLP2Ave (5 peaks): 12.263			RPD = 20	
	Corrected Ave (5 peaks): 7.461					Corrected Ave (4 peaks): 9.136			RPD = 20	
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		



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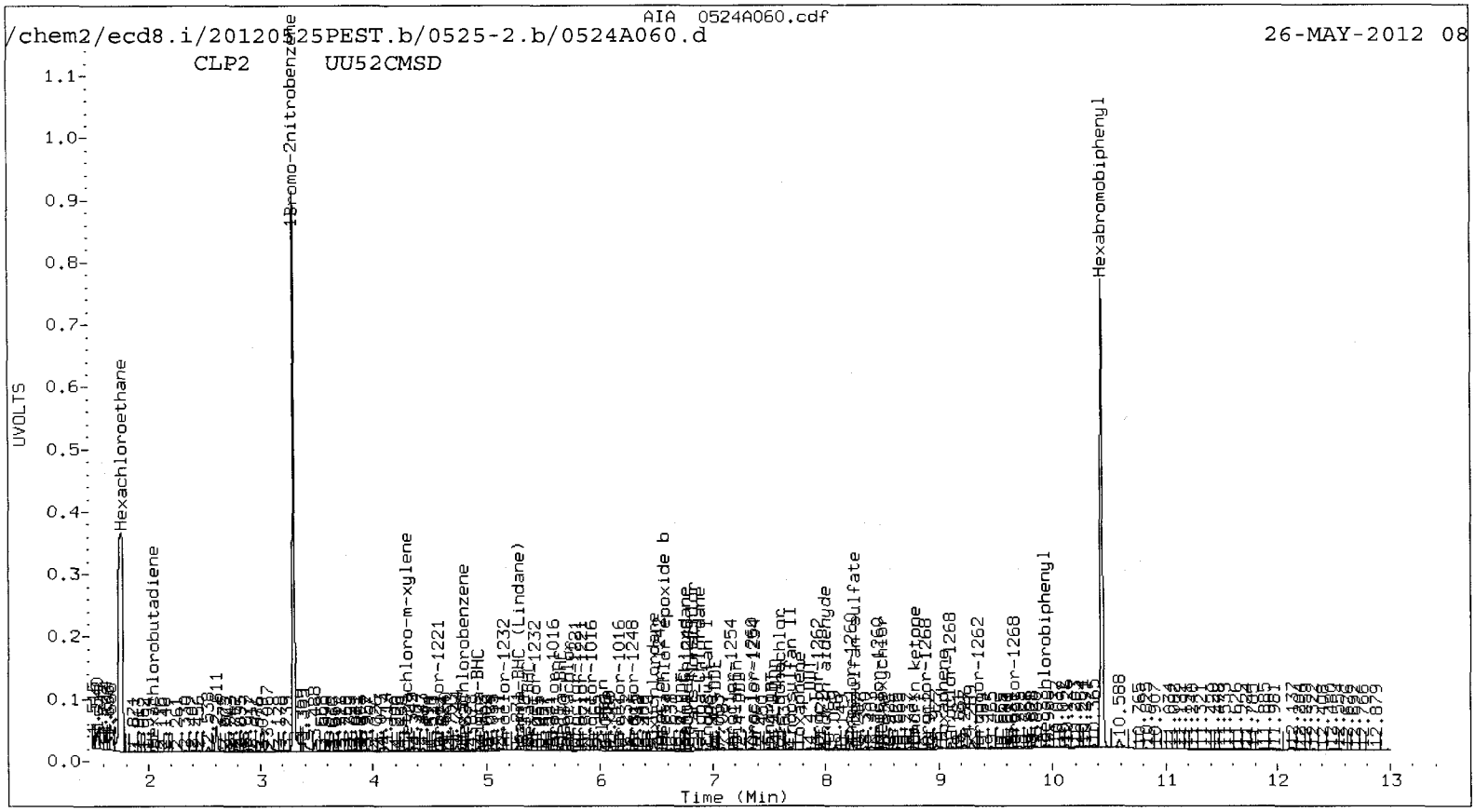


Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A056.d ARI ID: UU52A
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A056.d Client ID: MS001-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 06:56
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.031	0.001	1465559	3.297	0.001	1800758	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.449	-0.004	25123	4.930	0.001	27995	0.8927	0.7470	17.8	alpha-BHC A B
4.866	0.019	244397	5.362	-0.004	10517	22.5600	0.6730	188.4*	beta-BHC A B
5.025	0.014	21304	5.643	-0.009	17725	0.9522	0.6411	39.1	delta-BHC A B
4.718	-0.037	27957	5.267	-0.016	69309	1.2222	2.2141	57.7*	gamma-BHC (Lindane) A B
5.206	0.005	14478	5.747	0.034	3431	0.6418	0.1204	136.8*	Heptachlor A B
5.516	0.039	13019	6.012	-0.017	44129	0.4852	1.2546	88.4*	Aldrin A B
6.035	0.007	15771	6.561	-0.006	13204	0.6564	0.4503	37.2	Heptachlor epoxide b A B
6.396	0.012	14302	6.956	0.014	11316	0.3779	0.3972	5.0	Endosulfan I A B
6.576	-0.025	14648	7.197	-0.002	9581	0.5703	0.3163	57.3*	Dieldrin A B
6.332	-0.004	12675	7.024	0.000	8944	0.6285	0.2676	80.6*	4,4'-DDE A B
6.770	-0.042	11147	7.468	-0.021	2335	0.6276	0.0961	146.9*	Endrin A B
6.971	-0.044	12353	7.691	0.005	23297	0.6763	0.9000	28.4	Endosulfan II A B
6.871	-0.003	27713	7.564	-0.001	15010	1.9166	0.6790	95.4*	4,4'-DDD A B
7.772	-0.024	3623	8.250	-0.009	16389	0.2372	0.7536	104.2*	Endosulfan sulfate A B
7.138	0.014	10641	7.867	0.009	17850	1.0856	1.2948	17.6	4,4'-DDT A B
7.557	-0.004	13999	8.484	-0.004	5346	2.5161	0.7596	107.2*	Methoxychlor A B
8.066	0.009	19193	8.798	0.018	10843	1.0108	0.4616	74.6*	Endrin ketone A B
7.390	-0.006	18934	7.969	-0.030	26149	1.3026	1.1945	8.7	Endrin aldehyde A B
6.154	0.012	9800	6.767	0.021	15830	0.4075	0.5019	20.8	gamma-Chlordane A B
6.291	0.029	8194	6.919	0.038	5574	0.3305	0.1761	61.0*	alpha-Chlordane A B
1.726	-0.002	13085	1.995	-0.042	4696	0.2927	0.0825	112.0*	Hexachlorobutadiene A B
4.272	-0.015	26433	4.788	-0.003	15840	1.0289	0.4610	76.2*	Hexachlorobenzene A B
5.895	-0.044	49303	6.469	-0.013	68844	2.9938	2.9731	0.7	Oxychlordane A B
5.985	-0.042	4802	6.727	-0.009	10255	0.3694	0.5154	33.0	2,4-DDE A B
6.212	-0.037	103927	6.820	-0.012	68044	5.5711	2.2689	84.2*	trans-Nonachlor A B
6.479	-0.012	8318	7.239	0.024	21721	0.8961	1.3819	42.6*	2,4-DDD A B
6.687	-0.031	4131	7.525	0.022	21594	0.4426	1.5583	111.5*	2,4-DDT A B
6.841	-0.004	7620	7.598	0.041	6075	0.3583	0.1869	62.9*	cis-Nonachlor A B
7.693	-0.016	19977	8.763	0.003	12438	1.5824	0.5934	90.9*	Mirex A B
9.132	-0.006	1634931	10.431	-0.002	2039779	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.767	-0.001	8073	1.760	0.008	1964937	0.0000	0.0000	---	Hexachloroethane
3.898	0.002	32485	4.301	0.002	22887	1.5659	0.5288	99.0*	Tetrachloro-m-xylene A B
8.983	0.003	21279	9.927	0.005	26886	0.7703	0.7842	1.8	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	3.9	1.3	1.3~	29-110
Decachlorobiphenyl	1.9	2.0	1.9~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1465559	75.2
Hexabromobiphenyl	1091107	1634931	49.8

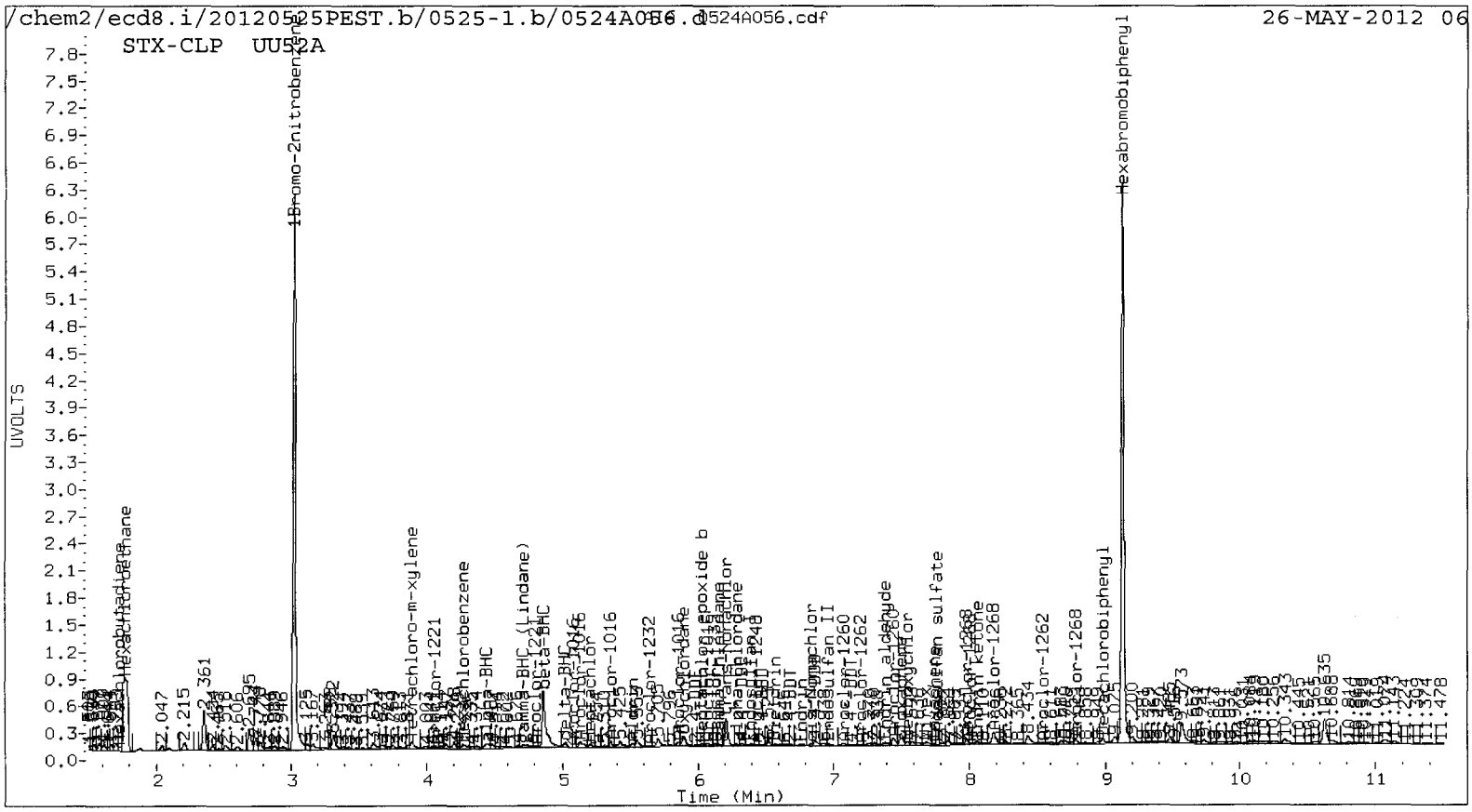
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1800758	44.2
Hexabromobiphenyl	1339634	2039779	52.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.082	0.013	15238	18.561	1	7.768	0.009	8017	6.676
Toxaphene	2	7.138	0.019	10641	18.583	2	7.969	-0.032	26149	19.736
Toxaphene	3	7.509	-0.014	45526	87.751	3	8.250	-0.005	16389	28.772
Toxaphene	4	7.693	-0.012	19977	23.133	4	8.484	-0.012	5346	4.794
Toxaphene	5	7.748	-0.002	4602	6.828	5	9.028	-0.011	9722	22.611
Toxaphene	6	8.017	-0.021	5731	11.730	NS	---			----
Total STX-CLPAve (6 peaks): 27.764						Total CLP2Ave (5 peaks): 16.518				RPD = 51*
Corrected Ave (5 peaks): 15.767						Corrected Ave (4 peaks): 13.454				RPD = 16
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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26-MAY-2012 06
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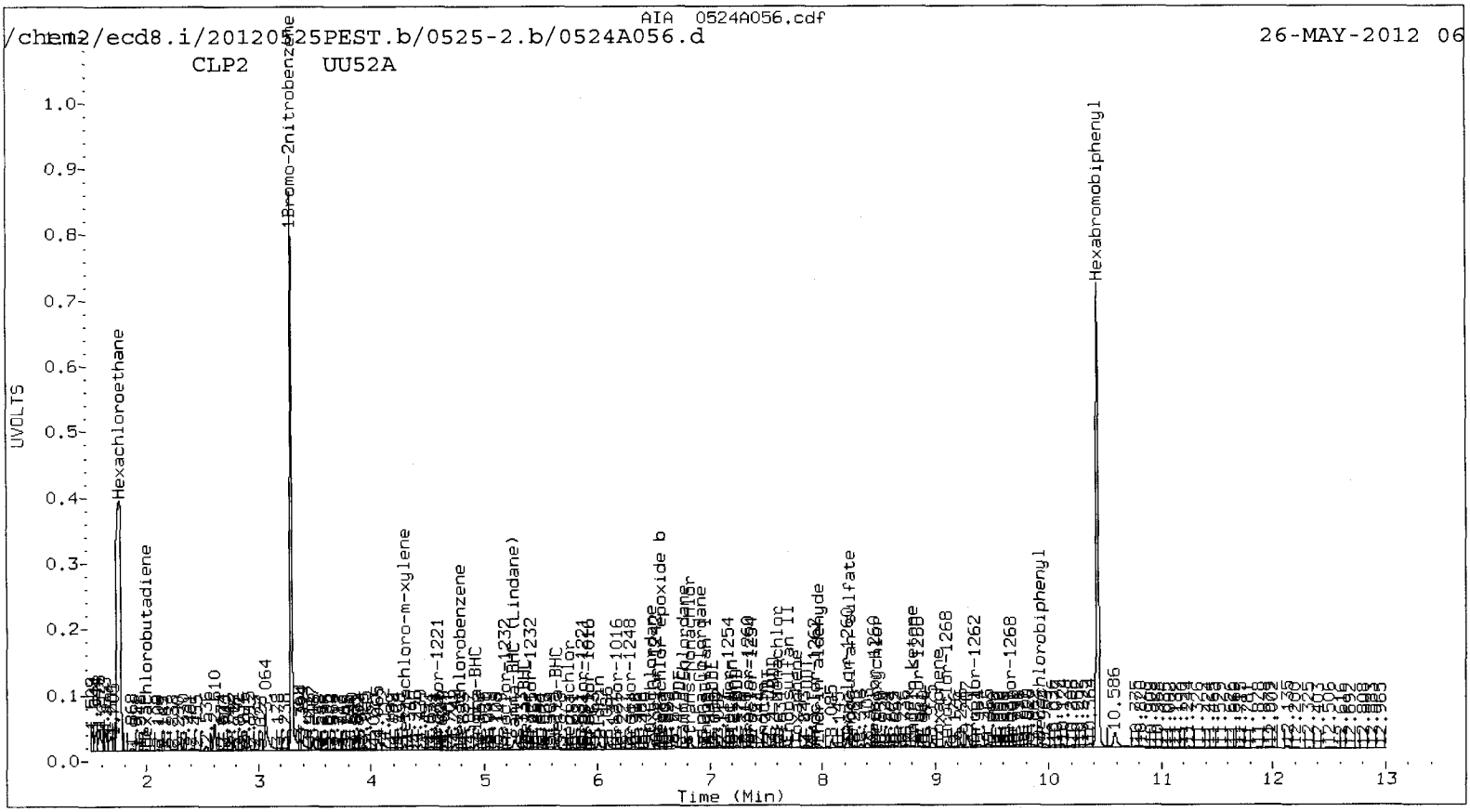
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Hexachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl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26-MAY-2012 06
CLP2 UU52A
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Hexachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl
10.586

UU52: 0148

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A057.d ARI ID: UU52B
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A057.d Client ID: MS101-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 07:15
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.030	0.000	1509170	3.296	0.000	1864073	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.448	-0.005	22526	4.929	0.000	25225	0.7773	0.6502	17.8	alpha-BHC A B
4.864	0.018	166057	5.360	-0.006	7268	14.8856	0.4493	188.3*	beta-BHC A B
5.023	0.013	20157	5.641	-0.011	13556	0.8749	0.4736	59.5*	delta-BHC A B
4.740	-0.016	13376	5.265	-0.018	55098	0.5678	1.7003	99.9*	gamma-BHC (Lindane) A B
5.204	0.003	11064	5.745	0.032	798	0.4763	0.0271	178.5*	Heptachlor A B
5.479	0.001	1666	6.010	-0.018	31092	0.0603	0.8539	173.6*	Aldrin A B
6.036	0.008	15245	6.560	-0.007	11854	0.6161	0.3906	44.8*	Heptachlor epoxide b A B
6.395	0.010	14378	6.957	0.015	9235	0.3689	0.3131	16.3	Endosulfan I A B
6.595	-0.006	5626	7.194	-0.005	8028	0.2127	0.2560	18.5	Dieldrin A B
6.331	-0.005	12394	7.022	-0.001	7562	0.5968	0.2185	92.8*	4,4'-DDE A B
6.768	-0.044	10404	7.466	-0.023	2231	0.5582	0.0888	145.1*	Endrin A B
6.970	-0.046	8961	7.689	0.003	20587	0.4675	0.7688	48.7*	Endosulfan II A B
6.870	-0.004	25992	7.562	-0.003	12913	1.7130	0.5647	100.8*	4,4'-DDD A B
7.772	-0.024	3901	8.248	-0.011	12721	0.2434	0.5654	79.6*	Endosulfan sulfate A B
7.138	0.015	10617	7.841	-0.017	10155	1.0321	0.7121	36.7	4,4'-DDT A B
7.553	-0.008	14472	8.456	-0.031	13484	2.4786	1.8517	29.0	Methoxychlor A B
8.064	0.007	19459	8.796	0.016	8931	0.9765	0.3676	90.6*	Endrin ketone A B
7.389	-0.007	15520	7.968	-0.030	23641	1.0174	1.0439	2.6	Endrin aldehyde A B
6.154	0.012	9393	6.767	0.021	14277	0.3793	0.4372	14.2	gamma-Chlordane A B
6.289	0.028	7949	6.919	0.038	5149	0.3113	0.1571	65.8*	alpha-Chlordane A B
1.710	-0.018	44239	1.991	-0.047	4768	0.9609	0.0810	168.9*	Hexachlorobutadiene A B
4.270	-0.018	18757	4.786	-0.005	14570	0.7090	0.4096	53.5*	Hexachlorobenzene A B
5.936	-0.003	7457	6.467	-0.014	61251	0.4315	2.5554	142.2*	Oxychlordane A B
5.981	-0.046	4669	6.725	-0.011	8858	0.3422	0.4301	22.8	2,4-DDE A B
6.210	-0.039	93923	6.818	-0.013	57881	4.7977	1.8656	88.0*	trans-Nonachlor A B
6.478	-0.014	8958	7.238	0.023	16908	0.9196	1.0398	12.3	2,4-DDD A B
6.685	-0.033	4869	7.526	0.023	15958	0.4972	1.1132	76.5*	2,4-DDT A B
6.840	-0.005	7464	7.598	0.040	3923	0.3344	0.1167	96.5*	cis-Nonachlor A B
7.713	0.003	6801	8.760	0.001	8863	0.5134	0.4087	22.7	Mirex A B
9.130	-0.008	1715727	10.429	-0.005	2110184	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.767	-0.002	18474	1.760	0.008	4370158	0.0000	0.0000	---	Hexachloroethane
3.897	0.000	27348	4.300	0.001	20413	1.2802	0.4556	95.0*	Tetrachloro-m-xylene A B
8.981	0.001	14441	9.925	0.004	15905	0.4982	0.4484	10.5	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	3.2	1.1	1.1~	29-110
Decachlorobiphenyl	1.2	1.1	1.1~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1509170	80.4
Hexabromobiphenyl	1091107	1715727	57.2

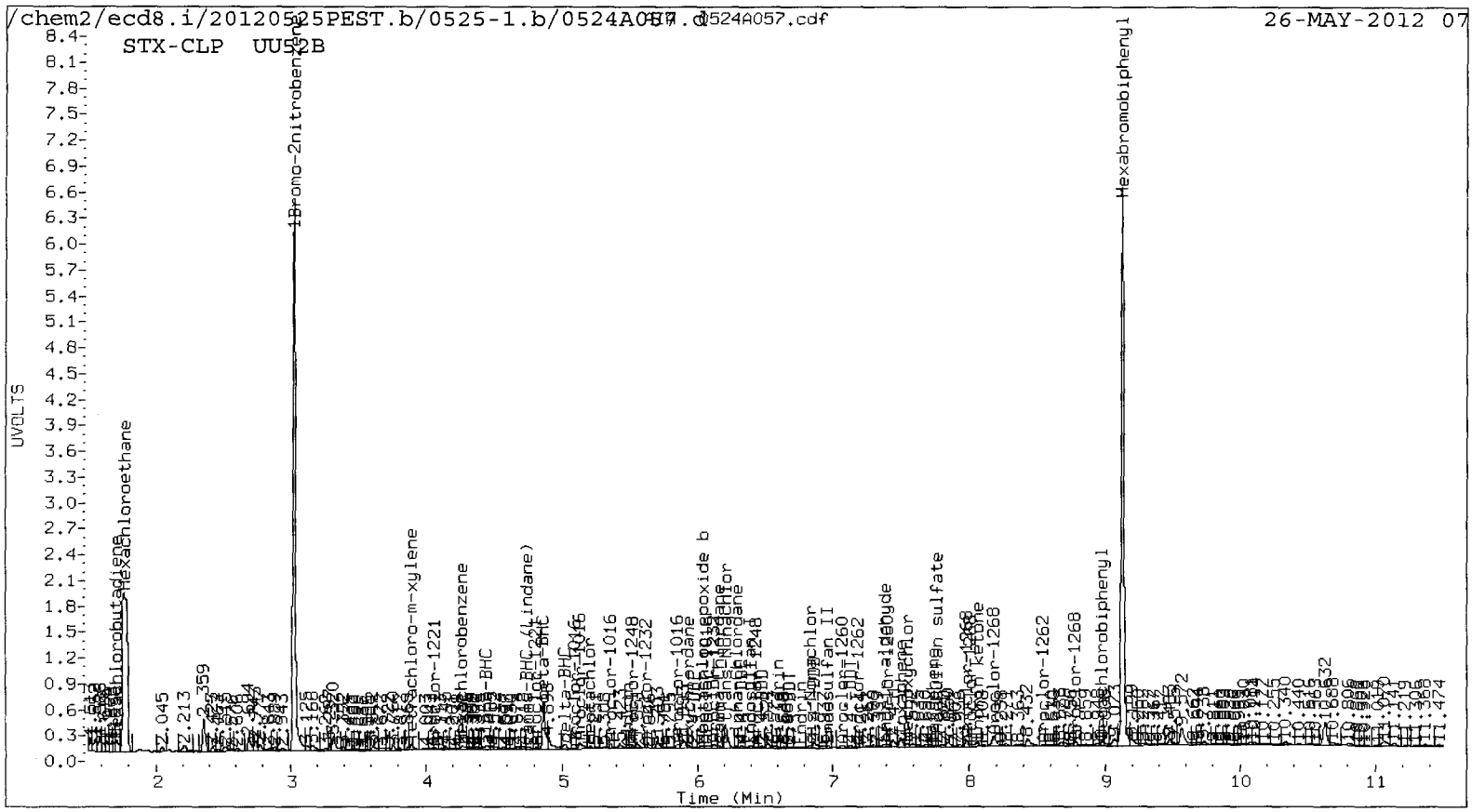
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1864073	49.3
Hexabromobiphenyl	1339634	2110184	57.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.080	0.012	13257	15.388	1	7.766	0.006	4908	3.950
Toxaphene	2	7.138	0.019	10617	17.668	2	7.968	-0.033	23641	17.248
Toxaphene	3	7.507	-0.016	42749	78.519	3	8.248	-0.006	12721	21.587
Toxaphene	4	7.713	0.008	6801	7.505	4	8.528	0.032	16065	13.925
Toxaphene	5	7.746	-0.004	4772	6.747	5	9.027	-0.013	8418	18.926
Toxaphene	6	8.016	-0.022	5117	9.981	NS	---			----
Total STX-CLPAve (6 peaks): 22.635						Total CLP2Ave (5 peaks): 15.127				RPD = 40
Corrected Ave (5 peaks): 11.458						Corrected Ave (5 peaks): 15.127				RPD = 28
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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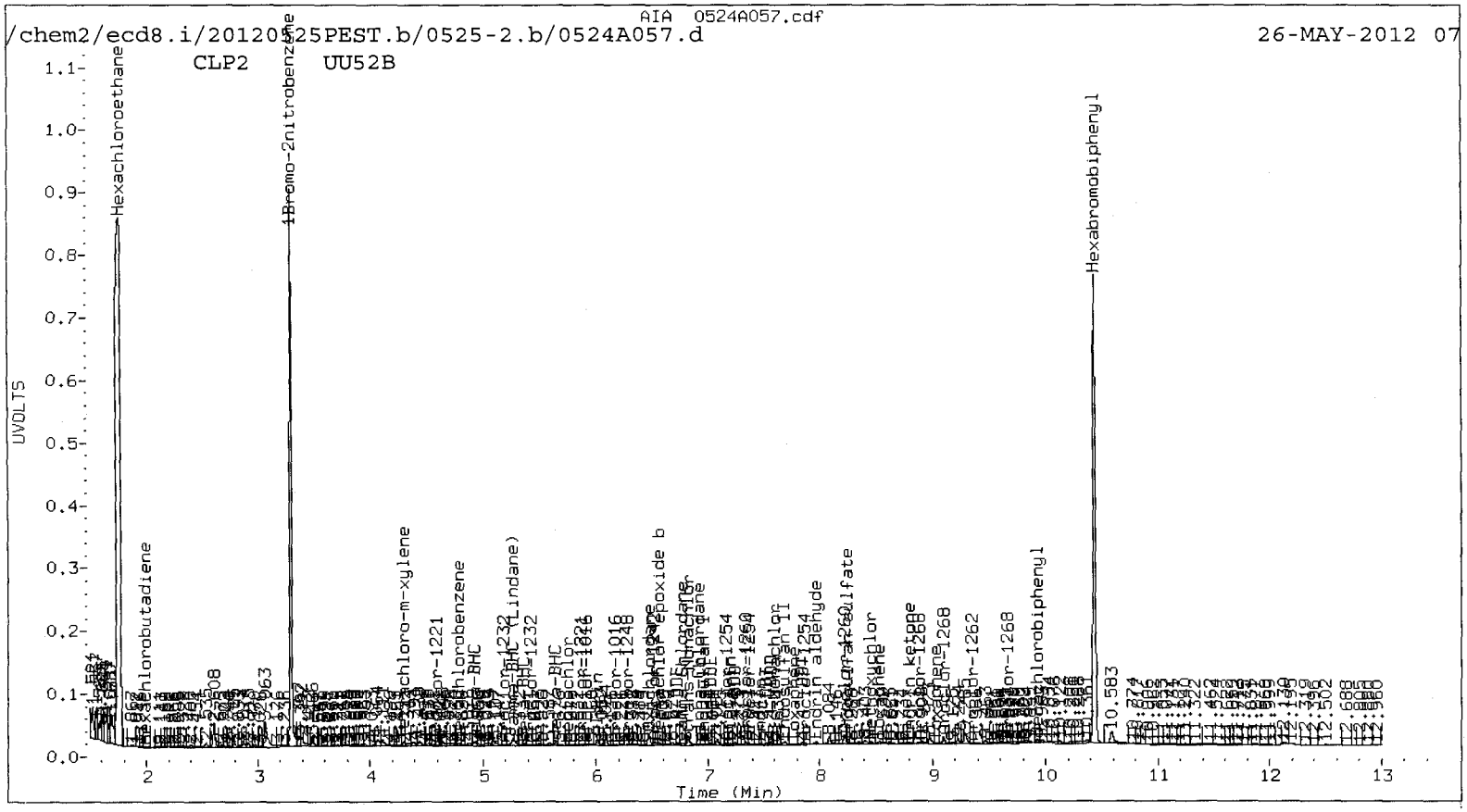
STX-CLP UU52B
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Hexabromobiphenyl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26-MAY-2012 07
CLP2 UU52B
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Hexachlorobutadiene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A058.d ARI ID: UU52C
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A058.d Client ID: MS002-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 07:34
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.030	0.000	1537602	3.296	0.000	1918734	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.448	-0.005	15101	4.931	0.002	13696	0.5114	0.3430	39.4	alpha-BHC A B
4.866	0.020	113741	5.361	-0.005	3470	10.0074	0.2084	191.8*	beta-BHC A B
5.024	0.013	19706	5.643	-0.010	16058	0.8395	0.5451	42.5*	delta-BHC A B
4.744	-0.011	10001	5.267	-0.016	39040	0.4167	1.1705	95.0*	gamma-BHC (Lindane) A B
5.206	0.005	10974	5.743	0.030	1341	0.4637	0.0442	165.2*	Heptachlor A B
5.515	0.038	8554	6.011	-0.017	38805	0.3039	1.0354	109.2*	Aldrin A B
6.036	0.008	10042	6.561	-0.006	8631	0.3984	0.2763	36.2	Heptachlor epoxide b A B
6.396	0.011	9462	6.953	0.011	7980	0.2383	0.2629	9.8	Endosulfan I A B
6.597	-0.004	3834	7.196	-0.003	8001	0.1423	0.2479	54.1*	Dieldrin A B
6.332	-0.004	7265	7.024	0.000	6829	0.3435	0.1917	56.7*	4,4'-DDE A B
6.769	-0.042	8227	7.469	-0.021	2923	0.4267	0.1139	115.7*	Endrin A B
6.968	-0.047	10866	7.688	0.002	16616	0.5480	0.6078	10.4	Endosulfan II A B
6.870	-0.004	19282	7.562	-0.002	8912	1.2284	0.3818	105.2*	4,4'-DDD A B
7.769	-0.026	4086	8.285	0.026	7711	0.2465	0.3358	30.7	Endosulfan sulfate A B
7.136	0.013	6502	7.842	-0.016	10217	0.6110	0.7018	13.8	4,4'-DDT A B
7.557	-0.003	11592	8.456	-0.032	11017	1.9192	1.4822	25.7	Methoxychlor A B
8.035	-0.021	4220	8.793	0.013	4636	0.2047	0.1869	9.1	Endrin ketone A B
7.389	-0.007	16948	7.969	-0.030	22873	1.0740	0.9894	8.2	Endrin aldehyde A B
6.130	-0.013	16657	6.766	0.020	15904	0.6602	0.4732	33.0	gamma-Chlordane A B
6.290	0.029	5559	6.877	-0.005	4007	0.2137	0.1188	57.1*	alpha-Chlordane A B
1.698	-0.030	27908	1.996	-0.041	3338	0.5950	0.0551	166.1*	Hexachlorobutadiene A B
4.271	-0.016	22076	4.782	-0.009	10235	0.8190	0.2796	98.2*	Hexachlorobenzene A B
5.938	-0.001	5093	6.469	-0.013	46912	0.2849	1.9014	147.9*	Oxychlordane A B
5.984	-0.043	3340	6.728	-0.008	7920	0.2367	0.3736	44.9*	2,4-DDE A B
6.211	-0.038	65756	6.819	-0.012	42748	3.2470	1.3498	82.5*	trans-Nonachlor A B
6.478	-0.013	6313	7.239	0.024	15521	0.6265	0.9351	39.5	2,4-DDD A B
6.690	-0.028	4463	7.526	0.023	16221	0.4405	1.1085	86.3*	2,4-DDT A B
6.841	-0.004	6710	7.599	0.041	4571	0.2906	0.1332	74.3*	cis-Nonachlor A B
7.712	0.003	6250	8.759	0.000	7165	0.4560	0.3237	33.9	Mirex A B
9.130	-0.008	1774891	10.429	-0.004	2154033	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.765	-0.003	3440	1.755	0.003	802440	0.0000	0.0000	---	Hexachloroethane
3.898	0.001	19207	4.300	0.002	17746	0.8825	0.3848	78.5*	Tetrachloro-m-xylene A B
8.982	0.002	13943	9.926	0.005	19214	0.4650	0.5307	13.2	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	2.2	1.0	1.0~	29-110
Decachlorobiphenyl	1.2	1.3	1.2~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1537602	83.8
Hexabromobiphenyl	1091107	1774891	62.7

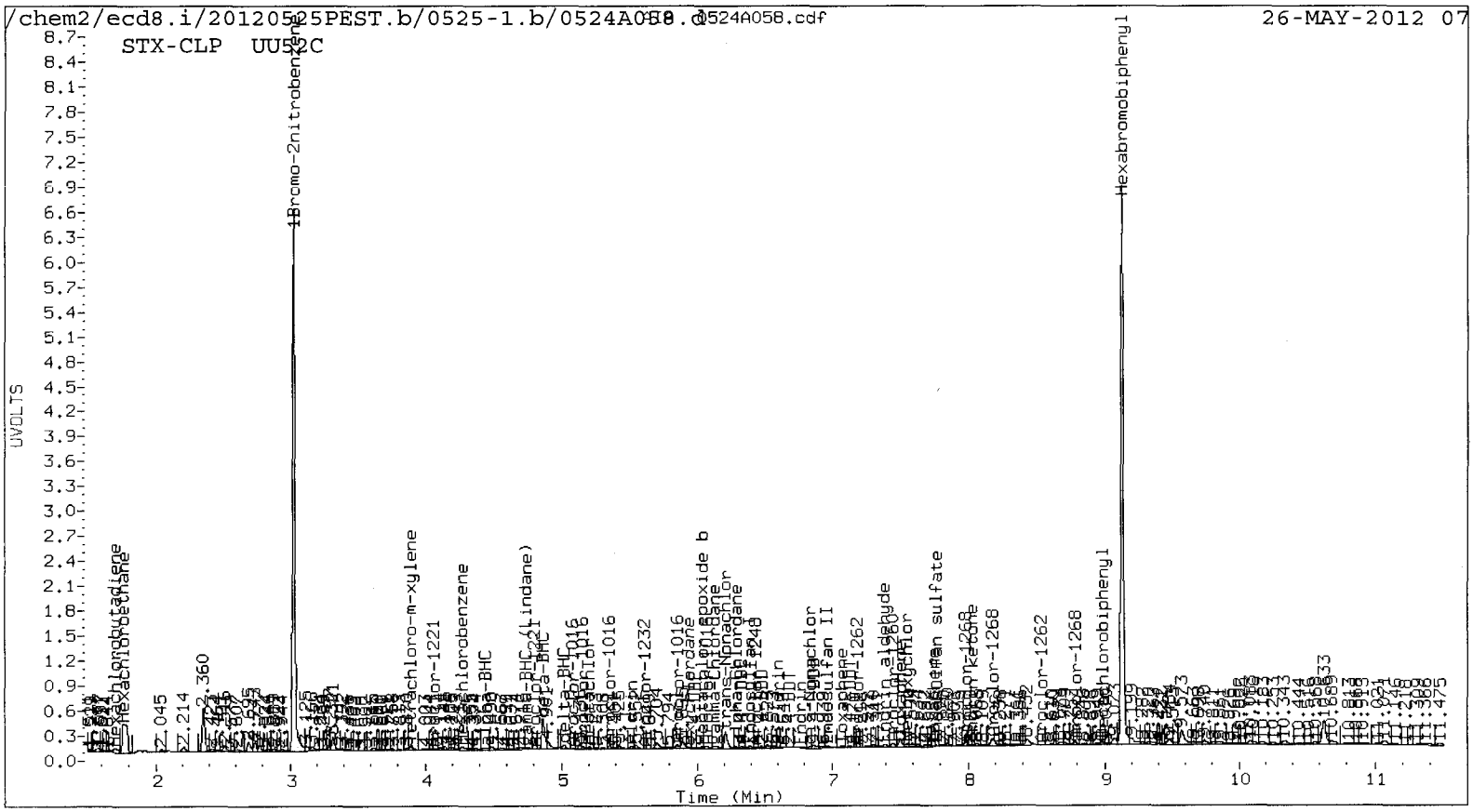
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1918734	53.7
Hexabromobiphenyl	1339634	2154033	60.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.080	0.011	9778	10.971	1	7.751	-0.008	7066	5.571
Toxaphene	2	7.136	0.017	6502	10.459	2	7.969	-0.033	22873	16.348
Toxaphene	3	7.507	-0.016	35009	62.158	3	8.285	0.030	7711	12.819
Toxaphene	4	7.712	0.007	6250	6.667	4	8.529	0.033	13353	11.339
Toxaphene	5	7.750	-0.001	3550	4.851	5	9.029	-0.010	7570	16.672
Toxaphene	6	8.035	-0.003	4220	7.957	NS	---			----
	Total STX-CLPAve (6 peaks): 17.177					Total CLP2Ave (5 peaks): 12.550				RPD = 31
	Corrected Ave (5 peaks): 8.181					Corrected Ave (5 peaks): 12.550				RPD = 42*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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UVOLTS
Time (Min)
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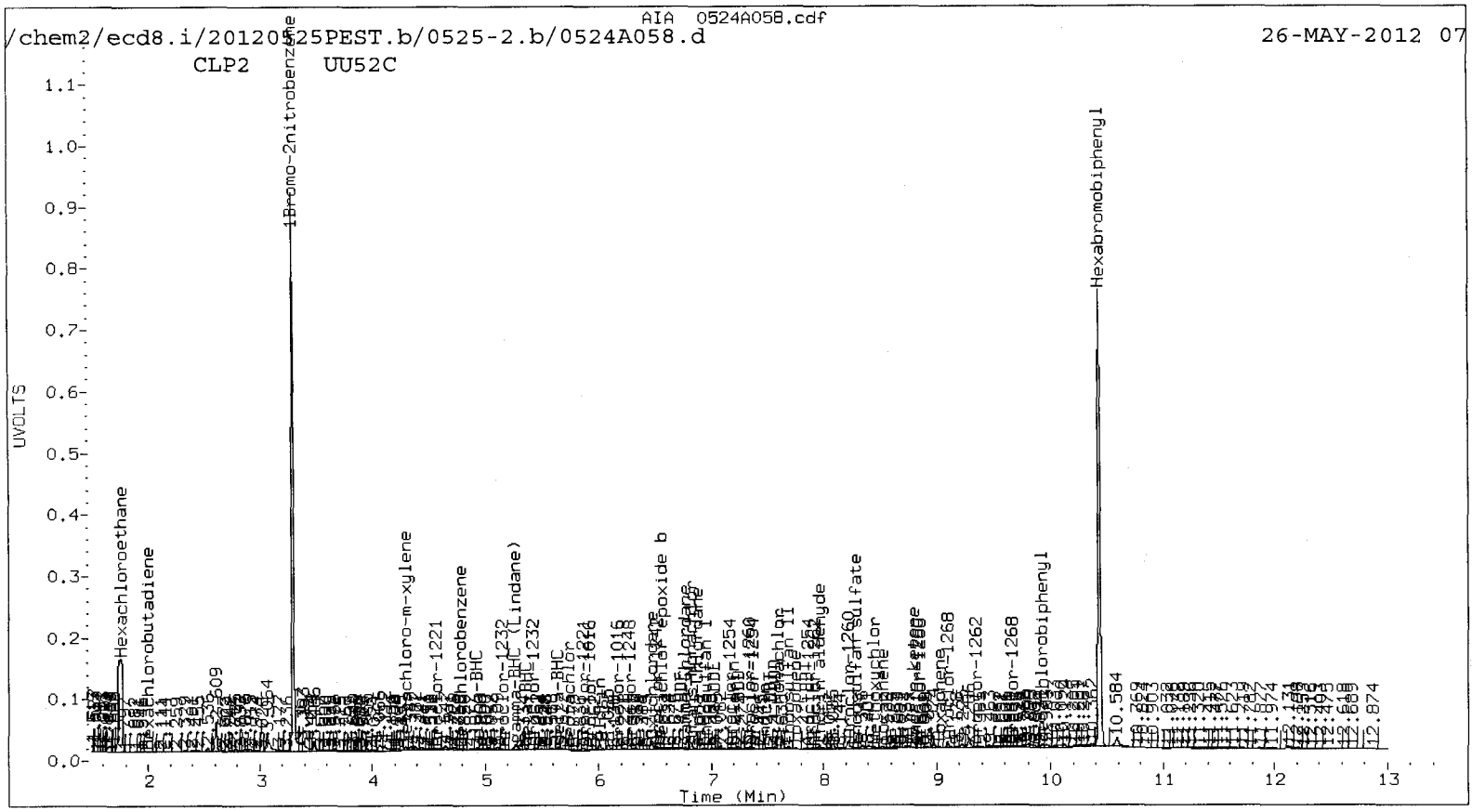
Hexachlorobutadiene
Hexachloroethane
Tetrachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl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26-MAY-2012 07
CLP2 UU52C
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl
10.584

UU52:914428

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A061.d ARI ID: UU52D
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A061.d Client ID: MS003-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 08:31
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.031	0.001	1588078	3.297	0.001	2015578	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.429	-0.024	26079	4.932	0.003	7284	0.8552	0.1737	132.5*	alpha-BHC A B
4.867	0.021	96671	5.361	-0.005	3024	8.2351	0.1729	191.8*	beta-BHC A B
5.024	0.013	31807	5.644	-0.009	18616	1.3120	0.6015	74.3*	delta-BHC A B
4.751	-0.004	10632	5.278	-0.005	40912	0.4290	1.1677	92.5*	gamma-BHC (Lindane) A B
5.205	0.004	20006	5.745	0.032	2497	0.8184	0.0783	165.1*	Heptachlor A B
5.454	-0.023	11211	6.012	-0.017	35902	0.3856	0.9119	81.1*	Aldrin A B
6.039	0.011	20794	6.560	-0.007	3233	0.7986	0.0985	156.1*	Heptachlor epoxide b A B
6.396	0.011	9084	6.956	0.014	2869	0.2215	0.0900	84.4*	Endosulfan I A B
6.575	-0.026	11468	7.199	0.000	3081	0.4121	0.0909	127.7*	Dieldrin A B
6.333	-0.003	4516	7.026	0.003	2654	0.2068	0.0709	97.8*	4,4'-DDE A B
6.772	-0.040	11068	7.494	0.005	7370	0.5620	0.2780	67.6*	Endrin A B
7.018	0.003	4499	7.688	0.002	13724	0.2221	0.4859	74.5*	Endosulfan II A B
6.870	-0.004	32060	7.564	-0.001	7261	1.9995	0.3010	147.7*	4,4'-DDD A B
7.771	-0.024	4914	8.286	0.028	4428	0.2902	0.1866	43.5*	Endosulfan sulfate A B
7.131	0.008	8694	7.840	-0.018	16051	0.7999	1.0670	28.6	4,4'-DDT A B
7.560	-0.001	5582	8.456	-0.031	13076	0.9048	1.7023	61.2*	Methoxychlor A B
8.068	0.011	9538	8.737	-0.044	10236	0.4530	0.3994	12.6	Endrin ketone A B
7.409	0.013	9766	7.971	-0.028	21730	0.6059	0.9096	40.1*	Endrin aldehyde A B
6.123	-0.020	12131	6.765	0.019	8193	0.4655	0.2321	66.9*	gamma-Chlordane A B
6.292	0.030	6435	6.879	-0.002	840	0.2395	0.0237	164.0*	alpha-Chlordane A B
1.730	0.002	11736	----			0.2423	0.0000	---	Hexachlorobutadiene
4.268	-0.019	44234	4.781	-0.010	13720	1.5890	0.3567	126.7*	Hexachlorobenzene A B
5.940	0.001	4706	6.469	-0.013	36766	0.2577	1.4186	138.5*	Oxychlordane A B
5.985	-0.042	5576	6.729	-0.007	5305	0.3868	0.2382	47.5*	2,4-DDE A B
6.213	-0.037	40958	6.820	-0.011	19342	1.9800	0.5910	108.0*	trans-Nonachlor A B
6.479	-0.012	8417	7.240	0.025	12642	0.8178	0.7370	10.4	2,4-DDD A B
6.693	-0.025	5446	7.525	0.023	8741	0.5262	0.5780	9.4	2,4-DDT A B
----			7.600	0.042	1912	0.0000	0.0539	---	cis-Nonachlor
7.690	-0.020	2812	8.764	0.004	15022	0.2009	0.6567	106.3*	Mirex A B
9.131	-0.007	1812949	10.431	-0.002	2225921	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.766	-0.002	13461	1.756	0.004	3264188	0.0000	0.0000	---	Hexachloroethane
3.898	0.001	31190	4.301	0.002	20926	1.3875	0.4320	105.0*	Tetrachloro-m-xylene A B
8.985	0.005	26847	9.927	0.006	19249	0.8765	0.5145	52.0*	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	3.5	1.1	1.1~	29-110
Decachlorobiphenyl	2.2	1.3	1.3~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1588078	89.9
Hexabromobiphenyl	1091107	1812949	66.2

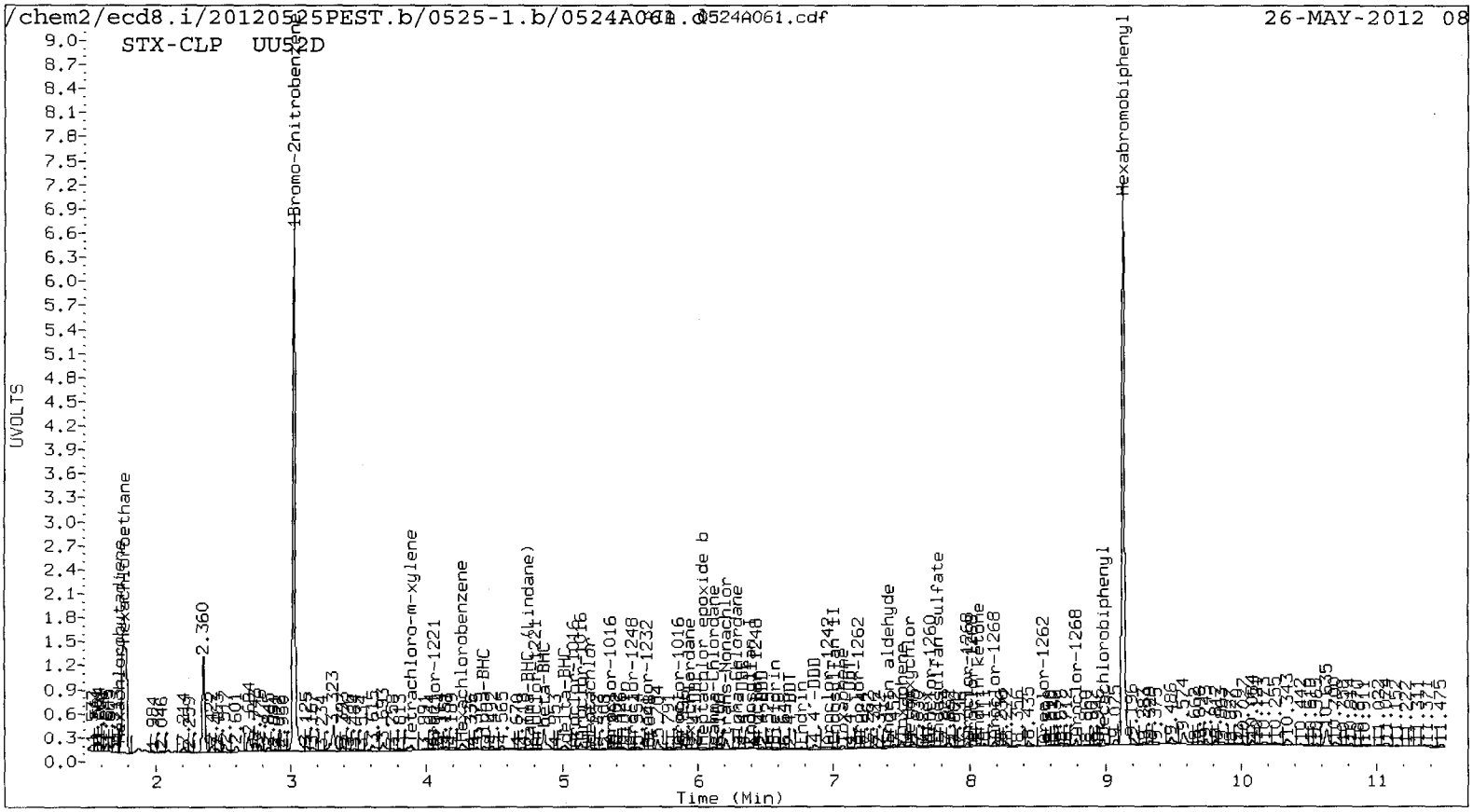
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	2015578	61.4
Hexabromobiphenyl	1339634	2225921	66.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.079	0.011	16527	18.154	1	7.752	-0.007	5985	4.567
Toxaphene	2	7.131	0.012	8694	13.693	2	7.971	-0.031	21730	15.030
Toxaphene	3	7.508	-0.015	25349	44.062	3	8.223	-0.032	33516	53.918
Toxaphene	4	7.718	0.013	6876	7.181	4	8.531	0.035	9234	7.588
Toxaphene	5	7.771	0.021	4914	6.575	5	9.029	-0.011	8764	18.679
Toxaphene	6	8.019	-0.018	6629	12.235	NS	---			----
Total STX-CLPAve (6 peaks): 16.983						Total CLP2Ave (5 peaks): 19.956				RPD = 16
Corrected Ave (5 peaks): 11.568						Corrected Ave (4 peaks): 11.466				RPD = 1
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000		1	---	0.000	
Aroclor-1248 2	---	0.000		2	---	0.000	
Aroclor-1248 3	---	0.000		3	---	0.000	
Aroclor-1248 4	---	0.000		4	---	0.000	
Aroclor-1248 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000		1	---	0.000	
Aroclor-1254 2	---	0.000		2	---	0.000	
Aroclor-1254 3	---	0.000		3	---	0.000	
Aroclor-1254 4	---	0.000		4	---	0.000	
Aroclor-1254 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000		1	---	0.000	
Aroclor-1260 2	---	0.000		2	---	0.000	
Aroclor-1260 3	---	0.000		3	---	0.000	
Aroclor-1260 4	---	0.000		4	---	0.000	
Aroclor-1260 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000		1	---	0.000	
Aroclor-1262 2	---	0.000		2	---	0.000	
Aroclor-1262 3	---	0.000		3	---	0.000	
Aroclor-1262 4	---	0.000		4	---	0.000	
Aroclor-1262 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000		1	---	0.000	
Aroclor-1268 2	---	0.000		2	---	0.000	
Aroclor-1268 3	---	0.000		3	---	0.000	
Aroclor-1268 4	---	0.000		4	---	0.000	
Aroclor-1268 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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Time (Min)
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2.360
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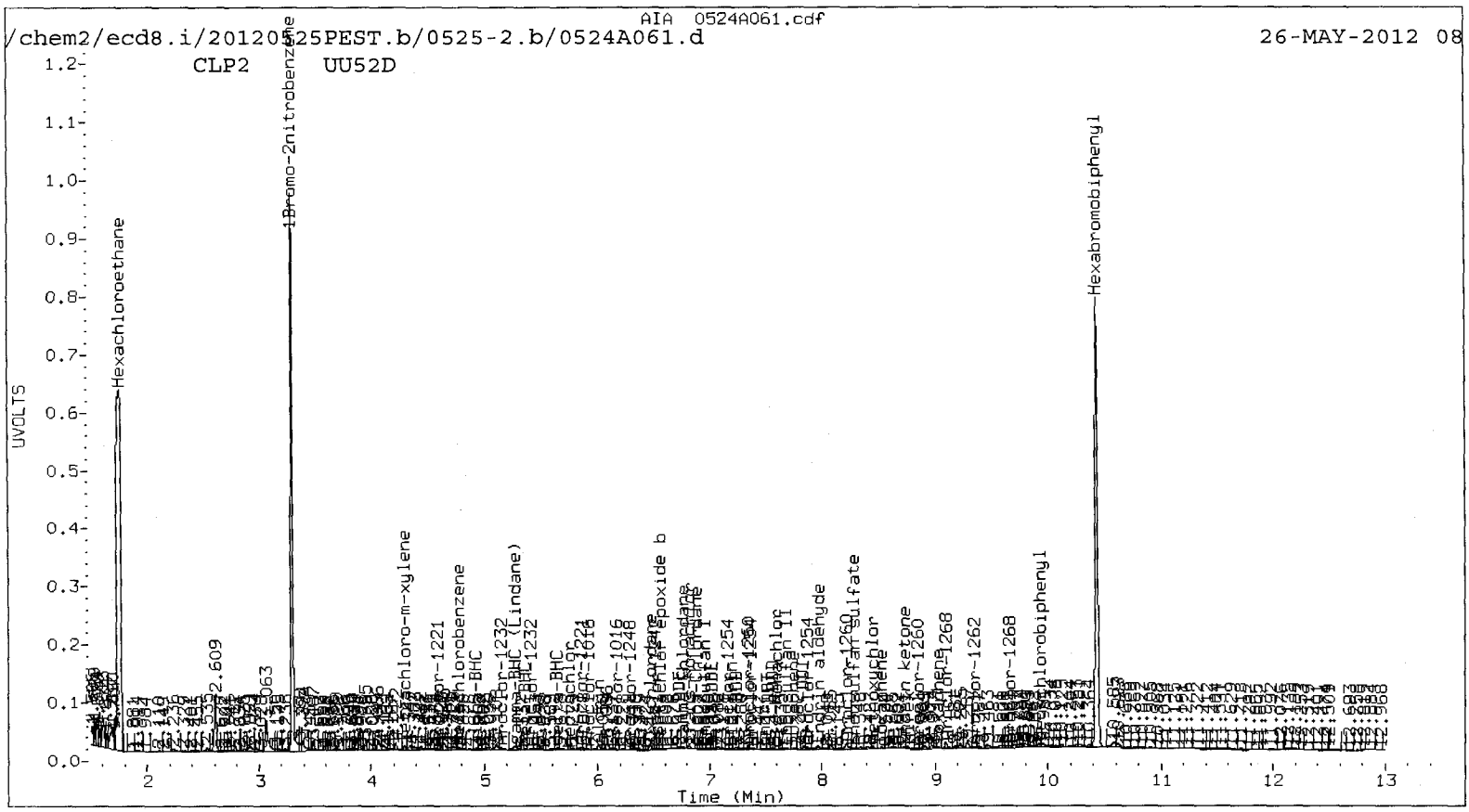
Tetrachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl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26-MAY-2012 08
CLP2 UU52D
UVOLTS
Time (Min)
Hexachloroethane
2.609
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

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Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 08:50
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.032	0.002	1590197	3.298	0.001	1990201	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.432	-0.021	18754	4.931	0.002	9072	0.6142	0.2190	94.8*	alpha-BHC A B
4.866	0.020	216093	5.363	-0.003	4806	18.3838	0.2783	194.0*	beta-BHC A B
5.025	0.014	23953	5.645	-0.008	16054	0.9867	0.5254	61.0*	delta-BHC A B
4.767	0.012	4649	5.268	-0.015	51053	0.1873	1.4757	154.9*	gamma-BHC (Lindane) A B
5.207	0.006	17691	5.748	0.035	2574	0.7228	0.0818	159.3*	Heptachlor A B
5.454	-0.023	10765	6.012	-0.016	35559	0.3698	0.9147	84.8*	Aldrin A B
6.042	0.014	12765	6.562	-0.005	5314	0.4896	0.1640	99.6*	Heptachlor epoxide b A B
6.397	0.012	12387	6.951	0.009	4874	0.3016	0.1548	64.3*	Endosulfan I A B
6.576	-0.025	11005	7.196	-0.003	6384	0.3949	0.1907	69.8*	Dieldrin A B
6.334	-0.002	7921	7.028	0.005	2786	0.3621	0.0754	131.1*	4,4'-DDE A B
6.772	-0.040	12065	7.449	-0.041	2971	0.6204	0.1124	138.7*	Endrin A B
7.017	0.002	5885	7.689	0.003	18432	0.2943	0.6543	75.9*	Endosulfan II A B
6.872	-0.002	19474	7.563	-0.001	3982	1.2302	0.1655	152.6*	4,4'-DDD A B
7.772	-0.023	6604	8.287	0.029	7516	0.3950	0.3176	21.7	Endosulfan sulfate A B
7.140	0.016	18065	7.843	-0.016	12924	1.6833	0.8615	64.6*	4,4'-DDT A B
7.560	-0.001	10398	8.457	-0.030	12732	1.7071	1.6621	2.7	Methoxychlor A B
8.036	-0.021	5767	8.802	0.021	4020	0.2774	0.1573	55.3*	Endrin ketone A B
7.391	-0.005	23949	7.972	-0.026	24092	1.5049	1.0113	39.2	Endrin aldehyde A B
6.129	-0.013	11969	6.769	0.023	8345	0.4587	0.2394	62.8*	gamma-Chlordane A B
6.294	0.032	8266	6.927	0.045	3320	0.3072	0.0949	105.6*	alpha-Chlordane A B
1.700	-0.028	37165	1.992	-0.045	4918	0.7661	0.0782	163.0*	Hexachlorobutadiene A B
4.270	-0.017	28314	4.783	-0.008	13855	1.0157	0.3648	94.3*	Hexachlorobenzene A B
5.938	-0.001	5754	6.470	-0.012	60464	0.3192	2.3627	152.4*	Oxychlordane A B
5.985	-0.042	5877	6.730	-0.006	4915	0.4129	0.2235	59.5*	2,4-DDE A B
6.214	-0.036	102518	6.821	-0.010	52345	5.0196	1.6039	103.1*	trans-Nonachlor A B
6.480	-0.011	6508	7.242	0.027	14264	0.6404	0.8339	26.2	2,4-DDD A B
6.693	-0.025	2802	7.526	0.024	12612	0.2742	0.8363	101.2*	2,4-DDT A B
6.839	-0.006	10548	7.599	0.042	2004	0.4530	0.0567	155.5*	cis-Nonachlor A B
7.691	-0.018	18452	8.765	0.005	32083	1.3351	1.4065	5.2	Mirex A B
9.133	-0.006	1789929	10.432	-0.001	2219745	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.766	-0.003	5190	1.756	0.004	1201374	0.0000	0.0000	---	Hexachloroethane
3.898	0.002	27052	4.301	0.003	15107	1.2018	0.3158	116.8*	Tetrachloro-m-xylene A B
8.986	0.005	26606	9.928	0.007	22749	0.8797	0.6087	36.3	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	3.0	0.8	0.8~	29-110
Decachlorobiphenyl	2.2	1.5	1.5~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1590197	90.1
Hexabromobiphenyl	1091107	1789929	64.0

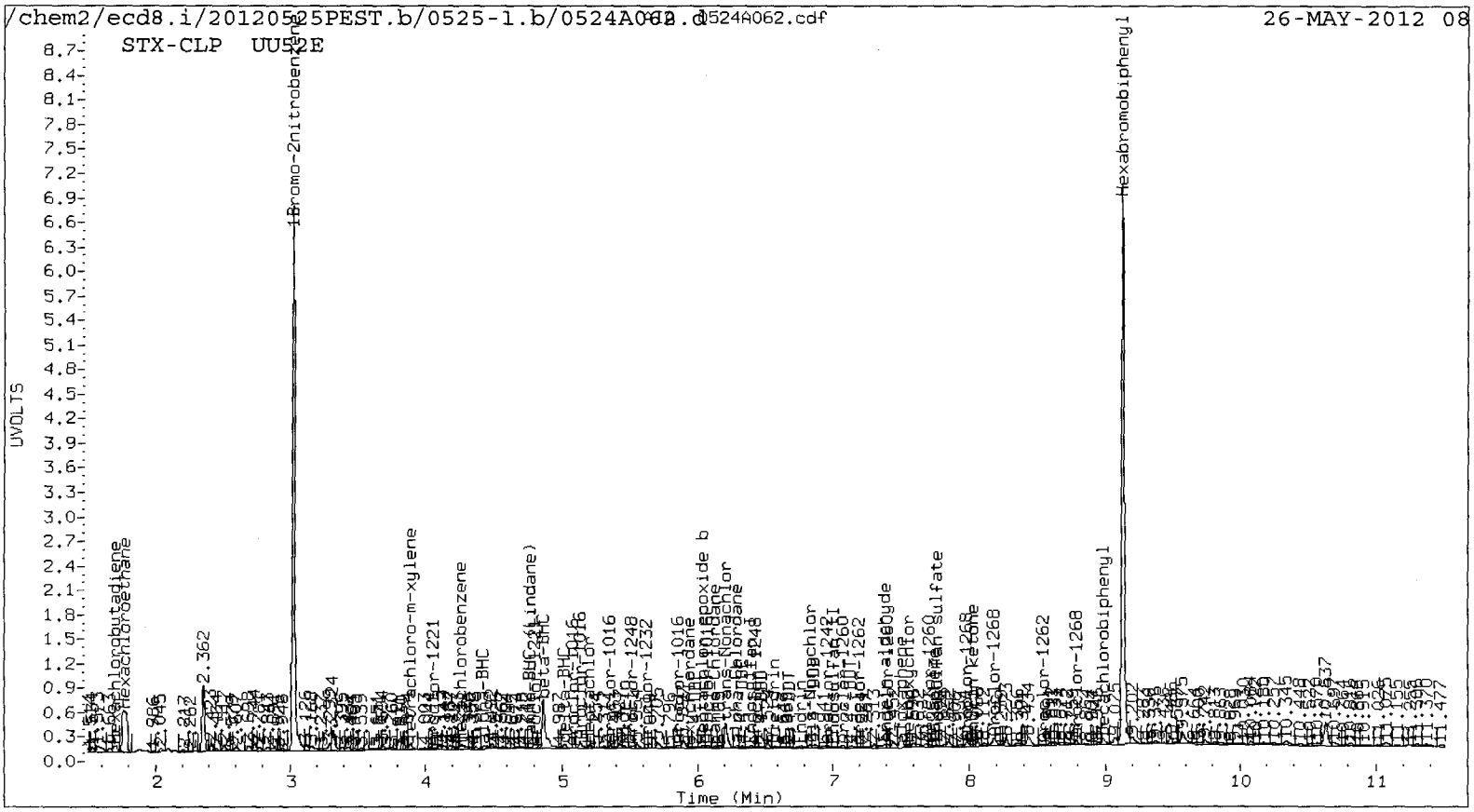
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1990201	59.4
Hexabromobiphenyl	1339634	2219745	65.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.081	0.013	17321	19.271	1	7.755	-0.005	6011	4.599
Toxaphene	2	7.140	0.021	18065	28.816	2	7.972	-0.029	24092	16.710
Toxaphene	3	7.508	-0.015	58503	102.999	3	8.223	-0.032	66520	107.310
Toxaphene	4	7.718	0.013	9010	9.531	4	8.531	0.035	18490	15.236
Toxaphene	5	7.751	0.000	5871	7.956	5	9.030	-0.009	13242	28.302
Toxaphene	6	8.036	-0.002	5767	10.781	NS	---			----
Total STX-CLPAve (6 peaks): 29.892						Total CLP2Ave (5 peaks): 34.431				RPD = 14
Corrected Ave (5 peaks): 15.271						Corrected Ave (4 peaks): 16.212				RPD = 6
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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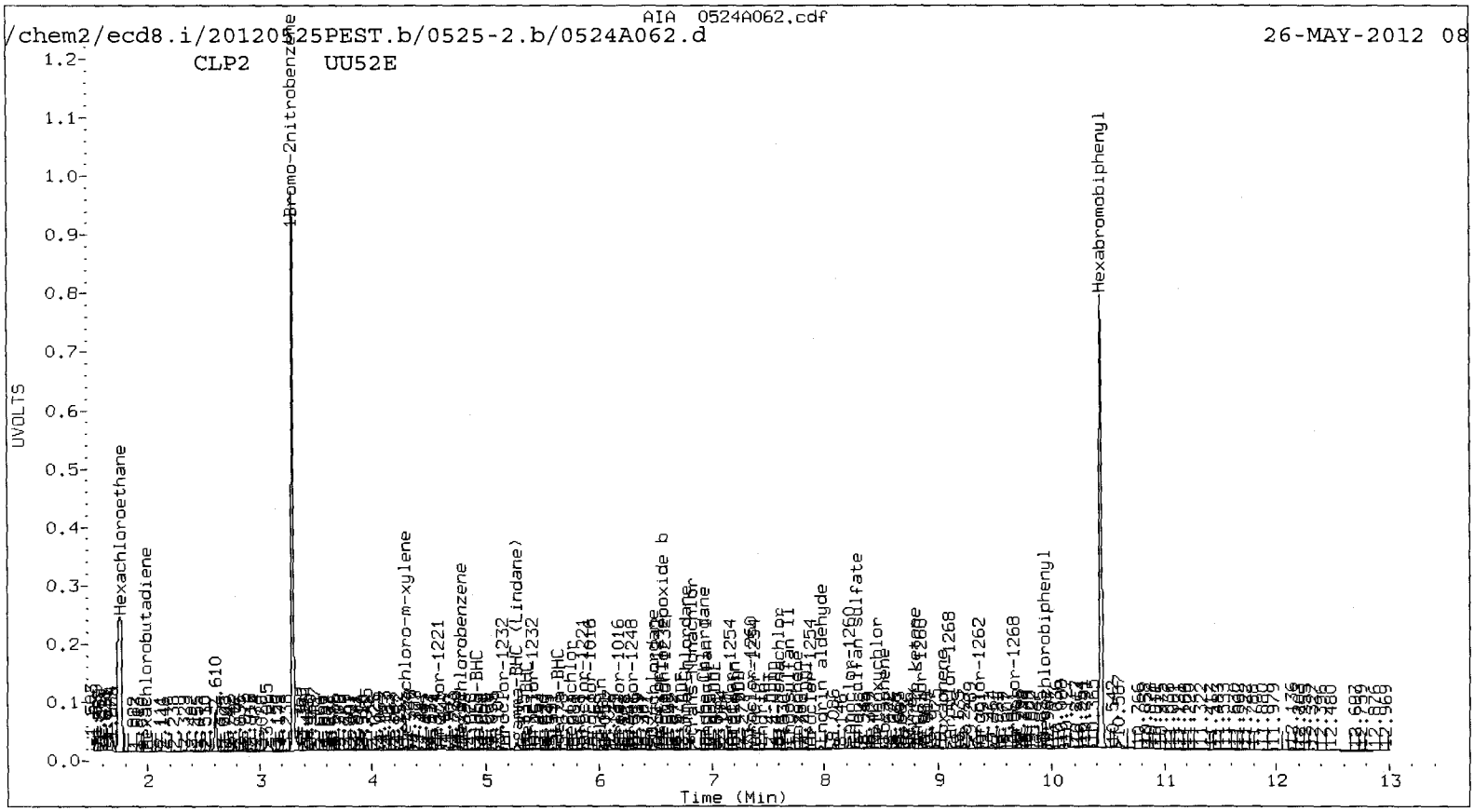
26-MAY-2012 08
STX-CLP UU52E
UVOLTS
Time (Min)
Hexachlorobutadiene
Hexachloroethane
1Bromo-2nitrobenzene
Hexabromobiphenyl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26-MAY-2012 08
CLP2 UU52E
UVOLTS
Time (Min)
Hexachlorobutadiene
Hexachloroethane
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A063.d ARI ID: UU52F
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A063.d Client ID: MS005-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 09:09
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.031	0.002	1570030	3.297	0.001	1986131	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.441	-0.012	15111	4.930	0.001	12700	0.5012	0.3073	48.0*	alpha-BHC A B
4.866	0.020	181262	5.361	-0.006	6702	15.6187	0.3888	190.3*	beta-BHC A B
5.023	0.013	28391	5.644	-0.009	10841	1.1845	0.3555	107.7*	delta-BHC A B
4.737	-0.019	6584	5.267	-0.016	43991	0.2687	1.2742	130.3*	gamma-BHC (Lindane) A B
5.205	0.004	8392	5.750	0.037	412	0.3473	0.0131	185.4*	Heptachlor A B
5.515	0.038	5482	6.012	-0.016	21440	0.1907	0.5526	97.4*	Aldrin A B
6.040	0.012	15676	6.565	-0.002	3756	0.6090	0.1161	135.9*	Heptachlor epoxide b A B
6.397	0.012	10575	6.929	-0.013	2743	0.2608	0.0873	99.7*	Endosulfan I A B
6.579	-0.022	10480	7.198	-0.001	8575	0.3809	0.2566	39.0	Dieldrin A B
6.333	-0.003	7600	7.027	0.004	2972	0.3519	0.0806	125.4*	4,4'-DDE A B
6.772	-0.040	10334	7.449	-0.040	6243	0.5060	0.2386	71.8*	Endrin A B
7.005	-0.010	4531	7.692	0.006	21116	0.2157	0.7576	111.3*	Endosulfan II A B
6.871	-0.003	23991	7.564	-0.001	6875	1.4429	0.2888	133.3*	4,4'-DDD A B
7.778	-0.018	2353	8.287	0.028	9669	0.1340	0.4129	102.0*	Endosulfan sulfate A B
7.141	0.017	12639	7.869	0.011	11456	1.1213	0.7718	36.9	4,4'-DDT A B
7.561	0.000	20036	8.482	-0.006	4698	3.1317	0.6199	133.9*	Methoxychlor A B
8.066	0.010	21302	8.803	0.023	2769	0.9756	0.1095	159.6*	Endrin ketone A B
7.411	0.015	16115	7.966	-0.033	16313	0.9641	0.6921	32.9	Endrin aldehyde A B
6.128	-0.014	14775	6.769	0.023	8569	0.5735	0.2463	79.8*	gamma-Chlordane A B
6.289	0.028	7488	----			0.2819	0.0000	---	alpha-Chlordane
1.724	-0.004	12302	2.070	0.033	1219	0.2569	0.0194	171.9*	Hexachlorobutadiene A B
4.270	-0.018	25414	4.791	0.000	8167	0.9234	0.2155	124.3*	Hexachlorobenzene A B
5.896	-0.043	38529	6.470	-0.012	55726	2.0345	2.1820	7.0	Oxychlordane A B
5.984	-0.043	3498	6.729	-0.007	3769	0.2340	0.1717	30.7	2,4-DDE A B
6.213	-0.037	101049	6.821	-0.011	53299	4.7106	1.6505	96.2*	trans-Nonachlor A B
6.480	-0.011	5629	7.242	0.027	11368	0.5274	0.6717	24.1	2,4-DDD A B
6.694	-0.024	3011	7.525	0.023	15809	0.2805	1.0595	116.3*	2,4-DDT A B
6.841	-0.003	9812	7.598	0.041	9909	0.4012	0.2832	34.5	cis-Nonachlor A B
7.692	-0.017	13897	8.765	0.005	23749	0.9573	1.0523	9.4	Mirex A B
9.133	-0.006	1880039	10.434	0.000	2196333	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.767	-0.001	16320	1.758	0.006	3974373	0.0000	0.0000	---	Hexachloroethane
3.897	0.001	40520	4.302	0.003	13649	1.8232	0.2859	145.8*	Tetrachloro-m-xylene A B
8.984	0.004	13972	9.929	0.008	19846	0.4399	0.5376	20.0	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	4.6	0.7	0.7~	29-110
Decachlorobiphenyl	1.1	1.3	1.1~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1570030	87.7
Hexabromobiphenyl	1091107	1880039	72.3

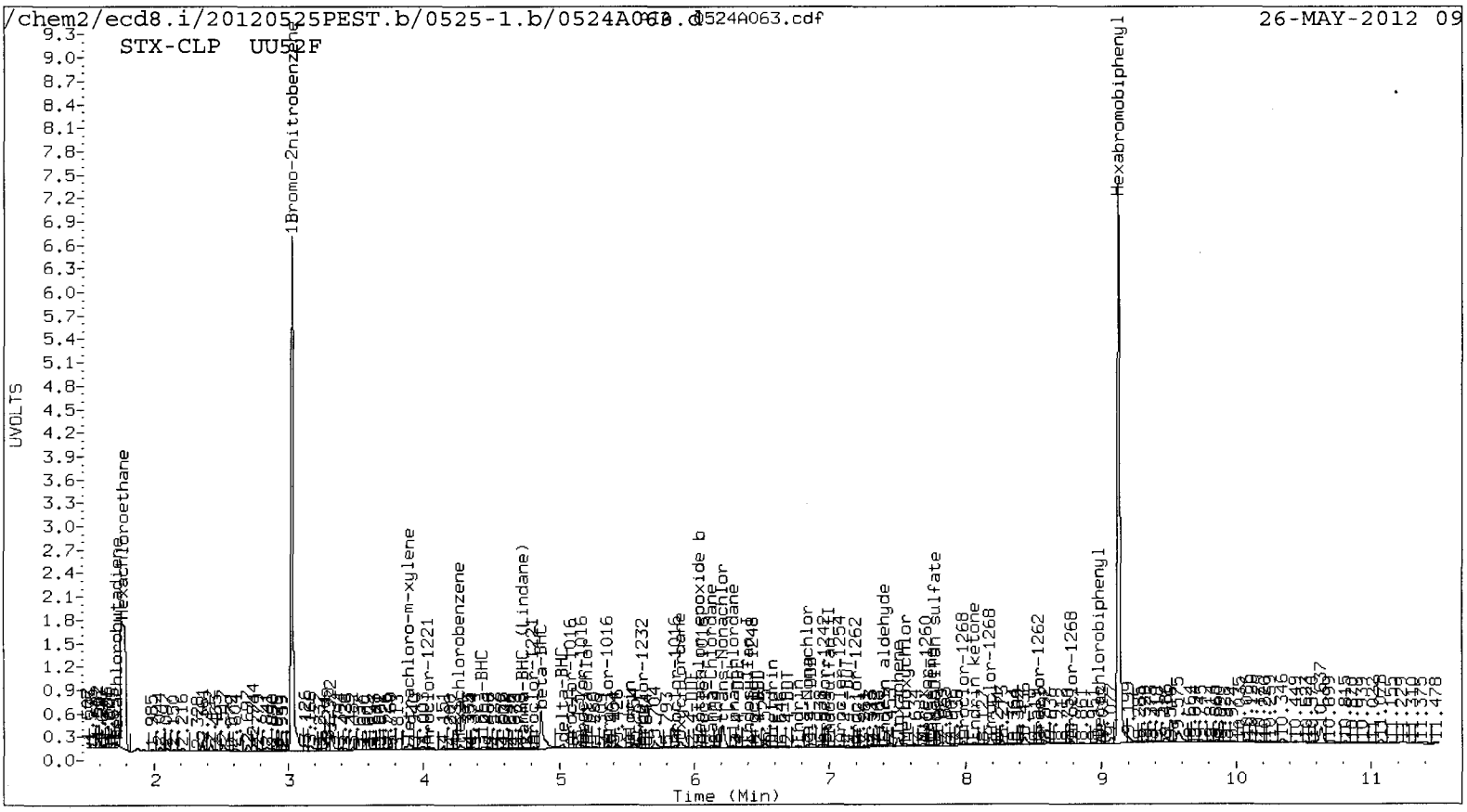
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1986131	59.1
Hexabromobiphenyl	1339634	2196333	64.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.082	0.014	10966	11.616	1	7.769	0.010	8296	6.415
Toxaphene	2	7.141	0.022	12639	19.195	2	7.966	-0.035	16313	11.435
Toxaphene	3	7.510	-0.013	44670	74.877	3	8.224	-0.031	57711	94.091
Toxaphene	4	7.692	-0.013	13897	13.995	4	8.482	-0.014	4698	3.913
Toxaphene	5	7.752	0.001	3934	5.076	5	9.030	-0.010	9127	19.714
Toxaphene	6	8.066	0.028	21302	37.915	NS	---			----
	Total STX-CLPAve (6 peaks): 27.112					Total CLP2Ave (5 peaks): 27.114				RPD = 0
	Corrected Ave (5 peaks): 17.559					Corrected Ave (4 peaks): 10.369				RPD = 51*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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26-MAY-2012 09
STX-CLP UU52F
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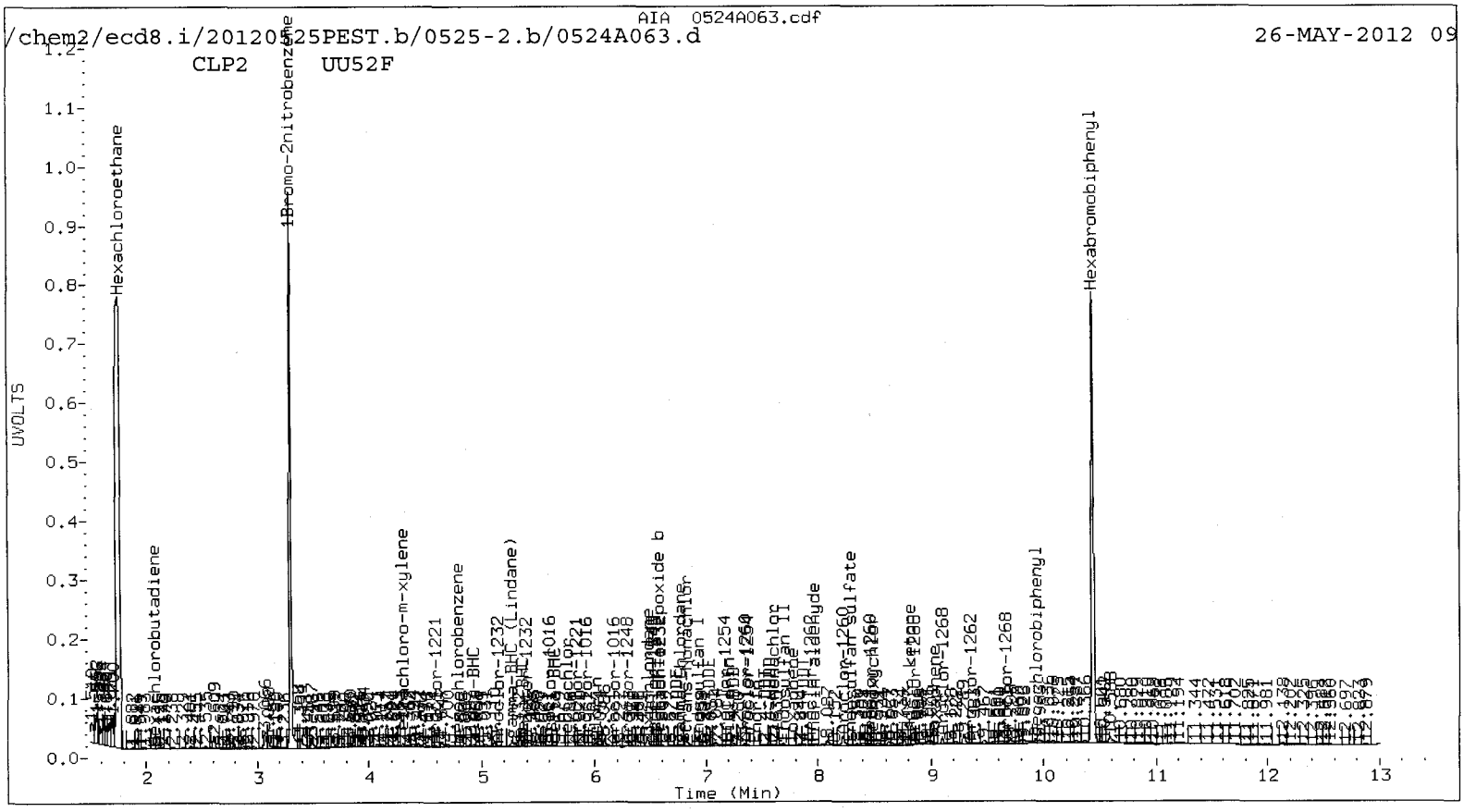
Hexachloroethane
Hexachlorobutadiene
Hexachlorobenzene
Hexabromobiphenyl
UVOLTS
Time (Min)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26-MAY-2012 09
CLP2 UU52F
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Hexachlorobenzene
Hexabromobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A068.d ARI ID: INDAE
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A068.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 10:43
Compound Sublist: INDA Report Date: 05/29/2012 12:07
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.030	0.001	1381366	3.297	0.000	1734872	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.454	0.001	500892	4.931	0.001	710473	18.8832	19.6785	4.1	alpha-BHC A B
4.848	0.002	165047	5.369	0.003	278013	16.1639	18.4663	13.3	beta-BHC A B
5.013	0.002	369249	5.656	0.003	524252	17.5102	19.6808	11.7	delta-BHC A B
4.757	0.002	417302	5.284	0.002	586593	19.3547	19.4507	0.5	gamma-BHC (Lindane) A B
5.203	0.002	418050	5.715	0.002	494921	19.6613	18.0308	8.7	Heptachlor A B
5.479	0.002	468698	6.031	0.002	639279	18.5331	18.8644	1.8	Aldrin A B
6.030	0.002	412288	6.569	0.002	538560	18.2042	19.0660	4.6	Heptachlor epoxide b A B
6.387	0.003	572317	6.944	0.002	516626	16.0419	18.8221	15.9	Endosulfan I A B
6.604	0.003	937305	7.201	0.002	1136629	38.7188	38.9444	0.6	Dieldrin A B
6.341	0.005	579092	7.027	0.004	1218087	29.3774	37.8248	25.1	4,4'-DDE A B
6.815	0.003	792865	7.492	0.002	870671	42.4960	39.2882	7.8	Endrin A B
7.019	0.003	802799	7.688	0.002	985128	41.8430	41.7293	0.3	Endosulfan II A B
6.880	0.006	672586	7.568	0.004	911306	44.2836	45.2043	2.1	4,4'-DDD A B
7.798	0.003	667664	8.261	0.002	779581	41.6214	39.3064	5.7	Endosulfan sulfate A B
7.129	0.005	334052	7.861	0.003	303855	32.4433	24.1683	29.2	4,4'-DDT A B
7.564	0.004	1088953	8.490	0.002	973177	186.3273	151.5980	20.6	Methoxychlor A B
8.059	0.003	796840	8.782	0.002	763479	39.9499	35.6421	11.4	Endrin ketone A B
7.399	0.003	591093	8.000	0.002	749313	38.7123	37.5329	3.1	Endrin aldehyde A B
6.145	0.003	425226	6.748	0.002	568424	18.7585	18.7047	0.3	gamma-Chlordane A B
6.264	0.003	413015	6.884	0.002	559449	17.6722	18.3432	3.7	alpha-Chlordane A B
1.728	0.000	622266	2.037	0.000	891406	14.7660	16.2591	9.6	Hexachlorobutadiene A B
4.289	0.002	329666	4.793	0.002	527060	13.6142	15.9214	15.6	Hexachlorobenzene A B
9.140	0.002	1717350	10.435	0.002	1860256	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.898	0.001	525242	4.300	0.001	1362995	26.8615	32.6879	19.6	Tetrachloro-m-xylene A B
8.982	0.002	855414	9.925	0.004	1071644	29.4800	34.2716	15.0	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	67.2	81.7	67.2~	85-115
Decachlorobiphenyl	73.7	85.7	73.7~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

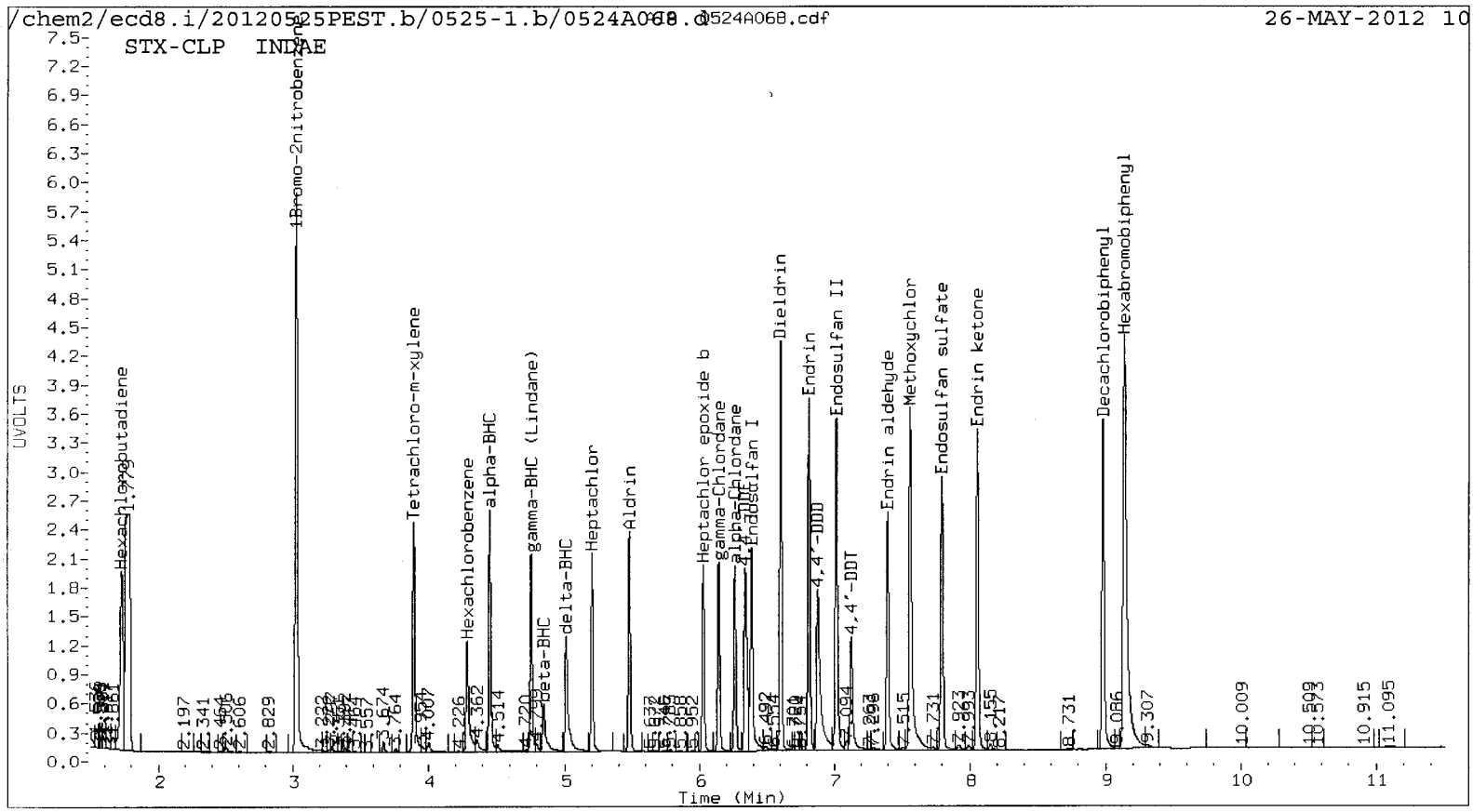
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1381366	65.2
Hexabromobiphenyl	1091107	1717350	57.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1734872	38.9
Hexabromobiphenyl	1339634	1860256	38.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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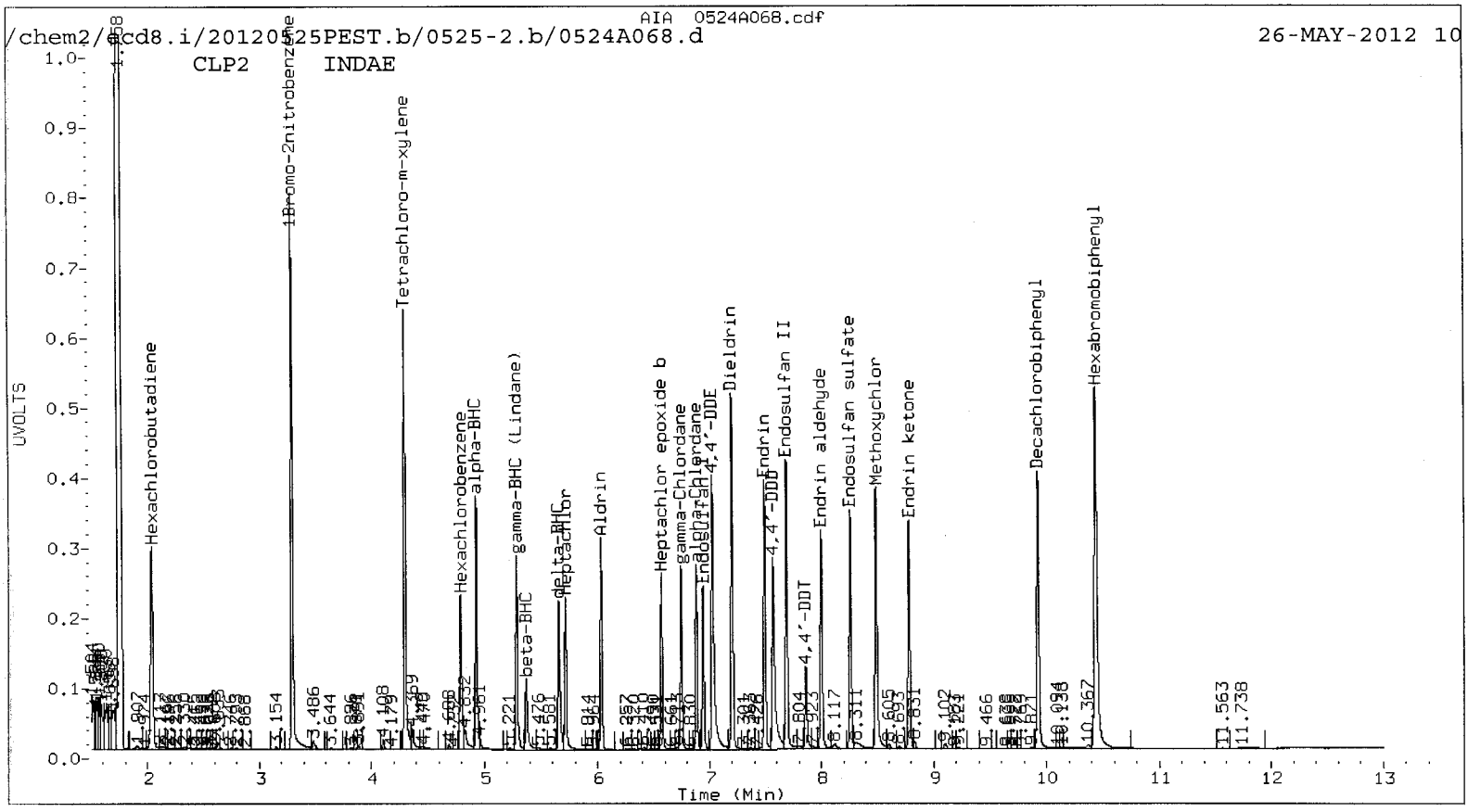
0524A068.cdf
26-MAY-2012 10
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1,2,3,4-Tetrachlorobenzene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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26-MAY-2012 10
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/29/2012

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A069.d ARI ID: UU52G
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A069.d Client ID: MS006-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 11:02
Compound Sublist: wpest Report Date: 05/29/2012 13:13
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 10.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.031	0.001	1403389	3.297	0.001	1921460	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.455	0.002	198268	4.931	0.002	222578	7.3572	5.5663	27.7	alpha-BHC A B
4.862	0.016	6946849	5.361	-0.005	102524	669.6621	16.1486 Y	196.4*	beta-BHC A BM opp shifts & interference
5.017	0.006	112568	5.641	-0.012	42848	5.2544	1.4524	113.4*	delta-BHC A B
4.780	0.024	49599	5.291	0.008	168082	2.2643	5.0322	75.9*	gamma-BHC (Lindane) A B
5.193	-0.008	61351	5.746	0.033	19722	2.8401	0.6487	125.6*	Heptachlor A B
5.510	0.033	212781	6.041	0.012	86225	8.2817	2.2973	113.1*	Aldrin A B
6.031	0.002	33005	6.541	-0.026	121536	1.4344	3.8848	92.1*	Heptachlor epoxide b A B
6.398	0.013	107315	6.947	0.005	64162	2.9608	2.1106	33.5	Endosulfan I A B
6.596	-0.005	30486	7.183	-0.016	458199	1.2396	14.1748 CNR	167.8*	Dieldrin A BMN
6.333	-0.003	194958	7.047	0.024	114641	9.9813	3.2142 CNR	102.6*	4,4'-DDE A B
6.763	-0.049	89078	7.466	-0.024	14573	5.1278	0.5984	158.2*	Endrin A B
7.017	0.002	19323	7.686	0.000	150726	1.0817	5.8098	137.2*	Endosulfan II A B
6.870	-0.004	311860	7.565	0.000	241075	22.0528	10.8815	67.8*	4,4'-DDD A B
7.769	-0.027	128769	8.250	-0.009	348011	8.6214	15.9667	59.7*	Endosulfan sulfate A B
7.128	-0.005	90329	7.853	-0.005	101424	9.4221	7.3408	24.8	4,4'-DDT A BN
7.556	-0.004	123184	8.479	-0.008	31504	22.6377	4.4657	134.1*	Methoxychlor A B
8.039	0.018	258512	8.800	0.019	126128	13.9199	5.3580 Y	88.8*	Endrin ketone A B opp shifts
7.382	-0.014	370460	8.020	0.022	43106	26.0582	1.9648	172.0*	Endrin aldehyde A B
6.154	0.011	101681	6.760	0.014	69096	4.4152	2.0529	73.0*	gamma-Chlordane A B
6.286	0.024	49331	6.897	0.015	48673	2.0777	1.4409	36.2	alpha-Chlordane A B
1.734	0.006	31659	2.046	0.009	6262	0.7395	0.1031	151.0*	Hexachlorobutadiene A B
4.307	0.019	25082	4.794	0.004	38350	1.0196	1.0460	2.6	Hexachlorobenzene A B
5.926	-0.013	80433	6.466	-0.016	977110	4.9938	39.5469	155.2*	Oxychlordane A B
6.008	-0.019	92796	6.726	-0.010	28058	7.2982	1.3216	138.7*	2,4-DDE A B
6.209	-0.041	2475014	6.819	-0.013	1264046	135.6556	42.0547	105.3*	trans-Nonachlor A B
6.486	-0.006	39936	7.237	0.022	86263	4.3991	5.4757	21.8	2,4-DDD A B
6.729	0.011	22148	7.507	0.005	146140	2.4263	10.5225	125.1*	2,4-DDT A B
6.850	0.006	454986	7.528	-0.029	92357	21.8727	2.8356	154.1*	cis-Nonachlor A B
7.689	-0.021	167592	8.755	-0.005	62508	13.5738	2.9755	128.1*	Mirex A B
9.134	-0.004	1599002	10.433	0.000	2044331	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.767	-0.001	63556	1.761	0.010	14183640	0.0000	0.0000	---	Hexachloroethane
3.895	-0.002	325721	4.300	0.001	99573	16.3963	2.1561	153.5*	Tetrachloro-m-xylene A B
8.986	0.006	41351	9.928	0.007	88376	1.5305	2.5718	50.8*	Decachlorobiphenyl A BM

CNR

out low

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	41.0	5.4	5.4~	29-110
Decachlorobiphenyl	3.8	6.4	3.8~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1403389	67.8
Hexabromobiphenyl	1091107	1599002	46.5

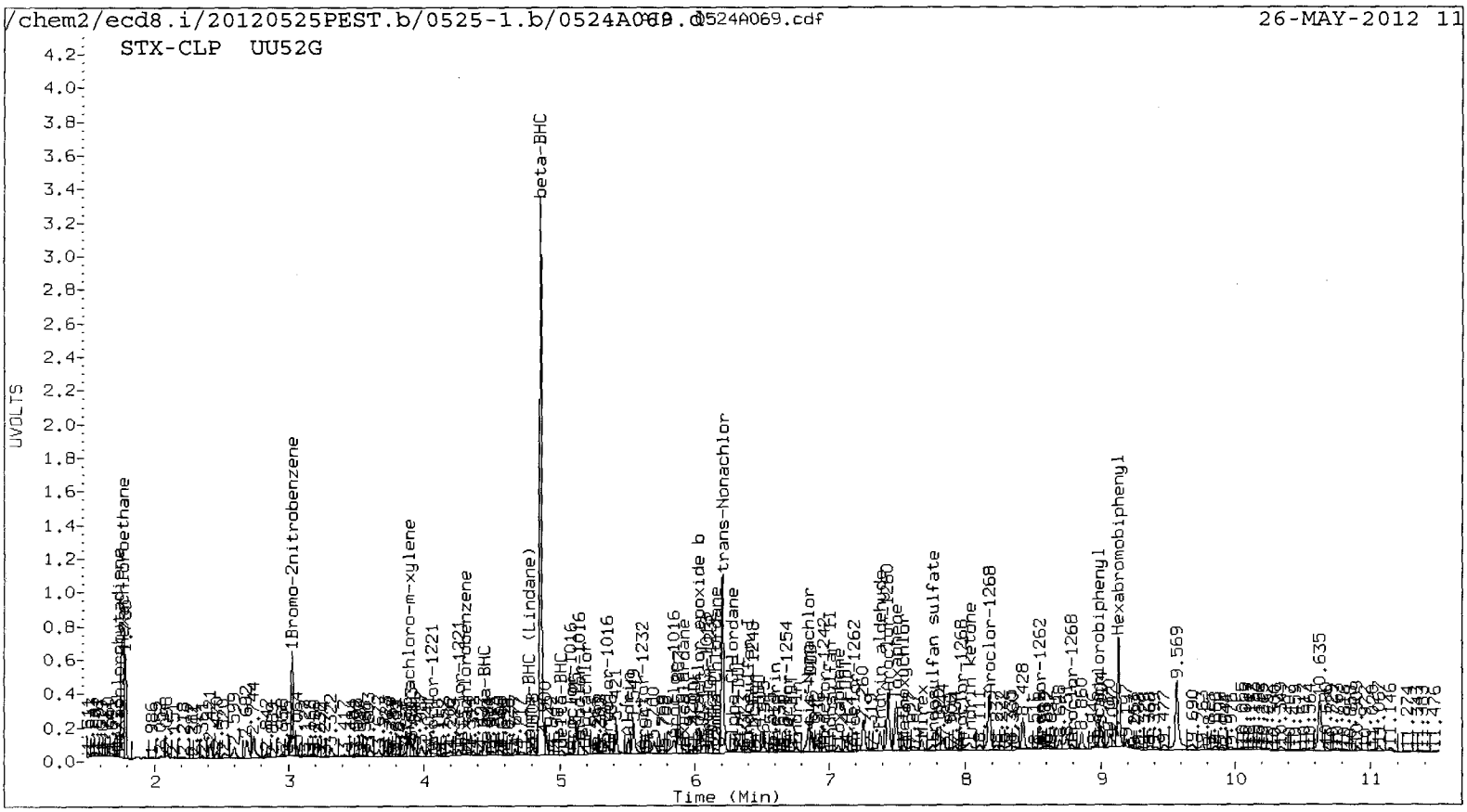
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1921460	53.9
Hexabromobiphenyl	1339634	2044331	52.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.075	0.007	122107	152.078	1	7.741	-0.019	10927	9.078
Toxaphene	2	7.128	0.009	90329	161.293	2	8.020	0.019	43106	32.463
Toxaphene	3	7.500	-0.022	821472	1618.959	3	8.250	-0.005	348011	609.580
Toxaphene	4	7.689	-0.016	167592	198.432	4	8.479	-0.017	31504	28.188
Toxaphene	5	7.769	0.018	128769	195.336	5	9.030	-0.010	60371	140.097
Toxaphene	6	8.039	0.001	258512	540.991	NS	---			----
Total STX-CLPAve (6 peaks): 477.848						Total CLP2Ave (5 peaks): 163.881				RPD = 98*
Corrected Ave (5 peaks): 249.626						Corrected Ave (4 peaks): 52.456				RPD = 131*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000		1	---	0.000	
Aroclor-1248 2	---	0.000		2	---	0.000	
Aroclor-1248 3	---	0.000		3	---	0.000	
Aroclor-1248 4	---	0.000		4	---	0.000	
Aroclor-1248 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000		1	---	0.000	
Aroclor-1254 2	---	0.000		2	---	0.000	
Aroclor-1254 3	---	0.000		3	---	0.000	
Aroclor-1254 4	---	0.000		4	---	0.000	
Aroclor-1254 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000		1	---	0.000	
Aroclor-1260 2	---	0.000		2	---	0.000	
Aroclor-1260 3	---	0.000		3	---	0.000	
Aroclor-1260 4	---	0.000		4	---	0.000	
Aroclor-1260 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000		1	---	0.000	
Aroclor-1262 2	---	0.000		2	---	0.000	
Aroclor-1262 3	---	0.000		3	---	0.000	
Aroclor-1262 4	---	0.000		4	---	0.000	
Aroclor-1262 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000		1	---	0.000	
Aroclor-1268 2	---	0.000		2	---	0.000	
Aroclor-1268 3	---	0.000		3	---	0.000	
Aroclor-1268 4	---	0.000		4	---	0.000	
Aroclor-1268 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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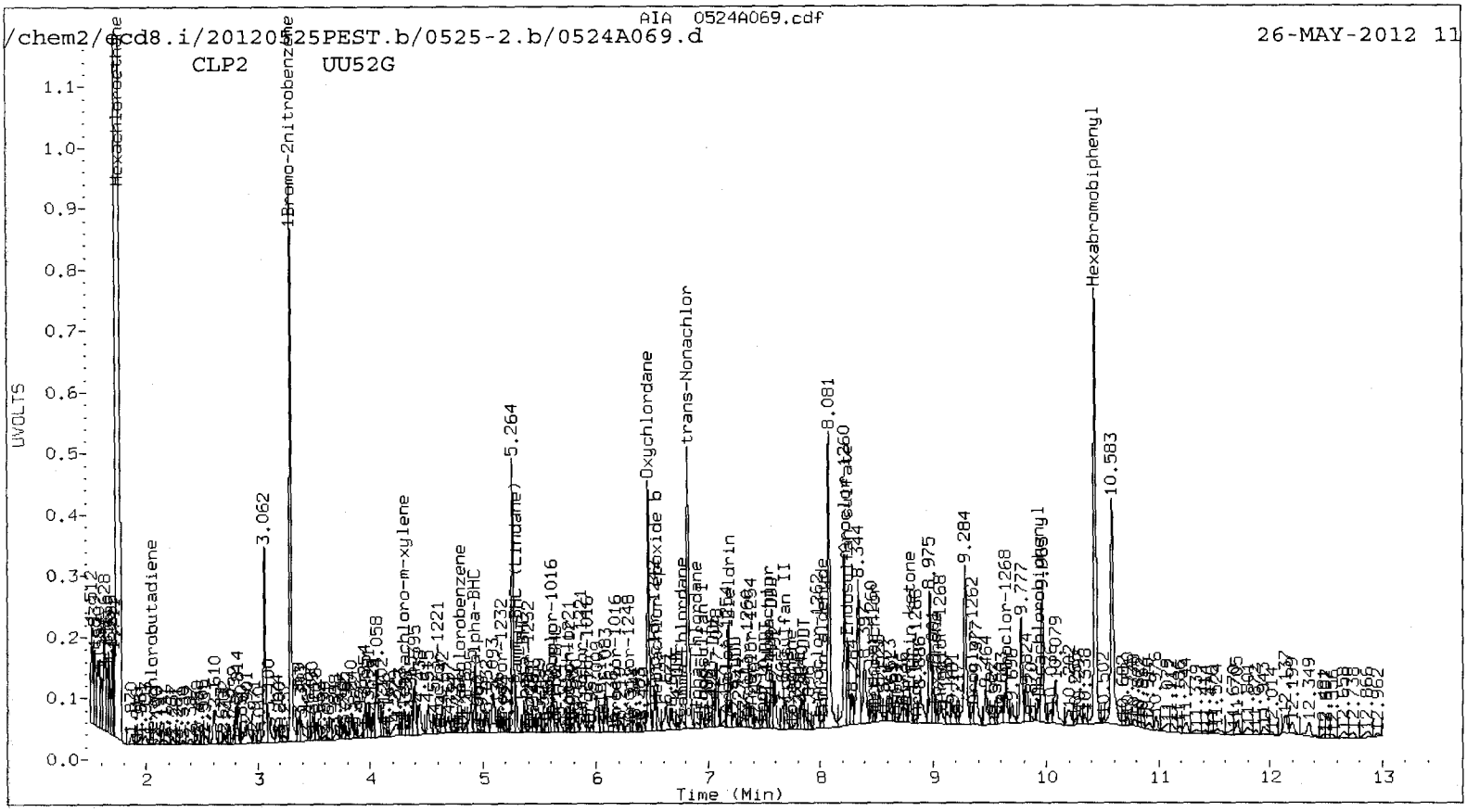
26-MAY-2012 11
STX-CLP UU52G
UVOLTS
Time (Min)
beta-BHC
1Bromo-2nitrobenzene
trans-Nonachlor
Hexabromobiphenyl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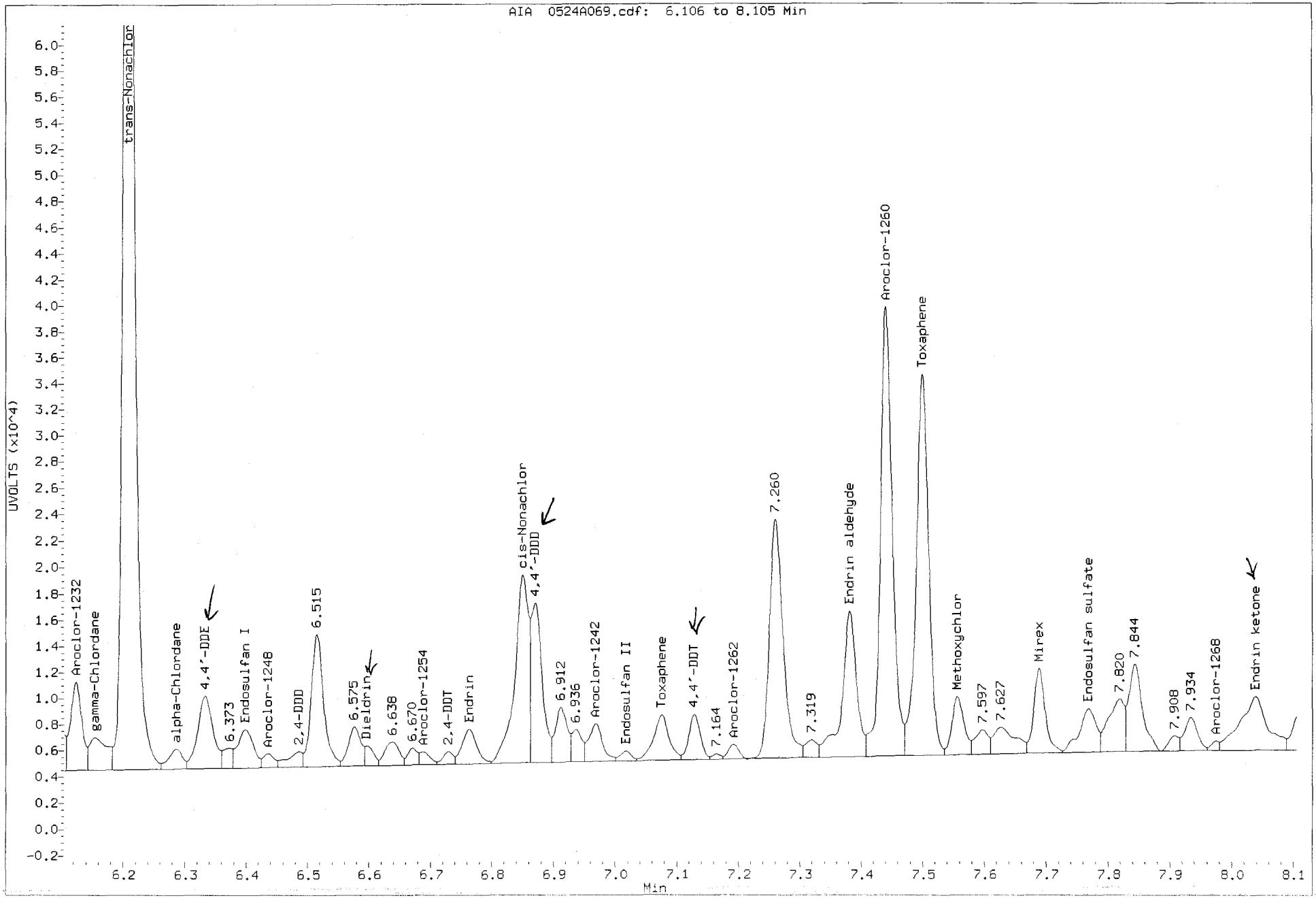
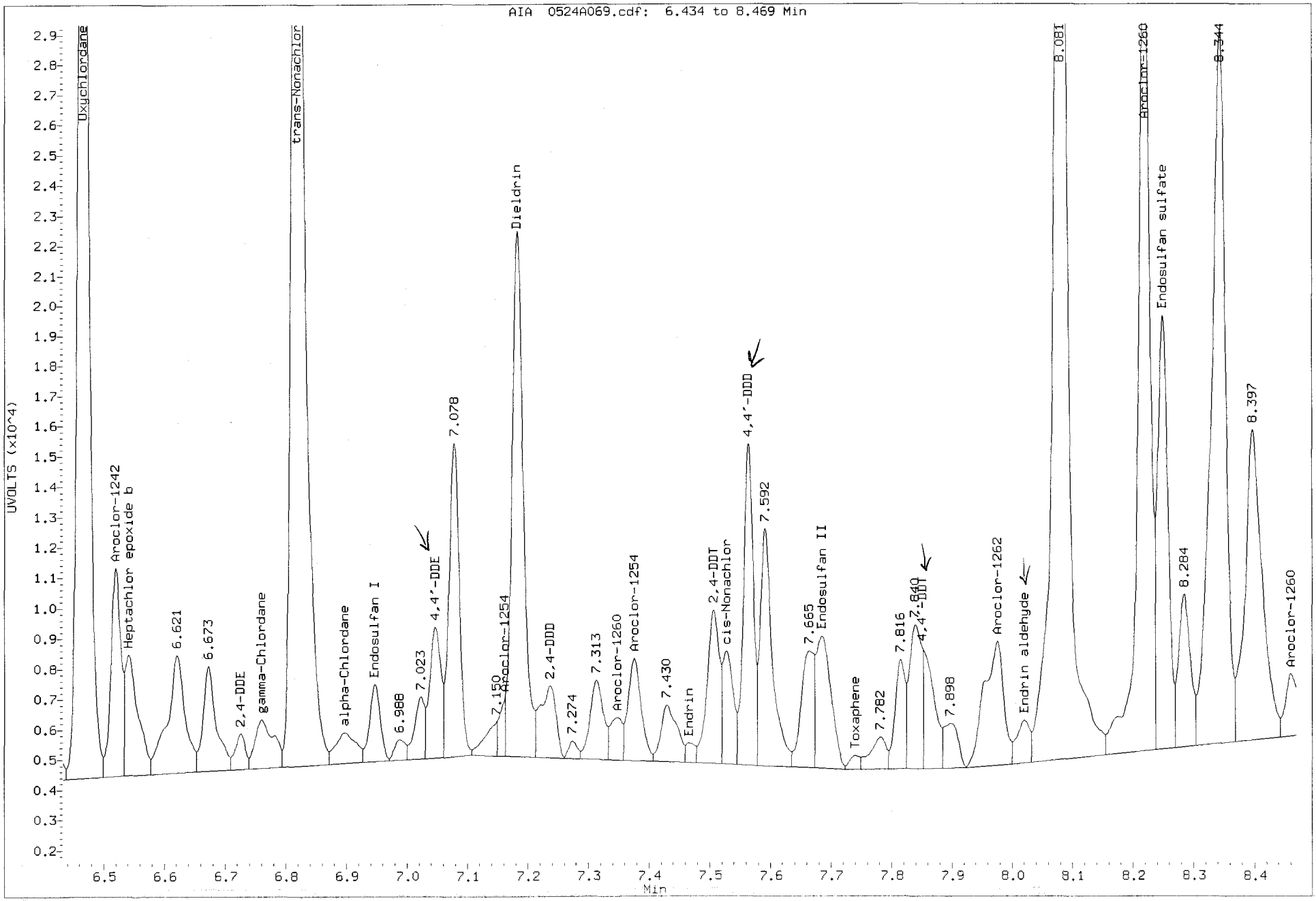
26-MAY-2012 11
CLP2 UU52G
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
3.062
5.264
Oxychlordane
trans-Nonachlor
8.081
10.583
Hexabromobiphenyl

Data File: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A069.d/0524A069.cdf
Injection Date: 26-MAY-2012 11:02
Instrument: ecd8.i
Client Sample ID: MS006-SS-120515



Data File: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A069.d/0524A069.cdf
Injection Date: 26-MAY-2012 11:02
Instrument: ecd8.i
Client Sample ID: MS006-SS-120515



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A070.d ARI ID: UU52H
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A070.d Client ID: MS007-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 11:21
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.032	0.002	1485976	3.298	0.001	1948265	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.451	-0.002	15634	4.931	0.002	8490	0.5479	0.2094	89.4*	alpha-BHC A B
4.867	0.021	119563	5.363	-0.004	2927	10.8851	0.1732	193.7*	beta-BHC A B
5.025	0.014	8327	5.644	-0.009	8335	0.3671	0.2786	27.4	delta-BHC A B
4.742	-0.014	7265	5.268	-0.015	30693	0.3133	0.9063	97.3*	gamma-BHC (Lindane) A B
5.204	0.003	5671	5.719	0.006	1315	0.2480	0.0427	141.3*	Heptachlor A B
5.518	0.041	8135	6.012	-0.016	12606	0.2990	0.3312	10.2	Aldrin A B
6.036	0.008	9203	6.564	-0.003	4469	0.3778	0.1409	91.3*	Heptachlor epoxide b A B
6.398	0.013	7145	6.936	-0.006	13153	0.1862	0.4267	78.5*	Endosulfan I A B
6.601	0.000	13139	7.199	0.000	7411	0.5046	0.2261	76.2*	Dieldrin A B
6.335	-0.001	11936	7.024	0.001	10700	0.5838	0.2959	65.5*	4,4'-DDE A B
6.769	-0.043	8052	7.468	-0.021	3431	0.4472	0.1423	103.4*	Endrin A B
7.016	0.001	4566	7.692	0.006	18303	0.2466	0.7127	97.2*	Endosulfan II A B
6.874	0.000	24004	7.565	0.000	19844	1.6377	0.9048	57.7*	4,4'-DDD A B
7.774	-0.022	1585	8.224	-0.035	35473	0.1024	1.6440	176.5*	Endosulfan sulfate A B
7.140	0.017	6781	7.849	-0.009	3804	0.6825	0.2781	84.2*	4,4'-DDT A B
----			8.483	-0.004	2664	0.0000	0.3815	---	Methoxychlor
8.065	0.008	68078	8.793	0.013	4912	3.5368	0.2108	177.5*	Endrin ketone A B
7.401	0.005	150710	7.972	-0.026	6737	10.2279	0.3102	188.2*	Endrin aldehyde A B
6.146	0.003	11723	6.771	0.026	20090	0.4808	0.5887	20.2	gamma-Chlordane A B
6.296	0.034	5563	6.884	0.003	6207	0.2213	0.1812	19.9	alpha-Chlordane A B
1.727	-0.001	251	2.067	0.030	1235	0.0055	0.0201	113.5*	Hexachlorobutadiene A B
4.277	-0.011	24608	4.801	0.011	9584	0.9447	0.2578	114.2*	Hexachlorobenzene A B
----			6.471	-0.011	30319	0.0000	1.2102	---	Oxychlordane
5.994	-0.033	16134	6.729	-0.007	2016	1.2243	0.0937	171.6*	2,4-DDE A B
6.214	-0.036	63883	6.822	-0.009	33243	3.3782	1.1172	100.6*	trans-Nonachlor A B
6.461	-0.030	17790	7.239	0.024	4231	1.8908	0.2713	149.8*	2,4-DDD A B
----			7.526	0.024	11738	0.0000	0.8538	---	2,4-DDT
6.845	0.000	6512	7.601	0.044	3588	0.3021	0.1113	92.3*	cis-Nonachlor A B
7.688	-0.021	9202	8.763	0.003	10326	0.7191	0.4965	36.6	Mirex A B
9.132	-0.006	1657319	10.432	-0.001	2023771	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.768	-0.001	6488	1.759	0.007	1645941	0.0000	0.0000	---	Hexachloroethane
3.898	0.001	13845	4.301	0.002	17401	0.6582	0.3716	55.7*	Tetrachloro-m-xylene A B
8.983	0.003	14864	9.928	0.007	15660	0.5308	0.4603	14.2	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	1.6	0.9	0.9~	29-110
Decachlorobiphenyl	1.3	1.2	1.2~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1485976	77.7
Hexabromobiphenyl	1091107	1657319	51.9

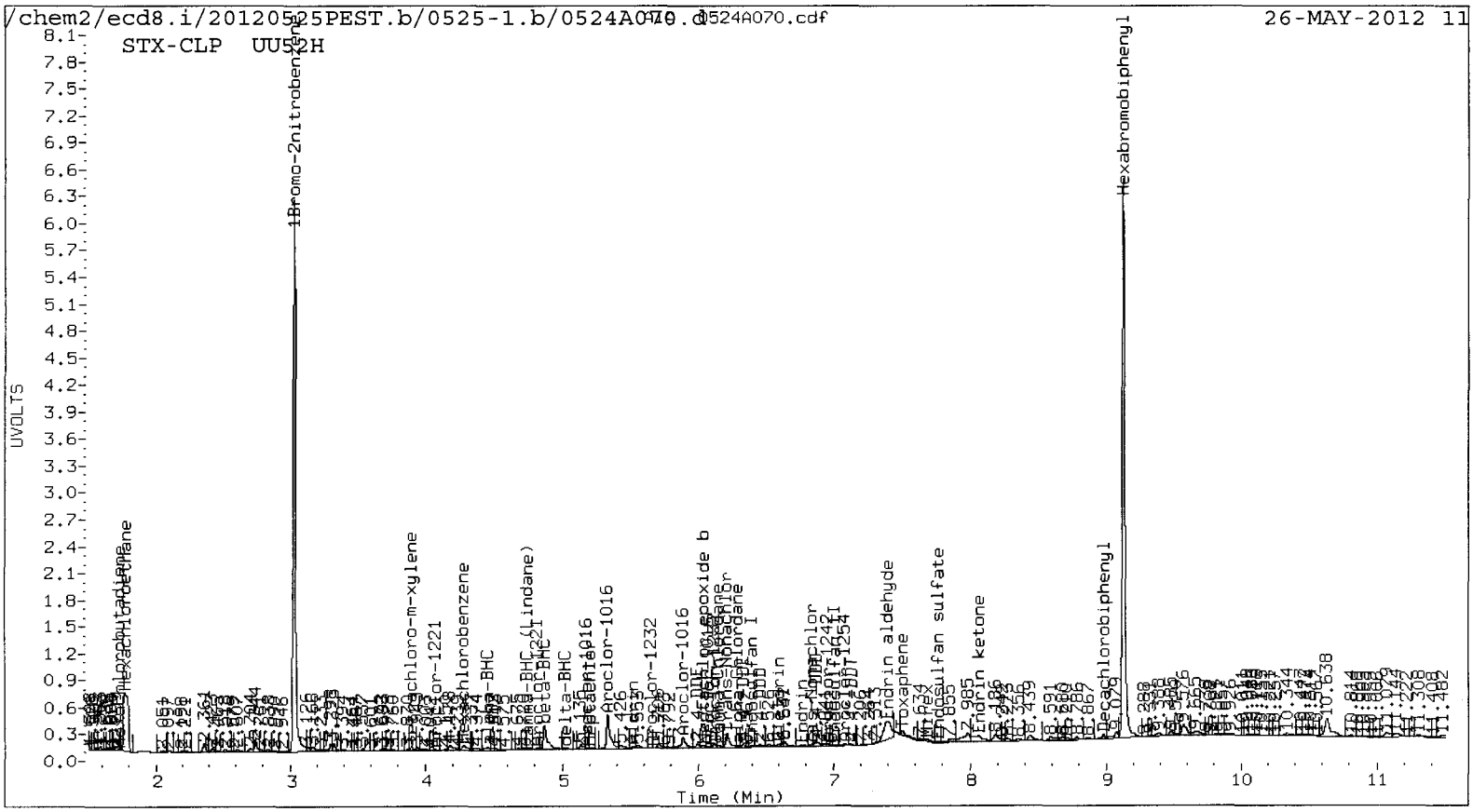
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1948265	56.0
Hexabromobiphenyl	1339634	2023771	51.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.086	0.017	10167	12.217	1	7.778	0.019	7461	6.261
Toxaphene	2	7.140	0.021	6781	11.683	2	8.027	0.025	1872	1.424
Toxaphene	3	7.510	-0.013	24811	47.177	3	8.224	-0.031	35473	62.766
Toxaphene	4	7.688	-0.017	9202	10.513	4	8.483	-0.012	2664	2.408
Toxaphene	5	7.774	0.023	1585	2.320	5	9.026	-0.014	6008	14.084
Toxaphene	6	8.065	0.027	68078	137.455	NS	---			----
Total STX-CLPAve (6 peaks): 36.894						Total CLP2Ave (5 peaks): 17.389				RPD = 72*
Corrected Ave (5 peaks): 16.782						Corrected Ave (4 peaks): 6.044				RPD = 94*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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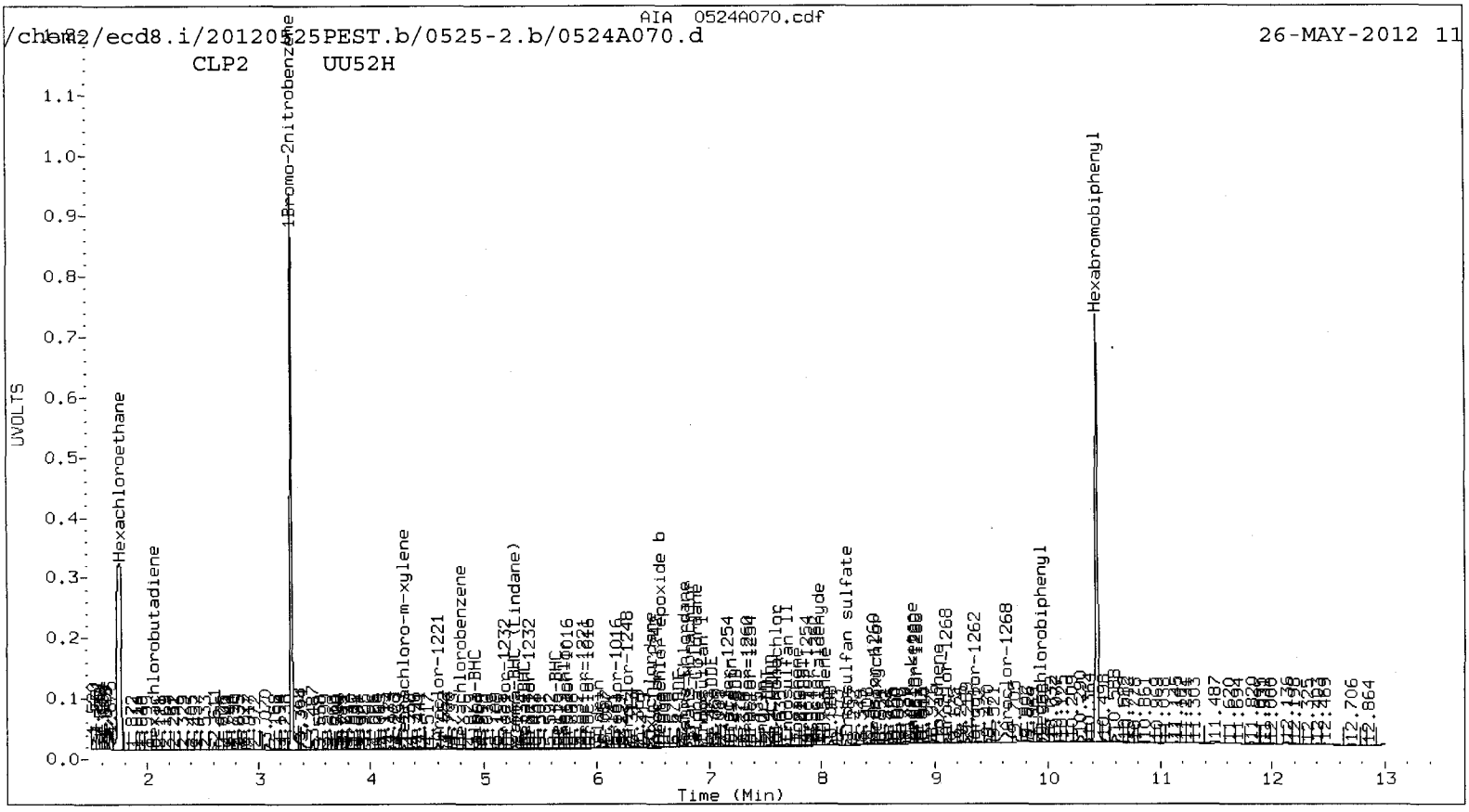
AIA 0524A070.cdf
26-MAY-2012 11
STX-CLP UU52H
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Chloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl
Decachlorobiphenyl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AIA 0524A070.cdf
26-MAY-2012 11
CLP2 UU52H
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Chloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A071.d ARI ID: UU52I
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A071.d Client ID: MS008-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 11:40
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.031	0.001	1468582	3.298	0.001	1925279	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.452	-0.001	10810	4.933	0.003	8282	0.3833	0.2067	59.9*	alpha-BHC A B
4.869	0.023	66453	5.360	-0.006	10422	6.1216	0.6238	163.0*	beta-BHC A B
5.027	0.016	12795	5.644	-0.009	9224	0.5707	0.3120	58.6*	delta-BHC A B
4.745	-0.010	9855	5.270	-0.013	34734	0.4299	1.0378	82.8*	gamma-BHC (Lindane) A B
5.208	0.007	5226	5.682	-0.031	10771	0.2312	0.3536	41.9*	Heptachlor A B
5.428	-0.049	11031	6.012	-0.016	11618	0.4103	0.3089	28.2	Aldrin A B
6.042	0.014	15641	6.562	-0.005	4177	0.6496	0.1333	131.9*	Heptachlor epoxide b A B
6.397	0.012	3999	6.959	0.017	3357	0.1054	0.1102	4.4	Endosulfan I A B
6.598	-0.003	5527	7.201	0.001	2857	0.2148	0.0882	83.5*	Dieldrin A B
6.335	-0.001	2621	7.025	0.002	3544	0.1298	0.0992	26.8	4,4'-DDE A B
6.779	-0.033	6254	7.474	-0.015	3116	0.3269	0.1269	88.1*	Endrin A B
7.012	-0.003	5335	7.695	0.009	15943	0.2711	0.6095	76.8*	Endosulfan II A B
6.875	0.001	17994	7.563	-0.001	7700	1.1553	0.3447	108.1*	4,4'-DDD A B
7.762	-0.033	2137	8.225	-0.033	30843	0.1299	1.4034	166.1*	Endosulfan sulfate A B
7.145	0.022	6555	7.846	-0.013	9584	0.6208	0.6879	10.3	4,4'-DDT A B
7.562	0.002	6591	8.483	-0.005	2450	1.0997	0.3444	104.6*	Methoxychlor A B
8.067	0.011	8121	8.739	-0.042	10144	0.3970	0.4274	7.4	Endrin ketone A B
7.395	-0.001	10699	7.990	-0.009	3384	0.6833	0.1530	126.8*	Endrin aldehyde A B
6.164	0.022	4364	6.772	0.026	6234	0.1811	0.1849	2.1	gamma-Chlordane A B
6.293	0.031	5920	6.884	0.002	1530	0.2383	0.0452	136.2*	alpha-Chlordane A B
1.735	0.007	7214	2.069	0.032	1693	0.1610	0.0278	141.0*	Hexachlorobutadiene A B
4.282	-0.006	18546	4.800	0.009	17726	0.7204	0.4825	39.6	Hexachlorobenzene A B
5.905	-0.034	15901	6.471	-0.011	21130	0.8963	0.8535	4.9	Oxychlordane A B
5.991	-0.036	2064	6.730	-0.006	1360	0.1474	0.0639	79.0*	2,4-DDE A B
6.216	-0.034	32743	6.823	-0.009	15351	1.6294	0.5065	105.1*	trans-Nonachlor A B
6.481	-0.011	5139	7.241	0.026	6003	0.5139	0.3779	30.5	2,4-DDD A B
6.690	-0.027	3746	7.528	0.025	18103	0.3726	1.2927	110.5*	2,4-DDT A B
6.845	0.001	5591	7.601	0.044	5955	0.2440	0.1813	29.5	cis-Nonachlor A B
7.690	-0.019	1509	8.762	0.002	9139	0.1110	0.4314	118.1*	Mirex A B
9.133	-0.005	1761217	10.432	-0.001	2061329	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.769	0.000	20028	1.759	0.007	4817851	0.0000	0.0000	---	Hexachloroethane
3.915	0.018	24968	4.302	0.003	18391	1.2011	0.3974	100.5*	Tetrachloro-m-xylene A B
8.984	0.003	10208	9.927	0.006	12029	0.3430	0.3472	1.2	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	3.0	1.0	1.0~	29-110
Decachlorobiphenyl	0.9	0.9	0.9~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1468582	75.6
Hexabromobiphenyl	1091107	1761217	61.4

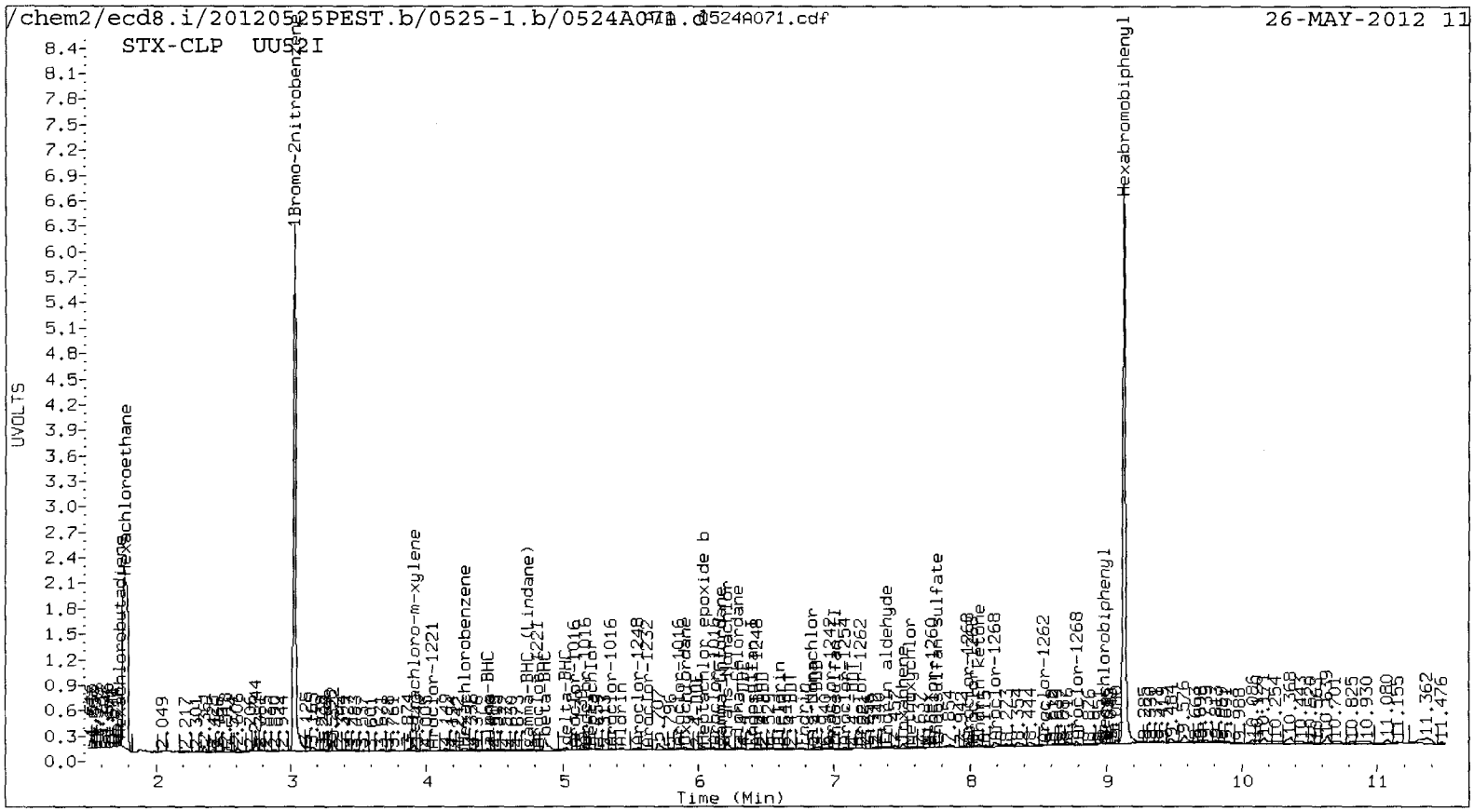
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1925279	54.2
Hexabromobiphenyl	1339634	2061329	53.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.087	0.019	9356	10.579	1	7.764	0.005	4938	4.069
Toxaphene	2	7.145	0.026	6555	10.627	2	7.990	-0.011	3384	2.527
Toxaphene	3	7.512	-0.011	19478	34.853	3	8.225	-0.029	30843	53.579
Toxaphene	4	7.690	-0.015	1509	1.623	4	8.483	-0.013	2450	2.174
Toxaphene	5	7.762	0.012	2137	2.944	5	9.028	-0.012	9161	21.084
Toxaphene	6	8.018	-0.020	1623	3.085	NS	---			----
Total STX-CLPAve (6 peaks): 10.618						Total CLP2Ave (5 peaks): 16.687			RPD = 44*	
Corrected Ave (5 peaks): 5.772						Corrected Ave (4 peaks): 7.464			RPD = 26	
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000		1	---	0.000	
Aroclor-1248 2	---	0.000		2	---	0.000	
Aroclor-1248 3	---	0.000		3	---	0.000	
Aroclor-1248 4	---	0.000		4	---	0.000	
Aroclor-1248 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000		1	---	0.000	
Aroclor-1254 2	---	0.000		2	---	0.000	
Aroclor-1254 3	---	0.000		3	---	0.000	
Aroclor-1254 4	---	0.000		4	---	0.000	
Aroclor-1254 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000		1	---	0.000	
Aroclor-1260 2	---	0.000		2	---	0.000	
Aroclor-1260 3	---	0.000		3	---	0.000	
Aroclor-1260 4	---	0.000		4	---	0.000	
Aroclor-1260 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000		1	---	0.000	
Aroclor-1262 2	---	0.000		2	---	0.000	
Aroclor-1262 3	---	0.000		3	---	0.000	
Aroclor-1262 4	---	0.000		4	---	0.000	
Aroclor-1262 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000		1	---	0.000	
Aroclor-1268 2	---	0.000		2	---	0.000	
Aroclor-1268 3	---	0.000		3	---	0.000	
Aroclor-1268 4	---	0.000		4	---	0.000	
Aroclor-1268 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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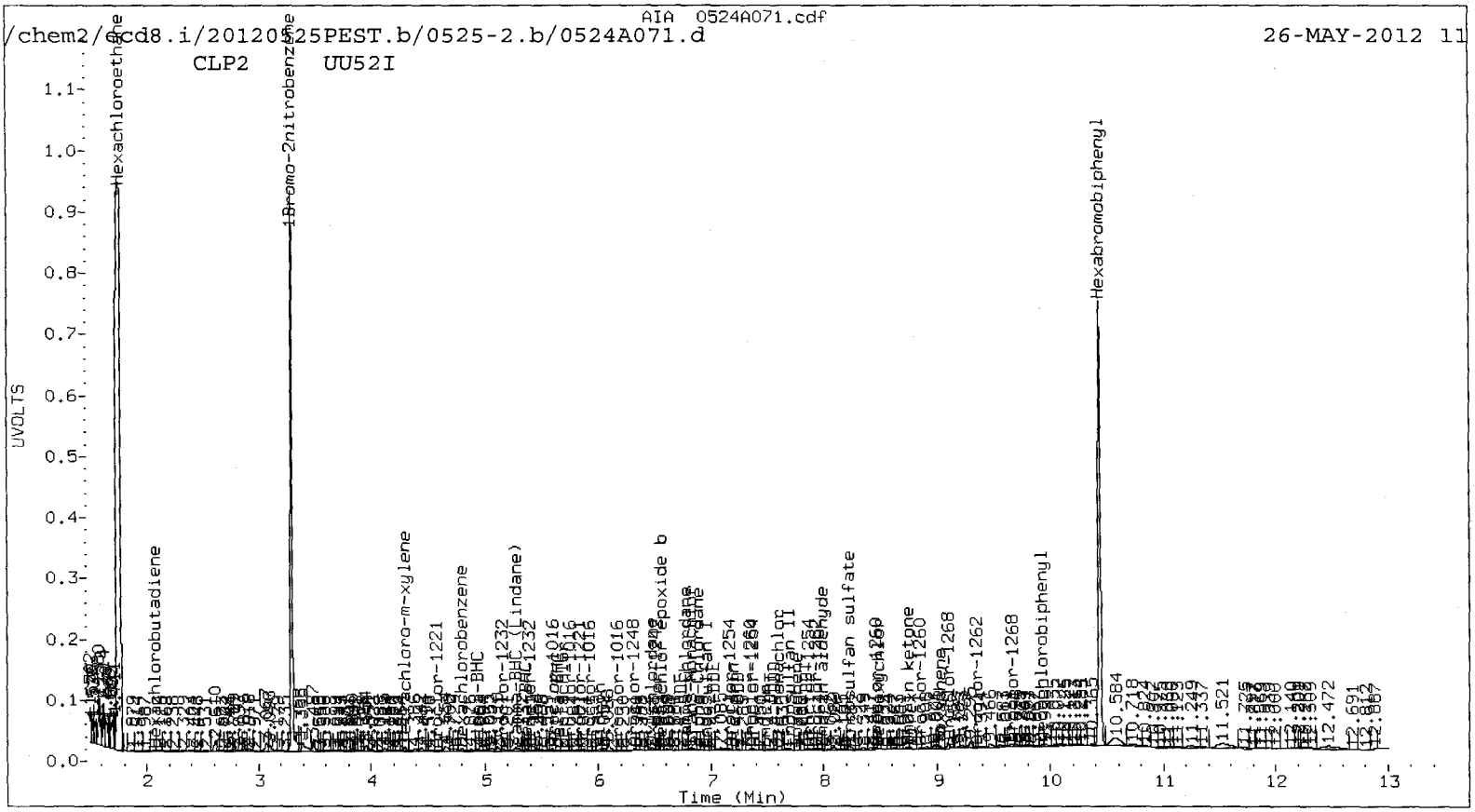
26-MAY-2012 11
STX-CLP UU52I
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Hexachlorobenzene
Hexabromobiphenyl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26-MAY-2012 11
CLP2 UU52I
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Hexachlorobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A072.d ARI ID: UU52J
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A072.d Client ID: MS009-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 11:59
Compound Sublist: wpest Report Date: 05/29/2012 12:33
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.031	0.001	1504730	3.297	0.001	1970396	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.430	-0.023	17499	4.932	0.002	8401	0.6056	0.2049	98.9*	alpha-BHC A B
4.868	0.022	40666	5.361	-0.005	7015	3.6562	0.4103	159.6*	beta-BHC A B
5.027	0.016	20950	5.644	-0.008	12797	0.9120	0.4230	73.3*	delta-BHC A B
4.745	-0.011	10124	5.283	0.000	40681	0.4311	1.1877	93.5*	gamma-BHC (Lindane) A B
5.206	0.005	13512	5.714	0.000	8341	0.5834	0.2676	74.2*	Heptachlor A B
5.454	-0.023	8575	6.011	-0.018	21476	0.3113	0.5580	56.8*	Aldrin A B
6.043	0.015	21349	6.560	-0.007	7141	0.8654	0.2226	118.2*	Heptachlor epoxide b A B
6.395	0.011	9961	6.961	0.019	15225	0.2563	0.4884	62.3*	Endosulfan I A B
6.578	-0.024	15857	7.202	0.003	4028	0.6013	0.1215	132.8*	Dieldrin A B
6.333	-0.003	5252	7.026	0.003	4672	0.2538	0.1277	66.1*	4,4'-DDE A B
6.769	-0.042	10915	7.444	-0.045	2372	0.5699	0.0918	144.5*	Endrin A B
7.011	-0.004	5201	7.696	0.010	13422	0.2641	0.4876	59.5*	Endosulfan II A B
6.893	0.019	14461	7.563	-0.001	3048	0.9275	0.1297	150.9*	4,4'-DDD A B
7.775	-0.021	16801	8.225	-0.033	18555	1.0202	0.8023	23.9	Endosulfan sulfate A B
7.091	-0.032	9640	7.847	-0.011	7126	0.9120	0.4861	60.9*	4,4'-DDT A B
7.565	0.004	15650	8.455	-0.032	8685	2.6084	1.1603	76.8*	Methoxychlor A B
8.070	0.013	16519	8.739	-0.041	10170	0.8067	0.4072	65.8*	Endrin ketone A B
7.399	0.003	32671	7.974	-0.025	20448	2.0842	0.8784	81.4*	Endrin aldehyde A B
6.165	0.022	9188	6.771	0.025	13218	0.3721	0.3830	2.9	gamma-Chlordane A B
6.292	0.031	8644	6.881	-0.001	5640	0.3396	0.1628	70.4*	alpha-Chlordane A B
1.724	-0.004	5163	----			0.1125	0.0000	---	Hexachlorobutadiene
4.286	-0.001	24183	4.796	0.005	16832	0.9168	0.4477	68.8*	Hexachlorobenzene A B
5.942	0.003	4036	6.471	-0.011	26855	0.2273	1.0599	129.4*	Oxychlordane A B
5.986	-0.041	5138	6.730	-0.006	7919	0.3665	0.3638	0.8	2,4-DDE A B
6.215	-0.034	30985	6.823	-0.008	20802	1.5403	0.6523	81.0*	trans-Nonachlor A B
6.479	-0.012	12671	7.244	0.029	16236	1.2659	0.9713	26.3	2,4-DDD A B
6.688	-0.030	7846	7.498	-0.005	7070	0.7796	0.4798	47.6*	2,4-DDT A B
6.844	-0.001	4777	7.527	-0.030	10270	0.2083	0.2972	35.2	cis-Nonachlor A B
7.720	0.011	9574	8.764	0.004	12808	0.7033	0.5746	20.1	Mirex A B
9.133	-0.006	1763076	10.432	-0.001	2169151	80.0000	80.0000	0.0	Hexabromobiphenyl A B
1.767	-0.002	9154	1.757	0.005	2221337	0.0000	0.0000	---	Hexachloroethane
3.898	0.002	18188	4.301	0.003	27210	0.8539	0.5746	39.1	Tetrachloro-m-xylene A B
8.987	0.007	33734	9.927	0.006	11770	1.1324	0.3228	111.3*	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	2.1	1.4	1.4~	29-110
Decachlorobiphenyl	2.8	0.8	0.8~	18-151

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1504730	79.9
Hexabromobiphenyl	1091107	1763076	61.6

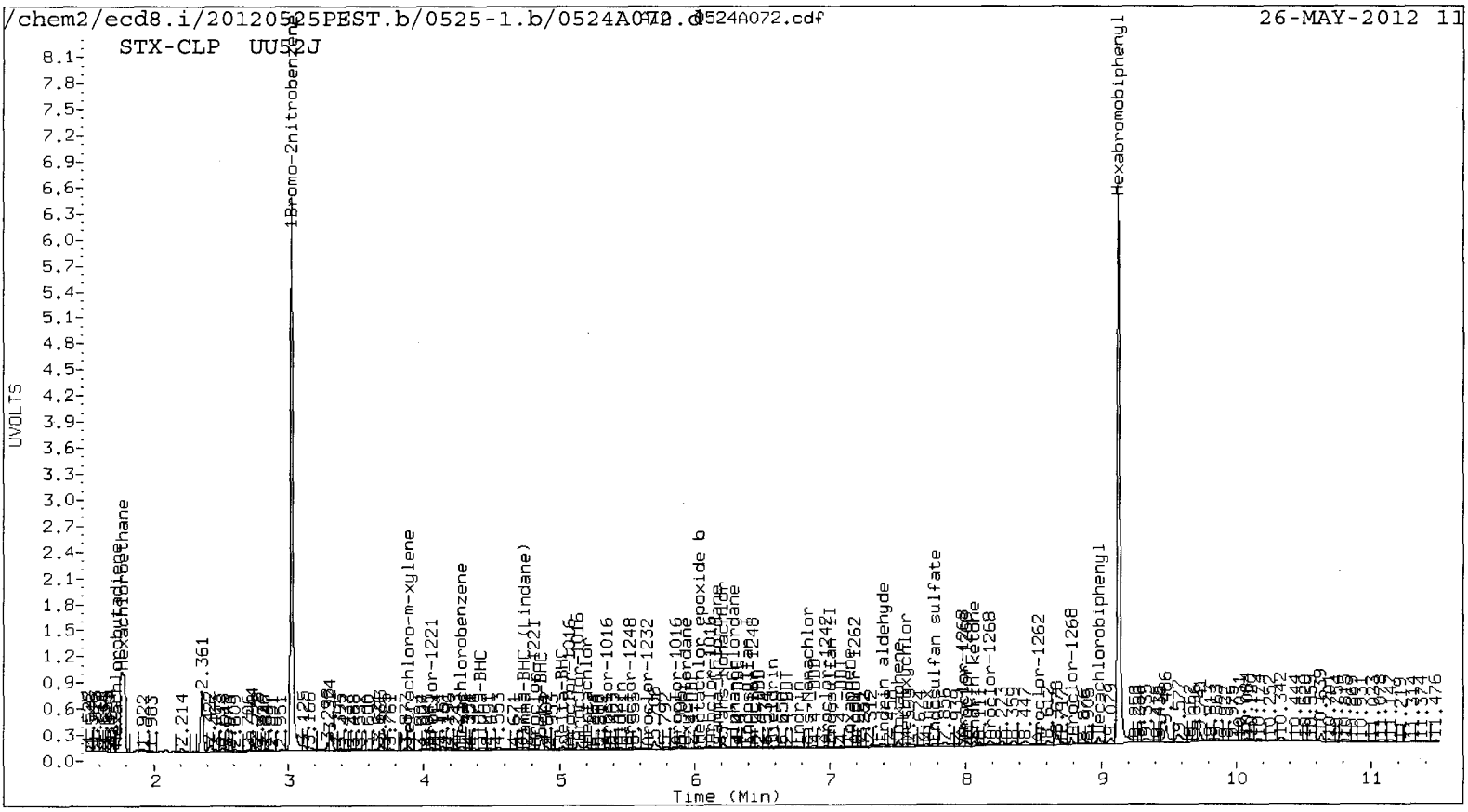
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1970396	57.8
Hexabromobiphenyl	1339634	2169151	61.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.091	0.023	9640	10.889	1	7.752	-0.008	3291	2.577
Toxaphene	2	7.147	0.028	8288	13.423	2	8.025	0.024	1624	1.153
Toxaphene	3	7.511	-0.012	29619	52.941	3	8.225	-0.029	18555	30.631
Toxaphene	4	7.720	0.015	9574	10.281	4	8.533	0.037	5249	4.426
Toxaphene	5	7.775	0.025	16801	23.115	5	9.029	-0.011	8739	19.113
Toxaphene	6	8.017	-0.021	16662	31.624	NS	---			----
	Total STX-CLPAve (6 peaks): 23.712					Total CLP2Ave (5 peaks): 11.580				RPD = 69*
	Corrected Ave (5 peaks): 17.866					Corrected Ave (4 peaks): 6.817				RPD = 90*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000	1		---	0.000	
Aroclor-1248 2	---	0.000	2		---	0.000	
Aroclor-1248 3	---	0.000	3		---	0.000	
Aroclor-1248 4	---	0.000	4		---	0.000	
Aroclor-1248 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000	1		---	0.000	
Aroclor-1254 2	---	0.000	2		---	0.000	
Aroclor-1254 3	---	0.000	3		---	0.000	
Aroclor-1254 4	---	0.000	4		---	0.000	
Aroclor-1254 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000	1		---	0.000	
Aroclor-1260 2	---	0.000	2		---	0.000	
Aroclor-1260 3	---	0.000	3		---	0.000	
Aroclor-1260 4	---	0.000	4		---	0.000	
Aroclor-1260 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000	1		---	0.000	
Aroclor-1262 2	---	0.000	2		---	0.000	
Aroclor-1262 3	---	0.000	3		---	0.000	
Aroclor-1262 4	---	0.000	4		---	0.000	
Aroclor-1262 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000	1		---	0.000	
Aroclor-1268 2	---	0.000	2		---	0.000	
Aroclor-1268 3	---	0.000	3		---	0.000	
Aroclor-1268 4	---	0.000	4		---	0.000	
Aroclor-1268 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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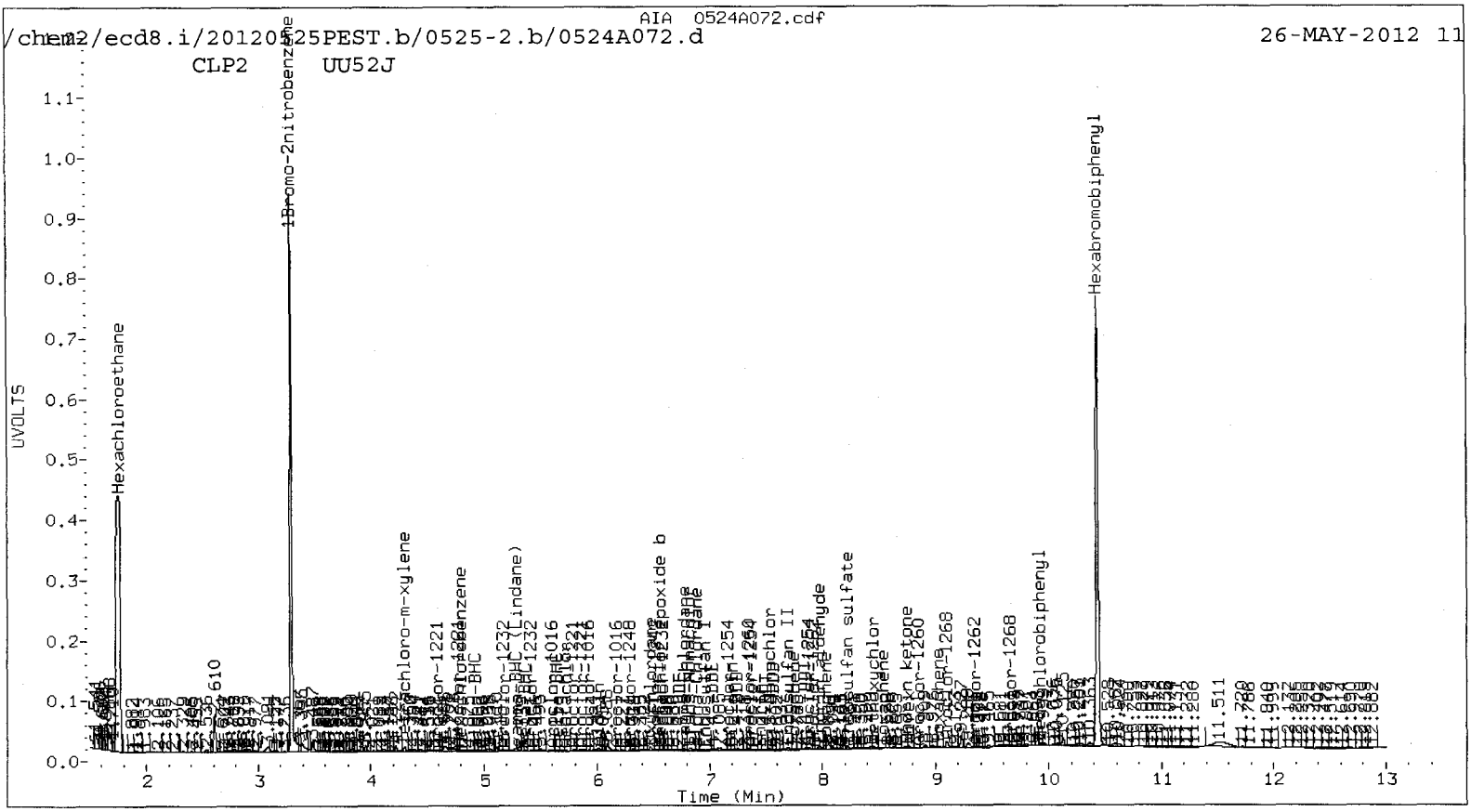
26-MAY-2012 11
STX-CLP UU52J
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachloro-m-xylene
Hexachlorobenzene
Hexachlorobiphenyl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26-MAY-2012 11
CLP2 UU52J
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachloro-m-xylene
Hexachlorobenzene
Hexachlorobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A077.d ARI ID: INDAE
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A077.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 13:33
Compound Sublist: INDA Report Date: 05/29/2012 12:07
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.031	0.001	1321741	3.297	0.001	1755648	80.0000	80.0000	0.0	1Bromo-2nitrobenzene A B
4.455	0.002	489565	4.930	0.001	711094	19.2888	19.4626	0.9	alpha-BHC A B
4.849	0.003	166803	5.369	0.002	278921	17.0728	18.3073	7.0	beta-BHC A B
5.013	0.002	358857	5.655	0.003	509997	17.7851	18.9191	6.2	delta-BHC A B
4.757	0.002	404496	5.284	0.001	577114	19.6070	18.9099	3.6	gamma-BHC (Lindane) A B
5.203	0.002	401422	5.715	0.001	465845	19.7309	16.7707	16.2	Heptachlor A B
5.479	0.001	467924	6.030	0.002	641705	19.3372	18.7119	3.3	Aldrin A B
6.030	0.002	412181	6.569	0.002	546510	19.0204	19.1185	0.5	Heptachlor epoxide b A B
6.387	0.002	569590	6.944	0.002	521092	16.6857	18.7602	11.7	Endosulfan I A B
6.604	0.003	939039	7.201	0.002	1160971	40.5403	39.3077	3.1	Dieldrin A B
6.340	0.004	597637	7.027	0.004	1222747	31.5917	37.5203	17.2	4,4'-DDE A B
6.814	0.002	790479	7.492	0.002	882717	41.9633	38.6640	8.2	Endrin A B
7.018	0.003	799067	7.689	0.003	1036128	41.2505	42.6029	3.2	Endosulfan II A B
6.880	0.006	724899	7.569	0.005	998456	47.2719	48.0752	1.7	4,4'-DDD A B
7.798	0.003	639608	8.261	0.002	764919	39.4914	37.4364	5.3	Endosulfan sulfate A B
7.128	0.005	194709	7.862	0.004	148238	18.7296	11.4450	48.3*	4,4'-DDT A B
7.565	0.004	795423	8.491	0.003	680406	134.8019	102.8839	26.9	Methoxychlor A B
8.059	0.003	706521	8.783	0.003	677972	35.0832	30.7224	13.3	Endrin ketone A B
7.399	0.003	583111	8.001	0.002	754844	37.8247	36.7014	3.0	Endrin aldehyde A B
6.145	0.002	428023	6.748	0.002	573027	19.7337	18.6331	5.7	gamma-Chlordane A B
6.264	0.002	414609	6.883	0.002	560586	18.5407	18.1630	2.1	alpha-Chlordane A B
1.730	0.002	622450	2.038	0.001	884638	15.4367	15.9447	3.2	Hexachlorobutadiene A B
4.289	0.002	336457	4.793	0.002	524196	14.5215	15.6475	7.5	Hexachlorobenzene A B
9.140	0.002	1733918	10.436	0.002	1916442	80.0000	80.0000	0.0	Hexabromobiphenyl A B
3.898	0.002	520911	4.300	0.001	1350554	27.8417	32.0063	13.9	Tetrachloro-m-xylene A B
8.983	0.003	853589	9.925	0.004	1074146	29.1360	33.3445	13.5	Decachlorobiphenyl A B

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	69.6	80.0	69.6~	85-115
Decachlorobiphenyl	72.8	83.4	72.8~	85-115

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

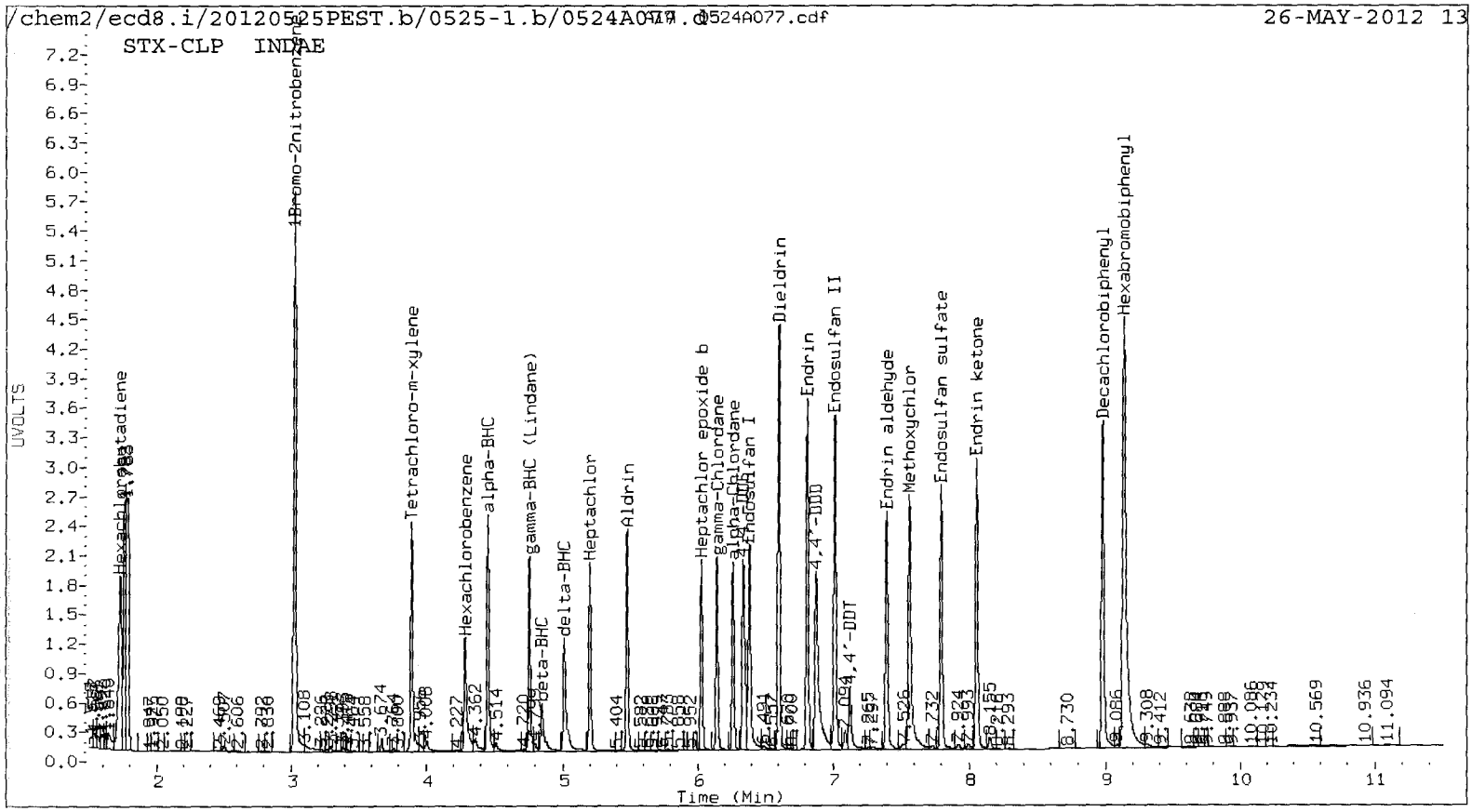
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	836406	1321741	58.0
Hexabromobiphenyl	1091107	1733918	58.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1248621	1755648	40.6
Hexabromobiphenyl	1339634	1916442	43.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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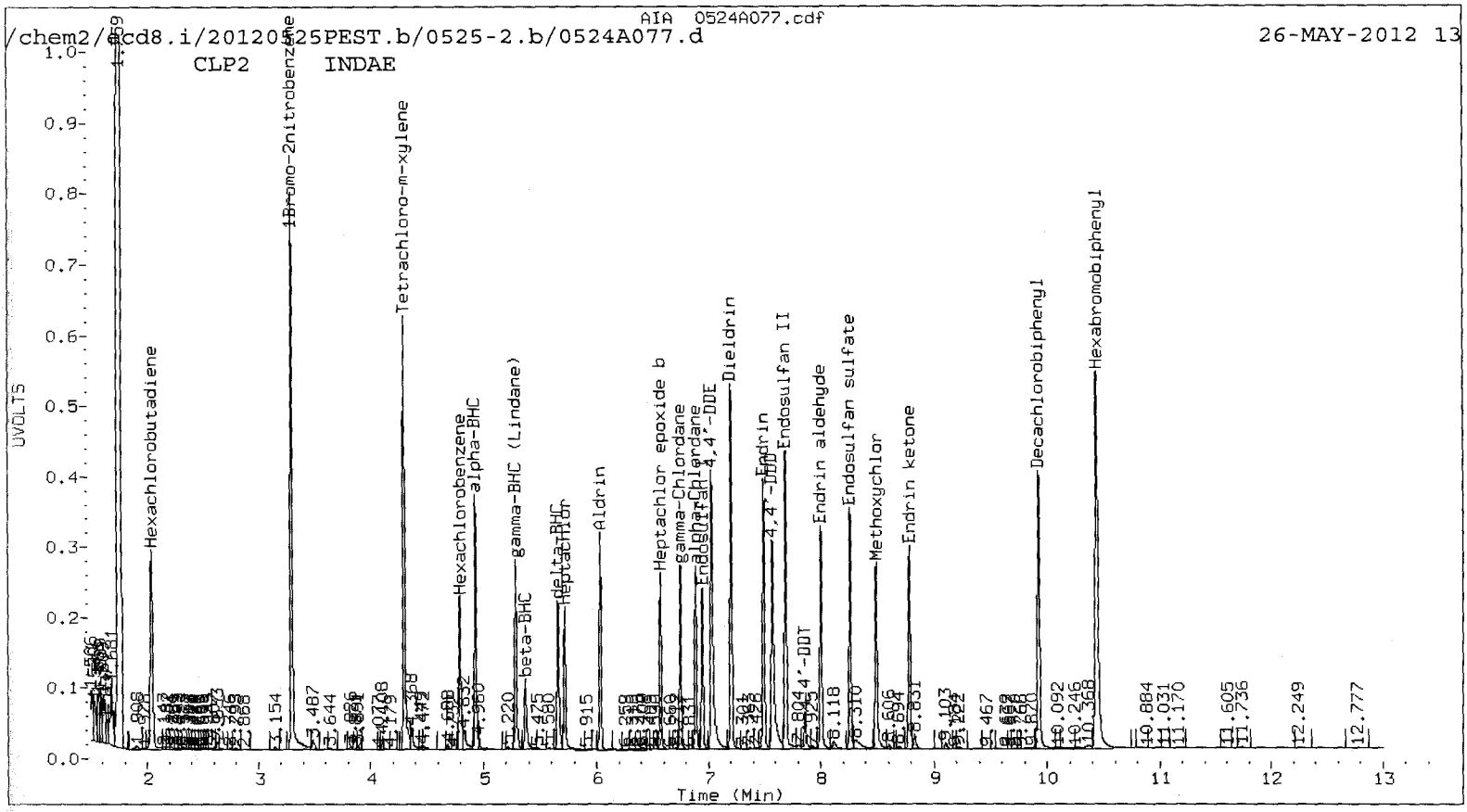
AIA 0524A077.cdf
26-MAY-2012 13
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A077.cdf
26-MAY-2012 13
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

GC Analyst Notes / Corrective Action Log

ARI Project ID: UU62 Client ID: Anchor

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): 500mL/50mL FV
AR 5125112

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/23/2012 Analysis Start: 5/23/2012

Endrin/DDT Breakdown <15%? YES / NO / NA
Method Blank In Control? YES / NO
ICal Meets RF & %RSD Criteria? YES / NO
LCS/LCSD Recovery In Control? YES / NO
CCal Meets RF & %RSD Criteria? YES / NO
Surrogate Recovery In Control? YES / NO
Manual Integrations for ICal? YES / NO
Manual Integrations for Samples? YES / NO
Internal Standard Meets Criteria? YES / NO / NA
Special Analysis Criteria Met? YES / NO / NA
Level 4 DP

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 5/25/2012

Reviewer: _____ **Date:** 5/25/12

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A087.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A087.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 14:31
Compound Sublist: INDA Report Date: 05/25/2012 15:53
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	5138026	2.854	-0.001	17460248	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.846	-0.001	2153795	4.106	-0.001	5935110	21.0096	19.9622	5.1	alpha-BHC
4.184	0.002	767688	4.502	0.000	2127626	20.0768	18.6027	7.6	beta-BHC
4.339	0.002	1572221	4.782	0.000	4277431	21.0210	20.1555	4.2	delta-BHC
4.106	0.000	1791172	4.427	-0.002	4944162	20.8287	19.4896	6.6	gamma-BHC (Lindane)
4.517	-0.001	1960354	4.848	-0.002	4778170	20.6506	18.7159	9.8	Heptachlor
4.787	0.000	1813780	5.169	-0.002	4217518	20.8305	19.0596	8.9	Aldrin
5.346	0.000	1557022	5.730	-0.002	4080766	20.0808	19.0093	5.5	Heptachlor epoxide b
5.721	-0.001	2061698	6.116	-0.002	3510584	19.6991	18.7882	4.7	Endosulfan I
5.945	-0.001	3392010	6.375	-0.002	7390693	40.7062	38.2616	6.2	Dieldrin
5.672	0.002	2362843	6.208	0.000	6578937	44.8223	38.5112	15.1	4,4'-DDE
6.162	-0.001	3033187	6.662	-0.002	6080394	40.3659	37.0089	8.7	Endrin
6.371	0.000	2927734	6.855	-0.002	6093442	40.0343	36.6055	8.9	Endosulfan II
6.229	0.002	2504898	6.748	-0.001	5216612	42.3376	37.9962	10.8	4,4'-DDD
7.137	-0.001	2548990	7.402	-0.002	4799767	39.6453	37.5285	5.5	Endosulfan sulfate
6.484	0.000	2710876	7.033	-0.001	5171564	41.7212	38.2535	8.7	4,4'-DDT
6.923	0.000	6399917	7.627	-0.002	10016532	193.3285	169.6117	13.1	Methoxychlor
7.388	-0.001	3136573	7.880	-0.002	6123268	38.4814	37.1882	3.4	Endrin ketone
6.748	0.000	2319970	7.156	-0.002	4648545	39.3377	36.6649	7.0	Endrin aldehyde
5.469	0.000	1702337	5.917	-0.001	3845309	20.2478	19.3050	4.8	gamma-Chlordane
5.594	0.000	1540833	6.056	-0.002	3593719	19.2579	18.9577	1.6	alpha-Chlordane
2.053	-0.001	2265284	2.111	-0.001	6151347	19.9942	19.0584	4.8	Hexachlorobutadiene
3.718	0.002	1384434	3.995	0.000	5200452	19.5905	19.1545	2.3	Hexachlorobenzene
8.389	-0.004	6987948	9.353	-0.004	9570322	80.0000	80.0000	0.0	Hexabromobiphenyl
3.407	0.001	3009166	3.587	-0.001	8470664	39.5805	39.0944	1.2	Tetrachloro-m-xylene
8.250	-0.001	2897118	8.907	-0.002	4907198	36.9053	37.0376	0.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	99.0	97.7	97.7~	115- 0
Decachlorobiphenyl	92.3	92.6	92.3~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

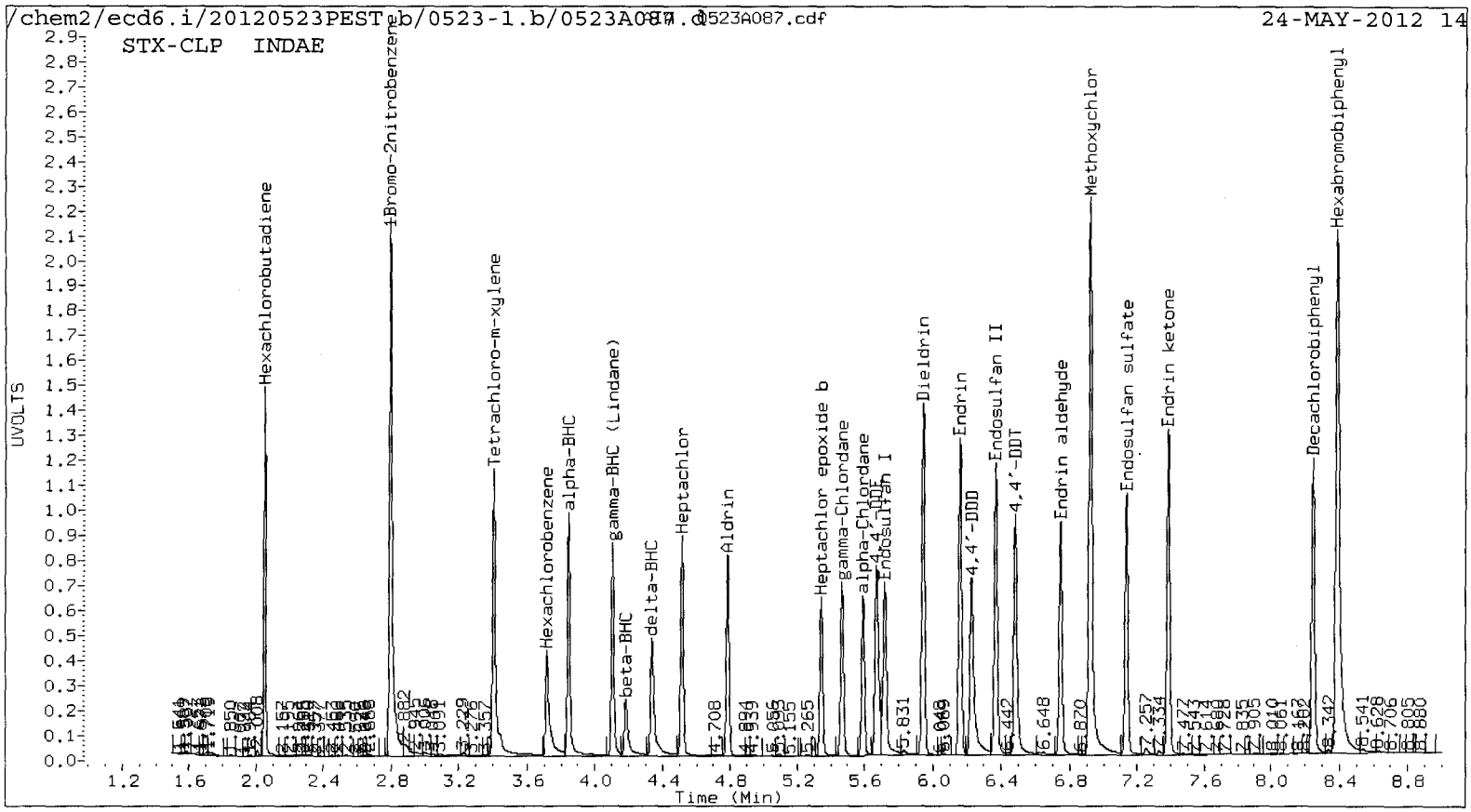
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5138026	6.1
Hexabromobiphenyl	6506091	6987948	7.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	17460248	7.6
Hexabromobiphenyl	8472750	9570322	13.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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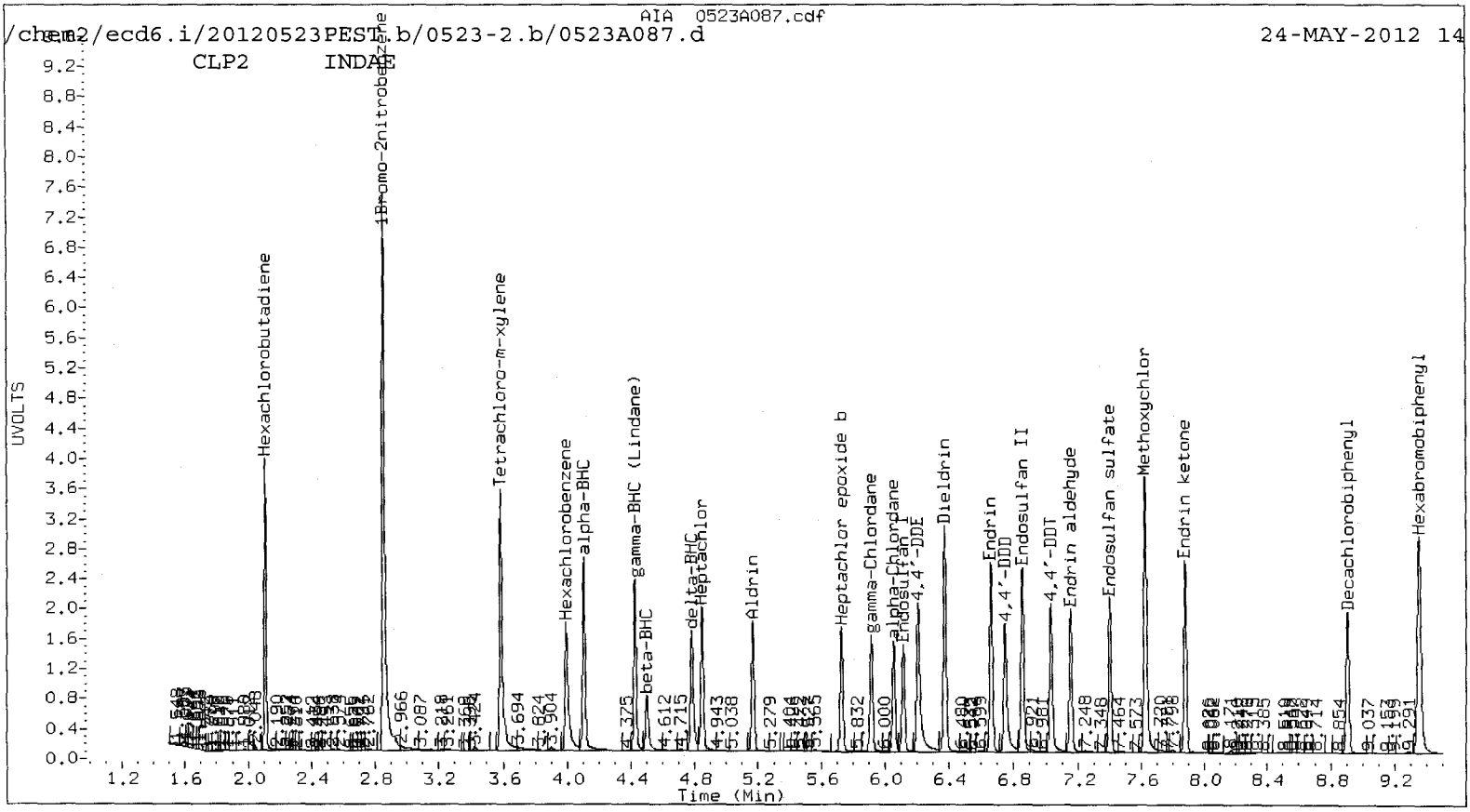
0523A087.cdf
24-MAY-2012 14
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0523A087.cdf
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24-MAY-2012 14
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/25/2012

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A090.d ARI ID: UU37MBW1
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A090.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 15:24
Compound Sublist: wpest Report Date: 05/25/2012 08:42
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.794	-0.002	5071443	2.853	-0.002	15720442	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.831	-0.015	21195	4.091	-0.017	13606	0.2095	0.0508	121.9*	alpha-BHC
4.193	0.011	12211	4.525	0.023	7446	0.3235	0.0723	126.9*	beta-BHC
4.329	-0.008	9273	4.778	-0.005	15514	0.1256	0.0812	43.0*	delta-BHC
4.102	-0.004	27230	4.425	-0.003	10815	0.3208	0.0474	148.6*	gamma-BHC (Lindane)
4.516	-0.002	8053	4.846	-0.003	25863	0.0860	0.1125	26.8	Heptachlor
4.785	-0.002	1615	5.186	0.015	382154	0.0188	1.9181	196.1*	Aldrin
5.356	0.011	24285	5.714	-0.019	158006	0.3173	0.8175	88.2*	Heptachlor epoxide b
5.723	0.002	8962	6.137	0.019	77865	0.0868	0.4628	136.9*	Endosulfan I
5.944	-0.002	21813	6.378	0.001	59957	0.2652	0.3448	26.1	Dieldrin
5.667	-0.003	8756	6.205	-0.003	81412	0.1683	0.5293	103.5*	4,4'-DDE
6.161	-0.002	7504	----			0.0974	0.0000	---	Endrin
6.366	-0.004	13186	6.854	-0.003	128856	0.1758	0.7773	126.2*	Endosulfan II
----			6.709	-0.039	56829	0.0000	0.4156	---	4,4'-DDD
7.136	-0.002	11934	7.398	-0.007	16867	0.1810	0.1324	31.0	Endosulfan sulfate
6.483	0.000	35212	7.033	-0.001	175974	0.5284	1.3071	84.8*	4,4'-DDT
6.924	0.001	33914	----			0.9990	0.0000	---	Methoxychlor
7.405	0.016	30803	7.916	0.034	48987	0.3685	0.2987	20.9	Endrin ketone
6.704	-0.044	37365	7.143	-0.015	113503	0.6178	0.8990	37.1	Endrin aldehyde
5.473	0.003	84236	5.949	0.030	299581	1.0151	1.6705	48.8*	gamma-Chlordane
5.632	0.038	6458	6.049	-0.008	84121	0.0818	0.4929	143.1*	alpha-Chlordane
2.051	-0.002	30766	2.108	-0.004	157994	0.2751	0.5437	65.6*	Hexachlorobutadiene
3.714	-0.003	94243	3.991	-0.003	23669	1.3511	0.0968	173.3*	Hexachlorobenzene
5.250	-0.002	6673	5.616	-0.027	53874	0.1006	0.3506	110.8*	Oxychlordane
5.292	-0.050	4500	5.909	0.000	42514	0.0964	0.4250	126.1*	2,4-DDE
5.584	0.003	11567	6.001	-0.005	121828	0.1364	0.6271	128.5*	trans-Nonachlor
5.827	-0.003	9131	6.395	-0.004	84609	0.2122	0.7799	114.4*	2,4-DDD
6.067	-0.002	16698	6.681	-0.004	177261	0.2945	1.5040	134.5*	2,4-DDT
6.197	0.000	16712	6.731	-0.003	220131	0.1780	1.1235	145.3*	cis-Nonachlor
7.062	-0.001	21556	7.860	-0.003	125492	0.3465	1.0658	101.9*	Mirex
8.386	-0.007	7166255	9.352	-0.005	9530794	80.0000	80.0000	0.0	Hexabromobiphenyl
1.716	-0.003	92693	1.766	-0.003	28516	0.0000	0.0000	---	Hexachloroethane
3.405	-0.001	1940009	3.585	-0.002	5382066	25.8526	27.5887	6.5	Tetrachloro-m-xylene
8.250	-0.001	2319618	8.907	-0.002	3989338	28.8136	30.2348	4.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	64.6	69.0~	64.6~	130- 0
Decachlorobiphenyl	72.0	75.6	72.0~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5071443	4.7
Hexabromobiphenyl	6506091	7166255	10.1

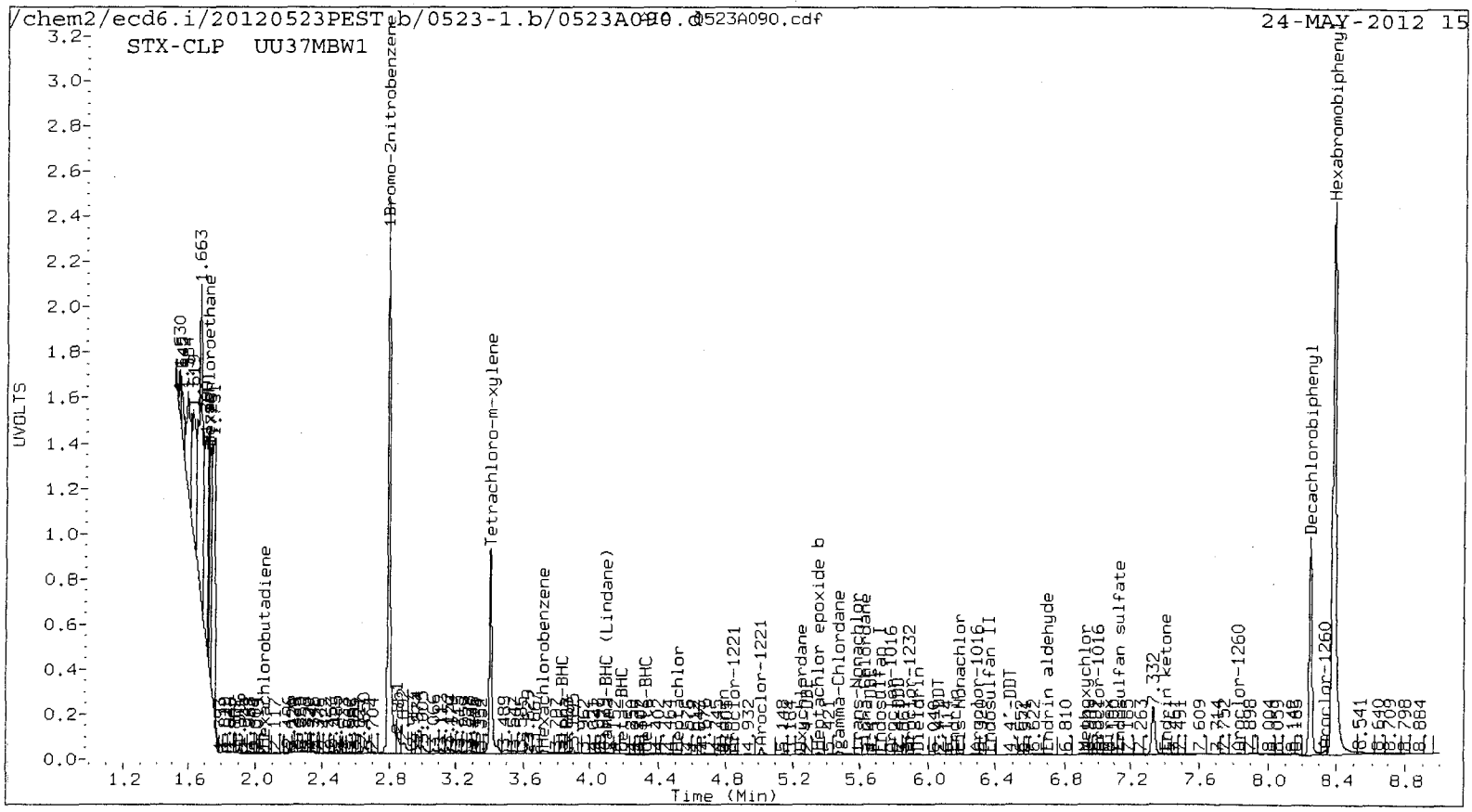
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15720442	-3.1
Hexabromobiphenyl	8472750	9530794	12.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	---			0.000	1	6.583	-0.024	226985	43.810	
Toxaphene	2	6.483	0.009	35212	13.498	2	6.946	0.015	23207	3.002	
Toxaphene	3	6.704	0.031	37365	15.539	3	7.185	0.020	94267	11.597	
Toxaphene	4	6.924	0.046	33914	13.113	4	---			0.000	
Toxaphene	5	7.062	0.006	21556	5.468	5	7.717	0.048	17595	2.000	
Toxaphene	6	7.405	0.029	30803	11.149	NS	---			----	
Total STX-CLPAve (5 peaks): 11.753						Total CLP2Ave (4 peaks): 15.102				RPD = 25	
Corrected Ave (5 peaks): 11.753						Corrected Ave (3 peaks): 5.533				RPD = 72*	
Aroclor-1016	1	---			0.000	1	---			0.000	
Aroclor-1016	2	---			0.000	2	---			0.000	
Aroclor-1016	3	---			0.000	3	---			0.000	
Aroclor-1016	4	---			0.000	4	---			0.000	
Aroclor-1016	5	---			0.000	5	---			0.000	
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.000	1	---			0.000	
Aroclor-1221	2	---			0.000	2	---			0.000	
Aroclor-1221	3	---			0.000	3	---			0.000	
Aroclor-1221	4	---			0.000	4	---			0.000	
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.000	1	---			0.000	
Aroclor-1232	2	---			0.000	2	---			0.000	
Aroclor-1232	3	---			0.000	3	---			0.000	
Aroclor-1232	4	---			0.000	4	---			0.000	
Aroclor-1232	5	---			0.000	5	---			0.000	
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.000	1	---			0.000	
Aroclor-1242	2	---			0.000	2	---			0.000	
Aroclor-1242	3	---			0.000	3	---			0.000	
Aroclor-1242	4	---			0.000	4	---			0.000	
Aroclor-1242	5	---			0.000	5	---			0.000	
Aroclor-1242	6	---			0.000	NS	---			----	

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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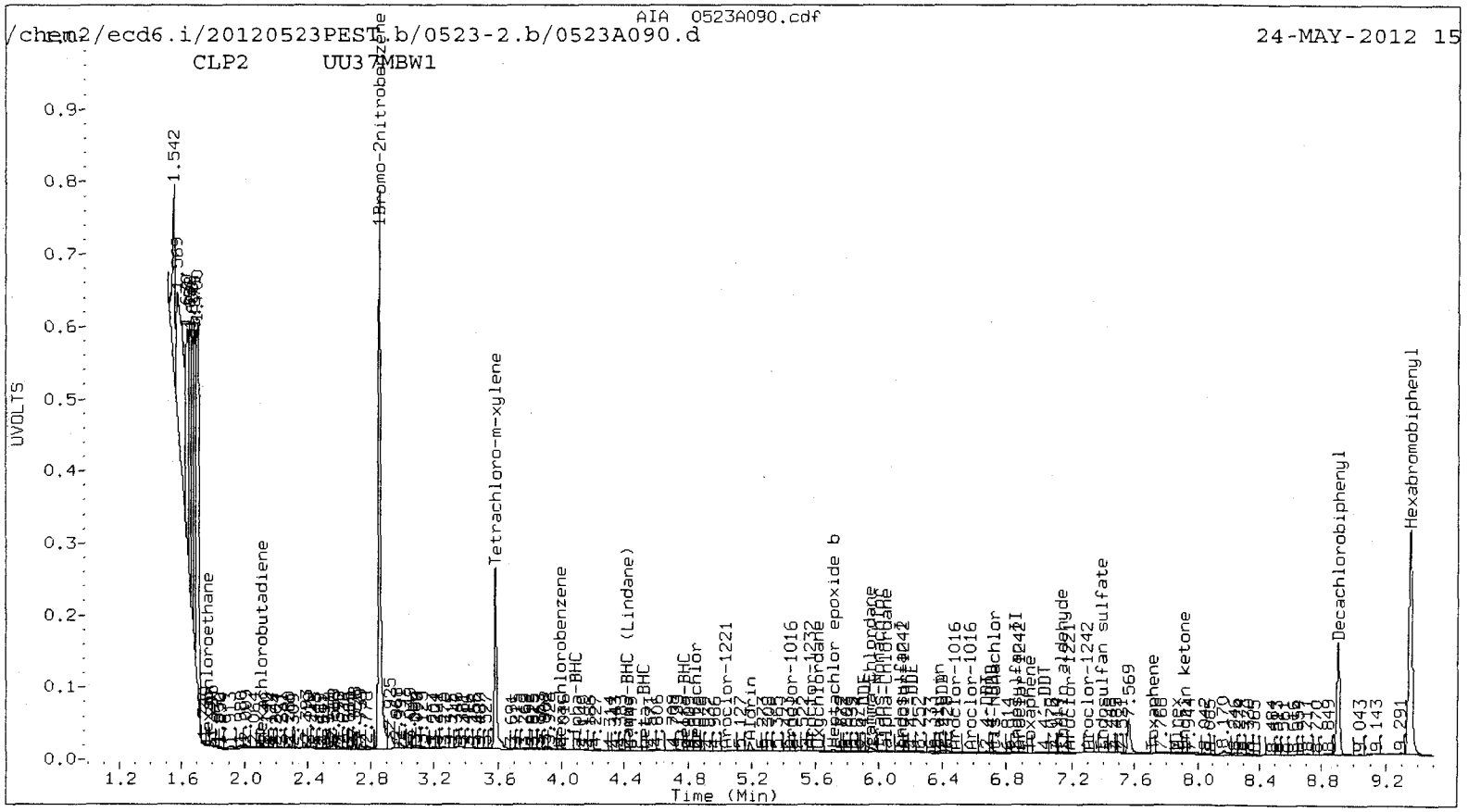
AIA 0523A090.cdf
24-MAY-2012 15
STX-CLP UU37MBW1
UVOLTS
Time (Min)
1.663
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobutadiene
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A090.cdf
24-MAY-2012 15
CLP2 UU37MBW1
UVOLTS
Time (Min)
1.542
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobutadiene
Decachlorobiphenyl
Hexabromobiphenyl

AR 6/25/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A091.d ARI ID: UU37LCSW1
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A091.d Client ID: UU37LCSW1
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 15:42
Compound Sublist: wpest Report Date: 05/25/2012 16:00
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: WATER
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
2.794	-0.003	5352442	2.852	-0.002	16498690	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.845	-0.001	1786051	4.105	-0.003	4623209	16.7244	16.4560	1.6	alpha-BHC
4.181	-0.001	682867	4.499	-0.003	1781809	17.1432	16.4871	3.9	beta-BHC
4.335	-0.002	1453725	4.779	-0.003	4229148	18.6581	21.0894	12.2	delta-BHC
4.105	-0.001	1684809	4.426	-0.003	4362772	18.8070	18.2001	3.3	gamma-BHC (Lindane)
4.516	-0.002	1566504	4.847	-0.002	3598633	15.8407	14.9172	6.0	Heptachlor
4.786	-0.001	1398286	5.168	-0.003	3176964	15.4154	15.1939	1.4	Aldrin
5.345	-0.001	1480410	5.730	-0.002	3753567	18.3279	18.5041	1.0	Heptachlor epoxide b
5.720	-0.002	913494	6.115	-0.002	1762576	8.3786	9.9828	17.5	Endosulfan I
5.945	-0.001	3129316	6.375	-0.002	6852721	36.0493	37.5441	4.1	Dieldrin
5.667	-0.003	2715169	6.204	-0.004	6331931	49.4425	39.2254	23.0	4,4'-DDE
6.162	-0.001	2942582	6.662	-0.003	6076269	36.7045	35.6874	2.8	Endrin
6.369	-0.001	1741077	6.855	-0.002	3806095	22.3149	22.0631	1.1	Endosulfan II
6.225	-0.002	2510998	6.745	-0.004	5350774	39.7794	37.6072	5.6	4,4'-DDD
7.137	-0.001	2448448	7.402	-0.002	4489876	35.6936	33.8749	5.2	Endosulfan sulfate
6.482	-0.002	2666218	7.032	-0.002	5068325	38.4608	36.1757	6.1	4,4'-DDT
6.921	-0.002	6170249	7.627	-0.002	9736818	174.7027	159.0956	9.4	Methoxychlor
7.387	-0.001	3034299	7.880	-0.002	5996791	34.8923	35.1433	0.7	Endrin ketone
6.747	-0.002	1221302	7.156	-0.002	3292573	19.4100	25.0595	25.4	Endrin aldehyde
5.469	-0.001	1640669	5.916	-0.002	3819127	18.7326	20.2910	8.0	gamma-Chlordane
5.593	-0.001	1456692	6.055	-0.002	3301632	17.4769	18.4320	5.3	alpha-Chlordane
2.051	-0.003	1085395	2.110	-0.003	2856993	9.1963	9.3676	1.8	Hexachlorobutadiene
3.715	-0.001	1123433	3.993	-0.002	3817489	15.2604	14.8802	2.5	Hexachlorobenzene
5.264	0.012	7393	5.616	-0.028	30525	~~0.1071~~	~~0.1893~~	~~55.4~~*	Oxychlordane
5.292	-0.050	6326	5.874	-0.035	61548	0.1302	0.5862	~~127.3~~*	2,4-DDE
----			----			0.0000	0.0000	---	trans-Nonachlor
5.828	-0.002	43938	----			0.9813	0.0000 N	---	2,4-DDD
6.066	-0.002	24956	----			0.4231	0.0000	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
7.070	0.007	18283	7.836	-0.027	51361	~~0.2825~~	~~0.4192~~	39.0	Mirex
8.386	-0.007	7455456	9.351	-0.006	9917993	80.0000	80.0000	0.0	Hexabromobiphenyl
1.700	-0.019	159736	1.765	-0.005	23586	~~0.0000~~	~~0.0000~~ NA	---	Hexachloroethane
3.404	-0.002	1857060	3.585	-0.003	5419425	23.4480	26.4698	12.1	Tetrachloro-m-xylene
8.249	-0.001	2409685	8.906	-0.002	4205582	28.7713	30.6294	6.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits	
Tetrachloro-m-xylene	58.6	66.2	58.6	52-100	
Decachlorobiphenyl	71.9	76.6	71.9	54-100	
alpha-BHC	83.6	82.3	82.3	73-107	
beta-BHC	85.7	82.4	82.4	68-116	
delta-BHC	93.3	105.4	93.3	42-114	
gamma-BHC (Lindane)	94.0	91.0	91.0	75-111	
Heptachlor	79.2	74.6	74.6	60-100	
Aldrin	77.1	76.0	76.0	54-101	
Heptachlor epoxide b	91.6	92.5	91.6	72-116	
+ Endosulfan I	41.9	49.9	41.9~	72-122	+ NR
Dieldrin	90.1	93.9	90.1	75-124	
4,4'-DDE	123.6	98.1	98.1	72-125	
Endrin	91.8	89.2	89.2	66-116	
+ Endosulfan II	55.8	55.2	55.2~	73-107	+ NR
4,4'-DDD	99.4	94.0	94.0	67-106	
Endosulfan sulfate	89.2	84.7	84.7	62-100	
4,4'-DDT	96.2	90.4	90.4	69-108	
Methoxychlor	87.4	79.5	79.5	67-107	
Endrin ketone	87.2	87.9	87.2	72-102	
Endrin aldehyde	48.5	62.6	48.5	43-108	
gamma-Chlordane	93.7	101.5	93.7	69-118	
alpha-Chlordane	87.4	92.2	87.4	71-118	
Hexachlorobutadiene	46.0	46.8	46.0	19-100	
Hexachlorobenzene	76.3	74.4	74.4	45-100	

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5352442	10.6
Hexabromobiphenyl	6506091	7455456	14.6

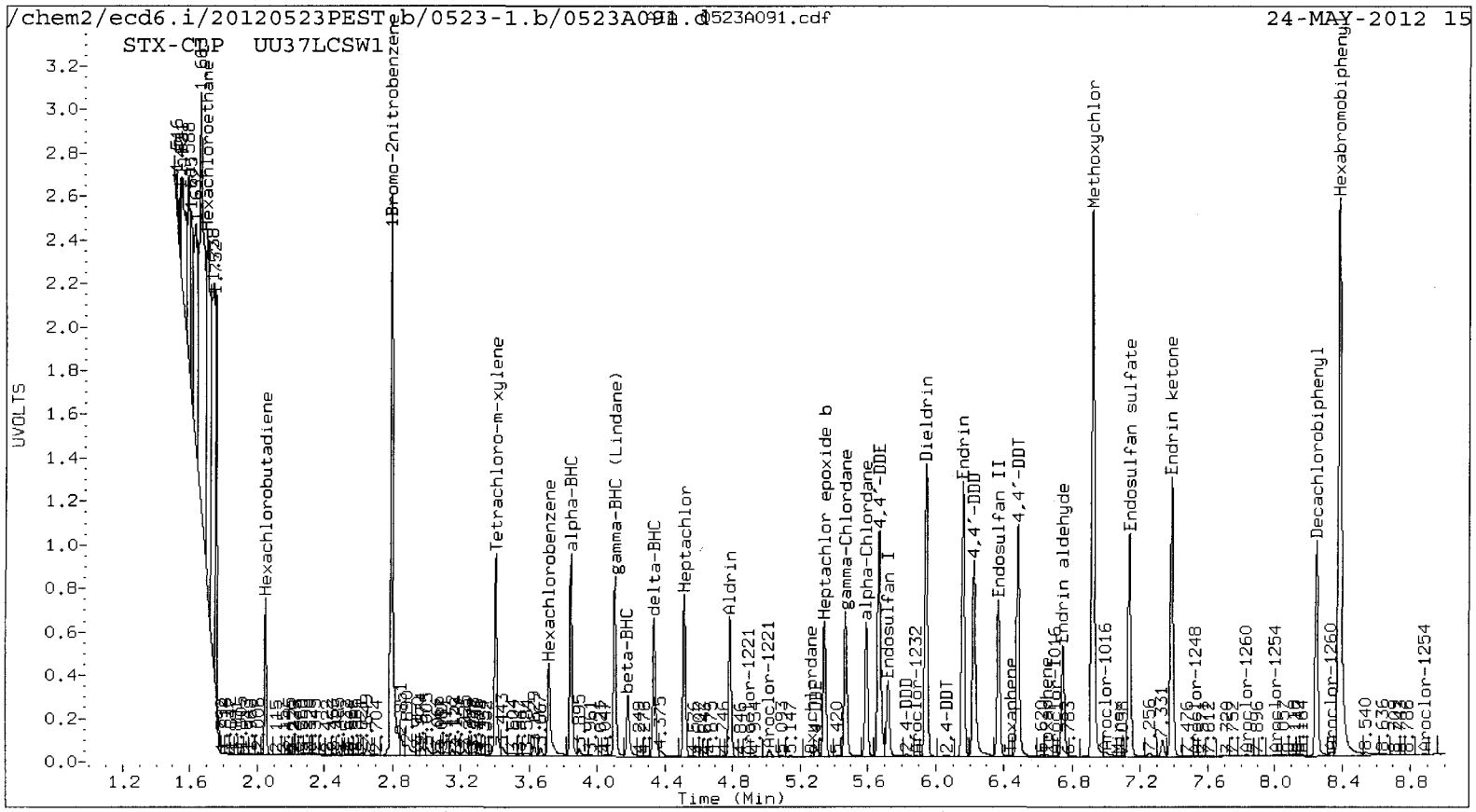
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16498690	1.7
Hexabromobiphenyl	8472750	9917993	17.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.441	0.017	16657	4.701	1	6.597	-0.010	146411	27.156
Toxaphene	2	6.482	0.007	2666218	982.371	2	6.944	0.013	22517	2.799
Toxaphene	3	6.650	-0.023	35577	14.221	3	7.156	-0.009	3292573	389.257
Toxaphene	4	6.921	0.044	6170249	2293.270	4	7.627	0.001	9736818	1448.195
Toxaphene	5	7.070	0.014	18283	4.458	5	---			0.000
Toxaphene	6	7.387	0.012	3034299	1055.657	NS	---			----
		Total STX-CLPAve (6 peaks): 725.780					Total CLP2Ave (4 peaks): 466.852			RPD = 43*
		Corrected Ave (5 peaks): 412.282					Corrected Ave (3 peaks): 139.737			RPD = 99*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000	1		---	0.000	
Aroclor-1248 2	---	0.000	2		---	0.000	
Aroclor-1248 3	---	0.000	3		---	0.000	
Aroclor-1248 4	---	0.000	4		---	0.000	
Aroclor-1248 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000	1		---	0.000	
Aroclor-1254 2	---	0.000	2		---	0.000	
Aroclor-1254 3	---	0.000	3		---	0.000	
Aroclor-1254 4	---	0.000	4		---	0.000	
Aroclor-1254 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000	1		---	0.000	
Aroclor-1260 2	---	0.000	2		---	0.000	
Aroclor-1260 3	---	0.000	3		---	0.000	
Aroclor-1260 4	---	0.000	4		---	0.000	
Aroclor-1260 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000	1		---	0.000	
Aroclor-1262 2	---	0.000	2		---	0.000	
Aroclor-1262 3	---	0.000	3		---	0.000	
Aroclor-1262 4	---	0.000	4		---	0.000	
Aroclor-1262 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000	1		---	0.000	
Aroclor-1268 2	---	0.000	2		---	0.000	
Aroclor-1268 3	---	0.000	3		---	0.000	
Aroclor-1268 4	---	0.000	4		---	0.000	
Aroclor-1268 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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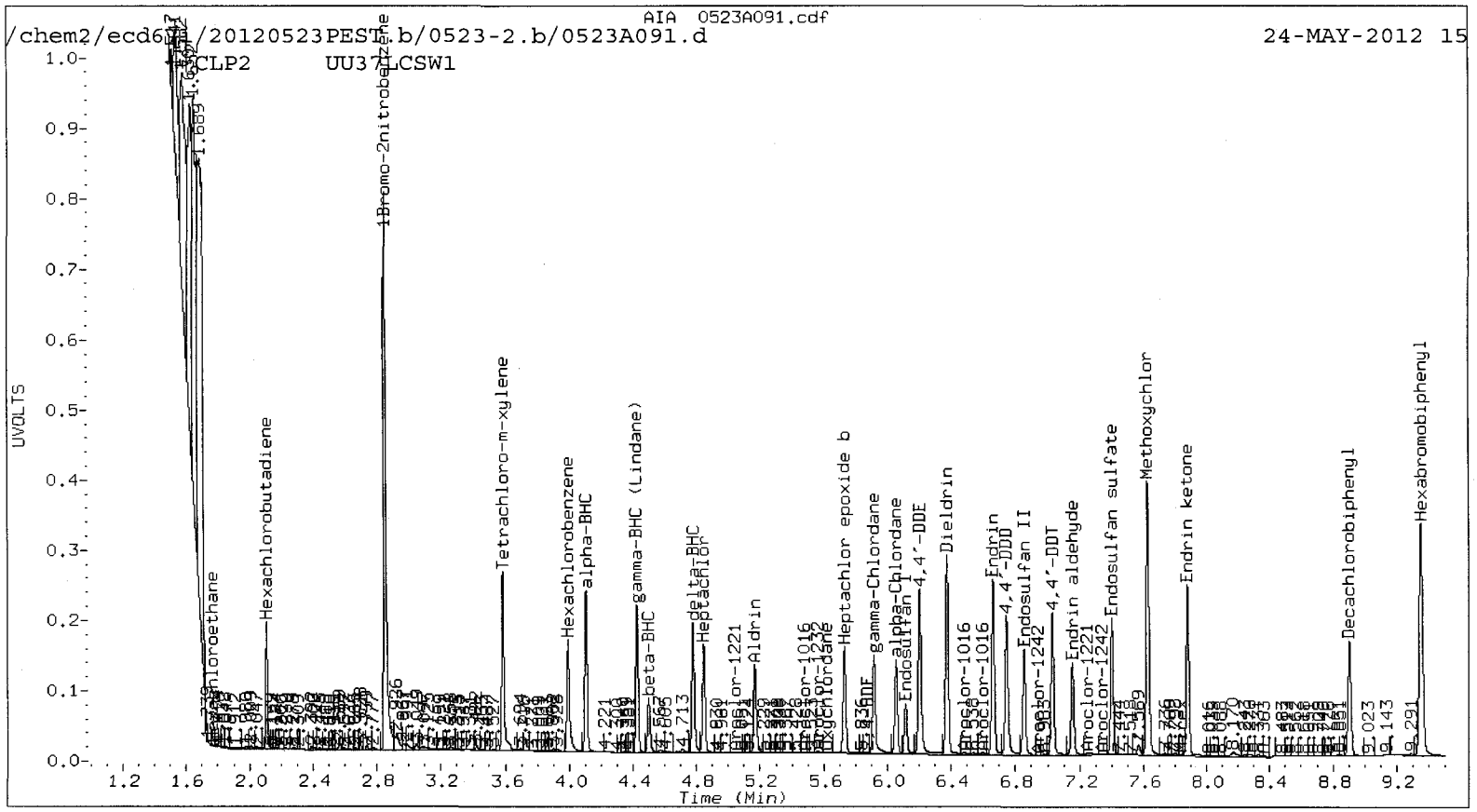
24-MAY-2012 15
STX-CLP UU37LCSW1
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Aroclor-1221
Aroclor-1221
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
2,4'-DDT
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Hexaphene
Endrin aldehyde
Methoxychlor
Aroclor-1016
Endosulfan sulfate
Endrin ketone
Aroclor-1248
Aroclor-1260
Aroclor-1254
Decachlorobiphenyl
Aroclor-1260
Hexabromobiphenyl
Aroclor-1254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24-MAY-2012 15
CLP2 UU37LCSW1
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

AR 5/25/12R

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A092.d ARI ID: UU37LCSDW1
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A092.d Client ID: UU37LCSDW1
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 16:00
Compound Sublist: wpest Report Date: 05/25/2012 16:00
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: WATER
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.794	-0.002	5188717	2.852	-0.002	16262258	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.845	-0.001	1640710	4.105	-0.003	4316257	15.8482	15.5868	1.7	alpha-BHC
4.181	-0.001	634282	4.499	-0.003	1676614	16.4259	15.7392	4.3	beta-BHC
4.335	-0.002	1352786	4.779	-0.003	3984541	17.9104	20.1585	11.8	delta-BHC
4.105	-0.001	1561155	4.426	-0.003	4086454	17.9765	17.2952	3.9	gamma-BHC (Lindane)
4.516	-0.001	1432003	4.847	-0.003	3338769	14.9375	14.0412	6.2	Heptachlor
4.786	-0.001	1286183	5.168	-0.003	3066011	14.6269	14.8764	1.7	Aldrin
5.345	-0.001	1388093	5.730	-0.002	3600946	17.7272	18.0098	1.6	Heptachlor epoxide b
5.721	-0.001	857366	6.116	-0.002	1726572	8.1119	9.9211	20.1	Endosulfan I
5.946	-0.001	2938978	6.375	-0.002	6618415	34.9249	36.7876	5.2	Dieldrin
5.667	-0.003	2559578	6.205	-0.003	6046847	48.0800	38.0040	23.4	4,4'-DDE
6.162	-0.001	2776455	6.662	-0.002	5855509	35.5019	34.8331	1.9	Endrin
6.370	-0.001	1627898	6.856	-0.002	3686564	21.3882	21.6450	1.2	Endosulfan II
6.226	-0.002	2366251	6.746	-0.003	5171427	38.4276	36.8142	4.3	4,4'-DDD
7.137	-0.001	2402854	7.403	-0.001	4301075	35.9085	32.8678	8.8	Endosulfan sulfate
6.483	-0.001	2536942	7.032	-0.002	4870857	37.5149	35.2134	6.3	4,4'-DDT
6.922	-0.001	5896307	7.627	-0.002	9458484	171.1384	156.5354	8.9	Methoxychlor
7.387	-0.001	2878010	7.880	-0.001	5843991	33.9261	34.6884	2.2	Endrin ketone
6.747	-0.002	1179918	7.157	-0.001	3219717	19.2231	24.8201	25.4	Endrin aldehyde
5.469	-0.001	1508192	5.917	-0.001	3579862	17.7634	19.2963	8.3	gamma-Chlordane
5.593	0.000	1301789	6.055	-0.002	3177277	16.1113	17.9956	11.0	alpha-Chlordane
2.051	-0.002	937131	2.110	-0.002	2541664	8.1906	8.4548	3.2	Hexachlorobutadiene
3.715	-0.001	985208	3.992	-0.002	3492006	13.8050	13.8094	0.0	Hexachlorobenzene
5.264	0.012	6703	5.617	-0.027	47776	~~0.0996~~	~~0.3006~~	~~100.5*~~	Oxychlordane
5.293	-0.048	5287	5.875	-0.035	81149	0.1115	0.7842	~~150.2*~~	2,4-DDE
----			5.997	-0.009	69394	0.0000	0.3476	---	trans-Nonachlor
5.828	-0.002	40749	----			0.9329	0.0000 NS	---	2,4-DDD
6.067	-0.002	22248	----			0.3866	0.0000	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
7.072	0.009	13595	7.837	-0.026	118694	~~0.2153~~	0.9812	~~128.0*~~	Mirex
8.387	-0.007	7272835	9.352	-0.005	9792052	80.0000	80.0000	0.0	Hexabromobiphenyl
1.725	0.005	103015	1.766	-0.003	37289	~~0.0000~~	~~0.0000~~ NA	---	Hexachloroethane
3.405	-0.002	1641049	3.585	-0.003	4894253	21.3744	24.2523	12.6	Tetrachloro-m-xylene
8.250	-0.001	2364899	8.907	-0.001	4247536	28.9455	31.3328	7.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits	
Tetrachloro-m-xylene	53.4	60.6	53.4	52-100	LCSD
Decachlorobiphenyl	72.4	78.3	72.4	54-100	
alpha-BHC	79.2	77.9	77.9	73-107	
beta-BHC	82.1	78.7	78.7	68-116	
delta-BHC	89.6	100.8	89.6	42-114	
gamma-BHC (Lindane)	89.9	86.5	86.5	75-111	
Heptachlor	74.7	70.2	70.2	60-100	
Aldrin	73.1	74.4	73.1	54-101	
Heptachlor epoxide b	88.6	90.0	88.6	72-116	
+ Endosulfan I	40.6	49.6	40.6~	72-122	+ NR
Dieldrin	87.3	92.0	87.3	75-124	
4,4'-DDE	120.2	95.0	95.0	72-125	
Endrin	88.8	87.1	87.1	66-116	
+ Endosulfan II	53.5	54.1	53.5~	73-107	+ NR
4,4'-DDD	96.1	92.0	92.0	67-106	
Endosulfan sulfate	89.8	82.2	82.2	62-100	
4,4'-DDT	93.8	88.0	88.0	69-108	
Methoxychlor	85.6	78.3	78.3	67-107	
Endrin ketone	84.8	86.7	84.8	72-102	
Endrin aldehyde	48.1	62.1	48.1	43-108	
gamma-Chlordane	88.8	96.5	88.8	69-118	
alpha-Chlordane	80.6	90.0	80.6	71-118	
Hexachlorobutadiene	41.0	42.3	41.0	19-100	
Hexachlorobenzene	69.0	69.0	69.0	45-100	

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5188717	7.2
Hexabromobiphenyl	6506091	7272835	11.8

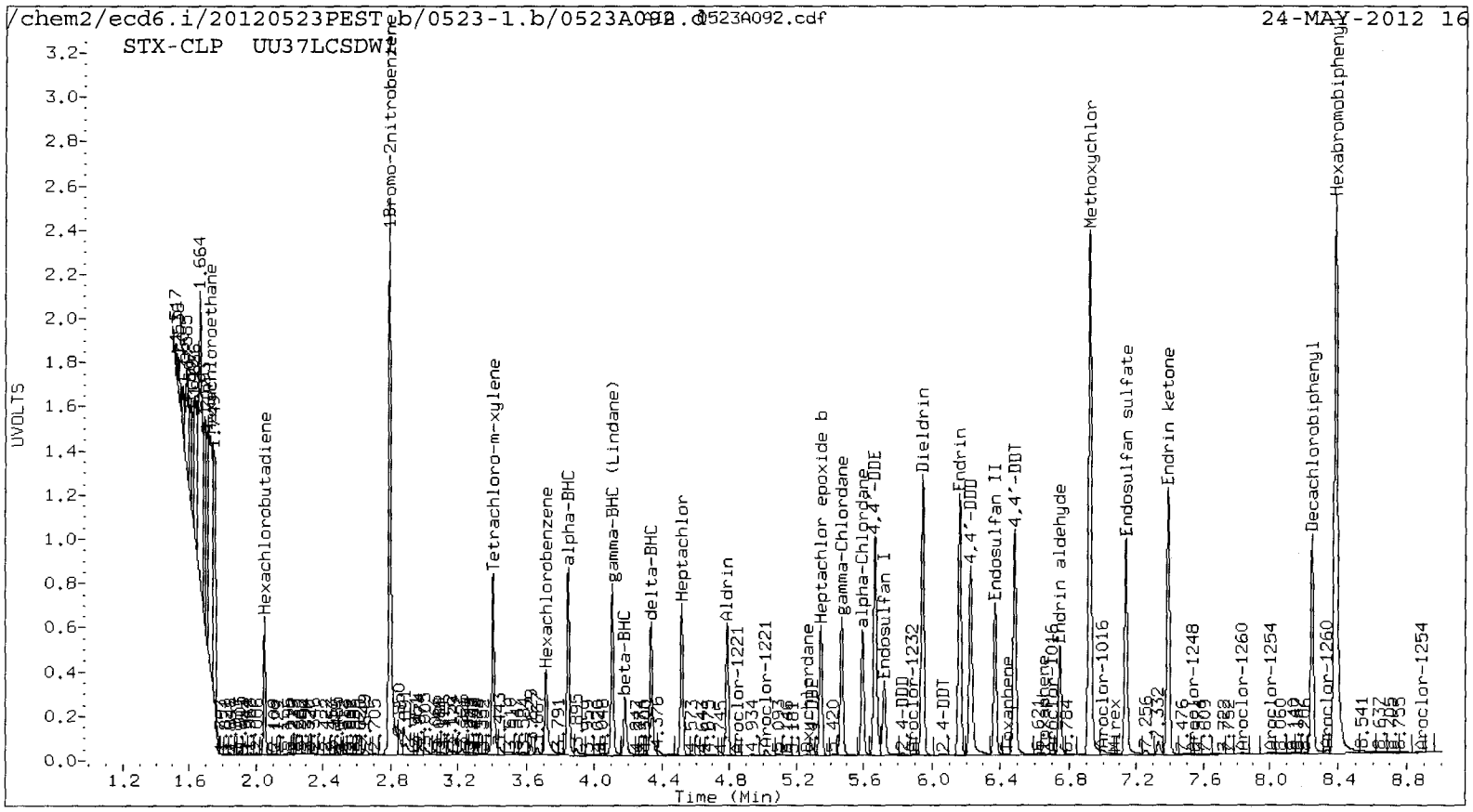
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16262258	0.2
Hexabromobiphenyl	8472750	9792052	15.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.442	0.018	20957	6.063	1	6.598	-0.008	189158	35.535
Toxaphene	2	6.483	0.008	2536942	958.211	2	6.945	0.014	26545	3.342
Toxaphene	3	6.650	-0.023	33602	13.769	3	7.157	-0.009	3219717	385.539
Toxaphene	4	6.922	0.045	5896307	2246.483	4	7.627	0.002	9458484	1424.891
Toxaphene	5	7.072	0.016	13595	3.398	5	---			0.000
Toxaphene	6	7.387	0.012	2878010	1026.425	NS	---			----
	Total STX-CLPAve (6 peaks): 709.058					Total CLP2Ave (4 peaks): 462.327				RPD = 42*
	Corrected Ave (5 peaks): 401.573					Corrected Ave (3 peaks): 141.472				RPD = 96*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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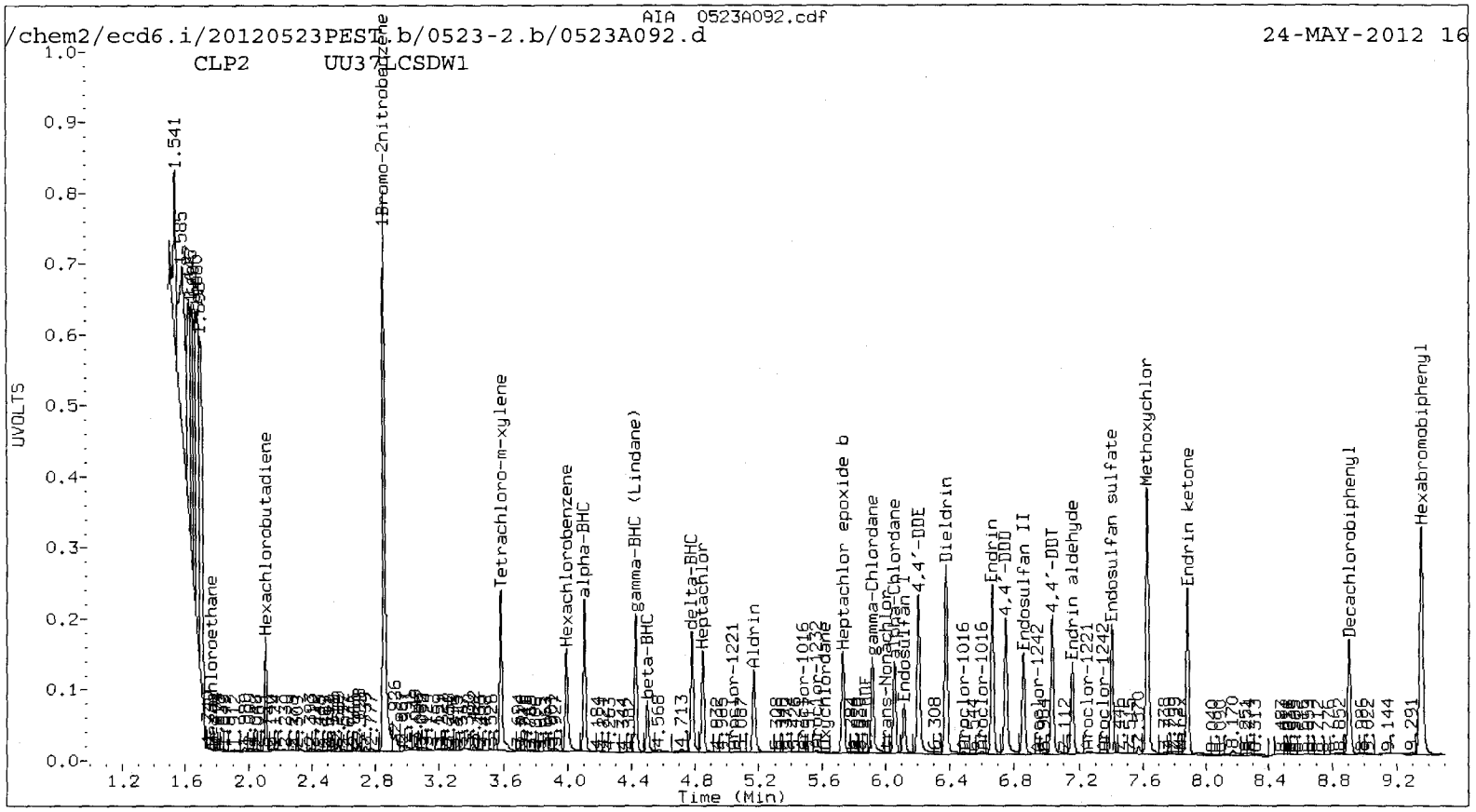
24-MAY-2012 16
STX-CLP UU37LCSDW1
UVOLTS
Time (Min)
1.664
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Aroclor-1221
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Aroclor-1232
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Methoxychlor
Endrin aldehyde
Aroclor-1016
Endosulfan sulfate
Endrin ketone
Aroclor-1248
Aroclor-1260
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl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24-MAY-2012 16
CLP2 UU37LCSDW1
UVOLTS
Time (Min)
1.541
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
trans-Nonachlor
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/25/2012

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A100.d ARI ID: UU62J
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A100.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 18:23
Compound Sublist: wpest Report Date: 05/25/2012 08:43
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.794	-0.002	5273774	2.852	-0.002	15899944	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.831	-0.016	25204	4.091	-0.017	84646	0.2395	0.3126	26.5	alpha-BHC
4.196	0.014	42853	4.465	-0.037	23283	1.0919	0.2236	132.0*	beta-BHC
4.329	-0.008	25356	4.780	-0.003	14582	0.3303	0.0755	125.6*	delta-BHC
4.102	-0.004	42114	4.425	-0.004	45222	0.4771	0.1958	83.6*	gamma-BHC (Lindane)
4.514	-0.004	34478	4.832	-0.017	75542	0.3539	0.3249	8.5	Heptachlor
4.782	-0.005	3620	5.188	0.018	3029410	0.0405	15.0338	198.9*	Aldrin
5.347	0.002	3818	5.723	-0.010	73369	0.0480	0.3753	154.7*	Heptachlor epoxide b
5.727	0.005	25438	----			0.2368	0.0000	---	Endosulfan I
5.945	-0.001	13714	6.374	-0.003	713247	0.1603	4.0548	184.8*	Dieldrin
5.666	-0.003	5241	6.209	0.001	414518	0.0969	2.6646	186.0*	4,4'-DDE
6.166	0.002	62013	6.660	-0.004	172124	0.7990	1.0391	26.1	Endrin
6.369	-0.001	109995	6.853	-0.004	107342	1.4562	0.6396	77.9*	Endosulfan II
6.225	-0.002	62520	6.742	-0.007	213372	1.0231	1.5414	40.4*	4,4'-DDD
7.136	-0.002	16149	7.401	-0.003	20683	0.2432	0.1604	41.0*	Endosulfan sulfate
6.481	-0.003	9180	7.030	-0.004	194066	0.1368	1.4237	164.9*	4,4'-DDT
6.922	-0.001	31966	7.627	-0.002	68095	0.9349	1.1436	20.1	Methoxychlor
7.405	0.017	25695	7.879	-0.002	103818	0.3052	0.6254	68.8*	Endrin ketone
6.704	-0.044	58085	7.143	-0.015	282894	0.9535	2.2130	79.5*	Endrin aldehyde
5.471	0.001	51402	5.940	0.022	350424	0.5957	1.9319	105.7*	gamma-Chlordane
5.593	0.000	7002	6.052	-0.005	98806	0.0853	0.5724	148.1*	alpha-Chlordane
2.049	-0.004	4756	2.104	-0.009	124600	0.0409	0.4239	164.8*	Hexachlorobutadiene
3.714	-0.003	69667	3.992	-0.003	55666	0.9605	0.2252	124.0*	Hexachlorobenzene
5.247	-0.004	3757	5.616	-0.028	66435	0.0563	0.4275	153.5*	Oxychlordane
5.292	-0.049	6610	5.872	-0.037	73273	0.1405	0.7242	135.0*	2,4-DDE
5.555	-0.026	5568	----			0.0652	0.0000	---	trans-Nonachlor
----			----			0.0000	0.0000	---	2,4-DDD
6.049	-0.019	183997	----			3.2219	0.0000	---	2,4-DDT
----			6.710	-0.024	84890	0.0000	0.4280	---	cis-Nonachlor
7.094	0.031	21992	7.855	-0.008	63414	0.3510	0.5320	41.0*	Mirex
8.387	-0.007	7217767	9.351	-0.006	9649398	80.0000	80.0000	0.0	Hexabromobiphenyl
1.721	0.002	232724	1.766	-0.004	26800	0.0000	0.0000	---	Hexachloroethane
3.404	-0.002	2656568	3.586	-0.002	5036667	34.0433	25.5267	28.6	Tetrachloro-m-xylene
8.249	-0.001	1970212	8.907	-0.002	3448861	24.2987	25.8173	6.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	85.1	63.8	63.8~	130- 0
Decachlorobiphenyl	60.7	64.5	60.7~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5273774	8.9
Hexabromobiphenyl	6506091	7217767	10.9

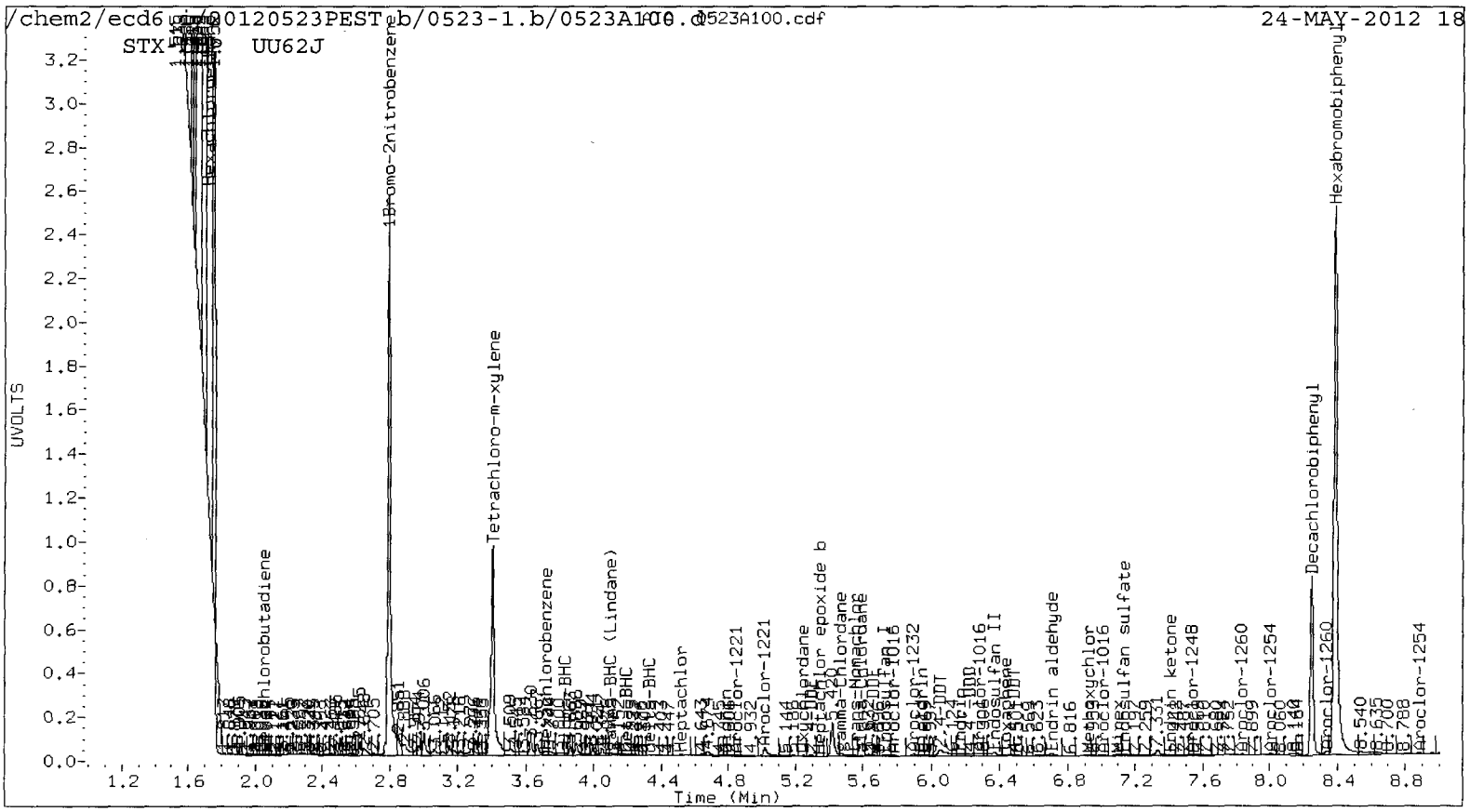
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15899944	-2.0
Hexabromobiphenyl	8472750	9649398	13.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

			STX-CLP Col				CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.434	0.010	29375	8.563	1	6.585	-0.021	138834	26.467
Toxaphene	2	6.481	0.006	9180	3.494	2	6.945	0.014	26164	3.343
Toxaphene	3	6.704	0.031	58085	23.983	3	7.143	-0.023	282894	34.375
Toxaphene	4	6.922	0.044	31966	12.272	4	7.627	0.001	68095	10.410
Toxaphene	5	7.094	0.039	21992	5.539	5	7.674	0.004	41012	4.605
Toxaphene	6	7.405	0.030	25695	9.234	NS	---			----
Total STX-CLPAve (6 peaks): 10.514						Total CLP2Ave (5 peaks): 15.840				RPD = 40*
Corrected Ave (5 peaks): 7.821						Corrected Ave (4 peaks): 11.206				RPD = 36
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000		1	---	0.000	
Aroclor-1248 2	---	0.000		2	---	0.000	
Aroclor-1248 3	---	0.000		3	---	0.000	
Aroclor-1248 4	---	0.000		4	---	0.000	
Aroclor-1248 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000		1	---	0.000	
Aroclor-1254 2	---	0.000		2	---	0.000	
Aroclor-1254 3	---	0.000		3	---	0.000	
Aroclor-1254 4	---	0.000		4	---	0.000	
Aroclor-1254 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000		1	---	0.000	
Aroclor-1260 2	---	0.000		2	---	0.000	
Aroclor-1260 3	---	0.000		3	---	0.000	
Aroclor-1260 4	---	0.000		4	---	0.000	
Aroclor-1260 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000		1	---	0.000	
Aroclor-1262 2	---	0.000		2	---	0.000	
Aroclor-1262 3	---	0.000		3	---	0.000	
Aroclor-1262 4	---	0.000		4	---	0.000	
Aroclor-1262 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000		1	---	0.000	
Aroclor-1268 2	---	0.000		2	---	0.000	
Aroclor-1268 3	---	0.000		3	---	0.000	
Aroclor-1268 4	---	0.000		4	---	0.000	
Aroclor-1268 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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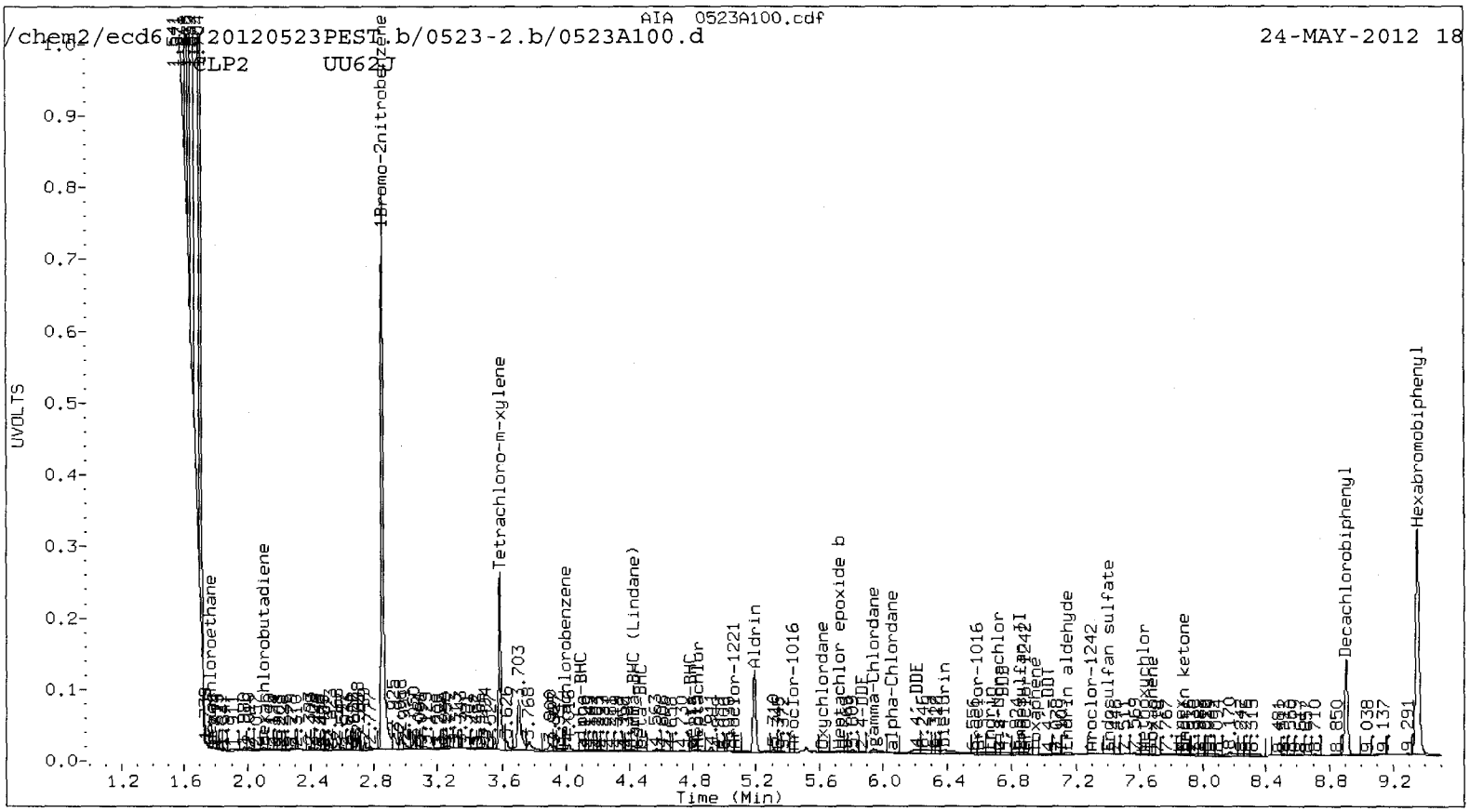
Tetrachloro-m-xylene
Hexabromobiphenyl
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
UVOLTS
Time (Min)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24-MAY-2012 18
CLP2
UU62J
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexabromobiphenyl
Decachlorobiphenyl
Aldrin
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A101.d ARI ID: UU62K
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A101.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 18:40
Compound Sublist: wpest Report Date: 05/25/2012 08:43
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.794	-0.002	5100774	2.852	-0.002	16009521	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.833	-0.014	26114	4.102	-0.006	126859	0.2566	0.4653	57.8*	alpha-BHC
4.200	0.017	43077	4.467	-0.035	42354	1.1348	0.4039	95.0*	beta-BHC
4.326	-0.011	13275	4.815	0.032	89621	0.1788	0.4606	88.1*	delta-BHC
4.104	-0.002	41465	4.425	-0.003	104937	0.4857	0.4511	7.4	gamma-BHC (Lindane)
4.513	-0.005	33409	4.841	-0.008	84839	0.3545	0.3624	2.2	Heptachlor
4.775	-0.012	2631	5.148	-0.023	13551	0.0304	0.0668	74.8*	Aldrin
5.344	-0.002	2492	5.686	-0.046	76995	0.0324	0.3912	169.4*	Heptachlor epoxide b
5.727	0.006	11275	6.132	0.015	141614	0.1085	0.8266	153.6*	Endosulfan I
5.945	-0.001	9956	6.374	-0.003	111608	0.1204	0.6302	135.9*	Dieldrin
5.665	-0.005	12342	6.209	0.001	128559	0.2358	0.8207	110.7*	4,4'-DDE
6.174	0.011	20890	6.660	-0.004	121493	0.2683	0.7262	92.1*	Endrin
6.370	-0.001	17323	6.852	-0.005	67638	0.2286	0.3990	54.3*	Endosulfan II
6.232	0.004	28553	6.757	0.008	185175	0.4657	1.3246	95.9*	4,4'-DDD
7.137	-0.001	5089	7.400	-0.004	11348	0.0764	0.0871	13.2	Endosulfan sulfate
6.504	0.021	7941	7.028	-0.006	119005	0.1180	0.8645	152.0*	4,4'-DDT
6.921	-0.002	9902	7.627	-0.002	77599	0.2887	1.2904	126.9*	Methoxychlor
7.404	0.016	41147	7.879	-0.002	53360	0.4872	0.3183	41.9*	Endrin ketone
6.787	0.038	36458	7.142	-0.016	723083	0.5966	5.6009	161.5*	Endrin aldehyde
5.469	0.000	59972	5.945	0.027	338959	0.7185	1.8559	88.4*	gamma-Chlordane
5.558	-0.036	7025	6.052	-0.005	79202	0.0884	0.4557	135.0*	alpha-Chlordane
2.064	0.011	12329	2.103	-0.009	90220	0.1096	0.3049	94.2*	Hexachlorobutadiene
3.715	-0.002	62662	3.994	-0.001	75662	0.8932	0.3039	98.4*	Hexachlorobenzene
5.247	-0.005	2981	5.619	-0.025	50121	0.0445	0.3203	151.2*	Oxychlordane
----			5.875	-0.035	20281	0.0000	0.1991	---	2,4-DDE
5.576	-0.005	11593	6.018	0.012	85137	0.1353	0.4286	104.0*	trans-Nonachlor
5.844	0.013	5100	6.419	0.021	124701	0.1173	1.1241	162.2*	2,4-DDD
6.048	-0.021	44215	----			0.7717	0.0000	---	2,4-DDT
----			6.708	-0.026	63751	0.0000	0.3182	---	cis-Nonachlor
7.099	0.036	11154	7.827	-0.036	55464	0.1775	0.4607	88.8*	Mirex
8.387	-0.006	7241256	9.352	-0.006	9745131	80.0000	80.0000	0.0	Hexabromobiphenyl
1.728	0.009	92604	1.767	-0.003	106840	0.0000	0.0000	---	Hexachloroethane
3.405	-0.002	1959468	3.585	-0.002	4637123	25.9617	23.3409	10.6	Tetrachloro-m-xylene
8.250	0.000	1948638	8.906	-0.002	3342980	23.9547	24.7789	3.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	64.9	58.4	58.4~	130- 0
Decachlorobiphenyl	59.9	61.9	59.9~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5100774	5.4
Hexabromobiphenyl	6506091	7241256	11.3

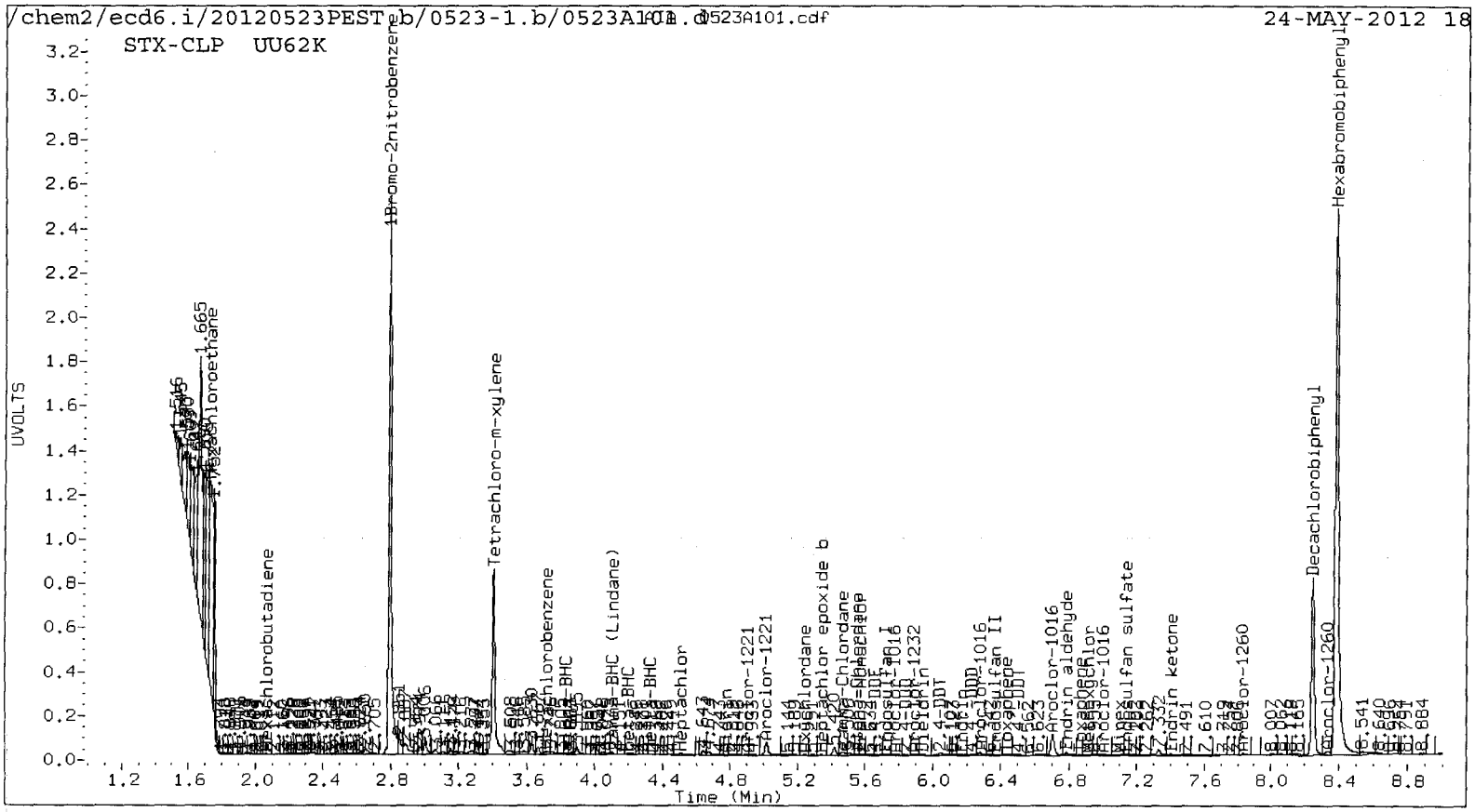
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16009521	-1.3
Hexabromobiphenyl	8472750	9745131	15.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

			STX-CLP Col				CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.434	0.010	14432	4.194	1	6.558	-0.049	148021	27.941
Toxaphene	2	6.504	0.029	7941	3.013	2	6.948	0.017	20903	2.644
Toxaphene	3	6.704	0.030	287156	118.181	3	7.142	-0.023	723083	87.001
Toxaphene	4	6.869	-0.008	3119	1.194	4	7.627	0.001	77599	11.746
Toxaphene	5	7.099	0.043	11154	2.800	5	---			0.000
Toxaphene	6	7.404	0.029	41147	14.739	NS	---			----
Total STX-CLPAve (6 peaks): 24.020						Total CLP2Ave (4 peaks): 32.333				RPD = 30
Corrected Ave (5 peaks): 5.188						Corrected Ave (3 peaks): 14.111				RPD = 92*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000		1	---	0.000	
Aroclor-1248 2	---	0.000		2	---	0.000	
Aroclor-1248 3	---	0.000		3	---	0.000	
Aroclor-1248 4	---	0.000		4	---	0.000	
Aroclor-1248 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000		1	---	0.000	
Aroclor-1254 2	---	0.000		2	---	0.000	
Aroclor-1254 3	---	0.000		3	---	0.000	
Aroclor-1254 4	---	0.000		4	---	0.000	
Aroclor-1254 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000		1	---	0.000	
Aroclor-1260 2	---	0.000		2	---	0.000	
Aroclor-1260 3	---	0.000		3	---	0.000	
Aroclor-1260 4	---	0.000		4	---	0.000	
Aroclor-1260 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000		1	---	0.000	
Aroclor-1262 2	---	0.000		2	---	0.000	
Aroclor-1262 3	---	0.000		3	---	0.000	
Aroclor-1262 4	---	0.000		4	---	0.000	
Aroclor-1262 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000		1	---	0.000	
Aroclor-1268 2	---	0.000		2	---	0.000	
Aroclor-1268 3	---	0.000		3	---	0.000	
Aroclor-1268 4	---	0.000		4	---	0.000	
Aroclor-1268 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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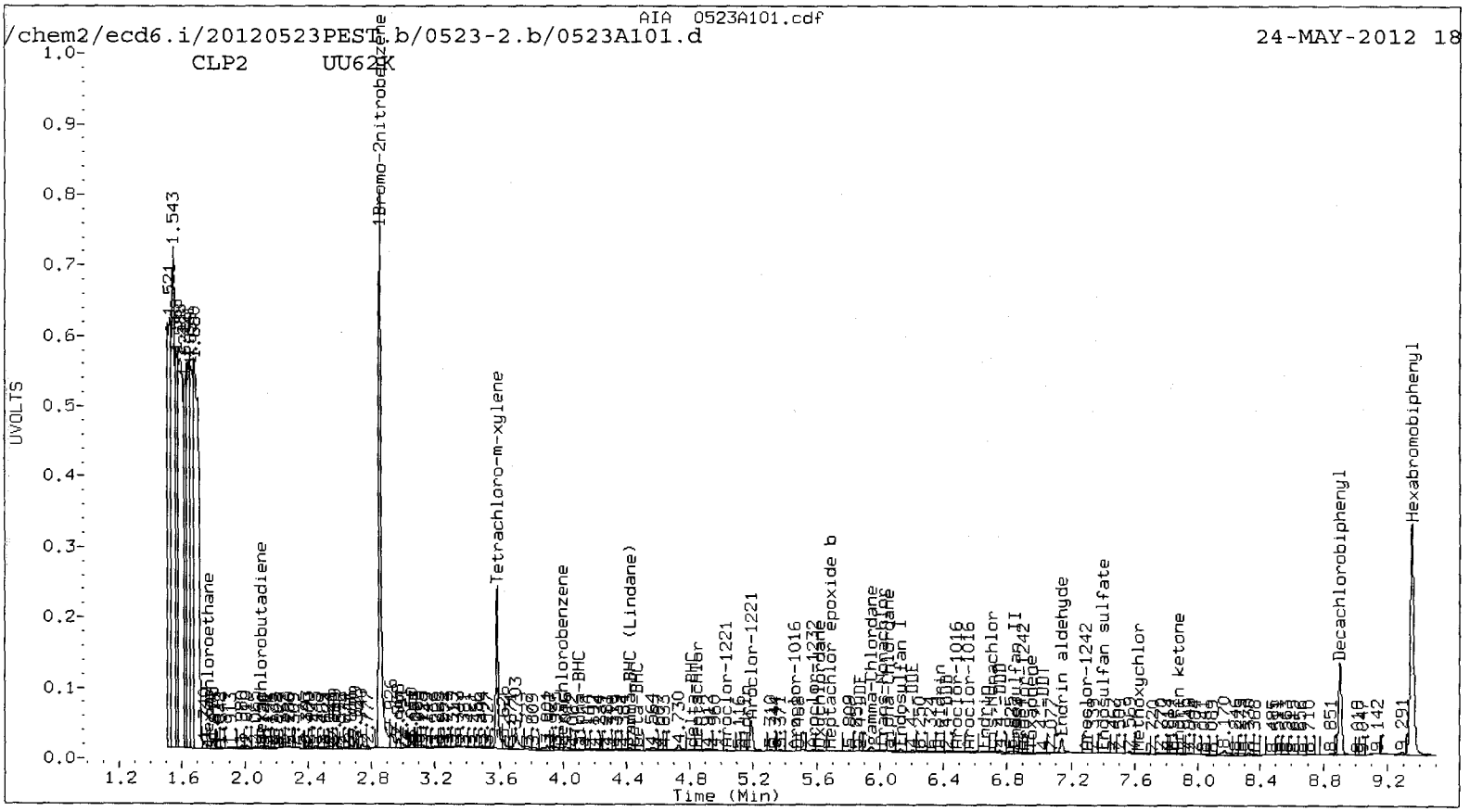
AIA 0523A101.cdf
24-MAY-2012 18
STX-CLP UU62K
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexabromobiphenyl
Decachlorobiphenyl
Aroclor-1260
Hexachloroethane
Hexachlorobutadiene
Pentachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
delta-BHC
Heptachlor
Aroclor-1221
Aroclor-1232
Heptachlor epoxide b
Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Aroclor-1016
Endrin aldehyde
Endosulfan sulfate
Endrin ketone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AIA 0523A101.cdf
24-MAY-2012 18
CLP2 UU62K
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexabromobiphenyl
Decachlorobiphenyl
Aroclor-1260
Hexachloroethane
Hexachlorobutadiene
Pentachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
delta-BHC
Heptachlor
Aroclor-1221
Aroclor-1232
Heptachlor epoxide b
Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Aroclor-1016
Endrin aldehyde
Endosulfan sulfate
Endrin ketone

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A105.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A105.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 19:52
Compound Sublist: INDA Report Date: 05/25/2012 15:53
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.797	0.001	5328098	2.854	0.000	18001293	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.847	0.000	2149760	4.107	-0.001	6189690	20.2221	20.1927	0.1	alpha-BHC
4.184	0.002	766336	4.502	0.000	2236792	19.3265	18.9694	1.9	beta-BHC
4.340	0.003	1568595	4.783	0.000	4442283	20.2244	20.3032	0.4	delta-BHC
4.106	0.000	1779194	4.427	-0.002	5146642	19.9513	19.6780	1.4	gamma-BHC (Lindane)
4.517	0.000	1956129	4.848	-0.002	5011390	19.8710	19.0394	4.3	Heptachlor
4.787	0.000	1811030	5.169	-0.001	4425399	20.0569	19.3979	3.3	Aldrin
5.346	0.000	1549856	5.731	-0.001	4257910	19.2753	19.2383	0.2	Heptachlor epoxide b
5.722	0.000	2052182	6.116	-0.001	3682404	18.9087	19.1154	1.1	Endosulfan I
5.946	0.000	3388818	6.376	-0.001	7704784	39.2171	38.6888	1.4	Dieldrin
5.673	0.003	2366908	6.209	0.001	6904260	43.2977	39.2008	9.9	4,4'-DDE
6.163	0.000	3034261	6.663	-0.002	6349912	39.5951	36.2711	8.8	Endrin
6.370	0.000	2921582	6.856	-0.001	6379120	39.1735	35.9635	8.5	Endosulfan II
6.230	0.002	2507278	6.748	0.000	5461725	41.5539	37.3336	10.7	4,4'-DDD
7.138	0.000	2557768	7.403	-0.001	5008179	39.0084	36.7484	6.0	Endosulfan sulfate
6.484	0.001	2730182	7.033	-0.001	5476364	41.2014	38.0154	8.0	4,4'-DDT
6.924	0.001	6410202	7.628	-0.001	10438383	189.8744	165.8783	13.5	Methoxychlor
7.388	0.000	3155087	7.880	-0.001	6476398	37.9560	36.9125	2.8	Endrin ketone
6.748	0.000	2323168	7.157	-0.001	4849188	38.6260	35.8939	7.3	Endrin aldehyde
5.470	0.000	1699326	5.917	-0.001	4048559	19.4910	19.7145	1.1	gamma-Chlordane
5.594	0.000	1510823	6.056	-0.002	3768701	18.2092	19.2832	5.7	alpha-Chlordane
2.053	-0.001	2255027	2.111	-0.001	6454802	19.1936	19.3975	1.1	Hexachlorobutadiene
3.719	0.002	1376749	3.995	0.001	5401740	18.7868	19.2979	2.7	Hexachlorobenzene
8.390	-0.003	7126502	9.353	-0.004	10197850	80.0000	80.0000	0.0	Hexabromobiphenyl
3.407	0.001	3001483	3.587	0.000	8743234	38.0711	39.1395	2.8	Tetrachloro-m-xylene
8.250	-0.001	2959163	8.907	-0.001	5219109	36.9628	36.9678	0.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	95.2	97.8	95.2~	115- 0
Decachlorobiphenyl	92.4	92.4	92.4~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

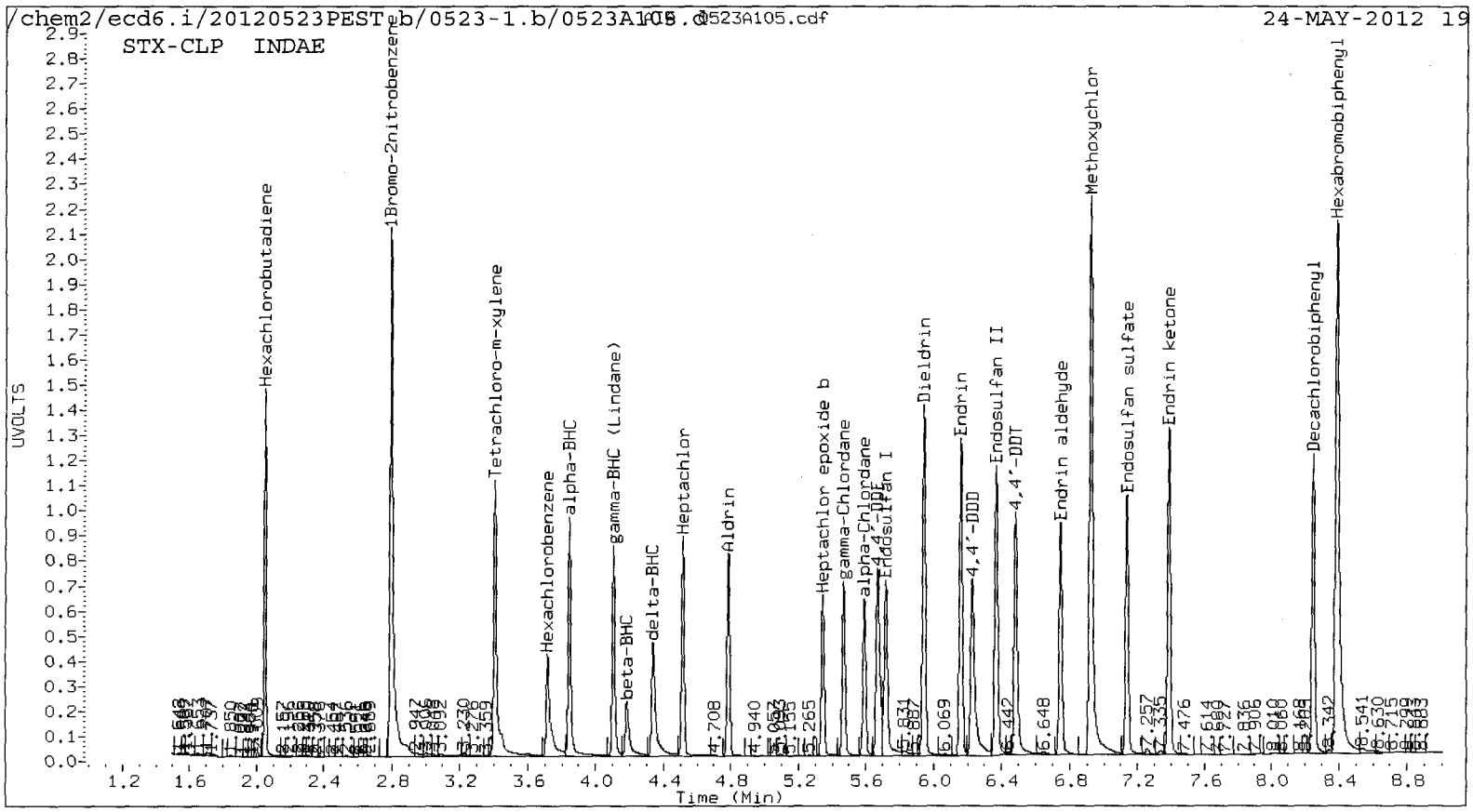
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5328098	10.0
Hexabromobiphenyl	6506091	7126502	9.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	18001293	10.9
Hexabromobiphenyl	8472750	10197850	20.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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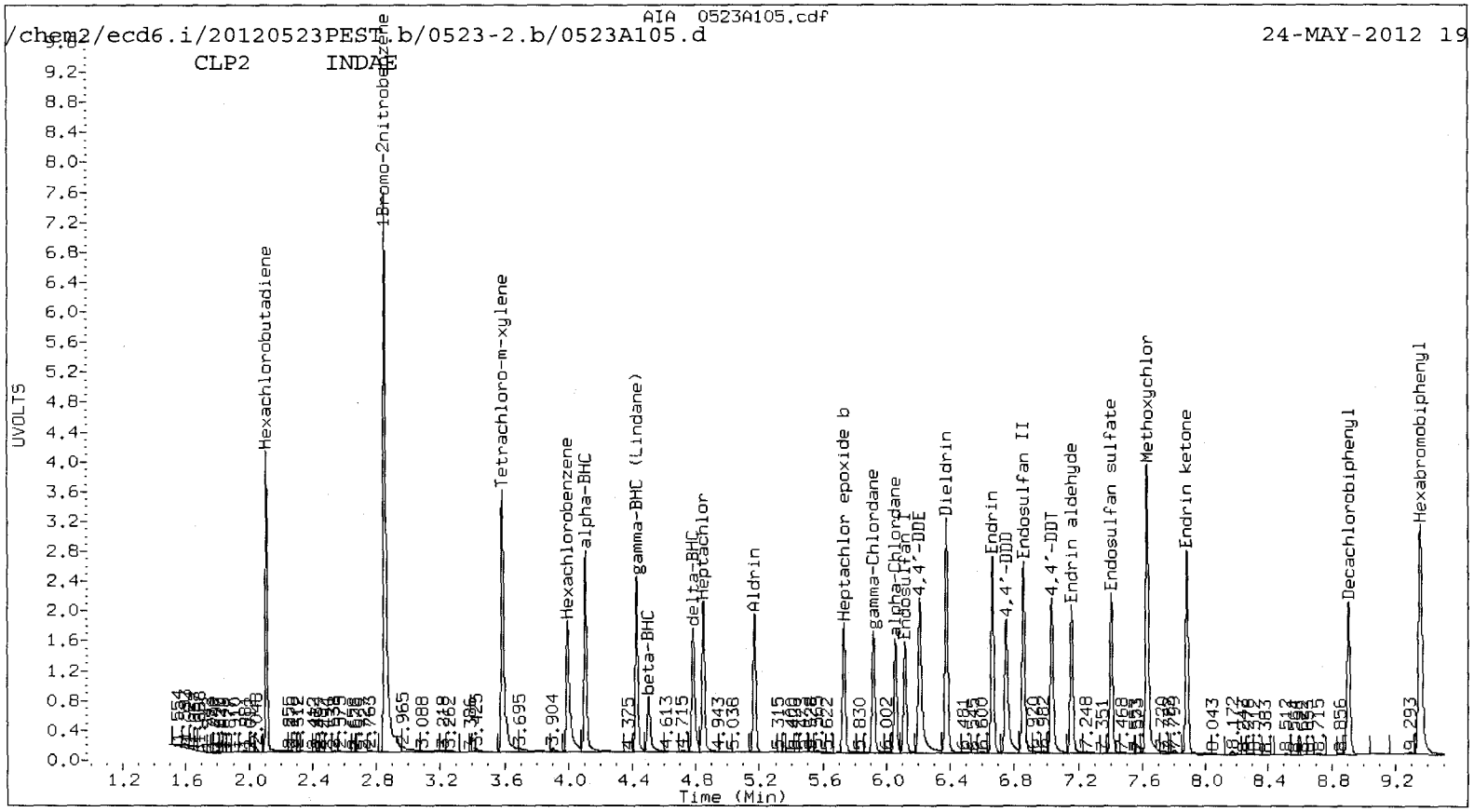
AIA 0523A105.cdf
24-MAY-2012 19
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A105.cdf
24-MAY-2012 19
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

GC Analyst Notes / Corrective Action Log

ARI Project ID: uu52 Client ID: Anchor

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): 12.5g/2.5mL

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/23/2012 Analysis Start: 5/23/2012

Endrin/DDT Breakdown <15%?	YES / NO / NA	Method Blank In Control?	YES / NO
ICal Meets RF & %RSD Criteria?	YES / NO	LCS/LCSD Recovery In Control?	YES / NO
CCal Meets RF & %RSD Criteria?	YES / NO	Surrogate Recovery In Control? (samples diluted out)	YES / NO
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	YES / NO
Internal Standard Meets Criteria?	YES / NO / NA	Special Analysis Criteria Met? (Level 4 VDP)	YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

- Dilutions reported w/ passing ccals — 100 to 5000 x
- Acid cleaned samples had a negative affect on the instr. resulting in maint. (~~pest~~ x)

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 5/25/2012

Reviewer: _____ **Date:** 5/29/12

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/0523-2.b p3

	Inject Date/Time	Filename	DF	LabID	ClientID
101	25-MAY-2012 02:23	0523A127.d	1	DS – Passes	
102	25-MAY-2012 02:41	0523A128.d	1	INDAE – Passes	
103	25-MAY-2012 02:59	0523A129.d	1	TOXAPH 2500 – NR	
104	25-MAY-2012 03:17	0523A130.d	1	WNDE – NR	
105	25-MAY-2012 03:34	0523A131.d	1	UU52MBS1	
106	25-MAY-2012 03:52	0523A132.d	1	UU52LCSS1	
107	25-MAY-2012 04:10	0523A133.d	1000	UU52A	
108	25-MAY-2012 04:28	0523A134.d	1000	UU52B	
109	25-MAY-2012 04:46	0523A135.d	5000	UU52C	
110	25-MAY-2012 05:03	0523A136.d	5000	UU52CMS	
111	25-MAY-2012 05:21	0523A137.d	5000	UU52CMSD	
112	25-MAY-2012 05:39	0523A138.d	1000	UU52D	
113	25-MAY-2012 05:57	0523A139.d	1000	UU52E	
114	25-MAY-2012 06:15	0523A140.d	1000	UU52F	
115	25-MAY-2012 06:32	0523A141.d	1	TECH 200	
116	25-MAY-2012 06:50	0523A142.d	1	WND ICV	
117	25-MAY-2012 07:08	0523A143.d	1	DS – Passes	
118	25-MAY-2012 07:26	0523A144.d	1	INDAE – Passes	
119	25-MAY-2012 07:44	0523A145.d	1	TOXAPH 2500 – NR	
120	25-MAY-2012 08:01	0523A146.d	1	WNDE – NR	
121	25-MAY-2012 08:19	0523A147.d	100	UU52G	
122	25-MAY-2012 08:37	0523A148.d	1000	UU52H	
123	25-MAY-2012 08:55	0523A149.d	5000	UU52I	
124	25-MAY-2012 09:13	0523A150.d	5000	UU52J	
125	25-MAY-2012 09:31	0523A151.d	1000	UU52J	
126	25-MAY-2012 09:48	0523A152.d	1	TECH 200	
127	25-MAY-2012 10:06	0523A153.d	1	WND ICV	
128	25-MAY-2012 10:24	0523A154.d	1	DS – Passes	
129	25-MAY-2012 10:42	0523A155.d	1	INDAE – Passes	
130	25-MAY-2012 11:00	0523A156.d	2	UU34G	
131	25-MAY-2012 11:17	0523A157.d	5	UU57I	
132	25-MAY-2012 11:35	0523A158.d	1	UU52MBS1	
133	25-MAY-2012 11:53	0523A159.d	1	UU52LCSS1	
134	25-MAY-2012 12:11	0523A160.d	1	UU52A	AC

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A128.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A128.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Injection Date: 25-MAY-2012 02:41
Compound Sublist: INDA
Report Date: 05/29/2012 09:49
Instrument, Inj. Vol.: ecd6.i, 1ul
Matrix: NONE
Operator: ar
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.797	0.000	4955560	2.854	0.000	18405466	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.846	0.000	2070701	4.107	-0.001	6331055	20.9428	20.2004	3.6	alpha-BHC
4.184	0.002	736530	4.502	0.000	2281111	19.9712	18.9204	5.4	beta-BHC
4.340	0.003	1504552	4.783	0.001	4485989	20.8569	20.0527	3.9	delta-BHC
4.106	0.000	1714835	4.428	-0.001	5242734	20.6752	19.6052	5.3	gamma-BHC (Lindane)
4.517	-0.001	1897137	4.848	-0.001	5132372	20.7205	19.0709	8.3	Heptachlor
4.787	0.000	1752174	5.169	-0.002	4503129	20.8639	19.3052	7.8	Aldrin
5.346	0.000	1505838	5.731	-0.002	4368410	20.1358	19.3041	4.2	Heptachlor epoxide b
5.722	0.000	1980318	6.116	-0.002	3762756	19.6182	19.1036	2.7	Endosulfan I
5.946	0.000	3272092	6.375	-0.002	7882772	40.7129	38.7134	5.0	Dieldrin
5.673	0.004	2292165	6.209	0.000	7086862	45.0826	39.3539	13.6	4,4'-DDE
6.163	0.000	2935694	6.662	-0.002	6523690	39.8298	36.1847	9.6	Endrin
6.371	0.001	2806734	6.856	-0.002	6496792	39.1277	35.5664	9.5	Endosulfan II
6.230	0.003	2412517	6.748	0.000	5569757	41.5708	36.9697	11.7	4,4'-DDD
7.138	0.000	2454814	7.403	-0.002	5102809	38.9246	36.3586	6.8	Endosulfan sulfate
6.485	0.001	2636542	7.033	-0.001	5605702	41.3679	37.7865	9.0	4,4'-DDT
6.924	0.001	6149844	7.628	-0.001	10634407	189.3946	164.1002	14.3	Methoxychlor
7.388	0.000	3038118	7.880	-0.002	6620510	37.9999	36.6412	3.6	Endrin ketone
6.749	0.001	2231605	7.157	-0.001	4918124	38.5767	35.3501	8.7	Endrin aldehyde
5.470	0.001	1643081	5.917	-0.001	4143756	20.2626	19.7350	2.6	gamma-Chlordane
5.594	0.000	1434687	6.056	-0.001	3849319	18.5914	19.2632	3.5	alpha-Chlordane
2.053	-0.001	2172979	2.111	-0.001	6459282	19.8856	18.9847	4.6	Hexachlorobutadiene
3.719	0.002	1324832	3.995	0.001	5532507	19.4374	19.3311	0.5	Hexachlorobenzene
8.391	-0.003	6854371	9.354	-0.004	10501931	80.0000	80.0000	0.0	Hexabromobiphenyl
3.407	0.001	2896699	3.587	-0.001	8993493	39.5041	39.3757	0.3	Tetrachloro-m-xylene
8.251	0.000	2830921	8.907	-0.002	5383047	36.7649	37.0250	0.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	98.8	98.4	98.4~	115- 0
Decachlorobiphenyl	91.9	92.6	91.9~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

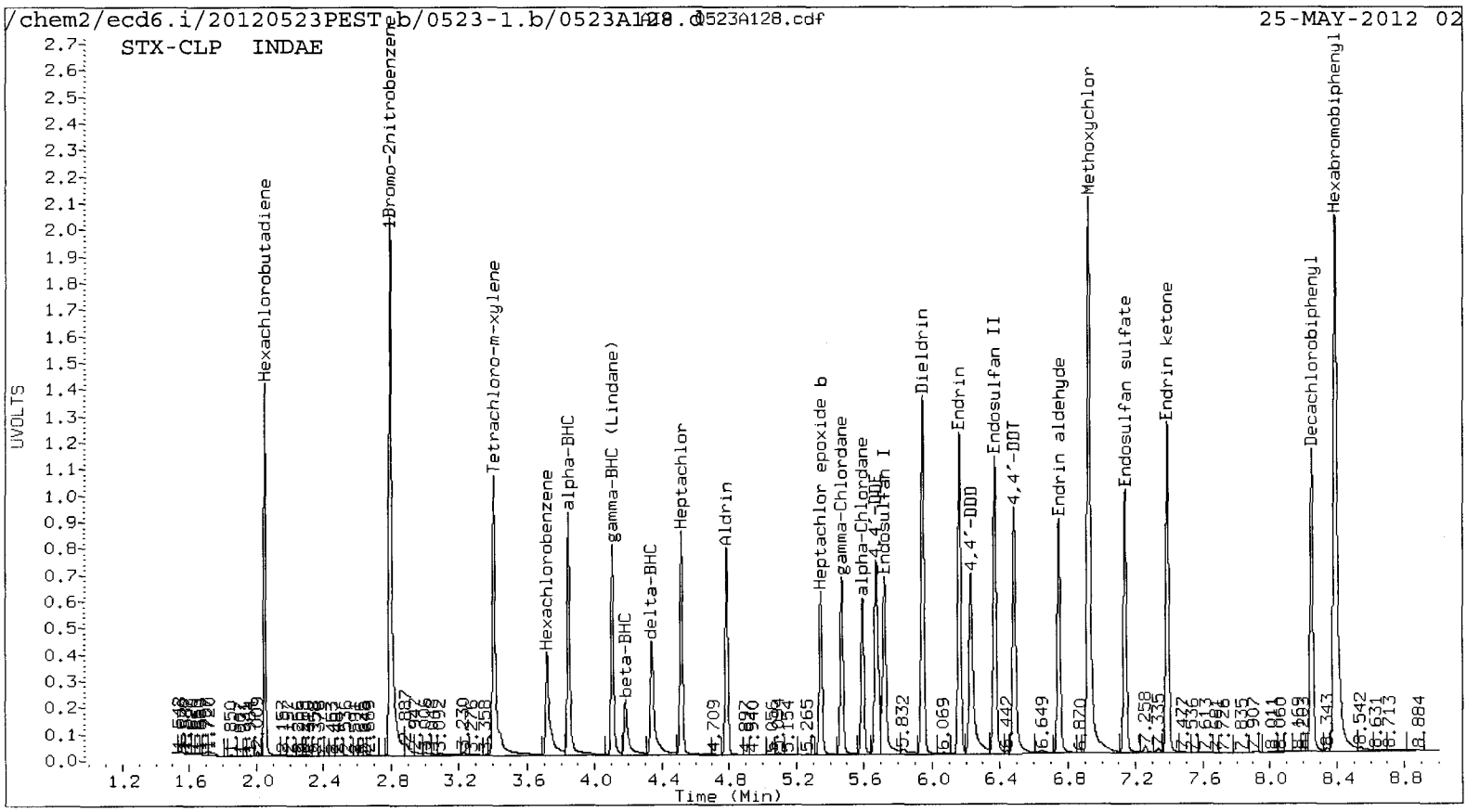
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4955560	2.4
Hexabromobiphenyl	6506091	6854371	5.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	18405466	13.4
Hexabromobiphenyl	8472750	10501931	23.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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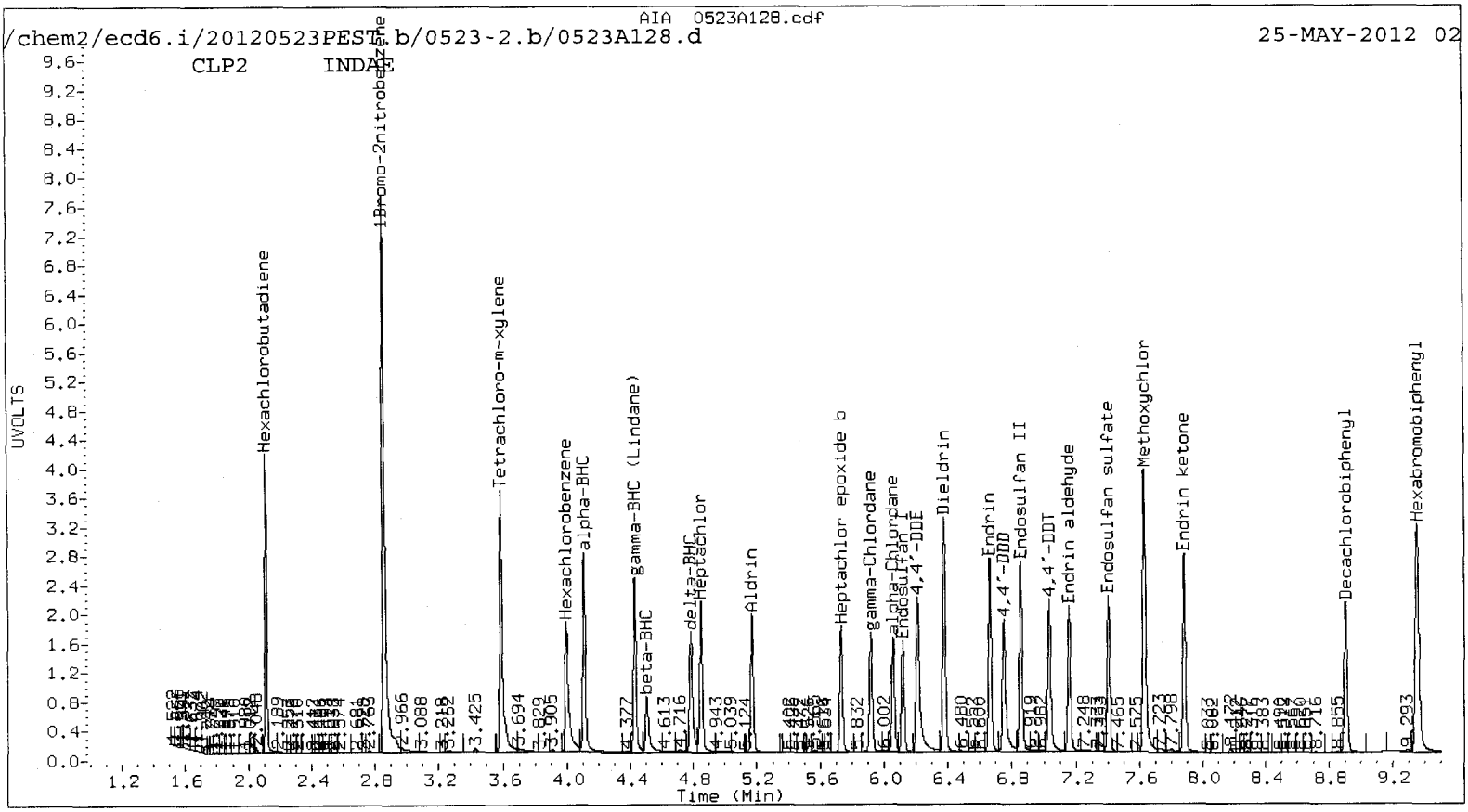
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 02
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/25/2012

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A131.d ARI ID: UU52MBS1
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A131.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 03:34
Compound Sublist: wpest Report Date: 05/25/2012 08:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.794	-0.002	4647725	2.852	-0.002	15596280	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.832	-0.015	18681	4.085	-0.023	22686	0.2015	0.0854	80.9*	alpha-BHC
4.195	0.013	10645	4.526	0.023	25332	0.3078	0.2480	21.5	beta-BHC
4.326	-0.011	6510	4.789	0.007	21870	0.0962	0.1154	18.1	delta-BHC
4.109	0.003	13807	4.420	-0.009	39986	0.1775	0.1765	0.6	gamma-BHC (Lindane)
4.511	-0.006	13233	4.844	-0.005	28460	0.1541	0.1248	21.0	Heptachlor
4.747	-0.040	35601	5.188	0.017	166678	0.4520	0.8433	60.4*	Aldrin
5.341	-0.005	9376	5.723	-0.009	77273	0.1337	0.4030	100.4*	Heptachlor epoxide b
5.737	0.015	5692	6.140	0.023	91583	0.0601	0.5487	160.5*	Endosulfan I
5.944	-0.002	10869	6.375	-0.002	57368	0.1442	0.3325	79.0*	Dieldrin
5.668	-0.002	14283	6.206	-0.002	79224	0.2995	0.5192	53.7*	4,4'-DDE
6.116	-0.047	13431	----			0.1824	0.0000	---	Endrin
6.354	-0.016	18991	6.850	-0.007	214237	0.2650	1.2706	131.0*	Endosulfan II
6.224	-0.003	3736	----			0.0644	0.0000	---	4,4'-DDD
7.135	-0.002	13264	7.396	-0.008	12124	0.2105	0.0936	76.9*	Endosulfan sulfate
6.472	-0.011	25405	7.030	-0.004	164022	0.3989	1.1978	100.1*	4,4'-DDT
6.918	-0.005	23233	7.620	-0.009	33965	0.7161	0.5678	23.1	Methoxychlor
7.407	0.019	28201	7.912	0.030	44972	0.3530	0.2696	26.8	Endrin ketone
6.705	-0.044	32905	7.142	-0.016	125911	0.5692	0.9804	53.1*	Endrin aldehyde
5.473	0.003	92988	5.909	-0.009	38221	1.2227	0.2148	140.2*	gamma-Chlordane
5.630	0.037	8763	----			0.1211	0.0000	---	alpha-Chlordane
2.064	0.011	30819	2.102	-0.011	153344	0.3007	0.5319	55.5*	Hexachlorobutadiene
3.714	-0.003	58701	3.991	-0.004	28074	0.9183	0.1158	155.2*	Hexachlorobenzene
5.251	-0.001	11027	5.635	-0.008	14169	0.1740	0.0930	60.7*	Oxychlordane
5.383	0.042	3481	5.948	0.038	301143	0.0780	3.0343	190.0*	2,4-DDE
5.582	0.002	15359	5.999	-0.007	199291	0.1894	1.0085	136.7*	trans-Nonachlor
5.828	-0.002	13209	6.396	-0.003	95850	0.3211	0.8686	92.0*	2,4-DDD
6.068	-0.001	18402	6.680	-0.005	185516	0.3396	1.5475	128.0*	2,4-DDT
6.196	-0.001	24210	6.731	-0.003	286859	0.2697	1.4395	136.9*	cis-Nonachlor
7.062	-0.001	17462	7.860	-0.003	95623	0.2937	0.7985	92.4*	Mirex
8.387	-0.002	6849218	9.351	-0.004	9694026	80.0000	80.0000	0.0	Hexabromobiphenyl
1.721	0.001	144825	1.766	-0.004	54026	0.0000	0.0000	---	Hexachloroethane
3.405	-0.001	2043306	3.585	-0.003	6017263	29.7115	31.0903	4.5	Tetrachloro-m-xylene
8.250	-0.001	2676544	8.906	-0.002	4516570	34.7861	33.6543	3.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	74.3	77.7	74.3~	130- 0
Decachlorobiphenyl	87.0	84.1	84.1~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4647725	-4.0
Hexabromobiphenyl	6506091	6849218	5.3

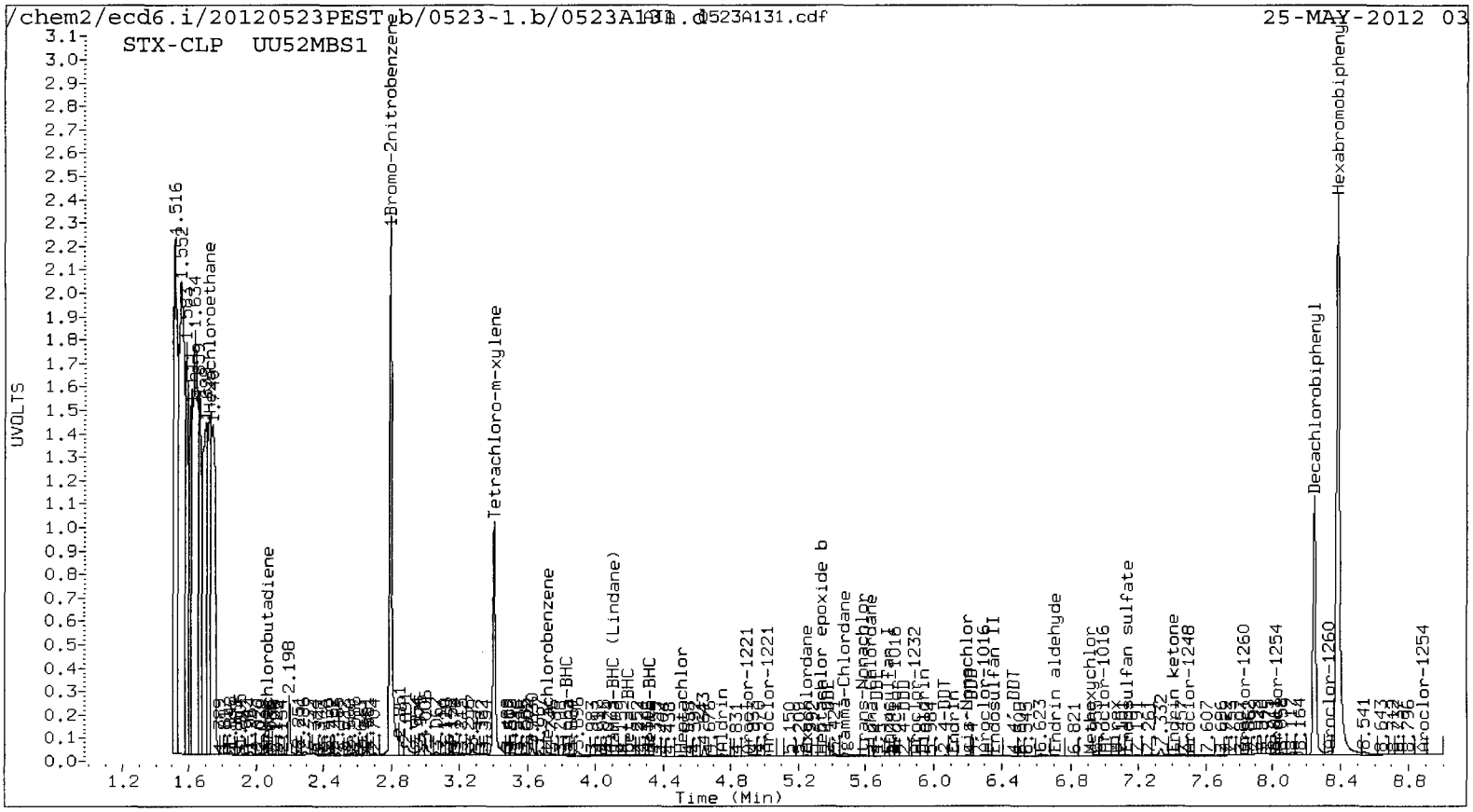
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15596280	-3.9
Hexabromobiphenyl	8472750	9694026	14.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	6.472	0.048	25405	7.805	1	6.605	-0.002	82048	15.569	
Toxaphene	2	---			0.000	2	6.944	0.013	16996	2.161	
Toxaphene	3	6.705	0.031	32905	14.317	3	7.142	-0.023	125911	15.229	
Toxaphene	4	6.918	0.041	23233	9.399	4	7.620	-0.005	33965	5.169	
Toxaphene	5	7.062	0.007	17462	4.635	5	7.676	0.007	36633	4.094	
Toxaphene	6	7.407	0.032	28201	10.680	NS	---			----	
Total STX-CLPAve (5 peaks): 9.367						Total CLP2Ave (5 peaks): 8.445				RPD = 10	
Corrected Ave (5 peaks): 9.367						Corrected Ave (3 peaks): 3.808				RPD = 84*	
Aroclor-1016	1	---			0.000	1	---			0.000	
Aroclor-1016	2	---			0.000	2	---			0.000	
Aroclor-1016	3	---			0.000	3	---			0.000	
Aroclor-1016	4	---			0.000	4	---			0.000	
Aroclor-1016	5	---			0.000	5	---			0.000	
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.000	1	---			0.000	
Aroclor-1221	2	---			0.000	2	---			0.000	
Aroclor-1221	3	---			0.000	3	---			0.000	
Aroclor-1221	4	---			0.000	4	---			0.000	
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.000	1	---			0.000	
Aroclor-1232	2	---			0.000	2	---			0.000	
Aroclor-1232	3	---			0.000	3	---			0.000	
Aroclor-1232	4	---			0.000	4	---			0.000	
Aroclor-1232	5	---			0.000	5	---			0.000	
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.000	1	---			0.000	
Aroclor-1242	2	---			0.000	2	---			0.000	
Aroclor-1242	3	---			0.000	3	---			0.000	
Aroclor-1242	4	---			0.000	4	---			0.000	
Aroclor-1242	5	---			0.000	5	---			0.000	
Aroclor-1242	6	---			0.000	NS	---			----	

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000		1	---	0.000	
Aroclor-1248 2	---	0.000		2	---	0.000	
Aroclor-1248 3	---	0.000		3	---	0.000	
Aroclor-1248 4	---	0.000		4	---	0.000	
Aroclor-1248 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000		1	---	0.000	
Aroclor-1254 2	---	0.000		2	---	0.000	
Aroclor-1254 3	---	0.000		3	---	0.000	
Aroclor-1254 4	---	0.000		4	---	0.000	
Aroclor-1254 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000		1	---	0.000	
Aroclor-1260 2	---	0.000		2	---	0.000	
Aroclor-1260 3	---	0.000		3	---	0.000	
Aroclor-1260 4	---	0.000		4	---	0.000	
Aroclor-1260 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000		1	---	0.000	
Aroclor-1262 2	---	0.000		2	---	0.000	
Aroclor-1262 3	---	0.000		3	---	0.000	
Aroclor-1262 4	---	0.000		4	---	0.000	
Aroclor-1262 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000		1	---	0.000	
Aroclor-1268 2	---	0.000		2	---	0.000	
Aroclor-1268 3	---	0.000		3	---	0.000	
Aroclor-1268 4	---	0.000		4	---	0.000	
Aroclor-1268 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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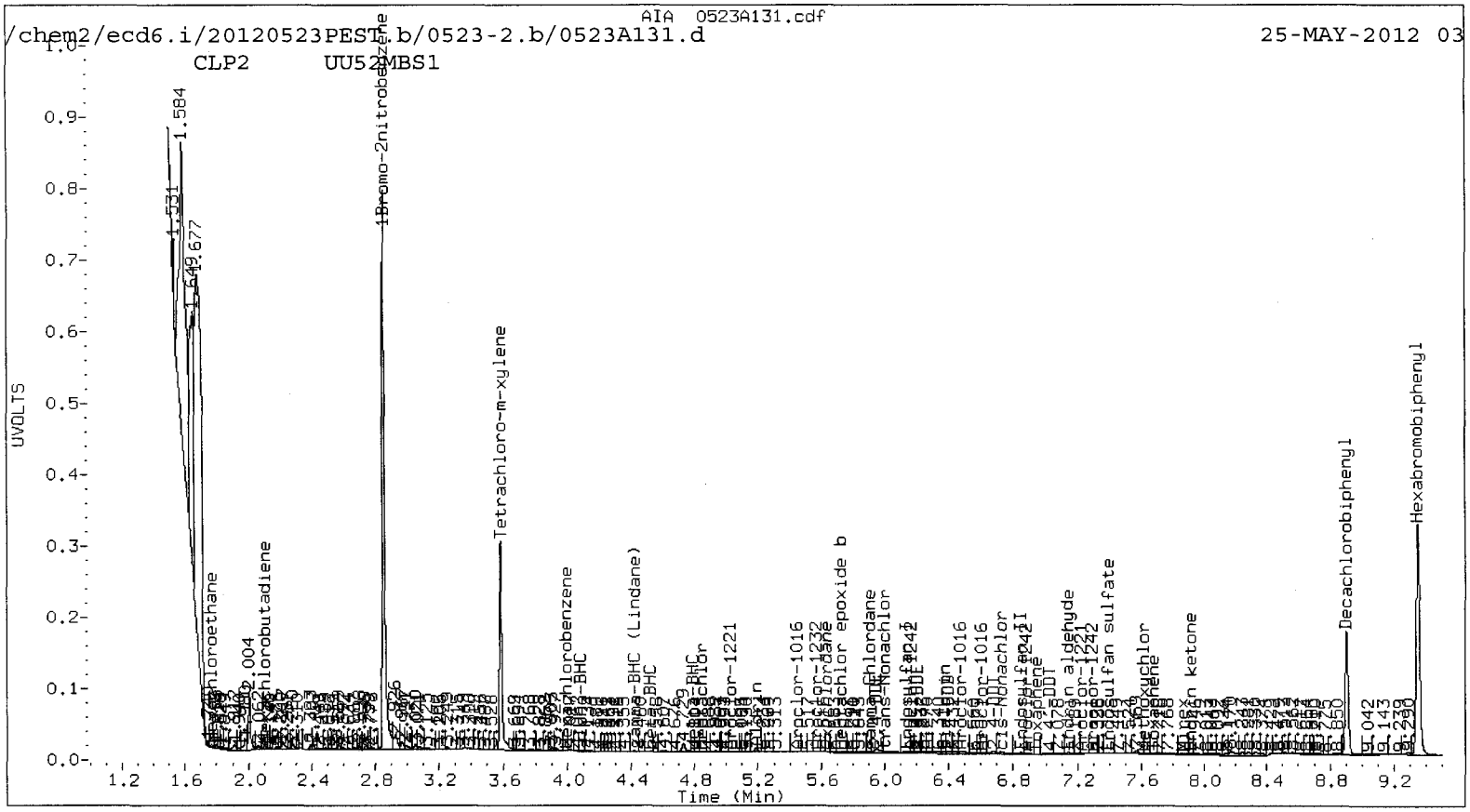
UVOLTS
Time (Min)
1,2-Dichloroethane
Hexachlorobutadiene
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Chlorobenzene
Lindane
Heptachlor
Aldrin
Aroclor-1221
Chlordane
Heptachlor epoxide b
Endosulfan I
Dieldrin
4,4-DDT
Endrin aldehyde
Endosulfan II
Endosulfan sulfate
Methoxychlor
Endrin ketone
Aroclor-1248
Aroclor-1260
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 03
CLP2 UU52MBS1
UVOLTS
Time (Min)
1,2-Dichloroethane
Hexachlorobutadiene
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Chlorobenzene
Lindane
Heptachlor
Aldrin
Aroclor-1221
Chlordane
Heptachlor epoxide b
Endosulfan I
Dieldrin
4,4-DDT
Endrin aldehyde
Endosulfan II
Endosulfan sulfate
Methoxychlor
Endrin ketone
Aroclor-1248
Aroclor-1260
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl

AR 5/25/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A132.d ARI ID: UU52LCSS1
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A132.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 03:52
Compound Sublist: wpest Report Date: 05/25/2012 08:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.794	-0.002	4684042	2.852	-0.002	15002976	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.845	-0.001	1441520	4.105	-0.002	4103065	15.4244	16.0606	4.0	alpha-BHC
4.182	0.000	556569	4.500	-0.002	1620072	15.9663	16.4850	3.2	beta-BHC
4.336	-0.001	1178544	4.780	-0.003	3701481	17.2847	20.2983	16.0	delta-BHC
4.105	-0.001	1329603	4.426	-0.002	3786074	16.9598	17.3689	2.4	gamma-BHC (Lindane)
4.517	-0.001	1414852	4.848	-0.002	3403573	16.3488	15.5152	5.2	Heptachlor
4.787	0.000	1264466	5.168	-0.002	3183602	15.9293	16.7436	5.0	Aldrin
5.346	0.000	1246203	5.731	-0.002	3379449	17.6299	18.3207	3.8	Heptachlor epoxide b
5.721	0.000	777757	6.116	-0.001	1594724	8.1516	9.9326	19.7	Endosulfan I
5.946	0.000	2582102	6.375	-0.002	6149548	33.9901	37.0505	8.6	Dieldrin
5.668	-0.002	2276710	6.205	-0.003	5768885	47.3743	39.3003	18.6	4,4'-DDE
6.163	0.000	2454382	6.662	-0.002	5330816	34.1950	32.9700	3.6	Endrin
6.370	0.000	1422891	6.856	-0.002	3241894	20.3694	19.7894	2.9	Endosulfan II
6.227	-0.001	2065984	6.746	-0.003	4629363	36.5569	34.2628	6.5	4,4'-DDD
7.138	0.000	2008291	7.403	-0.001	4005124	32.7007	31.8205	2.7	Endosulfan sulfate
6.483	0.000	2228373	7.032	-0.001	4545862	35.9038	34.1677	5.0	4,4'-DDT
6.923	-0.001	5209992	7.628	-0.002	8980435	164.7648	154.5204	6.4	Methoxychlor
7.388	0.000	2550711	7.880	-0.002	5373645	32.7614	33.1620	1.2	Endrin ketone
6.748	-0.001	1461558	7.157	-0.002	3240338	25.9447	25.9701	0.1	Endrin aldehyde
5.470	0.000	1380691	5.917	-0.001	3448747	18.0138	20.1499	11.2	gamma-Chlordane
5.594	0.000	1207977	6.056	-0.002	2968245	16.5610	18.2228	9.6	alpha-Chlordane
2.050	-0.003	1336468	2.110	-0.003	3689819	12.9394	13.3044	2.8	Hexachlorobutadiene
3.716	-0.001	1050076	3.993	-0.002	3767298	16.2993	16.1485	0.9	Hexachlorobenzene
5.265	0.013	5666	5.615	-0.029	27630	~~0.0917~~	~~0.1884~~	~~69.0*~~	Oxychlordane
5.293	-0.049	3225	5.876	-0.033	58356	0.0741	0.6113	~~156.7*~~	2,4-DDE
----			----			0.0000	0.0000	---	trans-Nonachlor
5.829	-0.001	38535	----			0.9613	0.0000 NS	---	2,4-DDD
6.068	-0.001	17143	----			0.3246	0.0000	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
7.098	0.036	11117	----			~~0.1919~~	~~0.0000~~	---	Mirex
8.387	-0.002	6674886	9.352	-0.003	9418383	80.0000	80.0000	0.0	Hexabromobiphenyl
1.730	0.010	258912	1.766	-0.004	42887	~~0.0000~~	~~0.0000~~ WA	---	Hexachloroethane
3.405	-0.001	1835856	3.586	-0.002	5671608	26.4880	30.4632	14.0	Tetrachloro-m-xylene
8.250	0.000	2452338	8.907	-0.001	4220011	32.7046	32.3648	1.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	66.2	76.2	66.2	42-112
Decachlorobiphenyl	81.8	80.9	80.9	59-123
alpha-BHC	77.1	80.3	77.1	49-111
beta-BHC	79.8	82.4	79.8	54-107
delta-BHC	86.4	101.5	86.4	72-112
gamma-BHC (Lindane)	84.8	86.8	84.8	54-115
Heptachlor	81.7	77.6	77.6	45-133
Aldrin	79.6	83.7	79.6	53-114
Heptachlor epoxide b	88.1	91.6	88.1	60-121
Endosulfan I	40.8	49.7	40.8	40-129
Dieldrin	85.0	92.6	85.0	68-123
4,4'-DDE	118.4	98.3	98.3	66-124
Endrin	85.5	82.4	82.4	60-135
Endosulfan II	50.9	49.5	49.5	46-130
4,4'-DDD	91.4	85.7	85.7	54-129
Endosulfan sulfate	81.8	79.6	79.6	36-110
4,4'-DDT	89.8	85.4	85.4	50-133
Methoxychlor	82.4	77.3	77.3	46-138
Endrin ketone	81.9	82.9	81.9	45-131
Endrin aldehyde	64.9	64.9	64.9	25-100
gamma-Chlordane	90.1	100.7	90.1	66-119
alpha-Chlordane	82.8	91.1	82.8	62-119
Hexachlorobutadiene	64.7	66.5	64.7	39-100
Hexachlorobenzene	81.5	80.7	80.7	41-108

~ Indicates recovery outside QC Limits

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	66.2	76.2	66.2~	130- 0
Decachlorobiphenyl	81.8	80.9	80.9~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4684042	-3.3
Hexabromobiphenyl	6506091	6674886	2.6

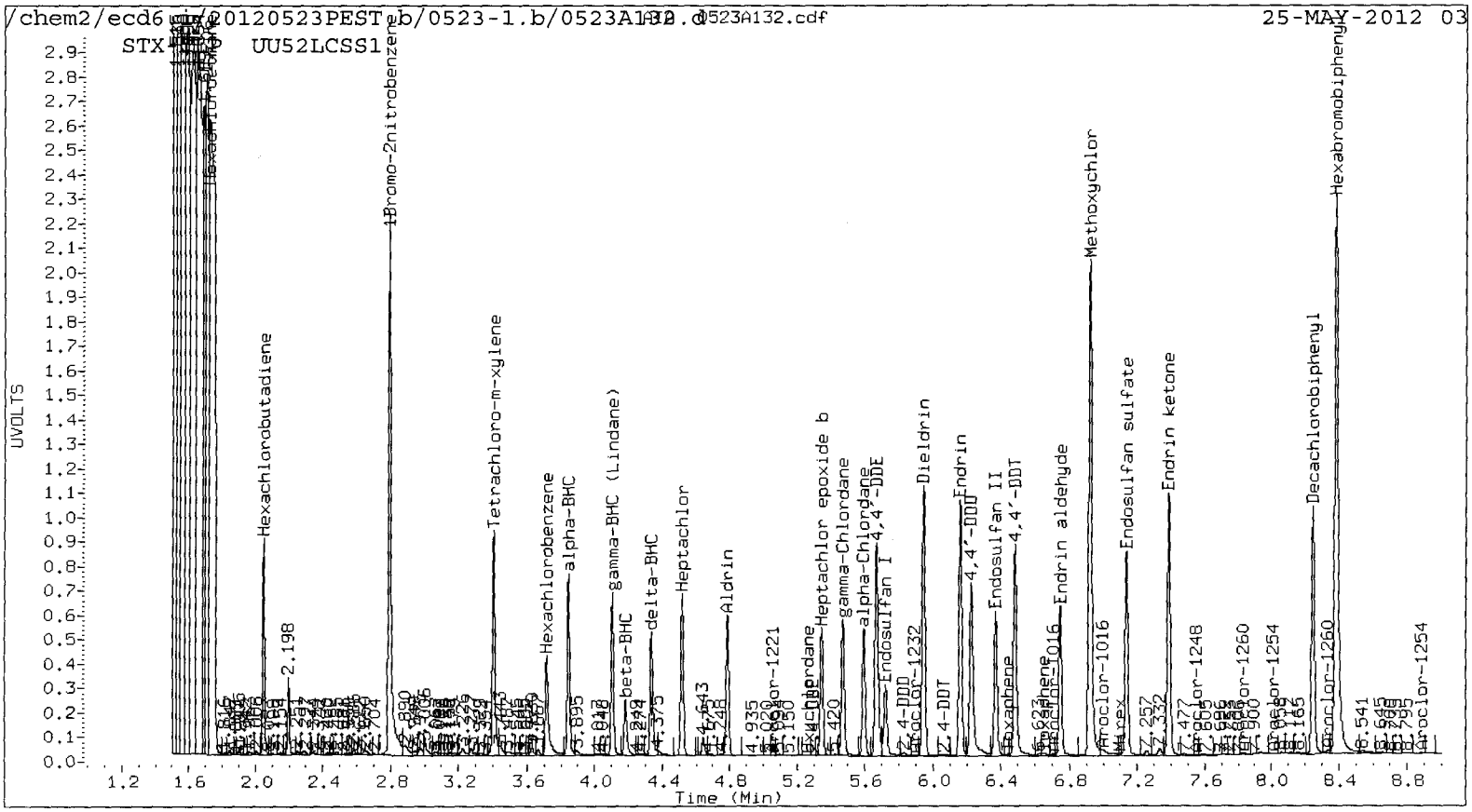
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15002976	-7.5
Hexabromobiphenyl	8472750	9418383	11.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	6.442	0.018	15410	4.858	1	6.598	-0.008	52034	10.163	
Toxaphene	2	6.483	0.008	2228373	917.062	2	6.949	0.017	10310	1.350	
Toxaphene	3	6.649	-0.024	36206	16.165	3	7.157	-0.009	3240338	403.402	
Toxaphene	4	6.923	0.045	5209992	2162.818	4	7.628	0.002	8980435	1406.549	
Toxaphene	5	7.098	0.043	11117	3.028	5	---			0.000	
Toxaphene	6	7.388	0.013	2550711	991.188	NS	---			----	
Total STX-CLPAve (6 peaks): 682.520						Total CLP2Ave (4 peaks): 455.366				RPD = 40	
Corrected Ave (5 peaks): 386.460						Corrected Ave (3 peaks): 138.305				RPD = 95*	
Aroclor-1016	1	---			0.000	1	---			0.000	
Aroclor-1016	2	---			0.000	2	---			0.000	
Aroclor-1016	3	---			0.000	3	---			0.000	
Aroclor-1016	4	---			0.000	4	---			0.000	
Aroclor-1016	5	---			0.000	5	---			0.000	
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.000	1	---			0.000	
Aroclor-1221	2	---			0.000	2	---			0.000	
Aroclor-1221	3	---			0.000	3	---			0.000	
Aroclor-1221	4	---			0.000	4	---			0.000	
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.000	1	---			0.000	
Aroclor-1232	2	---			0.000	2	---			0.000	
Aroclor-1232	3	---			0.000	3	---			0.000	
Aroclor-1232	4	---			0.000	4	---			0.000	
Aroclor-1232	5	---			0.000	5	---			0.000	
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.000	1	---			0.000	
Aroclor-1242	2	---			0.000	2	---			0.000	
Aroclor-1242	3	---			0.000	3	---			0.000	
Aroclor-1242	4	---			0.000	4	---			0.000	
Aroclor-1242	5	---			0.000	5	---			0.000	
Aroclor-1242	6	---			0.000	NS	---			----	

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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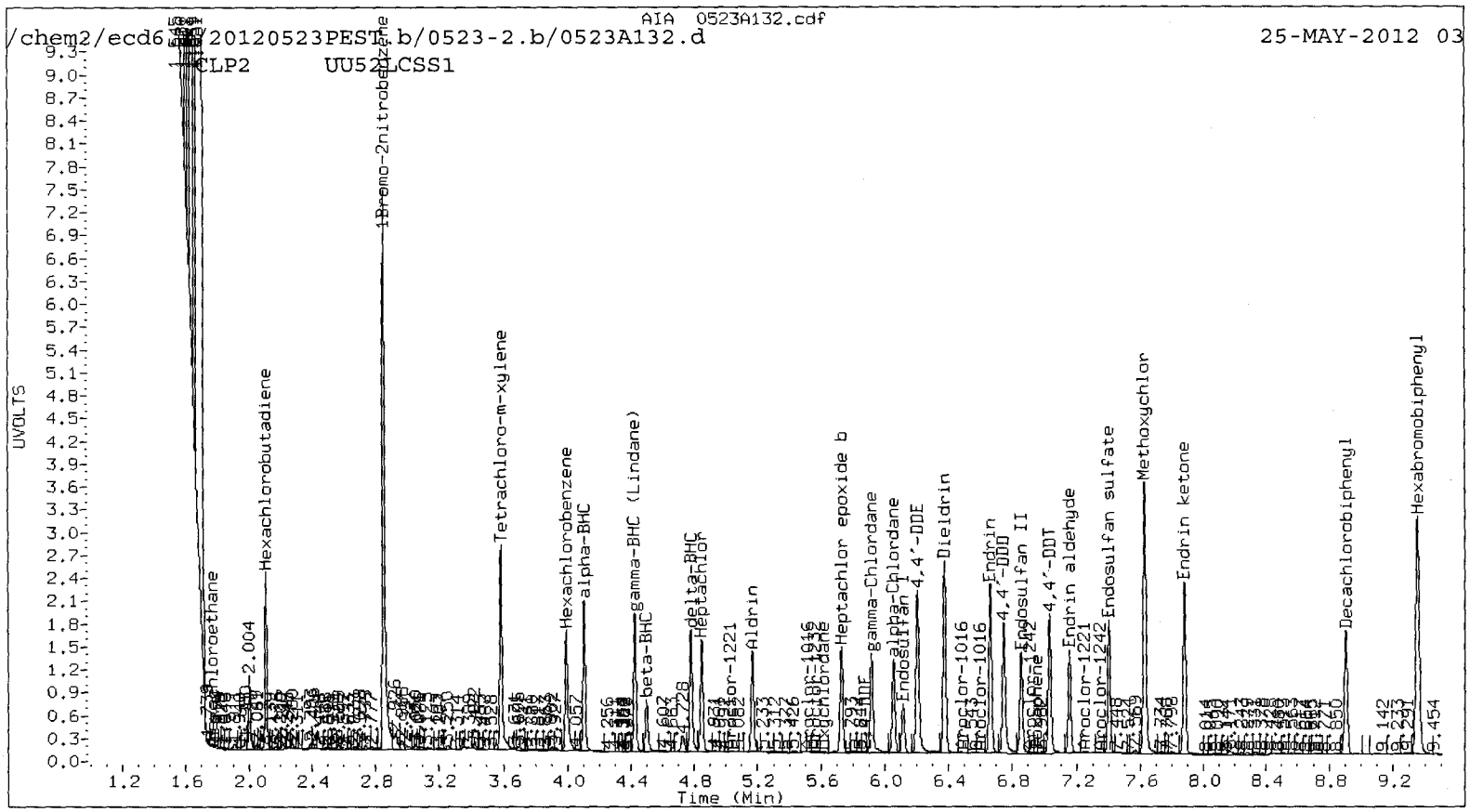
25-MAY-2012 03
STX UU52LCSS1
UVOLTS
Time (Min)
1,2-Dichloroethane
Hexachlorobutadiene
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Aroclor-1221
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Aroclor-1232
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Aroclor-1016
Methoxychlor
Endosulfan sulfate
Endrin ketone
Aroclor-1248
Aroclor-1260
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 03
CLP2 UU52LCSS1
UVOLTS
Time (Min)
1,2-Dichloroethane
Hexachlorobutadiene
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Aroclor-1221
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Aroclor-1016
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Aroclor-1221
Aroclor-1242
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

AR 5/25/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A133.d ARI ID: UU52A
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A133.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 04:10
Compound Sublist: wpest Report Date: 05/25/2012 08:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4448672	2.854	-0.001	15927983	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.844	-0.002	9346	4.107	-0.001	38999	0.1053	0.1438	30.9	alpha-BHC
4.187	0.005	3833	4.540	0.038	22829	0.1158	0.2188	61.6*	beta-BHC
4.359	0.022	12869	4.782	-0.001	40030	0.1987	0.2068	4.0	delta-BHC
4.104	-0.002	22949	4.441	0.012	110413	0.3082	0.4771	43.0*	gamma-BHC (Lindane)
4.514	-0.003	8540	4.845	-0.005	42397	0.1039	0.1820	54.7*	Heptachlor
4.784	-0.004	4535	5.153	-0.018	62733	0.0602	0.3108	135.1*	Aldrin
5.354	0.008	8423	5.709	-0.024	63137	0.1255	0.3224	87.9*	Heptachlor epoxide b
5.735	0.013	7638	6.118	0.000	14711	0.0843	0.0863	2.4	Endosulfan I
5.944	-0.002	15139	6.371	-0.006	46208	0.2098	0.2622	22.2	Dieldrin
5.670	0.000	7989	6.204	-0.005	18635	0.1750	0.1196	37.7	4,4'-DDE
6.160	-0.003	4554	6.659	-0.005	24987	0.0682	0.1539	77.1*	Endrin
6.369	-0.001	5488	6.856	-0.001	37054	0.0845	0.2253	90.9*	Endosulfan II
6.229	0.002	14734	6.746	-0.003	34605	0.2803	0.2551	9.4	4,4'-DDD
7.137	-0.001	6237	7.382	-0.022	26848	0.1092	0.2125	64.2*	Endosulfan sulfate
6.484	0.000	6331	7.032	-0.002	31483	0.1097	0.2357	73.0*	4,4'-DDT
6.923	0.000	20324	7.627	-0.002	37688	0.6911	0.6459	6.8	Methoxychlor
7.388	0.000	6029	7.881	0.000	44773	0.0833	0.2752	107.1*	Endrin ketone
6.752	0.004	11319	7.158	-0.001	16336	0.2160	0.1304	49.4*	Endrin aldehyde
5.474	0.005	13064	5.951	0.033	36698	0.1795	0.2020	11.8	gamma-Chlordane
----			6.052	-0.005	29614	0.0000	0.1712	---	alpha-Chlordane
2.052	-0.001	4104	2.109	-0.003	25359	0.0418	0.0861	69.2*	Hexachlorobutadiene
3.721	0.004	7565	3.994	-0.001	25427	0.1237	0.1027	18.5	Hexachlorobenzene
5.238	-0.014	24989	5.647	0.003	37686	0.4350	0.2421	57.0*	Oxychlordane
5.323	-0.018	2560	5.907	-0.003	34560	0.0633	0.3410	137.4*	2,4-DDE
5.558	-0.022	27665	6.000	-0.006	75218	0.3765	0.3902	3.6	trans-Nonachlor
5.830	0.000	3326	6.424	0.025	42850	0.0892	0.3981	126.8*	2,4-DDD
6.042	-0.026	5179	----			0.1055	0.0000	---	2,4-DDT
6.197	0.000	3408	6.708	-0.025	15916	0.0419	0.0819	64.6*	cis-Nonachlor
7.061	-0.002	8402	----			0.1559	0.0000	---	Mirex
8.387	-0.002	6207764	9.352	-0.003	9456432	80.0000	80.0000	0.0	Hexabromobiphenyl
1.719	0.000	969	1.770	0.000	12162	0.0000	0.0000	---	Hexachloroethane
3.407	0.001	17933	3.586	-0.001	41699	0.2724	0.2110	25.4	Tetrachloro-m-xylene
8.252	0.001	25081	8.906	-0.002	25316	0.3597	0.1934	60.1*	Decachlorobiphenyl

CD

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.7	0.5	0.5~	130- 0
Decachlorobiphenyl	0.9	0.5	0.5~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4448672	-8.1
Hexabromobiphenyl	6506091	6207764	-4.6

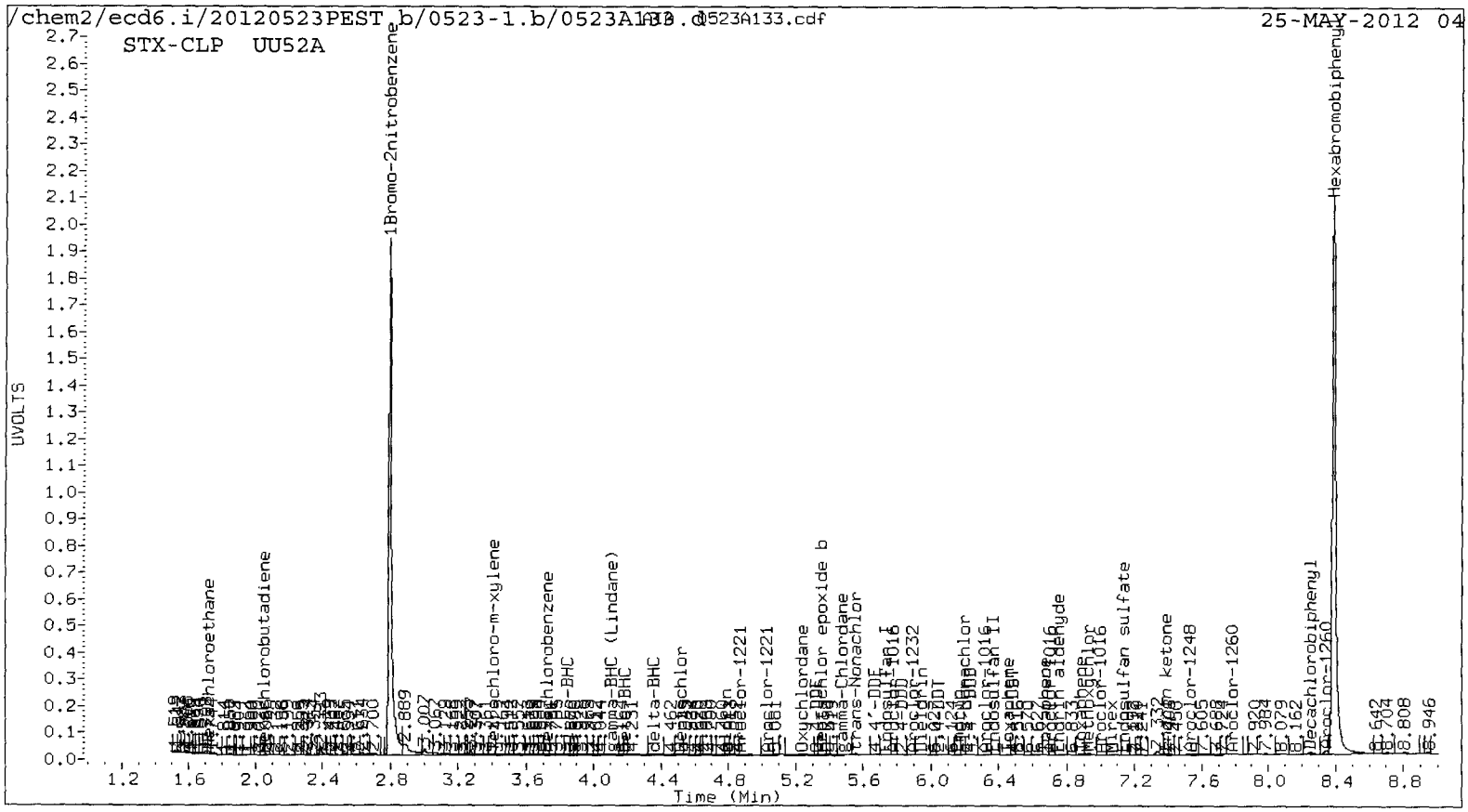
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15927983	-1.8
Hexabromobiphenyl	8472750	9456432	11.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.452	0.028	7576	2.568	1	6.621	0.015	15212	2.959
Toxaphene	2	6.484	0.009	6331	2.802	2	6.922	-0.009	36786	4.796
Toxaphene	3	6.674	0.001	8312	3.991	3	7.158	-0.008	16336	2.026
Toxaphene	4	6.880	0.002	17338	7.740	4	7.627	0.002	37688	5.879
Toxaphene	5	7.061	0.005	8402	2.460	5	7.671	0.001	15608	1.788
Toxaphene	6	7.388	0.013	6029	2.519	NS	---			----
Total STX-CLPAve (6 peaks): 3.680						Total CLP2Ave (5 peaks): 3.490				RPD = 5
Corrected Ave (5 peaks): 2.868						Corrected Ave (5 peaks): 3.490				RPD = 20
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000	1		---	0.000	
Aroclor-1248 2	---	0.000	2		---	0.000	
Aroclor-1248 3	---	0.000	3		---	0.000	
Aroclor-1248 4	---	0.000	4		---	0.000	
Aroclor-1248 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000	1		---	0.000	
Aroclor-1254 2	---	0.000	2		---	0.000	
Aroclor-1254 3	---	0.000	3		---	0.000	
Aroclor-1254 4	---	0.000	4		---	0.000	
Aroclor-1254 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000	1		---	0.000	
Aroclor-1260 2	---	0.000	2		---	0.000	
Aroclor-1260 3	---	0.000	3		---	0.000	
Aroclor-1260 4	---	0.000	4		---	0.000	
Aroclor-1260 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000	1		---	0.000	
Aroclor-1262 2	---	0.000	2		---	0.000	
Aroclor-1262 3	---	0.000	3		---	0.000	
Aroclor-1262 4	---	0.000	4		---	0.000	
Aroclor-1262 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000	1		---	0.000	
Aroclor-1268 2	---	0.000	2		---	0.000	
Aroclor-1268 3	---	0.000	3		---	0.000	
Aroclor-1268 4	---	0.000	4		---	0.000	
Aroclor-1268 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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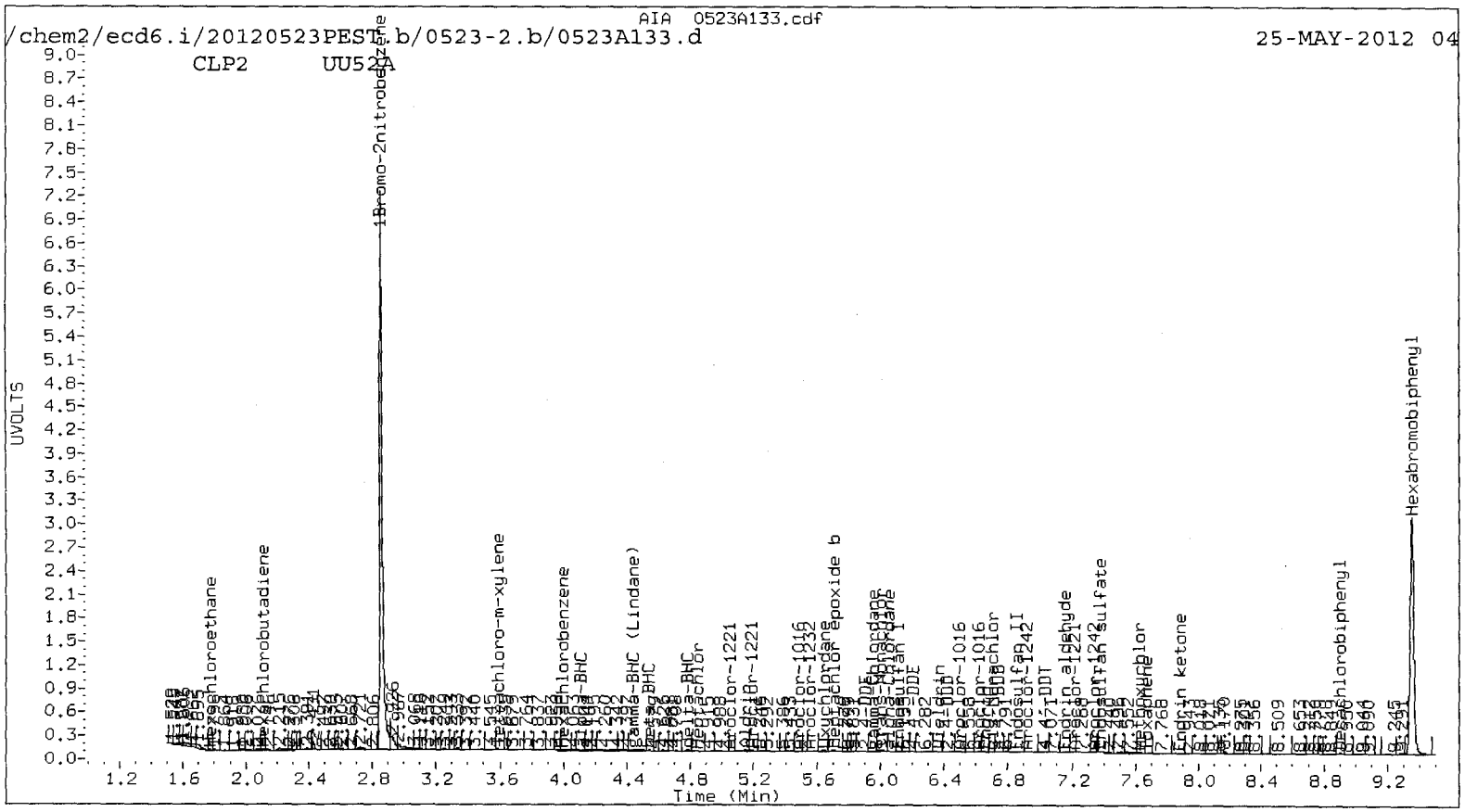
AIA 0523A133.cdf
25-MAY-2012 04
STX-CLP UU52A
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl
Decachlorobiphenyl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AIA 0523A133.cdf
25-MAY-2012 04
CLP2 UU52A
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

UU52:091521

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A134.d ARI ID: UU52B
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A134.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 04:28
Compound Sublist: wpest Report Date: 05/25/2012 08:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4445233	2.854	-0.001	16124314	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.844	-0.003	6548	4.107	-0.001	27383	0.0738	0.0997	29.8	alpha-BHC
4.192	0.010	1685	4.486	-0.016	15336	0.0509	0.1452	96.1*	beta-BHC
4.324	-0.013	2176	4.782	-0.001	25647	0.0336	0.1309	118.2*	delta-BHC
4.086	-0.021	12089	4.444	0.015	48635	0.1625	0.2076	24.4	gamma-BHC (Lindane)
4.520	0.003	5296	4.825	-0.024	15272	0.0645	0.0648	0.5	Heptachlor
4.759	-0.029	17086	5.153	-0.017	39938	0.2268	0.1954	14.9	Aldrin
5.357	0.012	6685	5.745	0.012	9776	0.0997	0.0493	67.6*	Heptachlor epoxide b
5.712	-0.010	2161	6.137	0.019	12736	0.0239	0.0738	102.2*	Endosulfan I
5.944	-0.003	11943	6.370	-0.007	12054	0.1657	0.0676	84.1*	Dieldrin
5.672	0.002	4852	6.203	-0.005	10921	0.1064	0.0692	42.3*	4,4'-DDE
6.145	-0.018	1579	6.648	-0.017	13942	0.0234	0.0846	113.2*	Endrin
----			6.855	-0.002	26121	0.0000	0.1564	---	Endosulfan II
6.230	0.003	11474	6.745	-0.003	26539	0.2163	0.1927	11.5	4,4'-DDD
7.141	0.003	3286	7.383	-0.022	19349	0.0570	0.1508	90.3*	Endosulfan sulfate
6.483	-0.001	2813	7.032	-0.002	11240	0.0483	0.0829	52.7*	4,4'-DDT
6.881	-0.042	22676	7.586	-0.043	25272	0.7641	0.4266	56.7*	Methoxychlor
7.410	0.021	7864	7.890	0.009	20260	0.1076	0.1227	13.1	Endrin ketone
6.760	0.012	7669	7.159	0.001	8791	0.1451	0.0691	70.9*	Endrin aldehyde
5.483	0.014	9427	5.951	0.033	31267	0.1296	0.1700	27.0	gamma-Chlordane
----			----			0.0000	0.0000	---	alpha-Chlordane
2.041	-0.013	2208	2.106	-0.007	19077	0.0225	0.0640	95.9*	Hexachlorobutadiene
3.723	0.006	6128	3.992	-0.003	14473	0.1002	0.0577	53.8*	Hexachlorobenzene
5.244	-0.008	18608	5.648	0.004	33574	0.3210	0.2130	40.4*	Oxychlordane
5.324	-0.017	2150	5.895	-0.014	13396	0.0527	0.1306	85.0*	2,4-DDE
5.560	-0.020	23756	6.000	-0.006	83605	0.3204	0.4272	28.6	trans-Nonachlor
5.812	-0.018	1706	6.421	0.023	42529	0.0454	0.3892	158.2*	2,4-DDD
6.043	-0.026	6527	----			0.1317	0.0000	---	2,4-DDT
6.198	0.001	3521	6.709	-0.025	19631	0.0429	0.0995	79.5*	cis-Nonachlor
7.062	0.000	3720	7.854	-0.009	14507	0.0684	0.1223	56.5*	Mirex
8.388	-0.002	6264658	9.352	-0.003	9599569	80.0000	80.0000	0.0	Hexabromobiphenyl
1.720	0.000	981	1.770	0.000	10416	0.0000	0.0000	---	Hexachloroethane
3.408	0.002	11319	3.586	-0.002	19220	0.1721	0.0961	56.7*	Tetrachloro-m-xylene
8.253	0.003	12210	8.907	-0.001	10369	0.1735	0.0780	75.9*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.4	0.2	0.2~	130- 0
Decachlorobiphenyl	0.4	0.2	0.2~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4445233	-8.2
Hexabromobiphenyl	6506091	6264658	-3.7

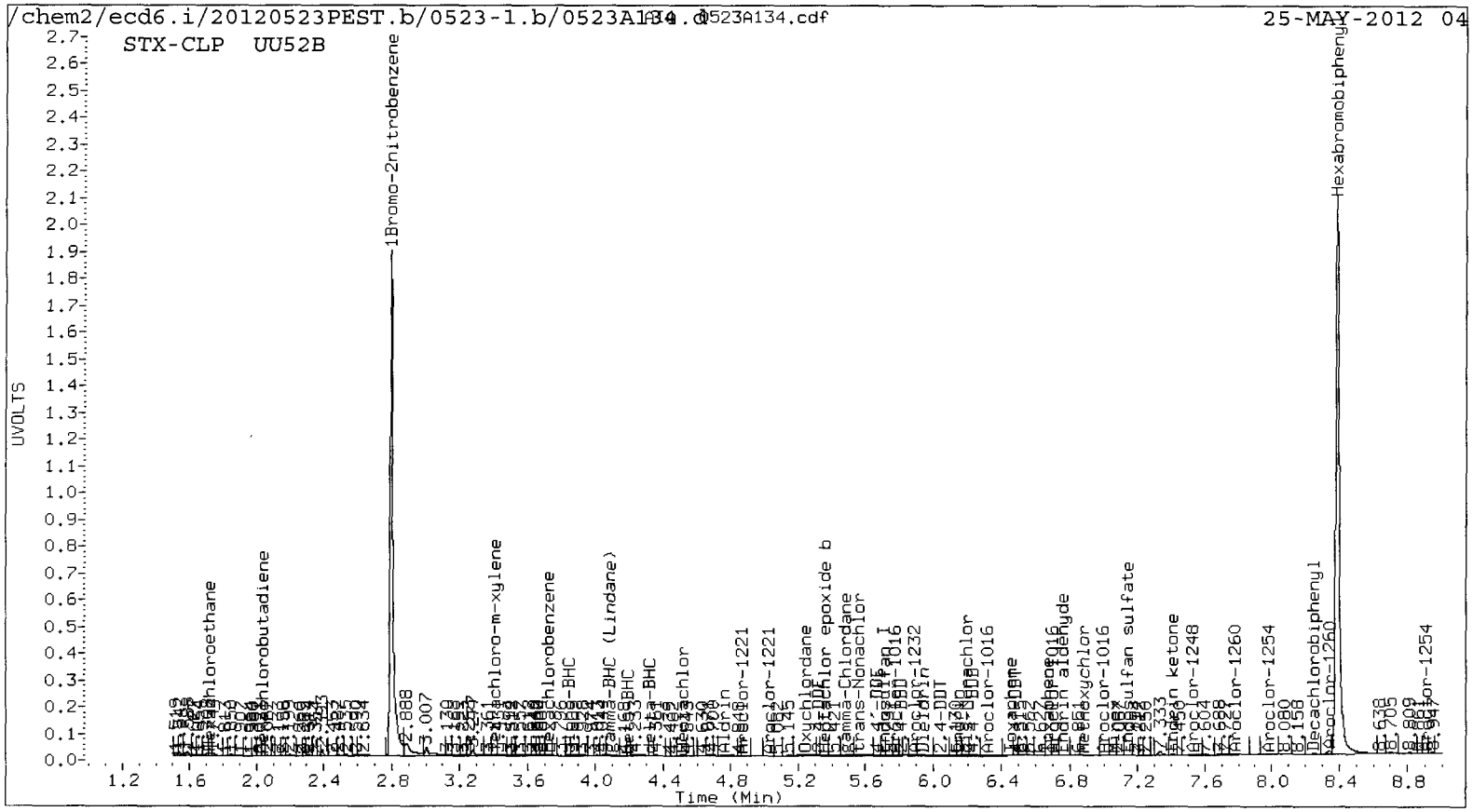
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16124314	-0.6
Hexabromobiphenyl	8472750	9599569	13.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col				CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.456	0.032	6784	2.279	1	6.624	0.017	14021	2.687
Toxaphene	2	6.483	0.008	2813	1.234	2	6.923	-0.008	38681	4.967
Toxaphene	3	6.674	0.001	7862	3.740	3	7.159	-0.006	8791	1.074
Toxaphene	4	6.881	0.004	22676	10.030	4	7.586	-0.039	25272	3.884
Toxaphene	5	7.062	0.007	3720	1.080	5	7.672	0.002	19418	2.192
Toxaphene	6	7.410	0.034	7864	3.256	NS	---			----
Total STX-CLPAve (6 peaks): 3.603						Total CLP2Ave (5 peaks): 2.961				RPD = 20
Corrected Ave (5 peaks): 2.318						Corrected Ave (5 peaks): 2.961				RPD = 24
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000	1		---	0.000	
Aroclor-1248 2	---	0.000	2		---	0.000	
Aroclor-1248 3	---	0.000	3		---	0.000	
Aroclor-1248 4	---	0.000	4		---	0.000	
Aroclor-1248 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000	1		---	0.000	
Aroclor-1254 2	---	0.000	2		---	0.000	
Aroclor-1254 3	---	0.000	3		---	0.000	
Aroclor-1254 4	---	0.000	4		---	0.000	
Aroclor-1254 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000	1		---	0.000	
Aroclor-1260 2	---	0.000	2		---	0.000	
Aroclor-1260 3	---	0.000	3		---	0.000	
Aroclor-1260 4	---	0.000	4		---	0.000	
Aroclor-1260 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000	1		---	0.000	
Aroclor-1262 2	---	0.000	2		---	0.000	
Aroclor-1262 3	---	0.000	3		---	0.000	
Aroclor-1262 4	---	0.000	4		---	0.000	
Aroclor-1262 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000	1		---	0.000	
Aroclor-1268 2	---	0.000	2		---	0.000	
Aroclor-1268 3	---	0.000	3		---	0.000	
Aroclor-1268 4	---	0.000	4		---	0.000	
Aroclor-1268 5	---	0.000	5		---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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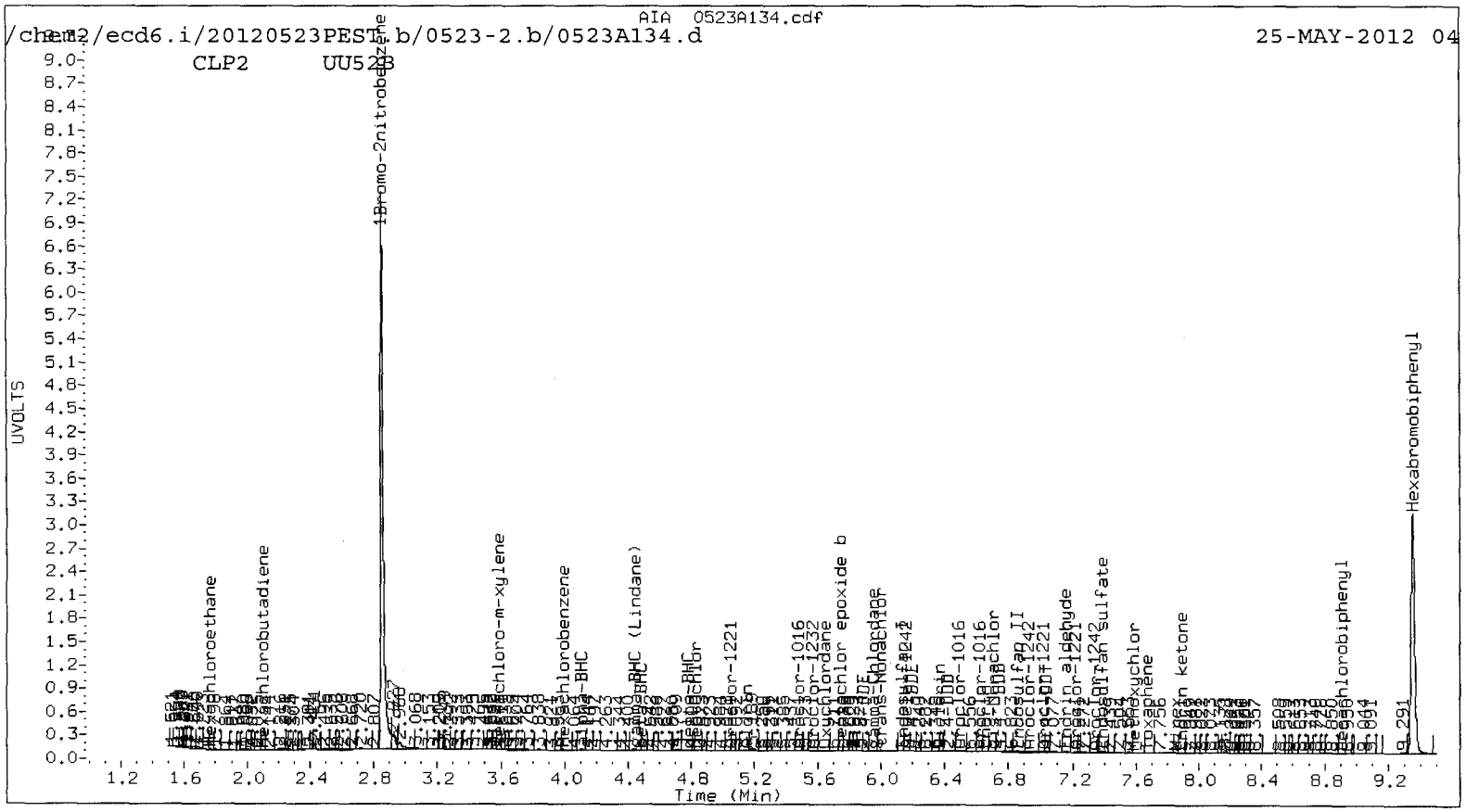
0523A134.cdf
25-MAY-2012 04
STX-CLP UU52B
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl
Decachlorobiphenyl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AIA 0523A134.cdf
25-MAY-2012 04
CLP2 UU52B
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A135.d ARI ID: UU52C
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A135.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 04:46
Compound Sublist: wpest Report Date: 05/25/2012 08:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 5000.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4528822	2.854	-0.001	17351744	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
----			4.107	-0.001	7783	0.0000	0.0263	---	alpha-BHC
----			4.497	-0.005	9876	0.0000	0.0869	---	beta-BHC
----			4.779	-0.003	10285	0.0000	0.0488	---	delta-BHC
4.113	0.007	1277	4.464	0.035	18099	0.0168	0.0718	124.0*	gamma-BHC (Lindane)
----			4.842	-0.007	7048	0.0000	0.0278	---	Heptachlor
4.775	-0.012	3870	5.189	0.019	108992	0.0504	0.4956	163.1*	Aldrin
5.358	0.013	5846	5.715	-0.018	34196	0.0855	0.1603	60.8*	Heptachlor epoxide b
5.739	0.018	1652	6.137	0.020	14666	0.0179	0.0790	126.0*	Endosulfan I
5.945	-0.001	2778	6.373	-0.004	12440	0.0378	0.0648	52.6*	Dieldrin
5.676	0.007	1439	6.220	0.012	11248	0.0310	0.0663	72.6*	4,4'-DDE
----			6.664	-0.001	15189	0.0000	0.0865	---	Endrin
6.372	0.001	2166	6.855	-0.002	15863	0.0312	0.0892	96.4*	Endosulfan II
6.234	0.007	3771	6.746	-0.003	24865	0.0671	0.1695	86.6*	4,4'-DDD
7.105	-0.032	1342	7.395	-0.009	8355	0.0220	0.0612	94.3*	Endosulfan sulfate
6.489	0.006	3192	7.025	-0.009	15777	0.0517	0.1093	71.5*	4,4'-DDT
6.925	0.002	5512	7.649	0.020	3375	0.1752	0.0535	106.4*	Methoxychlor
7.411	0.023	9974	7.882	0.001	22815	0.1287	0.1297	0.7	Endrin ketone
6.754	0.005	3325	7.156	-0.002	9000	0.0593	0.0665	11.4	Endrin aldehyde
5.506	0.037	5566	5.916	-0.002	7169	0.0751	0.0362	69.9*	gamma-Chlordane
5.632	0.038	2119	6.039	-0.019	17980	0.0301	0.0954	104.2*	alpha-Chlordane
2.067	0.013	5280	2.106	-0.006	7181	0.0529	0.0224	81.0*	Hexachlorobutadiene
----			3.992	-0.003	11125	0.0000	0.0412	---	Hexachlorobenzene
5.288	0.036	2386	----			0.0388	0.0000	---	Oxychlordane
----			5.872	-0.037	3433	0.0000	0.0311	---	2,4-DDE
5.574	-0.006	4337	6.013	0.007	16271	0.0552	0.0781	34.4	trans-Nonachlor
----			6.416	0.017	11320	0.0000	0.0973	---	2,4-DDD
6.047	-0.021	1025	----			0.0195	0.0000	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
----			7.851	-0.012	3931	0.0000	0.0311	---	Mirex
8.389	0.000	6642351	9.353	-0.003	10223208	80.0000	80.0000	0.0	Hexabromobiphenyl
1.720	0.001	739	1.770	0.000	10071	0.0000	0.0000	---	Hexachloroethane
3.409	0.003	2353	3.589	0.001	3752	0.0351	0.0174	67.4*	Tetrachloro-m-xylene
8.253	0.002	6737	8.907	-0.001	4797	0.0903	0.0339	90.8*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.1	0.0	0.0~	130- 0
Decachlorobiphenyl	0.2	0.1	0.1~	130- 0

~ Indicates recovery outside QC Limits

CD

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4528822	-6.5
Hexabromobiphenyl	6506091	6642351	2.1

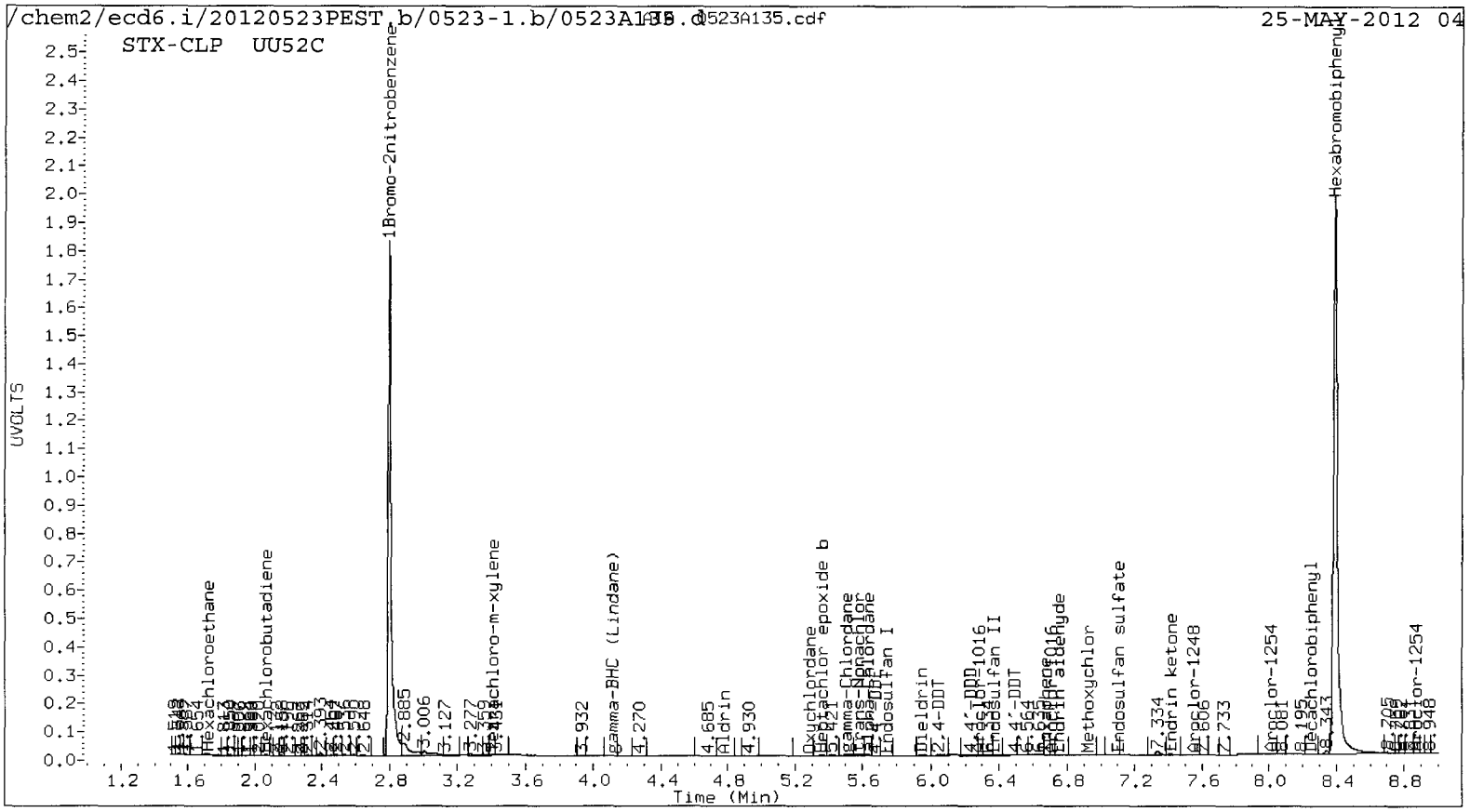
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	17351744	6.9
Hexabromobiphenyl	8472750	10223208	20.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	6.623	0.017	7020	1.263
Toxaphene	2	6.489	0.014	3192	1.320	2	6.928	-0.003	40489	4.882
Toxaphene	3	6.674	0.001	4091	1.836	3	7.156	-0.009	9000	1.032
Toxaphene	4	6.925	0.047	5512	2.300	4	7.649	0.023	3375	0.487
Toxaphene	5	7.105	0.050	1342	0.368	5	7.680	0.011	15155	1.606
Toxaphene	6	7.411	0.036	9974	3.895	NS	---			----
	Total STX-CLPAve (5 peaks): 1.944					Total CLP2Ave (5 peaks): 1.854			RPD = 5	
	Corrected Ave (4 peaks): 1.456					Corrected Ave (4 peaks): 1.097			RPD = 28	
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1248	1	---	0.000	1	---		0.000
Aroclor-1248	2	---	0.000	2	---		0.000
Aroclor-1248	3	---	0.000	3	---		0.000
Aroclor-1248	4	---	0.000	4	---		0.000
Aroclor-1248	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1254	1	---	0.000	1	---		0.000
Aroclor-1254	2	---	0.000	2	---		0.000
Aroclor-1254	3	---	0.000	3	---		0.000
Aroclor-1254	4	---	0.000	4	---		0.000
Aroclor-1254	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1260	1	---	0.000	1	---		0.000
Aroclor-1260	2	---	0.000	2	---		0.000
Aroclor-1260	3	---	0.000	3	---		0.000
Aroclor-1260	4	---	0.000	4	---		0.000
Aroclor-1260	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1262	1	---	0.000	1	---		0.000
Aroclor-1262	2	---	0.000	2	---		0.000
Aroclor-1262	3	---	0.000	3	---		0.000
Aroclor-1262	4	---	0.000	4	---		0.000
Aroclor-1262	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1268	1	---	0.000	1	---		0.000
Aroclor-1268	2	---	0.000	2	---		0.000
Aroclor-1268	3	---	0.000	3	---		0.000
Aroclor-1268	4	---	0.000	4	---		0.000
Aroclor-1268	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	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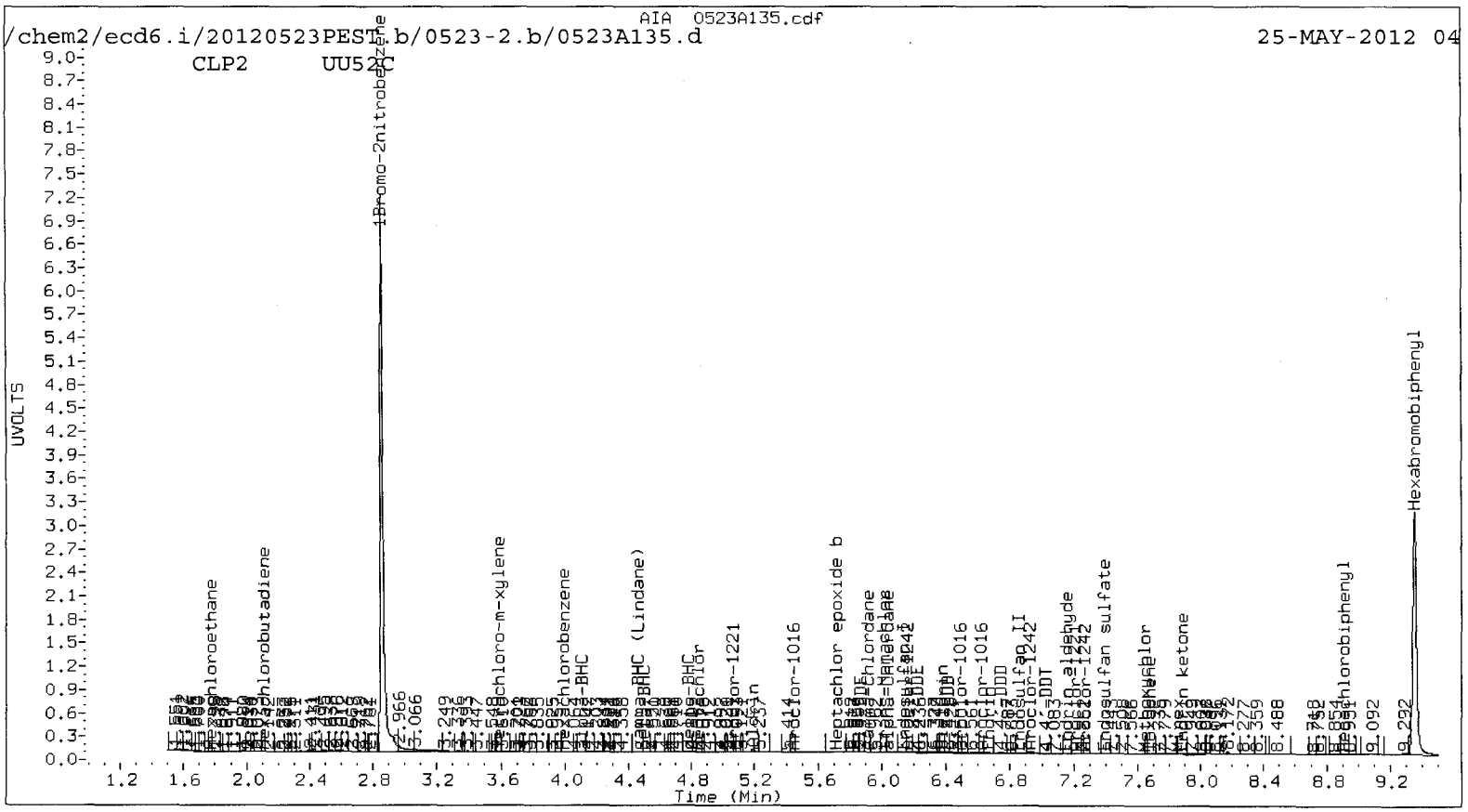
AIA 0523A135.cdf
25-MAY-2012 04
STX-CLP UU52C
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
1,3-Dichloro-m-xylene
gamma-BHC (Lindane)
Aldrin
Oxychlordane
Heptachlor epoxide b
trans-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Aroclor-1248
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A135.cdf
25-MAY-2012 04
CLP2 UU52C
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
1,3-Dichloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Aroclor-1221
Aroclor-1016
Heptachlor epoxide b
trans-Chlordane
Endosulfan I
4,4'-DDE
Aroclor-1016
Aroclor-1016
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Aroclor-1242
Endosulfan sulfate
Methoxychlor
Endrin ketone
Aroclor-1248
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A138.d ARI ID: UU52D
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A138.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 05:39
Compound Sublist: wpest Report Date: 05/25/2012 08:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	-0.001	4611525	2.853	-0.001	16504915	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.843	-0.003	4679	4.107	-0.001	12477	0.0509	0.0444	13.6	alpha-BHC
4.195	0.013	2309	4.486	-0.016	21273	0.0673	0.1968	98.1*	beta-BHC
4.329	-0.008	3666	4.782	0.000	39754	0.0546	0.1982	113.6*	delta-BHC
4.100	-0.006	2956	4.448	0.019	60650	0.0383	0.2529	147.4*	gamma-BHC (Lindane)
4.509	-0.009	8057	4.873	0.024	14121	0.0946	0.0585	47.1*	Heptachlor
4.814	0.026	3296	5.152	-0.019	29690	0.0422	0.1419	108.4*	Aldrin
5.353	0.007	4373	5.740	0.007	9381	0.0628	0.0462	30.5	Heptachlor epoxide b
5.706	-0.016	2174	6.130	0.013	35610	0.0231	0.2016	158.8*	Endosulfan I
5.944	-0.002	10350	6.373	-0.004	18106	0.1384	0.0992	33.0	Dieldrin
5.670	0.000	2906	6.206	-0.002	15461	0.0614	0.0957	43.7*	4,4'-DDE
6.121	-0.042	5930	6.665	0.001	25361	0.0836	0.1455	54.0*	Endrin
6.378	0.008	4290	6.851	-0.006	39942	0.0622	0.2261	113.8*	Endosulfan II
6.230	0.002	11223	6.743	-0.005	35927	0.2010	0.2466	20.4	4,4'-DDD
7.136	-0.002	4895	7.386	-0.018	14561	0.0807	0.1073	28.3	Endosulfan sulfate
6.513	0.030	8239	7.016	-0.017	47629	0.1344	0.3320	84.8*	4,4'-DDT
6.930	0.006	7187	7.602	-0.027	72783	0.2300	1.1614	133.9*	Methoxychlor
7.410	0.022	9687	7.885	0.003	79003	0.1259	0.4522	112.9*	Endrin ketone
6.757	0.008	7725	7.160	0.002	20783	0.1388	0.1545	10.7	Endrin aldehyde
5.480	0.010	17924	5.951	0.033	54937	0.2375	0.2918	20.5	gamma-Chlordane
5.619	0.025	4961	6.055	-0.003	22491	0.0691	0.1255	58.0*	alpha-Chlordane
2.041	-0.013	2632	2.105	-0.007	6543	0.0259	0.0214	18.8	Hexachlorobutadiene
3.725	0.008	4424	3.991	-0.004	14127	0.0697	0.0550	23.6	Hexachlorobenzene
5.242	-0.010	7336	5.642	-0.002	14563	0.1202	0.0903	28.4	Oxychlordane
5.325	-0.017	2952	5.907	-0.002	19205	0.0687	0.1829	90.8*	2,4-DDE
5.559	-0.021	9431	5.999	-0.007	43410	0.1208	0.2097	53.8*	trans-Nonachlor
5.819	-0.011	3919	6.417	0.018	43729	0.0990	0.3783	117.1*	2,4-DDD
6.043	-0.026	9059	6.652	-0.033	14033	0.1736	0.1117	43.3*	2,4-DDT
6.199	0.002	3557	6.707	-0.027	8855	0.0412	0.0424	3.0	cis-Nonachlor
7.088	0.026	7153	7.851	-0.012	49631	0.1249	0.3956	104.0*	Mirex
8.388	-0.002	6596017	9.351	-0.004	10155427	80.0000	80.0000	0.0	Hexabromobiphenyl
1.720	0.000	663	1.770	0.000	10361	0.0000	0.0000	---	Hexachloroethane
3.409	0.003	13632	3.585	-0.003	27900	0.1998	0.1362	37.8	Tetrachloro-m-xylene
8.254	0.003	27328	8.906	-0.003	21940	0.3688	0.1561	81.1*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.5	0.3	0.3~	130- 0
Decachlorobiphenyl	0.9	0.4	0.4~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4611525	-4.8
Hexabromobiphenyl	6506091	6596017	1.4

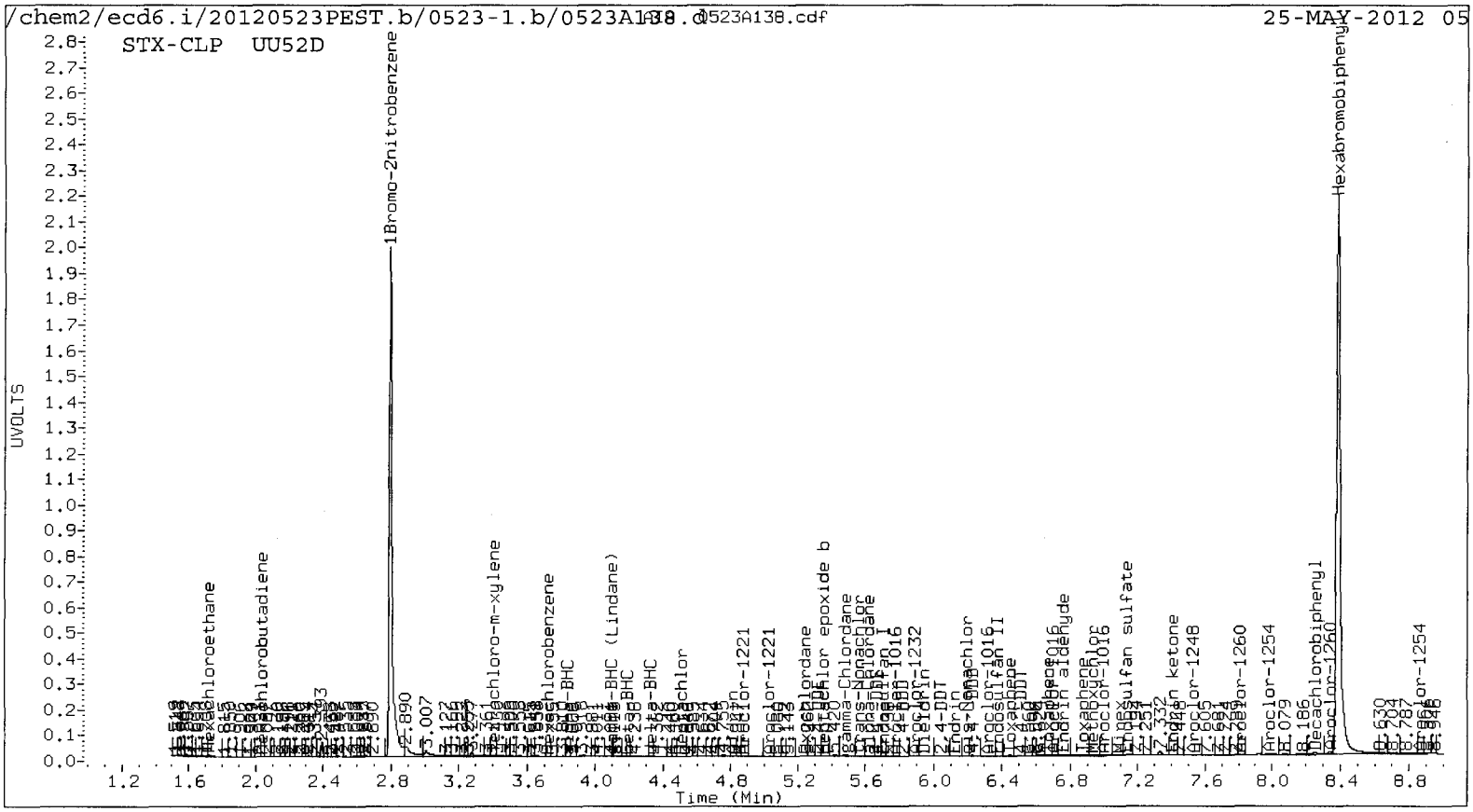
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16504915	1.7
Hexabromobiphenyl	8472750	10155427	19.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.448	0.024	7624	2.432	1	6.623	0.017	12997	2.354
Toxaphene	2	---			0.000	2	6.925	-0.006	55107	6.689
Toxaphene	3	6.675	0.001	10052	4.542	3	7.160	-0.005	20783	2.400
Toxaphene	4	6.874	-0.004	17377	7.300	4	7.602	-0.024	72783	10.572
Toxaphene	5	7.088	0.033	7153	1.972	5	7.669	-0.001	62554	6.673
Toxaphene	6	7.410	0.035	9687	3.810	NS	---			----
Total STX-CLPAve (5 peaks): 4.011						Total CLP2Ave (5 peaks): 5.738				RPD = 35
Corrected Ave (4 peaks): 3.189						Corrected Ave (4 peaks): 4.529				RPD = 35
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1248	1	---	0.000	1	---		0.000
Aroclor-1248	2	---	0.000	2	---		0.000
Aroclor-1248	3	---	0.000	3	---		0.000
Aroclor-1248	4	---	0.000	4	---		0.000
Aroclor-1248	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1254	1	---	0.000	1	---		0.000
Aroclor-1254	2	---	0.000	2	---		0.000
Aroclor-1254	3	---	0.000	3	---		0.000
Aroclor-1254	4	---	0.000	4	---		0.000
Aroclor-1254	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1260	1	---	0.000	1	---		0.000
Aroclor-1260	2	---	0.000	2	---		0.000
Aroclor-1260	3	---	0.000	3	---		0.000
Aroclor-1260	4	---	0.000	4	---		0.000
Aroclor-1260	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1262	1	---	0.000	1	---		0.000
Aroclor-1262	2	---	0.000	2	---		0.000
Aroclor-1262	3	---	0.000	3	---		0.000
Aroclor-1262	4	---	0.000	4	---		0.000
Aroclor-1262	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1268	1	---	0.000	1	---		0.000
Aroclor-1268	2	---	0.000	2	---		0.000
Aroclor-1268	3	---	0.000	3	---		0.000
Aroclor-1268	4	---	0.000	4	---		0.000
Aroclor-1268	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	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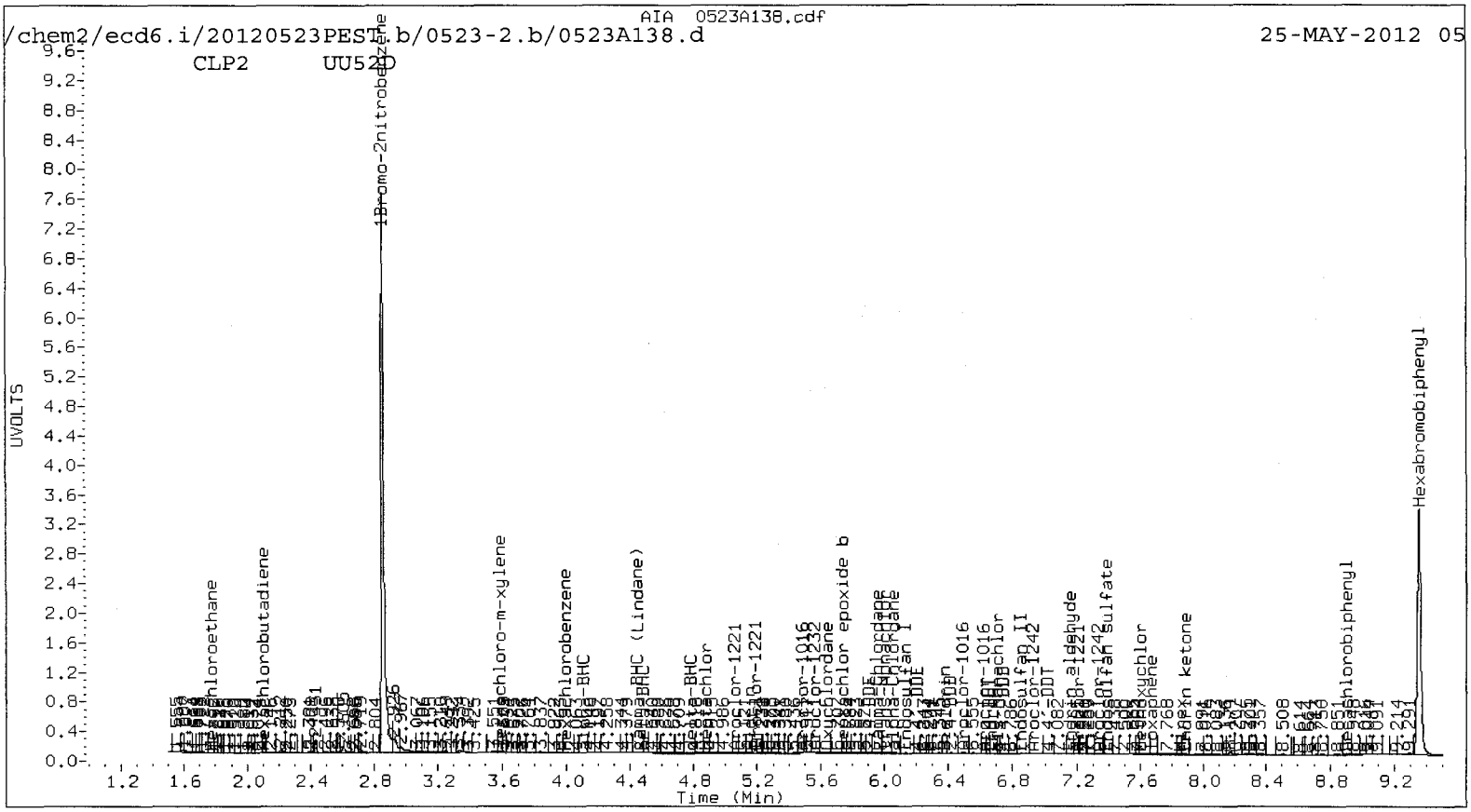
AIA 0523A138.cdf
25-MAY-2012 05
STX-CLP UU52D
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
1,3-Dichloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Heptachlor epoxide b
Chlordane
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDT
Endrin
Endosulfan II
Endrin aldehyde
Endosulfan sulfate
4,4'-DDD
Endrin ketone
Methoxychlor
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A138.cdf
25-MAY-2012 05
CLP2 UU52D
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
1,3-Dichloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Heptachlor epoxide b
Chlordane
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDT
Endrin
Endosulfan II
Endrin aldehyde
Endosulfan sulfate
4,4'-DDD
Endrin ketone
Methoxychlor
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A139.d ARI ID: UU52E
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A139.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 05:57
Compound Sublist: wpest Report Date: 05/25/2012 08:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4552402	2.854	-0.001	16594344	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.843	-0.004	3851	4.108	0.000	13164	0.0424	0.0466	9.4	alpha-BHC
4.194	0.012	2697	4.541	0.039	30995	0.0796	0.2851	112.7*	beta-BHC
4.336	-0.001	3369	4.783	0.001	47784	0.0508	0.2369	129.3*	delta-BHC
4.119	0.013	7876	4.445	0.017	80821	0.1034	0.3352	105.7*	gamma-BHC (Lindane)
4.510	-0.008	6639	4.835	-0.014	15676	0.0789	0.0646	20.0	Heptachlor
4.814	0.027	3996	5.153	-0.017	25813	0.0518	0.1227	81.3*	Aldrin
5.353	0.008	5027	5.743	0.010	11995	0.0732	0.0588	21.8	Heptachlor epoxide b
5.714	-0.008	1439	6.123	0.006	19807	0.0155	0.1115	151.1*	Endosulfan I
5.944	-0.002	7339	6.371	-0.006	18601	0.0994	0.1013	1.9	Dieldrin
5.672	0.002	2638	6.200	-0.008	10821	0.0565	0.0667	16.5	4,4'-DDE
6.129	-0.034	1161	6.655	-0.009	7879	0.0165	0.0452	93.2*	Endrin
6.339	-0.031	1398	6.848	-0.009	43067	0.0204	0.2438	169.2*	Endosulfan II
6.231	0.004	4982	6.741	-0.008	37520	0.0897	0.2576	96.7*	4,4'-DDD
7.140	0.002	2641	7.382	-0.023	27045	0.0437	0.1993	128.0*	Endosulfan sulfate
6.450	-0.033	3014	7.014	-0.020	37187	0.0494	0.2593	136.0*	4,4'-DDT
6.879	-0.044	17397	7.645	0.016	37623	0.5596	0.6004	7.0	Methoxychlor
7.410	0.022	7986	7.886	0.004	88959	0.1043	0.5092	132.0*	Endrin ketone
6.757	0.009	3455	7.160	0.002	19723	0.0624	0.1466	80.6*	Endrin aldehyde
5.485	0.015	11188	5.950	0.032	33899	0.1502	0.1791	17.5	gamma-Chlordane
----			----			0.0000	0.0000	---	alpha-Chlordane
2.040	-0.013	2446	2.104	-0.008	16519	0.0244	0.0539	75.4*	Hexachlorobutadiene
3.723	0.007	4165	3.992	-0.003	15343	0.0665	0.0595	11.2	Hexachlorobenzene
5.242	-0.010	13852	5.650	0.006	37247	0.2281	0.2296	0.7	Oxychlordane
----			5.907	-0.002	12757	0.0000	0.1208	---	2,4-DDE
5.562	-0.019	24151	6.001	-0.005	85131	0.3109	0.4113	27.8	trans-Nonachlor
5.811	-0.019	1663	6.423	0.024	47618	0.0422	0.4120	162.8*	2,4-DDD
6.038	-0.031	1800	6.672	-0.013	17005	0.0347	0.1354	118.5*	2,4-DDT
6.197	-0.001	1974	6.700	-0.034	14099	0.0230	0.0675	98.5*	cis-Nonachlor
7.065	0.002	2672	7.851	-0.012	59791	0.0469	0.4766	164.2*	Mirex
8.387	-0.002	6562955	9.351	-0.004	10154249	80.0000	80.0000	0.0	Hexabromobiphenyl
1.720	0.001	753	1.770	0.000	13040	0.0000	0.0000	---	Hexachloroethane
3.409	0.003	10477	3.585	-0.003	27212	0.1555	0.1321	16.3	Tetrachloro-m-xylene
8.255	0.004	27347	8.906	-0.003	21220	0.3709	0.1510	84.3*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.4	0.3	0.3~	130- 0
Decachlorobiphenyl	0.9	0.4	0.4~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4552402	-6.0
Hexabromobiphenyl	6506091	6562955	0.9

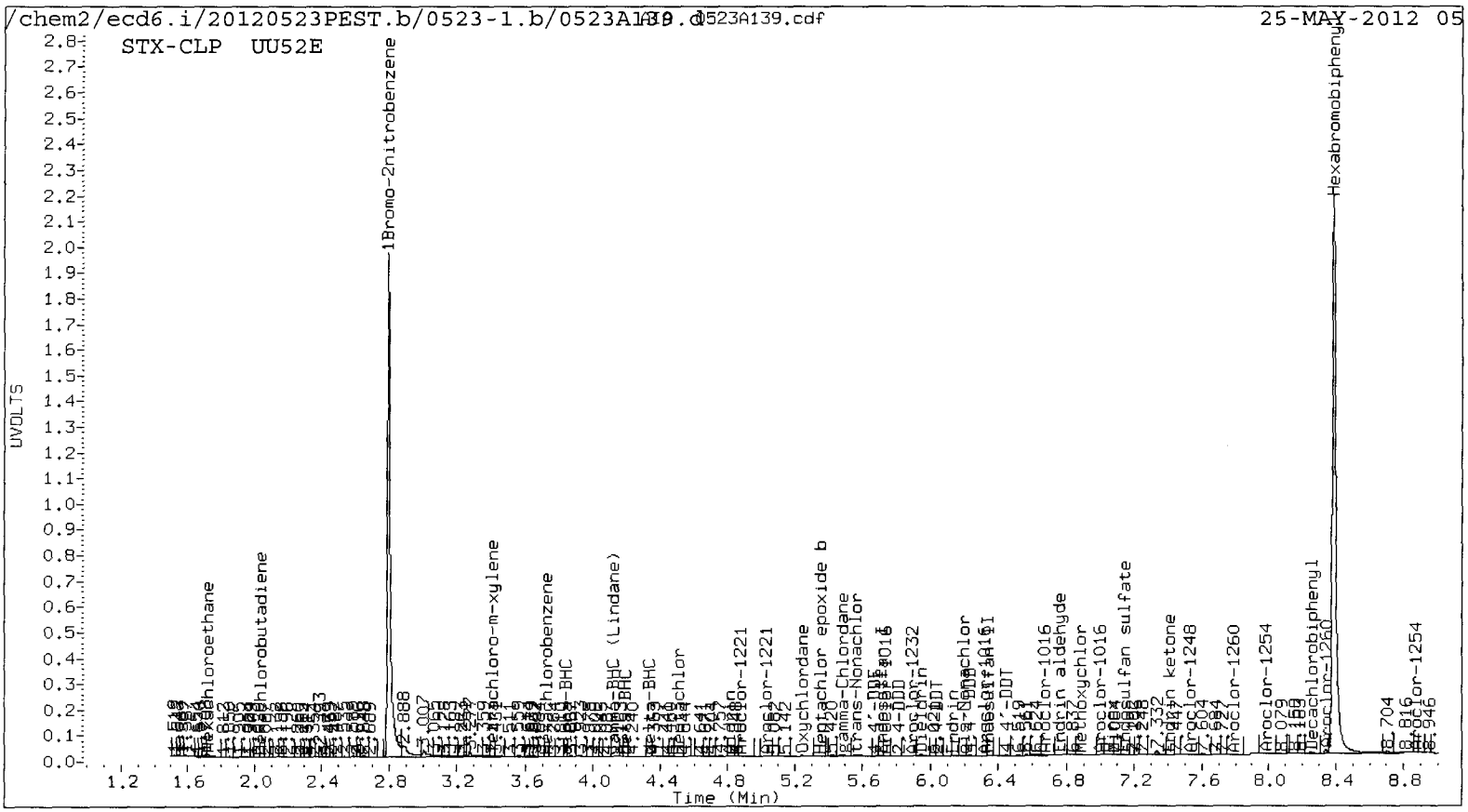
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16594344	2.3
Hexabromobiphenyl	8472750	10154249	19.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.450	0.026	3014	0.966	1	6.619	0.012	23156	4.195
Toxaphene	2	---			0.000	2	6.924	-0.007	60494	7.344
Toxaphene	3	6.674	0.001	8247	3.745	3	7.160	-0.006	19723	2.278
Toxaphene	4	6.879	0.002	17397	7.345	4	7.645	0.019	37623	5.466
Toxaphene	5	7.065	0.010	2672	0.740	5	7.668	-0.002	72872	7.775
Toxaphene	6	7.410	0.035	7986	3.157	NS	---			----
Total STX-CLPAve (5 peaks): 3.191						Total CLP2Ave (5 peaks): 5.411				RPD = 52*
Corrected Ave (4 peaks): 2.152						Corrected Ave (5 peaks): 5.411				RPD = 86*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000		1	---	0.000	
Aroclor-1248 2	---	0.000		2	---	0.000	
Aroclor-1248 3	---	0.000		3	---	0.000	
Aroclor-1248 4	---	0.000		4	---	0.000	
Aroclor-1248 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000		1	---	0.000	
Aroclor-1254 2	---	0.000		2	---	0.000	
Aroclor-1254 3	---	0.000		3	---	0.000	
Aroclor-1254 4	---	0.000		4	---	0.000	
Aroclor-1254 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000		1	---	0.000	
Aroclor-1260 2	---	0.000		2	---	0.000	
Aroclor-1260 3	---	0.000		3	---	0.000	
Aroclor-1260 4	---	0.000		4	---	0.000	
Aroclor-1260 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000		1	---	0.000	
Aroclor-1262 2	---	0.000		2	---	0.000	
Aroclor-1262 3	---	0.000		3	---	0.000	
Aroclor-1262 4	---	0.000		4	---	0.000	
Aroclor-1262 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000		1	---	0.000	
Aroclor-1268 2	---	0.000		2	---	0.000	
Aroclor-1268 3	---	0.000		3	---	0.000	
Aroclor-1268 4	---	0.000		4	---	0.000	
Aroclor-1268 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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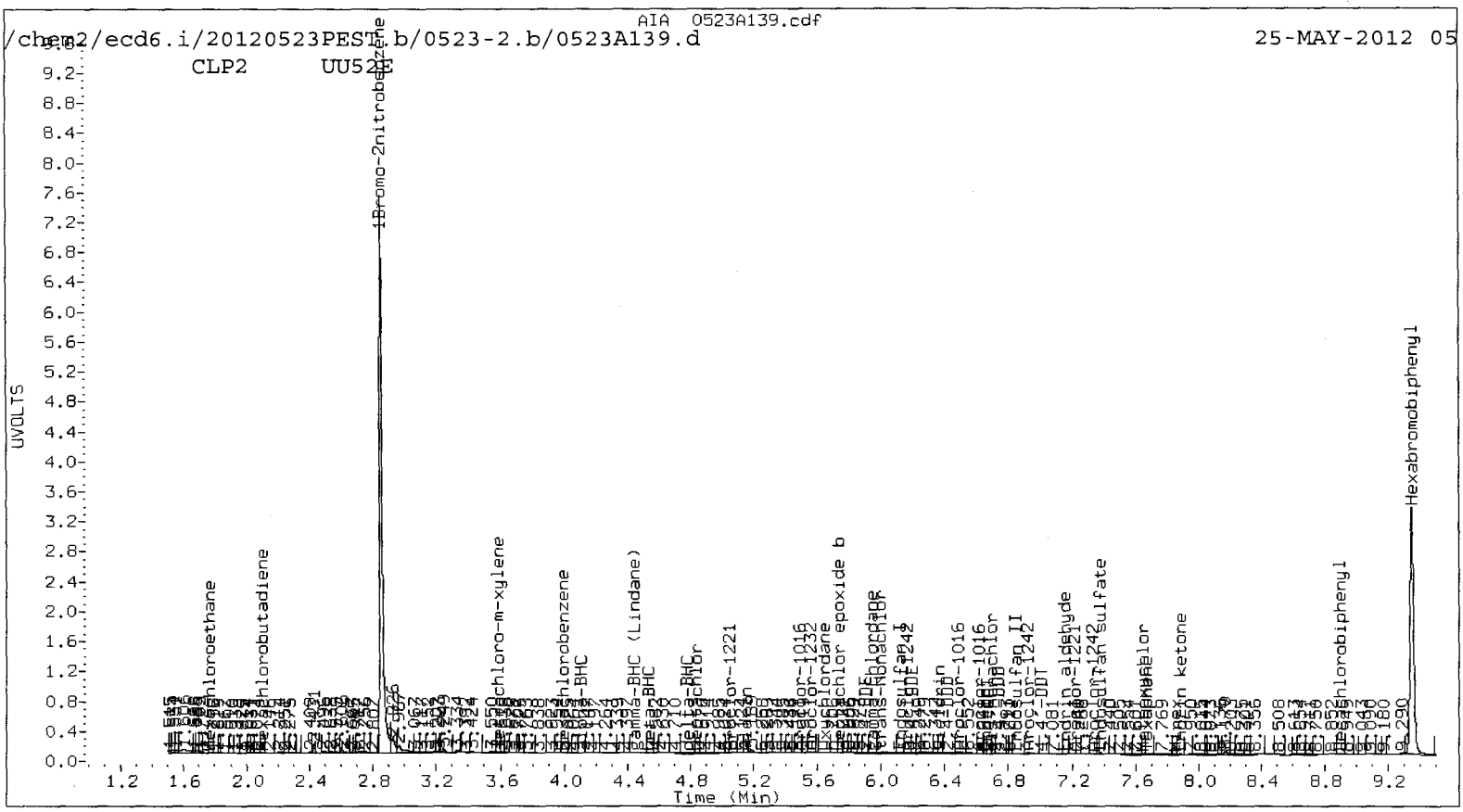
25-MAY-2012 05
STX-CLP UU52E
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl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25-MAY-2012 05
CLP2 UU52E
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A140.d ARI ID: UU52F
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A140.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 06:15
Compound Sublist: wpest Report Date: 05/25/2012 08:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4643697	2.853	-0.001	16826089	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.845	-0.002	5388	4.108	0.000	27290	0.0582	0.0953	48.4*	alpha-BHC
4.172	-0.010	3249	4.485	-0.017	26419	0.0940	0.2397	87.3*	beta-BHC
4.329	-0.008	2180	4.781	-0.001	35693	0.0323	0.1745	137.6*	delta-BHC
4.075	-0.031	6691	4.441	0.013	18828	0.0861	0.0770	11.1	gamma-BHC (Lindane)
4.522	0.004	4027	4.821	-0.028	27657	0.0469	0.1124	82.2*	Heptachlor
4.808	0.021	3126	5.155	-0.016	29222	0.0397	0.1370	110.1*	Aldrin
5.357	0.011	2947	5.749	0.016	28615	0.0421	0.1383	106.7*	Heptachlor epoxide b
5.711	-0.011	1446	6.110	-0.008	2777	0.0153	0.0154	0.8	Endosulfan I
5.943	-0.003	9038	6.371	-0.006	10773	0.1200	0.0579	69.9*	Dieldrin
5.672	0.003	3155	6.204	-0.005	7843	0.0662	0.0476	32.6	4,4'-DDE
6.140	-0.023	1447	6.655	-0.009	17863	0.0202	0.1021	133.9*	Endrin
6.375	0.004	2207	6.852	-0.006	35054	0.0317	0.1977	144.8*	Endosulfan II
6.231	0.004	7667	6.746	-0.003	22227	0.1360	0.1520	11.1	4,4'-DDD
7.139	0.001	1763	7.383	-0.021	15551	0.0288	0.1142	119.5*	Endosulfan sulfate
6.489	0.005	1658	7.019	-0.015	31952	0.0268	0.2219	156.9*	4,4'-DDT
6.886	-0.037	16929	7.647	0.018	12305	0.5366	0.1956	93.1*	Methoxychlor
7.408	0.020	7826	7.887	0.005	77924	0.1008	0.4443	126.1*	Endrin ketone
6.758	0.010	3416	7.158	0.000	15130	0.0608	0.1120	59.3*	Endrin aldehyde
5.483	0.013	13083	5.955	0.037	36923	0.1722	0.1924	11.1	gamma-Chlordane
----			6.069	0.011	16099	0.0000	0.0881	---	alpha-Chlordane
2.041	-0.013	3681	2.105	-0.008	14776	0.0360	0.0475	27.7	Hexachlorobutadiene
3.725	0.008	5483	3.994	-0.001	10871	0.0859	0.0416	69.5*	Hexachlorobenzene
5.242	-0.010	12368	5.650	0.006	30160	0.2007	0.1834	9.0	Oxychlordane
5.326	-0.015	2700	5.899	-0.010	6214	0.0622	0.0580	6.9	2,4-DDE
5.562	-0.019	24635	6.001	-0.005	70732	0.3125	0.3404	8.5	trans-Nonachlor
5.812	-0.018	2429	6.420	0.021	41272	0.0607	0.3557	141.7*	2,4-DDD
6.043	-0.026	5866	----			0.1113	0.0000	---	2,4-DDT
6.199	0.001	2983	6.711	-0.023	28549	0.0342	0.1362	119.8*	cis-Nonachlor
7.061	-0.002	5198	----			0.0899	0.0000	---	Mirex
8.387	-0.002	6659647	9.352	-0.004	10193857	80.0000	80.0000	0.0	Hexabromobiphenyl
1.720	0.001	774	1.770	0.000	13433	0.0000	0.0000	---	Hexachloroethane
3.408	0.002	13649	3.586	-0.002	24642	0.1987	0.1180	50.9*	Tetrachloro-m-xylene
8.250	0.000	15144	8.907	-0.002	20510	0.2024	0.1453	32.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.5	0.3	0.3~	130- 0
Decachlorobiphenyl	0.5	0.4	0.4~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4643697	-4.1
Hexabromobiphenyl	6506091	6659647	2.4

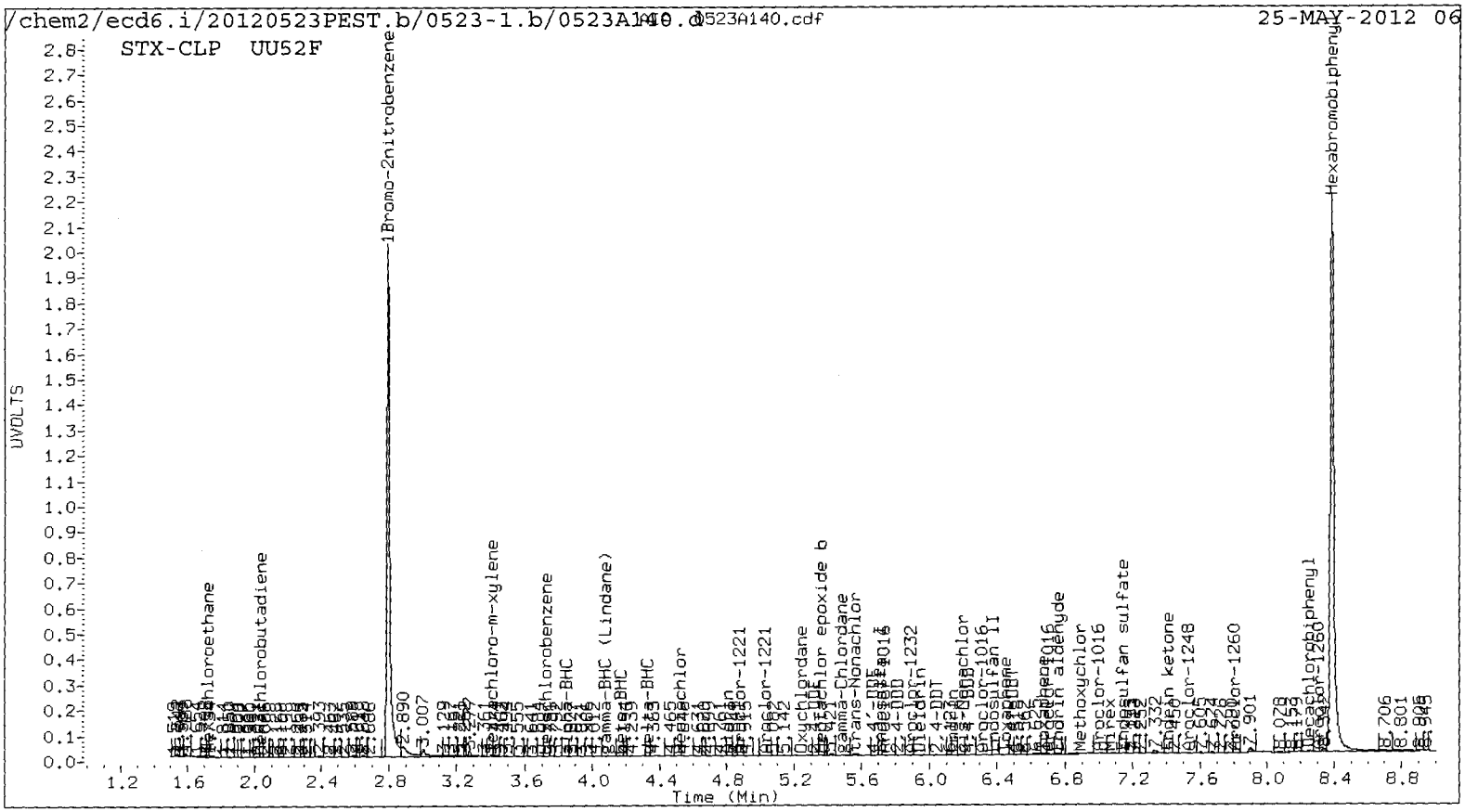
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16826089	3.7
Hexabromobiphenyl	8472750	10193857	20.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.451	0.027	3429	1.083	1	6.621	0.014	16361	2.953
Toxaphene	2	6.489	0.014	1658	0.684	2	6.925	-0.006	54713	6.616
Toxaphene	3	6.674	0.000	6117	2.738	3	7.158	-0.007	15130	1.740
Toxaphene	4	6.886	0.009	16929	7.044	4	7.647	0.022	12305	1.781
Toxaphene	5	7.061	0.005	5198	1.419	5	7.673	0.004	69981	7.438
Toxaphene	6	7.408	0.033	7826	3.048	NS	---			----
Total STX-CLPAve (6 peaks): 2.669						Total CLP2Ave (5 peaks): 4.106				RPD = 42*
Corrected Ave (5 peaks): 1.794						Corrected Ave (4 peaks): 3.273				RPD = 58*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000		1	---	0.000	
Aroclor-1248 2	---	0.000		2	---	0.000	
Aroclor-1248 3	---	0.000		3	---	0.000	
Aroclor-1248 4	---	0.000		4	---	0.000	
Aroclor-1248 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000		1	---	0.000	
Aroclor-1254 2	---	0.000		2	---	0.000	
Aroclor-1254 3	---	0.000		3	---	0.000	
Aroclor-1254 4	---	0.000		4	---	0.000	
Aroclor-1254 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000		1	---	0.000	
Aroclor-1260 2	---	0.000		2	---	0.000	
Aroclor-1260 3	---	0.000		3	---	0.000	
Aroclor-1260 4	---	0.000		4	---	0.000	
Aroclor-1260 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000		1	---	0.000	
Aroclor-1262 2	---	0.000		2	---	0.000	
Aroclor-1262 3	---	0.000		3	---	0.000	
Aroclor-1262 4	---	0.000		4	---	0.000	
Aroclor-1262 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000		1	---	0.000	
Aroclor-1268 2	---	0.000		2	---	0.000	
Aroclor-1268 3	---	0.000		3	---	0.000	
Aroclor-1268 4	---	0.000		4	---	0.000	
Aroclor-1268 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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UVOLTS
Time (Min)
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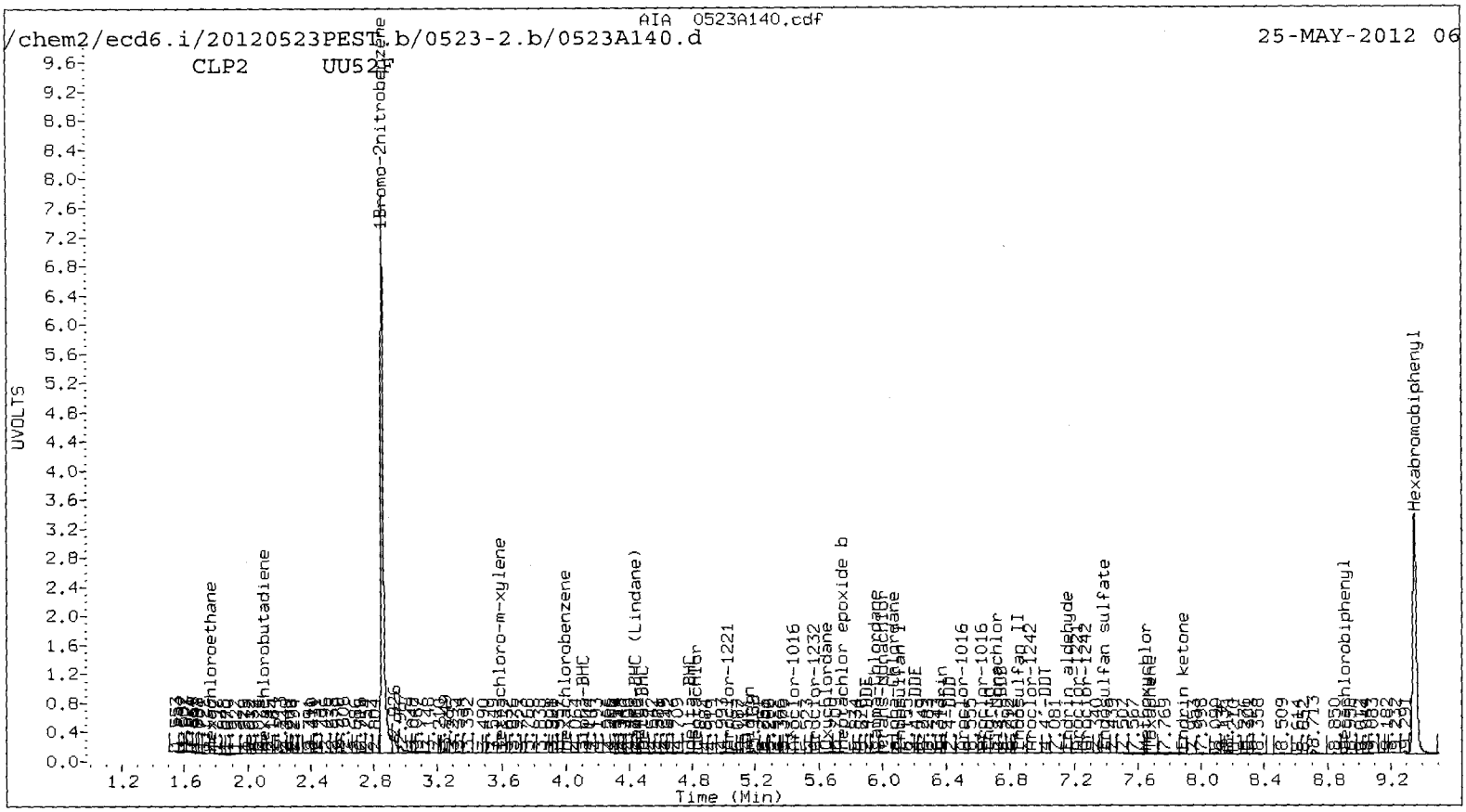
Hexabromobiphenyl
2.890
3.007
7.901
8.706
8.801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25-MAY-2012 06
CLP2 UU52F
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A144.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A144.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 07:26
Compound Sublist: INDA Report Date: 05/29/2012 09:49
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	5028638	2.854	-0.001	19069062	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.846	0.000	2116904	4.106	-0.002	6576226	21.0989	20.2524	4.1	alpha-BHC
4.184	0.002	752624	4.502	0.000	2369003	20.1110	18.9657	5.9	beta-BHC
4.340	0.003	1543084	4.782	-0.001	4674594	21.0802	20.1686	4.4	delta-BHC
4.106	0.000	1751234	4.426	-0.002	5467394	20.8072	19.7338	5.3	gamma-BHC (Lindane)
4.517	-0.001	1937976	4.847	-0.002	5318327	20.8590	19.0742	8.9	Heptachlor
4.787	-0.001	1788905	5.168	-0.003	4672957	20.9917	19.3361	8.2	Aldrin
5.345	-0.001	1528792	5.730	-0.003	4533481	20.1456	19.3364	4.1	Heptachlor epoxide b
5.721	0.000	2007777	6.115	-0.002	3923458	19.6012	19.2263	1.9	Endosulfan I
5.946	-0.001	3334314	6.375	-0.002	8176573	40.8842	38.7588	5.3	Dieldrin
5.672	0.003	2373843	6.208	0.000	7429971	46.0106	39.8235	14.4	4,4'-DDE
6.162	-0.001	3008597	6.662	-0.002	6819270	39.7946	36.1362	9.6	Endrin
6.370	0.000	2862405	6.855	-0.002	6855304	38.9024	35.8543	8.2	Endosulfan II
6.229	0.002	2467484	6.748	-0.001	5812679	41.4511	36.8603	11.7	4,4'-DDD
7.137	-0.001	2511883	7.402	-0.002	5330226	38.8301	36.2841	6.8	Endosulfan sulfate
6.484	0.001	2692681	7.033	-0.001	5847709	41.1886	37.6587	9.0	4,4'-DDT
6.924	0.000	6300337	7.627	-0.002	11049799	189.1603	162.9007	14.9	Methoxychlor
7.388	-0.001	3091964	7.879	-0.003	6896159	37.7029	36.4636	3.3	Endrin ketone
6.748	0.000	2274626	7.156	-0.002	5113133	38.3337	35.1116	8.8	Endrin aldehyde
5.470	0.000	1677424	5.916	-0.002	4322291	20.3855	19.8689	2.6	gamma-Chlordane
5.593	0.000	1439499	6.055	-0.002	4010259	18.3827	19.3703	5.2	alpha-Chlordane
2.052	-0.001	2223455	2.111	-0.001	6693966	20.0519	18.9898	5.4	Hexachlorobutadiene
3.719	0.002	1350309	3.995	0.000	5737891	19.5233	19.3510	0.9	Hexachlorobenzene
8.389	-0.004	7030803	9.353	-0.004	10992494	80.0000	80.0000	0.0	Hexabromobiphenyl
3.407	0.001	2958109	3.587	-0.001	9325221	39.7553	39.4073	0.9	Tetrachloro-m-xylene
8.249	-0.001	2903219	8.906	-0.003	5643035	36.7576	37.0811	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	99.4	98.5	98.5~	115- 0
Decachlorobiphenyl	91.9	92.7	91.9~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

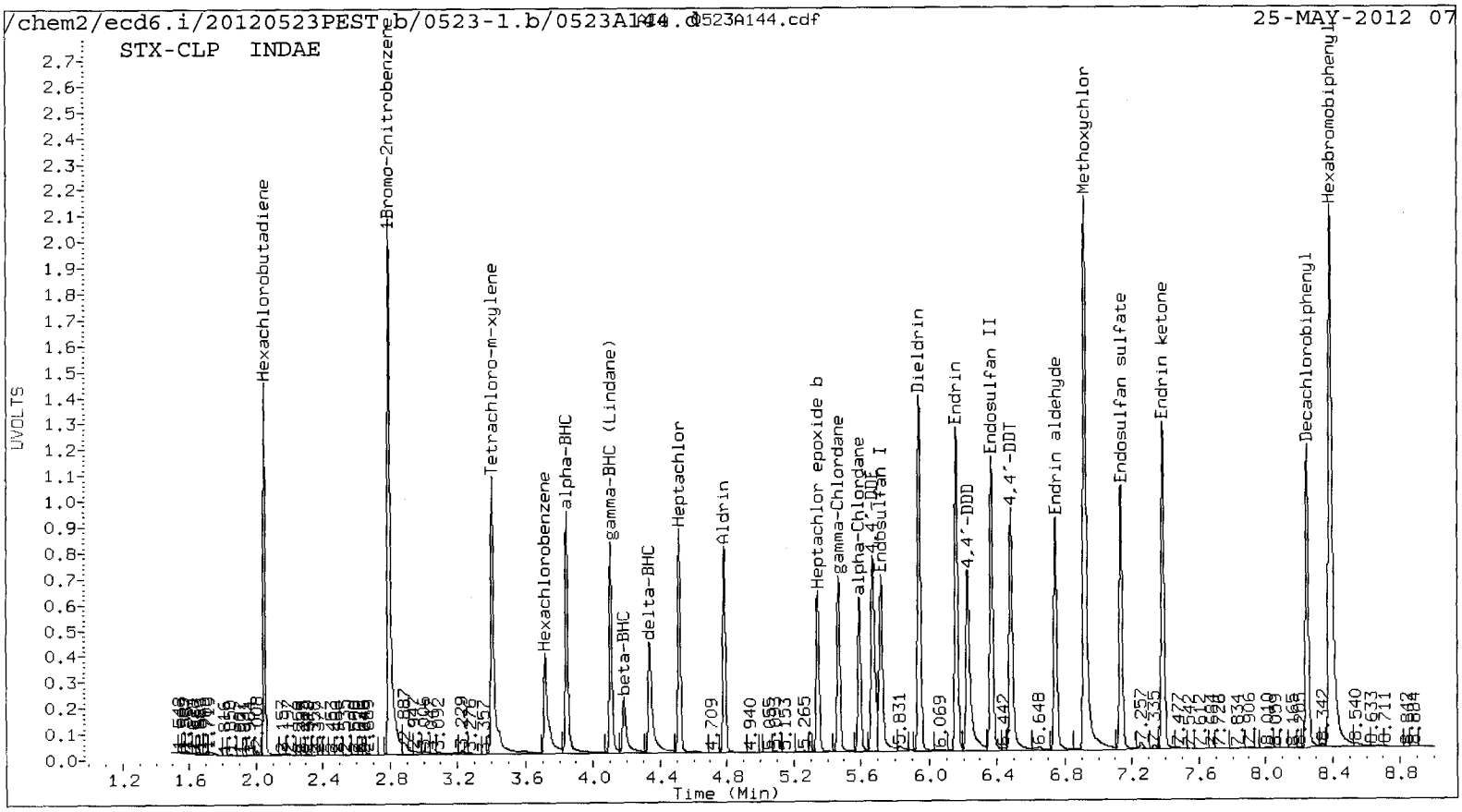
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5028638	3.9
Hexabromobiphenyl	6506091	7030803	8.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	19069062	17.5
Hexabromobiphenyl	8472750	10992494	29.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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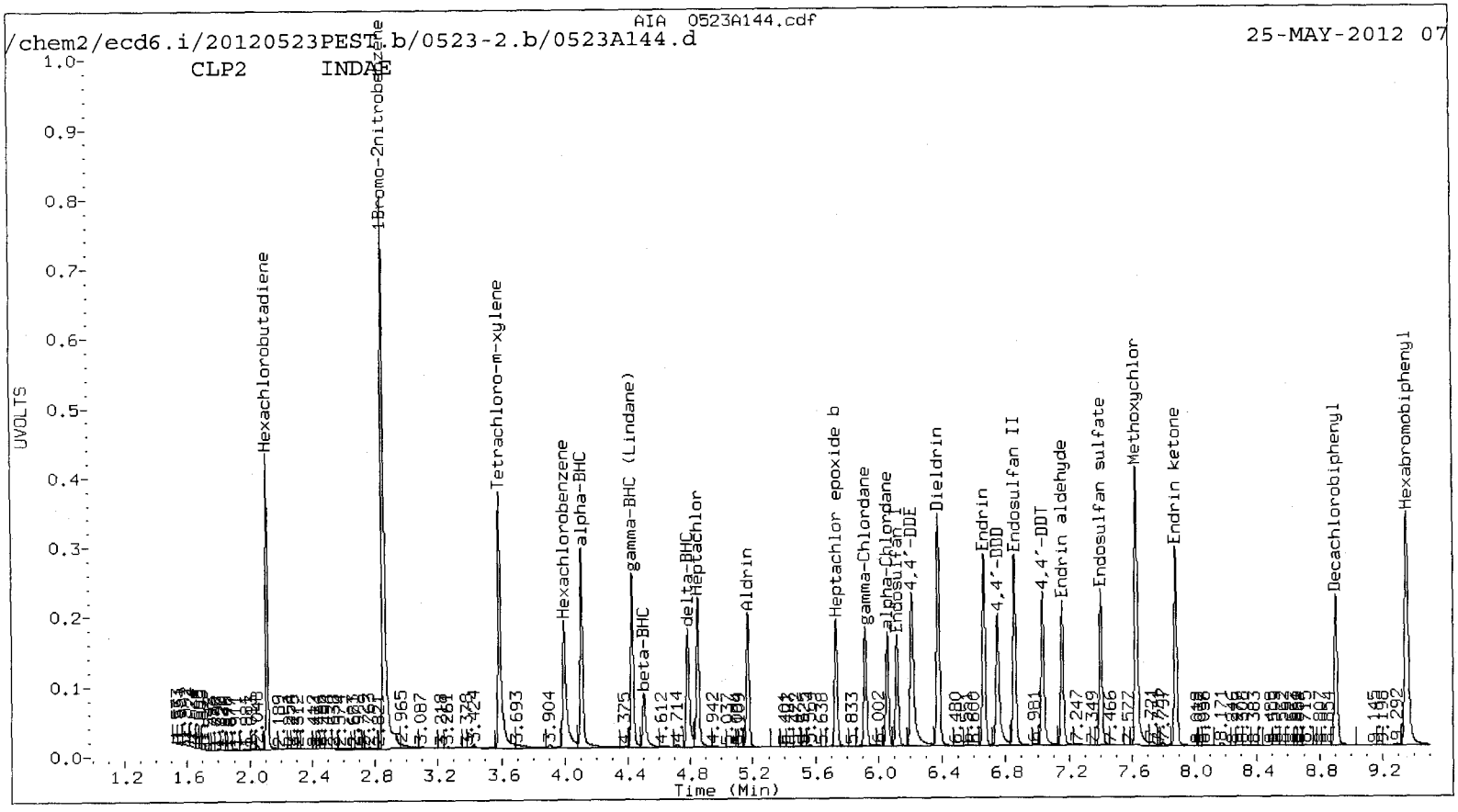
AIA 0523A144.cdf
25-MAY-2012 07
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A144.cdf
25-MAY-2012 07
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A147.d ARI ID: UU52G
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A147.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 08:19
Compound Sublist: wpest Report Date: 05/25/2012 12:35
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 100.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.794	-0.003	4585680	2.851	-0.003	14867921	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.844	-0.003	110170	4.102	-0.006	407063	1.2041	1.6078	28.7	alpha-BHC
4.204	0.022	357435	4.502	0.000	78950	10.4737	0.8107	171.3*	beta-BHC
4.325	-0.012	26095	4.771	-0.011	97302	0.3909	0.5384	31.7	delta-BHC
4.103	-0.004	14515	4.415	-0.014	698690	0.1891	3.2344	177.9*	gamma-BHC (Lindane)
4.544	0.026	33596	4.851	0.002	29550	0.3965	0.1359	97.9*	Heptachlor
4.775	-0.013	5115	5.185	0.014	98253	0.0658	0.5214	155.2*	Aldrin
5.382	0.036	25400	5.740	0.008	96438	0.3670	0.5276	35.9	Heptachlor epoxide b
5.731	0.009	28083	6.126	0.009	61317	0.3006	0.3854	24.7	Endosulfan I
5.942	-0.004	17887	6.363	-0.014	627370	0.2405	3.8142	176.3*	Dieldrin
5.673	0.003	58671	6.193	-0.015	53956	1.2470	0.3709	108.3*	4,4'-DDE
6.119	-0.044	26085	6.647	-0.017	31716	0.3959	0.2090	61.8*	Endrin
6.374	0.003	10019	6.856	-0.001	116032	0.1563	0.7545	131.4*	Endosulfan II
6.223	-0.005	197275	6.743	-0.006	193404	3.8028	1.5248	85.5*	4,4'-DDD
7.145	0.007	21543	7.430	0.026	10495	0.3821	0.0888	124.6*	Endosulfan sulfate
6.483	0.000	52582	7.029	-0.004	222141	0.9230	1.7786	63.3*	4,4'-DDT
6.947	0.024	17544	7.652	0.023	90994	0.6044	1.6678	93.6*	Methoxychlor
7.367	-0.021	35178	7.909	0.027	12947	0.4922	0.0851	141.0*	Endrin ketone
6.743	-0.005	141705	7.160	0.002	42111	2.7404	0.3595	153.6*	Endrin aldehyde
5.452	-0.017	40070	5.947	0.029	83006	0.5340	0.4894	8.7	gamma-Chlordane
5.612	0.018	16358	6.066	0.009	91159	0.2291	0.5647	84.6*	alpha-Chlordane
2.039	-0.014	32978	2.097	-0.016	27946	0.3261	0.1017	104.9*	Hexachlorobutadiene
3.719	0.002	18988	3.986	-0.008	51327	0.3011	0.2220	30.2	Hexachlorobenzene
5.205	-0.047	238600	5.626	-0.017	621930	4.2078	4.2798	1.7	Oxychlordane
5.333	-0.009	52527	5.889	-0.021	70620	1.3154	0.7464	55.2*	2,4-DDE
5.540	-0.040	397868	5.986	-0.020	888078	5.4858	4.9272	10.7	trans-Nonachlor
5.826	-0.004	8780	----			0.2386	0.0000	---	2,4-DDD
6.066	-0.002	2585	6.681	-0.004	133203	0.0533	1.2183	183.2*	2,4-DDT
----			6.705	-0.029	104056	0.0000	0.5725	---	cis-Nonachlor
7.040	-0.023	58807	7.857	-0.006	186141	1.1057	1.7041	42.6*	Mirex
8.384	-0.009	6127046	9.350	-0.007	8841689	80.0000	80.0000	0.0	Hexabromobiphenyl
1.719	-0.001	2219	1.769	-0.001	65220	0.0000	0.0000	---	Hexachloroethane
3.405	-0.001	190666	3.583	-0.005	100079	2.8100	0.5424	135.3*	Tetrachloro-m-xylene
8.272	0.021	203300	8.907	-0.001	56565	2.9536	0.4621	145.9*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	7.0	1.4	1.4~	130- 0
Decachlorobiphenyl	7.4	1.2	1.2~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4585680	-5.3
Hexabromobiphenyl	6506091	6127046	-5.8

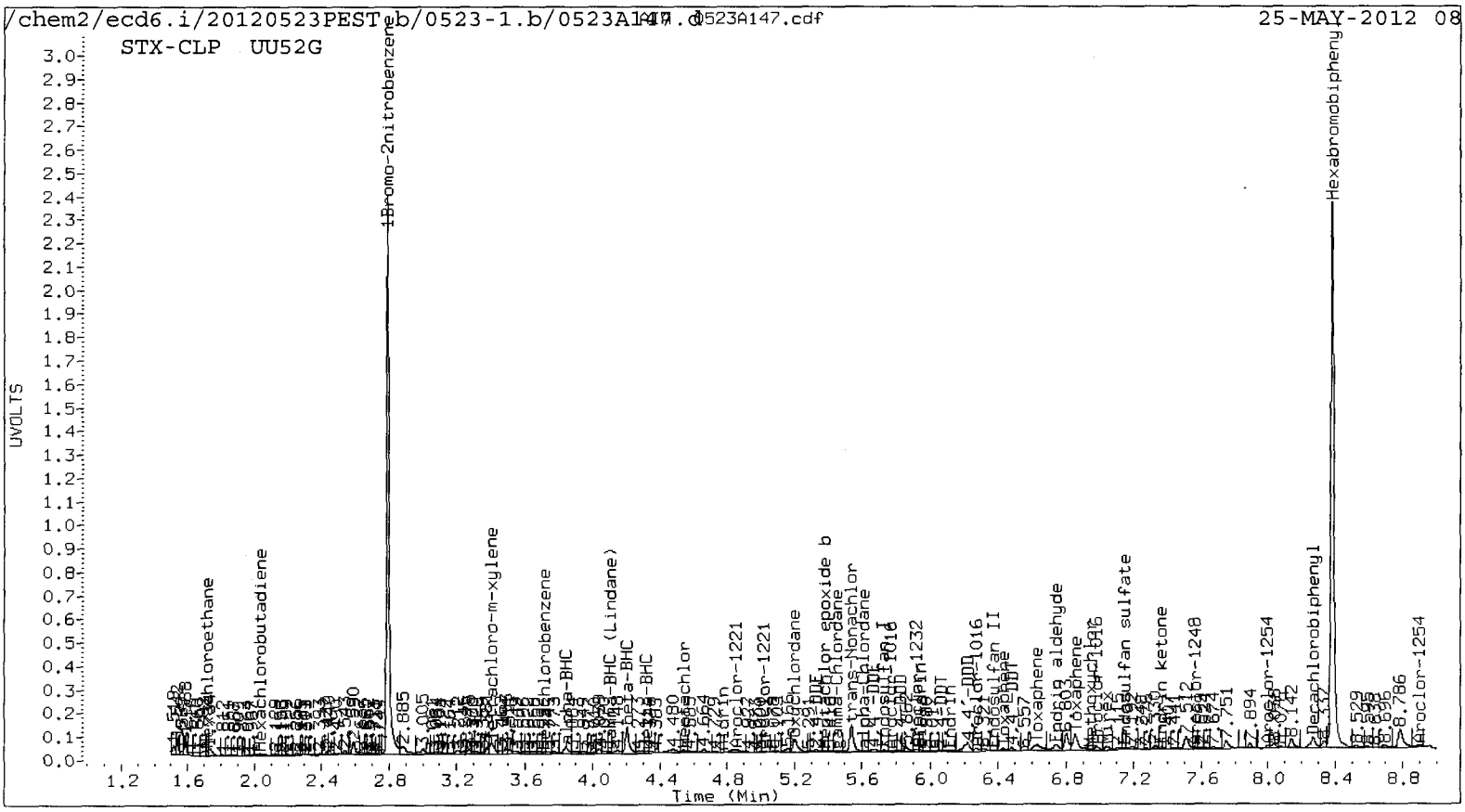
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	14867921	-8.4
Hexabromobiphenyl	8472750	8841689	4.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.433	0.009	42829	14.708	1	6.610	0.004	115567	24.044
Toxaphene	2	6.483	0.008	52582	23.574	2	6.945	0.013	77569	10.815
Toxaphene	3	6.631	-0.043	166224	80.851	3	7.160	-0.005	42111	5.585
Toxaphene	4	6.856	-0.021	307557	139.092	4	7.652	0.027	90994	15.181
Toxaphene	5	7.040	-0.016	58807	17.448	5	---			0.000
Toxaphene	6	7.367	-0.008	35178	14.892	NS	---			----
Total STX-CLPAve (6 peaks): 48.427						Total CLP2Ave (4 peaks): 13.906				RPD = 111*
Corrected Ave (5 peaks): 30.295						Corrected Ave (3 peaks): 10.527				RPD = 97*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000		1	---	0.000	
Aroclor-1248 2	---	0.000		2	---	0.000	
Aroclor-1248 3	---	0.000		3	---	0.000	
Aroclor-1248 4	---	0.000		4	---	0.000	
Aroclor-1248 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000		1	---	0.000	
Aroclor-1254 2	---	0.000		2	---	0.000	
Aroclor-1254 3	---	0.000		3	---	0.000	
Aroclor-1254 4	---	0.000		4	---	0.000	
Aroclor-1254 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000		1	---	0.000	
Aroclor-1260 2	---	0.000		2	---	0.000	
Aroclor-1260 3	---	0.000		3	---	0.000	
Aroclor-1260 4	---	0.000		4	---	0.000	
Aroclor-1260 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000		1	---	0.000	
Aroclor-1262 2	---	0.000		2	---	0.000	
Aroclor-1262 3	---	0.000		3	---	0.000	
Aroclor-1262 4	---	0.000		4	---	0.000	
Aroclor-1262 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000		1	---	0.000	
Aroclor-1268 2	---	0.000		2	---	0.000	
Aroclor-1268 3	---	0.000		3	---	0.000	
Aroclor-1268 4	---	0.000		4	---	0.000	
Aroclor-1268 5	---	0.000		5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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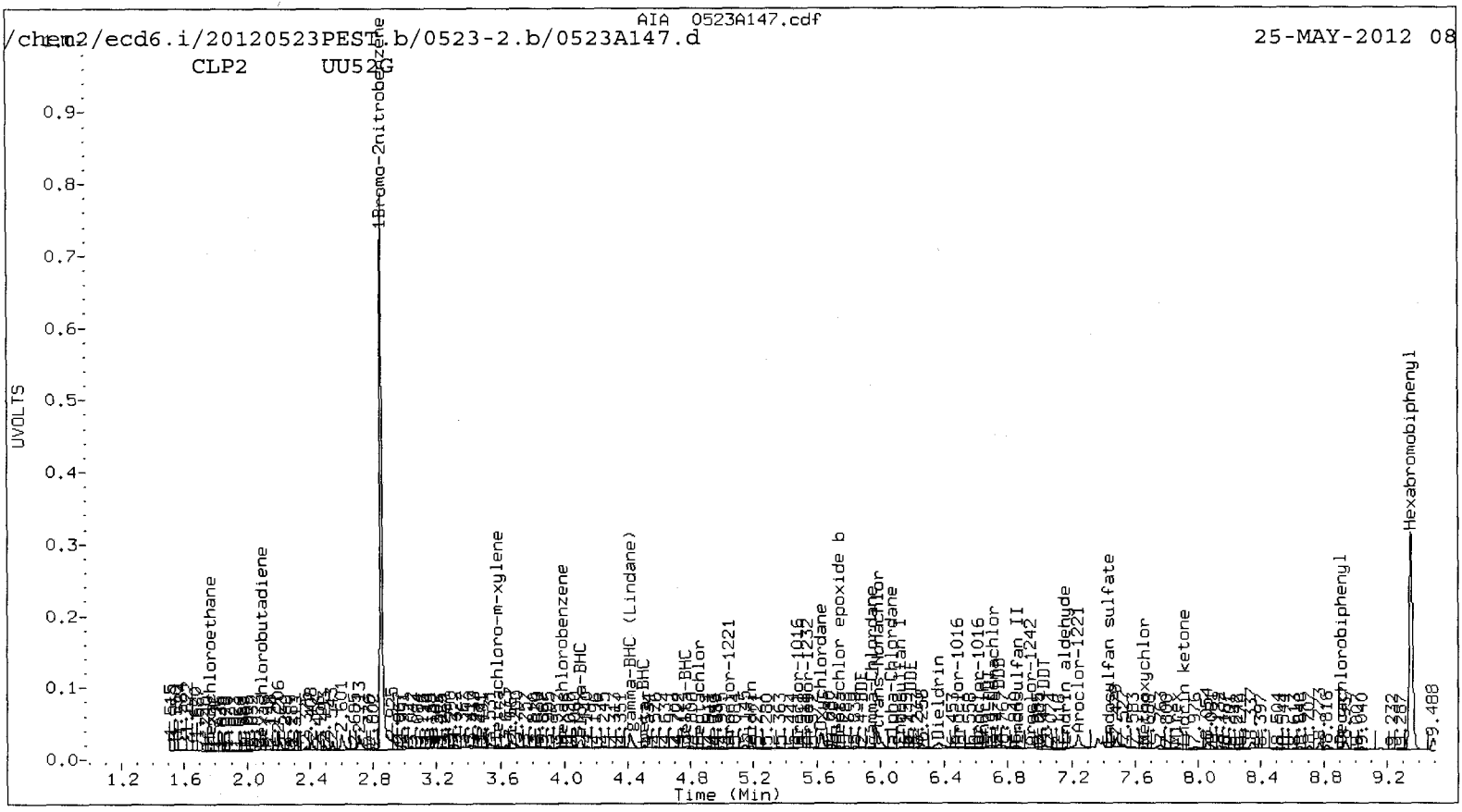
AIA 0523A147.cdf
25-MAY-2012 08
STX-CLP UU52G
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Pentachloro-m-xylene
Hexachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
Heptachlor
Aroclor-1221
Aroclor-1221
Aldrin
Heptachlor epoxide b
Oxychlordane
trans-Nonachlor
Chlordane
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDD
Endosulfan sulfate
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl
Aroclor-1254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AIA 0523A147.cdf
25-MAY-2012 08
CLP2 UU52G
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Pentachloro-m-xylene
Hexachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
Heptachlor
Aroclor-1221
Aroclor-1221
Aldrin
Heptachlor epoxide b
Oxychlordane
trans-Nonachlor
Chlordane
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDD
Endosulfan sulfate
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl
Aroclor-1254

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A148.d ARI ID: UU52H
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A148.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 08:37
Compound Sublist: wpest Report Date: 05/25/2012 12:35
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	-0.001	4472999	2.853	-0.001	15828133	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.844	-0.002	10562	4.106	-0.002	14773	0.1183	0.0548	73.4*	alpha-BHC
4.167	-0.016	2583	4.539	0.037	5307	0.0776	0.0512	41.0*	beta-BHC
4.343	0.006	1066	4.782	0.000	11297	0.0164	0.0587	112.8*	delta-BHC
4.106	0.000	2856	4.443	0.014	36733	0.0381	0.1597	122.9*	gamma-BHC (Lindane)
4.523	0.005	4826	4.844	-0.005	4863	0.0584	0.0210	94.2*	Heptachlor
----			5.154	-0.017	13700	0.0000	0.0683	---	Aldrin
5.356	0.010	2734	5.748	0.016	7193	0.0405	0.0370	9.1	Heptachlor epoxide b
5.740	0.018	3030	6.134	0.017	13344	0.0333	0.0788	81.3*	Endosulfan I
5.945	-0.001	6900	6.372	-0.005	19629	0.0951	0.1121	16.4	Dieldrin
5.671	0.001	7150	6.205	-0.003	24298	0.1558	0.1569	0.7	4,4'-DDE
6.120	-0.043	5750	6.654	-0.010	12512	0.0869	0.0780	10.8	Endrin
6.371	0.000	4653	6.857	0.000	19305	0.0723	0.1188	48.7*	Endosulfan II
6.230	0.003	14195	6.746	-0.003	36323	0.2726	0.2711	0.6	4,4'-DDD
7.134	-0.004	15384	7.384	-0.021	15034	0.2719	0.1204	77.2*	Endosulfan sulfate
6.485	0.001	4702	7.031	-0.003	27334	0.0822	0.2072	86.4*	4,4'-DDT
6.922	-0.001	5499	7.626	-0.003	14915	0.1887	0.2588	31.3	Methoxychlor
7.409	0.021	6755	7.884	0.002	37195	0.0942	0.2315	84.3*	Endrin ketone
6.764	0.016	5894	7.156	-0.002	9451	0.1135	0.0764	39.1	Endrin aldehyde
5.473	0.004	7952	5.938	0.020	138578	0.1086	0.7675	150.4*	gamma-Chlordane
----			6.053	-0.004	22237	0.0000	0.1294	---	alpha-Chlordane
2.040	-0.013	3098	2.104	-0.008	13231	0.0314	0.0452	36.0	Hexachlorobutadiene
3.723	0.007	3798	3.992	-0.003	11411	0.0617	0.0464	28.4	Hexachlorobenzene
5.250	-0.002	9211	5.648	0.004	11830	0.1618	0.0765	71.6*	Oxychlordane
----			----			0.0000	0.0000	---	2,4-DDE
5.572	-0.009	18124	6.003	-0.004	49026	0.2489	0.2575	3.4	trans-Nonachlor
5.830	0.000	3029	6.420	0.021	33468	0.0820	0.3148	117.3*	2,4-DDD
6.061	-0.007	8351	6.676	-0.009	7354	0.1716	0.0637	91.8*	2,4-DDT
6.199	0.001	4178	6.708	-0.026	9113	0.0518	0.0475	8.8	cis-Nonachlor
7.066	0.003	21098	7.849	-0.014	23619	0.3952	0.2047	63.5*	Mirex
8.387	-0.006	6150437	9.351	-0.006	9340210	80.0000	80.0000	0.0	Hexabromobiphenyl
1.719	0.000	909	1.769	0.000	13179	0.0000	0.0000	---	Hexachloroethane
3.408	0.002	11126	3.586	-0.001	25844	0.1681	0.1316	24.4	Tetrachloro-m-xylene
8.251	0.000	16004	8.905	-0.004	16391	0.2316	0.1268	58.5*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.4	0.3	0.3~	130- 0
Decachlorobiphenyl	0.6	0.3	0.3~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4472999	-7.6
Hexabromobiphenyl	6506091	6150437	-5.5

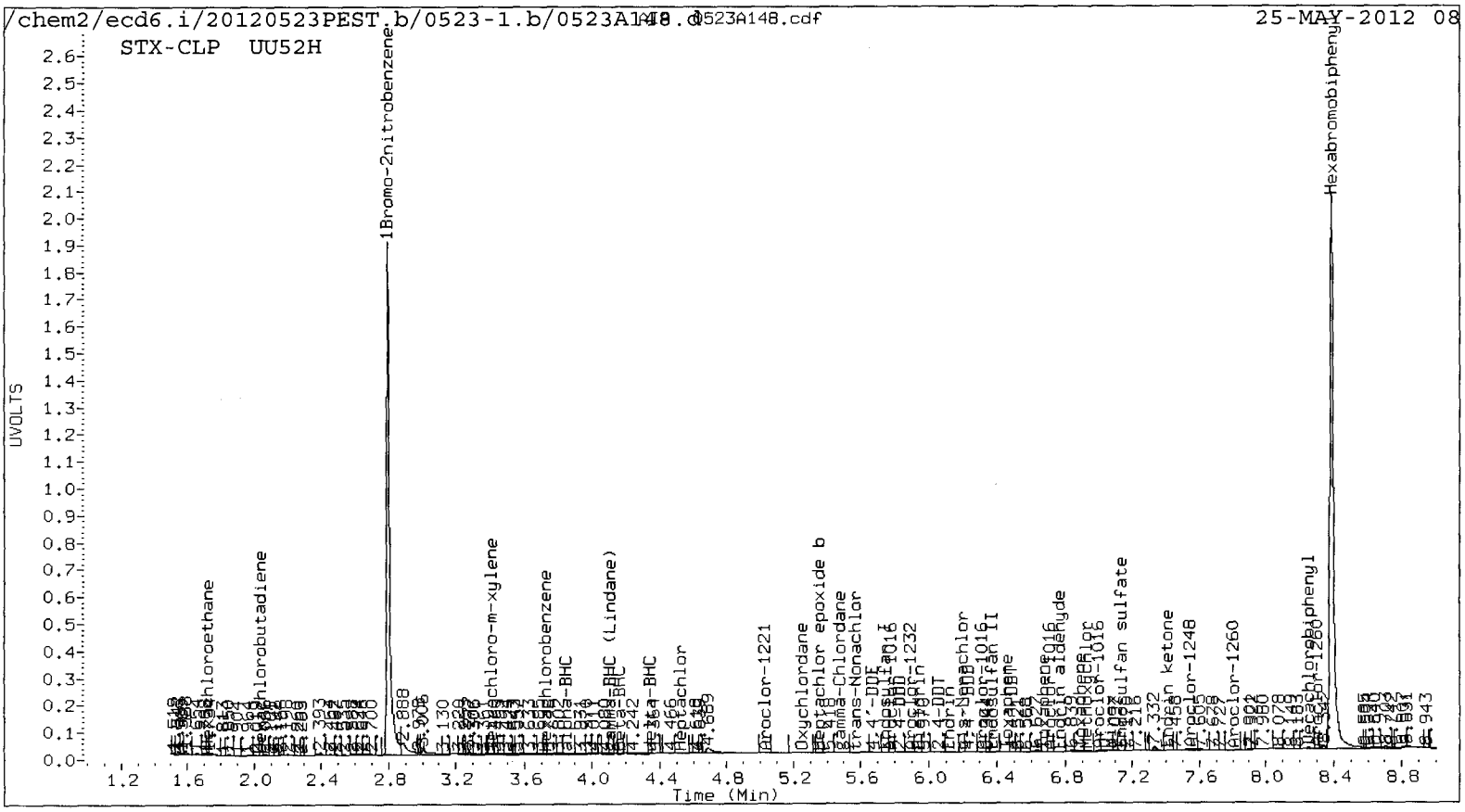
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	15828133	-2.5
Hexabromobiphenyl	8472750	9340210	10.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	STX-CLP Col RT	Shift	Height	Amount	Peak#	CLP2 Col RT	Shift	Height	Amount
Toxaphene	1	6.457	0.033	5905	2.020	1	6.625	0.019	12878	2.536
Toxaphene	2	6.485	0.010	4702	2.100	2	6.923	-0.008	57284	7.560
Toxaphene	3	6.674	0.001	4762	2.307	3	7.156	-0.009	9451	1.186
Toxaphene	4	6.890	0.013	10172	4.583	4	7.626	0.001	14915	2.356
Toxaphene	5	7.066	0.011	21098	6.236	5	7.675	0.006	25141	2.916
Toxaphene	6	7.409	0.034	6755	2.849	NS	---			----
Total STX-CLPAve (6 peaks): 3.349						Total CLP2Ave (5 peaks): 3.311				RPD = 1
Corrected Ave (5 peaks): 2.772						Corrected Ave (4 peaks): 2.249				RPD = 21
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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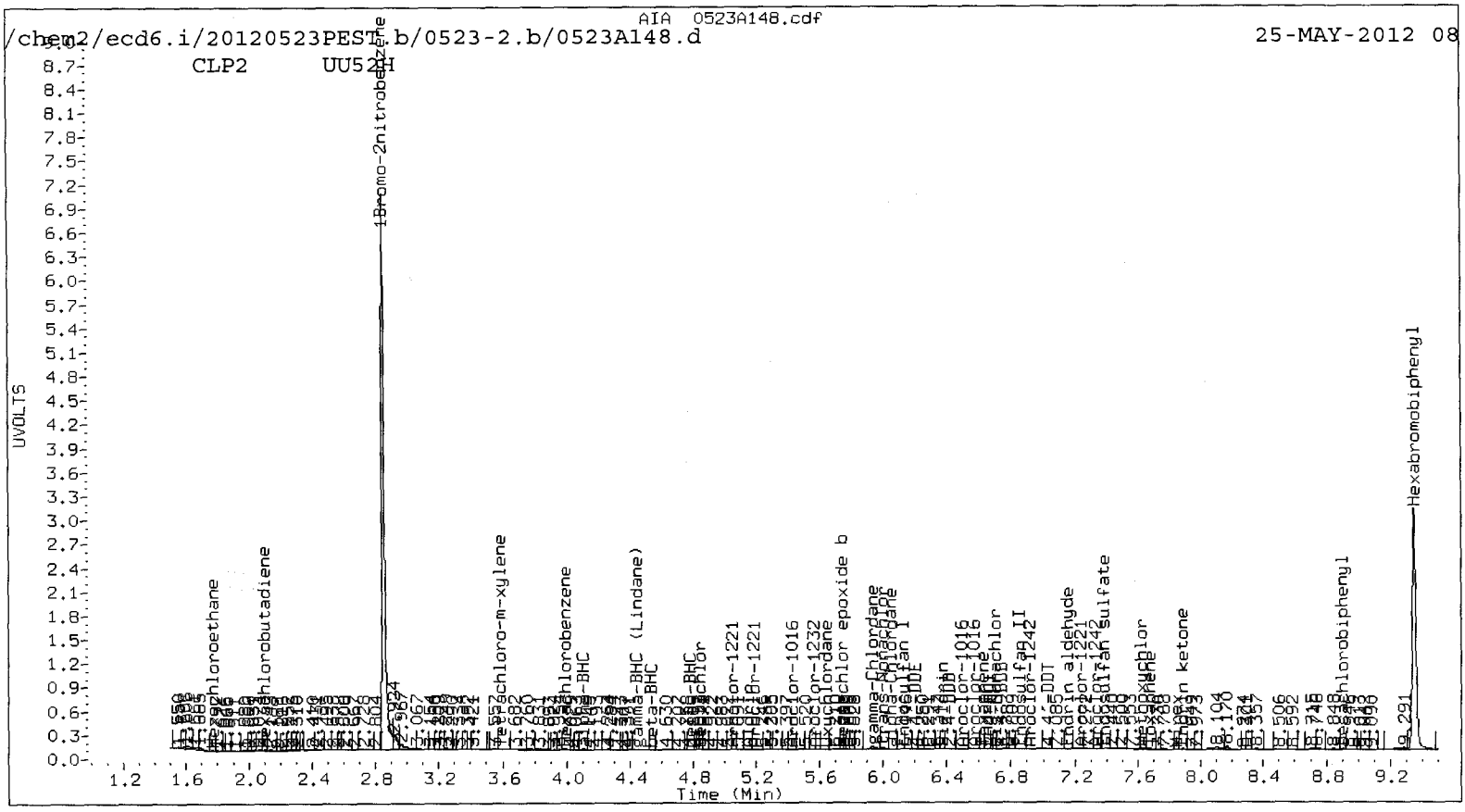
25-MAY-2012 08
STX-CLP UU52H
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl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25-MAY-2012 08
CLP2 UU52H
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A149.d ARI ID: UU52I
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A149.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 08:55
Compound Sublist: wpest Report Date: 05/25/2012 12:35
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 5000.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	0.000	4586393	2.854	0.000	16288145	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
----			4.105	-0.003	6855	0.0000	0.0247	---	alpha-BHC
----			4.494	-0.008	15090	0.0000	0.1414	---	beta-BHC
----			4.777	-0.006	3901	0.0000	0.0197	---	delta-BHC
----			4.429	0.000	5534	0.0000	0.0234	---	gamma-BHC (Lindane)
4.559	0.041	1593	4.877	0.028	2751	0.0188	0.0116	47.8*	Heptachlor
4.769	-0.018	3756	5.189	0.018	25042	0.0483	0.1213	86.1*	Aldrin
5.358	0.012	1277	5.713	-0.019	20465	0.0185	0.1022	138.8*	Heptachlor epoxide b
----			6.134	0.016	22033	0.0000	0.1264	---	Endosulfan I
5.944	-0.002	2674	6.370	-0.007	12310	0.0359	0.0683	62.1*	Dieldrin
----			6.215	0.006	13286	0.0000	0.0834	---	4,4'-DDE
6.153	-0.010	2502	6.659	-0.005	24268	0.0349	0.1441	122.1*	Endrin
6.371	0.000	4214	6.860	0.003	16209	0.0603	0.0950	44.6*	Endosulfan II
6.250	0.022	7154	6.747	-0.001	23162	0.1266	0.1646	26.1	4,4'-DDD
7.089	-0.049	1806	7.398	-0.006	5650	0.0294	0.0431	37.7	Endosulfan sulfate
6.487	0.004	1483	7.017	-0.017	20270	0.0239	0.1463	143.8*	4,4'-DDT
6.925	0.002	8751	7.620	-0.009	23066	0.2768	0.3811	31.7	Methoxychlor
7.410	0.022	11329	7.884	0.003	32853	0.1456	0.1947	28.9	Endrin ketone
6.751	0.002	3054	7.157	-0.001	9005	0.0542	0.0693	24.4	Endrin aldehyde
5.504	0.034	1449	5.922	0.004	8010	0.0193	0.0431	76.3*	gamma-Chlordane
----			----			0.0000	0.0000	---	alpha-Chlordane
2.067	0.013	5578	2.106	-0.007	7277	0.0552	0.0242	78.1*	Hexachlorobutadiene
----			3.996	0.002	6337	0.0000	0.0250	---	Hexachlorobenzene
----			5.628	-0.015	2079	0.0000	0.0131	---	Oxychlordane
----			5.882	-0.027	3070	0.0000	0.0296	---	2,4-DDE
5.572	-0.008	1278	6.018	0.012	34996	0.0162	0.1750	166.1*	trans-Nonachlor
5.822	-0.008	1073	6.421	0.022	28205	0.0268	0.2526	161.7*	2,4-DDD
6.074	0.005	2170	----			0.0411	0.0000	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
7.068	0.006	3567	7.855	-0.008	33051	0.0616	0.2727	126.3*	Mirex
8.389	-0.004	6672960	9.352	-0.005	9809409	80.0000	80.0000	0.0	Hexabromobiphenyl
1.720	0.001	810	1.770	0.000	13620	0.0000	0.0000	---	Hexachloroethane
3.408	0.002	4208	3.587	-0.001	3581	0.0620	0.0177	111.1*	Tetrachloro-m-xylene
8.250	0.000	10260	8.905	-0.004	4567	0.1369	0.0336	121.1*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.2	0.0	0.0~	130- 0
Decachlorobiphenyl	0.3	0.1	0.1~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4586393	-5.3
Hexabromobiphenyl	6506091	6672960	2.6

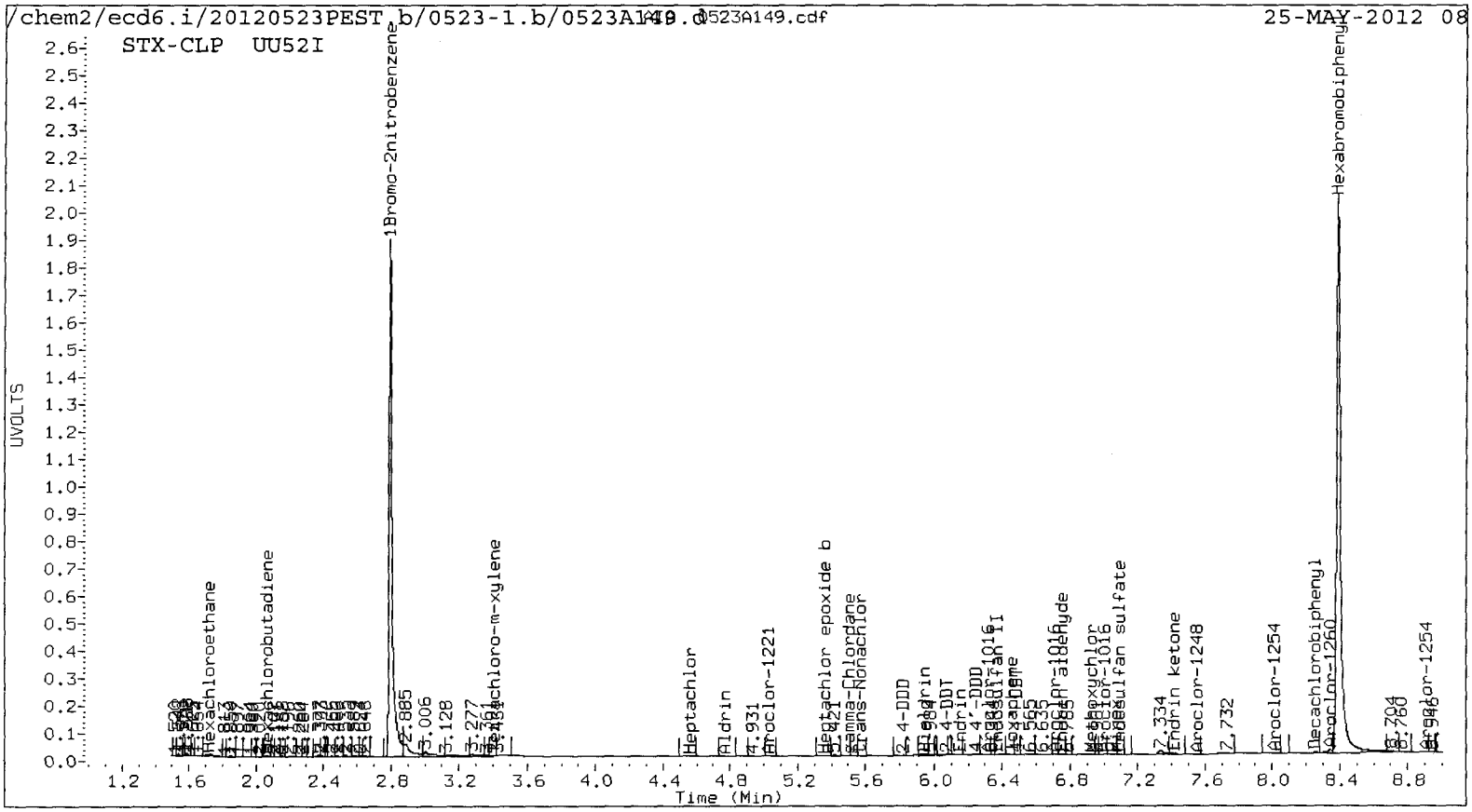
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16288145	0.4
Hexabromobiphenyl	8472750	9809409	15.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.452	0.028	1492	0.470	1	6.574	-0.033	7866	1.475
Toxaphene	2	6.487	0.012	1483	0.610	2	6.927	-0.004	51857	6.517
Toxaphene	3	6.706	0.033	3138	1.401	3	7.157	-0.009	9005	1.076
Toxaphene	4	6.925	0.048	8751	3.634	4	7.620	-0.005	23066	3.469
Toxaphene	5	7.068	0.013	3567	0.972	5	7.663	-0.006	11281	1.246
Toxaphene	6	7.410	0.035	11329	4.404	NS	---			----
	Total STX-CLPAve (6 peaks): 1.915					Total CLP2Ave (5 peaks): 2.757				RPD = 36
	Corrected Ave (4 peaks): 0.864					Corrected Ave (4 peaks): 1.817				RPD = 71*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1248	1	---	0.000	1	---	0.000	
Aroclor-1248	2	---	0.000	2	---	0.000	
Aroclor-1248	3	---	0.000	3	---	0.000	
Aroclor-1248	4	---	0.000	4	---	0.000	
Aroclor-1248	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1254	1	---	0.000	1	---	0.000	
Aroclor-1254	2	---	0.000	2	---	0.000	
Aroclor-1254	3	---	0.000	3	---	0.000	
Aroclor-1254	4	---	0.000	4	---	0.000	
Aroclor-1254	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1260	1	---	0.000	1	---	0.000	
Aroclor-1260	2	---	0.000	2	---	0.000	
Aroclor-1260	3	---	0.000	3	---	0.000	
Aroclor-1260	4	---	0.000	4	---	0.000	
Aroclor-1260	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1262	1	---	0.000	1	---	0.000	
Aroclor-1262	2	---	0.000	2	---	0.000	
Aroclor-1262	3	---	0.000	3	---	0.000	
Aroclor-1262	4	---	0.000	4	---	0.000	
Aroclor-1262	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		
Aroclor-1268	1	---	0.000	1	---	0.000	
Aroclor-1268	2	---	0.000	2	---	0.000	
Aroclor-1268	3	---	0.000	3	---	0.000	
Aroclor-1268	4	---	0.000	4	---	0.000	
Aroclor-1268	5	---	0.000	5	---	0.000	
	STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks		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25-MAY-2012 08
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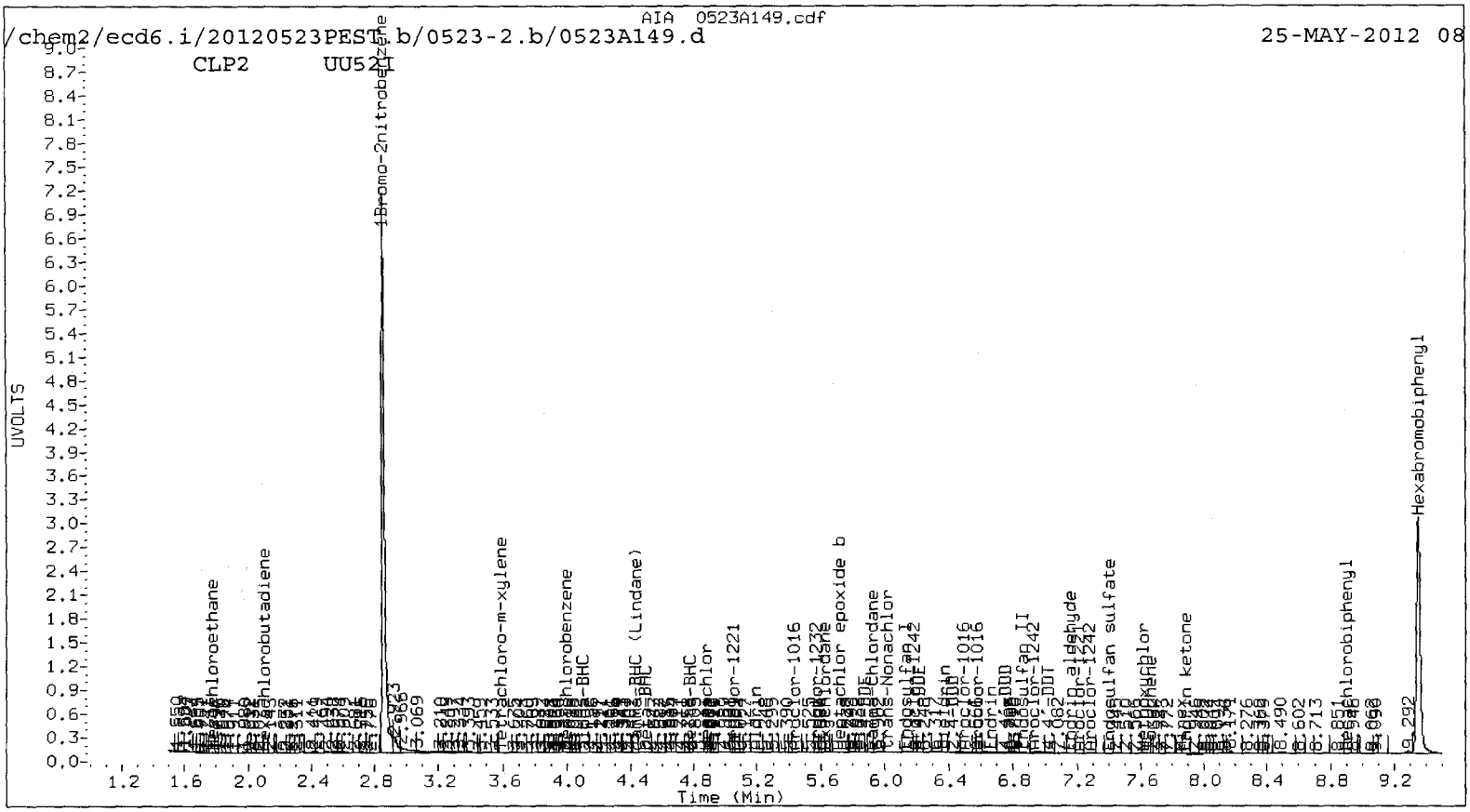
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Pentachloro-m-xylene
Heptachlor
Aldrin
Aroclor-1221
Heptachlor epoxide b
gamma-Chlordane
trans-Nonachlor
2,4-DDD
Endrin
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Aroclor-1248
Aroclor-1254
Decachlorobiphenyl
Aroclor-1260
Hexabromobiphenyl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25-MAY-2012 08
CLP2 UU52I
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Pentachloro-m-xylene
Hexachlorobenzene
alpha-BHC
beta-BHC (Lindane)
gamma-BHC
Heptachlor
Aroclor-1221
Heptachlor epoxide b
gamma-Chlordane
trans-Nonachlor
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
Aroclor-1016
4,4'-DDT
Endrin aldehyde
Endosulfan II
Aroclor-1242
Methoxychlor
Endosulfan sulfate
Endrin ketone
Aroclor-1248
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A151.d ARI ID: UU52J
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A151.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 09:31
Compound Sublist: wpest Report Date: 05/25/2012 12:35
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.796	-0.001	4668866	2.853	-0.001	16138891	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.843	-0.004	1653	4.106	-0.002	7968	0.0177	0.0290	48.1*	alpha-BHC
4.170	-0.012	1664	4.486	-0.016	25279	0.0479	0.2391	133.3*	beta-BHC
4.328	-0.009	1189	4.777	-0.005	39608	0.0175	0.2019	168.1*	delta-BHC
4.111	0.005	4962	4.450	0.022	48358	0.0635	0.2062	105.8*	gamma-BHC (Lindane)
4.509	-0.009	5881	4.824	-0.026	44641	0.0682	0.1892	94.0*	Heptachlor
4.811	0.023	3752	5.160	-0.010	30075	0.0474	0.1470	102.5*	Aldrin
5.354	0.008	4409	5.743	0.011	23574	0.0626	0.1188	62.0*	Heptachlor epoxide b
5.711	-0.011	3505	6.131	0.014	19457	0.0369	0.1127	101.4*	Endosulfan I
5.945	-0.001	14242	6.371	-0.006	15734	0.1881	0.0881	72.4*	Dieldrin
5.669	-0.001	2995	6.203	-0.005	21182	0.0625	0.1341	72.8*	4,4'-DDE
6.119	-0.044	7091	6.655	-0.009	42938	0.0995	0.2550	87.7*	Endrin
6.375	0.005	6355	6.852	-0.005	39270	0.0917	0.2302	86.1*	Endosulfan II
6.251	0.024	11253	6.738	-0.011	39449	0.2006	0.2804	33.1	4,4'-DDD
7.139	0.001	4301	7.386	-0.018	12319	0.0706	0.0940	28.5	Endosulfan sulfate
6.487	0.003	4243	7.019	-0.015	34564	0.0689	0.2495	113.4*	4,4'-DDT
6.935	0.012	8446	7.601	-0.028	34745	0.2691	0.5741	72.3*	Methoxychlor
7.410	0.022	10508	7.888	0.006	39266	0.1360	0.2327	52.5*	Endrin ketone
6.757	0.008	7916	7.161	0.003	20586	0.1416	0.1584	11.2	Endrin aldehyde
5.490	0.020	14219	5.913	-0.006	15257	0.1861	0.0829	76.8*	gamma-Chlordane
5.617	0.023	6754	6.063	0.005	21511	0.0929	0.1228	27.7	alpha-Chlordane
2.041	-0.013	2410	2.105	-0.007	6613	0.0234	0.0222	5.5	Hexachlorobutadiene
3.724	0.007	3257	3.993	-0.001	16774	0.0507	0.0668	27.4	Hexachlorobenzene
5.266	0.015	11394	5.626	-0.017	7950	0.1859	0.0504	114.7*	Oxychlordane
5.326	-0.015	1641	5.871	-0.038	15935	0.0380	0.1552	121.3*	2,4-DDE
5.560	-0.021	4989	6.005	-0.001	47423	0.0636	0.2372	115.4*	trans-Nonachlor
5.813	-0.017	5078	6.428	0.029	58673	0.1276	0.5255	121.8*	2,4-DDD
6.044	-0.024	13155	----			0.2510	0.0000	---	2,4-DDT
6.199	0.002	4551	6.708	-0.026	19597	0.0524	0.0972	59.8*	cis-Nonachlor
7.090	0.027	8053	7.848	-0.015	21012	0.1400	0.1734	21.3	Mirex
8.387	-0.006	6624396	9.351	-0.006	9808477	80.0000	80.0000	0.0	Hexabromobiphenyl
1.720	0.000	1143	1.770	0.000	13274	0.0000	0.0000	---	Hexachloroethane
3.408	0.002	10554	3.586	-0.002	56038	0.1528	0.2798	58.7*	Tetrachloro-m-xylene
8.262	0.012	30274	8.905	-0.003	18886	0.4068	0.1391	98.1*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.4	0.7	0.4~	130- 0
Decachlorobiphenyl	1.0	0.3	0.3~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	4668866	-3.6
Hexabromobiphenyl	6506091	6624396	1.8

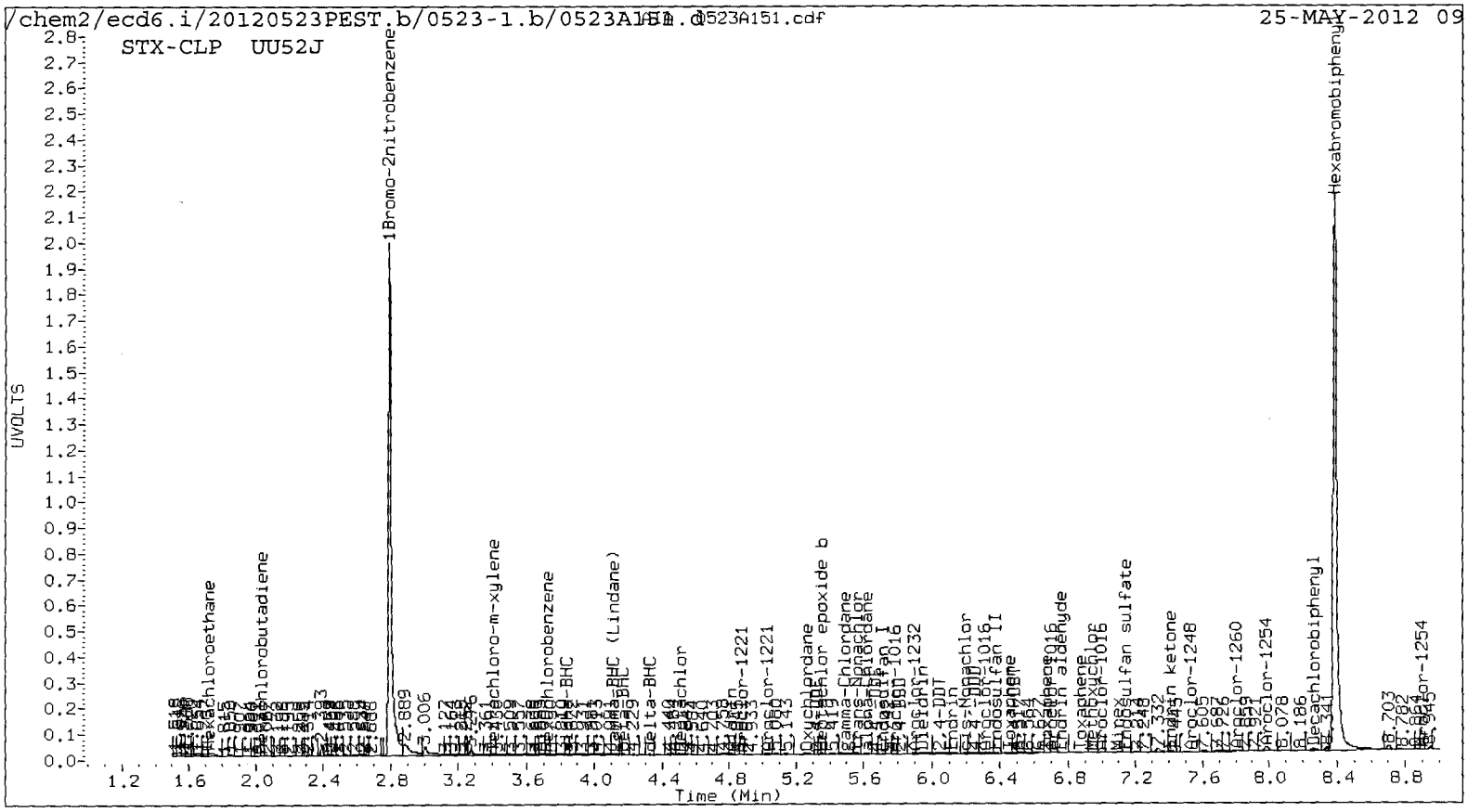
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	16138891	-0.5
Hexabromobiphenyl	8472750	9808477	15.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.454	0.030	8333	2.647	1	6.624	0.017	15810	2.965
Toxaphene	2	6.487	0.012	4243	1.759	2	6.924	-0.007	74490	9.362
Toxaphene	3	6.673	-0.001	9781	4.400	3	7.161	-0.004	20586	2.461
Toxaphene	4	6.873	-0.005	20145	8.427	4	7.601	-0.024	34745	5.225
Toxaphene	5	7.090	0.034	8053	2.210	5	7.675	0.006	17864	1.973
Toxaphene	6	7.410	0.035	10508	4.114	NS	---			----
	Total STX-CLPAve (6 peaks): 3.926					Total CLP2Ave (5 peaks): 4.397			RPD = 11	
	Corrected Ave (5 peaks): 3.026					Corrected Ave (4 peaks): 3.156			RPD = 4	
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1248	1	---	0.000	1	---		0.000
Aroclor-1248	2	---	0.000	2	---		0.000
Aroclor-1248	3	---	0.000	3	---		0.000
Aroclor-1248	4	---	0.000	4	---		0.000
Aroclor-1248	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1254	1	---	0.000	1	---		0.000
Aroclor-1254	2	---	0.000	2	---		0.000
Aroclor-1254	3	---	0.000	3	---		0.000
Aroclor-1254	4	---	0.000	4	---		0.000
Aroclor-1254	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1260	1	---	0.000	1	---		0.000
Aroclor-1260	2	---	0.000	2	---		0.000
Aroclor-1260	3	---	0.000	3	---		0.000
Aroclor-1260	4	---	0.000	4	---		0.000
Aroclor-1260	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1262	1	---	0.000	1	---		0.000
Aroclor-1262	2	---	0.000	2	---		0.000
Aroclor-1262	3	---	0.000	3	---		0.000
Aroclor-1262	4	---	0.000	4	---		0.000
Aroclor-1262	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	
Aroclor-1268	1	---	0.000	1	---		0.000
Aroclor-1268	2	---	0.000	2	---		0.000
Aroclor-1268	3	---	0.000	3	---		0.000
Aroclor-1268	4	---	0.000	4	---		0.000
Aroclor-1268	5	---	0.000	5	---		0.000
	STX-CLPAve:	<3 Quant Peaks			CLP2Ave:	<3 Quant Peaks	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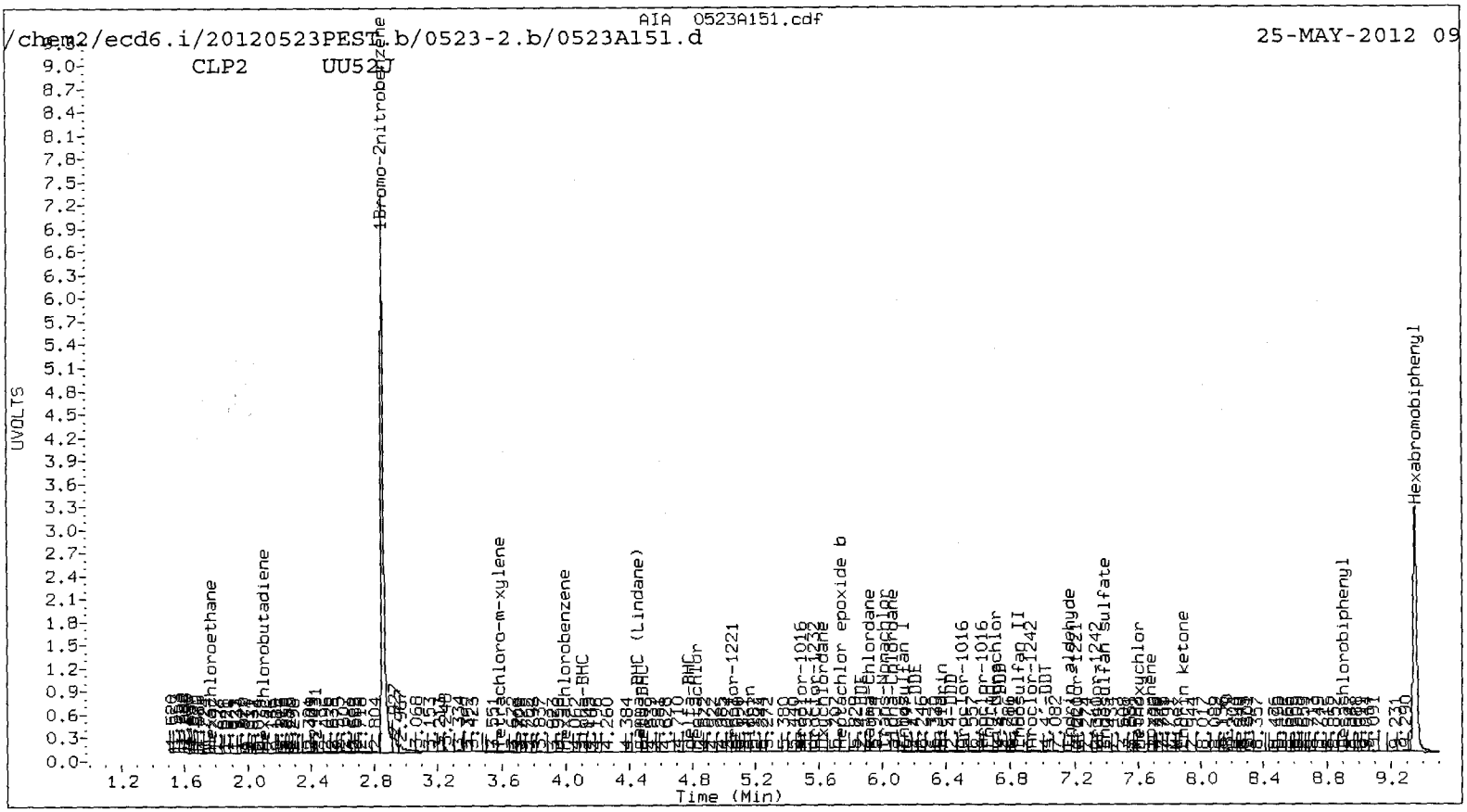
25-MAY-2012 09
STX-CLP UU52J
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Pentachloronitrobenzene
Isodrin
Hexachloro-m-xylene
Dichlorobenzene
Alpha-BHC
Beta-BHC
Delta-BHC
Gamma-BHC (Lindane)
Heptachlor
Aldrin
Heptachlor epoxide b
Oxychlordane
Alpha-Chlordane
Gamma-Chlordane
Nonachlor
Endosulfan I
Dieldrin
4,4-DDE
Endrin
Endosulfan II
4,4-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Hexachlorobiphenyl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25-MAY-2012 09
CLP2 UU52J
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Pentachloronitrobenzene
Isodrin
Hexachloro-m-xylene
Dichlorobenzene
Alpha-BHC
Beta-BHC
Delta-BHC
Gamma-BHC (Lindane)
Heptachlor
Aldrin
Heptachlor epoxide b
Oxychlordane
Alpha-Chlordane
Gamma-Chlordane
Nonachlor
Endosulfan I
Dieldrin
4,4-DDE
Endrin
Endosulfan II
4,4-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Hexachlorobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

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Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A155.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 10:42
Compound Sublist: INDA Report Date: 05/29/2012 09:49
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
2.797	0.000	5494582	2.854	-0.001	18934934	80.0000	80.0000	0.0	1Bromo-2nitrobenzene
3.846	-0.001	2297698	4.105	-0.003	6502233	20.9589	20.1664	3.9	alpha-BHC
4.184	0.002	821047	4.501	-0.001	2354774	20.0789	18.9853	5.6	beta-BHC
4.340	0.003	1674992	4.781	-0.001	4648299	20.9418	20.1972	3.6	delta-BHC
4.106	-0.001	1901592	4.426	-0.003	5418995	20.6777	19.6977	4.9	gamma-BHC (Lindane)
4.517	-0.001	2102927	4.846	-0.003	5346506	20.7150	19.3110	7.0	Heptachlor
4.786	-0.001	1941097	5.168	-0.003	4648763	20.8460	19.3722	7.3	Aldrin
5.345	-0.001	1663943	5.730	-0.003	4545036	20.0672	19.5230	2.7	Heptachlor epoxide b
5.721	-0.001	2175178	6.115	-0.003	3911634	19.4347	19.3041	0.7	Endosulfan I
5.945	-0.001	3624046	6.374	-0.003	8190826	40.6685	39.1014	3.9	Dieldrin
5.673	0.003	2625141	6.207	-0.001	7449459	46.5665	40.2107	14.6	4,4'-DDE
6.162	-0.001	3279325	6.661	-0.003	6817583	39.6034	36.8977	7.1	Endrin
6.370	0.000	3109104	6.855	-0.002	6751829	38.5806	36.0662	6.7	Endosulfan II
6.229	0.002	2714272	6.747	-0.001	5844903	41.6316	37.8550	9.5	4,4'-DDD
7.137	-0.001	2726495	7.401	-0.003	5313241	38.4824	36.9398	4.1	Endosulfan sulfate
6.484	0.000	2931375	7.032	-0.002	5833342	40.9404	38.3673	6.5	4,4'-DDT
6.923	0.000	6853986	7.627	-0.002	11000148	187.8875	165.6271	12.6	Methoxychlor
7.388	-0.001	3361860	7.879	-0.003	6895915	37.4290	37.2399	0.5	Endrin ketone
6.748	-0.001	2469161	7.155	-0.003	5082077	37.9935	35.6426	6.4	Endrin aldehyde
5.469	-0.001	1827933	5.916	-0.002	4315340	20.3308	19.9774	1.8	gamma-Chlordane
5.593	0.000	1552519	6.055	-0.003	4000989	18.1448	19.4624	7.0	alpha-Chlordane
2.053	-0.001	2396566	2.111	-0.002	6573262	19.7802	18.7795	5.2	Hexachlorobutadiene
3.719	0.002	1472915	3.994	0.000	5724900	19.4900	19.4440	0.2	Hexachlorobenzene
8.389	-0.004	7700454	9.352	-0.005	10762965	80.0000	80.0000	0.0	Hexabromobiphenyl N
3.407	0.001	3219949	3.586	-0.001	9317185	39.6046	39.6523	0.1	Tetrachloro-m-xylene
8.249	-0.001	3170643	8.905	-0.003	5666857	36.6525	38.0318	3.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	99.0	99.1	99.0~	115- 0
Decachlorobiphenyl	91.6	95.1	91.6~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

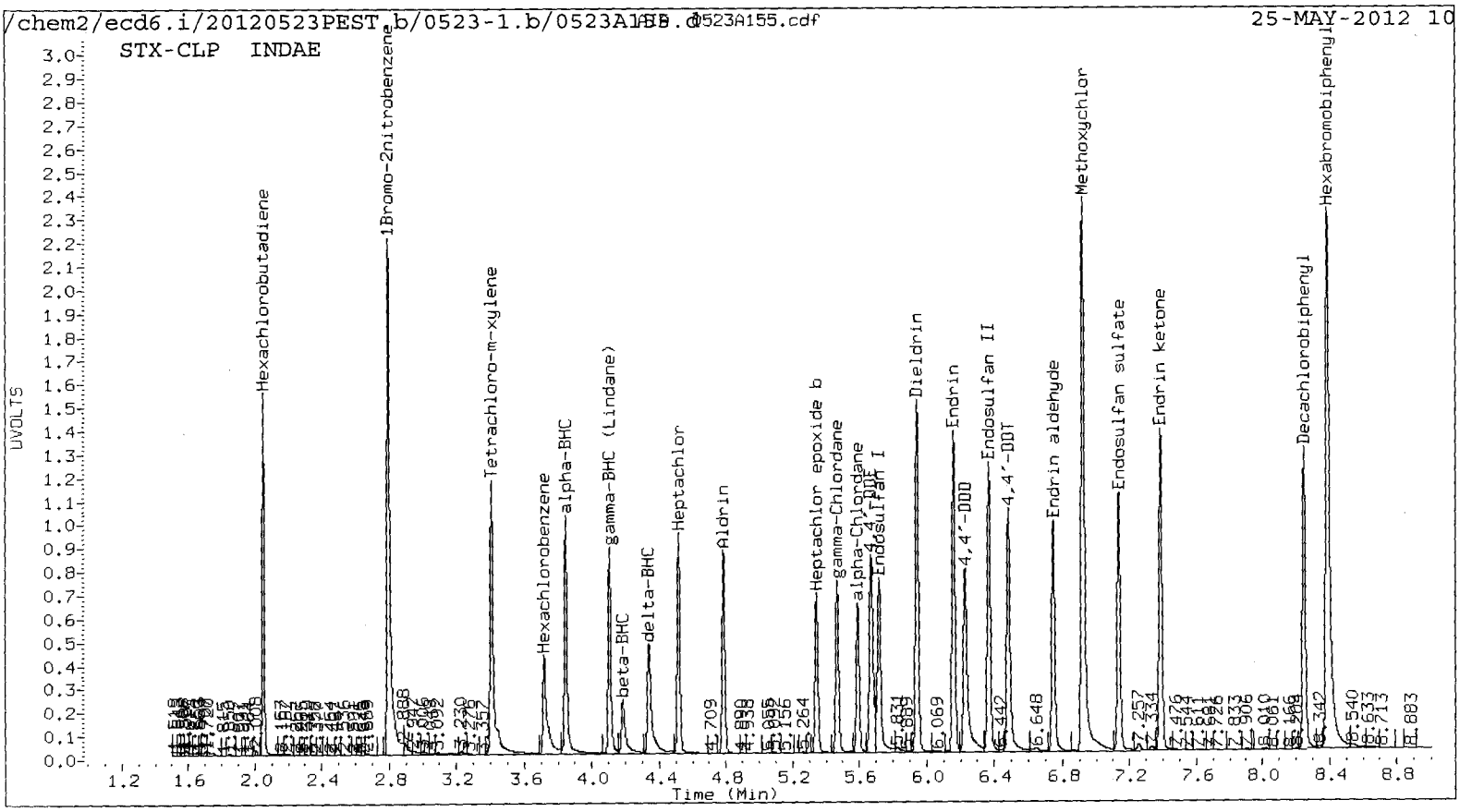
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4841592	5494582	13.5
Hexabromobiphenyl	6506091	7700454	18.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	16226991	18934934	16.7
Hexabromobiphenyl	8472750	10762965	27.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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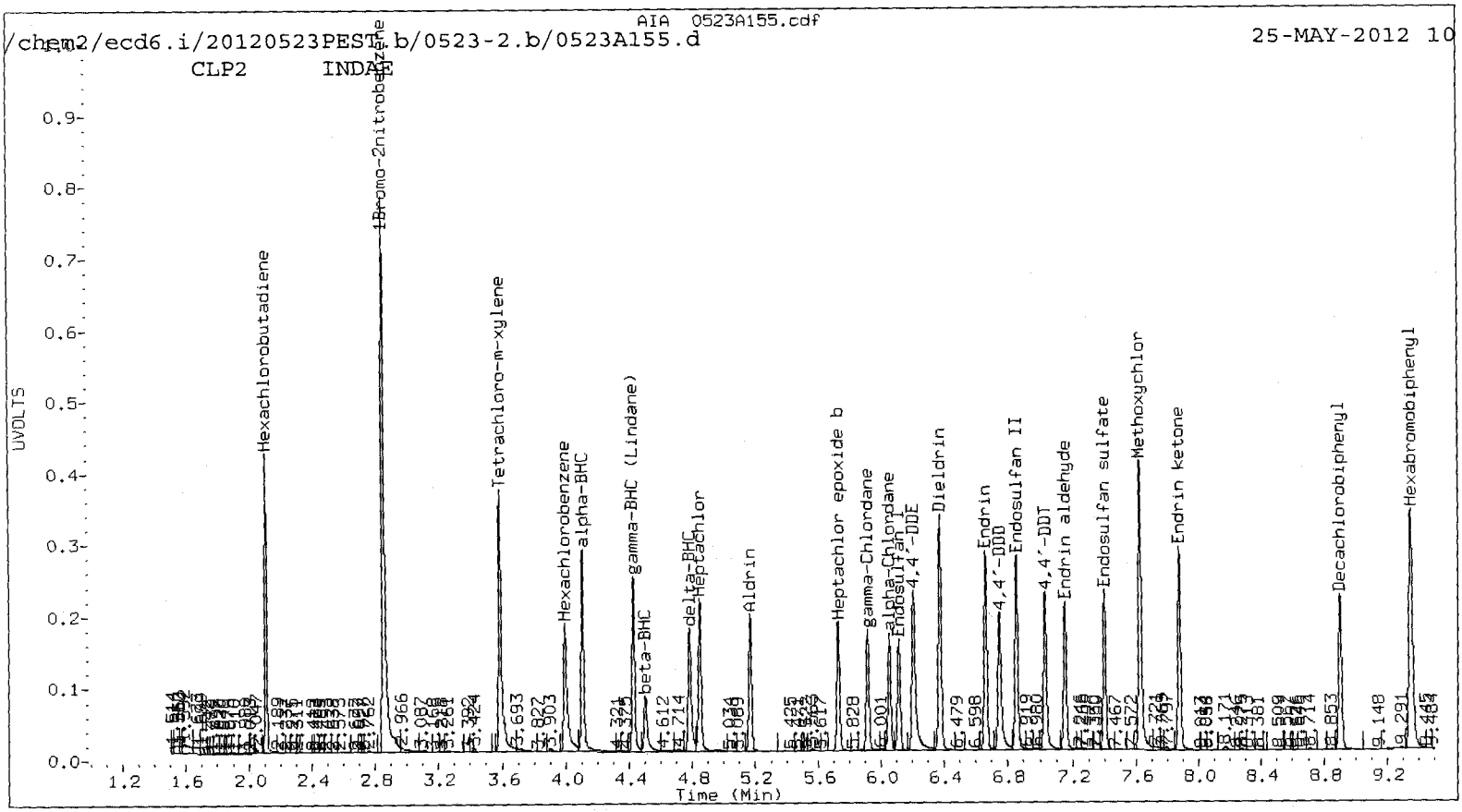
25-MAY-2012 10
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 10
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

PCB Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UU52, UU62

Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

PCB – Soil / Sediment
Microwave (3546) (SOP # 3304S)

Preparation Test PCB PSDDA # 19 (PCBSDMP4)

ARI Job No(s) UU52 (very high sulfur content) Page 1 of 1

PSDDA (4ppb)
Batch set up by: ~~JSH~~

Bottle #	ARI Sample I.D.	Weight Extracted (eq. to 12.5g dry wt)	(REQ) Acid Clean (2.5mL)	(REQ) Sulfur Clean (2.5mL) 1 2 (3)	(REQ) Silica Gel Clean (1:2.5)	Extraction Final Volume	Volume to Lab	Comments	Verify Client ID
	MBS UU52	12.50g	2.5mL	2.5mL	1mL	2.5mL	1mL	(10g Actual W)	RR 5/22/12 Analyst/Date
	SBS	12.50g	2.5mL	2.5mL	1mL	2.5mL	1mL	(10g Actual Wt)	Microwave M 5/24/12 Analyst/Date
	~~SBSDup~~	~~12.50g~~	~~2.5mL~~	~~2.5mL~~	~~1mL~~	~~2.5mL~~	~~1mL~~	~~(10g Actual Wt)~~	
5/6	UU52 A	13[illegible].18	2.5mL	2.5mL	1mL	2.5mL	1mL	~~(10g Actual Wt)~~	KD 100°C
6	B	129.80	2.5mL	2.5mL	1mL	2.5mL	1mL		YL 5/24/12
6	C	123.00	2.5mL	2.5mL	1mL	2.5mL	1mL		
5/6	D	135.41	2.5mL	2.5mL	1mL	2.5mL	1mL		
5	E	131.18	2.5mL	2.5mL	1mL	2.5mL	1mL		Analyst/Date
6	F	141.28	2.5mL	2.5mL	1mL	2.5mL	1mL		TurboVap (1) 2 3 Pre-Cleanups
5,6	G	136.37	2.5mL	2.5mL	1mL	2.5mL	1mL		
5	H	78.27	2.5mL	2.5mL	1mL	2.5mL	1mL		SP 5/25/12
5,6	I	114.28	2.5mL	2.5mL	1mL	2.5mL	1mL		Analyst/Date
5,6	J	127.05	2.5mL	2.5mL	1mL	2.5mL	1mL		TurboVap 1 2 (3) Post Cleanups
5,6	JMS	127.69	2.5mL	2.5mL	1mL	2.5mL	1mL		
5,6	JMSD	127.16	2.5mL	2.5mL	1mL	2.5mL	1mL		SP 5/25/12
	Weighed 4/25/12 Analyst/Date		SP 5/25/12	SP 5/25/12	SP 5/25/12	SP 5/25/12	SP 5/25/12		Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	N(1914-2)	2µg/mL	50µL	5/28/12	NL	SP
Spike	1 (1964-2)	20µg/mL	63µL	4/03/13	NL	SP
~~QLS Spike~~	~~5 ( )~~	~~2µg/mL~~	~~25µL~~			

Extraction Time: 0745 Balance ID: B11412753 4

SPECIAL INSTRUCTIONS: 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate.
2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require ~~two~~ multiple vessels).
3. Add 1:1 Hexane/Acetone until the solvent layer is 3" inches above the soil layer after homogenization. 4. Add surr/spike.
5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then cool vessels in cold water 15 minutes. 7. Decant 1:1 Hex/Ace into E. flask with sodium sulfate in bottom+ funnel with neutral glasswool plug. 8. Rinse with Hexane. 9. Add 8:2 Hexane/Acetone to the vessel 3"inches above the soil layer after homogenization. Microwave a 2nd time. 10. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 11. KD (~~Small or~~ Large Drying Column) on 100° bath. (Blanks=only 5g Sodium Sulfate). 12. Exchange (2 X with 20mL) Hexane. 13. TurboVap. 14. Clean-ups. 15. TurboVap. 16. Vial with Hexane.
A. Need Total Solids Y (N) B. ~~Archive~~/Freeze Y ~~N~~

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU52 Client ID: Anchor QEA, LLC

Parameter: PCB PSDDA (4ppb) Client Project: Jeld Wen Maulsby Marsh

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	AC 5-16-12
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)= B < 5% sticks D = 30% grass/sticks E = 10% grass F = 60% grass/sticks G = 50% grass/sticks H = 30% I = 50%.	AC 5-16-12
☐ Oily, obvious fuel/sulfur odors= B-	
☒ Other (Details)= UU52 - A-J, JMS, JMSD - Samples Surrogates Spikes had to splitted into 6-7 vessels prior to microwave due to sample weigh and will combined into 2 flasks or multi flasks. The multi flasks are Samples: E, I, JMS	N 2.5 | 2 4 | 12
Aqueous: All samples will combine at the KD station.	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

PCB – Water
Separatory Funnel (3510C) (SOP # 3311S)

Preparation Test PCB # 1 (PCBWSI) In-House (1ppb)

ARI Job No(s) UU62 Page 1 of 1 Batch set up by: SP

Bottle #	ARI Sample I.D.	Volume Extracted	(REQ) Acid Clean (5mL)	(REQ) Sulfur Clean (5mL) ①2 3	(opt) Silica Gel Clean (1:5) Y/N	FEV	Volume to Lab	Comments	Verify Client ID AR 05/21/12
	UU62 MBW	500mL	5mL	5mL	1mL Y/N	5mL	1mL		
	SBW	500mL	5mL	5mL	1mL Y/N	5mL	1mL		**Analyst/Date**
	SBW Dup.	500mL	5mL	5mL	1mL Y/N	5mL	1mL		Verify pH is 5-9
	QLS	500mL	5mL	5mL	1mL Y/N	5mL	1mL		AR 05/21/12
3	J	500mL	5mL	5mL	1mL Y/N	5mL	1mL		
J	K	500mL	5mL	5mL	1mL Y/N	5mL	1mL		**Analyst/Date**
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		KD 80-85°C
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		Hexane Exchange (2 X 20mL) 100°C
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		YL 5/21/12
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		**Analyst/Date**
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		TurboVap ①2 3 Pre-Cleanups (4mL=10mL Hexane Exchange
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		AC 5-23-12
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		**Analyst/Date**
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		TurboVap 1 2 3 Post Cleanups
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		
		500mL	5mL	5mL	1mL Y/N	5mL	1mL		
Analyst/Date	AR 05/21/12 →	AC 5-23-12	AC 5-23-12			AC 5-23-12	AC 5-23-12		**Analyst/Date**

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	**N** (1914-2)	2µg/mL	**100µL**	5/28/12	AR	AC
Spike	**1** (1964-2)	20µg/mL	**125µL**	4/3/13	AR	AC
QLS Spike	**5** (1967-1)	2µg/mL	**250µL**	4/3/13	AR	AC
Extraction Time: 13:58						

SPECIAL INSTRUCTIONS: 1. Verify pH 2. Adjust pH (if necessary=Analyst Notes). 3. Add Surr/Spike.
4. Extract 3X with 30mL DCM. 5. KD (NO Drying Column) at 80°. 6. Exchange (2 X with 20mL) Hexane at 100°.
7. TurboVap to 4mL=10mL Hexane Exchange. 8. TurboVap 9. Clean-ups? 10. TurboVap (if Silica Clean).
11. Vial 1mL with Hexane. ~~A. Archive Y/N~~

SP 5/17/12

UU52:01579

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU62

Client ID: Anchor QEA, LLC

Parameter: PCB

Client Project: Jen Weld - Maury Marsh

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☑ No Anomalies UU62 Samples, JK	AA 05/21/12
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☑ Emulsions (%)= UU62 Sample J 100 emulsion used, Centrifuge to break up emulsion Sulfate to dry	
☐ Other (Details)= Samples	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

PCB Raw Data
Initial Calibration

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: (**403S**(PCB)) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B (FID-4A) FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 (ECD-5) ECD-6 ECD-7 ECD-8

Curve Date(s): 5/23/2012 Internal Standard ID 1878-3 Expiration 8/1/2012

Endrin/DDT Breakdown <15%? YES / NO / (NA) ICV Exceeding ±20%? YES / (NO)

ICal Meets %RSD & r^2 Criteria (YES) / NO ICV Exceeding ±30%? YES / (NO)

Manual Integrations for ICal? (YES) / NO Linear Fits Used? YES / (NO)

Minimum Response S/N Met (YES) / NO Quadratic Fits Used? YES / (NO)

Calibration Points Dropped? YES / (NO)

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
AR1660	1980-1	5/16/13	AR1660 ICV	1928-2	5/28/12
AR1242	1980-4	5/16/13	AR1242 ICV	1923-1	5/28/12
AR1248	1980-5	5/16/13	AR1248 ICV	1923-2	5/28/12
AR1254	1980-6	5/16/13	AR1254 ICV	1923-3	5/28/12
AR2162	1980-2	5/16/13	AR2162 ICV	1923-4	5/28/12
AR3268	1980-3	5/16/13	AR3268 ICV	1923-5	5/28/12
DS	1878-2	5/28/2012			
IB	1982-2	5/16/13			

Detail problems, corrective actions and/or other pertinent information below:

Analyst: _____ **Date:** 5/24/2012

Reviewer: _____ **Date:** 5/24/12

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120523.b/ical-2.b
/chem2/ecd5.i/20120523.b/ical-2.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	23-MAY-2012 11:25	0523A004.d	1	IB	
2	23-MAY-2012 11:44	0523A005.d	1	0.25PPM AR1660	
3	23-MAY-2012 12:03	0523A006.d	1	0.02 PPM AR1660	
4	23-MAY-2012 12:22	0523A007.d	1	0.05 PPM AR1660	
5	23-MAY-2012 12:41	0523A008.d	1	1 PPM AR1660	
6	23-MAY-2012 13:01	0523A009.d	1	0.1 PPM AR1660	
7	23-MAY-2012 13:20	0523A010.d	1	0.5 PPM ARR160	
8	23-MAY-2012 13:39	0523A011.d	1	AR1242	
9	23-MAY-2012 13:58	0523A012.d	1	AR1248	
10	23-MAY-2012 14:17	0523A013.d	1	AR1254	
11	23-MAY-2012 14:36	0523A014.d	1	AR2162	
12	23-MAY-2012 14:55	0523A015.d	1	AR3268	
13	23-MAY-2012 15:14	0523A016.d	1	AR1660 ICV	
14	23-MAY-2012 15:33	0523A017.d	1	AR1242 ICV	
15	23-MAY-2012 15:52	0523A018.d	1	AR1248 ICV	
16	23-MAY-2012 16:11	0523A019.d	1	AR1254 ICV	
17	23-MAY-2012 16:30	0523A020.d	1	AR2162 ICV	
18	23-MAY-2012 16:49	0523A021.d	1	AR3268 ICV	
19	23-MAY-2012 17:08	0523A022.d	1	DDT	
20	23-MAY-2012 17:27	0523A023.d	1	DDT BD	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20120523.b/ical-2.b/0523A006.d
Level 2: /chem2/ecd5.i/20120523.b/ical-2.b/0523A007.d
Level 3: /chem2/ecd5.i/20120523.b/ical-2.b/0523A009.d
Level 4: /chem2/ecd5.i/20120523.b/ical-2.b/0523A005.d
Level 5: /chem2/ecd5.i/20120523.b/ical-2.b/0523A010.d
Level 6: /chem2/ecd5.i/20120523.b/ical-2.b/0523A008.d
Level 7: /chem2/ecd5.i/20120523.b/ical-2.b/0523A015.d
Level 8: /chem2/ecd5.i/20120523.b/ddt-2.b/0523A022.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
1 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01261	+++++	0.01261	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.00745	+++++	0.00745	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02330	+++++	0.02330	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.00427	+++++	0.00427	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01927	+++++	0.01927	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04034	+++++	0.04034	0.000

Report Date : 24-May-2012 09:52

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01361	0.000
	0.01361	+++++						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01492	0.000
	0.01492	+++++						
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03264	0.000
	0.03264	+++++						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07413	0.000
	0.07413	+++++						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03012	0.000
	0.03012	+++++						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02619	0.000
	0.02619	+++++						
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.04804	0.000
	0.04804	+++++						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03849	0.000
	0.03849	+++++						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04628	0.000
	0.04628	+++++						

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05224	0.000
	0.05224	+++++						
7 Aroclor-1016(1)	0.04940	0.04647	0.04556	0.04084	0.03653	0.03173	0.04176	16.023
	+++++	+++++						
(2)	0.10597	0.10258	0.10168	0.09436	0.08658	0.07751	0.09478	11.554
	+++++	+++++						
(3)	0.02708	0.02599	0.02598	0.02377	0.02273	0.02117	0.02445	9.301
	+++++	+++++						
(4)	0.03005	0.02898	0.02884	0.02684	0.02521	0.02321	0.02719	9.594
	+++++	+++++						
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03512	0.000
	0.03512	+++++						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04464	0.000
	0.04464	+++++						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03411	0.000
	0.03411	+++++						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.07546	0.000
	0.07546	+++++						

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.04423	+++++	0.04423	0.000
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.07493	+++++	0.07493	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06463	+++++	0.06463	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.14676	+++++	0.14676	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05904	+++++	0.05904	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.05498	+++++	0.05498	0.000
9 Aroclor-1260(1)	0.05062	0.04889	0.04828	0.04520	0.04292	0.03939	+++++	+++++	0.04588	9.180
(2)	0.06349	0.06034	0.05952	0.05597	0.05336	0.04914	+++++	+++++	0.05697	9.141
(3)	0.12715	0.12250	0.12117	0.11392	0.10849	0.10086	+++++	+++++	0.11568	8.495

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(4)	0.03841	0.03534	0.03477	0.03284	0.03166	0.02963	+++++	+++++	0.03377	9.114
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.15273	+++++	0.15273	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.14397	+++++	0.14397	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.12090	+++++	0.12090	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.34151	+++++	0.34151	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	686	686	0.000
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	620	620	0.000
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1144	1144	0.000
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	844	844	0.000

eport Date : 24-May-2012 09:52

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	1002	0.000
	+++++	1002						
$ 2 Tetrachloro-m-xylene	1.12596	1.14489	1.18999	1.15489	1.10190	1.03489	1.12542	4.730
	+++++	+++++						
$ 13 Decachlorobiphenyl	1.15697	1.11169	1.08522	1.00551	0.95198	0.89078	1.03369	9.849
	+++++	+++++						

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120523.b/ical-2.b

ARI Job No.: IB Method: PCB2.m Instrument: ecd5.i Date: 23-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1125	0523A004.d	IB		1	NO MANUAL INTEGRATION
1144	0523A005.d	0.25PPM AR1660		1	NO MANUAL INTEGRATION
1203	0523A006.d	0.02 PPM AR1660		1	NO MANUAL INTEGRATION
1222	0523A007.d	0.05 PPM AR1660		1	NO MANUAL INTEGRATION
1241	0523A008.d	1 PPM AR1660		1	NO MANUAL INTEGRATION
1301	0523A009.d	0.1 PPM AR1660		1	NO MANUAL INTEGRATION
1320	0523A010.d	0.5 PPM ARR160		1	NO MANUAL INTEGRATION
1339	0523A011.d	AR1242		1	NO MANUAL INTEGRATION
1358	0523A012.d	AR1248		1	NO MANUAL INTEGRATION
1417	0523A013.d	AR1254		1	NO MANUAL INTEGRATION
1436	0523A014.d	AR2162		1	NO MANUAL INTEGRATION
1455	0523A015.d	AR3268		1	NO MANUAL INTEGRATION
1514	0523A016.d	AR1660	ICV	1	NO MANUAL INTEGRATION
1533	0523A017.d	AR1242	ICV	1	NO MANUAL INTEGRATION
1552	0523A018.d	AR1248	ICV	1	NO MANUAL INTEGRATION
1611	0523A019.d	AR1254	ICV	1	NO MANUAL INTEGRATION
1630	0523A020.d	AR2162	ICV	1	NO MANUAL INTEGRATION
1649	0523A021.d	AR3268	ICV	1	NO MANUAL INTEGRATION
1708	0523A022.d	DDT		1	NO MANUAL INTEGRATION
1727	0523A023.d	DDT BD		1	NO MANUAL INTEGRATION

Report Date : 24-May-2012 10:15

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120523.b/PCB2.m
Batch File: /chem2/ecd5.i/20120523.b/ical-2.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0523A005	0523A006	0523A007	0523A008	0523A009	0523A010
INJ.DATE:	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012
INJ.TIME:	11:44	12:03	12:22	12:41	13:01	13:20

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB	2.893	2.893	2.893	2.893	2.893	2.893	2.893	2.793-2.993	2.893	0.000
$ 2 Tetrachloro-m-xylene	4.605	4.606	4.605	4.607	4.604	4.606	4.607	4.507-4.707	4.605	0.001
1 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	5.290	5.190-5.390	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.345	6.245-6.445	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.343	6.243-6.443	+++++	+++++
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	6.968	6.868-7.068	+++++	+++++
7 Aroclor-1016	6.343	6.343	6.342	6.344	6.343	6.344	6.344	6.244-6.444	6.343	0.001
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.463	8.363-8.563	+++++	+++++
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.419	10.319-10.519	+++++	+++++
9 Aroclor-1260	10.419	10.419	10.419	10.420	10.418	10.420	10.420	10.320-10.520	10.419	0.001
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.664	11.564-11.764	+++++	+++++
$ 13 Decachlorobiphenyl	13.363	13.364	13.363	13.363	13.363	13.363	13.362	13.262-13.462	13.363	0.000
* 12 IS-HBBP	14.232	14.232	14.231	14.230	14.231	14.232	14.232	14.132-14.332	14.231	0.001
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.726	8.676-8.776	+++++	+++++
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.410	9.360-9.460	+++++	+++++
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.112	9.012-9.212	+++++	+++++
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.872	9.772-9.972	+++++	+++++

Reviewer 1 AR Date: 5/24/2012
Reviewer 2 Date: 5/24/12

Scanned

Report Date : 24-May-2012 10:15

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120523.b/PCB2.m
Batch File: /chem2/ecd5.i/20120523.b/ical-2.b
Inst ID: ecd5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.310	10.210-10.410	+++++	+++++

eport Date : 24-May-2012 11:58

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date	: 23-MAY-2012 11:44
End Cal Date	: 23-MAY-2012 17:08
Quant Method	: ISTD
Origin	: Disabled
Target Version	: 3.50
Integrator	: HP Genie
Method file	: /chem2/ecd5.i/20120523.b/PCB1.m
Cal Date	: 24-May-2012 11:56 aron
Curve Type	: Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20120523.b/ical-1.b/0523A006.d
Level 2: /chem2/ecd5.i/20120523.b/ical-1.b/0523A007.d
Level 3: /chem2/ecd5.i/20120523.b/ical-1.b/0523A009.d
Level 4: /chem2/ecd5.i/20120523.b/ical-1.b/0523A005.d
Level 5: /chem2/ecd5.i/20120523.b/ical-1.b/0523A010.d
Level 6: /chem2/ecd5.i/20120523.b/ical-1.b/0523A008.d
Level 7: /chem2/ecd5.i/20120523.b/ical-1.b/0523A015.d
Level 8: /chem2/ecd5.i/20120523.b/ddt-1.b/0523A022.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00600	+++++	0.00600	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.00966	+++++	0.00966	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03163	+++++	0.03163	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02518	+++++	0.02518	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.08396	+++++	0.08396	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03350	+++++	0.03350	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB1.m
Cal Date : 24-May-2012 11:56 aron
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03120	0.000
	0.03120	+++++						
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01394	0.000
	0.01394	+++++						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04636	0.000
	0.04636	+++++						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01880	0.000
	0.01880	+++++						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01806	0.000
	0.01806	+++++						
7 Aroclor-1016(1)	0.04171	0.03673	0.03537	0.03160	0.02820	0.02665	0.03338	16.944
	+++++	+++++						
(2)	0.12318	0.12361	0.11880	0.10580	0.09405	0.08736	0.10880	14.311
	+++++	+++++						
(3)	0.04375	0.04947	0.04772	0.04251	0.03780	0.03621	0.04291	12.246
	+++++	+++++						
(4)	0.04353	0.03876	0.03437	0.03036	0.02750	0.02829	0.03380	18.784
	+++++	+++++						

eport Date : 24-May-2012 11:58

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

tart Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB1.m
Cal Date : 24-May-2012 11:56 aron
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.05616	0.000
	0.05616	+++++						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04243	0.000
	0.04243	+++++						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.05435	0.000
	0.05435	+++++						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05485	0.000
	0.05485	+++++						
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.07344	0.000
	0.07344	+++++						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04727	0.000
	0.04727	+++++						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.09126	0.000
	0.09126	+++++						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.09827	0.000
	0.09827	+++++						
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.06112	0.000
	0.06112	+++++						

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB1.m
Cal Date : 24-May-2012 11:56 aron
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
9 Aroclor-1260(1)	0.05228	0.04825	0.04582	0.04177	0.03802	0.03428		
	+++++	+++++					0.04340	15.387
(2)	0.12945	0.11873	0.11251	0.10270	0.09418	0.08869		
	+++++	+++++					0.10771	14.305
(3)	0.07053	0.06607	0.06311	0.05788	0.05299	0.04863		
	+++++	+++++					0.05987	13.782
(4)	0.03063	0.02842	0.02705	0.02471	0.02268	0.02074		
	+++++	+++++					0.02570	14.369
(5)	0.03545	0.03364	0.03233	0.02984	0.02764	0.02524		
	+++++	+++++					0.03069	12.520
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06377	+++++					0.06377	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04872	+++++					0.04872	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.13314	+++++					0.13314	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04866	+++++					0.04866	0.000

Report Date : 24-May-2012 11:58

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB1.m
Cal Date : 24-May-2012 11:56 aron
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.05533	0.000
	0.05533	+++++						
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.13622	0.000
	0.13622	+++++						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.13695	0.000
	0.13695	+++++						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.11433	0.000
	0.11433	+++++						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.33618	0.000
	0.33618	+++++						
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	909	0.000
	+++++	909						
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	875	0.000
	+++++	875						
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	1051	0.000
	+++++	1051						
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	1450	0.000
	+++++	1450						

eport Date : 24-May-2012 11:58

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

tart Cal Date : 23-MAY-2012 11:44
nd Cal Date : 23-MAY-2012 17:08
uant Method : ISTD
rigin : Disabled
arget Version : 3.50
ntegrator : HP Genie
ethod file : /chem2/ecd5.i/20120523.b/PCB1.m
al Date : 24-May-2012 11:56 aron
urve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1184	1184	0.000
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1334	1334	0.000
$ 1 Tetrachloro-m-xylene	1.31698	1.36458	1.38372	1.30188	1.21607	1.13014	+++++	+++++	1.28556	7.470
$ 13 Decachlorobiphenyl	1.55318	1.41160	1.28921	1.12087	1.03293	0.95778	+++++	+++++	1.22760	18.780

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120523.b/ical-1.b

ARI Job No.: IB Method: PCB1.m Instrument: ecd5.i Date: 23-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1125	0523A004.d	IB		1	NO MANUAL INTEGRATION
1144	0523A005.d	0.25PPM	AR1660	1	NO MANUAL INTEGRATION
1203	0523A006.d	0.02 PPM	AR1660	1	NO MANUAL INTEGRATION
1222	0523A007.d	0.05 PPM	AR1660	1	NO MANUAL INTEGRATION
1241	0523A008.d	1 PPM	AR1660	1	NO MANUAL INTEGRATION
1301	0523A009.d	0.1 PPM	AR1660	1	NO MANUAL INTEGRATION
1320	0523A010.d	0.5 PPM	ARR160	1	NO MANUAL INTEGRATION
1339	0523A011.d	AR1242		1	NO MANUAL INTEGRATION
1358	0523A012.d	AR1248		1	NO MANUAL INTEGRATION
1417	0523A013.d	AR1254		1	NO MANUAL INTEGRATION
1436	0523A014.d	AR2162		1	NO MANUAL INTEGRATION
1455	0523A015.d	AR3268		1	NO MANUAL INTEGRATION
1514	0523A016.d	AR1660	ICV	1	NO MANUAL INTEGRATION
1533	0523A017.d	AR1242	ICV	1	NO MANUAL INTEGRATION
1552	0523A018.d	AR1248	ICV	1	NO MANUAL INTEGRATION
1611	0523A019.d	AR1254	ICV	1	NO MANUAL INTEGRATION
1630	0523A020.d	AR2162	ICV	1	NO MANUAL INTEGRATION
1649	0523A021.d	AR3268	ICV	1	NO MANUAL INTEGRATION

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120523.b/PCB1.m
Batch File: /chem2/ecd5.i/20120523.b/ical-1.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0523A005	0523A006	0523A007	0523A008	0523A009	0523A010
INJ.DATE:	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012	23-MAY-2012
INJ.TIME:	11:44	12:03	12:22	12:41	13:01	13:20

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	2.409	2.409	2.409	2.408	2.408	2.408	2.409	2.309-2.509	2.409	0.001
$ 1 Tetrachloro-m-xylene	4.606	4.604	4.604	4.606	4.604	4.604	4.606	4.506-4.706	4.605	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.884	4.784-4.984	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.237	6.137-6.337	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.238	6.138-6.338	+++++	+++++
7 Aroclor-1016	6.238	6.238	6.238	6.238	6.237	6.237	6.238	6.138-6.338	6.238	0.000
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	6.635	6.535-6.735	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.354	8.254-8.454	+++++	+++++
9 Aroclor-1260	10.445	10.444	10.444	10.445	10.443	10.444	10.445	10.345-10.545	10.444	0.001
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.128	10.028-10.228	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.336	11.236-11.436	+++++	+++++
$ 13 Decachlorobiphenyl	12.990	12.989	12.989	12.991	12.989	12.990	12.990	12.890-13.090	12.990	0.001
* 12 IS-HBBP	13.353	13.353	13.353	13.352	13.352	13.352	13.353	13.253-13.453	13.352	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.321	8.271-8.371	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	8.871	8.821-8.921	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.375	9.325-9.425	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.753	8.653-8.853	+++++	+++++

Reviewer 1 AR Date: 5/24/2012
Reviewer 2 _____ Date: 5/24/12

Report Date : 24-May-2012 12:02

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120523.b/PCB1.m
Batch File: /chem2/ecd5.i/20120523.b/ical-1.b
Inst ID: ecd5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.325	9.225-9.425	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.837	9.737-9.937	+++++	+++++

/chem2/ecd5.i/20120523.b/ical-1.b/0523A005.d 0.25PPM AR1660

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.238	0.000	15229482	236.7	1	6.343	-0.001	14117449	244.5
Aroclor-1016	2	6.639	0.000	50991004	243.1	2	6.971	0.000	32617746	248.9
Aroclor-1016	3	6.788	0.000	20490162	247.7	3	7.353	0.000	8215755	243.0
Aroclor-1016	4	6.898	0.000	14633464	224.6	4	7.460	0.000	9277944	246.8
Total Col1Ave (4 peaks):					238.0	Total Col2Ave (4 peaks):				245.8 RPD = 3
Corrected Ave (3 peaks):					234.8	Corrected Ave (3 peaks):				244.8 RPD = 4
Aroclor-1260	1	10.445	0.000	32448447	240.6	1	10.419	-0.001	15374420	246.3
Aroclor-1260	2	10.818	0.000	79789414	238.4	2	10.869	0.000	19040837	245.6
Aroclor-1260	3	11.219	0.000	44965237	241.7	3	11.142	-0.001	38751698	246.2
Aroclor-1260	4	11.335	0.000	19196731	240.3	4	11.663	0.000	11171047	243.1
Aroclor-1260	5	11.408	0.000	23183613	243.1	NS	---			----
Total Col1Ave (5 peaks):					240.8	Total Col2Ave (4 peaks):				245.3 RPD = 2
Corrected Ave (4 peaks):					240.2	Corrected Ave (3 peaks):				245.0 RPD = 2

Total PCB Area Col1 (4.706 - 12.890) = 920967238 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 481876009 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A005.d
Data file 2: 20120523.b/ical-2.b/0523A005.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 11:44
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.606	0.000	50196565	4.605	-0.002	31937901	20.3	20.5	1.3	Tetrachloro-m-xylene
12.990	0.000	69662575	13.363	0.000	27363920	18.3	19.5	6.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.6	51.3
Decachlorobiphenyl	45.7	48.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	154228462	9.9
Hexabromobiphenyl	198372884	248602423	25.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	110618229	7.8
Hexabromobiphenyl	81487087	108855531	33.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A004.d
Data file 2: 20120523.b/ical-2.b/0523A004.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 23-MAY-2012 11:25
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.607	0.002	88472017	4.607	0.000	60463357	36.4	39.1	7.3	Tetrachloro-m-xylene
12.990	0.000	126799730	13.363	0.000	51539444	34.1	37.1	8.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	90.9	97.8
Decachlorobiphenyl	85.2	92.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	151362399	-1.9
Hexabromobiphenyl	248602423	242394135	-2.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	109883399	-0.7
Hexabromobiphenyl	108855531	107569893	-1.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

chem2/ecd5.i/20120523.b/ical-1.b/0523A004.d IB

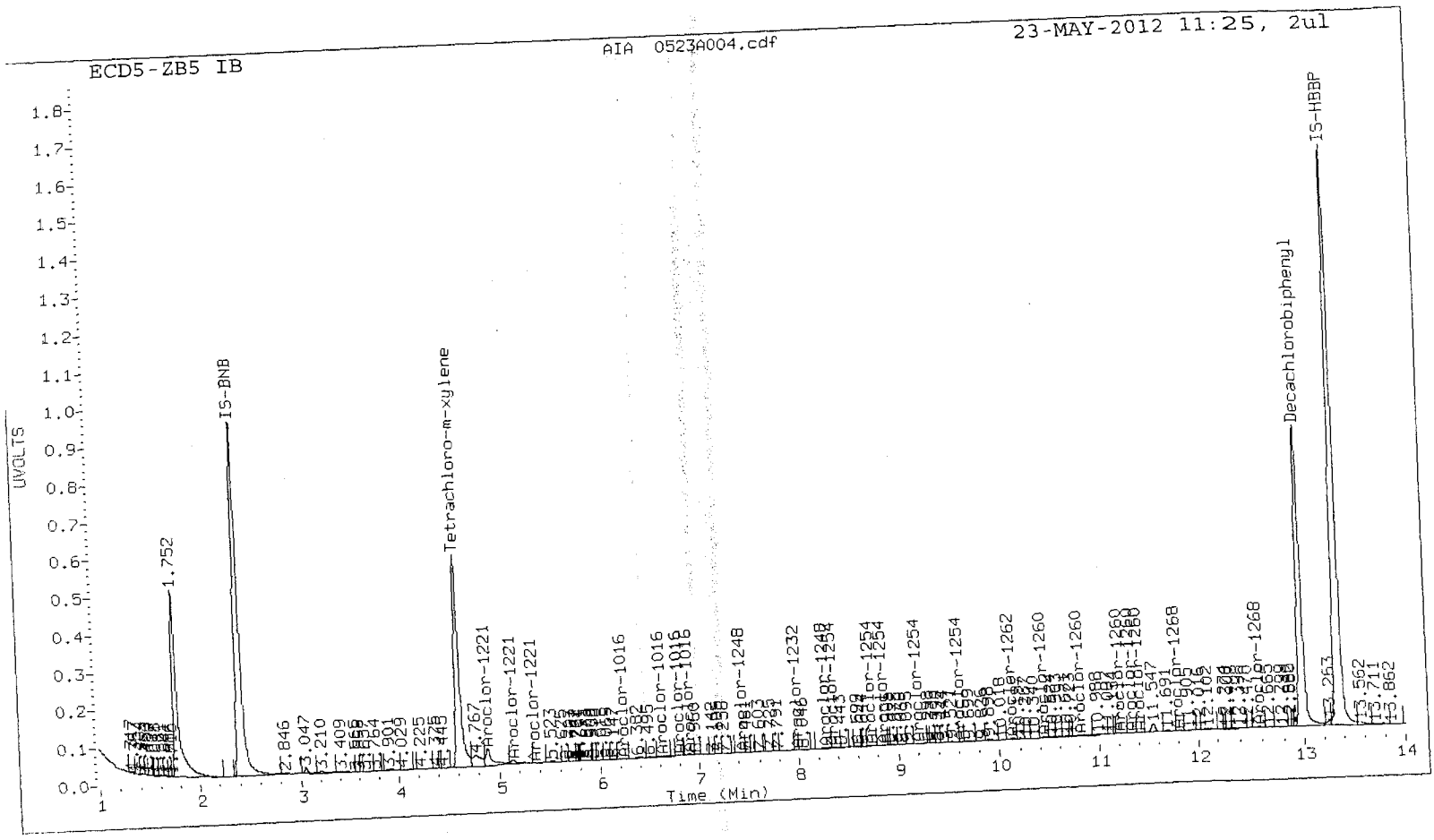
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount	
Aroclor-1016	1	6.233	-0.004	143511	2.3	1	6.340	-0.003	18810	0.3	
Aroclor-1016	2	6.625	-0.013	121999	0.6	2	7.009	0.038	62382	0.5	
Aroclor-1016	3	6.802	0.015	22523	0.3	3	7.357	0.004	20604	0.6	
Aroclor-1016	4	6.897	0.001	671718	10.5	4	7.461	0.001	17257	0.5	
Total Col1Ave (4 peaks):				3.4		Total Col2Ave (4 peaks):			0.5	RPD = 152*	
Corrected Ave (3 peaks):				1.0		Corrected Ave (3 peaks):			0.4	RPD = 85*	
Aroclor-1221	1	4.886	0.002	10162356	895.7	1	5.322	0.032	860678	49.7	
Aroclor-1221	2	5.142	-0.011	3123032	171.0	2	5.495	-0.041	1060001	103.6	
Aroclor-1221	3	5.361	0.103	644162	10.8	3	5.656	0.007	430631	13.5	
Aroclor-1221	NS	---			----	4	---			0.0	
Total Col1Ave (3 peaks):				359.1		Total Col2Ave (3 peaks):			55.6	RPD = 146*	
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks					
Aroclor-1232	1	6.233	-0.006	143511	5.4	1	6.340	-0.005	18810	0.7	
Aroclor-1232	2	6.625	-0.015	121999	1.4	2	7.009	0.038	62382	1.1	
Aroclor-1232	3	6.802	0.014	22523	0.6	3	7.165	-0.015	27331	1.5	
Aroclor-1232	4	7.990	0.010	13064	0.4	4	8.322	-0.003	72983	3.6	
Total Col1Ave (4 peaks):				2.0		Total Col2Ave (4 peaks):			1.7	RPD = 13	
Corrected Ave (3 peaks):				0.8		Corrected Ave (3 peaks):			1.1	RPD = 31	
Aroclor-1242	1	6.233	-0.004	143511	3.0	1	6.340	-0.002	18810	0.4	
Aroclor-1242	2	6.625	-0.013	121999	0.8	2	7.009	0.038	62382	0.6	
Aroclor-1242	3	6.802	0.015	22523	0.4	3	7.165	-0.014	27331	0.7	
Aroclor-1242	4	7.990	0.011	13064	0.2	4	8.322	-0.003	72983	2.0	
Total Col1Ave (4 peaks):				1.1		Total Col2Ave (4 peaks):			0.9	RPD = 16	
Corrected Ave (3 peaks):				0.4		Corrected Ave (3 peaks):			0.6	RPD = 23	
Aroclor-1248	1	6.625	-0.010	121999	1.1	1	7.009	0.041	62382	0.9	
Aroclor-1248	2	7.437	0.003	38250	0.5	2	7.872	0.001	23362	0.4	
Aroclor-1248	3	7.990	0.010	13064	0.1	3	8.322	-0.002	72983	1.1	
Aroclor-1248	4	8.269	-0.001	426946	4.1	4	8.704	-0.042	400948	5.6	
Total Col1Ave (4 peaks):				1.5		Total Col2Ave (4 peaks):			2.0	RPD = 32	
Corrected Ave (3 peaks):				0.6		Corrected Ave (3 peaks):			0.8	RPD = 37	
Aroclor-1254	1	8.351	-0.003	215465	1.6	1	8.463	-0.001	47481	1.0	
Aroclor-1254	2	8.735	0.010	89533	1.0	2	8.638	0.001	55667	0.9	
Aroclor-1254	3	8.861	0.000	158556	0.9	3	9.158	-0.001	37595	0.8	
Aroclor-1254	4	9.193	-0.017	302955	1.6	4	9.348	0.039	108126	1.0	
Aroclor-1254	5	9.609	0.037	44311	0.4	5	10.100	0.008	35462	0.6	
Total Col1Ave (5 peaks):				1.1		Total Col2Ave (5 peaks):			0.9	RPD = 24	
Corrected Ave (4 peaks):				1.0		Corrected Ave (4 peaks):			0.8	RPD = 16	
Aroclor-1260	1	10.444	0.000	216419	1.6	1	10.419	0.000	79074	1.3	
Aroclor-1260	2	10.818	-0.001	692716	2.1	2	10.869	0.000	113228	1.5	
Aroclor-1260	3	11.217	0.000	239883	1.3	3	11.143	0.000	187764	1.2	
Aroclor-1260	4	11.332	-0.001	130325	1.7	4	11.664	0.000	50271	1.1	
Aroclor-1260	5	11.409	0.002	99286	1.1	NS	---			----	
Total Col1Ave (5 peaks):				1.6		Total Col2Ave (4 peaks):			1.3	RPD = 21	
Corrected Ave (4 peaks):				1.4		Corrected Ave (3 peaks):			1.2	RPD = 17	
Aroclor-1262	1	10.129	0.001	232634	1.2	1	10.419	0.000	79074	0.8	
Aroclor-1262	2	10.444	0.000	216419	1.5	2	10.869	-0.001	113228	1.3	
Aroclor-1262	3	10.818	-0.001	692716	1.7	3	11.143	0.001	187764	1.0	
Aroclor-1262	4	11.332	-0.002	130325	0.9	4	11.664	0.000	50271	0.6	
Aroclor-1262	5	11.409	0.002	99286	0.6	5	12.505	0.042	529641	7.2	
Total Col1Ave (5 peaks):				1.2		Total Col2Ave (5 peaks):			2.2	RPD = 60*	
Corrected Ave (4 peaks):				1.0		Corrected Ave (4 peaks):			0.9	RPD = 12	
Aroclor-1268	1	11.332	-0.003	130325	0.3	1	11.664	0.000	50271	0.2	
Aroclor-1268	2	11.409	0.002	99286	0.2	2	11.723	-0.008	114725	0.6	

Aroclor-1268	3	11.798	0.005	119100	0.3	3	12.131	0.003	101538	0.6
Aroclor-1268	4	12.572	-0.013	456122	0.4	4	12.945	-0.005	80790	0.2
Total Col1Ave (4 peaks):				0.3	Total Col2Ave (4 peaks):				0.4	RPD = 20
Corrected Ave (3 peaks):				0.3	Corrected Ave (3 peaks):				0.3	RPD = 12

Total PCB Area Col1 (4.705 - 12.890) = 37858820 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 14856410 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical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Aroclor-1016
Aroclor-1248
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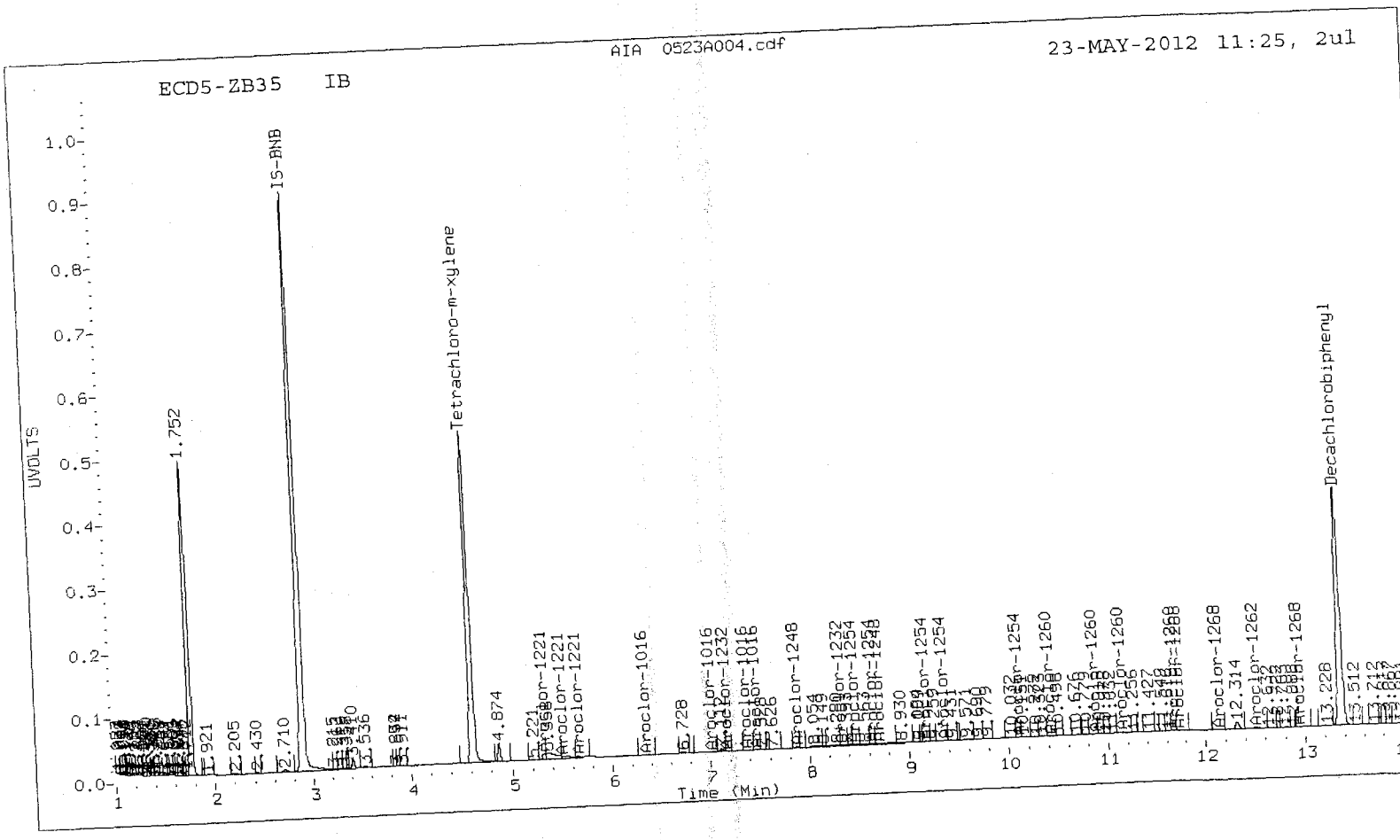
Aroclor-1268
Decachlorobiphenyl
IS-HBBF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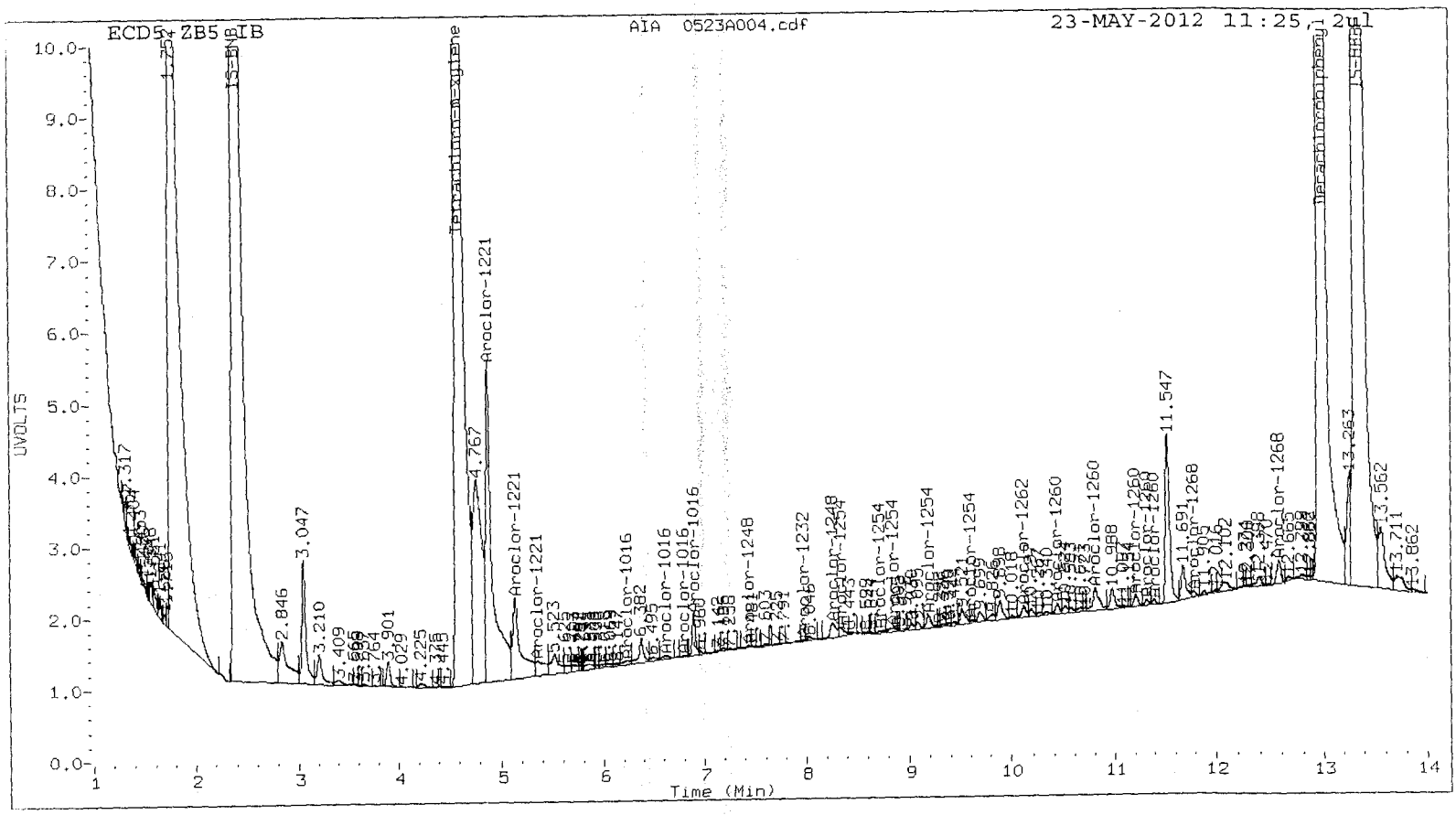
Decachlorobiphenyl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Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
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3.210
4.767
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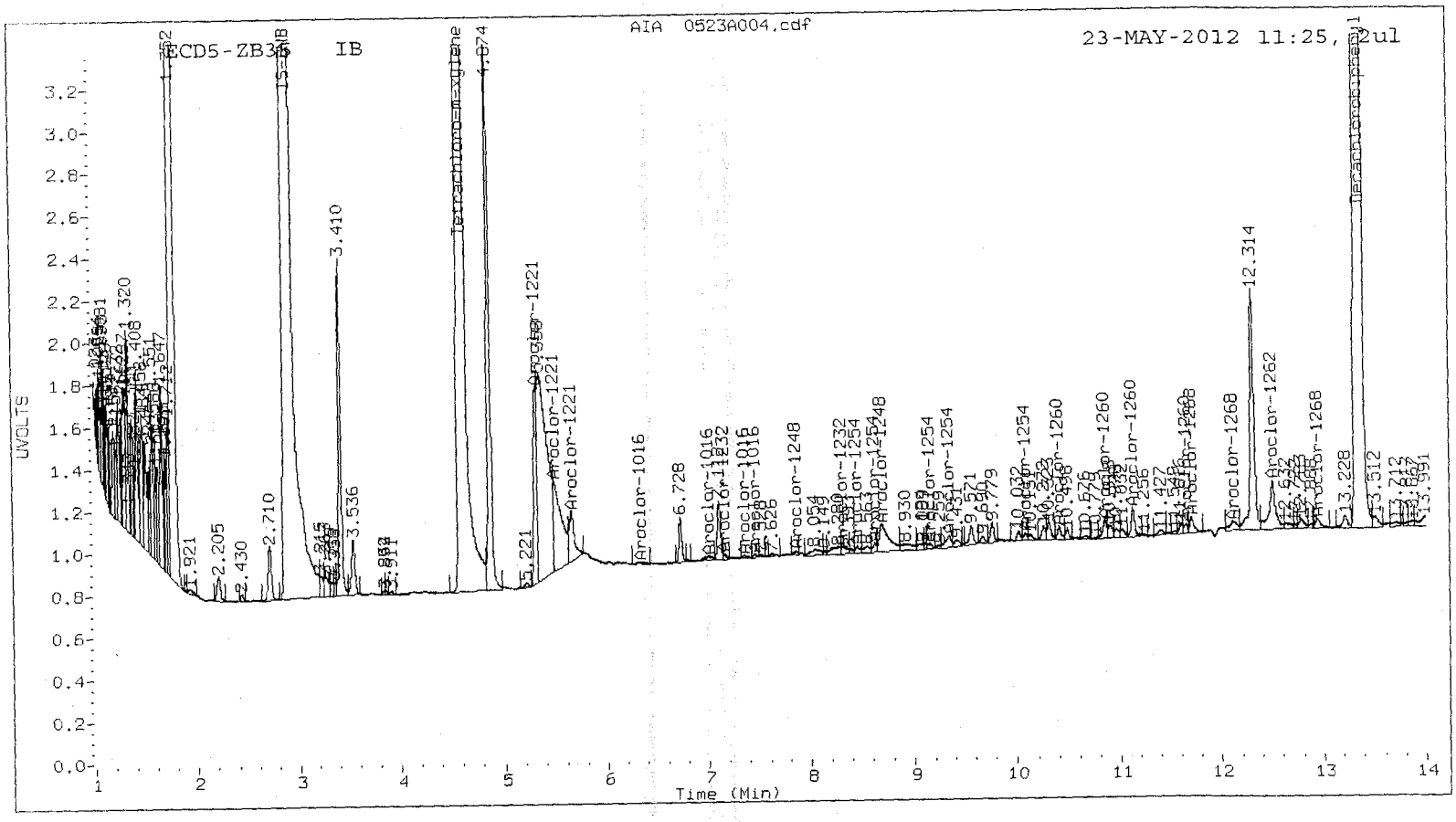
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Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB
1.921
2.205
2.430
2.710
3.410
3.536
4.674
5.221
6.728
12.314
13.228
13.512

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A005.d
Data file 2: 20120523.b/ical-2.b/0523A005.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 11:44
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.606	0.001	50196565	4.605	-0.002	31937901	20.3	20.5	1.3	Tetrachloro-m-xylene
12.990	-0.001	69662575	13.363	0.000	27363920	18.3	19.5	6.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.6	51.3
Decachlorobiphenyl	45.7	48.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	154228462	0.0
Hexabromobiphenyl	248602423	248602423	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	110618229	0.0
Hexabromobiphenyl	108855531	108855531	0.0

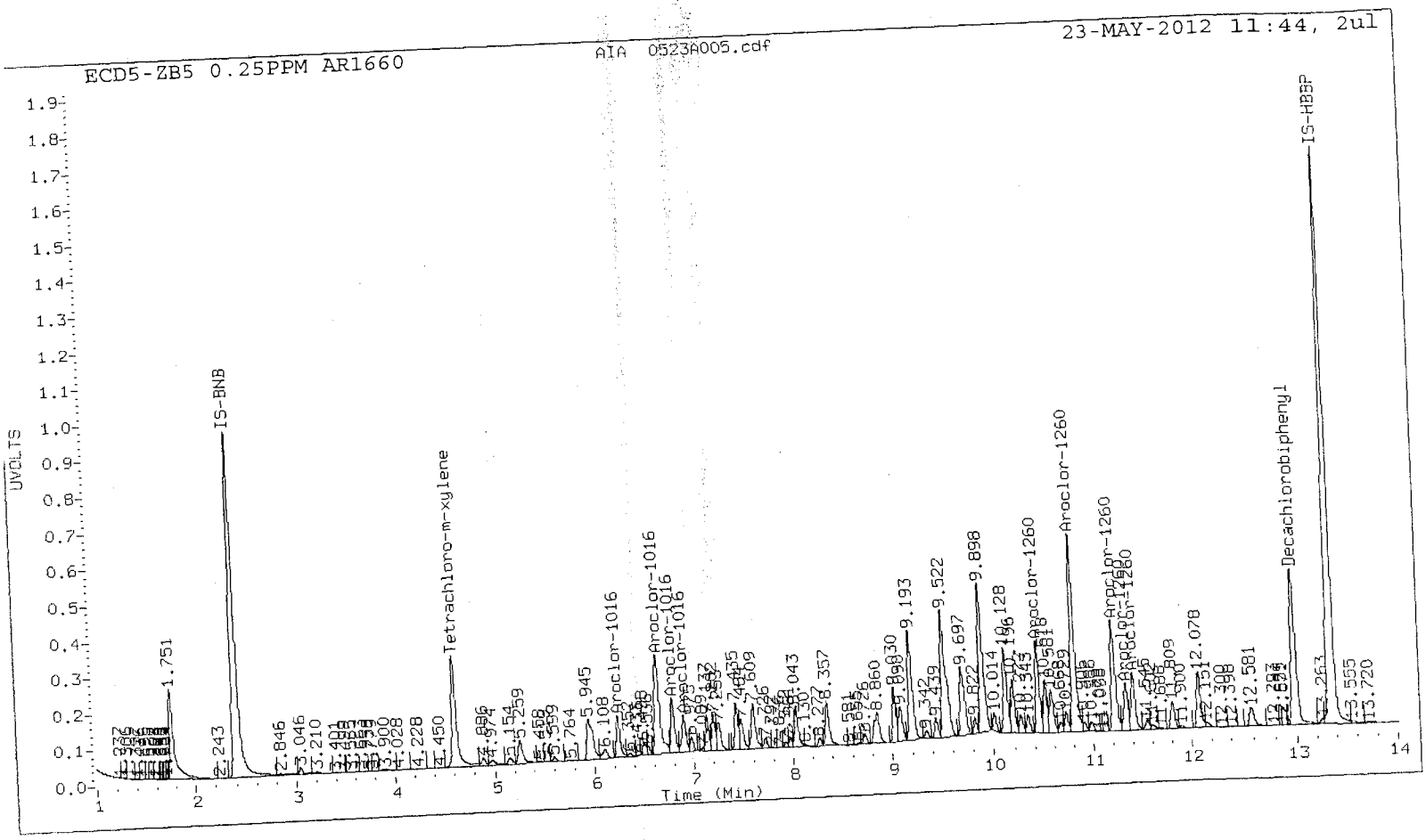
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.238	0.001	15229482	236.7	1	6.343	-0.001	14117449	244.5
Aroclor-1016	2	6.639	0.001	50991004	243.1	2	6.971	0.000	32617746	248.9
Aroclor-1016	3	6.788	0.001	20490162	247.7	3	7.353	0.000	8215755	243.0
Aroclor-1016	4	6.898	0.002	14633464	224.6	4	7.460	0.000	9277944	246.8
Total Col1Ave (4 peaks):					238.0	Total Col2Ave (4 peaks):				245.8 RPD = 3
Corrected Ave (3 peaks):					234.8	Corrected Ave (3 peaks):				244.8 RPD = 4
Aroclor-1260	1	10.445	0.001	32448447	240.6	1	10.419	-0.001	15374420	246.3
Aroclor-1260	2	10.818	0.000	79789414	238.4	2	10.869	0.000	19040837	245.6
Aroclor-1260	3	11.219	0.002	44965237	241.7	3	11.142	-0.001	38751698	246.2
Aroclor-1260	4	11.335	0.001	19196731	240.3	4	11.663	0.000	11171047	243.1
Aroclor-1260	5	11.408	0.000	23183613	243.1	NS	---			----
Total Col1Ave (5 peaks):					240.8	Total Col2Ave (4 peaks):				245.3 RPD = 2
Corrected Ave (4 peaks):					240.2	Corrected Ave (3 peaks):				245.0 RPD = 2

Total PCB Area Col1 (4.705 - 12.890) = 920967238 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 481876009 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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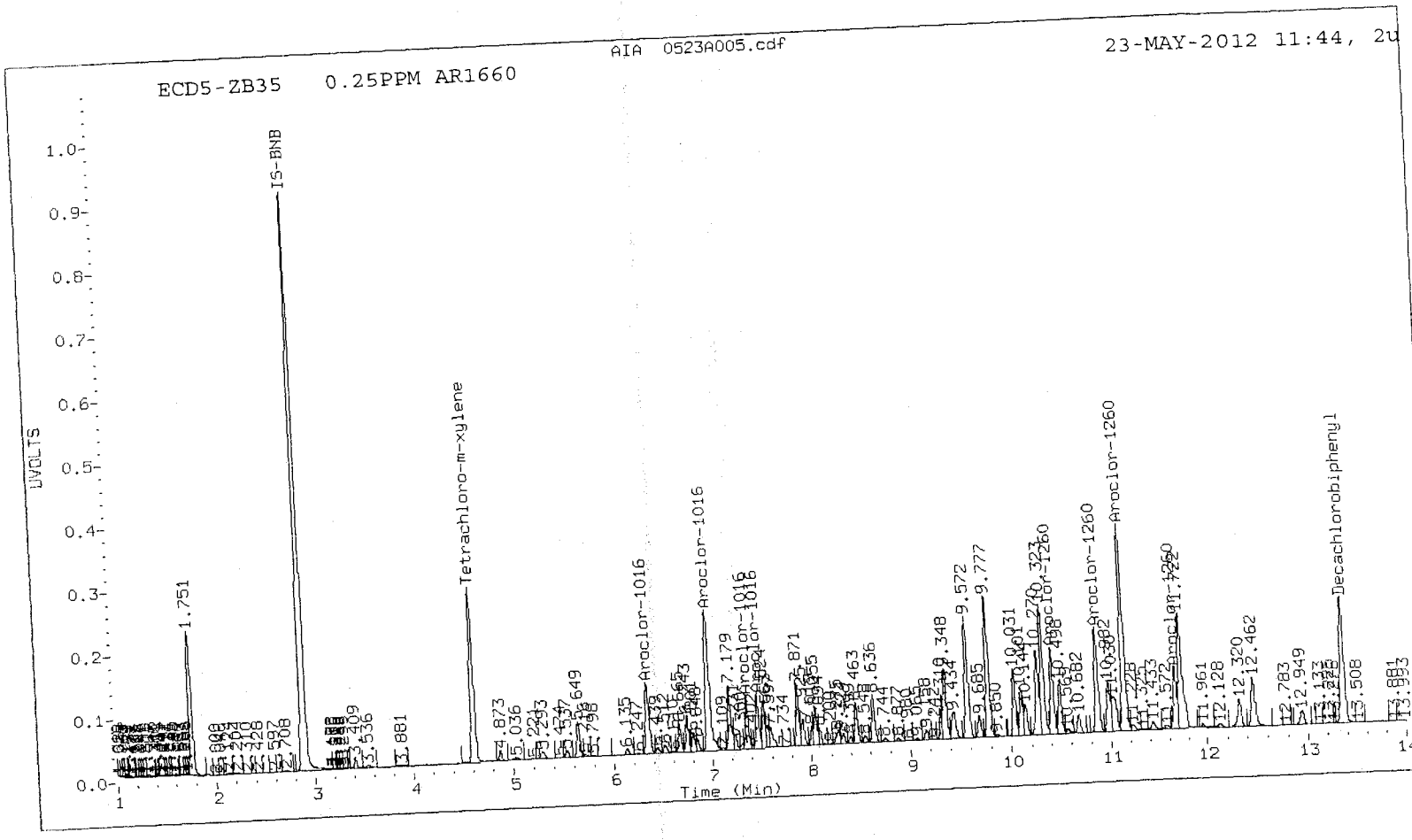
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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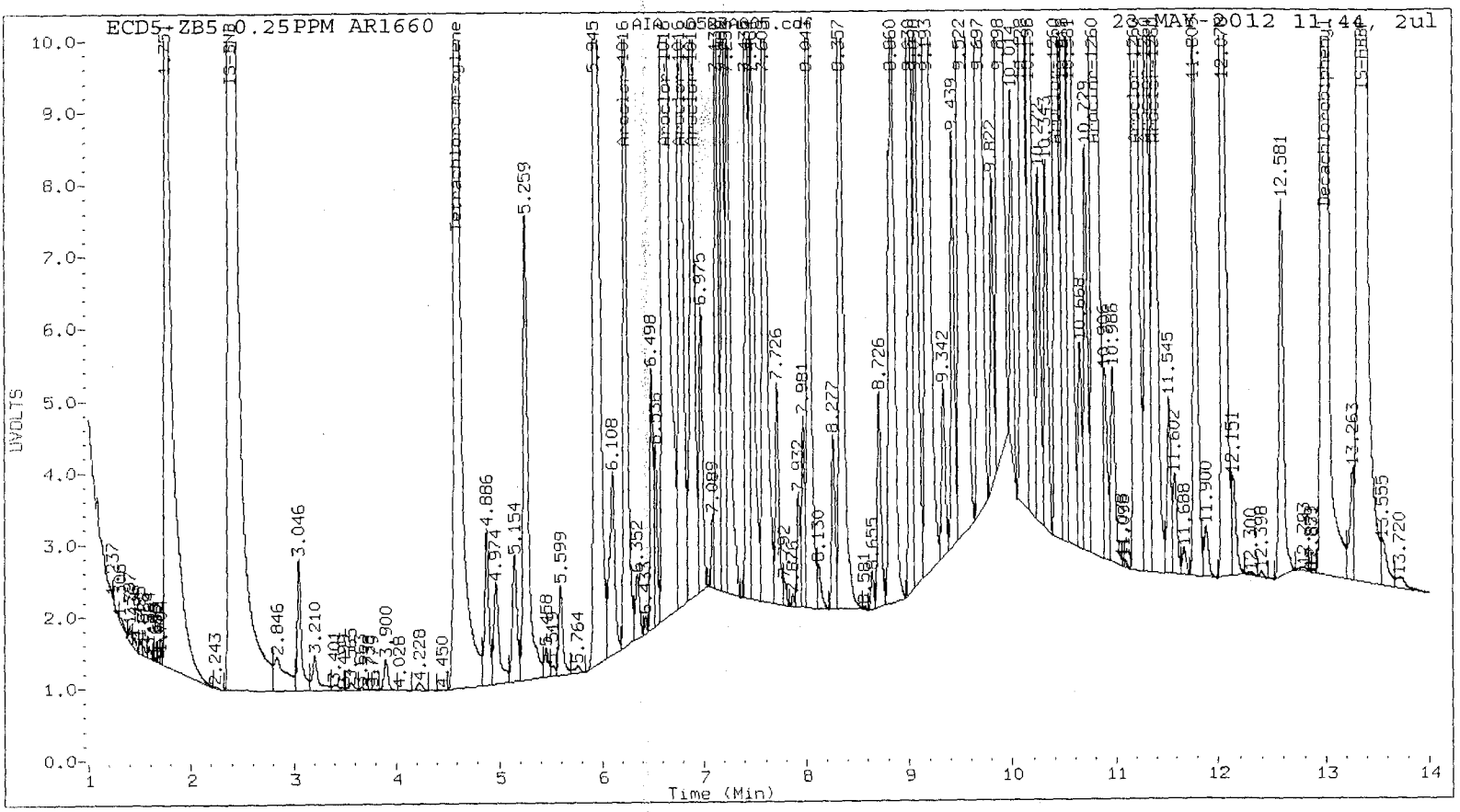
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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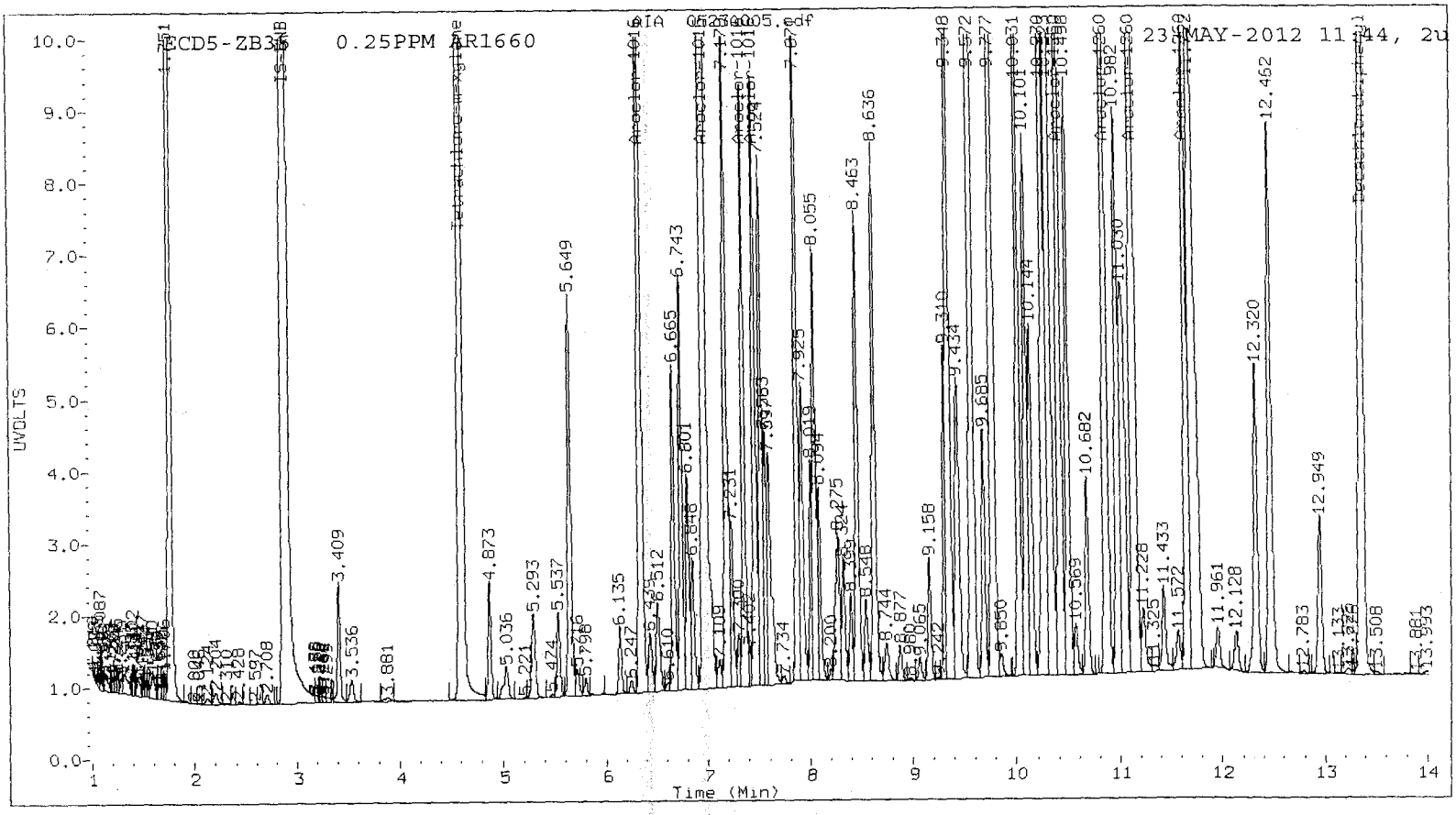
Time (Min)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UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A006.d
Data file 2: 20120523.b/ical-2.b/0523A006.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02 PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 12:03
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.001	4106869	4.606	-0.001	2480564	1.6	1.6	2.4	Tetrachloro-m-xylene
12.989	-0.001	7680143	13.364	0.001	2499588	2.0	1.8	12.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	4.1	4.0
Decachlorobiphenyl	5.1	4.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	155920235	1.1
Hexabromobiphenyl	248602423	247239477	-0.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	110153498	-0.4
Hexabromobiphenyl	108855531	108023463	-0.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

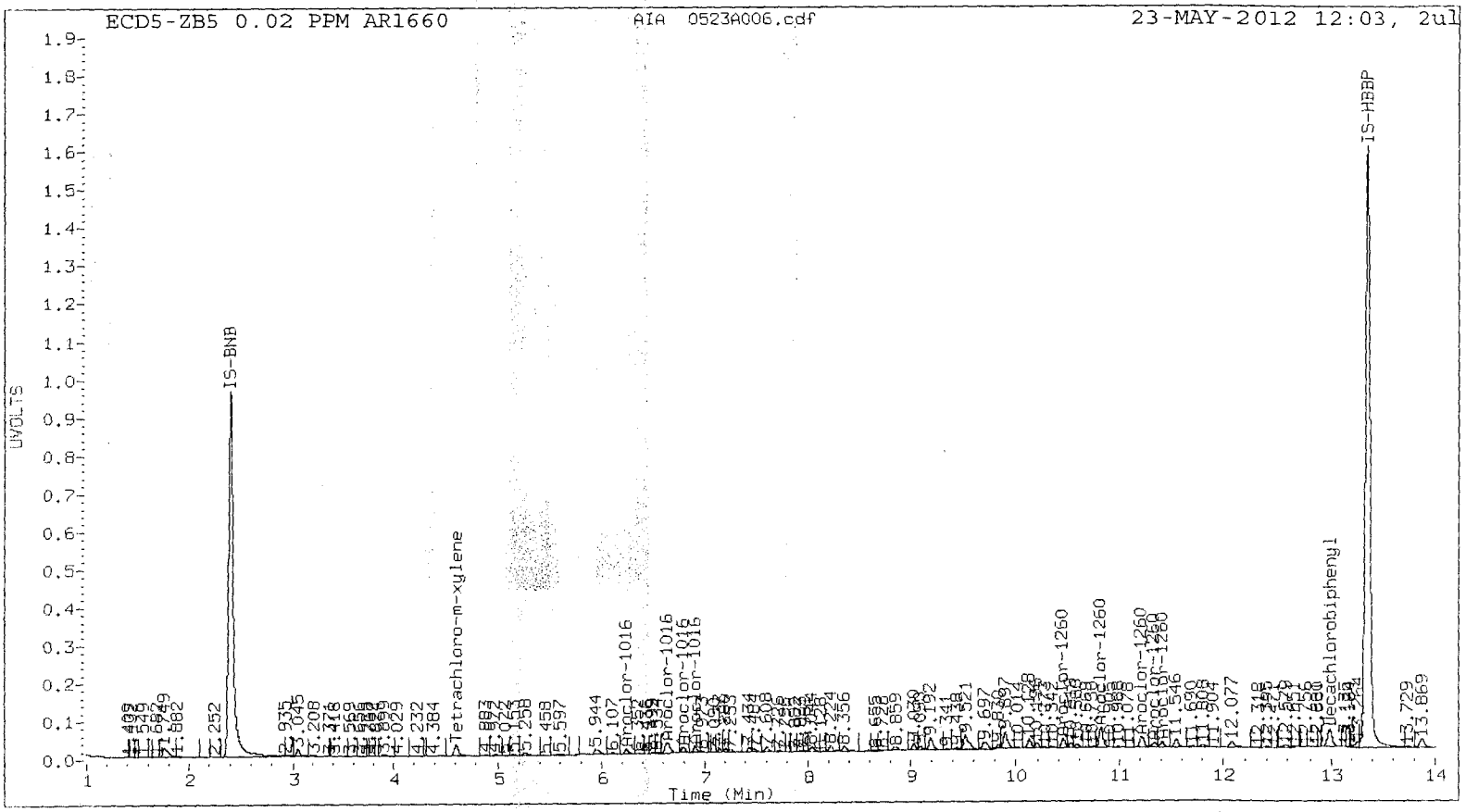
chem2/ecd5.i/20120523.b/ical-1.b/0523A006.d 0.02 PPM AR1660

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.238	0.000	1625984	25.0	1	6.343	-0.001	1360486	23.7
Aroclor-1016	2	6.638	0.000	4801696	22.6	2	6.970	0.000	2918356	22.4
Aroclor-1016	3	6.788	0.001	1705356	20.4	3	7.354	0.001	745747	22.1
Aroclor-1016	4	6.897	0.001	1696976	25.8	4	7.460	0.000	827467	22.1
Total Col1Ave (4 peaks):				23.4	Total Col2Ave (4 peaks):				22.6	RPD = 4
Corrected Ave (3 peaks):				22.7	Corrected Ave (3 peaks):				22.2	RPD = 2
Aroclor-1260	1	10.444	0.000	3231721	24.1	1	10.419	0.000	1367036	22.1
Aroclor-1260	2	10.819	0.000	8001232	24.0	2	10.870	0.000	1714628	22.3
Aroclor-1260	3	11.218	0.001	4359743	23.6	3	11.142	-0.001	3433919	22.0
Aroclor-1260	4	11.335	0.001	1893013	23.8	4	11.664	0.000	1037164	22.7
Aroclor-1260	5	11.409	0.001	2191104	23.1	NS	---			
Total Col1Ave (5 peaks):				23.7	Total Col2Ave (4 peaks):				22.3	RPD = 6
Corrected Ave (4 peaks):				23.6	Corrected Ave (3 peaks):				22.1	RPD = 7

Total PCB Area Col1 (4.705 - 12.890) = 98480959 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 46879567 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical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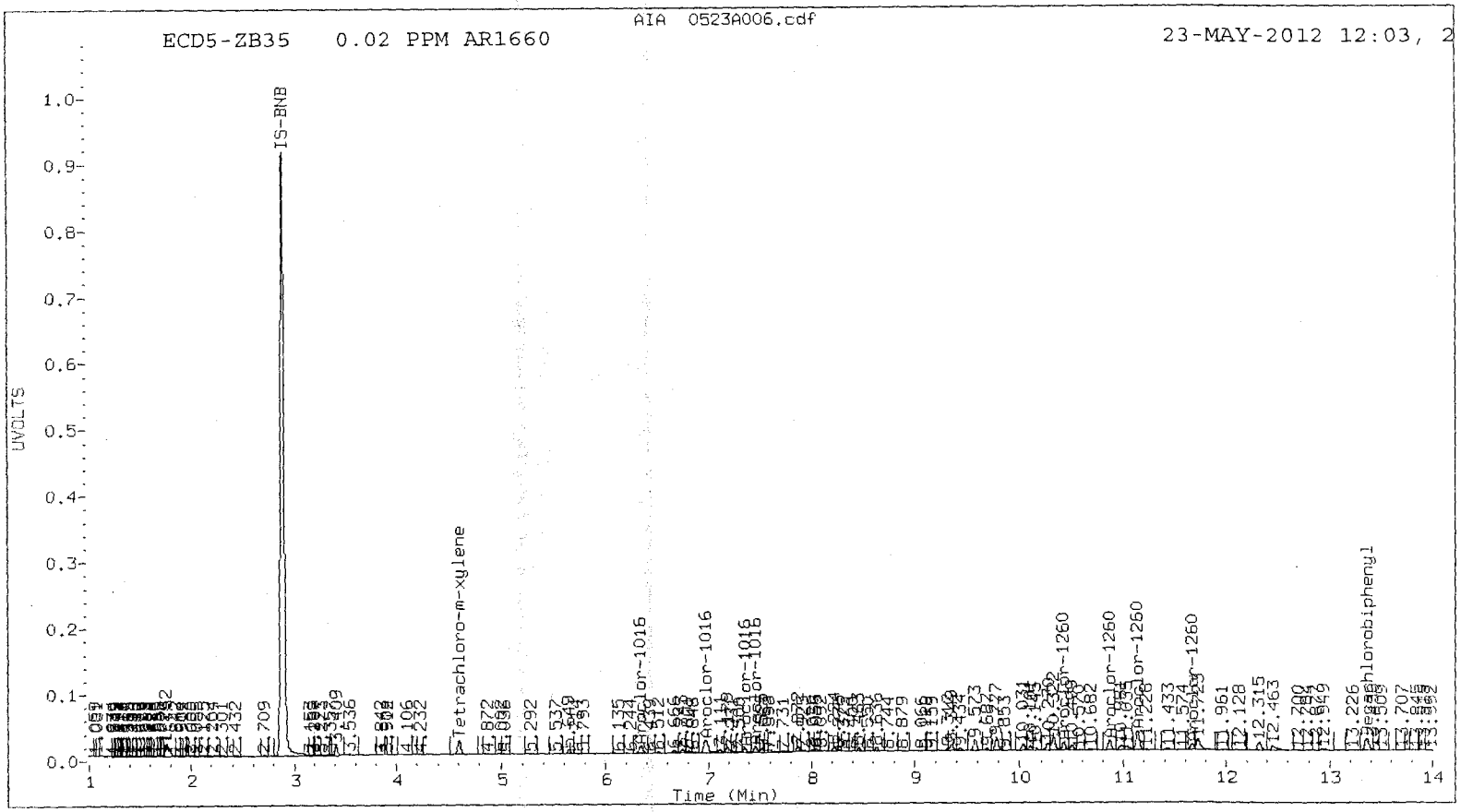
Decachlorobiphenyl
UVOLTS
Time (Min)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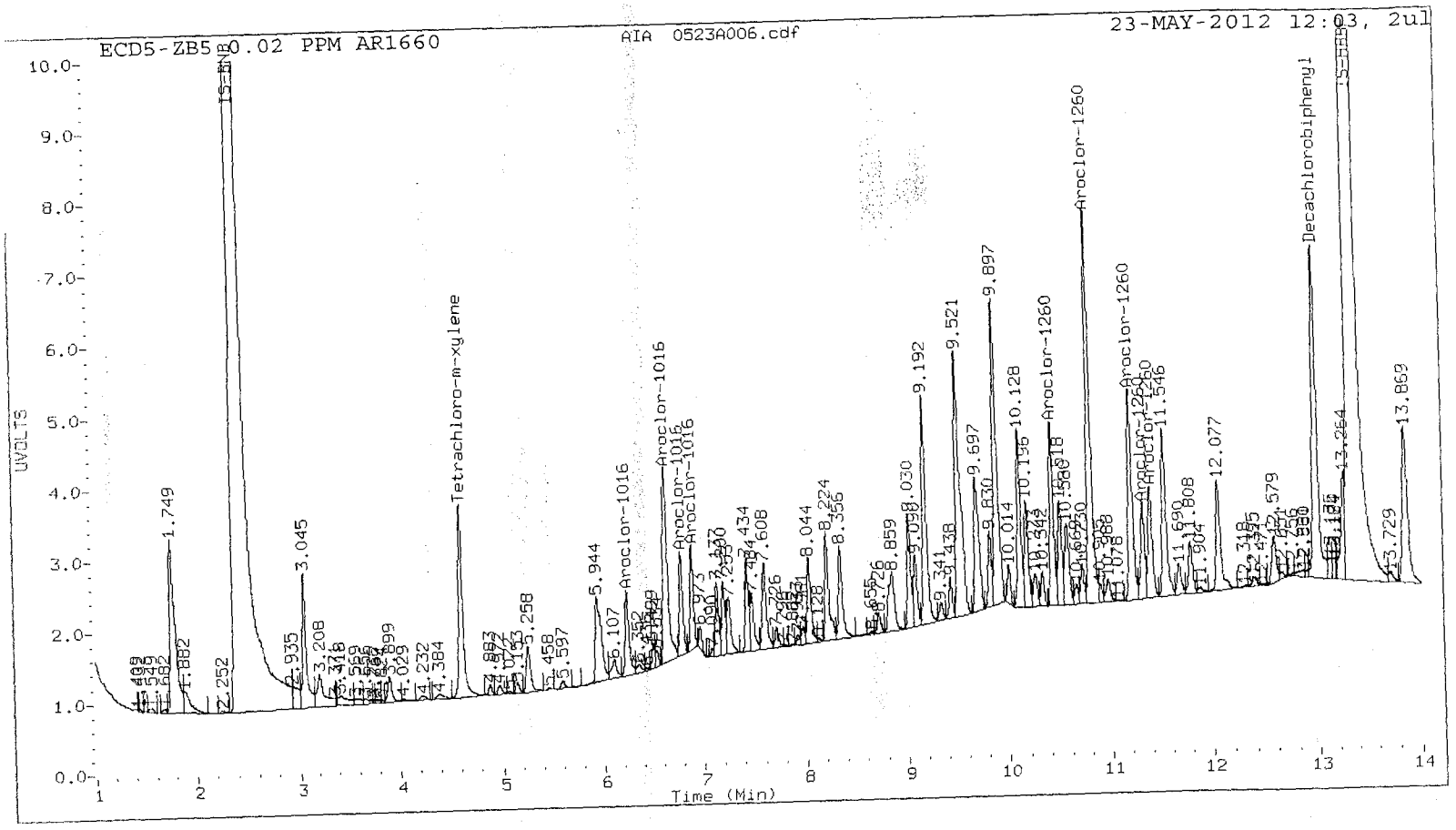
Time (Min)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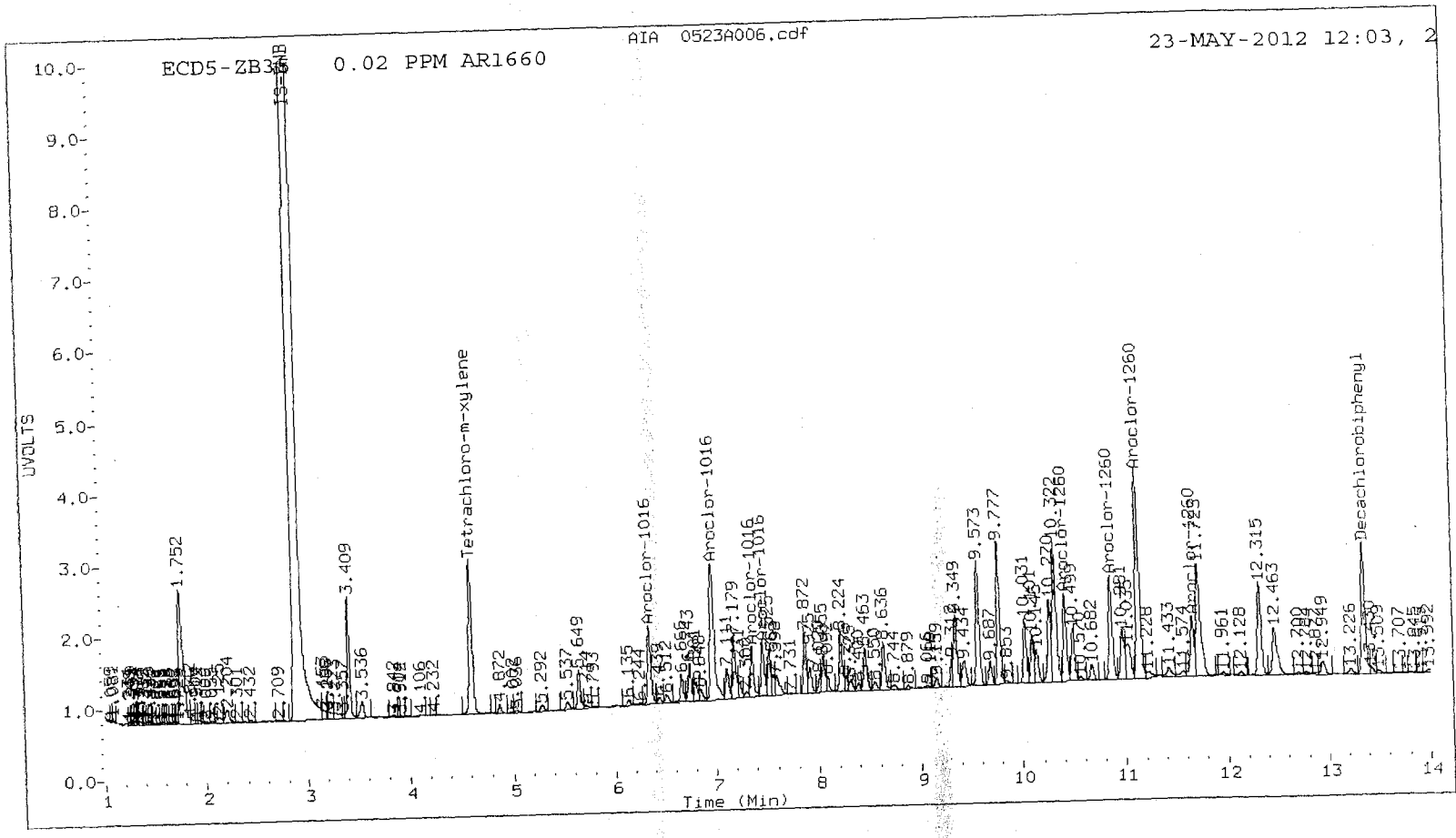
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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23-MAY-2012 12:03, 2
ECD5-ZB3 0.02 PPM AR1660
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A007.d
Data file 2: 20120523.b/ical-2.b/0523A007.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05 PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 12:22
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.001	10962186	4.605	-0.002	6534992	4.2	4.1	4.2	Tetrachloro-m-xylene
12.989	-0.002	18286950	13.363	0.000	6267012	4.6	4.3	6.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	10.6	10.2
Decachlorobiphenyl	11.5	10.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	160667727	4.2
Hexabromobiphenyl	248602423	259094728	4.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	114159374	3.2
Hexabromobiphenyl	108855531	112747731	3.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

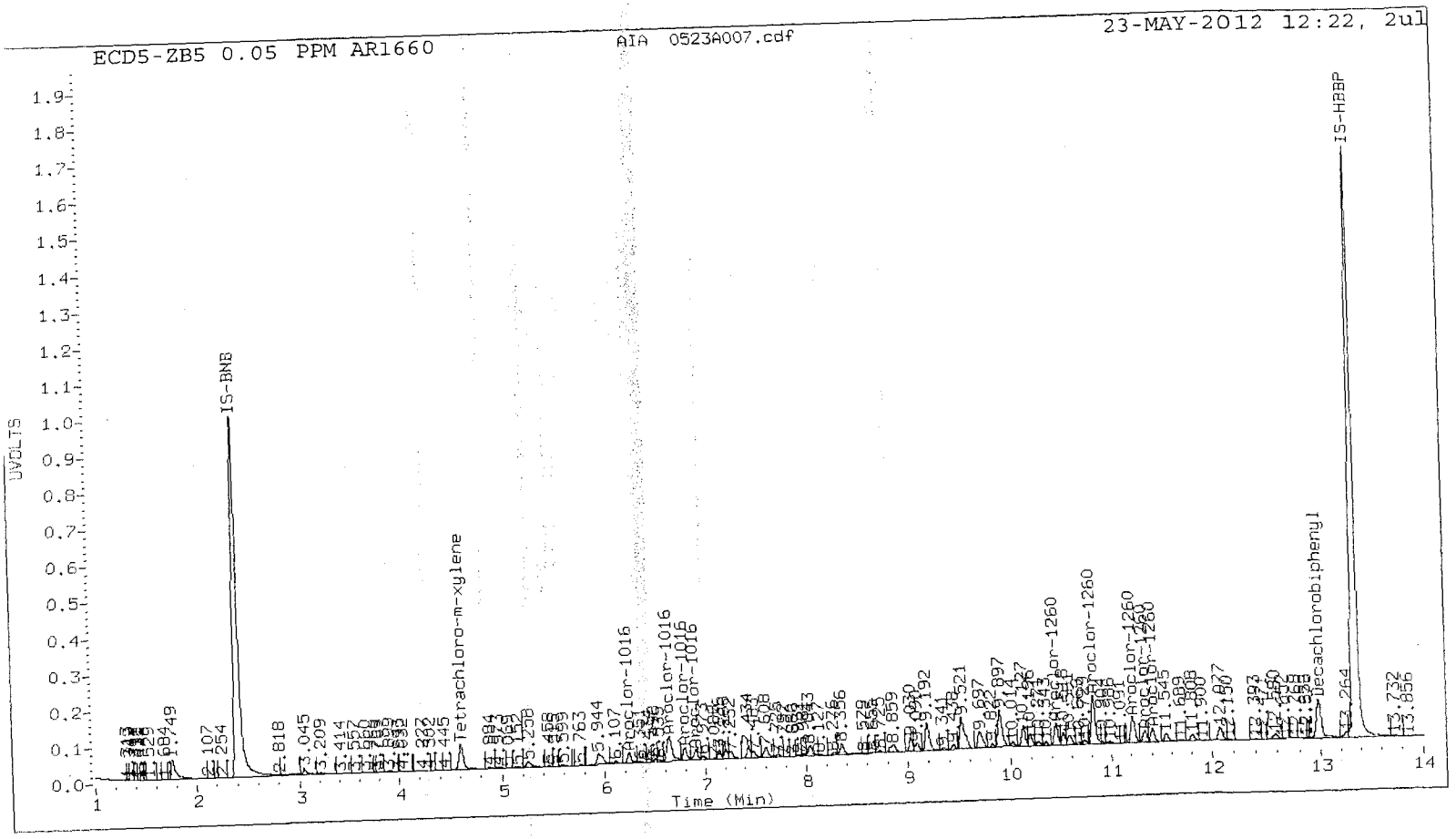
chem2/ecd5.i/20120523.b/ical-1.b/0523A007.d 0.05 PPM AR1660

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016 1		6.238	0.001	3688038	55.0	1	6.342	-0.002	3315376	55.6
Aroclor-1016 2		6.638	0.000	12412178	56.8	2	6.969	-0.001	7318862	54.1
Aroclor-1016 3		6.787	0.001	4967870	57.6	3	7.353	0.000	1854416	53.1
Aroclor-1016 4		6.897	0.001	3892311	57.3	4	7.460	0.000	2068016	53.3
Total Col1Ave (4 peaks):				56.7		Total Col2Ave (4 peaks):			54.1	RPD = 5
Corrected Ave (3 peaks):				56.4		Corrected Ave (3 peaks):			53.5	RPD = 5
Aroclor-1260 1		10.444	0.000	7812618	55.6	1	10.419	-0.001	3445125	53.3
Aroclor-1260 2		10.818	-0.001	19225963	55.1	2	10.869	0.000	4251651	53.0
Aroclor-1260 3		11.218	0.001	10699659	55.2	3	11.142	-0.001	8632531	52.9
Aroclor-1260 4		11.334	0.000	4602037	55.3	4	11.663	-0.001	2490191	52.3
Aroclor-1260 5		11.408	0.000	5447767	54.8	NS	---			----
Total Col1Ave (5 peaks):				55.2		Total Col2Ave (4 peaks):			52.9	RPD = 4
Corrected Ave (4 peaks):				55.1		Corrected Ave (3 peaks):			52.7	RPD = 4

Total PCB Area Col1 (4.705 - 12.890) = 225927277 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 108968491 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical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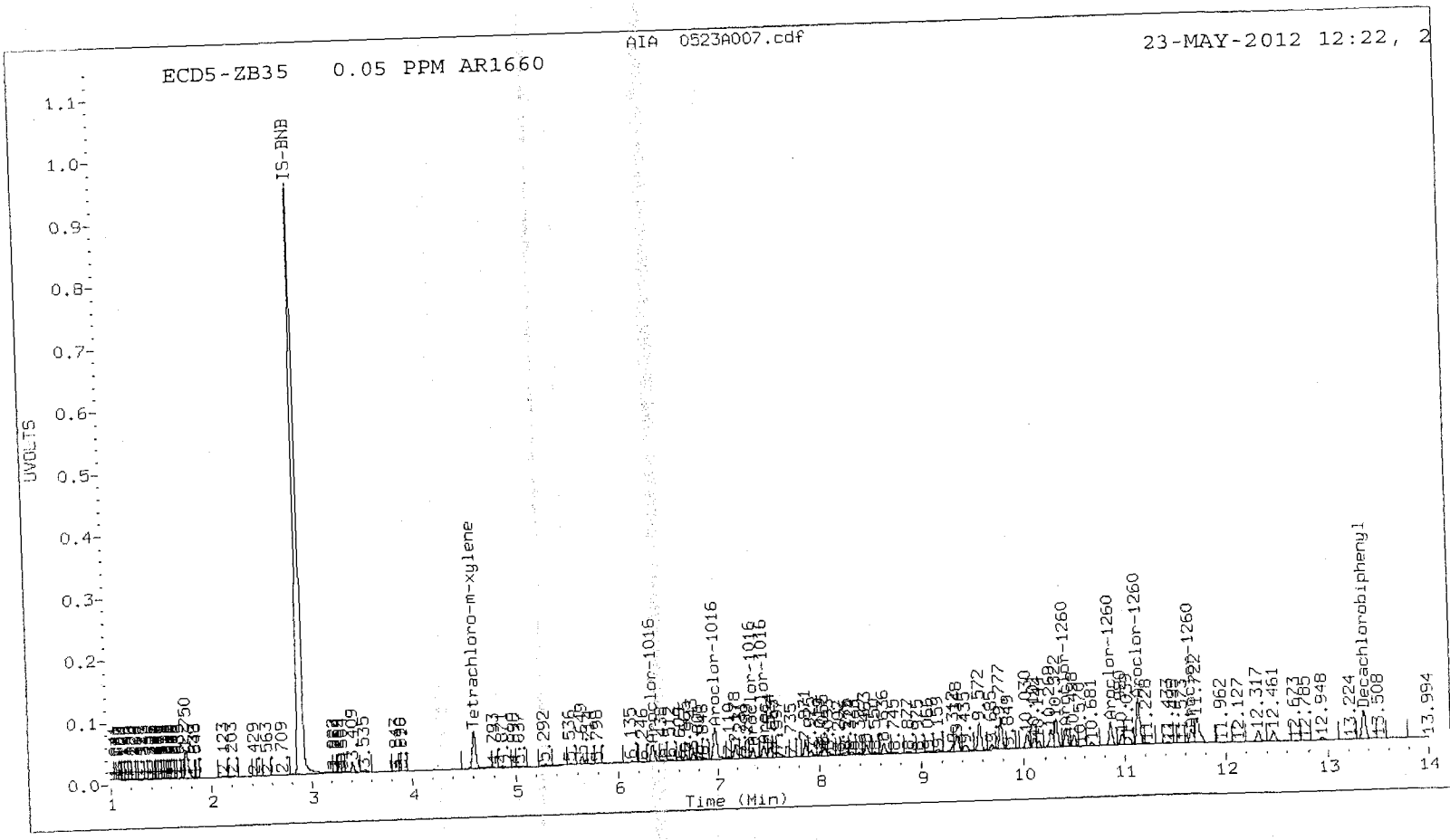
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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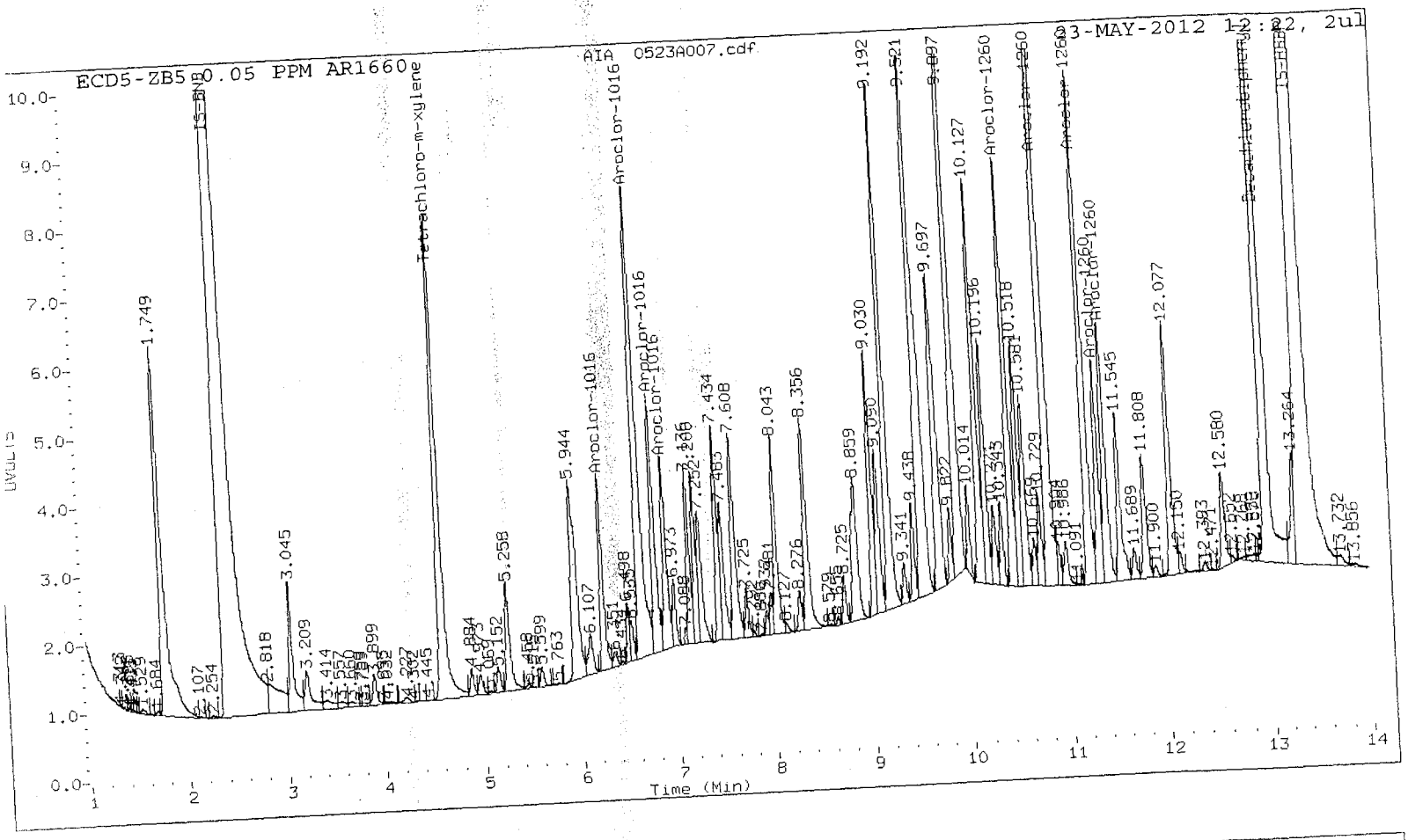
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
UVOLTS
Time (Min)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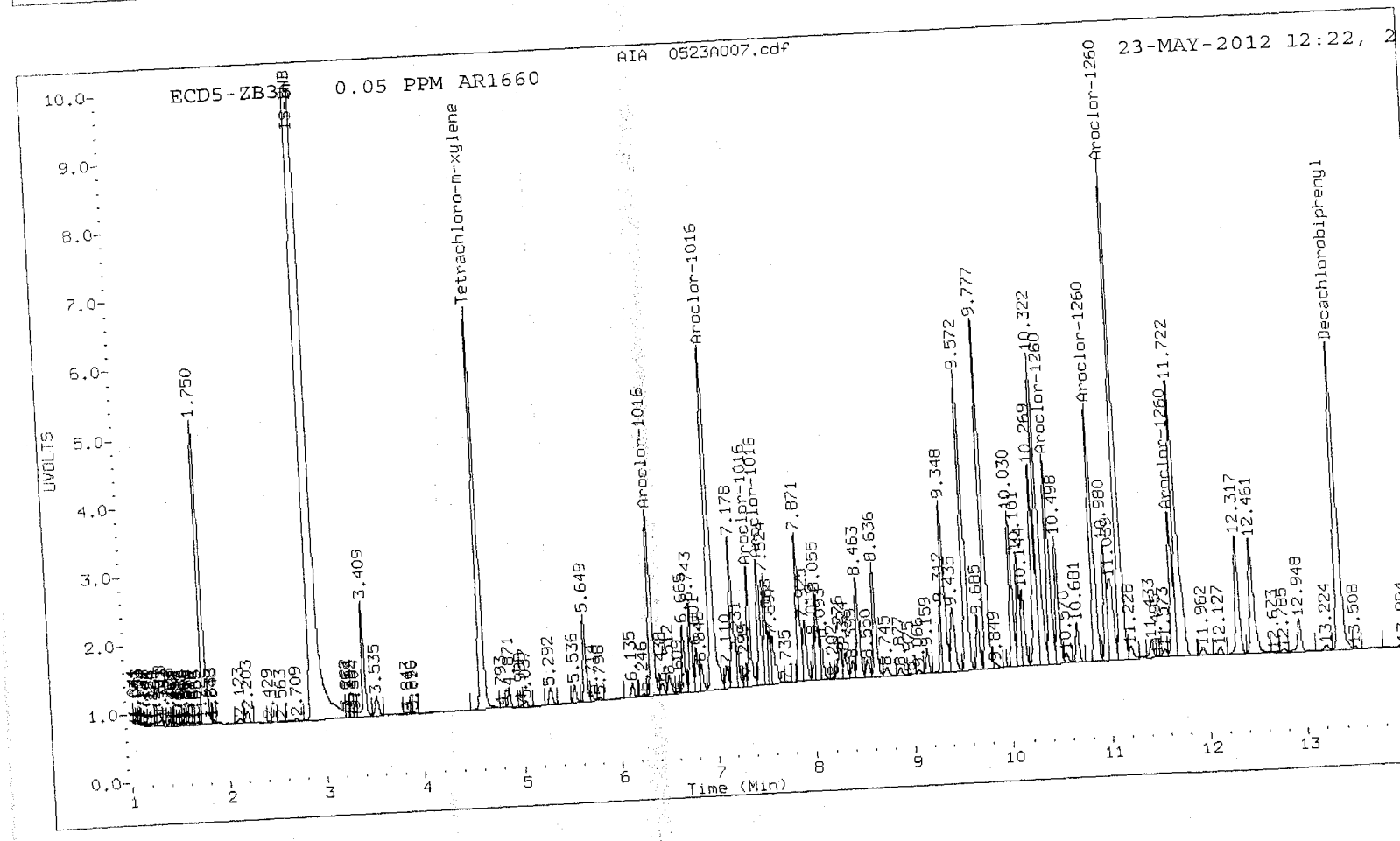
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-BB
UVOLTS
Time (Min)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IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A008.d
Data file 2: 20120523.b/ical-2.b/0523A008.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 1 PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 12:41
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.606	0.000	171242598	4.607	0.000	111786715	70.3	73.6	4.5	Tetrachloro-m-xylene
12.991	0.001	239712870	13.363	0.001	96699362	62.4	68.9	9.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	175.8	183.9
Decachlorobiphenyl	156.0	172.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	151523547	-1.8
Hexabromobiphenyl	248602423	250278423	0.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	108018292	-2.4
Hexabromobiphenyl	108855531	108555775	-0.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

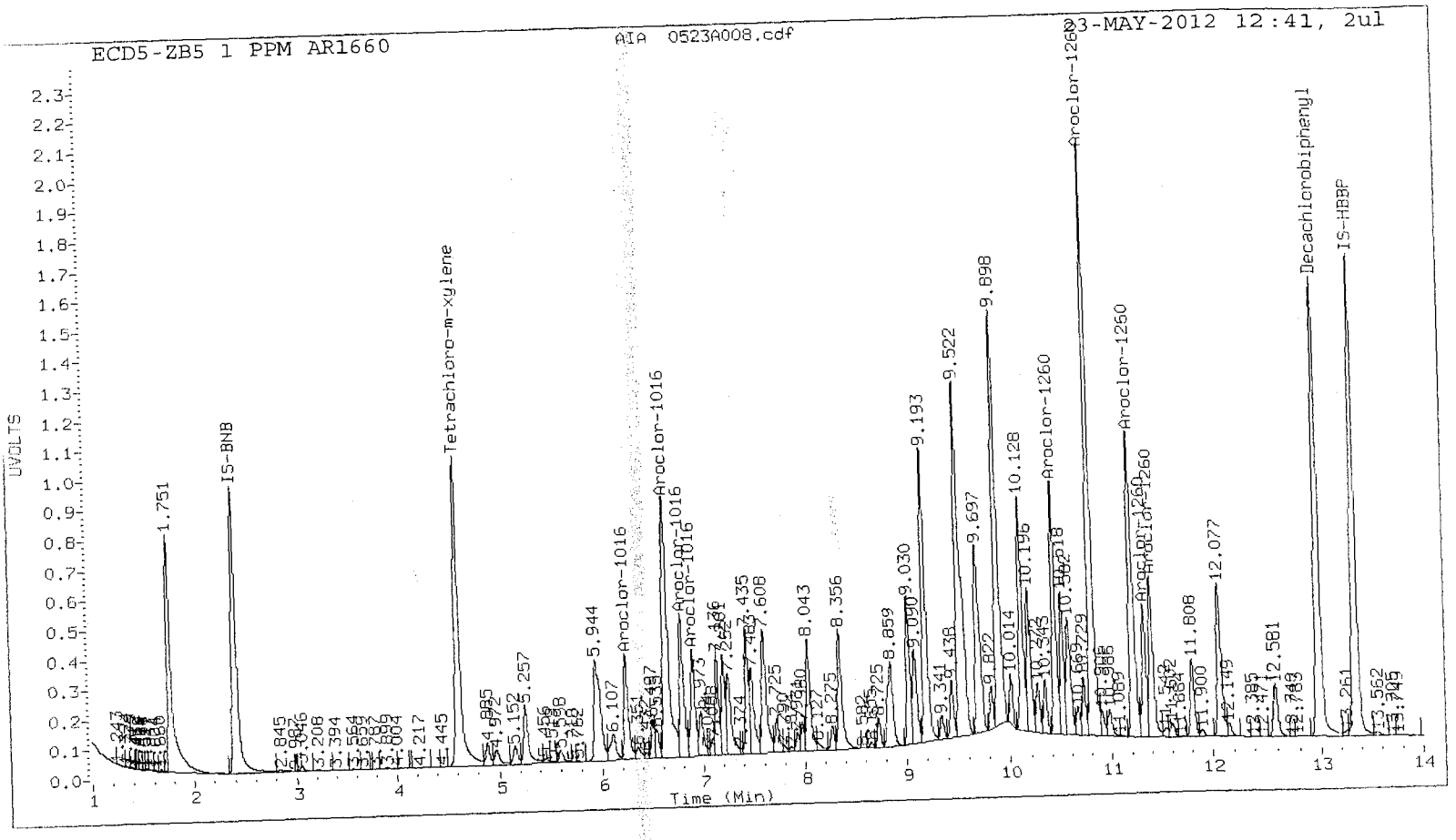
chem2/ecd5.i/20120523.b/ical-1.b/0523A008.d 1 PPM AR1660

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.238	0.001	50472593	798.4	1	6.344	0.000	42845505	760.0
Aroclor-1016	2	6.639	0.001	165465405	803.0	2	6.971	0.001	104650973	817.8
Aroclor-1016	3	6.786	0.000	68577484	843.8	3	7.353	0.000	28579145	865.6
Aroclor-1016	4	6.896	0.000	53578979	836.9	4	7.461	0.000	31334652	853.6
Total Col1Ave (4 peaks):				820.5		Total Col2Ave (4 peaks):			824.2	RPD = 0
Corrected Ave (3 peaks):				812.7		Corrected Ave (3 peaks):			810.4	RPD = 0
Aroclor-1260	1	10.445	0.001	107245854	789.8	1	10.420	0.000	53445445	858.4
Aroclor-1260	2	10.820	0.001	277450558	823.4	2	10.870	0.001	66684752	862.6
Aroclor-1260	3	11.218	0.001	152126553	812.2	3	11.142	0.000	136856057	871.8
Aroclor-1260	4	11.334	0.000	64878438	806.8	4	11.664	0.000	40209436	877.4
Aroclor-1260	5	11.408	0.001	78954416	822.3	NS	---			----
Total Col1Ave (5 peaks):				810.9		Total Col2Ave (4 peaks):			867.6	RPD = 7
Corrected Ave (4 peaks):				807.8		Corrected Ave (3 peaks):			864.3	RPD = 7

Total PCB Area Col1 (4.705 - 12.890) = 3117858984 Col1 Total PCB = 1.7 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 1662675962 Col2 Total PCB = 1.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical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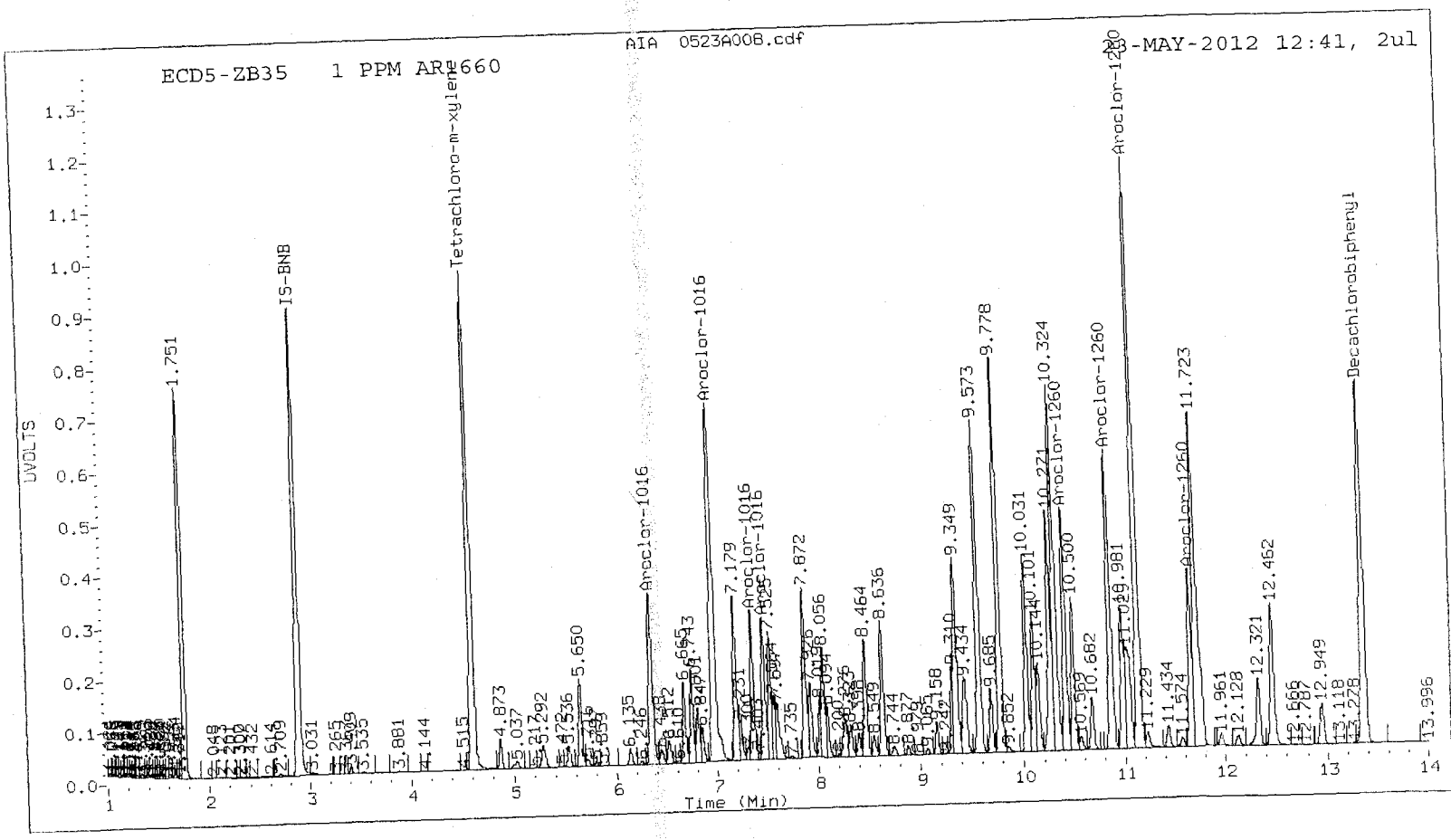
Decachlorobiphenyl
IS-HBBP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Time (Min)
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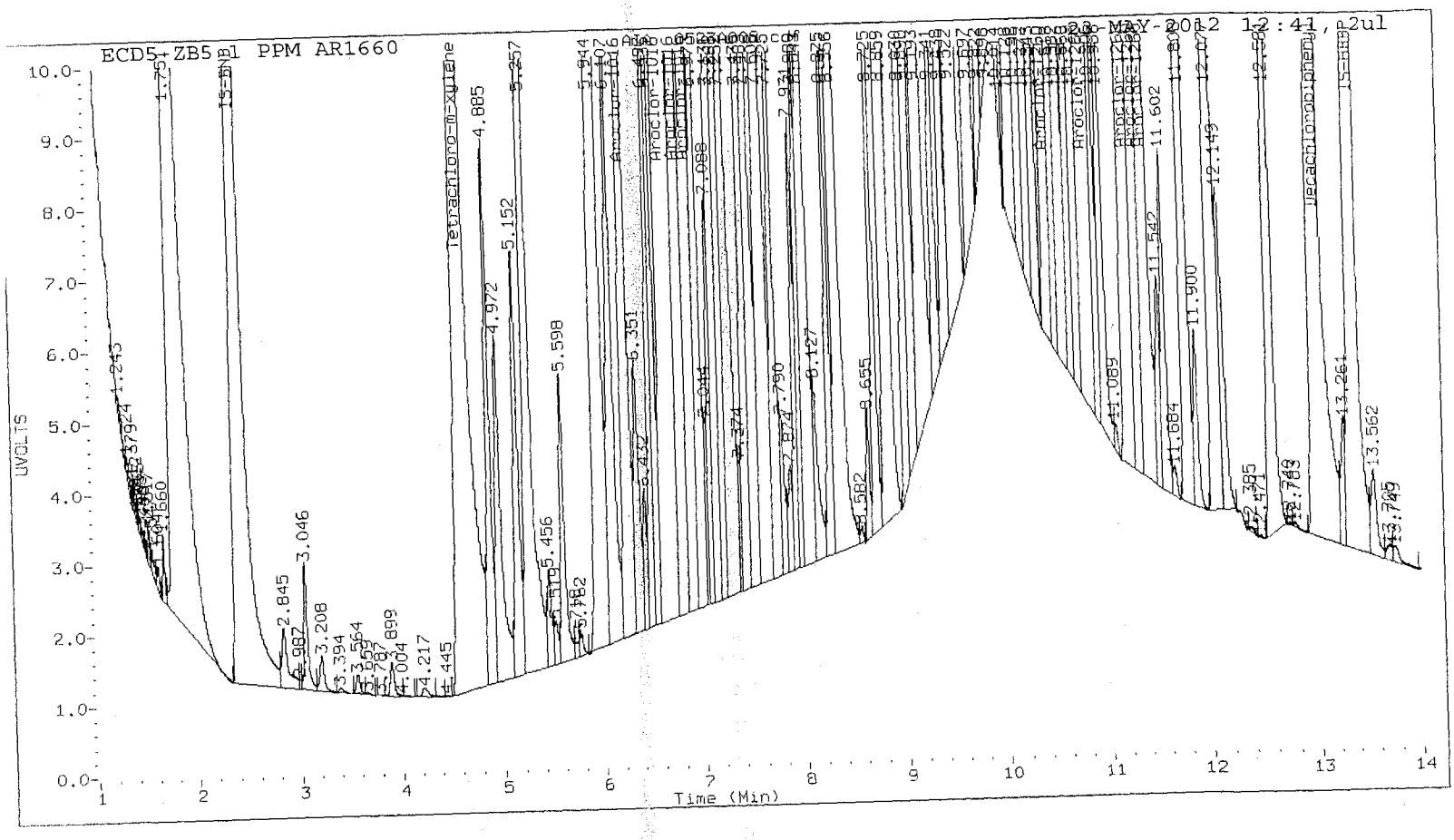
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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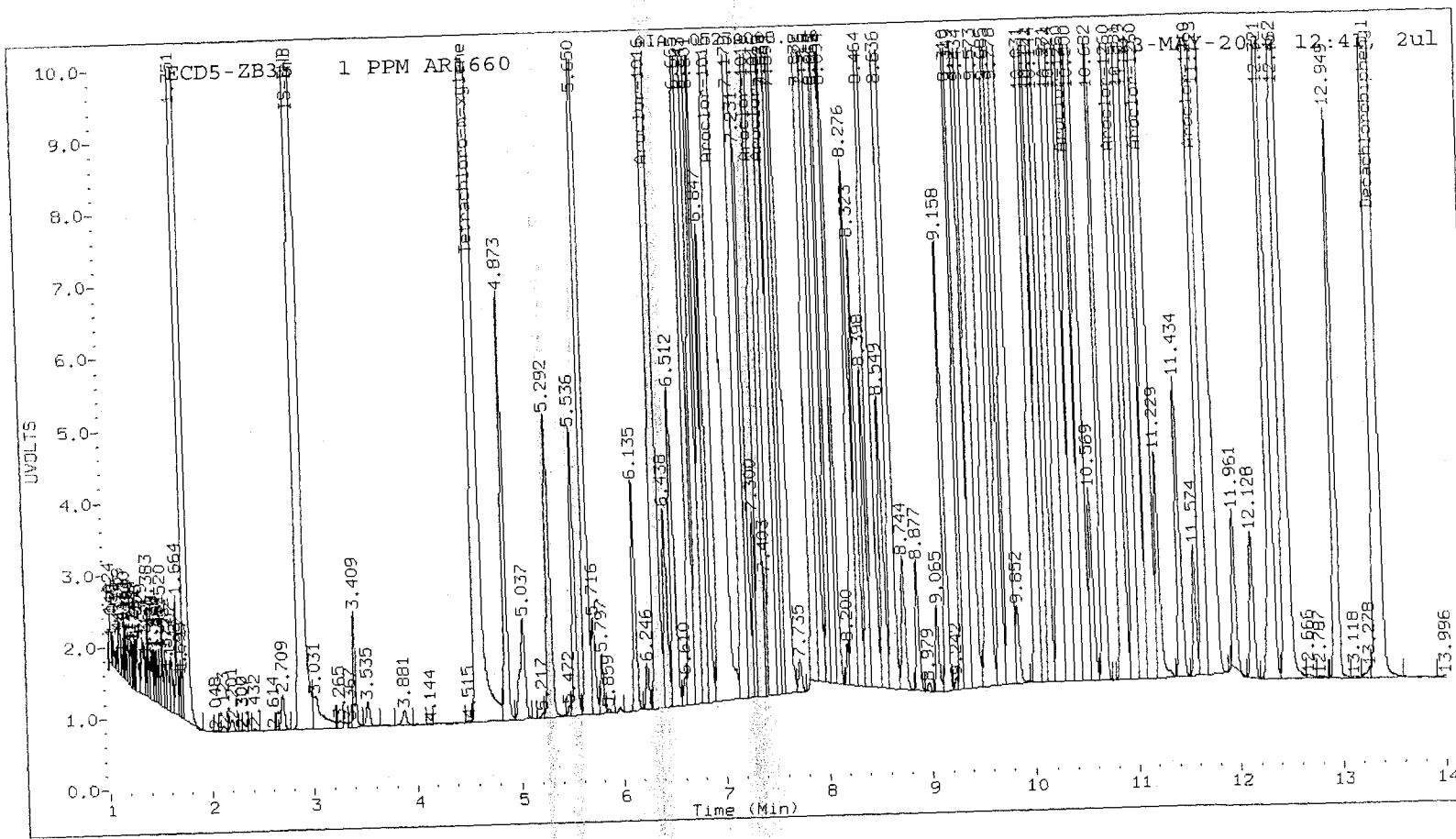
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-DNB
IS-TMP


ECD5-ZB35 1 PPM AR1660
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-DNB
IS-TMP

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A009.d
Data file 2: 20120523.b/ical-2.b/0523A009.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1 PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 13:01
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.001	22212362	4.604	-0.003	13478289	8.6	8.5	1.8	Tetrachloro-m-xylene
12.989	-0.002	33632302	13.363	0.000	12137716	8.4	8.4	0.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	21.5	21.1
Decachlorobiphenyl	21.0	21.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	160526987	4.1
Hexabromobiphenyl	248602423	260875166	4.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	113263758	2.4
Hexabromobiphenyl	108855531	111845806	2.7

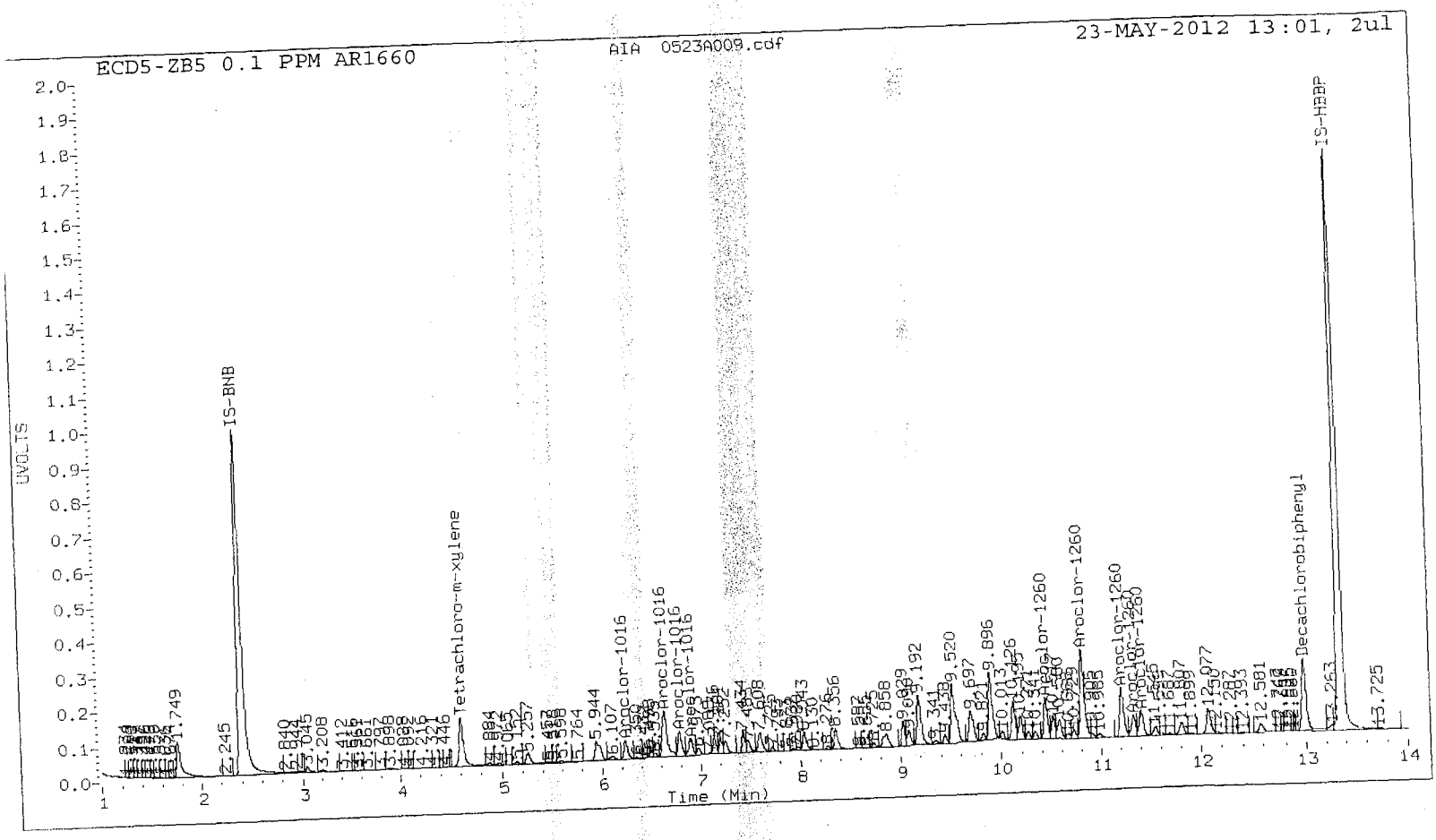
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.237	0.000	7097377	106.0	1	6.343	-0.001	6450679	109.1
Aroclor-1016	2	6.638	0.000	23837595	109.2	2	6.969	-0.001	14395191	107.3
Aroclor-1016	3	6.786	0.000	9574862	111.2	3	7.353	0.000	3678916	106.3
Aroclor-1016	4	6.897	0.001	6895678	101.7	4	7.460	-0.001	4083078	106.1
	Total Col1Ave (4 peaks):				107.0	Total Col2Ave (4 peaks):			107.2	RPD = 0
	Corrected Ave (3 peaks):				105.6	Corrected Ave (3 peaks):			106.5	RPD = 1
Aroclor-1260	1	10.443	-0.001	14940984	105.6	1	10.418	-0.001	6750271	105.2
Aroclor-1260	2	10.818	-0.001	36687247	104.5	2	10.869	-0.001	8321056	104.5
Aroclor-1260	3	11.217	0.000	20579023	105.4	3	11.141	-0.001	16940324	104.7
Aroclor-1260	4	11.333	0.000	8821100	105.2	4	11.663	-0.001	4860811	102.9
Aroclor-1260	5	11.407	0.000	10542022	105.3	NS	---			----
	Total Col1Ave (5 peaks):				105.2	Total Col2Ave (4 peaks):			104.3	RPD = 1
	Corrected Ave (4 peaks):				105.1	Corrected Ave (3 peaks):			104.1	RPD = 1

Total PCB Area Col1 (4.705 - 12.890) = 427564631 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 210993433 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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23-MAY-2012 13:01, 2ul
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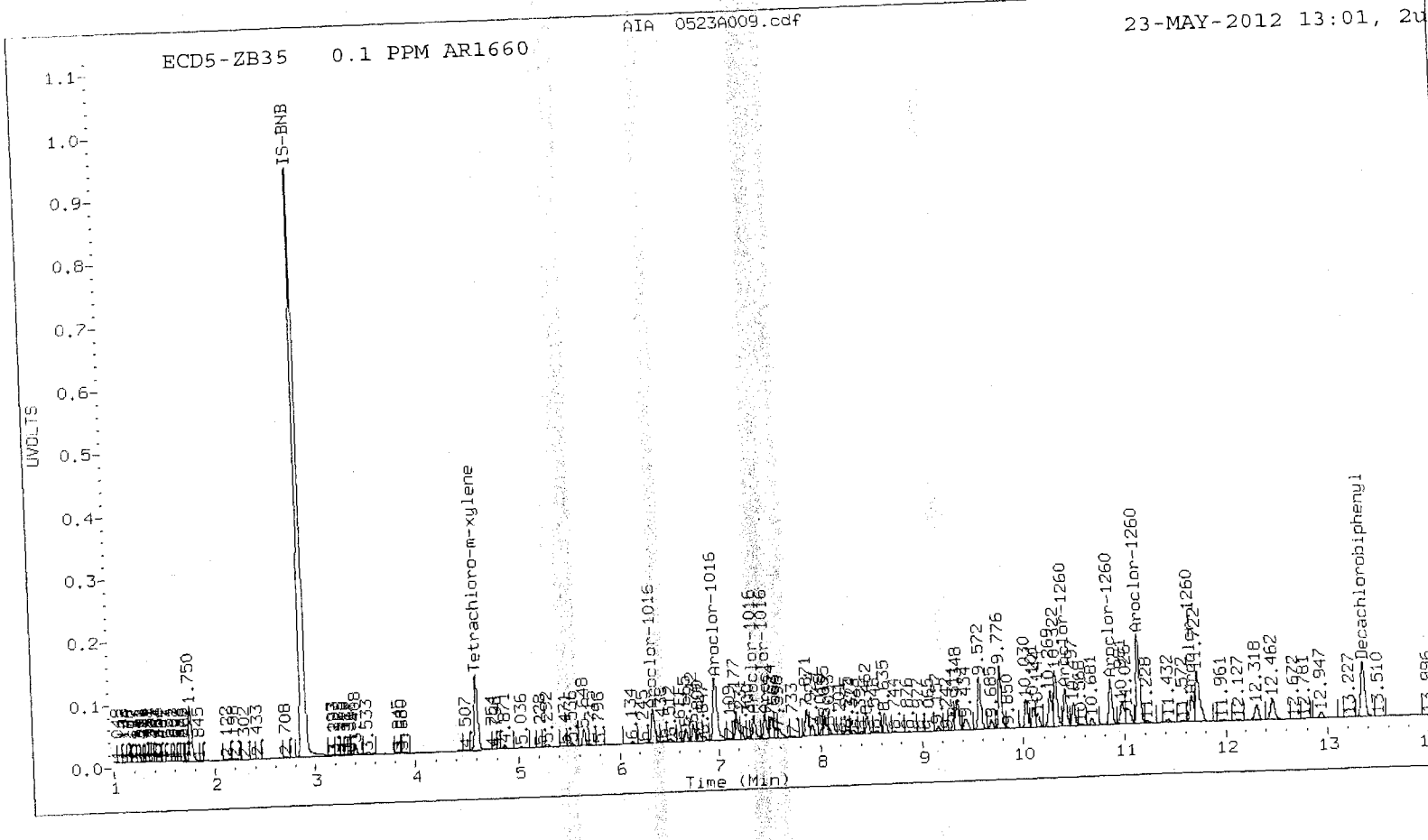
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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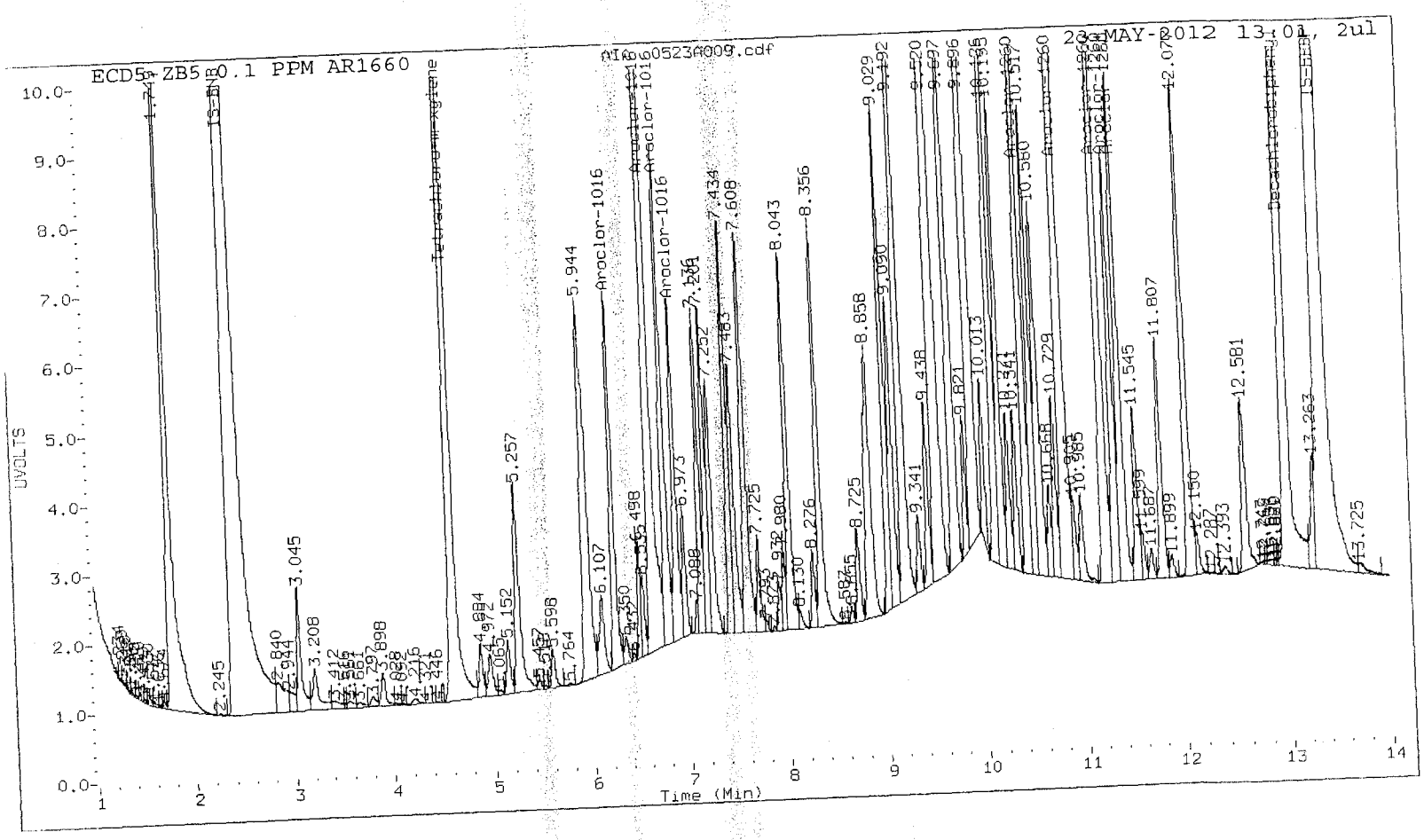
Decachlorobiphenyl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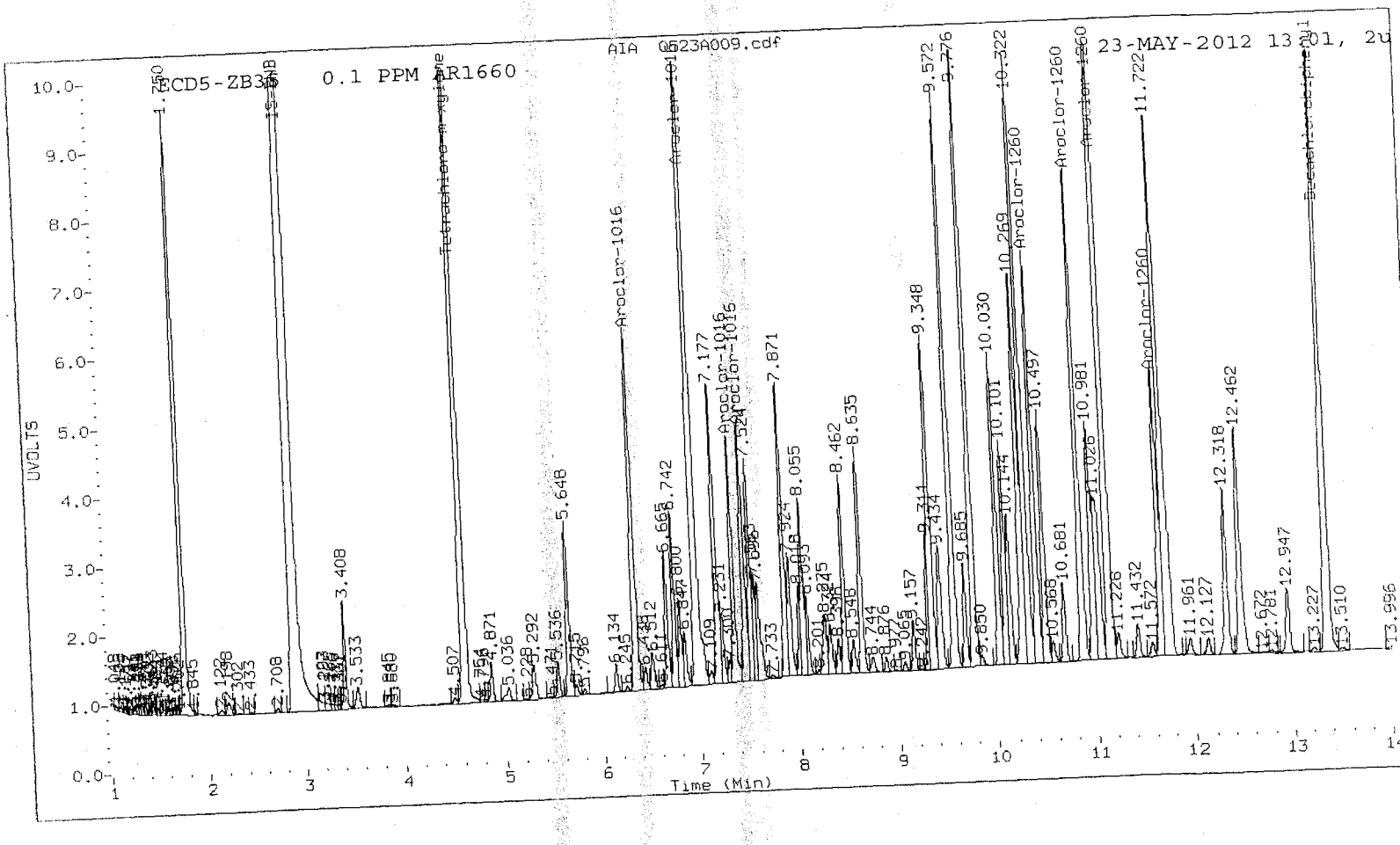
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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-DNB
IS-BEB
Aroclor-1016
Aroclor-1260

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A010.d
Data file 2: 20120523.b/ical-2.b/0523A010.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5 PPM ARR160
Client ID:
Injection Date: 23-MAY-2012 13:20
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.001	95532370	4.606	-0.001	61492325	37.8	39.2	3.4	Tetrachloro-m-xylene
12.990	0.000	131959083	13.363	0.001	52215403	33.7	36.8	9.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	94.6	97.9
Decachlorobiphenyl	84.1	92.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	157116261	1.9
Hexabromobiphenyl	248602423	255504461	2.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	111611648	0.9
Hexabromobiphenyl	108855531	109698277	0.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

hem2/ecd5.i/20120523.b/ical-1.b/0523A010.d 0.5 PPM ARR160

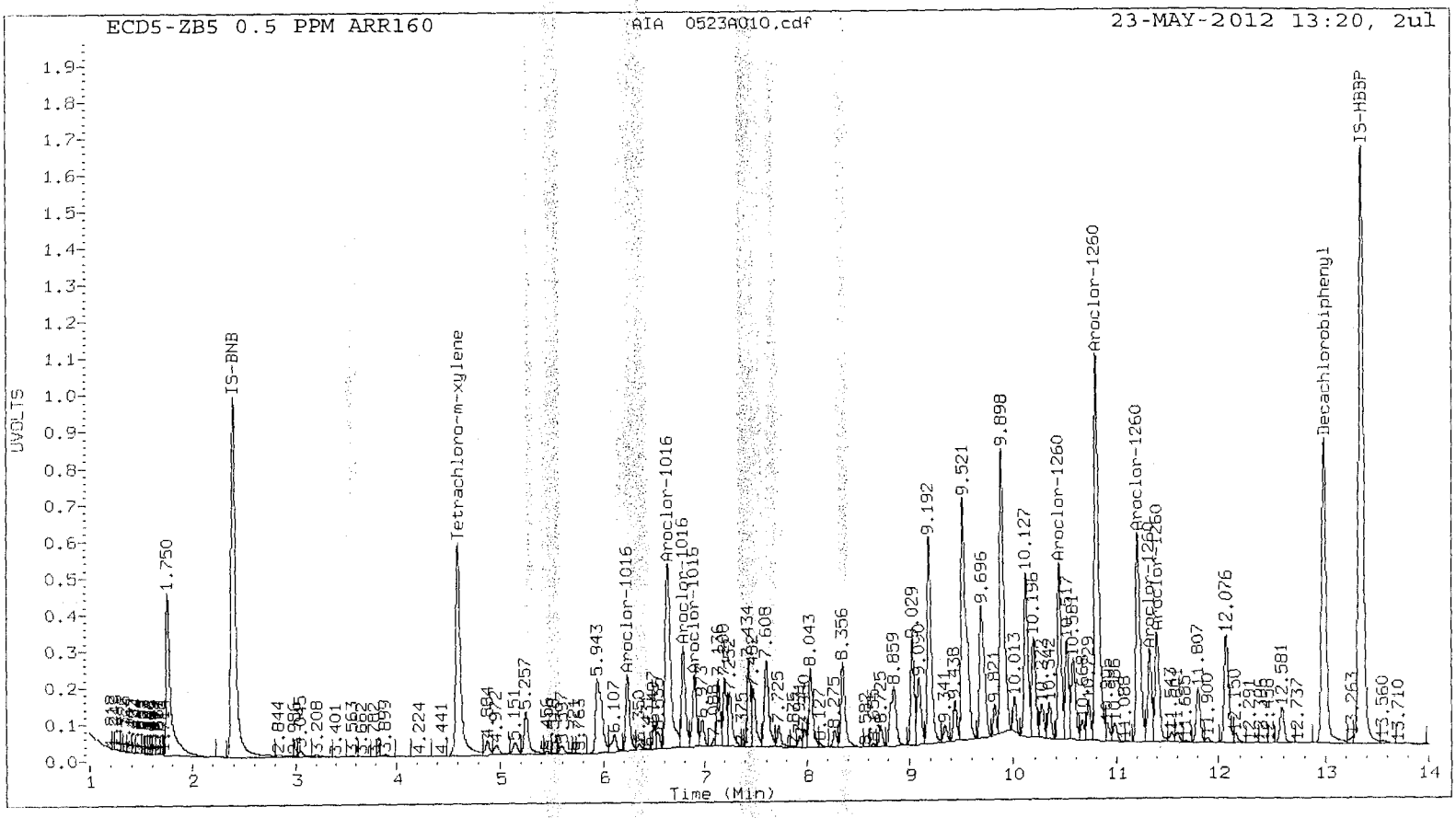
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount
Aroclor-1016	1	6.237	0.000	27693528	422.5
Aroclor-1016	2	6.638	0.000	92355706	432.2
Aroclor-1016	3	6.786	0.000	37120086	440.5
Aroclor-1016	4	6.896	0.000	27005529	406.8
Total Col1Ave (4 peaks):					425.5
Corrected Ave (3 peaks):					420.5
Aroclor-1260	1	10.444	0.000	60718439	438.0
Aroclor-1260	2	10.819	0.000	150397287	437.2
Aroclor-1260	3	11.217	0.000	84623698	442.6
Aroclor-1260	4	11.334	0.000	36219238	441.2
Aroclor-1260	5	11.408	0.000	44135258	450.3
Total Col1Ave (5 peaks):					441.9
Corrected Ave (4 peaks):					439.7

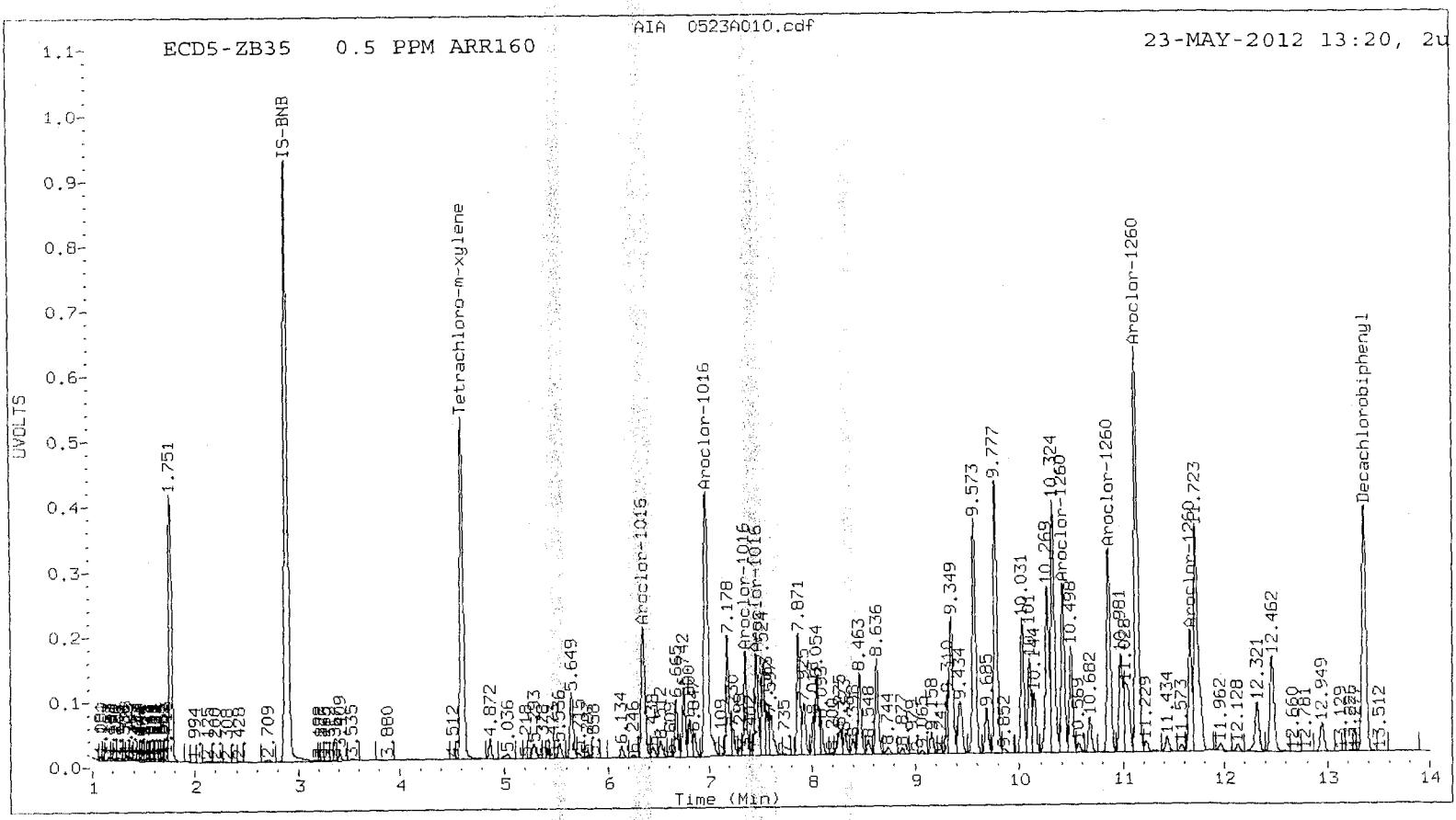
Peak#	RT	ZB35 Col Shift	Area	Amount
1	6.344	0.000	25480661	437.4
2	6.970	0.000	60392803	456.7
3	7.353	0.000	15853898	464.7
4	7.460	0.000	17585501	463.6
Total Col2Ave (4 peaks):				455.6 RPD = 7
Corrected Ave (3 peaks):				452.6 RPD = 7
1	10.420	0.000	29425213	467.7
2	10.869	0.000	36585977	468.3
3	11.143	0.000	74383127	468.9
4	11.664	0.000	21707605	468.7
NS	---			----
Total Col2Ave (4 peaks):				468.4 RPD = 6
Corrected Ave (3 peaks):				468.3 RPD = 6

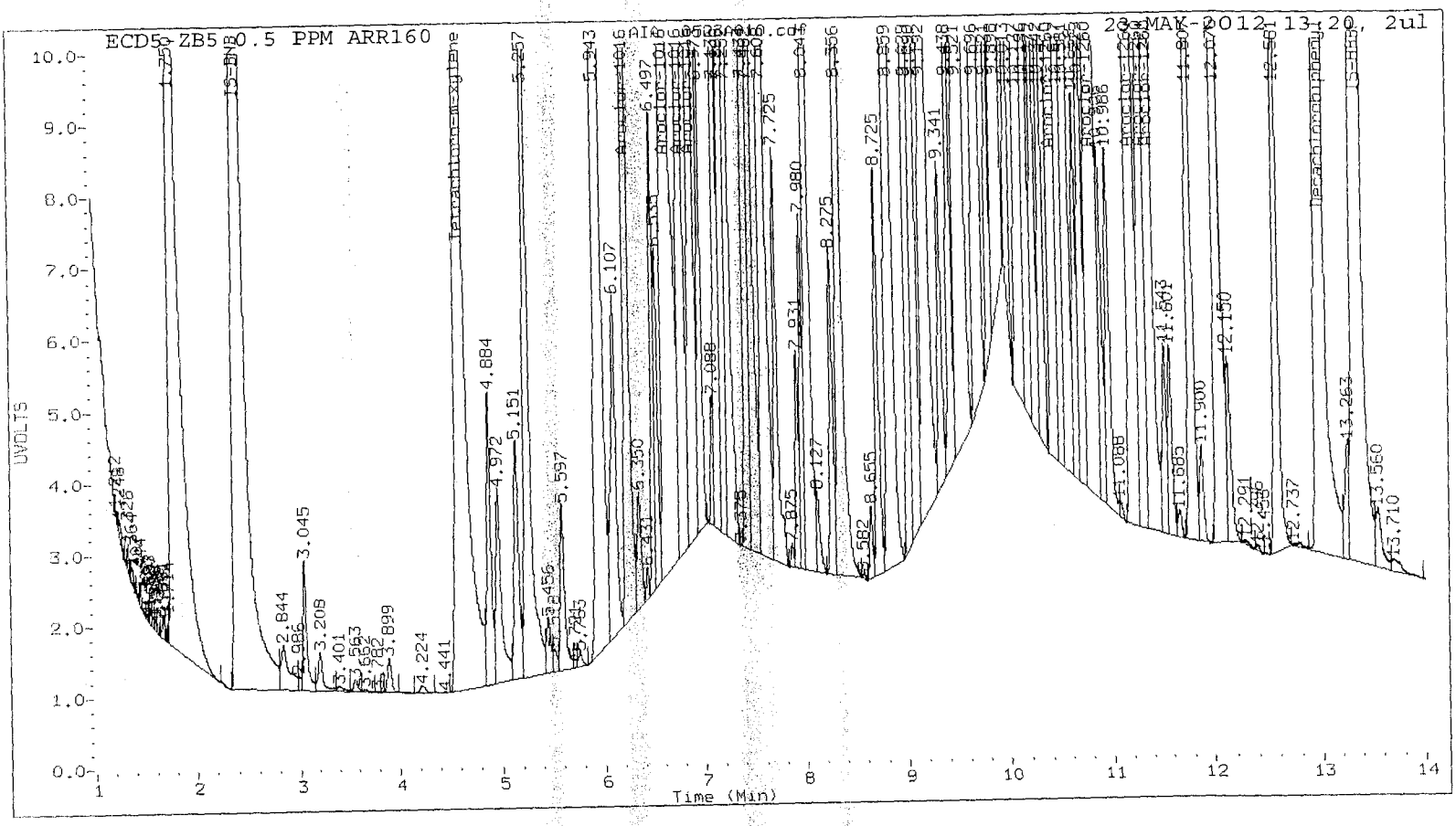
Total PCB Area Col1 (4.705 - 12.890) = 1715529978 Col1 Total PCB = 0.9 ppm*

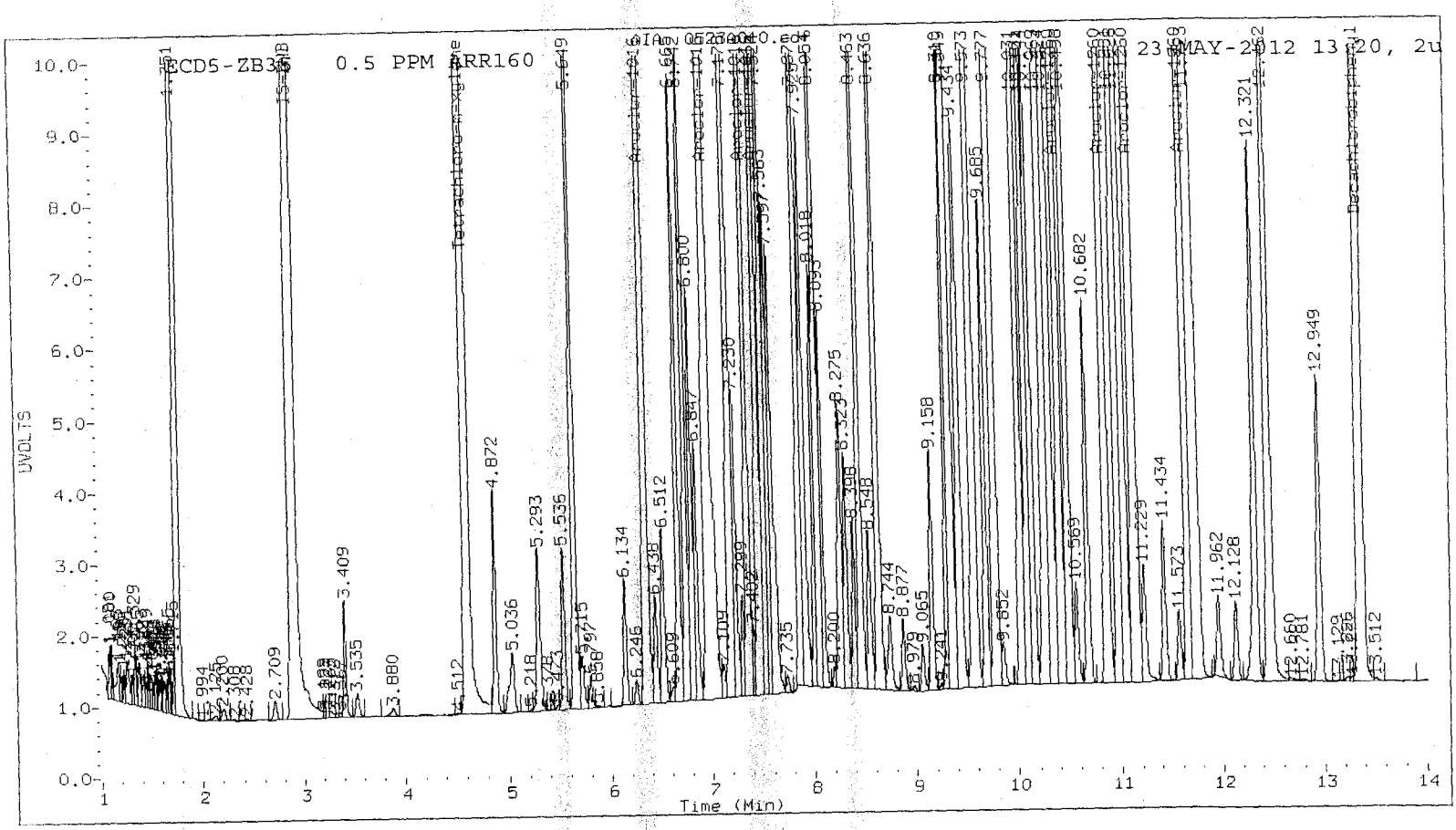
Total PCB Area Col2 (4.707 - 13.262) = 918581550 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 0.5 PPM ARR160
AIA 0523A010.cdf
23-MAY-2012 13:20, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


AIA 0523A010.cdf
ECD5-ZB35 0.5 PPM ARR160
23-MAY-2012 13:20, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


ECD5-ZB5 0.5 PPM ARR160
23-MAY-2012 13:20, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl


ECD5-ZB35 0.5 PPM ARR160
23-MAY-2012 13:20, 2u
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A011.d
Data file 2: 20120523.b/ical-2.b/0523A011.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 23-MAY-2012 13:39
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.001	51153372	4.605	-0.002	32157501	20.1	20.5	2.2	Tetrachloro-m-xylene
12.989	-0.001	71971474	13.363	0.001	27362468	18.4	19.4	5.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.1	51.3
Decachlorobiphenyl	46.0	48.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	158724720	2.9
Hexabromobiphenyl	248602423	254953104	2.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	111472971	0.8
Hexabromobiphenyl	108855531	109000932	0.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

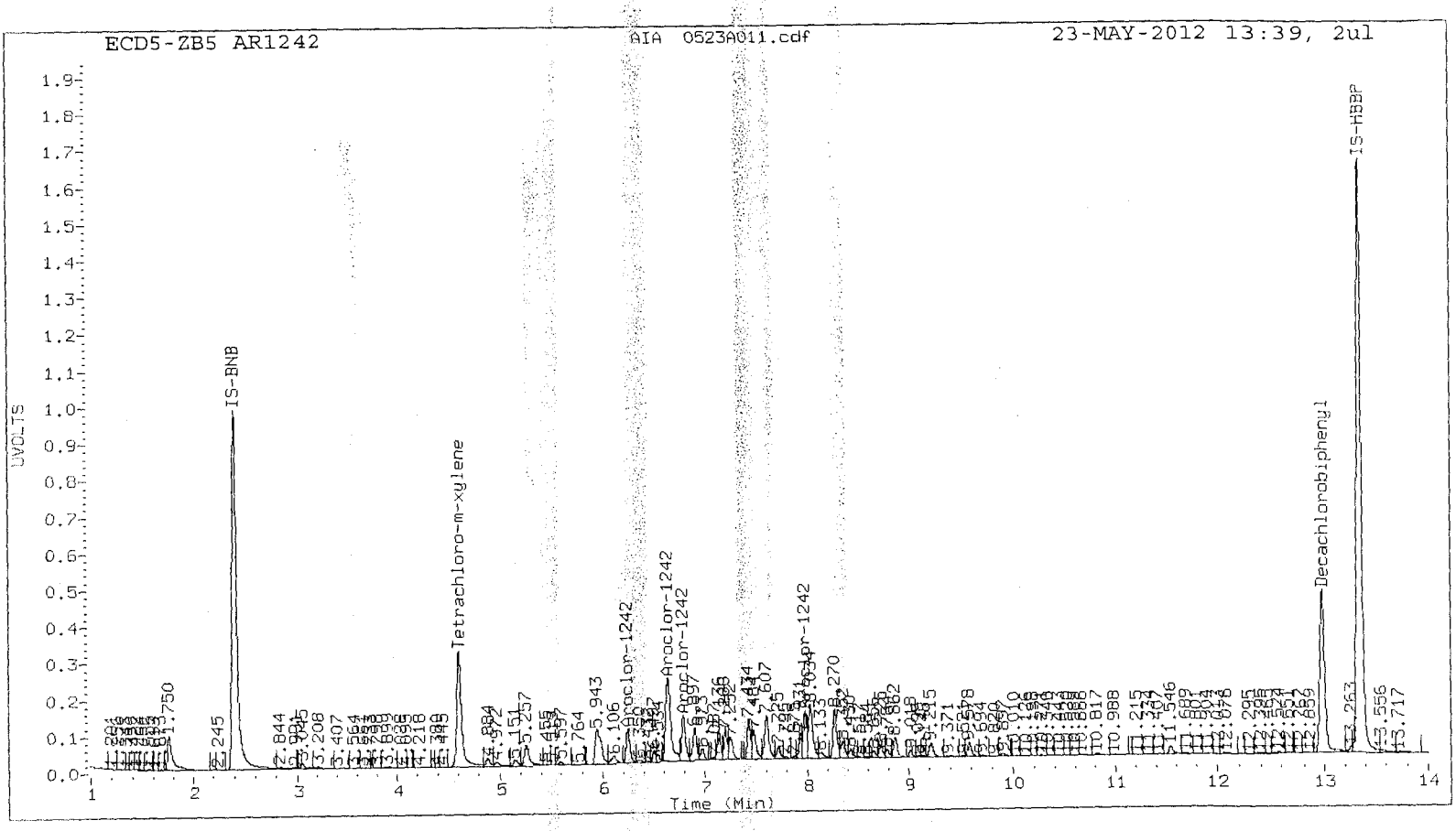
chem2/ecd5.i/20120523.b/ical-1.b/0523A011.d AR1242

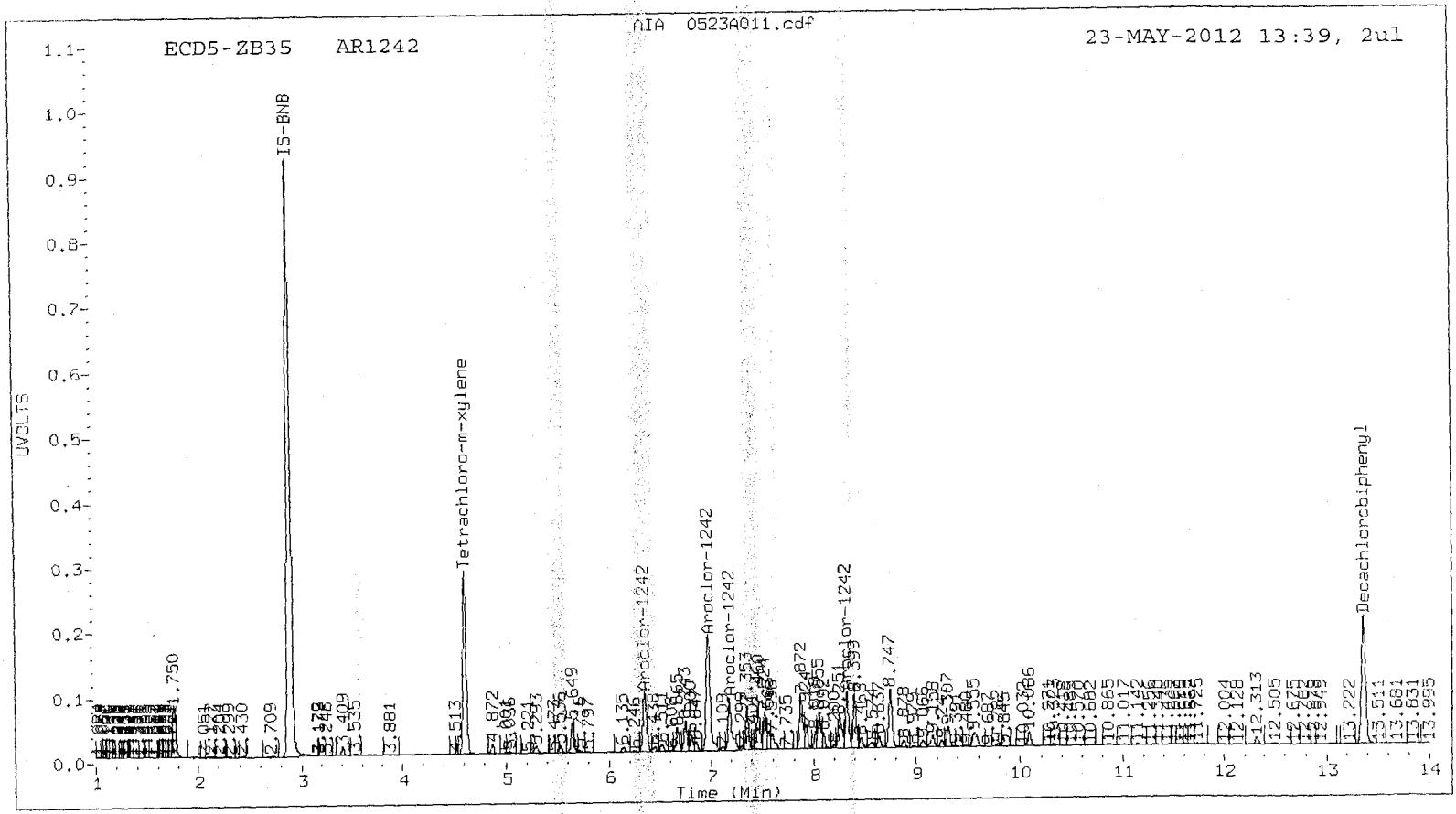
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1242	1	6.237	0.000	12490099	250.0	1	6.343	0.000	11370243	250.0
Aroclor-1242	2	6.638	0.000	41647431	250.0	2	6.971	0.000	25823258	250.0
Aroclor-1242	3	6.786	0.000	16618464	250.0	3	7.179	0.000	10491199	250.0
Aroclor-1242	4	7.980	0.000	15477635	250.0	4	8.324	0.000	9122569	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

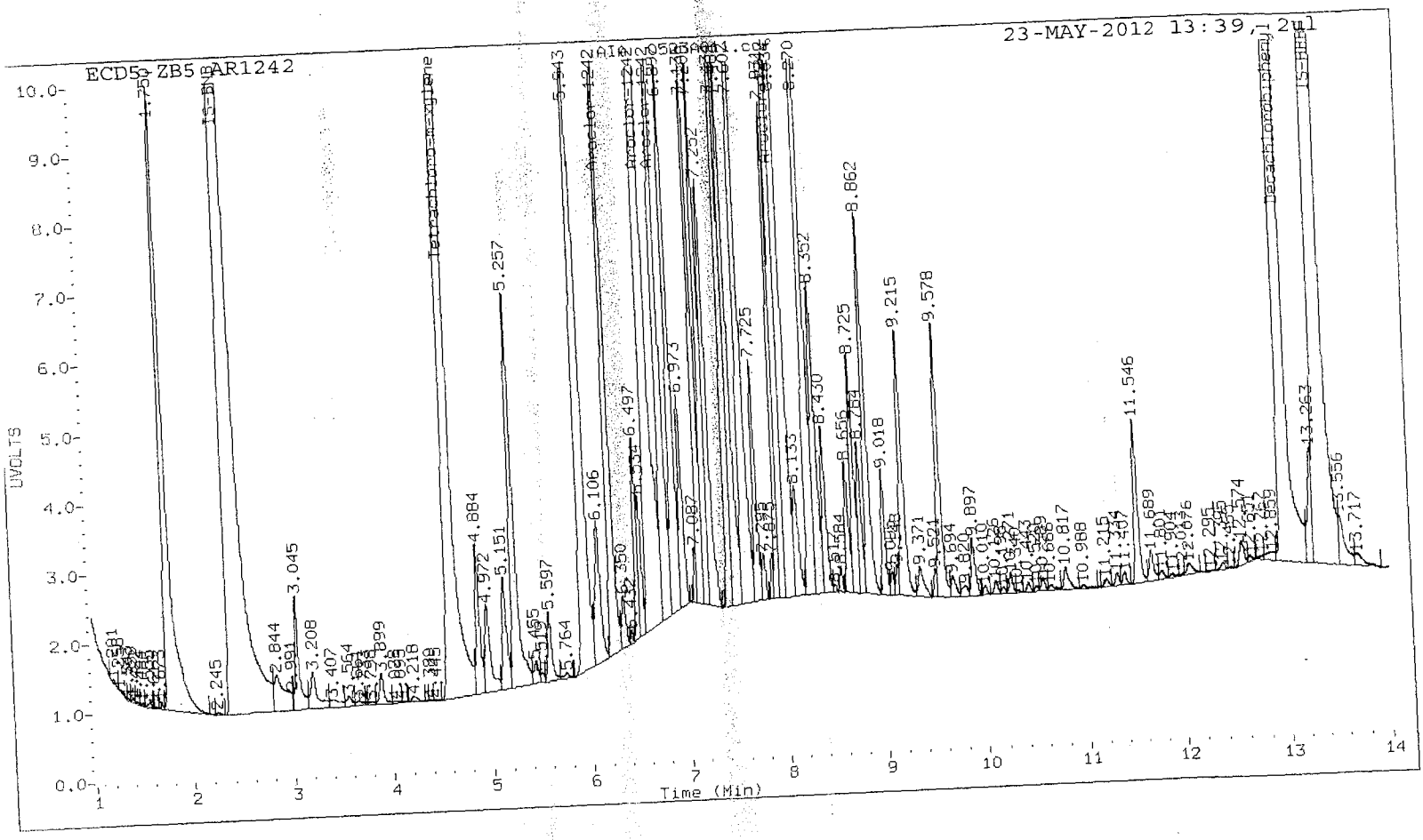
Total PCB Area Col1 (4.705 - 12.890) = 330210054 Col1 Total PCB = 0.2 ppm*

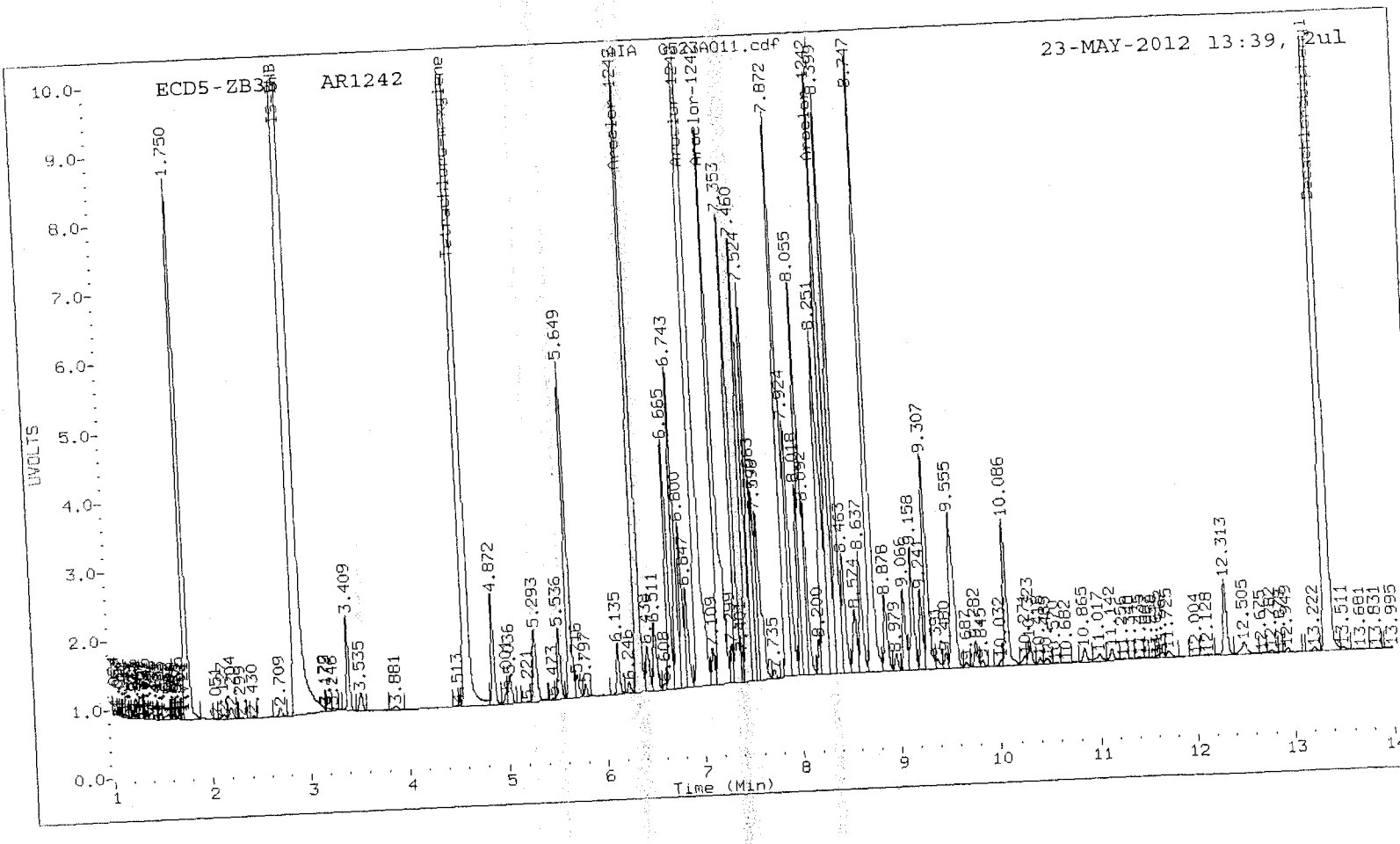
Total PCB Area Col2 (4.707 - 13.262) = 186466562 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1242
AIA 0523A011.cdf
23-MAY-2012 13:39, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
Time (Min)


ECD5-ZB35 AR1242
AIA 0523A011.cdf
23-MAY-2012 13:39, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
Time (Min)


ECD5-ZB5 AR1242
23-MAY-2012 13:39, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl


ECD5-ZB5
AR1242
23-MAY-2012 13:39, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A012.d
Data file 2: 20120523.b/ical-2.b/0523A012.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 23-MAY-2012 13:58
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.605	0.000	51098218	4.606	-0.001	32011781	20.4	20.5	0.7	Tetrachloro-m-xylene
12.989	-0.001	71008403	13.363	0.000	27080017	18.0	19.0	5.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.9	51.3
Decachlorobiphenyl	45.1	47.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	156181919	1.3
Hexabromobiphenyl	248602423	256386929	3.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	110993433	0.3
Hexabromobiphenyl	108855531	110340661	1.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

chem2/ecd5.i/20120523.b/ical-1.b/0523A012.d AR1248

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1248	1	6.635	0.000	27412277	250.0	1	6.968	0.000	16661322	250.0
Aroclor-1248	2	7.434	0.000	20709666	250.0	2	7.872	0.000	13348890	250.0
Aroclor-1248	3	7.980	0.000	26528908	250.0	3	8.324	0.000	16052676	250.0
Aroclor-1248	4	8.270	0.000	26768954	250.0	4	8.746	0.000	18118667	250.0

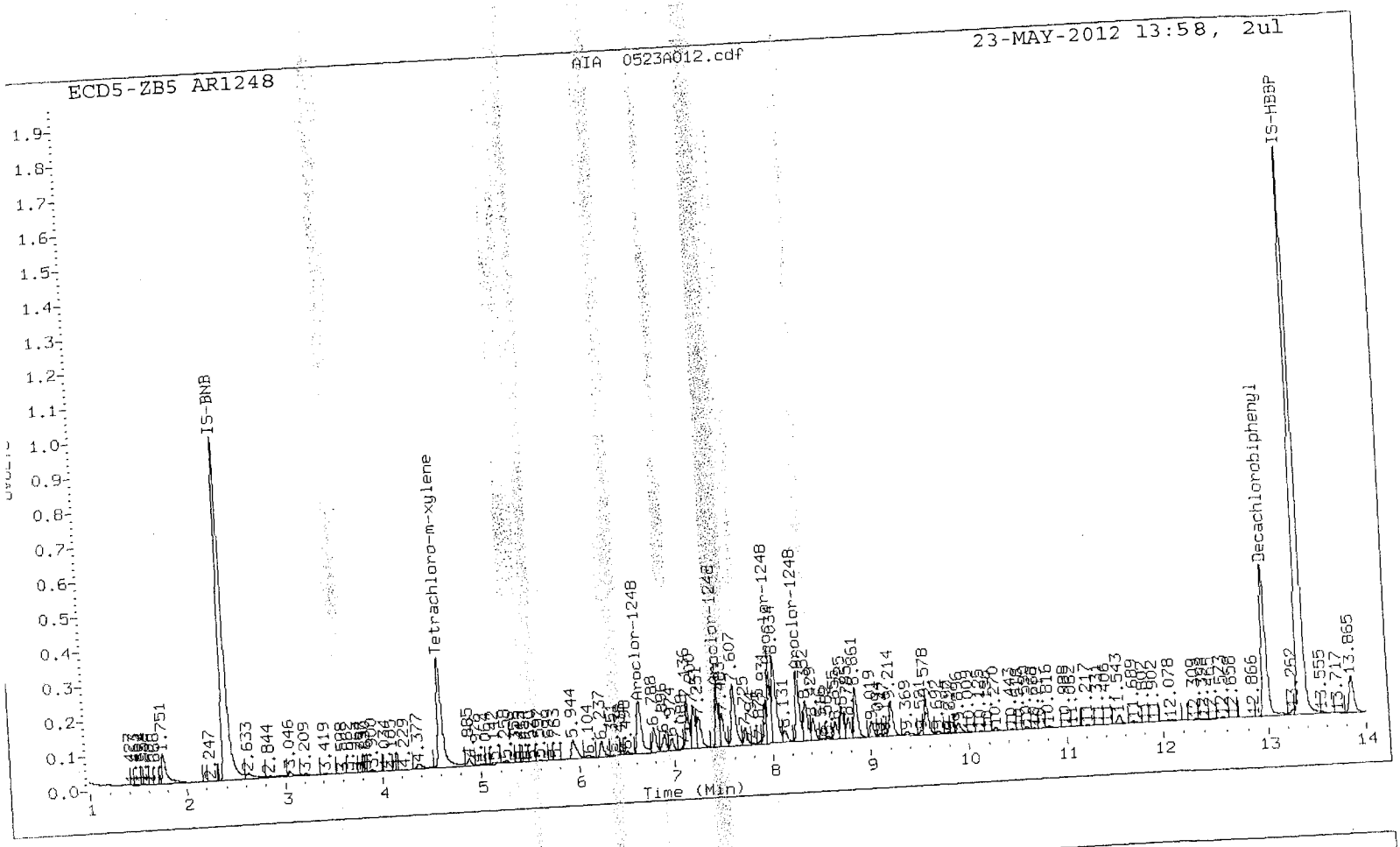
Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

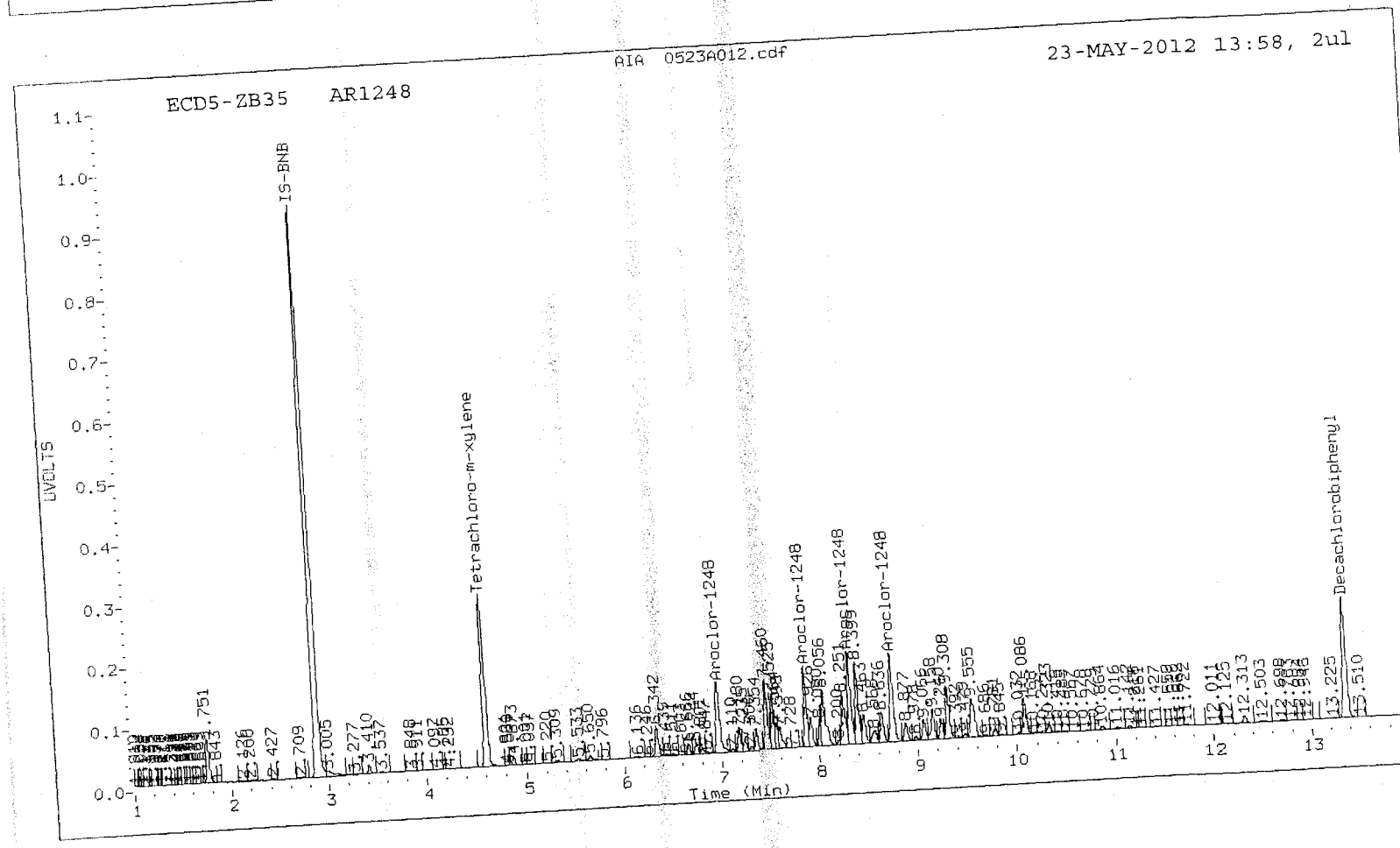
Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

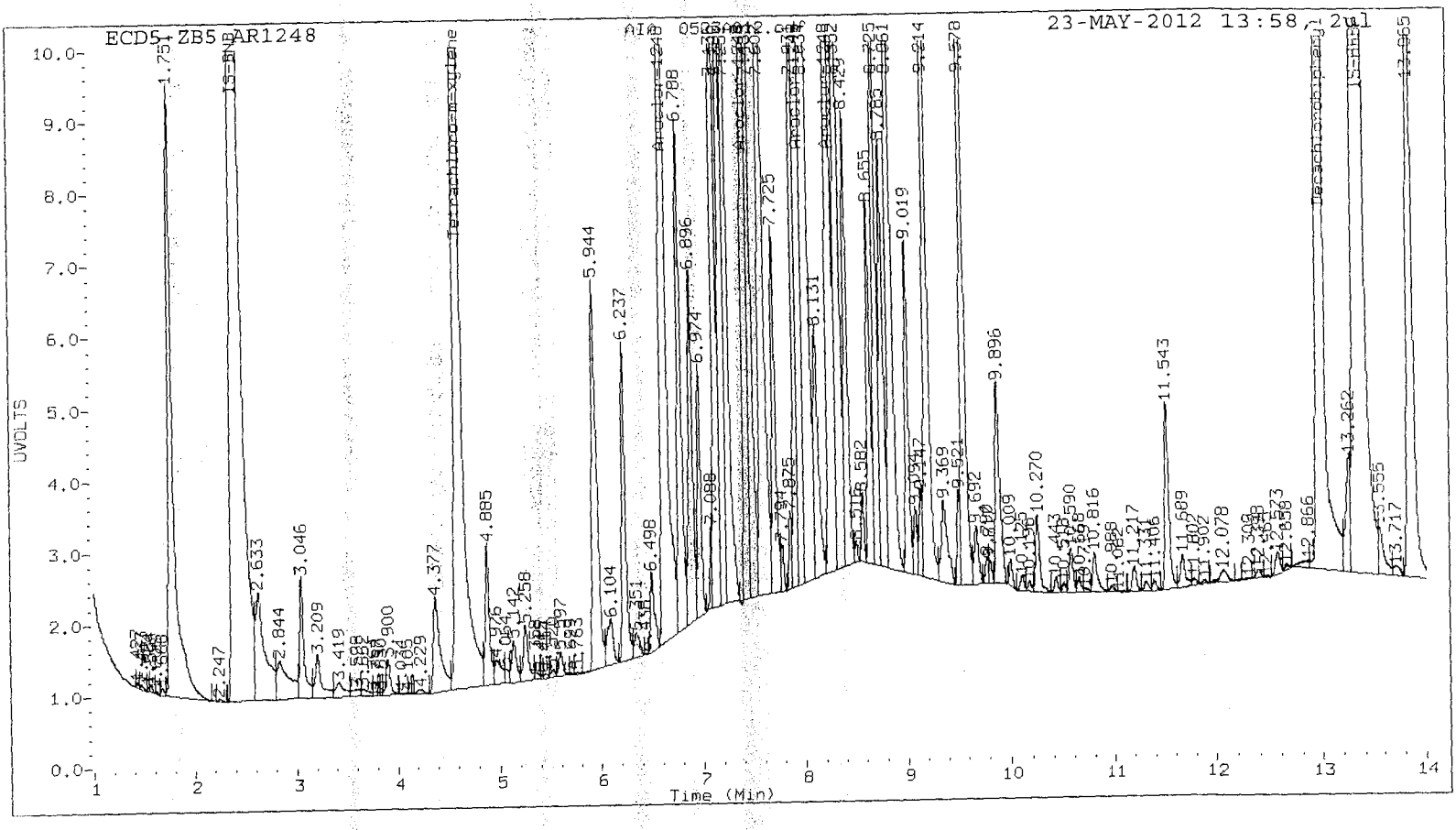
Total PCB Area Col1 (4.705 - 12.890) = 425921878 Col1 Total PCB = 0.2 ppm*

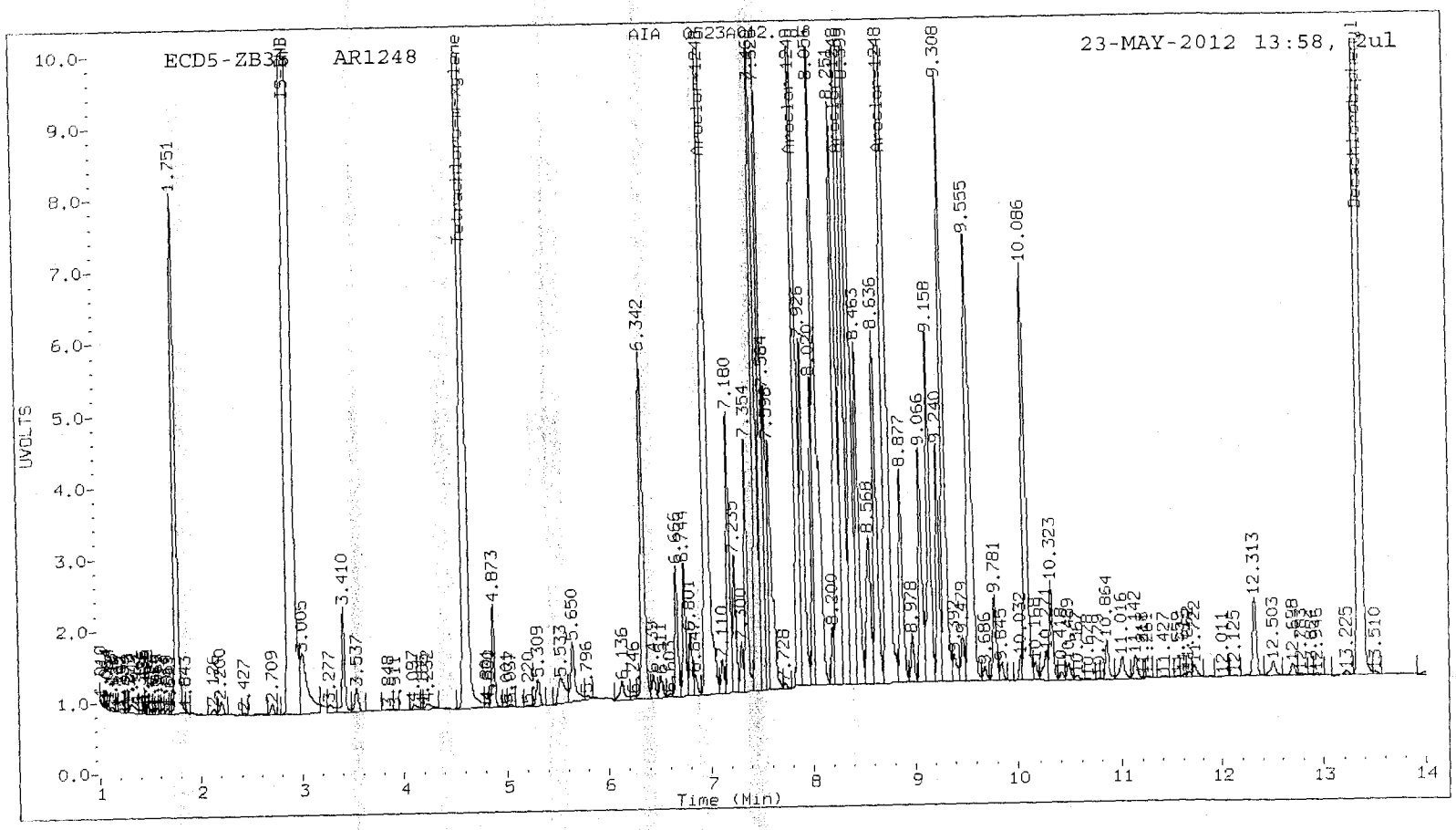
Total PCB Area Col2 (4.707 - 13.262) = 234961382 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1248
AIA 0523A012.cdf
23-MAY-2012 13:58, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
Time (Min)


ECD5-ZB35 AR1248
AIA 0523A012.cdf
23-MAY-2012 13:58, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
Time (Min)


ECD5-ZB5 AR1248
23-MAY-2012 13:58, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS=DNB


ECD5-ZB35
AR1248
23-MAY-2012 13:58, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS=DNB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A013.d
Data file 2: 20120523.b/ical-2.b/0523A013.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 23-MAY-2012 14:17
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.001	51075292	4.605	-0.002	32559399	19.7	20.4	3.1	Tetrachloro-m-xylene
12.989	-0.001	72113898	13.363	0.000	27622701	18.1	19.2	5.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.3	50.9
Decachlorobiphenyl	45.3	48.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	161042809	4.4
Hexabromobiphenyl	248602423	259540024	4.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	113709110	2.8
Hexabromobiphenyl	108855531	111392465	2.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

chem2/ecd5.i/20120523.b/ical-1.b/0523A013.d AR1254

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1254	1	8.354	0.000	36957938	250.0	1	8.463	0.000	12480254	250.0
Aroclor-1254	2	8.725	0.000	23788025	250.0	2	8.636	0.000	15863172	250.0
Aroclor-1254	3	8.861	0.000	45928780	250.0	3	9.158	0.000	12121823	250.0
Aroclor-1254	4	9.210	0.000	49454728	250.0	4	9.308	0.000	26812391	250.0
Aroclor-1254	5	9.572	0.000	30760779	250.0	5	10.091	0.000	15715342	250.0

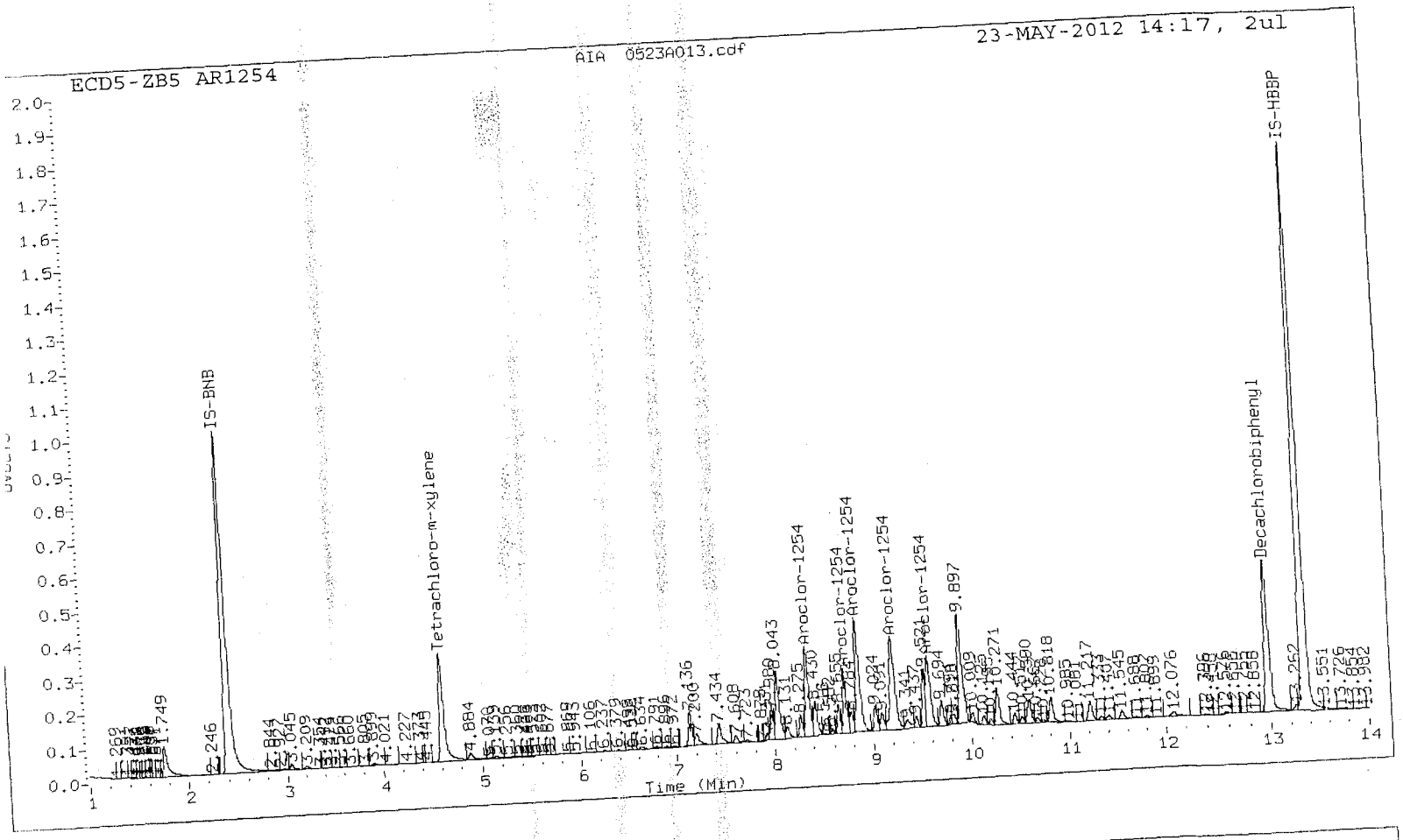
Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

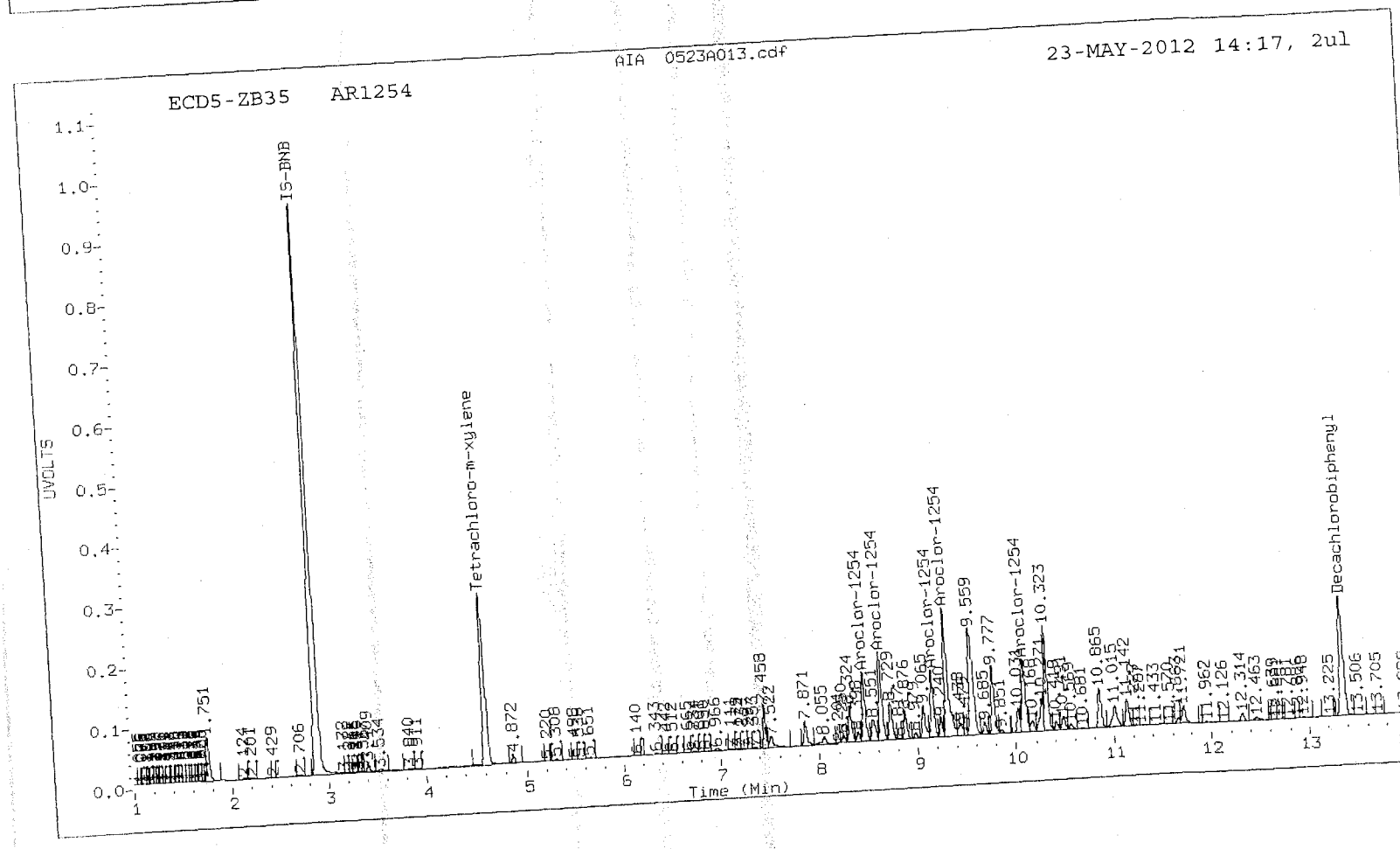
Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.705 - 12.890) = 486346119 Col1 Total PCB = 0.3 ppm*

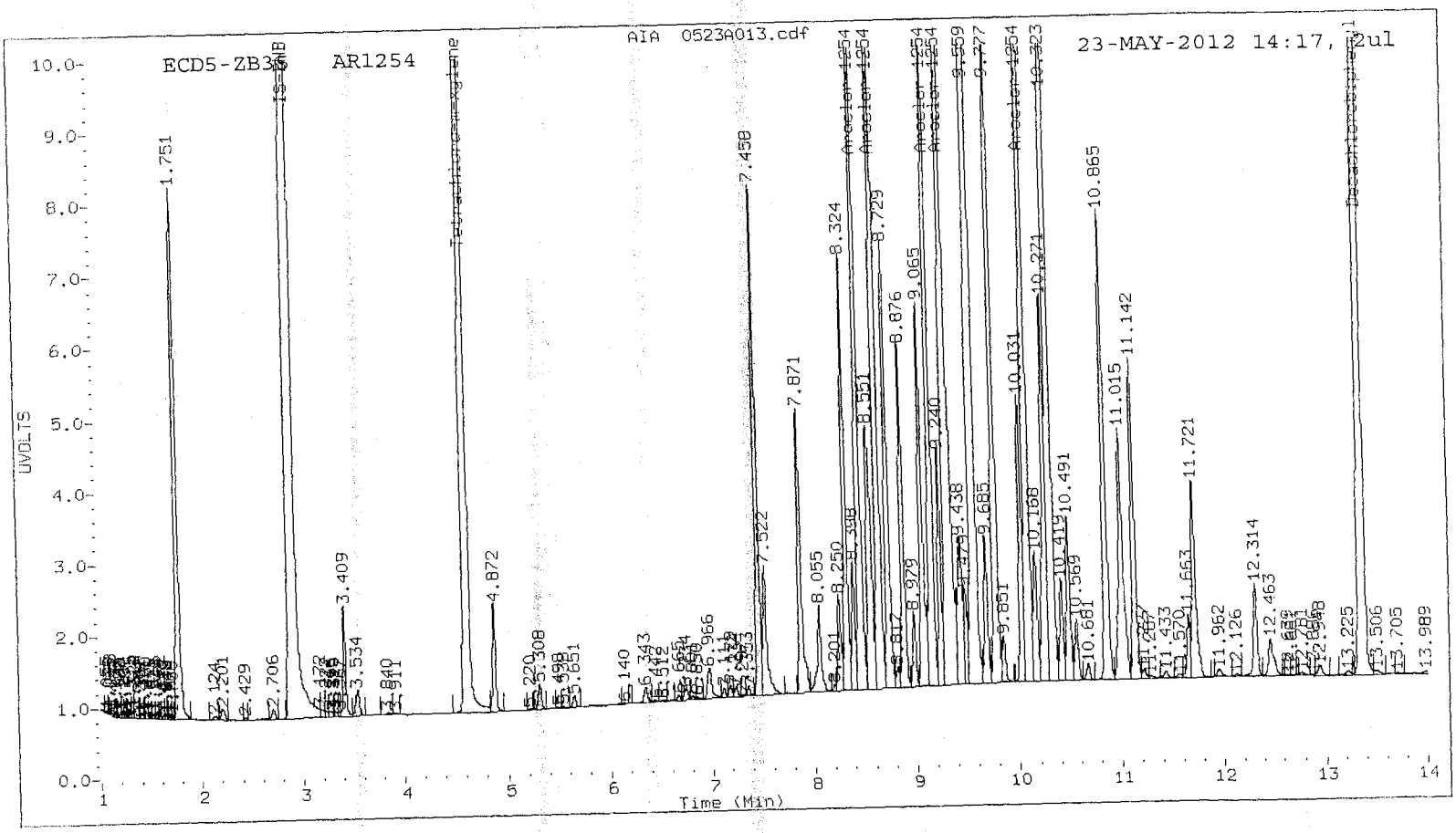
Total PCB Area Col2 (4.707 - 13.262) = 254319851 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1254
AIA 0523A013.cdf
23-MAY-2012 14:17, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
IS-HBBP
Time (Min)


ECD5-ZB35 AR1254
AIA 0523A013.cdf
23-MAY-2012 14:17, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
Time (Min)


ECD5-ZB5 AR1254
AIA 0523A013.cdf
23-MAY-2012 14:17, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-Bnz
IS-DnB


ECD5-ZB35 AR1254
AIA 0523A013.cdf
23-MAY-2012 14:17, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-DnB
Aroclor 1254

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A014.d
Data file 2: 20120523.b/ical-2.b/0523A014.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162
Client ID:
Injection Date: 23-MAY-2012 14:36
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A015.d
Data file 2: 20120523.b/ical-2.b/0523A015.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 23-MAY-2012 14:55
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.605	0.000	52276783	4.607	0.000	32799687	20.3	21.1	3.6	Tetrachloro-m-xylene
12.990	0.000	121606873	13.362	0.000	49357296	31.0	34.7	11.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.8	52.7
Decachlorobiphenyl	77.4	86.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	159979493	3.7
Hexabromobiphenyl	248602423	255983137	3.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	110553251	-0.1
Hexabromobiphenyl	108855531	110210828	1.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

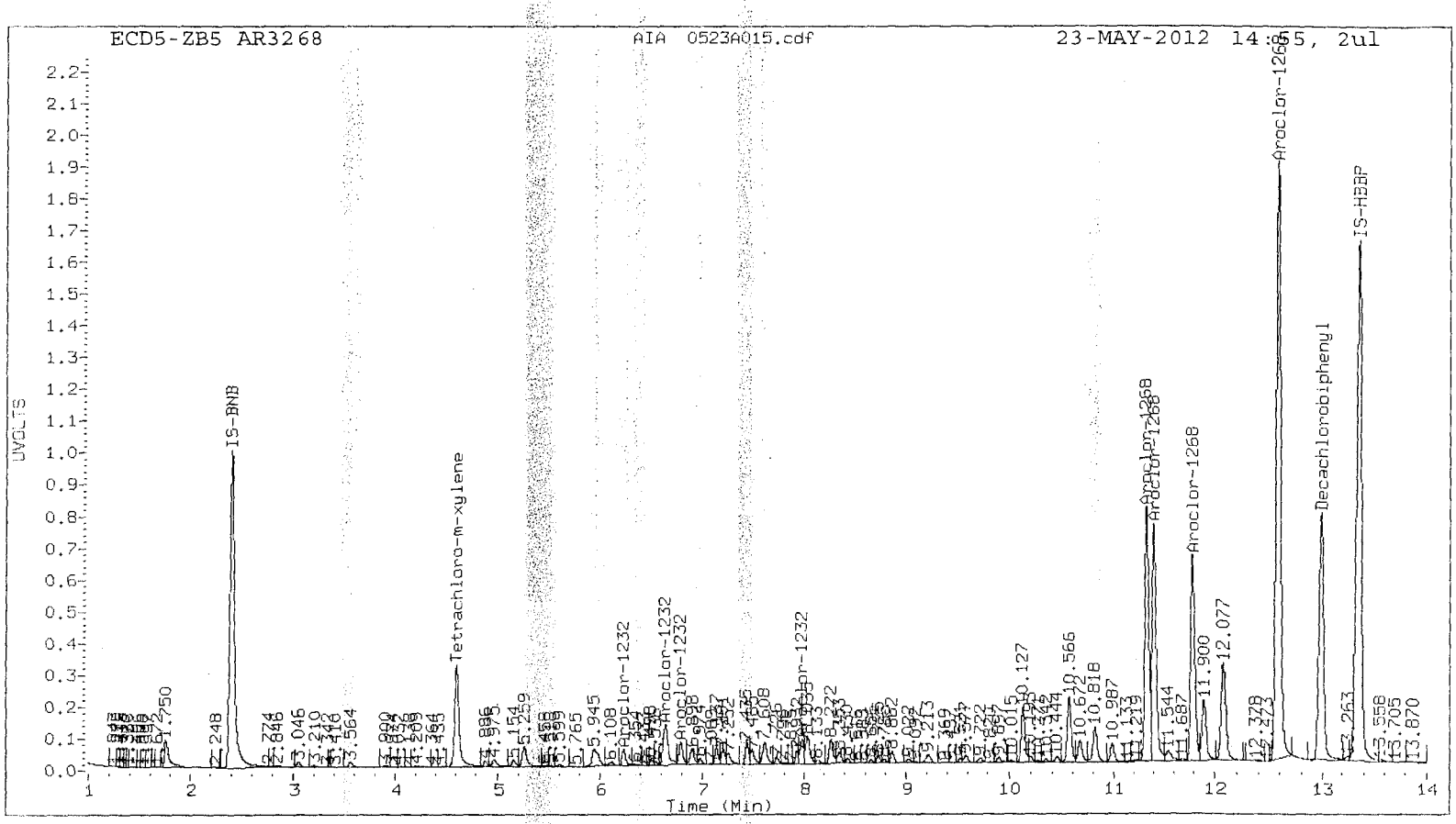
hem2/ecd5.i/20120523.b/ical-1.b/0523A015.d AR3268

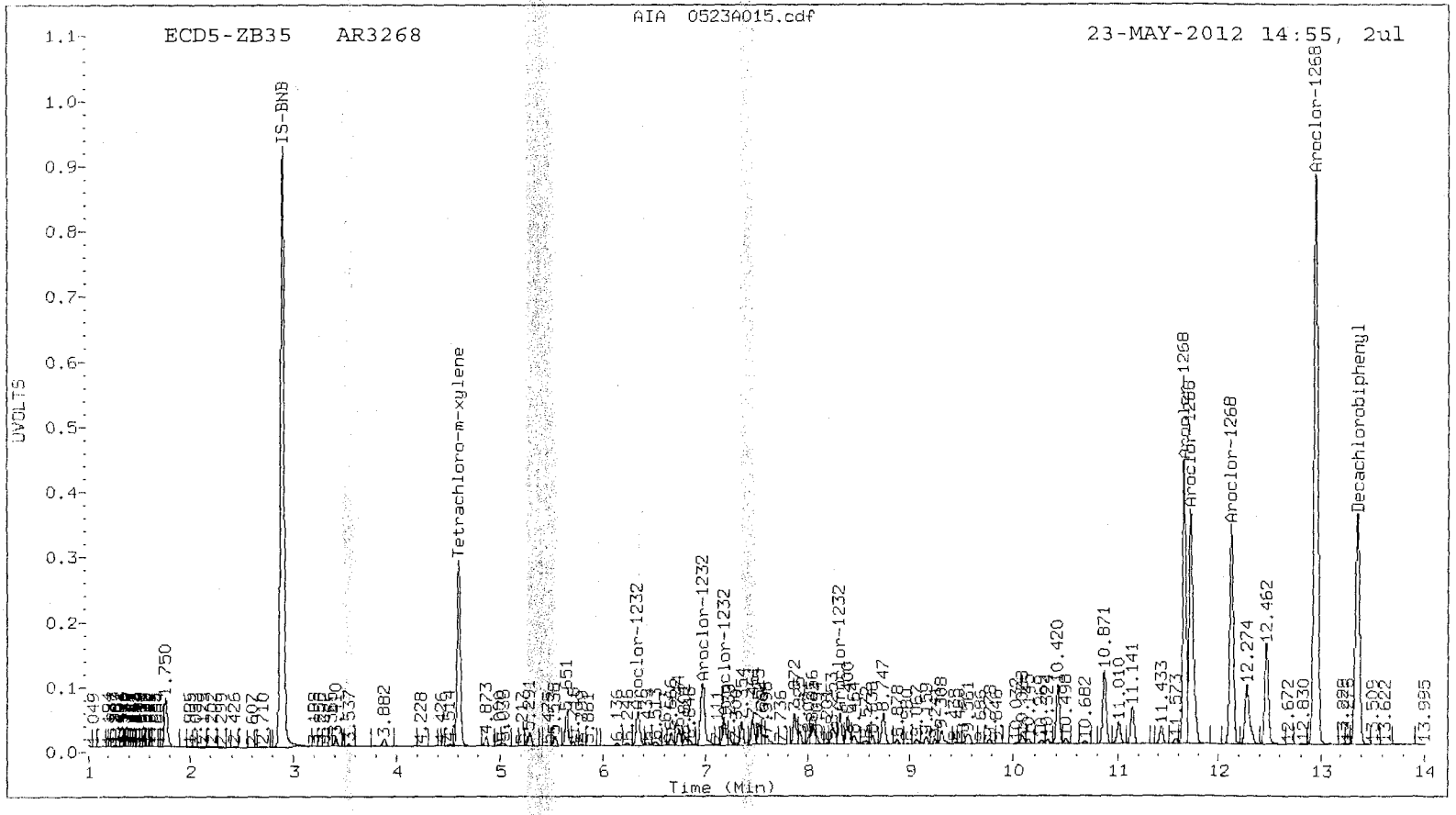
roclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
roclor-1232	1	6.238	0.000	6968282	250.0	1	6.345	0.000	6656405	250.0
roclor-1232	2	6.639	0.000	23176486	250.0	2	6.971	0.000	13937128	250.0
roclor-1232	3	6.788	0.000	9400077	250.0	3	7.179	0.000	4701629	250.0
roclor-1232	4	7.980	0.000	9027031	250.0	4	8.325	0.000	5155738	250.0
Total Col1Ave (4 peaks):				250.0		Total Col2Ave (4 peaks):			250.0	RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):			250.0	RPD = 0
Aroclor-1268	1	11.336	0.000	108965571	250.0	1	11.664	0.000	52602687	250.0
Aroclor-1268	2	11.407	0.000	109555201	250.0	2	11.730	0.000	49585436	250.0
Aroclor-1268	3	11.793	0.000	91460025	250.0	3	12.128	0.000	41637863	250.0
Aroclor-1268	4	12.585	0.000	268923357	250.0	4	12.950	0.000	117617700	250.0
Total Col1Ave (4 peaks):				250.0		Total Col2Ave (4 peaks):			250.0	RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):			250.0	RPD = 0

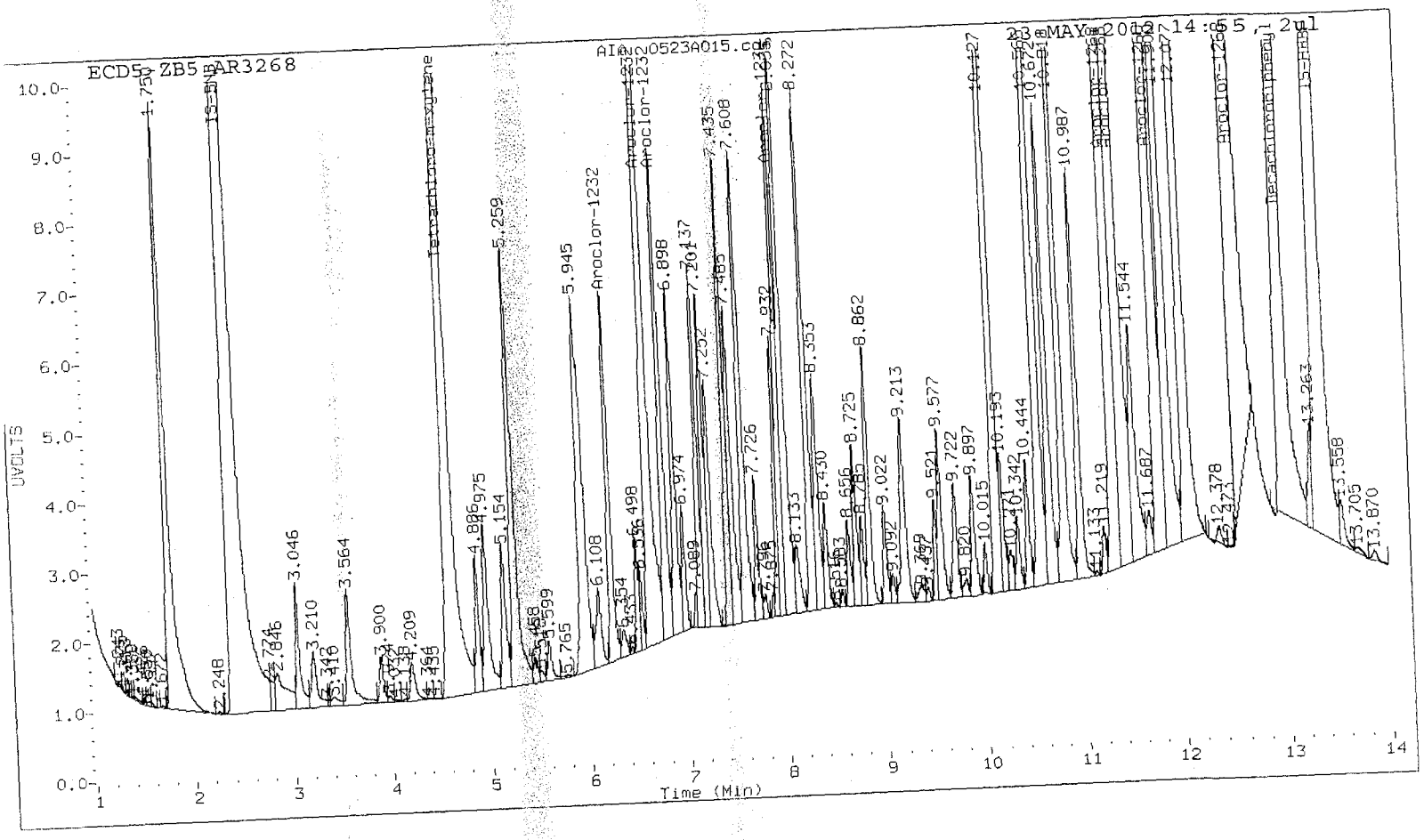
Total PCB Area Col1 (4.705 - 12.890) = 963172112 Col1 Total PCB = 0.5 ppm*

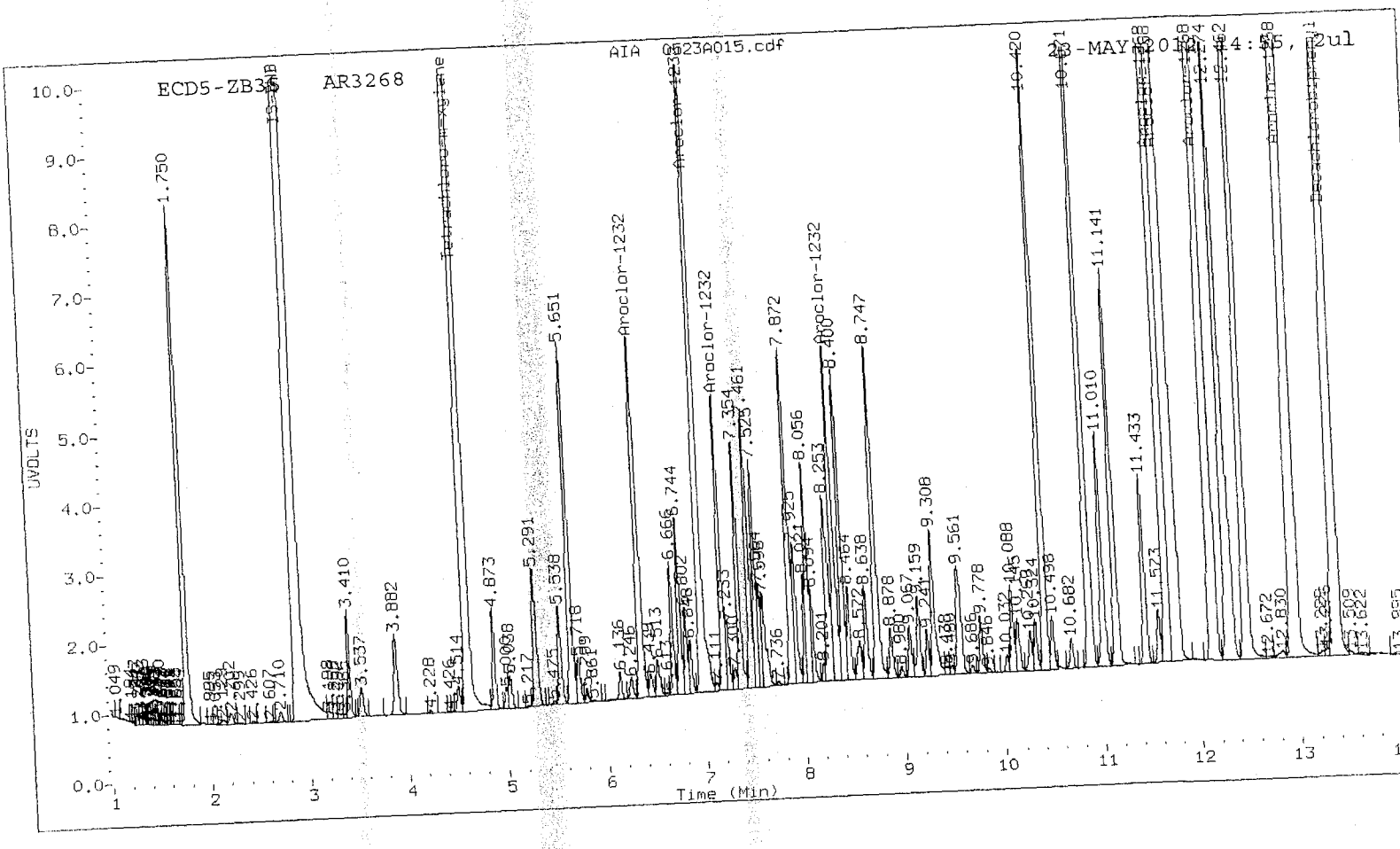
Total PCB Area Col2 (4.706 - 13.262) = 449374255 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR3268
AIA 0523A015.cdf
23-MAY-2012 14:55, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR3268
AIA 0523A015.cdf
23-MAY-2012 14:55, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl


ECD5-ZB5 AR3268
AIA 0523A015.cdf
23-MAY-2012 14:55, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1232
Aroclor-1260


ECD5-ZB35 AR3268
AIA 0523A015.cdf
23-MAY-2012 14:55, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1232
Aroclor-1260

AR 5/24/2012

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A016.d
Data file 2: 20120523.b/ical-2.b/0523A016.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 ICV
Client ID:
Injection Date: 23-MAY-2012 15:14
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.605	0.000	51659408	4.607	-0.001	32548080	20.2	20.4	1.0	Tetrachloro-m-xylene
12.989	-0.002	73226424	13.362	-0.002	28269430	18.5	19.9	7.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.4	50.9
Decachlorobiphenyl	46.3	49.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	159402616	3.4
Hexabromobiphenyl	248602423	257592431	3.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	113559639	2.7
Hexabromobiphenyl	108855531	110023028	1.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

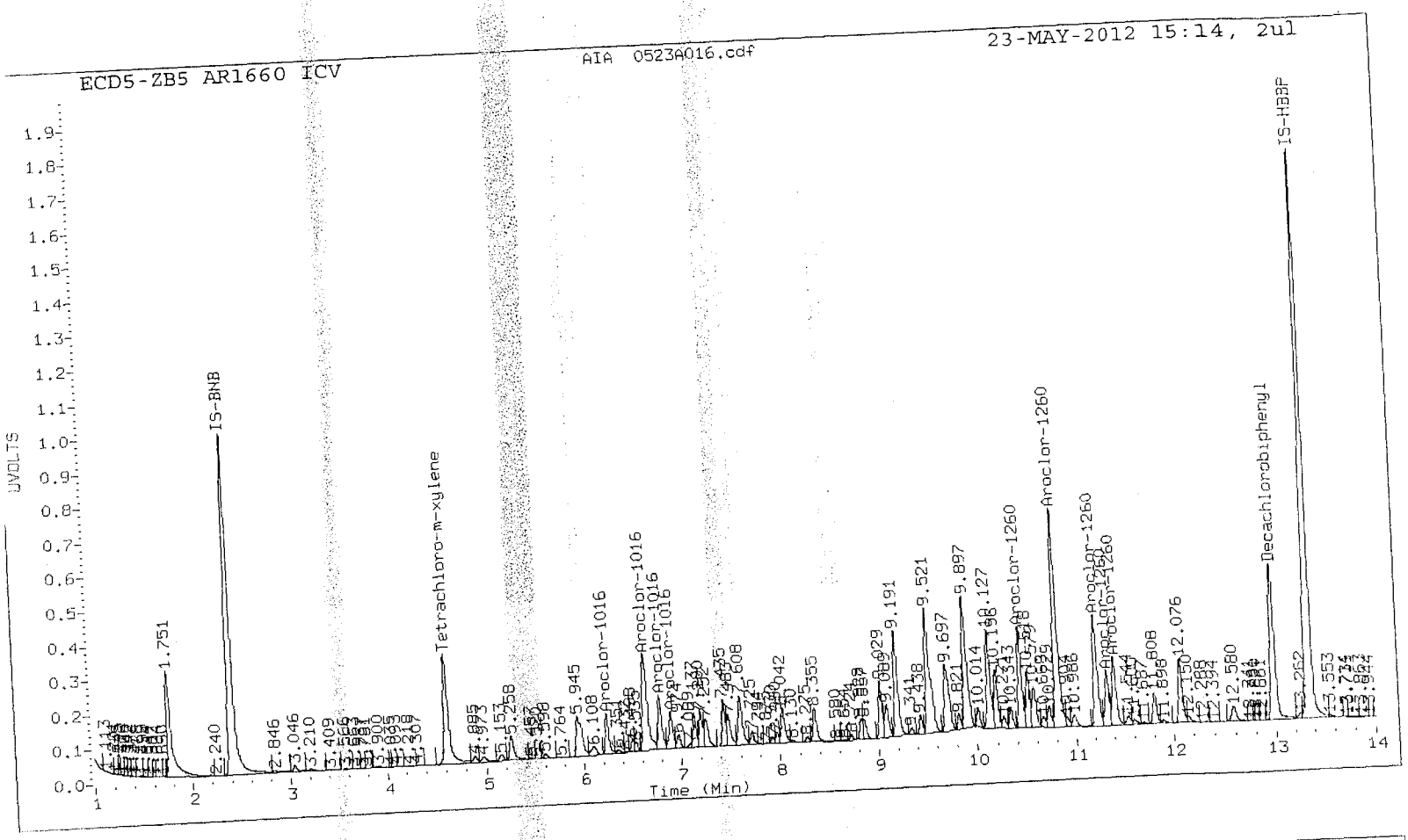
:hem2/ecd5.i/20120523.b/ical-1.b/0523A016.d AR1660 ICV

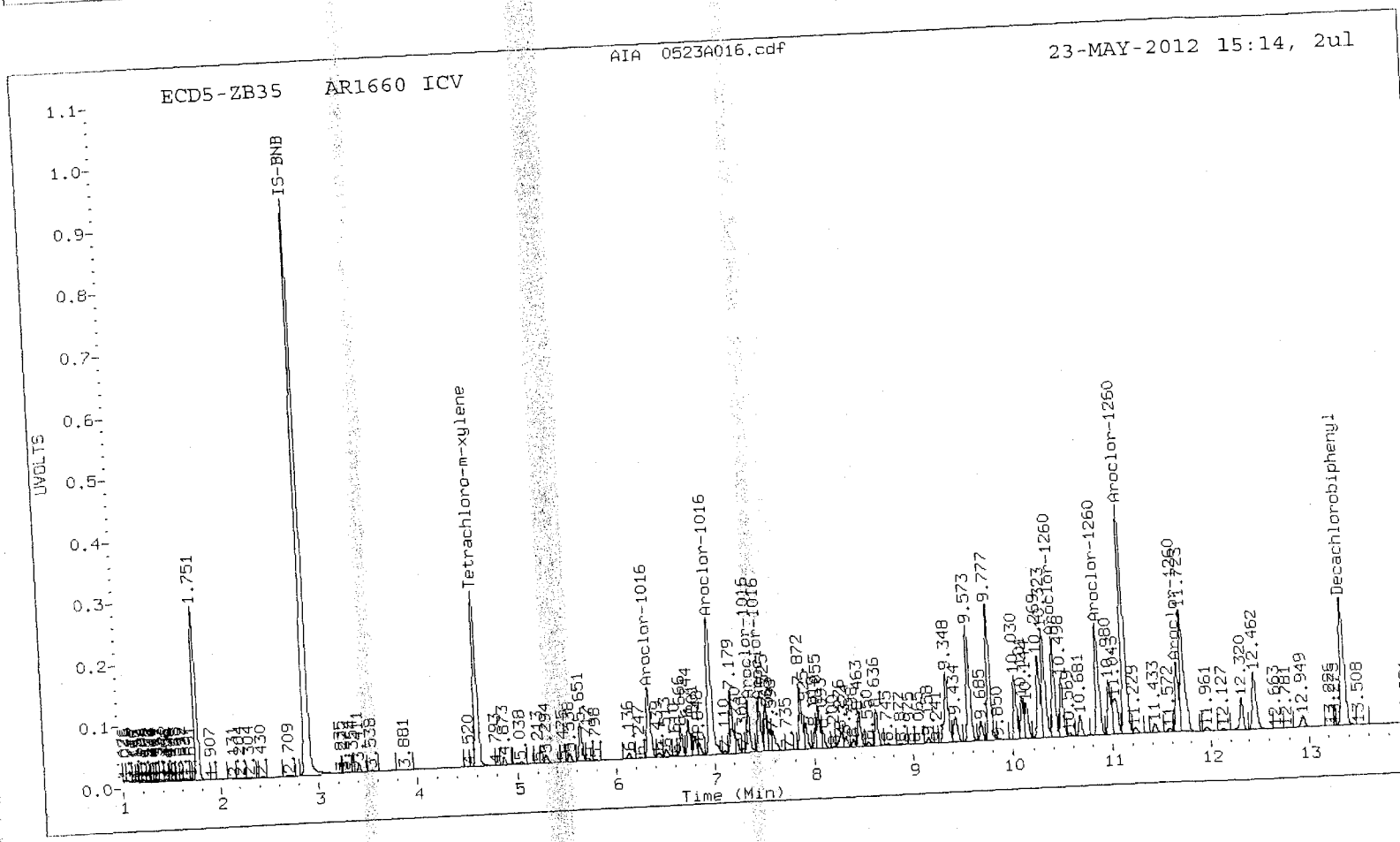
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.238	0.001	15453388	232.4	1	6.344	-0.001	14347675	242.1
Aroclor-1016	2	6.638	0.000	51594113	238.0	2	6.971	-0.001	32435718	241.1
Aroclor-1016	3	6.787	0.000	20862762	244.0	3	7.354	-0.001	8570166	246.9
Aroclor-1016	4	6.897	0.001	14817661	220.0	4	7.460	-0.002	9086943	235.5
Total Col1Ave (4 peaks):					233.6	Total Col2Ave (4 peaks):				241.4 RPD = 3
Corrected Ave (3 peaks):					230.1	Corrected Ave (3 peaks):				239.5 RPD = 4
Aroclor-1260	1	10.444	0.000	37444124	267.9	1	10.419	-0.001	18052461	286.1
Aroclor-1260	2	10.818	0.000	91332989	263.4	2	10.870	-0.001	20748389	264.8
Aroclor-1260	3	11.218	0.001	48039895	249.2	3	11.142	-0.001	43924991	276.1
Aroclor-1260	4	11.334	0.000	22922786	277.0	4	11.663	-0.001	13077340	281.5
Aroclor-1260	5	11.407	-0.001	28518434	288.6	NS	---			----
Total Col1Ave (5 peaks):					269.2	Total Col2Ave (4 peaks):				277.1 RPD = 3
Corrected Ave (4 peaks):					264.4	Corrected Ave (3 peaks):				274.1 RPD = 4

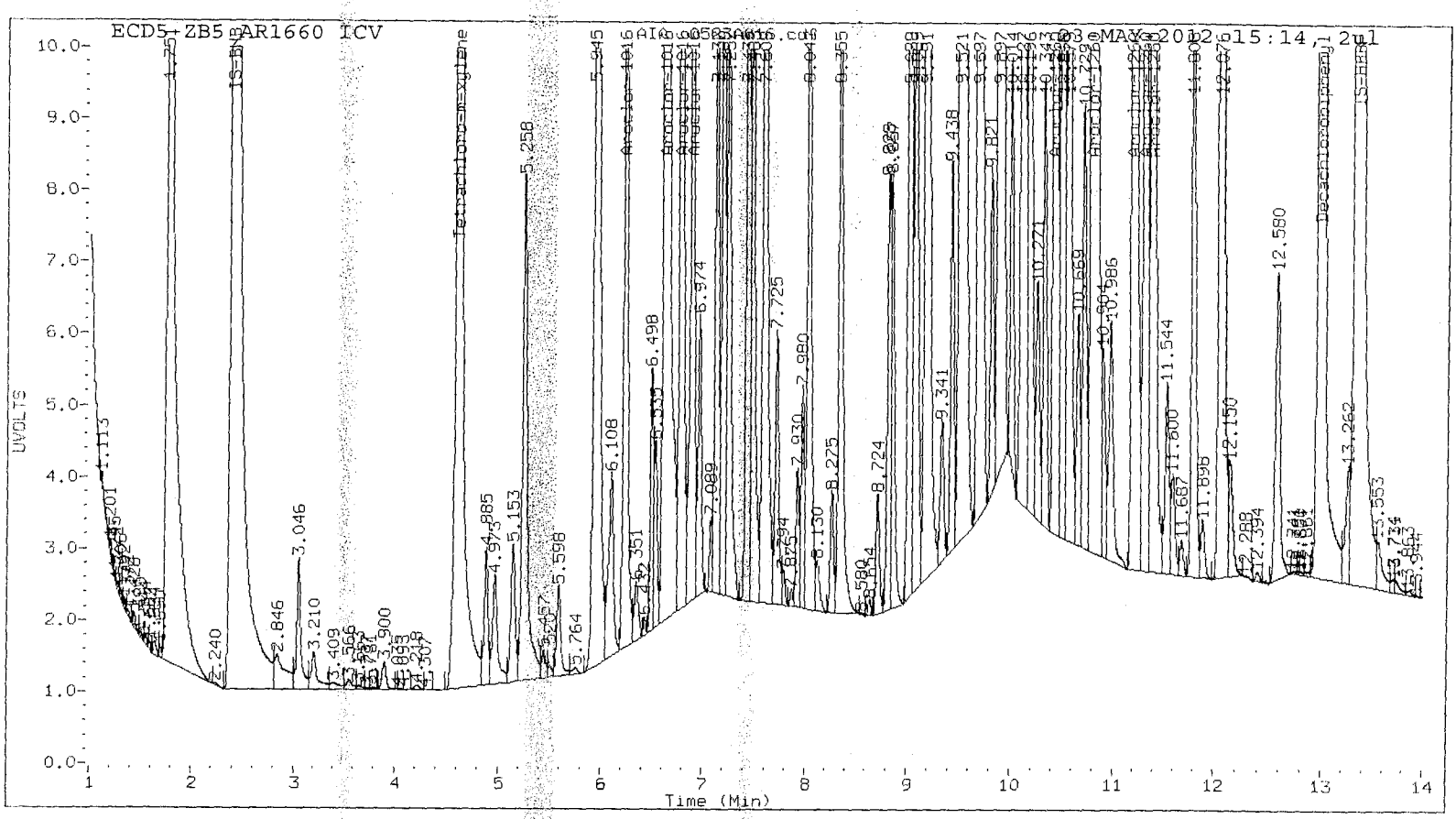
Total PCB Area Col1 (4.705 - 12.890) = 962281592 Col1 Total PCB = 0.5 ppm*

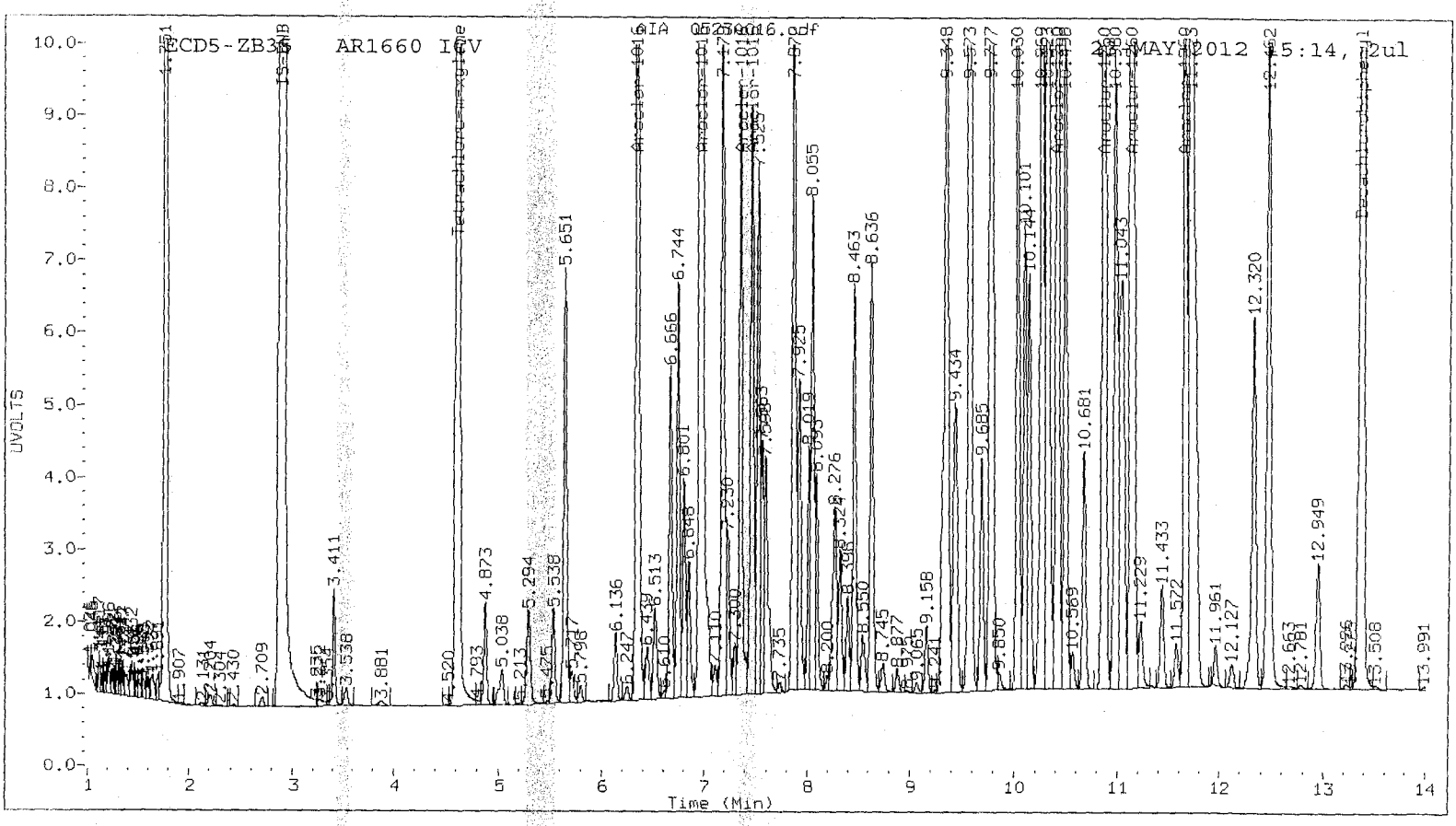
Total PCB Area Col2 (4.707 - 13.264) = 493868580 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1660 ICV
AIA 0523A016.cdf
23-MAY-2012 15:14, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBF


ECD5-ZB35 AR1660 ICV
AIA 0523A016.cdf
23-MAY-2012 15:14, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


ECD5-ZB5 AR1660 ICV
03-MAY-2012 15:14, 2ul
UVOLTS
Time (Min)


ECD5-ZB35 AR1660 ICV
03-MAY-2012 15:14, 2ul
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

AR 5/24/2012

Data file 1: 20120523.b/ical-1.b/0523A017.d
Data file 2: 20120523.b/ical-2.b/0523A017.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 ICV
Client ID:
Injection Date: 23-MAY-2012 15:33
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.606	0.001	50930910	4.607	-0.001	32187611	19.8	20.1	1.7	Tetrachloro-m-xylene
12.989	-0.001	73135666	13.362	-0.002	28043011	18.3	19.6	6.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.4	50.2
Decachlorobiphenyl	45.9	48.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	160396254	4.0
Hexabromobiphenyl	248602423	259869369	4.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	113869542	2.9
Hexabromobiphenyl	108855531	110961202	1.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor		ZB5 Col RT	Shift	Area	Amount		ZB35 Col RT	Shift	Area	Amount
Aroclor-1242	1	6.238	0.001	12387074	245.4	1	6.344	0.001	11472731	246.9
Aroclor-1242	2	6.639	0.001	41405903	246.0	2	6.971	0.001	25732158	243.9
Aroclor-1242	3	6.787	0.001	16657005	248.0	3	7.179	0.000	8921973	208.1
Aroclor-1242	4	7.981	0.001	14954646	239.0	4	8.324	0.000	8782379	235.6

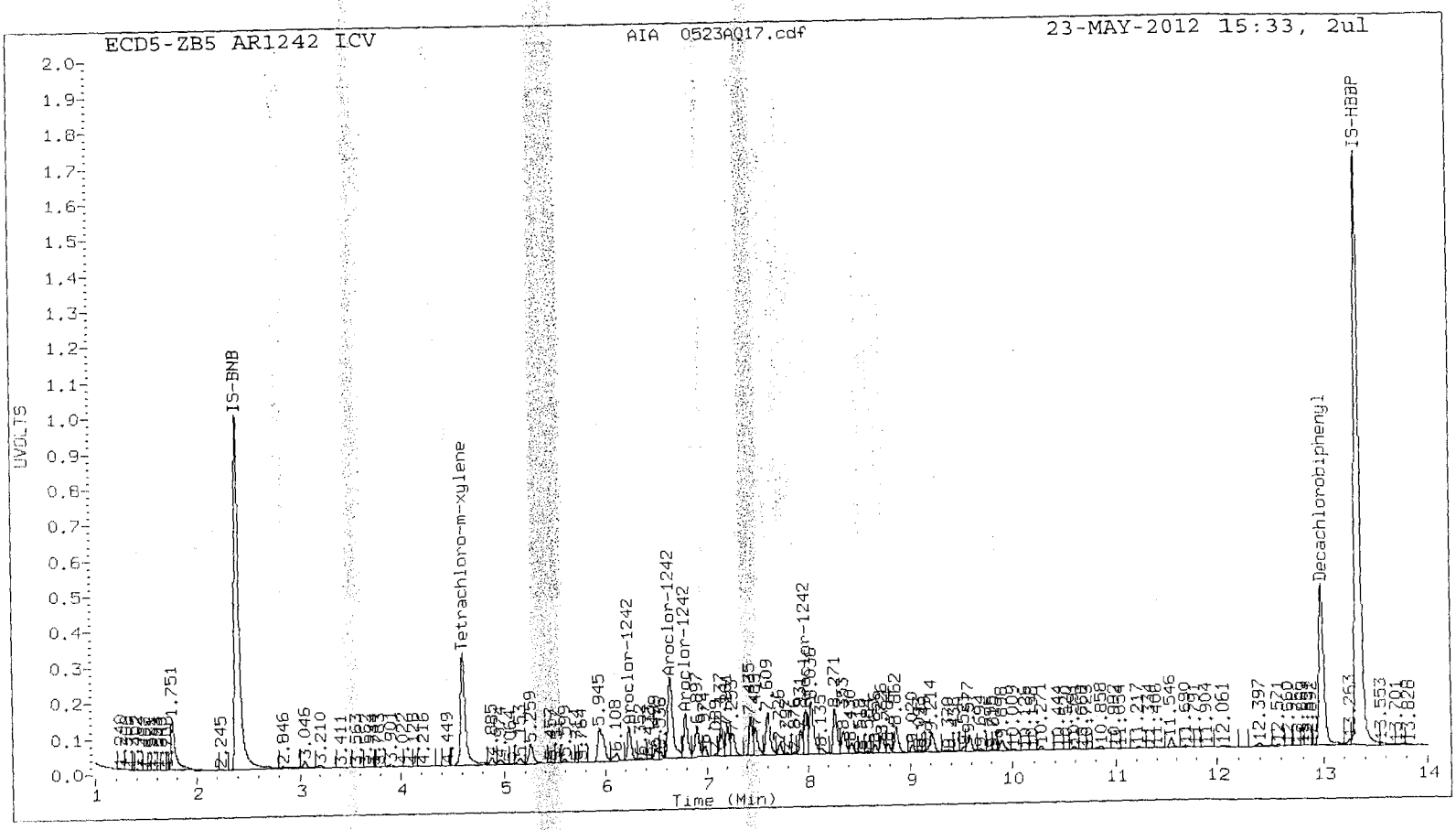
Total Col1Ave (4 peaks): 244.6 Total Col2Ave (4 peaks): 233.6 RPD = 5

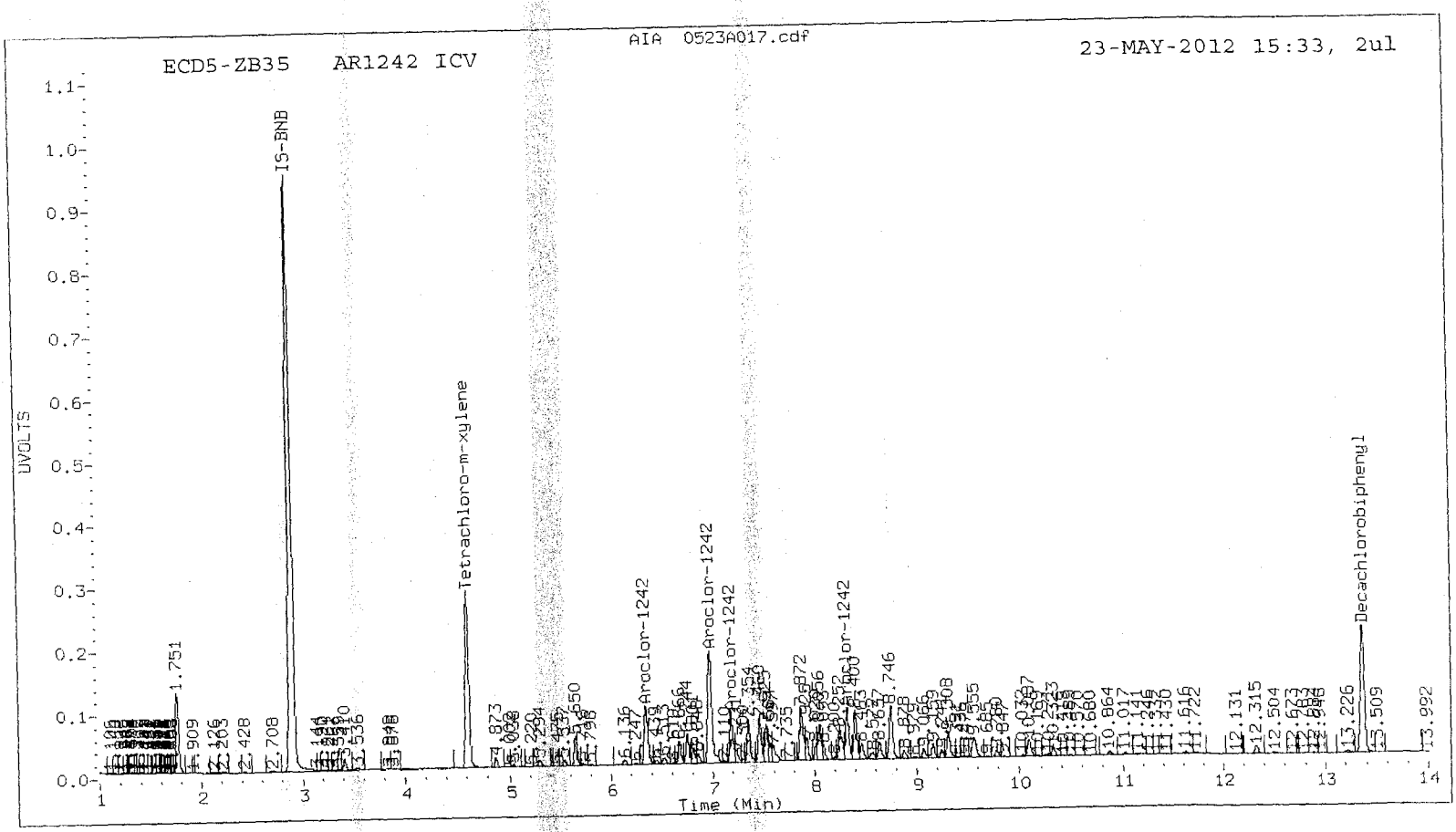
Corrected Ave (3 peaks): 243.4 Corrected Ave (3 peaks): 229.2 RPD = 6

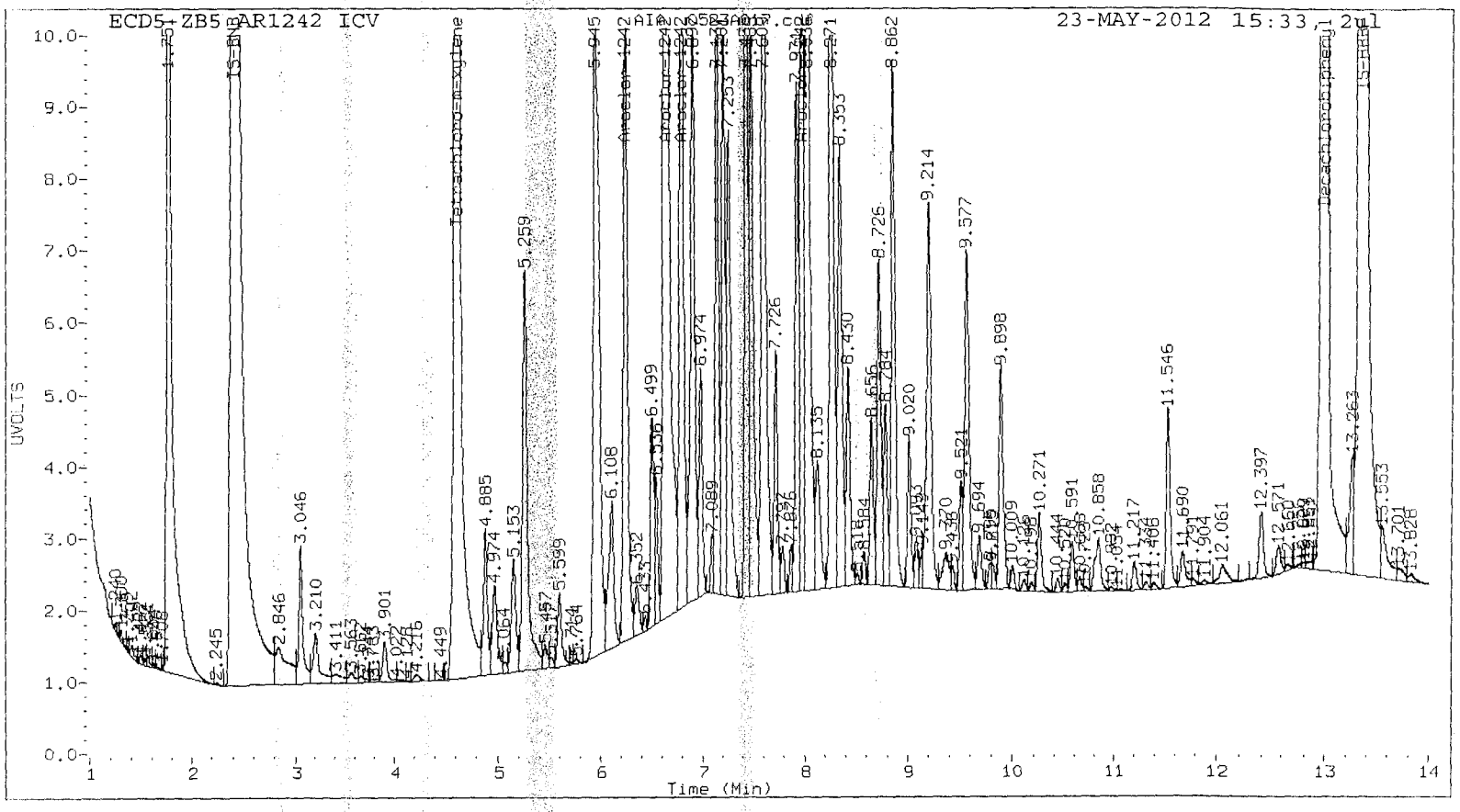
Total PCB Area Col1 (4.705 - 12.890) = 352295236 Col1 Total PCB = 0.2 ppm*

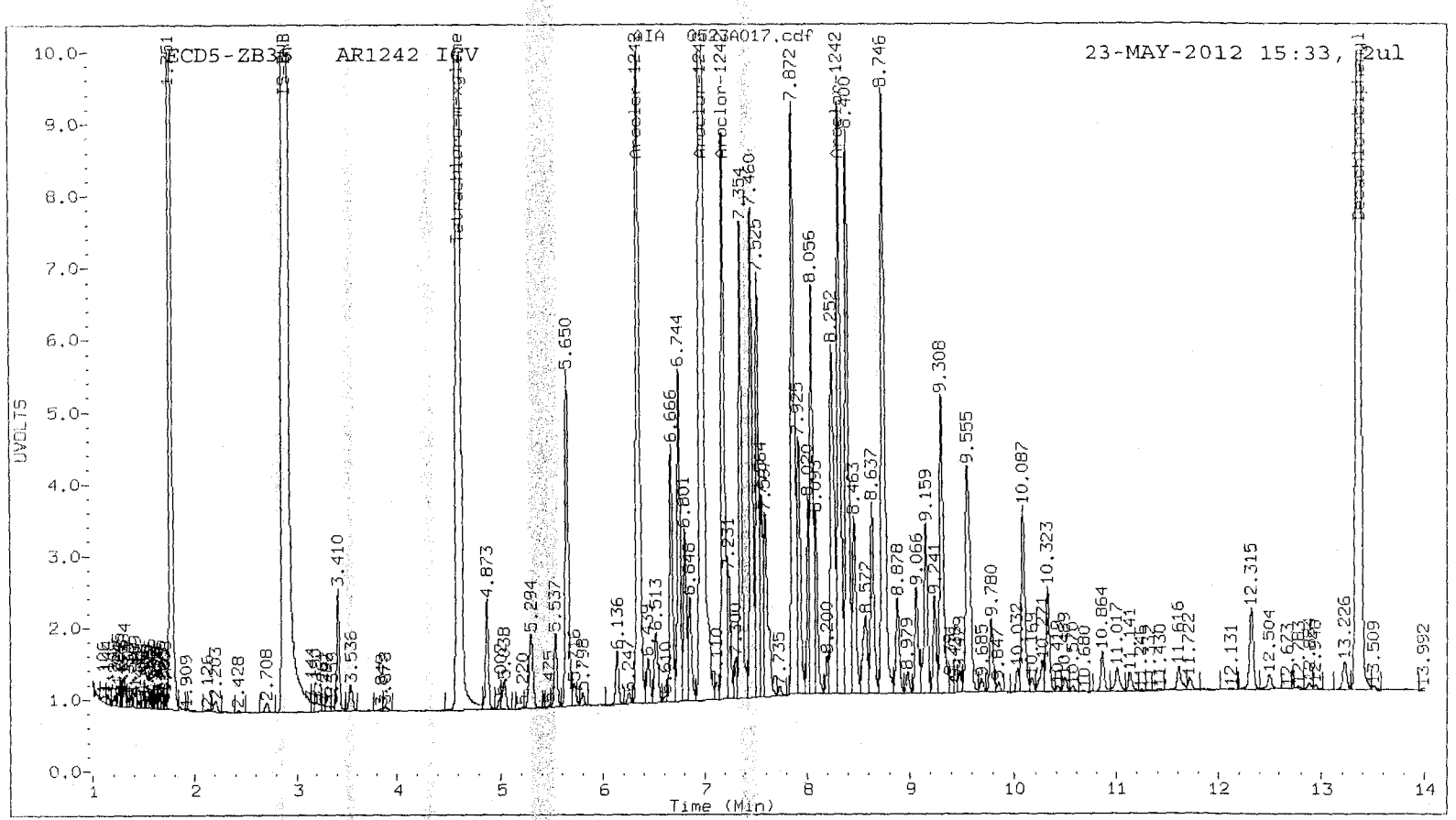
Total PCB Area Col2 (4.708 - 13.264) = 196524698 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1242 ICV
AIA 0523A017.cdf
23-MAY-2012 15:33, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR1242 ICV
AIA 0523A017.cdf
23-MAY-2012 15:33, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl


ECD5-ZB5 AR1242 ICV
23-MAY-2012 15:33, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HCBP


ECD5-ZB3 AR1242 ICV
23-MAY-2012 15:33, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl

AR station

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A018.d
Data file 2: 20120523.b/ical-2.b/0523A018.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 ICV
Client ID:
Injection Date: 23-MAY-2012 15:52
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.605	0.000	52367134	4.606	-0.002	33444305	20.0	20.6	2.8	Tetrachloro-m-xylene
12.989	-0.001	75045652	13.363	-0.001	28984282	18.5	19.8	6.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.0	51.5
Decachlorobiphenyl	46.2	49.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	162864330	5.6
Hexabromobiphenyl	248602423	264734547	6.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	115475995	4.4
Hexabromobiphenyl	108855531	113328734	4.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

chem2/ecd5.i/20120523.b/ical-1.b/0523A018.d AR1248 ICV

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1248	1	6.636	0.001	29097134	254.5	1	6.967	-0.002	17683761	255.0
Aroclor-1248	2	7.434	0.000	20776597	240.5	2	7.872	-0.003	13425883	241.7
Aroclor-1248	3	7.980	0.000	26250945	237.2	3	8.324	-0.002	15770717	236.1
Aroclor-1248	4	8.270	0.000	25907890	232.0	4	8.745	-0.003	17547965	232.7

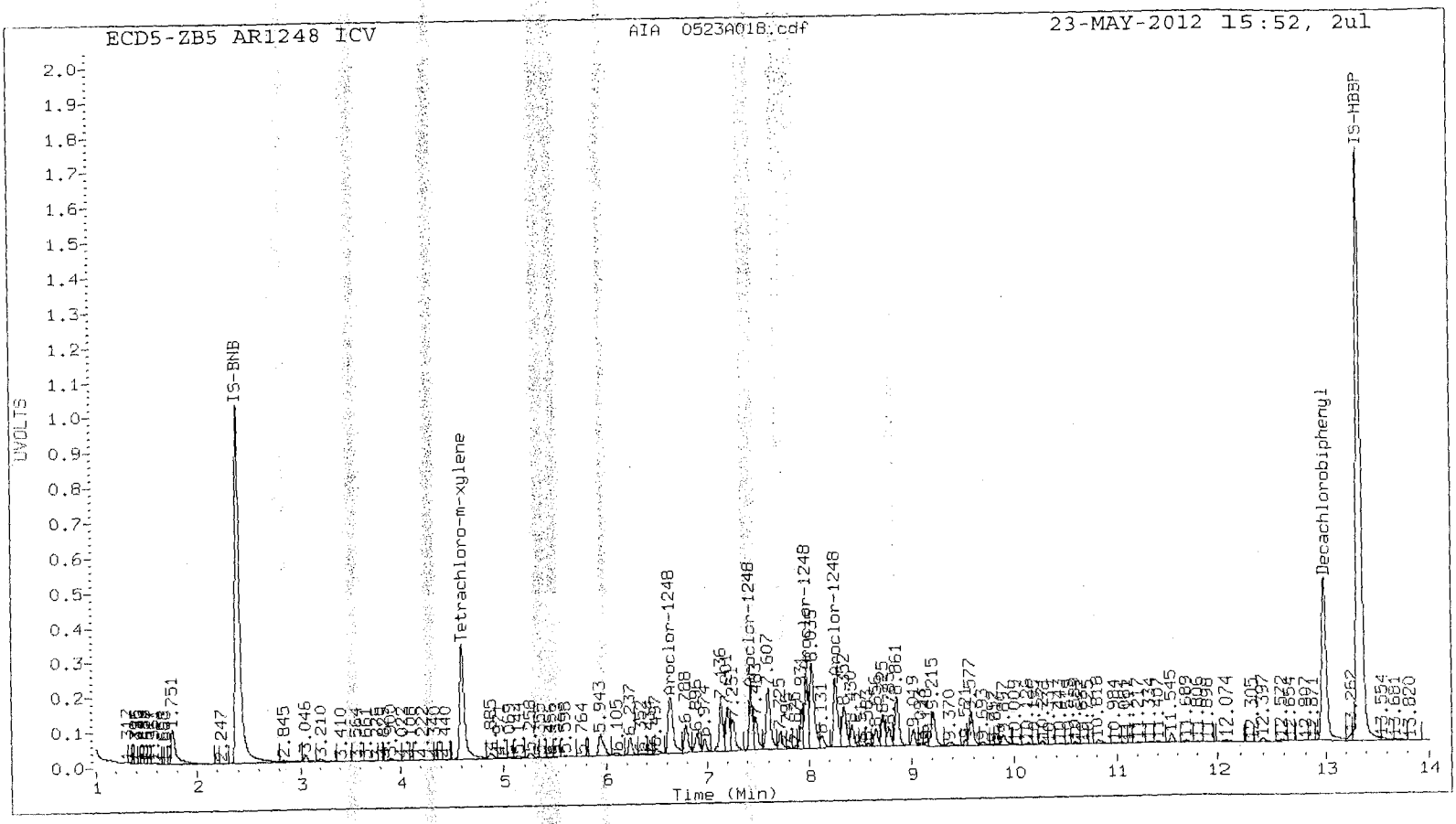
Total Col1Ave (4 peaks): 241.1 Total Col2Ave (4 peaks): 241.4 RPD = 0

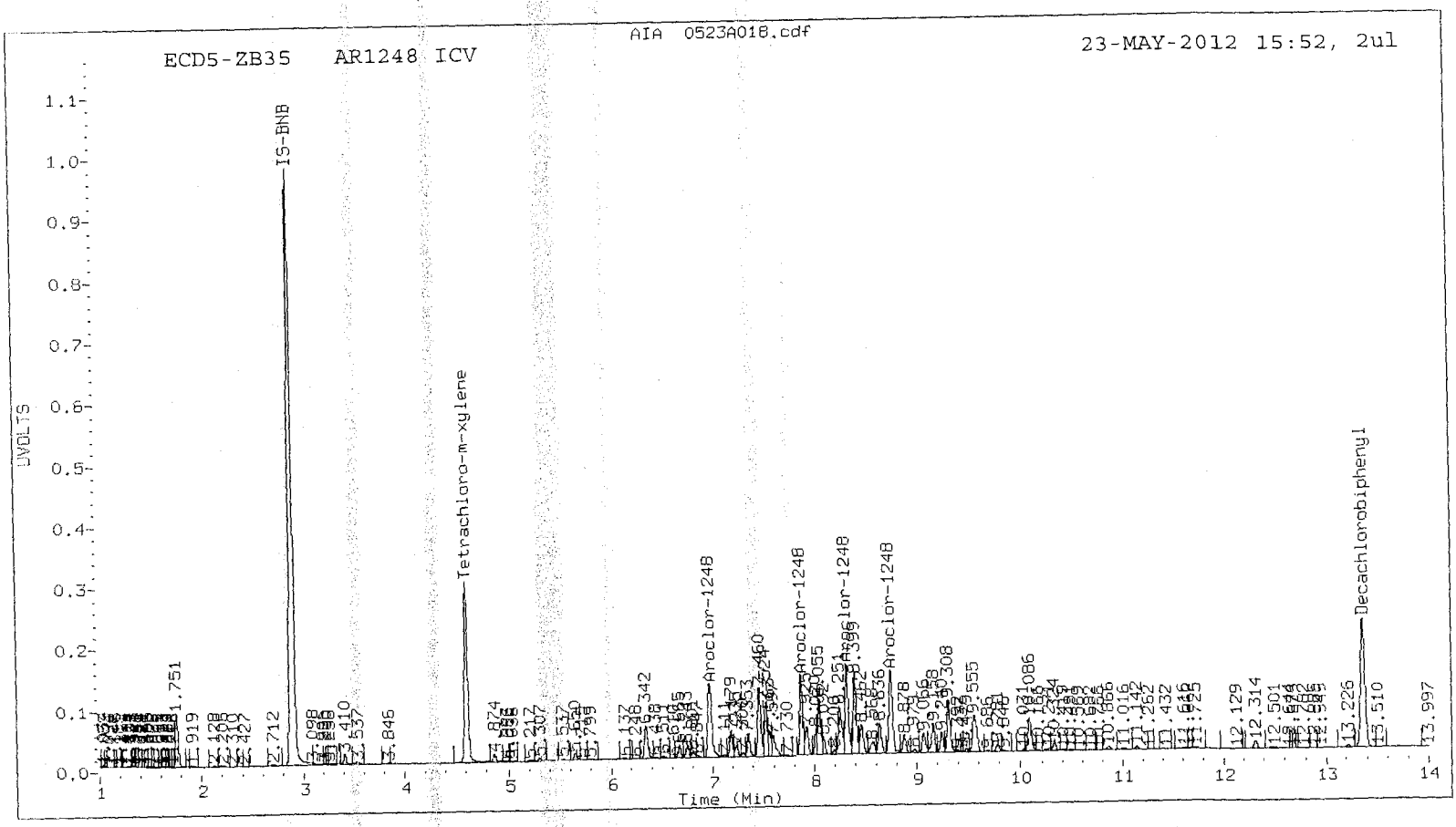
Corrected Ave (3 peaks): 236.6 Corrected Ave (3 peaks): 236.8 RPD = 0

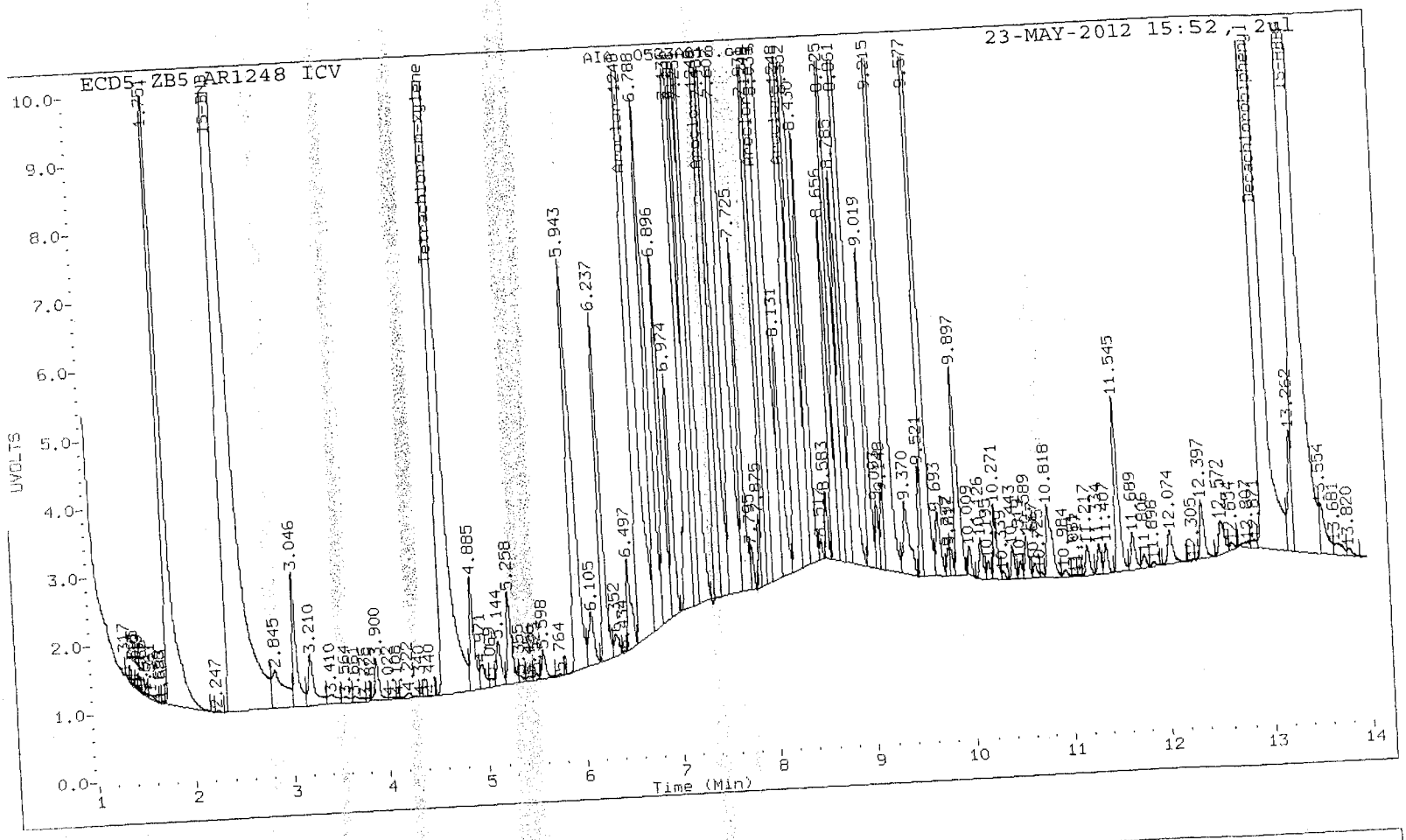
Total PCB Area Col1 (4.705 - 12.890) = 432722885 Col1 Total PCB = 0.2 ppm*

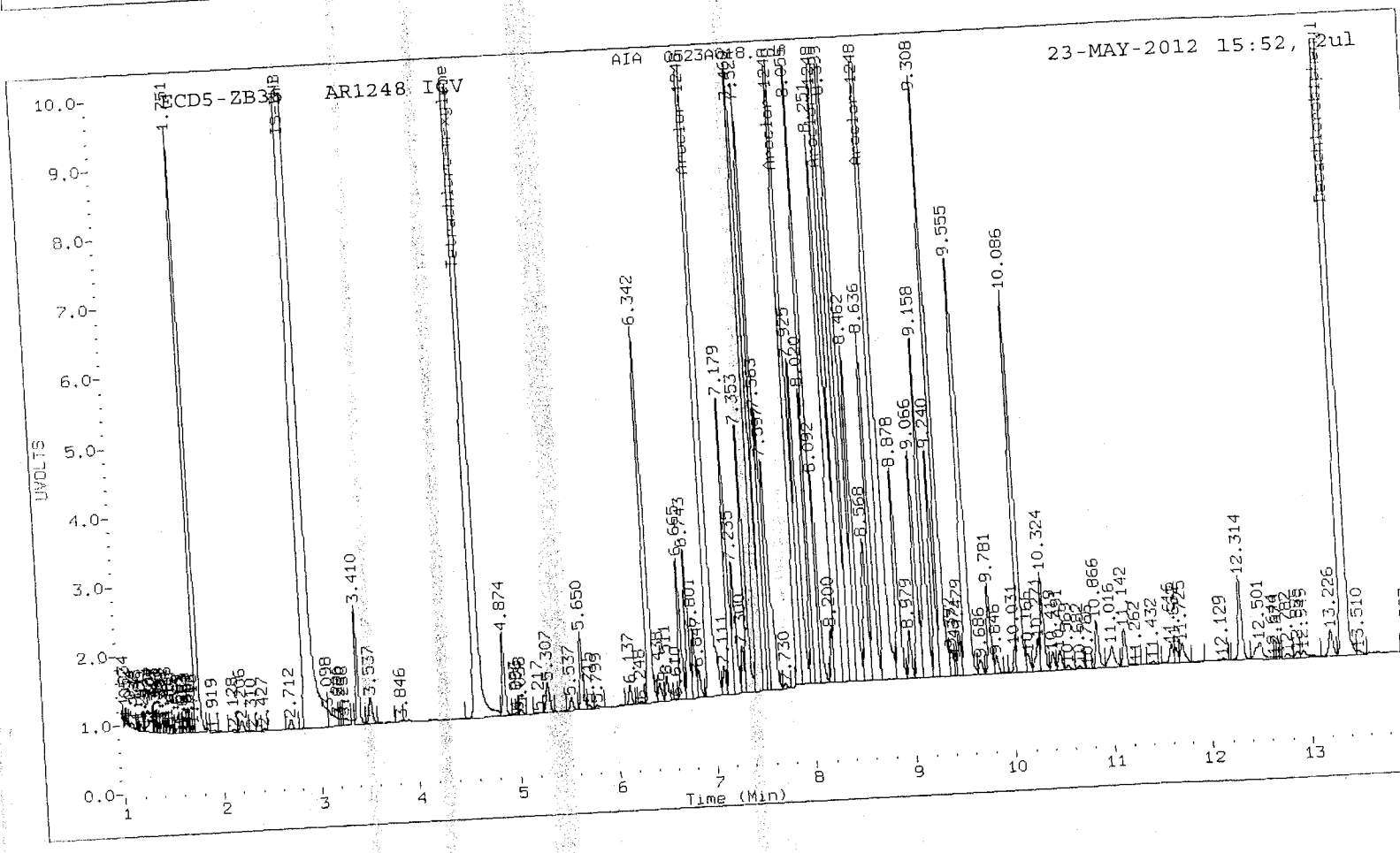
Total PCB Area Col2 (4.708 - 13.264) = 236299209 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1248 ICV
AIA 0523A018.cdf
23-MAY-2012 15:52, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)


ECD5-ZB35 AR1248 ICV
AIA 0523A018.cdf
23-MAY-2012 15:52, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
UVOLTS
Time (Min)


ECD5-ZB5-AR1248 ICV
23-MAY-2012 15:52, 2ul
AIA 05233A018.dat
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-BNB
IS-HBB
Aroclor 1248
UVOLTS
Time (Min)


ECD5-ZB5-AR1248 ICV
23-MAY-2012 15:52, 2ul
AIA 05233A018.dat
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-BNB
IS-HBB
Aroclor 1248
UVOLTS
Time (Min)

AR-5124-20m

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A019.d
Data file 2: 20120523.b/ical-2.b/0523A019.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 ICV
Client ID:
Injection Date: 23-MAY-2012 16:11
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.001	50868781	4.606	-0.002	32286045	19.5	20.0	2.6	Tetrachloro-m-xylene
12.988	-0.002	73856690	13.363	-0.002	28364295	18.2	19.4	6.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.6	49.9
Decachlorobiphenyl	45.5	48.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	162740264	5.5
Hexabromobiphenyl	248602423	264518414	6.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	114989370	4.0
Hexabromobiphenyl	108855531	113322609	4.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1254	1	8.354	0.000	42528598	284.7	1	8.463	-0.002	14215647	281.6
Aroclor-1254	2	8.725	0.000	28284374	294.2	2	8.636	-0.002	18227173	284.1
Aroclor-1254	3	8.861	0.000	51946640	279.8	3	9.158	-0.001	14504174	295.8
Aroclor-1254	4	9.211	0.001	57565076	288.0	4	9.308	-0.002	30216149	278.6
Aroclor-1254	5	9.572	0.000	36946866	297.1	5	10.091	-0.003	18685008	293.9

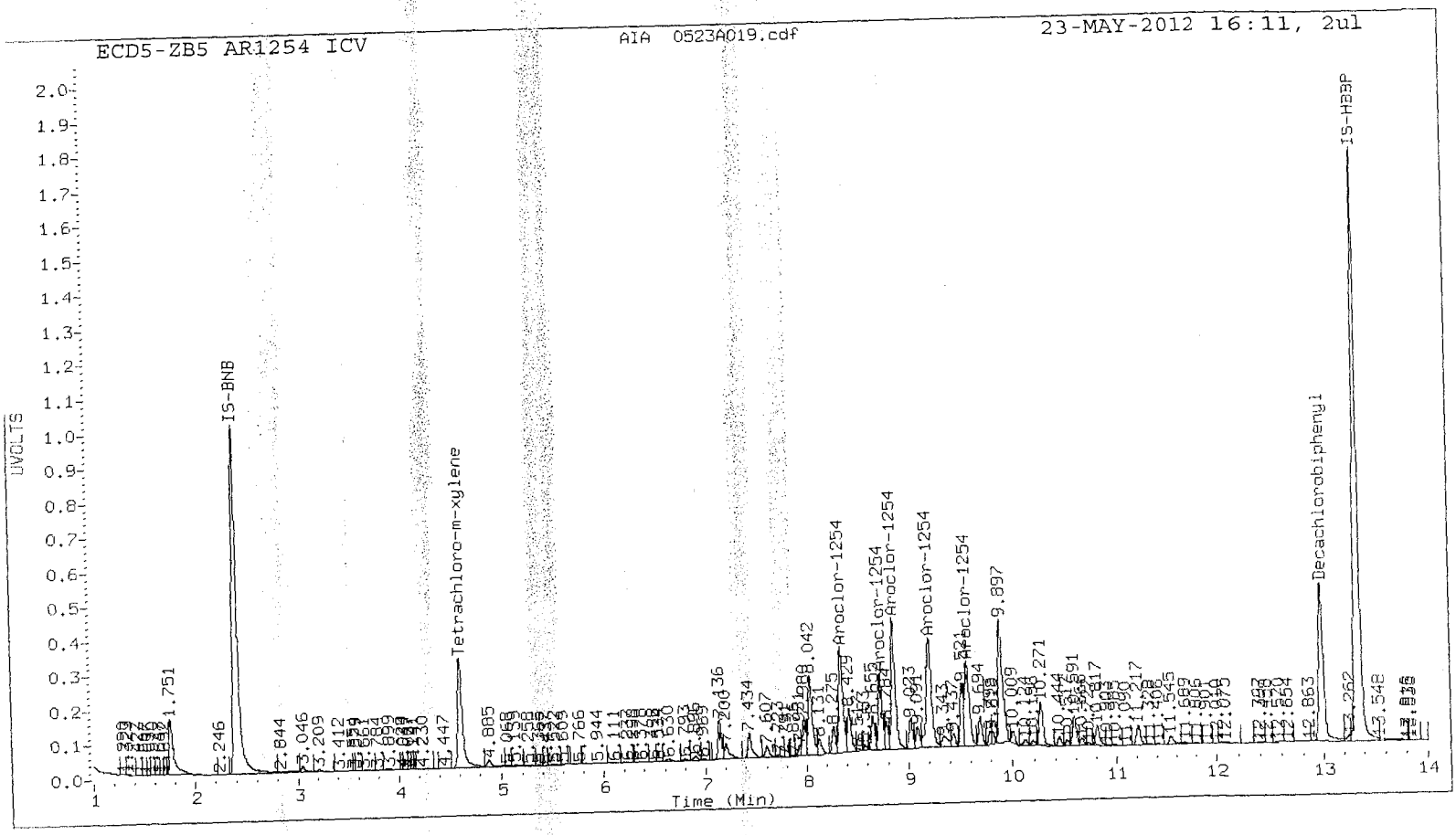
Total Col1Ave (5 peaks): 288.8 Total Col2Ave (5 peaks): 286.8 RPD = 1

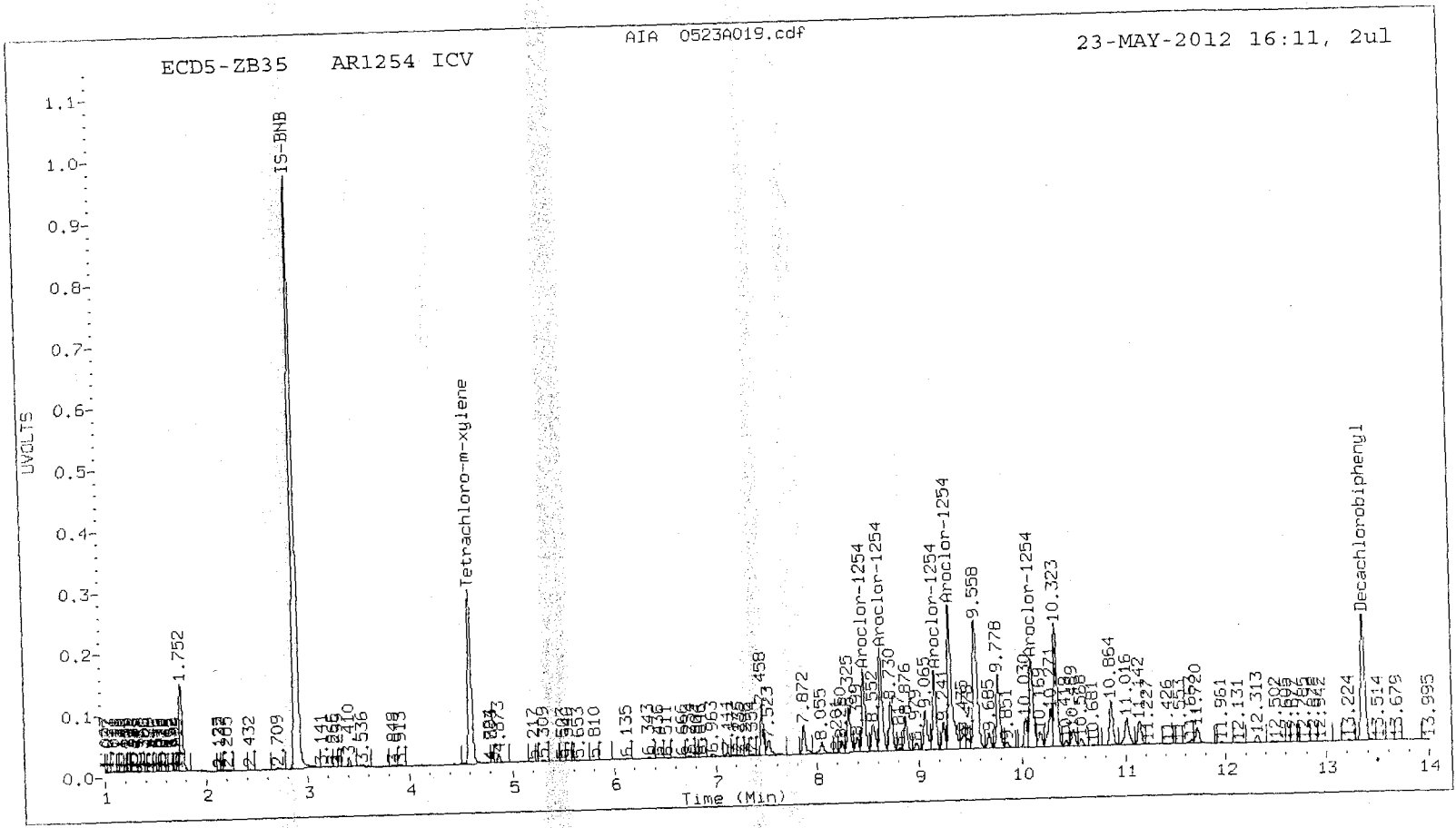
Corrected Ave (4 peaks): 286.7 Corrected Ave (4 peaks): 284.5 RPD = 1

Total PCB Area Col1 (4.705 - 12.890) = 555120246 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 292168808 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1254 ICV
AIA 0523A019.cdf
23-MAY-2012 16:11, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
IS-HBBP
Time (Min)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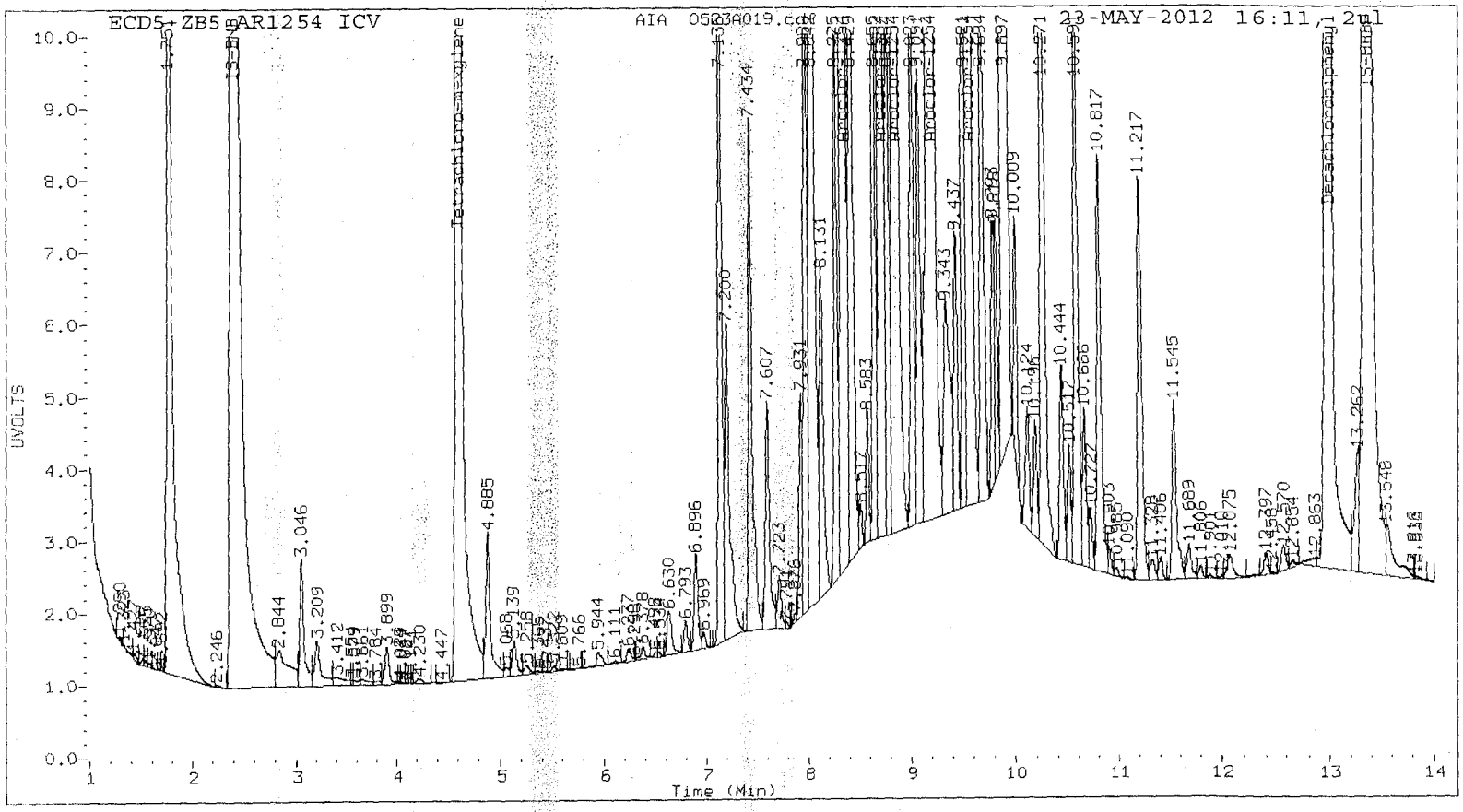
23-MAY-2012 16:11, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
Time (Min)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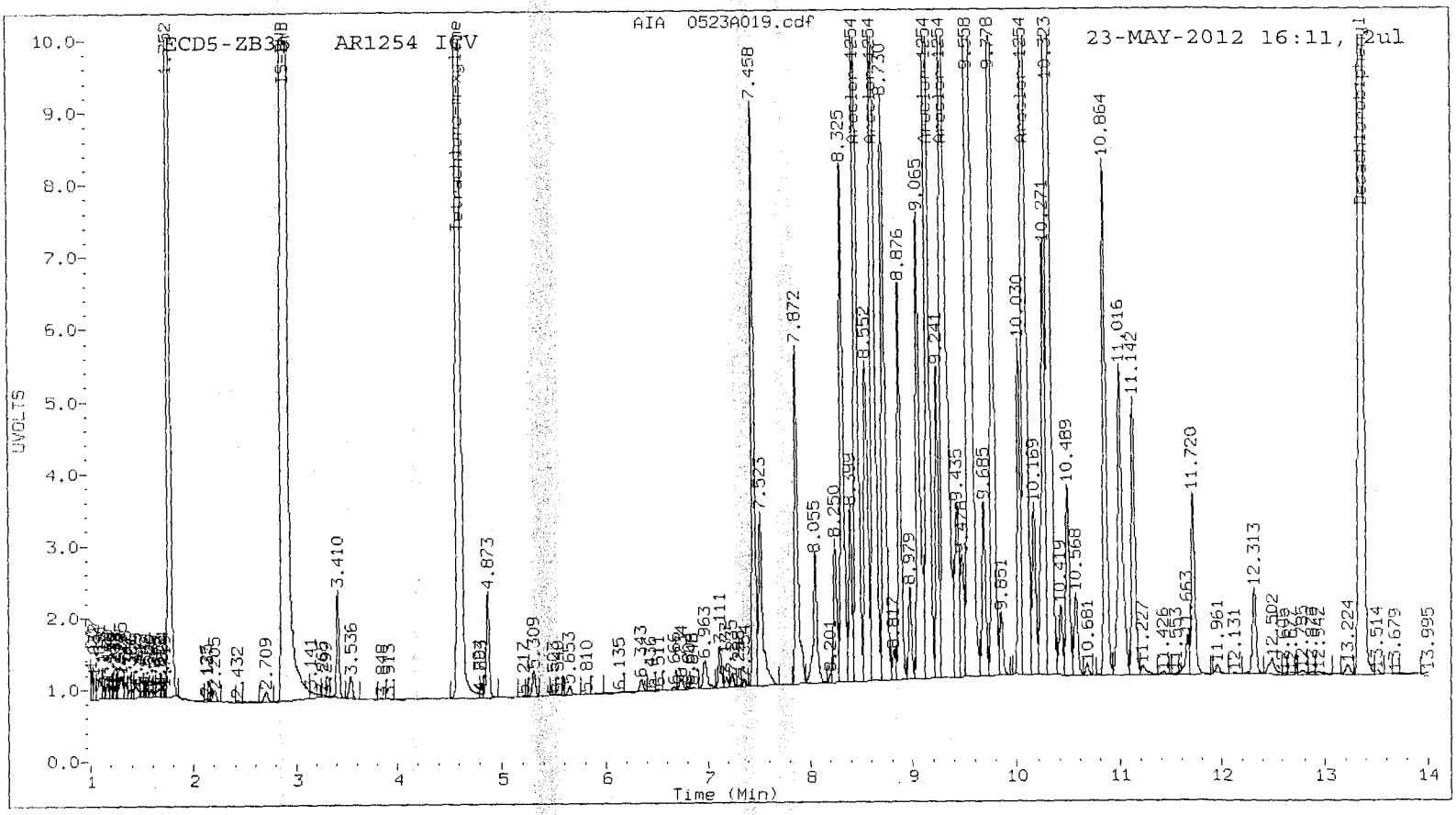
AIA 0523A019.cdf
23-MAY-2012 16:11, 2ul
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1254
Aroclor-1260
UVOLTS
Time (Min)


ECD5-ZB5 AR1254 ICV
AIA 0523A019.cdf
23-MAY-2012 16:11, 2ul
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1254
Aroclor-1260
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

AR5-24-2012

Data file 1: 20120523.b/ical-1.b/0523A020.d
Data file 2: 20120523.b/ical-2.b/0523A020.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 ICV
Client ID:
Injection Date: 23-MAY-2012 16:30
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.001	51207788	4.605	-0.003	31927004	19.5	20.3	4.3	Tetrachloro-m-xylene
12.988	-0.002	72570526	13.363	-0.001	28219405	17.4	18.8	7.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.7	50.8
Decachlorobiphenyl	43.5	46.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	163574544	6.1
Hexabromobiphenyl	248602423	271794659	9.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	111586981	0.9
Hexabromobiphenyl	108855531	116428224	7.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

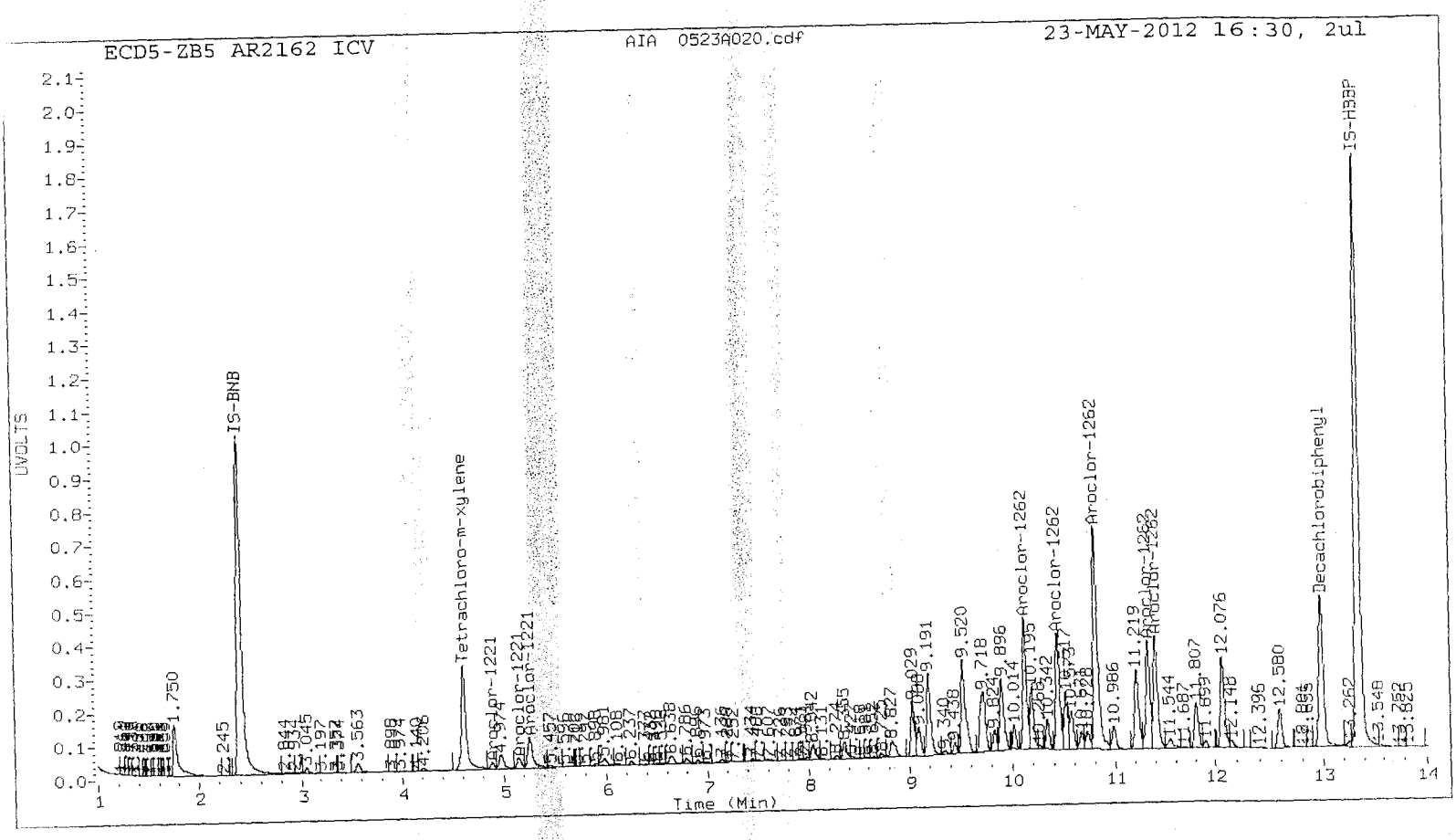
chem2/ecd5.i/20120523.b/ical-1.b/0523A020.d AR2162 ICV

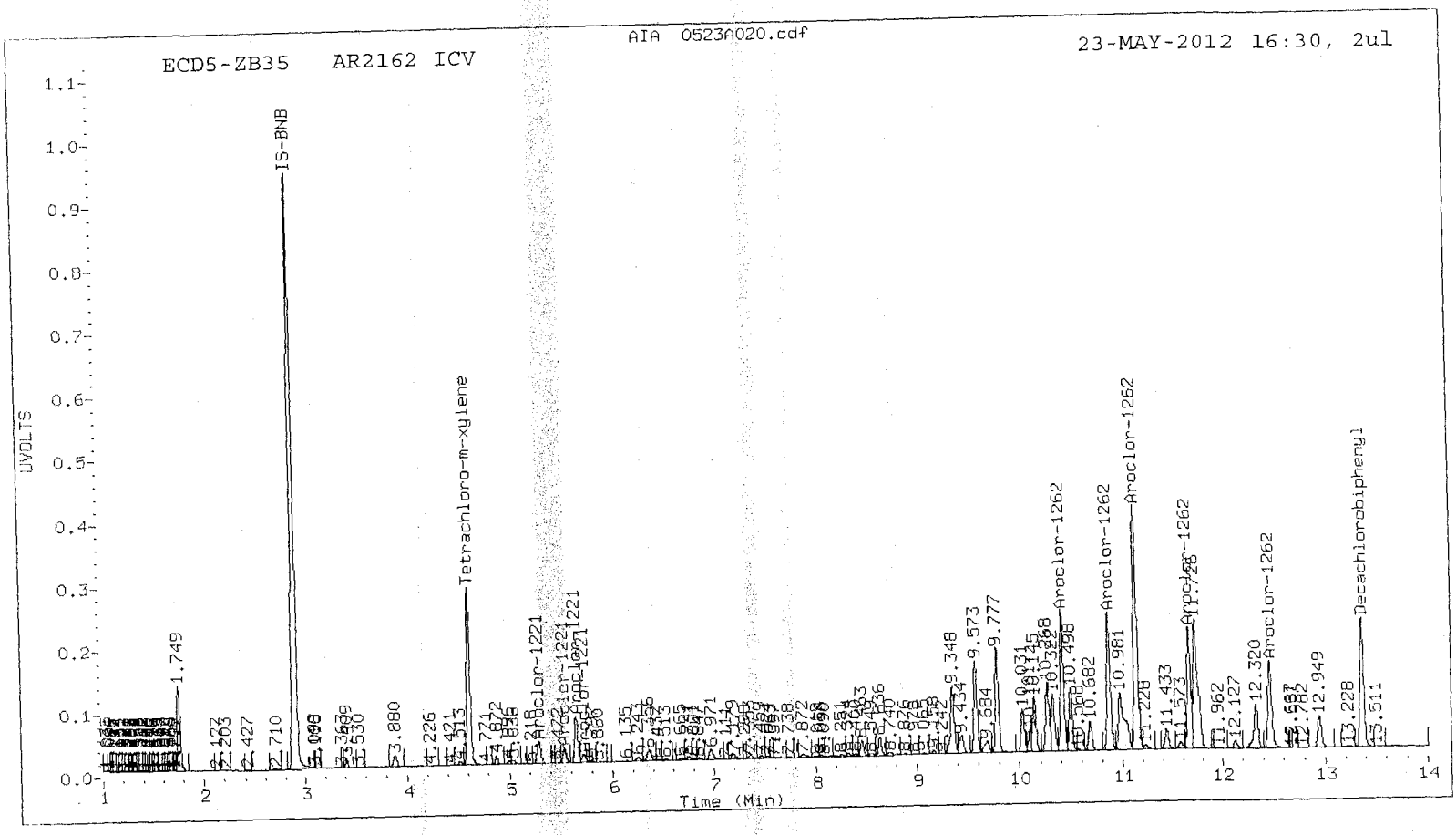
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1221	1	4.884	0.000	2753178	224.5	1	5.289	-0.001	4342143	246.9
Aroclor-1221	2	5.153	0.000	4990138	252.8	2	5.536	0.000	2561540	246.6
Aroclor-1221	3	5.258	0.000	16270735	251.6	3	5.649	0.000	8096744	249.2
Aroclor-1221	NS	---			----	4	5.717	0.000	1478613	248.4
Total Col1Ave (3 peaks):					243.0	Total Col2Ave (4 peaks):				247.8 RPD = 2
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				247.3
Aroclor-1262	1	10.127	-0.001	50760077	234.3	1	10.419	0.000	25410467	233.0
Aroclor-1262	2	10.444	0.000	44803653	270.7	2	10.870	0.000	25371078	269.7
Aroclor-1262	3	10.818	0.000	98755021	218.3	3	11.142	0.000	46428165	217.4
Aroclor-1262	4	11.334	0.000	45937839	277.9	4	11.663	-0.001	23297660	271.1
Aroclor-1262	5	11.407	0.000	48991469	260.6	5	12.462	-0.001	18614849	232.6
Total Col1Ave (5 peaks):					252.4	Total Col2Ave (5 peaks):				244.8 RPD = 3
Corrected Ave (4 peaks):					246.0	Corrected Ave (4 peaks):				238.2 RPD = 3

Total PCB Area Col1 (4.705 - 12.890) = 783819371 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 375950839 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR2162 ICV
AIA 0523A020.cdf
23-MAY-2012 16:30, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP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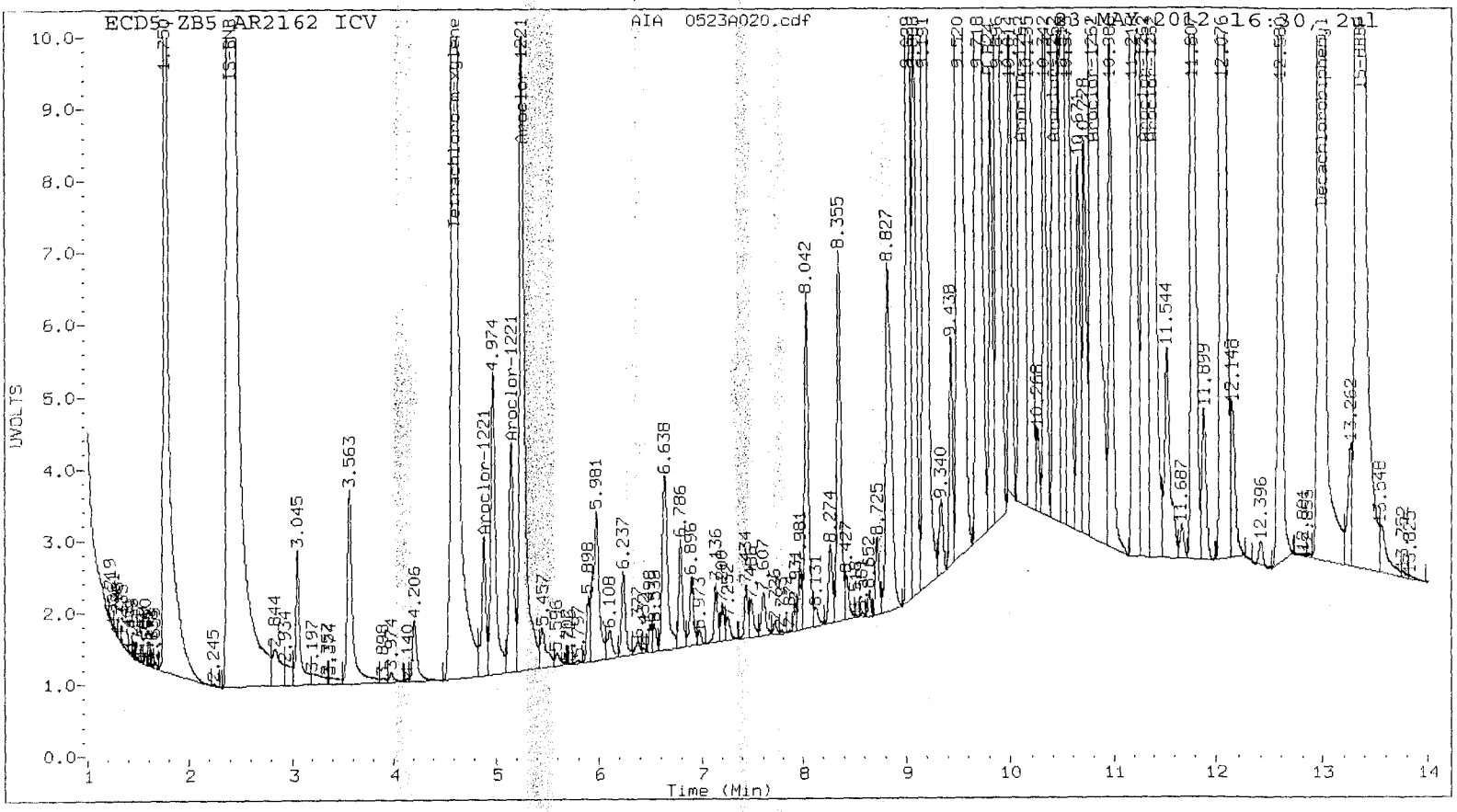
AIA 0523A020.cdf
23-MAY-2012 16:30, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl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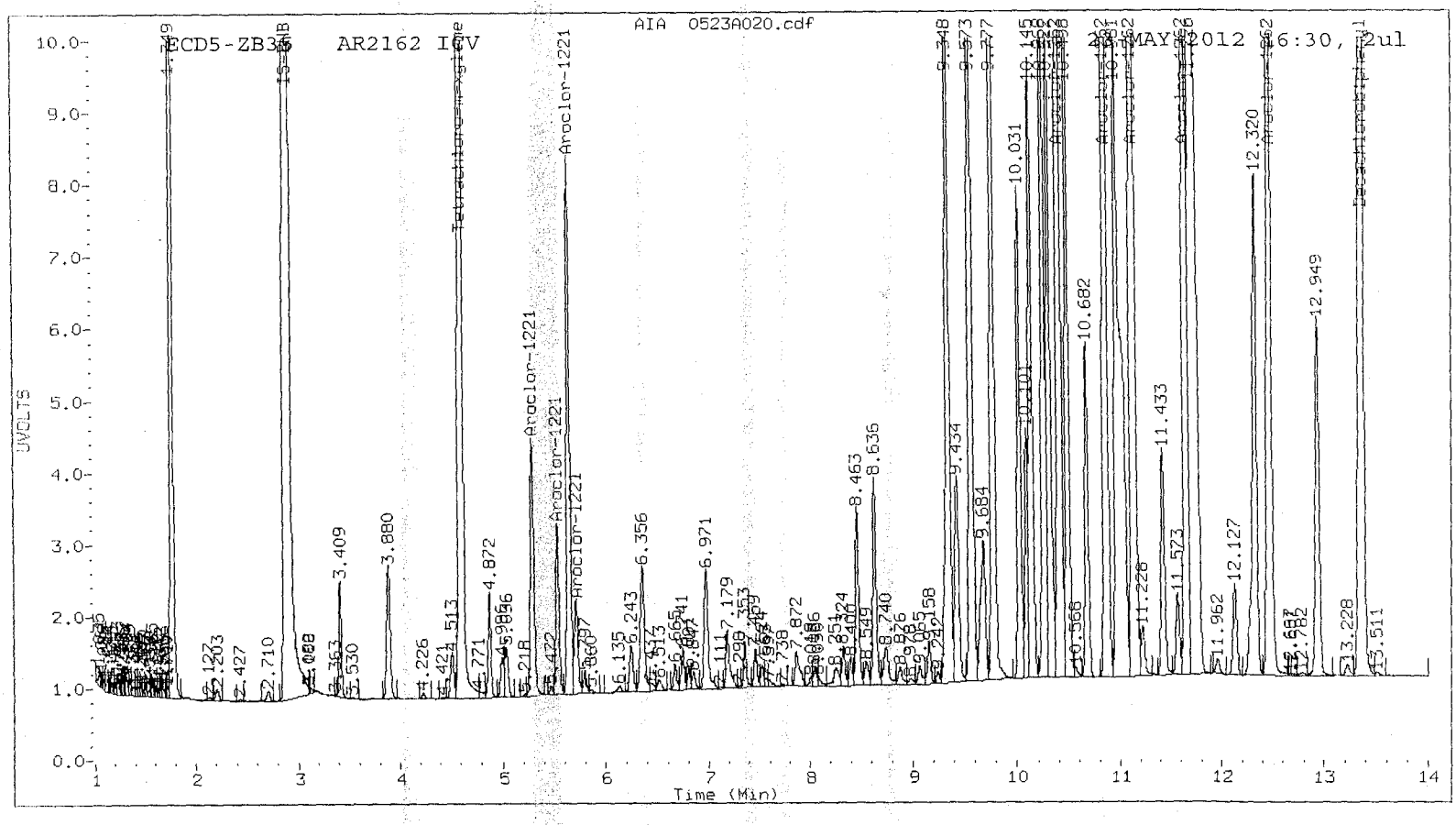
AIA 0523A020.cdf
MAY 2012 16:30, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1221
Decachlorobiphenyl
IS-DNB
IS-DNB


ECD5-ZB35 AR2162 ICV
AIA 0523A020.cdf
MAY 2012 16:30, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1221
Decachlorobiphenyl
IS-DNB
IS-DNB

Analytical Resources Inc.
Dual Column PCBs by SW8082

ARSTzybor

Data file 1: 20120523.b/ical-1.b/0523A021.d
Data file 2: 20120523.b/ical-2.b/0523A021.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 ICV
Client ID:
Injection Date: 23-MAY-2012 16:49
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.001	52420085	4.605	-0.003	32899630	20.3	20.7	2.1	Tetrachloro-m-xylene
12.989	-0.002	113068617	13.363	-0.002	46248435	28.4	31.8	11.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.8	51.9
Decachlorobiphenyl	71.0	79.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	160640381	4.2
Hexabromobiphenyl	248602423	259555077	4.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	112744652	1.8
Hexabromobiphenyl	108855531	112598173	3.4

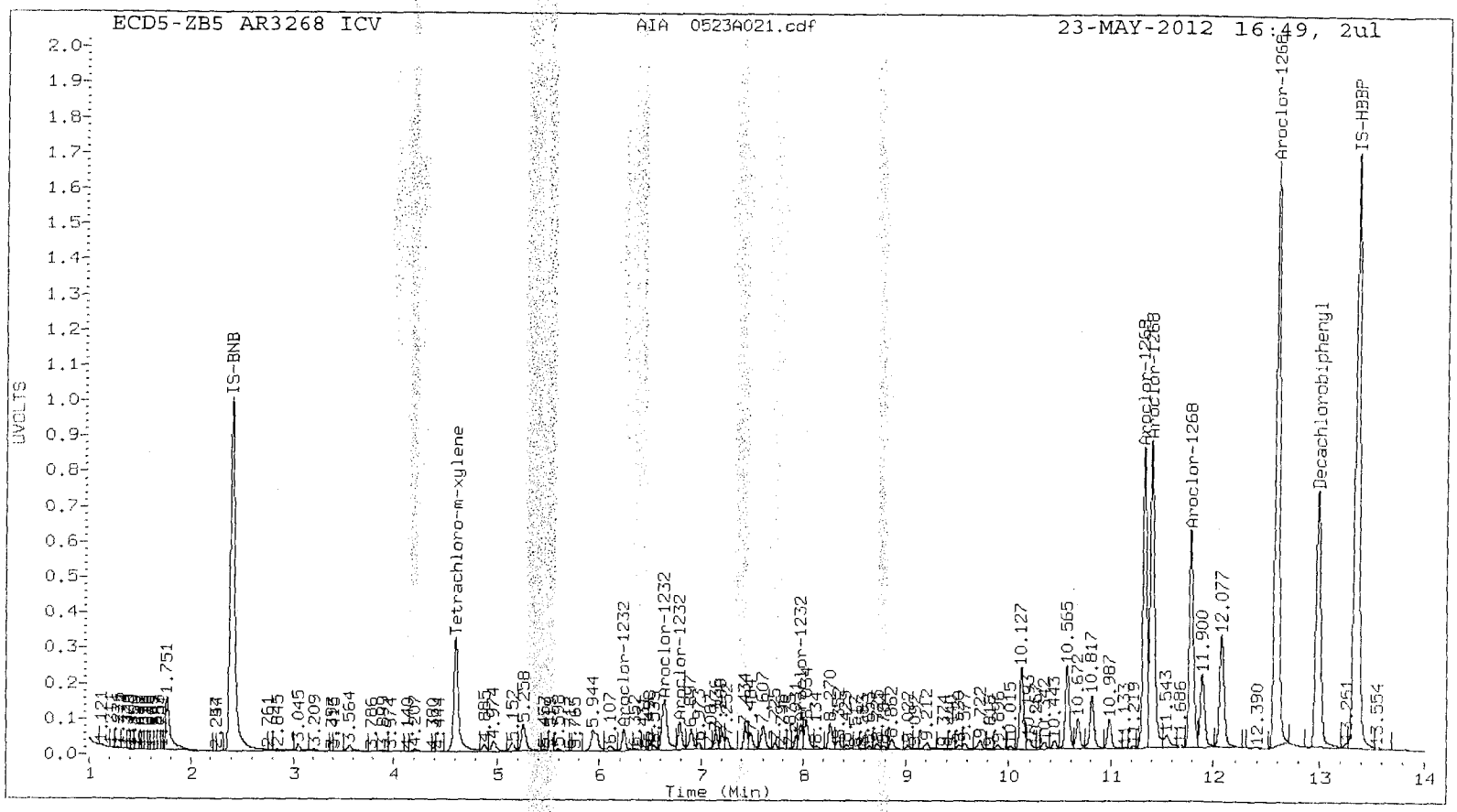
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1232	1	6.237	-0.001	7823892	279.5	1	6.344	-0.002	7573428	278.9
Aroclor-1232	2	6.638	-0.001	25727481	276.4	2	6.971	0.000	15545898	273.4
Aroclor-1232	3	6.786	-0.001	10438838	276.5	3	7.178	-0.001	6333896	330.2
Aroclor-1232	4	7.980	0.000	8488976	234.1	4	8.324	-0.001	4905710	233.3
Total Col1Ave (4 peaks):					266.6	Total Col2Ave (4 peaks):				279.0 RPD = 5
Corrected Ave (3 peaks):					262.3	Corrected Ave (3 peaks):				261.9 RPD = 0
Aroclor-1268	1	11.335	-0.001	115870020	262.2	1	11.664	0.000	56550160	263.1
Aroclor-1268	2	11.407	0.000	126342154	284.3	2	11.730	0.000	58232226	287.4
Aroclor-1268	3	11.792	0.000	88032592	237.3	3	12.128	0.000	40068576	235.5
Aroclor-1268	4	12.583	-0.002	241089485	221.0	4	12.949	-0.001	107384317	223.4
Total Col1Ave (4 peaks):					251.2	Total Col2Ave (4 peaks):				252.3 RPD = 0
Corrected Ave (3 peaks):					240.2	Corrected Ave (3 peaks):				240.6 RPD = 0

Total PCB Area Col1 (4.705 - 12.890) = 990490550 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 468074693 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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AIA 0523A021.cdf
23-MAY-2012 16:49, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Aroclor-1268
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
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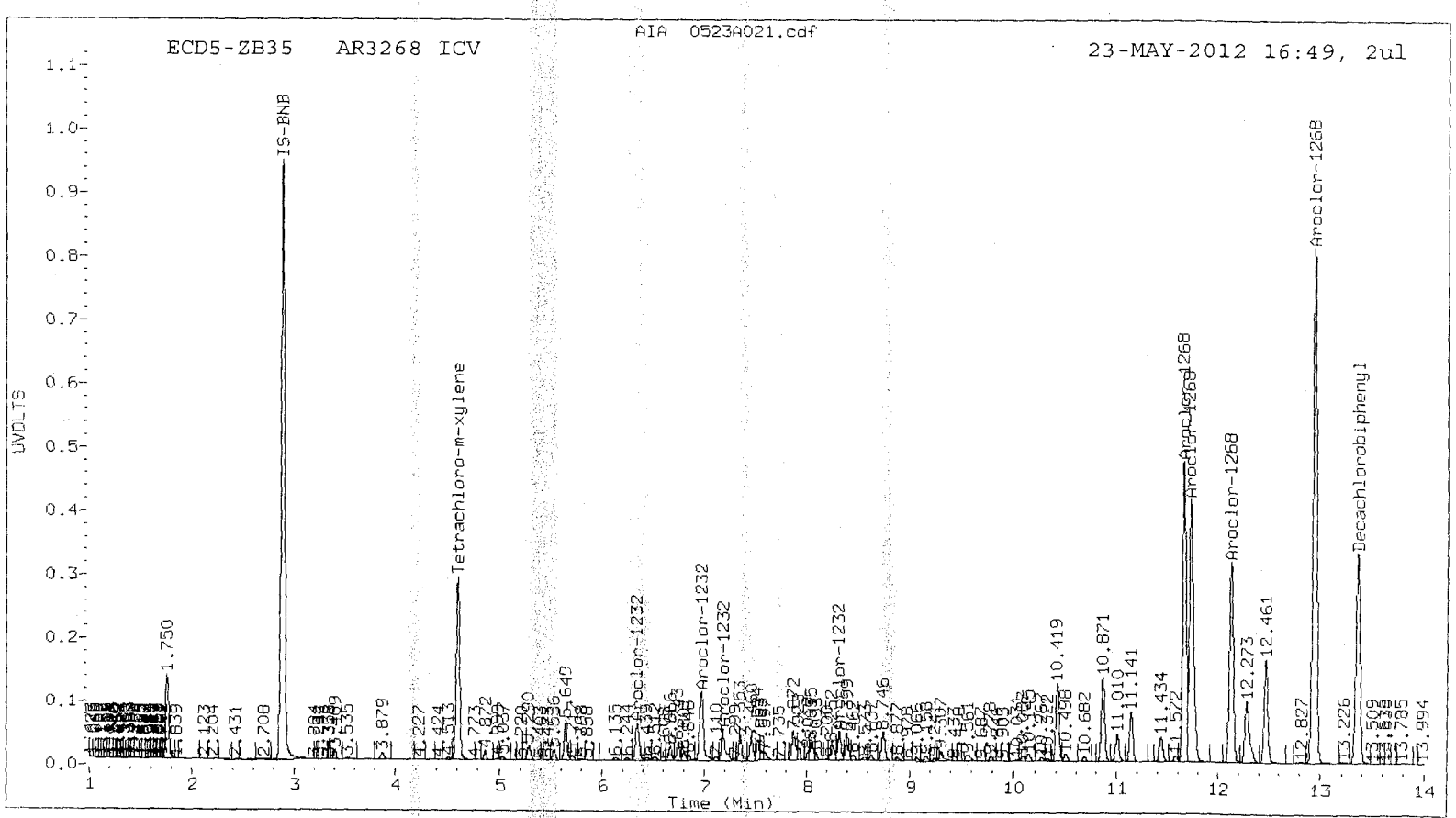
10.565
10.817
10.987
11.543
11.686
11.900
12.077
12.390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Time (Min)
IS-BNB
Tetrachloro-m-xylene
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11.572
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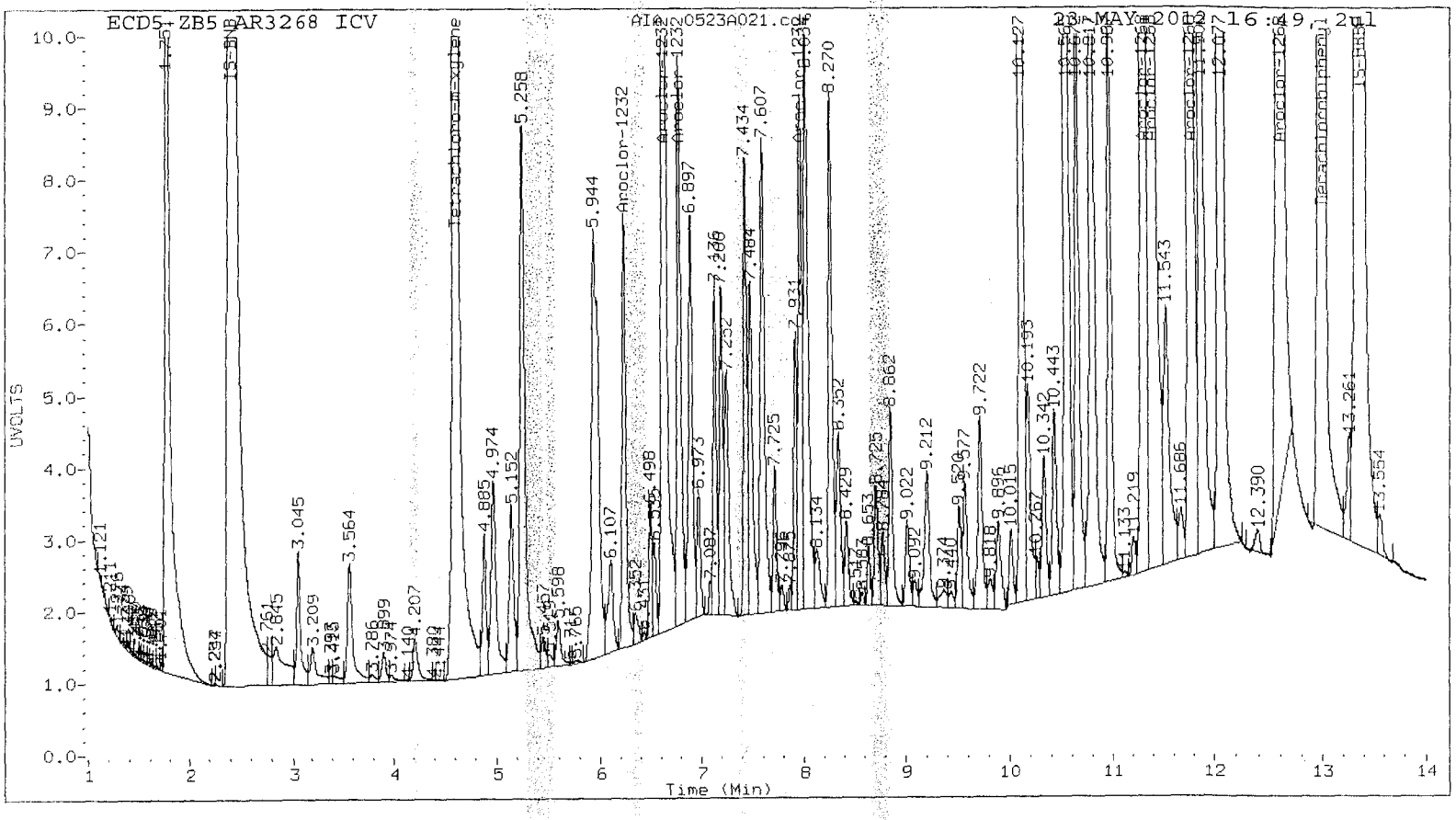
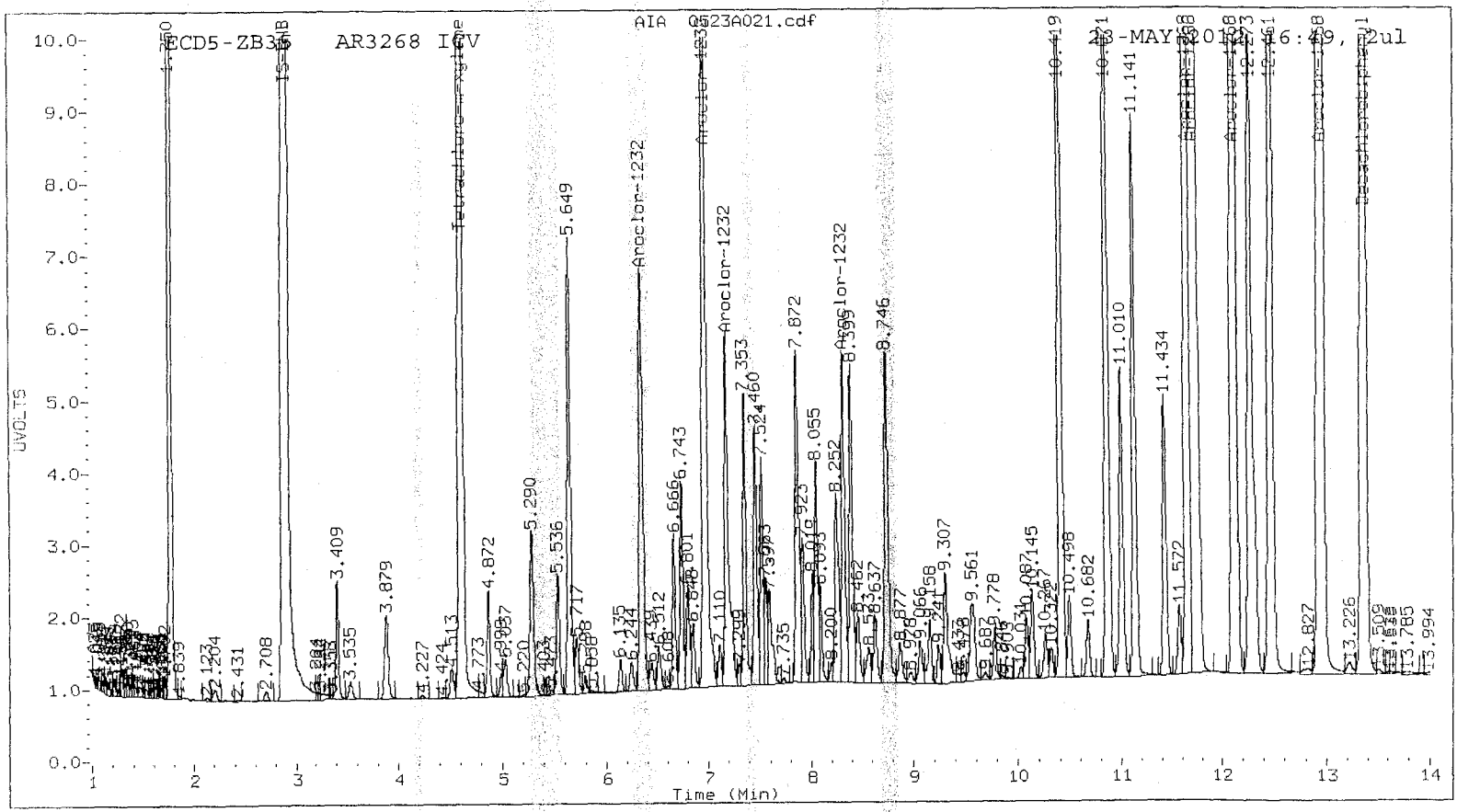
13.226


ECD5_ZB5_AR3268 ICV
AIA_0523A021.cdf
23-MAY-2012 16:49, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1260
Decachlorobiphenyl


ECD5-ZB5 AR3268 ICV
AIA_0523A021.cdf
23-MAY-2012 16:49, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0523A022.d ARI ID: DDT

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
8.321	0.000	182884525	8.726	0.000	97869021	0.100	0.100	0.0	2,4-DDE
8.871	0.000	175944184	9.410	0.000	88359613	0.100	0.100	0.0	2,4-DDD
9.375	0.000	211387307	9.872	0.000	240838277	0.100	0.200#	66.7*	2,4-DDT
8.753	0.000	291568267	9.112	0.000	163207823	0.100	0.100	0.0	4,4-DDE
9.325	0.000	238101364	9.872	0.000	240838277	0.100	0.200#	66.7*	4,4-DDD
9.837	0.000	268202406	10.310	0.000	142850426	0.100	0.100	0.0	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

7E

8082 DDT BREAKDOWN VERIFICATION SUMMARY

Lab ID: DDT BD

Analysis Date: 23-MAY-2012 17:27 Init. Calib. Date: 23-MAY-2012

GC Column: ZB5 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	8.752	1982823
4,4-DDD	9.333	9789677
4,4-DDT	9.840	297869087

Col 1: 4,4-DDT Percent Breakdown = 3.8 %

GC Column: ZB35 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	9.113	712817
4,4-DDD/2,4-DDT	9.881	4165713
4,4-DDT	10.310	166815904

Col 2: 4,4-DDT Percent Breakdown = 2.8 %

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

PCB Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: UU52 Client ID: Jeld Wen Klamath

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): PCB's TCMX DCB

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 05/23/12 Analysis Start: 05/25/12

Endrin/DDT Breakdown <15%? YES / NO / NA	Method Blank In Control? YES / NO
ICal Meets RF & %RSD Criteria? YES / NO	LCS/LCSD Recovery In Control? YES / NO
CCal Meets RF & %RSD Criteria? YES / NO	Surrogate Recovery In Control? YES / NO
Manual Integrations for ICal? YES / NO	Manual Integrations for Samples? YES / NO
Internal Standard Meets Criteria? YES / NO / NA	Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary): skimmed baseline rise in samples, misc peaks throughout went w/ best fit w/ regaurds to 48, 54/misc. peaks inflate 48 y-flags for 48 are for AR1016→1248 remge. See DDT's screens 05/29/12

- Very wet Samples - 9-16% Solids -

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 05/29/12

Reviewer: _____ **Date:** 5/29/12

Analytical Resources Inc.: Organics Instrument Log

ECD-5 Serial No.: US00034118

Date: 05/25/12 Analysis: PCBs Analyst: JR

Column 1 Serial No.: 196398 Column Type: ZB5

Column 2 Serial No.: 182259 Column Type: ZB35

GC Method: PCB ICal Date: 05/23/12 Injection Volume: 2µl

IS	Ical/Ccal	ICV
1878-3	1980-1,2,3,4,5,6	1923-1,2,3,4,5
		1928-2

Document All Maintenance Tasks In StarLIMS

	Inject Date/Time	Filename	DF	LabID
1	25-MAY-2012 08:16	0525A001.d	1	DDT
2	25-MAY-2012 08:35	0525A002.d	1	DDT BD
3	25-MAY-2012 08:54	0525A003.d	1	AR1242
4	25-MAY-2012 09:13	0525A004.d	1	AR1660
5	25-MAY-2012 09:32	0525A005.d	1	UU97MBW1
6	25-MAY-2012 09:51	0525A006.d	1	UU97LCSW1
7	25-MAY-2012 10:10	0525A007.d	1	UU97LCSDW1
8	25-MAY-2012 10:29	0525A008.d	1	UU97QLS
9	25-MAY-2012 10:48	0525A009.d	1	UU97A
10	25-MAY-2012 11:07	0525A010.d	1	UU94A
11	25-MAY-2012 11:26	0525A011.d	1	UU94B
12	25-MAY-2012 11:45	0525A012.d	1	UU94C
13	25-MAY-2012 12:04	0525A013.d	1	UU94D
14	25-MAY-2012 12:23	0525A014.d	1	UU94E
15	25-MAY-2012 12:42	0525A015.d	1	AR1248
16	25-MAY-2012 13:01	0525A016.d	1	AR1660
17	25-MAY-2012 13:20	0525A017.d	1	UV59MBS1
18	25-MAY-2012 13:39	0525A018.d	1	UV59LCSS1
19	25-MAY-2012 13:58	0525A019.d	1	UV59T
20	25-MAY-2012 14:17	0525A020.d	1	UV59TMS
21	25-MAY-2012 14:36	0525A021.d	1	UV59TMSD
22	25-MAY-2012 14:55	0525A022.d	1	AR1254
23	25-MAY-2012 15:14	0525A023.d	1	AR1660
24	25-MAY-2012 15:33	0525A024.d	1	UU97MBW1
25	25-MAY-2012 15:52	0525A025.d	1	UU97LCSW1
26	25-MAY-2012 16:11	0525A026.d	1	UU97LCSDW1
27	25-MAY-2012 16:30	0525A027.d	1	UU97QLS
28	25-MAY-2012 16:49	0525A028.d	1	UU97A
29	25-MAY-2012 17:08	0525A029.d	1	UU94A
30	25-MAY-2012 17:27	0525A030.d	1	UU94B
31	25-MAY-2012 17:46	0525A031.d	1	UU94C
32	25-MAY-2012 18:05	0525A032.d	1	UU94D
33	25-MAY-2012 18:24	0525A033.d	1	UU94E
34	25-MAY-2012 18:43	0525A034.d	1	AR1248
35	25-MAY-2012 19:02	0525A035.d	1	AR1660
36	25-MAY-2012 19:21	0525A036.d	1	AR1248
37	25-MAY-2012 19:40	0525A037.d	1	AR1660
38	25-MAY-2012 19:59	0525A038.d	1	UV59MBS1
39	25-MAY-2012 20:18	0525A039.d	1	UV59LCSS1
40	25-MAY-2012 20:37	0525A040.d	5	UV59T
41	25-MAY-2012 20:56	0525A041.d	5	UV59TMS
42	25-MAY-2012 21:15	0525A042.d	5	UV59TMSD
43	25-MAY-2012 21:34	0525A043.d	1	AR1254
44	25-MAY-2012 21:53	0525A044.d	1	AR1660
45	25-MAY-2012 22:12	0525A045.d	1	UU52MBS1
46	25-MAY-2012 22:31	0525A046.d	1	UU52LCSS1
47	25-MAY-2012 22:50	0525A047.d	1	UU52A
48	25-MAY-2012 23:09	0525A048.d	1	UU52B
49	25-MAY-2012 23:28	0525A049.d	1	UU52C
50	25-MAY-2012 23:47	0525A050.d	1	UU52D

	Inject Date/Time	Filename	DF	LabID
51	26-MAY-2012 00:06	0525A051.d	1	UU52E
52	26-MAY-2012 00:25	0525A052.d	1	UU52F
53	26-MAY-2012 00:44	0525A053.d	1	UU52G
54	26-MAY-2012 01:03	0525A054.d	1	AR1242
55	26-MAY-2012 01:22	0525A055.d	1	AR1660
56	26-MAY-2012 01:41	0525A056.d	1	UU52H
57	26-MAY-2012 02:00	0525A057.d	1	UU52I
58	26-MAY-2012 02:19	0525A058.d	1	UU52J
59	26-MAY-2012 02:38	0525A059.d	1	UU52JMS
60	26-MAY-2012 02:57	0525A060.d	1	UU52JMSD
61	26-MAY-2012 03:16	0525A061.d	1	AR1248
62	26-MAY-2012 03:35	0525A062.d	1	AR1660

I Maintenance Tasks ... JR 05/29/12

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120523.b/0525-1.b

ARI Job No.: UU52 Method: PCB1.m Instrument: ecd5.i Date: 25-MAY-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2212	0525A045.d	UU52MBS1	UU52MBS1	1	NO MANUAL INTEGRATION
2231	0525A046.d	UU52LCSS1	UU52LCSS1	1	NO MANUAL INTEGRATION
2250	0525A047.d	UU52A	MS001-SS-1	1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
2309	0525A048.d	UU52B	MS101-SS-1	1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
2328	0525A049.d	UU52C	MS002-SS-1	1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
2347	0525A050.d	UU52D	MS003-SS-1	1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
0006	0525A051.d	UU52E	MS004-SS-1	1	Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
0025	0525A052.d	UU52F	MS005-SS-1	1	Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268,
0044	0525A053.d	UU52G	MS006-SS-1	1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
0141	0525A056.d	UU52H	MS007-SS-1	1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268,
0200	0525A057.d	UU52I	MS008-SS-1	1	Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
0219	0525A058.d	UU52J	MS009-SS-1	1	Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
0238	0525A059.d	UU52JMS	MS009-SS-1	1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
0257	0525A060.d	UU52JMSD	MS009-SS-1	1	Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A043.d
Data file 2: 20120523.b/0525-2.b/0525A043.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 25-MAY-2012 21:34
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	0.001	47560282	4.611	0.000	28489926	17.1	17.2	1.1	Tetrachloro-m-xylene
12.991	0.000	59737700	13.364	-0.001	21596766	18.5	19.2	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	42.7	43.1
Decachlorobiphenyl	46.3	47.9

5/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	173442054	12.5
Hexabromobiphenyl	248602423	210335776	-15.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	117403542	6.1
Hexabromobiphenyl	108855531	87153825	-19.9

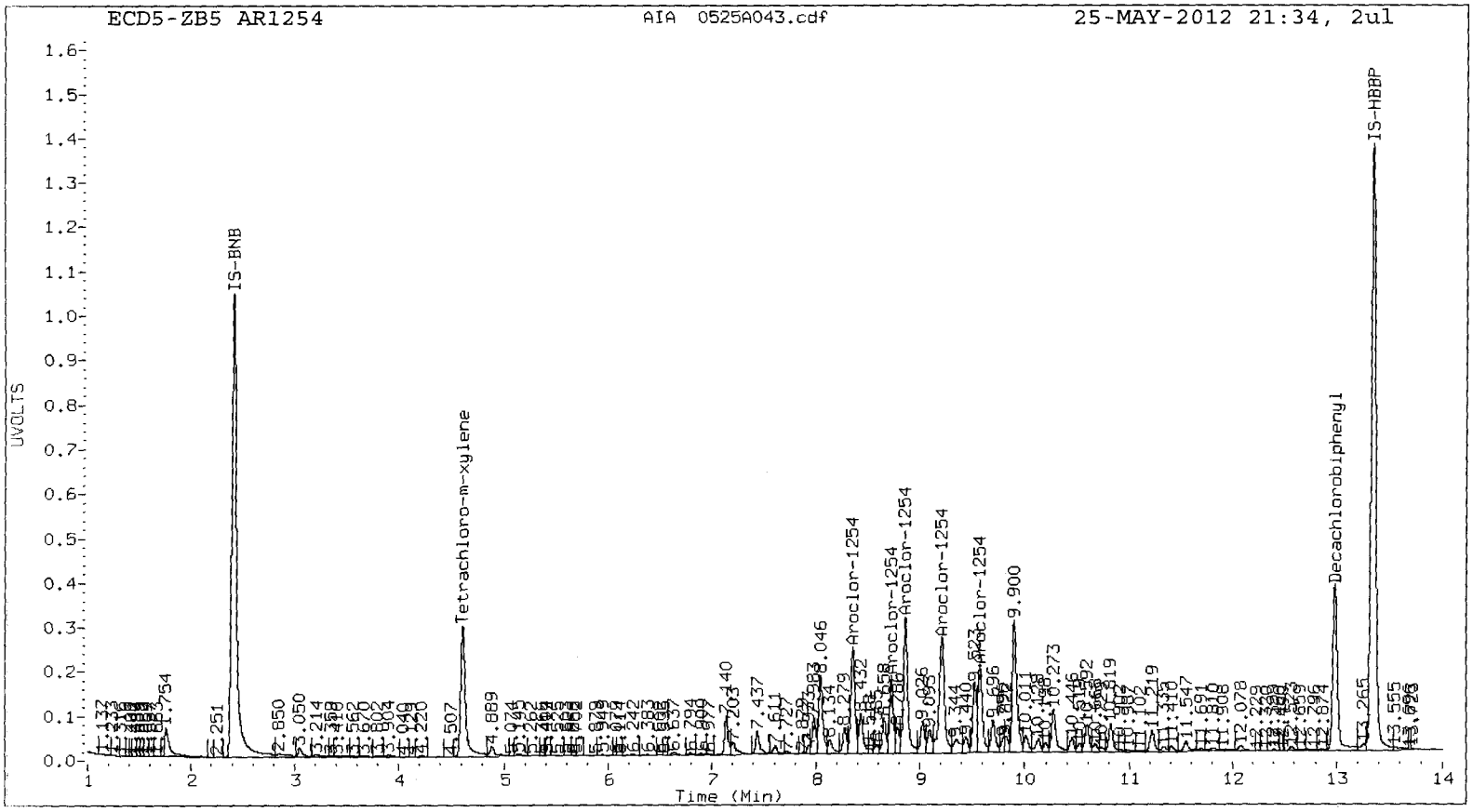
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	8.357	0.000	33517964	210.5	1	8.466	0.000	11029916	214.0
Aroclor-1254	2	8.728	0.000	22059705	215.3	2	8.639	0.000	14028779	214.1
Aroclor-1254	3	8.863	0.000	43934862	222.1	3	9.160	0.000	10691822	213.6
Aroclor-1254	4	9.213	0.000	48034450	225.5	4	9.310	0.000	23659587	213.7
Aroclor-1254	5	9.574	0.000	29882185	225.5	5	10.093	0.000	13512922	208.2
Total Col1Ave (5 peaks):		219.8				Total Col2Ave (5 peaks):		212.7	RPD = 3	
Corrected Ave (4 peaks):		218.3				Corrected Ave (4 peaks):		212.4	RPD = 3	

Total PCB Area Col1 (4.710 - 12.891) = 496031674 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 222789028 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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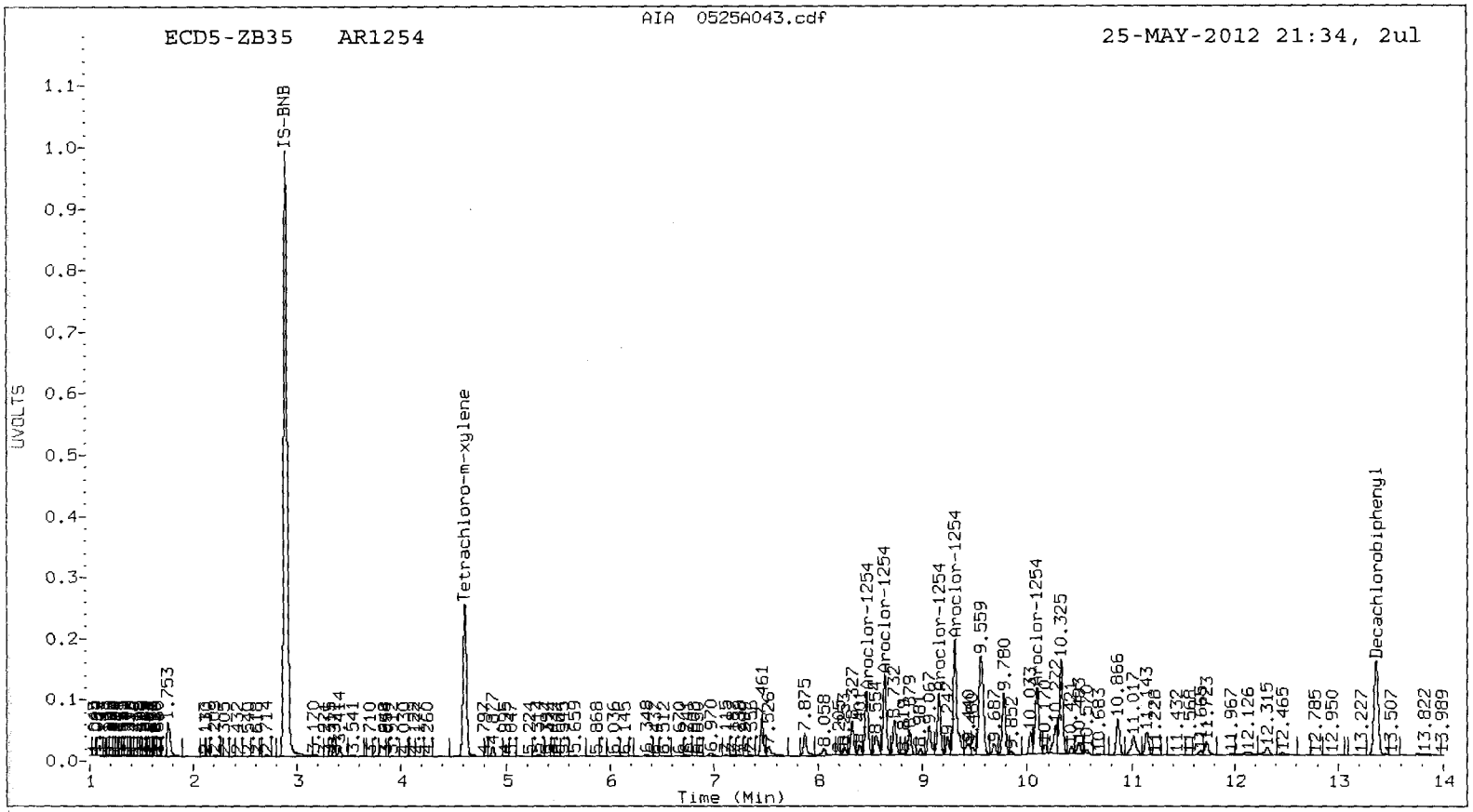
25-MAY-2012 21:34, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
9.900
Decachlorobiphenyl
IS-HBBP


AIA 0525A043.cdf
ECD5-ZB35 AR1254
25-MAY-2012 21:34, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
9.559
9.780
10.325
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A044.d
Data file 2: 20120523.b/0525-2.b/0525A044.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 25-MAY-2012 21:53
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	59474973	4.612	0.001	37391819	20.2	20.5	1.6	Tetrachloro-m-xylene
12.991	0.000	67515613	13.364	-0.002	24542134	19.0	19.7	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.5	51.3
Decachlorobiphenyl	47.4	49.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	183205555	18.8
Hexabromobiphenyl	248602423	232118987	-6.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	129531011	17.1
Hexabromobiphenyl	108855531	96406184	-11.4

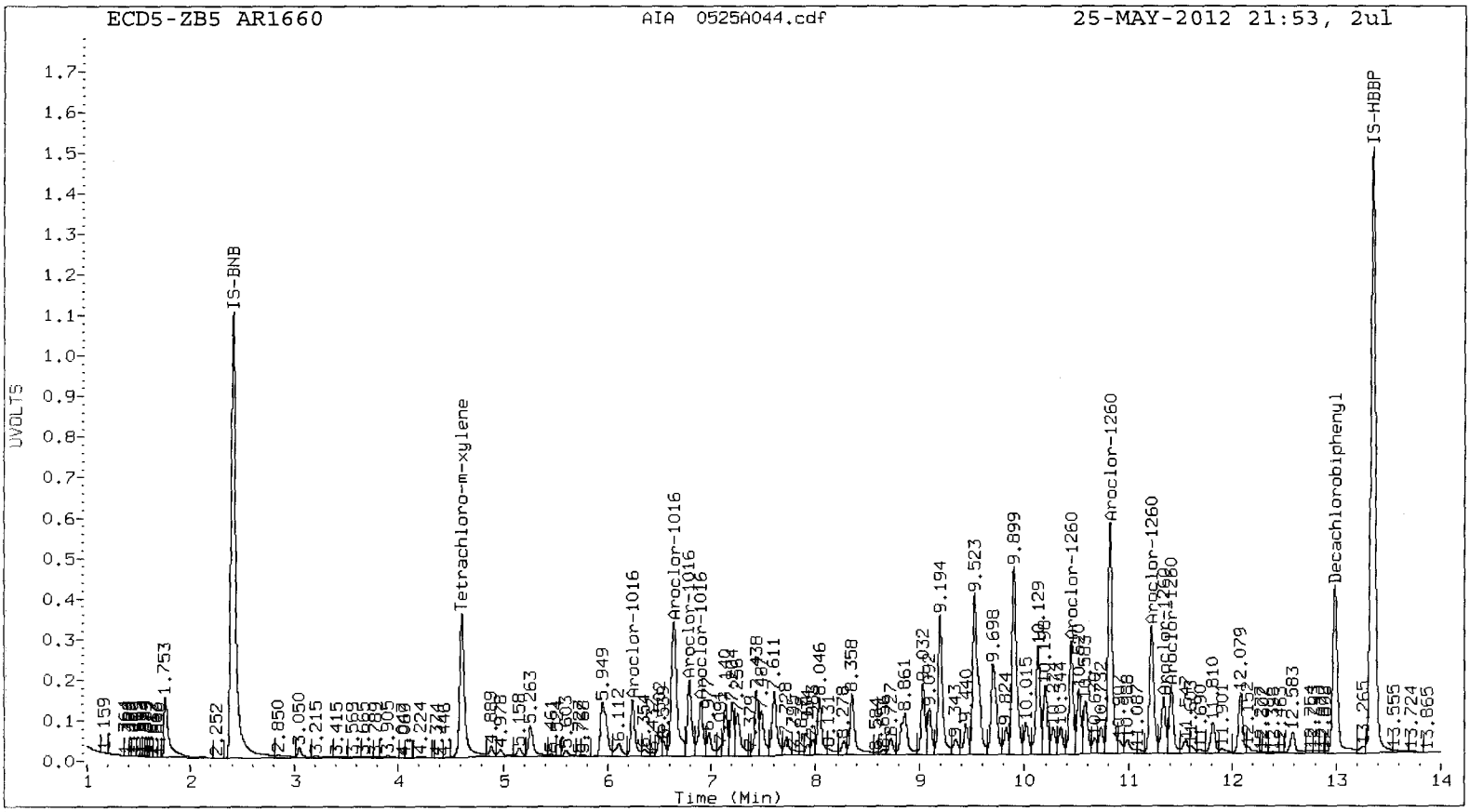
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.242	0.001	19843471	259.6	1	6.348	0.001	16429459	243.0
Aroclor-1016	2	6.643	0.001	64421214	258.6	2	6.974	0.001	38135939	248.5
Aroclor-1016	3	6.791	0.001	27005130	274.8	3	7.356	0.000	10212172	257.9
Aroclor-1016	4	6.901	0.001	20695484	267.4	4	7.463	0.000	10931447	248.3
	Total Col1Ave (4 peaks):				265.1	Total Col2Ave (4 peaks):				249.4 RPD = 6
	Corrected Ave (3 peaks):				261.8	Corrected Ave (3 peaks):				246.6 RPD = 6
Aroclor-1260	1	10.446	0.000	36407019	289.1	1	10.421	-0.001	15673058	283.5
Aroclor-1260	2	10.820	-0.001	83356641	266.7	2	10.871	-0.001	19650518	286.2
Aroclor-1260	3	11.220	-0.001	47314377	272.4	3	11.144	-0.001	39073387	280.3
Aroclor-1260	4	11.336	-0.001	20384869	273.3	4	11.665	-0.001	10643867	261.5
Aroclor-1260	5	11.410	-0.001	24977018	280.5	NS	---			----
	Total Col1Ave (5 peaks):				276.4	Total Col2Ave (4 peaks):				277.9 RPD = 1
	Corrected Ave (4 peaks):				273.2	Corrected Ave (3 peaks):				275.1 RPD = 1

Total PCB Area Col1 (4.710 - 12.891) = 1182160783 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 520653967 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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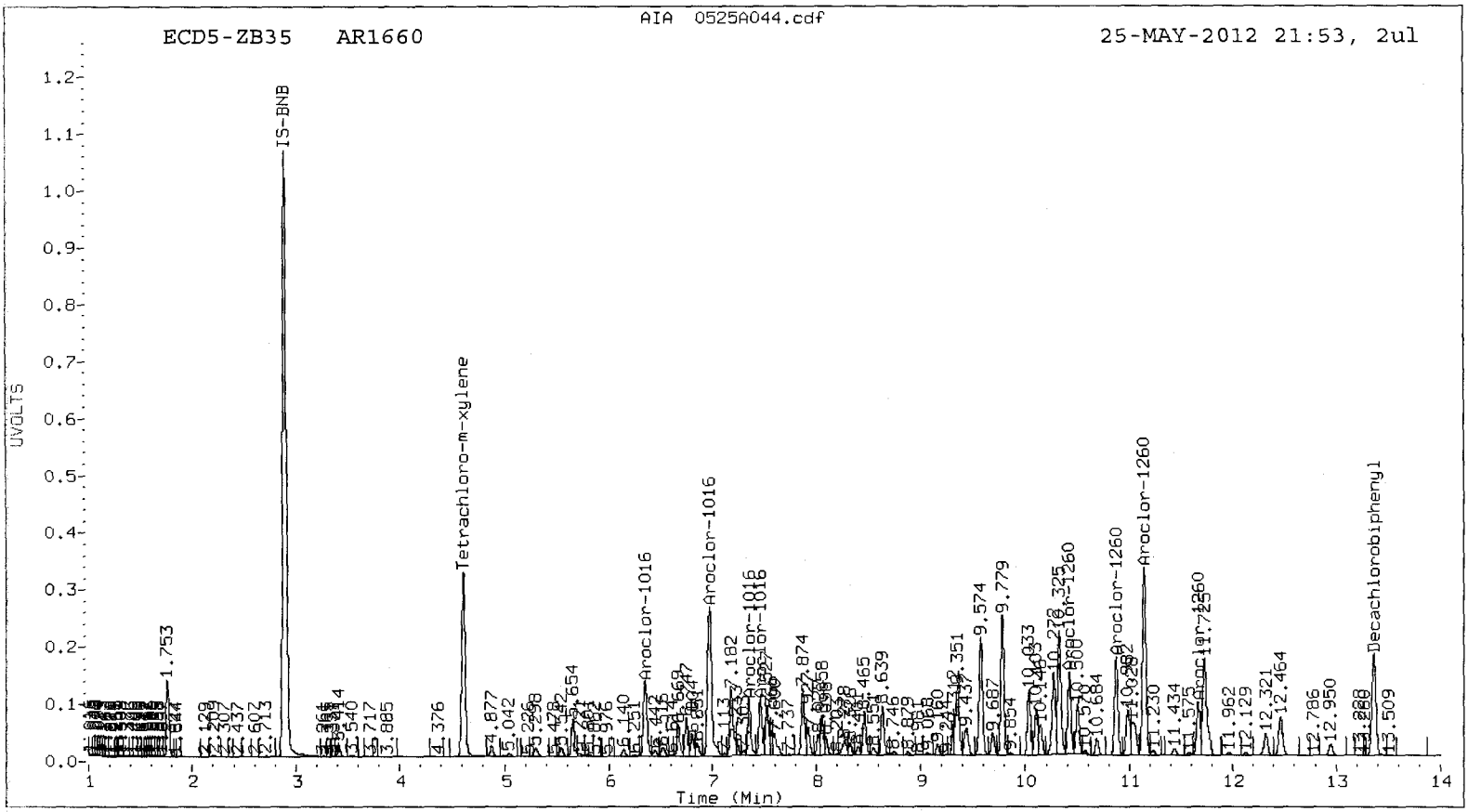
AIA 0525A044.cdf
25-MAY-2012 21:53, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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AIA 0525A044.cdf
25-MAY-2012 21:53, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A045.d
Data file 2: 20120523.b/0525-2.b/0525A045.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52MBS1
Client ID:
Injection Date: 25-MAY-2012 22:12
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.609	-0.001	71093015	4.610	-0.001	44020367	29.1	29.0	0.4	Tetrachloro-m-xylene
12.991	0.001	107986947	13.364	-0.001	40729935	34.5	38.3	10.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	72.8	72.5
Decachlorobiphenyl	86.3	95.6

5/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	151934719	-1.5
Hexabromobiphenyl	248602423	203842677	-18.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	107842922	-2.5
Hexabromobiphenyl	108855531	82401791	-24.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.240	-0.001	613992	9.7	1	6.345	-0.002	355300	6.3
Aroclor-1016	2	6.642	0.000	1328086	6.4	2	6.962	-0.012	804293	6.3
Aroclor-1016	3	6.792	0.002	606484	7.4	3	7.359	0.002	277378	8.4
Aroclor-1016	4	6.897	-0.004	947501	14.8	4	7.461	-0.002	242472	6.6
	Total Col1Ave (4 peaks):				9.6	Total Col2Ave (4 peaks):				6.9 RPD = 32
	Corrected Ave (3 peaks):				7.9	Corrected Ave (3 peaks):				6.4 RPD = 20
Aroclor-1221	1	4.889	0.005	6383971	560.5	1	5.313	0.023	688681	40.5
Aroclor-1221	2	5.143	-0.010	1788549	97.5	2	5.566	0.030	192823	19.2
Aroclor-1221	3	5.255	-0.003	618841	10.3	3	5.660	0.011	243383	7.7
Aroclor-1221	NS	---			----	4	5.709	-0.008	18391	3.2
	Total Col1Ave (3 peaks):				222.8	Total Col2Ave (4 peaks):				17.7 RPD = 171*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				10.1
Aroclor-1232	1	6.240	0.002	613992	23.2	1	6.345	-0.001	355300	13.7
Aroclor-1232	2	6.642	0.003	1328086	15.1	2	6.962	-0.009	804293	14.8
Aroclor-1232	3	6.792	0.004	606484	17.0	3	7.182	0.002	177458	9.7
Aroclor-1232	4	7.984	0.004	567488	16.5	4	8.326	0.000	200183	10.0
	Total Col1Ave (4 peaks):				18.0	Total Col2Ave (4 peaks):				12.0 RPD = 40
	Corrected Ave (3 peaks):				16.2	Corrected Ave (3 peaks):				11.1 RPD = 37
Aroclor-1242	1	6.240	-0.002	613992	12.8	1	6.345	-0.003	355300	8.1
Aroclor-1242	2	6.642	0.000	1328086	8.3	2	6.962	-0.013	804293	8.0
Aroclor-1242	3	6.792	0.001	606484	9.5	3	7.182	-0.001	177458	4.4
Aroclor-1242	4	7.984	0.001	567488	9.6	4	8.326	-0.001	200183	5.7
	Total Col1Ave (4 peaks):				10.1	Total Col2Ave (4 peaks):				6.5 RPD = 42*
	Corrected Ave (3 peaks):				9.1	Corrected Ave (3 peaks):				6.0 RPD = 41*
Aroclor-1248	1	6.642	0.002	1328086	12.5	1	6.962	-0.009	804293	12.4
Aroclor-1248	2	7.419	-0.019	2593668	32.2	2	7.905	0.030	2690437	51.9
Aroclor-1248	3	7.984	0.000	567488	5.5	3	8.326	-0.001	200183	3.2
Aroclor-1248	4	8.262	-0.012	1871729	18.0	4	8.694	-0.054	641302	9.1
	Total Col1Ave (4 peaks):				17.0	Total Col2Ave (4 peaks):				19.1 RPD = 12
	Corrected Ave (3 peaks):				12.0	Corrected Ave (3 peaks):				8.2 RPD = 37
Aroclor-1254	1	8.358	0.002	1053414	7.6	1	8.467	0.000	204446	4.3
Aroclor-1254	2	8.750	0.023	1056912	11.8	2	8.638	-0.001	173161	2.9
Aroclor-1254	3	8.873	0.009	1549501	8.9	3	9.178	0.018	972434	21.1
Aroclor-1254	4	9.134	-0.079	10003408	53.6	4	9.310	0.000	144867	1.4
Aroclor-1254	5	9.566	-0.008	1222672	10.5	5	10.099	0.006	87527	1.5
	Total Col1Ave (5 peaks):				18.5	Total Col2Ave (5 peaks):				6.2 RPD = 99*
	Corrected Ave (4 peaks):				9.7	Corrected Ave (4 peaks):				2.5 RPD = 117*
Aroclor-1260	1	10.443	-0.004	1343577	12.1	1	10.423	0.001	61921	1.3
Aroclor-1260	2	10.859	0.038	3978519	14.5	2	10.871	-0.001	138732	2.4
Aroclor-1260	3	11.218	-0.003	1184081	7.8	3	11.143	-0.001	136171	1.1
Aroclor-1260	4	11.325	-0.012	1163099	17.8	4	11.616	-0.050	532186	15.3
Aroclor-1260	5	11.408	-0.002	1023462	13.1	NS	---			----
	Total Col1Ave (5 peaks):				13.1	Total Col2Ave (4 peaks):				5.0 RPD = 89*
	Corrected Ave (4 peaks):				11.9	Corrected Ave (3 peaks):				1.6 RPD = 152*
Aroclor-1262	1	10.131	0.003	1882809	11.6	1	10.423	0.004	61921	0.8
Aroclor-1262	2	10.443	-0.001	1343577	10.8	2	10.871	0.001	138732	2.1
Aroclor-1262	3	10.859	0.040	3978519	11.7	3	11.143	0.001	136171	0.9
Aroclor-1262	4	11.325	-0.009	1163099	9.4	4	11.616	-0.048	532186	8.8
Aroclor-1262	5	11.408	0.001	1023462	7.3	5	12.503	0.040	175942	3.1
	Total Col1Ave (5 peaks):				10.2	Total Col2Ave (5 peaks):				3.1 RPD = 106*
	Corrected Ave (4 peaks):				9.8	Corrected Ave (4 peaks):				1.7 RPD = 140*
Aroclor-1268	1	11.325	-0.011	1163099	3.4	1	11.616	-0.048	532186	3.4
Aroclor-1268	2	11.408	0.001	1023462	2.9	2	11.726	-0.004	119608	0.8

Aroclor-1268 3	11.747	-0.046	1675961	5.8	3	12.121	-0.007	77915	0.6
Aroclor-1268 4	12.579	-0.006	1205955	1.4	4	12.952	0.003	90472	0.3

Total Col1Ave (4 peaks): 3.4 Total Col2Ave (4 peaks): 1.3 RPD = 90*

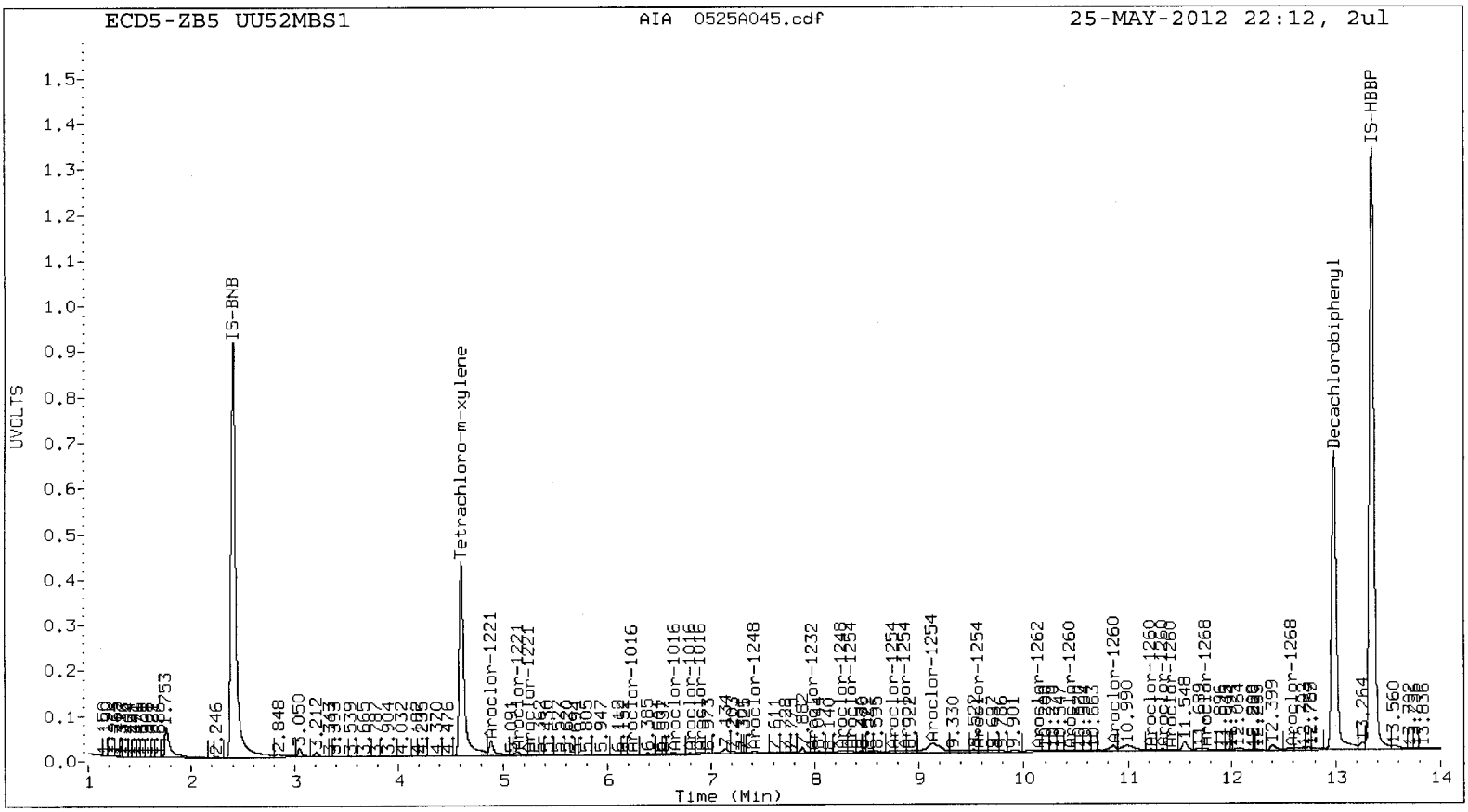
Corrected Ave (3 peaks): 2.6 Corrected Ave (3 peaks): 0.6 RPD = 128*

Total PCB Area Col1 (4.710 - 12.891) = 101022448 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 24687836 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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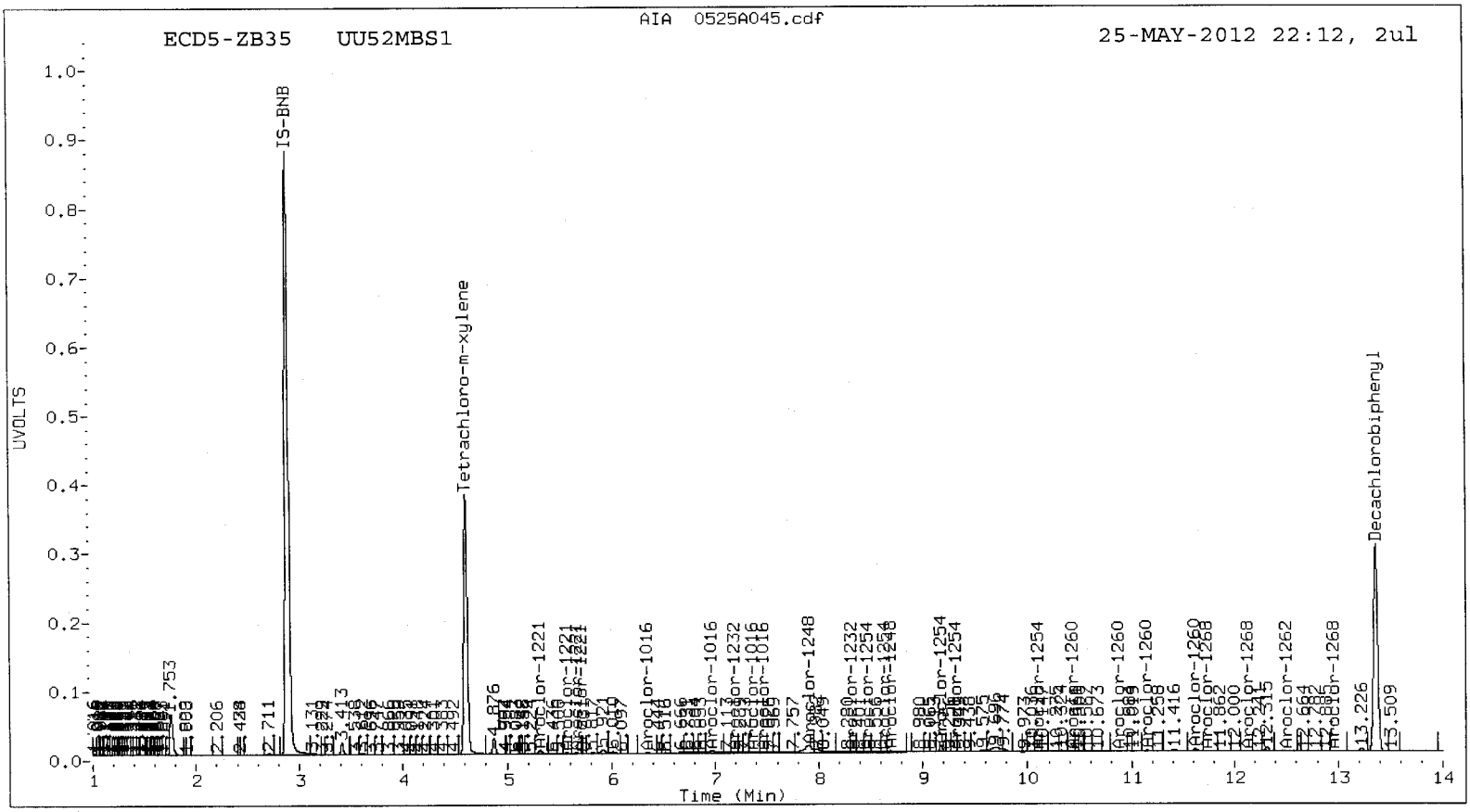
25-MAY-2012 22:12, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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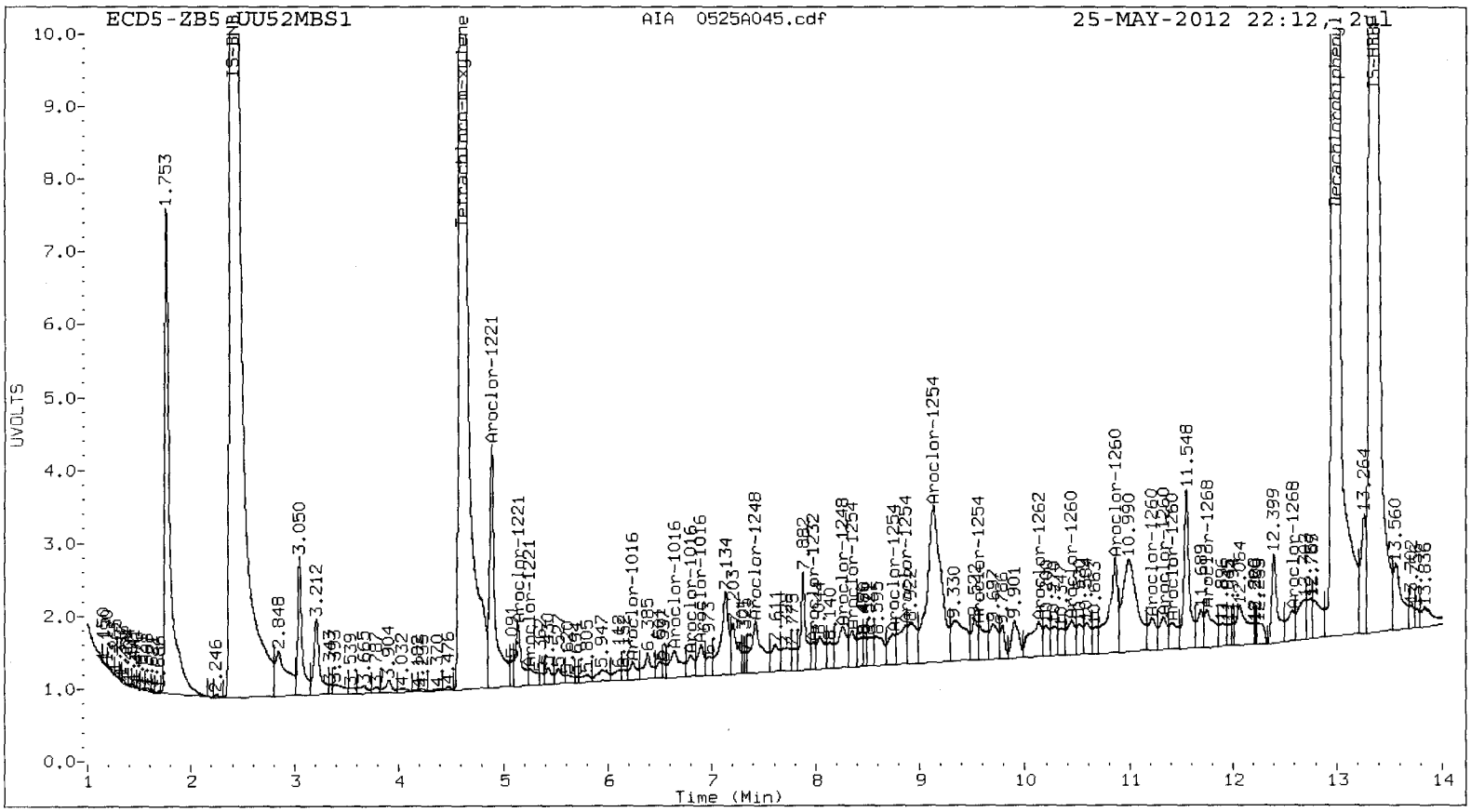
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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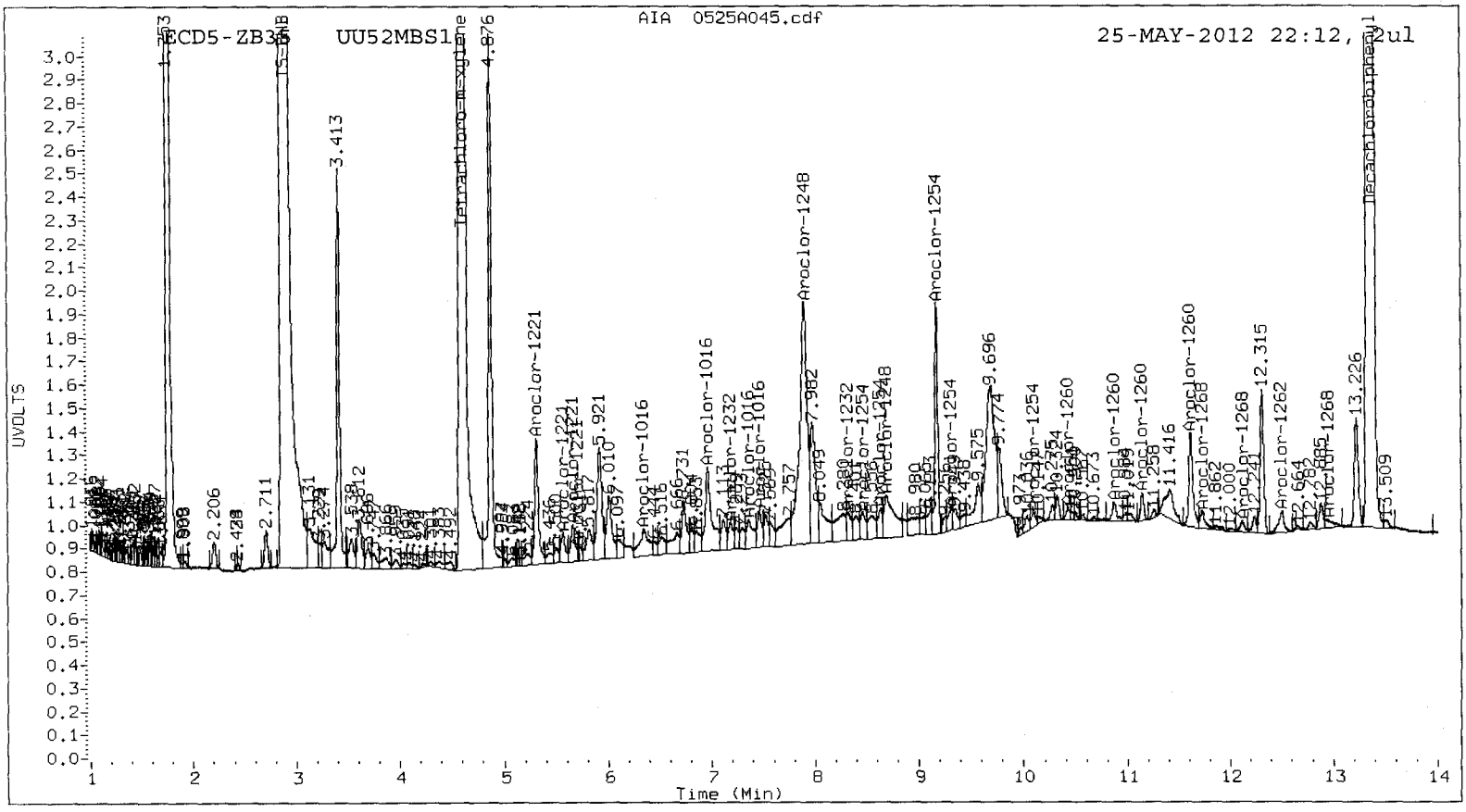
25-MAY-2012 22:12, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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25-MAY-2012 22:12, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A046.d
Data file 2: 20120523.b/0525-2.b/0525A046.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52LCSS1
Client ID:
Injection Date: 25-MAY-2012 22:31
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.609	0.000	73963619	4.610	-0.001	46990034	27.7	28.2	1.9	Tetrachloro-m-xylene
12.992	0.002	116208307	13.365	-0.001	43932409	33.3	37.3	11.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	69.2	70.5
Decachlorobiphenyl	83.1	93.2

05/29/12
05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	166230424	7.8
Hexabromobiphenyl	248602423	227742315	-8.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	118374711	7.0
Hexabromobiphenyl	108855531	91190750	-16.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount	
Aroclor-1016	1	6.242	0.000	25561909	368.6	1	6.347	0.000	21514375	348.2	
Aroclor-1016	2	6.642	0.001	85553664	378.4	2	6.974	0.001	51846539	369.7	
Aroclor-1016	3	6.790	0.000	36091929	404.8	3	7.356	0.000	14302577	395.3	
Aroclor-1016	4	6.900	0.000	28277849	402.6	4	7.463	0.000	15151349	376.6	
	Total Col1Ave (4 peaks):				388.6		Total Col2Ave (4 peaks):			372.5	RPD = 4
	Corrected Ave (3 peaks):				383.2		Corrected Ave (3 peaks):			364.8	RPD = 5
Aroclor-1221	1	4.889	0.005	5027261	403.4	1	5.297	0.008	2461749	132.0	
Aroclor-1221	2	5.157	0.004	4798159	239.2	2	5.541	0.005	2060427	186.9	
Aroclor-1221	3	5.262	0.004	17168551	261.2	3	5.653	0.004	8980994	260.5	
Aroclor-1221	NS	---			----	4	5.720	0.003	754515	119.5	
	Total Col1Ave (3 peaks):				301.3		Total Col2Ave (4 peaks):			174.7	RPD = 53*
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			146.1	
Aroclor-1232	1	6.242	0.003	25561909	882.6	1	6.347	0.002	21514375	754.6	
Aroclor-1232	2	6.642	0.003	85553664	888.1	2	6.974	0.003	51846539	868.6	
Aroclor-1232	3	6.790	0.003	36091929	923.8	3	7.182	0.003	18301755	908.9	
Aroclor-1232	4	7.983	0.003	6661331	177.5	4	8.326	0.001	3410580	154.5	
	Total Col1Ave (4 peaks):				718.0		Total Col2Ave (4 peaks):			671.6	RPD = 7
	Corrected Ave (3 peaks):				649.4		Corrected Ave (3 peaks):			592.6	RPD = 9
Aroclor-1242	1	6.242	-0.001	25561909	488.5	1	6.347	0.000	21514375	445.5	
Aroclor-1242	2	6.642	0.000	85553664	490.4	2	6.974	0.000	51846539	472.7	
Aroclor-1242	3	6.790	0.000	36091929	518.4	3	7.182	0.000	18301755	410.7	
Aroclor-1242	4	7.983	0.000	6661331	102.7	4	8.326	-0.001	3410580	88.0	
	Total Col1Ave (4 peaks):				400.0		Total Col2Ave (4 peaks):			354.2	RPD = 12
	Corrected Ave (3 peaks):				360.6		Corrected Ave (3 peaks):			314.7	RPD = 14
Aroclor-1248	1	6.642	0.003	85553664	733.1	1	6.974	0.003	51846539	729.4	
Aroclor-1248	2	7.437	-0.001	28776488	326.4	2	7.874	-0.001	18693736	328.3	
Aroclor-1248	3	7.983	0.000	6661331	59.0	3	8.326	-0.001	3410580	49.8	
Aroclor-1248	4	8.278	0.004	7685721	67.4	4	8.747	-0.001	1847598	23.9	
	Total Col1Ave (4 peaks):				296.5		Total Col2Ave (4 peaks):			282.9	RPD = 5
	Corrected Ave (3 peaks):				150.9		Corrected Ave (3 peaks):			134.0	RPD = 12
Aroclor-1254	1	8.358	0.002	35148763	230.3	1	8.466	0.000	11845932	227.9	
Aroclor-1254	2	8.727	0.000	8289883	84.4	2	8.638	0.000	13725252	207.8	
Aroclor-1254	3	8.862	-0.002	33012981	174.1	3	9.162	0.002	4228519	83.8	
Aroclor-1254	4	9.195	-0.018	74937710	367.0	4	9.312	0.002	6708385	60.1	
Aroclor-1254	5	9.524	-0.050	106016233	834.7	5	10.103	0.010	12864561	196.6	
	Total Col1Ave (5 peaks):				338.1		Total Col2Ave (5 peaks):			155.2	RPD = 74*
	Corrected Ave (4 peaks):				214.0		Corrected Ave (4 peaks):			137.1	RPD = 44*
Aroclor-1260	1	10.447	0.000	54846827	443.9	1	10.421	-0.001	23505404	449.4	
Aroclor-1260	2	10.820	-0.001	127016551	414.2	2	10.872	0.000	29946770	461.1	
Aroclor-1260	3	11.220	-0.001	69979558	410.6	3	11.145	0.000	60306673	457.3	
Aroclor-1260	4	11.336	-0.001	30328426	414.5	4	11.665	-0.001	17242809	447.9	
Aroclor-1260	5	11.409	-0.001	37557048	429.9	NS	---			----	
	Total Col1Ave (5 peaks):				422.6		Total Col2Ave (4 peaks):			453.9	RPD = 7
	Corrected Ave (4 peaks):				417.3		Corrected Ave (3 peaks):			451.8	RPD = 8
Aroclor-1262	1	10.130	0.002	55042851	303.2	1	10.421	0.002	23505404	275.2	
Aroclor-1262	2	10.447	0.002	54846827	395.4	2	10.872	0.002	29946770	406.5	
Aroclor-1262	3	10.820	0.002	127016551	335.1	3	11.145	0.002	60306673	360.5	
Aroclor-1262	4	11.336	0.002	30328426	218.9	4	11.665	0.001	17242809	256.2	
Aroclor-1262	5	11.409	0.002	37557048	238.4	5	12.464	0.001	13767013	219.7	
	Total Col1Ave (5 peaks):				298.2		Total Col2Ave (5 peaks):			303.6	RPD = 2
	Corrected Ave (4 peaks):				273.9		Corrected Ave (4 peaks):			277.9	RPD = 1
Aroclor-1268	1	11.336	0.000	30328426	78.2	1	11.665	0.001	17242809	99.0	
Aroclor-1268	2	11.409	0.002	37557048	96.3	2	11.725	-0.005	40425481	246.3	

Aroclor-1268	3	11.810	0.018	18972054	58.3	3	12.129	0.002	1038351	7.5
Aroclor-1268	4	12.583	-0.002	16291837	17.0	4	12.950	0.000	4027115	10.3

Total Col1Ave (4 peaks): 62.5 Total Col2Ave (4 peaks): 90.8 RPD = 37

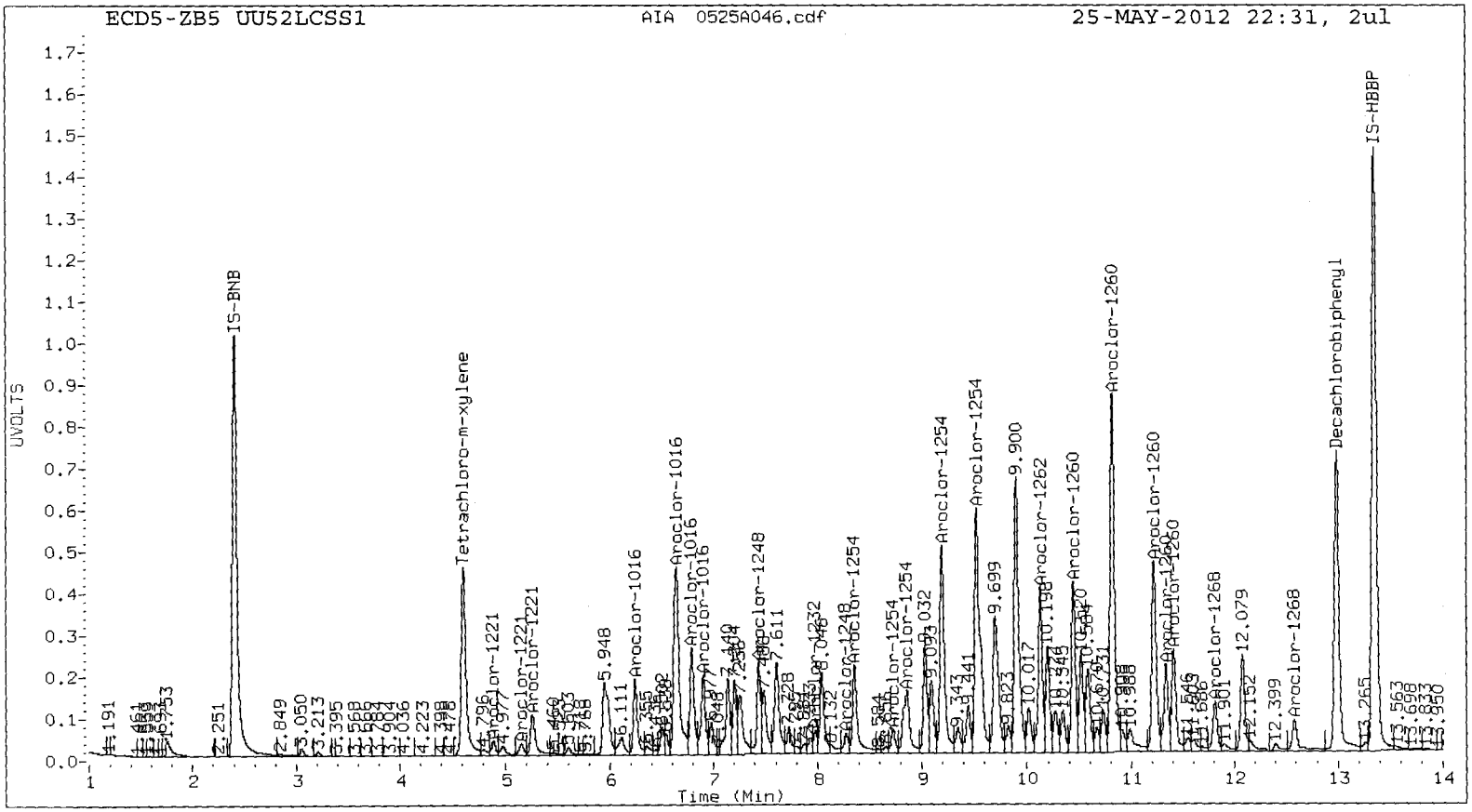
Corrected Ave (3 peaks): 51.2 Corrected Ave (3 peaks): 39.0 RPD = 27

Total PCB Area Col1 (4.710 - 12.891) = 1694845244 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 774123985 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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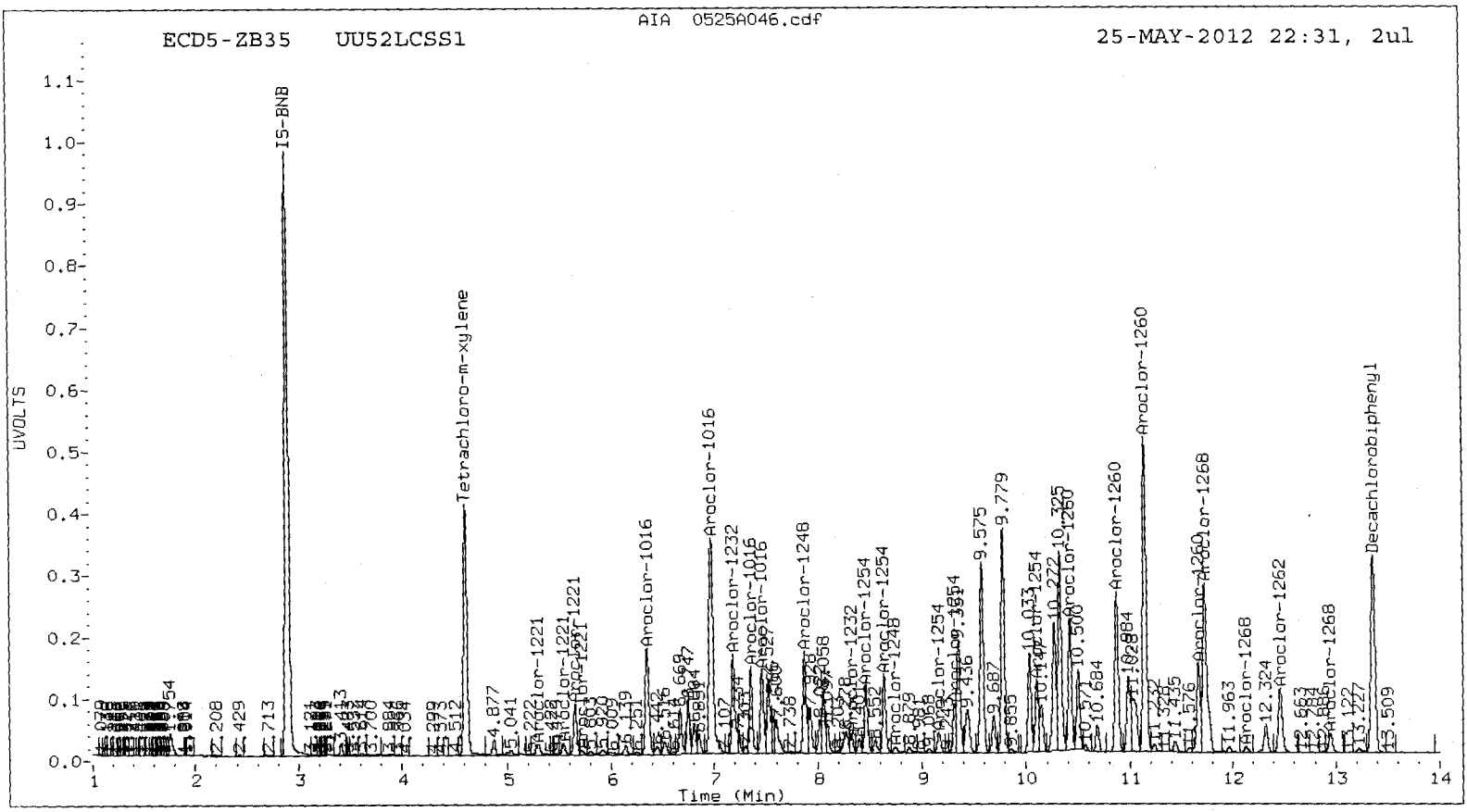
25-MAY-2012 22:31, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
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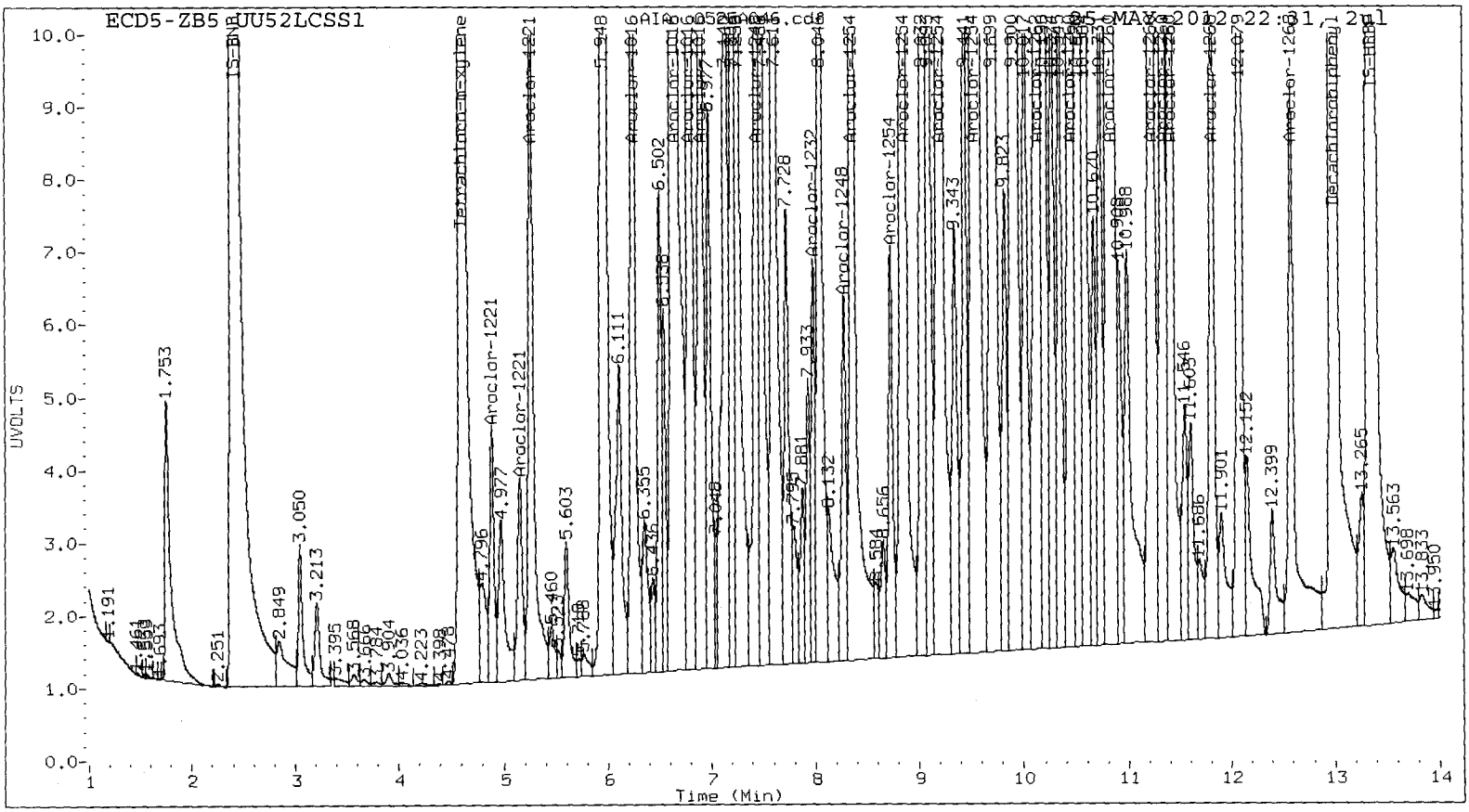
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
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Aroclor-1248
Aroclor-1232
Aroclor-1268
Aroclor-1260
Aroclor-1016
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3.213
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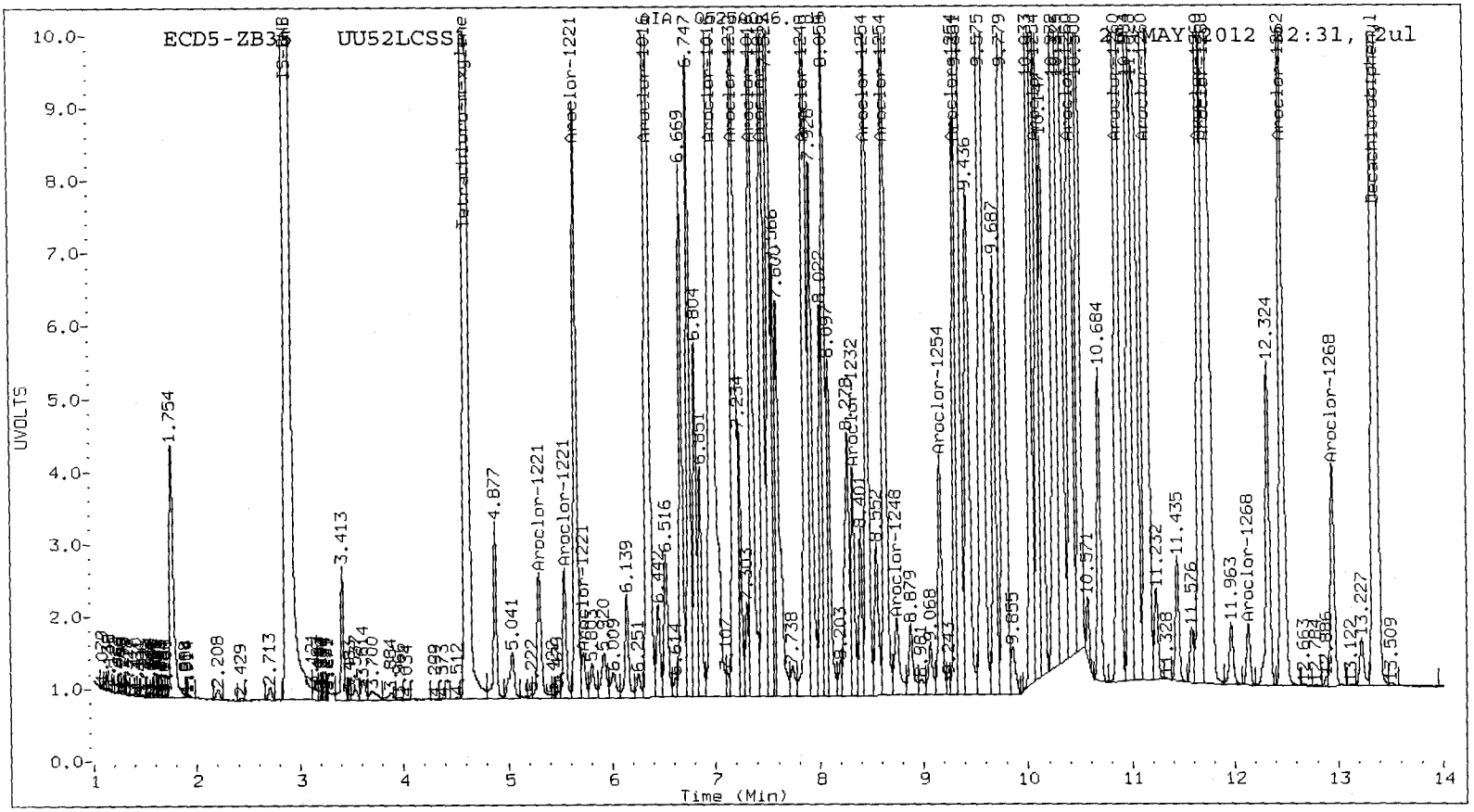
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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1254
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Aroclor-1232
Aroclor-1268
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5.222
6.139
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6.669
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8.879
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9.687
10.684
10.971
11.232
11.435
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12.324
13.122
13.227
13.509

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A047.d
Data file 2: 20120523.b/0525-2.b/0525A047.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52A
Client ID:
Injection Date: 25-MAY-2012 22:50
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	74042418	4.613	0.002	38080976	33.6	30.3	10.2	Tetrachloro-m-xylene
12.993	0.002	93935709	13.366	0.000	38457929	32.7	39.3	18.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	84.0	75.8
Decachlorobiphenyl	81.7	98.2

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	137150739	-11.1
Hexabromobiphenyl	248602423	187389119	-24.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	89256090	-19.3
Hexabromobiphenyl	108855531	75797350	-30.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.236	-0.006	1428722	25.0	1	6.354	0.007	2354464	50.5
Aroclor-1016	2	6.641	-0.001	8345790	44.7	2	6.973	0.000	3748457	35.4
Aroclor-1016	3	6.791	0.001	1999807	27.2	3	7.355	-0.001	1136565	41.7
Aroclor-1016	4	6.896	-0.004	4175586	72.1	4	7.462	-0.001	2783635	91.8
	Total Col1Ave (4 peaks):			42.2		Total Col2Ave (4 peaks):			54.9	RPD = 26
	Corrected Ave (3 peaks):			32.3		Corrected Ave (3 peaks):			42.5	RPD = 27
Aroclor-1221	1	4.909	0.025	12754542	1240.6	1	5.307	0.017	6824633	485.2
Aroclor-1221	2	5.146	-0.007	1380581	83.4	2	5.568	0.032	4462440	537.0
Aroclor-1221	3	5.277	0.019	13213915	243.7	3	5.678	0.029	15427210	593.5
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):			522.6		Total Col2Ave (3 peaks):			538.6	RPD = 3
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.236	-0.003	1428722	59.8	1	6.354	0.009	2354464	109.5
Aroclor-1232	2	6.641	0.002	8345790	105.0	2	6.973	0.002	3748457	83.3
Aroclor-1232	3	6.791	0.003	1999807	62.0	3	7.187	0.008	2070608	136.4
Aroclor-1232	4	7.981	0.001	8758750	282.9	4	8.327	0.002	4527370	271.9
	Total Col1Ave (4 peaks):			127.4		Total Col2Ave (4 peaks):			150.3	RPD = 16
	Corrected Ave (3 peaks):			75.6		Corrected Ave (3 peaks):			109.7	RPD = 37
Aroclor-1242	1	6.236	-0.007	1428722	33.1	1	6.354	0.006	2354464	64.7
Aroclor-1242	2	6.641	-0.001	8345790	58.0	2	6.973	-0.001	3748457	45.3
Aroclor-1242	3	6.791	0.000	1999807	34.8	3	7.187	0.005	2070608	61.6
Aroclor-1242	4	7.981	-0.002	8758750	163.7	4	8.327	0.000	4527370	155.0
	Total Col1Ave (4 peaks):			72.4		Total Col2Ave (4 peaks):			81.6	RPD = 12
	Corrected Ave (3 peaks):			42.0		Corrected Ave (3 peaks):			57.2	RPD = 31
Aroclor-1248	1	6.641	0.002	8345790	86.7	1	6.973	0.002	3748457	69.9
Aroclor-1248	2	7.440	0.001	6993018	96.1	2	7.878	0.003	7751291	180.5
Aroclor-1248	3	7.981	-0.002	8758750	94.0	3	8.327	0.000	4527370	87.7
Aroclor-1248	4	8.266	-0.008	14762567	157.0	4	8.738	-0.009	10802374	185.3
	Total Col1Ave (4 peaks):			108.5		Total Col2Ave (4 peaks):			130.9	RPD = 19
	Corrected Ave (3 peaks):			92.3		Corrected Ave (3 peaks):			112.7	RPD = 20
Aroclor-1254	1	8.356	-0.001	16212781	128.8	1	8.466	-0.001	4432475	113.1
Aroclor-1254	2	8.750	0.022	42187828	520.6	2	8.640	0.001	10000067	200.8
Aroclor-1254	3	8.864	0.000	51178202	327.1	3	9.172	0.012	10212259	268.3
Aroclor-1254	4	9.211	-0.002	34962353	207.5	4	9.310	0.001	13794240	163.9
Aroclor-1254	5	9.575	0.001	23515539	224.4	5	10.091	-0.002	9859662	199.8
	Total Col1Ave (5 peaks):			281.7		Total Col2Ave (5 peaks):			189.2	RPD = 39
	Corrected Ave (4 peaks):			222.0		Corrected Ave (4 peaks):			169.4	RPD = 27
Aroclor-1260	1	10.446	-0.001	5988426	58.9	1	10.423	0.001	3151523	72.5
Aroclor-1260	2	10.821	0.000	27998152	111.0	2	10.871	-0.001	7729287	143.2
Aroclor-1260	3	11.223	0.002	10504147	74.9	3	11.146	0.001	11566852	105.5
Aroclor-1260	4	11.335	-0.002	6441746	107.0	4	11.669	0.003	3405401	106.4
Aroclor-1260	5	11.407	-0.004	56853224	790.9	NS	---			----
	Total Col1Ave (5 peaks):			228.5		Total Col2Ave (4 peaks):			106.9	RPD = 73*
	Corrected Ave (4 peaks):			87.9		Corrected Ave (3 peaks):			94.8	RPD = 8
Aroclor-1262	1	10.129	0.002	10441140	69.9	1	10.423	0.003	3151523	44.4
Aroclor-1262	2	10.446	0.002	5988426	52.5	2	10.871	0.001	7729287	126.2
Aroclor-1262	3	10.821	0.002	27998152	89.8	3	11.146	0.003	11566852	83.2
Aroclor-1262	4	11.335	0.001	6441746	56.5	4	11.669	0.005	3405401	60.9
Aroclor-1262	5	11.407	-0.001	56853224	438.7	5	12.473	0.011	4539280	87.1
	Total Col1Ave (5 peaks):			141.5		Total Col2Ave (5 peaks):			80.4	RPD = 55*
	Corrected Ave (4 peaks):			67.2		Corrected Ave (4 peaks):			68.9	RPD = 3
Aroclor-1268	1	11.335	-0.001	6441746	20.2	1	11.669	0.005	3405401	23.5
Aroclor-1268	2	11.407	0.000	56853224	177.2	2	11.726	-0.005	7874063	57.7

Aroclor-1268 3	11.808	0.015	5512122	20.6	3	12.132	0.005	1567311	13.7
Aroclor-1268 4	12.586	0.001	2957674	3.8	4	12.946	-0.004	4793505	14.8

Total Col1Ave (4 peaks): 55.4 Total Col2Ave (4 peaks): 27.4 RPD = 68*

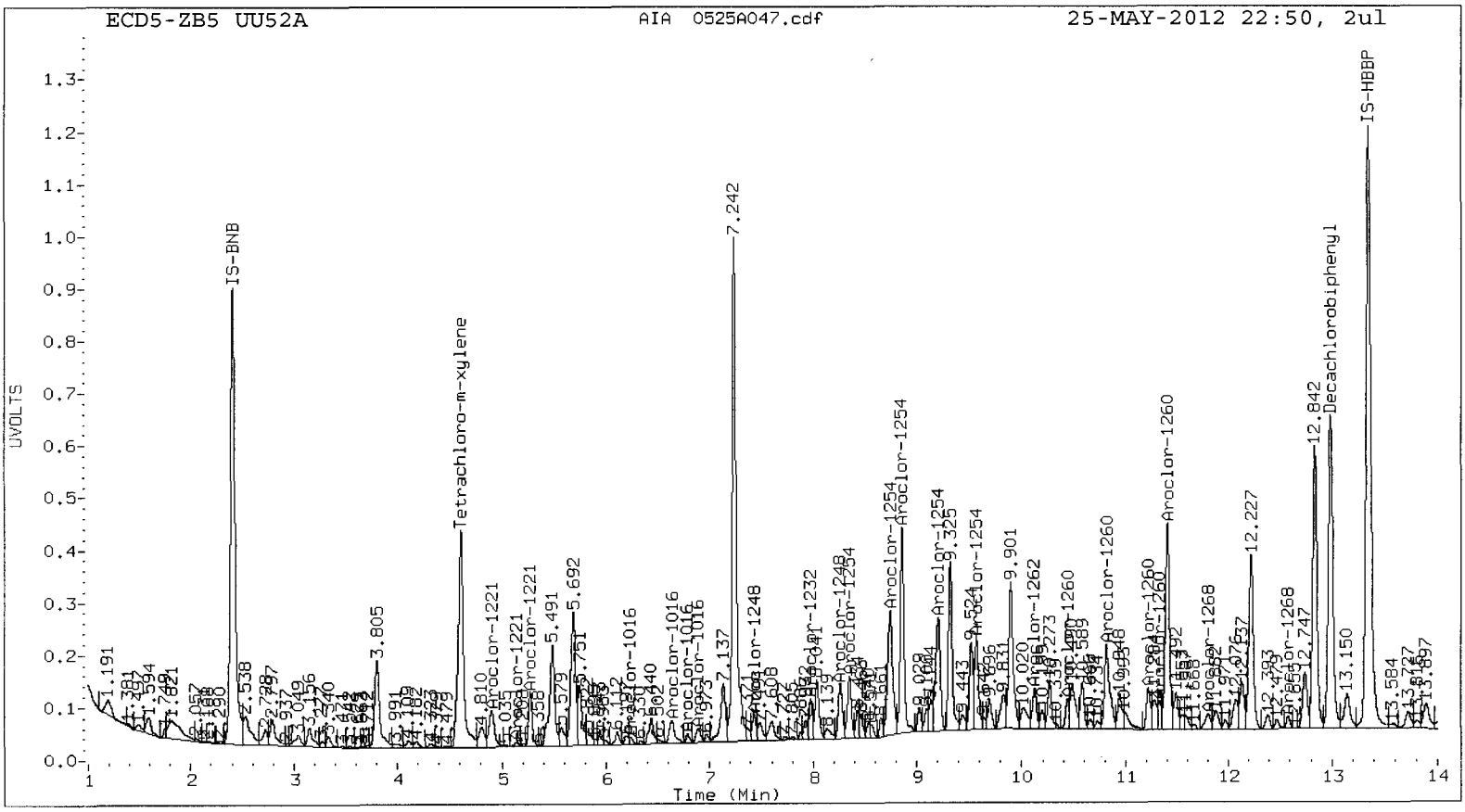
Corrected Ave (3 peaks): 14.8 Corrected Ave (3 peaks): 17.3 RPD = 16

Total PCB Area Col1 (4.710 - 12.891) = 1152991978 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 597221761 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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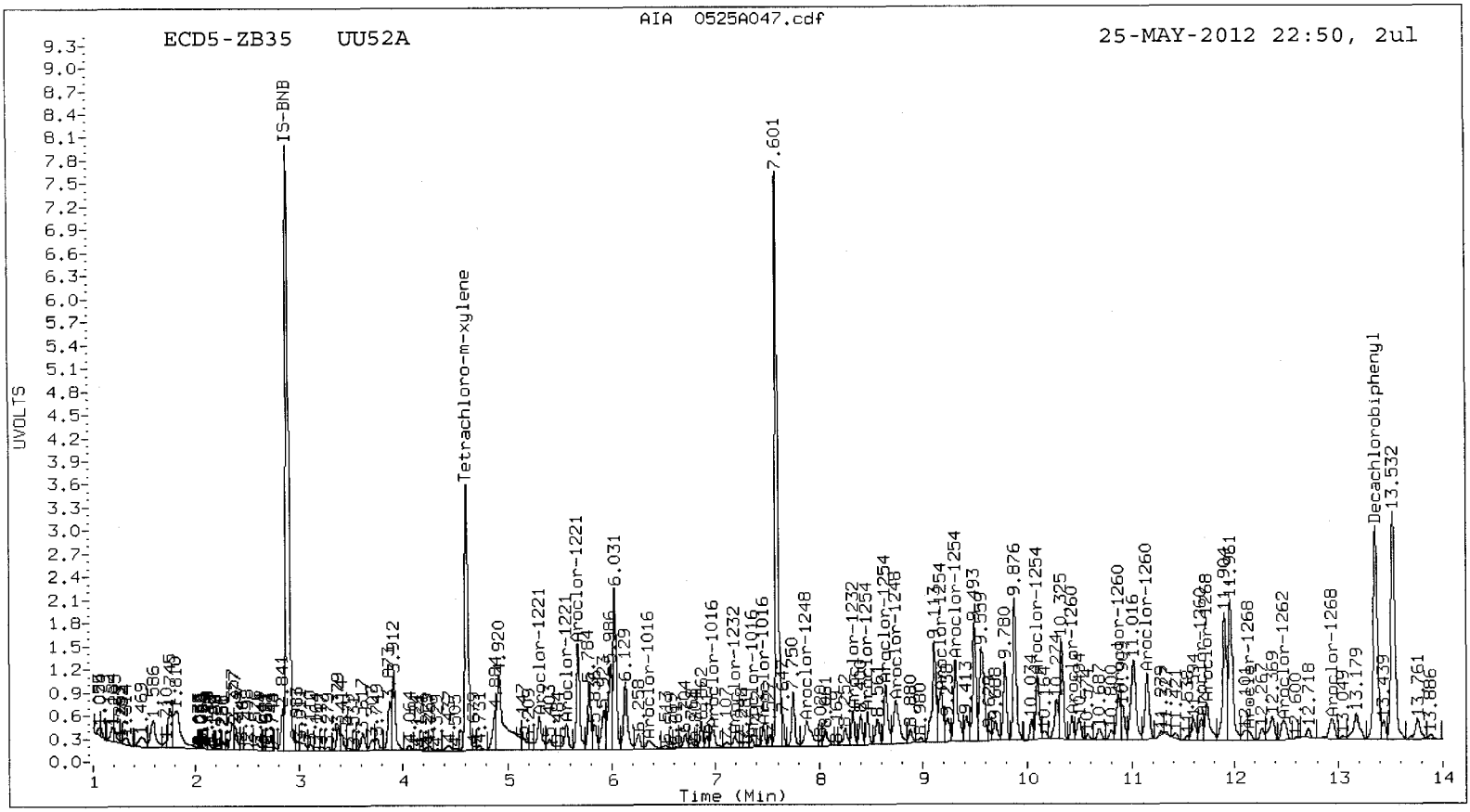
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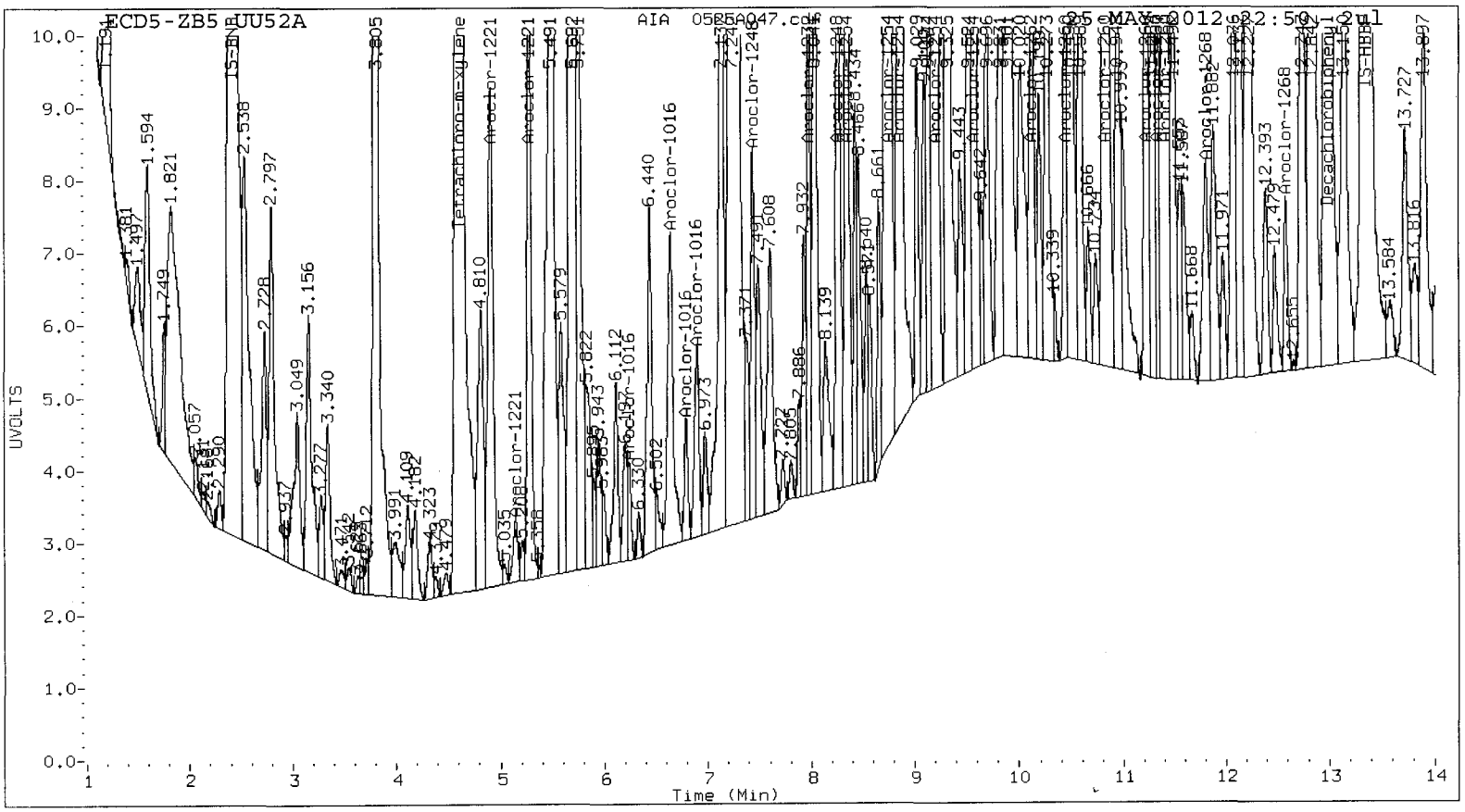
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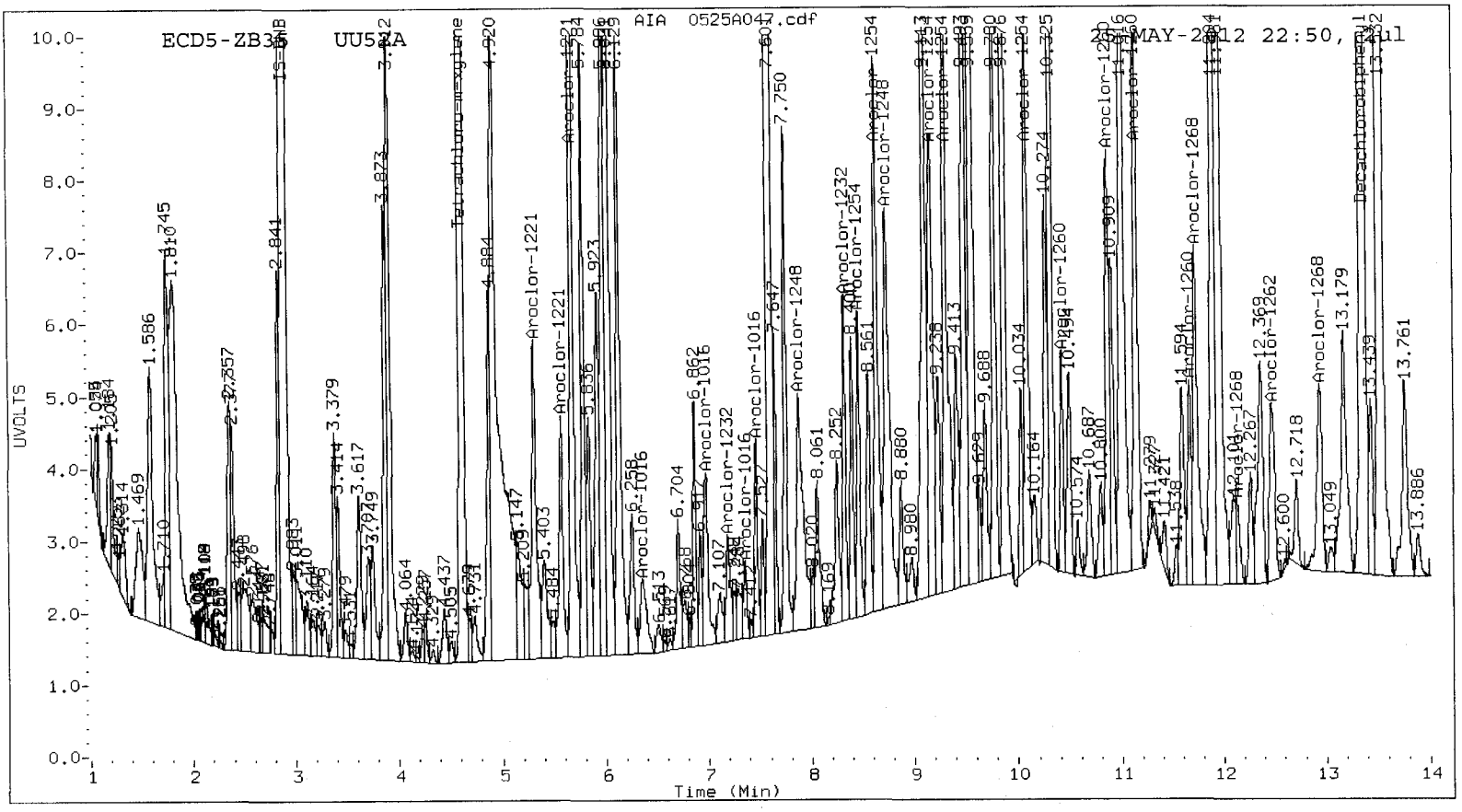
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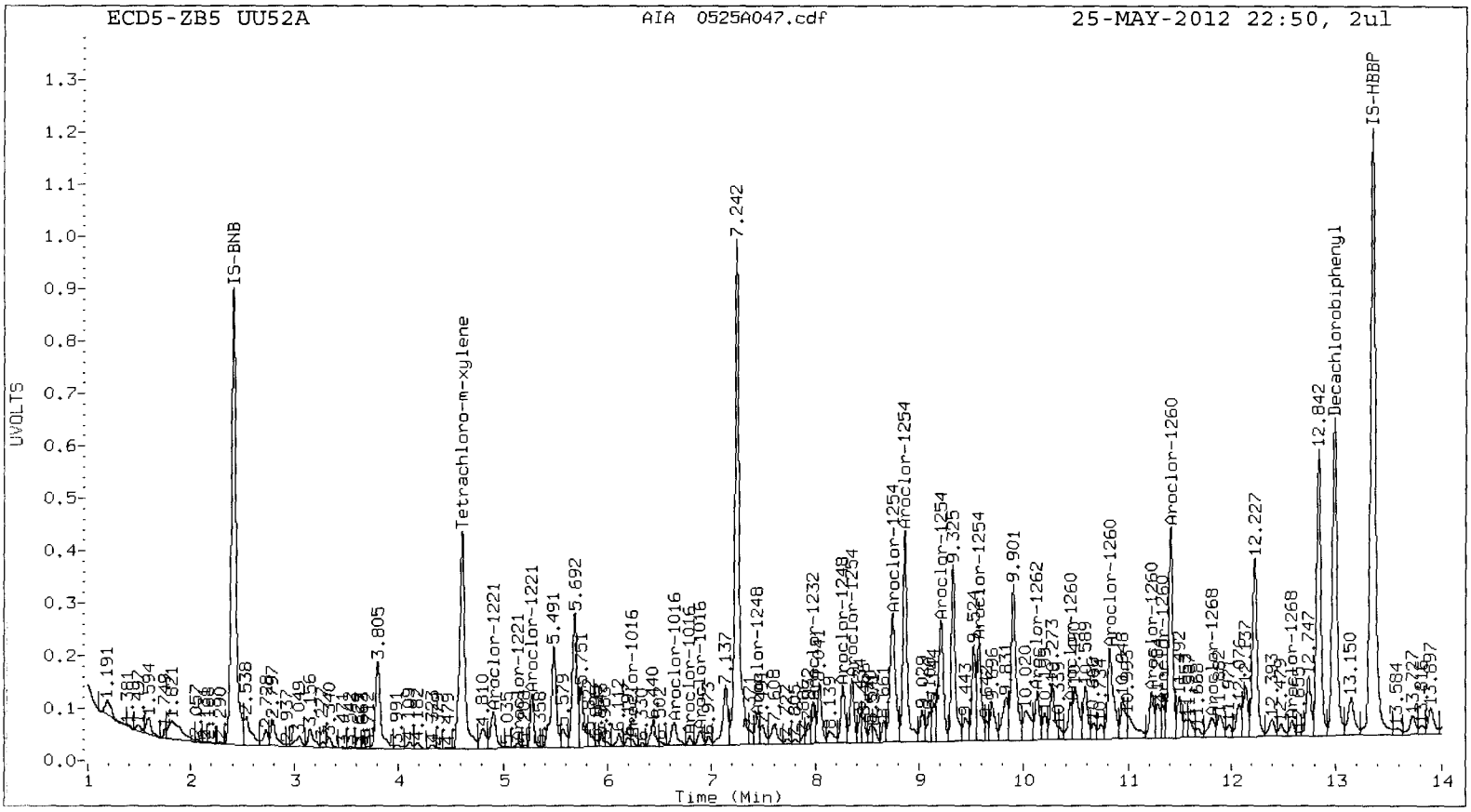
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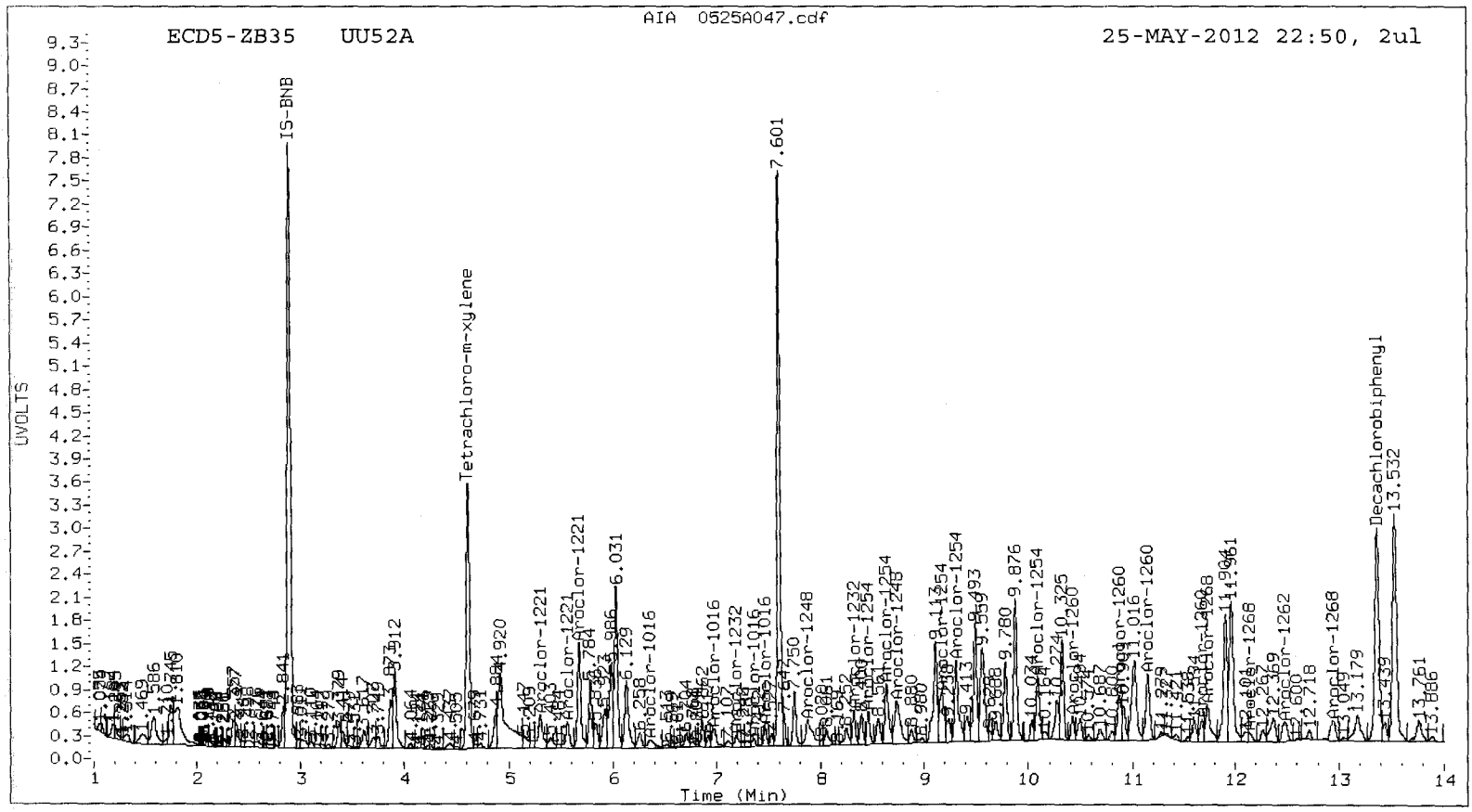
UVOLTS
Time (Min)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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20120523.b/0525-2.b/0525A048.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52B
Client ID:
Injection Date: 25-MAY-2012 23:09
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	77225580	4.612	0.001	39333257	30.9	28.6	7.6	Tetrachloro-m-xylene
12.995	0.004	92945441	13.366	0.001	38932189	29.7	36.6	20.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	77.2	71.5
Decachlorobiphenyl	74.3	91.6

JM05/2 9/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	155679232	0.9
Hexabromobiphenyl	248602423	203740008	-18.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	97771108	-11.6
Hexabromobiphenyl	108855531	82250498	-24.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	ZB5 Col Peak#	RT	Shift	Area	Amount	ZB35 Col Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	6.236	-0.005	1475955	22.7	1	6.352	0.005	2561170	50.2	
Aroclor-1016	2	6.644	0.002	8964051	42.3	2	6.974	0.000	3746484	32.3	
Aroclor-1016	3	6.790	0.000	2100989	25.2	3	7.355	-0.001	1194199	40.0	
Aroclor-1016	4	6.899	-0.001	3201228	48.7	4	7.461	-0.002	3005871	90.5	
Total Col1Ave (4 peaks):					34.7	Total Col2Ave (4 peaks):				53.2	RPD = 42*
Corrected Ave (3 peaks):					30.1	Corrected Ave (3 peaks):				40.8	RPD = 30
Aroclor-1221	1	4.910	0.026	10678651	915.1	1	5.307	0.017	6632903	430.5	
Aroclor-1221	2	5.148	-0.005	975354	51.9	2	5.568	0.032	4828001	530.4	
Aroclor-1221	3	5.276	0.018	7472768	121.4	3	5.678	0.029	16237507	570.3	
Aroclor-1221	NS	---			----	4	---			0.0	
Total Col1Ave (3 peaks):					362.8	Total Col2Ave (3 peaks):				510.4	RPD = 34
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks					
Aroclor-1232	1	6.236	-0.002	1475955	54.4	1	6.352	0.006	2561170	108.8	
Aroclor-1232	2	6.644	0.005	8964051	99.4	2	6.974	0.003	3746484	76.0	
Aroclor-1232	3	6.790	0.003	2100989	57.4	3	7.186	0.007	1987221	119.5	
Aroclor-1232	4	7.983	0.003	9723650	276.7	4	8.326	0.001	4806891	263.6	
Total Col1Ave (4 peaks):					122.0	Total Col2Ave (4 peaks):				141.9	RPD = 15
Corrected Ave (3 peaks):					70.4	Corrected Ave (3 peaks):				101.4	RPD = 36
Aroclor-1242	1	6.236	-0.006	1475955	30.1	1	6.352	0.004	2561170	64.2	
Aroclor-1242	2	6.644	0.001	8964051	54.9	2	6.974	0.000	3746484	41.4	
Aroclor-1242	3	6.790	0.000	2100989	32.2	3	7.186	0.004	1987221	54.0	
Aroclor-1242	4	7.983	0.000	9723650	160.1	4	8.326	0.000	4806891	150.2	
Total Col1Ave (4 peaks):					69.3	Total Col2Ave (4 peaks):				77.4	RPD = 11
Corrected Ave (3 peaks):					39.1	Corrected Ave (3 peaks):				53.2	RPD = 31
Aroclor-1248	1	6.644	0.004	8964051	82.0	1	6.974	0.003	3746484	63.8	
Aroclor-1248	2	7.438	-0.001	6507394	78.8	2	7.875	0.001	3198377	68.0	
Aroclor-1248	3	7.983	0.000	9723650	91.9	3	8.326	0.000	4806891	85.0	
Aroclor-1248	4	8.267	-0.007	14386370	134.8	4	8.739	-0.009	10903865	170.8	
Total Col1Ave (4 peaks):					96.9	Total Col2Ave (4 peaks):				96.9	RPD = 0
Corrected Ave (3 peaks):					84.3	Corrected Ave (3 peaks):				72.3	RPD = 15
Aroclor-1254	1	8.357	0.001	16824605	117.7	1	8.465	-0.001	4534985	105.7	
Aroclor-1254	2	8.749	0.021	43189697	469.5	2	8.639	0.000	9917794	181.8	
Aroclor-1254	3	8.863	0.000	47451774	267.2	3	9.173	0.013	11295347	270.9	
Aroclor-1254	4	9.214	0.001	33015086	172.6	4	9.309	-0.001	14249793	154.5	
Aroclor-1254	5	9.574	0.000	22669321	190.6	5	10.091	-0.001	9469872	175.2	
Total Col1Ave (5 peaks):					243.5	Total Col2Ave (5 peaks):				177.6	RPD = 31
Corrected Ave (4 peaks):					187.0	Corrected Ave (4 peaks):				154.3	RPD = 19
Aroclor-1260	1	10.446	-0.001	5903125	53.4	1	10.423	0.001	3163220	67.1	
Aroclor-1260	2	10.822	0.001	26616250	97.0	2	10.870	-0.002	7229879	123.4	
Aroclor-1260	3	11.224	0.003	9223675	60.5	3	11.146	0.001	11073692	93.1	
Aroclor-1260	4	11.334	-0.003	6508488	99.4	4	11.667	0.001	3310273	95.3	
Aroclor-1260	5	11.409	-0.002	58867057	753.2	NS	---			----	
Total Col1Ave (5 peaks):					282.7	Total Col2Ave (4 peaks):				94.7	RPD = 77*
Corrected Ave (4 peaks):					76.6	Corrected Ave (3 peaks):				85.2	RPD = 9
Aroclor-1262	1	10.128	0.000	10274053	63.3	1	10.423	0.003	3163220	41.1	
Aroclor-1262	2	10.446	0.001	5903125	47.6	2	10.870	0.000	7229879	108.8	
Aroclor-1262	3	10.822	0.004	26616250	78.5	3	11.146	0.004	11073692	73.4	
Aroclor-1262	4	11.334	0.000	6508488	52.5	4	11.667	0.003	3310273	54.5	
Aroclor-1262	5	11.409	0.001	58867057	417.8	5	12.474	0.011	4385447	77.6	
Total Col1Ave (5 peaks):					131.9	Total Col2Ave (5 peaks):				71.1	RPD = 60*
Corrected Ave (4 peaks):					60.5	Corrected Ave (4 peaks):				61.6	RPD = 2
Aroclor-1268	1	11.334	-0.002	6508488	18.8	1	11.667	0.003	3310273	21.1	
Aroclor-1268	2	11.409	0.002	58867057	168.8	2	11.727	-0.004	7455194	50.4	

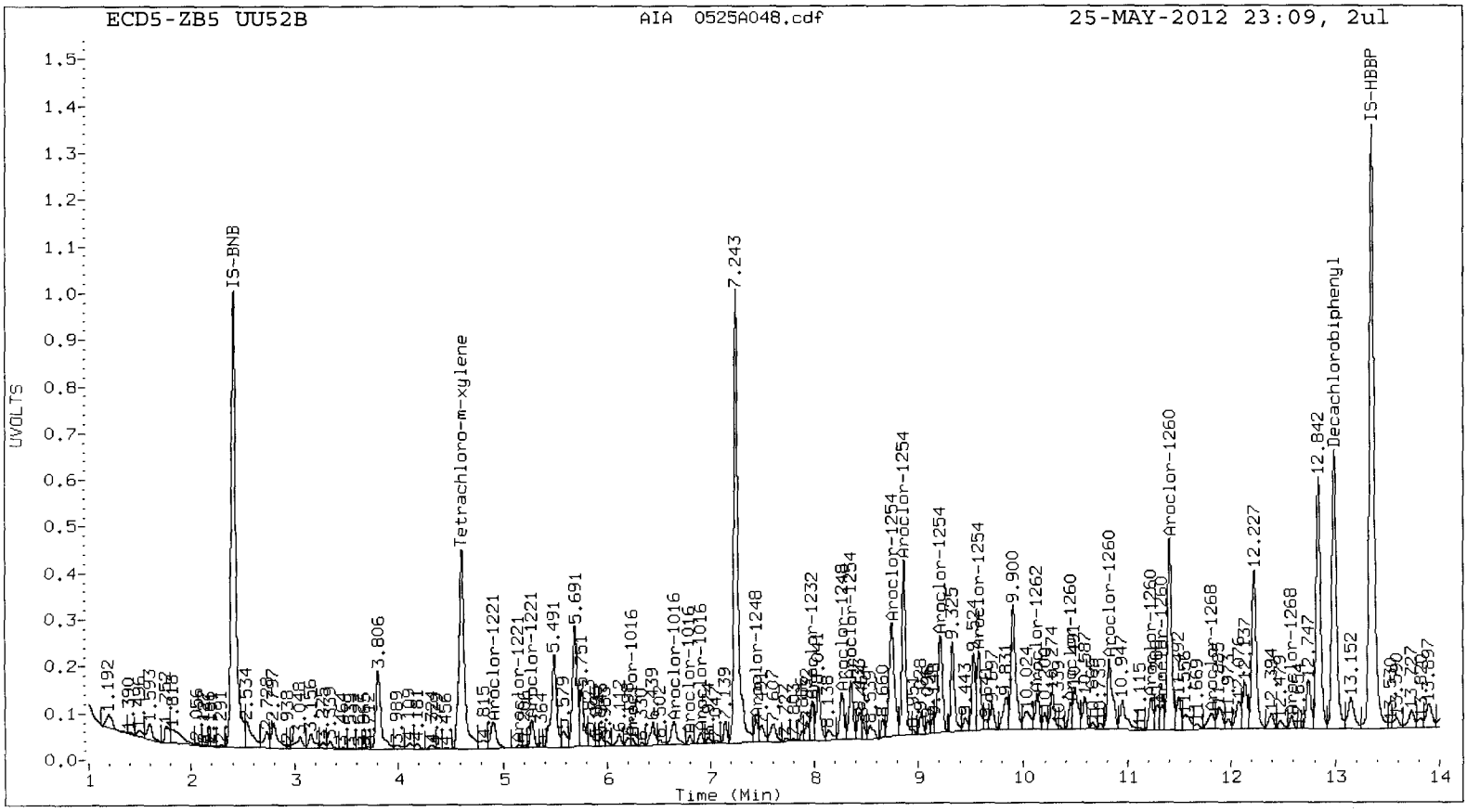
Aroclor-1268 3	11.807	0.015	7079750	24.3	3	12.129	0.001	3533980	28.4
Aroclor-1268 4	12.587	0.002	3464959	4.0	4	12.946	-0.003	5283461	15.0
Total Col1Ave (4 peaks):				54.0	Total Col2Ave (4 peaks):			28.7	RPD = 61*
Corrected Ave (3 peaks):				15.7	Corrected Ave (3 peaks):			21.5	RPD = 31

Total PCB Area Col1 (4.710 - 12.891) = 1109213334 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 579315473 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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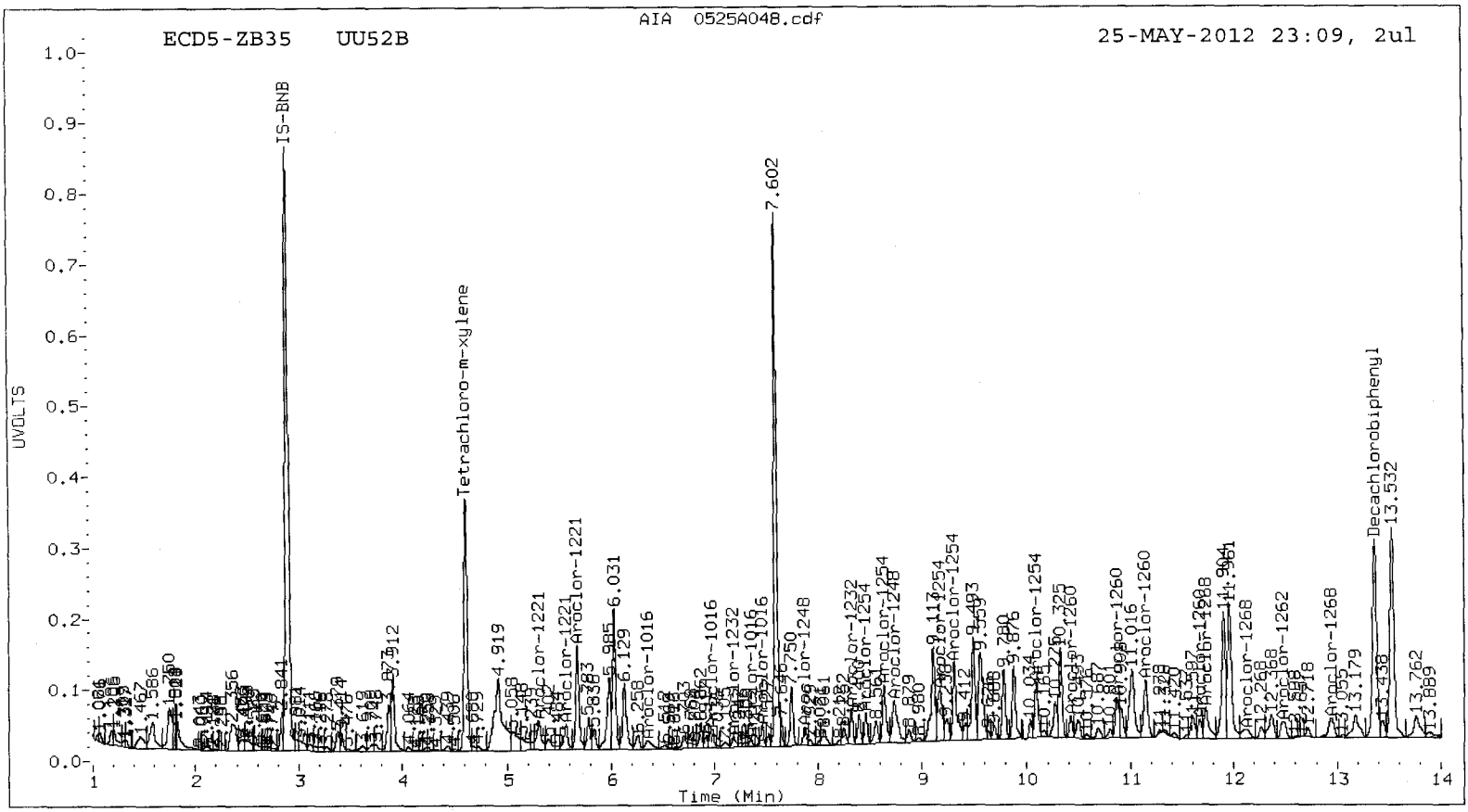
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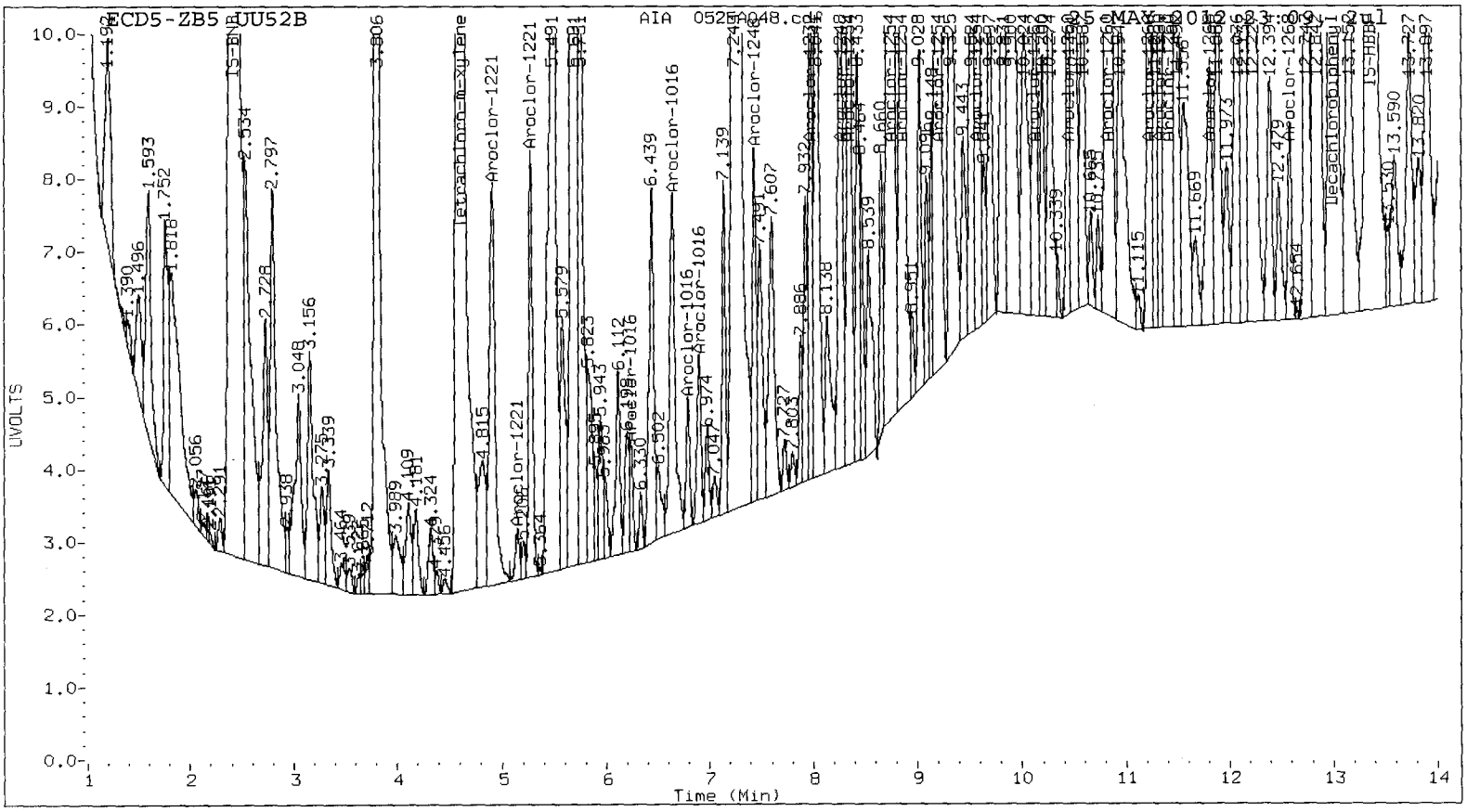
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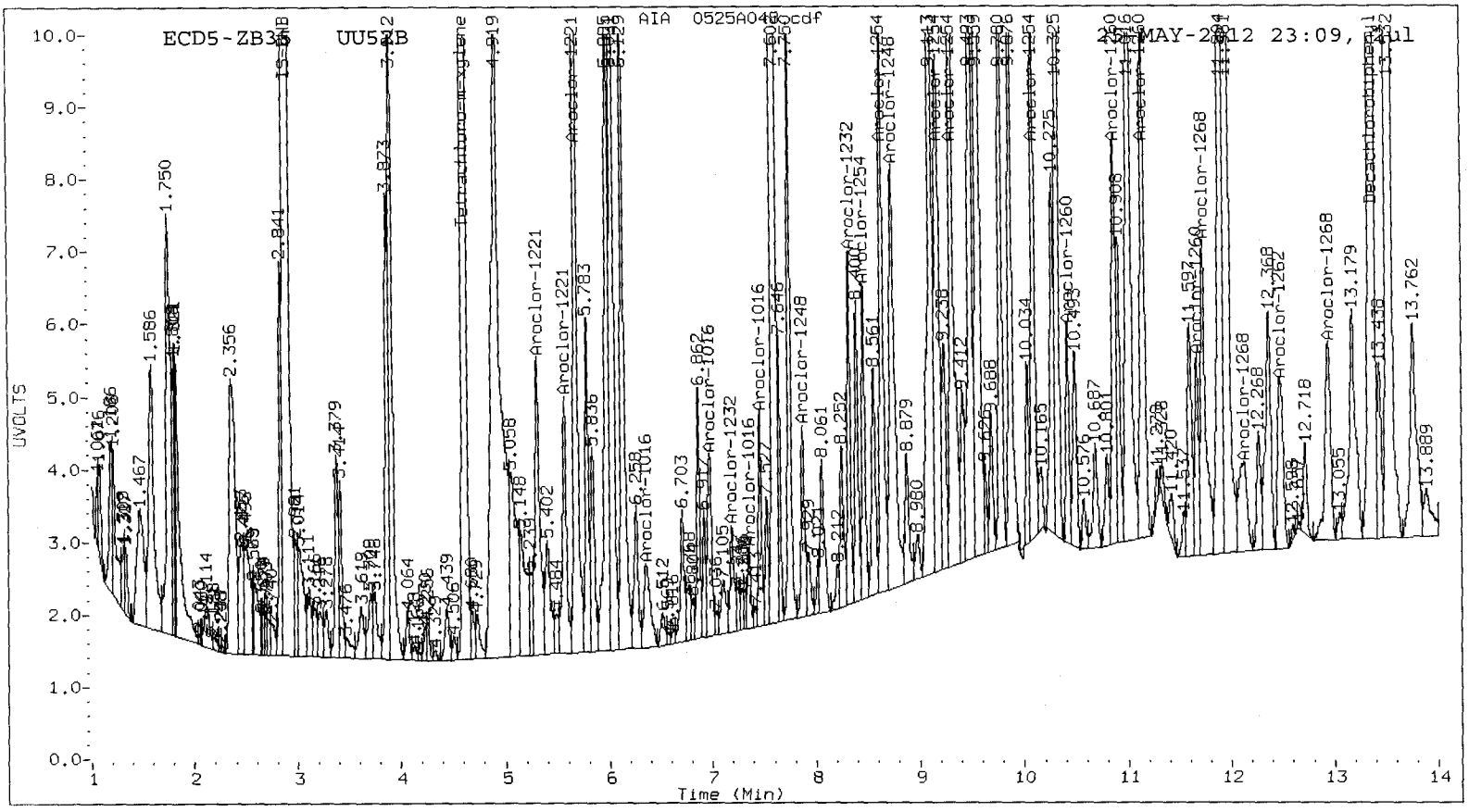
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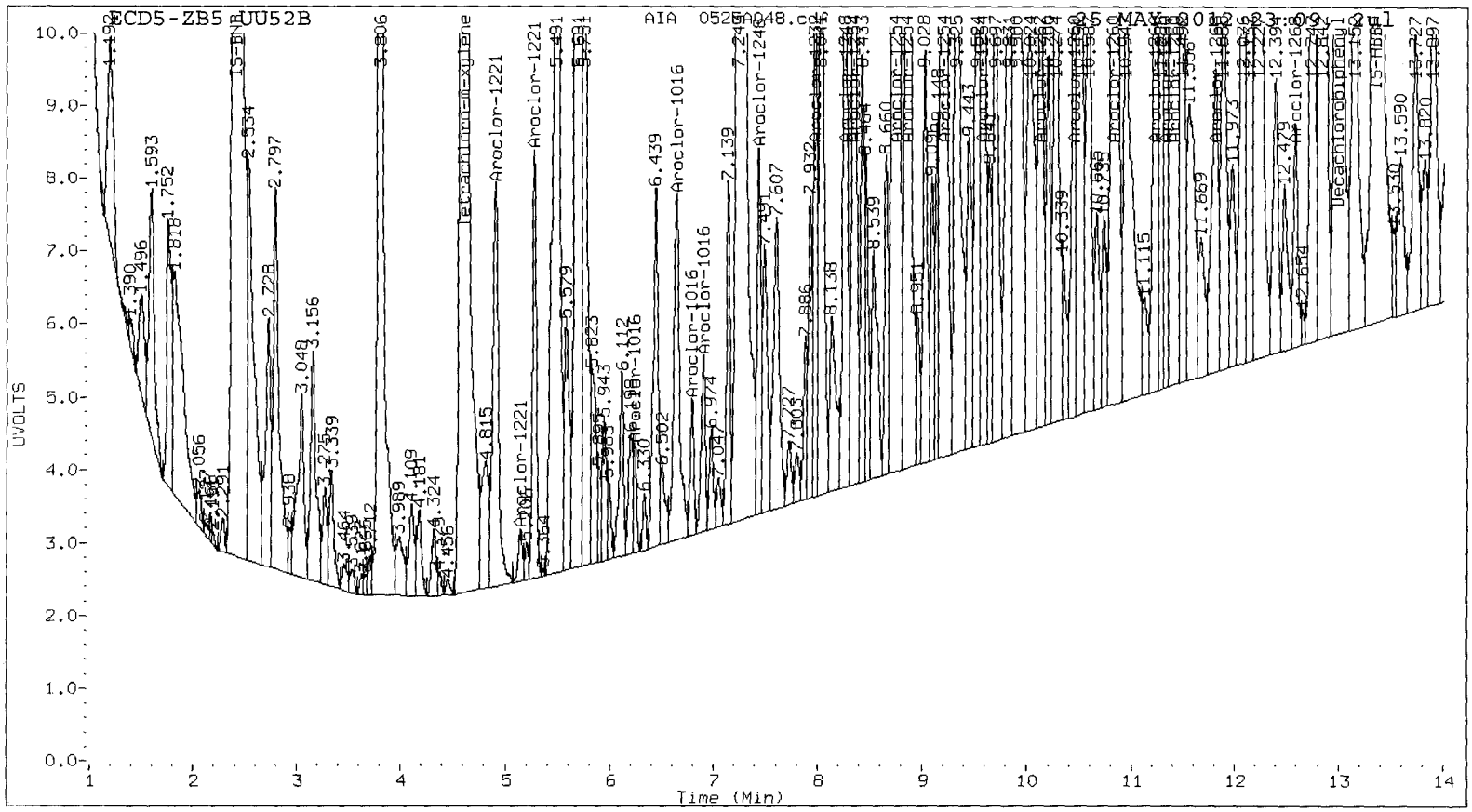
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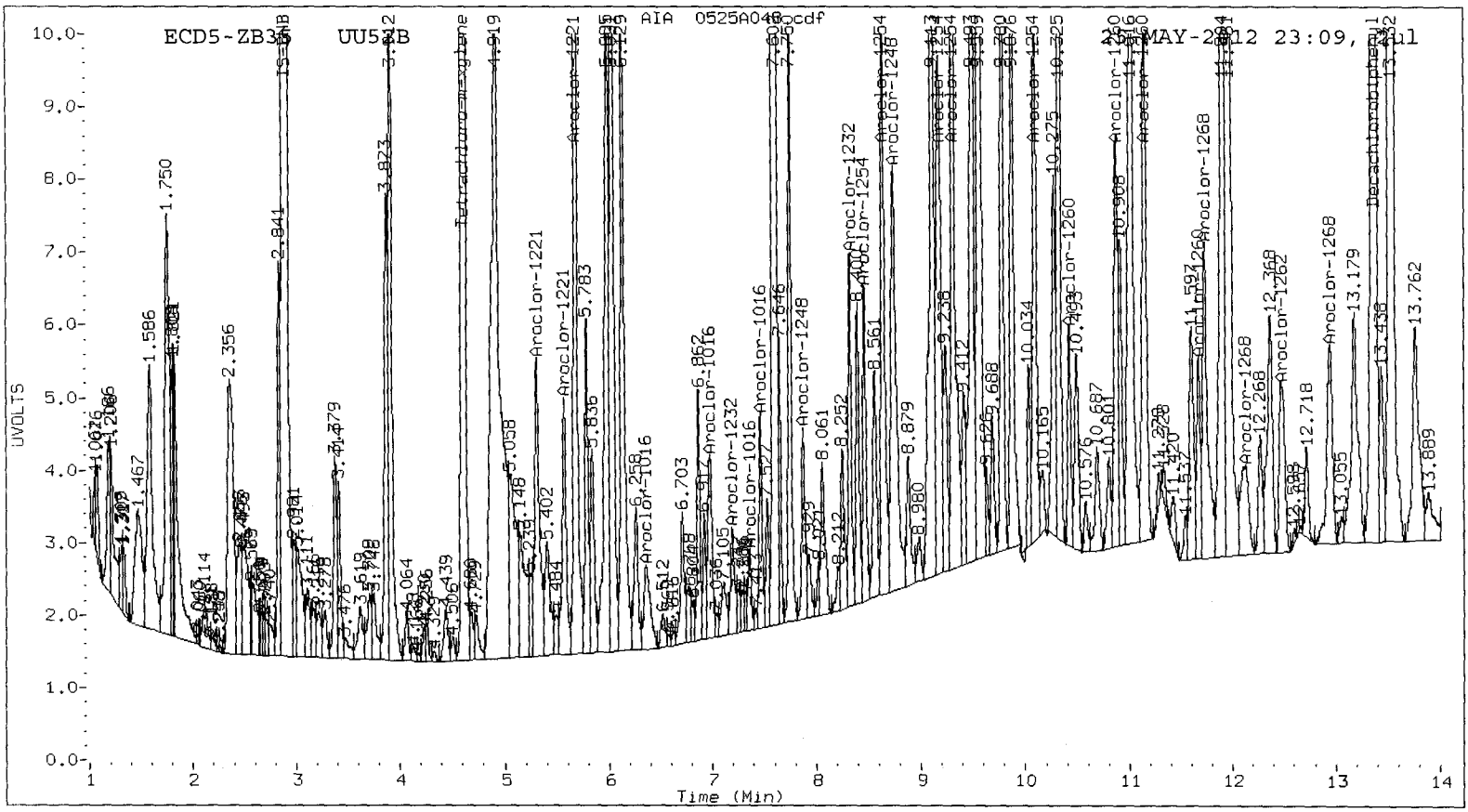
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Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
IS-DNB
IS-HBB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A049.d
Data file 2: 20120523.b/0525-2.b/0525A049.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52C
Client ID:
Injection Date: 25-MAY-2012 23:28
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	0.001	81060267	4.612	0.001	42577760	34.1	31.8	7.0	Tetrachloro-m-xylene
12.993	0.002	97440671	13.366	0.001	40345328	31.5	41.2	26.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	85.2	79.4
Decachlorobiphenyl	78.8	102.9

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	148018037	-4.0
Hexabromobiphenyl	248602423	201405366	-19.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	95290249	-13.9
Hexabromobiphenyl	108855531	75841965	-30.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.196	-0.045	4213345	68.2	1	6.389	0.042	3552395	71.4
Aroclor-1016	2	6.642	0.000	7994915	39.7	2	6.973	0.000	2555443	22.6
Aroclor-1016	3	6.790	-0.001	1658628	20.9	3	7.353	-0.003	1110409	38.1
Aroclor-1016	4	6.900	-0.001	3087233	49.4	4	7.462	-0.001	2348577	72.5
	Total Col1Ave (4 peaks):				44.5	Total Col2Ave (4 peaks):				51.2 RPD = 14
	Corrected Ave (3 peaks):				36.7	Corrected Ave (3 peaks):				44.1 RPD = 18
Aroclor-1221	1	4.905	0.021	10782075	971.7	1	5.307	0.017	6510614	433.5
Aroclor-1221	2	5.146	-0.007	855169	47.9	2	5.568	0.032	4589371	517.3
Aroclor-1221	3	5.277	0.018	12080432	206.4	3	5.677	0.028	11564794	416.8
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				408.7	Total Col2Ave (3 peaks):				455.9 RPD = 11
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.196	-0.042	4213345	163.4	1	6.389	0.044	3552395	154.8
Aroclor-1232	2	6.642	0.003	7994915	93.2	2	6.973	0.002	2555443	53.2
Aroclor-1232	3	6.790	0.002	1658628	47.7	3	7.188	0.008	2104376	129.8
Aroclor-1232	4	7.982	0.002	7964564	238.4	4	8.327	0.001	3743393	210.6
	Total Col1Ave (4 peaks):				135.7	Total Col2Ave (4 peaks):				137.1 RPD = 1
	Corrected Ave (3 peaks):				101.4	Corrected Ave (3 peaks):				112.6 RPD = 10
Aroclor-1242	1	6.196	-0.046	4213345	90.4	1	6.389	0.042	3552395	91.4
Aroclor-1242	2	6.642	-0.001	7994915	51.5	2	6.973	-0.001	2555443	28.9
Aroclor-1242	3	6.790	-0.001	1658628	26.8	3	7.188	0.005	2104376	58.7
Aroclor-1242	4	7.982	-0.001	7964564	138.0	4	8.327	0.000	3743393	120.0
	Total Col1Ave (4 peaks):				76.7	Total Col2Ave (4 peaks):				74.7 RPD = 3
	Corrected Ave (3 peaks):				56.2	Corrected Ave (3 peaks):				59.7 RPD = 6
Aroclor-1248	1	6.642	0.002	7994915	76.9	1	6.973	0.002	2555443	44.7
Aroclor-1248	2	7.438	0.000	8297785	105.7	2	7.876	0.001	2376271	51.8
Aroclor-1248	3	7.982	-0.002	7964564	79.2	3	8.327	0.000	3743393	67.9
Aroclor-1248	4	8.268	-0.006	13343173	131.5	4	8.737	-0.010	11267844	181.1
	Total Col1Ave (4 peaks):				98.3	Total Col2Ave (4 peaks):				86.4 RPD = 13
	Corrected Ave (3 peaks):				87.3	Corrected Ave (3 peaks):				54.8 RPD = 46*
Aroclor-1254	1	8.358	0.001	14126668	104.0	1	8.465	-0.001	4256683	101.8
Aroclor-1254	2	8.749	0.021	38770407	443.3	2	8.641	0.002	9156007	172.2
Aroclor-1254	3	8.863	0.000	55876666	330.9	3	9.179	0.019	13705766	337.3
Aroclor-1254	4	9.211	-0.001	29907865	164.5	4	9.310	0.000	11089598	123.4
Aroclor-1254	5	9.574	0.000	20768723	183.6	5	10.092	-0.001	8517432	161.7
	Total Col1Ave (5 peaks):				245.3	Total Col2Ave (5 peaks):				179.3 RPD = 31
	Corrected Ave (4 peaks):				195.8	Corrected Ave (4 peaks):				139.8 RPD = 33
Aroclor-1260	1	10.448	0.001	6514508	59.6	1	10.423	0.001	3459766	79.5
Aroclor-1260	2	10.823	0.002	29228349	107.8	2	10.872	0.000	8035857	148.8
Aroclor-1260	3	11.222	0.002	11980373	79.5	3	11.146	0.001	11726753	106.9
Aroclor-1260	4	11.336	-0.001	6592553	101.9	4	11.668	0.002	3561823	111.2
Aroclor-1260	5	11.407	-0.004	44150286	571.4	NS	---			----
	Total Col1Ave (5 peaks):				184.0	Total Col2Ave (4 peaks):				111.6 RPD = 49*
	Corrected Ave (4 peaks):				87.2	Corrected Ave (3 peaks):				99.2 RPD = 13
Aroclor-1262	1	10.129	0.001	10757992	67.0	1	10.423	0.004	3459766	48.7
Aroclor-1262	2	10.448	0.003	6514508	53.1	2	10.872	0.002	8035857	131.2
Aroclor-1262	3	10.823	0.004	29228349	87.2	3	11.146	0.004	11726753	84.3
Aroclor-1262	4	11.336	0.002	6592553	53.8	4	11.668	0.004	3561823	63.6
Aroclor-1262	5	11.407	-0.001	44150286	317.0	5	12.470	0.007	4019412	77.1
	Total Col1Ave (5 peaks):				115.6	Total Col2Ave (5 peaks):				81.0 RPD = 35
	Corrected Ave (4 peaks):				65.3	Corrected Ave (4 peaks):				68.4 RPD = 5
Aroclor-1268	1	11.336	0.000	6592553	19.2	1	11.668	0.004	3561823	24.6
Aroclor-1268	2	11.407	0.000	44150286	128.1	2	11.728	-0.003	8273627	60.6

Aroclor-1268	3	11.808	0.015	7116056	24.7	3	12.150	0.022	2116705	18.5
Aroclor-1268	4	12.586	0.001	2862768	3.4	4	12.936	-0.013	7965232	24.6

Total Col1Ave (4 peaks): 43.8 Total Col2Ave (4 peaks): 32.1 RPD = 31

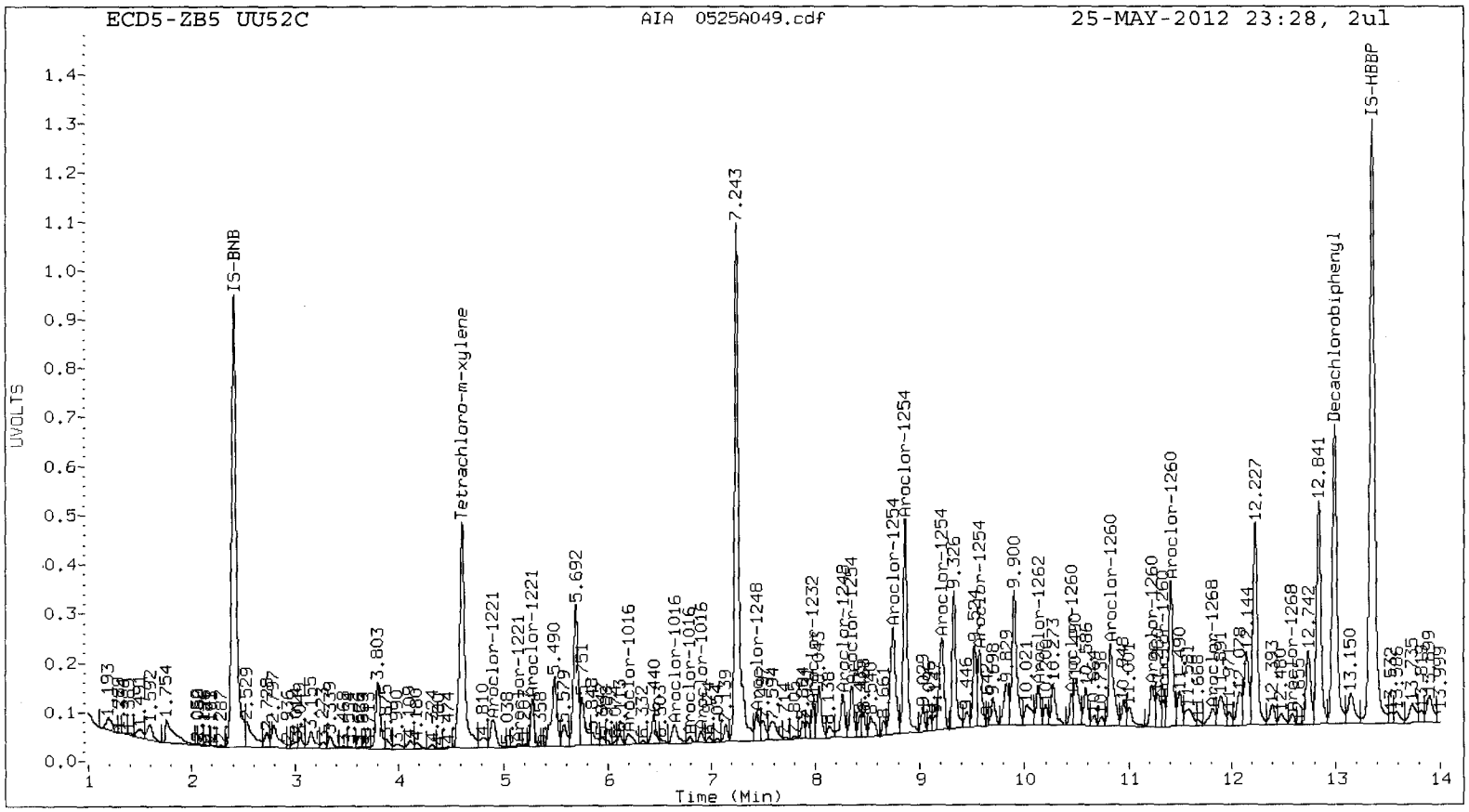
Corrected Ave (3 peaks): 15.8 Corrected Ave (3 peaks): 22.6 RPD = 35

Total PCB Area Col1 (4.710 - 12.891) = 1154155408 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 609292491 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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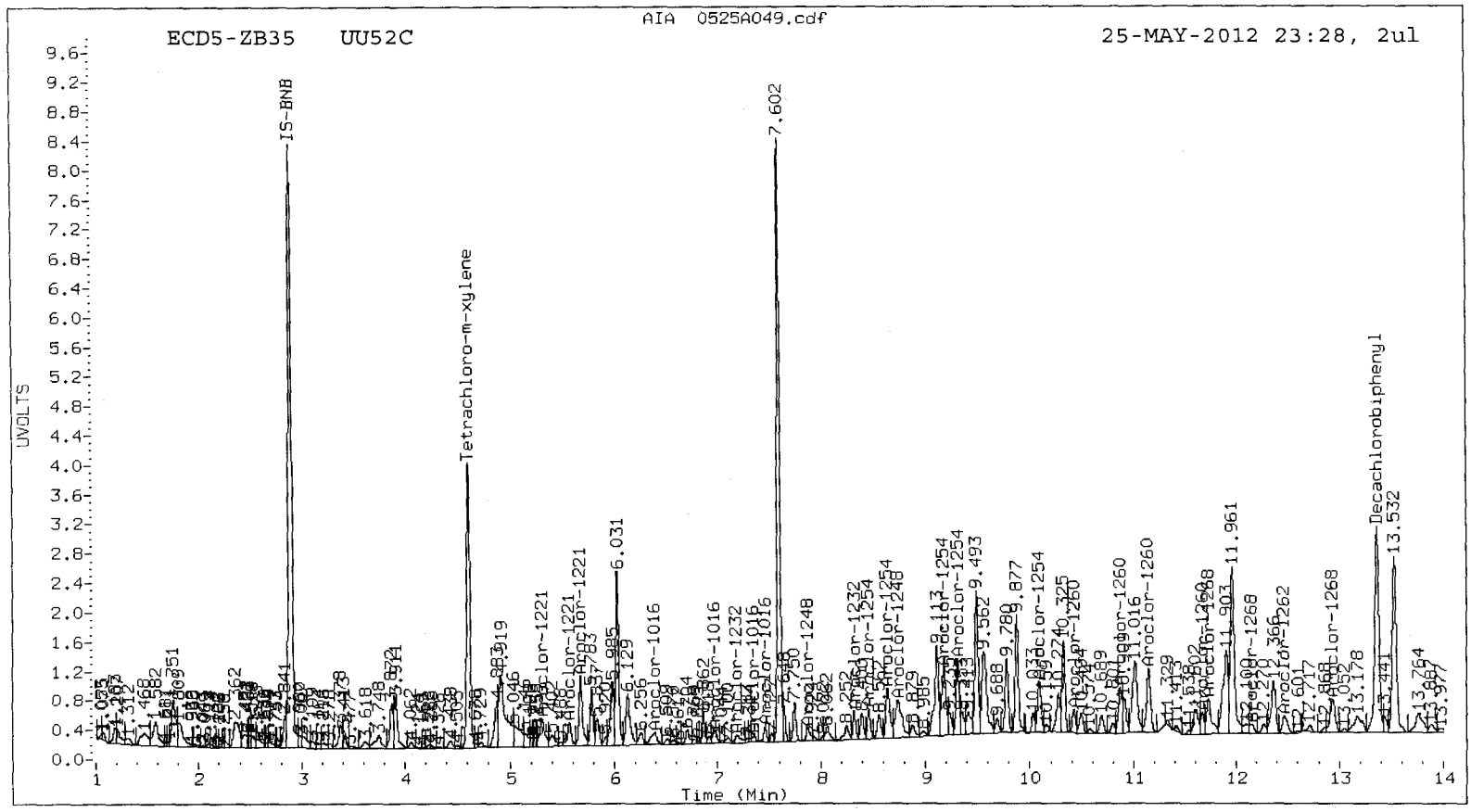
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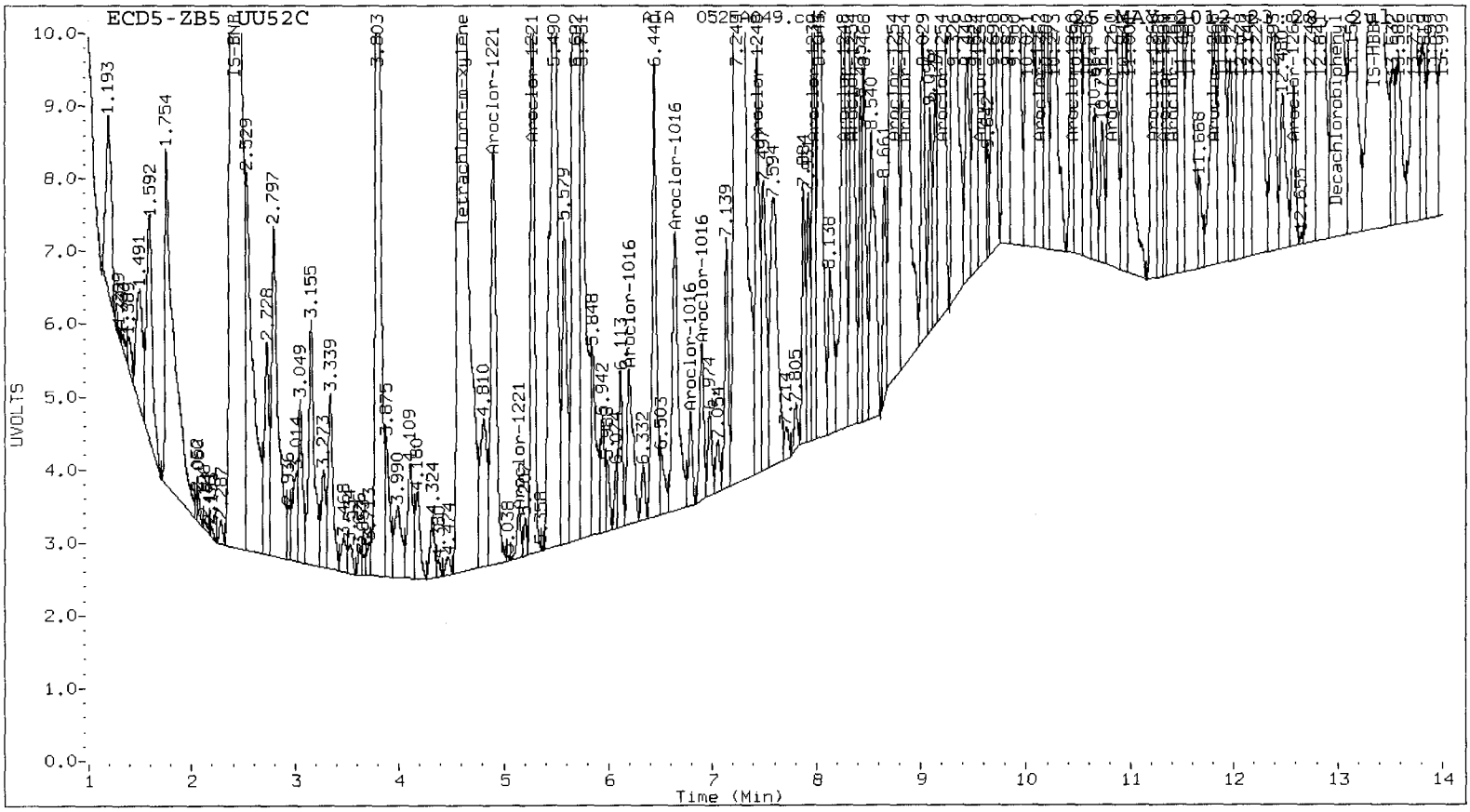
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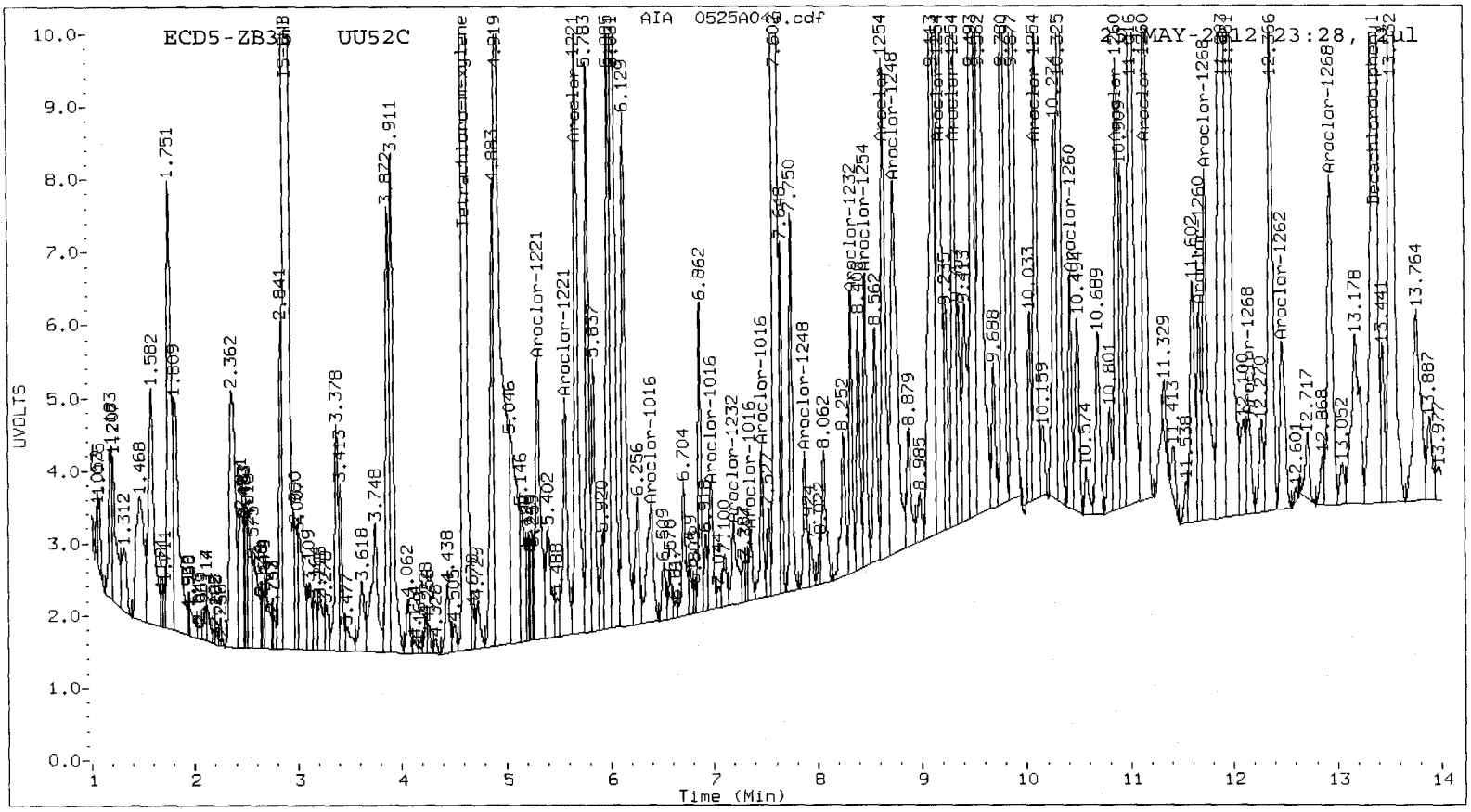
IS-HBB
IS-DNB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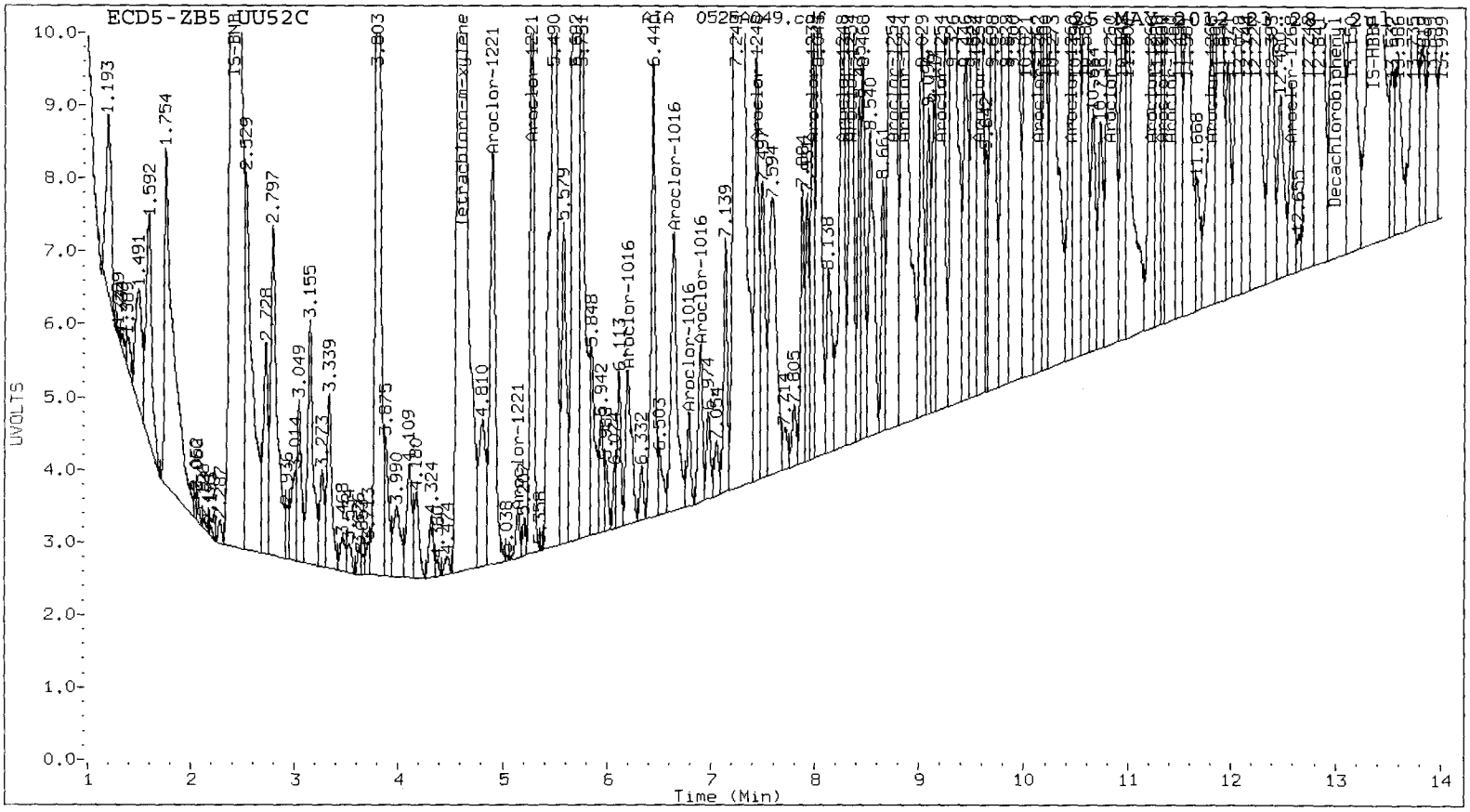
IS-DNB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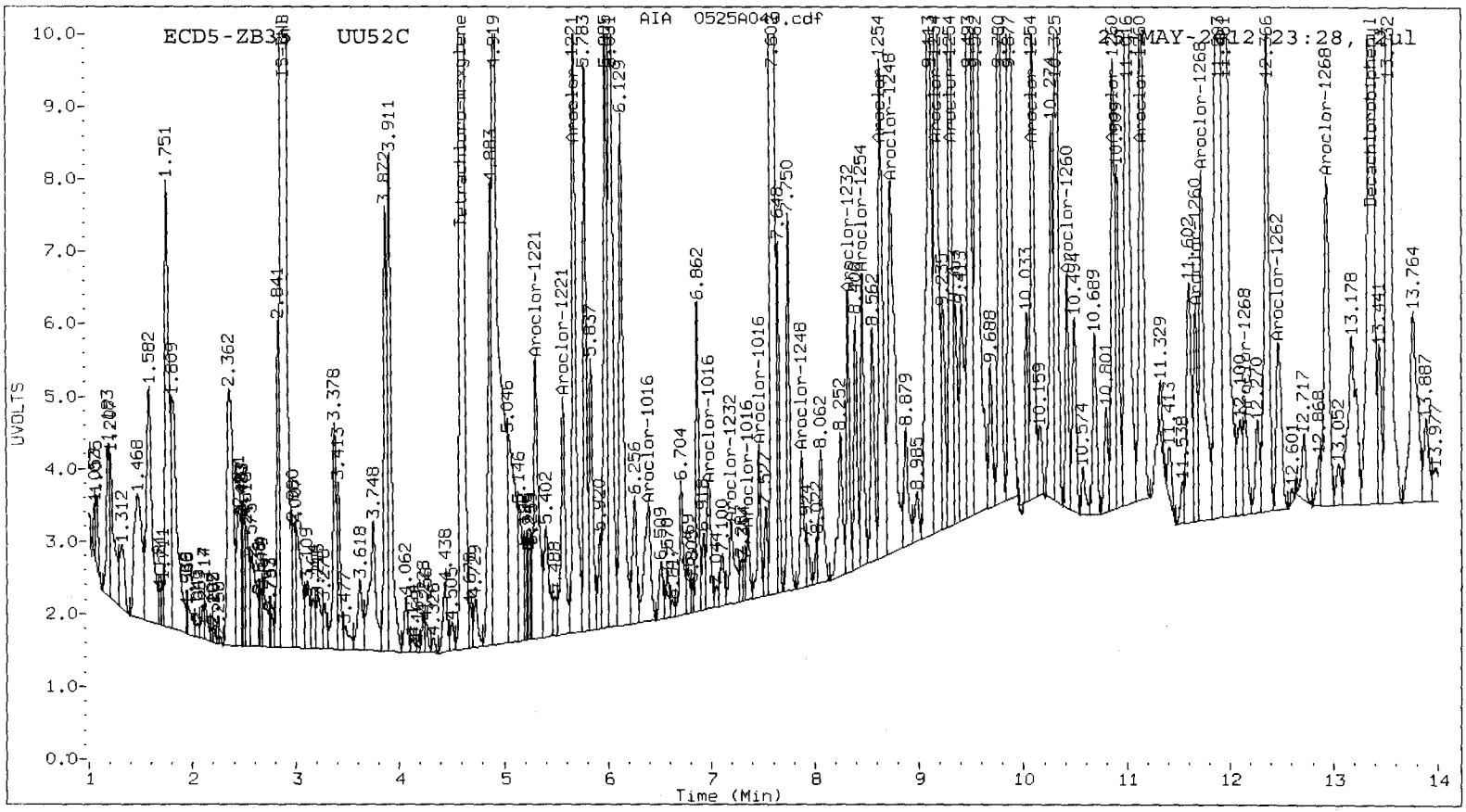
Decachlorobiphenyl
IS-DNB
IS-HBB
UVOLTS
Time (Min)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Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-DNB
IS-HBB
UVOLTS
Time (Min)

UU52 : 51 74 :

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A050.d
Data file 2: 20120523.b/0525-2.b/0525A050.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52D
Client ID:
Injection Date: 25-MAY-2012 23:47
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	82755903	4.613	0.002	43822075	32.6	30.2	7.5	Tetrachloro-m-xylene
12.991	0.000	180388132	13.368	0.002	38642306	56.8	38.9	37.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	81.4	75.6
Decachlorobiphenyl	142 1M	97.2

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	158091448	2.5
Hexabromobiphenyl	248602423	206785616	-16.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	103030460	-6.9
Hexabromobiphenyl	108855531	76927516	-29.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.239	-0.002	1521303	23.1	1	6.392	0.045	8768308	163.1	
Aroclor-1016	2	6.646	0.004	11397104	53.0	2	6.966	-0.008	2949597	24.2	
Aroclor-1016	3	6.787	-0.004	1495222	17.6	3	7.352	-0.004	2211040	70.2	
Aroclor-1016	4	6.903	0.003	2626304	39.3	4	7.462	-0.001	2496812	71.3	
	Total Col1Ave (4 peaks):				33.3		Total Col2Ave (4 peaks):			82.2	RPD = 85*
	Corrected Ave (3 peaks):				26.7		Corrected Ave (3 peaks):			55.2	RPD = 70*
Aroclor-1221	1	4.907	0.023	11483507	969.0	1	5.307	0.018	7217003	444.5	
Aroclor-1221	2	5.148	-0.005	851361	44.6	2	5.569	0.033	5519571	575.4	
Aroclor-1221	3	5.277	0.019	11422348	182.7	3	5.678	0.029	11784659	392.8	
Aroclor-1221	NS	---			----	4	---			0.0	
	Total Col1Ave (3 peaks):				398.8		Total Col2Ave (3 peaks):			470.9	RPD = 17
	Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.239	0.001	1521303	55.2	1	6.392	0.047	8768308	353.4	
Aroclor-1232	2	6.646	0.007	11397104	124.4	2	6.966	-0.006	2949597	56.8	
Aroclor-1232	3	6.787	-0.001	1495222	40.2	3	7.190	0.010	2633791	150.3	
Aroclor-1232	4	7.984	0.004	8179188	229.2	4	8.326	0.001	3384664	176.1	
	Total Col1Ave (4 peaks):				112.3		Total Col2Ave (4 peaks):			184.1	RPD = 48*
	Corrected Ave (3 peaks):				73.3		Corrected Ave (3 peaks):			127.7	RPD = 54*
Aroclor-1242	1	6.239	-0.003	1521303	30.6	1	6.392	0.045	8768308	208.6	
Aroclor-1242	2	6.646	0.004	11397104	68.7	2	6.966	-0.009	2949597	30.9	
Aroclor-1242	3	6.787	-0.004	1495222	22.6	3	7.190	0.007	2633791	67.9	
Aroclor-1242	4	7.984	0.001	8179188	132.6	4	8.326	-0.001	3384664	100.4	
	Total Col1Ave (4 peaks):				63.6		Total Col2Ave (4 peaks):			101.9	RPD = 46*
	Corrected Ave (3 peaks):				40.6		Corrected Ave (3 peaks):			66.4	RPD = 48*
Aroclor-1248	1	6.646	0.006	11397104	102.7	1	6.966	-0.005	2949597	47.7	
Aroclor-1248	2	7.442	0.003	18918908	225.6	2	7.876	0.001	2296290	46.3	
Aroclor-1248	3	7.984	0.000	8179188	76.1	3	8.326	-0.001	3384664	56.8	
Aroclor-1248	4	8.267	-0.007	10741404	99.1	4	8.739	-0.008	9525582	141.6	
	Total Col1Ave (4 peaks):				125.9		Total Col2Ave (4 peaks):			73.1	RPD = 53*
	Corrected Ave (3 peaks):				92.6		Corrected Ave (3 peaks):			50.3	RPD = 59*
Aroclor-1254	1	8.356	-0.001	10049933	69.3	1	8.465	-0.001	2707250	61.8	
Aroclor-1254	2	8.748	0.020	32575299	348.7	2	8.640	0.002	6749004	117.4	
Aroclor-1254	3	8.862	-0.001	44834156	248.6	3	9.180	0.021	10940088	249.0	
Aroclor-1254	4	9.212	0.000	23592748	121.5	4	9.310	0.000	8571878	88.2	
Aroclor-1254	5	9.578	0.004	16125812	133.5	5	10.090	-0.002	6629841	116.4	
	Total Col1Ave (5 peaks):				184.3		Total Col2Ave (5 peaks):			126.6	RPD = 37
	Corrected Ave (4 peaks):				143.2		Corrected Ave (4 peaks):			96.0	RPD = 40
Aroclor-1260	1	10.492	0.045	21533367	191.9	1	10.423	0.001	2431367	55.1	
Aroclor-1260	2	10.822	0.001	20254376	72.8	2	10.873	0.002	4104410	74.9	
Aroclor-1260	3	11.276	0.056	16372626	105.8	3	11.146	0.001	7104449	63.9	
Aroclor-1260	4	11.339	0.002	4074460	61.3	4	11.684	0.018	2642078	81.4	
Aroclor-1260	5	11.410	-0.001	60365123	761.0	NS	---			----	
	Total Col1Ave (5 peaks):				238.6		Total Col2Ave (4 peaks):			68.8	RPD = 110*
	Corrected Ave (4 peaks):				108.0		Corrected Ave (3 peaks):			64.6	RPD = 50*
Aroclor-1262	1	10.132	0.004	7996065	48.5	1	10.423	0.004	2431367	33.7	
Aroclor-1262	2	10.492	0.048	21533367	171.0	2	10.873	0.003	4104410	66.0	
Aroclor-1262	3	10.822	0.004	20254376	58.9	3	11.146	0.004	7104449	50.3	
Aroclor-1262	4	11.339	0.005	4074460	32.4	4	11.684	0.020	2642078	46.5	
Aroclor-1262	5	11.410	0.002	60365123	422.1	5	12.473	0.010	2991500	56.6	
	Total Col1Ave (5 peaks):				146.6		Total Col2Ave (5 peaks):			50.6	RPD = 97*
	Corrected Ave (4 peaks):				77.7		Corrected Ave (4 peaks):			46.8	RPD = 50*
Aroclor-1268	1	11.339	0.003	4074460	11.6	1	11.684	0.020	2642078	18.0	
Aroclor-1268	2	11.410	0.003	60365123	170.5	2	11.740	0.010	5532573	40.0	

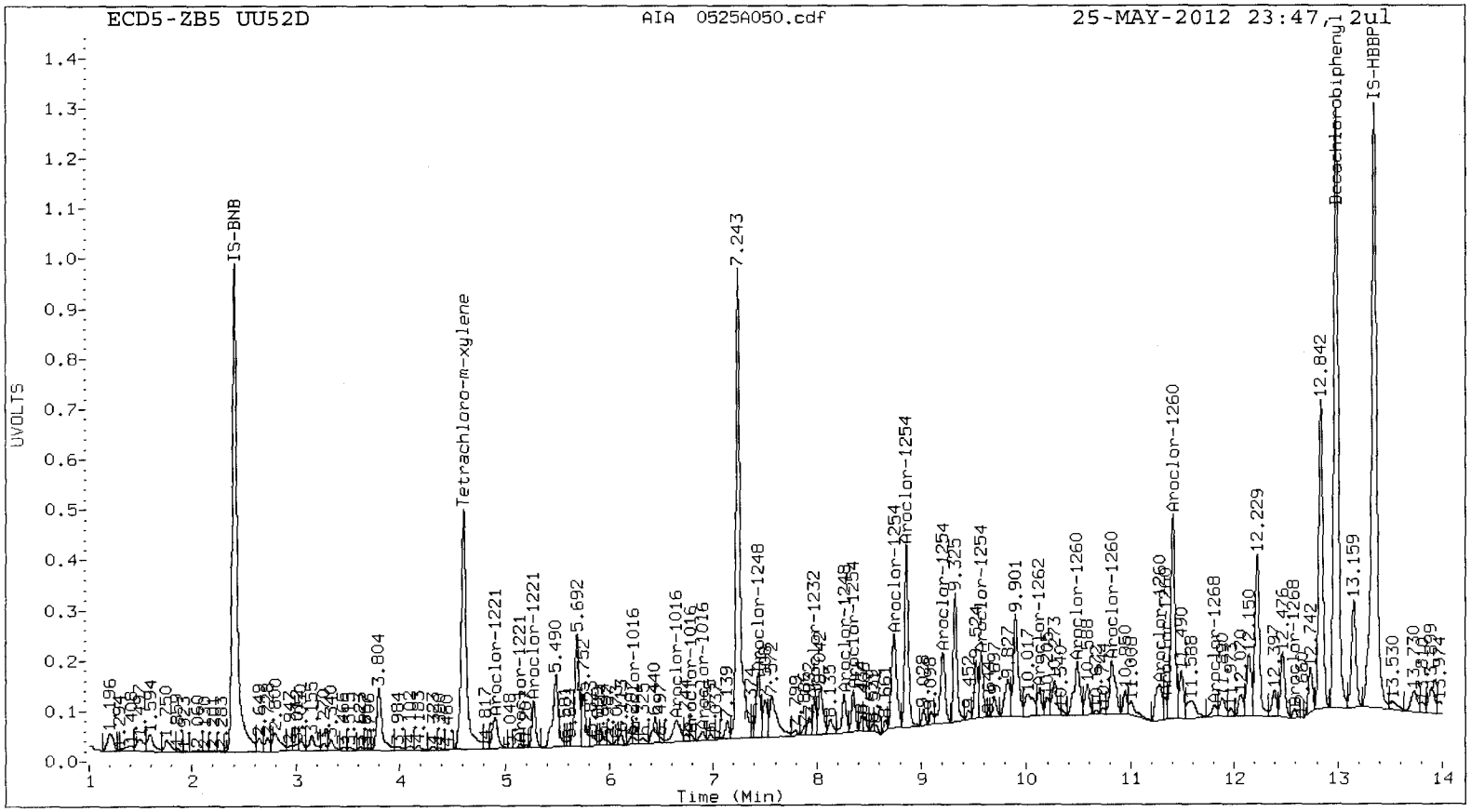
Aroclor-1268 3	11.812	0.019	3828199	13.0	3	12.150	0.022	1389421	12.0
Aroclor-1268 4	12.588	0.003	2125314	2.4	4	12.936	-0.013	6018508	18.3
Total Col1Ave (4 peaks):				49.4	Total Col2Ave (4 peaks):			22.1	RPD = 76*
Corrected Ave (3 peaks):				9.0	Corrected Ave (3 peaks):			16.1	RPD = 57*

Total PCB Area Col1 (4.710 - 12.891) = 1053635871 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 549147918 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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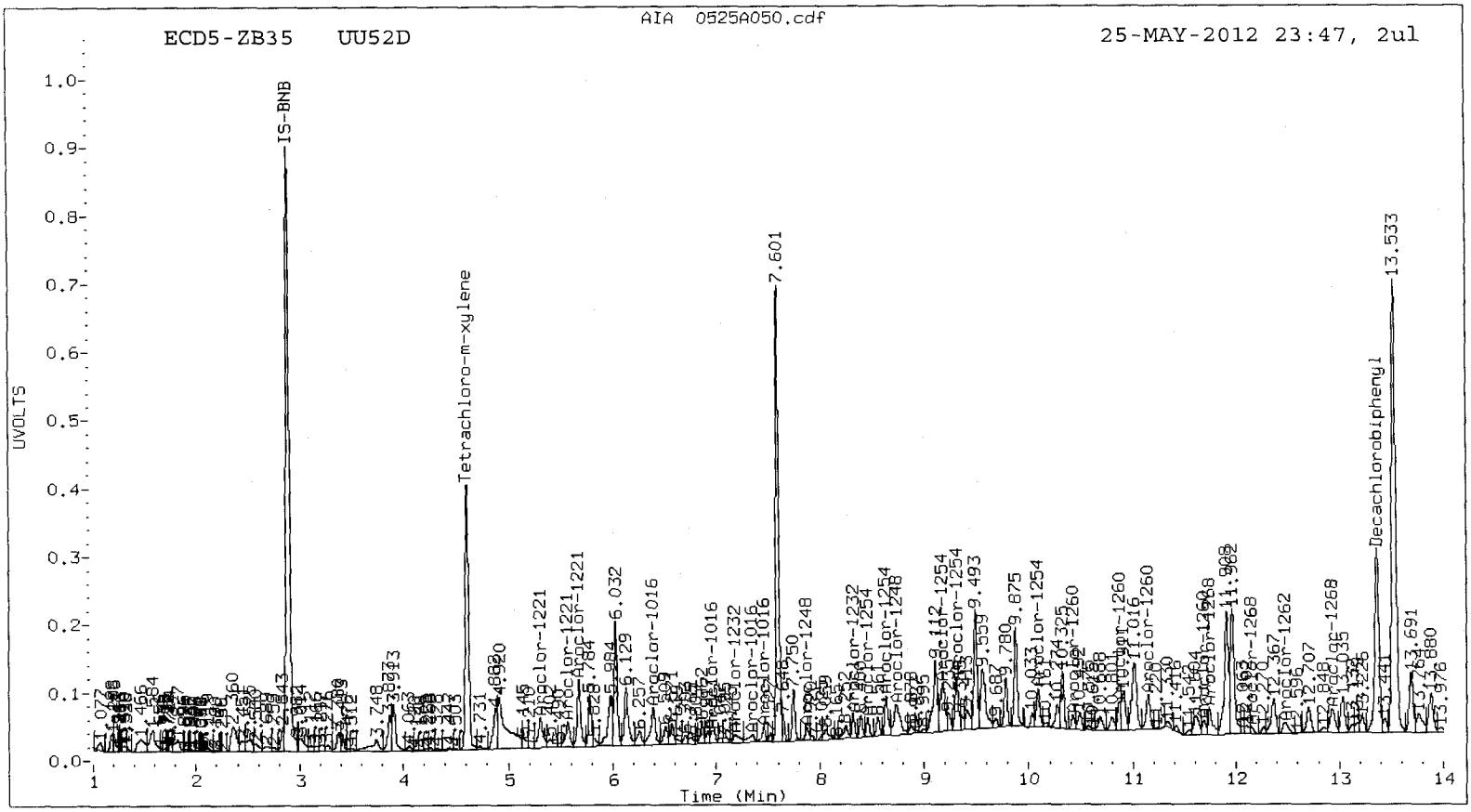
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
7.243
Decachlorobiphenyl
IS-HBBP
12.842
13.159
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
12.229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Time (Min)
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Decachlorobiphenyl
13.533
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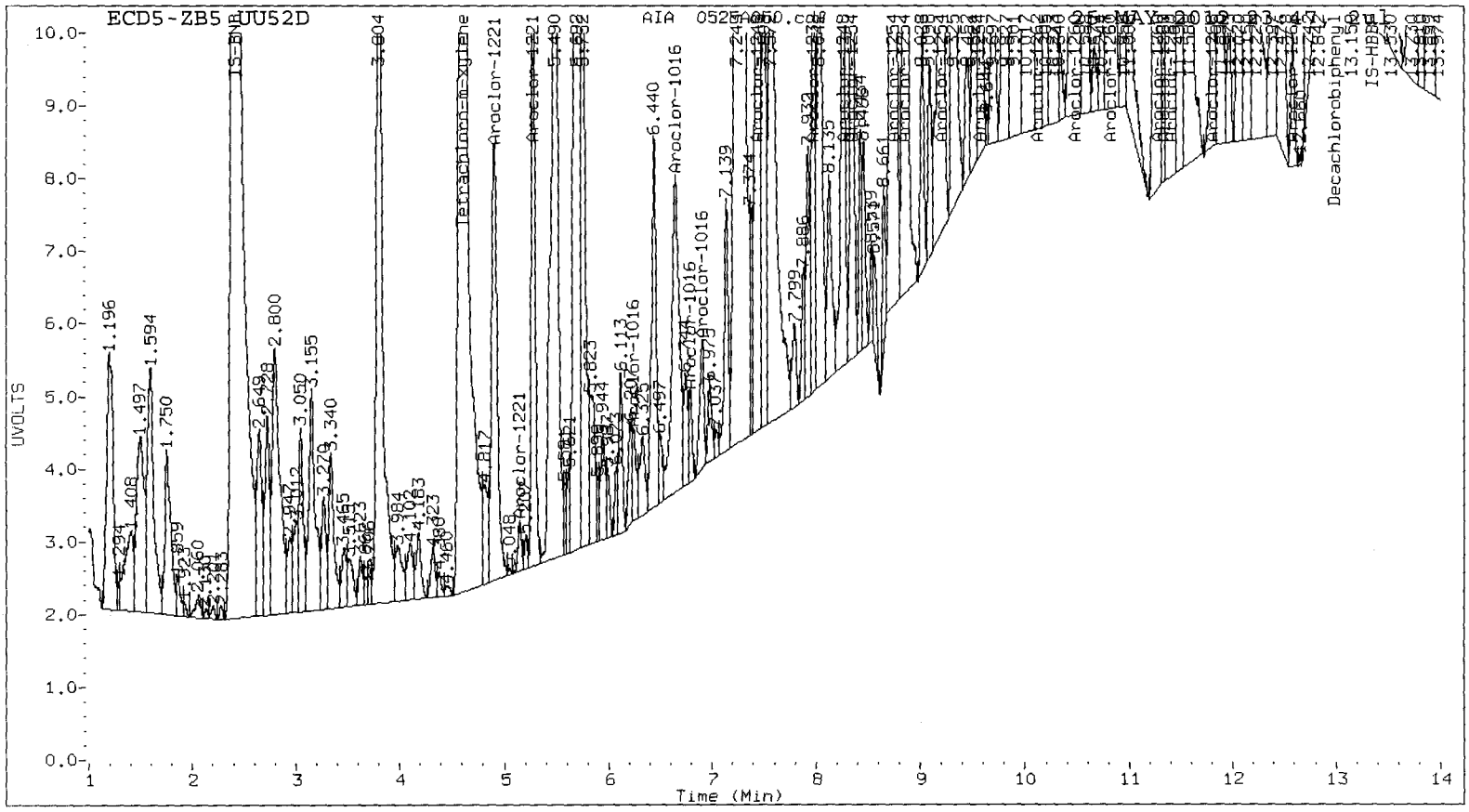
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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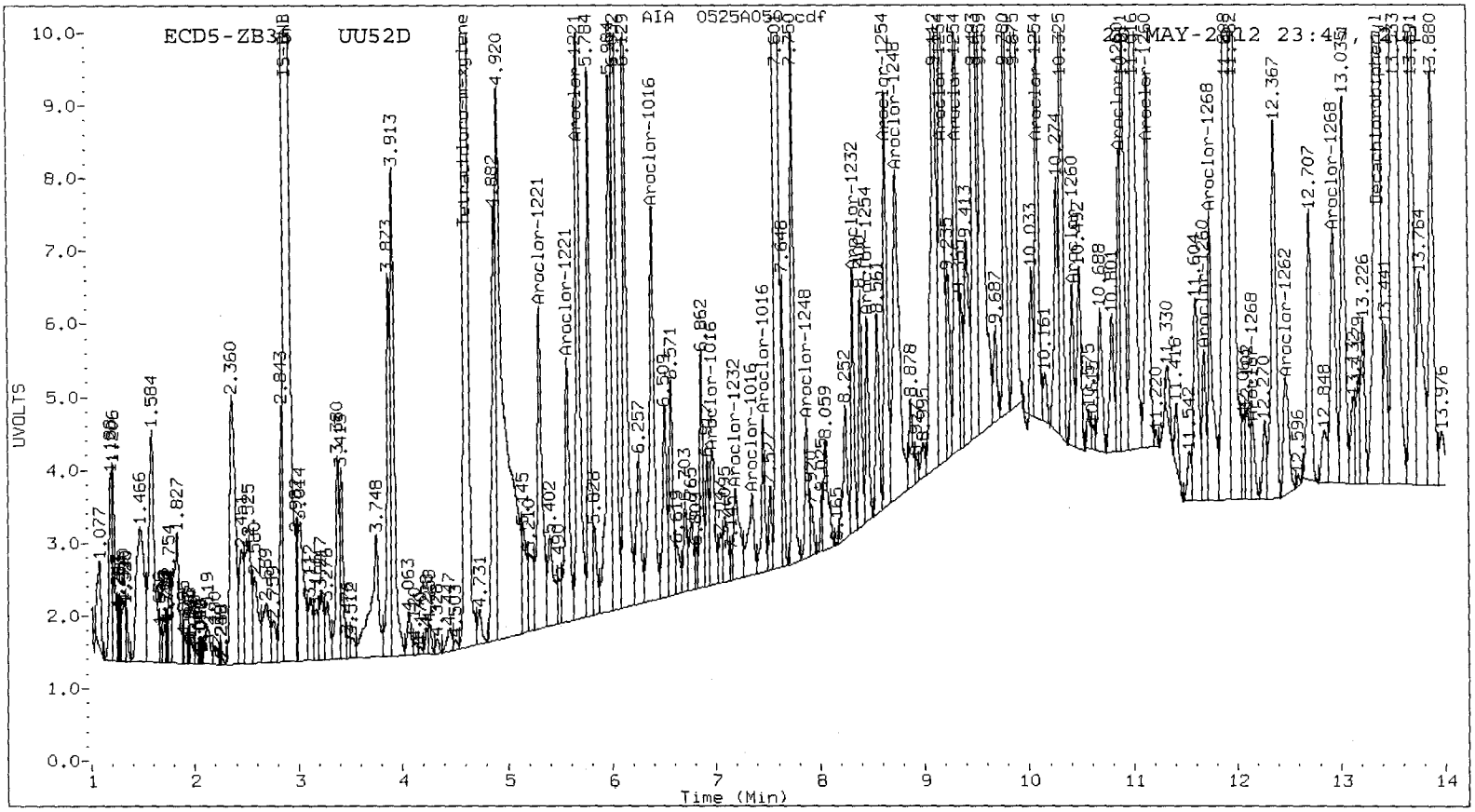
Aroclor-1221
Aroclor-1016
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB
UVOLTS
Time (Min)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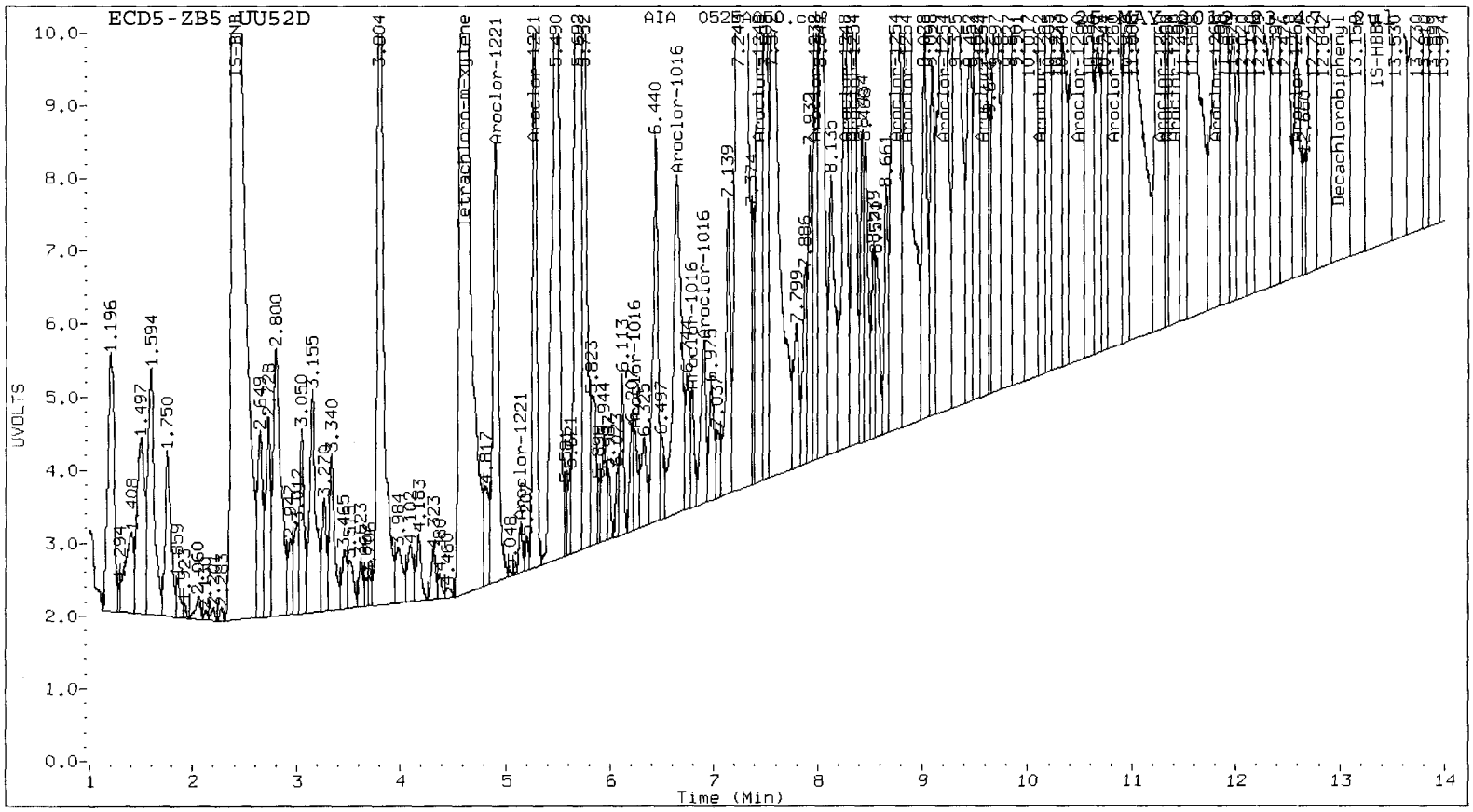
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl
UVOLTS
Time (Min)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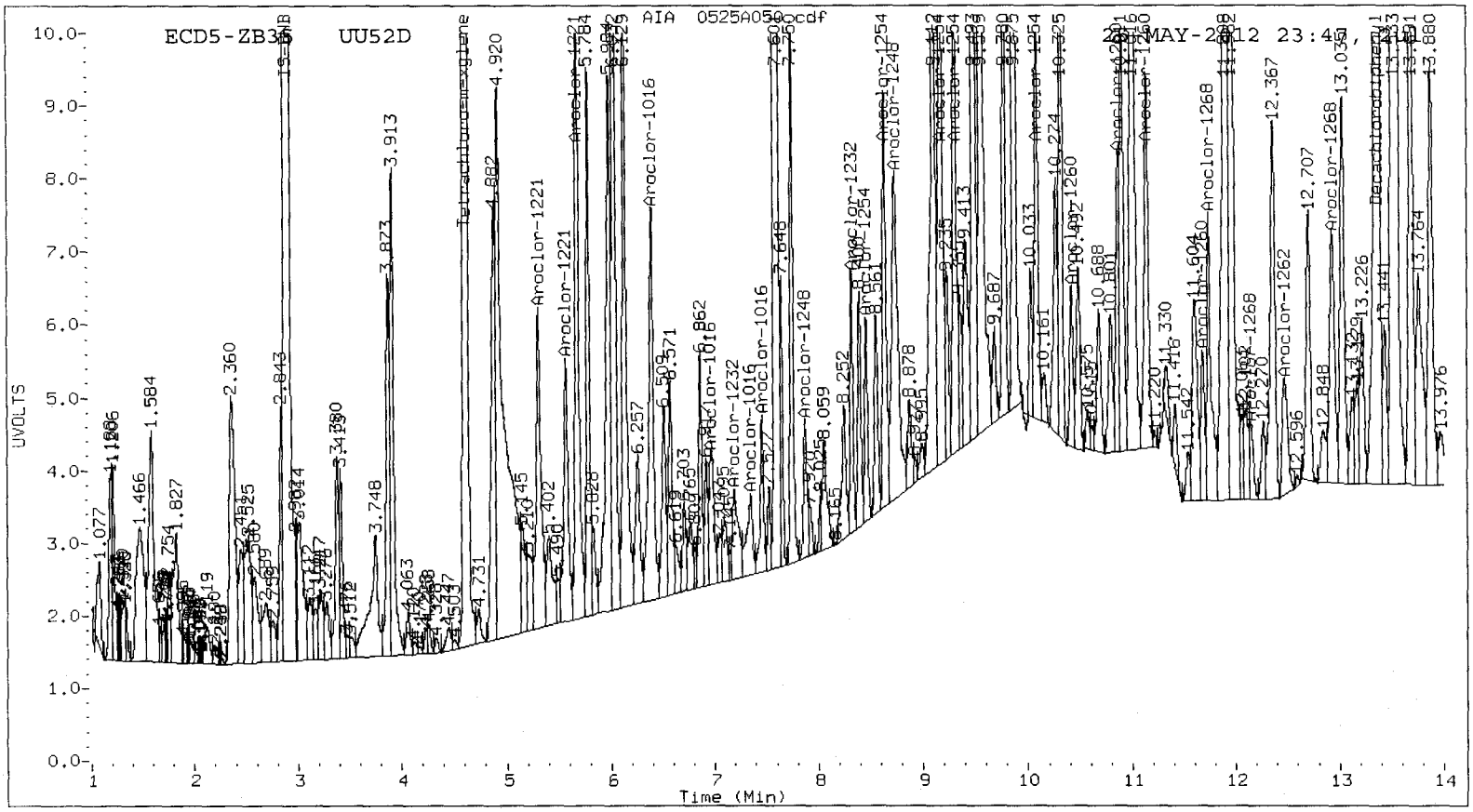
25-MAY-2012 23:45
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB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25-MAY-2012 23:45
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A051.d
Data file 2: 20120523.b/0525-2.b/0525A051.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52E
Client ID:
Injection Date: 26-MAY-2012 00:06
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	79674646	4.613	0.002	40369182	31.9	32.2	1.0	Tetrachloro-m-xylene
12.993	0.002	90893888	13.366	0.000	33628196	31.7	35.6	11.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	79.7	80.5
Decachlorobiphenyl	79.4	89.1

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	155584352	0.9
Hexabromobiphenyl	248602423	186599931	-24.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	89134654	-19.4
Hexabromobiphenyl	108855531	73010686	-32.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.208	-0.033	2997305	46.2	1	6.390	0.043	3650008	78.5
Aroclor-1016	2	6.642	0.000	7523325	35.6	2	6.973	-0.001	2033032	19.3
Aroclor-1016	3	6.790	0.000	1455691	17.4	3	7.353	-0.003	1288102	47.3
Aroclor-1016	4	6.902	0.001	3118772	47.4	4	7.462	-0.001	1563629	51.6
Total Col1Ave (4 peaks):		36.7				Total Col2Ave (4 peaks):			49.2	RPD = 29
Corrected Ave (3 peaks):		33.1				Corrected Ave (3 peaks):			39.4	RPD = 17
Aroclor-1221	1	4.903	0.019	9438254	809.3	1	5.308	0.018	6059354	431.4
Aroclor-1221	2	5.145	-0.008	875209	46.6	2	5.568	0.032	4746234	571.9
Aroclor-1221	3	5.277	0.019	10044280	163.3	3	5.624	-0.025	66171	2.5
Aroclor-1221	NS	---			----	4	5.679	-0.038	10713453	2253.0
Total Col1Ave (3 peaks):		339.7				Total Col2Ave (4 peaks):			814.7	RPD = 82*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			335.3	
Aroclor-1232	1	6.208	-0.030	2997305	110.6	1	6.390	0.045	3650008	170.0
Aroclor-1232	2	6.642	0.003	7523325	83.4	2	6.973	0.002	2033032	45.2
Aroclor-1232	3	6.790	0.003	1455691	39.8	3	7.187	0.008	1263219	83.3
Aroclor-1232	4	7.982	0.002	6517756	185.6	4	8.326	0.001	2709920	163.0
Total Col1Ave (4 peaks):		104.9				Total Col2Ave (4 peaks):			115.4	RPD = 10
Corrected Ave (3 peaks):		77.9				Corrected Ave (3 peaks):			97.2	RPD = 22
Aroclor-1242	1	6.208	-0.034	2997305	61.2	1	6.390	0.042	3650008	100.4
Aroclor-1242	2	6.642	0.000	7523325	46.1	2	6.973	-0.001	2033032	24.6
Aroclor-1242	3	6.790	0.000	1455691	22.3	3	7.187	0.005	1263219	37.6
Aroclor-1242	4	7.982	-0.001	6517756	107.4	4	8.326	0.000	2709920	92.9
Total Col1Ave (4 peaks):		59.3				Total Col2Ave (4 peaks):			63.9	RPD = 8
Corrected Ave (3 peaks):		43.2				Corrected Ave (3 peaks):			51.7	RPD = 18
Aroclor-1248	1	6.642	0.003	7523325	68.9	1	6.973	0.002	2033032	38.0
Aroclor-1248	2	7.440	0.002	8628237	104.6	2	7.877	0.002	1772161	41.3
Aroclor-1248	3	7.982	-0.001	6517756	61.7	3	8.326	0.000	2709920	52.6
Aroclor-1248	4	8.261	-0.013	12605386	118.2	4	8.738	-0.009	7770144	133.5
Total Col1Ave (4 peaks):		88.3				Total Col2Ave (4 peaks):			66.3	RPD = 28
Corrected Ave (3 peaks):		78.4				Corrected Ave (3 peaks):			44.0	RPD = 56*
Aroclor-1254	1	8.356	0.000	8762168	61.4	1	8.465	-0.001	2581667	66.0
Aroclor-1254	2	8.746	0.018	31351798	341.1	2	8.641	0.002	4866847	97.8
Aroclor-1254	3	8.862	-0.001	45417356	255.9	3	9.183	0.023	16572919	436.0
Aroclor-1254	4	9.215	0.003	19612434	102.6	4	9.309	0.000	7078480	84.2
Aroclor-1254	5	9.575	0.002	16362025	137.6	5	10.090	-0.003	5082712	103.1
Total Col1Ave (5 peaks):		179.7				Total Col2Ave (5 peaks):			157.4	RPD = 13
Corrected Ave (4 peaks):		139.4				Corrected Ave (4 peaks):			87.8	RPD = 45*
Aroclor-1260	1	10.488	0.042	24964803	246.6	1	10.423	0.001	1690327	40.4
Aroclor-1260	2	10.823	0.002	18536124	73.8	2	10.909	0.037	11230125	216.0
Aroclor-1260	3	11.276	0.055	26473683	189.6	3	11.145	0.000	6995029	66.3
Aroclor-1260	4	---			0.0	4	11.668	0.002	1906642	61.9
Aroclor-1260	5	11.406	-0.005	55858216	780.3	NS	---			----
Total Col1Ave (4 peaks):		322.6				Total Col2Ave (4 peaks):			96.1	RPD = 108*
Corrected Ave (3 peaks):		170.0				Corrected Ave (3 peaks):			56.3	RPD = 101*
Aroclor-1262	1	10.130	0.002	6703854	45.1	1	10.423	0.004	1690327	24.7
Aroclor-1262	2	10.488	0.044	24964803	219.7	2	10.909	0.039	11230125	190.4
Aroclor-1262	3	10.823	0.004	18536124	59.7	3	11.145	0.002	6995029	52.2
Aroclor-1262	4	11.276	-0.058	26473683	233.3	4	11.668	0.004	1906642	35.4
Aroclor-1262	5	11.406	-0.002	55858216	432.8	5	12.469	0.007	2357906	47.0
Total Col1Ave (5 peaks):		198.1				Total Col2Ave (5 peaks):			69.9	RPD = 96*
Corrected Ave (4 peaks):		139.4				Corrected Ave (4 peaks):			39.8	RPD = 111*
Aroclor-1268	1	11.276	-0.060	26473683	83.3	1	11.668	0.004	1906642	13.7
Aroclor-1268	2	11.406	-0.001	55858216	174.9	2	11.726	-0.005	3571249	27.2

Aroclor-1268	3	11.810	0.017	2630674	9.9	3	12.159	0.031	3500372	31.7
Aroclor-1268	4	12.586	0.001	2935267	3.7	4	12.938	-0.012	4549955	14.6

Total Col1Ave (4 peaks): 67.9 Total Col2Ave (4 peaks): 21.8 RPD = 103*

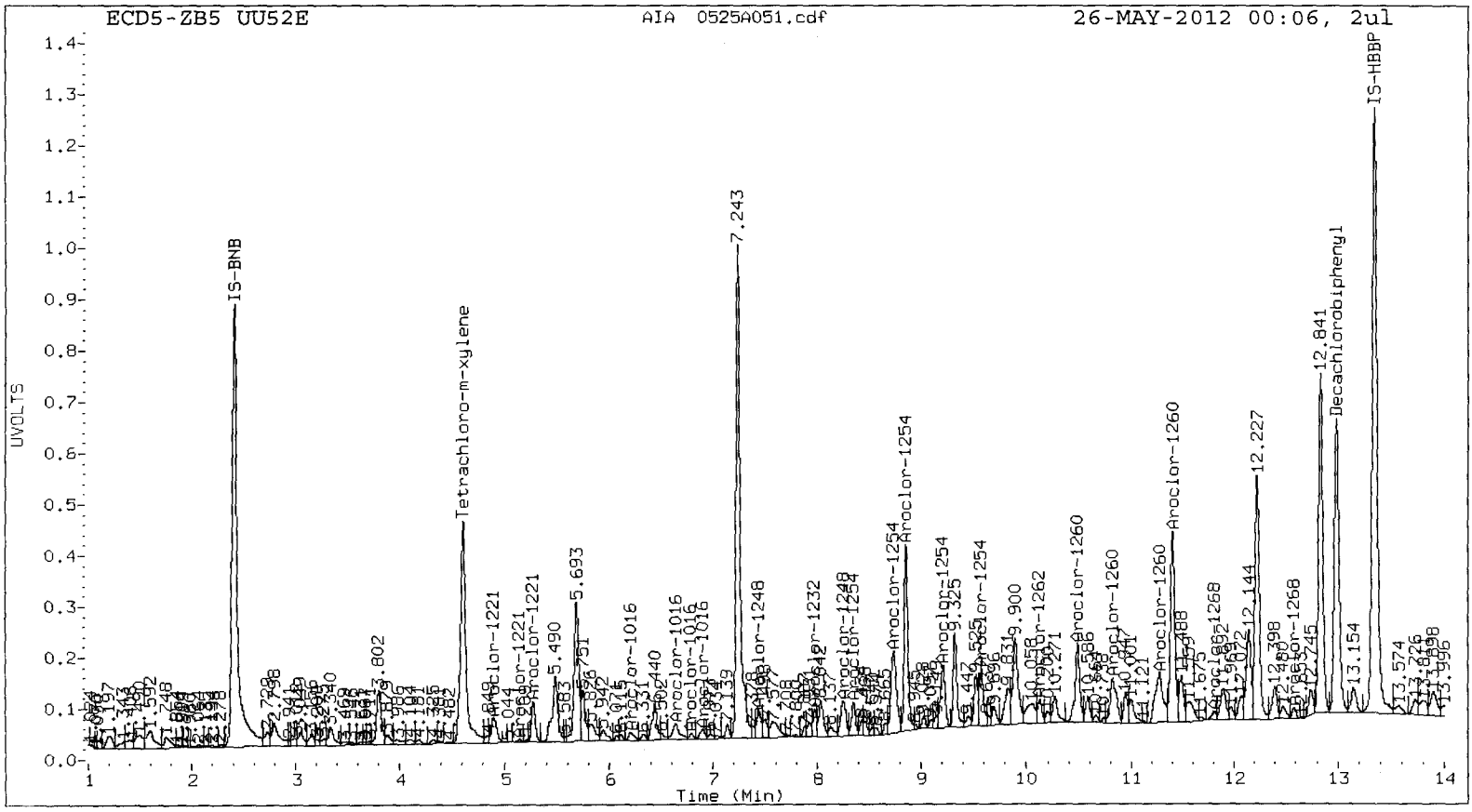
Corrected Ave (3 peaks): 32.3 Corrected Ave (3 peaks): 18.5 RPD = 54*

Total PCB Area Col1 (4.710 - 12.891) = 1038016811 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 535183858 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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26-MAY-2012 00:06, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
7.243
IS-HBBP
Decachlorobiphenyl
12.841
13.154
5.693
5.490
12.227
Aroclor-1254
Aroclor-1260
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1262
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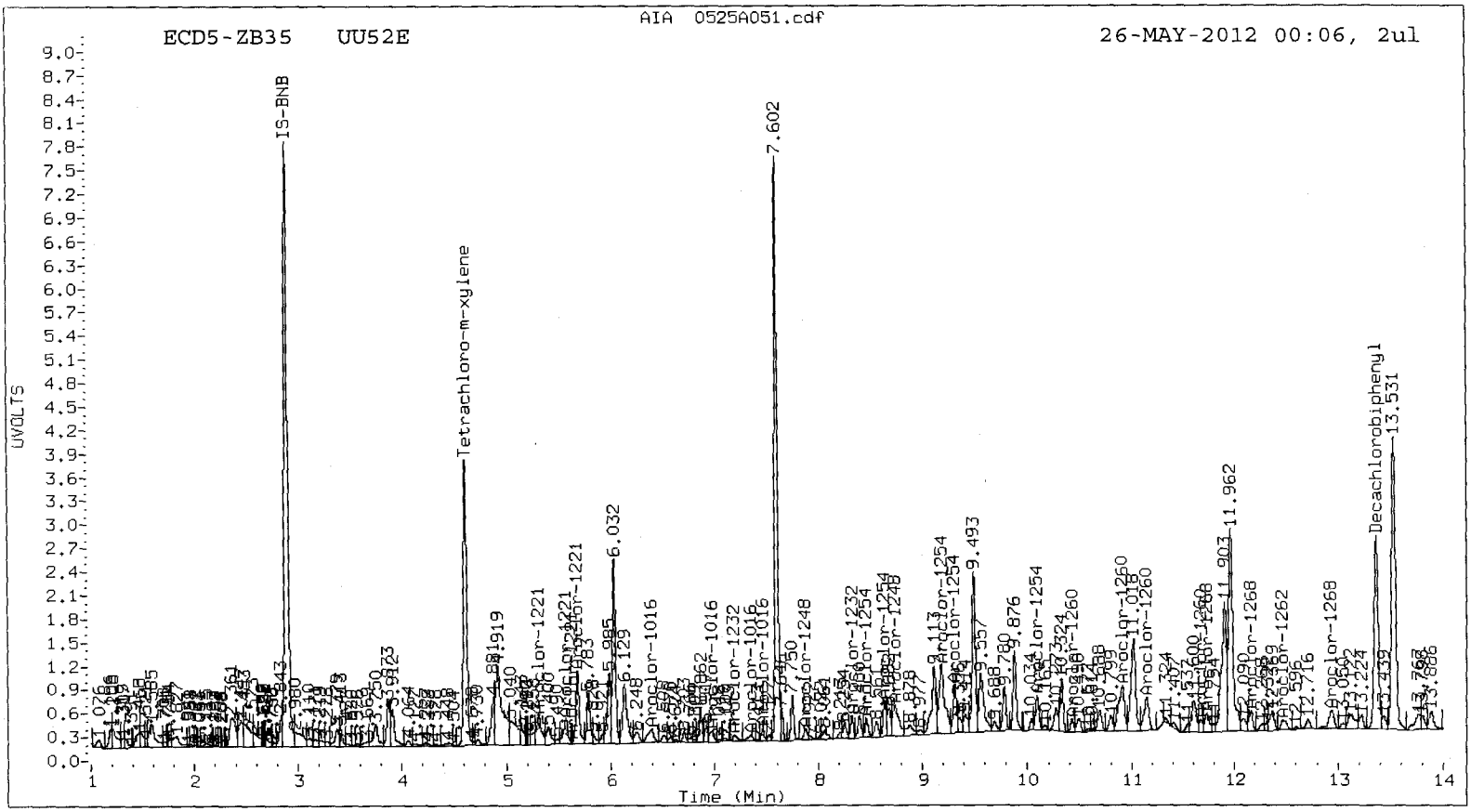
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26-MAY-2012 00:06, 2ul
UVOLTS
Time (Min)
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Tetrachloro-m-xylene
7.602
Decachlorobiphenyl
13.531
6.032
9.493
11.962
Aroclor-1254
Aroclor-1260
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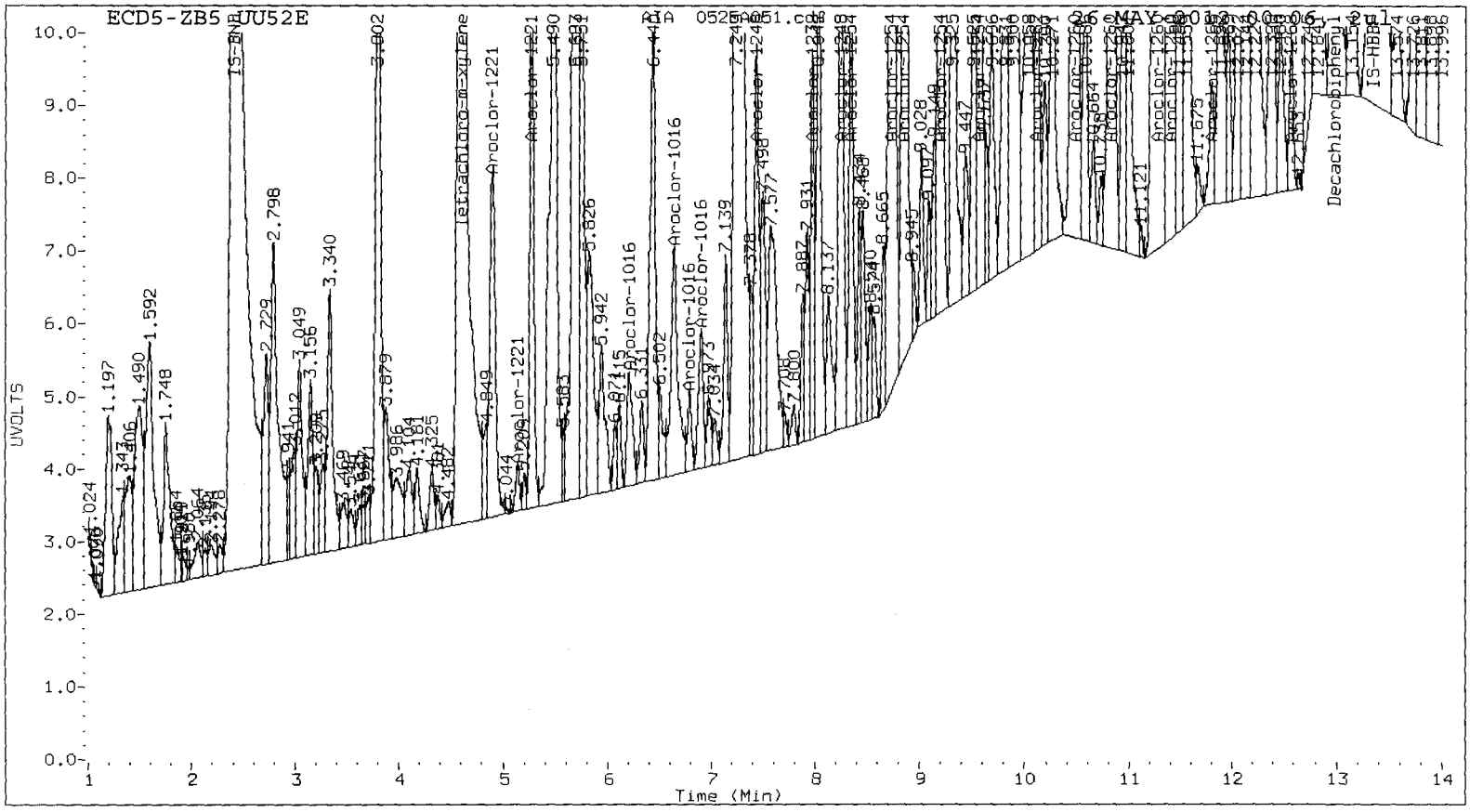
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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
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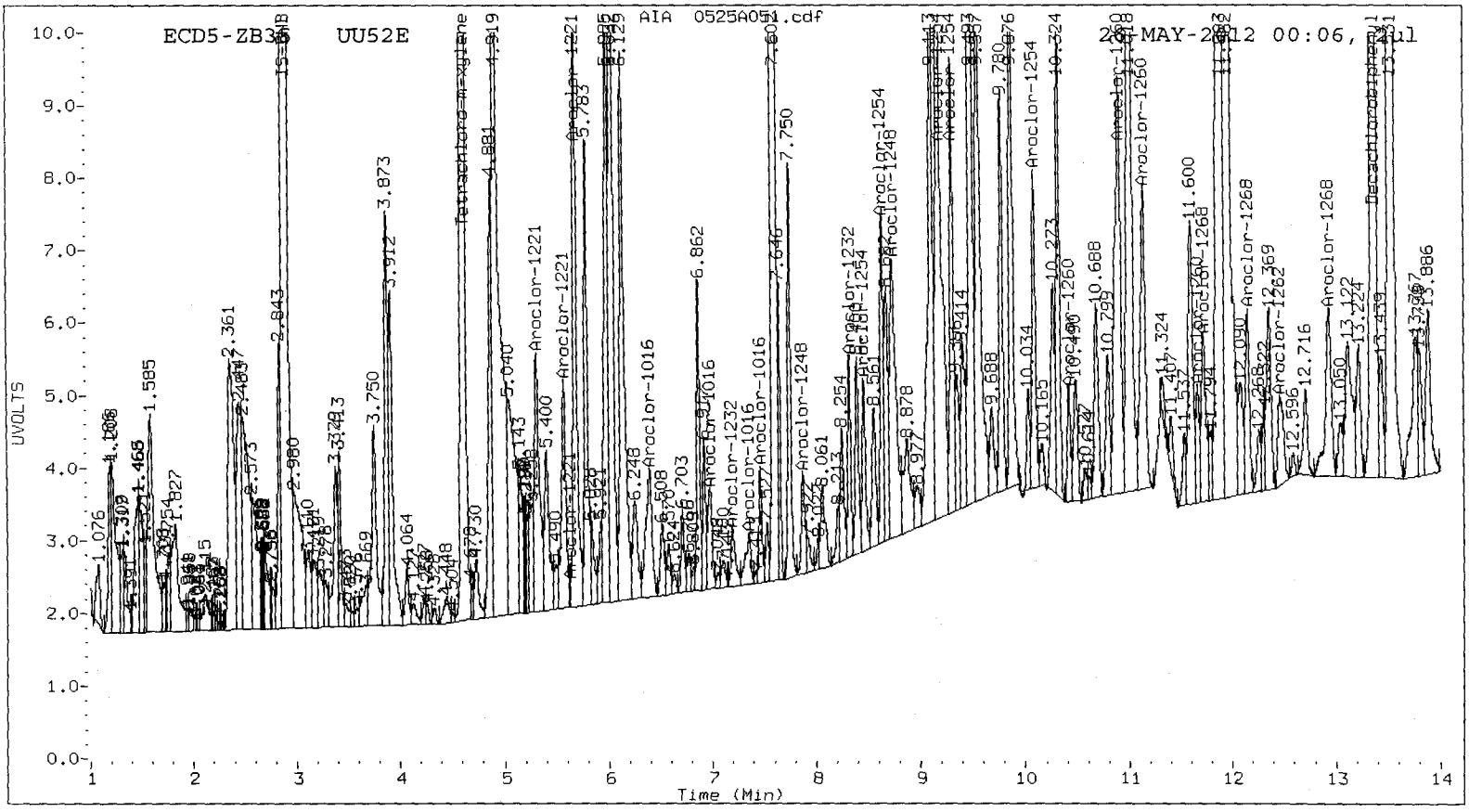
Aroclor-1016
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB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UVOLTS
Time (Min)
Tetrachloro-m-xylene
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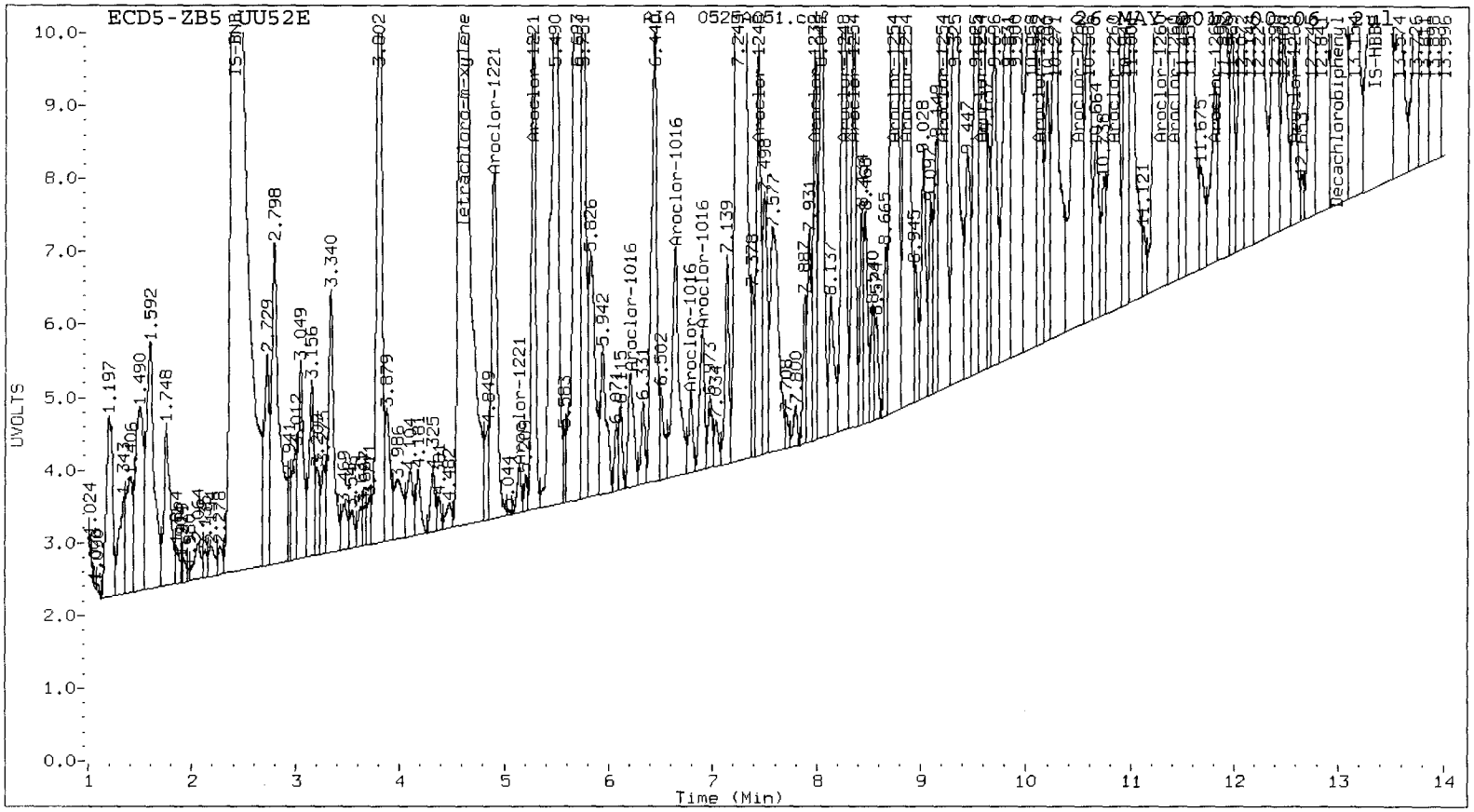
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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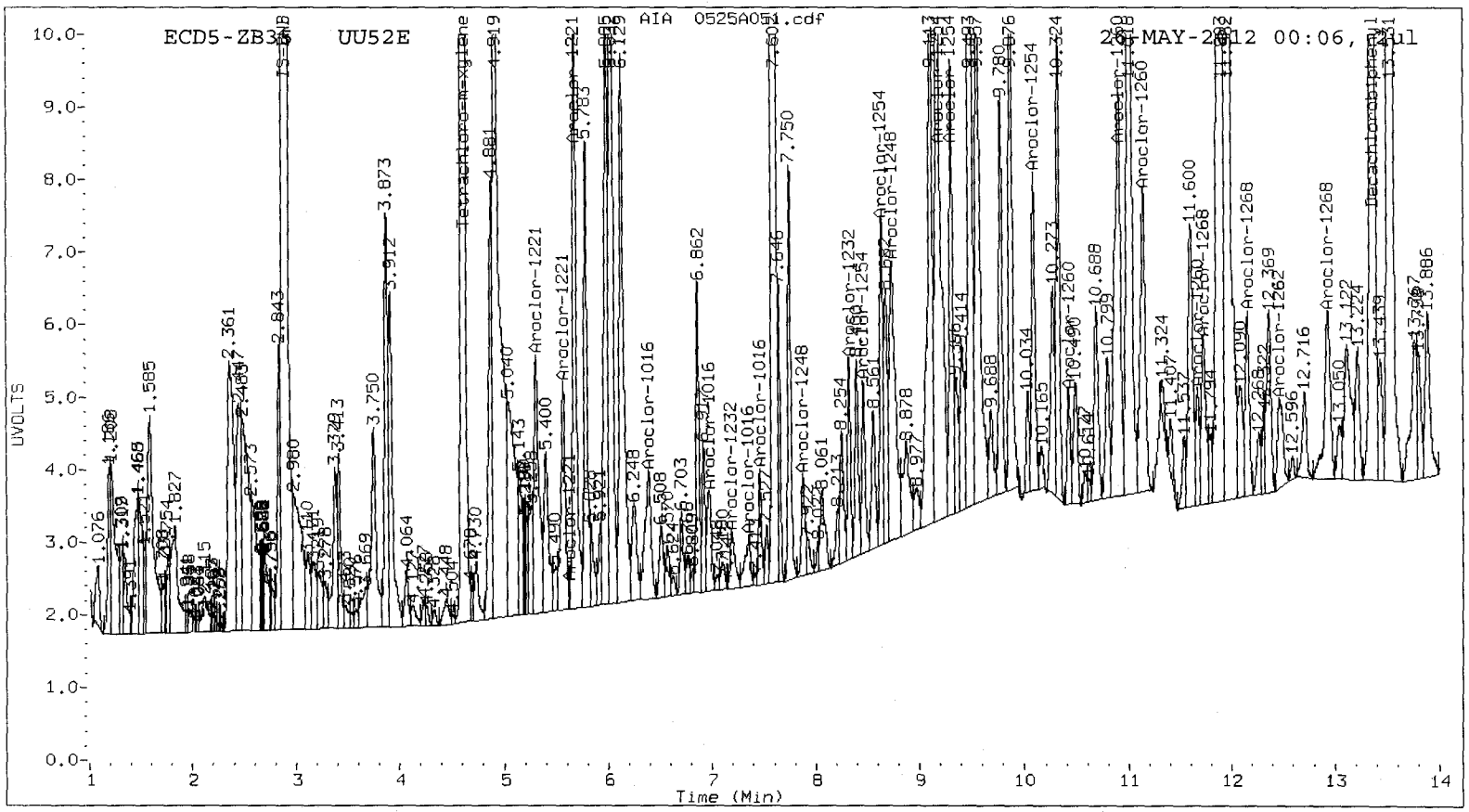
AIA 0525A051.cdf
26-MAY-2012 00:06, Aul
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB
UVOLTS
Time (Min)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IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A052.d
Data file 2: 20120523.b/0525-2.b/0525A052.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52F
Client ID:
Injection Date: 26-MAY-2012 00:25
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	68059051	4.612	0.001	37772511	24.5	26.8	9.0	Tetrachloro-m-xylene
12.993	0.002	97515288	13.366	0.001	34379402	33.9	34.8	2.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	61.2	67.0
Decachlorobiphenyl	84.6	87.0

JM 05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	172898823	12.1
Hexabromobiphenyl	248602423	187722287	-24.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	100165112	-9.4
Hexabromobiphenyl	108855531	76493069	-29.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.209	-0.033	2651168	36.8	1	6.359	0.012	1595842	30.5
Aroclor-1016	2	6.642	0.000	6119289	26.0	2	6.975	0.002	2341539	19.7
Aroclor-1016	3	6.790	0.000	1235717	13.3	3	7.355	-0.001	605046	19.8
Aroclor-1016	4	6.899	-0.002	2676942	36.6	4	7.462	-0.001	1609607	47.3
	Total Col1Ave (4 peaks):				28.2		Total Col2Ave (4 peaks):			29.3 RPD = 4
	Corrected Ave (3 peaks):				25.3		Corrected Ave (3 peaks):			23.3 RPD = 8
Aroclor-1221	1	4.897	0.013	8921879	688.4	1	5.307	0.018	4939928	312.9
Aroclor-1221	2	5.147	-0.006	995050	47.7	2	5.568	0.032	8992888	964.3
Aroclor-1221	3	5.277	0.018	7319798	107.1	3	5.678	0.029	6634913	227.5
Aroclor-1221	NS	---			----	4	5.730	0.013	733500	137.3
	Total Col1Ave (3 peaks):				281.0		Total Col2Ave (4 peaks):			410.5 RPD = 37
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			225.9
Aroclor-1232	1	6.209	-0.030	2651168	88.0	1	6.359	0.014	1595842	66.2
Aroclor-1232	2	6.642	0.003	6119289	61.1	2	6.975	0.004	2341539	46.4
Aroclor-1232	3	6.790	0.003	1235717	30.4	3	7.188	0.008	1338697	78.6
Aroclor-1232	4	7.983	0.003	6069771	155.5	4	8.327	0.001	2671013	142.9
	Total Col1Ave (4 peaks):				83.8		Total Col2Ave (4 peaks):			83.5 RPD = 0
	Corrected Ave (3 peaks):				59.8		Corrected Ave (3 peaks):			63.7 RPD = 6
Aroclor-1242	1	6.209	-0.034	2651168	48.7	1	6.359	0.012	1595842	39.0
Aroclor-1242	2	6.642	0.000	6119289	33.7	2	6.975	0.001	2341539	25.2
Aroclor-1242	3	6.790	0.000	1235717	17.1	3	7.188	0.005	1338697	35.5
Aroclor-1242	4	7.983	0.000	6069771	90.0	4	8.327	0.000	2671013	81.5
	Total Col1Ave (4 peaks):				47.4		Total Col2Ave (4 peaks):			45.3 RPD = 4
	Corrected Ave (3 peaks):				33.2		Corrected Ave (3 peaks):			33.3 RPD = 0
Aroclor-1248	1	6.642	0.002	6119289	50.4	1	6.975	0.004	2341539	38.9
Aroclor-1248	2	7.439	0.000	4440634	48.4	2	7.878	0.003	4264686	88.5
Aroclor-1248	3	7.983	0.000	6069771	51.7	3	8.327	0.000	2671013	46.1
Aroclor-1248	4	8.268	-0.006	9088121	76.7	4	8.740	-0.007	8742323	133.7
	Total Col1Ave (4 peaks):				56.8		Total Col2Ave (4 peaks):			76.8 RPD = 30
	Corrected Ave (3 peaks):				50.2		Corrected Ave (3 peaks):			57.8 RPD = 14
Aroclor-1254	1	8.356	0.000	9399732	59.2	1	8.466	0.000	2650541	60.3
Aroclor-1254	2	8.751	0.024	23947071	234.4	2	8.641	0.002	6338355	113.4
Aroclor-1254	3	8.863	0.000	37634904	190.8	3	9.177	0.017	10043040	235.1
Aroclor-1254	4	9.210	-0.002	25220730	118.8	4	9.310	0.000	8276277	87.6
Aroclor-1254	5	9.575	0.001	17900620	135.5	5	10.090	-0.002	4962460	89.6
	Total Col1Ave (5 peaks):				147.7		Total Col2Ave (5 peaks):			117.2 RPD = 23
	Corrected Ave (4 peaks):				126.1		Corrected Ave (4 peaks):			87.7 RPD = 36
Aroclor-1260	1	10.445	-0.002	4715305	46.3	1	10.422	0.001	1837795	41.9
Aroclor-1260	2	10.821	0.001	14688628	58.1	2	10.872	0.000	3476060	63.8
Aroclor-1260	3	11.226	0.005	4794518	34.1	3	11.146	0.001	5150054	46.6
Aroclor-1260	4	11.336	0.000	3742612	62.1	4	11.672	0.006	2296347	71.1
Aroclor-1260	5	11.409	-0.002	109515372	1520.8	NS	---			----
	Total Col1Ave (5 peaks):				344.3		Total Col2Ave (4 peaks):			55.8 RPD = 144*
	Corrected Ave (4 peaks):				50.1		Corrected Ave (3 peaks):			50.8 RPD = 1
Aroclor-1262	1	10.128	0.000	6173615	41.3	1	10.422	0.003	1837795	25.7
Aroclor-1262	2	10.445	0.001	4715305	41.2	2	10.872	0.002	3476060	56.2
Aroclor-1262	3	10.821	0.003	14688628	47.0	3	11.146	0.004	5150054	36.7
Aroclor-1262	4	11.336	0.002	3742612	32.8	4	11.672	0.008	2296347	40.7
Aroclor-1262	5	11.409	0.001	109515372	843.5	5	12.476	0.013	2605889	49.6
	Total Col1Ave (5 peaks):				201.2		Total Col2Ave (5 peaks):			41.8 RPD = 131*
	Corrected Ave (4 peaks):				40.6		Corrected Ave (4 peaks):			38.1 RPD = 6
Aroclor-1268	1	11.336	0.001	3742612	11.7	1	11.672	0.008	2296347	15.7
Aroclor-1268	2	11.409	0.002	109515372	340.8	2	11.726	-0.004	4828205	35.1

Aroclor-1268 3	11.807	0.014	3275901	12.2	3	12.134	0.007	2579424	22.3
Aroclor-1268 4	12.587	0.002	4229778	5.4	4	12.953	0.004	1958166	6.0

Total Col1Ave (4 peaks): 92.5 Total Col2Ave (4 peaks): 19.8 RPD = 130*

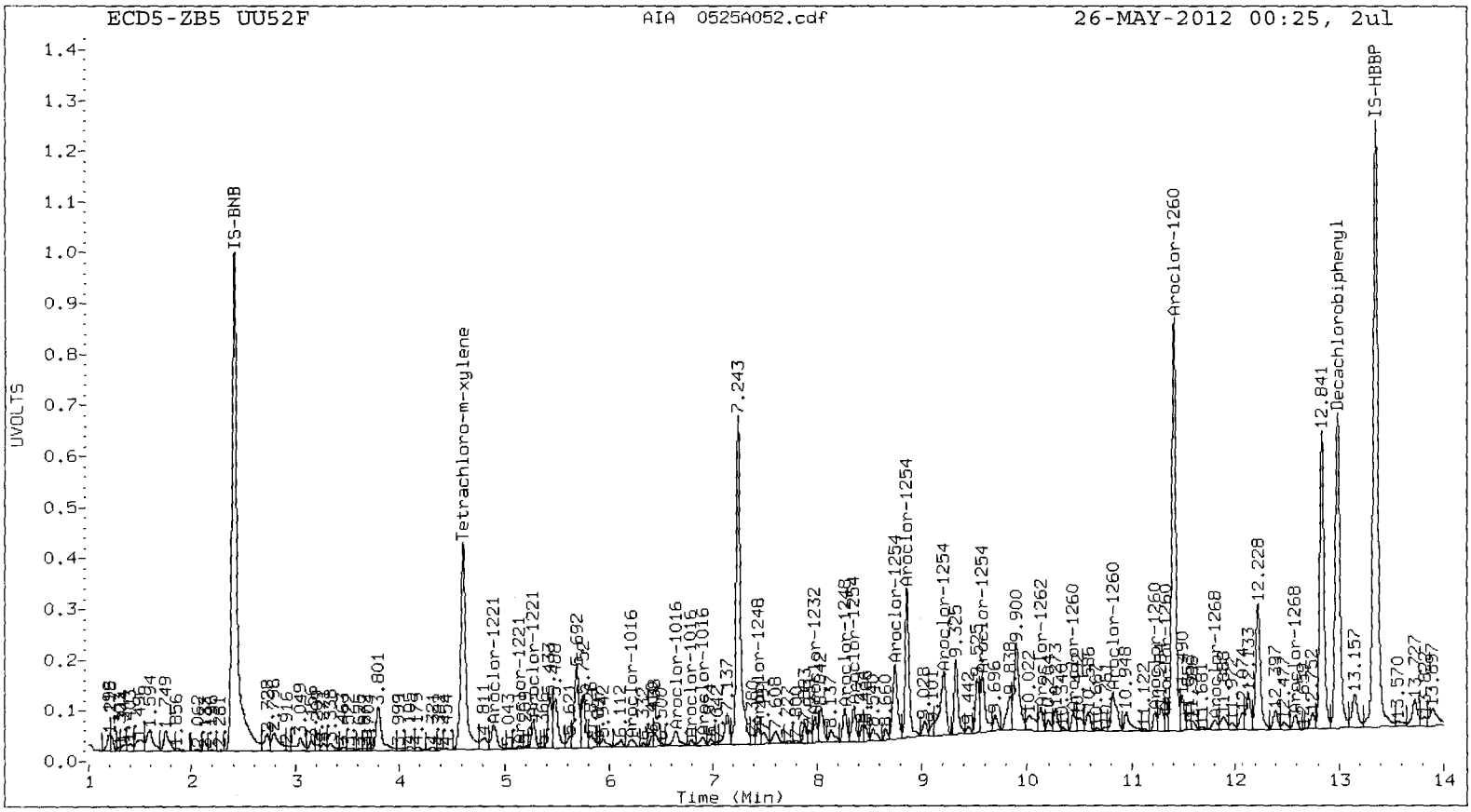
Corrected Ave (3 peaks): 9.8 Corrected Ave (3 peaks): 14.7 RPD = 40*

Total PCB Area Col1 (4.710 - 12.891) = 866630705 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 428663004 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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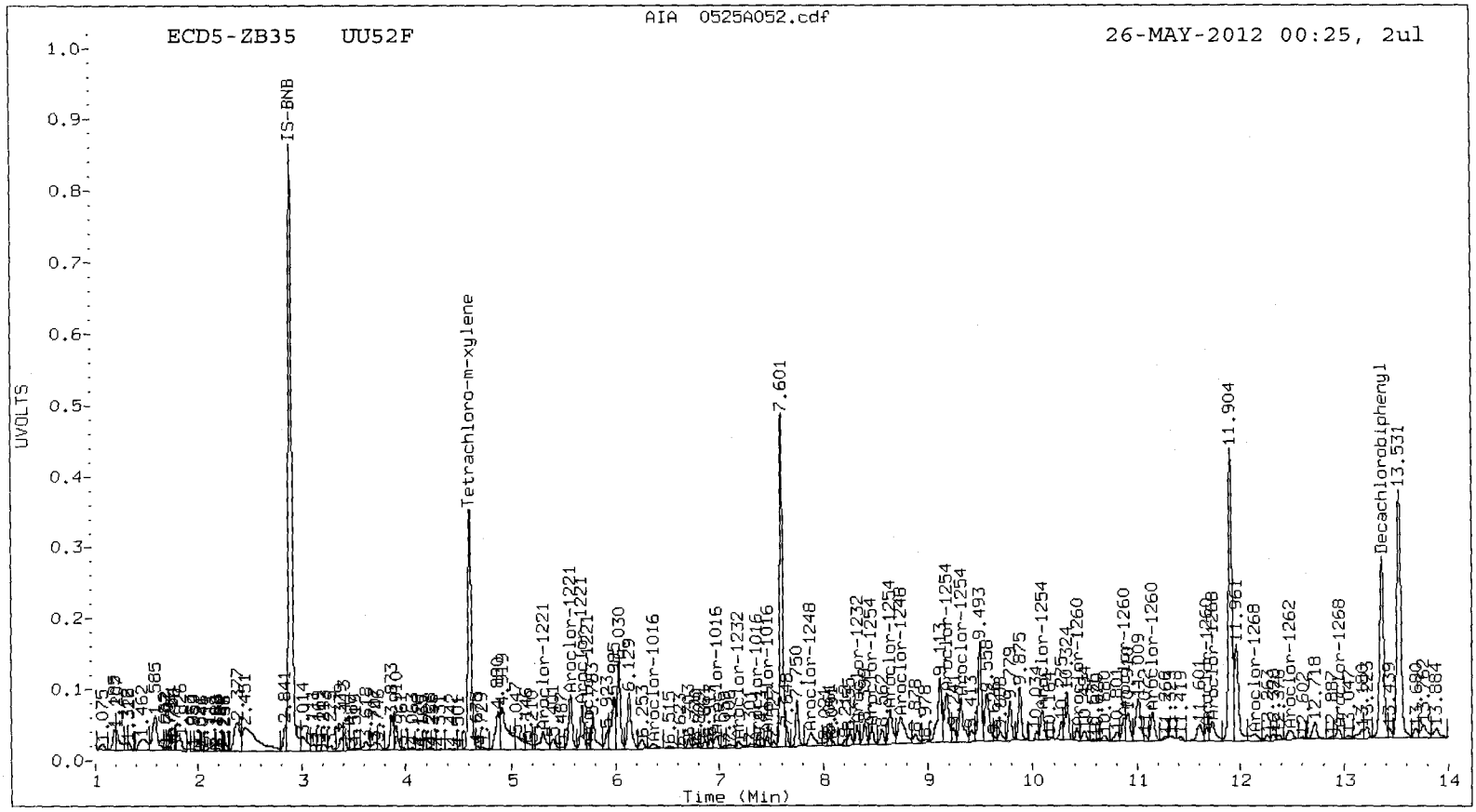
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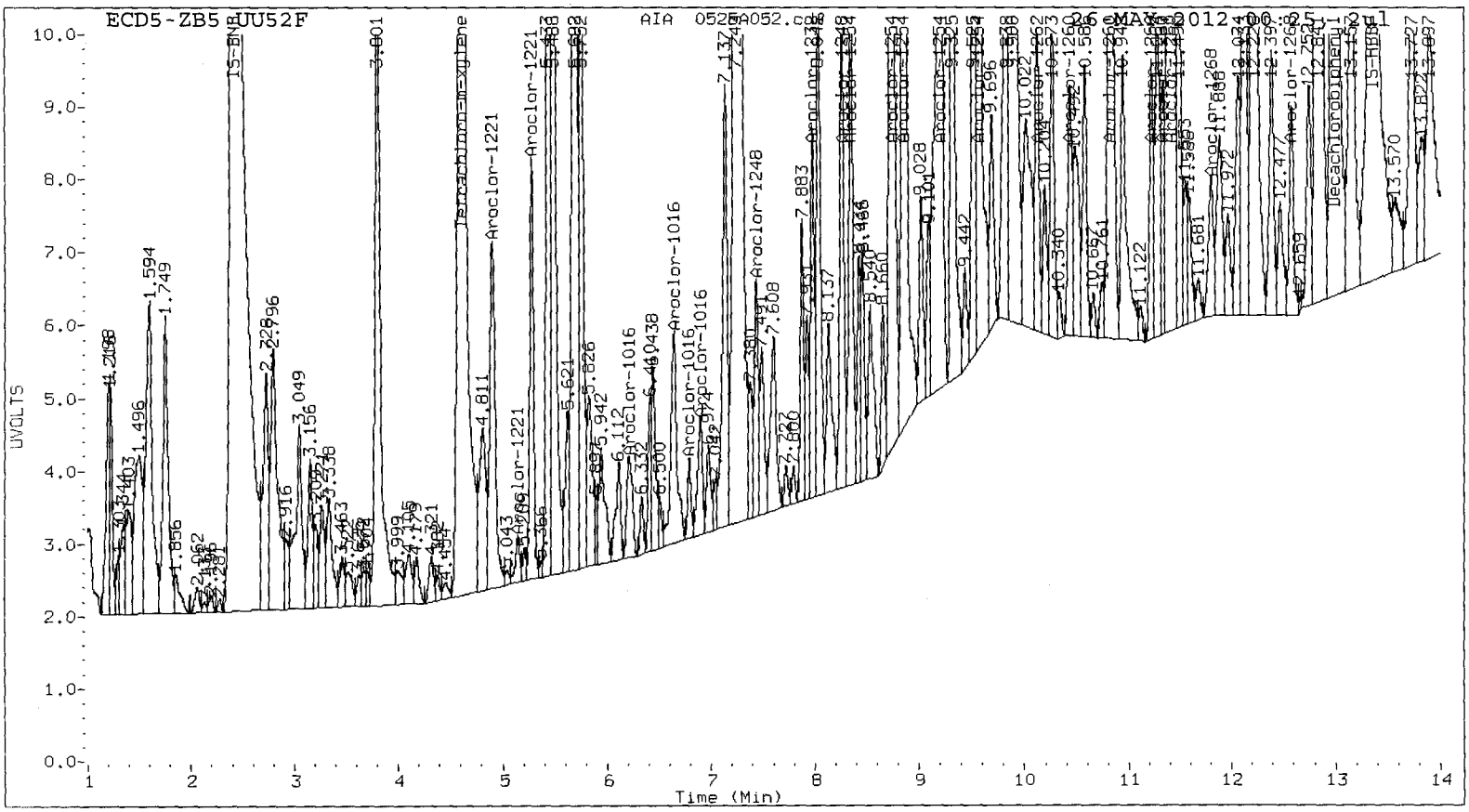
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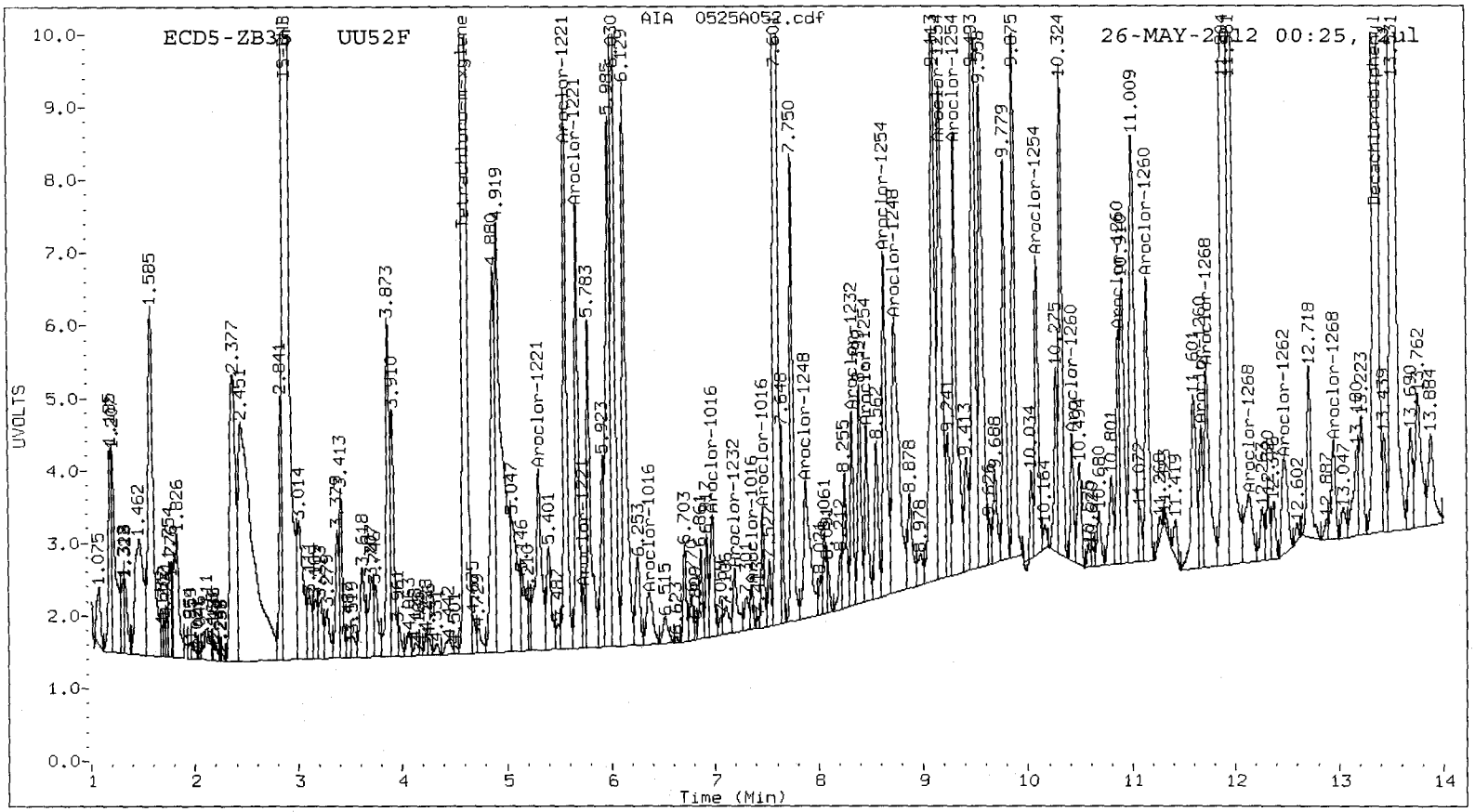
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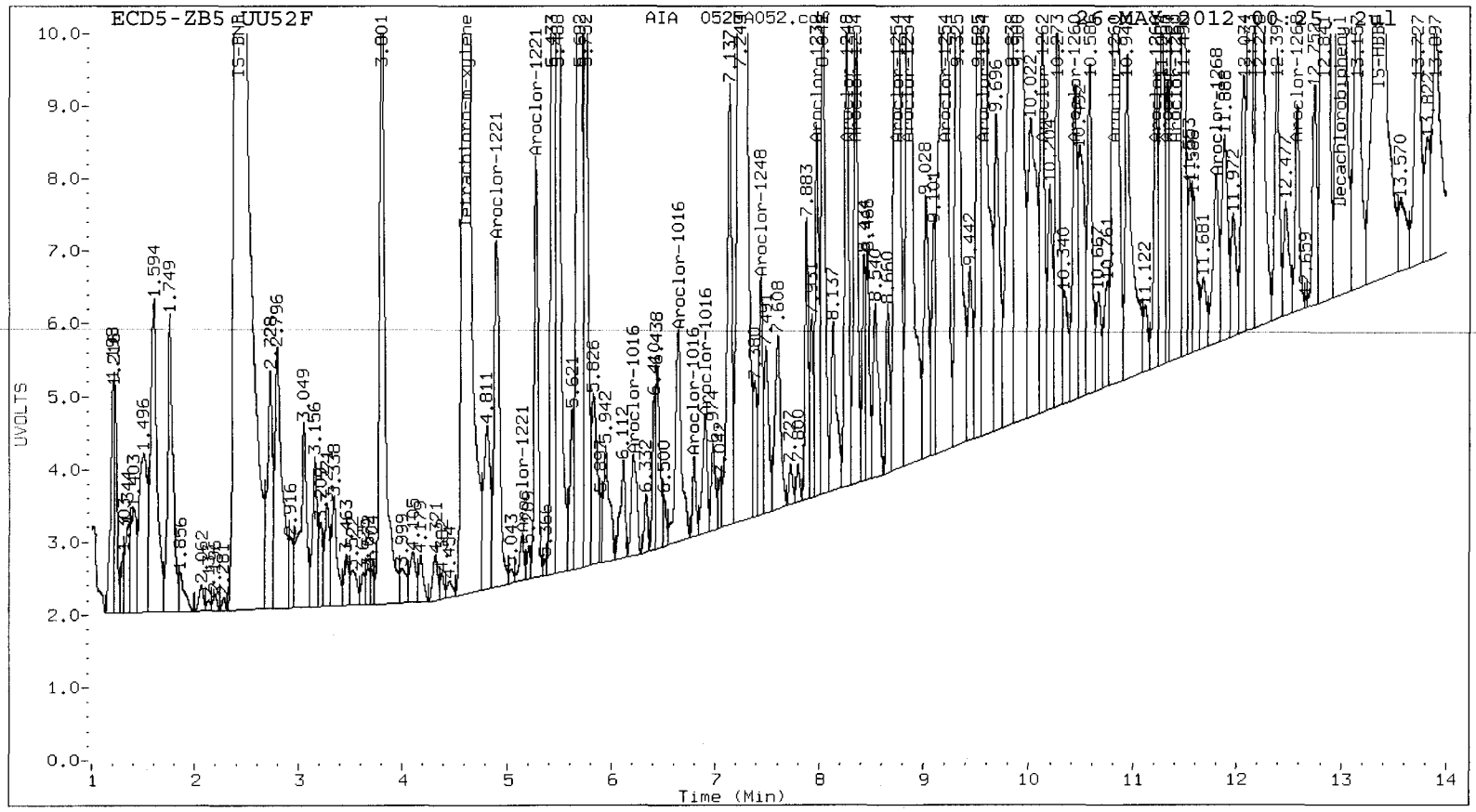
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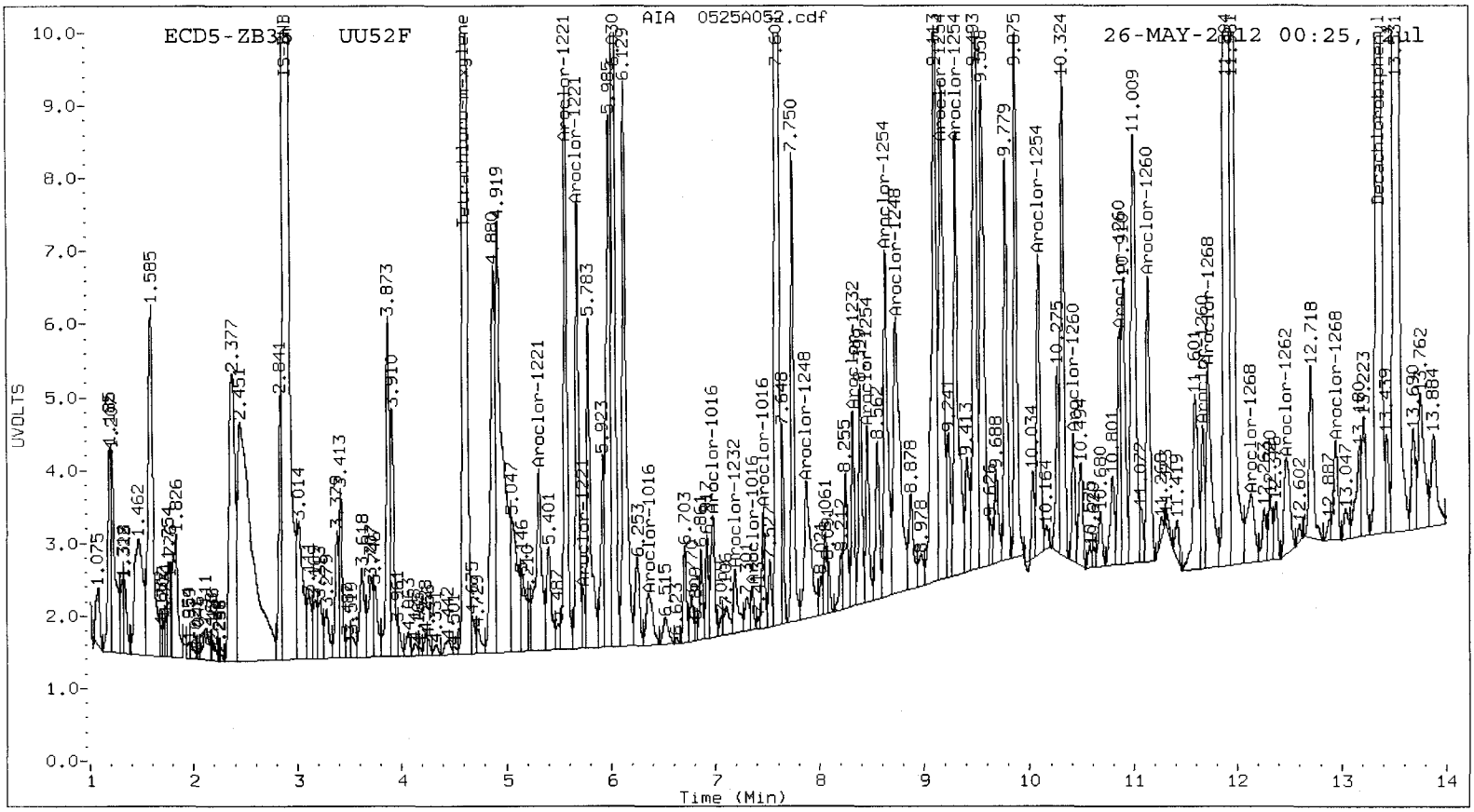
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Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20120523.b/0525-2.b/0525A053.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52G
Client ID:
Injection Date: 26-MAY-2012 00:44
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	0.000	93087465	4.612	0.001	39211581	31.0	29.3	5.6	Tetrachloro-m-xylene
12.993	0.002	107522128	13.366	0.001	37189907	37.1	35.4	4.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	77.6	73.4
Decachlorobiphenyl	92.7	88.5

JL 05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	186718284	21.1
Hexabromobiphenyl	248602423	189013662	-24.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	94995771	-14.1
Hexabromobiphenyl	108855531	81349843	-25.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.232	-0.009	1675746	21.5	1	6.354	0.006	2563329	51.7
Aroclor-1016	2	6.642	0.000	10357365	40.8	2	6.978	0.004	3993735	35.5
Aroclor-1016	3	6.793	0.003	1884425	18.8	3	7.351	-0.005	1453609	50.1
Aroclor-1016	4	6.895	-0.005	3501808	44.4	4	7.462	-0.001	3490080	108.1
Total Col1Ave (4 peaks):		31.4				Total Col2Ave (4 peaks):		61.3	RPD = 65*	
Corrected Ave (3 peaks):		27.0				Corrected Ave (3 peaks):		45.7	RPD = 51*	
Aroclor-1221	1	4.911	0.027	11871102	848.1	1	5.306	0.016	8488308	567.0
Aroclor-1221	2	5.147	-0.006	1030741	45.7	2	5.567	0.031	5909639	668.2
Aroclor-1221	3	5.277	0.019	44755608	606.2	3	5.677	0.028	12407307	448.5
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):		500.0				Total Col2Ave (3 peaks):		561.2	RPD = 12	
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.232	-0.006	1675746	51.5	1	6.354	0.008	2563329	112.0
Aroclor-1232	2	6.642	0.003	10357365	95.7	2	6.978	0.007	3993735	83.4
Aroclor-1232	3	6.793	0.005	1884425	42.9	3	7.191	0.012	2714966	168.0
Aroclor-1232	4	7.983	0.002	9067374	215.2	4	8.326	0.001	3971257	224.1
Total Col1Ave (4 peaks):		101.3				Total Col2Ave (4 peaks):		146.9	RPD = 37	
Corrected Ave (3 peaks):		63.4				Corrected Ave (3 peaks):		121.1	RPD = 63*	
Aroclor-1242	1	6.232	-0.010	1675746	28.5	1	6.354	0.006	2563329	66.1
Aroclor-1242	2	6.642	0.000	10357365	52.9	2	6.978	0.004	3993735	45.4
Aroclor-1242	3	6.793	0.002	1884425	24.1	3	7.191	0.009	2714966	75.9
Aroclor-1242	4	7.983	-0.001	9067374	124.5	4	8.326	-0.001	3971257	127.7
Total Col1Ave (4 peaks):		57.5				Total Col2Ave (4 peaks):		78.8	RPD = 31	
Corrected Ave (3 peaks):		35.2				Corrected Ave (3 peaks):		62.5	RPD = 56*	
Aroclor-1248	1	6.642	0.002	10357365	79.0	1	6.978	0.007	3993735	70.0
Aroclor-1248	2	7.437	-0.001	5500691	55.5	2	7.875	0.000	4176825	91.4
Aroclor-1248	3	7.983	-0.001	9067374	71.5	3	8.326	-0.001	3971257	72.3
Aroclor-1248	4	8.266	-0.008	19299195	150.8	4	8.737	-0.010	8033654	129.5
Total Col1Ave (4 peaks):		89.2				Total Col2Ave (4 peaks):		90.8	RPD = 2	
Corrected Ave (3 peaks):		68.7				Corrected Ave (3 peaks):		77.9	RPD = 13	
Aroclor-1254	1	8.355	-0.001	16778756	97.9	1	8.466	-0.001	4268875	102.4
Aroclor-1254	2	8.752	0.024	44726557	405.4	2	8.638	0.000	9637529	181.8
Aroclor-1254	3	8.865	0.001	46722574	219.3	3	9.178	0.019	13219739	326.4
Aroclor-1254	4	9.211	-0.002	25403909	110.8	4	9.310	0.000	8828375	98.5
Aroclor-1254	5	9.577	0.003	16015896	112.3	5	10.091	-0.001	6593844	125.6
Total Col1Ave (5 peaks):		189.1				Total Col2Ave (5 peaks):		166.9	RPD = 12	
Corrected Ave (4 peaks):		135.1				Corrected Ave (4 peaks):		127.1	RPD = 6	
Aroclor-1260	1	10.444	-0.003	6729811	65.6	1	10.422	0.000	2813294	60.3
Aroclor-1260	2	10.821	0.000	14894880	58.5	2	10.868	-0.004	8879327	153.3
Aroclor-1260	3	11.240	0.019	9123936	64.5	3	11.148	0.003	9139719	77.7
Aroclor-1260	4	11.335	-0.002	5718643	94.2	4	11.672	0.006	3817099	111.1
Aroclor-1260	5	11.408	-0.003	107281210	1479.6	NS	---			----
Total Col1Ave (5 peaks):		352.5				Total Col2Ave (4 peaks):		100.6	RPD = 111*	
Corrected Ave (4 peaks):		70.7				Corrected Ave (3 peaks):		83.0	RPD = 16	
Aroclor-1262	1	10.127	0.000	10858475	72.1	1	10.422	0.003	2813294	36.9
Aroclor-1262	2	10.444	-0.001	6729811	58.5	2	10.868	-0.002	8879327	135.1
Aroclor-1262	3	10.821	0.003	14894880	47.3	3	11.148	0.006	9139719	61.2
Aroclor-1262	4	11.335	0.001	5718643	49.7	4	11.672	0.008	3817099	63.6
Aroclor-1262	5	11.408	0.000	107281210	820.7	5	12.469	0.006	3751236	67.1
Total Col1Ave (5 peaks):		209.7				Total Col2Ave (5 peaks):		72.8	RPD = 97*	
Corrected Ave (4 peaks):		56.9				Corrected Ave (4 peaks):		57.2	RPD = 1	
Aroclor-1268	1	11.335	-0.001	5718643	17.8	1	11.672	0.008	3817099	24.6
Aroclor-1268	2	11.408	0.001	107281210	331.5	2	11.728	-0.002	6788213	46.4

Aroclor-1268 3	11.804	0.012	4019807	14.9	3	12.158	0.030	4299864	35.0
Aroclor-1268 4	12.586	0.001	6557270	8.3	4	12.953	0.004	2736616	7.9

Total Col1Ave (4 peaks): 93.1 Total Col2Ave (4 peaks): 28.5 RPD = 106*

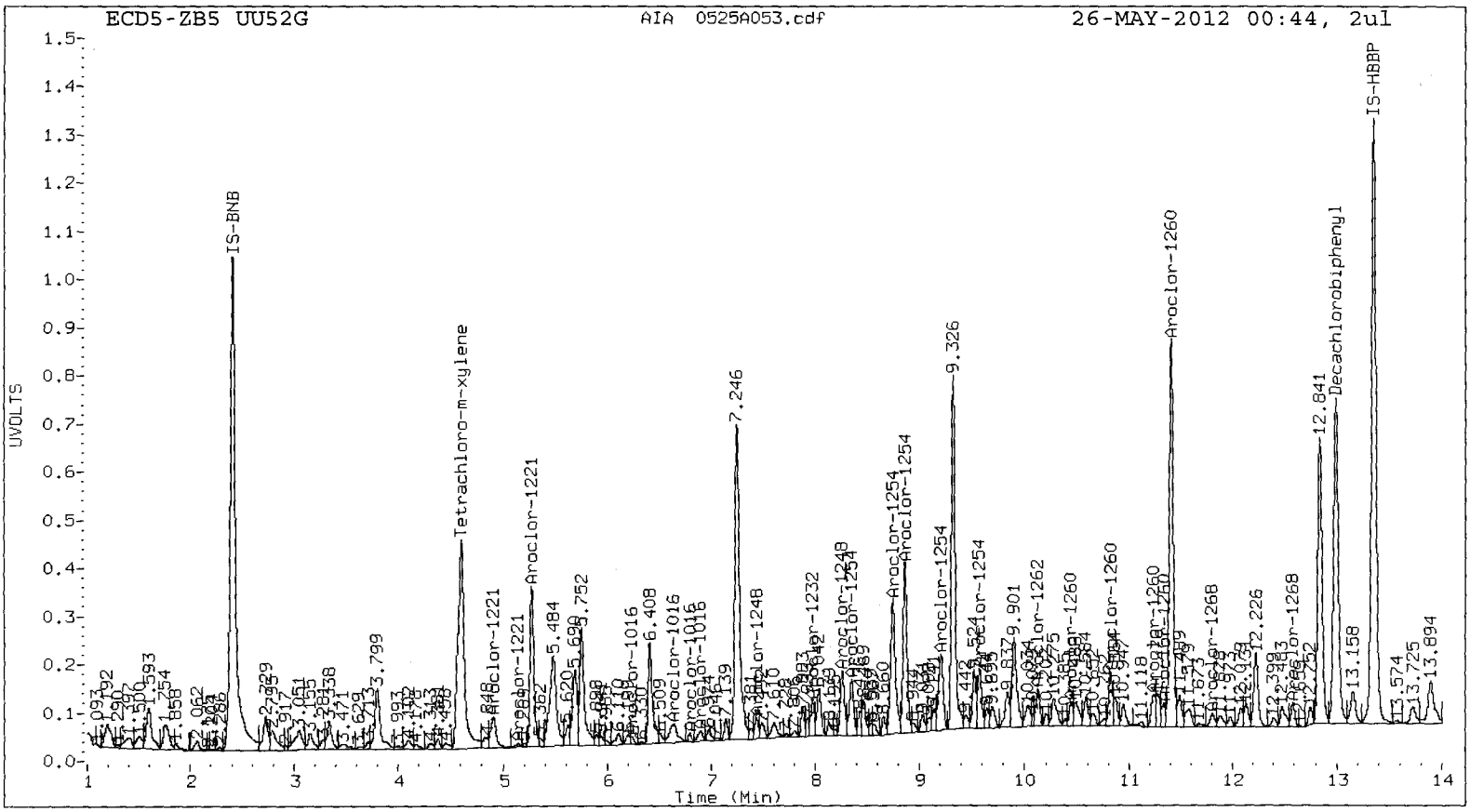
Corrected Ave (3 peaks): 13.6 Corrected Ave (3 peaks): 22.5 RPD = 49*

Total PCB Area Col1 (4.710 - 12.891) = 1178997654 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 665267709 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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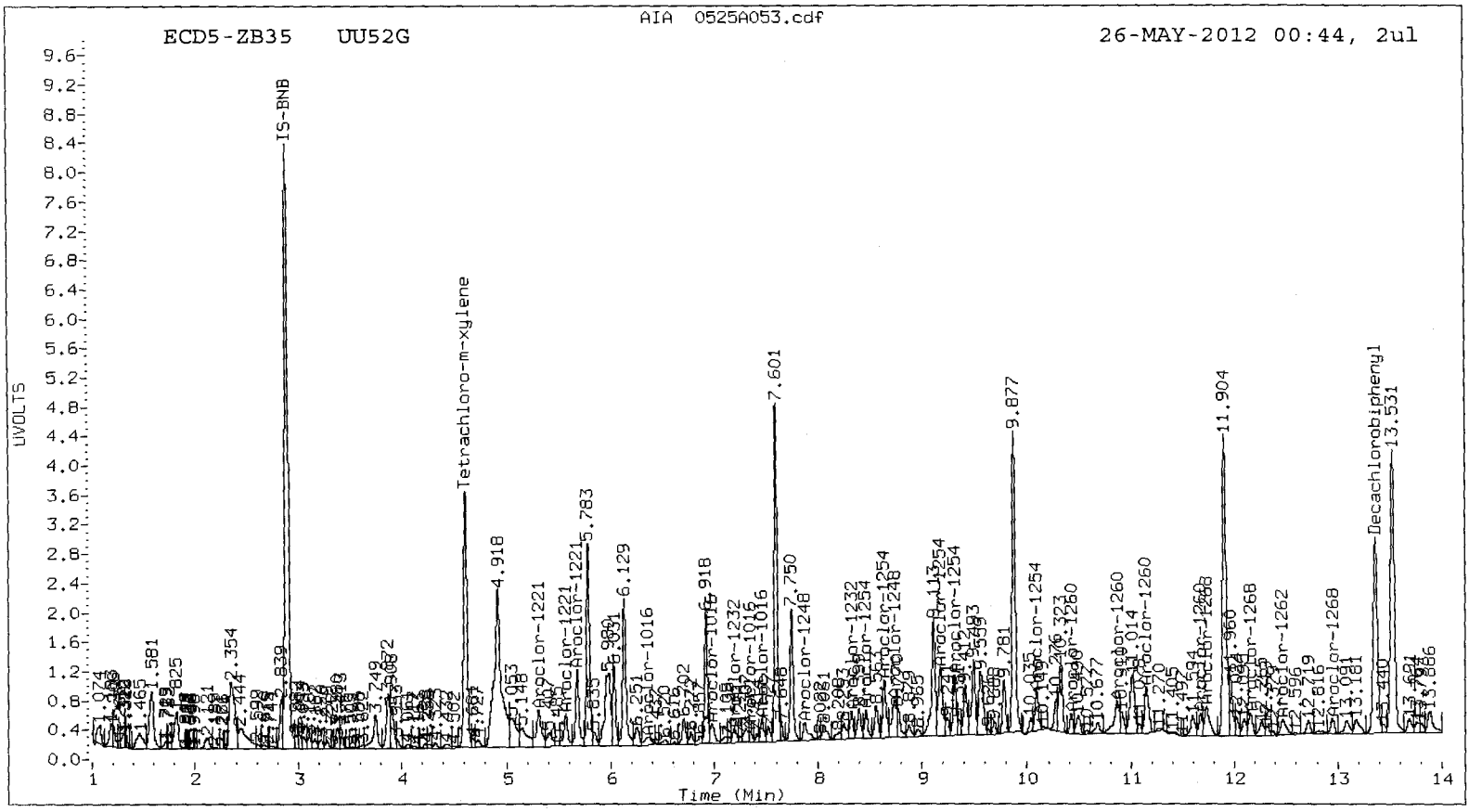
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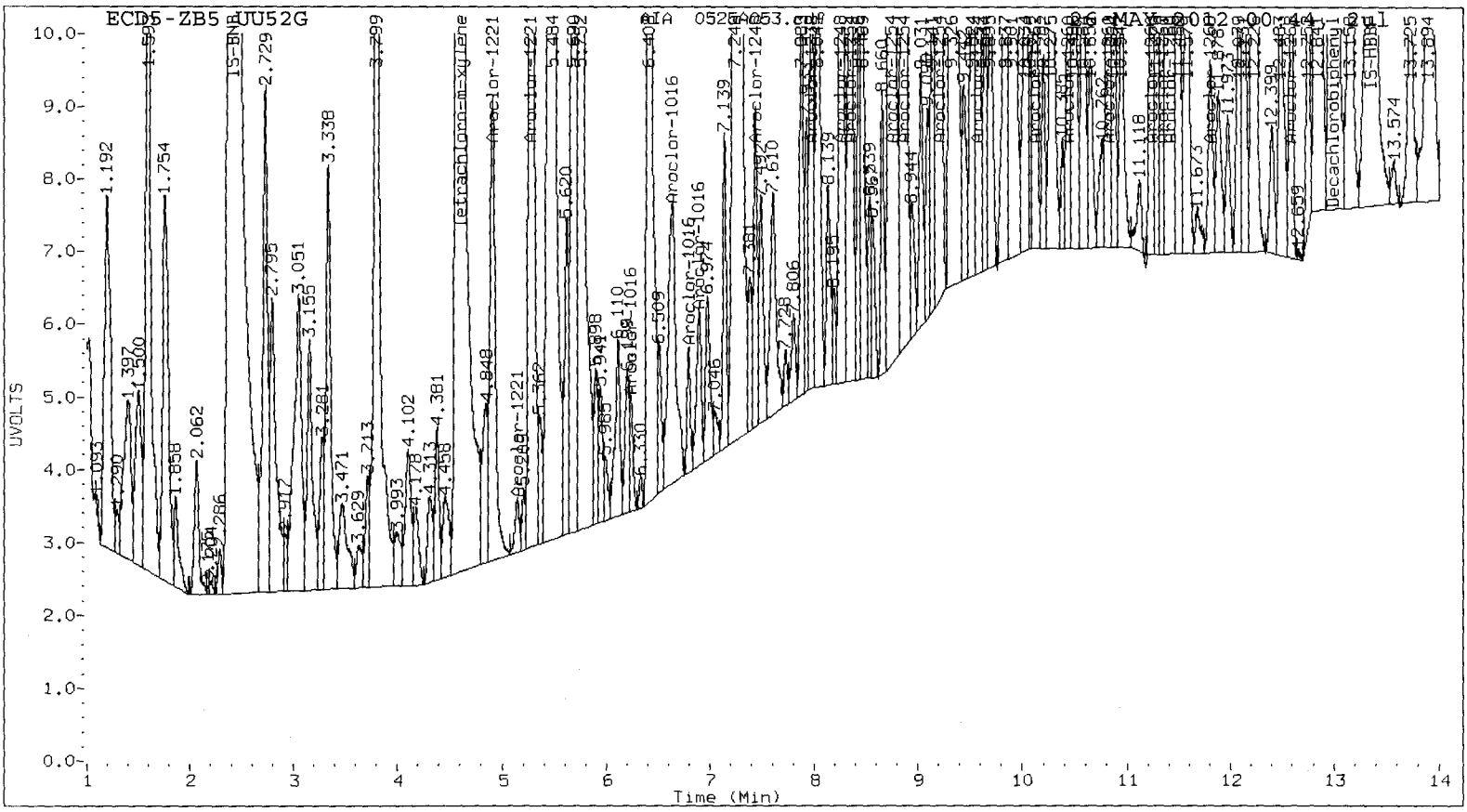
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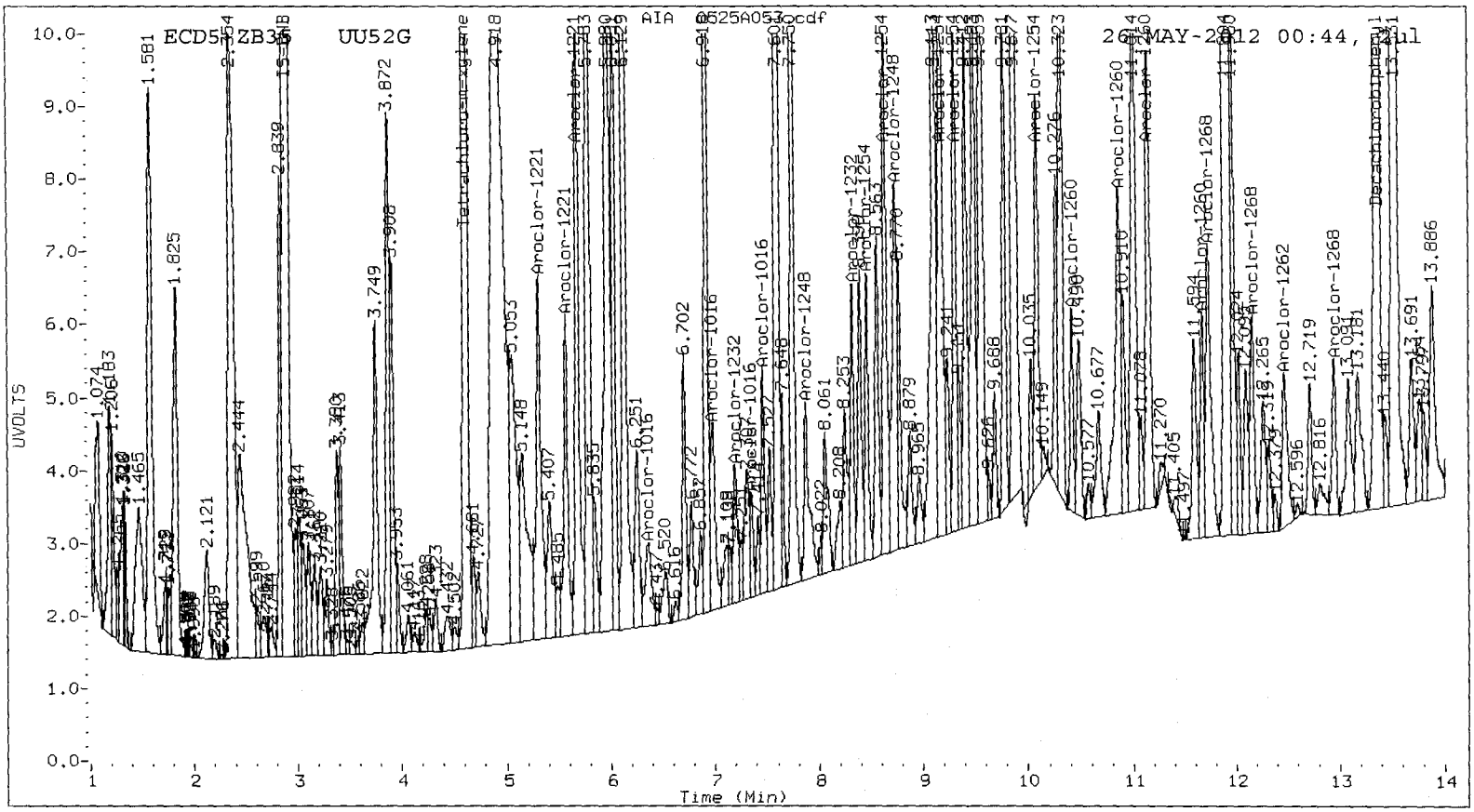
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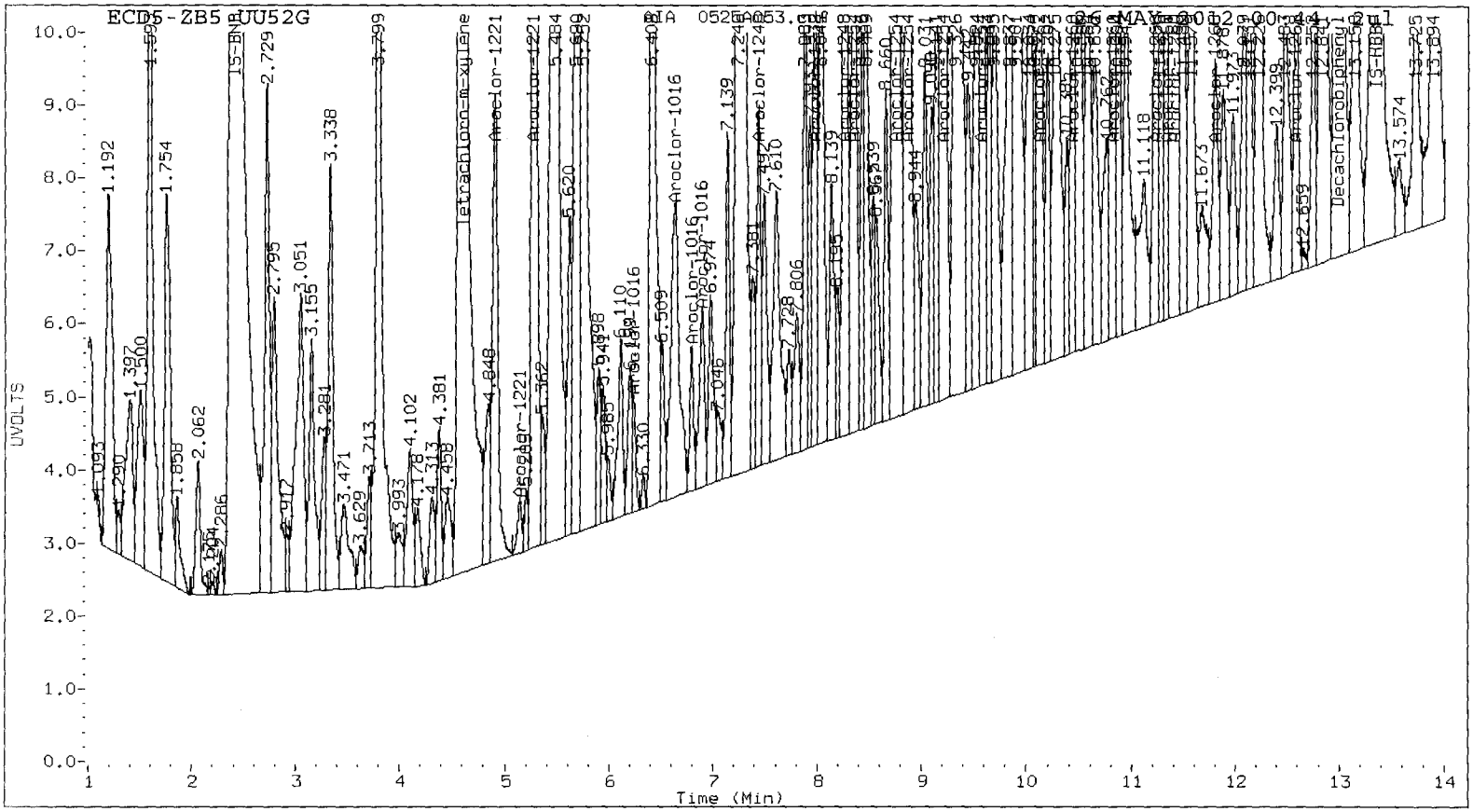
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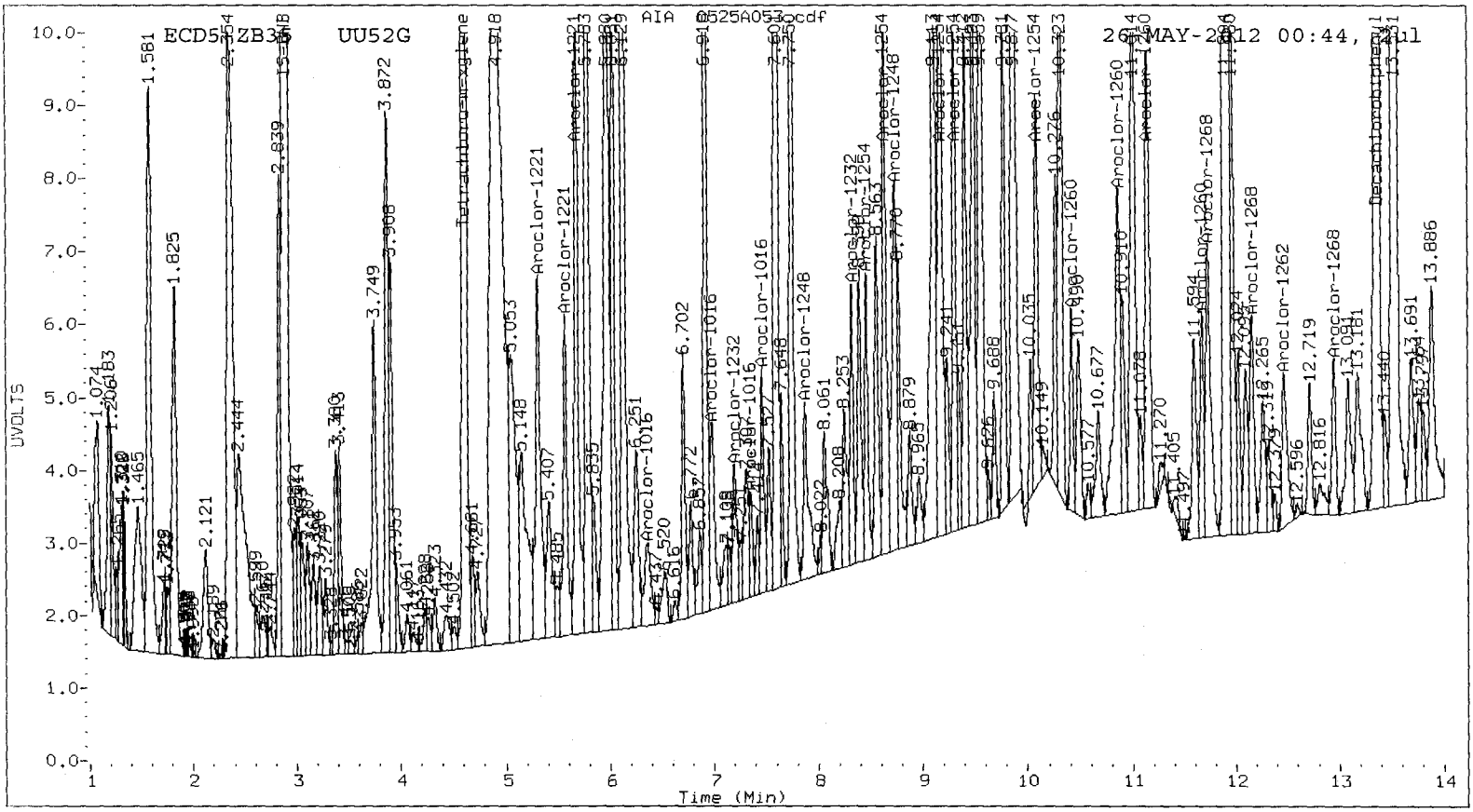
Aroclor-1268


ECD5-ZB3 UU52G
AIA 0525A053.ccdf
26-MAY-2012 00:44, ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
IS-BNB
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A056.d
Data file 2: 20120523.b/0525-2.b/0525A056.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52H
Client ID:
Injection Date: 26-MAY-2012 01:41
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	76848228	4.613	0.002	40481713	27.7	27.7	0.1	Tetrachloro-m-xylene
12.993	0.002	93683612	13.365	0.000	35883828	29.0	32.6	11.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	69.2	69.3
Decachlorobiphenyl	72.4	81.4

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	172760776	12.0
Hexabromobiphenyl	248602423	210736401	-15.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	103821331	-6.1
Hexabromobiphenyl	108855531	85307879	-21.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.237	-0.004	2204955	30.6	1	6.366	0.018	1970825	36.4	
Aroclor-1016	2	6.639	-0.003	9538016	40.6	2	6.973	0.000	3209899	26.1	
Aroclor-1016	3	6.787	-0.003	1885286	20.3	3	7.355	-0.001	1013487	31.9	
Aroclor-1016	4	6.897	-0.003	2682320	36.7	4	7.462	-0.001	2586825	73.3	
Total Col1Ave (4 peaks):					32.1	Total Col2Ave (4 peaks):				41.9	RPD = 27
Corrected Ave (3 peaks):					29.2	Corrected Ave (3 peaks):				31.5	RPD = 7
Aroclor-1221	1	4.897	0.013	8285904	639.8	1	5.308	0.018	4923636	300.9	
Aroclor-1221	2	5.147	-0.006	898395	43.1	2	5.568	0.032	6063139	627.2	
Aroclor-1221	3	5.277	0.019	11249144	164.7	3	5.678	0.029	7747127	256.2	
Aroclor-1221	NS	---			----	4	5.728	0.010	512506	92.5	
Total Col1Ave (3 peaks):					282.5	Total Col2Ave (4 peaks):				319.2	RPD = 12
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				216.6	
Aroclor-1232	1	6.237	-0.001	2204955	73.3	1	6.366	0.020	1970825	78.8	
Aroclor-1232	2	6.639	0.000	9538016	95.3	2	6.973	0.002	3209899	61.3	
Aroclor-1232	3	6.787	-0.001	1885286	46.4	3	7.191	0.012	2985504	169.0	
Aroclor-1232	4	7.980	0.000	8323435	213.5	4	8.327	0.002	4802824	248.0	
Total Col1Ave (4 peaks):					107.1	Total Col2Ave (4 peaks):				139.3	RPD = 26
Corrected Ave (3 peaks):					71.7	Corrected Ave (3 peaks):				103.1	RPD = 36
Aroclor-1242	1	6.237	-0.005	2204955	40.5	1	6.366	0.018	1970825	46.5	
Aroclor-1242	2	6.639	-0.003	9538016	52.6	2	6.973	-0.001	3209899	33.4	
Aroclor-1242	3	6.787	-0.004	1885286	26.1	3	7.191	0.009	2985504	76.4	
Aroclor-1242	4	7.980	-0.003	8323435	123.5	4	8.327	0.000	4802824	141.3	
Total Col1Ave (4 peaks):					60.7	Total Col2Ave (4 peaks):				74.4	RPD = 20
Corrected Ave (3 peaks):					39.7	Corrected Ave (3 peaks):				52.1	RPD = 27
Aroclor-1248	1	6.639	-0.001	9538016	78.6	1	6.973	0.003	3209899	51.5	
Aroclor-1248	2	7.437	-0.001	4782687	52.2	2	7.877	0.002	4636958	92.8	
Aroclor-1248	3	7.980	-0.003	8323435	70.9	3	8.327	0.000	4802824	80.0	
Aroclor-1248	4	8.263	-0.010	32108907	271.1	4	8.776	0.029	21999216	324.5	
Total Col1Ave (4 peaks):					118.2	Total Col2Ave (4 peaks):				137.2	RPD = 15
Corrected Ave (3 peaks):					67.2	Corrected Ave (3 peaks):				74.8	RPD = 11
Aroclor-1254	1	8.353	-0.004	22462865	141.6	1	8.467	0.001	4546361	99.7	
Aroclor-1254	2	8.753	0.025	104920309	1027.9	2	8.659	0.020	26432236	456.2	
Aroclor-1254	3	8.864	0.001	40171026	203.8	3	9.177	0.017	9694422	219.0	
Aroclor-1254	4	9.211	-0.002	26935891	126.9	4	9.310	0.001	12012064	122.7	
Aroclor-1254	5	9.575	0.001	20346967	154.1	5	10.091	-0.002	10031516	174.8	
Total Col1Ave (5 peaks):					330.9	Total Col2Ave (5 peaks):				214.5	RPD = 43*
Corrected Ave (4 peaks):					156.6	Corrected Ave (4 peaks):				154.0	RPD = 2
Aroclor-1260	1	10.444	-0.003	4688932	41.0	1	10.422	0.000	2578305	52.7	
Aroclor-1260	2	10.820	-0.001	19944152	70.3	2	10.869	-0.003	5866206	96.6	
Aroclor-1260	3	11.224	0.003	7281902	46.2	3	11.145	0.000	8063299	65.4	
Aroclor-1260	4	11.334	-0.003	5743342	84.8	4	11.668	0.002	2872207	79.8	
Aroclor-1260	5	11.406	-0.005	45642146	564.6	NS	---			----	
Total Col1Ave (5 peaks):					161.4	Total Col2Ave (4 peaks):				73.6	RPD = 75*
Corrected Ave (4 peaks):					60.6	Corrected Ave (3 peaks):				65.9	RPD = 8
Aroclor-1262	1	10.128	0.000	8566258	51.0	1	10.422	0.003	2578305	32.3	
Aroclor-1262	2	10.444	0.000	4688932	36.5	2	10.869	-0.001	5866206	85.1	
Aroclor-1262	3	10.820	0.001	19944152	56.9	3	11.145	0.003	8063299	51.5	
Aroclor-1262	4	11.334	0.000	5743342	44.8	4	11.668	0.004	2872207	45.6	
Aroclor-1262	5	11.406	-0.002	45642146	313.2	5	12.468	0.005	2978316	50.8	
Total Col1Ave (5 peaks):					100.5	Total Col2Ave (5 peaks):				53.1	RPD = 62*
Corrected Ave (4 peaks):					47.3	Corrected Ave (4 peaks):				45.1	RPD = 5
Aroclor-1268	1	11.334	-0.002	5743342	16.0	1	11.668	0.004	2872207	17.6	
Aroclor-1268	2	11.406	-0.001	45642146	126.5	2	11.726	-0.004	6005735	39.1	

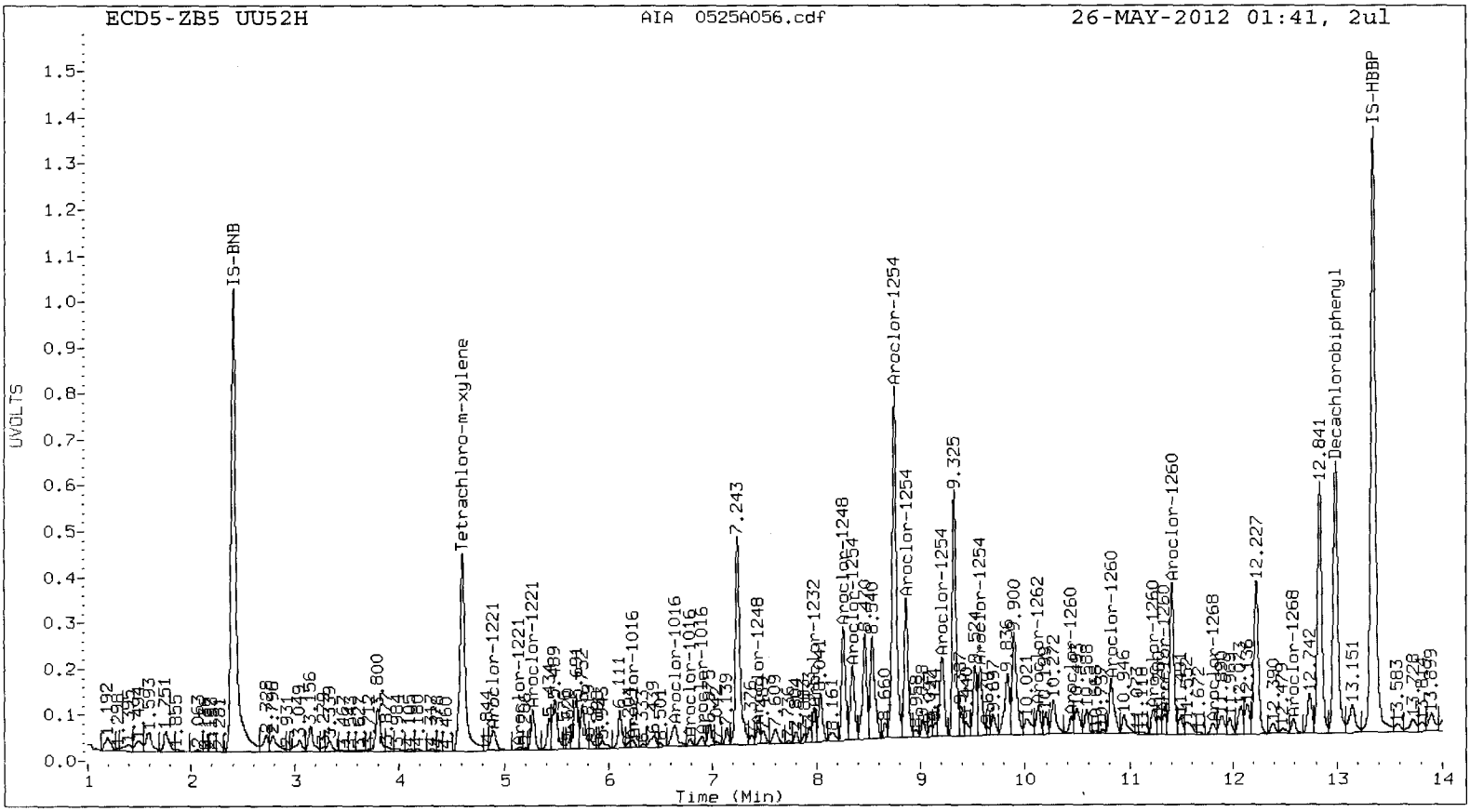
Aroclor-1268 3	11.806	0.014	3860941	12.8	3	12.151	0.023	2629375	20.4
Aroclor-1268 4	12.586	0.001	4510240	5.1	4	12.940	-0.010	4956687	13.6
Total Col1Ave (4 peaks):			40.1		Total Col2Ave (4 peaks):			22.7	RPD = 55*
Corrected Ave (3 peaks):			11.3		Corrected Ave (3 peaks):			17.2	RPD = 41*

Total PCB Area Col1 (4.710 - 12.891) = 1095196964 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 560954272 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
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Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1254
Aroclor-1221
Aroclor-1016
Aroclor-1248
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Aroclor-1262
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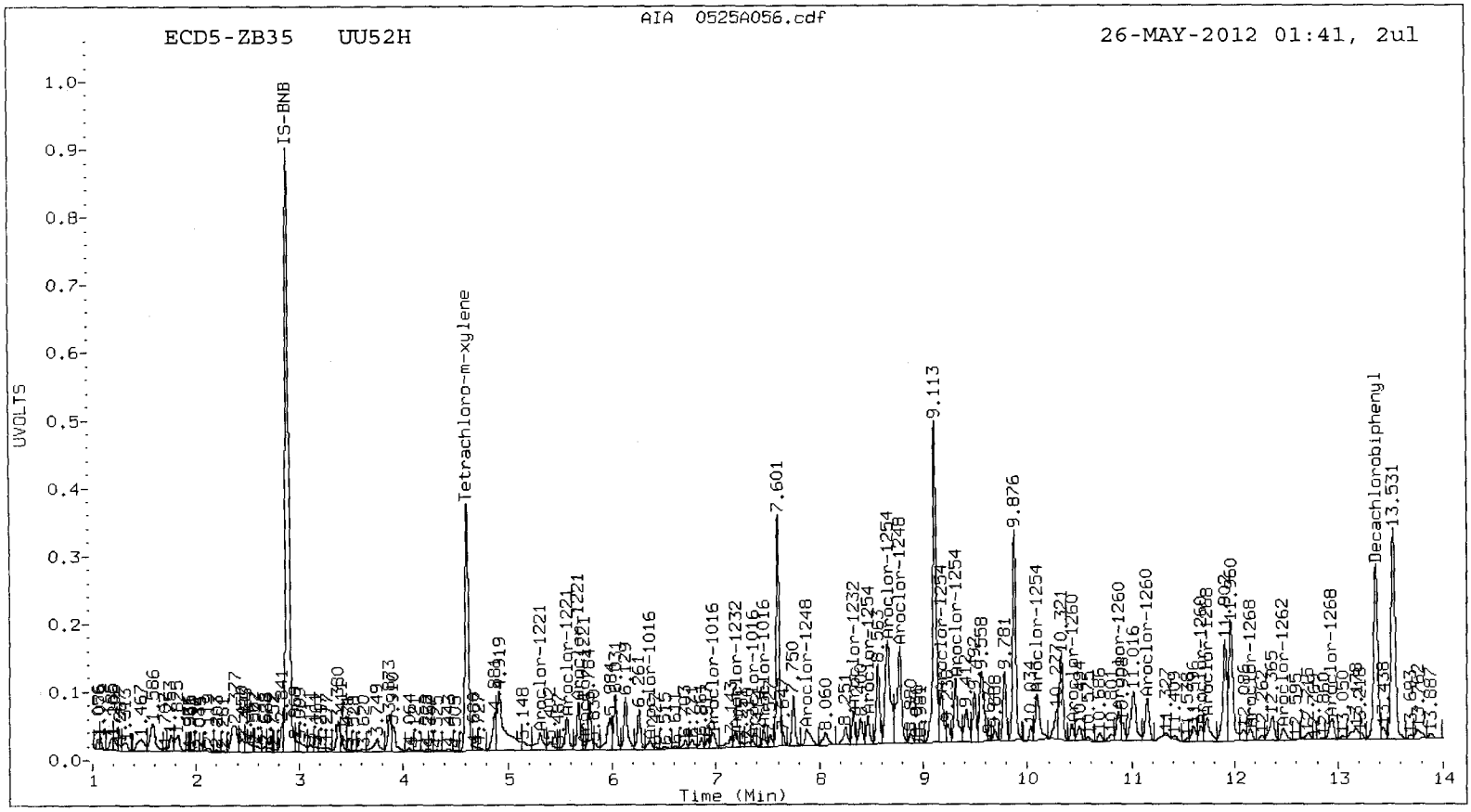
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IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
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Aroclor-1221
Aroclor-1016
Aroclor-1232
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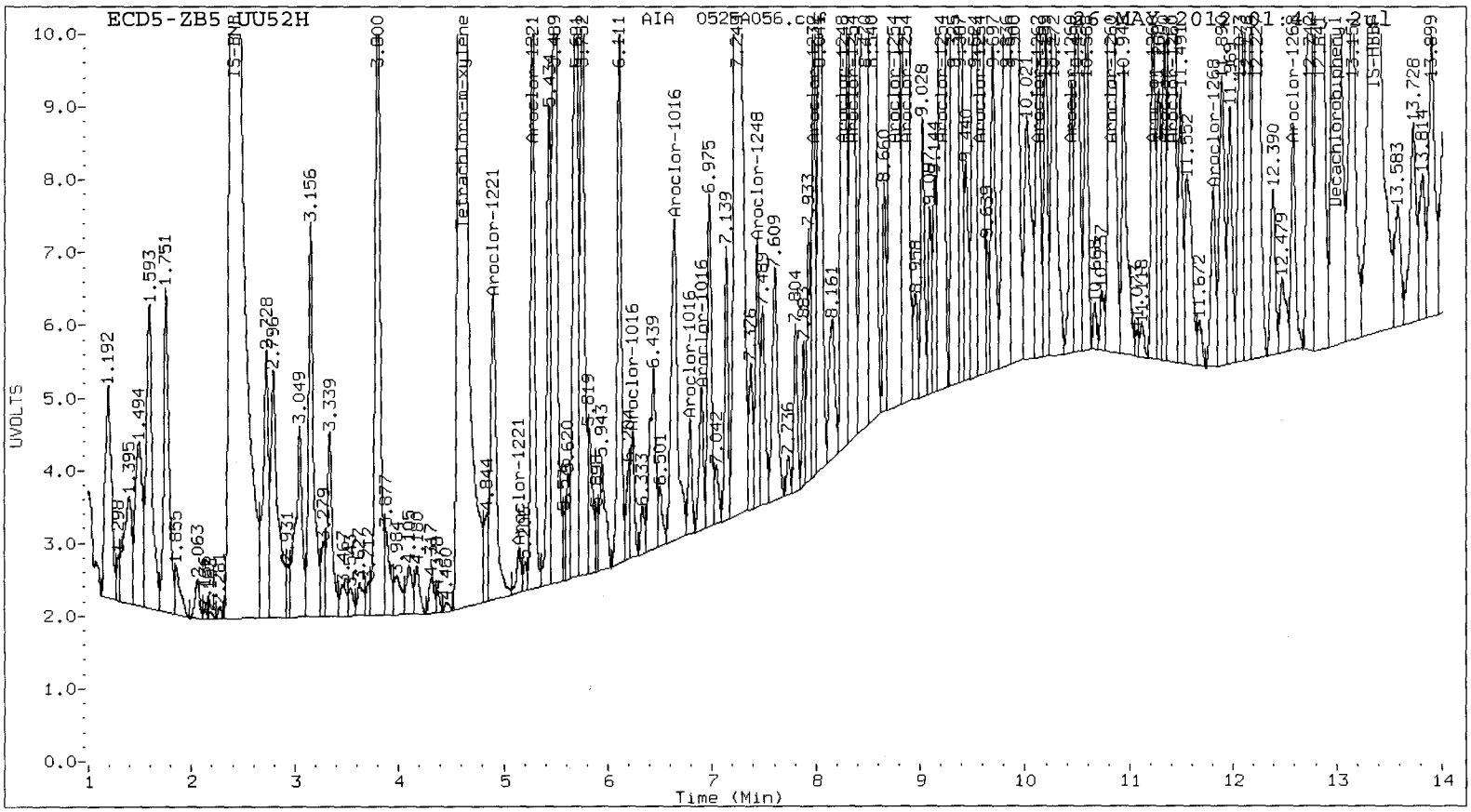
13.531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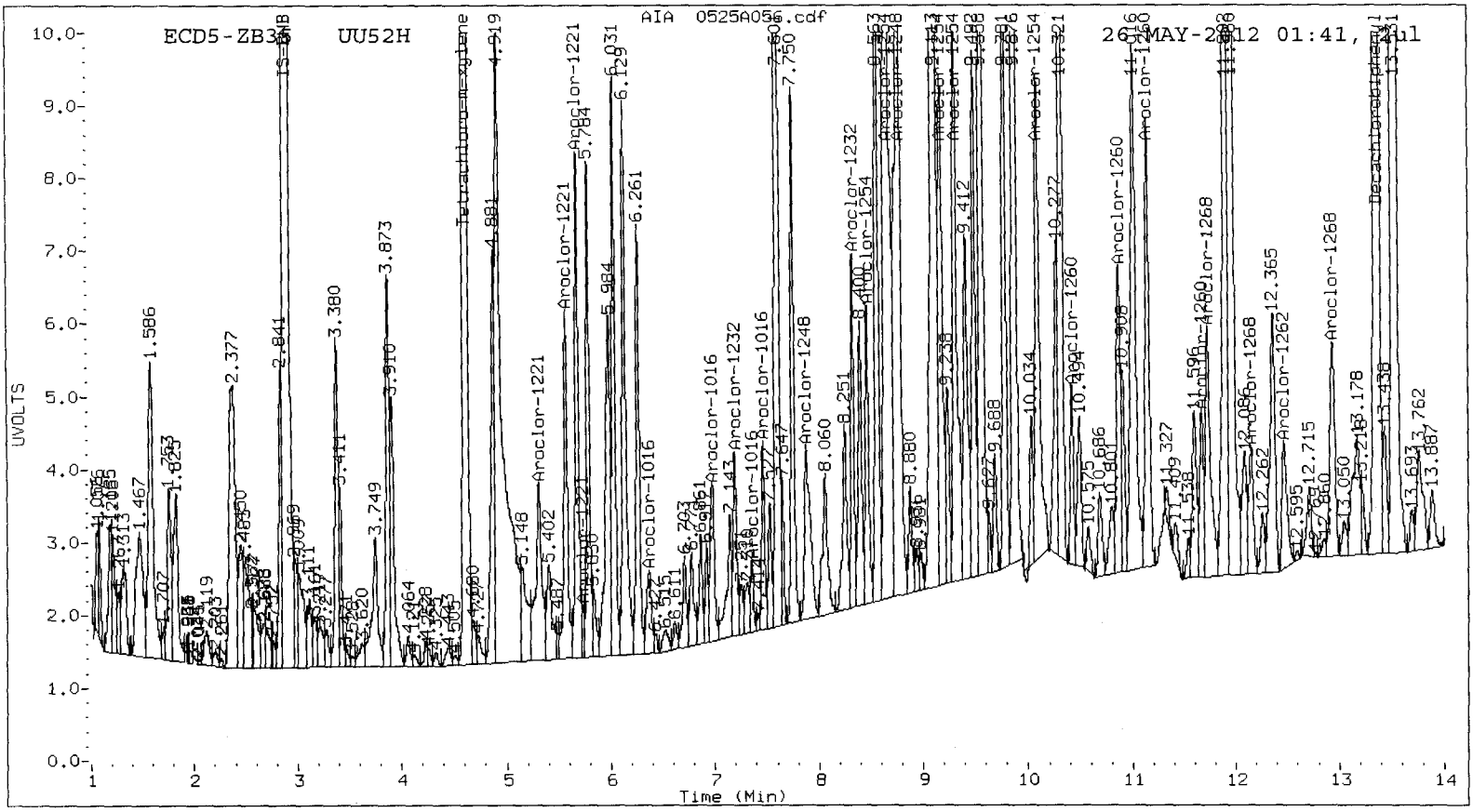
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB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UVOLTS
Time (Min)
Tetrachloro-m-xylene
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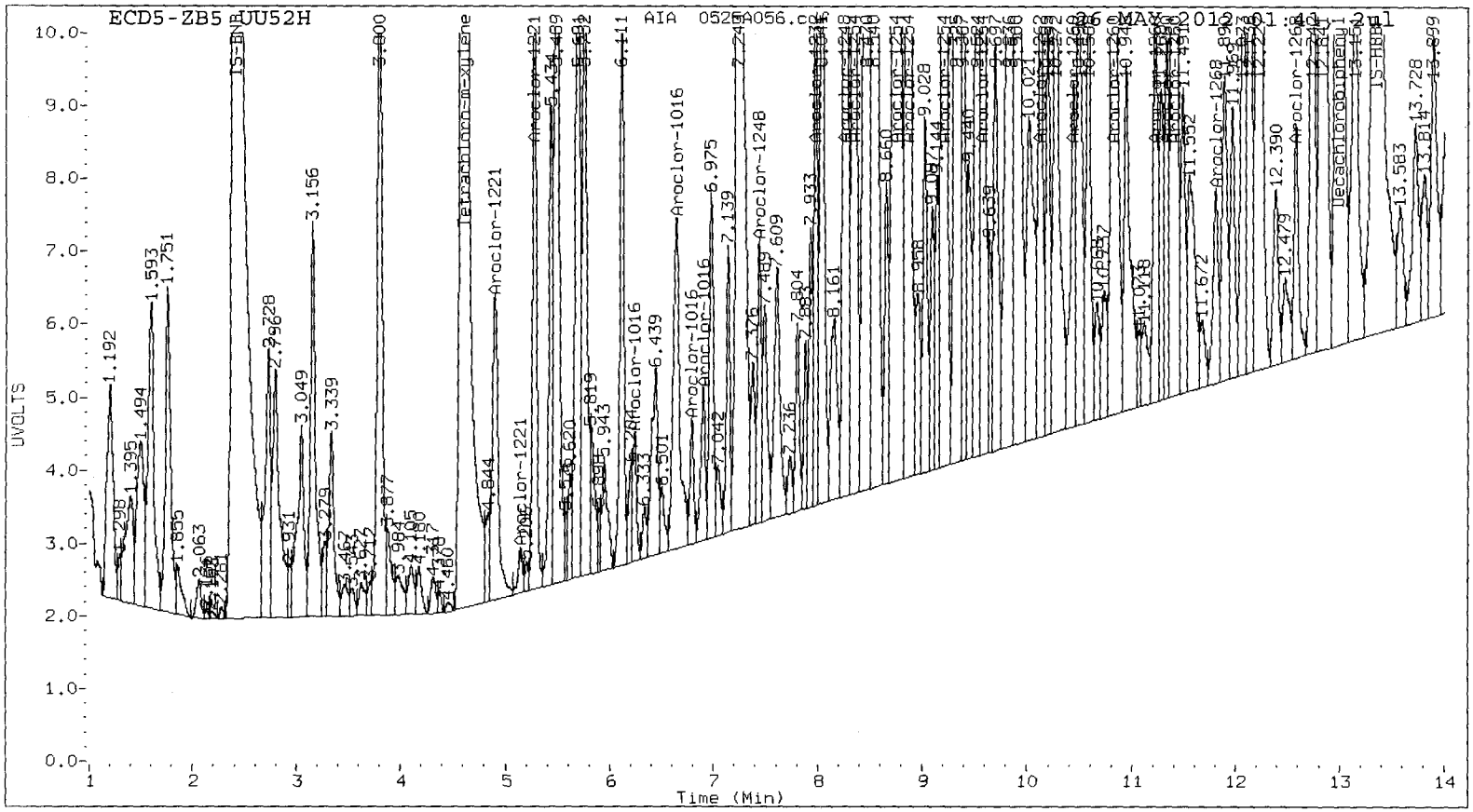
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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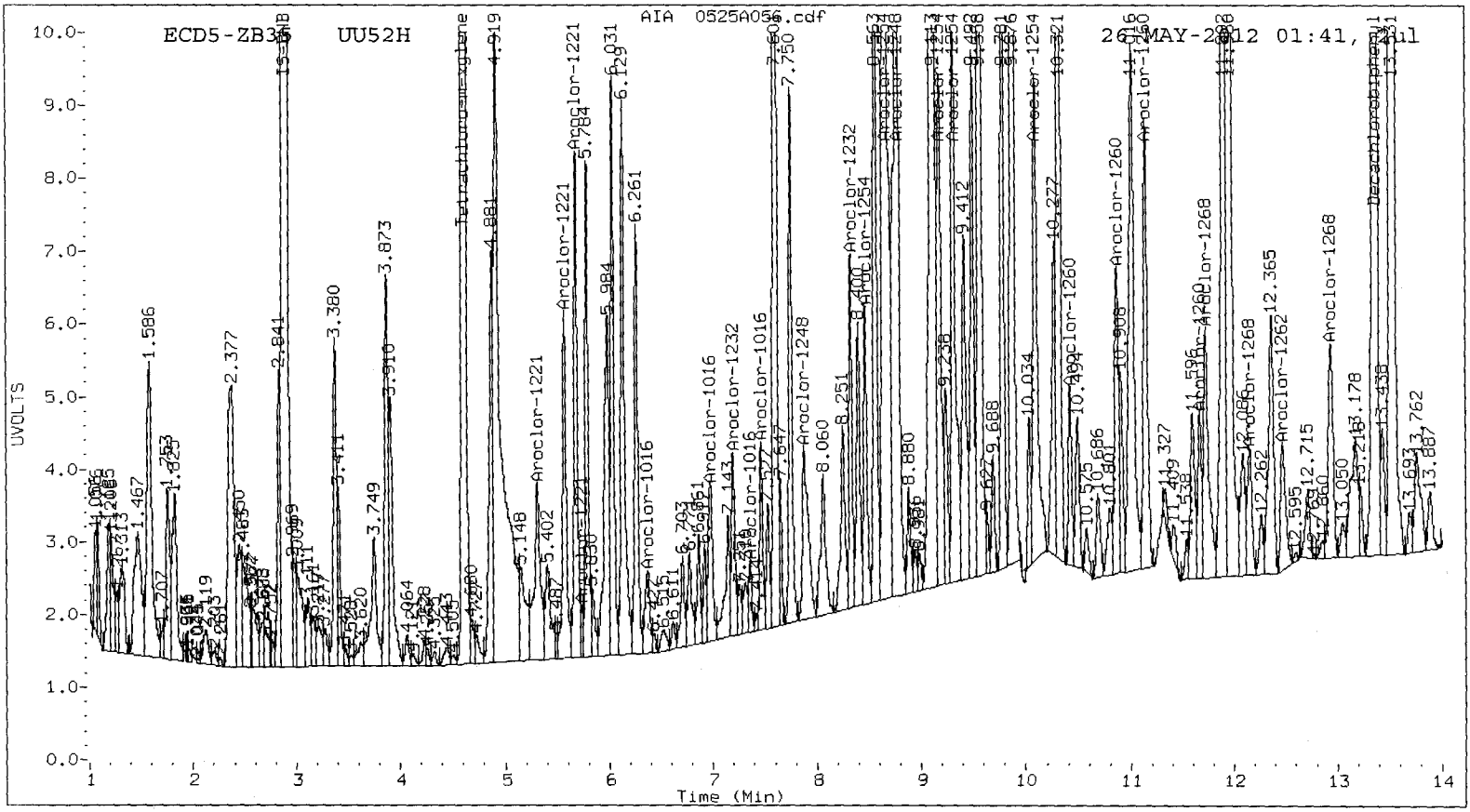
Time (Min)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26-MAY-2012 01:41
UVOLTS
Time (Min)

UU52:0175

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A057.d
Data file 2: 20120523.b/0525-2.b/0525A057.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52I
Client ID:
Injection Date: 26-MAY-2012 02:00
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.002	70764451	4.612	0.001	40606165	25.8	26.1	1.2	Tetrachloro-m-xylene
12.993	0.002	122739749	13.366	0.000	35991657	39.1	34.3	13.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	64.4	65.2
Decachlorobiphenyl	97.7	85.7

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	170997221	10.9
Hexabromobiphenyl	248602423	204648375	-17.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	110753933	0.1
Hexabromobiphenyl	108855531	81238436	-25.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.208	-0.034	2578757	36.1	1	6.363	0.016	1970803	34.1
Aroclor-1016	2	6.643	0.002	6036980	26.0	2	6.974	0.001	1870492	14.3
Aroclor-1016	3	6.790	0.000	1335379	14.6	3	7.352	-0.004	831702	24.6
Aroclor-1016	4	6.905	0.005	2260216	31.3	4	7.462	-0.001	1736542	46.1
	Total Col1Ave (4 peaks):				27.0	Total Col2Ave (4 peaks):				29.8 RPD = 10
	Corrected Ave (3 peaks):				23.9	Corrected Ave (3 peaks):				24.3 RPD = 2
Aroclor-1221	1	4.893	0.009	7064558	551.1	1	5.308	0.018	3172707	181.8
Aroclor-1221	2	5.147	-0.006	905017	43.9	2	5.567	0.031	4331391	420.0
Aroclor-1221	3	5.277	0.018	3213797	47.5	3	5.677	0.029	4164378	129.1
Aroclor-1221	NS	---			----	4	5.729	0.012	411406	69.6
	Total Col1Ave (3 peaks):				214.2	Total Col2Ave (4 peaks):				200.1 RPD = 7
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				126.8
Aroclor-1232	1	6.208	-0.031	2578757	86.6	1	6.363	0.018	1970803	73.9
Aroclor-1232	2	6.643	0.004	6036980	60.9	2	6.974	0.003	1870492	33.5
Aroclor-1232	3	6.790	0.002	1335379	33.2	3	7.186	0.006	929939	49.4
Aroclor-1232	4	7.983	0.002	5438232	140.9	4	8.326	0.001	2511716	121.6
	Total Col1Ave (4 peaks):				80.4	Total Col2Ave (4 peaks):				69.6 RPD = 14
	Corrected Ave (3 peaks):				60.2	Corrected Ave (3 peaks):				52.2 RPD = 14
Aroclor-1242	1	6.208	-0.035	2578757	47.9	1	6.363	0.016	1970803	43.6
Aroclor-1242	2	6.643	0.001	6036980	33.6	2	6.974	0.000	1870492	18.2
Aroclor-1242	3	6.790	-0.001	1335379	18.6	3	7.186	0.004	929939	22.3
Aroclor-1242	4	7.983	-0.001	5438232	81.5	4	8.326	-0.001	2511716	69.3
	Total Col1Ave (4 peaks):				45.4	Total Col2Ave (4 peaks):				38.4 RPD = 17
	Corrected Ave (3 peaks):				33.4	Corrected Ave (3 peaks):				28.0 RPD = 17
Aroclor-1248	1	6.643	0.004	6036980	50.3	1	6.974	0.003	1870492	28.1
Aroclor-1248	2	7.439	0.001	3199188	35.3	2	7.876	0.001	1843476	34.6
Aroclor-1248	3	7.983	-0.001	5438232	46.8	3	8.326	-0.001	2511716	39.2
Aroclor-1248	4	8.267	-0.007	8256140	70.4	4	8.737	-0.011	10357626	143.2
	Total Col1Ave (4 peaks):				50.7	Total Col2Ave (4 peaks):				61.3 RPD = 19
	Corrected Ave (3 peaks):				44.1	Corrected Ave (3 peaks):				34.0 RPD = 26
Aroclor-1254	1	8.356	-0.001	9900117	63.1	1	8.465	-0.001	3165078	65.1
Aroclor-1254	2	8.748	0.021	26849263	265.7	2	8.641	0.003	7226718	116.9
Aroclor-1254	3	8.863	-0.001	26991173	138.4	3	9.180	0.020	21542626	456.1
Aroclor-1254	4	9.212	-0.001	25967592	123.6	4	9.310	0.001	10129753	97.0
Aroclor-1254	5	9.574	0.001	18395044	140.8	5	10.091	-0.002	5539515	90.5
	Total Col1Ave (5 peaks):				146.3	Total Col2Ave (5 peaks):				165.1 RPD = 12
	Corrected Ave (4 peaks):				116.5	Corrected Ave (4 peaks):				92.4 RPD = 23
Aroclor-1260	1	10.445	-0.001	2452101	22.1	1	10.422	0.001	1560080	33.5
Aroclor-1260	2	10.822	0.002	14914260	54.1	2	10.871	-0.001	3523422	60.9
Aroclor-1260	3	11.278	0.057	14249573	93.0	3	11.146	0.001	5598297	47.7
Aroclor-1260	4	11.332	-0.005	2714511	41.3	4	11.673	0.007	1608124	46.9
Aroclor-1260	5	11.408	-0.002	88919598	1132.6	NS	---			----
	Total Col1Ave (5 peaks):				268.6	Total Col2Ave (4 peaks):				47.2 RPD = 140*
	Corrected Ave (4 peaks):				52.6	Corrected Ave (3 peaks):				42.7 RPD = 21
Aroclor-1262	1	10.130	0.002	5503741	34.1	1	10.422	0.003	1560080	20.5
Aroclor-1262	2	10.445	0.001	2452101	19.7	2	10.871	0.001	3523422	53.7
Aroclor-1262	3	10.822	0.004	14914260	43.8	3	11.146	0.004	5598297	37.6
Aroclor-1262	4	11.332	-0.002	2714511	21.8	4	11.673	0.009	1608124	26.8
Aroclor-1262	5	11.408	0.001	88919598	628.3	5	12.492	0.029	2992529	53.6
	Total Col1Ave (5 peaks):				149.5	Total Col2Ave (5 peaks):				38.4 RPD = 118*
	Corrected Ave (4 peaks):				29.8	Corrected Ave (4 peaks):				34.6 RPD = 15
Aroclor-1268	1	11.332	-0.004	2714511	7.8	1	11.673	0.009	1608124	10.4
Aroclor-1268	2	11.408	0.001	88919598	253.8	2	11.725	-0.005	4021148	27.5

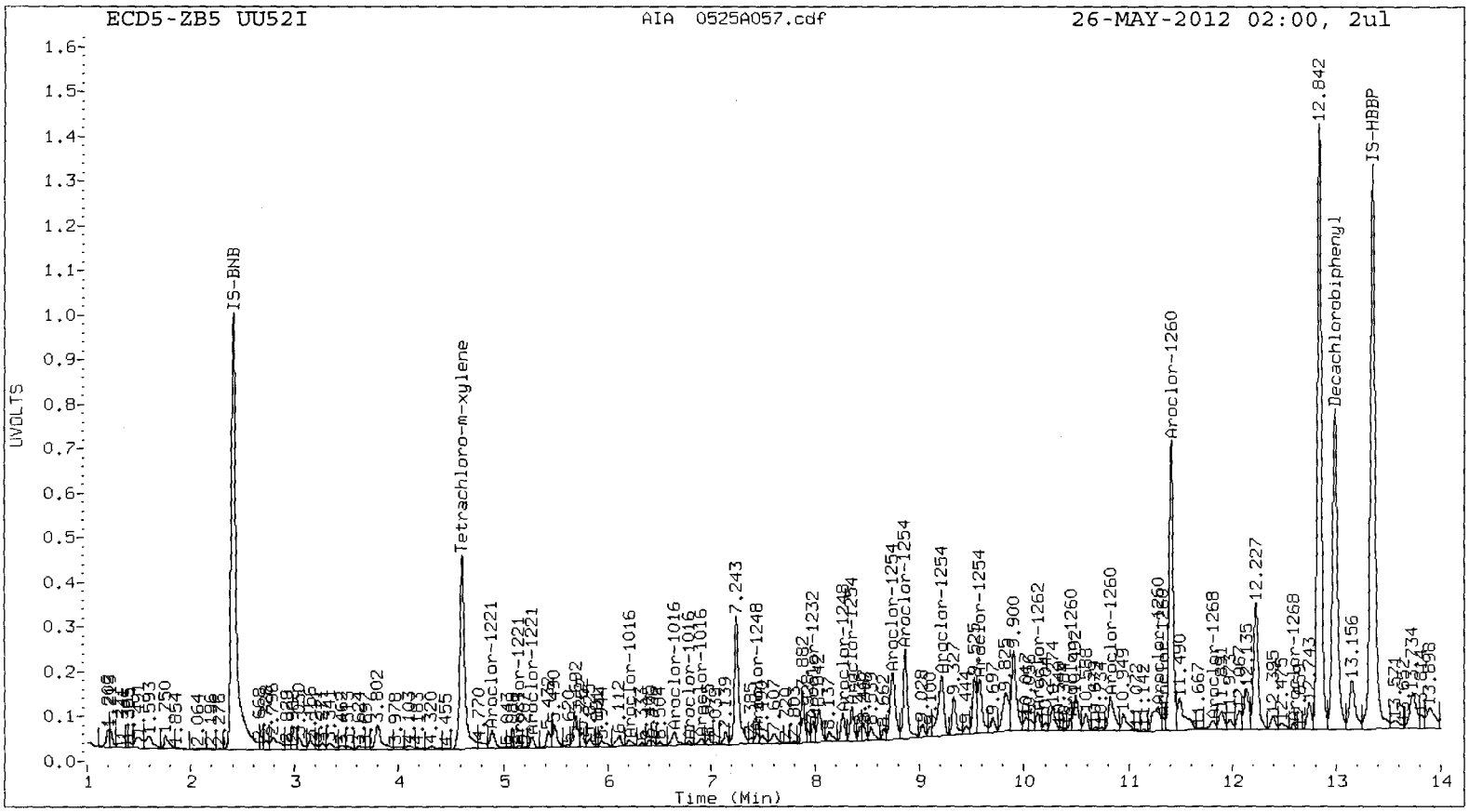
Aroclor-1268 3	11.809	0.016	2944894	10.1	3	12.156	0.029	2156287	17.6
Aroclor-1268 4	12.591	0.006	1495370	1.7	4	12.939	-0.010	3195187	9.2
Total Col1Ave (4 peaks):			68.4		Total Col2Ave (4 peaks):			16.2	RPD = 124*
Corrected Ave (3 peaks):			6.5		Corrected Ave (3 peaks):			12.4	RPD = 62*

Total PCB Area Col1 (4.710 - 12.891) = 867061260 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 397662044 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
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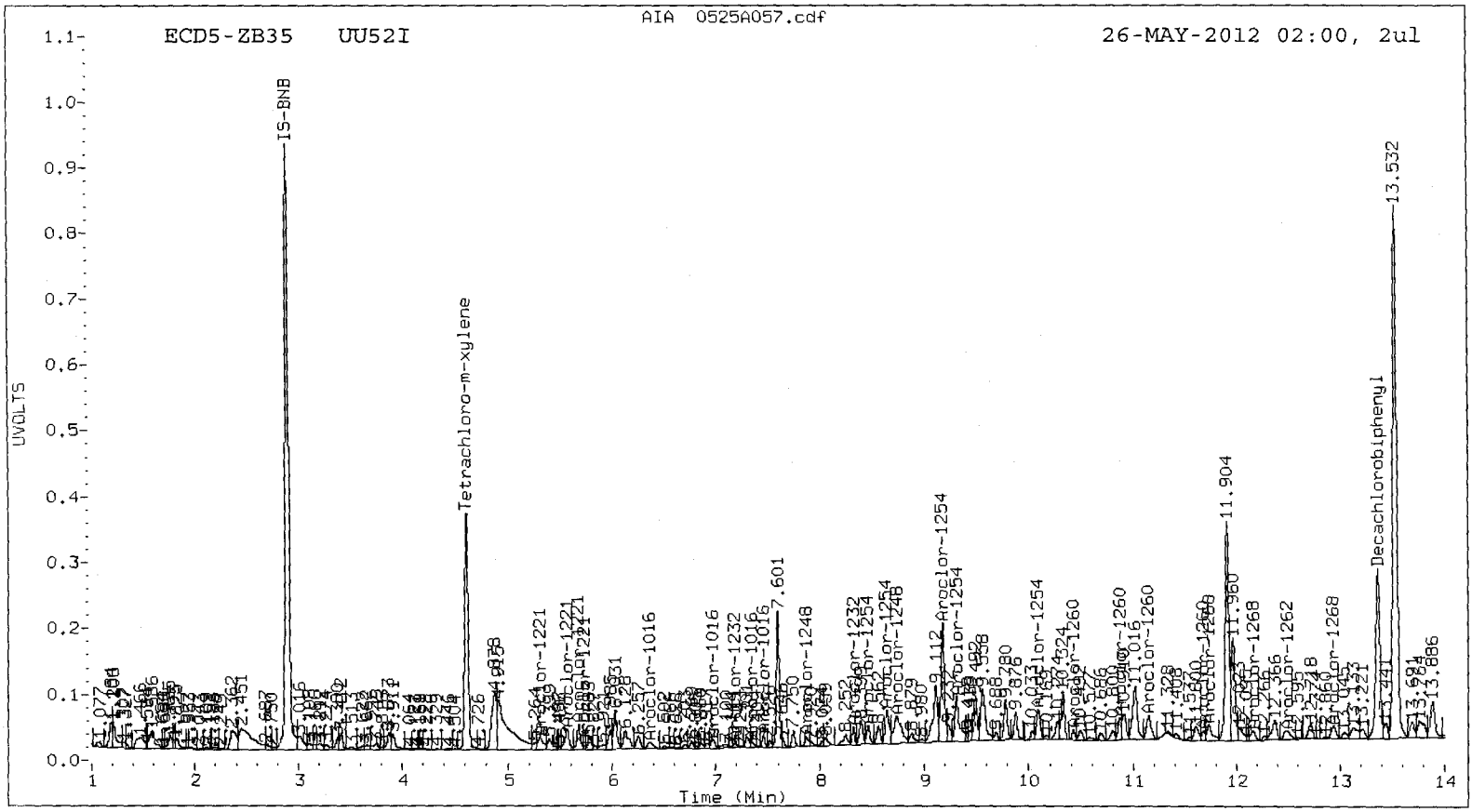
13.156
12.227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Aroclor-1248
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Decachlorobiphenyl
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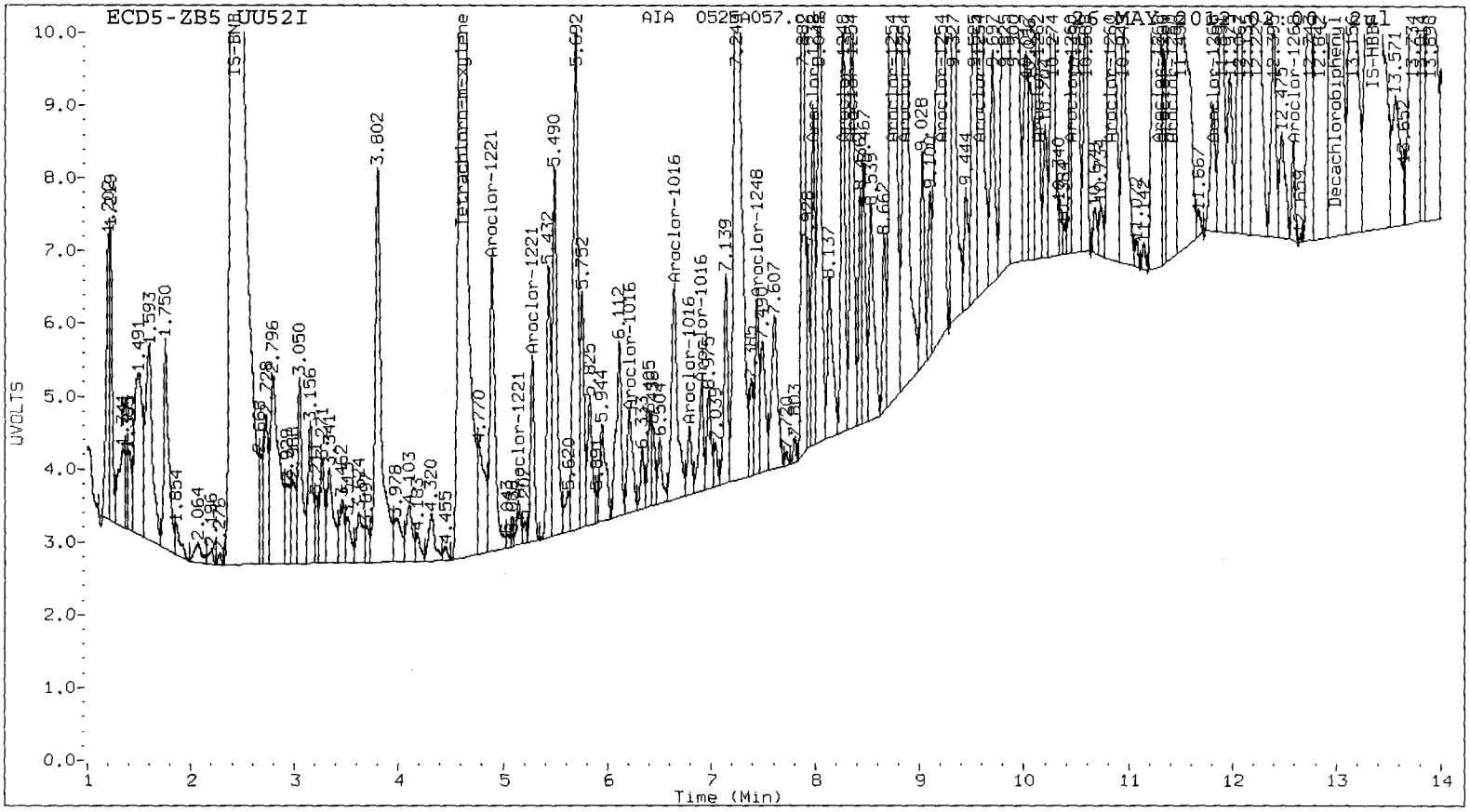
13.532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Time (Min)
IS-DNB
Tetrachloro-m-xylene
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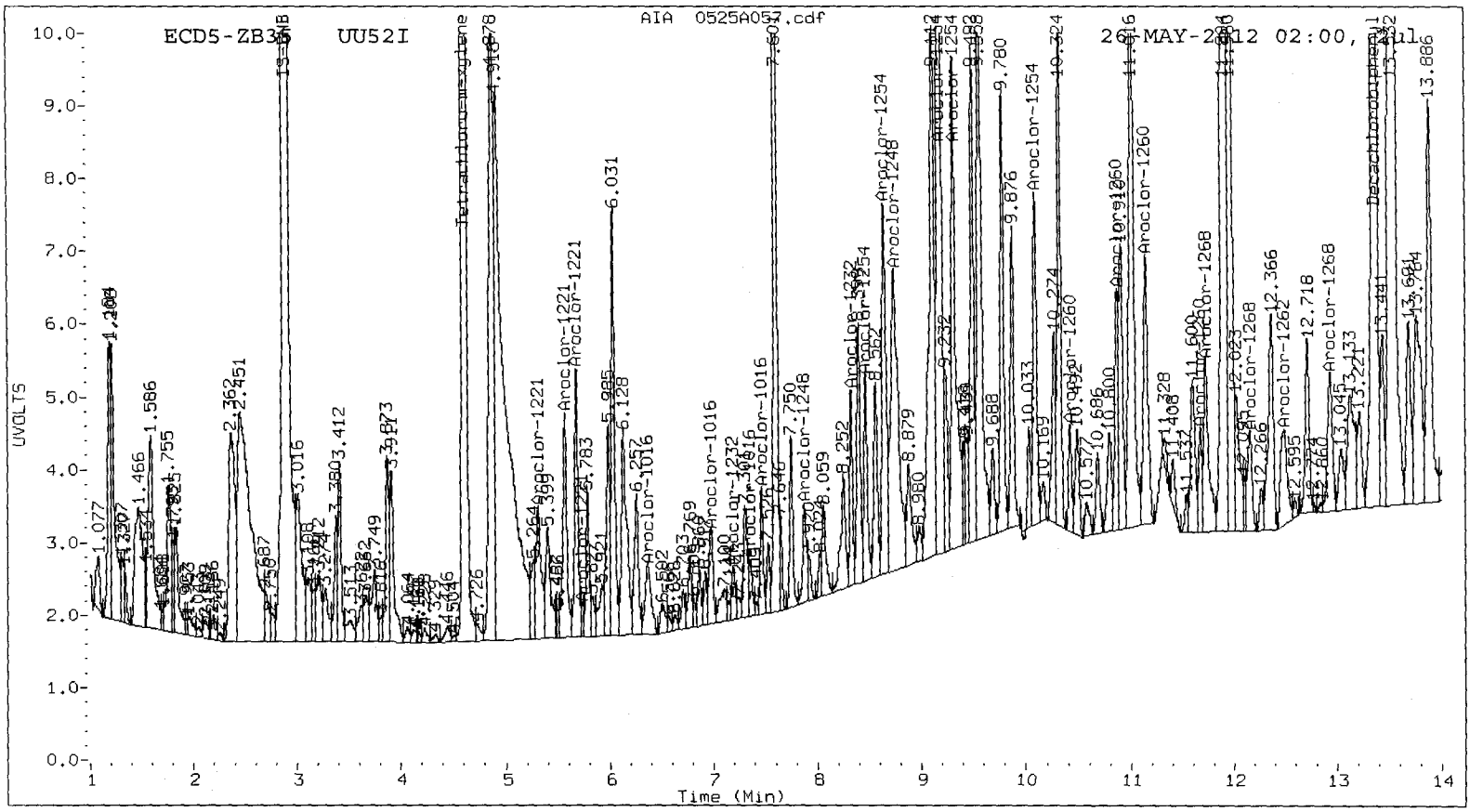
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB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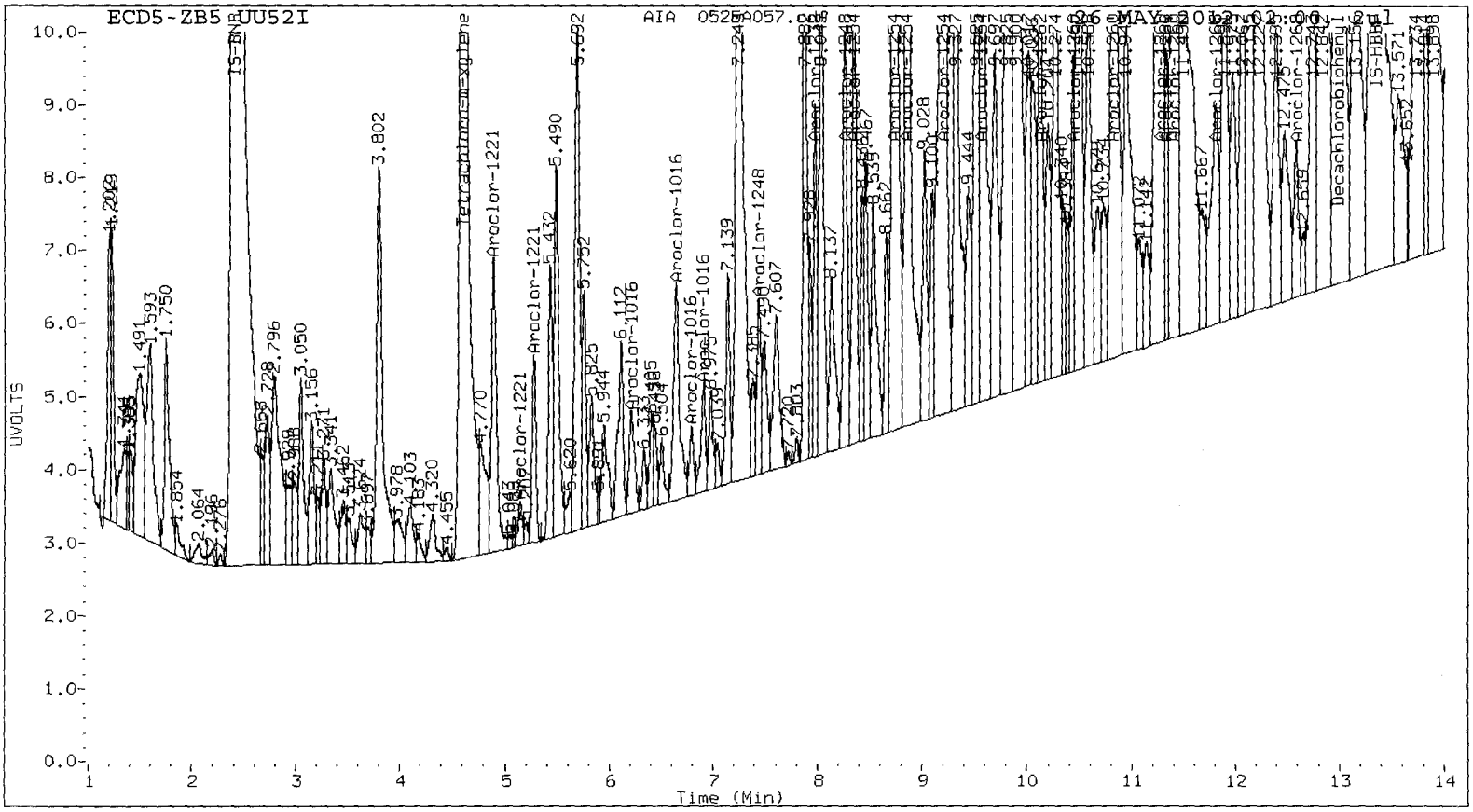
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB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Aroclor-1016
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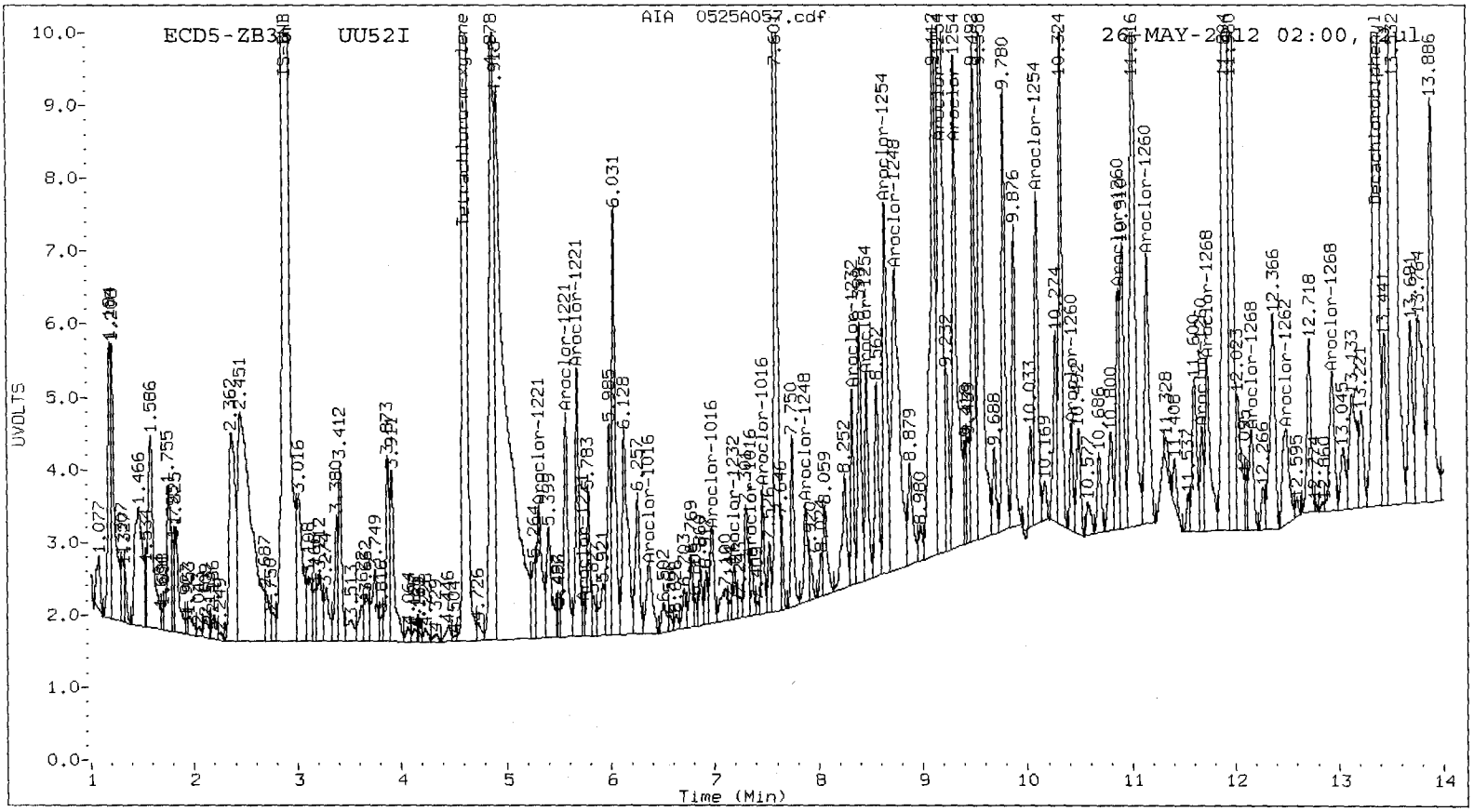
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A058.d
Data file 2: 20120523.b/0525-2.b/0525A058.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52J
Client ID:
Injection Date: 26-MAY-2012 02:19
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	73942264	4.612	0.001	42537124	27.8	26.5	4.9	Tetrachloro-m-xylene
12.992	0.001	97503291	13.366	0.000	37720878	29.7	36.8	21.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	69.6	66.2
Decachlorobiphenyl	74.2	92.1

JR 05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	165312726	7.2
Hexabromobiphenyl	248602423	213969653	-13.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	114133347	3.2
Hexabromobiphenyl	108855531	79253731	-27.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.204	-0.038	2335413	33.9	1	6.360	0.013	1792872	30.1
Aroclor-1016	2	6.643	0.001	6268669	27.9	2	6.974	0.001	1667363	12.3
Aroclor-1016	3	6.790	0.000	1590125	17.9	3	7.351	-0.006	1462881	41.9
Aroclor-1016	4	6.901	0.001	2116685	30.3	4	7.461	-0.002	1550921	40.0
	Total Col1Ave (4 peaks):				27.5	Total Col2Ave (4 peaks):				31.1 RPD = 12
	Corrected Ave (3 peaks):				25.4	Corrected Ave (3 peaks):				27.5 RPD = 8
Aroclor-1221	1	4.892	0.008	7333895	591.8	1	5.309	0.019	4264795	237.1
Aroclor-1221	2	5.146	-0.007	1065419	53.4	2	5.514	-0.022	175301	16.5
Aroclor-1221	3	5.276	0.017	2651069	40.6	3	5.677	0.028	3743811	112.6
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				228.6	Total Col2Ave (3 peaks):				122.1 RPD = 61*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.204	-0.035	2335413	81.1	1	6.360	0.015	1792872	65.2
Aroclor-1232	2	6.643	0.004	6268669	65.4	2	6.974	0.003	1667363	29.0
Aroclor-1232	3	6.790	0.003	1590125	40.9	3	7.183	0.004	618209	31.8
Aroclor-1232	4	7.983	0.002	6585155	176.5	4	8.326	0.001	2669550	125.4
	Total Col1Ave (4 peaks):				91.0	Total Col2Ave (4 peaks):				62.9 RPD = 37
	Corrected Ave (3 peaks):				62.5	Corrected Ave (3 peaks):				42.0 RPD = 39
Aroclor-1242	1	6.204	-0.039	2335413	44.9	1	6.360	0.013	1792872	38.5
Aroclor-1242	2	6.643	0.001	6268669	36.1	2	6.974	0.000	1667363	15.8
Aroclor-1242	3	6.790	0.000	1590125	23.0	3	7.183	0.001	618209	14.4
Aroclor-1242	4	7.983	-0.001	6585155	102.1	4	8.326	-0.001	2669550	71.5
	Total Col1Ave (4 peaks):				51.5	Total Col2Ave (4 peaks):				35.0 RPD = 38
	Corrected Ave (3 peaks):				34.7	Corrected Ave (3 peaks):				22.9 RPD = 41*
Aroclor-1248	1	6.643	0.004	6268669	54.0	1	6.974	0.003	1667363	24.3
Aroclor-1248	2	7.437	-0.001	4289164	48.9	2	7.876	0.001	2002818	36.5
Aroclor-1248	3	7.983	-0.001	6585155	58.6	3	8.326	0.000	2669550	40.4
Aroclor-1248	4	8.270	-0.004	6613104	58.3	4	8.739	-0.009	9604640	128.9
	Total Col1Ave (4 peaks):				55.0	Total Col2Ave (4 peaks):				57.5 RPD = 5
	Corrected Ave (3 peaks):				53.8	Corrected Ave (3 peaks):				33.7 RPD = 46*
Aroclor-1254	1	8.356	0.000	7654465	50.4	1	8.465	-0.001	2612087	52.1
Aroclor-1254	2	8.745	0.018	20487889	209.8	2	8.639	0.000	6170373	96.9
Aroclor-1254	3	8.864	0.001	21191779	112.4	3	9.183	0.023	12748398	261.9
Aroclor-1254	4	9.214	0.001	22438330	110.5	4	9.310	0.000	8667468	80.5
Aroclor-1254	5	9.574	0.000	15838568	125.4	5	10.089	-0.003	5046612	80.0
	Total Col1Ave (5 peaks):				121.7	Total Col2Ave (5 peaks):				114.3 RPD = 6
	Corrected Ave (4 peaks):				99.7	Corrected Ave (4 peaks):				77.4 RPD = 25
Aroclor-1260	1	10.444	-0.003	1402458	12.1	1	10.422	0.001	1242448	27.3
Aroclor-1260	2	10.822	0.002	12007531	41.7	2	10.910	0.038	10801343	191.4
Aroclor-1260	3	11.227	0.007	2943330	18.4	3	11.145	0.000	4221616	36.8
Aroclor-1260	4	11.280	-0.056	11639603	169.3	4	11.672	0.006	1329235	39.7
Aroclor-1260	5	11.407	-0.003	47546329	579.3	NS	---			----
	Total Col1Ave (5 peaks):				164.1	Total Col2Ave (4 peaks):				73.8 RPD = 76*
	Corrected Ave (4 peaks):				80.4	Corrected Ave (3 peaks):				34.6 RPD = 54*
Aroclor-1262	1	10.132	0.004	4622438	27.1	1	10.422	0.003	1242448	16.7
Aroclor-1262	2	10.444	0.000	1402458	10.8	2	10.910	0.040	10801343	168.7
Aroclor-1262	3	10.822	0.004	12007531	33.7	3	11.145	0.003	4221616	29.0
Aroclor-1262	4	11.280	-0.054	11639603	89.4	4	11.672	0.008	1329235	22.7
Aroclor-1262	5	11.407	0.000	47546329	321.3	5	12.489	0.026	1730993	31.8
	Total Col1Ave (5 peaks):				96.5	Total Col2Ave (5 peaks):				53.8 RPD = 57*
	Corrected Ave (4 peaks):				40.3	Corrected Ave (4 peaks):				25.1 RPD = 46*
Aroclor-1268	1	11.280	-0.055	11639603	31.9	1	11.672	0.008	1329235	8.8
Aroclor-1268	2	11.407	0.000	47546329	129.8	2	11.724	-0.006	2674437	18.8

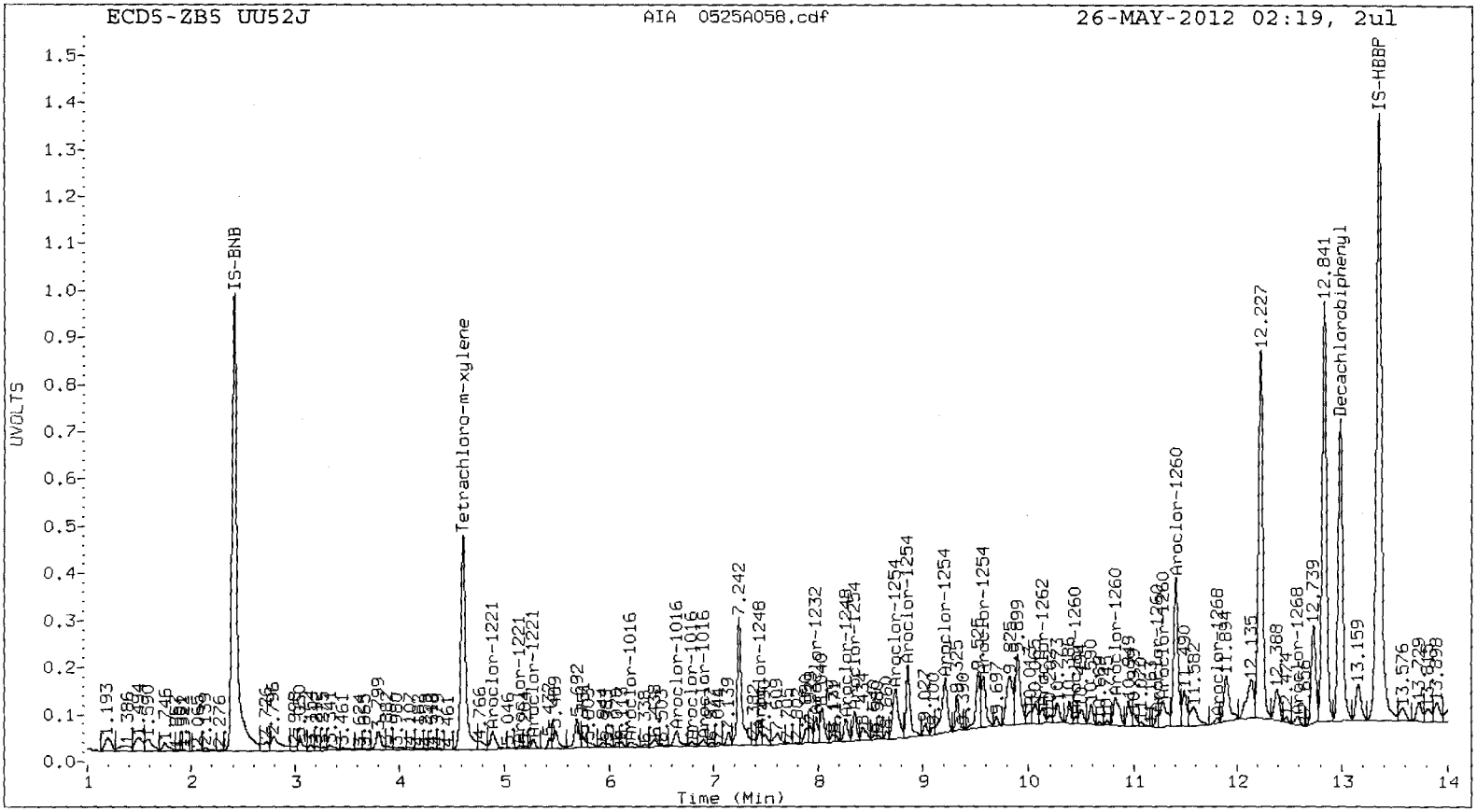
Aroclor-1268 3	11.807	0.015	1708880	5.6	3	12.073	-0.055	5301829	44.3
Aroclor-1268 4	12.587	0.002	2749897	3.1	4	12.933	-0.017	10747010	31.8
Total Col1Ave (4 peaks):			42.6	Total Col2Ave (4 peaks):				25.9	RPD = 49*
Corrected Ave (3 peaks):			13.5	Corrected Ave (3 peaks):				19.8	RPD = 37

Total PCB Area Col1 (4.710 - 12.891) = 816876940 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 418949275 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
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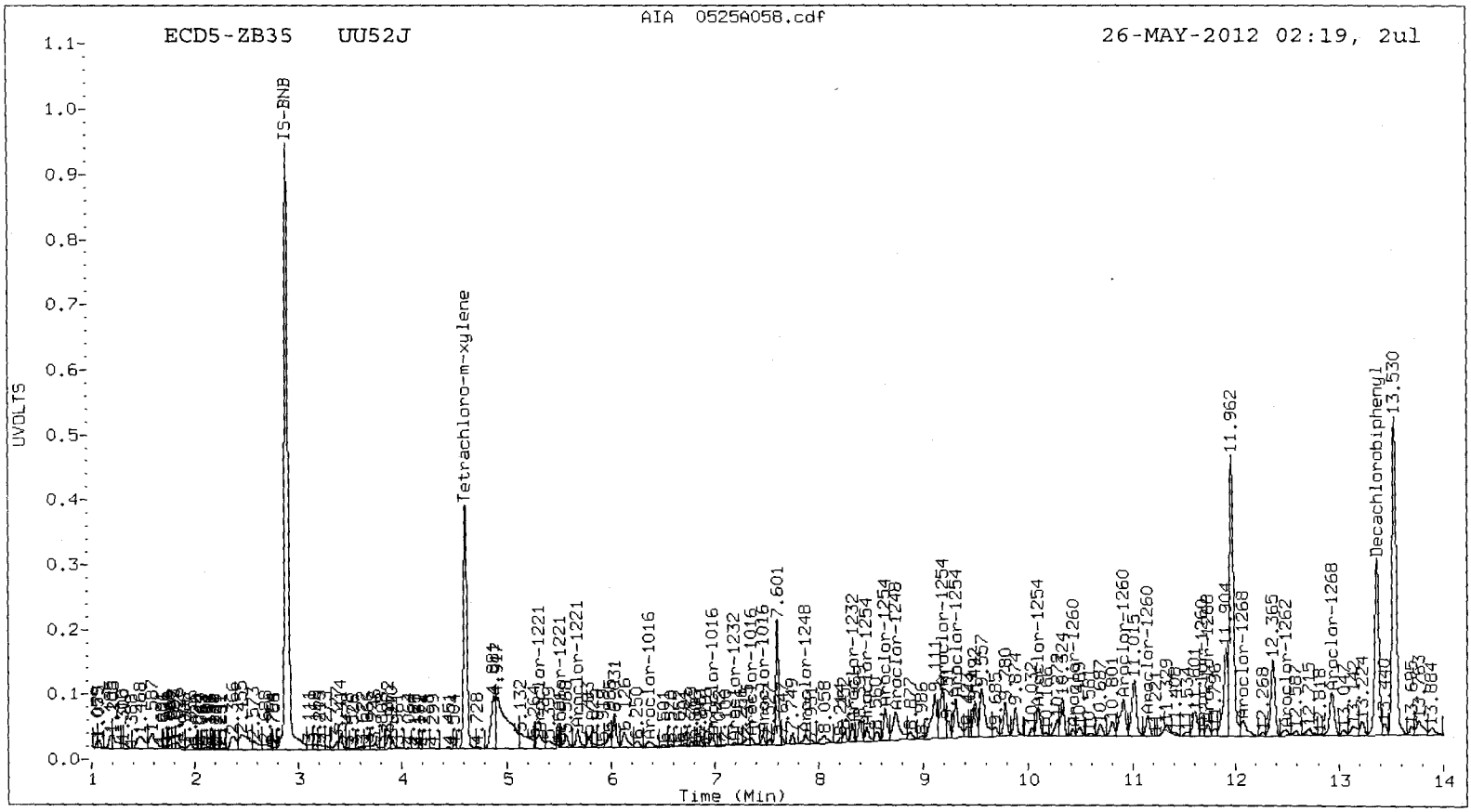
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
12.227
12.841
13.159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Tetrachloro-m-xylene
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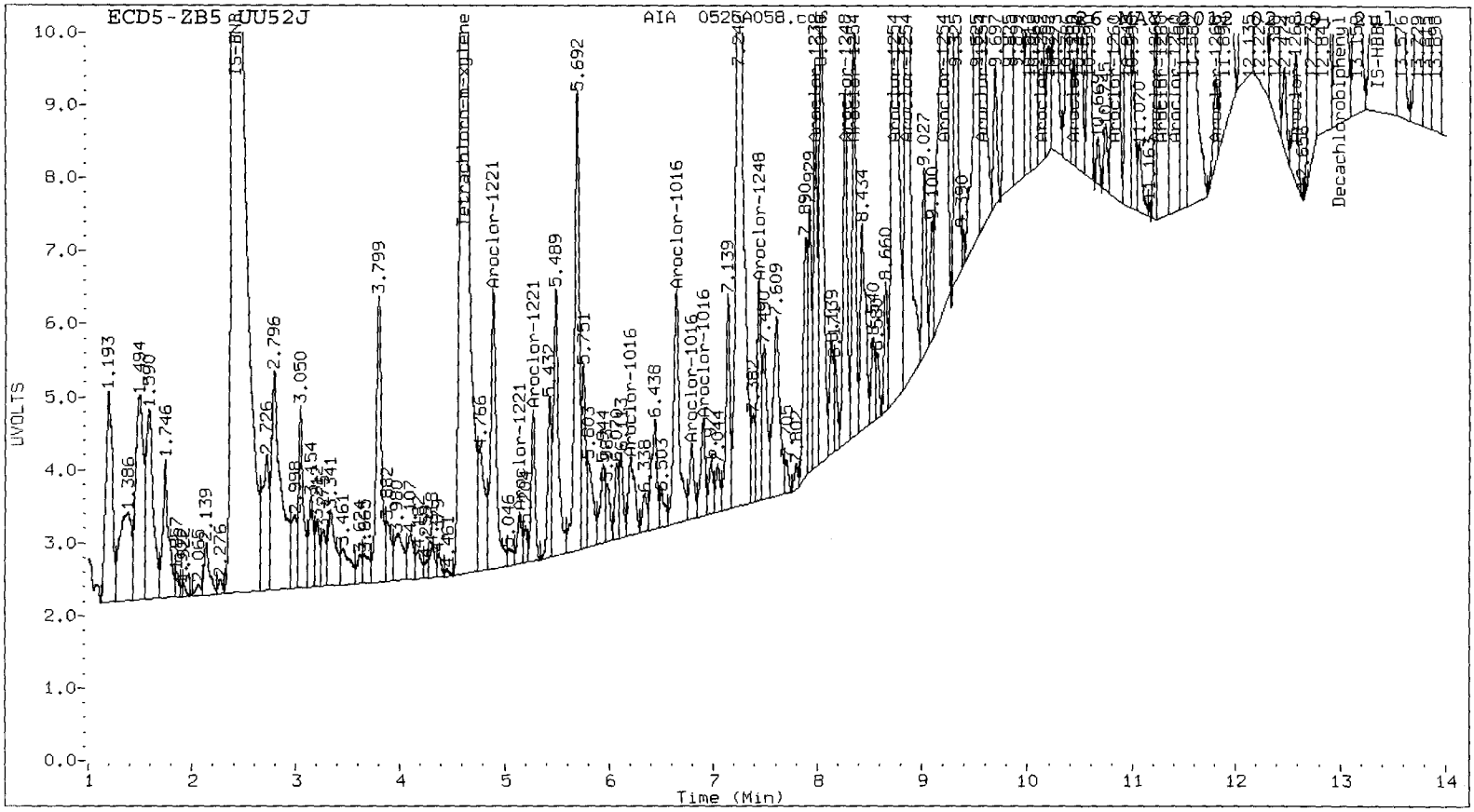
Decachlorobiphenyl
11.962
13.530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IS-HBB
Tetrachloro-m-xylene
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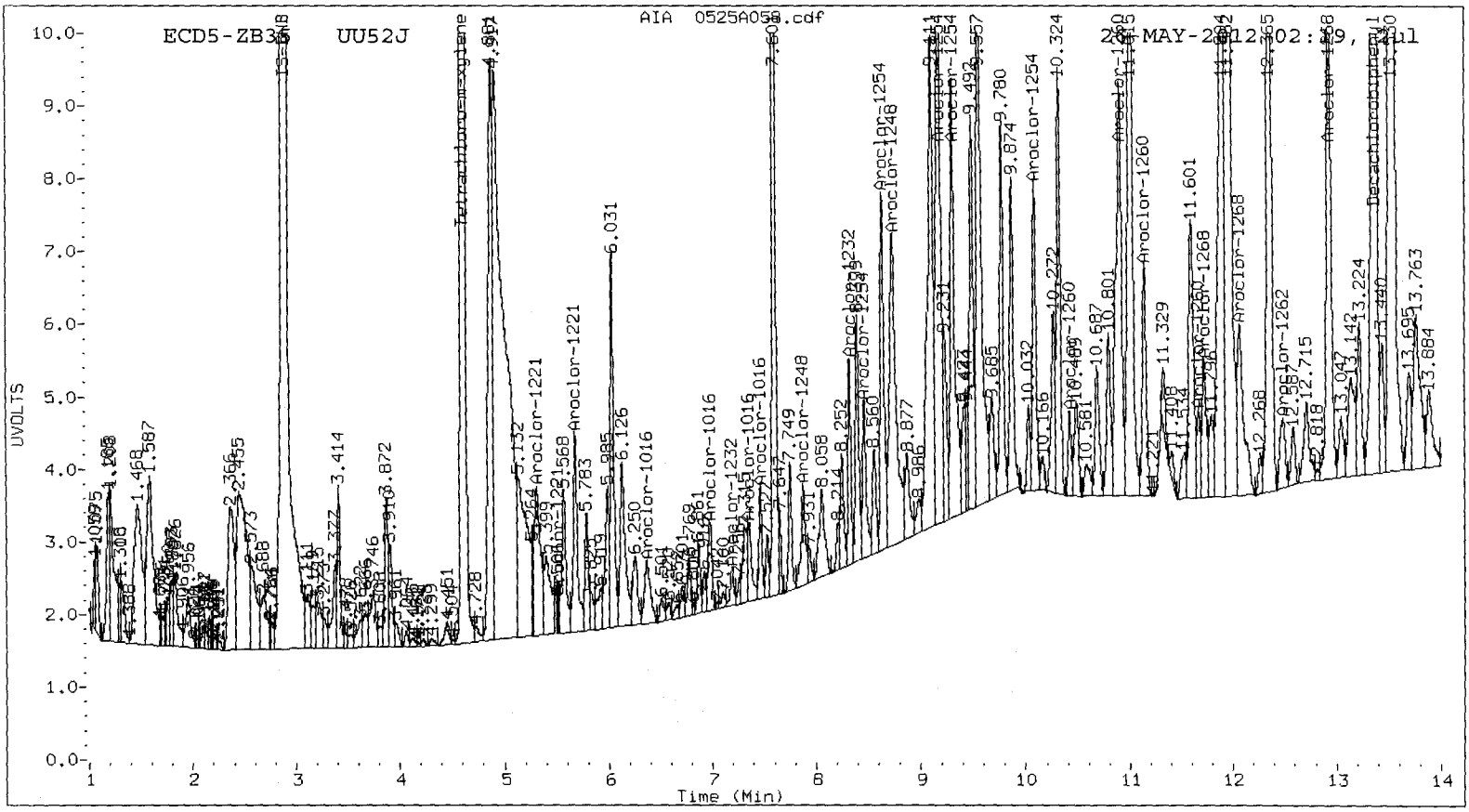
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl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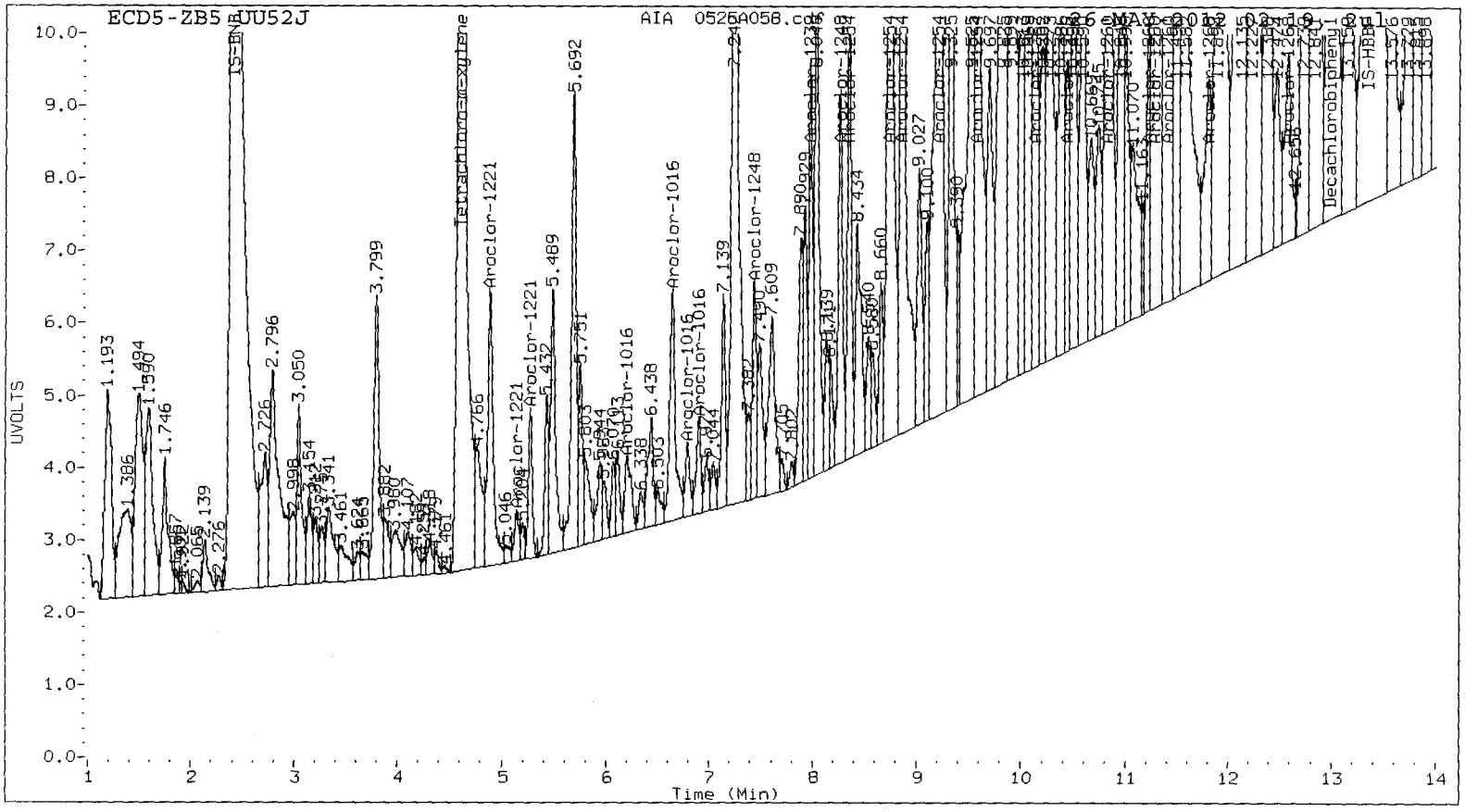
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
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Aroclor-1016
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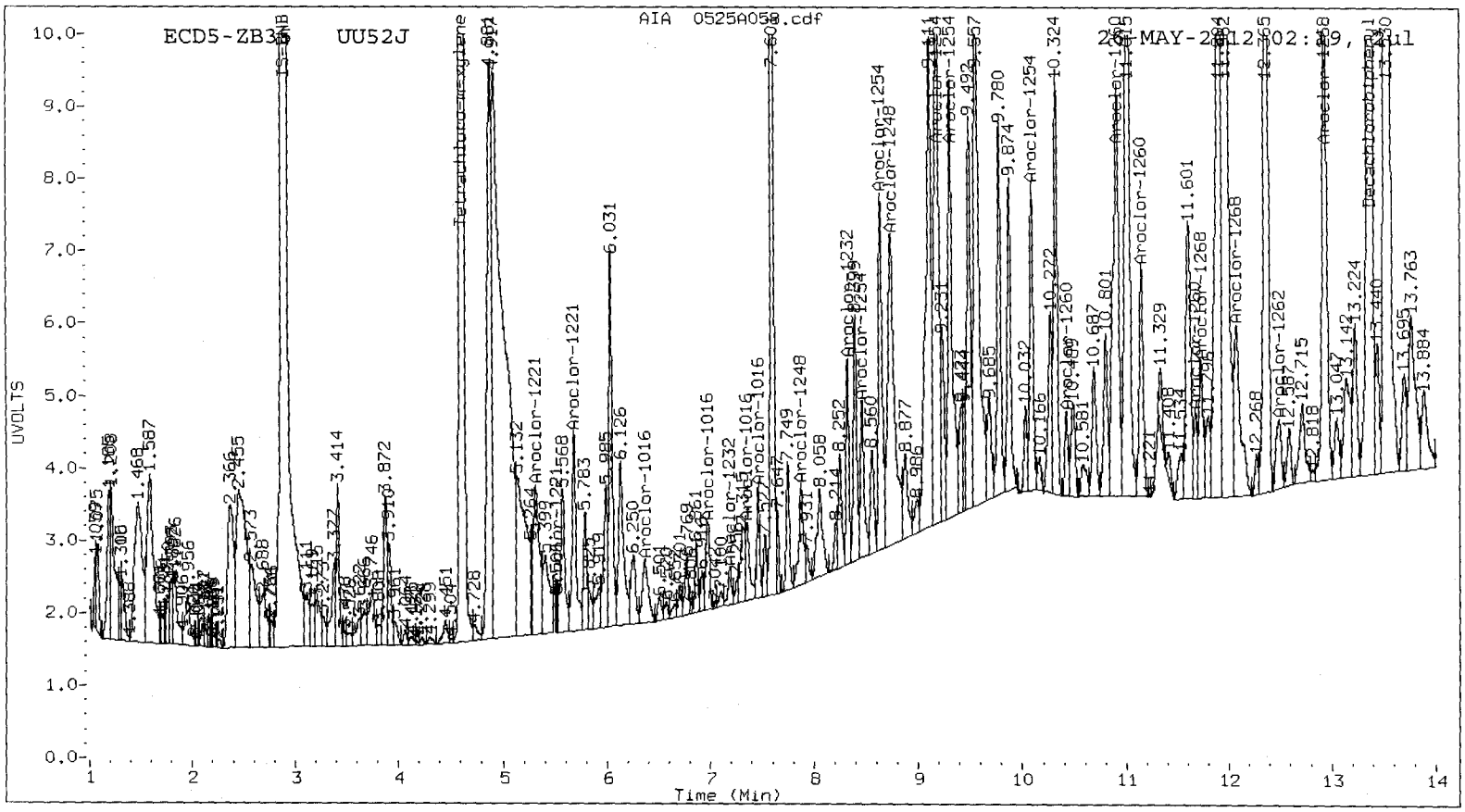
Aroclor-1262
Decachlorobiphenyl
IS-HBB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25-MAY-2012 02:09
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl
IS-HBB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A059.d
Data file 2: 20120523.b/0525-2.b/0525A059.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52JMS
Client ID:
Injection Date: 26-MAY-2012 02:38
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	77289363	4.613	0.002	43563901	28.2	26.9	4.8	Tetrachloro-m-xylene
12.993	0.002	87878541	13.366	0.000	35683163	26.5	35.4	28.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	70.5	67.2
Decachlorobiphenyl	66.3	88.5

JL 05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	170569379	10.6
Hexabromobiphenyl	248602423	215844910	-13.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	115176537	4.1
Hexabromobiphenyl	108855531	78007406	-28.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.243	0.002	17517624	246.2	1	6.349	0.001	16664558	277.2
Aroclor-1016	2	6.644	0.002	63377600	273.2	2	6.973	-0.001	29616268	217.0
Aroclor-1016	3	6.791	0.001	23341488	255.1	3	7.356	0.000	8373248	237.8
Aroclor-1016	4	6.902	0.002	18335580	254.4	4	7.463	0.000	9281654	237.1
	Total Col1Ave (4 peaks):				257.2		Total Col2Ave (4 peaks):			242.3 RPD = 6
	Corrected Ave (3 peaks):				251.9		Corrected Ave (3 peaks):			230.7 RPD = 9
Aroclor-1221	1	4.893	0.009	6359549	497.4	1	5.302	0.012	7748754	426.9
Aroclor-1221	2	5.156	0.003	2861643	139.0	2	5.562	0.026	5291992	493.5
Aroclor-1221	3	5.268	0.010	14980804	222.1	3	5.658	0.009	10124654	301.9
Aroclor-1221	NS	---			----	4	5.724	0.007	655076	106.6
	Total Col1Ave (3 peaks):				286.2		Total Col2Ave (4 peaks):			332.2 RPD = 15
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			278.5
Aroclor-1232	1	6.243	0.005	17517624	589.5	1	6.349	0.003	16664558	600.8
Aroclor-1232	2	6.644	0.005	63377600	641.2	2	6.973	0.002	29616268	509.9
Aroclor-1232	3	6.791	0.004	23341488	582.2	3	7.182	0.003	10576385	539.8
Aroclor-1232	4	7.983	0.003	8905525	231.3	4	8.327	0.001	4096443	190.7
	Total Col1Ave (4 peaks):				511.1		Total Col2Ave (4 peaks):			460.3 RPD = 10
	Corrected Ave (3 peaks):				467.7		Corrected Ave (3 peaks):			413.5 RPD = 12
Aroclor-1242	1	6.243	0.001	17517624	326.3	1	6.349	0.001	16664558	354.6
Aroclor-1242	2	6.644	0.001	63377600	354.0	2	6.973	-0.001	29616268	277.5
Aroclor-1242	3	6.791	0.001	23341488	326.8	3	7.182	0.000	10576385	243.9
Aroclor-1242	4	7.983	0.000	8905525	133.9	4	8.327	0.000	4096443	108.7
	Total Col1Ave (4 peaks):				285.2		Total Col2Ave (4 peaks):			246.2 RPD = 15
	Corrected Ave (3 peaks):				262.3		Corrected Ave (3 peaks):			210.0 RPD = 22
Aroclor-1248	1	6.644	0.004	63377600	529.2	1	6.973	0.002	29616268	428.2
Aroclor-1248	2	7.438	0.000	19110224	211.2	2	7.875	0.000	11242147	202.9
Aroclor-1248	3	7.983	-0.001	8905525	76.8	3	8.327	0.000	4096443	61.5
Aroclor-1248	4	8.273	-0.001	8869209	75.8	4	8.740	-0.008	11451263	152.3
	Total Col1Ave (4 peaks):				223.3		Total Col2Ave (4 peaks):			211.2 RPD = 6
	Corrected Ave (3 peaks):				121.3		Corrected Ave (3 peaks):			138.9 RPD = 14
Aroclor-1254	1	8.359	0.002	20258969	129.4	1	8.466	0.000	8145218	161.1
Aroclor-1254	2	8.740	0.012	21148943	209.9	2	8.640	0.001	11922906	185.5
Aroclor-1254	3	8.863	0.000	33713192	173.3	3	9.181	0.021	14732607	300.0
Aroclor-1254	4	9.197	-0.015	58432241	278.9	4	9.311	0.001	10479549	96.5
Aroclor-1254	5	9.523	-0.050	93499351	717.4	5	10.099	0.007	11754820	184.6
	Total Col1Ave (5 peaks):				301.8		Total Col2Ave (5 peaks):			185.5 RPD = 48*
	Corrected Ave (4 peaks):				197.8		Corrected Ave (4 peaks):			156.8 RPD = 23
Aroclor-1260	1	10.447	0.000	31627025	270.1	1	10.423	0.001	13794335	308.3
Aroclor-1260	2	10.821	0.000	87205761	300.1	2	10.874	0.002	27390961	493.1
Aroclor-1260	3	11.221	0.000	42511153	263.2	3	11.145	0.000	38011550	337.0
Aroclor-1260	4	11.337	0.000	19903980	287.0	4	11.667	0.001	10823156	328.6
Aroclor-1260	5	11.407	-0.004	72092462	870.7	NS	---			----
	Total Col1Ave (5 peaks):				298.2		Total Col2Ave (4 peaks):			366.8 RPD = 8
	Corrected Ave (4 peaks):				280.1		Corrected Ave (3 peaks):			324.6 RPD = 15
Aroclor-1262	1	10.131	0.004	36469288	212.0	1	10.423	0.003	13794335	188.8
Aroclor-1262	2	10.447	0.002	31627025	240.6	2	10.874	0.004	27390961	434.6
Aroclor-1262	3	10.821	0.002	87205761	242.8	3	11.145	0.003	38011550	265.6
Aroclor-1262	4	11.337	0.003	19903980	151.6	4	11.667	0.003	10823156	188.0
Aroclor-1262	5	11.407	0.000	72092462	482.9	5	12.465	0.002	9958348	185.8
	Total Col1Ave (5 peaks):				266.0		Total Col2Ave (5 peaks):			252.6 RPD = 5
	Corrected Ave (4 peaks):				211.7		Corrected Ave (4 peaks):			207.0 RPD = 2
Aroclor-1268	1	11.337	0.001	19903980	54.2	1	11.667	0.003	10823156	72.7
Aroclor-1268	2	11.407	0.000	72092462	195.1	2	11.725	-0.005	26678202	190.0

Aroclor-1268	3	11.810	0.018	11207303	36.3	3	12.128	0.000	1746325	14.8
Aroclor-1268	4	12.586	0.001	8088899	8.9	4	12.935	-0.015	13986682	42.0

Total Col1Ave (4 peaks): 73.6 Total Col2Ave (4 peaks): 79.9 RPD = 8

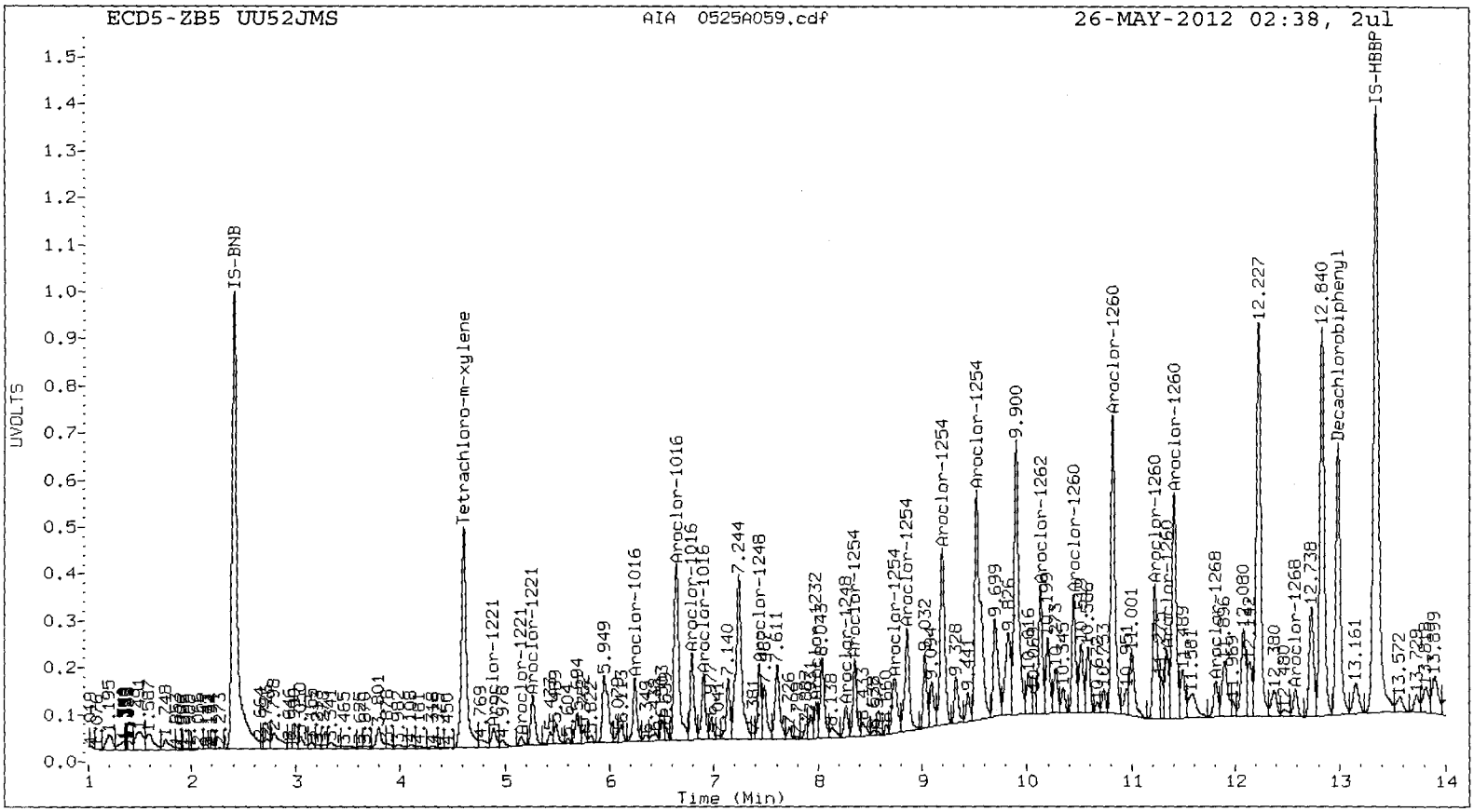
Corrected Ave (3 peaks): 33.1 Corrected Ave (3 peaks): 43.2 RPD = 26

Total PCB Area Col1 (4.710 - 12.891) = 1737509586 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 860408353 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Aroclor-1016
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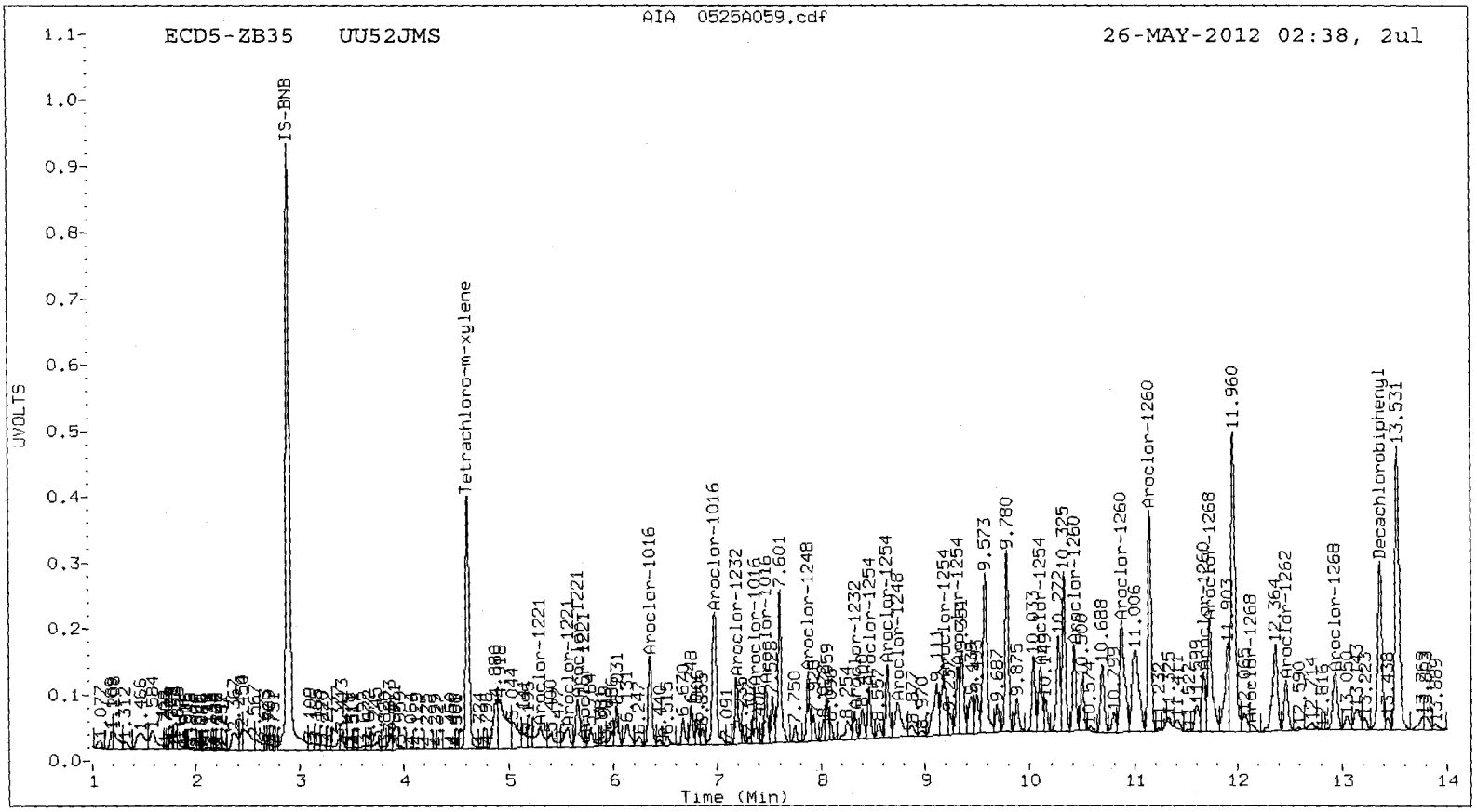
IS-HBBP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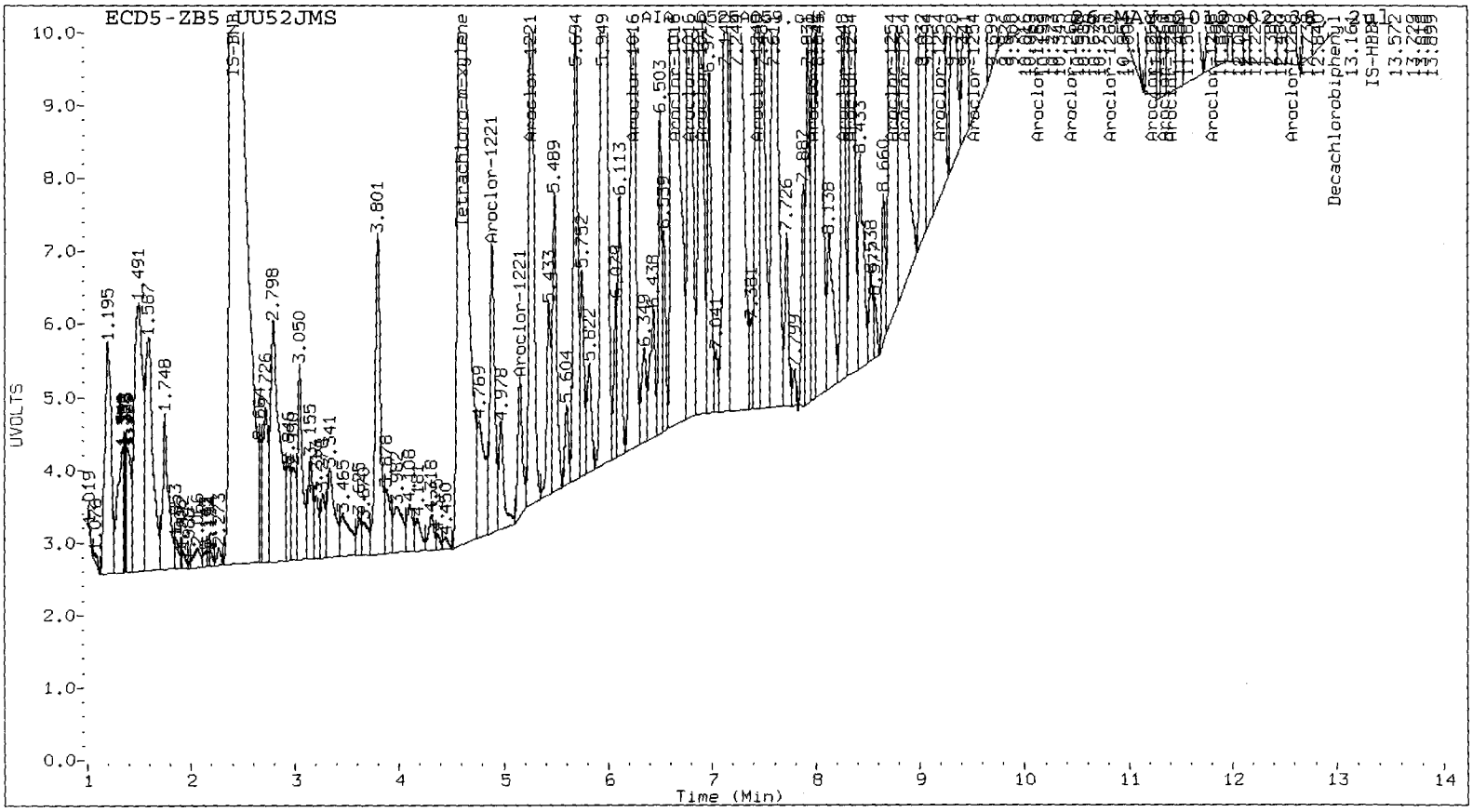
Decachlorobiphenyl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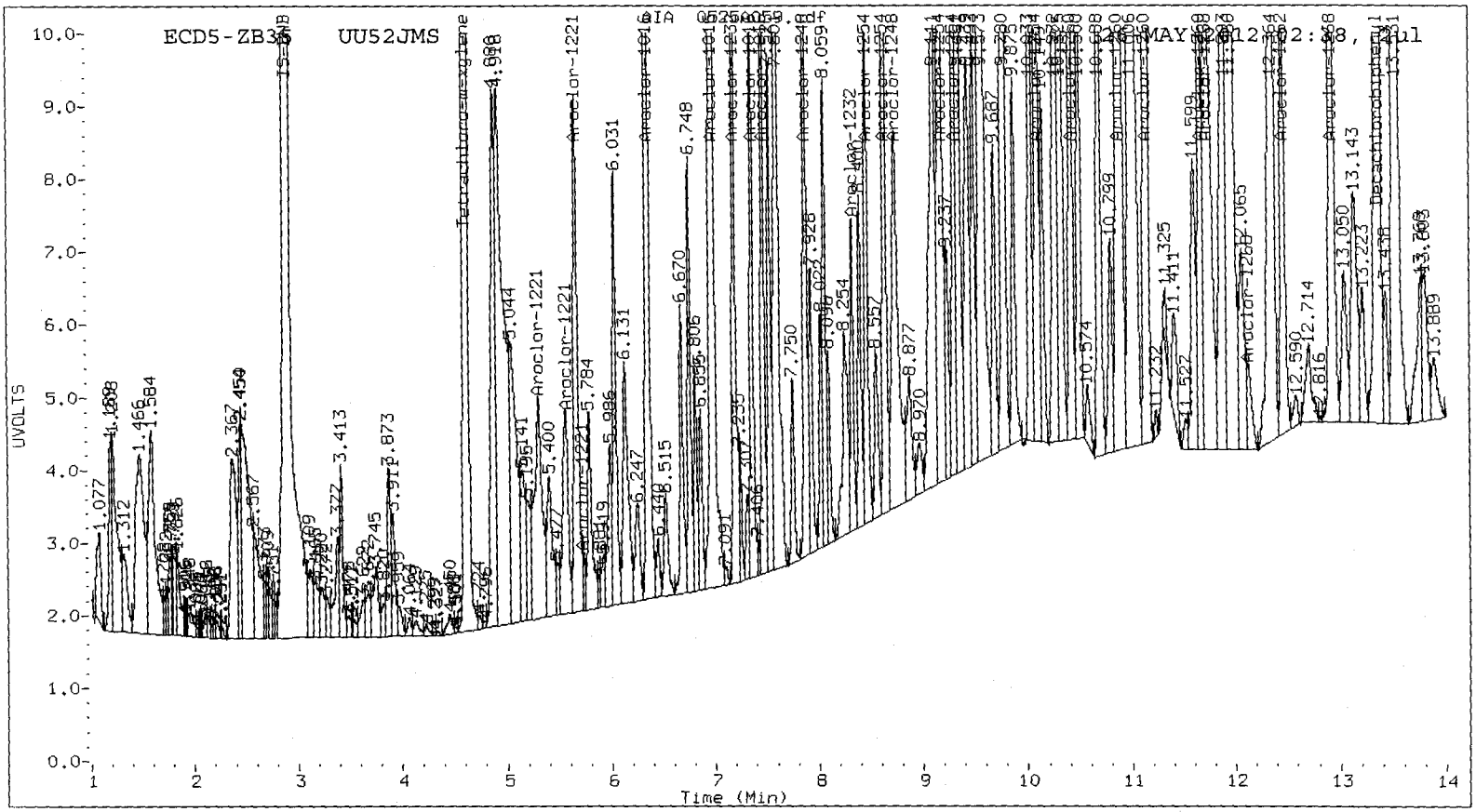
Decachlorobiphenyl
IS-HBB
UVOLTS
Time (Min)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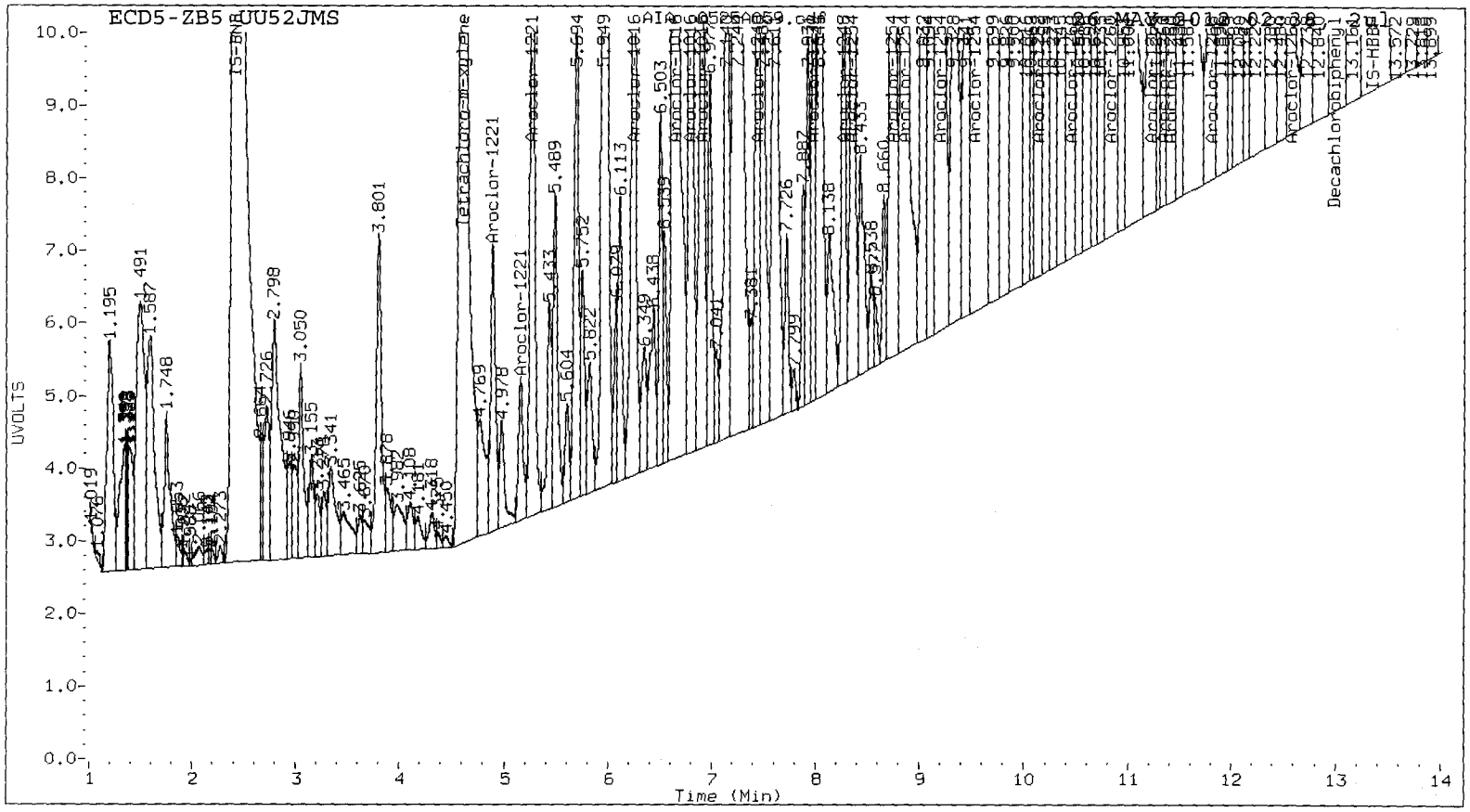
Aroclor-1268
Decachlorobiphenyl
UVOLTS
Time (Min)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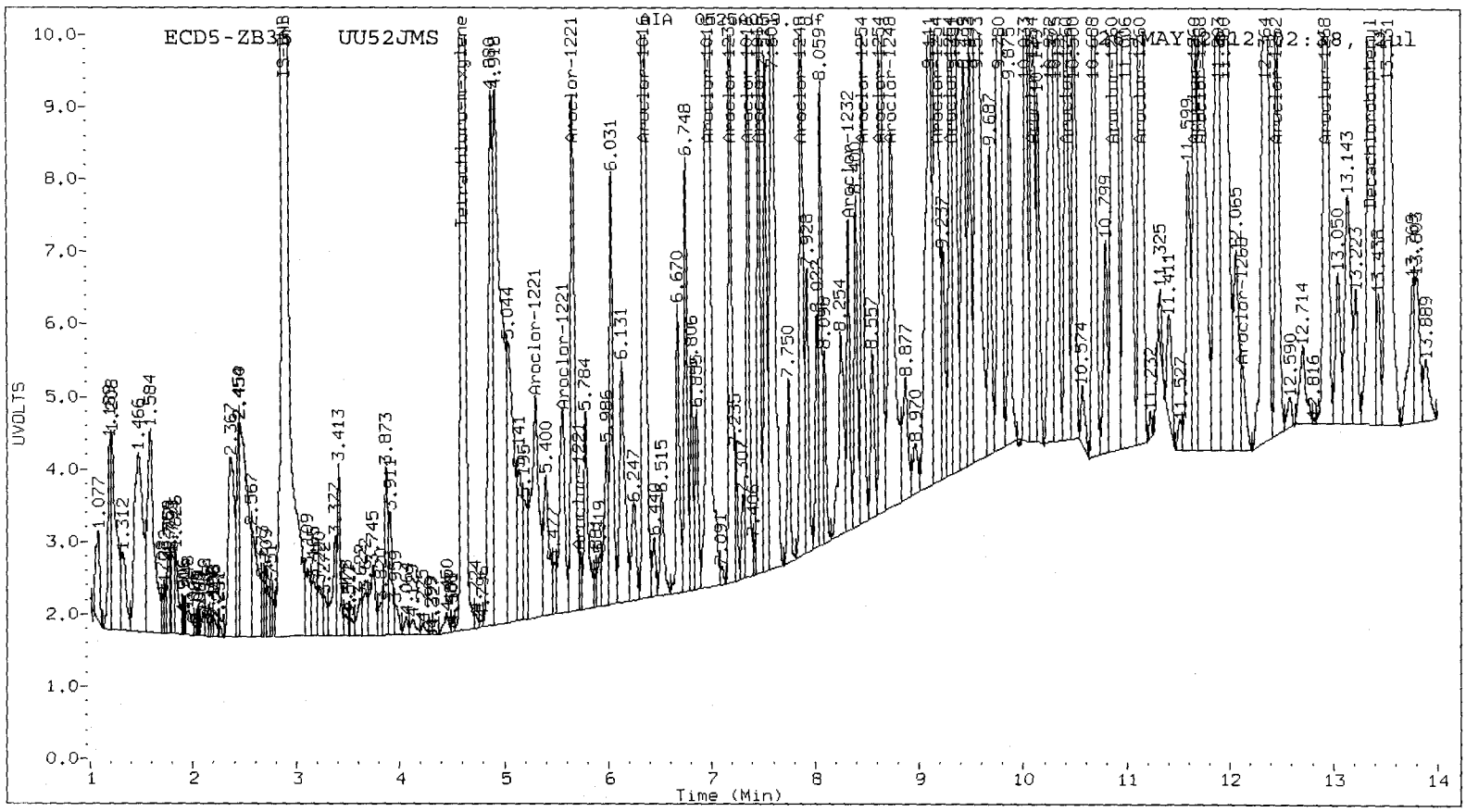
Time (Min)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Aroclor-1232
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A060.d
Data file 2: 20120523.b/0525-2.b/0525A060.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52JMSD
Client ID:
Injection Date: 26-MAY-2012 02:57
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.612	0.002	73245610	4.613	0.002	38744008	28.7	25.8	10.6	Tetrachloro-m-xylene
12.992	0.001	80978083	13.366	0.000	34273996	26.3	35.4	29.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	71.8	64.6
Decachlorobiphenyl	65.9	88.5

JL 05/29/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	158624279	2.9
Hexabromobiphenyl	248602423	200326069	-19.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	106578291	-3.7
Hexabromobiphenyl	108855531	74927298	-31.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

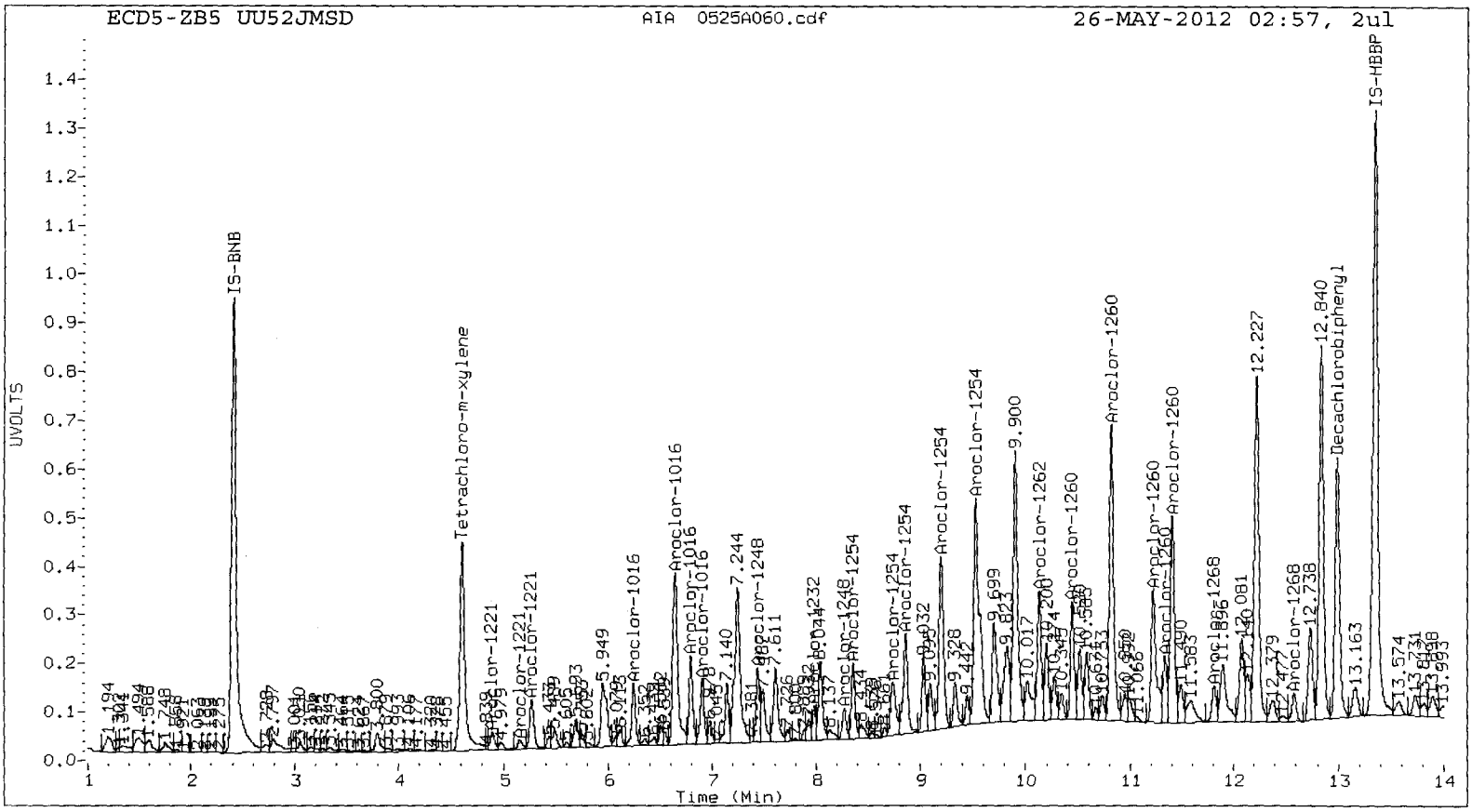
Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1016	1	6.243	0.002	16933237	255.9	1	6.349	0.002	15504055	278.7
Aroclor-1016	2	6.643	0.001	61176409	283.6	2	6.973	0.000	26312803	208.4
Aroclor-1016	3	6.791	0.001	22857458	268.7	3	7.356	0.000	7674510	235.6
Aroclor-1016	4	6.901	0.001	12824238	265.9	4	7.464	0.000	8552195	236.1
Total Col1Ave (4 peaks):					268.5	Total Col2Ave (4 peaks):				239.7 RPD = 11
Corrected Ave (3 peaks):					263.5	Corrected Ave (3 peaks):				226.7 RPD = 15
Aroclor-1221	1	4.893	0.009	5890405	495.4	1	5.303	0.013	5071413	301.9
Aroclor-1221	2	5.159	0.006	2828767	147.8	2	5.563	0.027	3777963	380.7
Aroclor-1221	3	5.268	0.010	14602233	232.8	3	5.658	0.009	8718150	280.9
Aroclor-1221	NS	---			----	4	5.724	0.007	489326	86.1
Total Col1Ave (3 peaks):					292.0	Total Col2Ave (4 peaks):				262.4 RPD = 11
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				223.0
Aroclor-1232	1	6.243	0.005	16933237	612.7	1	6.349	0.004	15504055	604.0
Aroclor-1232	2	6.643	0.004	61176409	665.5	2	6.973	0.002	26312803	489.6
Aroclor-1232	3	6.791	0.003	22857458	613.1	3	7.183	0.003	9872111	544.5
Aroclor-1232	4	7.983	0.003	8158041	227.9	4	8.326	0.001	3778876	190.1
Total Col1Ave (4 peaks):					529.8	Total Col2Ave (4 peaks):				457.0 RPD = 15
Corrected Ave (3 peaks):					484.6	Corrected Ave (3 peaks):				408.1 RPD = 17
Aroclor-1242	1	6.243	0.001	16933237	339.1	1	6.349	0.001	15504055	356.5
Aroclor-1242	2	6.643	0.001	61176409	367.5	2	6.973	-0.001	26312803	266.4
Aroclor-1242	3	6.791	0.000	22857458	344.1	3	7.183	0.001	9872111	246.1
Aroclor-1242	4	7.983	0.000	8158041	131.9	4	8.326	-0.001	3778876	108.3
Total Col1Ave (4 peaks):					295.6	Total Col2Ave (4 peaks):				244.3 RPD = 19
Corrected Ave (3 peaks):					271.7	Corrected Ave (3 peaks):				206.9 RPD = 27
Aroclor-1248	1	6.643	0.003	61176409	549.3	1	6.973	0.002	26312803	411.2
Aroclor-1248	2	7.438	0.000	18080842	214.9	2	7.875	0.000	10455344	203.9
Aroclor-1248	3	7.983	-0.001	8158041	75.7	3	8.326	0.000	3778876	61.3
Aroclor-1248	4	8.273	-0.001	8423605	77.5	4	8.738	-0.009	10108558	145.3
Total Col1Ave (4 peaks):					229.3	Total Col2Ave (4 peaks):				205.4 RPD = 11
Corrected Ave (3 peaks):					122.7	Corrected Ave (3 peaks):				136.8 RPD = 11
Aroclor-1254	1	8.358	0.002	19402629	133.2	1	8.466	0.000	7650073	163.5
Aroclor-1254	2	8.739	0.011	19839830	211.7	2	8.640	0.001	11414709	191.9
Aroclor-1254	3	8.863	0.000	31463634	173.9	3	9.178	0.018	11415177	251.2
Aroclor-1254	4	9.197	-0.016	54143584	277.9	4	9.311	0.001	9562646	95.1
Aroclor-1254	5	9.524	-0.050	86651223	715.0	5	10.100	0.007	11194206	190.0
Total Col1Ave (5 peaks):					302.3	Total Col2Ave (5 peaks):				178.3 RPD = 52*
Corrected Ave (4 peaks):					199.8	Corrected Ave (4 peaks):				160.1 RPD = 22
Aroclor-1260	1	10.445	-0.002	30290875	278.7	1	10.422	0.000	12956990	301.5
Aroclor-1260	2	10.822	0.001	84924384	314.9	2	10.873	0.001	23498185	440.4
Aroclor-1260	3	11.219	-0.001	46814230	312.3	3	11.146	0.001	35545857	328.1
Aroclor-1260	4	11.337	0.000	18848173	292.8	4	11.667	0.001	10172555	321.6
Aroclor-1260	5	11.407	-0.003	62942553	819.0	NS	---			----
Total Col1Ave (5 peaks):					403.5	Total Col2Ave (4 peaks):				347.9 RPD = 15
Corrected Ave (4 peaks):					299.7	Corrected Ave (3 peaks):				317.1 RPD = 6
Aroclor-1262	1	10.131	0.003	35685337	223.5	1	10.422	0.003	12956990	184.6
Aroclor-1262	2	10.445	0.001	30290875	248.3	2	10.873	0.003	23498185	388.2
Aroclor-1262	3	10.822	0.003	84924384	254.7	3	11.146	0.003	35545857	258.6
Aroclor-1262	4	11.337	0.003	18848173	154.7	4	11.667	0.003	10172555	184.0
Aroclor-1262	5	11.407	0.000	62942553	454.3	5	12.465	0.003	9584529	186.1
Total Col1Ave (5 peaks):					267.1	Total Col2Ave (5 peaks):				240.3 RPD = 11
Corrected Ave (4 peaks):					220.3	Corrected Ave (4 peaks):				203.3 RPD = 8
Aroclor-1268	1	11.337	0.001	18848173	55.3	1	11.667	0.003	10172555	71.1
Aroclor-1268	2	11.407	0.000	62942553	183.5	2	11.727	-0.003	25037280	185.7

Aroclor-1268 3	11.811	0.019	10483862	36.6	3	12.127	-0.001	1192750	10.5
Aroclor-1268 4	12.585	0.000	8093425	9.6	4	12.936	-0.013	11843884	37.0
Total Col1Ave (4 peaks):				71.3	Total Col2Ave (4 peaks):			76.1	RPD = 7
Corrected Ave (3 peaks):				33.8	Corrected Ave (3 peaks):			39.6	RPD = 16

Total PCB Area Col1 (4.710 - 12.891) = 1598251164 Col1 Total PCB = 0.8 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 749455991 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical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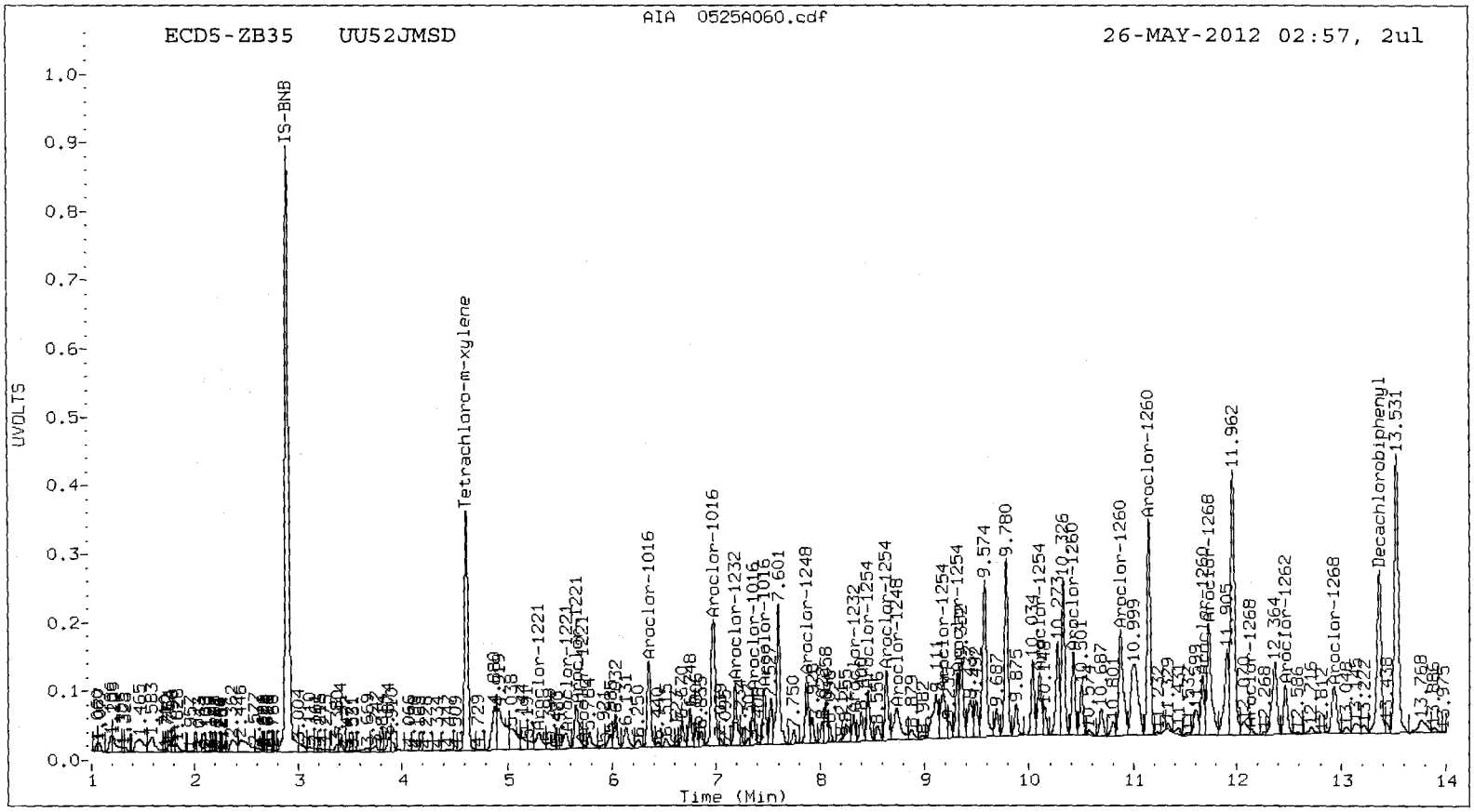
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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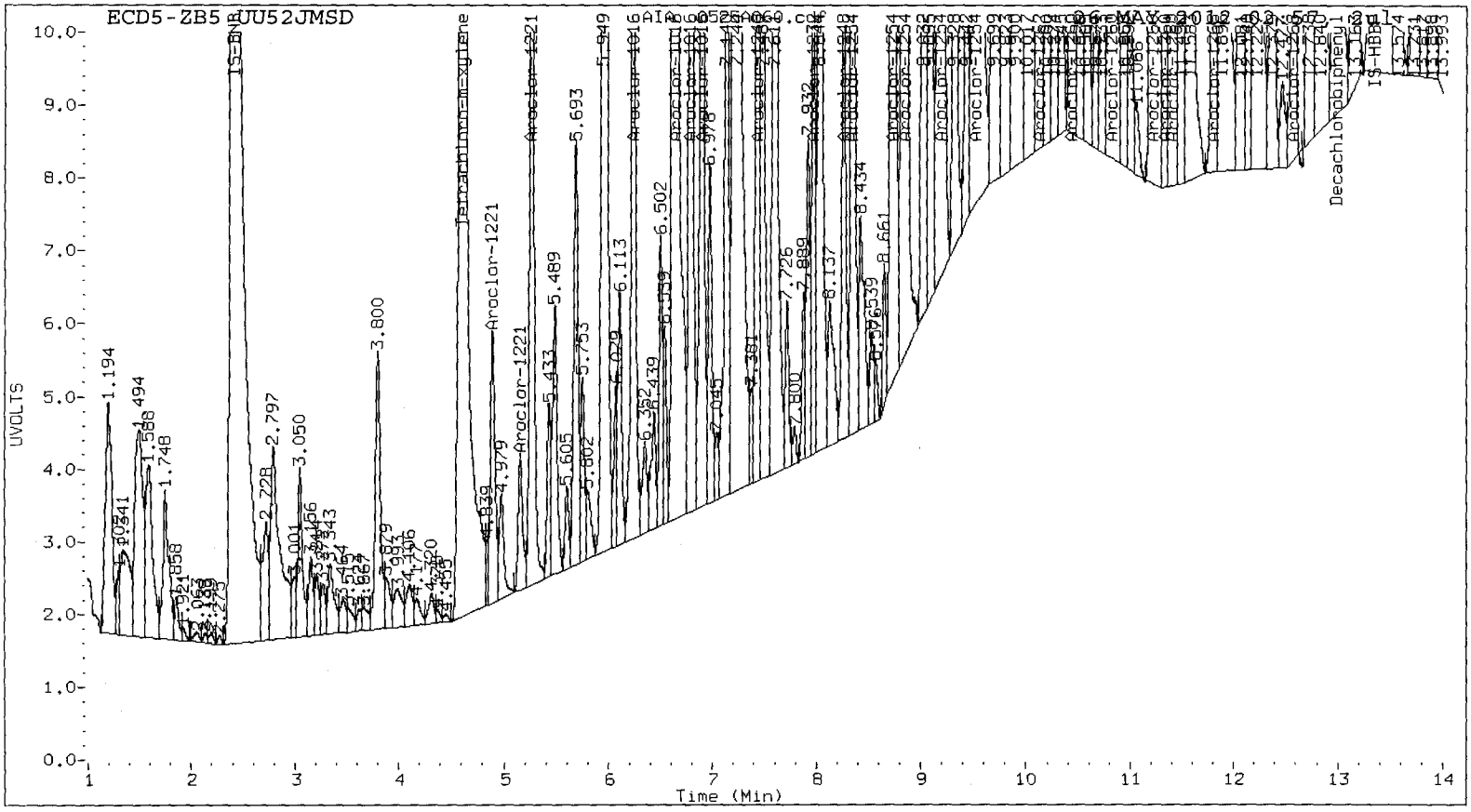
Decachlorobiphenyl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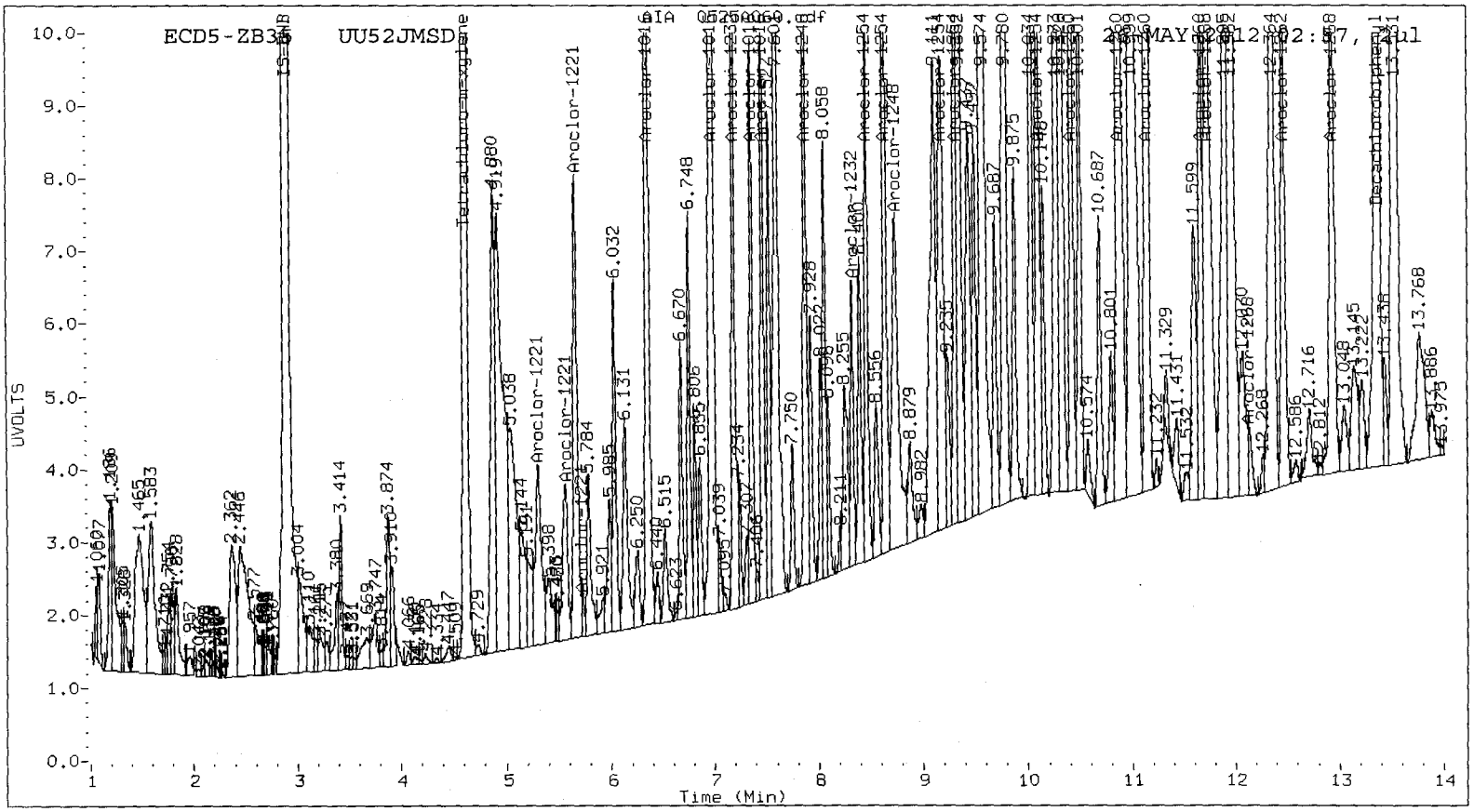
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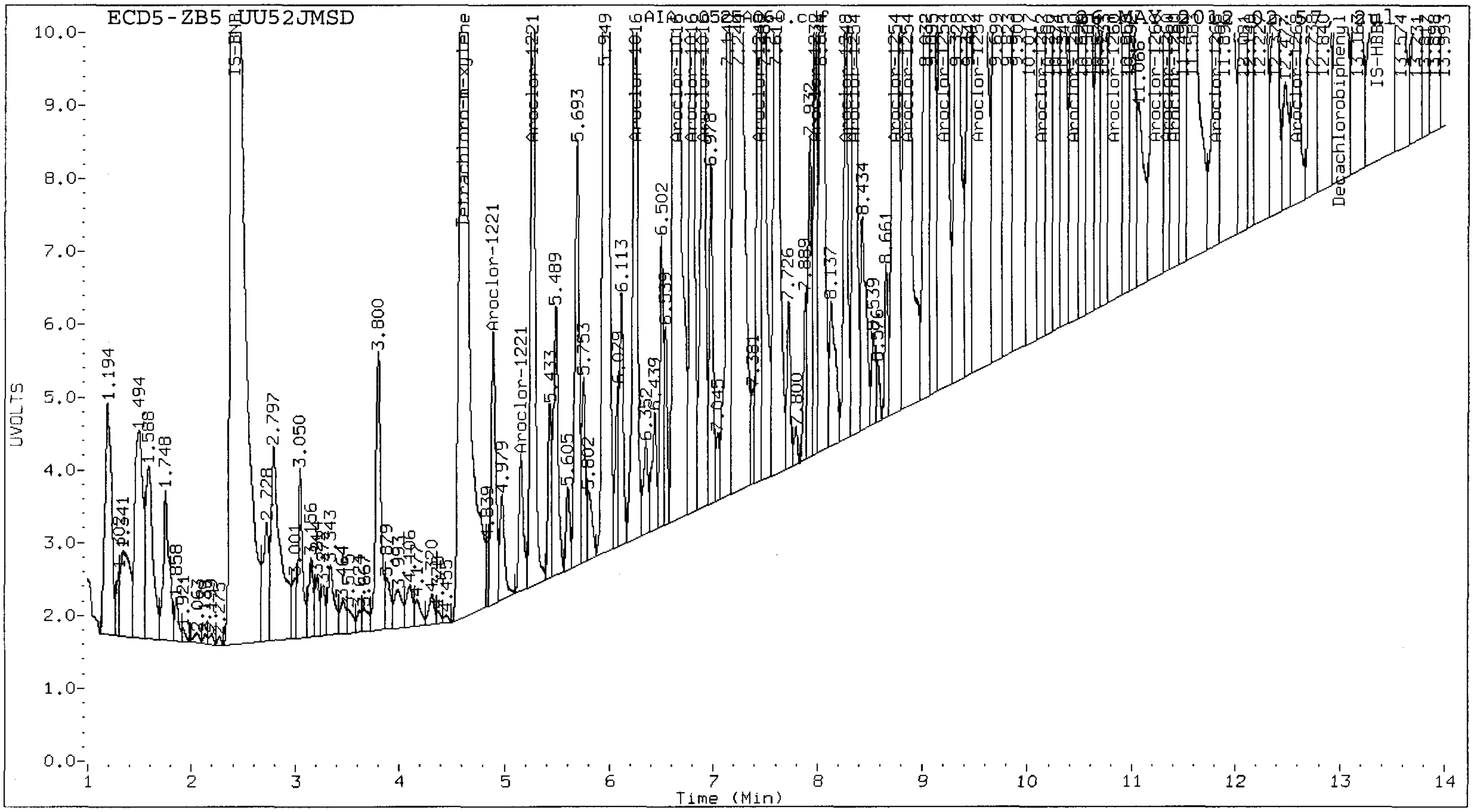
IS-HBB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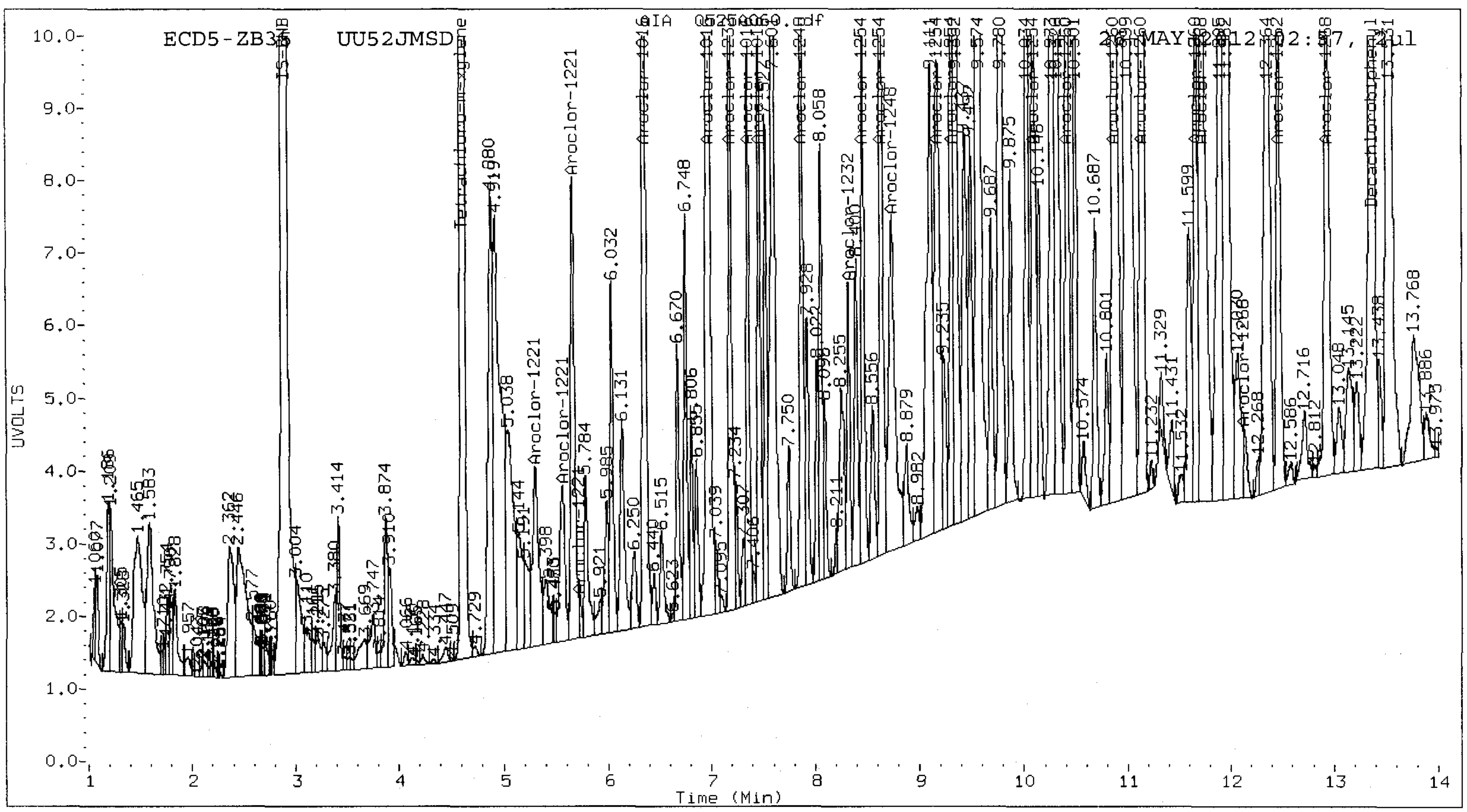
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Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20120523.b/0525-2.b/0525A061.d
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Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 26-MAY-2012 03:16
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	55664977	4.612	0.001	34866180	19.2	19.4	0.9	Tetrachloro-m-xylene
12.992	0.001	54024042	13.364	-0.001	20644898	17.1	18.5	8.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.1	48.5
Decachlorobiphenyl	42.7	46.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	180219526	16.9
Hexabromobiphenyl	248602423	206032453	-17.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	127736774	15.5
Hexabromobiphenyl	108855531	86154804	-20.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1248	1	6.640	0.000	29413471	232.5	1	6.971	0.000	17185958	224.1
Aroclor-1248	2	7.438	0.000	21281056	222.6	2	7.875	0.000	12818572	208.6
Aroclor-1248	3	7.984	0.000	26867900	219.4	3	8.327	0.000	15618957	211.4
Aroclor-1248	4	8.274	0.000	25967189	210.2	4	8.747	0.000	17004290	203.9

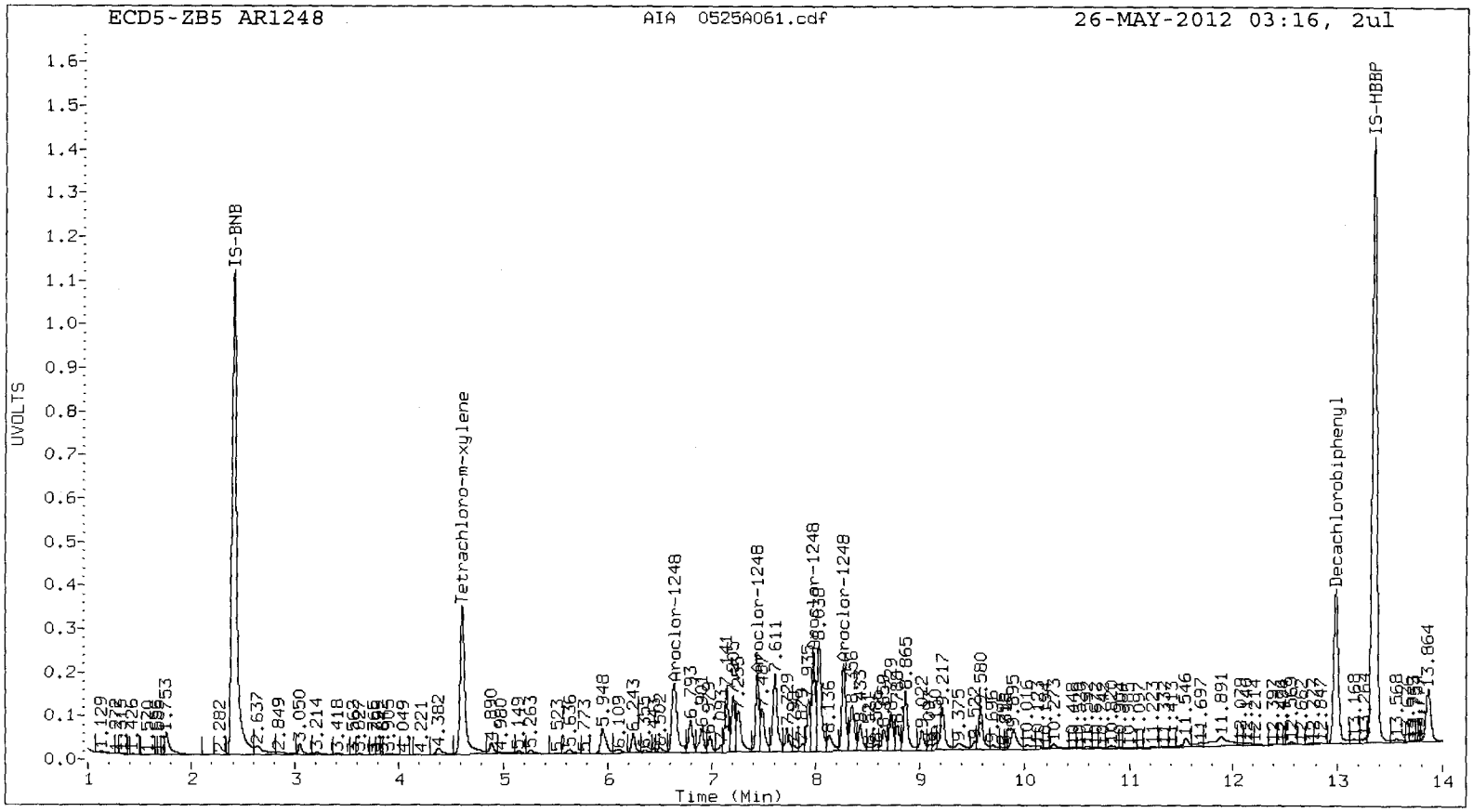
Total Col1Ave (4 peaks): 221.2 Total Col2Ave (4 peaks): 212.0 RPD = 4

Corrected Ave (3 peaks): 217.4 Corrected Ave (3 peaks): 207.9 RPD = 4

Total PCB Area Col1 (4.710 - 12.891) = 486178736 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 234297744 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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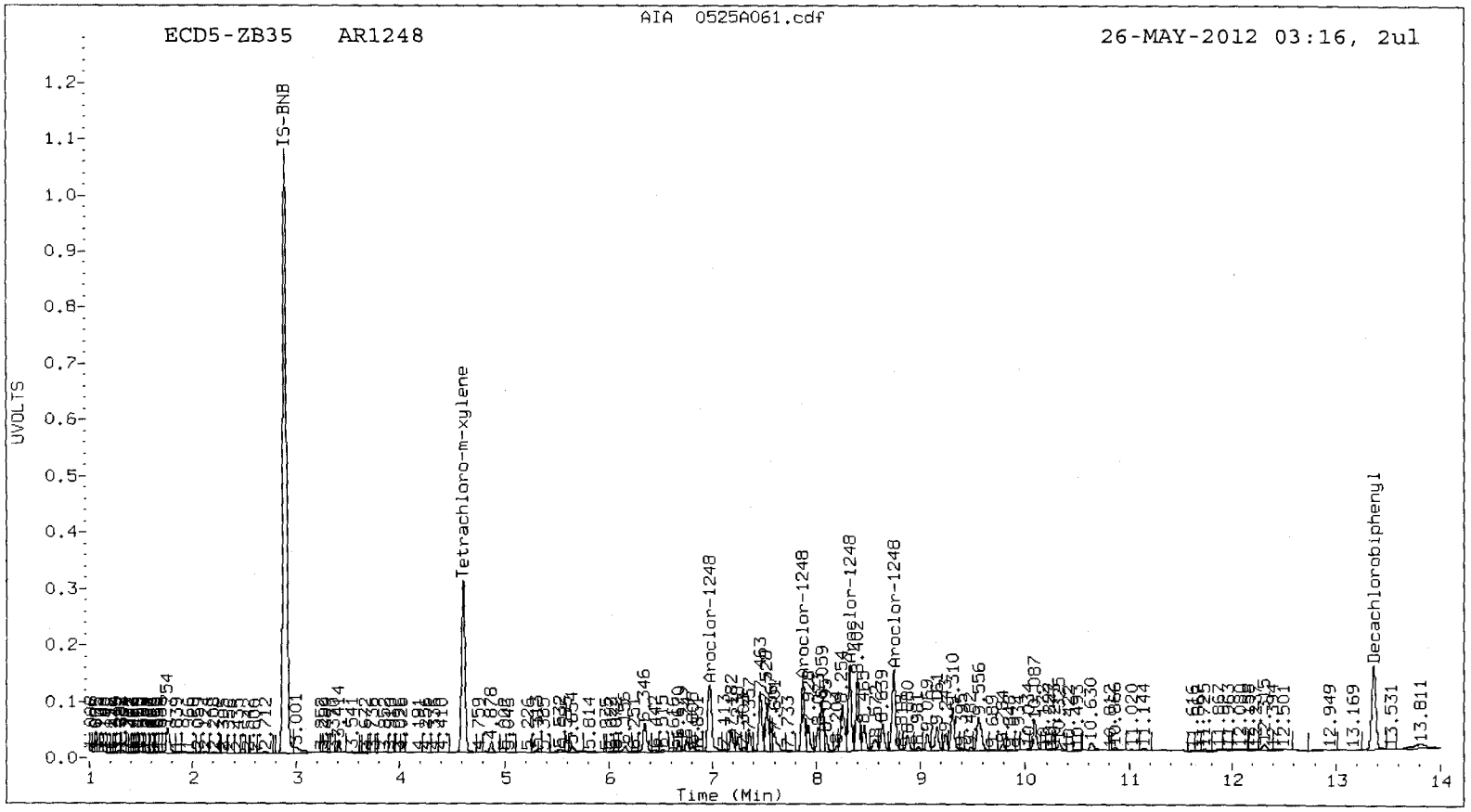
26-MAY-2012 03:16, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
IS-HBBP
Decachlorobiphenyl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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A062.d
Data file 2: 20120523.b/0525-2.b/0525A062.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 26-MAY-2012 03:35
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	0.000	59864883	4.611	0.000	37720720	19.9	20.2	1.4	Tetrachloro-m-xylene
12.991	0.000	60484239	13.365	0.000	22807990	17.8	19.2	7.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.8	50.5
Decachlorobiphenyl	44.5	48.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	186870454	21.2
Hexabromobiphenyl	248602423	221590214	-10.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	132614849	19.9
Hexabromobiphenyl	108855531	91835798	-15.6

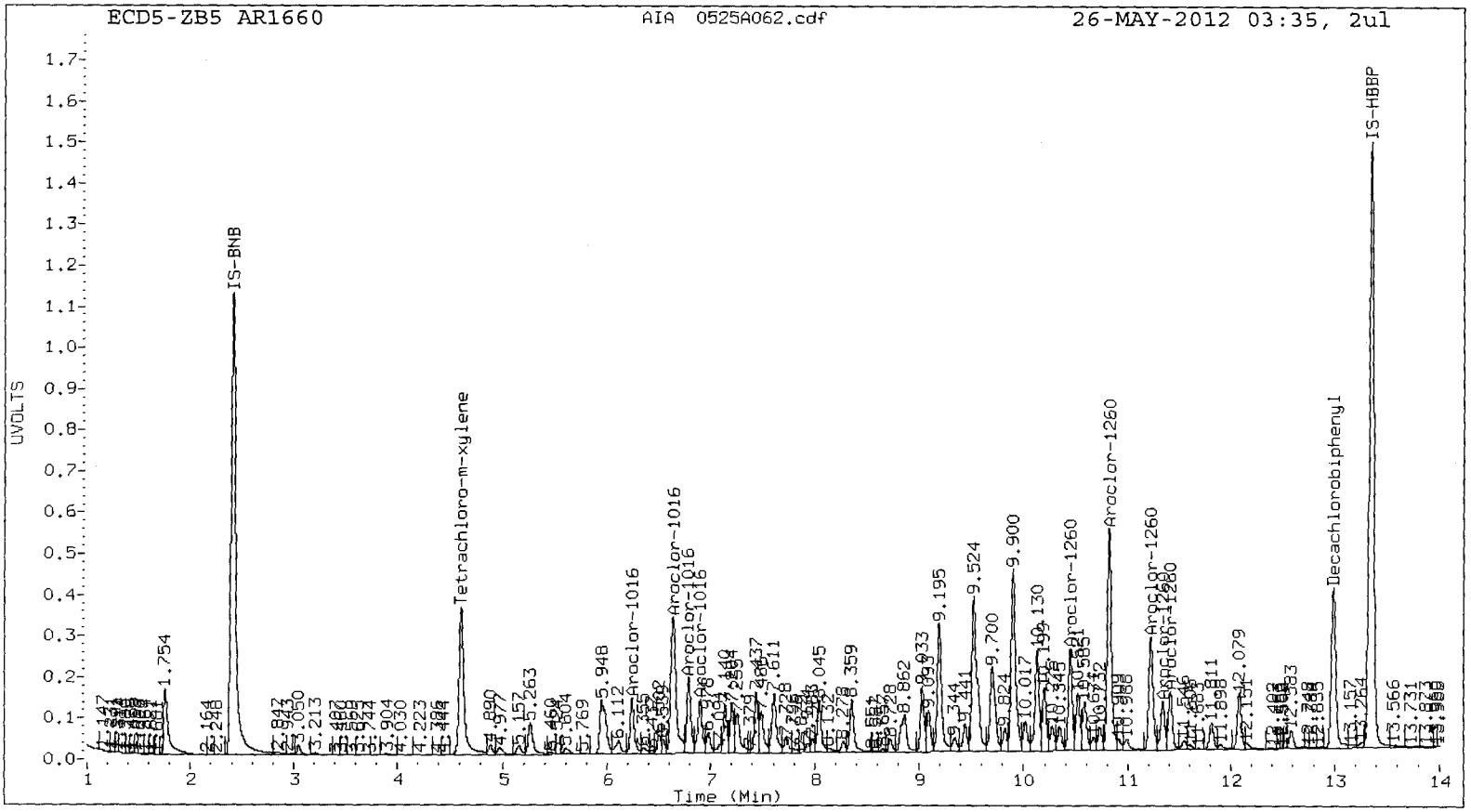
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.241	0.000	18639965	239.1	1	6.347	0.000	16454009	237.7
Aroclor-1016	2	6.642	0.000	61801836	243.2	2	6.974	0.000	37504534	238.7
Aroclor-1016	3	6.790	0.000	25328770	252.7	3	7.356	0.000	9218884	227.4
Aroclor-1016	4	6.900	0.000	19132307	242.3	4	7.463	0.000	10124031	224.6
Total Col1Ave (4 peaks):					244.3	Total Col2Ave (4 peaks):				232.1 RPD = 5
Corrected Ave (3 peaks):					241.5	Corrected Ave (3 peaks):				229.9 RPD = 5
Aroclor-1260	1	10.447	0.000	31861107	265.0	1	10.422	0.000	12315712	233.8
Aroclor-1260	2	10.821	0.000	75919821	254.5	2	10.872	0.000	17648866	269.9
Aroclor-1260	3	11.221	0.000	39255507	236.7	3	11.145	0.000	35124002	264.5
Aroclor-1260	4	11.337	0.000	16446171	231.0	4	11.666	0.000	9198188	237.2
Aroclor-1260	5	11.411	0.000	20212782	237.8	NS	---			----
Total Col1Ave (5 peaks):					245.0	Total Col2Ave (4 peaks):				251.4 RPD = 3
Corrected Ave (4 peaks):					240.0	Corrected Ave (3 peaks):				245.2 RPD = 2

Total PCB Area Col1 (4.710 - 12.891) = 1024685832 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 482305083 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical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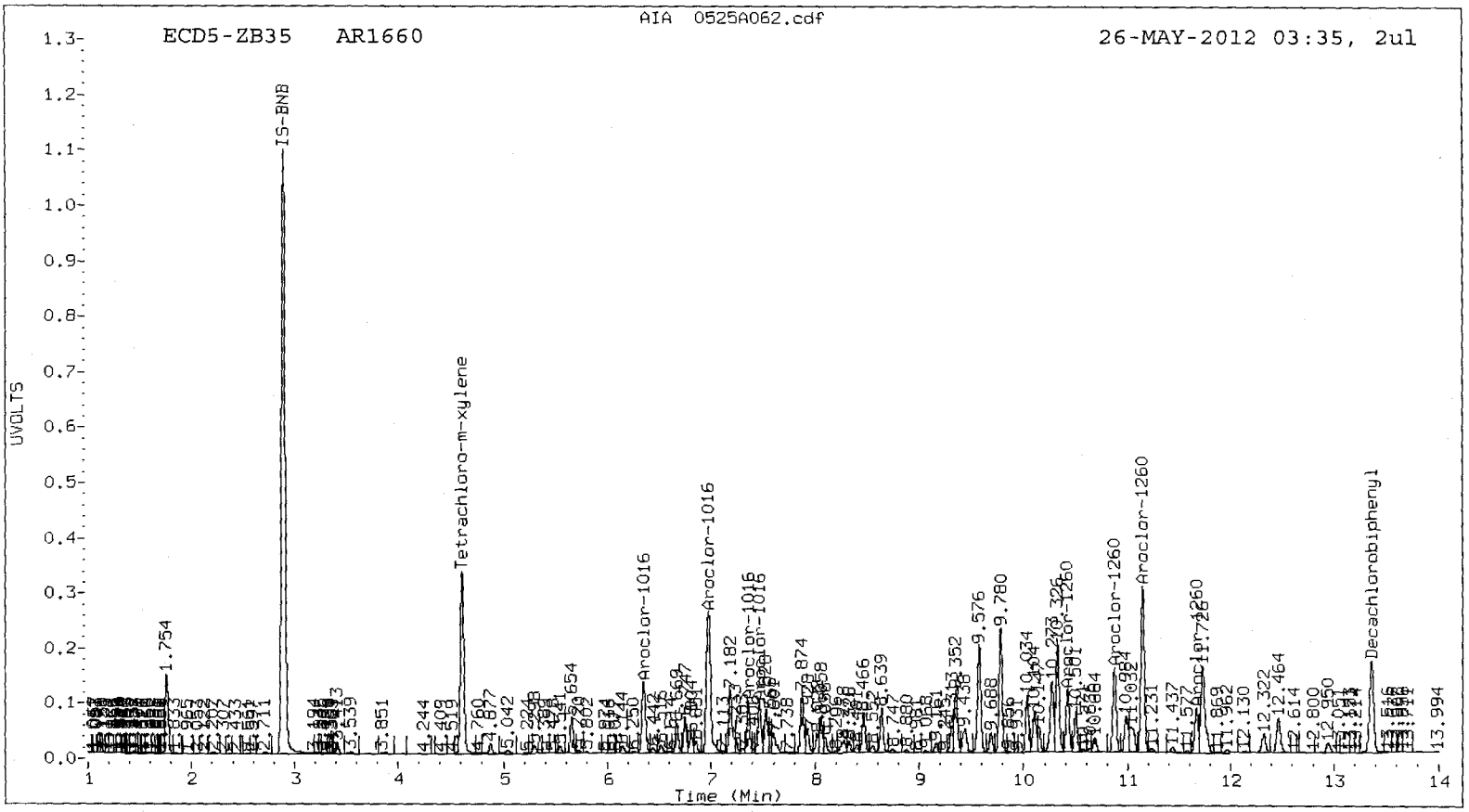
AIA 0525A062.cdf
26-MAY-2012 03:35, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A047.d ARI ID: UU52A

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
8.356	0.035	17089718	8.738	0.012	10802374	0.011	0.014	25.1	2,4-DDE
8.863	-0.007	56721812	9.413	0.003	4587197	0.038	0.007	140.3*	2,4-DDD
0.000	-9.375	0	9.876	0.004	19226213	0.000	0.020#	----	2,4-DDT
8.749	-0.004	45076245	9.113	0.001	17158740	0.018	0.013	29.7	4,4-DDE
9.325	0.000	46852565	9.876	0.004	19226213	0.023	0.020#	12.3	4,4-DDD
9.831	-0.006	15991071	10.325	0.014	14423810	0.007	0.013	59.4*	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A048.d ARI ID: UU52B

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
8.356	0.035	17482321	8.739	0.012	10903865	0.010	0.013	27.3	2,4-DDE
8.863	-0.008	50460894	9.412	0.003	2971081	0.030	0.004	153.2*	2,4-DDD
0.000	-9.375	0	9.876	0.004	11216137	0.000	0.011#	----	2,4-DDT
8.749	-0.004	45892421	9.113	0.001	17149939	0.016	0.012	28.1	4,4-DDE
9.325	0.000	29954977	9.876	0.004	11216137	0.013	0.011#	17.9	4,4-DDD
9.831	-0.006	16804358	10.325	0.015	13853647	0.006	0.011	54.4*	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A049.d ARI ID: UU52C

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
8.357	0.036	14753357	8.737	0.011	11267844	0.009	0.014	44.5*	2,4-DDE
8.863	-0.007	60229432	9.413	0.004	4767357	0.037	0.006	140.8*	2,4-DDD
0.000	-9.375	0	9.877	0.005	16691989	0.000	0.017#	----	2,4-DDT
8.749	-0.004	41231070	9.113	0.000	16959648	0.015	0.012	21.1	4,4-DDE
9.326	0.001	41484704	9.877	0.005	16691989	0.019	0.017#	13.2	4,4-DDD
9.829	-0.009	20343304	10.325	0.014	13455883	0.008	0.011	31.1	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A050.d ARI ID: UU52D

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
8.356	0.035	13231699	8.739	0.013	9525582	0.007	0.011	37.7	2,4-DDE
8.863	-0.008	54186126	9.413	0.004	4455071	0.031	0.006	139.5*	2,4-DDD
0.000	-9.375	0	9.875	0.003	15011970	0.000	0.014#	----	2,4-DDT
8.748	-0.006	39114208	9.112	0.000	14593374	0.014	0.010	31.8	4,4-DDE
9.325	0.001	42095503	9.875	0.003	15011970	0.018	0.014#	26.3	4,4-DDD
9.827	-0.011	24101218	10.325	0.014	9212364	0.009	0.007	24.6	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A051.d ARI ID: UU52E

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
8.356	0.035	8762168	8.738	0.012	7770144	0.005	0.010	68.9*	2,4-DDE
8.862	-0.008	47878859	9.414	0.005	3247790	0.028	0.005	142.7*	2,4-DDD
0.000	-9.375	0	9.876	0.004	10658727	0.000	0.011#	----	2,4-DDT
8.745	-0.008	32480734	9.113	0.001	12535540	0.012	0.010	15.8	4,4-DDE
9.325	0.000	27743649	9.876	0.004	10658727	0.012	0.011#	6.1	4,4-DDD
9.831	-0.007	17389065	10.324	0.014	7113444	0.007	0.006	5.1	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A052.d ARI ID: UU52F

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
8.356	0.035	9399732	8.740	0.014	8742323	0.005	0.010	72.1*	2,4-DDE
8.863	-0.008	40699535	9.413	0.003	2164367	0.022	0.003	154.1*	2,4-DDD
0.000	-9.375	0	9.875	0.003	7683177	0.000	0.007#	----	2,4-DDT
8.750	-0.003	25113574	9.113	0.000	12906024	0.008	0.009	11.7	4,4-DDE
9.325	0.000	22278320	9.875	0.003	7683177	0.009	0.007#	18.0	4,4-DDD
9.838	0.001	15993150	10.324	0.013	7420892	0.006	0.006	6.4	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A053.d ARI ID: UU52G

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
8.355	0.034	18650269	8.737	0.011	8033654	0.009	0.010	11.5	2,4-DDE
8.865	-0.005	49650099	9.412	0.002	7739212	0.024	0.011	79.2*	2,4-DDD
0.000	-9.375	0	9.877	0.005	43285684	0.000	0.043#	----	2,4-DDT
8.751	-0.002	47509712	9.113	0.001	19822376	0.014	0.015	3.8	4,4-DDE
9.326	0.001	98576406	9.877	0.005	43285684	0.036	0.043#	19.0	4,4-DDD
9.837	-0.001	15085451	10.323	0.012	11277353	0.005	0.009	64.7*	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A056.d ARI ID: UU52H

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
8.351	0.030	24451011	8.776	0.050	21999216	0.012	0.025	66.0*	2,4-DDE
8.865	-0.006	43604358	9.412	0.003	6684271	0.023	0.008	94.1*	2,4-DDD
9.387	0.012	9042567	9.876	0.004	32147787	0.004	0.029#	152.2*	2,4-DDT
8.752	-0.001	108994224	9.113	0.001	52674002	0.035	0.035	1.9	4,4-DDE
9.325	0.000	67284029	9.876	0.004	32147787	0.026	0.029#	10.9	4,4-DDD
9.836	-0.002	25588072	10.321	0.010	15783229	0.009	0.012	31.0	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A057.d ARI ID: UU52I

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
8.356	0.035	10470549	8.737	0.011	10357626	0.005	0.011	67.7*	2,4-DDE
8.863	-0.007	29985139	9.418	0.009	1245190	0.016	0.001	166.8*	2,4-DDD
0.000	-9.375	0	9.876	0.004	4544954	0.000	0.004#	----	2,4-DDT
8.746	-0.007	28395672	9.112	0.000	13201841	0.009	0.008	9.5	4,4-DDE
9.327	0.002	16267310	9.876	0.004	4544954	0.006	0.004#	49.2*	4,4-DDD
9.825	-0.013	22862699	10.324	0.014	7606877	0.008	0.005	37.5	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A058.d ARI ID: UU52J

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
8.357	0.036	8509548	8.739	0.012	9604640	0.005	0.010	73.7*	2,4-DDE
8.864	-0.007	24918556	9.423	0.013	1731580	0.014	0.002	150.2*	2,4-DDD
9.390	0.015	2395190	9.874	0.002	4994191	0.001	0.004#	116.0*	2,4-DDT
8.746	-0.008	22622347	9.111	-0.001	11806658	0.008	0.007	4.3	4,4-DDE
9.325	0.000	13885326	9.874	0.002	4994191	0.006	0.004#	31.1	4,4-DDD
9.825	-0.013	31539621	10.324	0.014	6669175	0.011	0.005	84.1*	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: UU62 Client ID: Anchor QEA

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): PCBs

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/23/12 Analysis Start: 5/23/12

Endrin/DDT Breakdown <15%? YES / NO / NA
Method Blank In Control? YES / NO
ICal Meets RF & %RSD Criteria? YES / NO
LCS/LCSD Recovery In Control? YES / NO
CCal Meets RF & %RSD Criteria? YES / NO
Surrogate Recovery In Control? YES / NO
Manual Integrations for ICal? YES / NO
Manual Integrations for Samples? YES / NO
Internal Standard Meets Criteria? YES / NO / NA
Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Sample J: DCBP surr. recovery below QC due to heavy emulsion. (see extraction analyst notes).

Additional Details on Reverse: Yes / No

Analyst: YE **Date:** 5/24/12

Reviewer: [signature] **Date:** 5/24

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A032.d
Data file 2: 20120523.b/0523-2.b/0523A032.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 23-MAY-2012 20:17
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	0.002	50812075	4.611	0.002	31728329	20.0	20.1	0.3	Tetrachloro-m-xylene
12.990	0.000	66607044	13.364	0.000	25849060	18.6	19.3	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.0	50.2
Decachlorobiphenyl	46.5	48.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	157953737	2.4
Hexabromobiphenyl	248602423	233547465	-6.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	112376967	1.6
Hexabromobiphenyl	108855531	103819809	-4.6

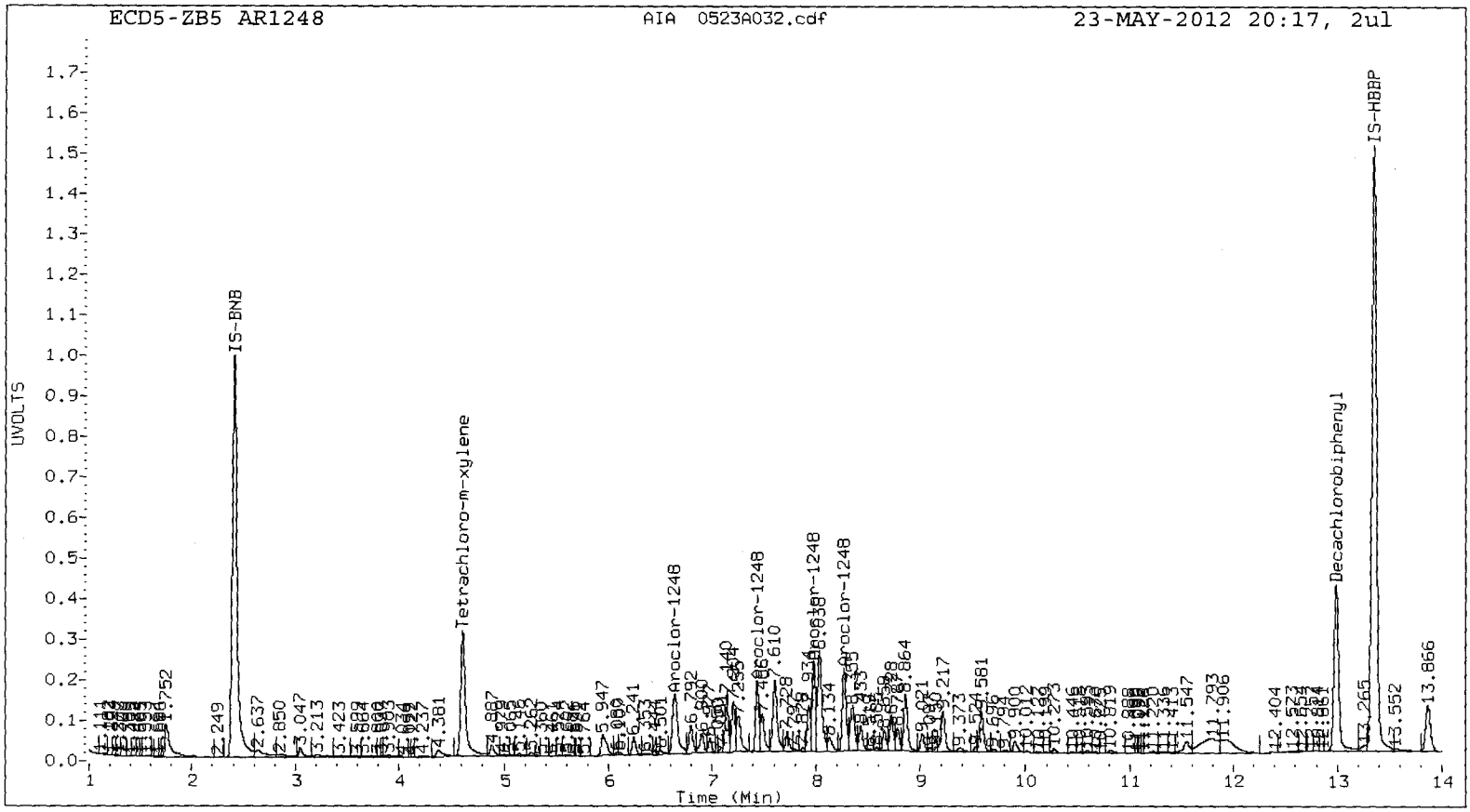
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1248	1	6.639	0.000	27232969	245.6	1	6.970	0.000	16320102	241.9
Aroclor-1248	2	7.437	0.000	19997447	238.7	2	7.875	0.000	12386028	229.1
Aroclor-1248	3	7.983	0.000	26241490	244.5	3	8.327	0.000	15018975	231.0
Aroclor-1248	4	8.273	0.000	26247550	242.4	4	8.748	0.000	17621276	240.1
Total Col1Ave (4 peaks):					242.8	Total Col2Ave (4 peaks):				235.5 RPD = 3
Corrected Ave (3 peaks):					241.9	Corrected Ave (3 peaks):				233.4 RPD = 4

Total PCB Area Col1 (4.708 - 12.891) = 456397264 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 226545406 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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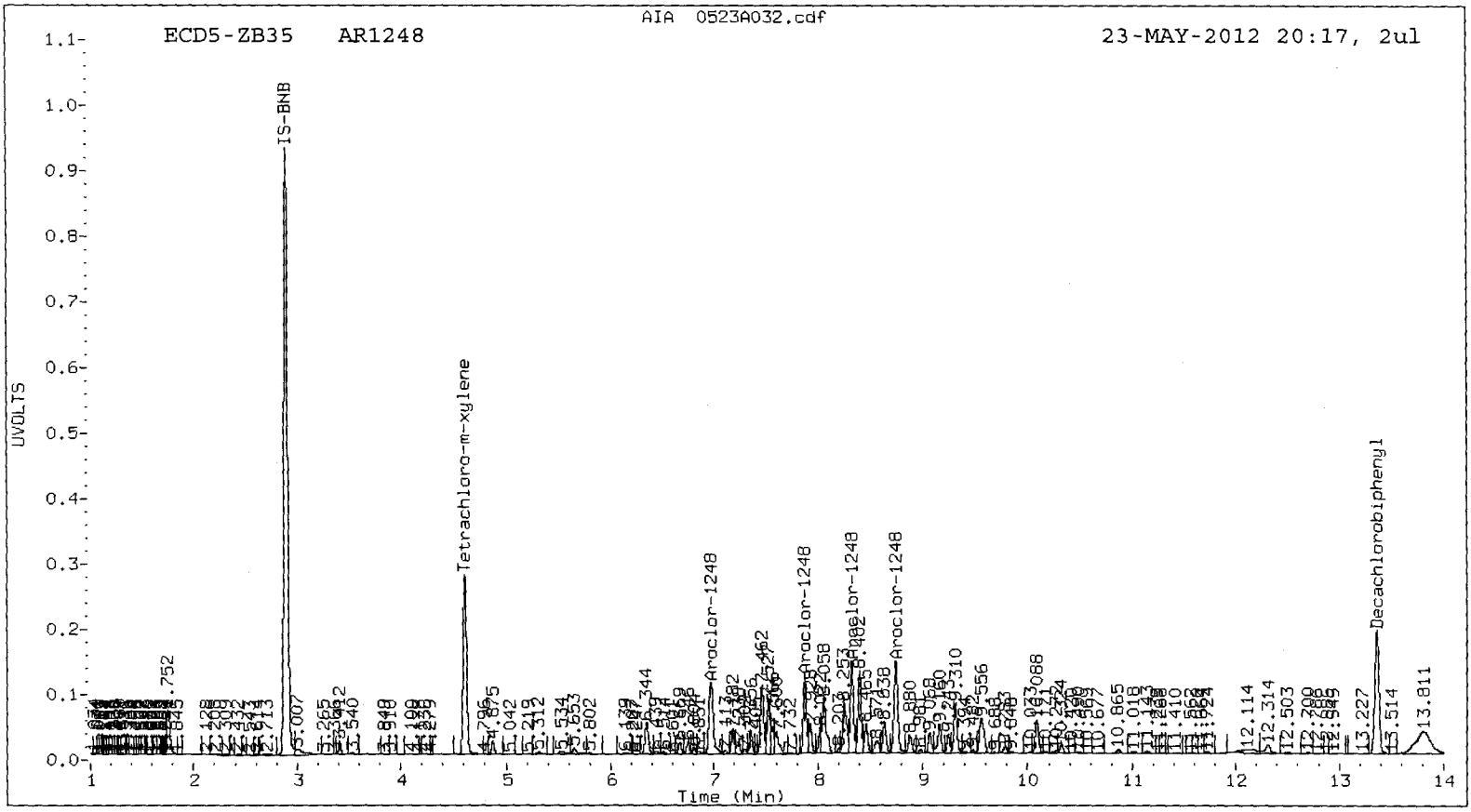
23-MAY-2012 20:17, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP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23-MAY-2012 20:17, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A033.d
Data file 2: 20120523.b/0523-2.b/0523A033.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 23-MAY-2012 20:37
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.608	0.000	52582348	4.607	-0.001	33060233	20.0	20.3	1.6	Tetrachloro-m-xylene
12.991	0.000	69890847	13.364	0.000	27438903	18.7	20.0	6.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.1	50.9
Decachlorobiphenyl	46.7	50.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	163348755	5.9
Hexabromobiphenyl	248602423	243593184	-2.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	115501356	4.4
Hexabromobiphenyl	108855531	106216352	-2.4

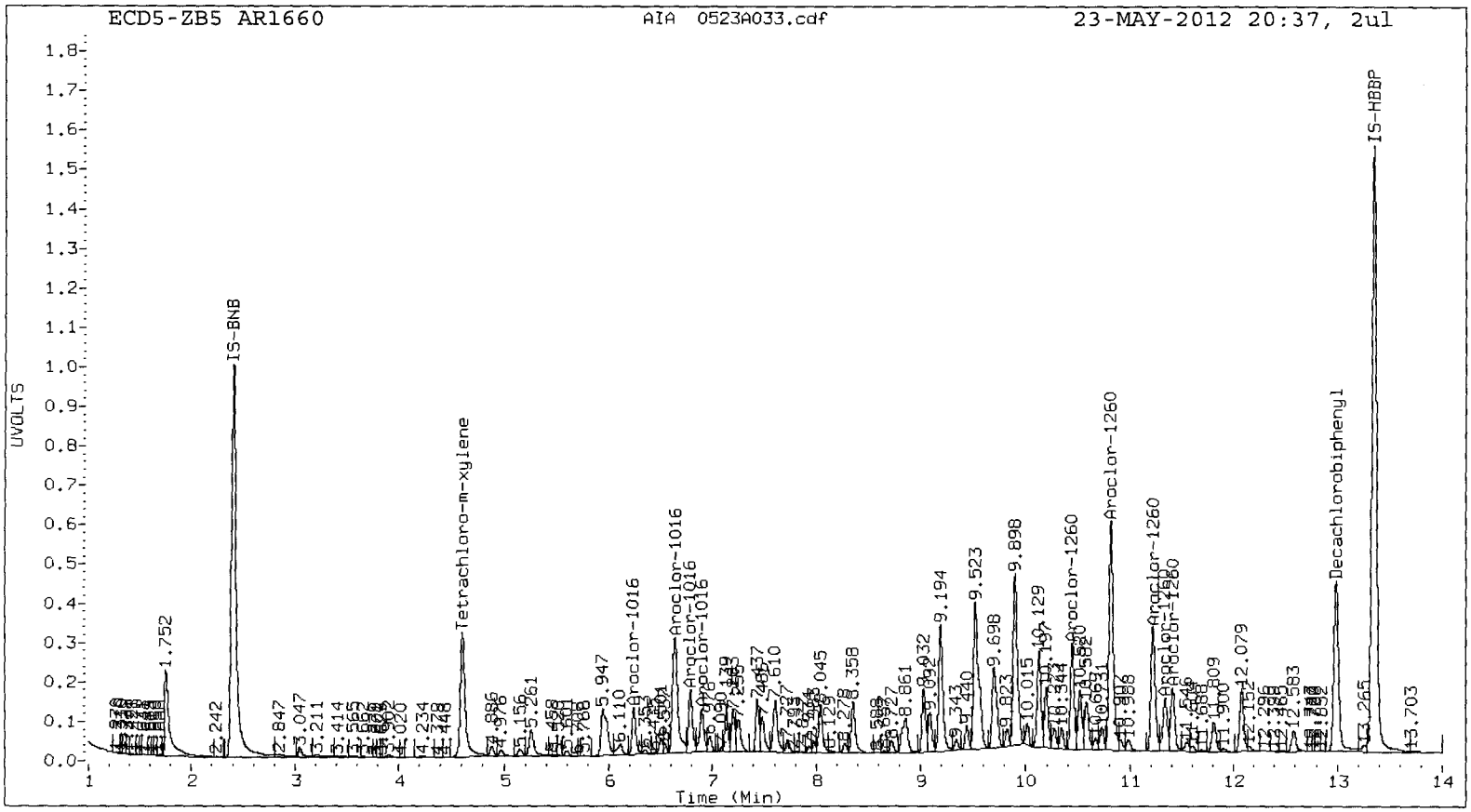
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.240	0.000	15867501	232.8	1	6.345	0.000	14738489	244.5
Aroclor-1016	2	6.642	0.001	53691414	241.7	2	6.972	-0.001	34075307	249.0
Aroclor-1016	3	6.789	0.000	21404787	244.3	3	7.355	-0.001	8958109	253.7
Aroclor-1016	4	6.900	0.000	15388398	223.0	4	7.462	0.000	9666815	246.3
Total Col1Ave (4 peaks):					235.4	Total Col2Ave (4 peaks):				248.4 RPD = 5
Corrected Ave (3 peaks):					232.5	Corrected Ave (3 peaks):				246.6 RPD = 6
Aroclor-1260	1	10.445	-0.001	33394688	252.7	1	10.420	0.000	15730934	258.2
Aroclor-1260	2	10.819	-0.001	82139903	250.5	2	10.871	0.000	19879374	262.8
Aroclor-1260	3	11.219	-0.001	46117873	253.0	3	11.144	0.000	40751186	265.3
Aroclor-1260	4	11.335	-0.002	19362068	247.4	4	11.664	-0.001	11607060	258.8
Aroclor-1260	5	11.409	-0.001	23464038	251.1	NS	---			----
Total Col1Ave (5 peaks):					250.9	Total Col2Ave (4 peaks):				261.3 RPD = 4
Corrected Ave (4 peaks):					250.4	Corrected Ave (3 peaks):				260.0 RPD = 4

Total PCB Area Col1 (4.708 - 12.891) = 952009462 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 504148953 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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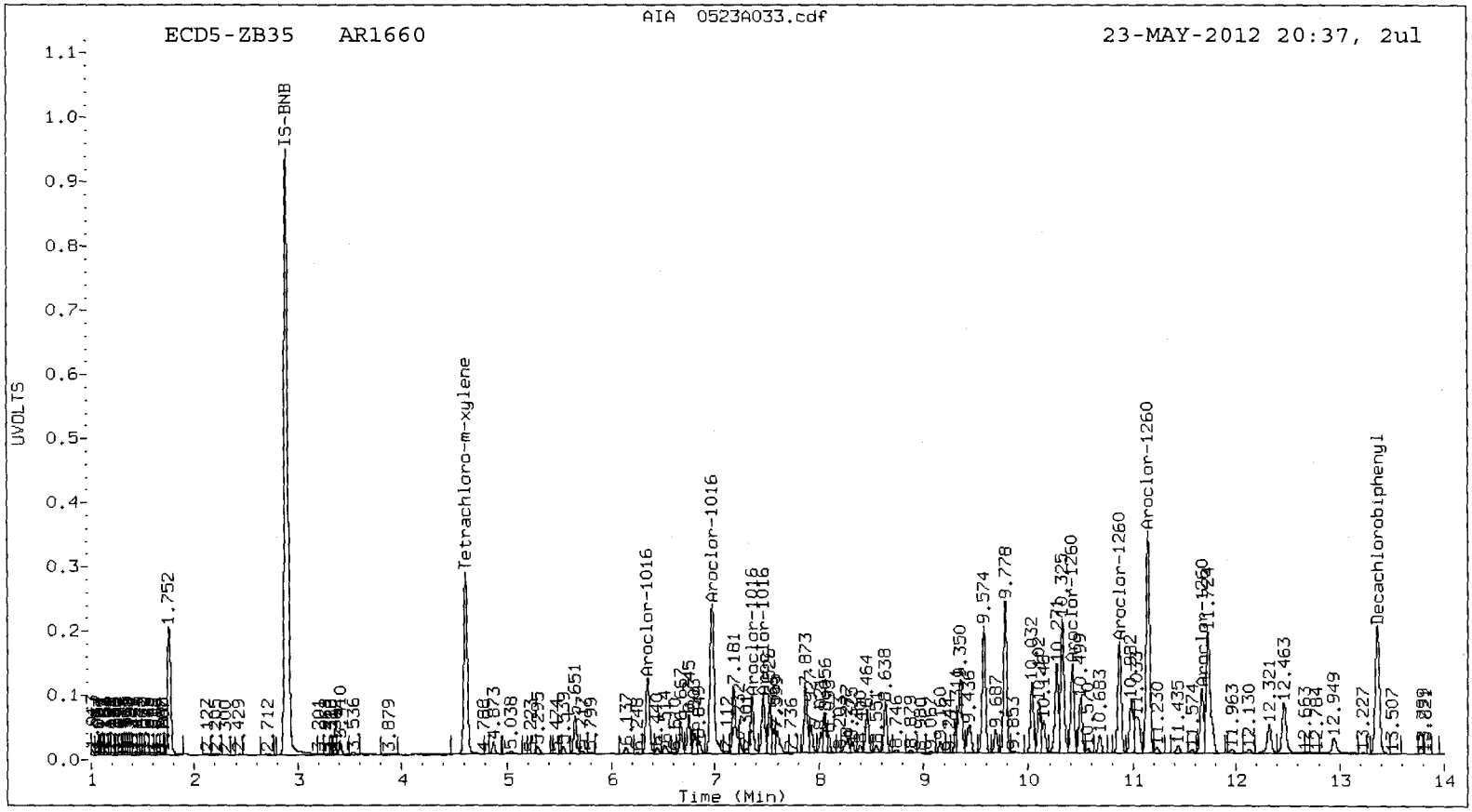
23-MAY-2012 20:37, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR1660
AIA 0523A033.cdf
23-MAY-2012 20:37, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

YZ 5/24/12

Data file 1: 20120523.b/0523-1.b/0523A038.d
Data file 2: 20120523.b/0523-2.b/0523A038.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU62MBW1
Client ID:
Injection Date: 23-MAY-2012 22:11
Ical Date: 23-MAY-2012
Matrix: WATER
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.608	0.000	75189491	4.610	0.001	48663739	31.2	28.3	9.8	Tetrachloro-m-xylene
12.991	0.000	130896269	13.364	0.000	52576056	30.5	33.5	9.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	77.9	70.6
Decachlorobiphenyl	76.2	83.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	150139970	-2.7
Hexabromobiphenyl	248602423	280007398	12.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	122436878	10.7
Hexabromobiphenyl	108855531	121592797	11.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.241	0.000	236274	3.8	1	6.344	-0.001	101799	1.6
Aroclor-1016	2	6.578	-0.063	998744	4.9	2	6.969	-0.004	170900	1.2
Aroclor-1016	3	6.786	-0.003	140768	1.7	3	7.359	0.003	28225	0.8
Aroclor-1016	4	6.898	-0.002	344541	5.4	4	7.465	0.003	26475	0.6
	Total Col1Ave (4 peaks):				4.0	Total Col2Ave (4 peaks):				1.0 RPD = 117*
	Corrected Ave (3 peaks):				3.5	Corrected Ave (3 peaks):				0.9 RPD = 121*
Aroclor-1221	1	4.887	0.003	6712270	596.4	1	5.314	0.024	811151	42.0
Aroclor-1221	2	5.143	-0.010	1603058	88.5	2	5.502	-0.034	15287	1.3
Aroclor-1221	3	5.256	-0.002	317710	5.4	3	5.659	0.010	131127	3.7
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				230.1	Total Col2Ave (3 peaks):				15.7 RPD = 174*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.241	0.003	236274	9.0	1	6.344	-0.001	101799	3.5
Aroclor-1232	2	6.578	-0.061	998744	11.5	2	6.969	-0.002	170900	2.8
Aroclor-1232	3	6.786	-0.001	140768	4.0	3	7.180	0.001	31349	1.5
Aroclor-1232	4	7.976	-0.005	14143	0.4	4	8.322	-0.003	19633	0.9
	Total Col1Ave (4 peaks):				6.2	Total Col2Ave (4 peaks):				2.1 RPD = 98*
	Corrected Ave (3 peaks):				4.5	Corrected Ave (3 peaks):				1.7 RPD = 89*
Aroclor-1242	1	6.241	0.004	236274	5.0	1	6.344	0.001	101799	2.0
Aroclor-1242	2	6.578	-0.059	998744	6.3	2	6.969	-0.002	170900	1.5
Aroclor-1242	3	6.786	0.000	140768	2.2	3	7.180	0.001	31349	0.7
Aroclor-1242	4	7.976	-0.004	14143	0.2	4	8.322	-0.001	19633	0.5
	Total Col1Ave (4 peaks):				3.5	Total Col2Ave (4 peaks):				1.2 RPD = 98*
	Corrected Ave (3 peaks):				2.5	Corrected Ave (3 peaks):				0.9 RPD = 95*
Aroclor-1248	1	6.578	-0.060	998744	9.5	1	6.969	-0.001	170900	2.3
Aroclor-1248	2	7.439	0.002	141212	1.8	2	7.878	0.003	43650	0.7
Aroclor-1248	3	7.976	-0.007	14143	0.1	3	8.322	-0.004	19633	0.3
Aroclor-1248	4	8.255	-0.018	3467153	33.7	4	8.691	-0.057	1653977	20.7
	Total Col1Ave (4 peaks):				11.3	Total Col2Ave (4 peaks):				6.0 RPD = 61*
	Corrected Ave (3 peaks):				3.8	Corrected Ave (3 peaks):				1.1 RPD = 109*
Aroclor-1254	1	8.255	-0.101	3467153	25.2	1	8.468	0.003	17018	0.3
Aroclor-1254	2	8.791	0.064	293419	3.3	2	8.691	0.052	1653977	24.2
Aroclor-1254	3	8.861	-0.003	140119	0.8	3	9.178	0.018	32876	0.6
Aroclor-1254	4	9.192	-0.021	475411	2.6	4	9.308	-0.002	25634	0.2
Aroclor-1254	5	9.574	0.001	118375	1.0	5	10.089	-0.004	17384	0.3
	Total Col1Ave (5 peaks):				6.6	Total Col2Ave (5 peaks):				5.1 RPD = 25
	Corrected Ave (4 peaks):				1.9	Corrected Ave (4 peaks):				0.4 RPD = 138*
Aroclor-1260	1	10.445	-0.001	200052	1.3	1	10.453	0.033	73970	1.1
Aroclor-1260	2	10.859	0.039	766541	2.0	2	10.869	-0.002	58137	0.7
Aroclor-1260	3	11.217	-0.004	146743	0.7	3	11.145	0.002	46554	0.3
Aroclor-1260	4	11.319	-0.018	222293	2.5	4	11.616	-0.049	232719	4.5
Aroclor-1260	5	11.443	0.033	19641	0.2	NS	---			----
	Total Col1Ave (5 peaks):				1.3	Total Col2Ave (4 peaks):				1.6 RPD = 20
	Corrected Ave (4 peaks):				1.1	Corrected Ave (3 peaks):				0.7 RPD = 46*
Aroclor-1262	1	10.139	0.011	444926	2.0	1	10.453	0.034	73970	0.6
Aroclor-1262	2	10.445	0.000	200052	1.2	2	10.869	-0.001	58137	0.6
Aroclor-1262	3	10.859	0.041	766541	1.6	3	11.145	0.003	46554	0.2
Aroclor-1262	4	11.319	-0.015	222293	1.3	4	11.616	-0.048	232719	2.6
Aroclor-1262	5	11.443	0.036	19641	0.1	5	12.426	-0.037	30813	0.4
	Total Col1Ave (5 peaks):				1.2	Total Col2Ave (5 peaks):				0.9 RPD = 34
	Corrected Ave (4 peaks):				1.1	Corrected Ave (4 peaks):				0.5 RPD = 80*
Aroclor-1268	1	11.319	-0.017	222293	0.5	1	11.616	-0.048	232719	1.0
Aroclor-1268	2	11.443	0.036	19641	0.0	2	---			0.0

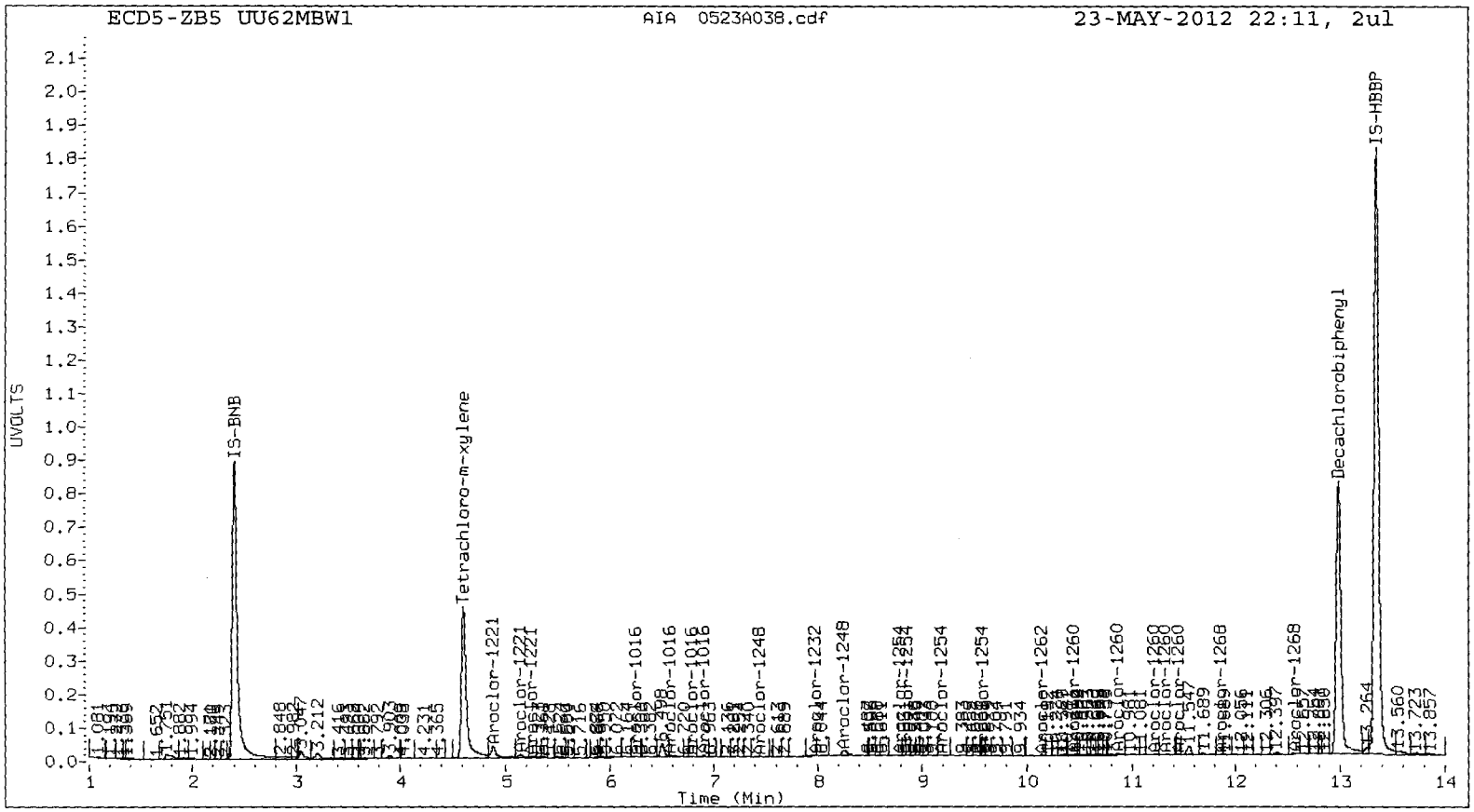
Aroclor-1268	3	11.858	0.065	87926	0.2	3	---		0.0
Aroclor-1268	4	12.572	-0.013	175952	0.1	4	12.940	-0.009	64945	0.1
Total Col1Ave (4 peaks):					0.2	Col2Ave: <3 Quant Peaks			

Total PCB Area Col1 (4.708 - 12.891) = 36070686 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 11231670 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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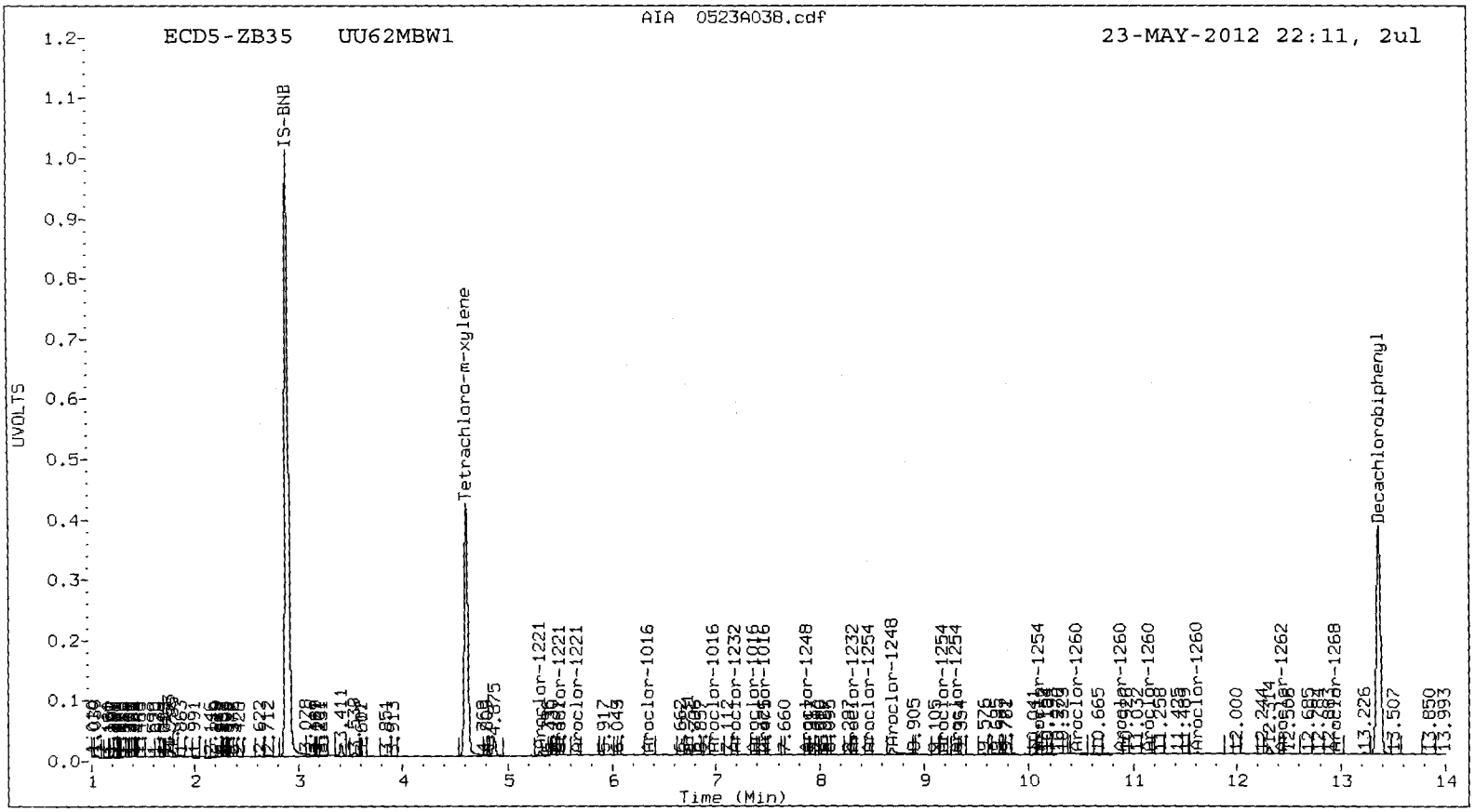
23-MAY-2012 22:11, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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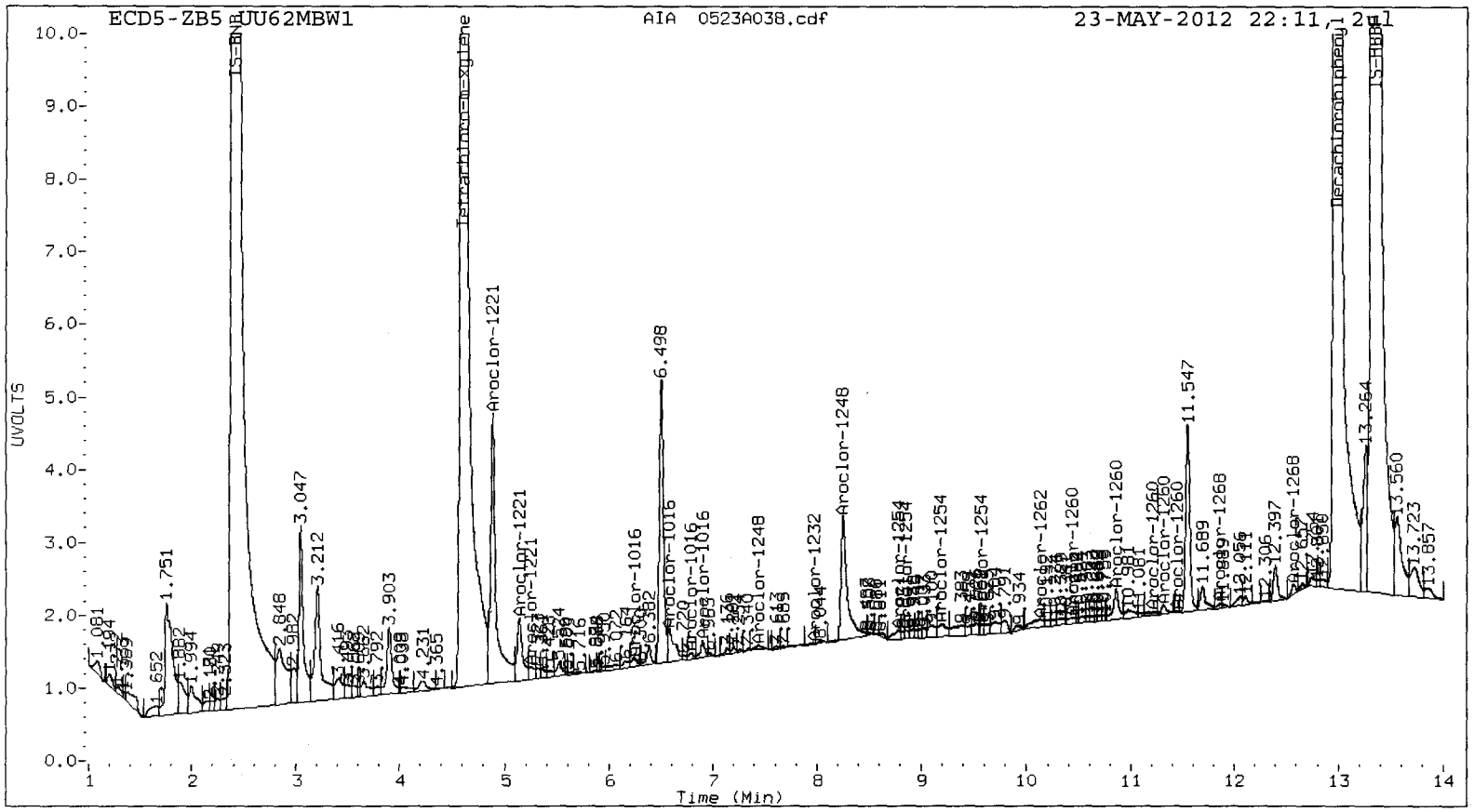
ECD5-ZB35 UU62MBW1
23-MAY-2012 22:11, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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UVOLTS
Time (Min)
IS-HBB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
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3.903
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11.689
12.396
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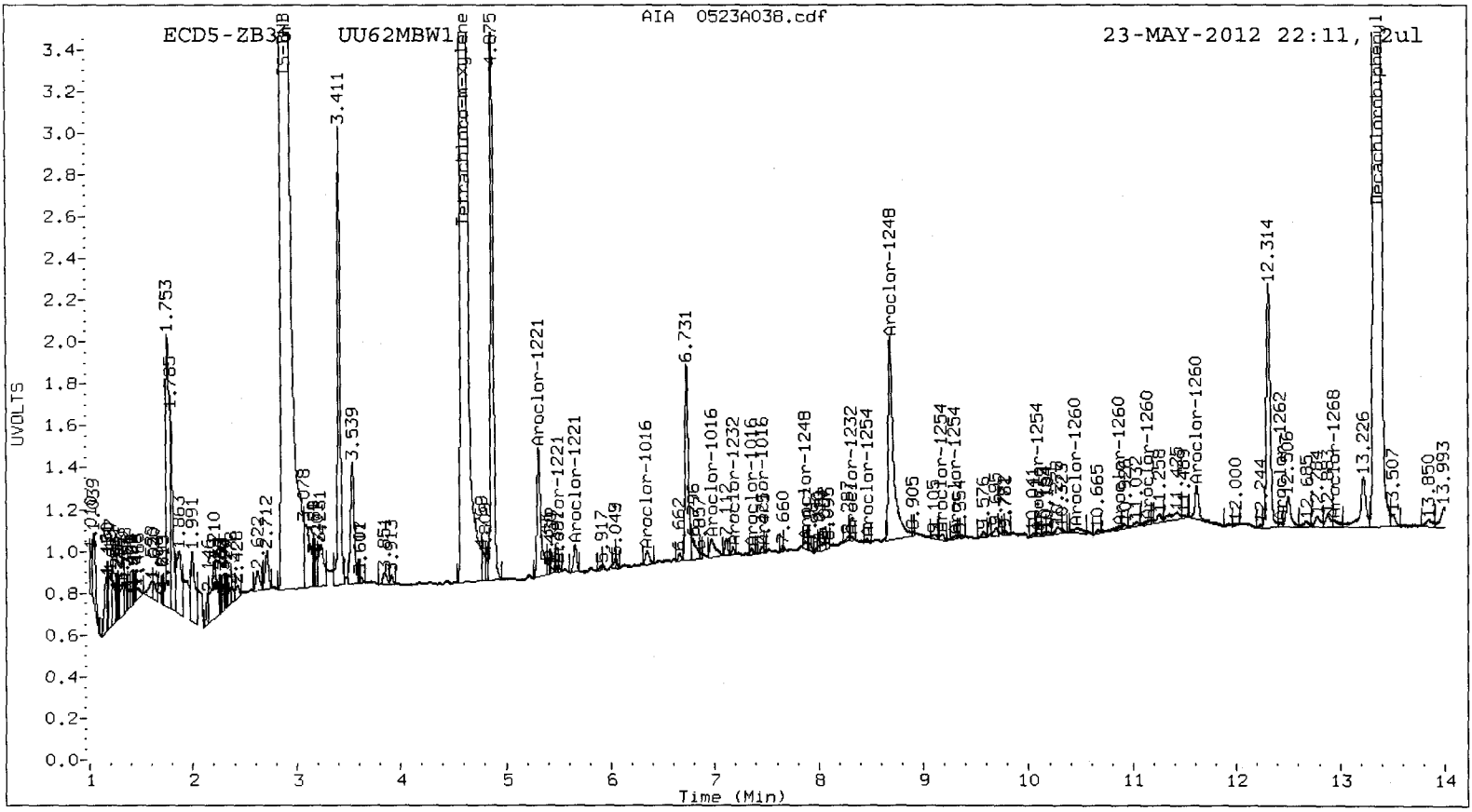
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UVOLTS
Time (Min)
IS-HBB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
1.753
3.411
3.539
4.675
6.731
12.314
13.226
13.507
13.850
13.993

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A039.d
Data file 2: 20120523.b/0523-2.b/0523A039.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU62LCSW1
Client ID:
Injection Date: 23-MAY-2012 22:30
Ical Date: 23-MAY-2012
Matrix: WATER
Dilution Factor: 1.000

Y2 5/24/12

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.608	0.000	82705696	4.609	0.001	53444168	35.2	31.4	11.4	Tetrachloro-m-xylene
12.991	0.000	133623204	13.364	0.000	53139002	31.3	34.0	8.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	88.0	78.6
Decachlorobiphenyl	78.2	85.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	146162804	-5.2
Hexabromobiphenyl	248602423	278529213	12.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	120879756	9.3
Hexabromobiphenyl	108855531	120832932	11.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.240	-0.001	26687493	437.6	1	6.346	0.001	22769573	360.9
Aroclor-1016	2	6.641	0.000	90169414	453.6	2	6.973	0.000	56017778	391.2
Aroclor-1016	3	6.789	-0.001	37702259	480.9	3	7.355	-0.001	14877515	402.7
Aroclor-1016	4	6.899	-0.001	28945032	468.7	4	7.462	0.000	16308034	397.0
	Total Col1Ave (4 peaks):				460.2		Total Col2Ave (4 peaks):			387.9 RPD = 17
	Corrected Ave (3 peaks):				453.3		Corrected Ave (3 peaks):			383.0 RPD = 17
Aroclor-1221	1	4.887	0.003	5570000	508.4	1	5.296	0.006	2759807	144.9
Aroclor-1221	2	5.155	0.002	4716199	267.4	2	5.540	0.003	2137892	190.0
Aroclor-1221	3	5.261	0.002	17589684	304.3	3	5.652	0.004	9651006	274.2
Aroclor-1221	NS	---			----	4	5.719	0.001	746973	115.8
	Total Col1Ave (3 peaks):				360.0		Total Col2Ave (4 peaks):			181.2 RPD = 66*
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			150.2
Aroclor-1232	1	6.240	0.002	26687493	1048.0	1	6.346	0.001	22769573	782.1
Aroclor-1232	2	6.641	0.002	90169414	1064.6	2	6.973	0.002	56017778	919.0
Aroclor-1232	3	6.789	0.001	37702259	1097.5	3	7.181	0.001	20082901	976.6
Aroclor-1232	4	7.982	0.002	6007870	182.1	4	8.325	0.000	3326559	147.5
	Total Col1Ave (4 peaks):				848.0		Total Col2Ave (4 peaks):			706.3 RPD = 18
	Corrected Ave (3 peaks):				764.9		Corrected Ave (3 peaks):			616.2 RPD = 22
Aroclor-1242	1	6.240	0.003	26687493	580.1	1	6.346	0.003	22769573	461.7
Aroclor-1242	2	6.641	0.003	90169414	587.8	2	6.973	0.002	56017778	500.1
Aroclor-1242	3	6.789	0.002	37702259	615.9	3	7.181	0.002	20082901	441.3
Aroclor-1242	4	7.982	0.002	6007870	105.4	4	8.325	0.001	3326559	84.1
	Total Col1Ave (4 peaks):				472.3		Total Col2Ave (4 peaks):			371.8 RPD = 24
	Corrected Ave (3 peaks):				424.4		Corrected Ave (3 peaks):			329.0 RPD = 25
Aroclor-1248	1	6.641	0.002	90169414	878.7	1	6.973	0.003	56017778	771.8
Aroclor-1248	2	7.437	-0.001	28049942	361.8	2	7.873	-0.001	19035398	327.3
Aroclor-1248	3	7.982	-0.001	6007870	60.5	3	8.325	-0.002	3326559	47.6
Aroclor-1248	4	8.276	0.002	7856798	78.4	4	8.744	-0.003	1569888	19.9
	Total Col1Ave (4 peaks):				344.9		Total Col2Ave (4 peaks):			291.6 RPD = 17
	Corrected Ave (3 peaks):				166.9		Corrected Ave (3 peaks):			131.6 RPD = 24
Aroclor-1254	1	8.358	0.001	31934567	238.0	1	8.465	0.000	12546316	236.4
Aroclor-1254	2	8.727	0.000	6371352	73.8	2	8.637	-0.001	15385637	228.1
Aroclor-1254	3	8.861	-0.002	30587852	183.4	3	9.160	0.000	3319569	64.4
Aroclor-1254	4	9.194	-0.019	78033714	434.6	4	9.312	0.002	7237016	63.5
Aroclor-1254	5	9.523	-0.051	116220805	1040.7	5	10.102	0.008	15100818	226.0
	Total Col1Ave (5 peaks):				394.1		Total Col2Ave (5 peaks):			163.7 RPD = 83*
	Corrected Ave (4 peaks):				232.5		Corrected Ave (4 peaks):			145.5 RPD = 46*
Aroclor-1260	1	10.446	0.000	62512365	413.7	1	10.421	0.001	28199415	406.9
Aroclor-1260	2	10.821	0.001	147937448	394.5	2	10.871	0.000	35211915	409.2
Aroclor-1260	3	11.220	0.000	83732492	401.7	3	11.144	0.000	71612258	409.9
Aroclor-1260	4	11.336	-0.001	36132326	403.7	4	11.665	0.000	20684456	405.5
Aroclor-1260	5	11.410	0.000	44212198	413.8	NS	---			----
	Total Col1Ave (5 peaks):				405.5		Total Col2Ave (4 peaks):			407.9 RPD = 1
	Corrected Ave (4 peaks):				403.4		Corrected Ave (3 peaks):			407.2 RPD = 1
Aroclor-1262	1	10.129	0.001	61674453	277.8	1	10.421	0.002	28199415	249.2
Aroclor-1262	2	10.446	0.002	62512365	368.5	2	10.871	0.001	35211915	360.7
Aroclor-1262	3	10.821	0.002	147937448	319.1	3	11.144	0.002	71612258	323.1
Aroclor-1262	4	11.336	0.002	36132326	213.3	4	11.665	0.001	20684456	231.9
Aroclor-1262	5	11.410	0.003	44212198	229.5	5	12.464	0.002	19045004	229.3
	Total Col1Ave (5 peaks):				281.7		Total Col2Ave (5 peaks):			278.8 RPD = 1
	Corrected Ave (4 peaks):				259.9		Corrected Ave (4 peaks):			258.4 RPD = 1
Aroclor-1268	1	11.336	0.000	36132326	76.2	1	11.665	0.001	20684456	89.7
Aroclor-1268	2	11.410	0.003	44212198	92.7	2	11.725	-0.006	49870433	229.3

Aroclor-1268	3	11.809	0.017	21560612	54.2	3	12.129	0.002	1247154	6.8
Aroclor-1268	4	12.583	-0.002	15637333	13.4	4	12.950	0.001	5475909	10.6

Total Col1Ave (4 peaks): 59.1 Total Col2Ave (4 peaks): 84.1 RPD = 35

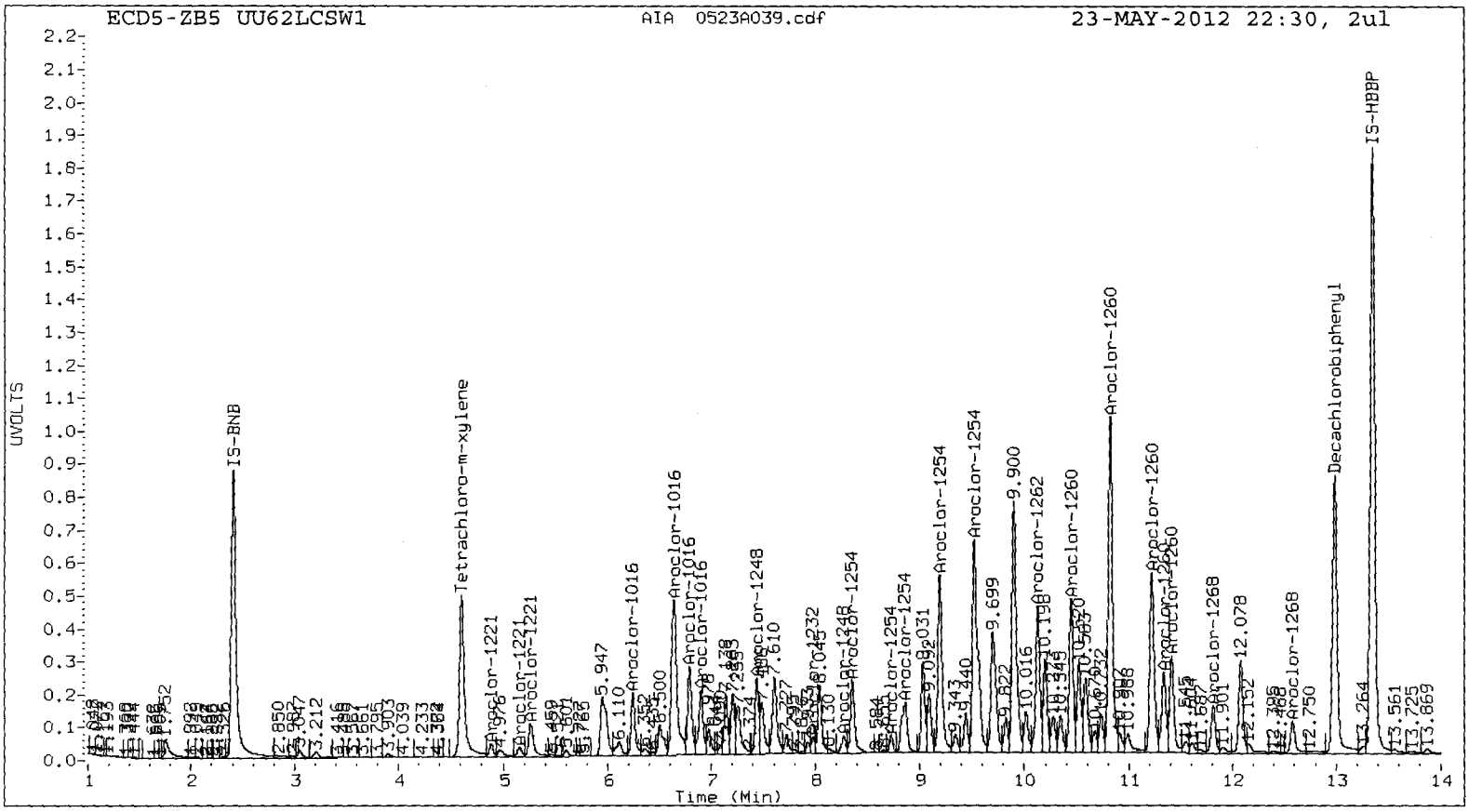
Corrected Ave (3 peaks): 47.9 Corrected Ave (3 peaks): 35.7 RPD = 29

Total PCB Area Col1 (4.708 - 12.891) = 1807404629 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 873038966 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
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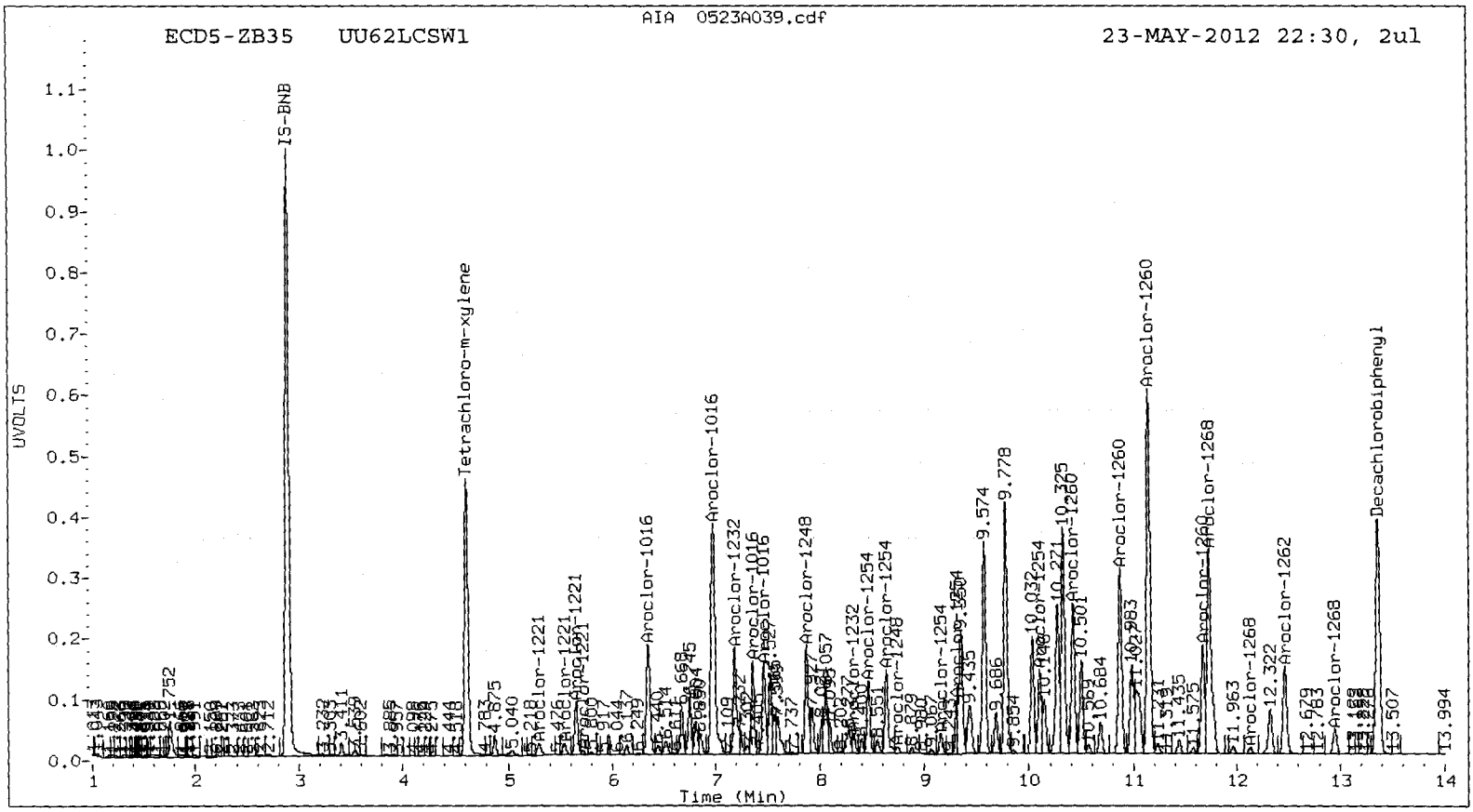
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Aroclor-1016
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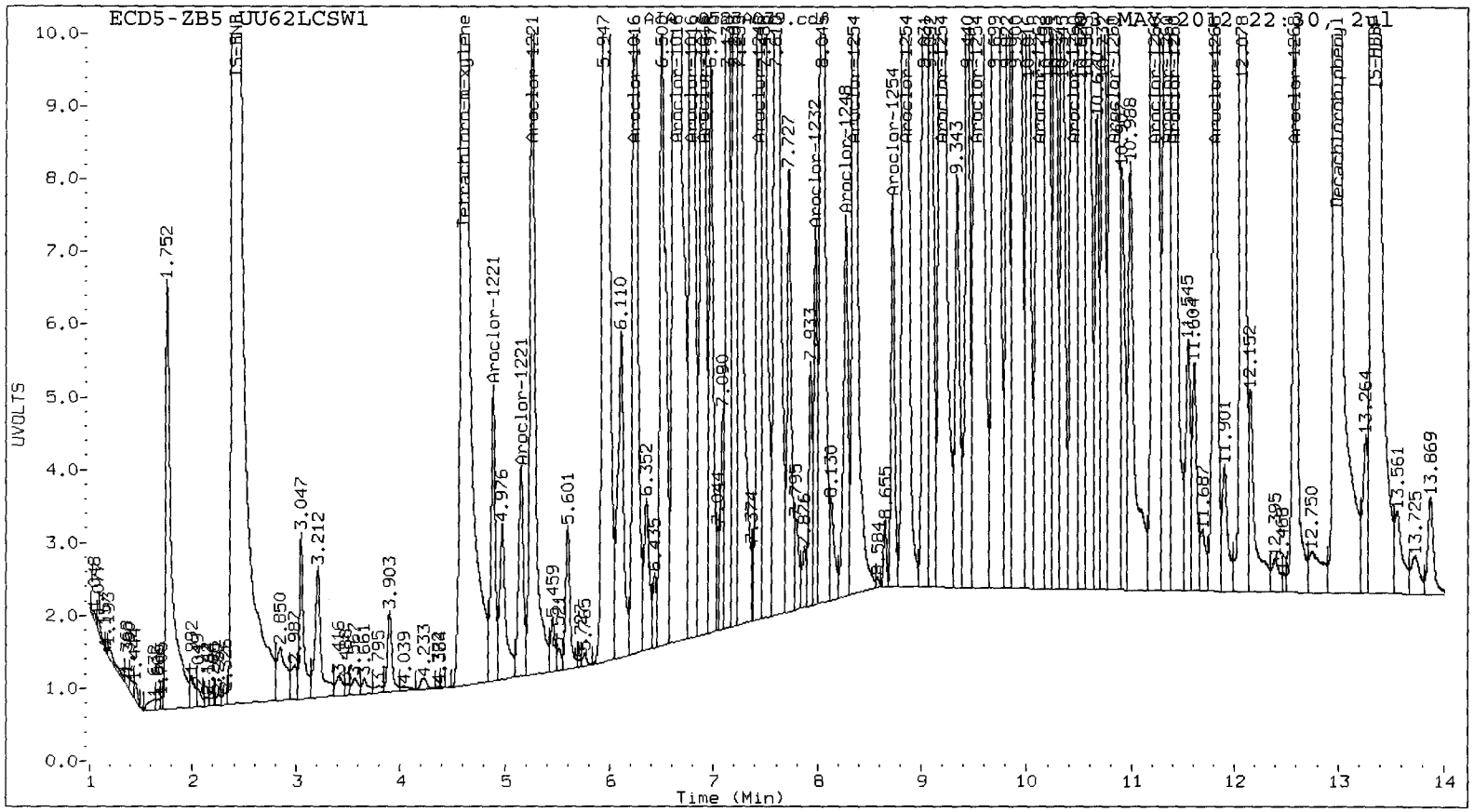
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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22:30, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
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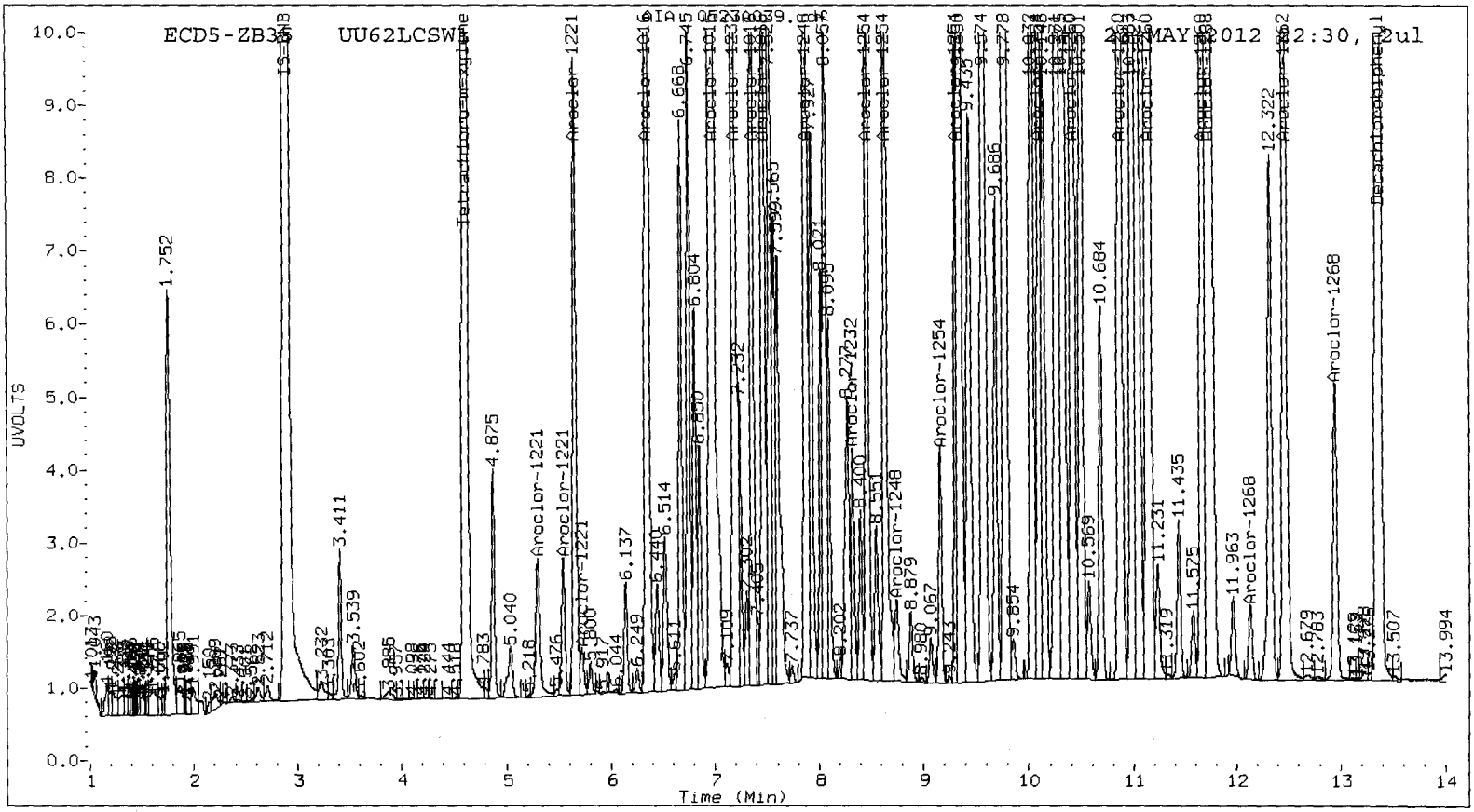
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
IS-HBB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22:30, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A040.d
Data file 2: 20120523.b/0523-2.b/0523A040.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU62LCSDW1
Client ID:
Injection Date: 23-MAY-2012 22:49
Ical Date: 23-MAY-2012
Matrix: WATER
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.609	0.001	79418028	4.610	0.002	51633210	33.9	29.9	12.4	Tetrachloro-m-xylene
12.992	0.001	129391946	13.364	0.000	51892458	29.5	32.4	9.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	84.7	74.8
Decachlorobiphenyl	73.8	81.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	145934035	-5.4
Hexabromobiphenyl	248602423	285560925	14.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	122645230	10.9
Hexabromobiphenyl	108855531	123839457	13.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.241	0.000	25525431	419.2	1	6.347	0.001	21817842	340.8
Aroclor-1016	2	6.642	0.001	87035881	438.5	2	6.974	0.000	54199352	373.0
Aroclor-1016	3	6.789	0.000	36493474	466.2	3	7.356	0.000	15043215	401.3
Aroclor-1016	4	6.900	0.000	28400431	460.6	4	7.463	0.001	15865864	380.7
	Total Col1Ave (4 peaks):				446.1	Total Col2Ave (4 peaks):				373.9 RPD = 18
	Corrected Ave (3 peaks):				439.5	Corrected Ave (3 peaks):				364.8 RPD = 19
Aroclor-1221	1	4.887	0.003	5420536	495.5	1	5.298	0.008	2603513	134.7
Aroclor-1221	2	5.156	0.003	4465208	253.5	2	5.541	0.005	2182658	191.1
Aroclor-1221	3	5.261	0.003	16364681	283.6	3	5.653	0.004	9085459	254.4
Aroclor-1221	NS	---			----	4	5.720	0.003	707449	108.1
	Total Col1Ave (3 peaks):				344.2	Total Col2Ave (4 peaks):				172.1 RPD = 67*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				144.7
Aroclor-1232	1	6.241	0.002	25525431	1003.9	1	6.347	0.001	21817842	738.6
Aroclor-1232	2	6.642	0.003	87035881	1029.2	2	6.974	0.002	54199352	876.4
Aroclor-1232	3	6.789	0.002	36493474	1064.0	3	7.182	0.002	18903255	906.0
Aroclor-1232	4	7.983	0.003	5836972	177.2	4	8.325	0.000	3319772	145.1
	Total Col1Ave (4 peaks):				818.6	Total Col2Ave (4 peaks):				666.5 RPD = 20
	Corrected Ave (3 peaks):				736.8	Corrected Ave (3 peaks):				586.7 RPD = 23
Aroclor-1242	1	6.241	0.004	25525431	555.7	1	6.347	0.003	21817842	436.0
Aroclor-1242	2	6.642	0.004	87035881	568.2	2	6.974	0.003	54199352	476.9
Aroclor-1242	3	6.789	0.003	36493474	597.1	3	7.182	0.003	18903255	409.4
Aroclor-1242	4	7.983	0.003	5836972	102.5	4	8.325	0.002	3319772	82.7
	Total Col1Ave (4 peaks):				455.9	Total Col2Ave (4 peaks):				351.3 RPD = 26
	Corrected Ave (3 peaks):				408.8	Corrected Ave (3 peaks):				309.4 RPD = 28
Aroclor-1248	1	6.642	0.003	87035881	849.5	1	6.974	0.004	54199352	736.0
Aroclor-1248	2	7.438	0.000	27424266	354.3	2	7.874	-0.001	18684048	316.7
Aroclor-1248	3	7.983	0.000	5836972	58.9	3	8.325	-0.001	3319772	46.8
Aroclor-1248	4	8.276	0.002	8395198	83.9	4	8.745	-0.003	1724972	21.5
	Total Col1Ave (4 peaks):				336.6	Total Col2Ave (4 peaks):				280.2 RPD = 18
	Corrected Ave (3 peaks):				165.7	Corrected Ave (3 peaks):				128.3 RPD = 25
Aroclor-1254	1	8.359	0.002	31490265	235.1	1	8.466	0.000	12408292	230.4
Aroclor-1254	2	8.728	0.001	6382799	74.0	2	8.638	0.000	15702597	229.4
Aroclor-1254	3	8.862	-0.002	30288799	181.9	3	9.160	0.000	3277088	62.7
Aroclor-1254	4	9.195	-0.018	77597613	432.9	4	9.313	0.003	7044154	60.9
Aroclor-1254	5	9.524	-0.050	115812079	1038.7	5	10.103	0.010	15421490	227.5
	Total Col1Ave (5 peaks):				392.5	Total Col2Ave (5 peaks):				162.2 RPD = 83*
	Corrected Ave (4 peaks):				231.0	Corrected Ave (4 peaks):				145.1 RPD = 46*
Aroclor-1260	1	10.447	0.001	61723936	398.4	1	10.421	0.001	28567567	402.2
Aroclor-1260	2	10.820	0.000	147435214	383.5	2	10.871	0.000	35741550	405.3
Aroclor-1260	3	11.220	0.000	81836731	382.9	3	11.144	0.000	72558579	405.2
Aroclor-1260	4	11.336	-0.001	34885221	380.2	4	11.665	0.000	21241924	406.3
Aroclor-1260	5	11.410	0.000	42454472	387.5	NS	---			----
	Total Col1Ave (5 peaks):				386.5	Total Col2Ave (4 peaks):				404.7 RPD = 5
	Corrected Ave (4 peaks):				383.5	Corrected Ave (3 peaks):				404.2 RPD = 5
Aroclor-1262	1	10.130	0.002	61146213	268.6	1	10.421	0.002	28567567	246.3
Aroclor-1262	2	10.447	0.002	61723936	354.9	2	10.871	0.001	35741550	357.2
Aroclor-1262	3	10.820	0.002	147435214	310.2	3	11.144	0.002	72558579	319.4
Aroclor-1262	4	11.336	0.002	34885221	200.8	4	11.665	0.001	21241924	232.4
Aroclor-1262	5	11.410	0.002	42454472	215.0	5	12.464	0.001	18947457	222.6
	Total Col1Ave (5 peaks):				269.9	Total Col2Ave (5 peaks):				275.6 RPD = 2
	Corrected Ave (4 peaks):				248.7	Corrected Ave (4 peaks):				255.2 RPD = 3
Aroclor-1268	1	11.336	0.000	34885221	71.7	1	11.665	0.001	21241924	89.8
Aroclor-1268	2	11.410	0.003	42454472	86.8	2	11.726	-0.005	50817215	228.0

Aroclor-1268	3	11.810	0.018	20044537	49.1	3	12.130	0.002	1292200	6.9
Aroclor-1268	4	12.583	-0.002	14570164	12.1	4	12.950	0.000	5640283	10.7

Total Col1Ave (4 peaks): 55.0 Total Col2Ave (4 peaks): 83.9 RPD = 42*

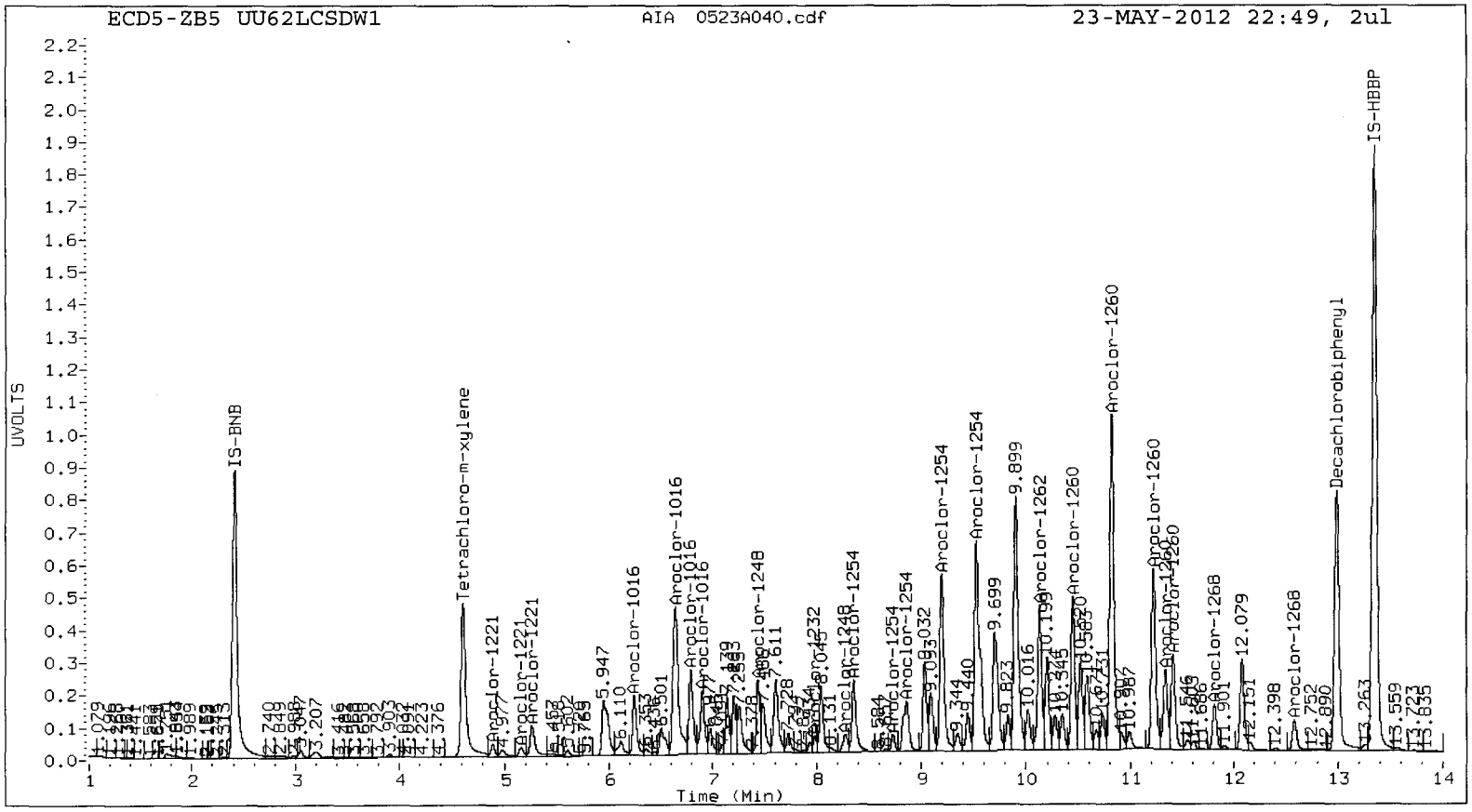
Corrected Ave (3 peaks): 44.3 Corrected Ave (3 peaks): 35.8 RPD = 21

Total PCB Area Col1 (4.708 - 12.891) = 1756369483 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 872663681 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
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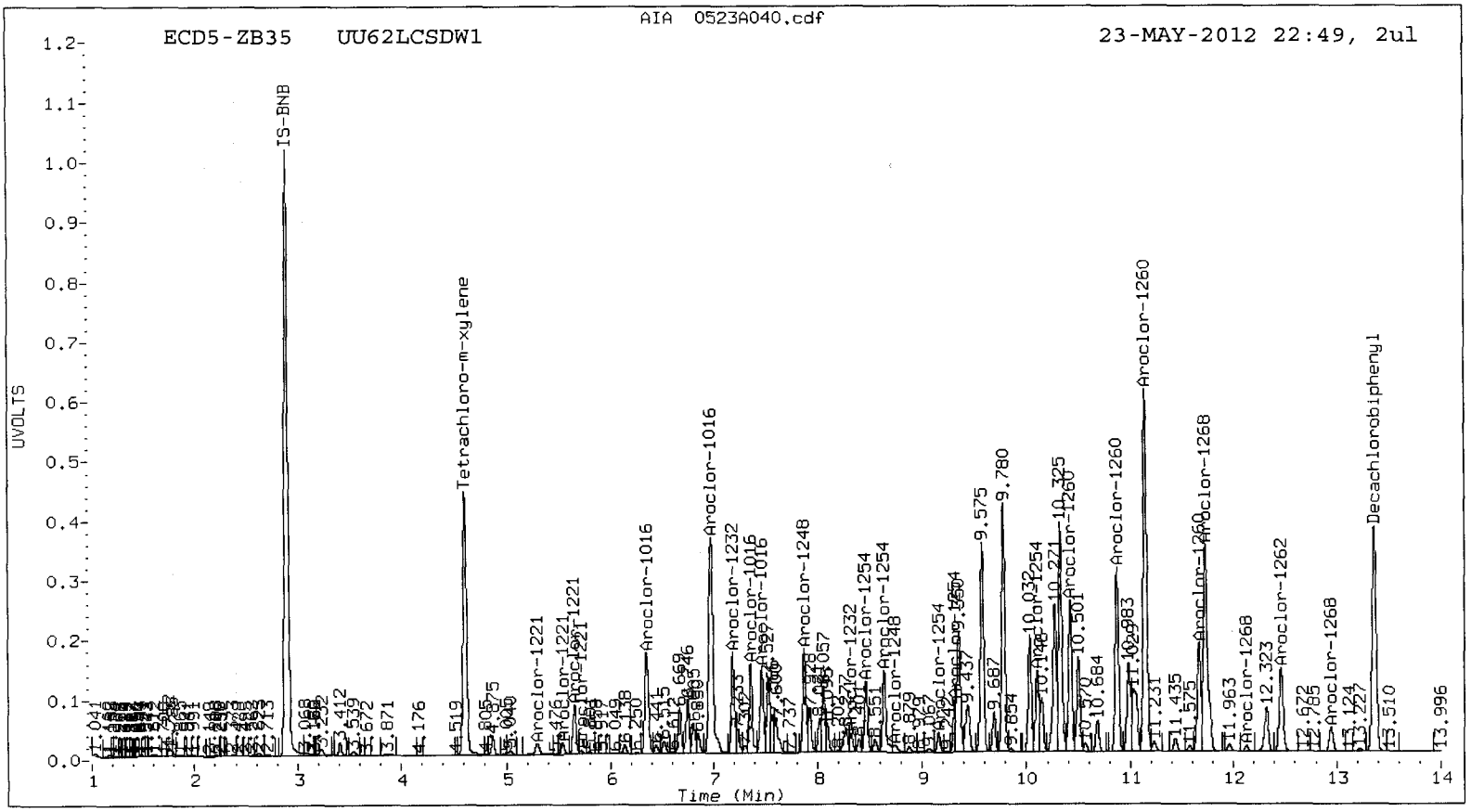
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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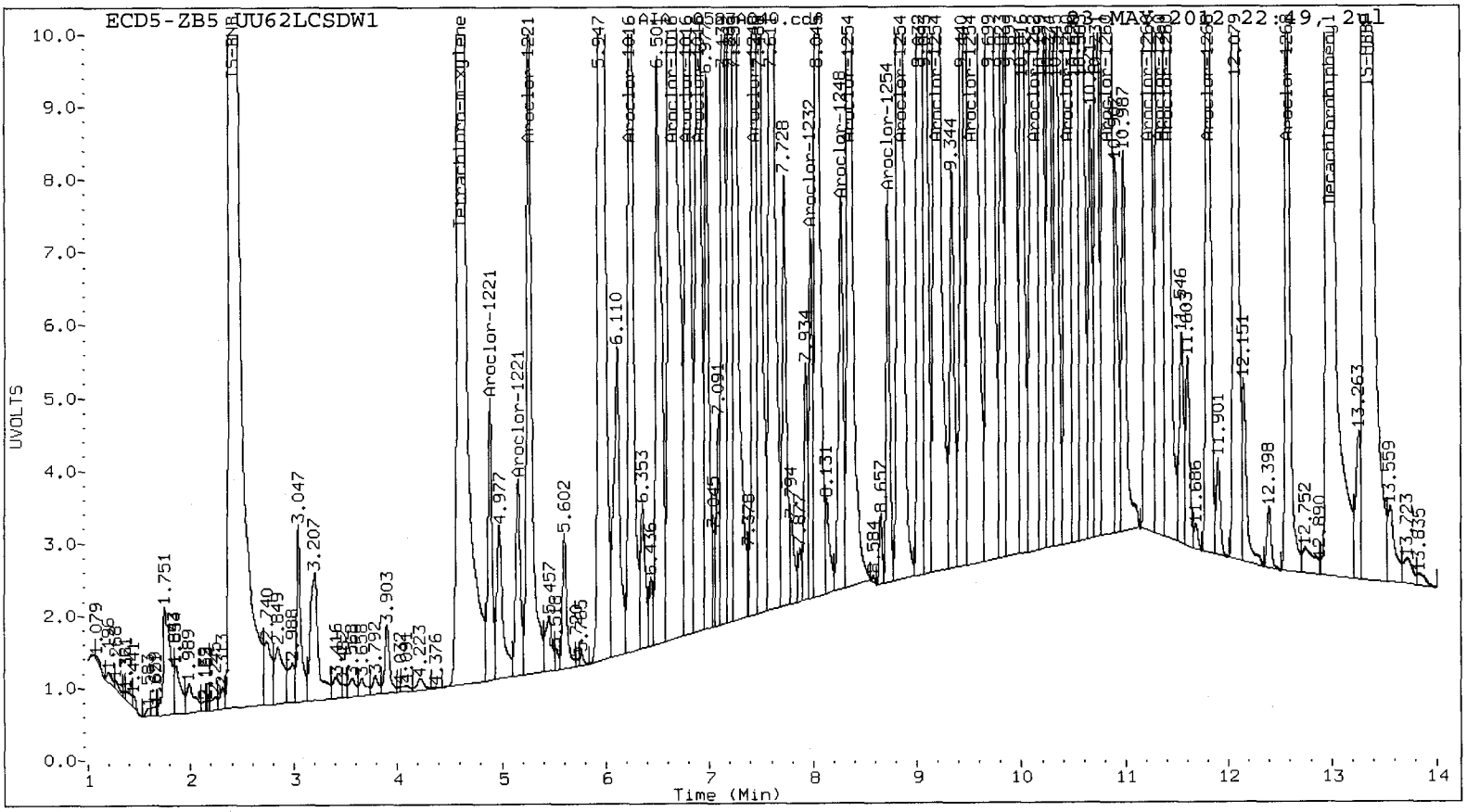
Decachlorobiphenyl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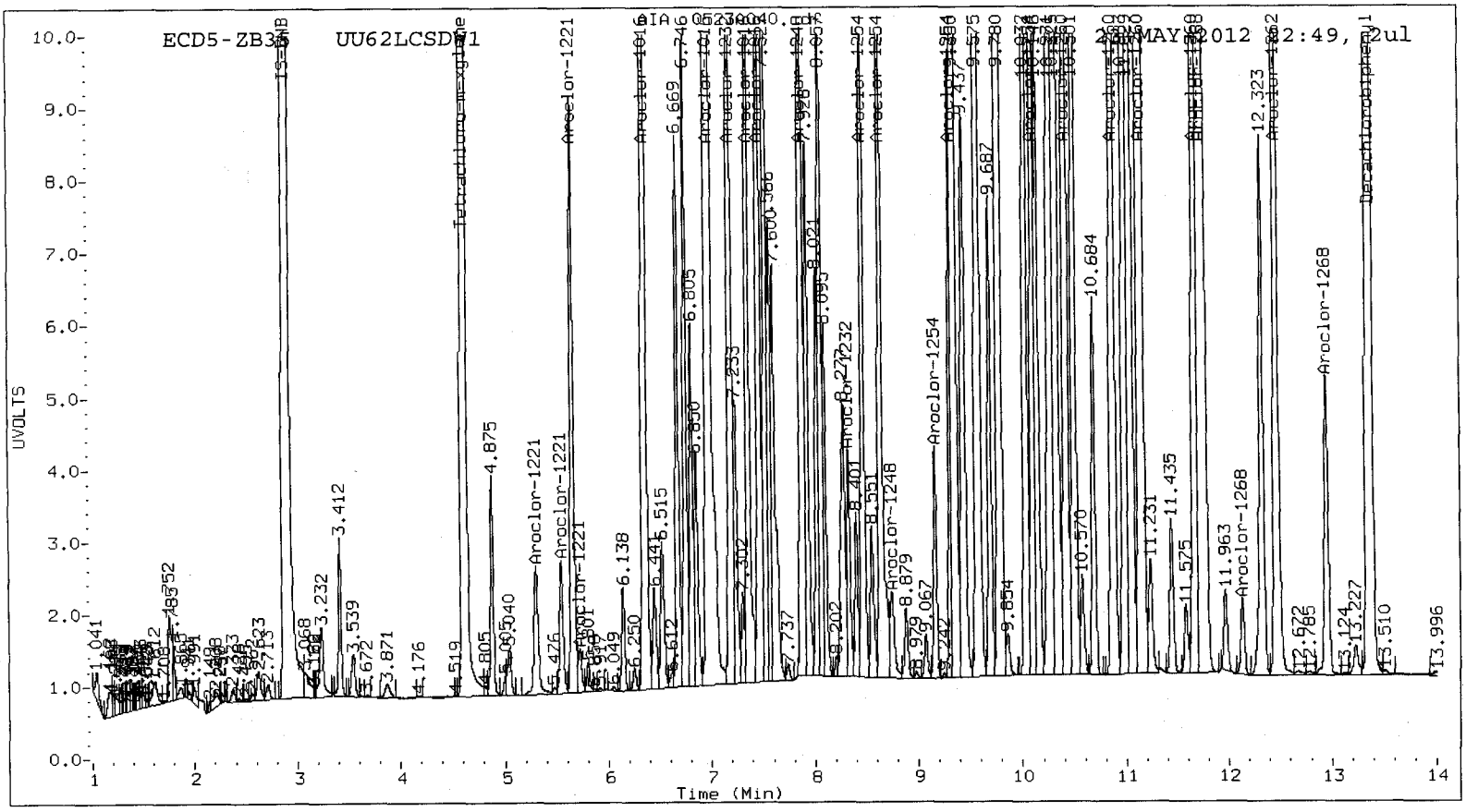
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Analytical Resources Inc.
Dual Column PCBs by SW8082

YZ 5/24/12

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Data file 2: 20120523.b/0523-2.b/0523A042.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU62J
Client ID:
Injection Date: 23-MAY-2012 23:27
Ical Date: 23-MAY-2012
Matrix: WATER
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.609	0.001	59752136	4.611	0.002	38219584	25.5	22.5	12.5	Tetrachloro-m-xylene
12.990	-0.001	37239091	13.364	0.000	13847100	8.8	9.0	2.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	63.7	56.3
Decachlorobiphenyl	22.1	22.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	145833693	-5.4
Hexabromobiphenyl	248602423	274879722	10.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	120702373	9.1
Hexabromobiphenyl	108855531	119021355	9.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.232	-0.009	204397	3.4	1	6.295	-0.050	14054	0.2
Aroclor-1016	2	6.577	-0.065	905442	4.6	2	7.028	0.054	697214	4.9
Aroclor-1016	3	6.779	-0.011	183861	2.4	3	7.363	0.007	40906	1.1
Aroclor-1016	4	6.898	-0.002	325723	5.3	4	7.466	0.004	42301	1.0
	Total Col1Ave (4 peaks):				3.9	Total Col2Ave (4 peaks):				1.8 RPD = 73*
	Corrected Ave (3 peaks):				3.4	Corrected Ave (3 peaks):				0.8 RPD = 125*
Aroclor-1221	1	4.888	0.004	5090937	465.7	1	5.314	0.025	858037	45.1
Aroclor-1221	2	5.144	-0.009	1177532	66.9	2	5.566	0.030	69695	6.2
Aroclor-1221	3	5.250	-0.008	212588	3.7	3	5.664	0.015	115484	3.3
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				178.8	Total Col2Ave (3 peaks):				18.2 RPD = 163*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.232	-0.007	204397	8.0	1	6.295	-0.050	14054	0.5
Aroclor-1232	2	6.577	-0.062	905442	10.7	2	7.028	0.057	697214	11.5
Aroclor-1232	3	6.779	-0.008	183861	5.4	3	7.182	0.003	70993	3.5
Aroclor-1232	4	7.998	0.018	38190	1.2	4	8.324	-0.001	125418	5.6
	Total Col1Ave (4 peaks):				6.3	Total Col2Ave (4 peaks):				5.2 RPD = 19
	Corrected Ave (3 peaks):				4.9	Corrected Ave (3 peaks):				3.2 RPD = 42*
Aroclor-1242	1	6.232	-0.006	204397	4.5	1	6.295	-0.048	14054	0.3
Aroclor-1242	2	6.577	-0.061	905442	5.9	2	7.028	0.057	697214	6.2
Aroclor-1242	3	6.779	-0.007	183861	3.0	3	7.182	0.004	70993	1.6
Aroclor-1242	4	7.998	0.018	38190	0.7	4	8.324	0.000	125418	3.2
	Total Col1Ave (4 peaks):				3.5	Total Col2Ave (4 peaks):				2.8 RPD = 22
	Corrected Ave (3 peaks):				2.7	Corrected Ave (3 peaks):				1.7 RPD = 47*
Aroclor-1248	1	6.577	-0.062	905442	8.8	1	7.028	0.058	697214	9.6
Aroclor-1248	2	7.436	-0.001	105607	1.4	2	7.877	0.003	74919	1.3
Aroclor-1248	3	7.998	0.015	38190	0.4	3	8.324	-0.003	125418	1.8
Aroclor-1248	4	8.255	-0.019	9214656	92.2	4	8.692	-0.056	5080296	64.5
	Total Col1Ave (4 peaks):				25.7	Total Col2Ave (4 peaks):				19.3 RPD = 28
	Corrected Ave (3 peaks):				3.5	Corrected Ave (3 peaks):				4.2 RPD = 18
Aroclor-1254	1	8.255	-0.102	9214656	68.8	1	8.469	0.003	65294	1.2
Aroclor-1254	2	8.730	0.003	168023	1.9	2	8.692	0.054	5080296	75.4
Aroclor-1254	3	8.863	0.000	467743	2.8	3	9.159	0.000	110726	2.2
Aroclor-1254	4	9.207	-0.006	593646	3.3	4	9.309	-0.001	146976	1.3
Aroclor-1254	5	9.573	-0.001	359992	3.2	5	10.094	0.000	39449	0.6
	Total Col1Ave (5 peaks):				16.0	Total Col2Ave (5 peaks):				16.1 RPD = 1
	Corrected Ave (4 peaks):				2.8	Corrected Ave (4 peaks):				1.3 RPD = 73*
Aroclor-1260	1	10.442	-0.004	171902	1.2	1	10.478	0.057	12564	0.2
Aroclor-1260	2	10.859	0.039	553967	1.5	2	10.864	-0.007	77808	0.9
Aroclor-1260	3	11.227	0.006	58163	0.3	3	11.150	0.006	35900	0.2
Aroclor-1260	4	11.320	-0.017	130761	1.5	4	11.617	-0.048	232668	4.6
Aroclor-1260	5	11.408	-0.002	20408	0.2	NS	---			----
	Total Col1Ave (5 peaks):				0.9	Total Col2Ave (4 peaks):				1.5 RPD = 47*
	Corrected Ave (4 peaks):				0.8	Corrected Ave (3 peaks):				0.4 RPD = 56*
Aroclor-1262	1	10.129	0.001	291218	1.3	1	10.478	0.058	12564	0.1
Aroclor-1262	2	10.442	-0.003	171902	1.0	2	10.864	-0.006	77808	0.8
Aroclor-1262	3	10.859	0.041	553967	1.2	3	11.150	0.008	35900	0.2
Aroclor-1262	4	11.320	-0.014	130761	0.8	4	11.617	-0.047	232668	2.6
Aroclor-1262	5	11.408	0.000	20408	0.1	5	12.506	0.043	339910	4.2
	Total Col1Ave (5 peaks):				0.9	Total Col2Ave (5 peaks):				1.6 RPD = 56*
	Corrected Ave (4 peaks):				0.8	Corrected Ave (4 peaks):				0.9 RPD = 18
Aroclor-1268	1	11.320	-0.016	130761	0.3	1	11.617	-0.047	232668	1.0
Aroclor-1268	2	11.408	0.001	20408	0.0	2	11.724	-0.006	29674	0.1

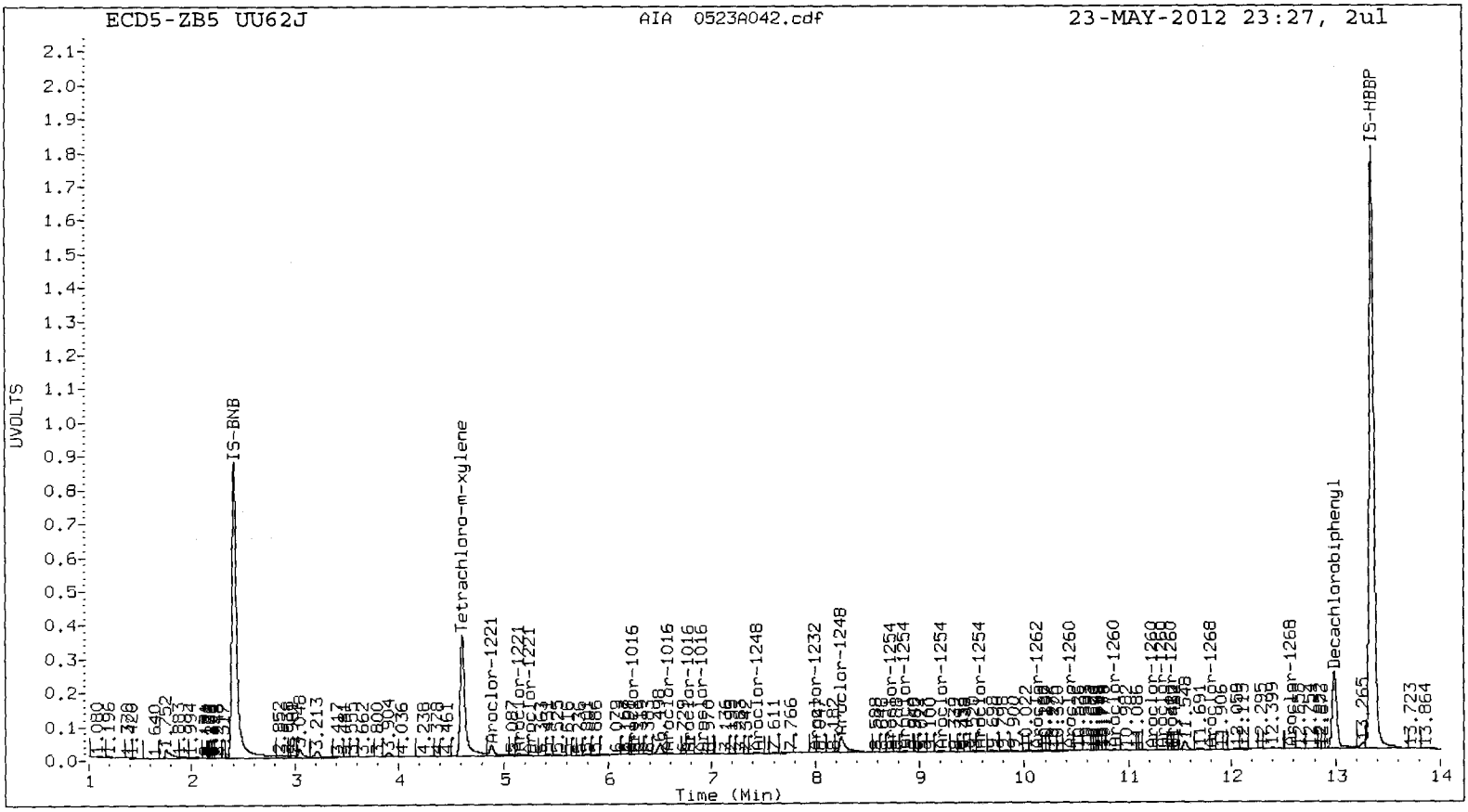
Aroclor-1268 3	11.799	0.007	32558	0.1	3	12.139	0.011	14090	0.1
Aroclor-1268 4	12.567	-0.018	145240	0.1	4	12.885	-0.065	81746	0.2
Total Col1Ave (4 peaks):				0.1	Total Col2Ave (4 peaks):			0.4	RPD = 90*
Corrected Ave (3 peaks):				0.1	Corrected Ave (3 peaks):			0.1	RPD = 40

Total PCB Area Col1 (4.708 - 12.891) = 37956763 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 16005703 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Tetrachloro-m-xylene
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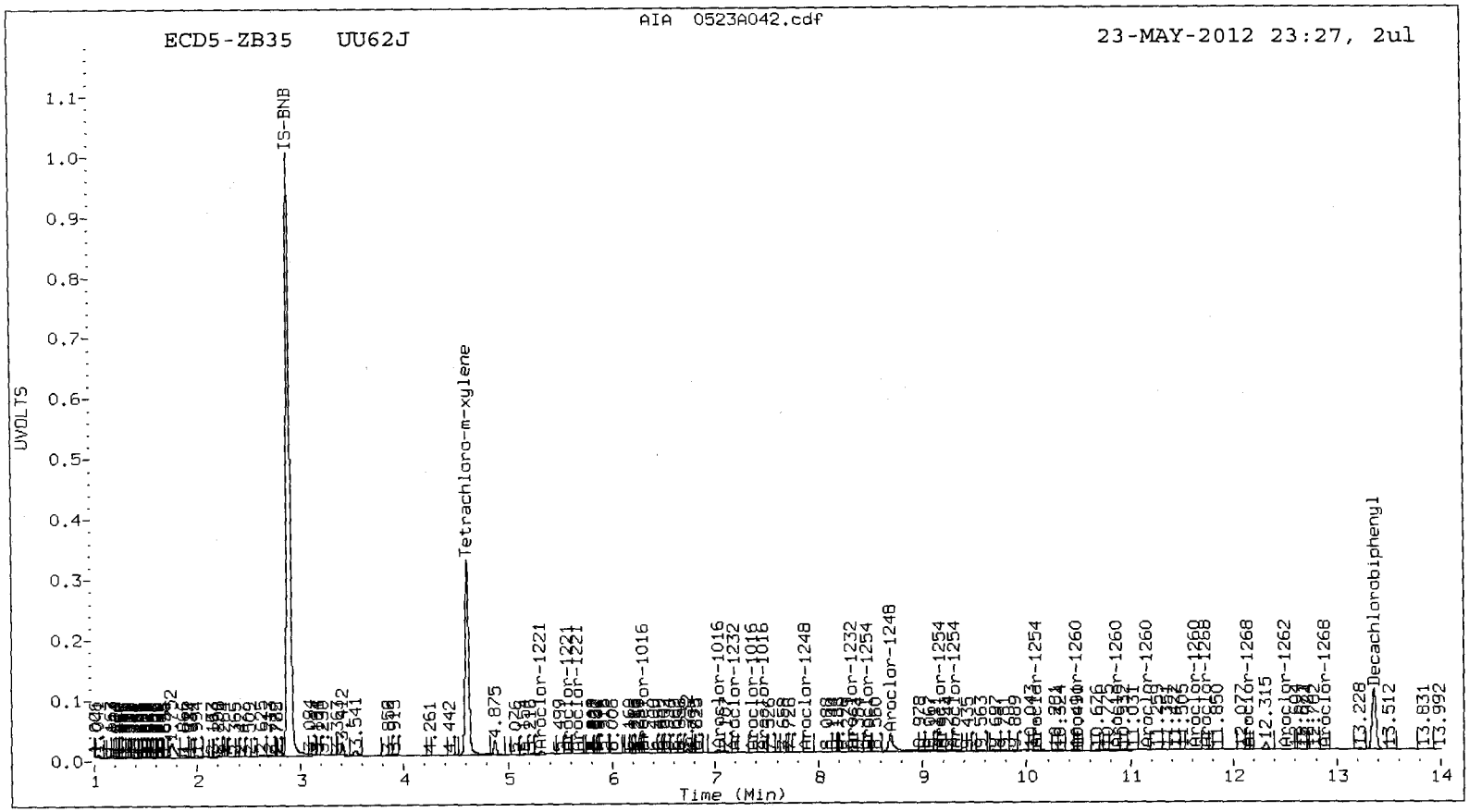
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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IS-BNB
Tetrachloro-m-xylene
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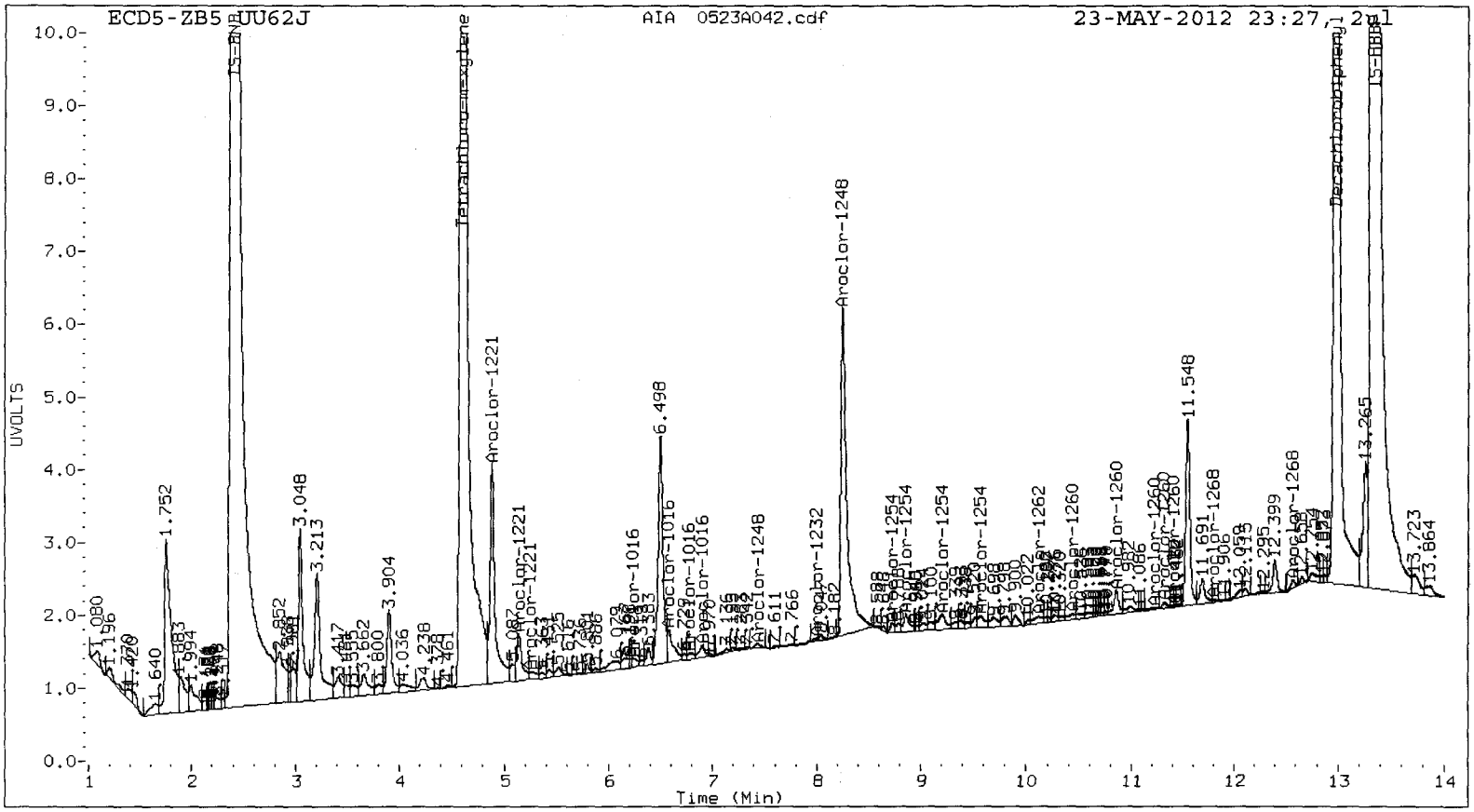
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
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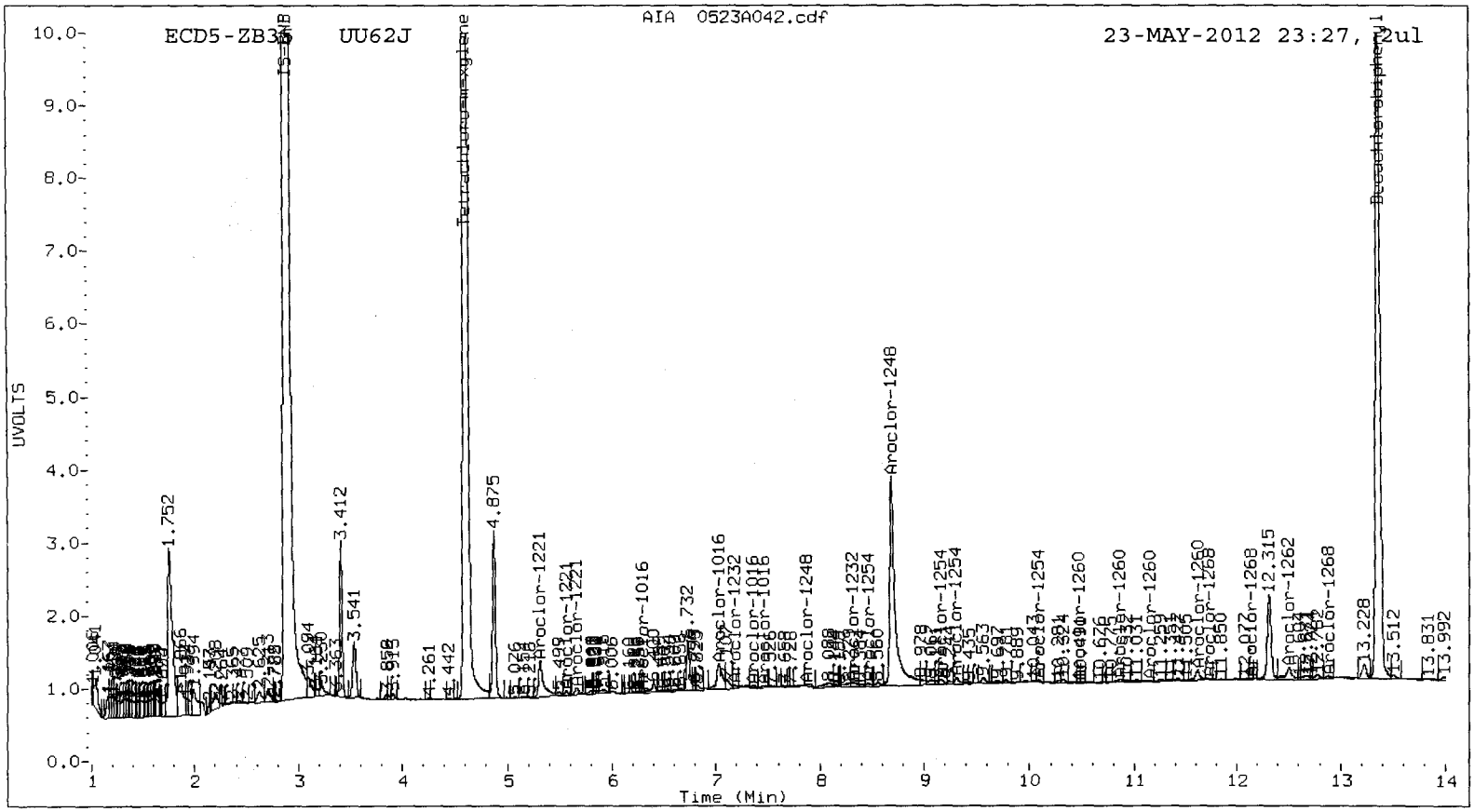
3.904
6.498
11.548
13.265
13.723
13.864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Time (Min)
IS-DNB
Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB
1.752
3.412
3.541
4.875
12.315
13.228
13.512
13.831
13.992

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A043.d
Data file 2: 20120523.b/0523-2.b/0523A043.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU62K
Client ID:
Injection Date: 23-MAY-2012 23:46
Ical Date: 23-MAY-2012
Matrix: WATER
Dilution Factor: 1.000

YZ 5/24/12

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.608	0.000	82782170	4.610	0.001	53115120	36.0	31.5	13.3	Tetrachloro-m-xylene
12.991	0.001	120396598	13.365	0.001	48553247	28.4	31.2	9.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	89.9	78.7
Decachlorobiphenyl	70.9	78.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	143187362	-7.2
Hexabromobiphenyl	248602423	276489856	11.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	119881217	8.4
Hexabromobiphenyl	108855531	120505308	10.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.235	-0.005	317135	5.3	1	6.345	0.000	42159	0.7
Aroclor-1016	2	6.576	-0.065	746693	3.8	2	7.027	0.053	372646	2.6
Aroclor-1016	3	6.773	-0.016	81709	1.1	3	7.296	-0.060	11895	0.3
Aroclor-1016	4	6.899	-0.001	553440	9.1	4	7.475	0.013	38564	0.9
	Total Col1Ave (4 peaks):				4.8	Total Col2Ave (4 peaks):			1.1	RPD = 124*
	Corrected Ave (3 peaks):				3.4	Corrected Ave (3 peaks):			0.6	RPD = 136*
Aroclor-1221	1	4.888	0.004	6835984	636.9	1	5.313	0.024	1167523	61.8
Aroclor-1221	2	5.143	-0.010	1787409	103.4	2	5.564	0.028	48333	4.3
Aroclor-1221	3	5.265	0.006	340358	6.0	3	5.665	0.016	260295	7.5
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				248.8	Total Col2Ave (3 peaks):			24.5	RPD = 164*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.235	-0.003	317135	12.7	1	6.345	0.000	42159	1.5
Aroclor-1232	2	6.576	-0.063	746693	9.0	2	7.027	0.055	372646	6.2
Aroclor-1232	3	6.773	-0.014	81709	2.4	3	7.230	0.051	13500	0.7
Aroclor-1232	4	7.981	0.001	24841	0.8	4	8.318	-0.007	94291	4.2
	Total Col1Ave (4 peaks):				6.2	Total Col2Ave (4 peaks):			3.1	RPD = 66*
	Corrected Ave (3 peaks):				4.1	Corrected Ave (3 peaks):			2.1	RPD = 63*
Aroclor-1242	1	6.235	-0.002	317135	7.0	1	6.345	0.002	42159	0.9
Aroclor-1242	2	6.576	-0.061	746693	5.0	2	7.027	0.056	372646	3.4
Aroclor-1242	3	6.773	-0.013	81709	1.4	3	7.230	0.052	13500	0.3
Aroclor-1242	4	7.981	0.001	24841	0.4	4	8.318	-0.005	94291	2.4
	Total Col1Ave (4 peaks):				3.5	Total Col2Ave (4 peaks):			1.7	RPD = 67*
	Corrected Ave (3 peaks):				2.3	Corrected Ave (3 peaks):			1.2	RPD = 62*
Aroclor-1248	1	6.576	-0.062	746693	7.4	1	7.027	0.057	372646	5.2
Aroclor-1248	2	7.446	0.009	63199	0.8	2	7.903	0.029	56835	1.0
Aroclor-1248	3	7.981	-0.002	24841	0.3	3	8.318	-0.008	94291	1.4
Aroclor-1248	4	8.254	-0.020	11501623	117.2	4	8.691	-0.056	6409890	81.9
	Total Col1Ave (4 peaks):				31.4	Total Col2Ave (4 peaks):			22.4	RPD = 34
	Corrected Ave (3 peaks):				2.8	Corrected Ave (3 peaks):			2.5	RPD = 12
Aroclor-1254	1	---			0.0	1	8.460	-0.005	28134	0.5
Aroclor-1254	2	8.730	0.003	132043	1.6	2	8.691	0.053	6409890	95.8
Aroclor-1254	3	8.857	-0.007	219676	1.3	3	9.159	0.000	73746	1.4
Aroclor-1254	4	9.206	-0.007	255757	1.5	4	9.309	0.000	30843	0.3
Aroclor-1254	5	9.602	0.028	147606	1.3	5	10.066	-0.027	25766	0.4
	Total Col1Ave (4 peaks):				1.4	Total Col2Ave (5 peaks):			19.7	RPD = 173*
	Corrected Ave (3 peaks):				1.4	Corrected Ave (4 peaks):			0.7	RPD = 71*
Aroclor-1260	1	10.515	0.069	252263	1.7	1	10.460	0.040	138855	2.0
Aroclor-1260	2	10.860	0.040	781622	2.1	2	10.879	0.008	11257	0.1
Aroclor-1260	3	11.213	-0.008	14008	0.1	3	---			0.0
Aroclor-1260	4	11.323	-0.014	118502	1.3	4	11.617	-0.048	293455	5.8
Aroclor-1260	5	11.456	0.046	31034	0.3	NS	---			----
	Total Col1Ave (5 peaks):				1.1	Total Col2Ave (3 peaks):			2.6	RPD = 83*
	Corrected Ave (4 peaks):				0.8	Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.135	0.007	331576	1.5	1	10.460	0.040	138855	1.2
Aroclor-1262	2	10.515	0.071	252263	1.5	2	10.879	0.009	11257	0.1
Aroclor-1262	3	10.860	0.042	781622	1.7	3	---			0.0
Aroclor-1262	4	11.323	-0.011	118502	0.7	4	11.617	-0.047	293455	3.3
Aroclor-1262	5	11.456	0.048	31034	0.2	5	12.431	-0.032	23436	0.3
	Total Col1Ave (5 peaks):				1.1	Total Col2Ave (4 peaks):			1.2	RPD = 10
	Corrected Ave (4 peaks):				1.0	Corrected Ave (3 peaks):			0.5	RPD = 56*
Aroclor-1268	1	11.323	-0.012	118502	0.3	1	11.617	-0.047	293455	1.3
Aroclor-1268	2	11.456	0.049	31034	0.1	2	11.714	-0.016	26422	0.1

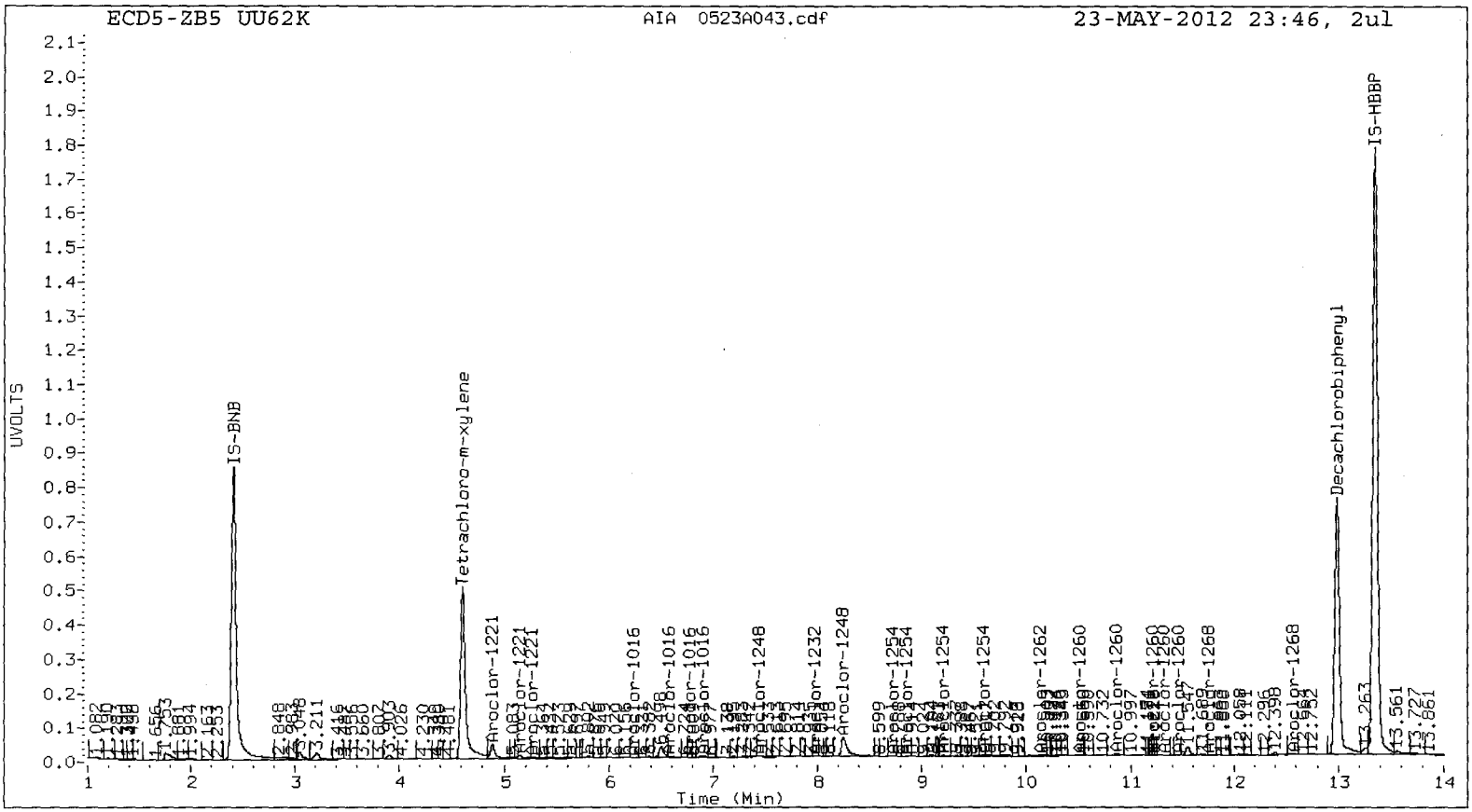
Aroclor-1268 3	11.746	-0.046	106015	0.3	3	12.134	0.007	57249	0.3
Aroclor-1268 4	12.575	-0.010	160244	0.1	4	12.950	0.000	150530	0.3
Total Col1Ave (4 peaks):				0.2	Total Col2Ave (4 peaks):			0.5	RPD = 94*
Corrected Ave (3 peaks):				0.2	Corrected Ave (3 peaks):			0.2	RPD = 46*

Total PCB Area Col1 (4.708 - 12.891) = 43437831 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 18699081 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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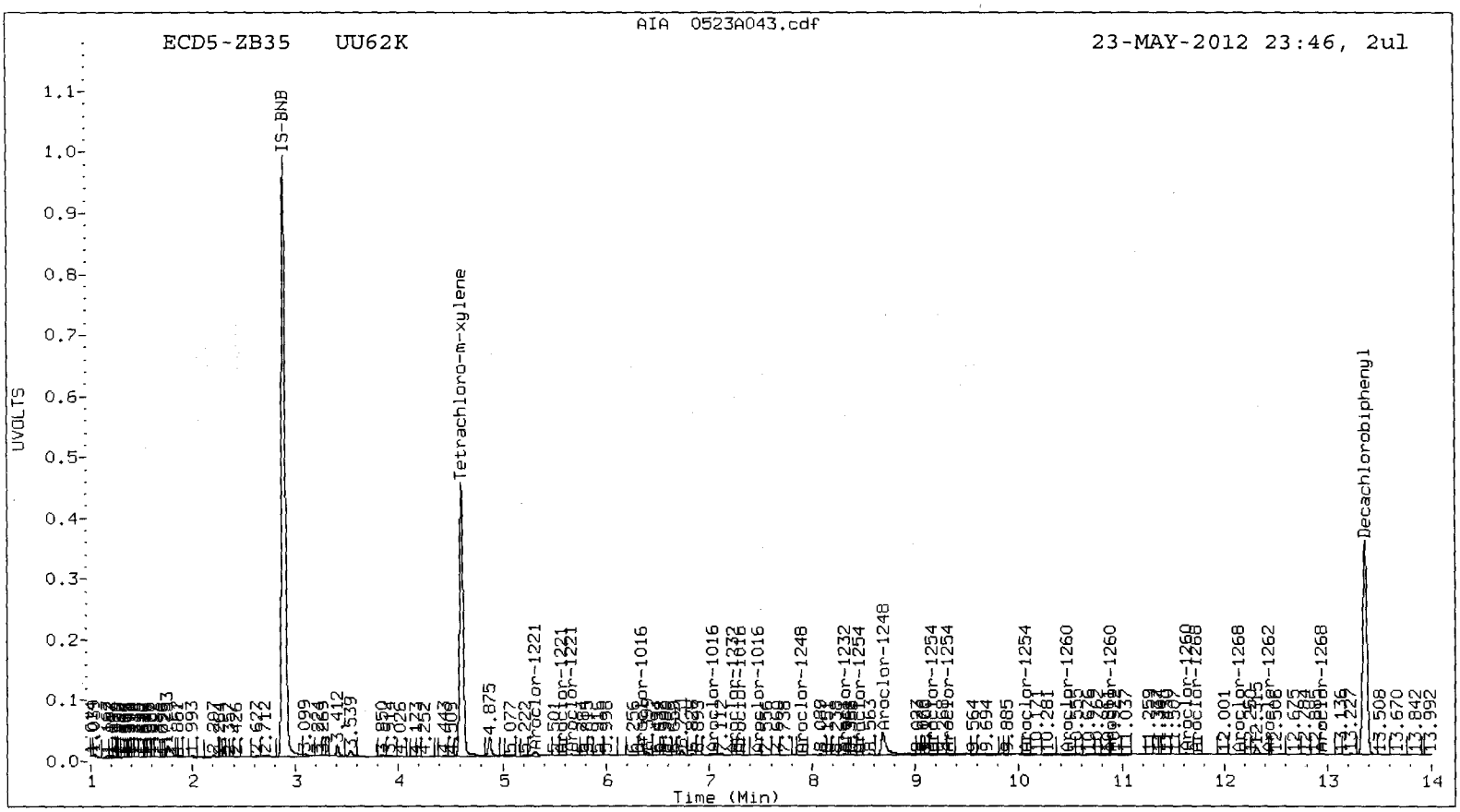
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1248
Decachlorobiphenyl
IS-HBBP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Tetrachloro-m-xylene
Aroclor-1221
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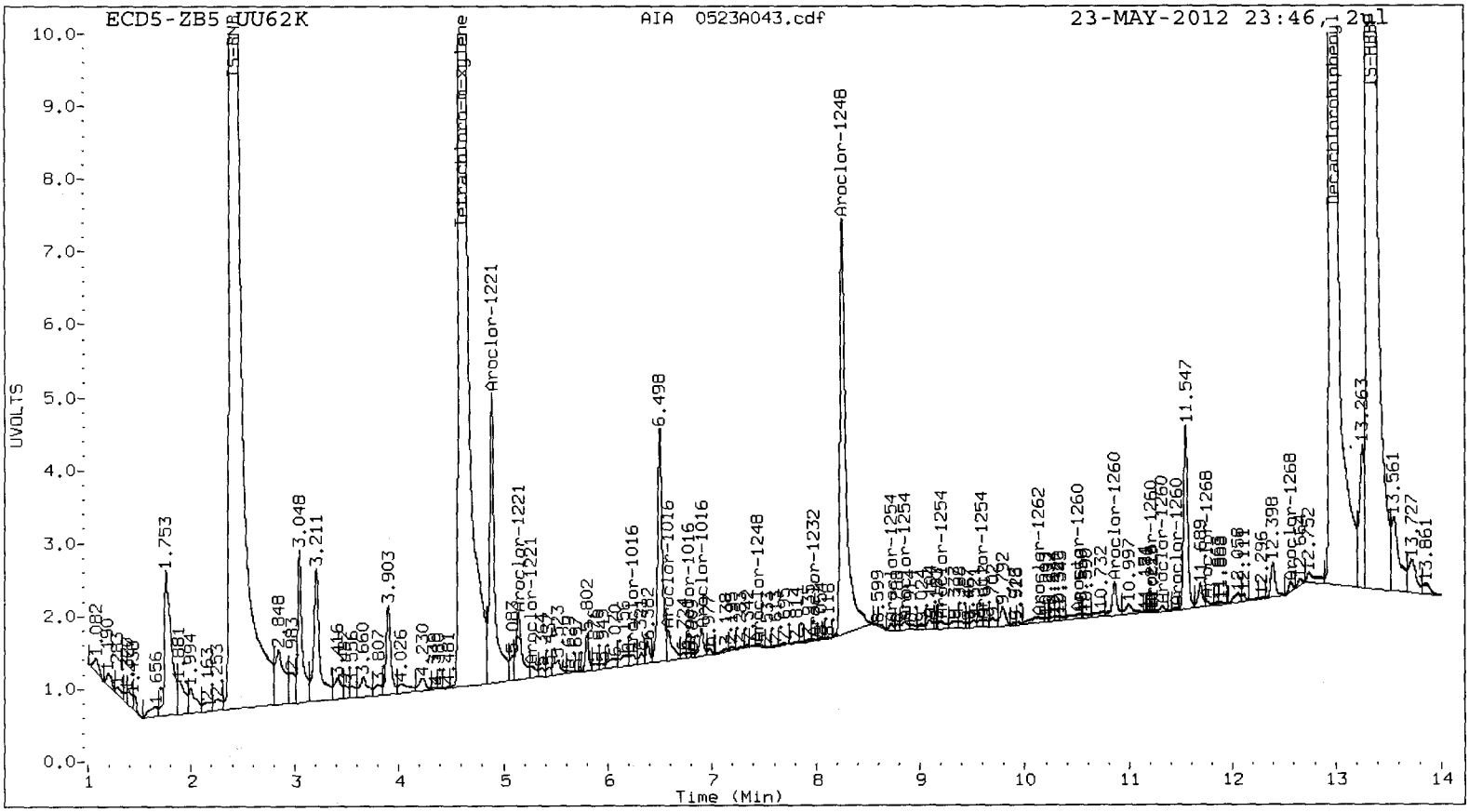
Decachlorobiphenyl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Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
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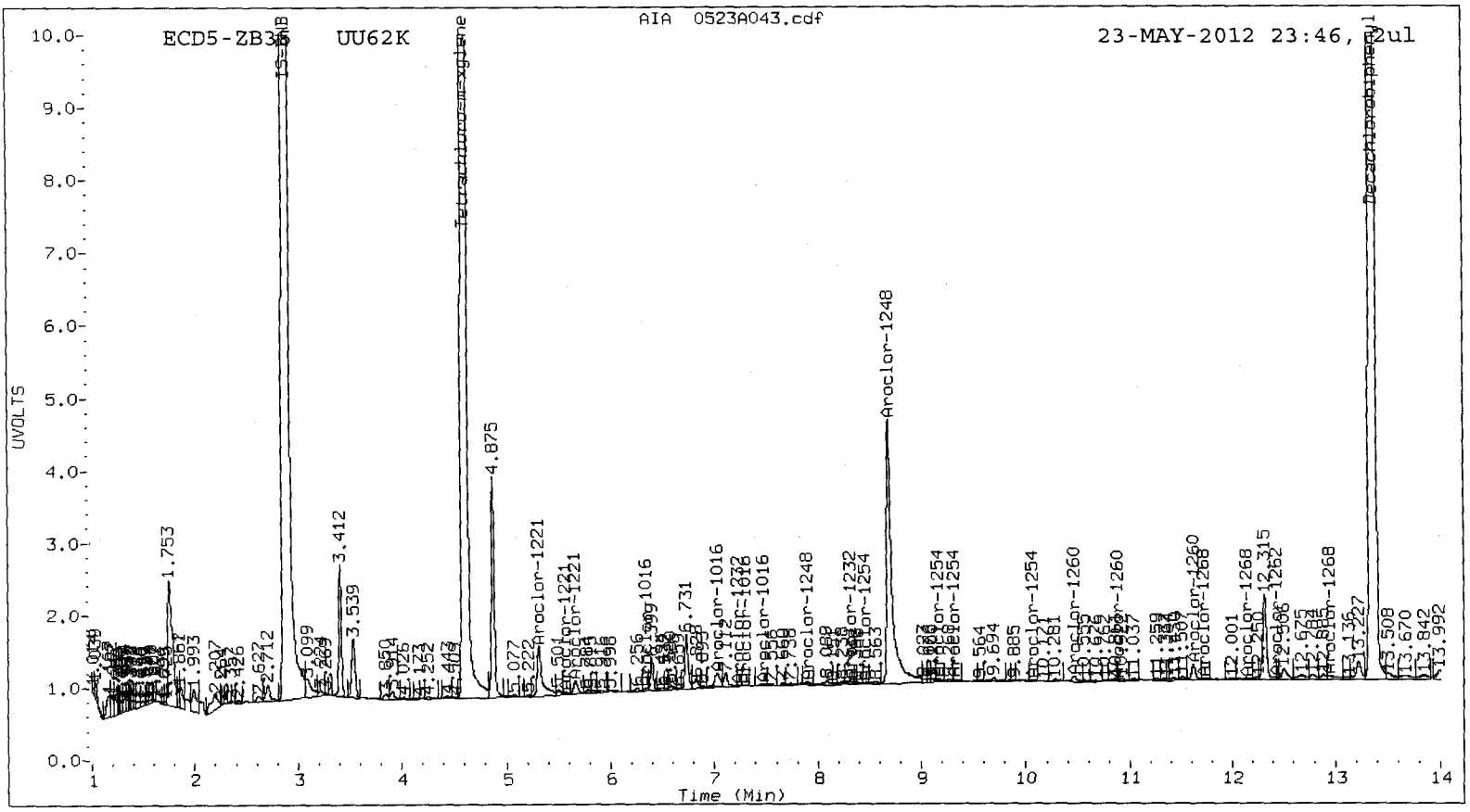
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Time (Min)
IS=BNB
Tetrachloro-m-xylene
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Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
1.753
3.412
3.539
4.875

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A044.d
Data file 2: 20120523.b/0523-2.b/0523A044.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 24-MAY-2012 00:05
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.608	0.000	51085701	4.609	0.001	32971555	19.8	20.2	1.7	Tetrachloro-m-xylene
12.991	0.000	72685123	13.365	0.000	28426991	18.8	19.9	5.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.6	50.4
Decachlorobiphenyl	46.9	49.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	160327246	4.0
Hexabromobiphenyl	248602423	252246910	1.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	116212123	5.1
Hexabromobiphenyl	108855531	110664641	1.7

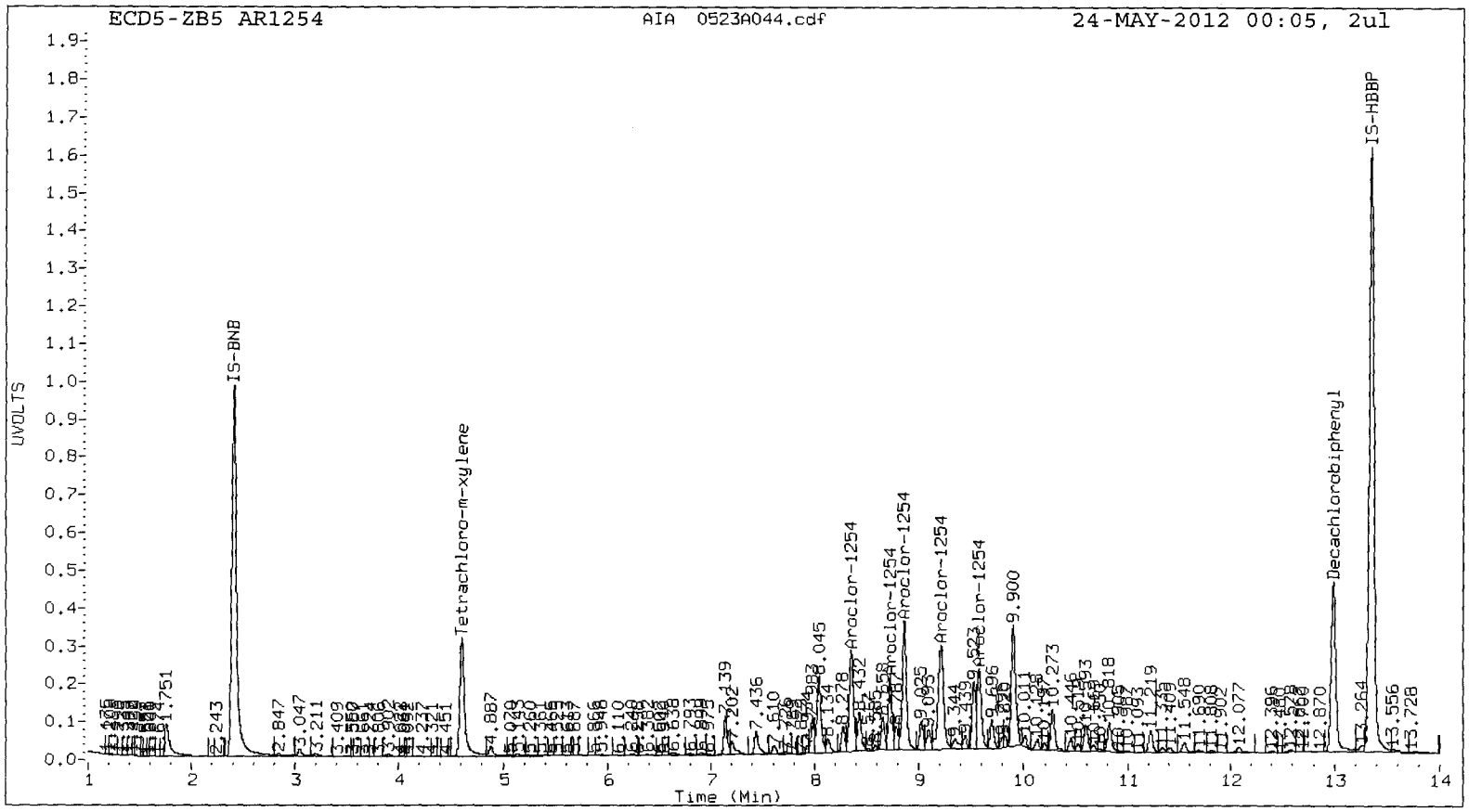
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	8.356	0.000	37200924	252.8	1	8.465	0.000	12745828	249.8
Aroclor-1254	2	8.727	0.000	24090959	254.3	2	8.638	0.000	16245123	250.5
Aroclor-1254	3	8.863	0.000	46499313	254.2	3	9.159	0.000	12403180	250.3
Aroclor-1254	4	9.213	0.000	50279385	255.3	4	9.310	0.000	27253015	248.6
Aroclor-1254	5	9.574	0.000	31347238	255.9	5	10.093	0.000	16109320	250.7
Total Col1Ave (5 peaks):					254.5	Total Col2Ave (5 peaks):				250.0 RPD = 2
Corrected Ave (4 peaks):					254.2	Corrected Ave (4 peaks):				249.8 RPD = 2

Total PCB Area Col1 (4.708 - 12.891) = 494798515 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 261176517 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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IS-BNB
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Aroclor-1254
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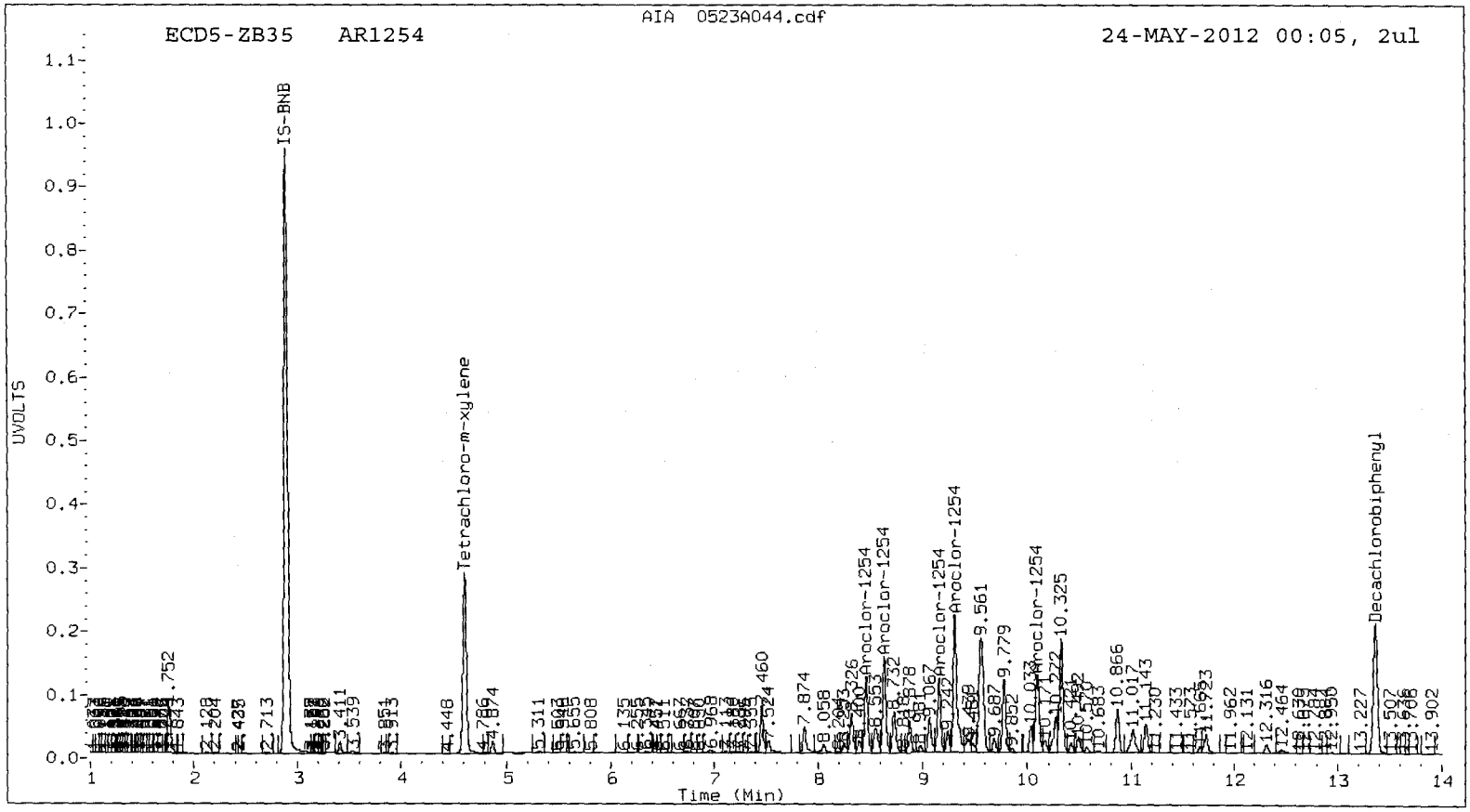
9.900
Decachlorobiphenyl
IS-HBBP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Time (Min)
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Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
9.561
9.779
10.325
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A045.d
Data file 2: 20120523.b/0523-2.b/0523A045.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 24-MAY-2012 00:24
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.608	0.000	52472578	4.608	0.000	33808642	20.2	20.4	0.9	Tetrachloro-m-xylene
12.991	0.000	74453161	13.364	0.000	29222130	18.9	20.1	6.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.5	50.9
Decachlorobiphenyl	47.2	50.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	154228462	161663605	4.8
Hexabromobiphenyl	248602423	256774071	3.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	110618229	117932972	6.6
Hexabromobiphenyl	108855531	112374282	3.2

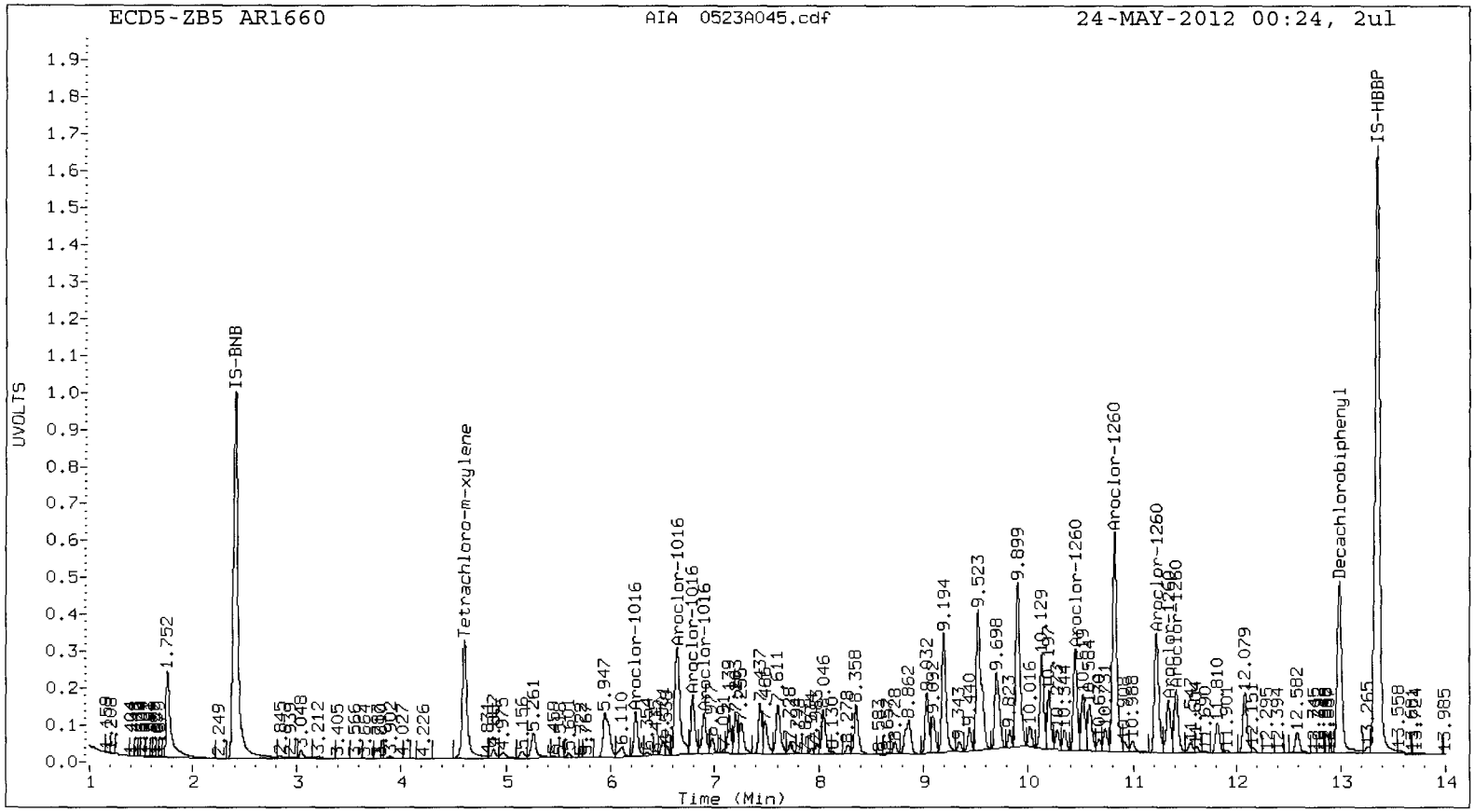
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.241	0.000	15942714	236.4	1	6.346	0.000	15003392	243.7
Aroclor-1016	2	6.641	0.000	53749445	244.5	2	6.974	0.000	34586093	247.5
Aroclor-1016	3	6.790	0.000	21441142	247.3	3	7.356	0.000	8797111	244.0
Aroclor-1016	4	6.900	0.000	15440044	226.0	4	7.462	0.000	9905486	247.1
Total Col1Ave (4 peaks):				238.5		Total Col2Ave (4 peaks):			245.6	RPD = 3
Corrected Ave (3 peaks):				235.6		Corrected Ave (3 peaks):			245.0	RPD = 4
Aroclor-1260	1	10.446	0.000	34566678	248.1	1	10.420	0.000	16388166	254.3
Aroclor-1260	2	10.820	0.000	84317702	243.9	2	10.871	0.000	20378506	254.7
Aroclor-1260	3	11.220	0.000	47777024	248.6	3	11.144	0.000	41510002	255.5
Aroclor-1260	4	11.337	0.000	20240547	245.3	4	11.665	0.000	11960422	252.1
Aroclor-1260	5	11.410	0.000	24585940	249.6	NS	---			----
Total Col1Ave (5 peaks):				247.1		Total Col2Ave (4 peaks):			254.1	RPD = 3
Corrected Ave (4 peaks):				246.5		Corrected Ave (3 peaks):			253.7	RPD = 3

Total PCB Area Col1 (4.708 - 12.891) = 977782958 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 514300563 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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Time (Min)
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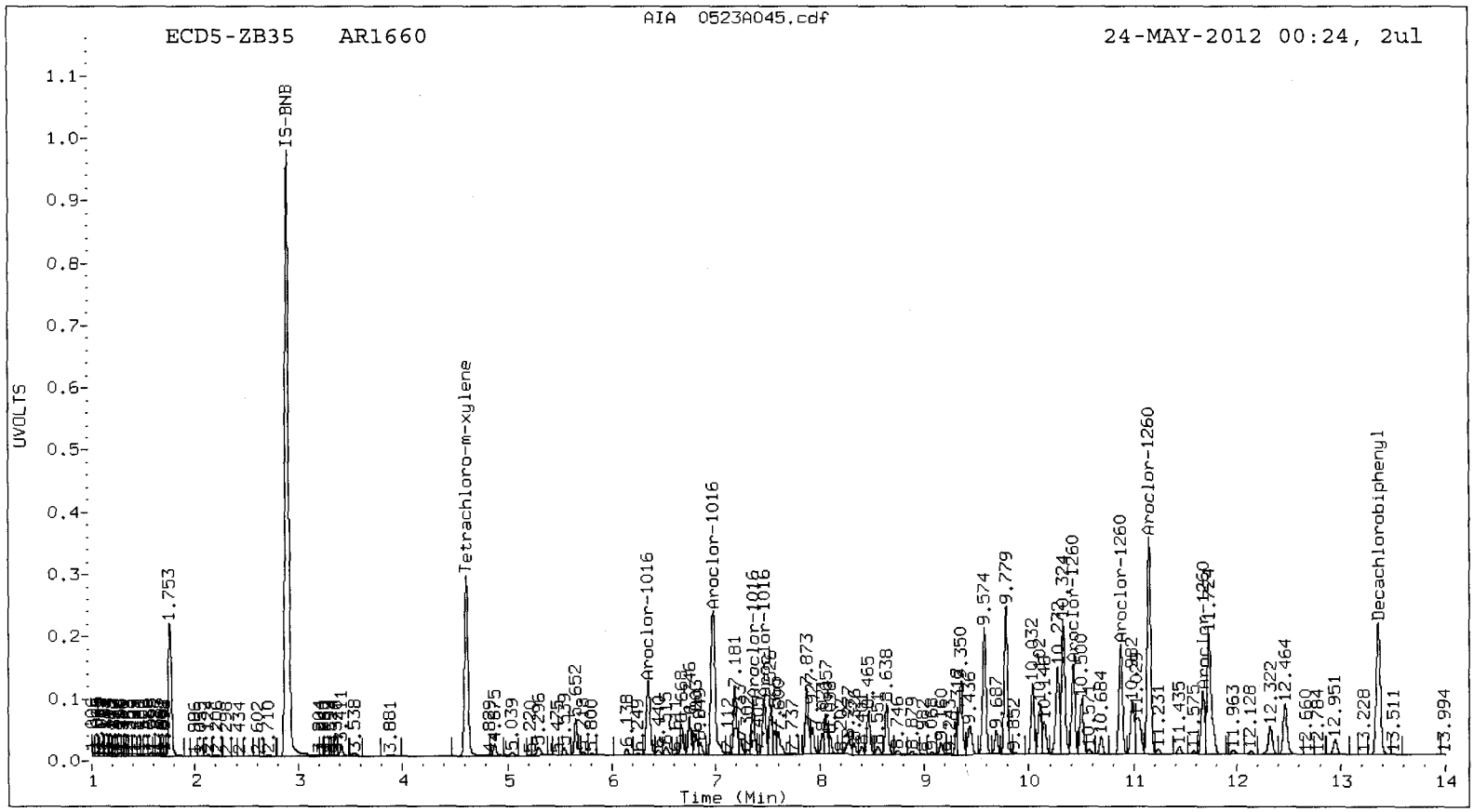
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

TPHD Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UU52, UU62

Incorporated
Analytical Chemists and
Consultants

Organic Extractions Benchsheet

NWTPHD-Soil/Sediment
Microwave (3546) (SOP # 3304S)

Preparation Test TPHD # 3 (DIESMI)
ARI Job No(s) UU52

Page 1 of 1

In-House (5ppm)
Batch set up by: JH

Bottle #	Extraction Requirements	Weight Extracted (wet wt)	Acid Clean (1:1) Y/N	Silica Gel Clean (1:1) Y/N	Final Effective Volume	Volume to Lab	Comments	Verifty Client ID
	UU52 MBS	10.00g	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		NL 5/21/12
	↓ SBS	10.00g	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		
	~~SBS Dup.~~	~~10.00g~~	~~(1:1) Y/N~~	~~(1:1) Y/N~~	~~1mL~~	~~1mL~~		Analyst/Date
	~~QLS~~	~~10.00g~~	~~(1:1) Y/N~~	~~(1:1) Y/N~~	~~1mL~~	~~1mL~~		Microwave
5	UU52A	10.18	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		
5	B	10.15	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		NL 5/21/12
5	C	10.08	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		
5	D	10.18	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		
5	E	10.11	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		Analyst/Date
5	F	10.27	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		TurboVap 1 2 3 Pre-Acid/Silica Clean
5	G	10.16	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		MW 5/21/12
5	H	10.11	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		
5	I	10.12	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		
5	Ims	10.10	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		
5	Imsd	10.10	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		
5	J	10.18	(1:1) (Y)/N	(1:1) (Y)/N	1mL	1mL		Analyst/Date
		10.	(1:1) Y/N	(1:1) Y/N	1mL	1mL		TurboVap 1 2 (3) Post Acid/Silica Clean
		10.	(1:1) Y/N	(1:1) Y/N	1mL	1mL		MW 5/21/12
		10.	(1:1) Y/N	(1:1) Y/N	1mL	1mL		
		10.	(1:1) Y/N	(1:1) Y/N	1mL	1mL		
		10.	(1:1) Y/N	(1:1) Y/N	1mL	1mL		
Analyst/Date	NL 5/21/12		MW 5/21/12	MW 5/21/12	MW 5/21/12	MW 5/21/12		Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	**O (1947-2)**	450µg/mL	**100µL**	9/28/12	NL	SP
Spike	**11 (1965-2)**	15000µg/mL	**100µL**	4/09/13	NL	SP
~~QLS Spike~~	~~18 ( )~~	~~1000µg/mL~~	~~50µL~~			
Extraction Time: 0935				**Balance ID:** B139296002		

SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers-dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM to the vessel until the solvent is 1" above soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then let cool 15 min. in cold water bath. 7. Collect into turbo tube with sm. funnel containing glasswool and 1" sodium sulfate. 8. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube. 9. TurboVap. 10. Acid/Silica Clean-up?= Y/N. 11. TurboVap (if Silica Clean). 12. Vial in DCM.

A. Need Total Solids Y/(N) B. Archive/Freeze Y/(N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU52 Client ID: Anchor QEA, LLC

Parameter: TPHD W/Acid Client Project: Jeld Wen Mawlsby Marsh

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	AC 5-16-12
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)= B < 5% sticks D = 30% grass/sticks E = 10% grass F = 60% grass/sticks G = 50% grass/sticks H = 30% I = 50%	AC 5-16-12
☐ Oily, obvious fuel/sulfur odors= B-	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

NWTPHD / NWHCID –Water
Separatory Funnel (3510C) (SOP # 3311S)

Preparation Test TPHD/HCID # 1(DIEWSI)
ARI Job No(s) UU62, UU74 Page 1 of 1

In-House (0.25-0.50ppm)
Batch set up by: SP

Bottle #	Extraction Requirements	Volume Extracted	DryVap Module # Y/(N)	Acid/Silica Clean (1:1) (1mL) (Y) N	Final Effective Volume	Volume to Lab	Comments	Verify Client ID
	UU62 MBW	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		ML 5/18/12
	SBW	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		
	SBW Dup.	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		
	QLS	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		
6	J	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		Analyst/Date
3	K	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		KD 80-85°C (Y) N
4	UU74 A	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		
4	B	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		
4	C	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		YL
4	D	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		
4	E	500mL	# Y/(N)	(1:1) (Y)/N	1mL	1mL		5/18/12
		500mL	# Y/N	(1:1) Y/N	1mL	1mL		
		500mL	# Y/N	(1:1) Y/N	1mL	1mL		Analyst/Date
		500mL	# Y/N	(1:1) Y/N	1mL	1mL		Turbo Vap
		500mL	# Y/N	(1:1) Y/N	1mL	1mL		(1) 2 3
		500mL	# Y/N	(1:1) Y/N	1mL	1mL		
		500mL	# Y/N	(1:1) Y/N	1mL	1mL		MW 5/18/12
		500mL	# Y/N	(1:1) Y/N	1mL	1mL		
		500mL	# Y/N	(1:1) Y/N	1mL	1mL		
		500mL	# Y/N	(1:1) Y/N	1mL	1mL		
Analyst/Date	NL 5/18/12			MW 5/18/12	MW 5/18/12	MW 5/18/12		Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	O (1647-2)	450µg/mL	100µL	9/28/12	ML	MP 5/18/12
Spike	11 (1965-2)	15000µg/mL	100µL	4/9/13	ML	MP 5/18/12
QLS Spike	18 (1970-1)	1000µg/mL	50µL	5/7/13	NL	MP 5/18/12
Extraction Time: 11:50						

SPECIAL INSTRUCTIONS: 1. Add Surr/Spk. 2. Acidify with 1 pipet of 1:1 Sulfuric Acid. 3. Check pH. 4. Extract 2X with 30mL DCM.
5. DryVap or KD at 80°. 6. TurboVap if KD. 7. Acid/Silica Clean-ups? (Y)/ N 8. Vial in DCM.

3014F

UU74 only (A. Archive Y)

UU52:01825

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU62 Client ID: Anchor QEA, LLC

Parameter: TPH A/S Client Project: Jellow Wen - Manis by Macs

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☒ No Anomalies J, K	ML 5/18/12
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

TPHD Raw Data
Initial Calibration

ARI Job ID: UU52, UU62

Diesel Curve

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 5/15/12 Internal Standard ID N/A Expiration N/A

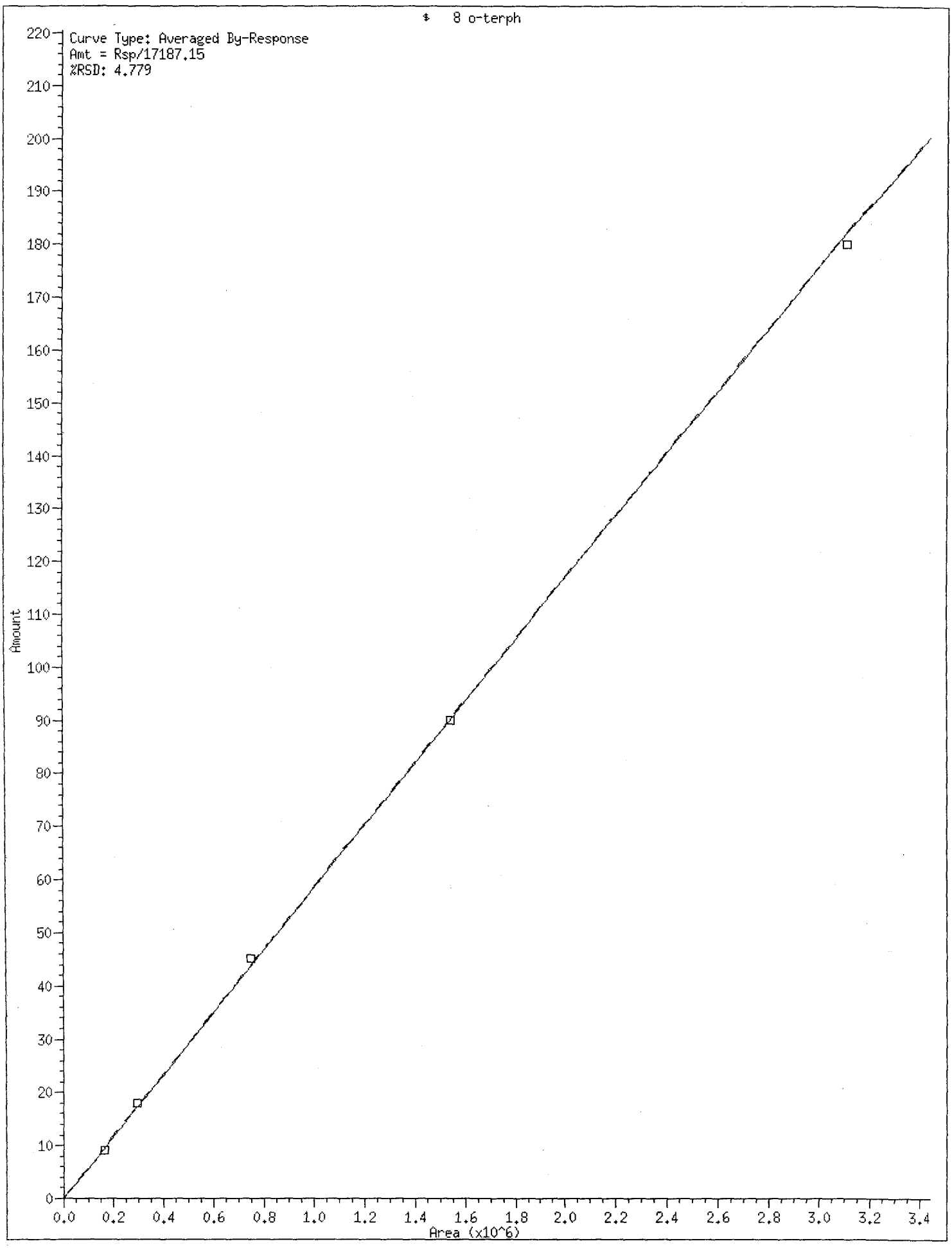
Endrin/DDT Breakdown <15%? YES / NO / NA		ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria	YES / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	YES / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped? (high point curving)	YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
76	1972-1	9/28/12	Shell	1977-3	9/28/12

Detail problems, corrective actions and/or other pertinent information below:
high surr point taked out due to saturation. Surrogate curved by 5 points.

Analyst: [signature] **Date:** 5/17/12

Reviewer: [signature] **Date:** 5/17/12


8 o-terph
Curve Type: Averaged By-Response
Amt = Rsp/17187.15
%RSD: 4.779
Amount
Area (x10^6)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a002.d ARI ID: RT
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 15-MAY-2012 07:31
Operator: MH
Report Date: 05/16/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.282	0.000	295562	316220	GAS (Tol-C12)	1396580	92.83
C8	1.486	0.000	174183	290313	DIESEL (C12-C24)	1365321	100.18
C10	3.126	0.000	173951	199448	M.OIL (C24-C38)	1682363	172.56
C12	4.163	0.000	45637	82476	AK-102 (C10-C25)	1904166	117.59
C14	4.921	0.000	121973	205262	AK-103 (C25-C36)	1437777	185.30
C16	5.557	0.000	152907	221149			
C18	6.142	0.000	137445	194440			
C20	6.724	0.000	134574	218406	MIN.OIL (C24-C38)	1682363	125.17
C22	7.269	0.000	175346	209778			
C24	7.782	0.000	222343	211185			
C25	8.028	0.000	235062	282035			
C26	8.270	0.000	153774	210833			
C28	8.726	0.000	174021	211004			
C32	9.667	0.000	155009	228125			
C34	10.150	0.000	165448	238060	CREOSOT (C12-C22)	1152347	313.64
Filter Peak	10.518	0.000	62	44			
C36	10.633	0.000	170232	253126			
C38	11.105	0.000	154822	237343			
C40	11.558	0.000	91770	127005			
o-terph	6.312	0.000	553314	748577	JET-A (C10-C18)	1241884	83.67
Triacon Surr	9.194	0.000	496233	668422			

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	748577	43.6	96.8
Triacontane	668422	39.0	86.7

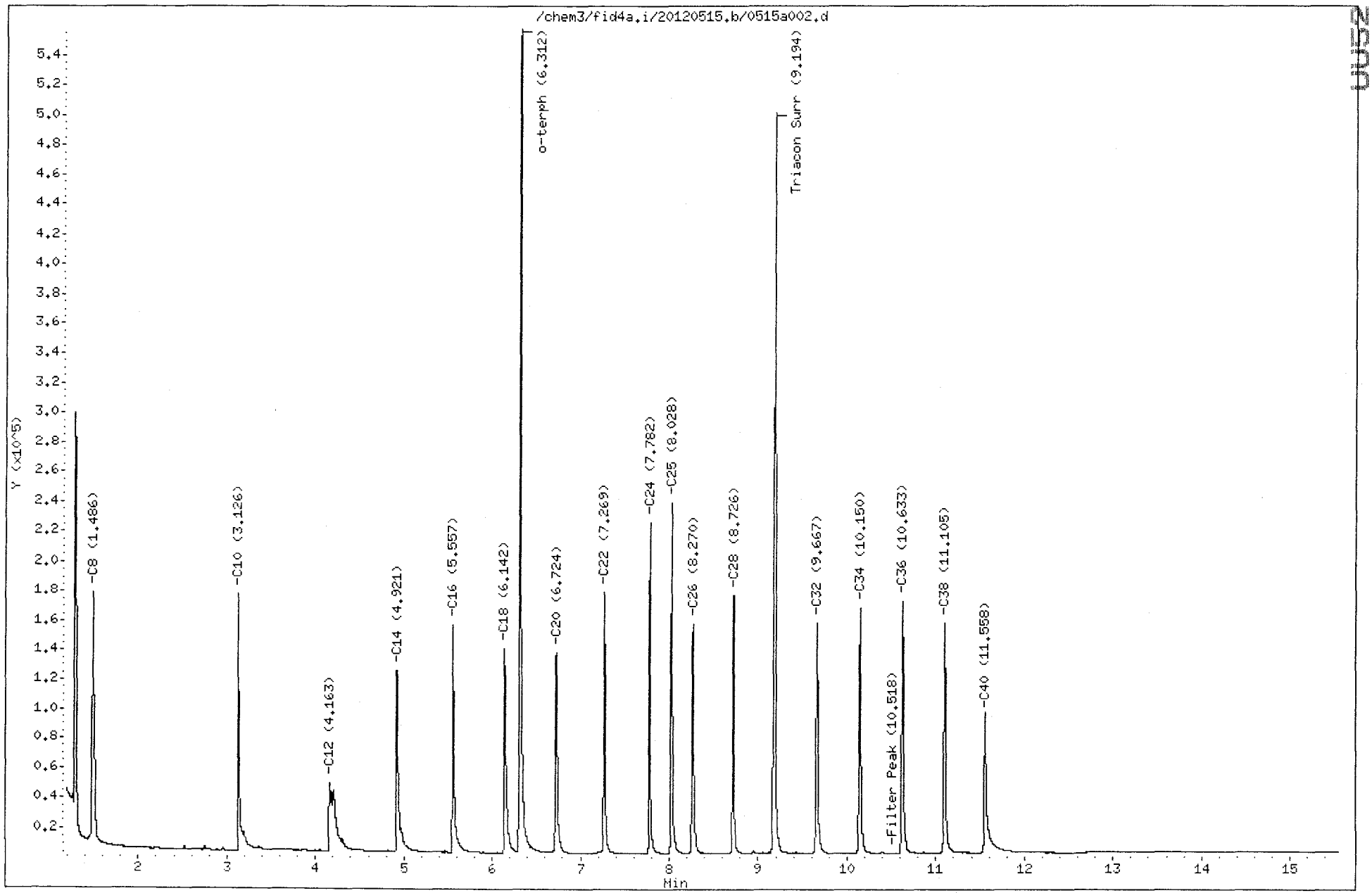
Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120515.b/0515a002.d
Date : 15-MAY-2012 07:31
Client ID:
Sample Info: RT

Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1



MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a003.d ARI ID: IB
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Instrument: fid4a.i Injection: 15-MAY-2012 07:56
Operator: MH
Report Date: 05/16/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.264	-0.018	43465	98042	GAS (Tol-C12)	158567	10.54
C8	1.531	0.045	759	523	DIESEL (C12-C24)	133538	9.80
C10	3.137	0.011	378	280	M.OIL (C24-C38)	91429	9.38
C12	4.146	-0.017	751	1070	AK-102 (C10-C25)	173553	10.72
C14	4.909	-0.012	672	923	AK-103 (C25-C36)	82054	10.57
C16	5.556	-0.001	526	493			
C18	6.146	0.005	368	546			
C20	6.716	-0.009	1521	2056	MIN.OIL (C24-C38)	91429	6.80
C22	7.259	-0.010	279	539			
C24	7.782	0.000	40	7			
C25	8.030	0.002	122	109			
C26	8.262	-0.008	53	23			
C28	8.717	-0.008	564	919			
C32	9.664	-0.003	1072	1572			
C34	10.145	-0.005	416	294	CREOSOT (C12-C22)	131561	35.81
Filter Peak	10.521	0.004	316	444			
C36	10.634	0.000	314	434			
C38	11.117	0.013	364	481			
C40	11.554	-0.004	379	358			
o-terph	6.310	-0.001	608555	795132	JET-A (C10-C18)	101104	6.81
Triacon Surr	9.191	-0.003	520959	731705			

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	795132	46.3	102.8
Triacontane	731705	42.7	94.9

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120515.b/0515a003.d

Date : 15-MAY-2012 07:56

Client ID:

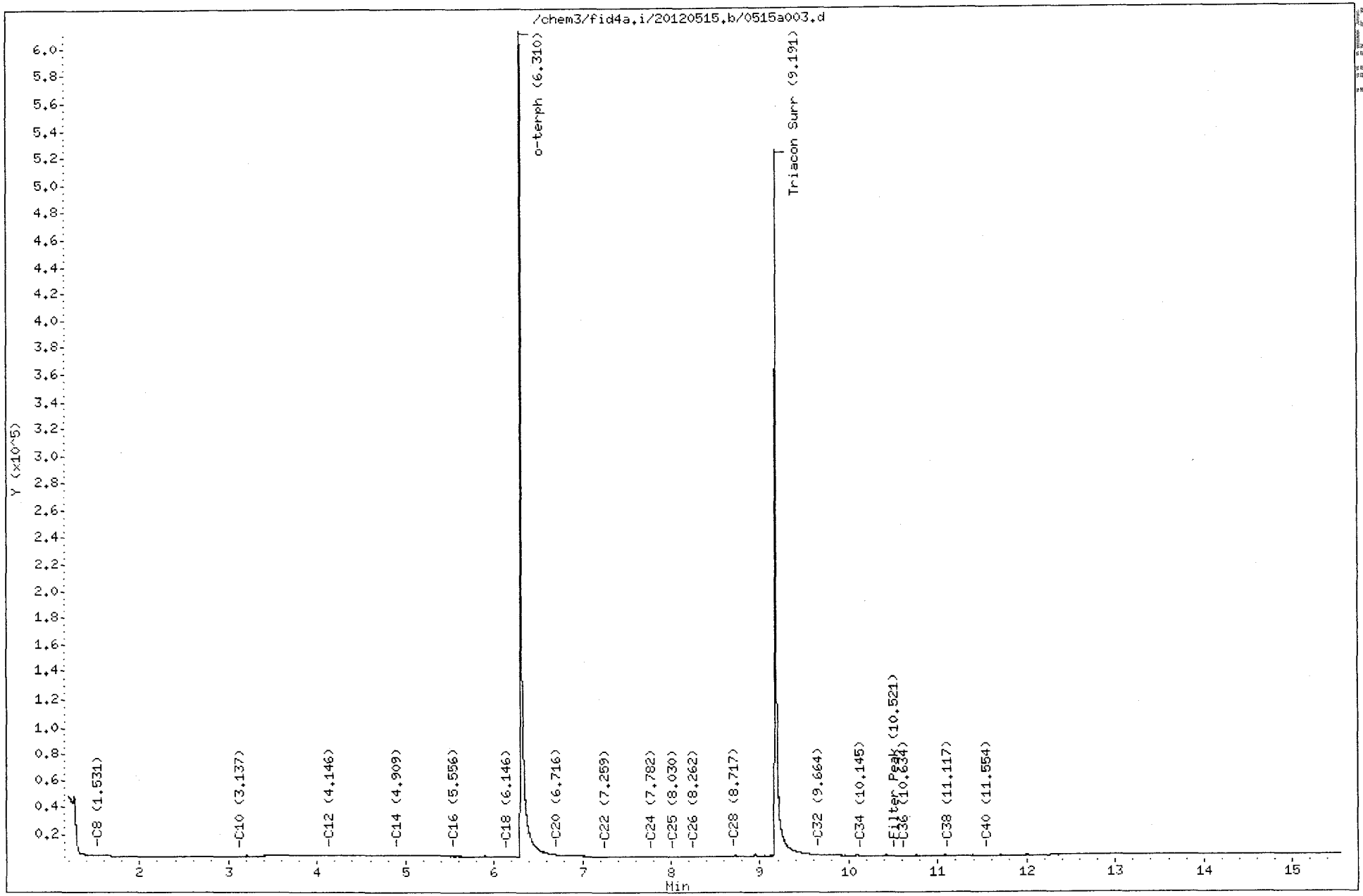
Sample Info: IB

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a005a.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 50
Client ID:
Injection: 15-MAY-2012 11:30

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.272	-0.010	1416	4387	GAS (Tol-C12)	141626	9.41
C8	1.482	-0.003	599	1456	DIESEL (C12-C24)	651098	47.78
C10	3.129	0.004	625	793	M.OIL (C24-C38)	92907	9.53
C12	4.153	-0.009	2591	5784	AK-102 (C10-C25)	751006	46.38
C14	4.913	-0.008	3548	2811	AK-103 (C25-C36)	71299	9.19
C16	5.550	-0.007	4909	7015			
C18	6.127	-0.015	3664	4527			
C20	6.722	-0.002	2684	1665	MIN.OIL (C24-C38)	92907	6.91
C22	7.255	-0.014	3021	5929			
C24	7.775	-0.007	770	463			
C25	8.026	-0.002	2022	2225			
C26	8.263	-0.007	362	503			
C28	8.732	0.007	1675	2392			
C32	9.665	-0.003	284	111			
C34	10.135	-0.015	275	316	CREOSOT (C12-C22)	622411	169.40
Filter Peak	10.522	0.004	252	244			
C36	10.625	-0.008	240	257			
C38	11.145	0.041	309	402			
C40	11.559	0.001	332	268			
o-terph	6.326	0.015	64679	165936	JET-A (C10-C18)	561919	37.86
Triacon Surr	9.190	-0.004	294	300			

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	165936	9.7	21.5
Triacontane	300	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120515.b/0515a005a.d

Date : 15-MAY-2012 11:30

Client ID:

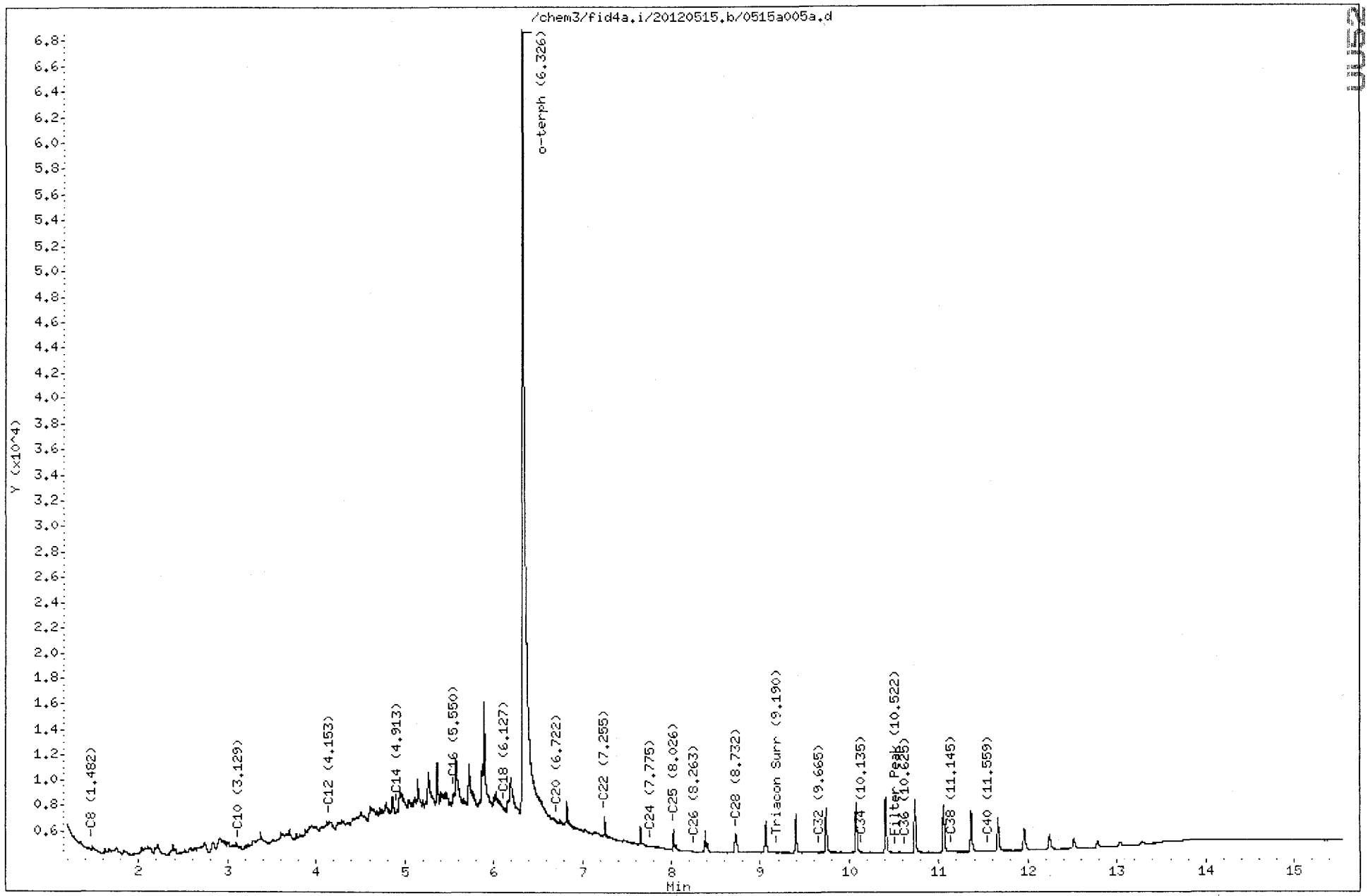
Sample Info: DIESEL 50

Instrument: fid4a.i

Operator: MH

Column phase: RTX-1

Column diameter: 0.25



MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a005b.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 100
Client ID:
Injection: 15-MAY-2012 11:53

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.287	0.005	1780	3185	GAS (Tol-C12)	353140	23.47
C8	1.497	0.012	1193	2678	DIESEL (C12-C24)	1384753	101.61
C10	3.132	0.006	1724	1784	M.OIL (C24-C38)	41006	4.21
C12	4.185	0.022	4654	3334	AK-102 (C10-C25)	1629784	100.65 M
C14	4.918	-0.003	14628	22243	AK-103 (C25-C36)	30429	3.92
C16	5.557	0.000	25842	30435			
C18	6.146	0.004	14970	26890			
C20	6.729	0.005	5535	7961	MIN.OIL (C24-C38)	41006	3.05
C22	7.273	0.004	2774	876			
C24	7.771	-0.011	1301	891			
C25	8.030	0.002	813	1281			
C26	8.286	0.016	458	382			
C28	8.716	-0.010	275	401			
C32	9.673	0.005	42	33			
C34	10.143	-0.007	45	44	CREOSOT (C12-C22)	1341025	364.99 M
Filter Peak	10.532	0.014	38	21			
C36	10.624	-0.010	37	25			
C38	11.070	-0.035	804	1531			
C40	11.559	0.001	121	150			
o-terph	6.313	0.002	200734	293398	JET-A (C10-C18)	1248071	84.09
Triacon Surr	9.193	-0.001	93	106			

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	293398	17.1	37.9
Triacontane	106	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120515.b/0515a005b.d

Date : 15-MAY-2012 11:53

Client ID:

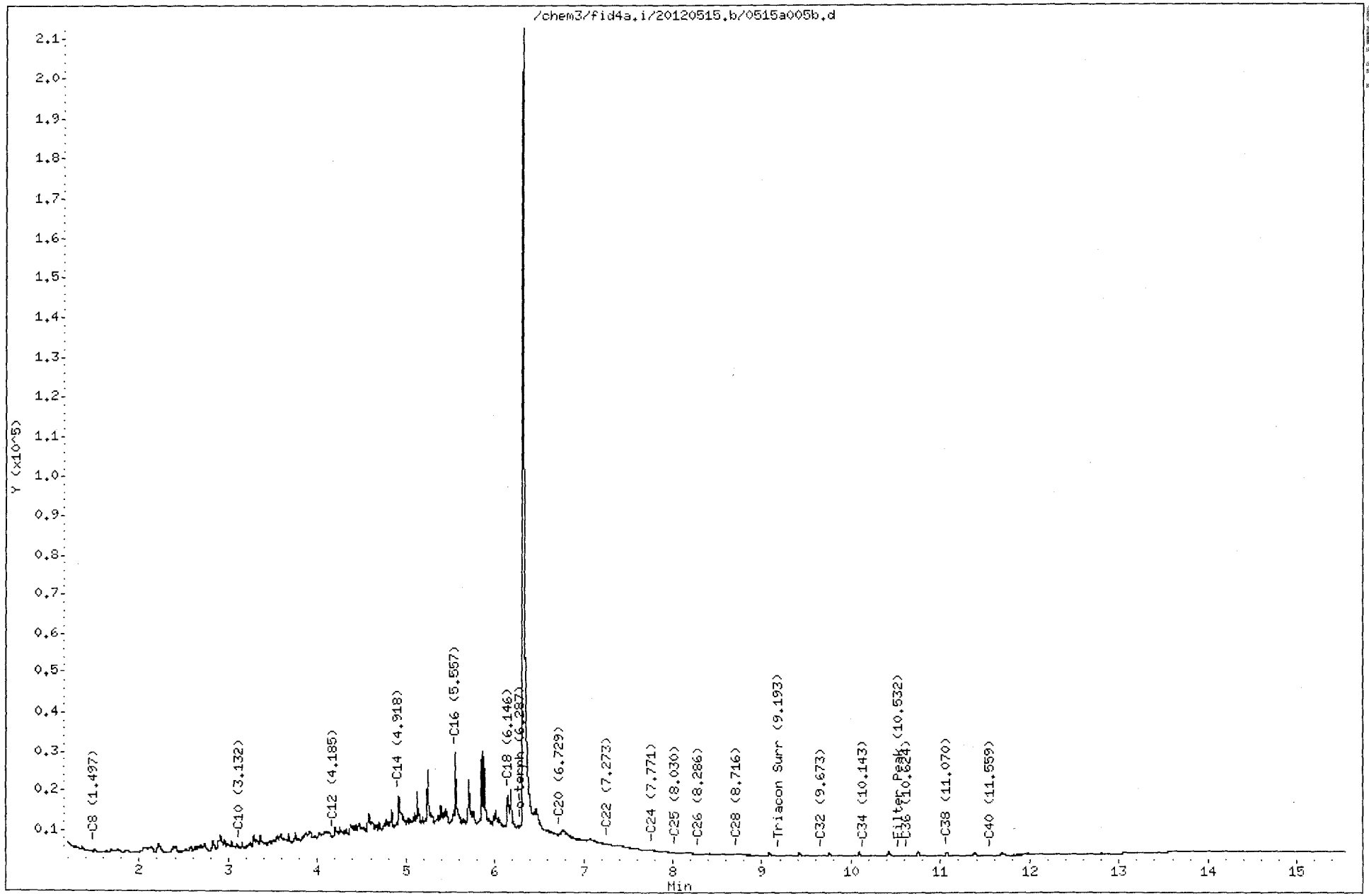
Sample Info: DIESEL 100

Instrument: fid4a.i

Operator: MH

Column phase: RTX-1

Column diameter: 0.25



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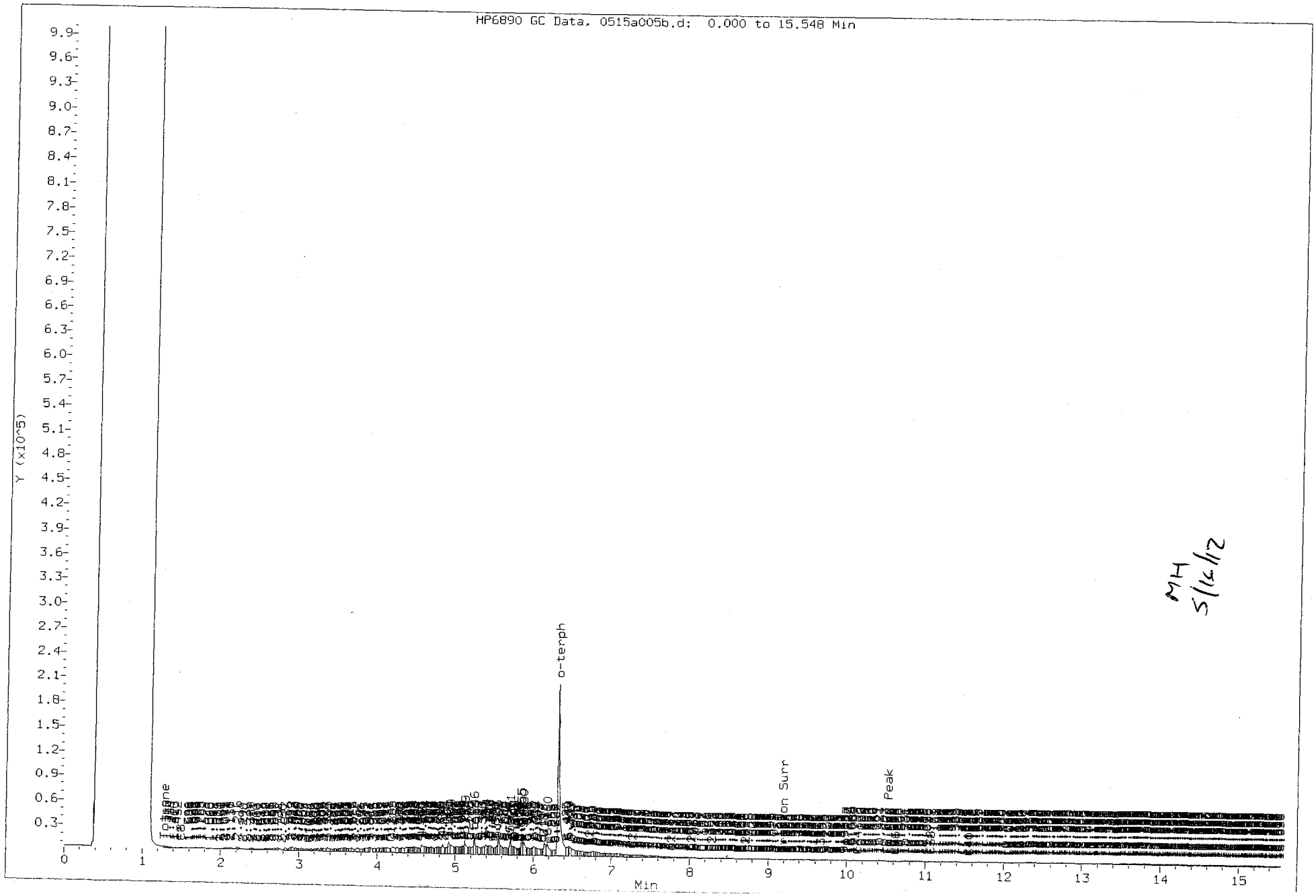
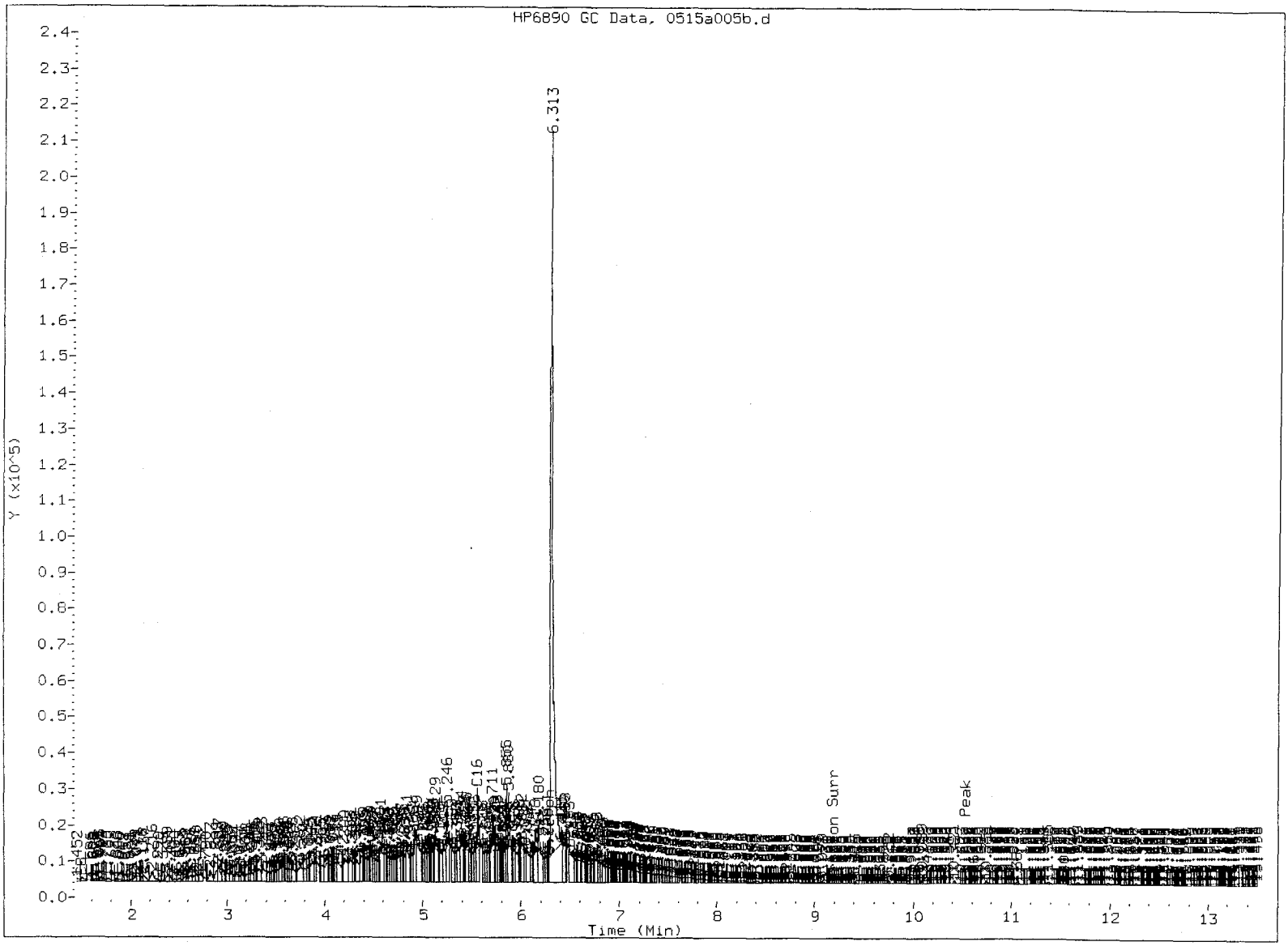
Injection Date: 15-MAY-2012 11:53
Instrument: fid4a.i
Client Sample ID:



MH 5/17/12

FID:4A-2C/RTX-1 DIESEL 100 FID:4A SIGNAL



MANUAL INTEGRATION

~~1~~. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/16/12

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a005c.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 250
Client ID:
Injection: 15-MAY-2012 12:17

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.292	0.010	2785	3551	GAS (Tol-C12)	911902	60.62
C8	1.502	0.016	2410	3872	DIESEL (C12-C24)	3514900	257.92
C10	3.119	-0.007	4648	4831	M.OIL (C24-C38)	78924	8.10
C12	4.162	0.000	22264	39052	AK-102 (C10-C25)	4165121	257.22 M
C14	4.937	0.016	24594	31946	AK-103 (C25-C36)	58766	7.57
C16	5.548	-0.009	91391	105637			
C18	6.138	-0.004	63047	79208			
C20	6.725	0.001	26692	83466	MIN.OIL (C24-C38)	78924	5.87
C22	7.265	-0.004	6207	5660			
C24	7.784	0.003	2588	4167			
C25	8.021	-0.007	1706	1343			
C26	8.242	-0.028	1090	3277			
C28	8.737	0.011	980	2120			
C32	9.670	0.002	127	294			
C34	10.150	0.000	61	39	CREOSOT (C12-C22)	3403966	926.46 M
Filter Peak	10.513	-0.005	34	29			
C36	10.630	-0.003	30	9			
C38	11.130	0.026	64	26			
C40	11.574	0.016	90	209			
o-terph	6.311	0.000	706633	748623	JET-A (C10-C18)	3180606	214.30
Triacon Surr	9.191	-0.002	201	312			

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	748623	43.6	96.8
Triacontane	312	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120515.b/0515a005c.d

Date : 15-MAY-2012 12:17

Client ID:

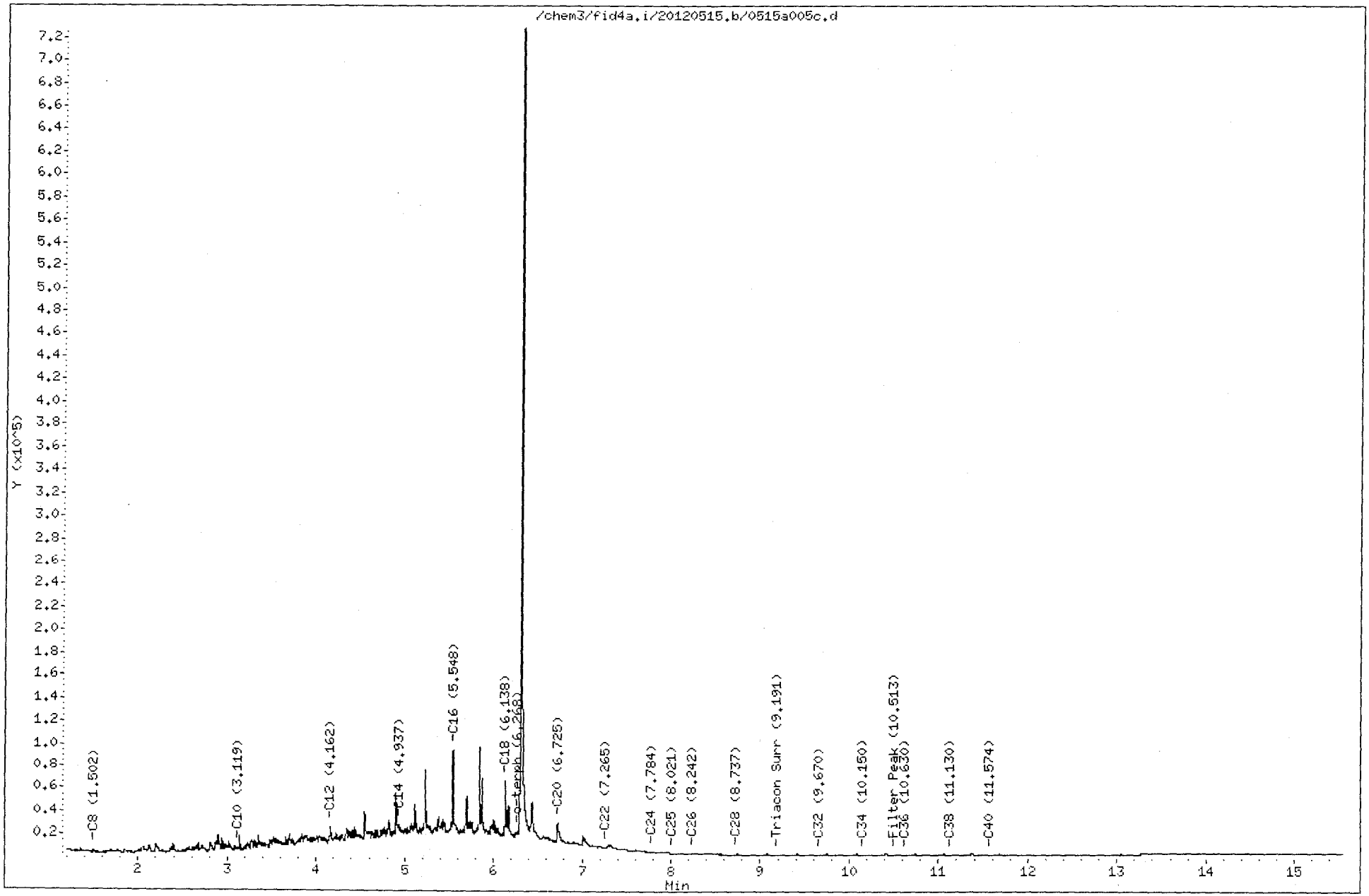
Sample Info: DIESEL 250

Instrument: fid4a.i

Operator: MH

Column phase: RTX-1

Column diameter: 0.25



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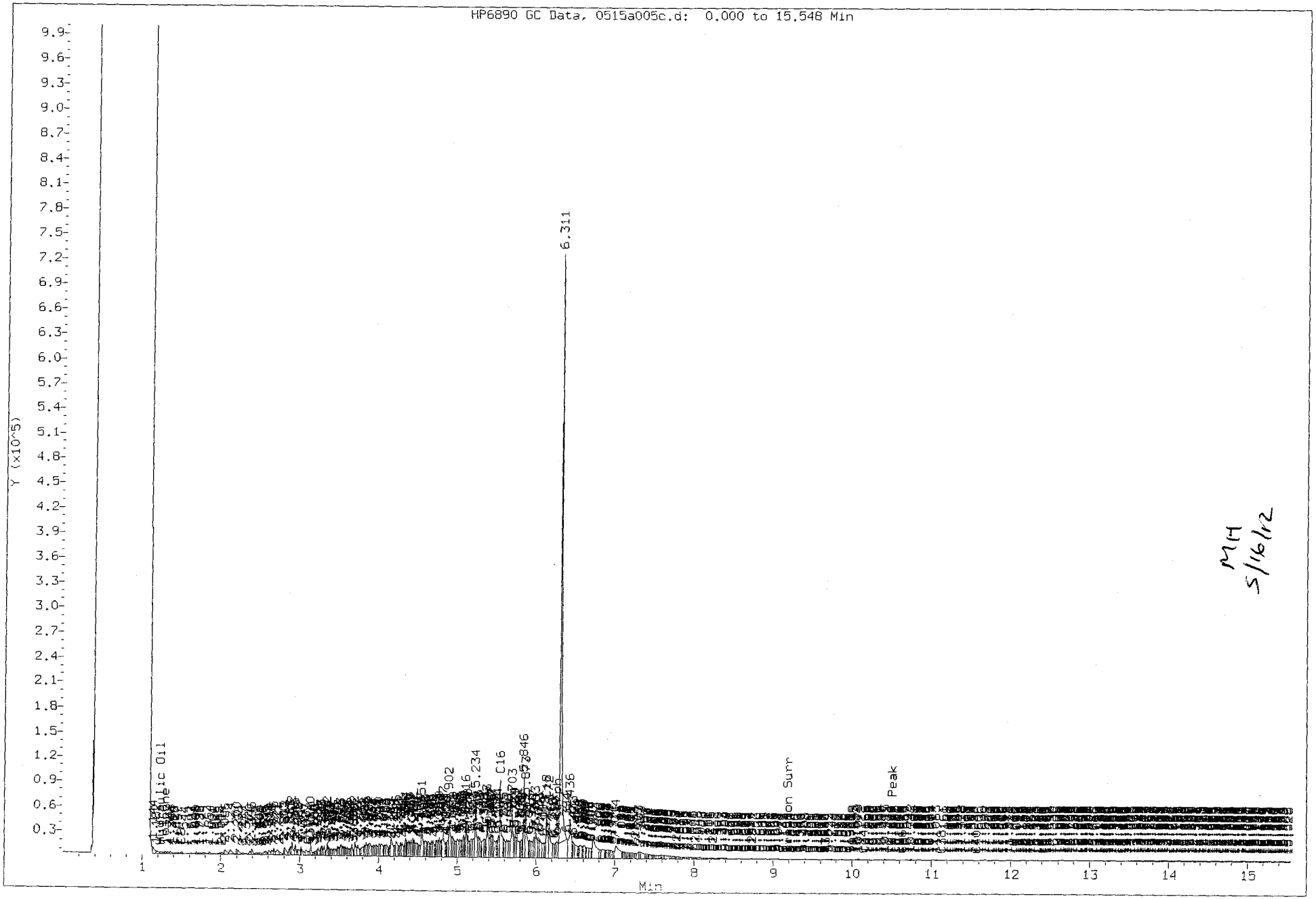
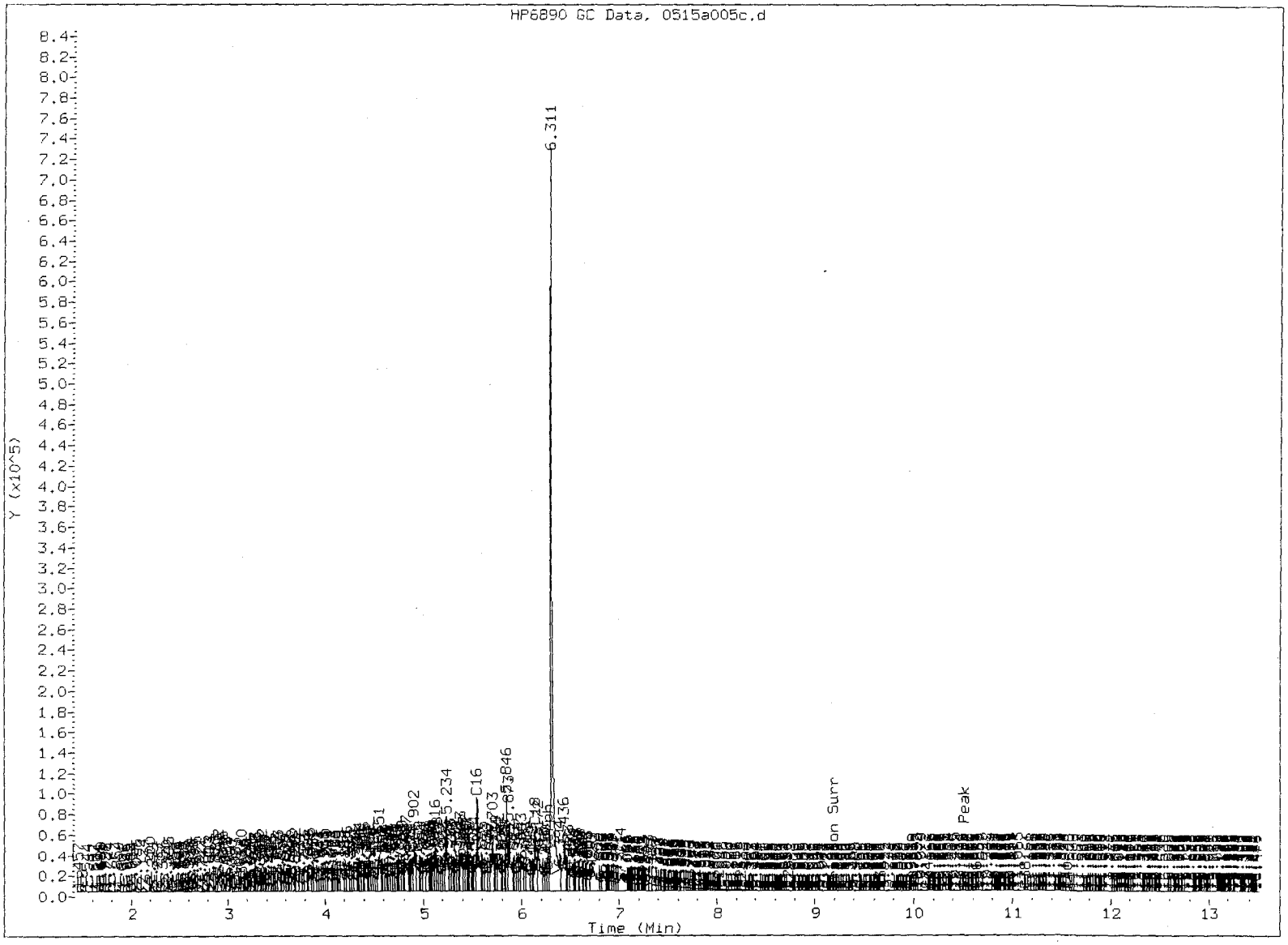
Injection Date: 15-MAY-2012 12:17
Instrument: fid4a.i
Client Sample ID:



MH
5/16/12

0515a005c.d 5/15/2012 12:17:13 PM

FID:4A-2C/RTX-1 DIESEL 250 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/16/12

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a005d.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 500
Client ID:
Injection: 15-MAY-2012 12:41

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.306	0.024	4576	4514	GAS (Tol-C12)	1943508	129.19
C8	1.469	-0.017	1808	2574	DIESEL (C12-C24)	6897445	506.12
C10	3.131	0.005	35766	32301	M.OIL (C24-C38)	120345	12.34
C12	4.142	-0.021	61151	94618	AK-102 (C10-C25)	8278657	511.25 M
C14	4.931	0.010	47488	57085	AK-103 (C25-C36)	88377	11.39
C16	5.544	-0.013	197723	179840			
C18	6.137	-0.005	157925	165573			
C20	6.716	-0.008	78488	152306	MIN.OIL (C24-C38)	120345	8.95
C22	7.280	0.012	21509	69131			
C24	7.794	0.013	4270	2025			
C25	8.028	0.000	2774	2352			
C26	8.271	0.001	1752	2362			
C28	8.713	-0.013	767	450			
C32	9.677	0.010	205	115			
C34	10.152	0.002	78	91	CREOSOT (C12-C22)	6738327	1833.98 M
Filter Peak	10.520	0.002	35	45			
C36	10.633	0.000	25	8			
C38	11.114	0.009	61	34			
C40	11.557	-0.001	59	44			
o-terph	6.322	0.010	1448465	1544870	JET-A (C10-C18)	6422421	432.72
Triacon Surr	9.205	0.011	319	147			

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1544870	89.9	199.7
Triacontane	147	0.0	0.0

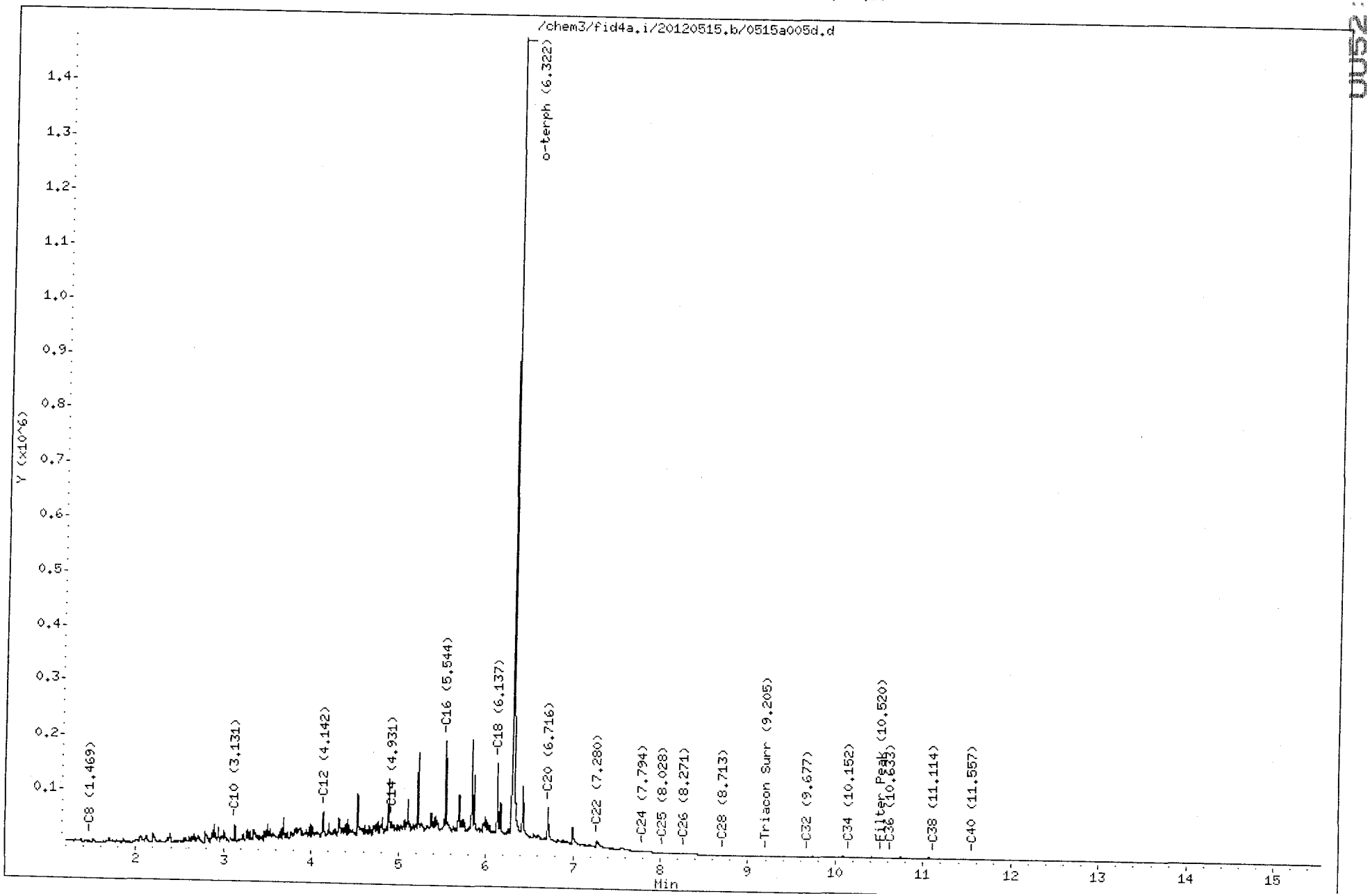
Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120515.b/0515a005d.d
Date : 15-MAY-2012 12:41
Client ID:
Sample Info: DIESEL 500

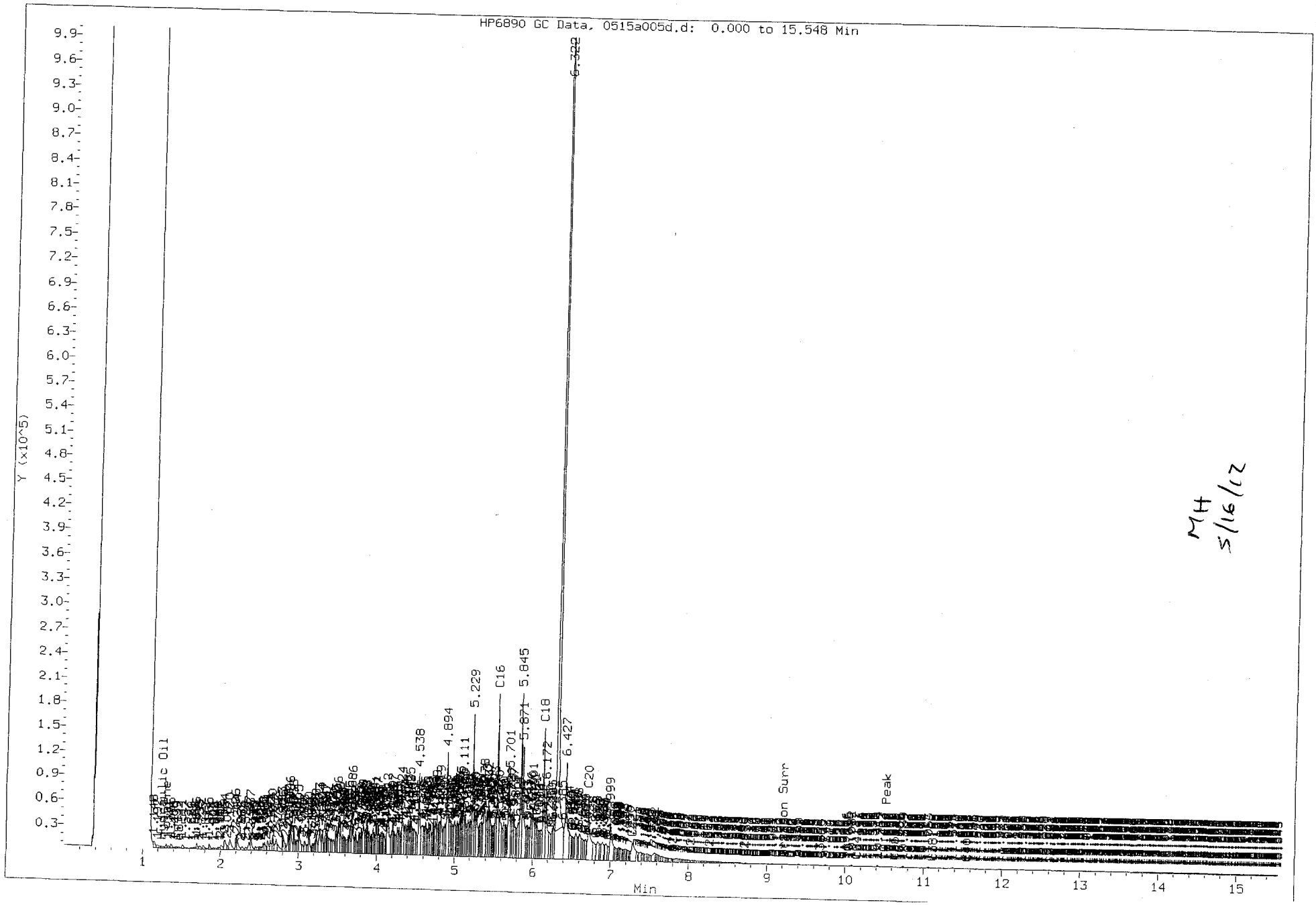
Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1

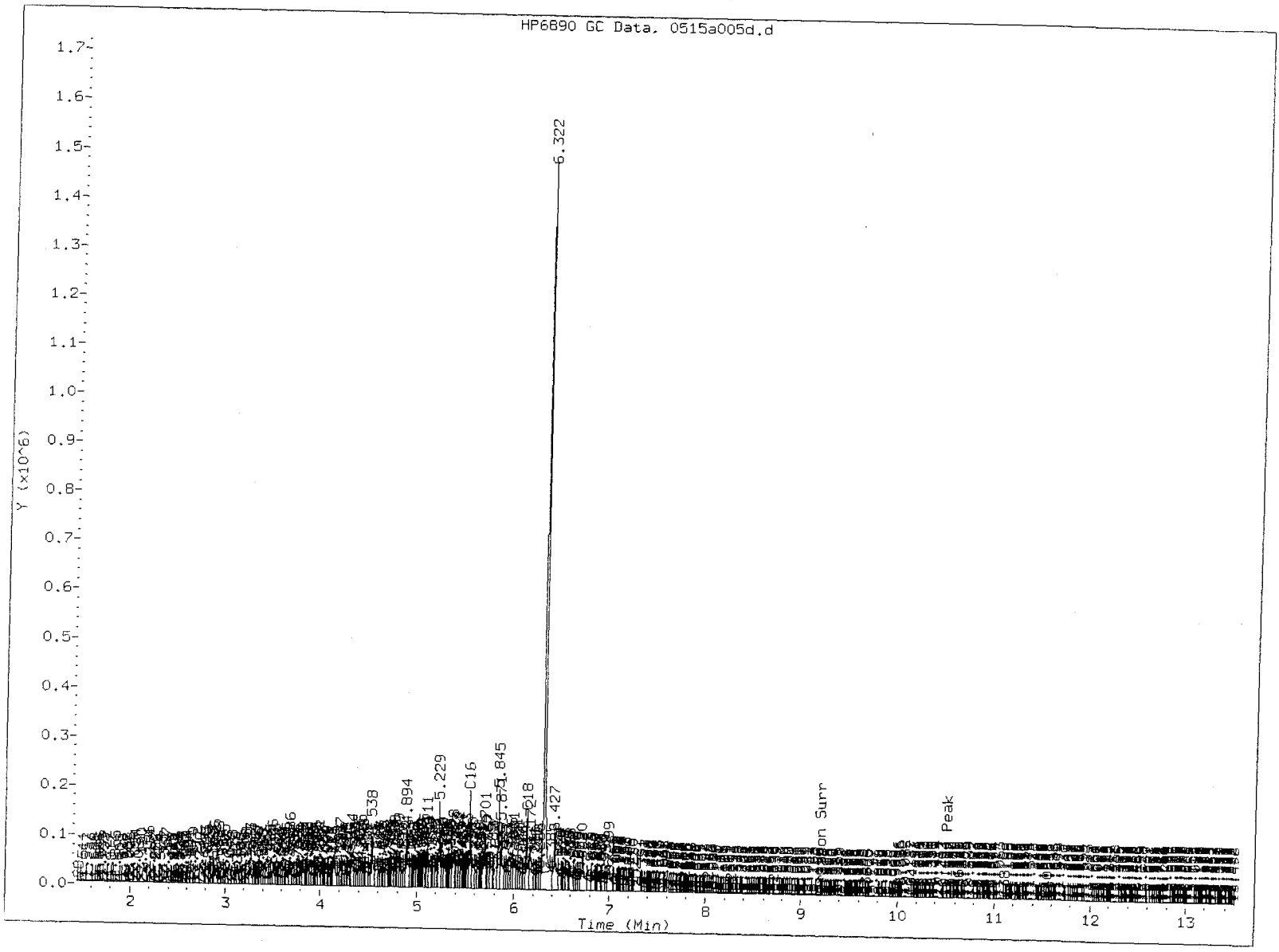


Data File: /chem3/fid4a.i/20120515.b/0515a005d.d
Injection Date: 15-MAY-2012 12:41
Instrument: fid4a.i
Client Sample ID:



MH
5/16/12

FID:4A-2C/RTX-1 DIESEL 500 FID:4A SIGNAL



MANUAL INTEGRATION

~~1.~~ Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MA Date: 5/16/12

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a005e.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 1000
Client ID:
Injection: 15-MAY-2012 13:05

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.268	-0.014	2024	5239	GAS (Tol-C12)	3888585	258.48
C8	1.487	0.001	3050	4129	DIESEL (C12-C24)	13350940	979.67
C10	3.128	0.002	83610	67320	M.OIL (C24-C38)	181233	18.59
C12	4.185	0.022	58359	52153	AK-102 (C10-C25)	16082648	993.19 M
C14	4.929	0.008	89945	127719	AK-103 (C25-C36)	142739	18.40
C16	5.544	-0.013	418248	343802			
C18	6.138	-0.003	323122	325580			
C20	6.715	-0.009	186437	267047	MIN.OIL (C24-C38)	181233	13.48
C22	7.265	-0.003	63234	175706			
C24	7.790	0.008	7626	3964			
C25	8.027	-0.001	4429	1581			
C26	8.266	-0.004	2736	3408			
C28	8.737	0.011	1628	4219			
C32	9.657	-0.010	325	405			
C34	10.132	-0.018	126	191	CREOSOT (C12-C22)	13002672	3538.96 M
Filter Peak	10.525	0.007	57	24			
C36	10.642	0.008	41	23			
C38	11.118	0.013	56	30			
C40	11.565	0.007	54	88			
o-terph	6.335	0.023	2243779	3131504	JET-A (C10-C18)	12522503	843.72
Triacon Surr	9.179	-0.014	492	893			

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3131504	182.2	404.9
Triacontane	893	0.1	0.1

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120515.b/0515a005e.d

Date : 15-MAY-2012 13:05

Client ID:

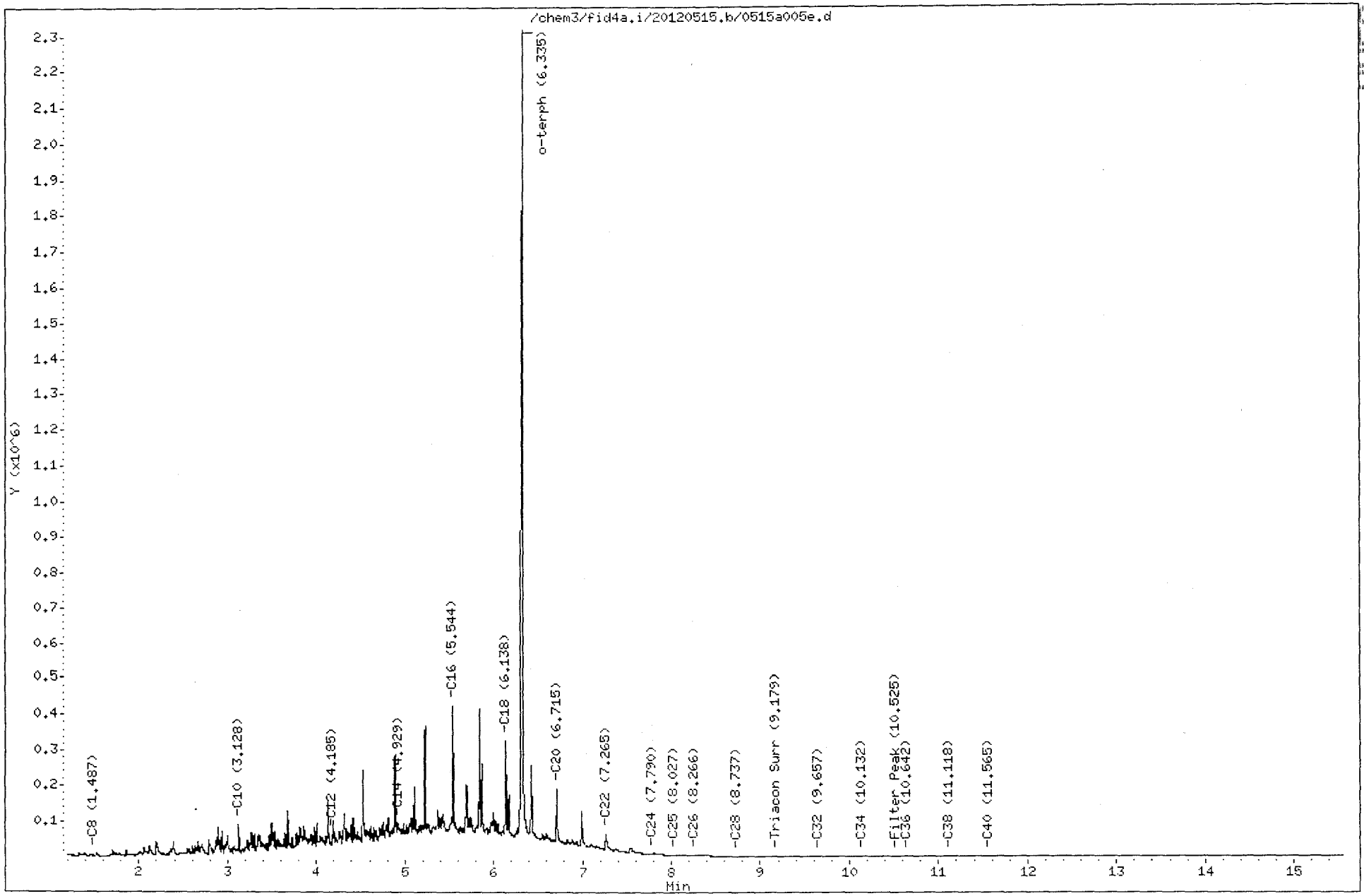
Sample Info: DIESEL 1000

Column phase: RTX-1

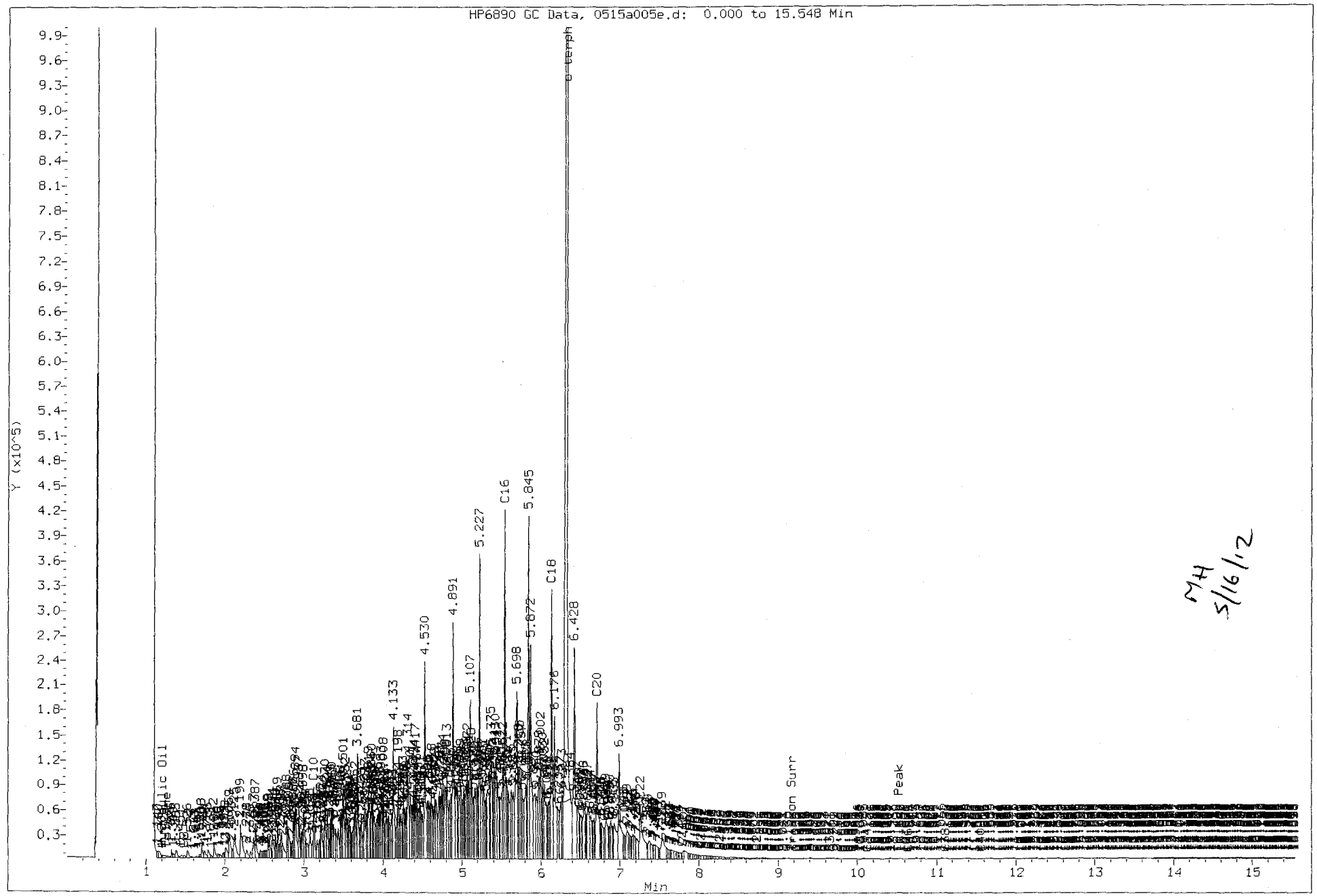
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



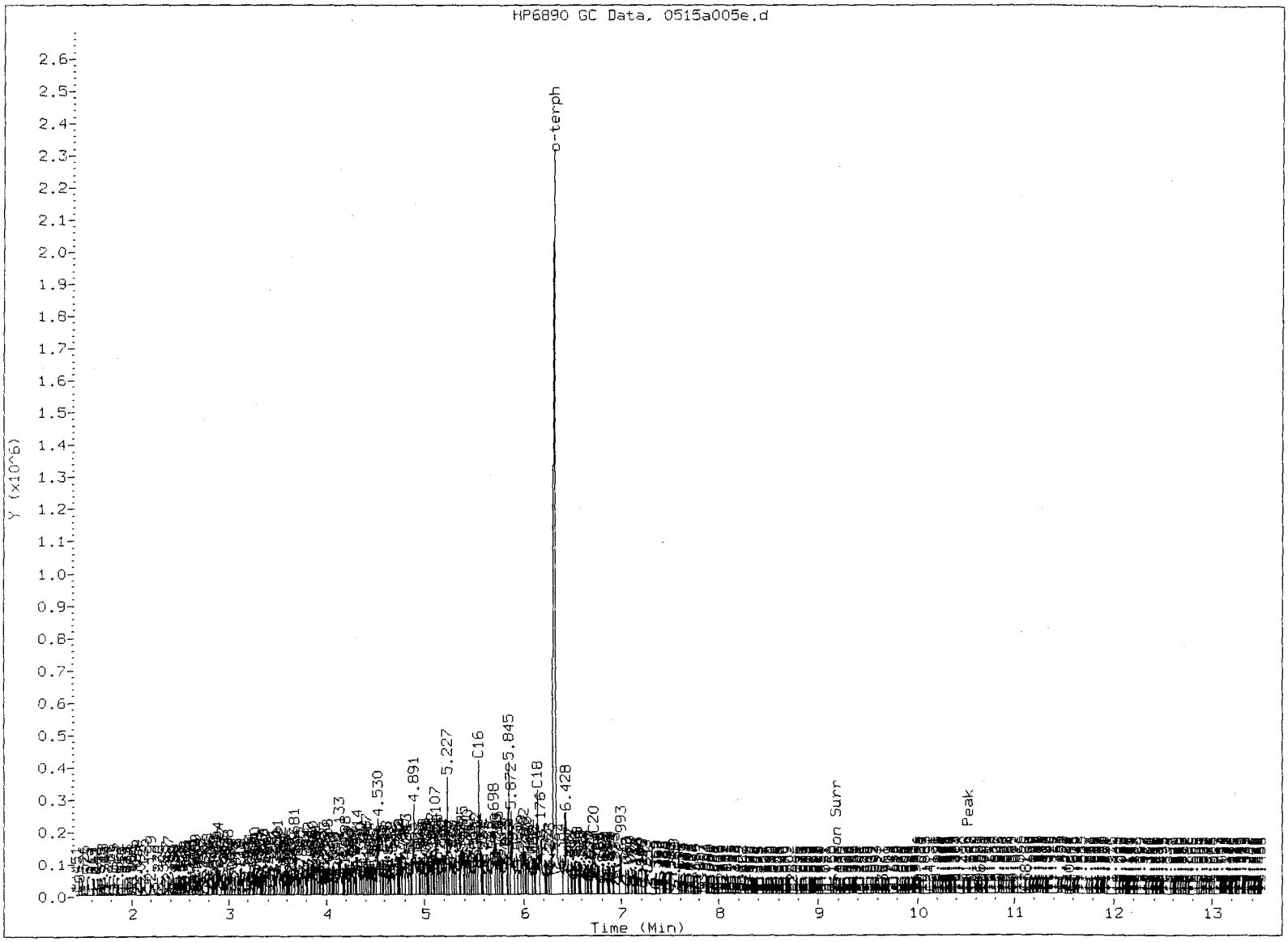
Data File: /chem3/fid4a.i/20120515.b/0515a005e.d
Injection Date: 15-MAY-2012 13:05
Instrument: fid4a.i
Client Sample ID:



MH
5/16/12

USA-01355

FID:4A-2C/RTX-1 DIESEL 1000 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/16/12

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a006.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 2500
Client ID:
Injection: 15-MAY-2012 13:29

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.292	0.010	2488	2731	GAS (Tol-C12)	10109817	672.02
C8	1.489	0.003	6657	4794	DIESEL (C12-C24)	34235404	2512.14
C10	3.133	0.007	222967	182366	M.OIL (C24-C38)	362187	37.15
C12	4.163	0.000	88963	55182	AK-102 (C10-C25)	41349395	2553.54 M
C14	4.929	0.008	219226	459951	AK-103 (C25-C36)	259218	33.41
C16	5.552	-0.005	908389	930155			
C18	6.152	0.010	646206	840739			
C20	6.726	0.001	457150	795222	MIN.OIL (C24-C38)	362187	26.95
C22	7.271	0.002	215354	387158			
C24	7.787	0.005	37695	105686			
C25	8.045	0.017	13593	32742			
C26	8.270	0.000	5135	2115			
C28	8.731	0.005	2480	7009			
C32	9.665	-0.002	424	325			
C34	10.147	-0.003	191	121	CREOSOT (C12-C22)	33230776	9044.47 M
Filter Peak	10.510	-0.008	102	65			
C36	10.644	0.011	70	64			
C38	11.117	0.012	46	44			
C40	11.562	0.005	26	7			
o-terph	6.366	0.054	3885408	8382575	JET-A (C10-C18)	31989886	2155.36
Triacon Surr	9.189	-0.005	724	942			

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	8382575	487.7	1083.8
Triacontane	942	0.1	0.1

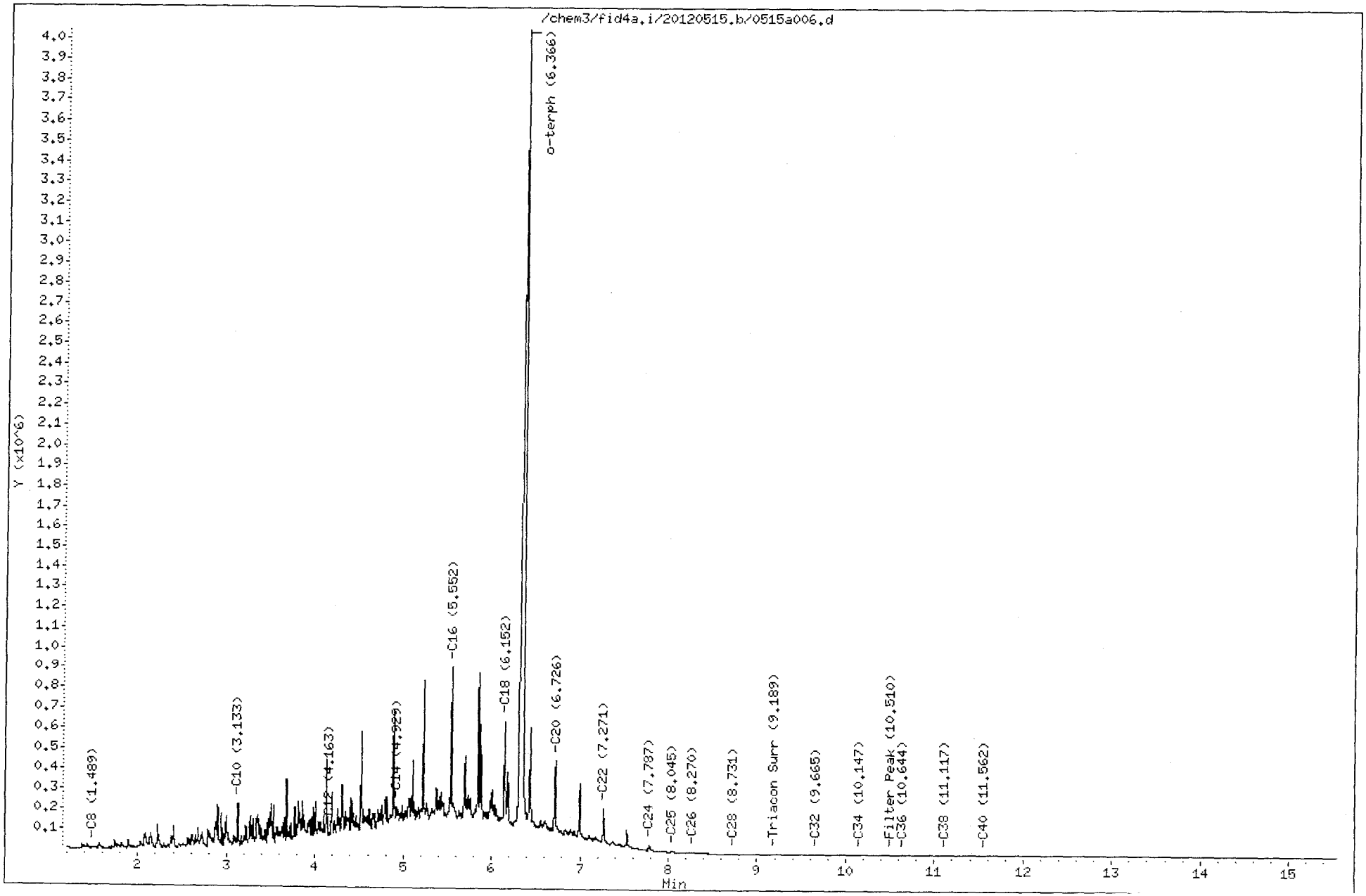
Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120515.b/0515a006.d
Date : 15-MAY-2012 13:29
Client ID:
Sample Info: DIESEL 2500

Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1



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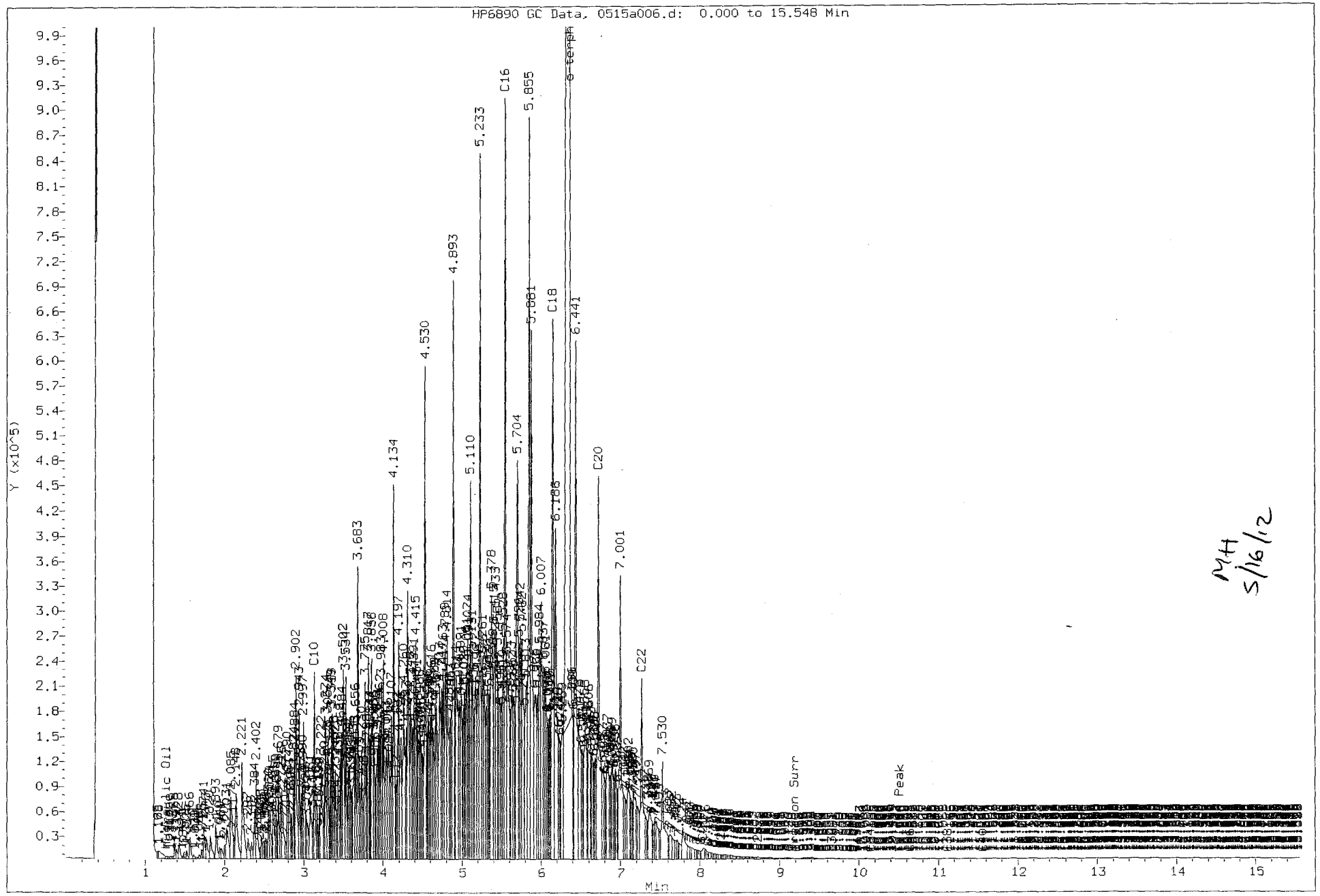
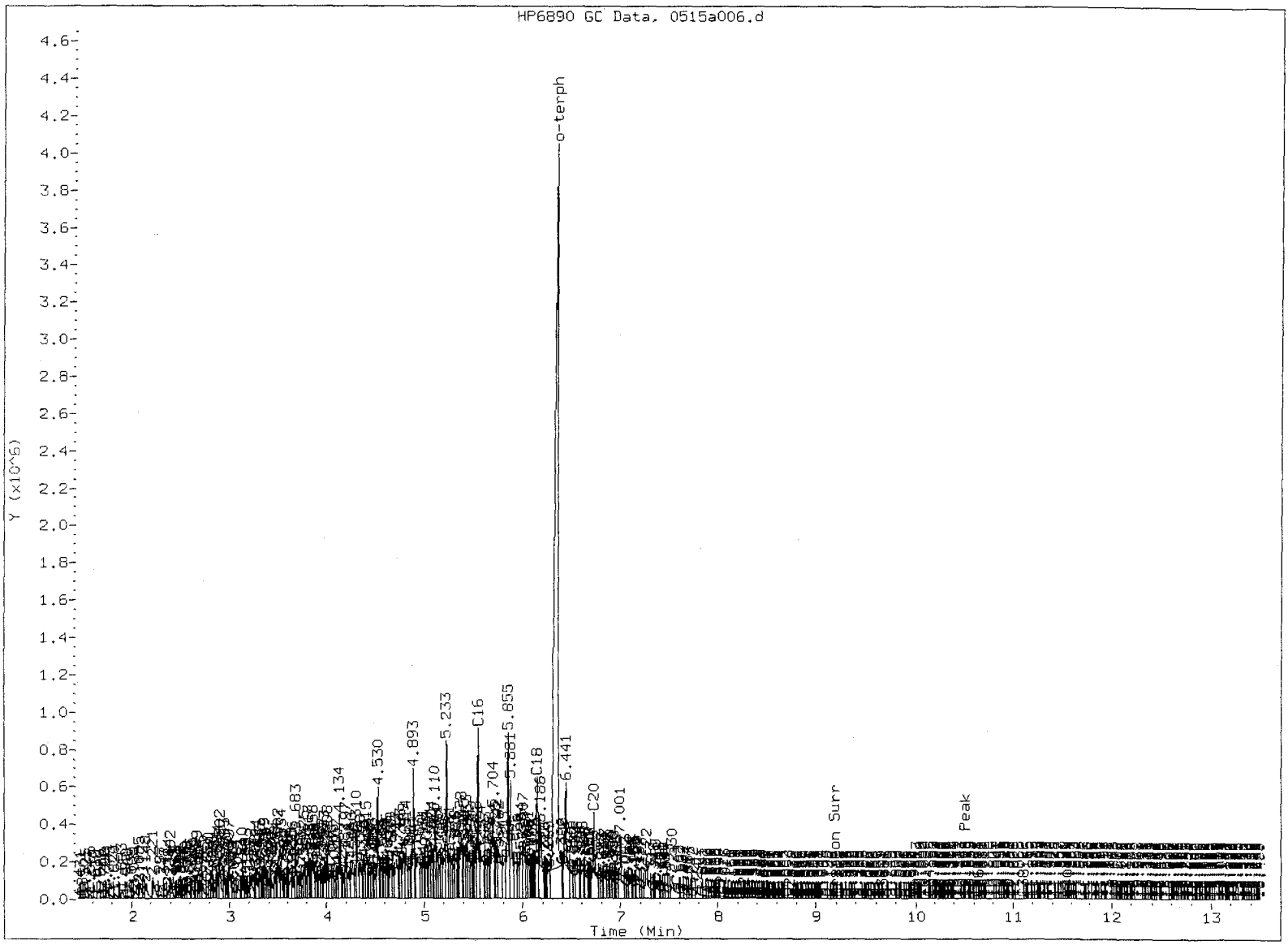
Injection Date: 15-MAY-2012 13:29
Instrument: fid4a.i
Client Sample ID:



MH
5/16/12

FID:4A-2C/RTX-1 DIESEL 2500 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/16/12

MH 5/17/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120516.b/0516a029.d
Method: /chem3/fid4a.i/20120516.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/17/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL ICV
Client ID:
Injection: 16-MAY-2012 18:42

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.292	0.025	3120	4631	GAS (Tol-C12)	1004908	66.80
C8	1.456	-0.018	1500	2080	DIESEL (C12-C24)	2769048	203.19
C10	3.137	0.014	26075	29019	M.OIL (C24-C38)	65672	6.74
C12	4.142	-0.009	14731	19328	AK-102 (C10-C25)	3544119	218.87 M
C14	4.910	-0.013	41137	92662	AK-103 (C25-C36)	45532	5.87
C16	5.554	-0.007	49229	56359			
C18	6.139	-0.003	33720	47733			
C20	6.728	0.004	16480	52809	MIN.OIL (C24-C38)	65672	4.89
C22	7.270	0.001	4835	1883			
C24	7.768	-0.012	2253	3088			
C25	8.025	-0.002	1499	2380			
C26	8.265	-0.001	988	947			
C28	8.724	0.001	603	1609			
C32	9.668	0.003	73	37			
C34	10.147	0.000	34	16	CREOSOT (C12-C22)	2697742	734.25 M
Filter Peak	10.504	-0.009	38	35			
C36	10.619	-0.004	44	22			
C38	11.117	0.023	103	250			
C40	11.565	0.006	190	227			
o-terph	6.312	-0.001	571818	693660	JET-A (C10-C18)	2772533	186.80
Triacon Surr	9.192	-0.001	137	100			

M Indicates manual integration within range.
Range Times: NW Diesel(4.151 - 7.780) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.09) AK103(8.03 - 10.62) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	693660	40.4	89.7
Triacontane	100	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120516.b/0516a029.d

Date : 16-MAY-2012 18:42

Client ID:

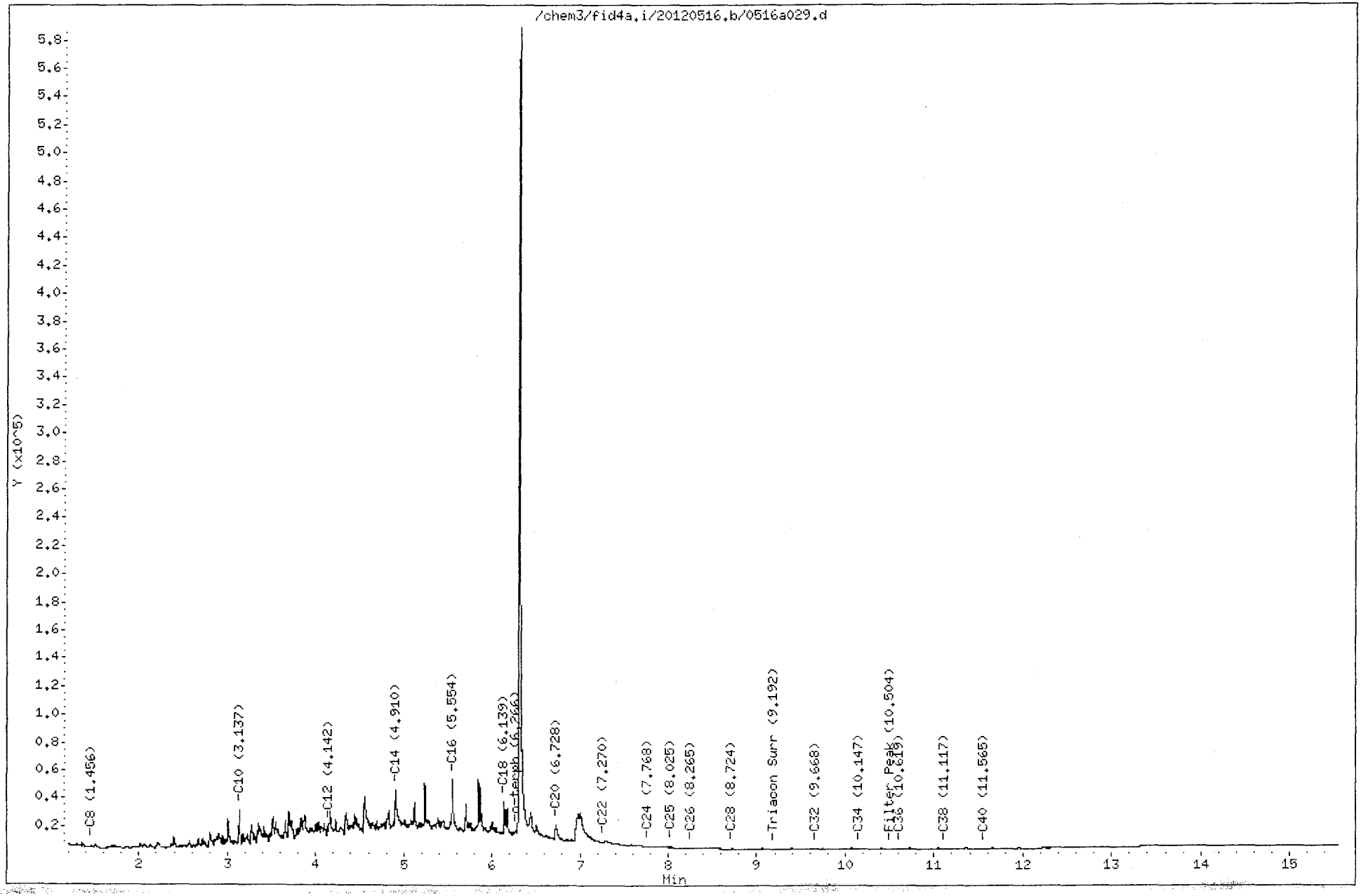
Sample Info: DIESEL ICV

Instrument: fid4a.i

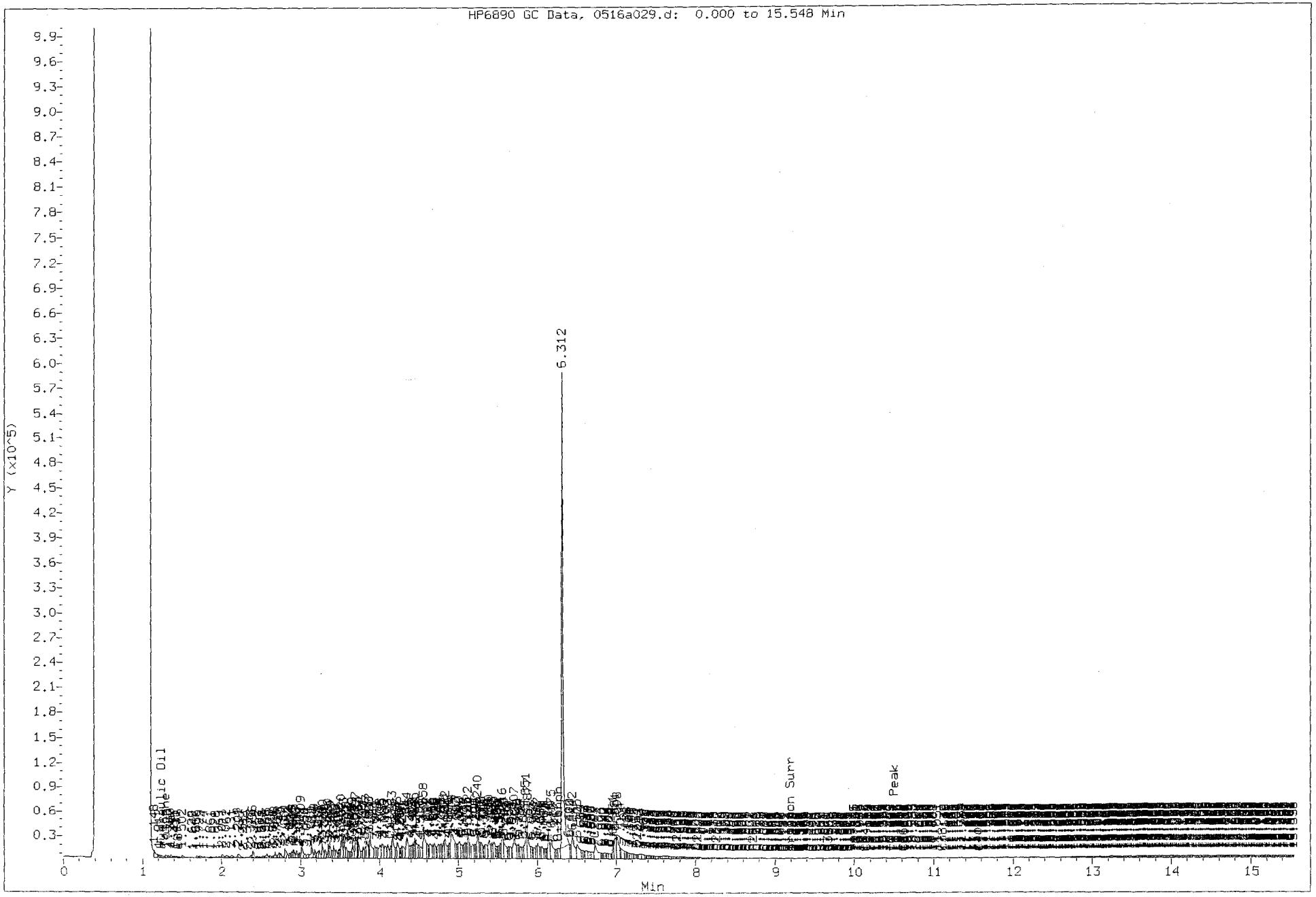
Operator: MH

Column phase: RTX-1

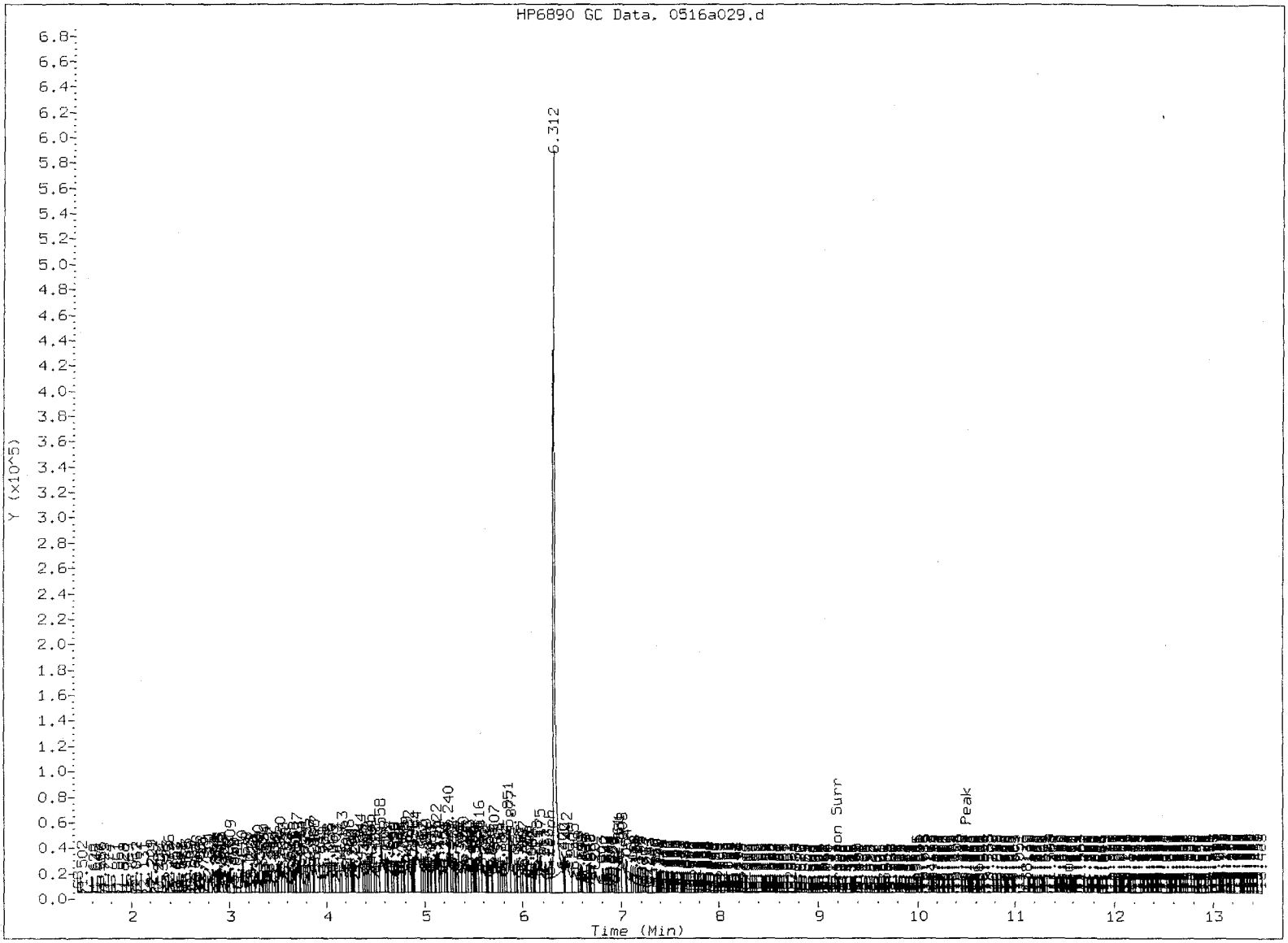
Column diameter: 0.25



Data File: /chem3/fid4a.i/20120516.b/0516a029.d
Injection Date: 16-MAY-2012 18:42
Instrument: fid4a.i
Client Sample ID:



FID:4A-2C/RTX-1 DIESEL ICV FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/17/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20120515.b
Inst ID: fid4a.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0515a005a	0515a005b	0515a005c	0515a005d	0515a005e	0515a006
INJ.DATE:	15-MAY-2012	15-MAY-2012	15-MAY-2012	15-MAY-2012	15-MAY-2012	15-MAY-2012
INJ.TIME:	11:30	11:53	12:17	12:41	13:05	13:29

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	Toluene	1.272	1.287	1.292	1.306	1.268	1.292	1.282	1.182-1.382	1.286	0.014
40	Mineral Oil	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
39	Creosote	+++++	+++++	+++++	+++++	+++++	+++++	0.546	0.496-0.596	+++++	+++++
36	JetA	+++++	+++++	+++++	+++++	+++++	+++++	0.787	0.737-0.837	+++++	+++++
37	Bunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.718	0.668-0.768	+++++	+++++
38	Hydraulic Oil	+++++	+++++	1.235	1.248	1.211	1.264	1.250	1.200-1.300	1.240	0.022
2	C8	1.482	1.497	1.502	1.469	1.487	1.489	1.486	1.386-1.586	1.488	0.012
3	C10	3.129	3.132	3.119	3.131	3.128	3.133	3.126	3.076-3.176	3.128	0.005
4	C12	4.153	4.185	4.162	4.142	4.185	4.163	4.163	4.113-4.213	4.165	0.017
5	C14	4.913	4.918	4.937	4.931	4.929	4.929	4.921	4.871-4.971	4.926	0.009
6	C16	5.550	5.557	5.548	5.544	5.544	5.552	5.557	5.507-5.607	5.549	0.005
7	C18	6.127	6.146	6.138	6.137	6.138	6.152	6.142	6.092-6.192	6.139	0.009
$ 8	o-terph	6.326	6.313	6.311	6.322	6.335	6.366	6.312	6.262-6.362	6.329	0.020
9	C20	6.722	6.729	6.725	6.716	6.715	6.726	6.724	6.674-6.774	6.722	0.006
10	C22	7.255	7.273	7.265	7.280	7.265	7.271	7.269	7.219-7.319	7.268	0.009
11	C24	7.775	7.771	7.784	7.794	7.790	7.787	7.782	7.732-7.832	7.784	0.009
12	C25	8.026	8.030	8.021	8.028	8.027	8.045	8.028	7.978-8.078	8.029	0.008

Reviewer 1 MH Date: 5/16/12

Reviewer 2 _____ Date: 5/17/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20120515.b
Inst ID: fid4a.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
13 C26	8.263	8.286	8.242	8.271	8.266	8.270	8.270	8.220-8.320	8.266	0.014
14 C28	8.732	8.716	8.737	8.713	8.737	8.731	8.726	8.676-8.776	8.728	0.011
$ 15 Triacon Surr	9.190	9.193	9.191	9.205	9.179	9.189	9.194	9.144-9.244	9.191	0.008
16 C32	9.665	9.673	9.670	9.677	9.657	9.665	9.667	9.617-9.717	9.668	0.007
17 C34	10.135	10.143	10.150	10.152	10.132	10.147	10.150	10.100-10.200	10.143	0.008
18 Filter Peak	10.522	10.532	10.513	10.520	10.525	10.510	10.518	10.418-10.618	10.520	0.008
19 C36	10.625	10.624	10.630	10.633	10.642	10.644	10.633	10.583-10.683	10.633	0.008
20 C38	11.145	11.070	11.130	11.114	11.118	11.117	11.105	11.055-11.155	11.116	0.025
21 C40	11.559	11.559	11.574	11.557	11.565	11.562	11.558	11.508-11.608	11.563	0.006
31 NW Diesel	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
32 OR Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.687	0.637-0.737	+++++	+++++
33 AK Dies 102	+++++	+++++	+++++	+++++	+++++	+++++	0.660	0.610-0.710	+++++	+++++
30 NW MOil	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
34 CRUDE	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
35 AK MOil 103	+++++	+++++	+++++	+++++	+++++	+++++	0.612	0.562-0.662	+++++	+++++

Analytical Resources, Incorporated
Analytical Chemists and Consultants

M.01/ curve

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) ~~**407S**(TPH-D)~~ **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B (FID-4A) FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 5/14/12 Internal Standard ID — Expiration —

Endrin/DDT Breakdown <15%? YES / NO / NA

ICal Meets %RSD & r^2 Criteria (YES) / NO

Manual Integrations for ICal? (YES) / NO

Minimum Response S/N Met (YES) / NO

ICV Exceeding ±20%? (YES) / (NO)

ICV Exceeding ±30%? YES / NO

Linear Fits Used? YES / (NO)

Quadratic Fits Used? YES / (NO)

Calibration Points Dropped? high point surr (YES) / (NO)

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Chevron	1971-3	5/7/13	Valvoline	1977-1	11/23/12

Detail problems, corrective actions and/or other pertinent information below:
high point of curve 2500 & 5000 surr RT shifted due to saturation. Surrogat high point taked out 2500point keeped (shifting 0.033). n-Tricontane usually not requested.

Analyst: [signature] **Date:** 5/16/12

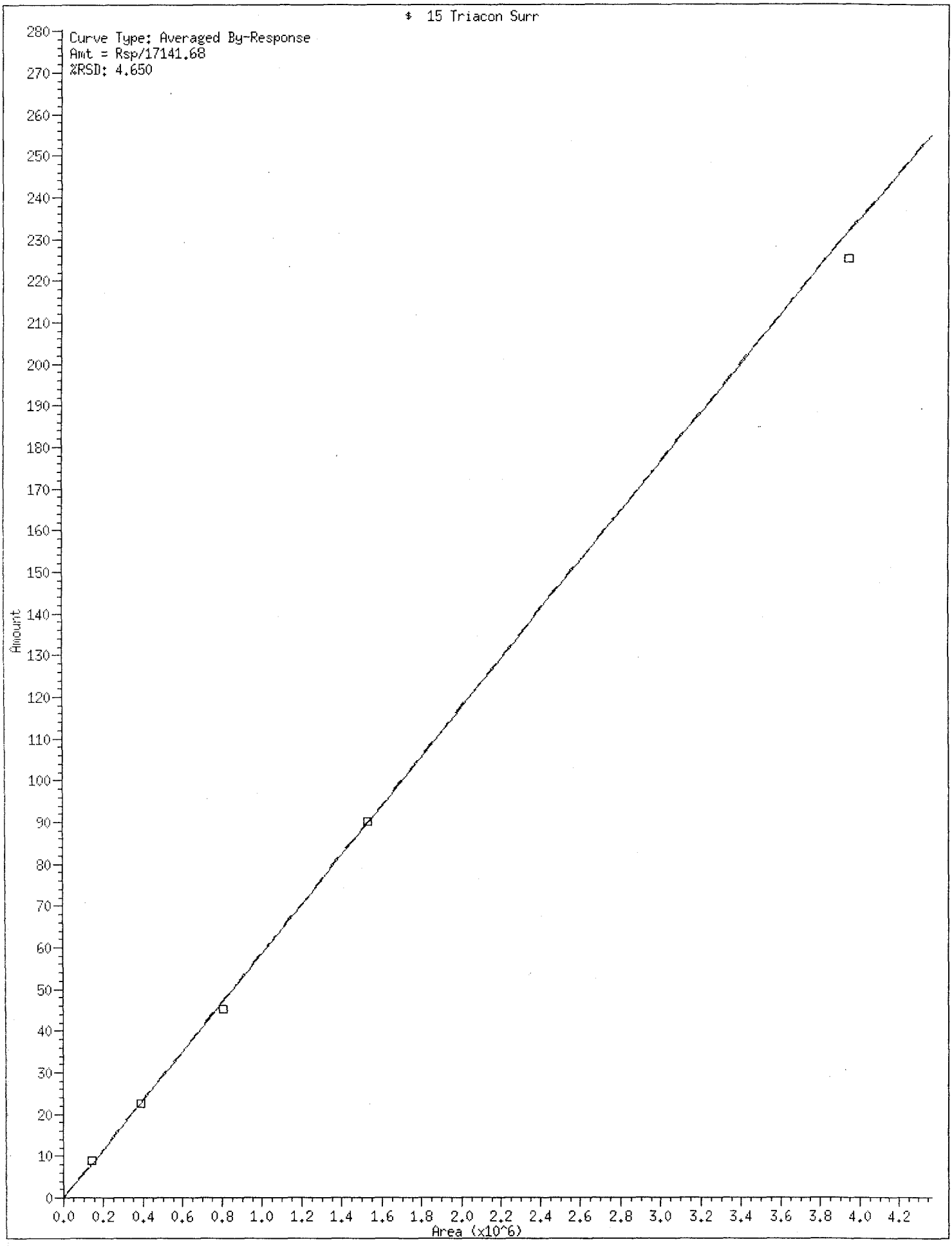
Reviewer: [signature] **Date:** 5/16/12

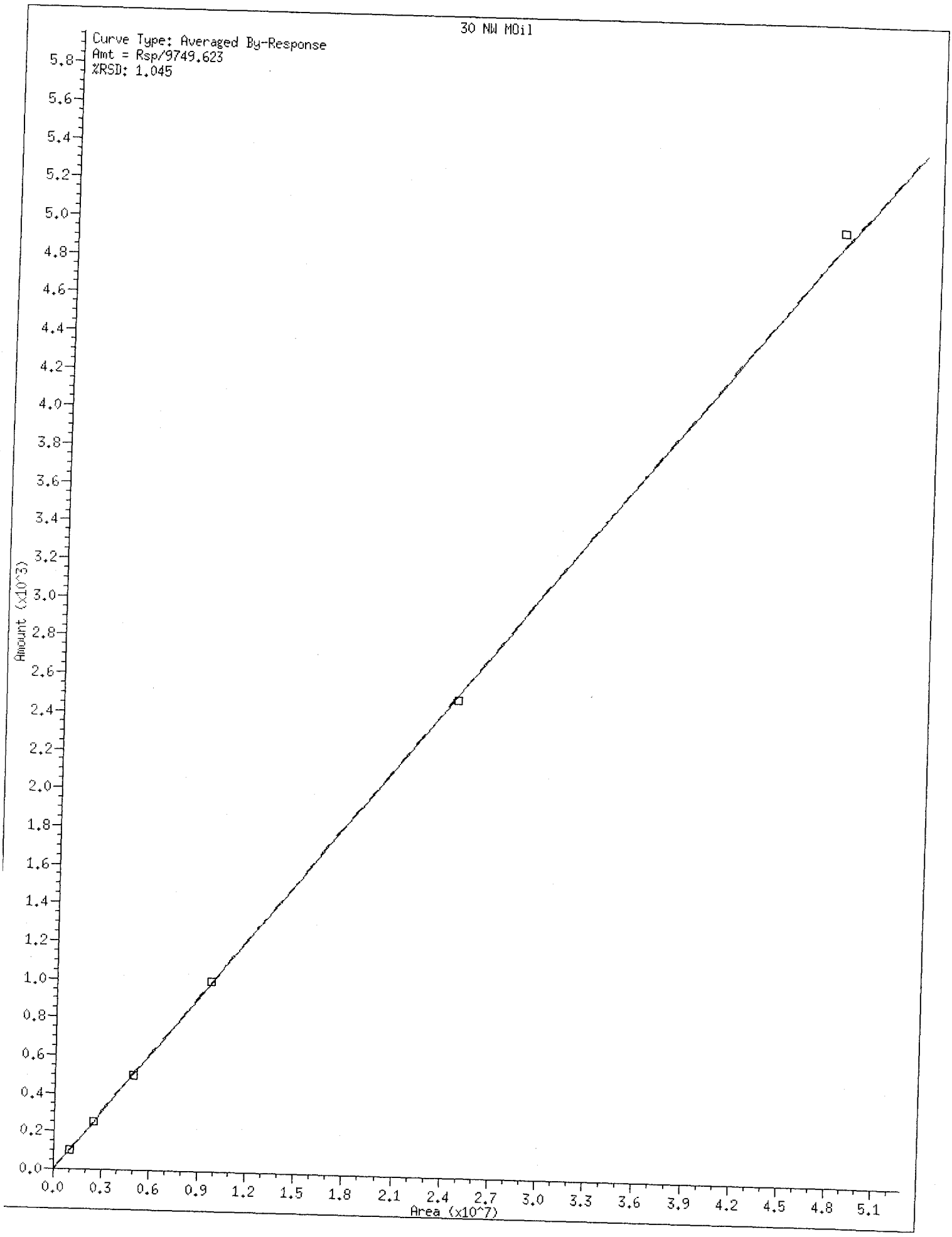
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2004 08:49
End Cal Date : 14-MAY-2012 15:51
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem3/fid4a.i/20120514.b/ftphfid4a.m
Cal Date : 15-May-2012 06:49 monicah
Curve Type : Average

Compound	0.000e+00 Level 1	0.000e+00 Level 2	0.000e+00 Level 3	0.000e+00 Level 4	0.000e+00 Level 5	0.000e+00 Level 6	RRF	% RSD
	0.000e+00 Level 7	0.000e+00 Level 8	0.000e+00 Level 9	0.000e+00 Level 10	0.000e+00 Level 11	0.000e+00 Level 12		
$ 15 Triacon Surr	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	15850	17196	17920	17089	17653	17142	4.650


$ 15 Triacon Surr
Curve Type: Averaged By-Response
Amt = Rsp/17141.68
%RSD: 4.650
Amount
Area (x10^6)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2


30 NW MOil
Curve Type: Averaged By-Response
Amt = Rsp/9749.623
%RSD: 1.045
Amount (x10^3)
5.8
5.6
5.4
5.2
5.0
4.8
4.6
4.4
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1
Area (x10^7)

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a020.d ARI ID: MOIL 100
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 14-MAY-2012 13:51
Operator: MH
Report Date: 05/15/2012 Dilution Factor: 1
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	----				GAS (Tol-C12)	87527	6	
C8	1.531	0.054	2053	8788	DIESEL (C12-C24)	104695	6.94	
C10	3.133	0.011	378	424	M.OIL (C24-C38)	981859	100.71	
C12	4.179	-0.003	319	134	AK-102 (C10-C25)	166892	9.34	
C14	4.923	0.008	235	162	AK-103 (C25-C36)	888971	114.57	M
C16	5.568	0.011	137	86				
C18	6.131	-0.008	69	79				
C20	6.724	0.002	110	65	MIN.OIL (C24-C38)	981859	73.05	M
C22	7.286	0.017	853	717				
C24	7.790	0.005	4043	1768				
C25	8.025	-0.007	5608	6655				
C26	8.275	0.006	6377	6427				
C28	8.735	0.009	7367	4708				
C32	9.671	0.000	6188	2285				
C34	10.163	0.011	4407	5189	CREOSOT (C12-C22)	33489	9.11	
Filter Peak	10.517	0.008	2892	3650				
C36	10.628	-0.001	2651	3736				
C38	11.097	-0.002	1478	1091				
C40	11.579	0.010	890	1052				
o-terph	6.318	0.004	34	22	JET-A (C10-C18)	38494	2.59	
Triacon Surr	9.189	-0.014	129870	142652				

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	22	0.0	0.0
Triacontane	142652	8.3	18.5

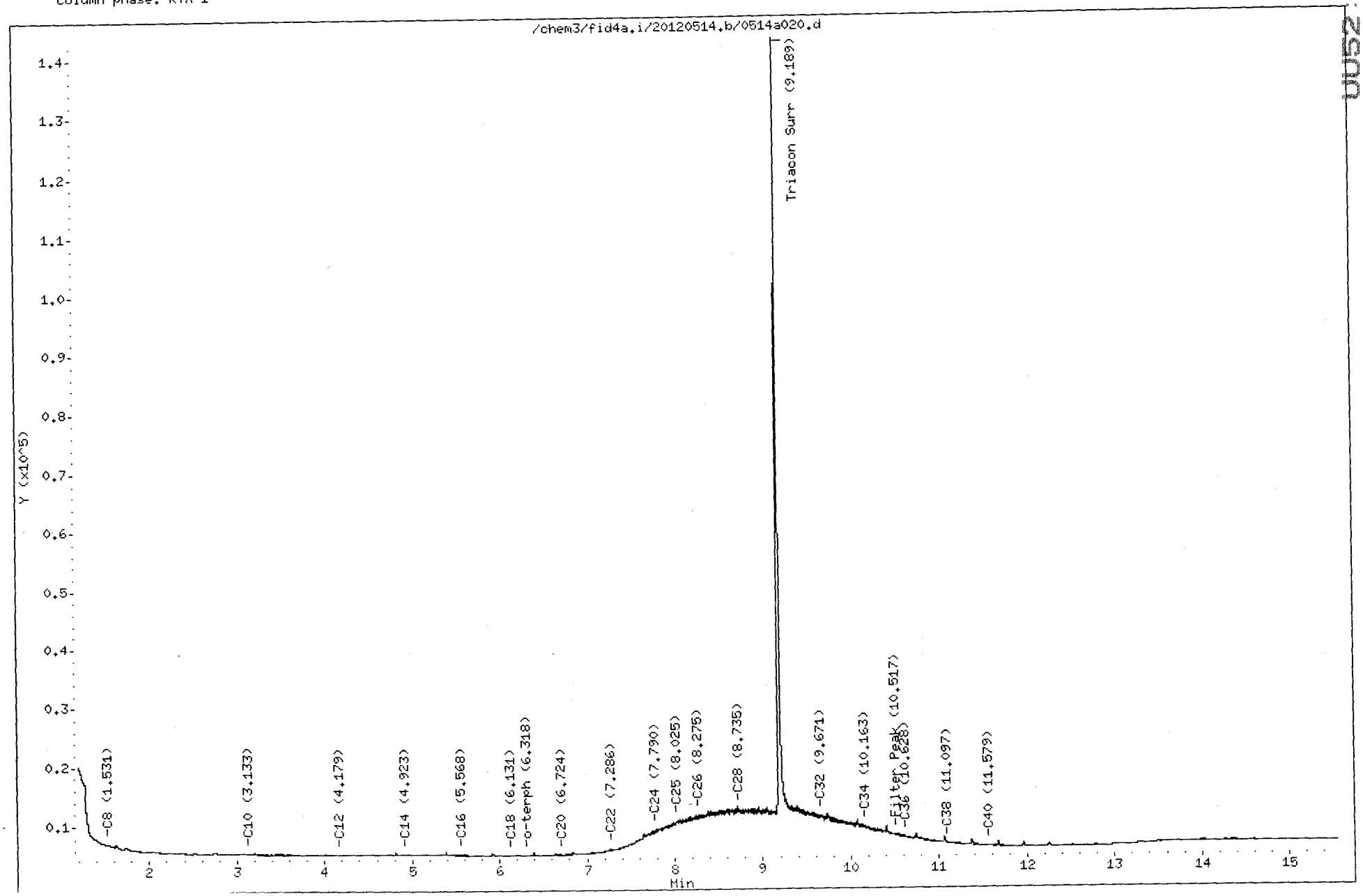
Analyte	RF	Curve Date
o-Terph Surr	19726.1	08-FEB-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	15079.0	08-FEB-2012
Motor Oil	9749.6	14-MAY-2012
AK102	17873.0	08-FEB-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120514.b/0514a020.d
Date : 14-MAY-2012 13:51
Client ID:
Sample Info: MOIL 100

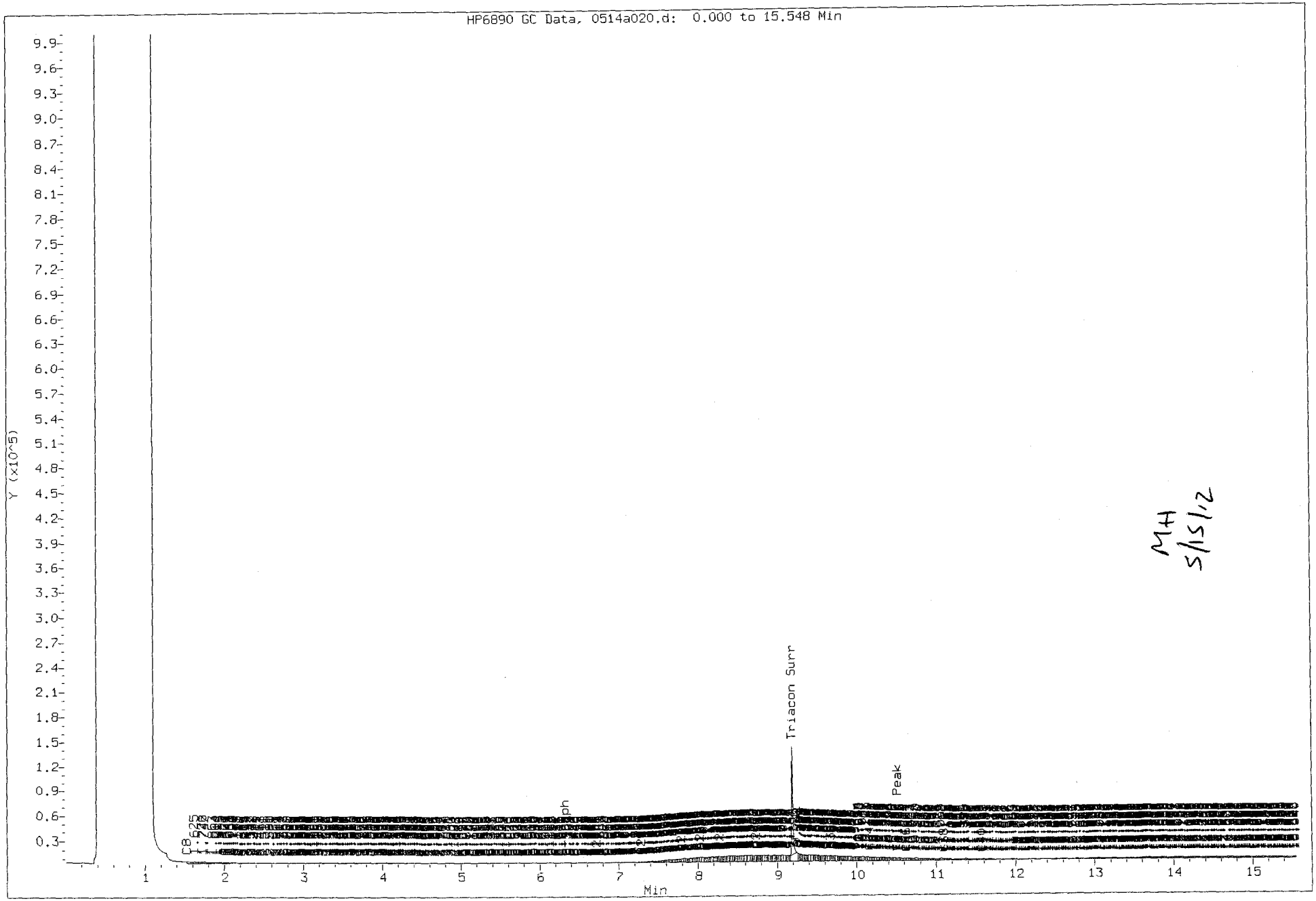
Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

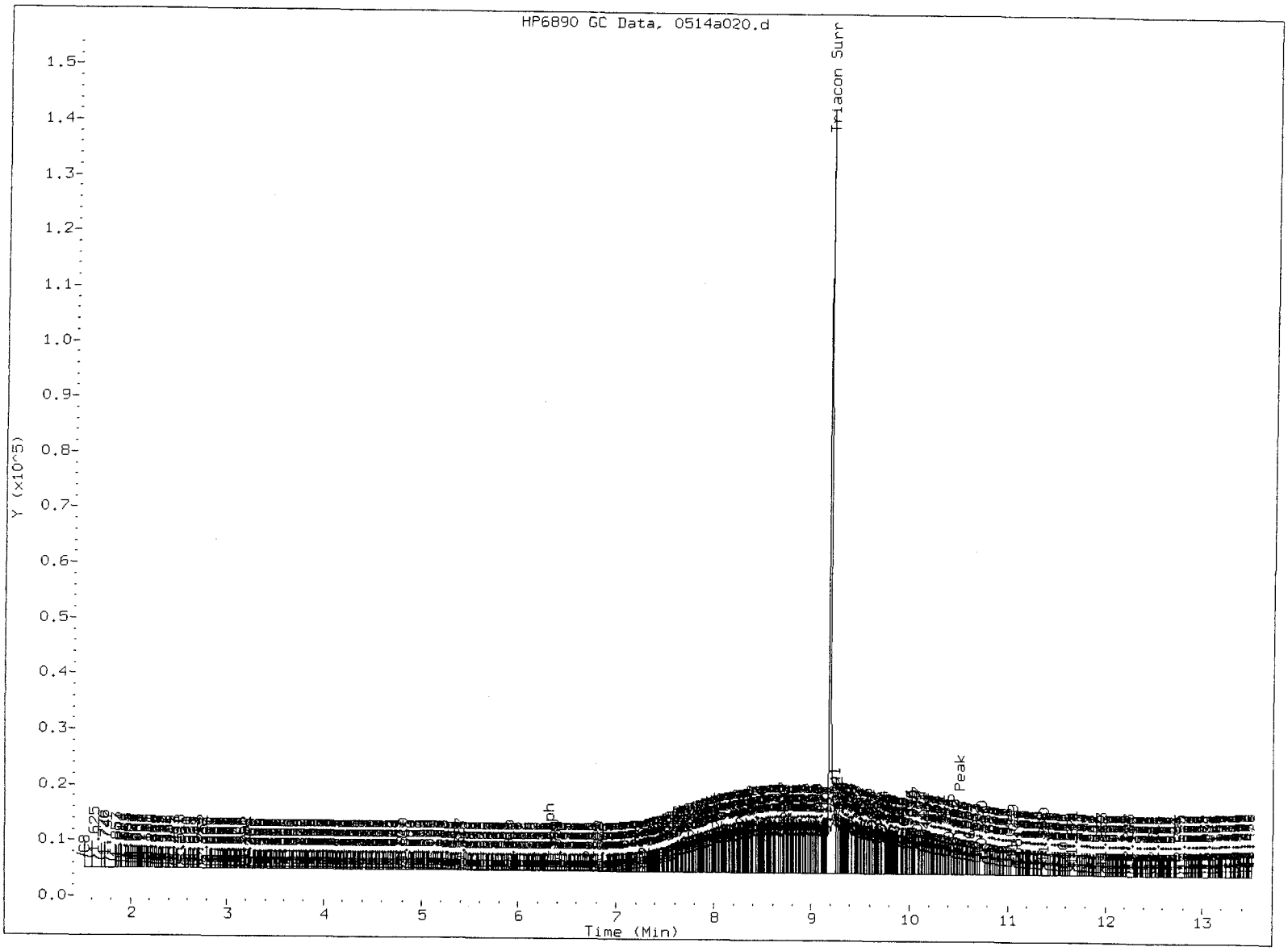
Column phase: RTX-1



Data File: /chem3/fid4a.i/20120514.b/0514a020.d
Injection Date: 14-MAY-2012 13:51
Instrument: fid4a.i
Client Sample ID:



FID:4A-2C/RTX-1 MOIL 100 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a021.d
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/15/2012
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

ARI ID: MOIL 250
Client ID:
Injection: 14-MAY-2012 14:15
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.269	0.000	21316	44262	GAS (Tol-C12)	125360	8.33	
C8	1.494	0.017	627	1229	DIESEL (C12-C24)	309159	20.50	
C10	3.123	0.000	341	213	M.OIL (C24-C38)	2450665	251.36	
C12	4.193	0.010	902	1493	AK-102 (C10-C25)	460247	25.75	
C14	4.922	0.007	799	1601	AK-103 (C25-C36)	2208866	284.67	M
C16	5.555	-0.002	546	223				
C18	6.115	-0.024	383	1257				
C20	6.713	-0.008	496	501	MIN.OIL (C24-C38)	2450665	182.33	M
C22	7.278	0.009	2428	3244				
C24	7.783	-0.001	10071	7215				
C25	8.025	-0.007	13297	16004				
C26	8.278	0.009	16267	19168				
C28	8.721	-0.005	18405	11588				
C32	9.685	0.014	14711	5200				
C34	10.150	-0.001	11459	19879	CREOSOT (C12-C22)	120140	32.70	
Filter Peak	10.507	-0.002	7831	10370				
C36	10.646	0.016	6700	6863				
C38	11.095	-0.004	3985	3294				
C40	11.576	0.006	2169	969				
o-terph	6.320	0.006	202	120	JET-A (C10-C18)	109691	7.39	
Triacon Surr	9.192	-0.011	317894	386908				

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	120	0.0	0.0
Triacontane	386908	22.6	50.2

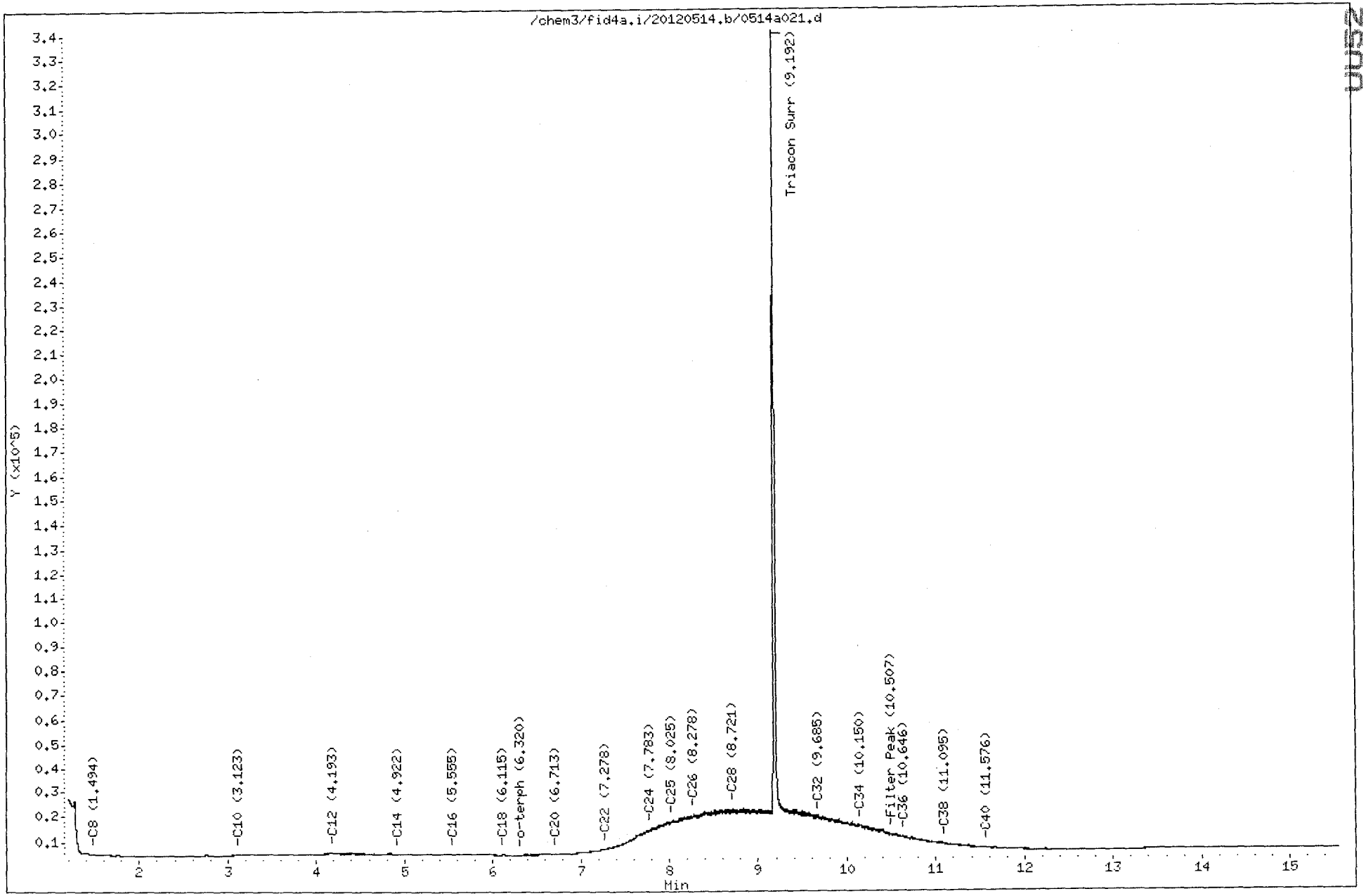
Analyte	RF	Curve Date
o-Terph Surr	19726.1	08-FEB-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	15079.0	08-FEB-2012
Motor Oil	9749.6	14-MAY-2012
AK102	17873.0	08-FEB-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120514.b/0514a021.d
Date : 14-MAY-2012 14:15
Client ID:
Sample Info: MOIL 250

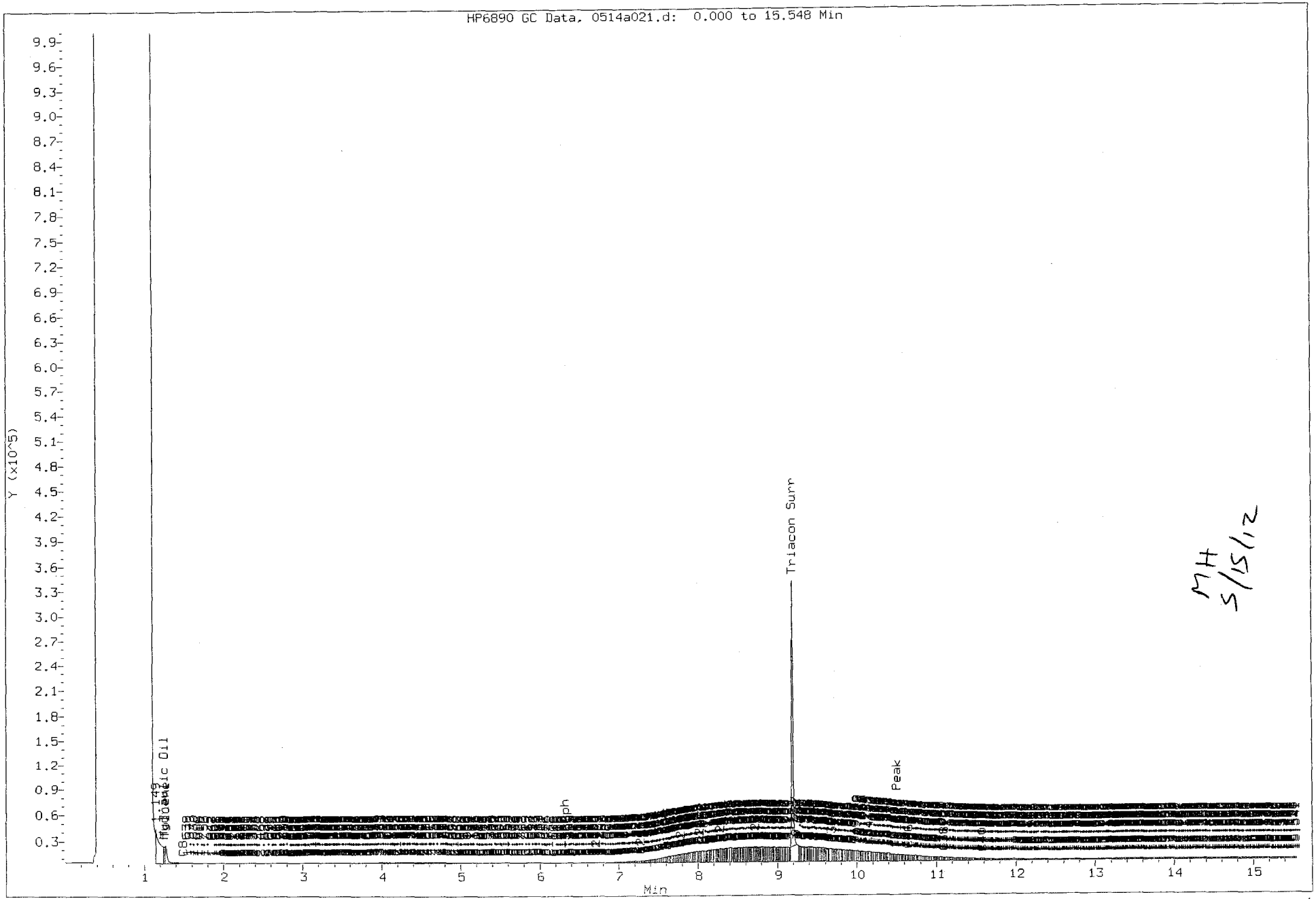
Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1

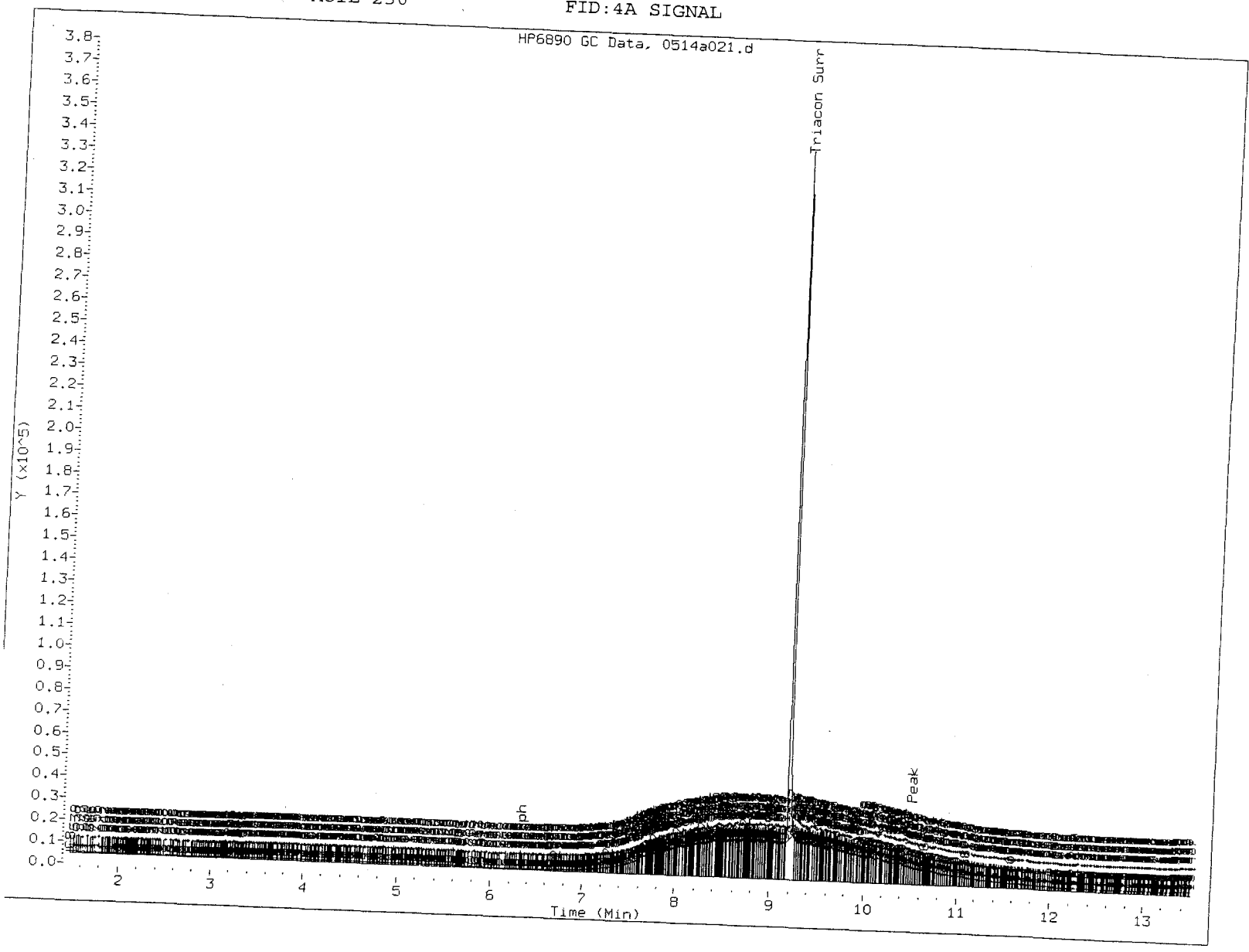


Data File: /chem3/fid4a.i/20120514.b/0514a021.d
Injection Date: 14-MAY-2012 14:15
Instrument: fid4a.i
Client Sample ID:



FID:4A-2C/RTX-1 MOIL 250

FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a022.d
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/15/2012
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

ARI ID: MOIL 500
Client ID:
Injection: 14-MAY-2012 14:39
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.267	-0.002	40642	81043	GAS (Tol-C12)	211833	14.08	
C8	1.499	0.022	662	1424	DIESEL (C12-C24)	591509	39.23	
C10	3.119	-0.004	406	269	M.OIL (C24-C38)	4908154	503.42	
C12	4.187	0.004	1146	1721	AK-102 (C10-C25)	846293	47.35	
C14	4.924	0.008	1017	1042	AK-103 (C25-C36)	4443084	572.61	M
C16	5.565	0.007	619	303				
C18	6.155	0.016	313	305				
C20	6.721	0.000	993	656	MIN.OIL (C24-C38)	4908154	365.17	M
C22	7.279	0.010	4969	7020				
C24	7.779	-0.006	20195	7349				
C25	8.032	0.000	27177	24480				
C26	8.272	0.003	31273	20165				
C28	8.721	-0.006	35981	36833				
C32	9.668	-0.003	32152	42674				
C34	10.153	0.001	23828	25969	CREOSOT (C12-C22)	190465	51.84	
Filter Peak	10.511	0.001	15549	7679				
C36	10.639	0.009	14008	6230				
C38	11.093	-0.007	8061	10780				
C40	11.569	-0.001	4299	5405				
o-terph	6.328	0.013	364	476	JET-A (C10-C18)	139068	9.37	
Triacon Surr	9.206	0.002	470389	806391				

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	476	0.0	0.1
Triacontane	806391	47.0	104.5

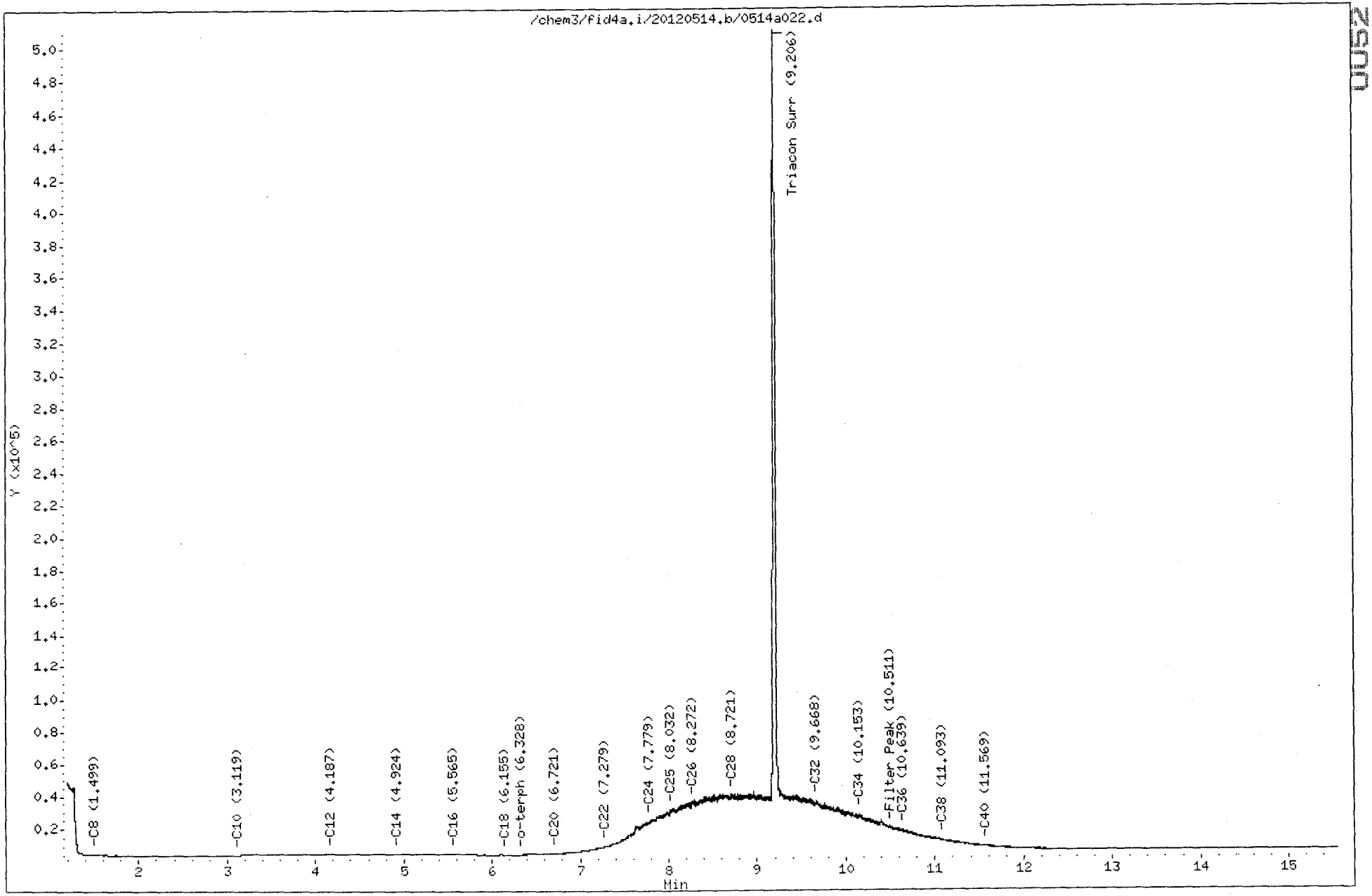
Analyte	RF	Curve Date
o-Terph Surr	19726.1	08-FEB-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	15079.0	08-FEB-2012
Motor Oil	9749.6	14-MAY-2012
AK102	17873.0	08-FEB-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120514.b/0514a022.d
Date : 14-MAY-2012 14:39
Client ID:
Sample Info: MOIL 500

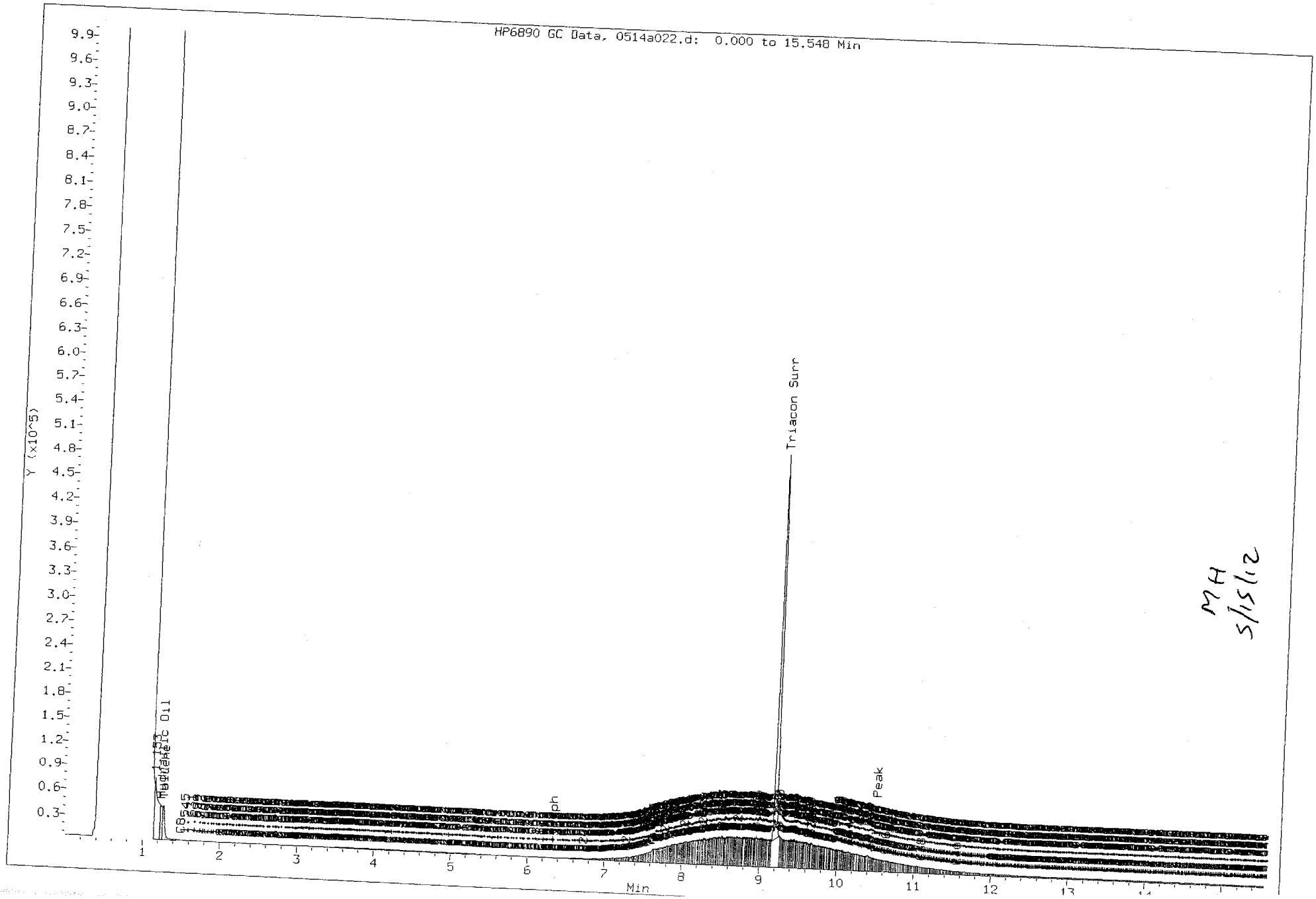
Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

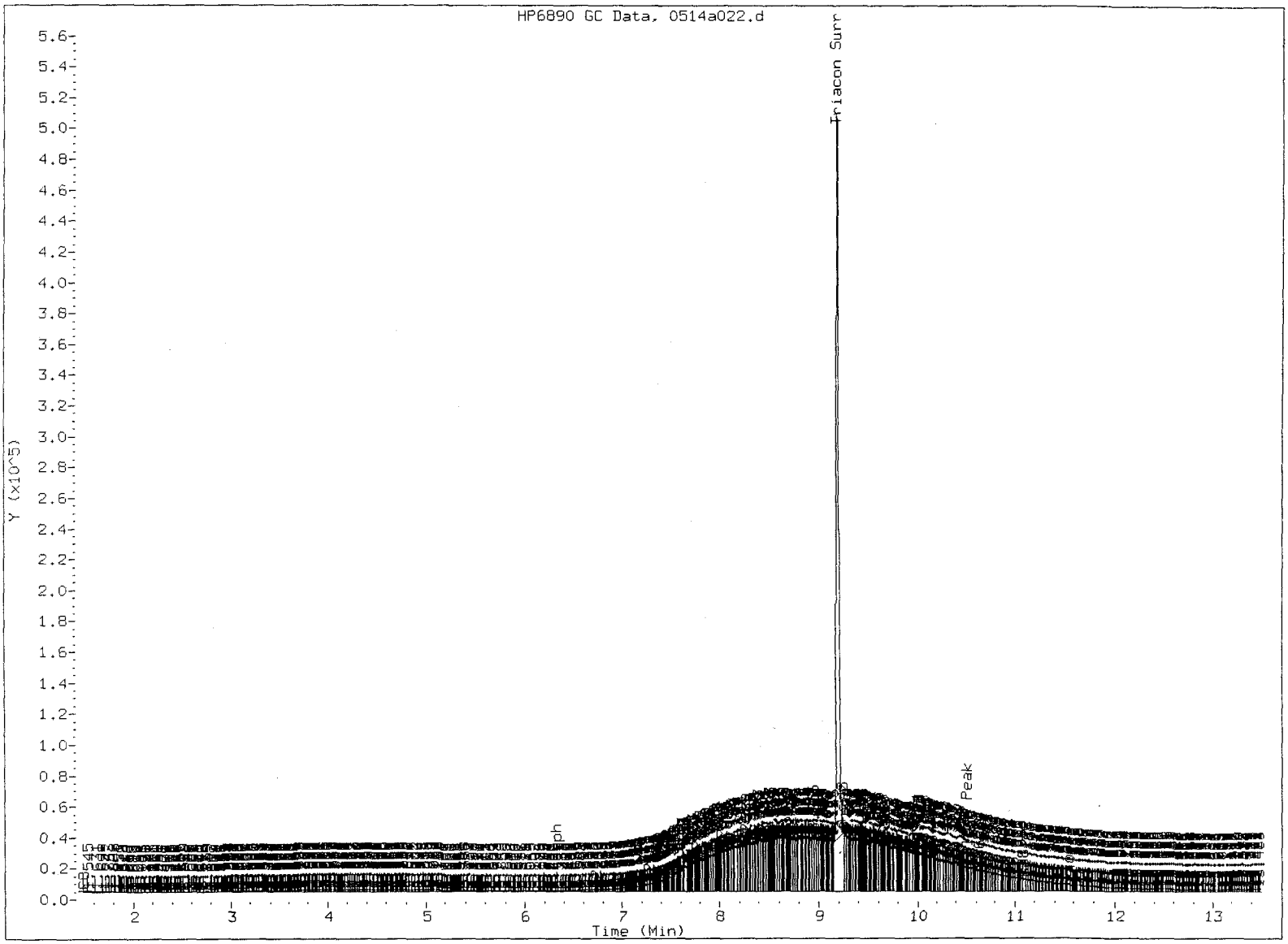
Column phase: RTX-1



Data File: /chem3/fid4a.i/20120514.b/0514a022.d
Injection Date: 14-MAY-2012 14:39
Instrument: fid4a.i
Client Sample ID:



FID:4A-2C/RTX-1 MOIL 500 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a023.d
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/15/2012
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

ARI ID: MOIL 1000
Client ID:
Injection: 14-MAY-2012 15:03
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.265	-0.005	83357	153184	GAS (Tol-C12)	312893	20.80
C8	1.555	0.078	724	2087	DIESEL (C12-C24)	1035882	68.70
C10	3.127	0.004	576	313	M.OIL (C24-C38)	9634177	988.16
C12	4.175	-0.007	1392	2601	AK-102 (C10-C25)	1474244	82.48
C14	4.907	-0.009	1129	1139	AK-103 (C25-C36)	8730385	1125.15 M
C16	5.565	0.007	477	291			
C18	6.153	0.013	300	269			
C20	6.726	0.004	2030	2845	MIN.OIL (C24-C38)	9634177	716.79 M
C22	7.269	-0.001	9993	12029			
C24	7.786	0.001	39799	31106			
C25	8.035	0.003	53322	64829			
C26	8.268	-0.001	61167	40508			
C28	8.722	-0.005	70994	23462			
C32	9.663	-0.009	60584	53372			
C34	10.154	0.002	43775	24178	CREOSOT (C12-C22)	285948	77.83
Filter Peak	10.507	-0.003	32606	36314			
C36	10.631	0.001	27896	28986			
C38	11.102	0.003	15122	18140			
C40	11.566	-0.003	7962	13369			
o-terph	6.320	0.006	501	679	JET-A (C10-C18)	161118	10.86
Triacon Surr	9.236	0.032	606468	1538017			

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	679	0.0	0.1
Triacontane	1538017	89.7	199.4

Analyte	RF	Curve Date
o-Terph Surr	19726.1	08-FEB-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	15079.0	08-FEB-2012
Motor Oil	9749.6	14-MAY-2012
AK102	17873.0	08-FEB-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120514.b/0514a023.d

Date : 14-MAY-2012 15:03

Client ID:

Sample Info: MOIL 1000

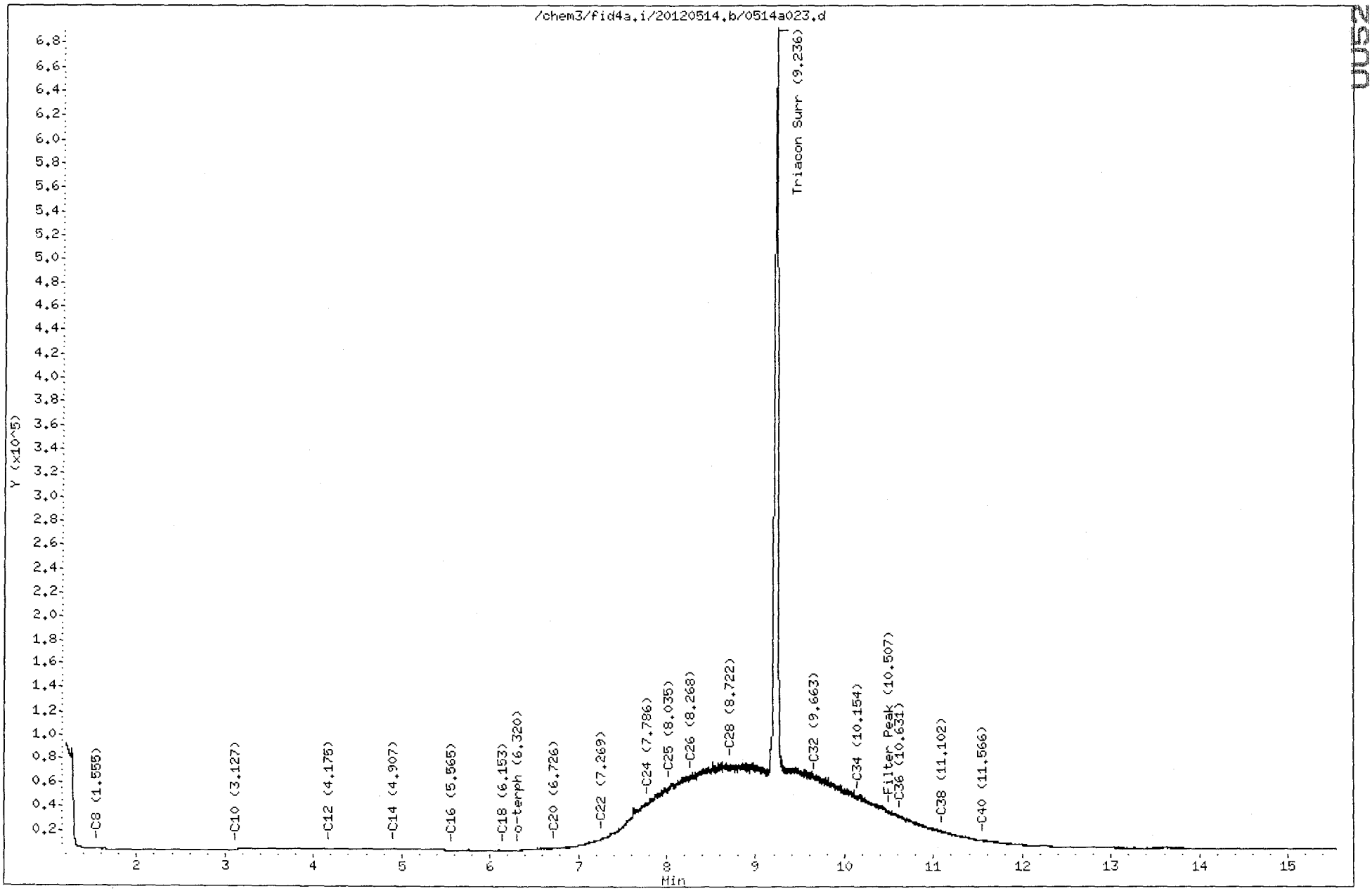
Column phase: RTX-1

Instrument: fid4a.i

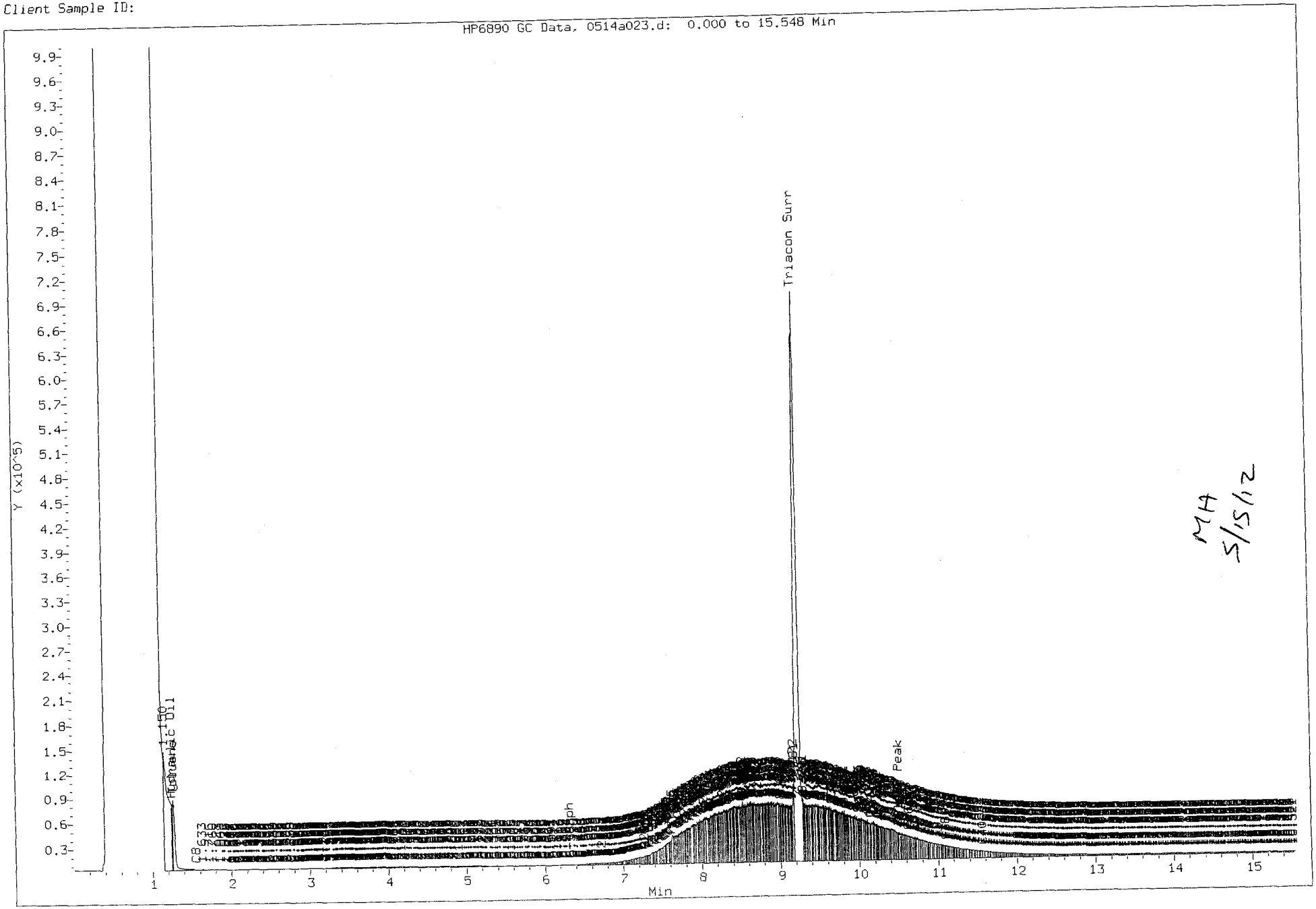
Operator: MH

Column diameter: 0.25

UU52-01835



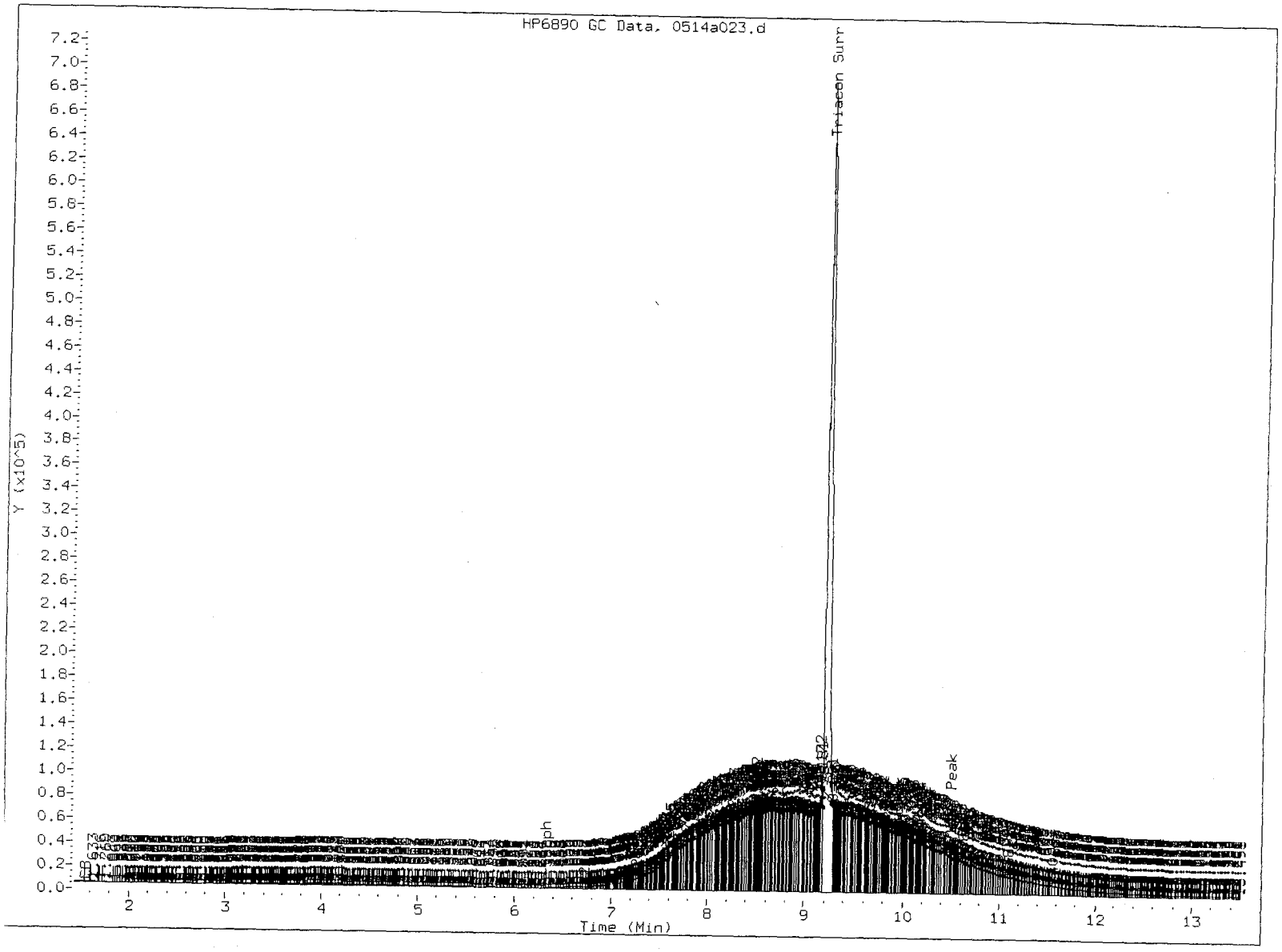
Data File: /chem3/fid4a.i/20120514.b/0514a023.d
Injection Date: 14-MAY-2012 15:03
Instrument: fid4a.i
Client Sample ID:



MH
5/15/12

FID:4A-2C/RTX-1 MOIL 1000

FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a024.d
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/15/2012
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

ARI ID: MOIL 2500
Client ID:
Injection: 14-MAY-2012 15:27

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.245	-0.024	186518	169316	GAS (Tol-C12)	612751	40.73	
C8	1.494	0.017	1138	1529	DIESEL (C12-C24)	2606755	172.87	
C10	3.109	-0.014	881	1928	M.OIL (C24-C38)	24555714	2518.63	
C12	4.196	0.014	1631	2090	AK-102 (C10-C25)	3618263	202.44	
C14	4.916	0.000	1510	1844	AK-103 (C25-C36)	22166014	2856.69	M
C16	5.555	-0.002	548	211				
C18	6.153	0.014	1109	1801				
C20	6.715	-0.007	5741	7460	MIN.OIL (C24-C38)	24555714	1826.97	M
C22	7.271	0.002	24895	35786				
C24	7.780	-0.005	97314	114613				
C25	8.035	0.003	130426	107658				
C26	8.259	-0.010	151964	70024				
C28	8.729	0.003	172296	80473				
C32	9.666	-0.005	157574	137304				
C34	10.148	-0.003	118401	118486	CREOSOT (C12-C22)	703719	191.53	
Filter Peak	10.515	0.005	89376	122499				
C36	10.629	-0.001	76588	44026				
C38	11.104	0.005	41376	48265				
C40	11.574	0.005	21132	11065				
o-terph	6.311	-0.003	1586	1488	JET-A (C10-C18)	222897	15.02	
Triacon Surr	9.286	0.083	820344	3972016				

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1488	0.1	0.2
Triacontane	3972016	231.7	514.9

Analyte	RF	Curve Date
o-Terph Surr	19726.1	08-FEB-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	15079.0	08-FEB-2012
Motor Oil	9749.6	14-MAY-2012
AK102	17873.0	08-FEB-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120514.b/0514a024.d

Date : 14-MAY-2012 15:27

Client ID:

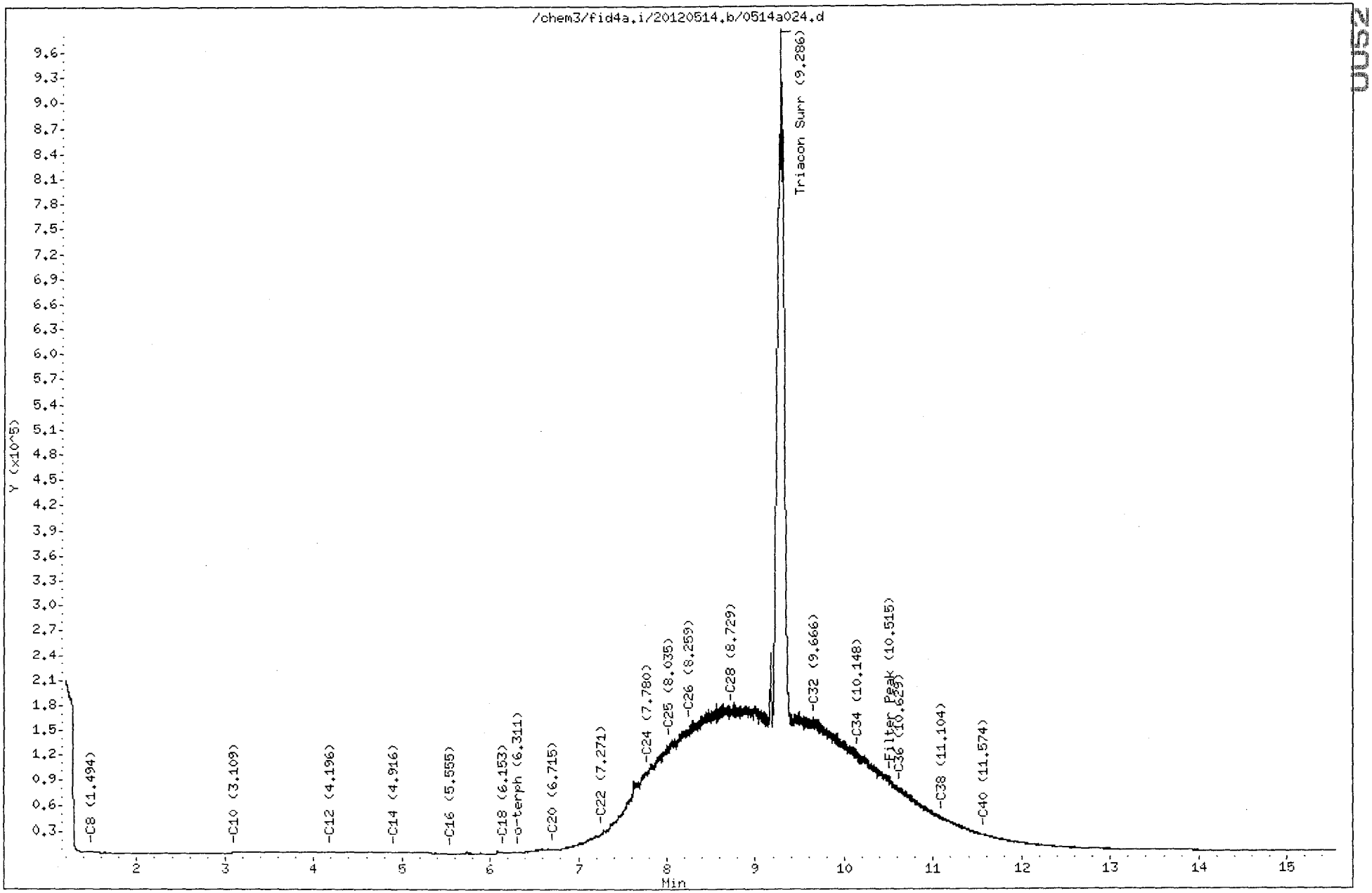
Sample Info: MOIL 2500

Column phase: RTX-1

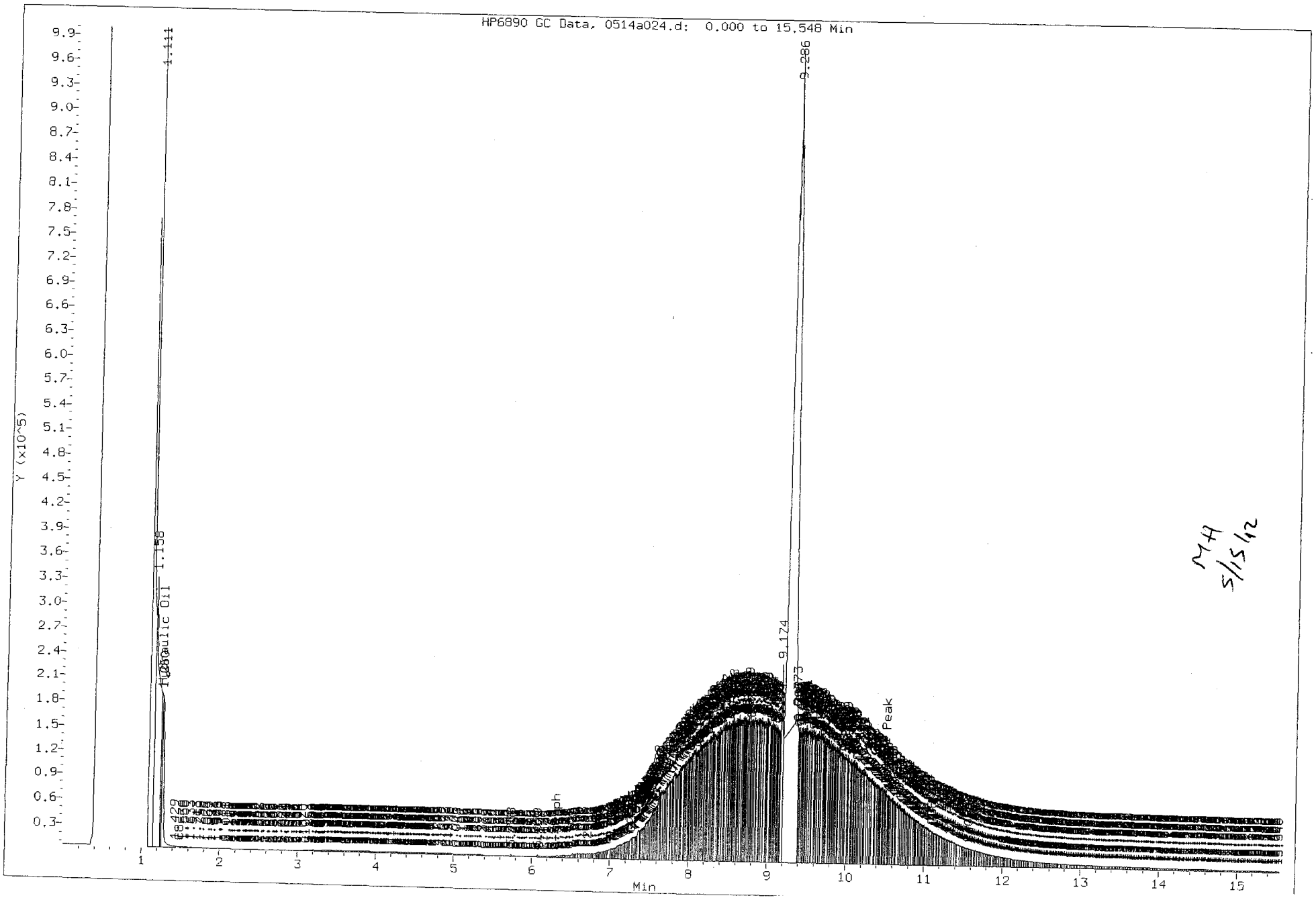
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

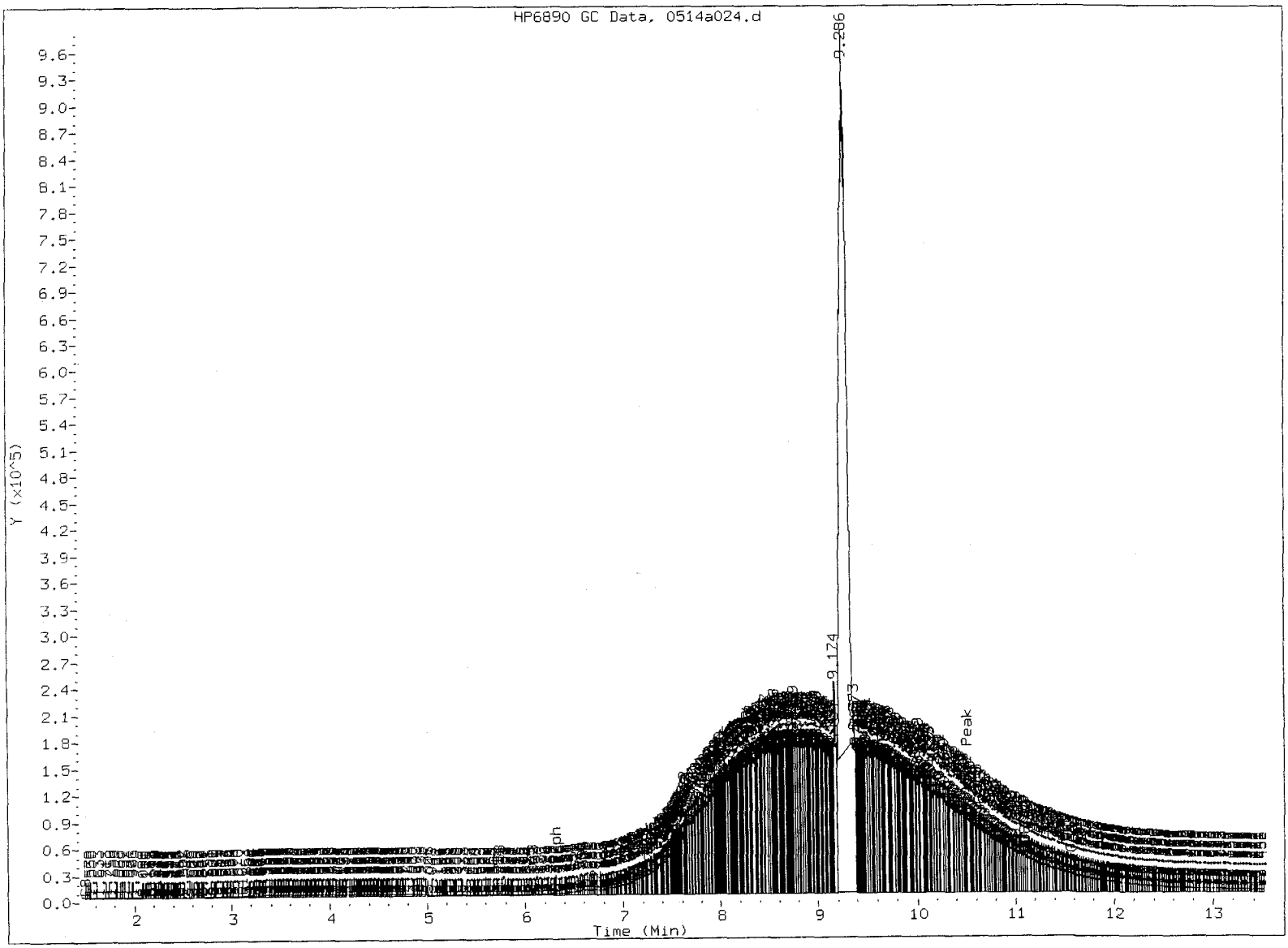


Data File: /chem3/fid4a.i/20120514.b/0514a024.d
Injection Date: 14-MAY-2012 15:27
Instrument: fid4a.i
Client Sample ID:



MH
5/15/12

FID:4A-2C/RTX-1 MOIL 2500 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a025.d
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/15/2012
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

ARI ID: MOIL 5000
Client ID:
Injection: 14-MAY-2012 15:51

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.256	-0.013	380482	638450	GAS (Tol-C12)	1117964	74.31
C8	1.495	0.018	1815	3216	DIESEL (C12-C24)	5120641	339.59
C10	3.111	-0.012	1122	1386	M.OIL (C24-C38)	48018584	4925.17
C12	4.181	-0.002	1838	1717	AK-102 (C10-C25)	7047305	394.30
C14	4.927	0.011	2043	3970	AK-103 (C25-C36)	43227946	5571.09 M
C16	5.553	-0.004	1123	1472			
C18	6.149	0.010	2517	4294			
C20	6.715	-0.007	11511	19794	MIN.OIL (C24-C38)	48018584	3572.63 M
C22	7.272	0.003	49667	56701			
C24	7.775	-0.010	182466	194149			
C25	8.035	0.003	246542	147747			
C26	8.271	0.002	298202	149365			
C28	8.729	0.003	346336	231436			
C32	9.664	-0.008	300923	294122			
C34	10.143	-0.009	246474	354341	CREOSOT (C12-C22)	1341882	365.22
Filter Peak	10.517	0.008	181903	199078			
C36	10.625	-0.005	158958	154240			
C38	11.096	-0.003	89959	112232			
C40	11.565	-0.004	44688	31350			
o-terph	6.309	-0.005	3477	2579	JET-A (C10-C18)	307074	20.69
Triacon Surr	9.371	0.168	828772	7069158			

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2579	0.1	0.3
Triacontane	7069158	412.4	916.4

Analyte	RF	Curve Date
o-Terph Surr	19726.1	08-FEB-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	15079.0	08-FEB-2012
Motor Oil	9749.6	14-MAY-2012
AK102	17873.0	08-FEB-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120514.b/0514a025.d

Date : 14-MAY-2012 15:51

Client ID:

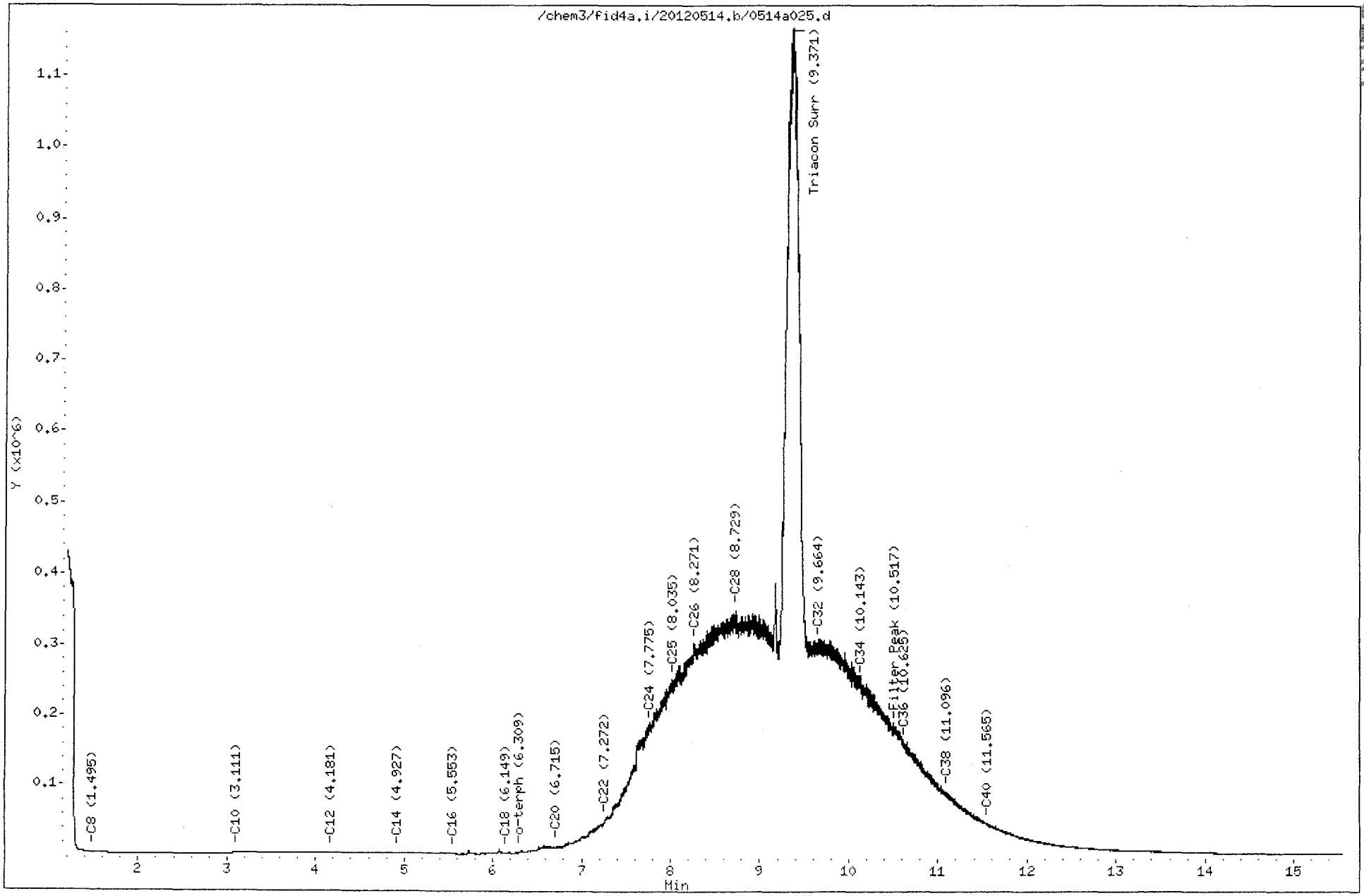
Sample Info: MOIL 5000

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



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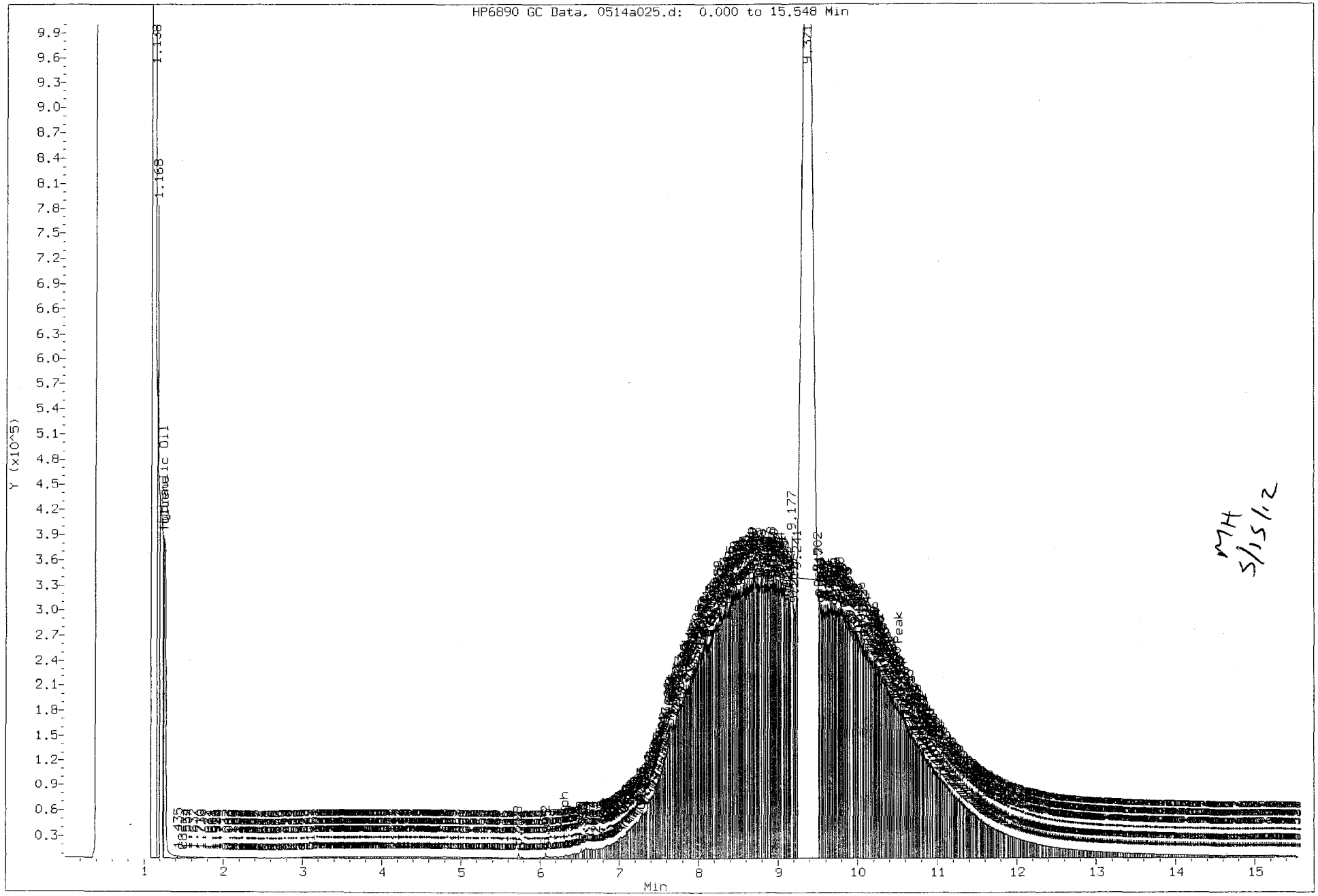
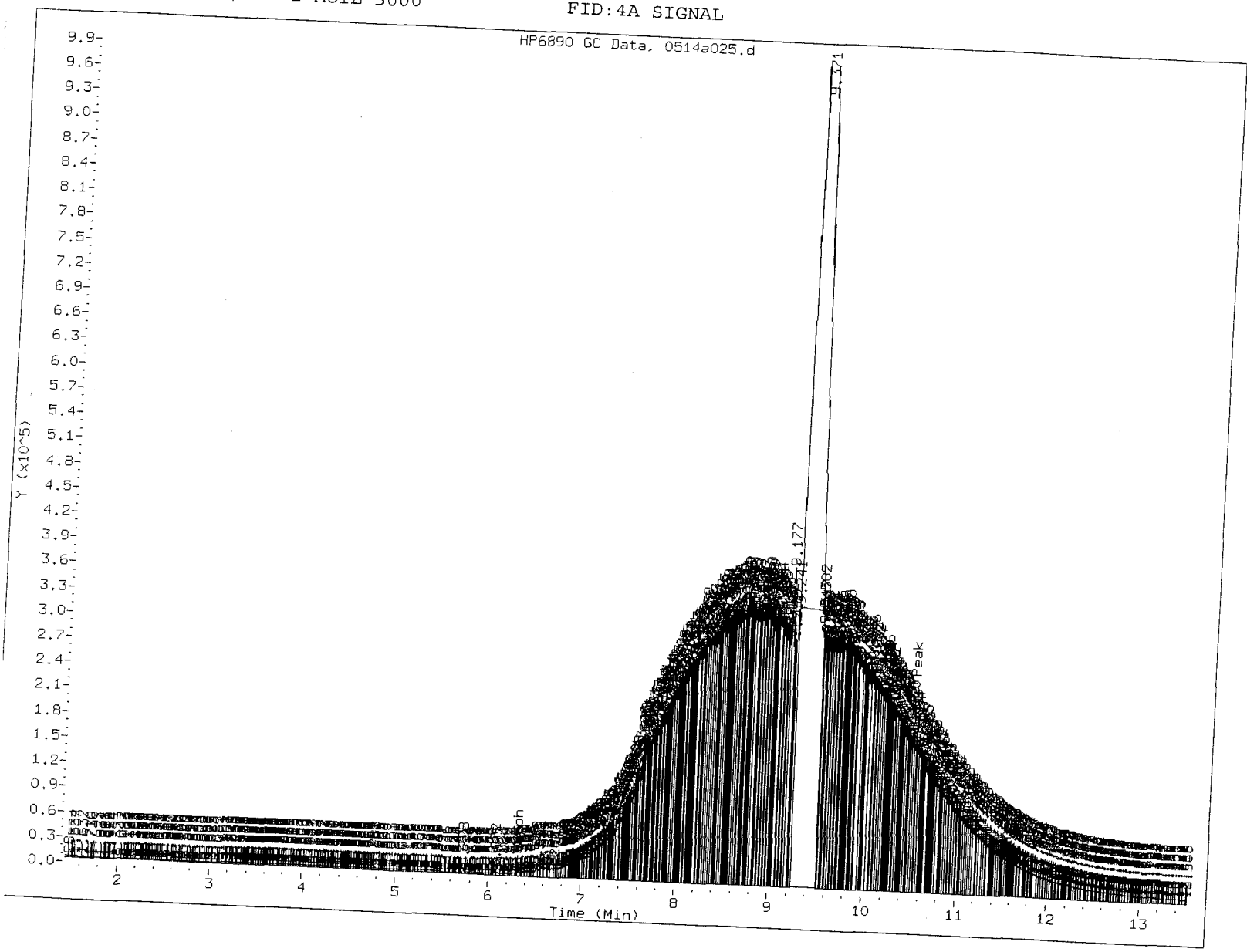
Injection Date: 14-MAY-2012 15:51
Instrument: fid4a.i
Client Sample ID:



J552:91333

FID:4A-2C/RTX-1 MOIL 5000

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a010.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: MOIL ICV
Client ID:
Injection: 15-MAY-2012 15:05

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.265	-0.016	33605	72200	GAS (Tol-C12)	162957	10.83
C8	1.504	0.018	747	849	DIESEL (C12-C24)	558900	41.01
C10	3.119	-0.007	268	204	M.OIL (C24-C38)	5260620	539.57
C12	4.157	-0.005	489	220	AK-102 (C10-C25)	760500	46.96
C14	4.923	0.002	512	382	AK-103 (C25-C36)	4330909	558.15 M
C16	5.548	-0.009	475	318			
C18	6.126	-0.016	336	546			
C20	6.725	0.001	996	840	MIN.OIL (C24-C38)	5260620	391.40 M
C22	7.269	0.000	5441	6062			
C24	7.775	-0.006	17584	20833			
C25	8.021	-0.007	21001	19034			
C26	8.267	-0.003	24483	46620			
C28	8.733	0.008	28180	50352			
C32	9.668	0.000	31114	22864			
C34	10.147	-0.003	30884	19872	CREOSOT (C12-C22)	180070	49.01
Filter Peak	10.511	-0.007	30371	47497			
C36	10.625	-0.009	29858	37630			
C38	11.097	-0.008	26548	18112			
C40	11.555	-0.003	22508	25660			
o-terph	6.322	0.010	316	352	JET-A (C10-C18)	79156	5.33
Triacon Surr	9.202	0.009	448750	683302			

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

Surrogate	Area	Amount	%Rec
o-Terphenyl	352	0.0	0.0
Triacontane	683302	39.9	88.6

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120515.b/0515a010.d

Date : 15-MAY-2012 15:05

Client ID:

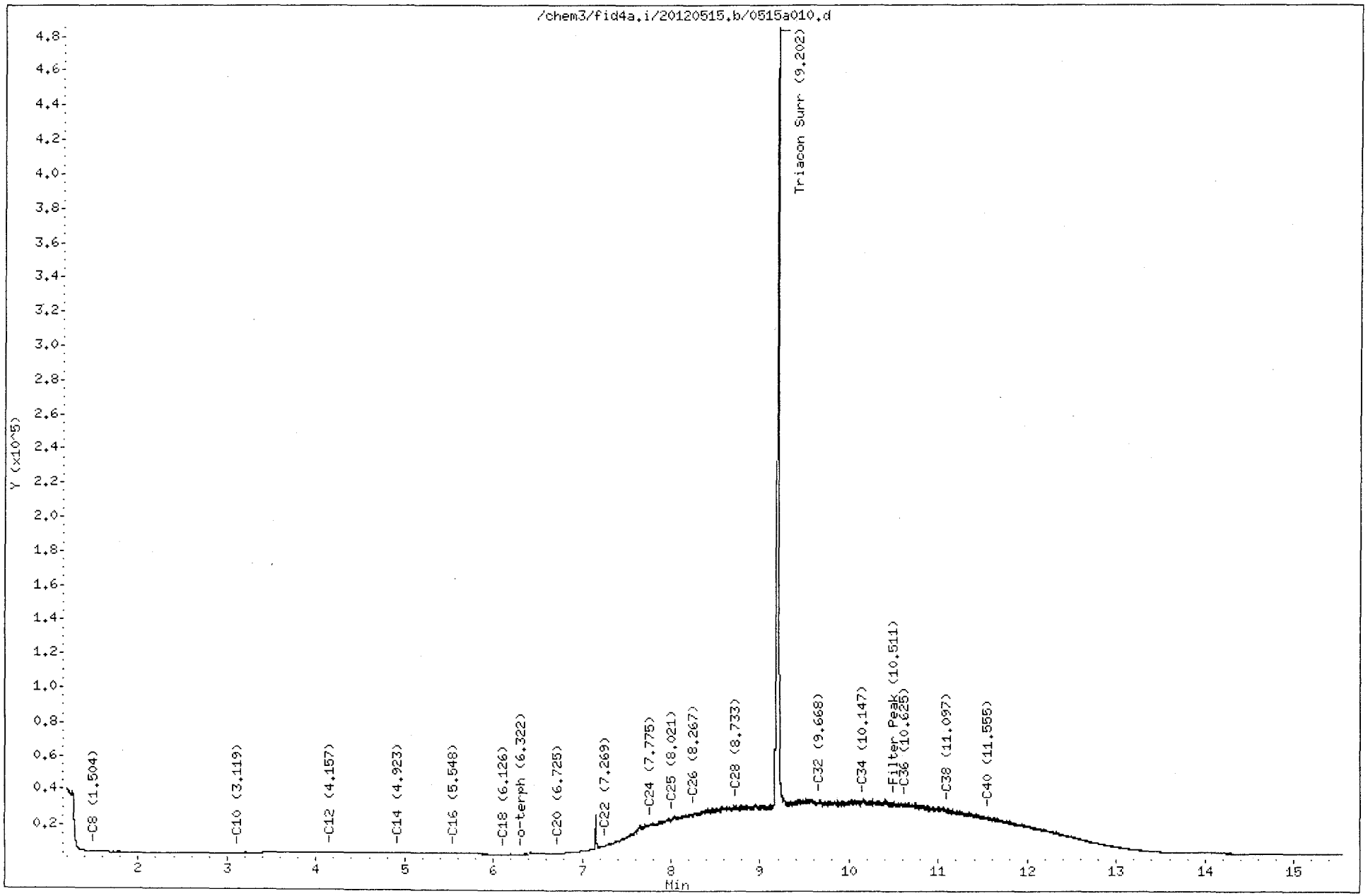
Sample Info: MOIL ICV

Instrument: fid4a.i

Operator: MH

Column phase: RTX-1

Column diameter: 0.25



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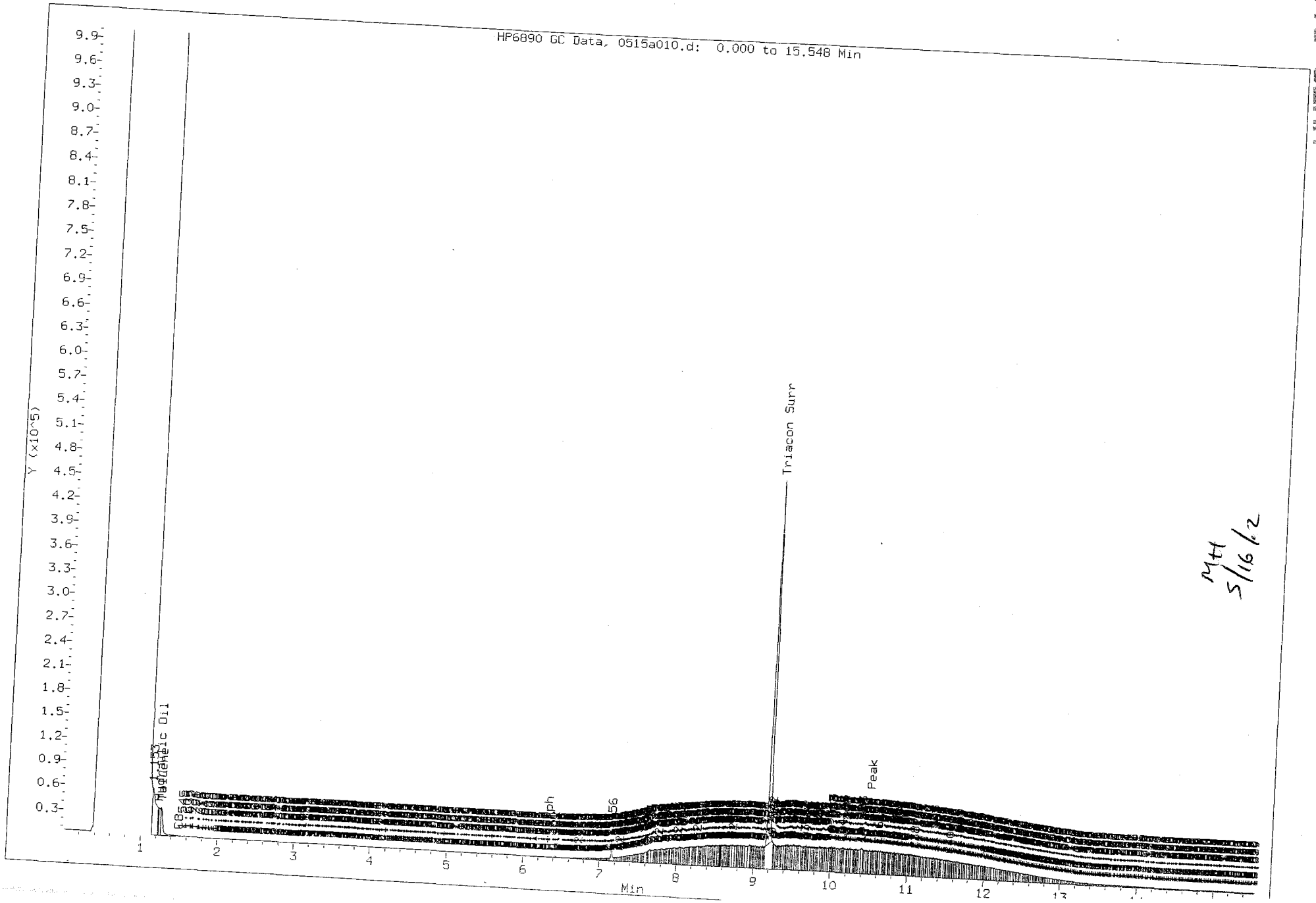
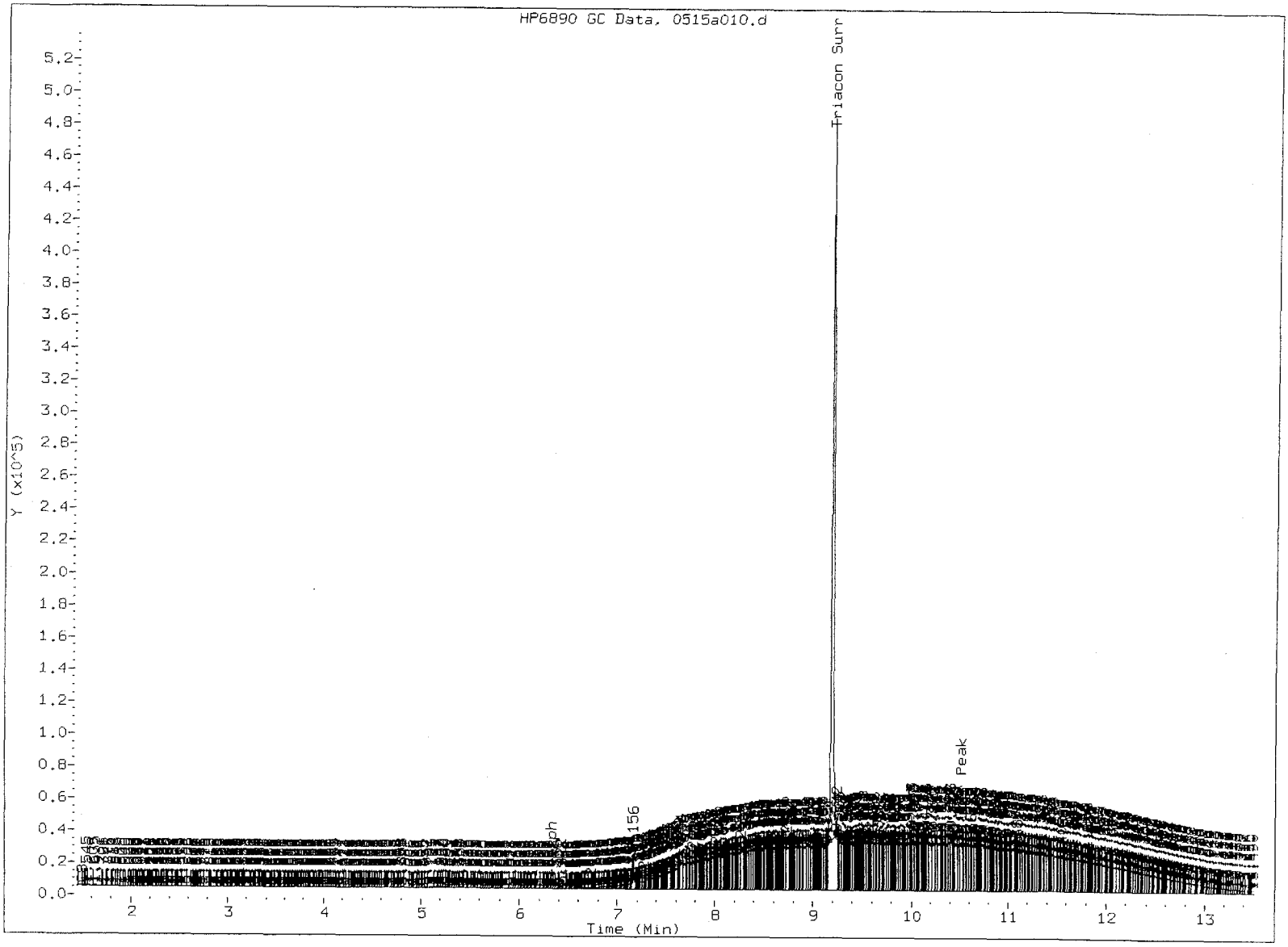
Injection Date: 15-MAY-2012 15:05
Instrument: fid4a.i
Client Sample ID:



MH 5/16/12

FID:4A-2C/RTX-1 MOIL ICV

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/16/12

TPHD Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: UU52 Client ID: Anchor QEA, LLC

ARI SOP: **403S**(PCB) **405S**(Herb) (**407S**(TPH-D)) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): A/S NWTPHD + MOI

Instrument: FID-3A FID-3B (FID-4A) FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/14/12 MOI, 5/15/12 Diesel Analysis Start: 5/22/12

Endrin/DDT Breakdown <15%? YES / NO / NA
Method Blank In Control? (YES) / N

ICal Meets RF & %RSD Criteria? (YES) / NO
LCS/LCSD Recovery In Control? (YES) / N

CCal Meets RF & %RSD Criteria? (YES) / NO
Surrogate Recovery In Control? (YES) / N

Manual Integrations for ICal? (YES) / NO
Manual Integrations for Samples? (YES) / N

Internal Standard Meets Criteria? YES / NO / (NA)
Special Analysis Criteria Met? YES / NO / (N)

Detail problems, corrective actions and/or other pertinent information below (use reverse sid when necessary):

Additional Details on Reverse: Yes / No

Analyst: [signature] **Date:** 5/22 5/23/12

Reviewer: [signature] **Date:** 5/23/12

Analytical Resources Inc.: Organics Instrument Log

FID-4A Serial No.: US00003247

Date: 5/22/12 Analysis: NWTPH-D Analyst: MH

Column 1 Serial No.: 977444 Column Type: RTX-1

Column 2 Serial No.: ~~—~~ Column Type: ~~—~~

GC Method: TPH ICal Date: 5/15/12 Diesel 5/14/12 MOil Injection Volume: 1ul

IS	Ical/Ccal	ICV
	1932-1	
	1960-1	
	1972-1	
	1971-3	

Document All Maintenance Tasks In StarLIMS

	Inject Date/Time	Filename	DF	LabID	ClientID	
1	22-MAY-2012 06:03	0522a001.d	1	RINSE		
2	22-MAY-2012 06:26	0522a002.d	1	RT		
3	22-MAY-2012 06:50	0522a003.d	1	IB		
4	22-MAY-2012 07:13	0522a004.d	1	DIESEL #1		
5	22-MAY-2012 07:37	0522a005.d	1	MOIL #1		
6	22-MAY-2012 08:22	0522a006.d	1	UU52MBS1	UU52MBS1	
7	22-MAY-2012 08:45	0522a007.d	1	UU52LCSS1	UU52LCSS1	
8	22-MAY-2012 09:09	0522a008.d	1	UU52A	MS001-SS-120515	
9	22-MAY-2012 09:33	0522a009.d	1	UU52B	MS101-SS-120515	
10	22-MAY-2012 09:57	0522a010.d	1	UU52C	MS002-SS-120515	
11	22-MAY-2012 10:21	0522a011.d	1	UU52D	MS003-SS-120515	
12	22-MAY-2012 10:45	0522a012.d	10	UU74A		
13	22-MAY-2012 11:09	0522a013.d	1	UU74B		
14	22-MAY-2012 11:33	0522a014.d	1	DIESEL #2		
15	22-MAY-2012 11:57	0522a015.d	1	MOIL #2		
16	22-MAY-2012 12:21	0522a016.d	1	UU52E	MS004-SS-120515	
17	22-MAY-2012 12:45	0522a017.d	1	UU52F	MS005-SS-120515	
18	22-MAY-2012 13:10	0522a018.d	1	UU52G	MS006-SS-120515	
19	22-MAY-2012 13:34	0522a019.d	1	UU52H	MS007-SS-120515	
20	22-MAY-2012 13:59	0522a020.d	1	UU52I	MS008-SS-120515	
21	22-MAY-2012 14:23	0522a021.d	1	UU52IMS	MS008-SS-120515	MS
22	22-MAY-2012 14:48	0522a022.d	1	UU52IMSD	MS008-SS-120515	MSD
23	22-MAY-2012 15:13	0522a023.d	1	UU52J	MS009-SS-120515	
24	22-MAY-2012 15:37	0522a024.d	1	DIESEL #3		
25	22-MAY-2012 16:01	0522a025.d	1	MOIL #3		

MH 5/23/12

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a002.d ARI ID: RT
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 22-MAY-2012 06:26
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.269	0.000	303802	419974	GAS (Tol-C12)	1131951	75.24	M
C8	1.469	0.000	169239	231814	DIESEL (C12-C24)	1613720	118.41	
C10	3.125	0.000	115675	159756	M.OIL (C24-C38)	1596552	163.76	
C12	4.217	0.000	35597	128229	AK-102 (C10-C25)	2041704	126.09	M
C14	4.927	0.000	95701	190633	AK-103 (C25-C36)	1507359	194.26	
C16	5.562	0.000	128335	216473	OR.DIES (C10-C28)	3007068	234.14	M
C18	6.140	0.000	116373	233099	OR.MOIL (C28-C40)	672645	89.06	
C20	6.725	0.000	154938	247685	JET-A (C10-C18)	1244235	83.83	M
C22	7.270	0.000	227169	257077	MIN.OIL (C24-C38)	1596552	118.79	
C24	7.779	0.000	304987	269884				
C25	8.026	0.000	364329	357715				
C26	8.267	0.000	255334	277145				
C28	8.719	0.000	313502	276848				
C32	9.656	0.000	147800	192995				
C34	10.144	0.000	104266	188032				
Filter Peak	10.508	0.000	448	672	CREOSOT (C12-C22)	1340854	364.94	
C36	10.629	0.000	50123	130950				
C38	11.113	0.000	22039	74006				
C40	11.593	0.000	7970	14879				
o-terph	6.311	0.000	564292	883150	CRUDE (Tol-C40)	4384930	580.57	M
Triacon Surr	9.189	0.000	697945	823781				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	883150	51.4	114.2
Triacontane	823781	48.1	106.8

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a002.d

Date : 22-MAY-2012 06:26

Client ID:

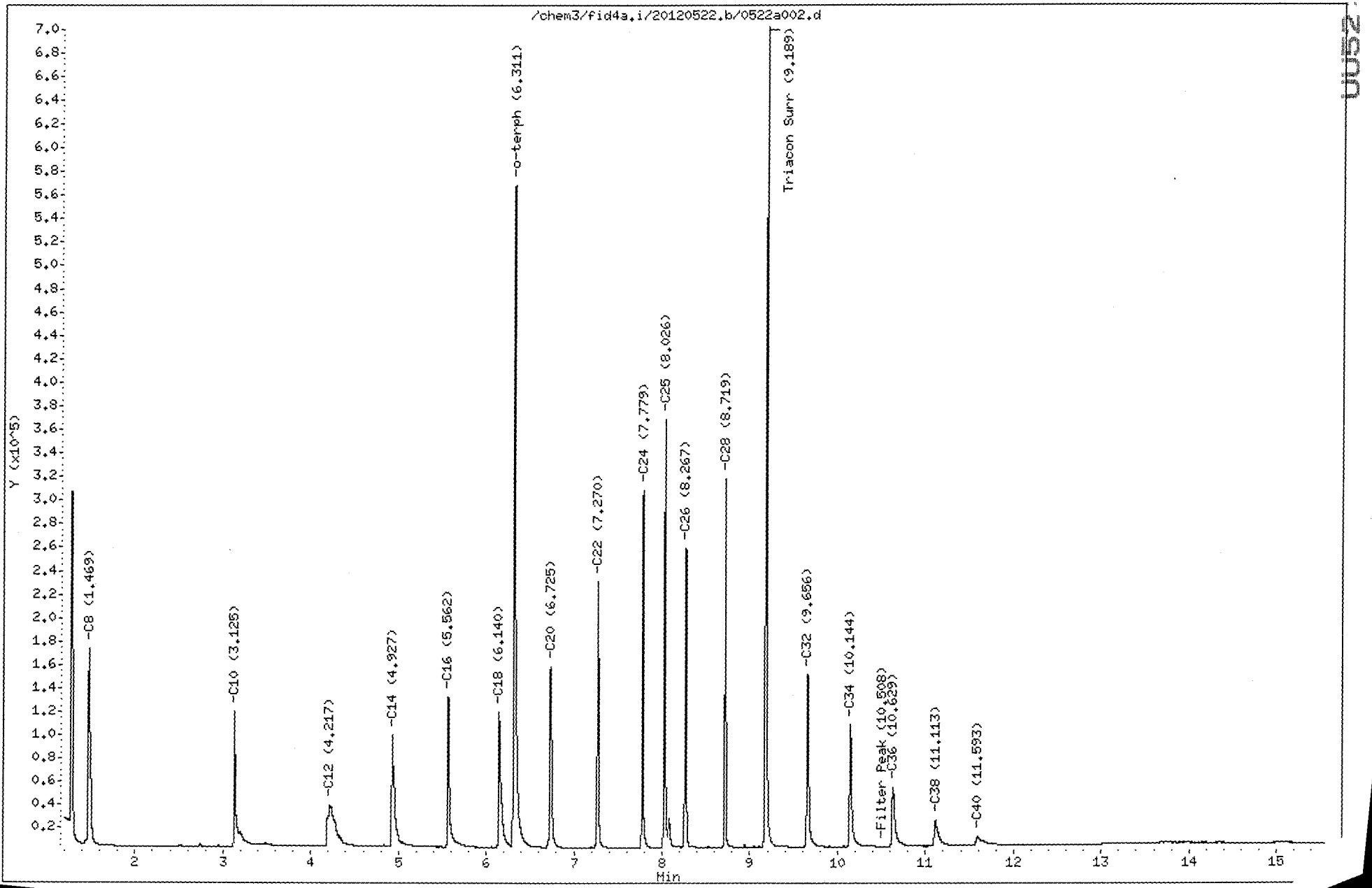
Sample Info: RT

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a003.d ARI ID: IB
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 22-MAY-2012 06:50
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.263	-0.005	45144	99429	GAS (Tol-C12)	202343	13.45
C8	1.566	0.097	765	1640	DIESEL (C12-C24)	189611	13.91
C10	3.118	-0.007	598	668	M.OIL (C24-C38)	119465	12.25
C12	4.180	-0.037	746	959	AK-102 (C10-C25)	241803	14.93
C14	4.922	-0.005	785	861	AK-103 (C25-C36)	104879	13.52
C16	5.557	-0.005	588	646	OR.DIES (C10-C28)	249554	19.43
C18	6.142	0.002	412	349	OR.MOIL (C28-C40)	127209	16.84
C20	6.710	-0.015	2336	4795	JET-A (C10-C18)	119316	8.04
C22	7.274	0.004	252	417	MIN.OIL (C24-C38)	119465	8.89
C24	7.772	-0.007	28	16			
C25	8.028	0.002	394	350			
C26	8.260	-0.007	85	35			
C28	8.709	-0.011	665	1106			
C32	9.653	-0.003	1242	1300			
C34	10.139	-0.005	521	468			
Filter Peak	10.499	-0.008	445	512	CREOSOT (C12-C22)	188167	51.21
C36	10.628	-0.001	453	443			
C38	11.101	-0.012	511	865			
C40	11.542	-0.051	578	660			
o-terph	6.310	-0.001	462580	727581	CRUDE (Tol-C40)	527355	69.82
Triacon Surr	9.182	-0.007	463399	755131			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	727581	42.3	94.1
Triacontane	755131	44.1	97.9

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a003.d

Page 1

Date : 22-MAY-2012 06:50

Client ID:

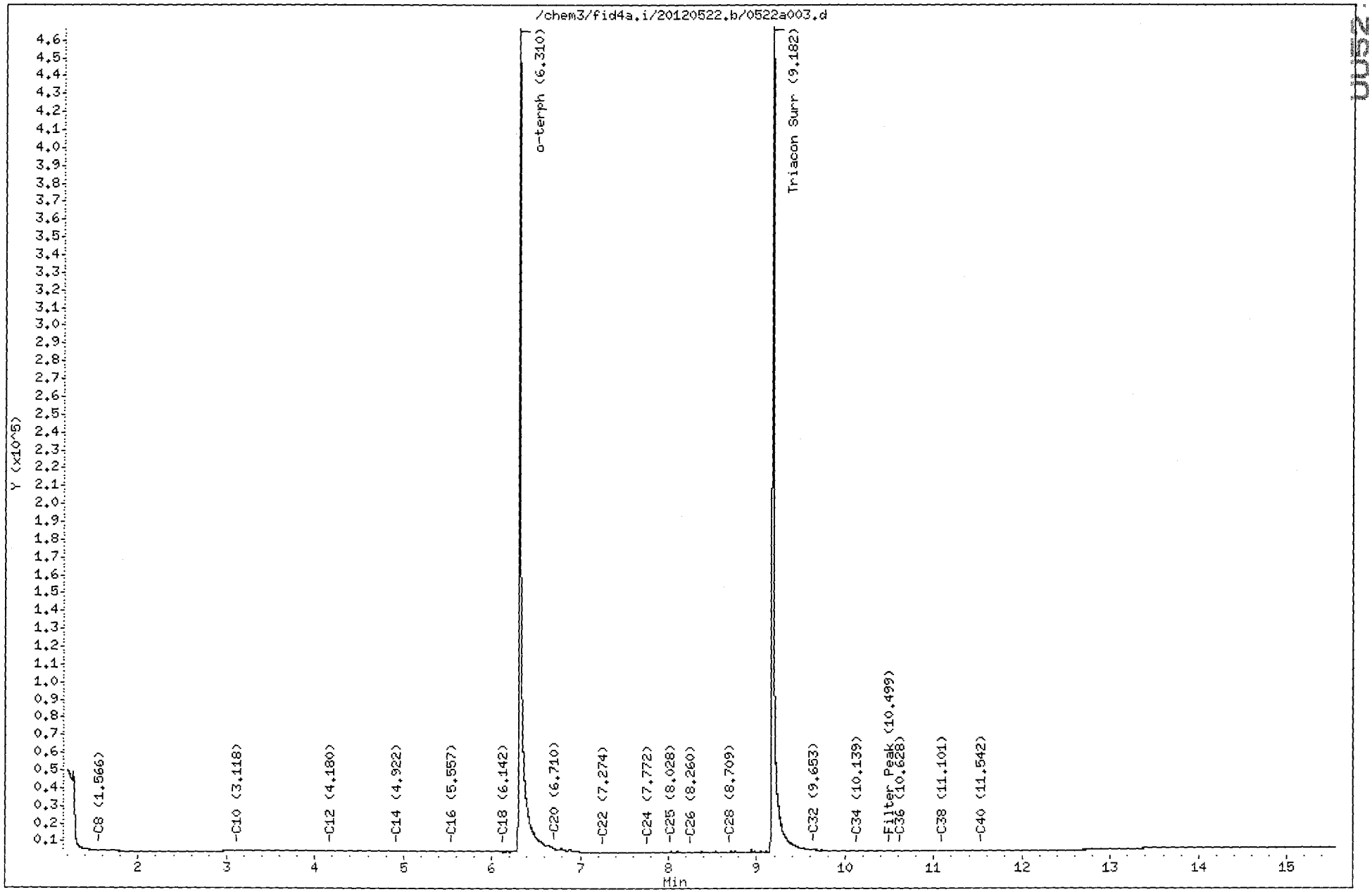
Instrument: fid4a.i

Sample Info: IB

Operator: MH

Column phase: RTX-1

Column diameter: 0.25



UU522.61561

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a004.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL #1
Client ID:
Injection: 22-MAY-2012 07:13
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.297	0.028	2863	3700	GAS (Tol-C12)	953110	63.36	
C8	1.459	-0.010	1177	1819	DIESEL (C12-C24)	3701588	271.62	
C10	3.121	-0.003	4368	4391	M.OIL (C24-C38)	105414	10.81	
C12	4.212	-0.005	13720	19204	AK-102 (C10-C25)	4416510	272.74	M
C14	4.938	0.011	25350	35989	AK-103 (C25-C36)	79995	10.31	
C16	5.574	0.012	26997	45409	OR.DIES (C10-C28)	4480299	348.85	M
C18	6.136	-0.004	64059	81352	OR.MOIL (C28-C40)	24069	3.19	
C20	6.729	0.004	28991	84490	JET-A (C10-C18)	3270989	220.39	
C22	7.277	0.007	6995	3561	MIN.OIL (C24-C38)	105414	7.84	
C24	7.786	0.007	3237	3433				
C25	8.022	-0.005	2112	710				
C26	8.272	0.005	2181	1989				
C28	8.726	0.007	885	1877				
C32	9.641	-0.016	118	135				
C34	10.140	-0.004	41	29				
Filter Peak	10.513	0.005	21	12	CREOSOT (C12-C22)	3566932	970.82	M
C36	10.624	-0.005	25	33				
C38	11.118	0.004	94	71				
C40	11.591	-0.002	189	104				
o-terph	6.312	0.001	702669	830385	CRUDE (Tol-C40)	4764672	630.85	M
Triacon Surr	9.190	0.001	220	249				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	830385	48.3	107.4
Triacontane	249	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a004.d

Page 1

Date : 22-MAY-2012 07:13

Client ID:

Instrument: fid4a.i

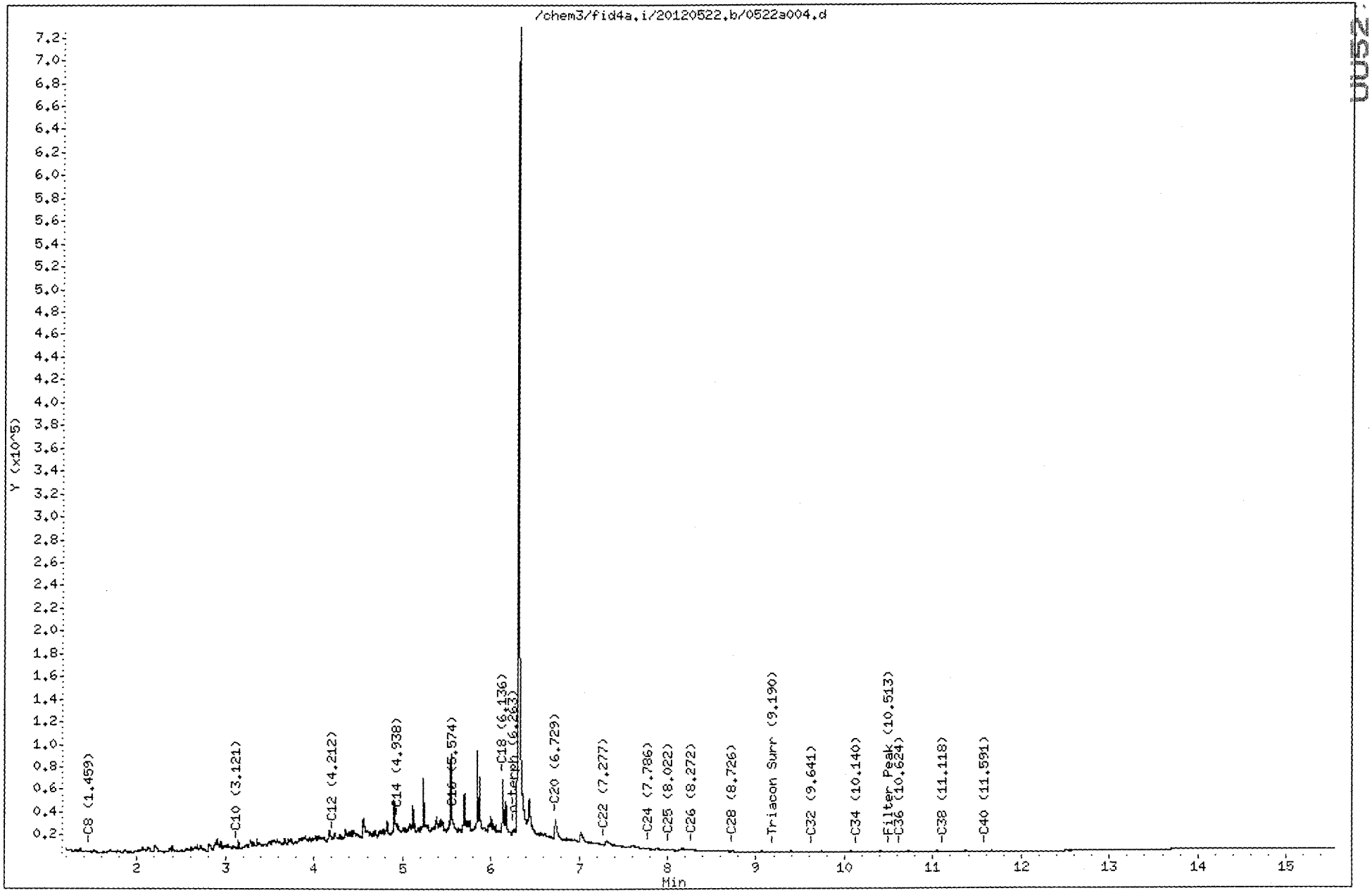
Sample Info: DIESEL #1

Operator: MH

Column phase: RTX-1

Column diameter: 0.25

UU522 01903



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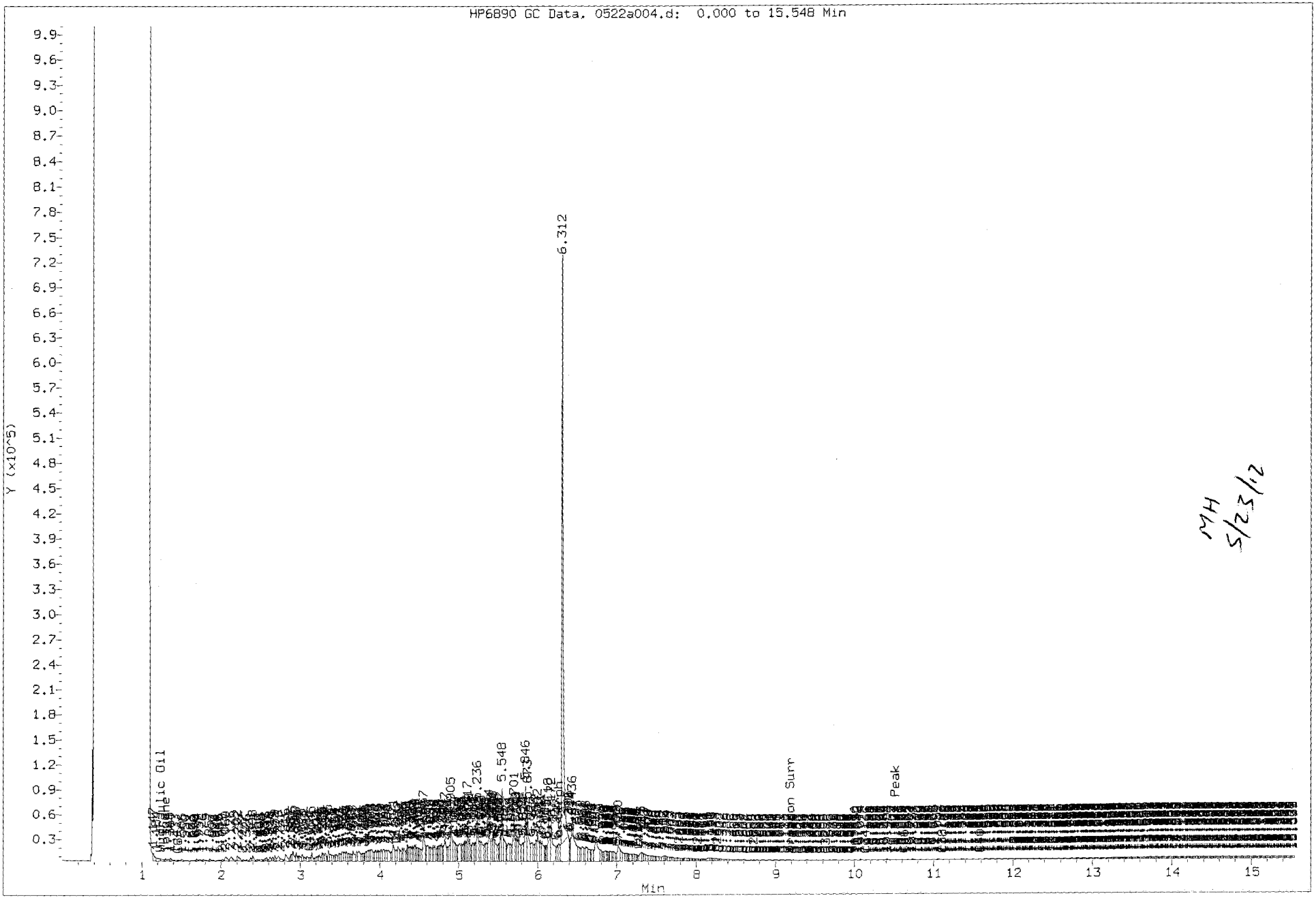
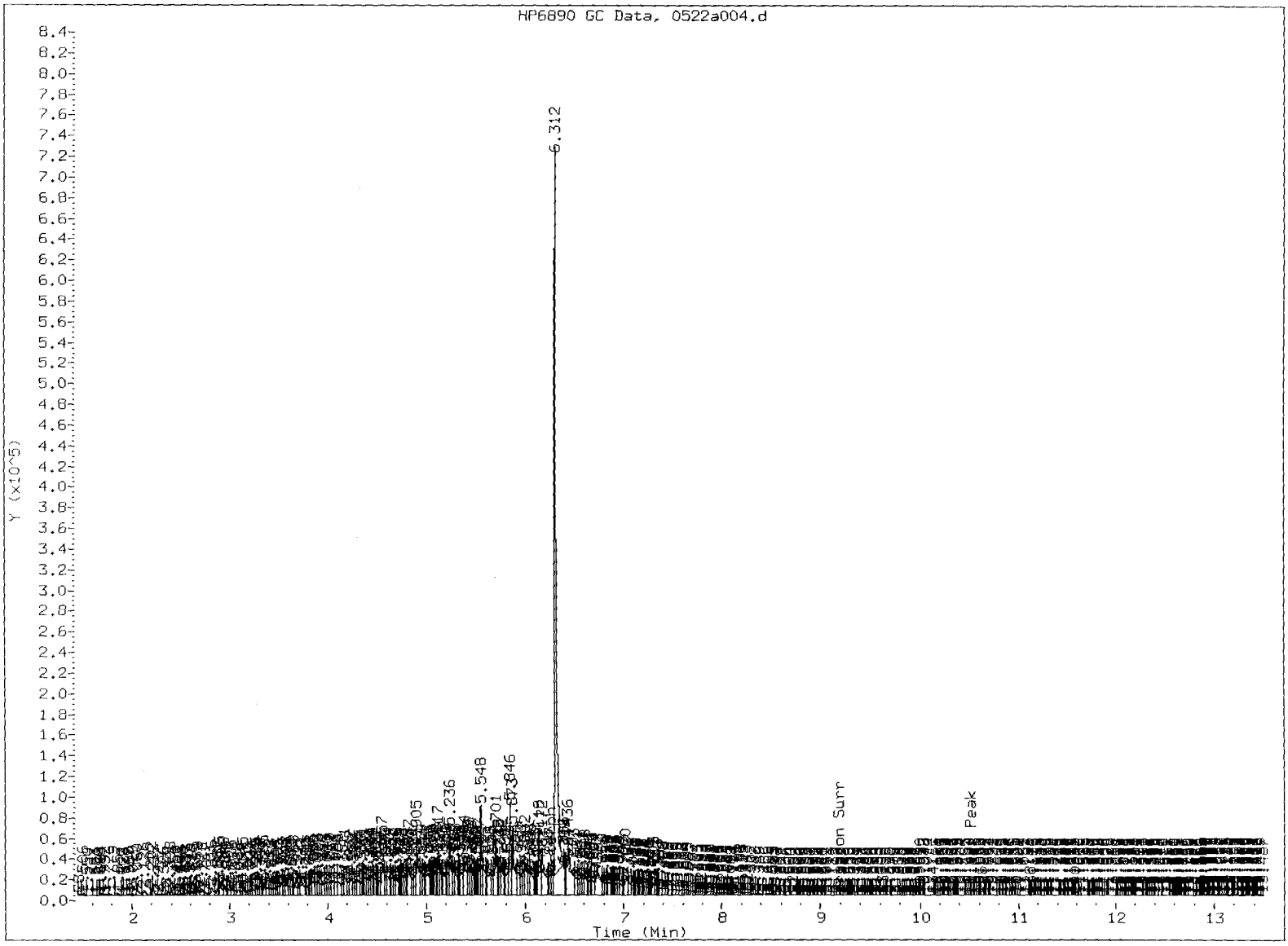
Injection Date: 22-MAY-2012 07:13
Instrument: fid4a.i
Client Sample ID:



MH 5/23/12

US2 : 91901

FID:4A-2C/RTX-1 DIESEL #1 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a005.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: MOIL #1
Client ID:
Injection: 22-MAY-2012 07:37
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.263	-0.006	34698	76775	GAS (Tol-C12)	129878	8.63	
C8	1.529	0.060	837	1287	DIESEL (C12-C24)	538105	39.49	
C10	3.124	-0.001	455	472	M.OIL (C24-C38)	4707921	482.88	
C12	4.229	0.012	540	491	AK-102 (C10-C25)	782708	48.34	
C14	4.930	0.003	507	728	AK-103 (C25-C36)	4237450	546.11	M
C16	5.571	0.009	466	371	OR.DIES (C10-C28)	2200276	171.32	
C18	6.110	-0.030	803	2473	OR.MOIL (C28-C40)	3228096	427.41	M
C20	6.728	0.003	959	685	JET-A (C10-C18)	85185	5.74	
C22	7.272	0.002	4817	5506	MIN.OIL (C24-C38)	4707921	350.27	M
C24	7.773	-0.006	19758	13275				
C25	8.026	0.000	26672	25850				
C26	8.271	0.004	30867	7909				
C28	8.728	0.009	35222	39866				
C32	9.656	0.000	29353	55746				
C34	10.143	0.000	20597	8909				
Filter Peak	10.512	0.004	14486	10864	CREOSOT (C12-C22)	156002	42.46	
C36	10.638	0.009	12785	13476				
C38	11.119	0.006	7401	1887				
C40	11.585	-0.008	4372	5989				
o-terph	6.318	0.007	401	124	CRUDE (Tol-C40)	5522743	731.22	M
Triacon Surr	9.191	0.002	661094	756798				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	124	0.0	0.0
Triacontane	756798	44.1	98.1

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a005.d

Page 1

Date : 22-MAY-2012 07:37

Client ID:

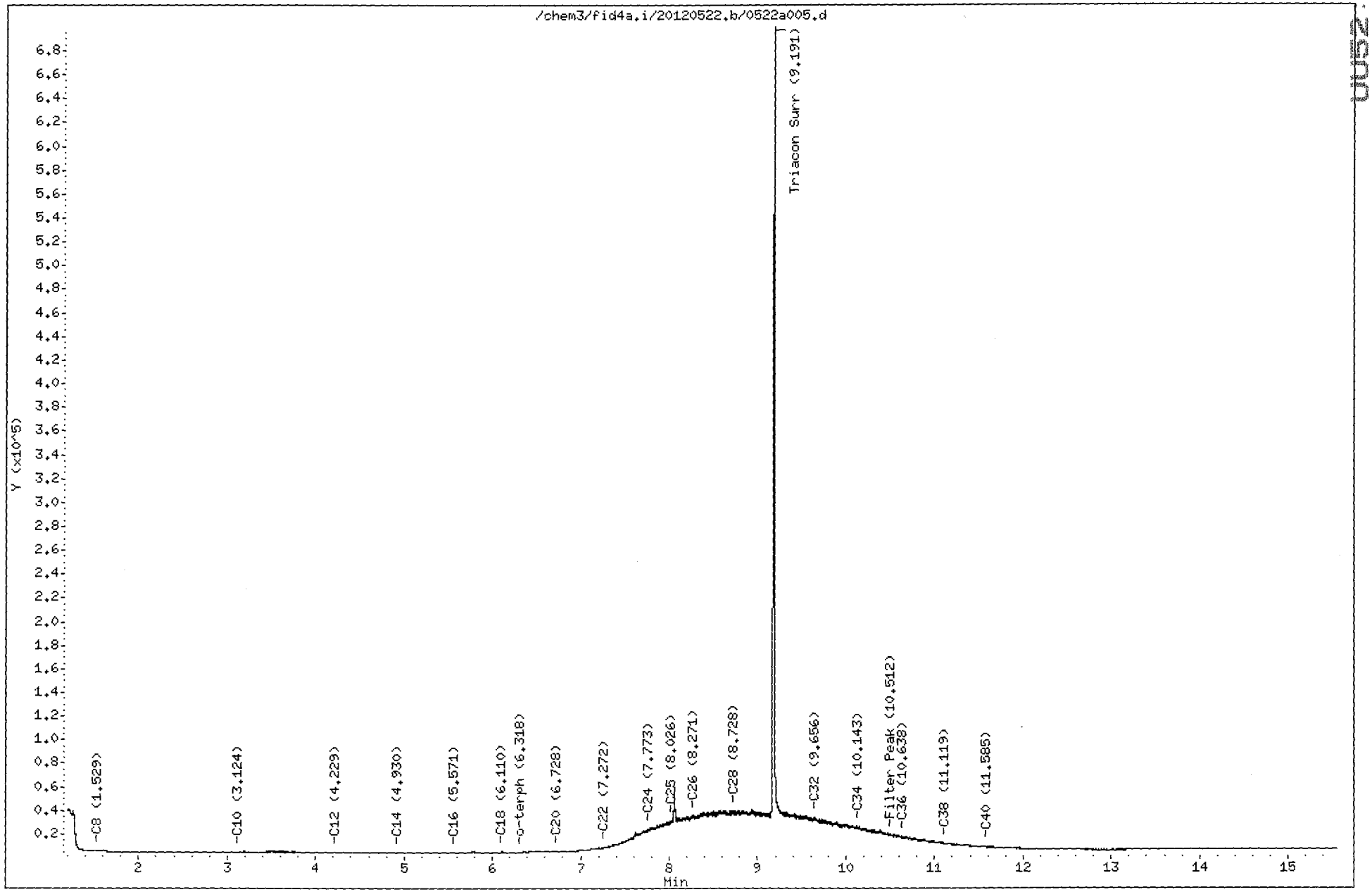
Instrument: fid4a.i

Sample Info: MOIL #1

Operator: MH

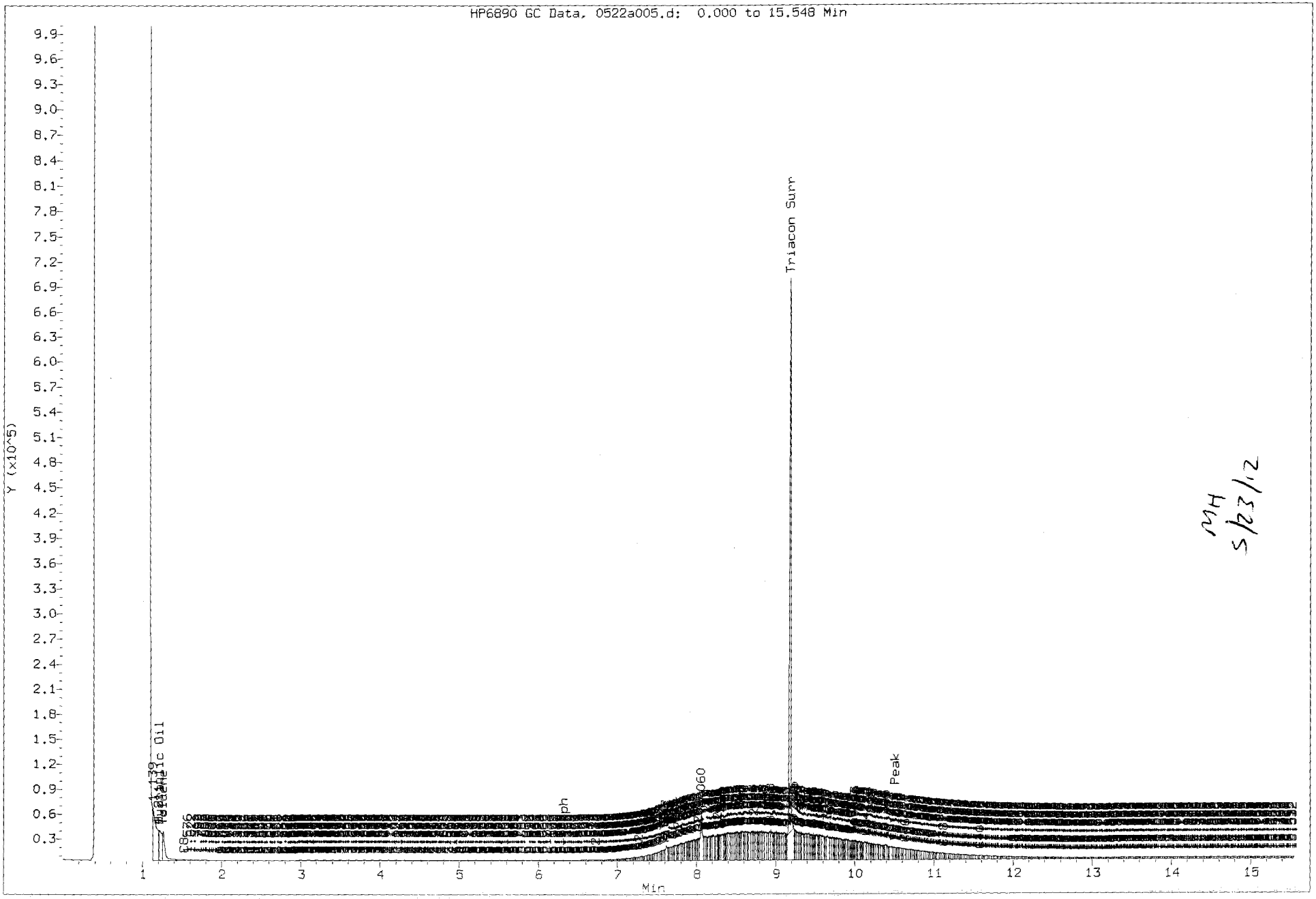
Column phase: RTX-1

Column diameter: 0.25



UU52 01907

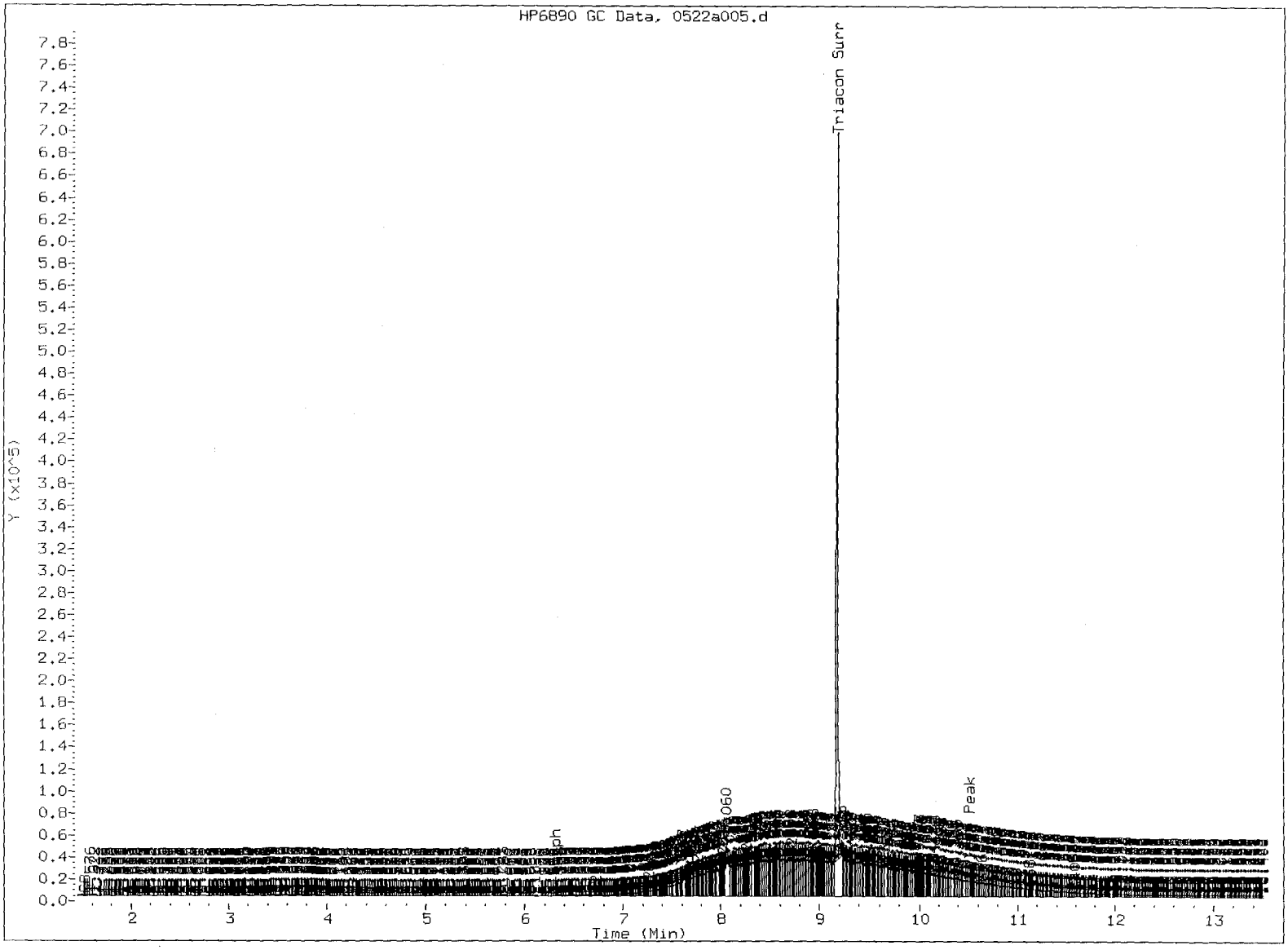
Data File: /chem3/fid4a.i/20120522.b/0522a005.d
Injection Date: 22-MAY-2012 07:37
Instrument: fid4a.i
Client Sample ID:



MH 5/23/12

UU52 : 01904

FID:4A-2C/RTX-1 MOIL #1 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a006.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52MBS1
Client ID: UU52MBS1
Injection: 22-MAY-2012 08:22
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.285	0.016	3882	8611	GAS (Tol-C12)	84490	5.62
C8	1.467	-0.002	1107	2530	DIESEL (C12-C24)	222123	16.30
C10	3.130	0.006	211	270	M.OIL (C24-C38)	208894	21.43
C12	4.204	-0.013	502	1390	AK-102 (C10-C25)	252133	15.57
C14	4.934	0.007	774	1008	AK-103 (C25-C36)	186602	24.05
C16	5.572	0.011	1172	1165	OR.DIES (C10-C28)	288920	22.50
C18	6.124	-0.016	1660	1991	OR.MOIL (C28-C40)	177921	23.56
C20	6.727	0.001	2148	2161	JET-A (C10-C18)	140734	9.48
C22	7.265	-0.005	1364	1872	MIN.OIL (C24-C38)	208894	15.54
C24	7.783	0.004	556	162			
C25	8.029	0.002	1633	2027			
C26	8.276	0.009	856	863			
C28	8.711	-0.009	3202	4596			
C32	9.649	-0.008	1045	1442			
C34	10.150	0.006	475	894			
Filter Peak	10.514	0.007	381	354	CREOSOT (C12-C22)	201380	54.81
C36	10.616	-0.013	363	377			
C38	11.118	0.004	345	585			
C40	11.601	0.008	336	147			
o-terph	6.313	0.001	452925	741407	CRUDE (Tol-C40)	526560	69.72
Triacon Surr	9.187	-0.002	436131	691590			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	741407	43.1	95.9
Triacontane	691590	40.3	89.7

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a006.d

Date : 22-MAY-2012 08:22

Client ID: UU52MBS1

Sample Info: UU52MBS1

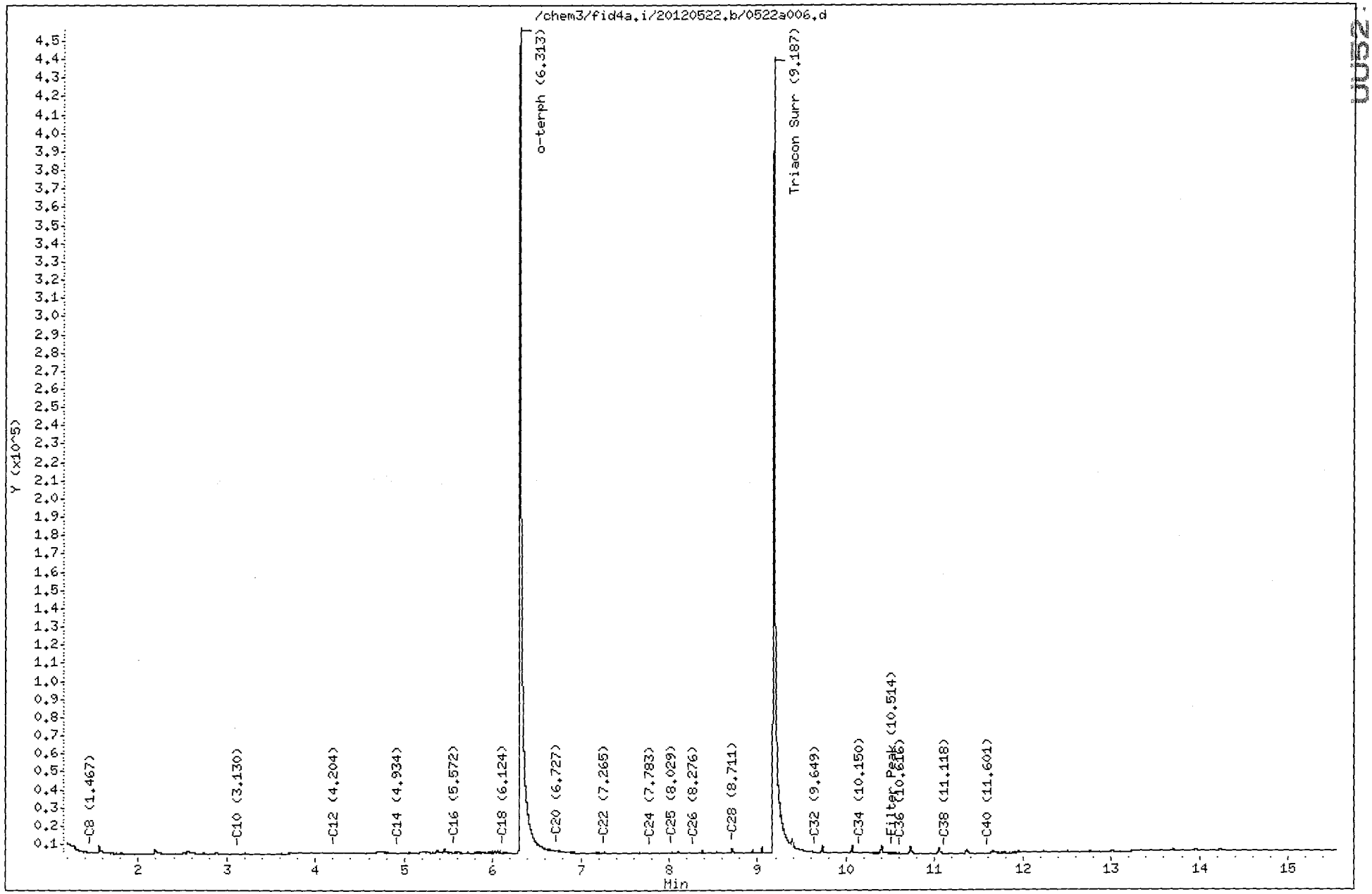
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

UU52 05511



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a007.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52LCSS1
Client ID: UU52LCSS1
Injection: 22-MAY-2012 08:45
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.269	0.000	4707	4482	GAS (Tol-C12)	4377320	290.97	
C8	1.458	-0.011	2355	2740	DIESEL (C12-C24)	16417801	1204.71	
C10	3.119	-0.006	86935	73440	M.OIL (C24-C38)	290982	29.85	
C12	4.217	0.000	54826	47932	AK-102 (C10-C25)	19585957	1209.53	M
C14	4.924	-0.003	100668	128856	AK-103 (C25-C36)	234529	30.23	
C16	5.543	-0.019	494967	530459	OR.DIES (C10-C28)	19714306	1535.02	M
C18	6.139	-0.001	428884	431969	OR.MOIL (C28-C40)	109669	14.52	
C20	6.713	-0.012	289664	378211	JET-A (C10-C18)	14335866	965.90	
C22	7.263	-0.007	106403	243378	MIN.OIL (C24-C38)	290982	21.65	
C24	7.798	0.019	25350	83921				
C25	8.019	-0.008	5551	1512				
C26	8.276	0.009	6384	14360				
C28	8.718	-0.002	2263	4335				
C32	9.657	0.000	804	264				
C34	10.150	0.006	273	377				
Filter Peak	10.526	0.018	135	53	CREOSOT (C12-C22)	15752594	4287.41	M
C36	10.624	-0.005	135	137				
C38	11.128	0.014	40	19				
C40	11.601	0.008	59	42				
o-terph	6.315	0.003	878948	728183	CRUDE (Tol-C40)	21087333	2792.01	M
Triacon Surr	9.180	-0.009	411427	697810				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	728183	42.4	94.2
Triacontane	697810	40.7	90.5

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a007.d

Page 1

Date : 22-MAY-2012 08:45

Client ID: UU52LCSS1

Instrument: fid4a.i

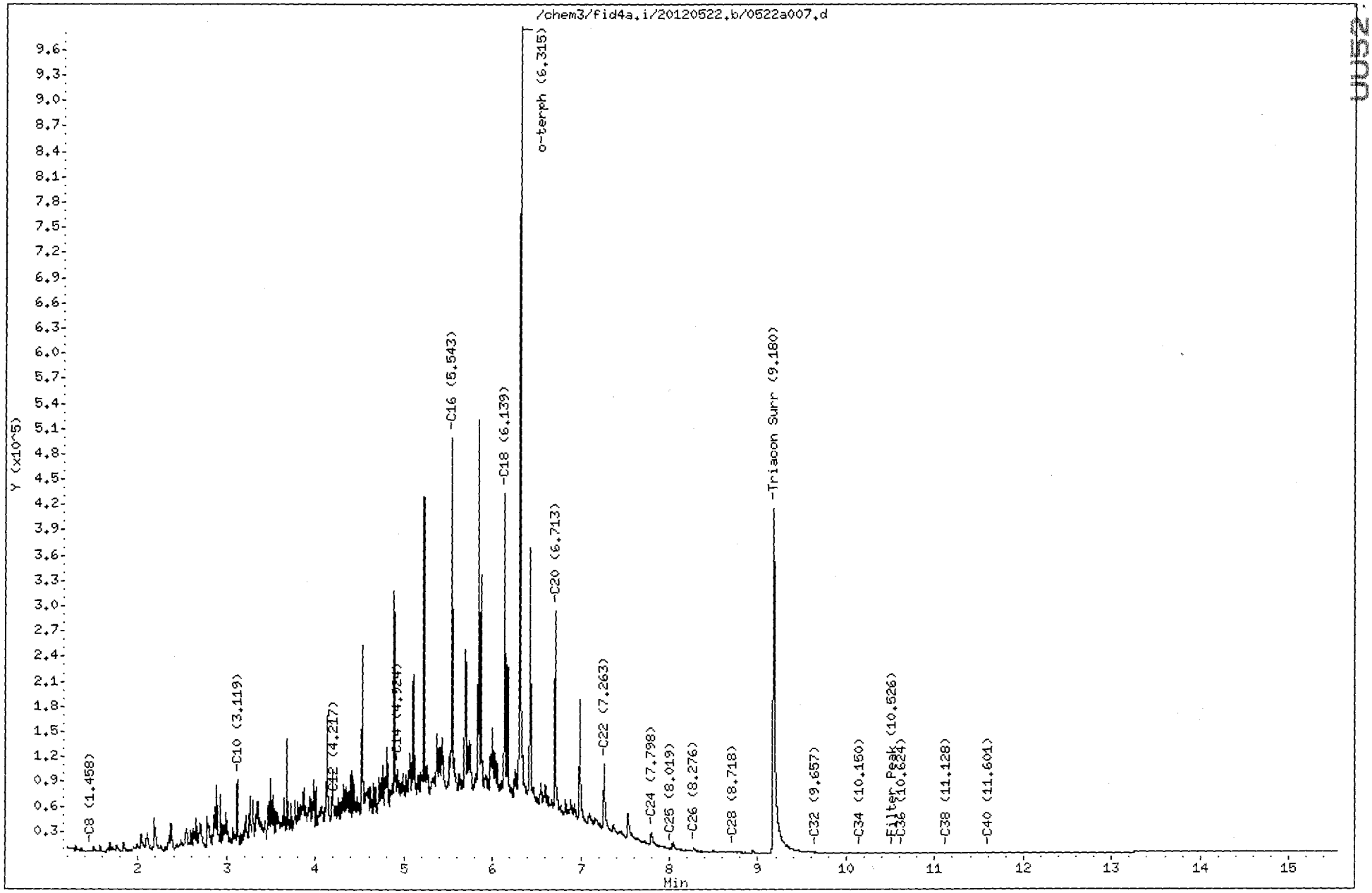
Sample Info: UU52LCSS1

Operator: MH

Column phase: RTX-1

Column diameter: 0.25

UU52 01513



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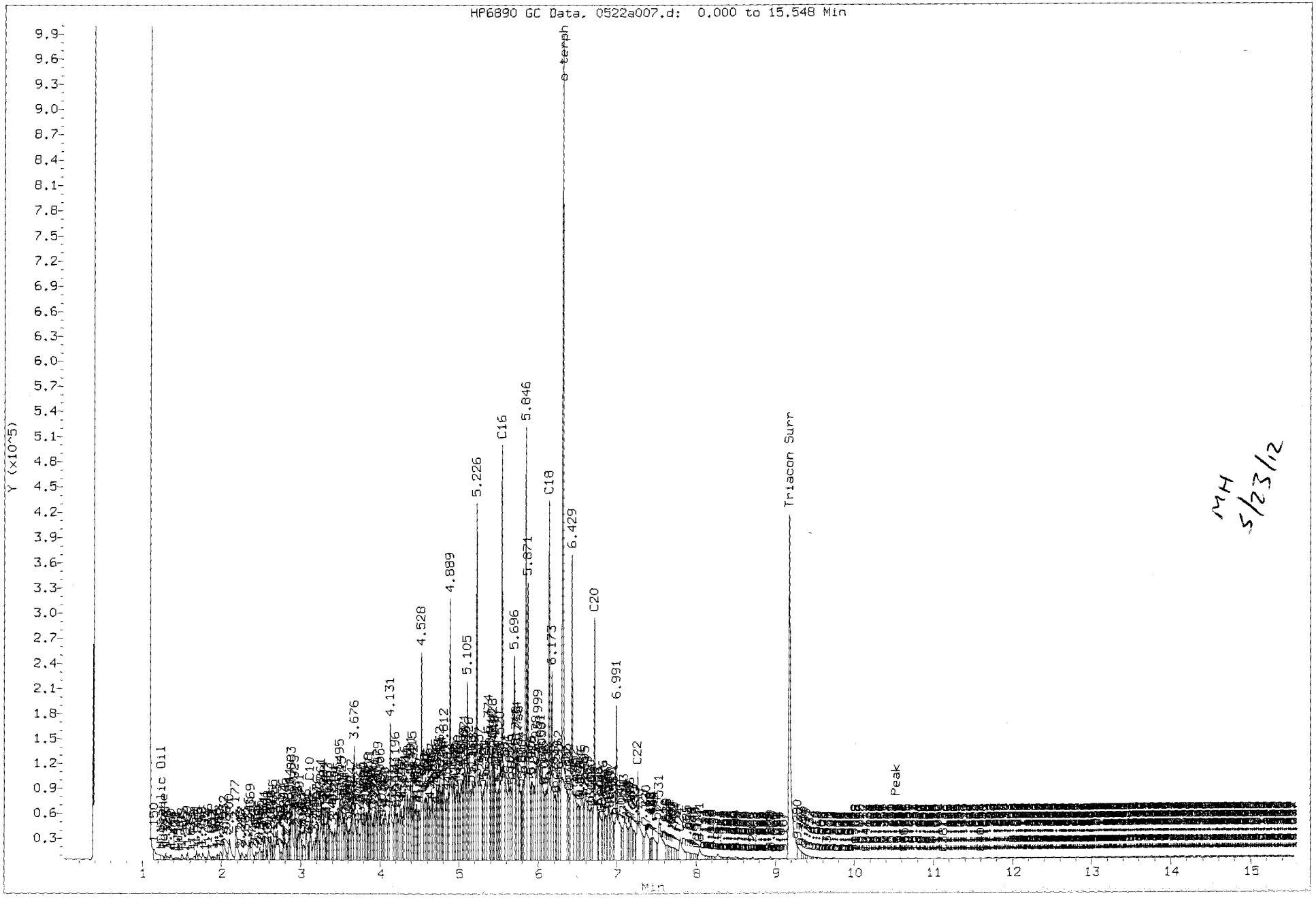
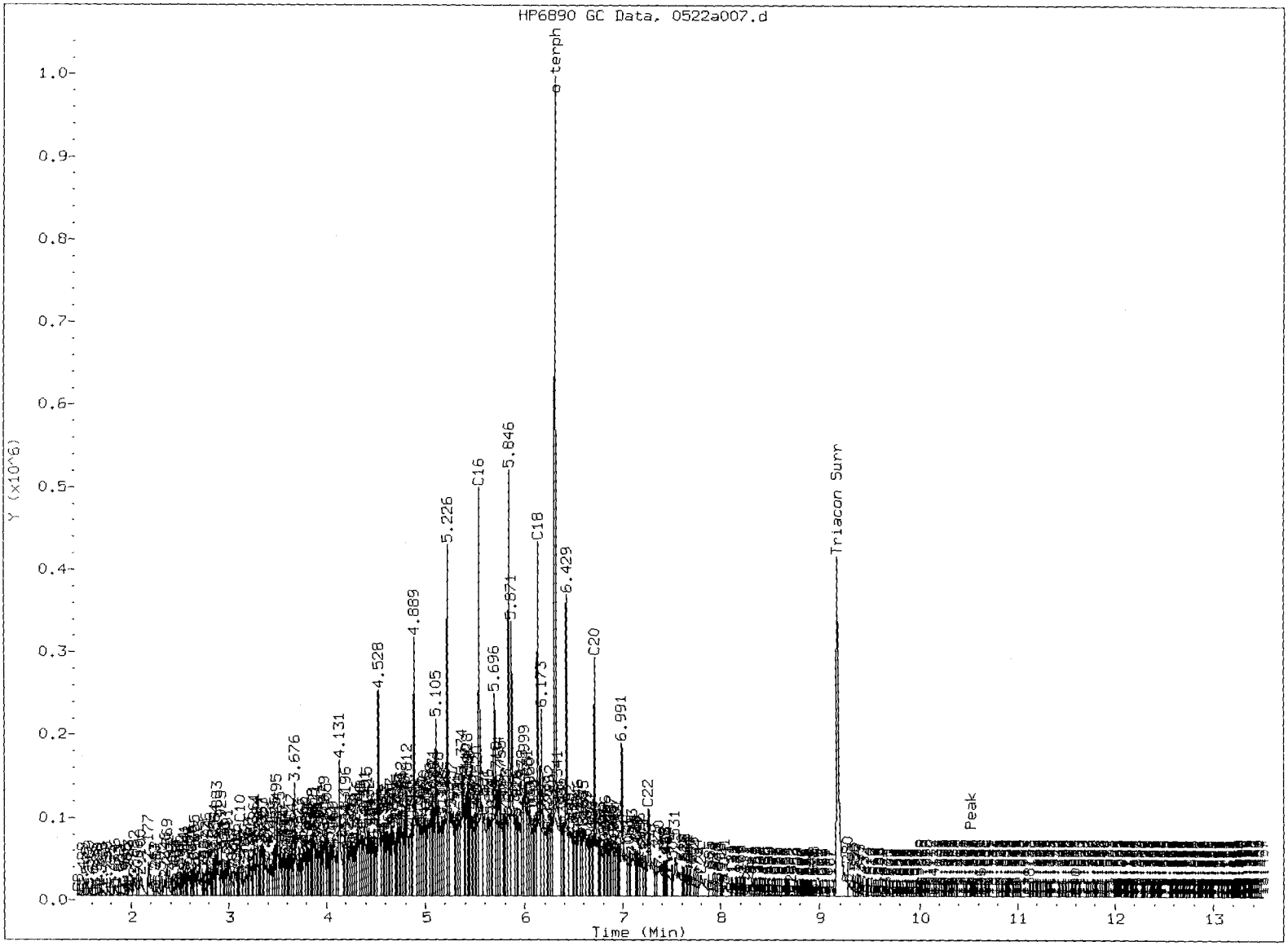
Injection Date: 22-MAY-2012 08:45
Instrument: fid4a.i
Client Sample ID: UU52LCSS1



UU52-091511

MH
5/23/12

FID:4A-2C/RTX-1 UU52LCSS1 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a008.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52A
Client ID: MS001-SS-120515
Injection: 22-MAY-2012 09:09
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.270	0.001	4683	6304	GAS (Tol-C12)	145378	9.66
C8	1.463	-0.006	879	1315	DIESEL (C12-C24)	706711	51.86
C10	3.123	-0.002	457	584	M.OIL (C24-C38)	1398866	143.48
C12	4.232	0.015	1177	2323	AK-102 (C10-C25)	827195	51.08
C14	4.967	0.040	2536	8277	AK-103 (C25-C36)	1279395	164.88
C16	5.567	0.005	3969	10941	OR.DIES (C10-C28)	1349847	105.10
C18	6.140	0.000	3886	3687	OR.MOIL (C28-C40)	861152	114.02
C20	6.715	-0.010	5435	7087	JET-A (C10-C18)	365793	24.65
C22	7.260	-0.010	7910	18412	MIN.OIL (C24-C38)	1398866	104.08
C24	7.782	0.003	12033	27606			
C25	8.027	0.000	35498	73309			
C26	8.261	-0.006	17819	36646			
C28	8.712	-0.008	23042	40242			
C32	9.656	-0.001	7774	15890			
C34	10.145	0.002	4958	5039			
Filter Peak	10.504	-0.004	3461	4538	CREOSOT (C12-C22)	511548	139.23
C36	10.625	-0.004	2974	3338			
C38	11.110	-0.004	1833	1334			
C40	11.591	-0.002	1261	1280			
o-terph	6.311	-0.001	611191	717599	CRUDE (Tol-C40)	2290093	303.21
Triacon Surr	9.185	-0.004	547880	722081			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	717599	41.8	92.8
Triacontane	722081	42.1	93.6

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a008.d

Date : 22-MAY-2012 09:09

Client ID: MS001-SS-120515

Sample Info: UU52A

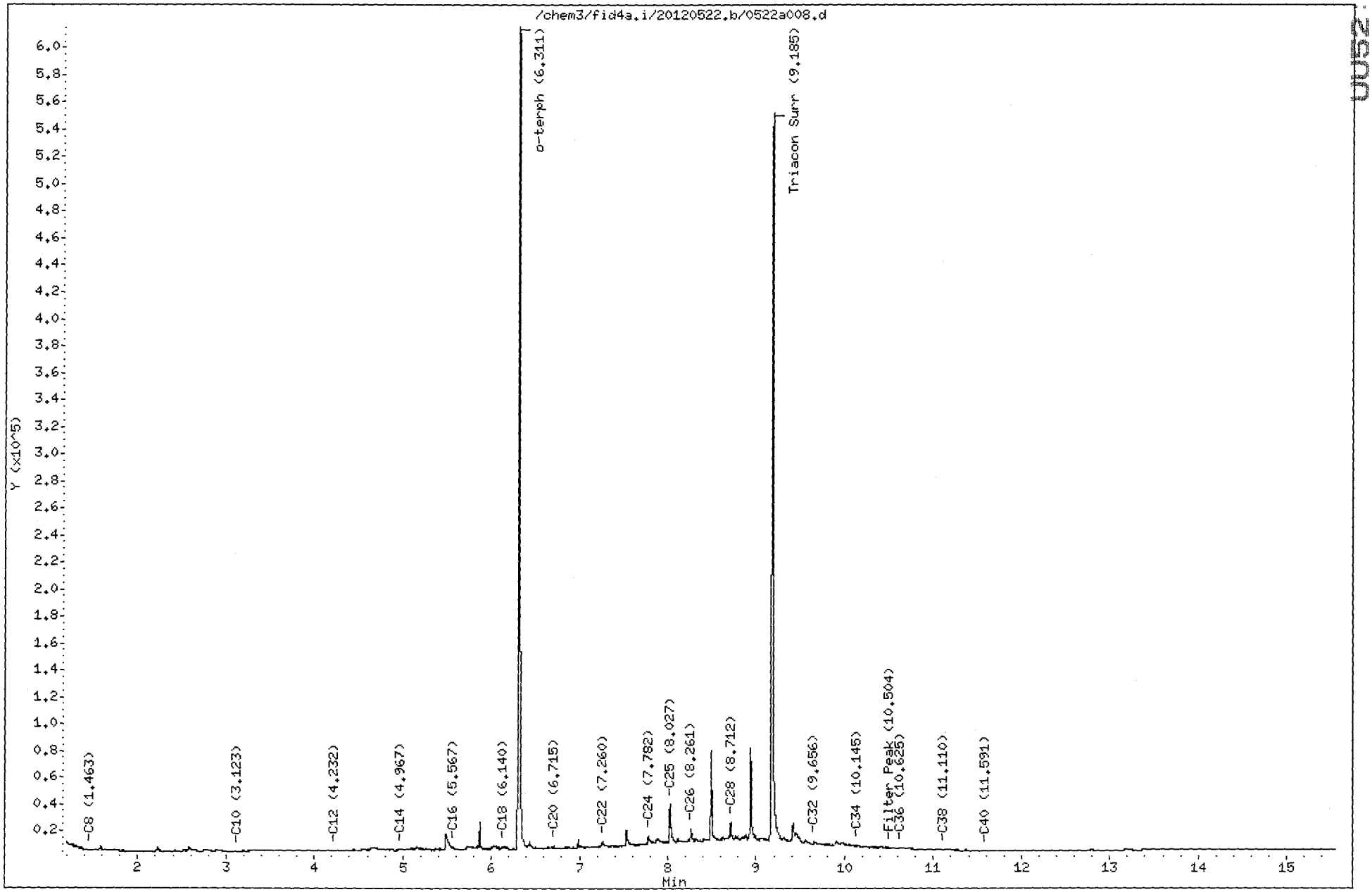
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

UU52.01517



Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a009.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52B
Client ID: MS101-SS-120515
Injection: 22-MAY-2012 09:33
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.309	0.040	4152	4242	GAS (Tol-C12)	136734	9.09
C8	1.472	0.002	880	1388	DIESEL (C12-C24)	732549	53.75
C10	3.130	0.006	407	616	M.OIL (C24-C38)	1372466	140.77
C12	4.216	-0.001	1014	970	AK-102 (C10-C25)	848511	52.40
C14	4.966	0.039	2733	9688	AK-103 (C25-C36)	1257102	162.01
C16	5.565	0.003	5015	9218	OR.DIES (C10-C28)	1371181	106.76
C18	6.138	-0.002	4536	3544	OR.MOIL (C28-C40)	831057	110.03
C20	6.732	0.007	3741	5299	JET-A (C10-C18)	389505	26.24
C22	7.278	0.009	5453	8013	MIN.OIL (C24-C38)	1372466	102.11
C24	7.785	0.005	12040	27638			
C25	8.027	0.000	34967	69223			
C26	8.260	-0.007	18323	35233			
C28	8.712	-0.007	24009	38987			
C32	9.654	-0.002	7204	5614			
C34	10.143	-0.001	4852	3257			
Filter Peak	10.509	0.001	3383	4990	CREOSOT (C12-C22)	563463	153.36
C36	10.625	-0.004	2833	1837			
C38	11.108	-0.005	1764	2160			
C40	11.594	0.001	1161	1052			
o-terph	6.310	-0.002	706449	799582	CRUDE (Tol-C40)	2278533	301.68
Triacon Surr	9.185	-0.005	602887	765905			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	799582	46.5	103.4
Triacontane	765905	44.7	99.3

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a009.d

Date : 22-MAY-2012 09:33

Client ID: MS101-SS-120515

Sample Info: UU52B

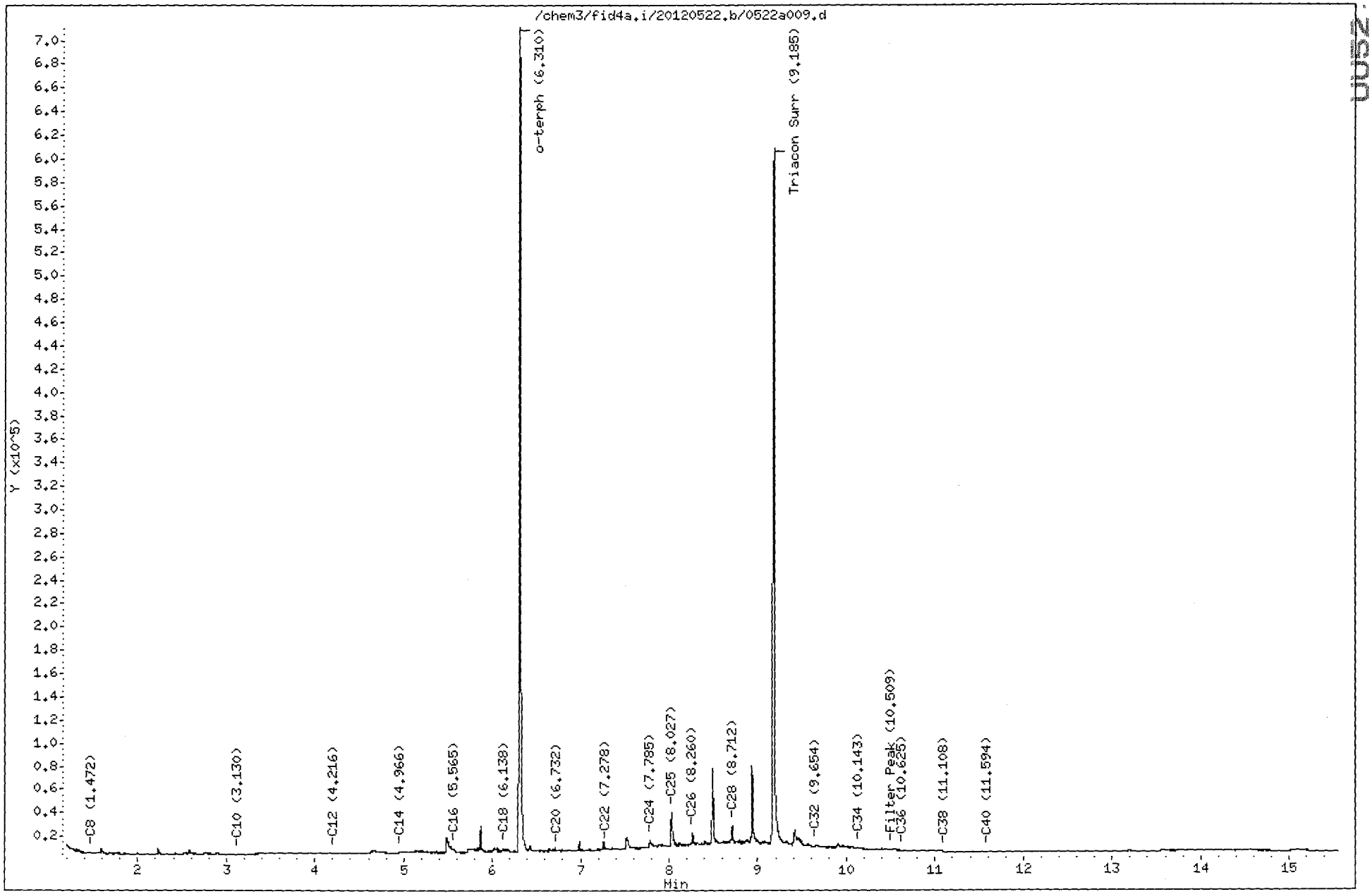
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

UU52 01919



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a010.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52C
Client ID: MS002-SS-120515
Injection: 22-MAY-2012 09:57
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.307	0.038	4269	4041	GAS (Tol-C12)	175768	11.68	
C8	1.472	0.003	909	1243	DIESEL (C12-C24)	969341	71.13	
C10	3.122	-0.003	498	1299	M.OIL (C24-C38)	1854475	190.21	
C12	4.214	-0.003	1318	2343	AK-102 (C10-C25)	1103531	68.15	M
C14	4.958	0.030	3209	11675	AK-103 (C25-C36)	1712513	220.70	M
C16	5.560	-0.002	6899	17762	OR.DIES (C10-C28)	1826338	142.20	M
C18	6.137	-0.003	7403	7317	OR.MOIL (C28-C40)	1110499	147.03	M
C20	6.715	-0.010	6998	9201	JET-A (C10-C18)	513818	34.62	
C22	7.283	0.013	5869	1724	MIN.OIL (C24-C38)	1854475	137.97	M
C24	7.771	-0.008	17516	34917				
C25	8.022	-0.005	51141	89895				
C26	8.258	-0.009	23415	44823				
C28	8.714	-0.006	30956	54080				
C32	9.654	-0.002	9653	19815				
C34	10.142	-0.002	6202	5944				
Filter Peak	10.510	0.002	4115	4373	CREOSOT (C12-C22)	742930	202.20	M
C36	10.621	-0.008	3628	4937				
C38	11.121	0.008	2179	2923				
C40	11.589	-0.004	1413	716				
o-terph	6.312	0.001	741347	781582	CRUDE (Tol-C40)	3042954	402.89	M
Triacon Surr	9.186	-0.003	604211	706406				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	781582	45.5	101.1
Triacontane	706406	41.2	91.6

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a010.d

Date : 22-MAY-2012 09:57

Client ID: MS002-SS-120515

Sample Info: UU52C

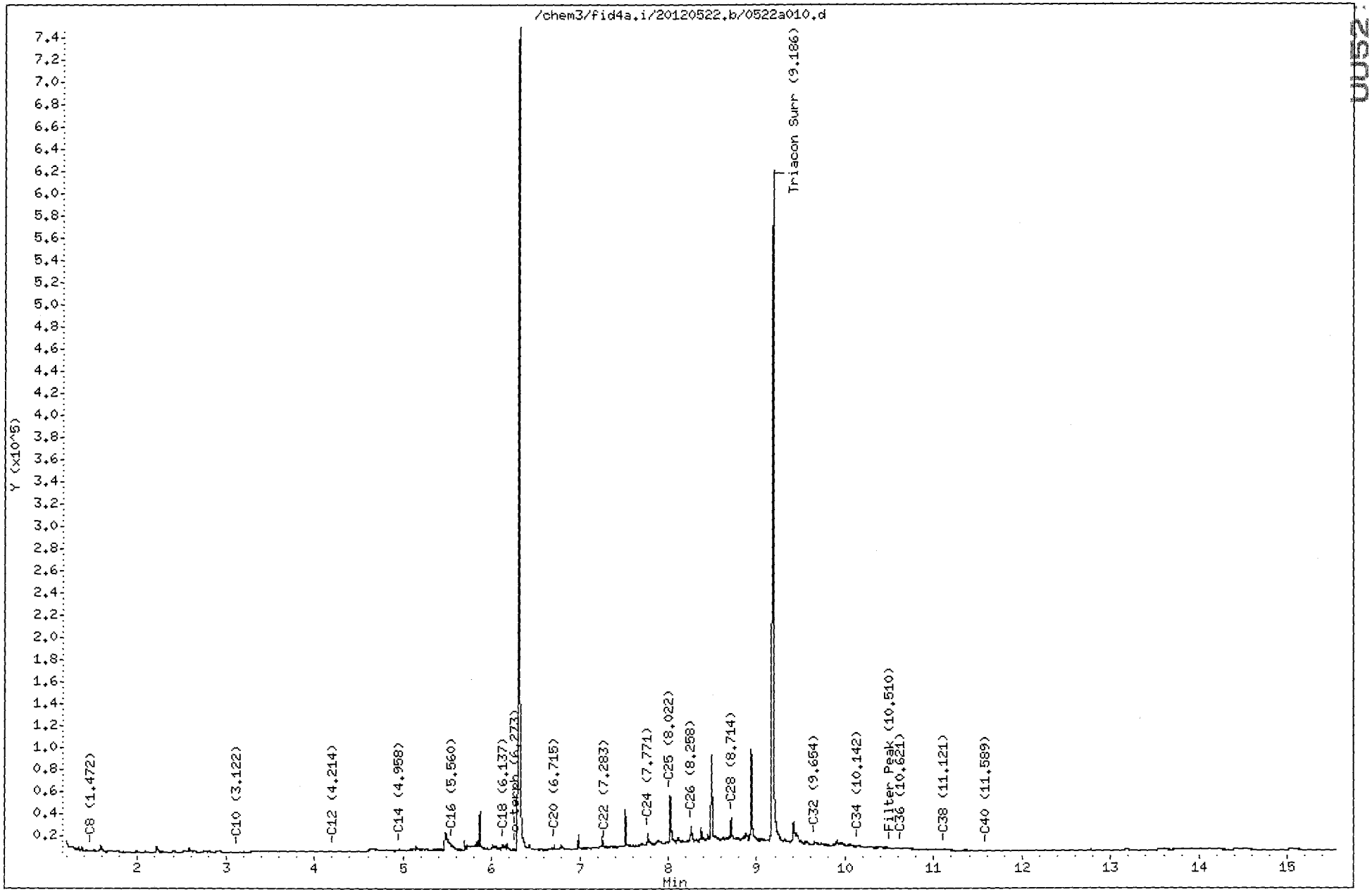
Instrument: fid4a.i

Operator: MH

Column phase: RTX-1

Column diameter: 0.25

UU52.01921



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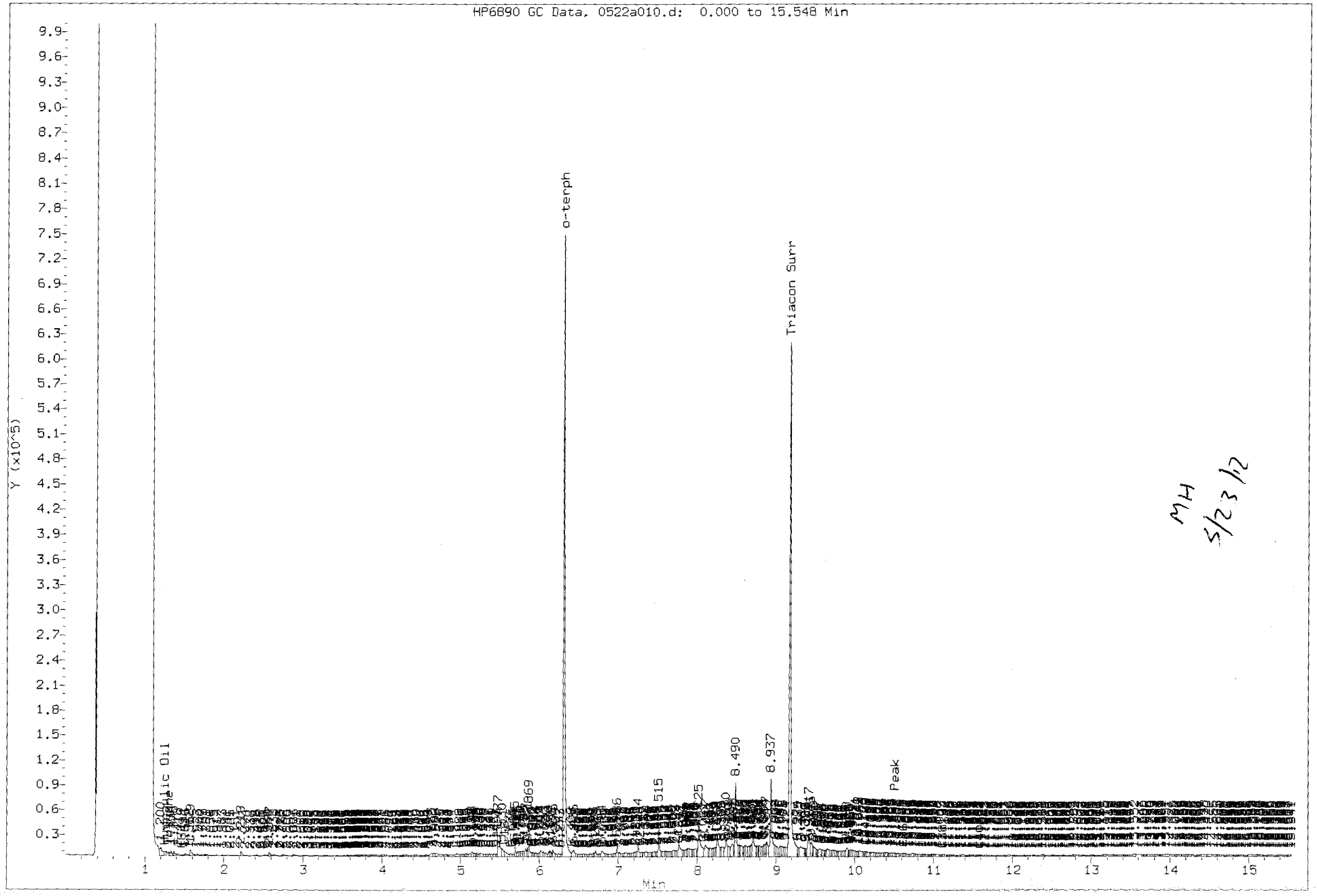
Injection Date: 22-MAY-2012 09:57
Instrument: fid4a.i
Client Sample ID: MS002-SS-120515

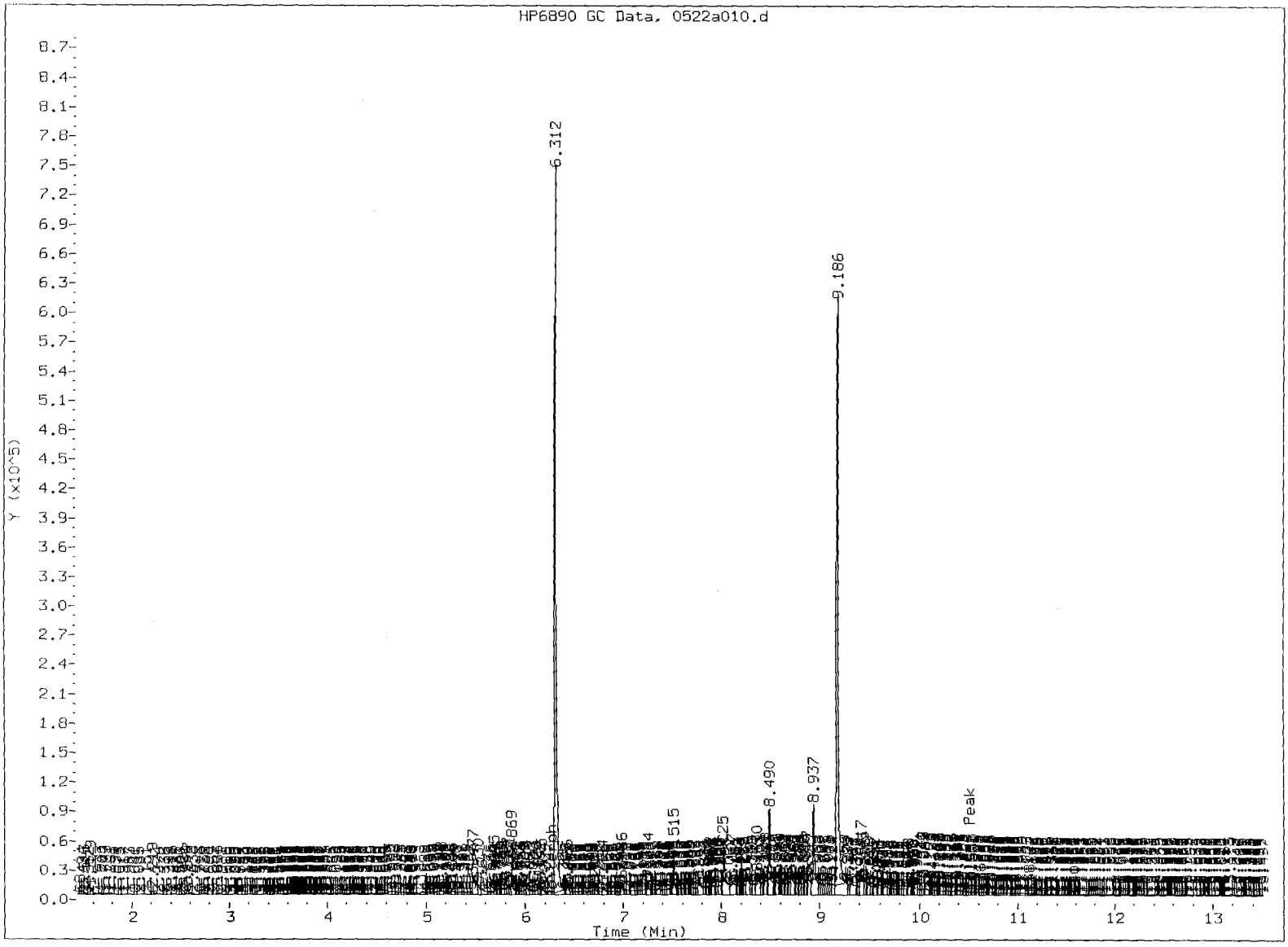


MH
5/23/12

JJS2 : 61922

FID:4A-2C/RTX-1 UU52C

FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a011.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52D
Client ID: MS003-SS-120515
Injection: 22-MAY-2012 10:21
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.273	0.005	4355	5114	GAS (Tol-C12)	169533	11.27
C8	1.506	0.037	1990	4253	DIESEL (C12-C24)	915081	67.15
C10	3.117	-0.008	468	986	M.OIL (C24-C38)	1547439	158.72
C12	4.214	-0.003	1204	2046	AK-102 (C10-C25)	1041143	64.30
C14	4.931	0.003	1869	2717	AK-103 (C25-C36)	1425847	183.76
C16	5.558	-0.003	8267	19112	OR.DIES (C10-C28)	1630801	126.98
C18	6.136	-0.004	8345	7716	OR.MOIL (C28-C40)	934523	123.73
C20	6.715	-0.010	6151	10437	JET-A (C10-C18)	569275	38.36
C22	7.253	-0.016	13683	16611	MIN.OIL (C24-C38)	1547439	115.13
C24	7.769	-0.010	18729	25872			
C25	8.021	-0.006	46382	89473			
C26	8.258	-0.009	24534	51256			
C28	8.710	-0.009	28811	40882			
C32	9.653	-0.004	8368	18407			
C34	10.147	0.003	5677	8242			
Filter Peak	10.499	-0.008	3552	3704	CREOSOT (C12-C22)	739763	201.34
C36	10.634	0.005	3227	2115			
C38	11.122	0.009	1867	1513			
C40	11.598	0.005	1168	414			
o-terph	6.311	-0.001	705983	797107	CRUDE (Tol-C40)	2667164	353.14
Triacon Surr	9.183	-0.006	603138	793378			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	797107	46.4	103.1
Triacontane	793378	46.3	102.9

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a011.d

Date : 22-MAY-2012 10:21

Client ID: MS003-SS-120515

Sample Info: UU52D

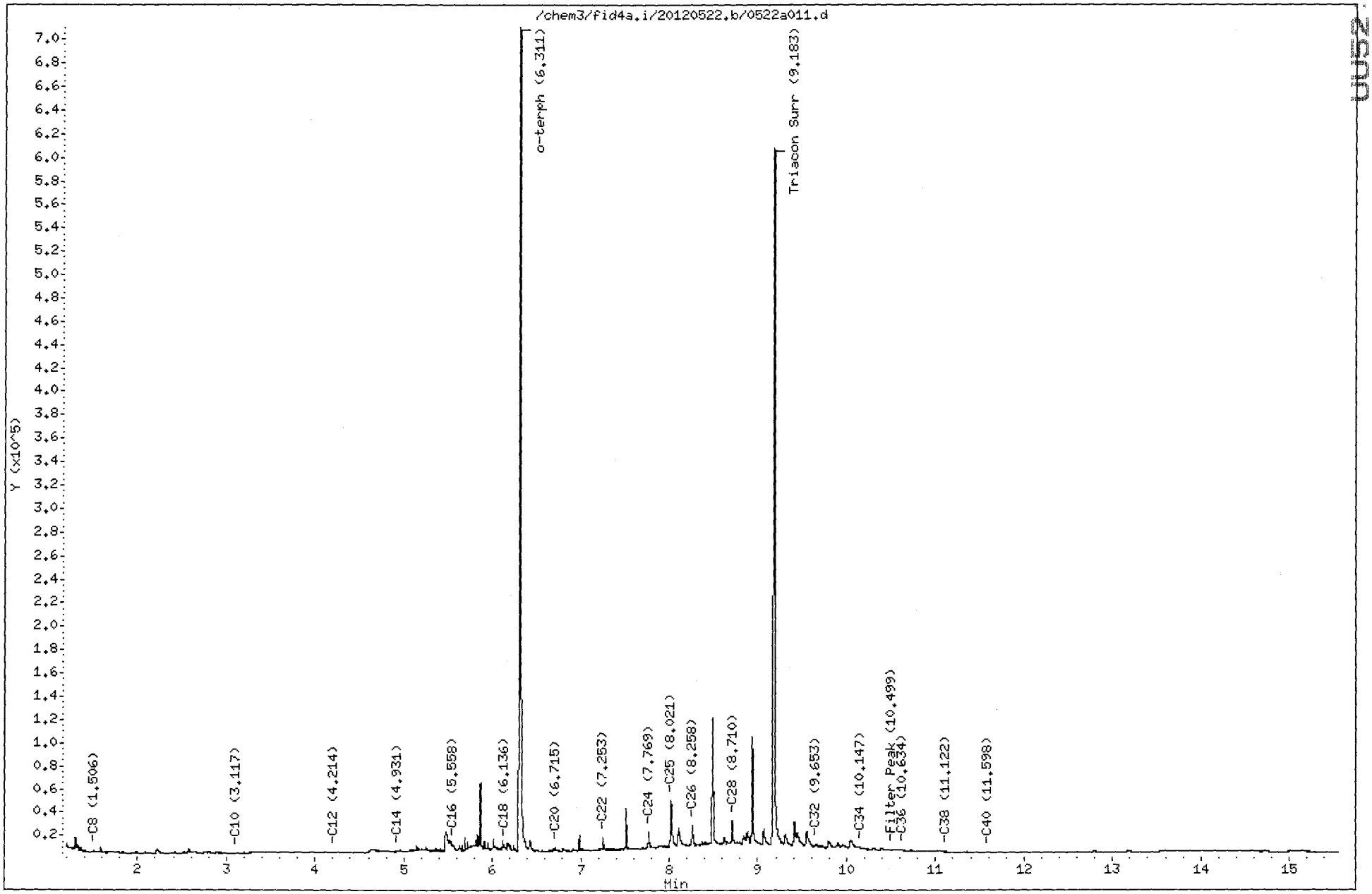
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

UU52 01525



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a014.d ARI ID: DIESEL #2
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 22-MAY-2012 11:33
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.300	0.032	3196	3865	GAS (Tol-C12)	911713	60.60	
C8	1.463	-0.006	1336	1962	DIESEL (C12-C24)	3484324	255.67	
C10	3.125	0.000	3980	4398	M.OIL (C24-C38)	100353	10.29	
C12	4.211	-0.006	13171	18392	AK-102 (C10-C25)	4164714	257.19	M
C14	4.937	0.010	24379	32202	AK-103 (C25-C36)	78509	10.12	
C16	5.573	0.011	26083	51712	OR.DIES (C10-C28)	4224420	328.93	M
C18	6.136	-0.004	56720	78113	OR.MOIL (C28-C40)	23708	3.14	
C20	6.733	0.008	24341	77237	JET-A (C10-C18)	3096696	208.64	
C22	7.278	0.008	6718	3841	MIN.OIL (C24-C38)	100353	7.47	
C24	7.763	-0.016	3447	5843				
C25	8.023	-0.003	2214	1462				
C26	8.273	0.006	2304	3270				
C28	8.734	0.015	902	2603				
C32	9.647	-0.009	185	253				
C34	10.152	0.008	46	9				
Filter Peak	10.508	0.000	29	9	CREOSOT (C12-C22)	3359886	914.47	M
C36	10.618	-0.011	24	23				
C38	11.121	0.008	55	32				
C40	11.593	0.000	125	108				
o-terph	6.311	-0.001	624205	773980	CRUDE (Tol-C40)	4499282	595.71	M
Triacon Surr	9.175	-0.014	297	138				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	773980	45.0	100.1
Triacontane	138	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a014.d

Date : 22-MAY-2012 11:33

Client ID:

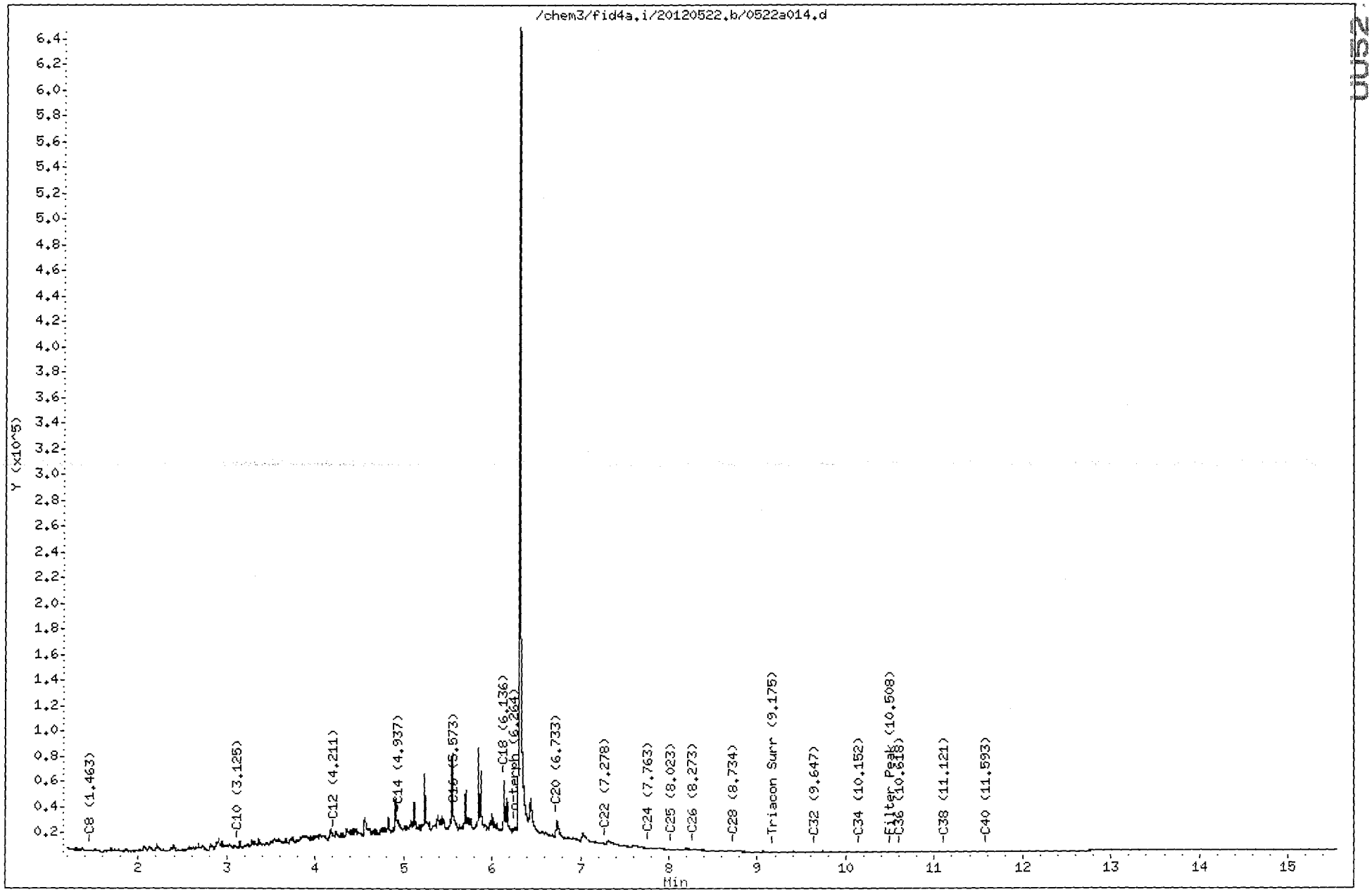
Sample Info: DIESEL #2

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



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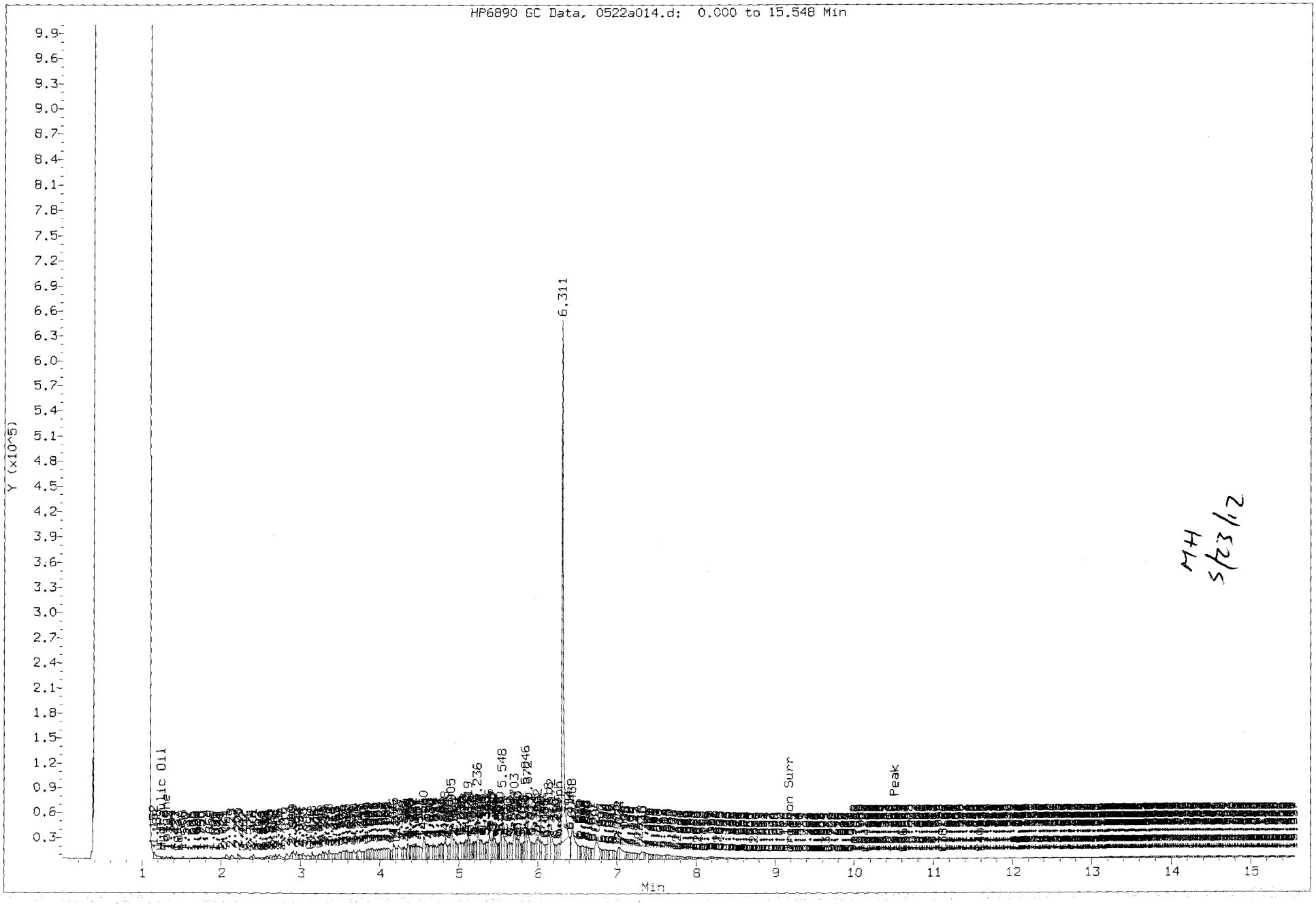
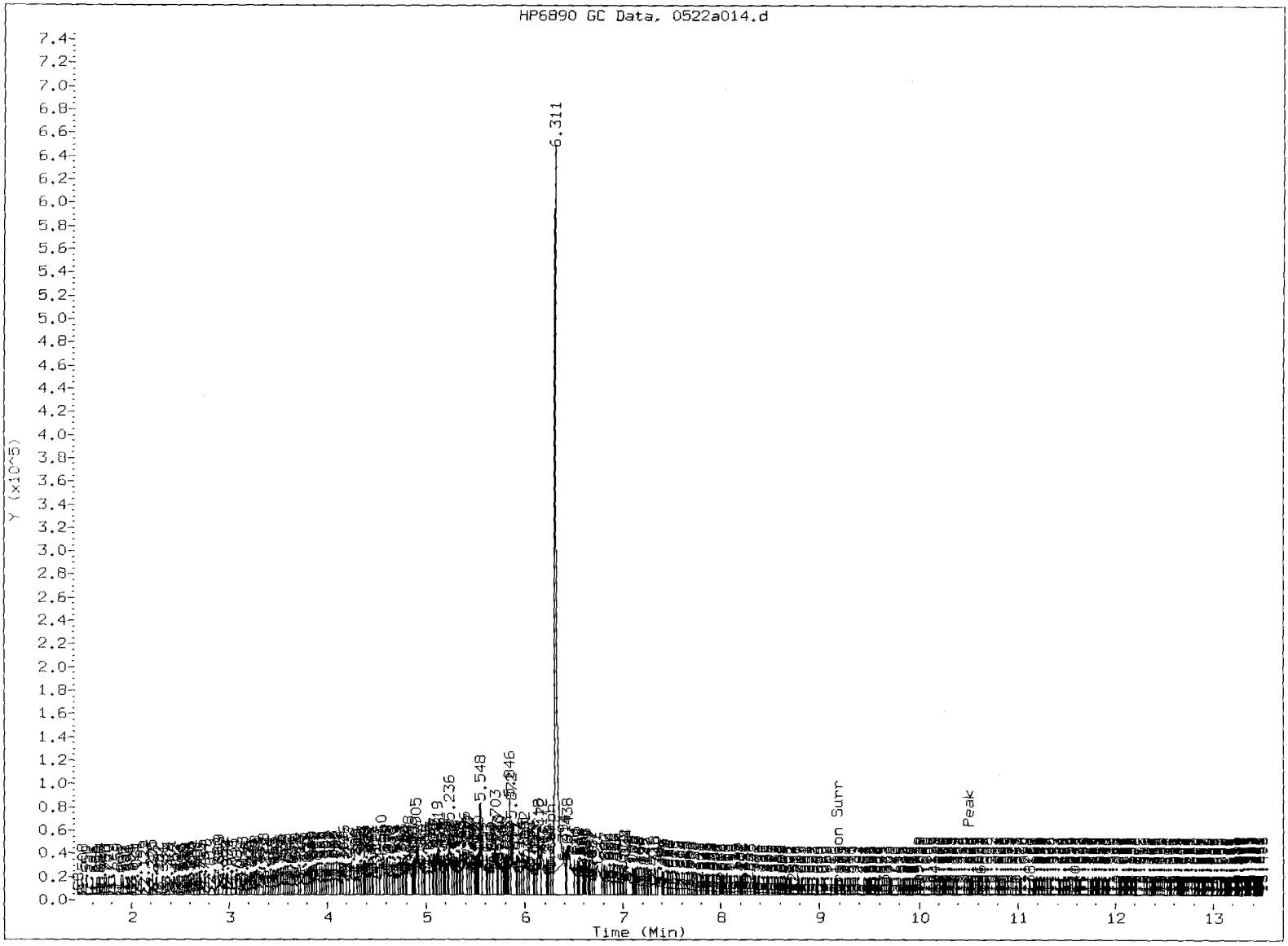
Injection Date: 22-MAY-2012 11:33
Instrument: fid4a.i
Client Sample ID:



MH 5/23/12

UU52 : 01928

FID:4A-2C/RTX-1 DIESEL #2 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a015.d ARI ID: MOIL #2
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 22-MAY-2012 11:57
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.265	-0.004	34657	76051	GAS (Tol-C12)	161249	10.72	
C8	1.431	-0.038	1309	6534	DIESEL (C12-C24)	543644	39.89	
C10	3.125	0.001	472	564	M.OIL (C24-C38)	4703644	482.44	
C12	4.225	0.008	545	393	AK-102 (C10-C25)	804737	49.70	
C14	4.935	0.007	514	526	AK-103 (C25-C36)	4221468	544.05	M
C16	5.571	0.009	503	573	OR.DIES (C10-C28)	2259770	175.95	
C18	6.164	0.024	474	632	OR.MOIL (C28-C40)	3160071	418.40	M
C20	6.733	0.007	998	1307	JET-A (C10-C18)	88686	5.98	
C22	7.270	0.001	4868	4362	MIN.OIL (C24-C38)	4703644	349.96	M
C24	7.773	-0.006	19507	20129				
C25	8.021	-0.005	26946	17388				
C26	8.267	0.000	32192	51936				
C28	8.724	0.004	35624	22896				
C32	9.652	-0.004	29744	22054				
C34	10.150	0.006	21283	6987				
Filter Peak	10.516	0.008	14127	6902	CREOSOT (C12-C22)	167179	45.50	
C36	10.628	-0.001	13072	10731				
C38	11.102	-0.012	7216	17154				
C40	11.592	-0.001	3762	2804				
o-terph	6.317	0.006	469	240	CRUDE (Tol-C40)	5544308	734.08	M
Triacon Surr	9.189	0.000	670391	774056				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	240	0.0	0.0
Triacontane	774056	45.2	100.3

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a015.d

Page 1

Date : 22-MAY-2012 11:57

Client ID:

Instrument: fid4a.i

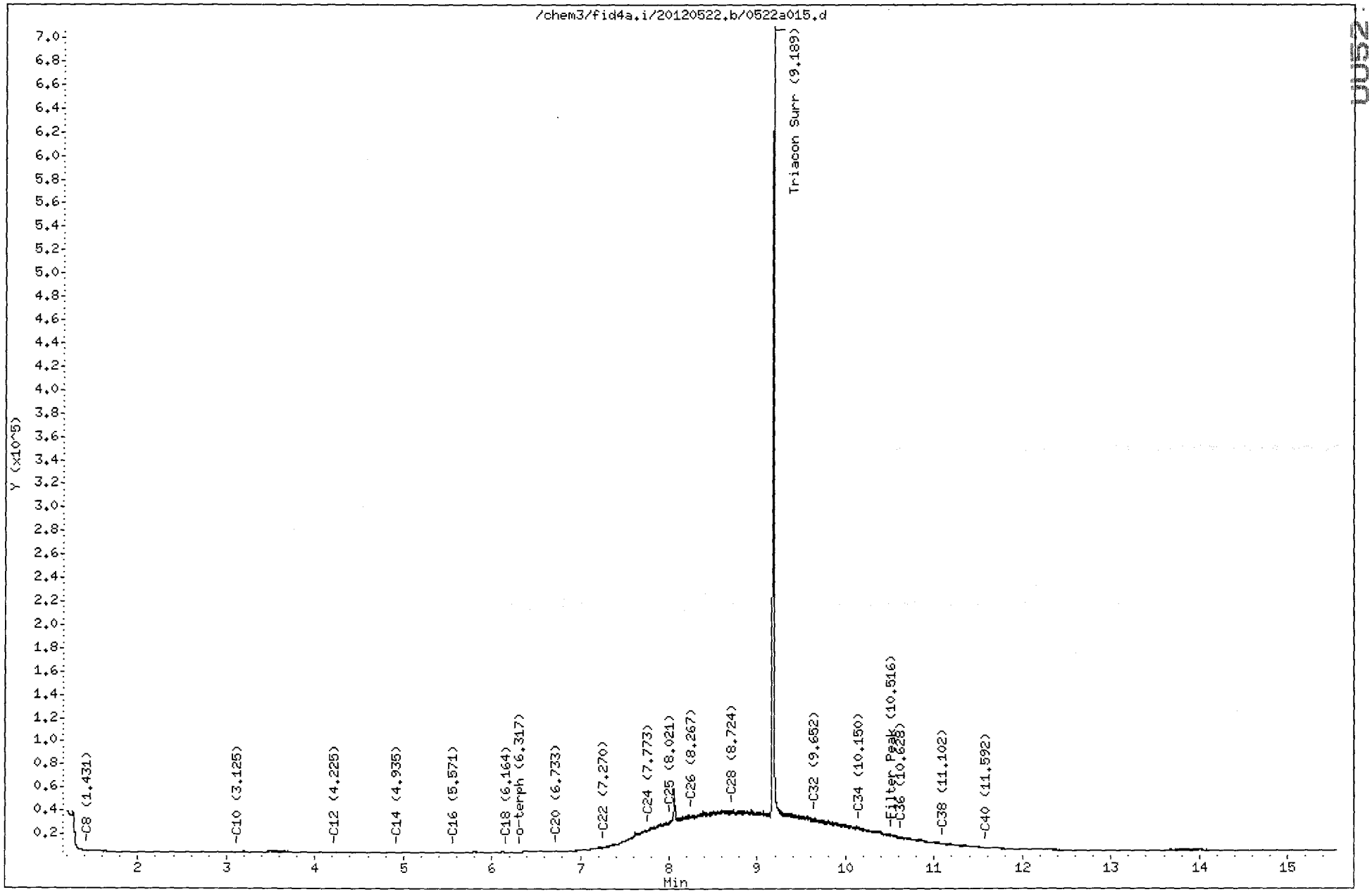
Sample Info: MOIL #2

Operator: MH

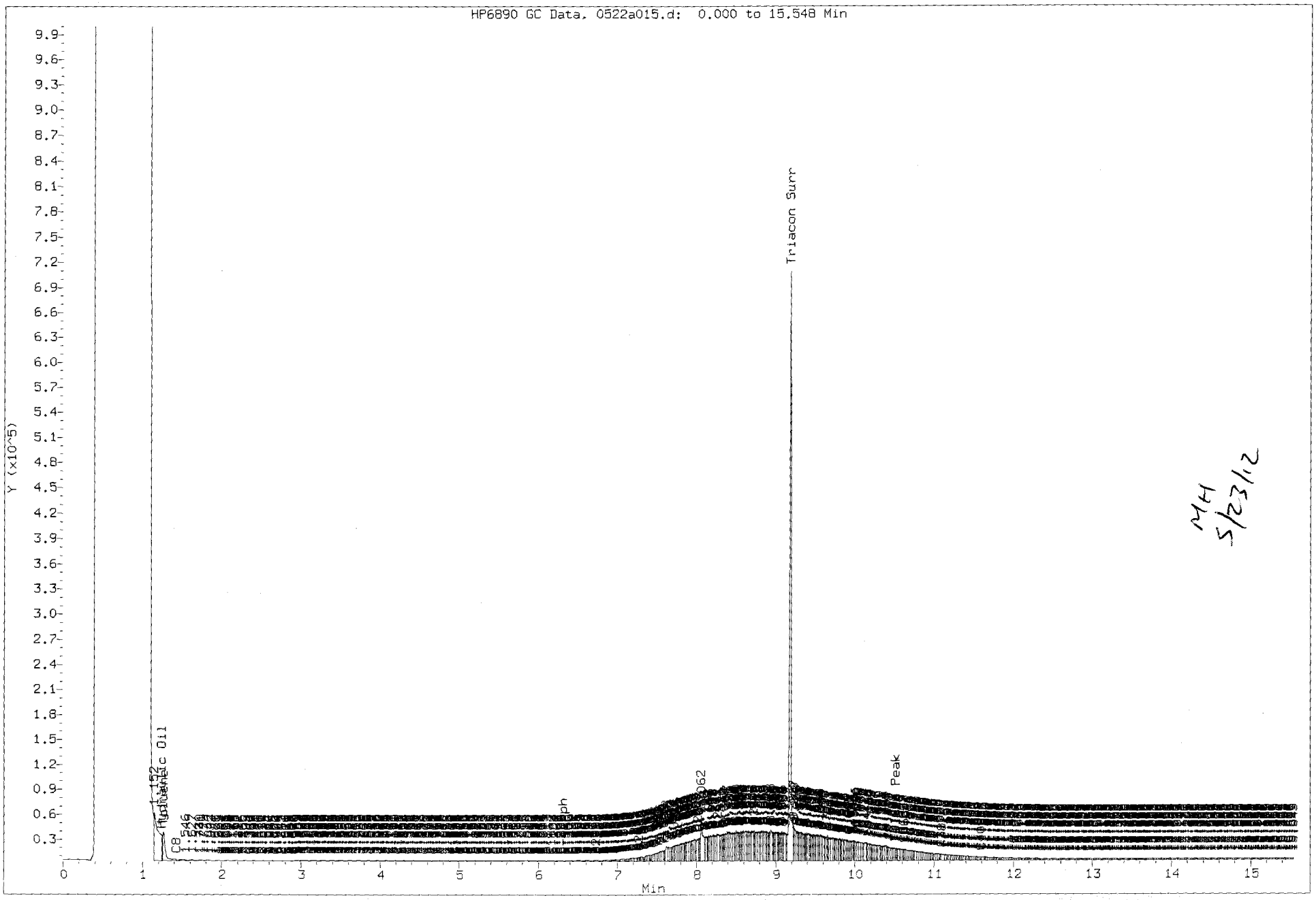
Column phase: RTX-1

Column diameter: 0.25

UU52-01531



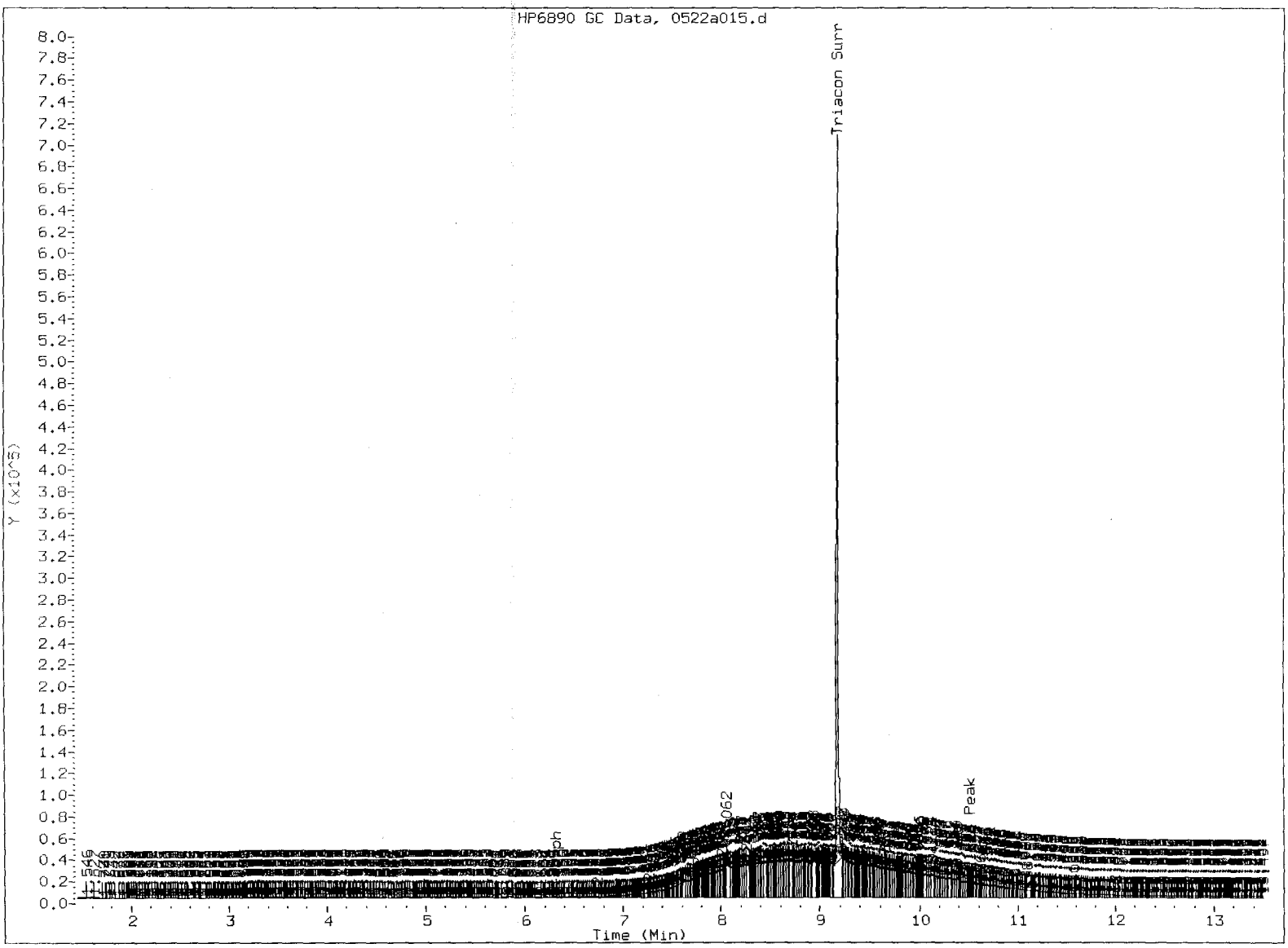
Data File: /chem3/fid4a.i/20120522.b/0522a015.d
Injection Date: 22-MAY-2012 11:57
Instrument: fid4a.i
Client Sample ID:



MH
5/23/12

FID:4A-2C/RTX-1 MOIL #2

FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a016.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52E
Client ID: MS004-SS-120515
Injection: 22-MAY-2012 12:21
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.265	-0.004	4237	6741	GAS (Tol-C12)	161342	10.72
C8	1.480	0.011	865	908	DIESEL (C12-C24)	631655	46.35
C10	3.143	0.018	479	1316	M.OIL (C24-C38)	1072182	109.97
C12	4.218	0.001	1091	581	AK-102 (C10-C25)	725612	44.81
C14	4.920	-0.007	1631	742	AK-103 (C25-C36)	995355	128.28
C16	5.565	0.003	5275	12580	OR.DIES (C10-C28)	1161030	90.40
C18	6.140	0.000	4977	4370	OR.MOIL (C28-C40)	633828	83.92
C20	6.716	-0.010	5089	8064	JET-A (C10-C18)	415532	28.00
C22	7.255	-0.015	11288	15778	MIN.OIL (C24-C38)	1072182	79.77
C24	7.778	-0.001	9502	17900			
C25	8.028	0.002	44913	76352			
C26	8.262	-0.005	19545	35417			
C28	8.712	-0.007	21917	36272			
C32	9.665	0.008	5786	16107			
C34	10.150	0.006	3750	2959			
Filter Peak	10.505	-0.003	2865	2151	CREOSOT (C12-C22)	510045	138.82
C36	10.615	-0.014	2333	4349			
C38	11.114	0.000	1354	1140			
C40	11.598	0.005	907	1205			
o-terph	6.311	0.000	682544	799172	CRUDE (Tol-C40)	1892986	250.64
Triacon Surr	9.186	-0.003	583078	777640			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	799172	46.5	103.3
Triacontane	777640	45.4	100.8

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a016.d

Date : 22-MAY-2012 12:21

Client ID: MS004-SS-120515

Sample Info: UU52E

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

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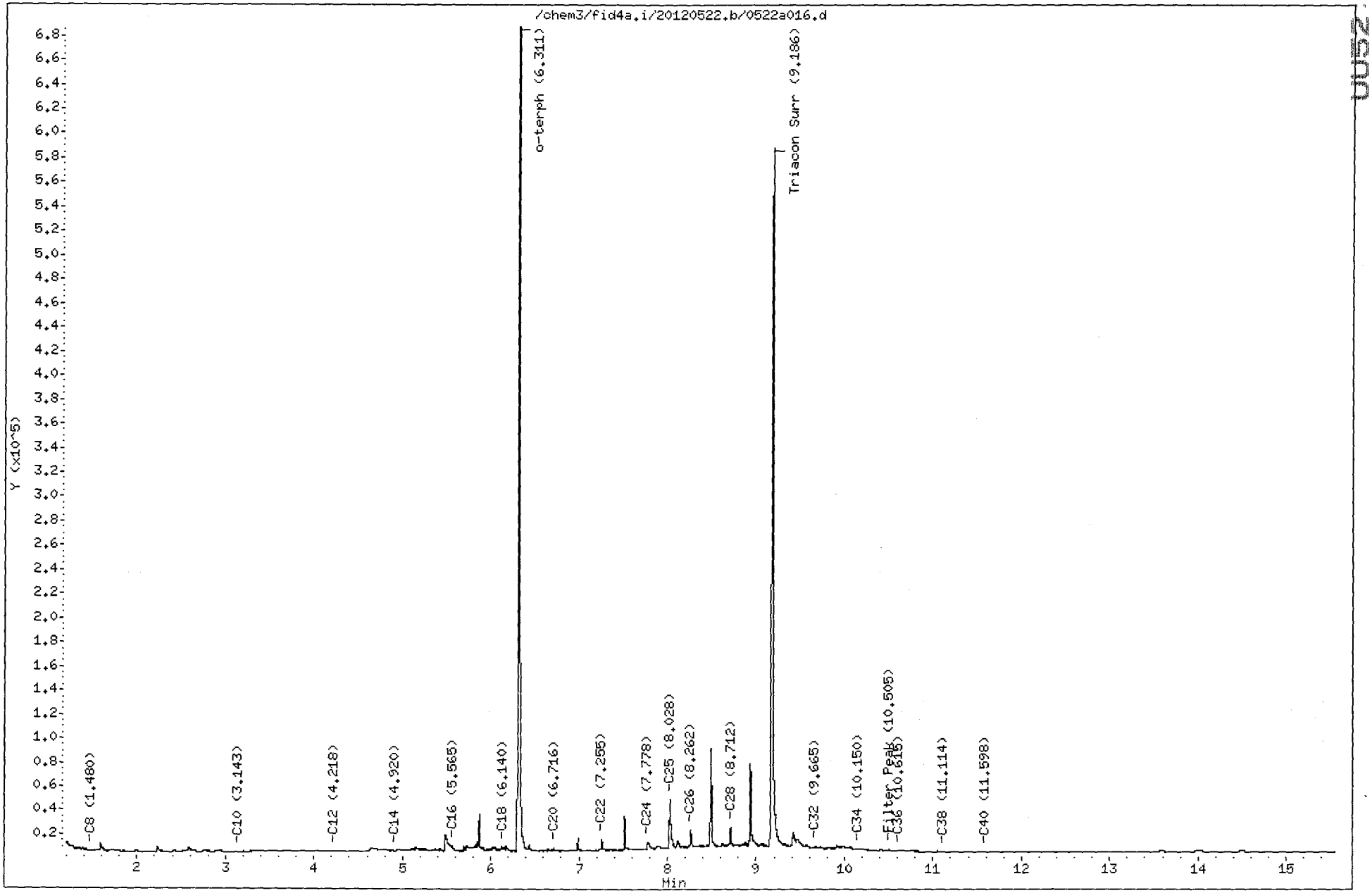

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a017.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52F
Client ID: MS005-SS-120515
Injection: 22-MAY-2012 12:45
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.310	0.041	3127	3304	GAS (Tol-C12)	139352	9.26
C8	1.473	0.004	936	1688	DIESEL (C12-C24)	630178	46.24
C10	3.133	0.008	367	595	M.OIL (C24-C38)	1445998	148.31
C12	4.237	0.020	937	442	AK-102 (C10-C25)	731777	45.19
C14	4.924	-0.003	1454	1424	AK-103 (C25-C36)	1334720	172.01
C16	5.570	0.008	2594	5365	OR.DIES (C10-C28)	1290589	100.49
C18	6.153	0.013	4882	4900	OR.MOIL (C28-C40)	871814	115.43
C20	6.714	-0.011	5707	5809	JET-A (C10-C18)	297373	20.04
C22	7.283	0.013	4589	1807	MIN.OIL (C24-C38)	1445998	107.58
C24	7.787	0.008	9698	28815			
C25	8.027	0.001	27907	59841			
C26	8.262	-0.005	18040	39272			
C28	8.710	-0.009	27395	42644			
C32	9.652	-0.004	7451	14548			
C34	10.149	0.005	4858	8401			
Filter Peak	10.497	-0.010	3682	4820	CREOSOT (C12-C22)	463856	126.25
C36	10.636	0.007	2843	892			
C38	11.114	0.001	1752	1205			
C40	11.592	-0.001	1165	984			
o-terph	6.310	-0.001	655239	798526	CRUDE (Tol-C40)	2251838	298.15
Triacon Surr	9.183	-0.006	592173	768142			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	798526	46.5	103.2
Triacontane	768142	44.8	99.6

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a017.d

Date : 22-MAY-2012 12:45

Client ID: MS005-SS-120515

Sample Info: UU52F

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

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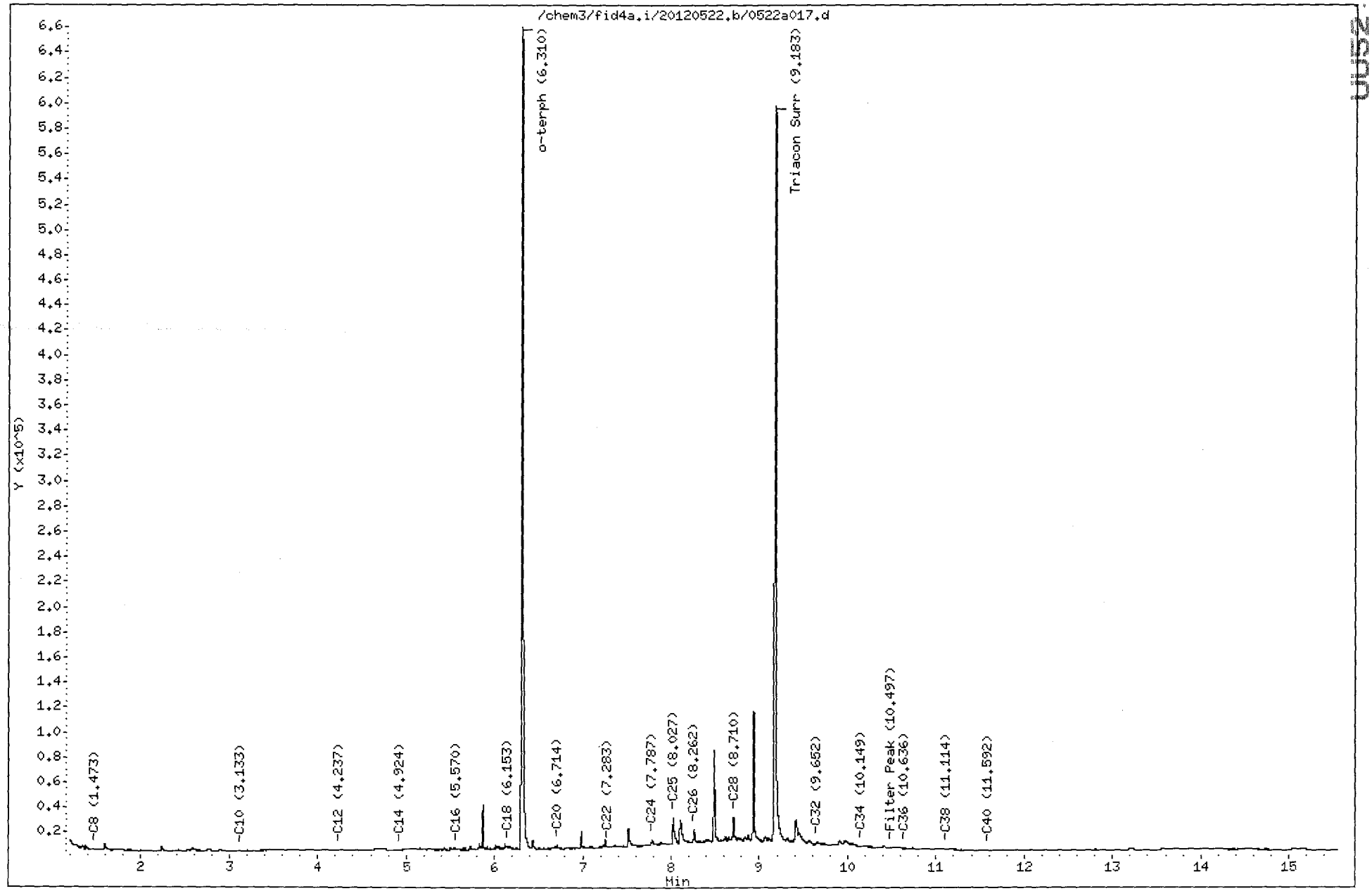


MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a018.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52G
Client ID: MS006-SS-120515
Injection: 22-MAY-2012 13:10
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.269	0.000	4835	11467	GAS (Tol-C12)	156456	10.40
C8	1.484	0.015	840	1520	DIESEL (C12-C24)	820892	60.24
C10	3.123	-0.001	428	641	M.OIL (C24-C38)	1727768	177.21
C12	4.237	0.021	1617	4380	AK-102 (C10-C25)	931243	57.51
C14	4.928	0.001	2036	1444	AK-103 (C25-C36)	1626414	209.61
C16	5.567	0.006	3288	4255	OR.DIES (C10-C28)	1669111	129.96
C18	6.139	-0.001	4548	3873	OR.MOIL (C28-C40)	978987	129.62
C20	6.733	0.007	4309	5687	JET-A (C10-C18)	397114	26.76
C22	7.259	-0.010	9494	24485	MIN.OIL (C24-C38)	1727768	128.55
C24	7.780	0.001	14370	29617			
C25	8.022	-0.004	39975	67502			
C26	8.256	-0.011	21118	37599			
C28	8.710	-0.009	32219	50373			
C32	9.659	0.003	8827	24166			
C34	10.145	0.001	5028	3741			
Filter Peak	10.496	-0.011	3537	5944	CREOSOT (C12-C22)	600118	163.34
C36	10.625	-0.004	2873	2091			
C38	11.114	0.001	1691	2074			
C40	11.582	-0.011	1097	2148			
o-terph	6.310	-0.001	649236	781303	CRUDE (Tol-C40)	2738533	362.59
Triacon Surr	9.185	-0.004	604469	743228			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	781303	45.5	101.0
Triacontane	743228	43.4	96.4

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

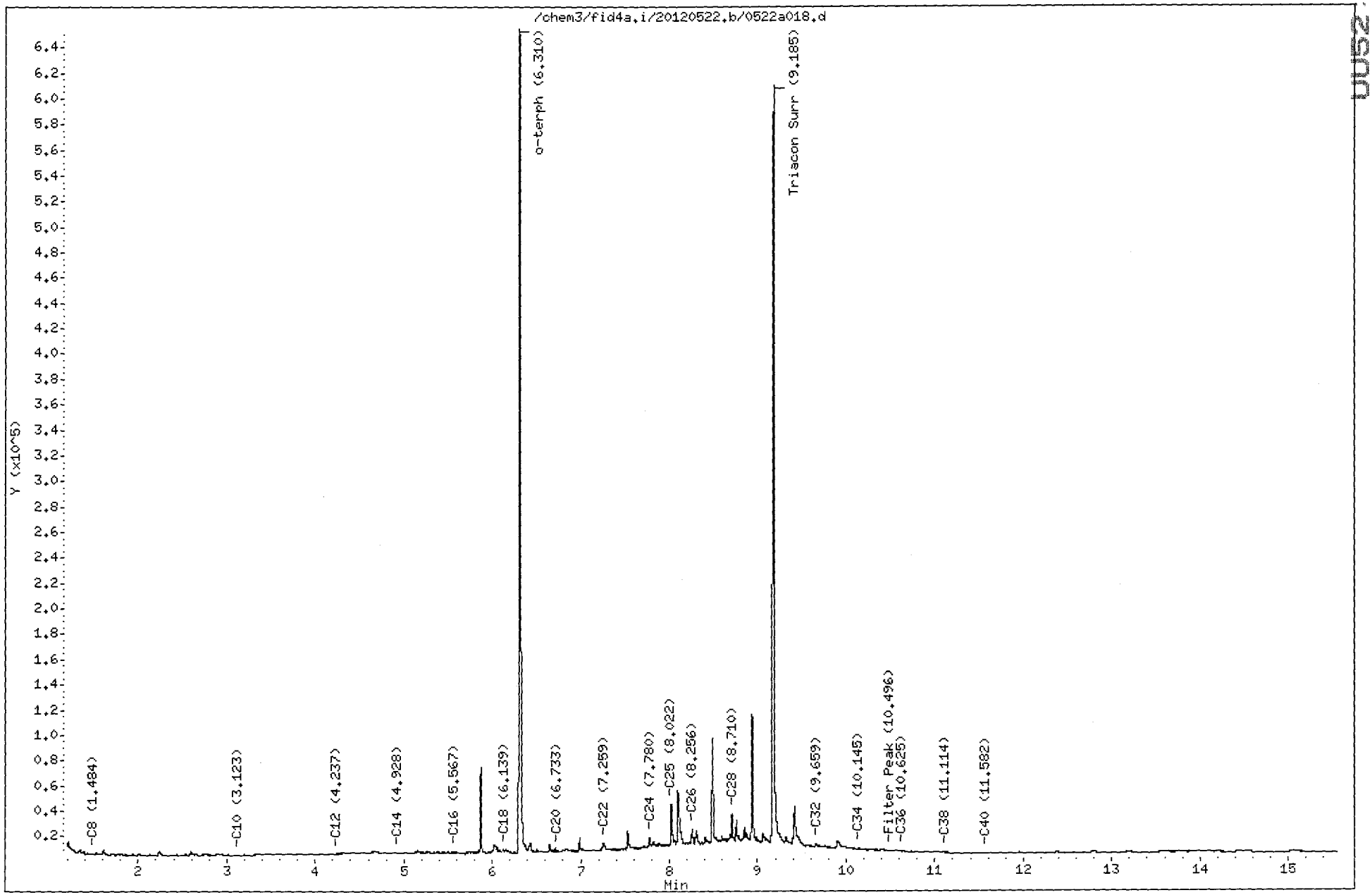
Data File: /chem3/fid4a.i/20120522.b/0522a018.d
Date : 22-MAY-2012 13:10
Client ID: MS006-SS-120515
Sample Info: UU52G

Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1

UU52G 61939



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a019.d ARI ID: UU52H
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID: MS007-SS-120515
Instrument: fid4a.i Injection: 22-MAY-2012 13:34
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.271	0.002	4985	11072	GAS (Tol-C12)	159569	10.61
C8	1.431	-0.038	1415	4442	DIESEL (C12-C24)	827543	60.72
C10	3.125	0.000	548	753	M.OIL (C24-C38)	1866002	191.39
C12	4.219	0.002	1326	1230	AK-102 (C10-C25)	968139	59.79
C14	4.926	-0.002	1969	930	AK-103 (C25-C36)	1715781	221.12
C16	5.566	0.004	4523	16193	OR.DIES (C10-C28)	1630103	126.93
C18	6.139	-0.002	4474	3785	OR.MOIL (C28-C40)	1185657	156.98
C20	6.733	0.007	3887	4303	JET-A (C10-C18)	436422	29.40
C22	7.256	-0.014	10924	18958	MIN.OIL (C24-C38)	1866002	138.83
C24	7.780	0.000	12788	32375			
C25	8.024	-0.003	35105	78661			
C26	8.260	-0.008	20000	41843			
C28	8.710	-0.010	28467	47990			
C32	9.652	-0.005	9937	20742			
C34	10.140	-0.004	6162	5179			
Filter Peak	10.519	0.011	4283	2904	CREOSOT (C12-C22)	615960	167.65
C36	10.637	0.008	3789	1414			
C38	11.108	-0.006	2356	3285			
C40	11.594	0.001	1512	2861			
o-terph	6.311	-0.001	716460	802572	CRUDE (Tol-C40)	2901914	384.22
Triacon Surr	9.186	-0.003	630387	798912			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	802572	46.7	103.8
Triacontane	798912	46.6	103.6

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a019.d

Date : 22-MAY-2012 13:34

Client ID: MS007-SS-120515

Sample Info: UU52H

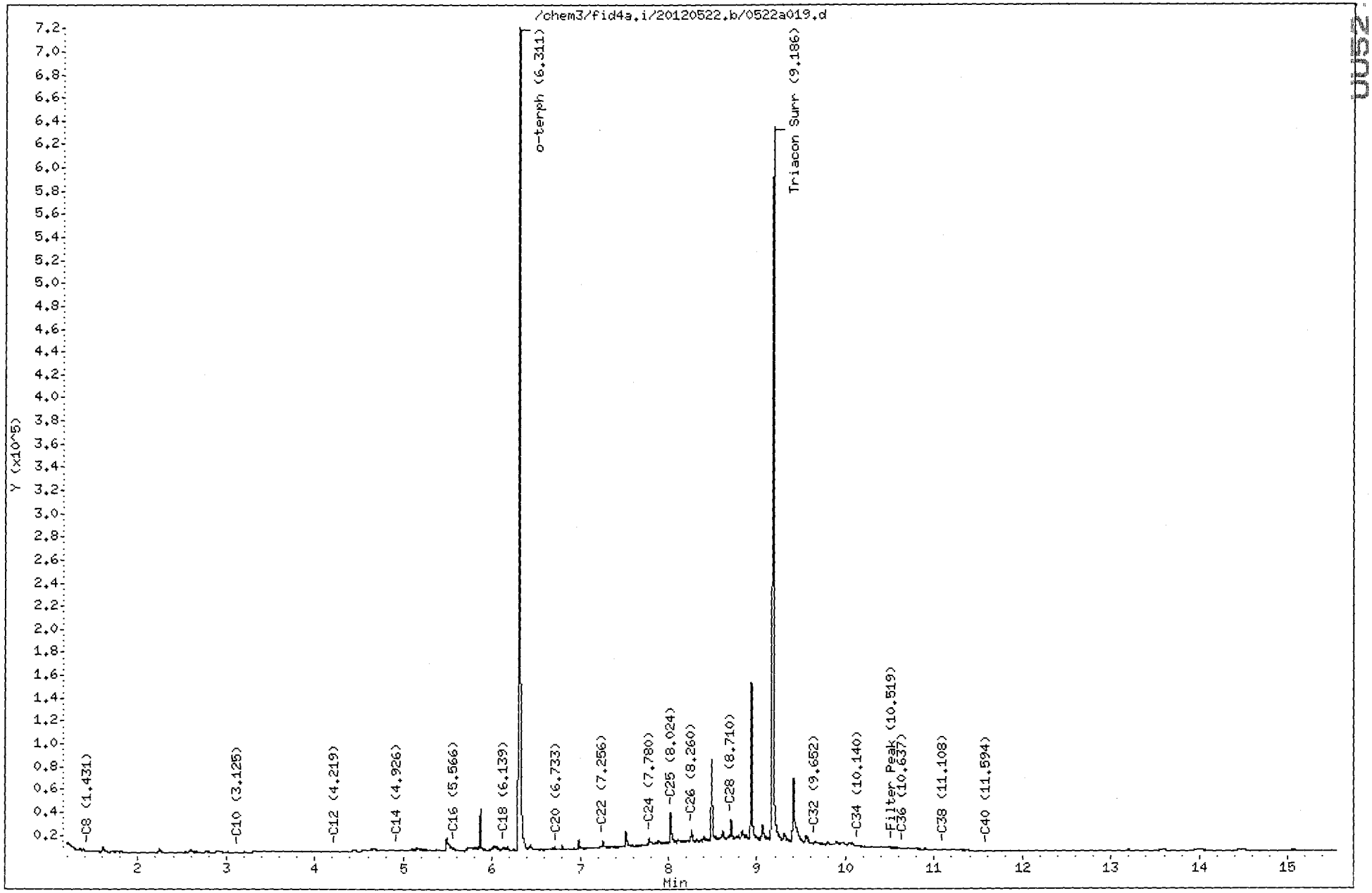
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

UU52 61911



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a020.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52I
Client ID: MS008-SS-120515
Injection: 22-MAY-2012 13:59
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.270	0.002	4343	10267	GAS (Tol-C12)	154869	10.29
C8	1.487	0.018	844	1442	DIESEL (C12-C24)	487878	35.80
C10	3.117	-0.007	372	393	M.OIL (C24-C38)	1297873	133.12
C12	4.219	0.002	998	374	AK-102 (C10-C25)	591466	36.53
C14	4.914	-0.014	1135	1495	AK-103 (C25-C36)	1195496	154.07
C16	5.574	0.012	1741	3388	OR.DIES (C10-C28)	1130423	88.02
C18	6.140	0.000	2374	1908	OR.MOIL (C28-C40)	745236	98.67
C20	6.716	-0.010	4152	5622	JET-A (C10-C18)	247340	16.66
C22	7.266	-0.004	4173	1638	MIN.OIL (C24-C38)	1297873	96.56
C24	7.785	0.006	8510	13237			
C25	8.026	-0.001	31014	55383			
C26	8.261	-0.006	15130	28424			
C28	8.712	-0.007	22522	47824			
C32	9.654	-0.002	6078	5141			
C34	10.140	-0.003	4124	3216			
Filter Peak	10.512	0.004	3028	1599	CREOSOT (C12-C22)	347253	94.51
C36	10.636	0.007	2463	1946			
C38	11.119	0.006	1610	906			
C40	11.598	0.005	1050	556			
o-terph	6.310	-0.001	621966	771443	CRUDE (Tol-C40)	1972723	261.19
Triacon Surr	9.185	-0.004	570786	776108			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	771443	44.9	99.7
Triacontane	776108	45.3	100.6

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a020.d

Date : 22-MAY-2012 13:59

Client ID: MS008-SS-120515

Sample Info: UU52I

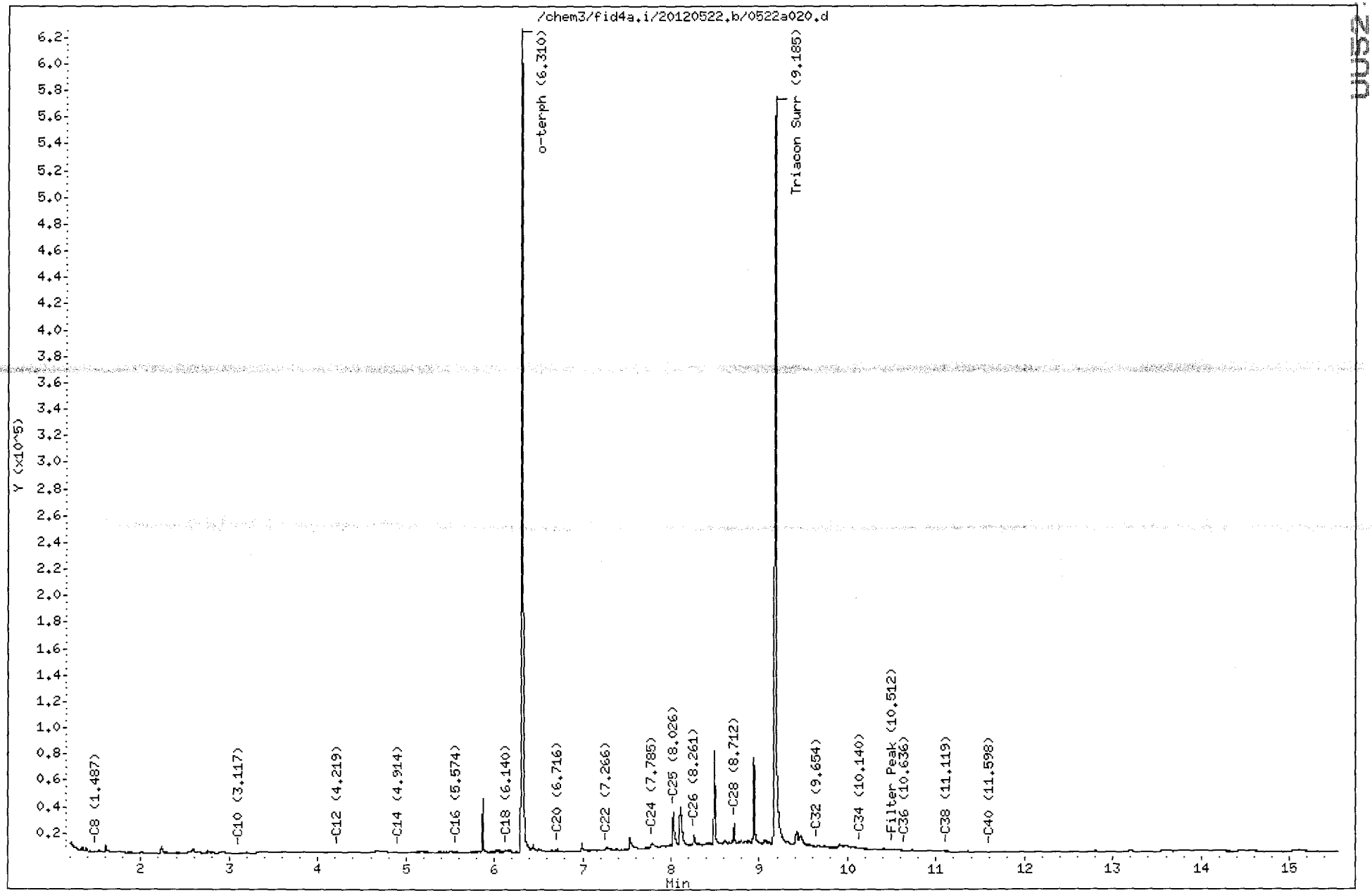
Instrument: fid4a.i

Operator: MH

Column phase: RTX-1

Column diameter: 0.25

UU52I 01313



MH
5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a021.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52IMS
Client ID: MS008-SS-120515 MS
Injection: 22-MAY-2012 14:23
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.266	-0.002	3578	6441	GAS (Tol-C12)	3569270	237.26	
C8	1.479	0.010	1670	1509	DIESEL (C12-C24)	14879601	1091.84	
C10	3.126	0.002	73231	64245	M.OIL (C24-C38)	1340248	137.47	
C12	4.217	0.000	50509	70755	AK-102 (C10-C25)	17607386	1087.35	M
C14	4.925	-0.003	91959	114494	AK-103 (C25-C36)	1210468	156.00	
C16	5.566	0.005	103796	209339	OR.DIES (C10-C28)	18193235	1416.59	M
C18	6.138	-0.002	423031	427922	OR.MOIL (C28-C40)	671511	88.91	
C20	6.732	0.007	65858	84232	JET-A (C10-C18)	12673336	853.88	
C22	7.261	-0.009	122681	212320	MIN.OIL (C24-C38)	1340248	99.72	
C24	7.781	0.002	38291	73969				
C25	8.027	0.000	47691	97041				
C26	8.263	-0.004	20818	39212				
C28	8.713	-0.006	22559	37933				
C32	9.657	0.001	5699	10715				
C34	10.144	0.001	3676	1812				
Filter Peak	10.518	0.011	2400	2629	CREOSOT (C12-C22)	14214426	3868.76	M
C36	10.634	0.005	1865	1653				
C38	11.109	-0.004	886	707				
C40	11.597	0.004	305	191				
o-terph	6.314	0.003	841454	776827	CRUDE (Tol-C40)	19801553	2621.77	M
Triacon Surr	9.185	-0.004	588089	789620				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	776827	45.2	100.4
Triacontane	789620	46.1	102.4

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a021.d

Page 1

Date : 22-MAY-2012 14:23

Client ID: MS008-SS-120515 MS

Instrument: fid4a.i

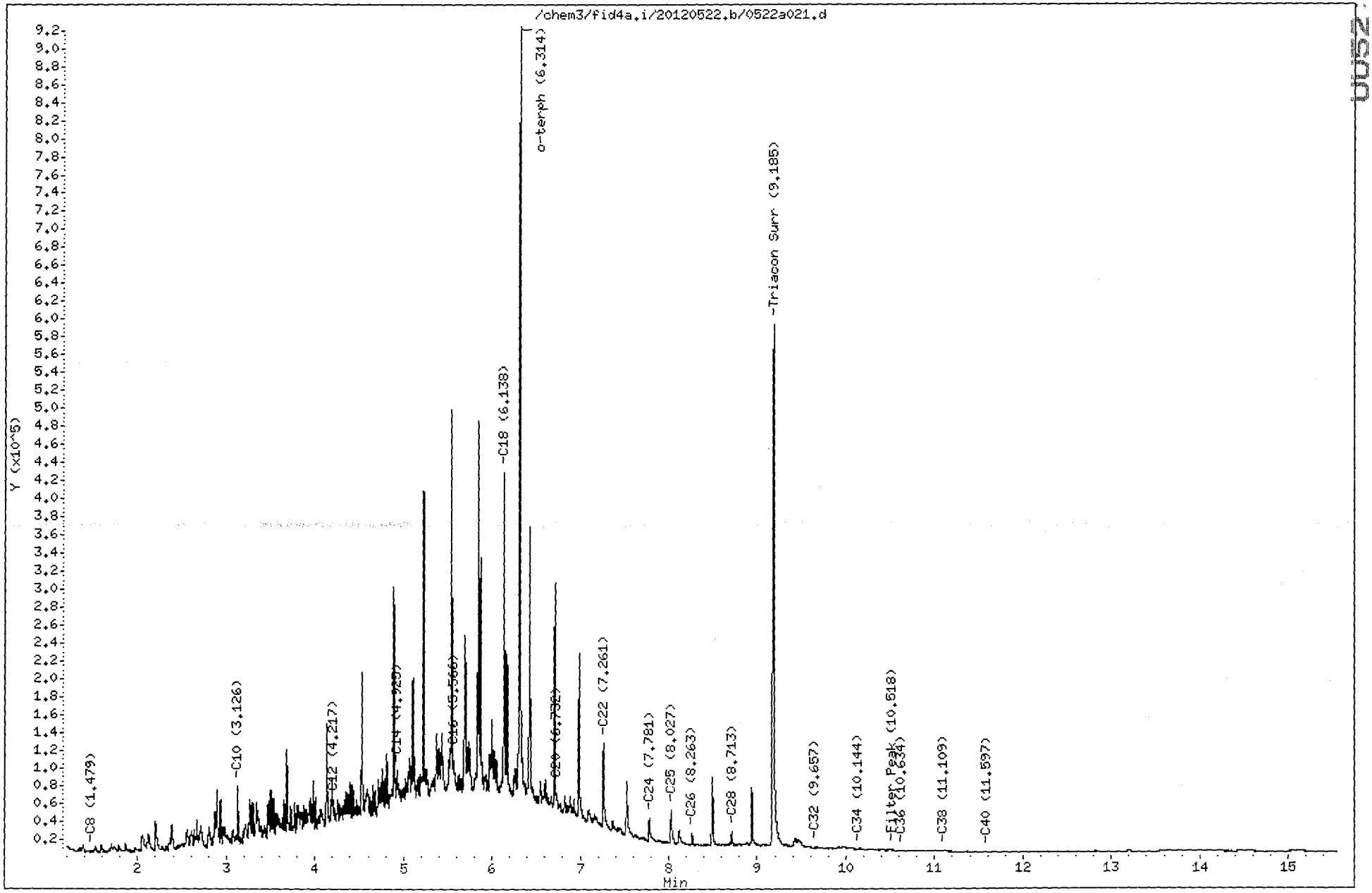
Sample Info: UU52IMS

Operator: MH

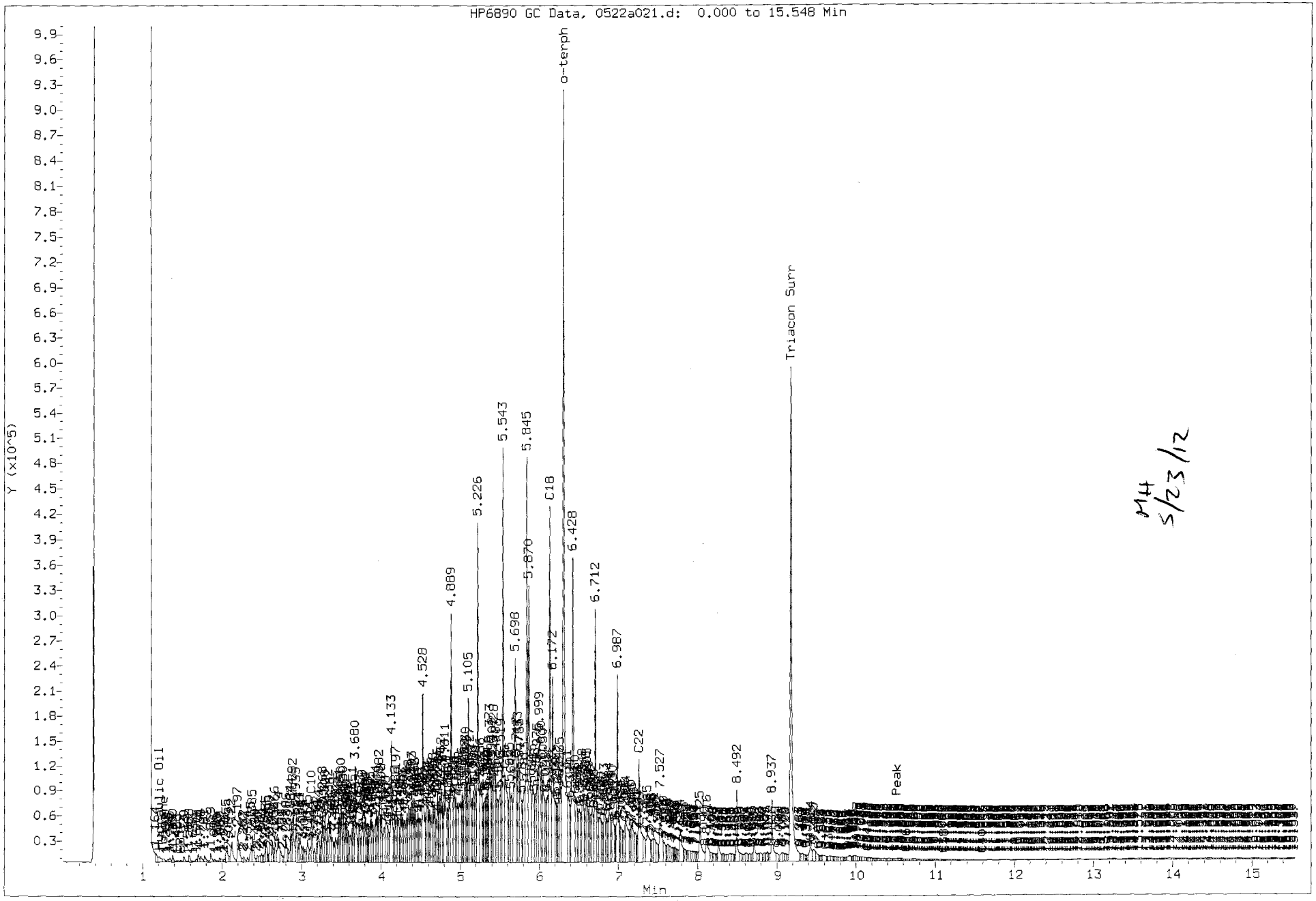
Column phase: RTX-1

Column diameter: 0.25

UU52 04915



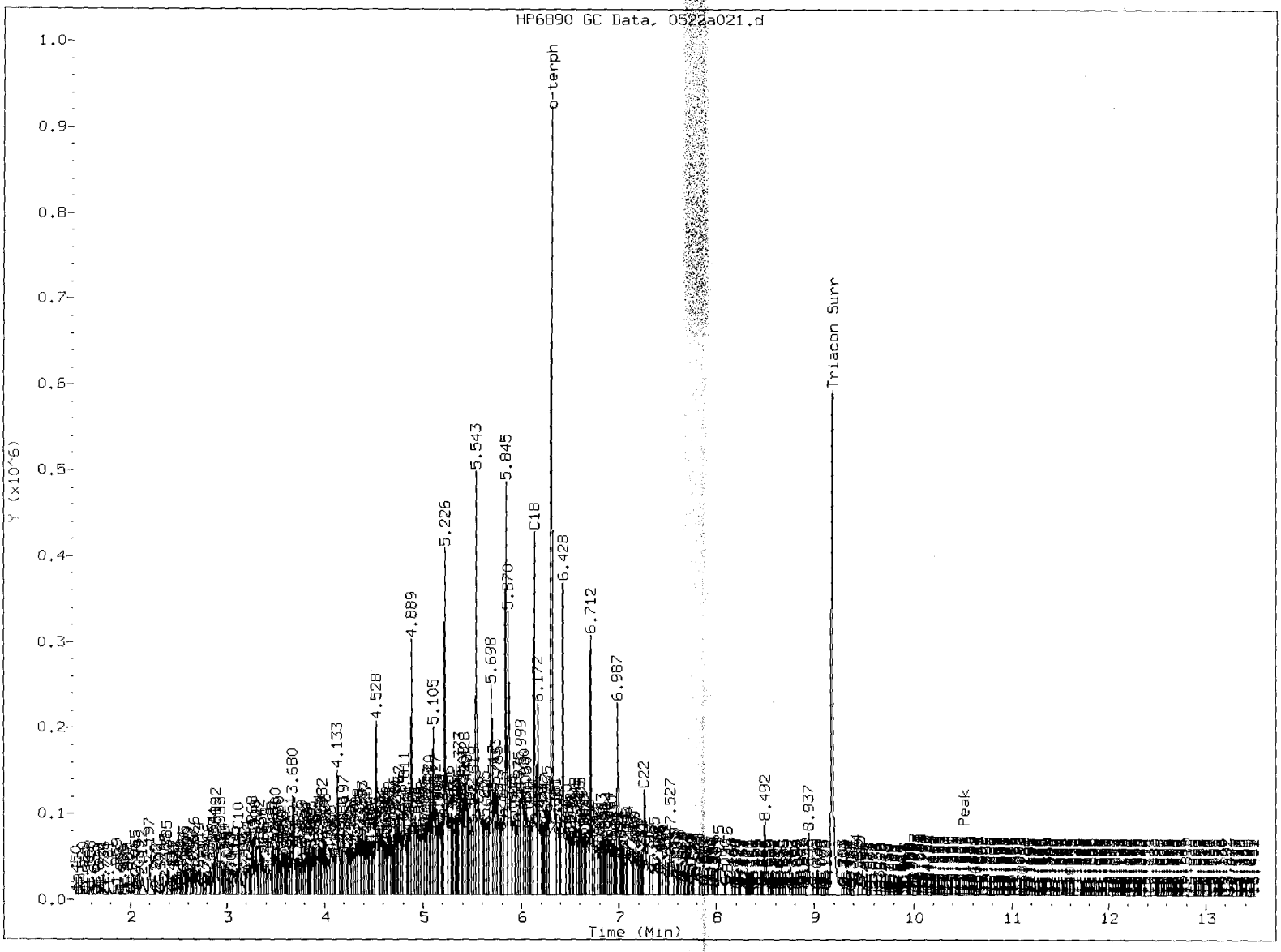
Data File: /chem3/fid4a.i/20120522.b/0522a021.d
Injection Date: 22-MAY-2012 14:23
Instrument: fid4a.i
Client Sample ID: MS008-SS-120515 MS



MH 5/23/12

UJ52 - 61915

FID:4A-2C/RTX-1 UU52IMS FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a022.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52IMSD
Client ID: MS008-SS-120515 MSD
Injection: 22-MAY-2012 14:48
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.261	-0.008	3886	9082	GAS (Tol-C12)	3861810	256.70	
C8	1.474	0.004	1795	1660	DIESEL (C12-C24)	15220156	1116.83	
C10	3.125	0.000	81088	69034	M.OIL (C24-C38)	1149488	117.90	
C12	4.215	-0.002	52309	41037	AK-102 (C10-C25)	18077962	1116.41	M
C14	4.925	-0.003	94984	124899	AK-103 (C25-C36)	1031561	132.94	
C16	5.567	0.005	109924	200718	OR.DIES (C10-C28)	18555733	1444.81	M
C18	6.139	-0.002	445686	458356	OR.MOIL (C28-C40)	600045	79.45	
C20	6.736	0.010	66284	77183	JET-A (C10-C18)	13256897	893.20	
C22	7.263	-0.007	125024	215442	MIN.OIL (C24-C38)	1149488	85.52	
C24	7.784	0.004	38472	74564				
C25	8.029	0.002	43372	79429				
C26	8.264	-0.003	21117	35960				
C28	8.715	-0.004	22812	33405				
C32	9.650	-0.007	4673	2280				
C34	10.146	0.002	3324	782				
Filter Peak	10.499	-0.009	2279	3004	CREOSOT (C12-C22)	14537207	3956.61	M
C36	10.636	0.007	1690	2057				
C38	11.113	0.000	862	844				
C40	11.598	0.005	284	199				
o-terph	6.315	0.004	918709	815372	CRUDE (Tol-C40)	20243624	2680.30	M
Triacon Surr	9.187	-0.003	562764	804282				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	815372	47.4	105.4
Triacontane	804282	46.9	104.3

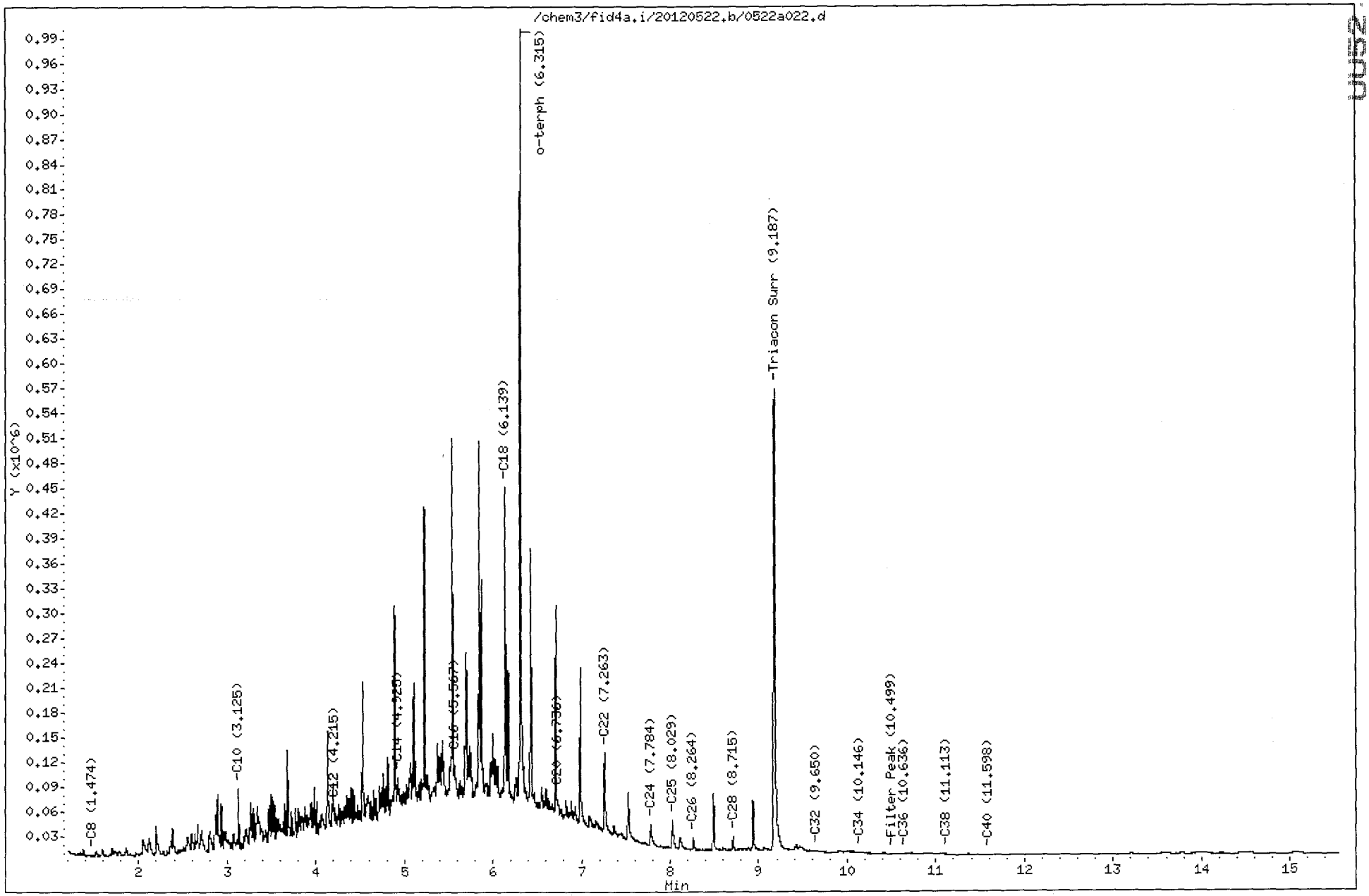
Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a022.d
Date : 22-MAY-2012 14:48
Client ID: MS008-SS-120515 MSD
Sample Info: UU52IMSD

Instrument: fid4a.i
Operator: MH
Column diameter: 0.25

Column phase: RTX-1

UU52 @ 1.5145



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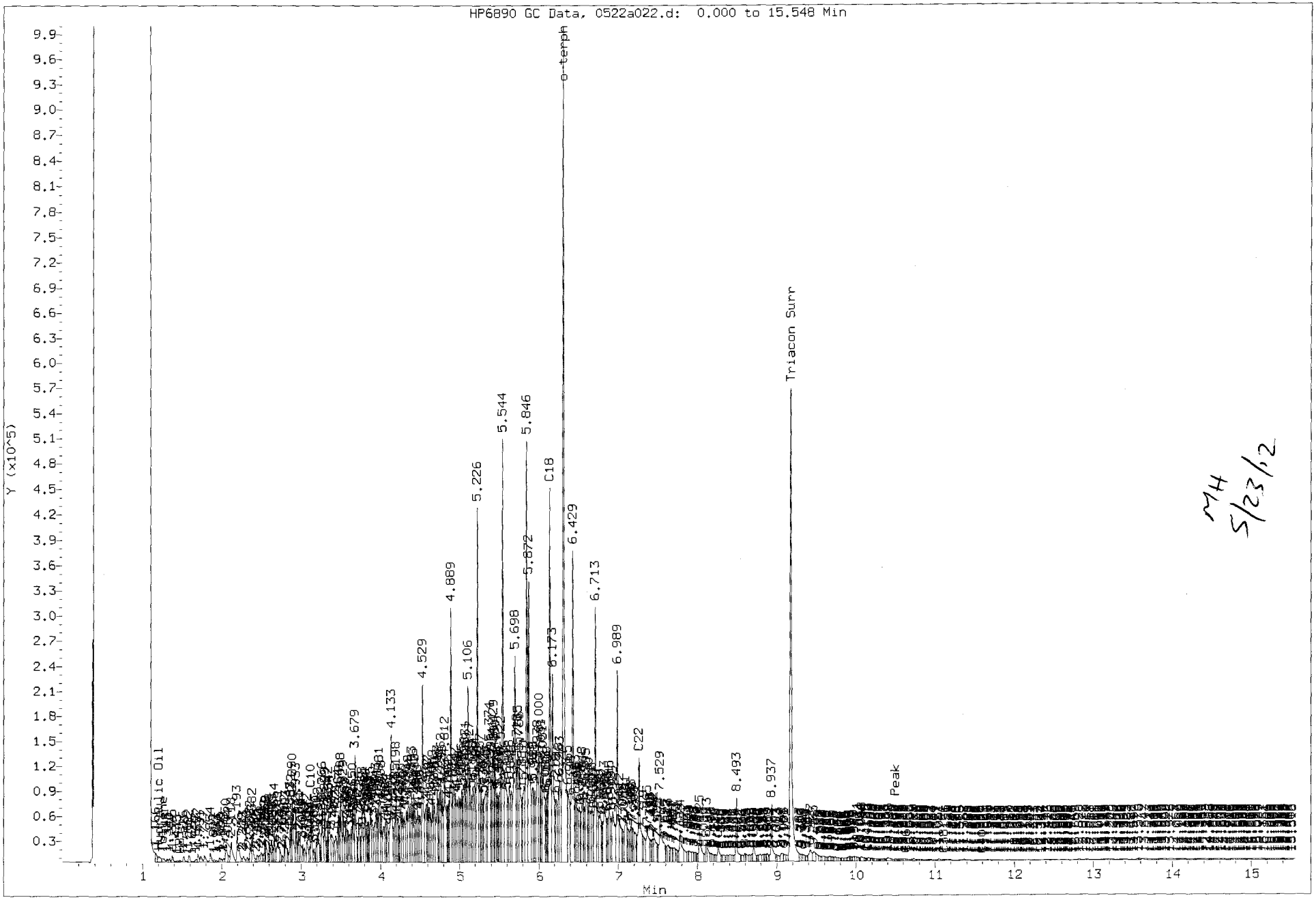
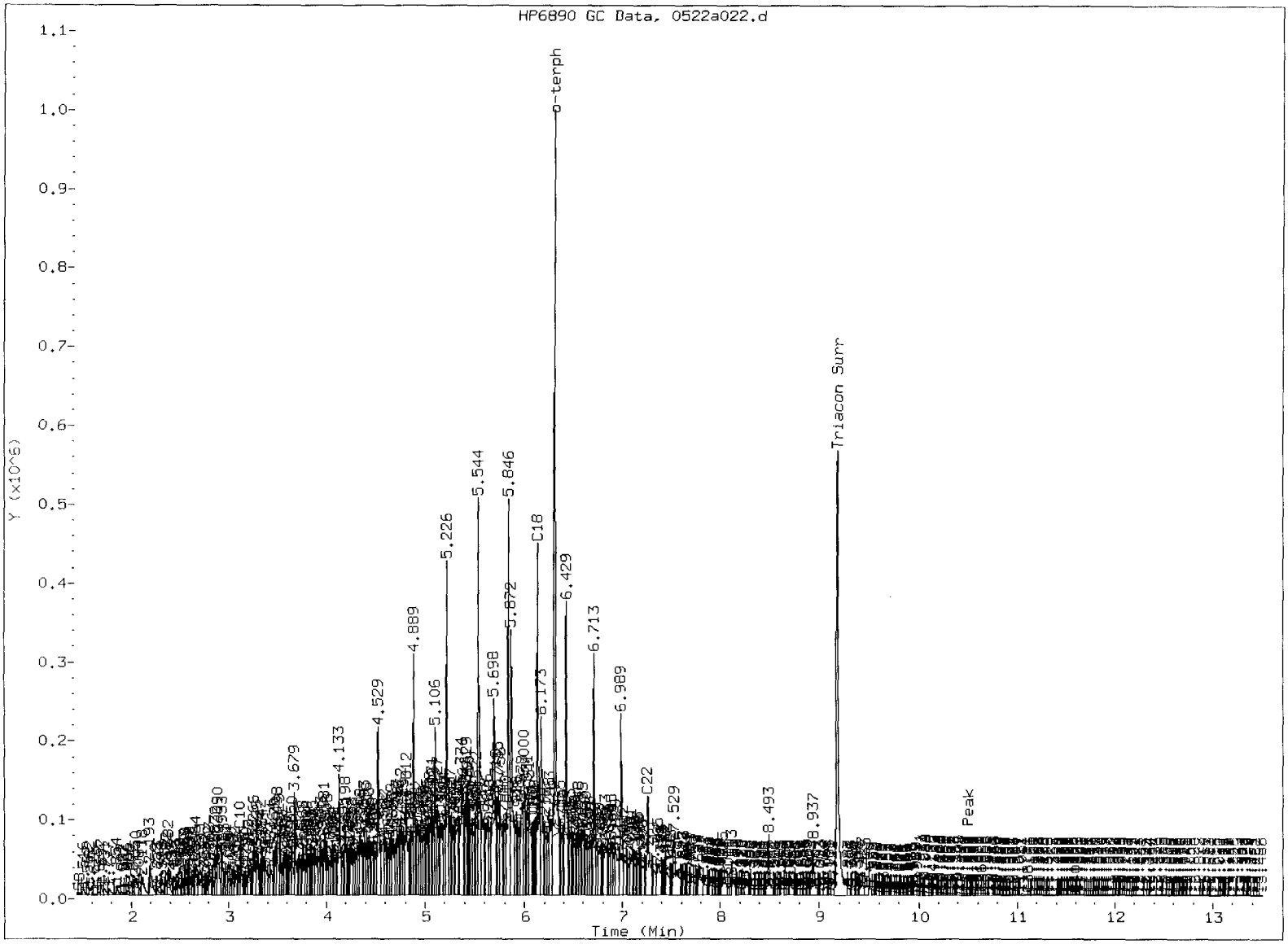
Injection Date: 22-MAY-2012 14:48
Instrument: fid4a.i
Client Sample ID: MS008-SS-120515 MSD



MH 5/23/12

FID:4A-2C/RTX-1 UU52IMSD FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a023.d ARI ID: UU52J
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID: MS009-SS-120515
Instrument: fid4a.i Injection: 22-MAY-2012 15:13
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.315	0.047	2893	2854	GAS (Tol-C12)	145766	9.69
C8	1.501	0.032	746	832	DIESEL (C12-C24)	620606	45.54
C10	3.123	-0.001	592	1396	M.OIL (C24-C38)	909853	93.32
C12	4.215	-0.002	1044	496	AK-102 (C10-C25)	725135	44.78
C14	4.961	0.033	2559	7382	AK-103 (C25-C36)	838237	108.03
C16	5.562	0.001	5099	11323	OR.DIES (C10-C28)	1095675	85.31
C18	6.139	-0.001	7155	11843	OR.MOIL (C28-C40)	531983	70.44
C20	6.735	0.009	2002	663	JET-A (C10-C18)	437001	29.44
C22	7.260	-0.010	4995	8553	MIN.OIL (C24-C38)	909853	67.69
C24	7.768	-0.011	3330	1815			
C25	8.035	0.008	24716	48759			
C26	8.266	-0.001	11820	22390			
C28	8.715	-0.005	18593	30922			
C32	9.651	-0.005	4109	2571			
C34	10.139	-0.005	3321	4977			
Filter Peak	10.508	0.000	2252	2657	CREOSOT (C12-C22)	515018	140.17
C36	10.646	0.017	1875	1508			
C38	11.115	0.001	1190	1172			
C40	11.602	0.009	789	991			
o-terph	6.309	-0.002	658975	783692	CRUDE (Tol-C40)	1699449	225.01
Triacon Surr	9.184	-0.005	530320	760655			

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	783692	45.6	101.3
Triacontane	760655	44.4	98.6

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a023.d

Date : 22-MAY-2012 15:13

Client ID: MS009-SS-120515

Sample Info: UU52J

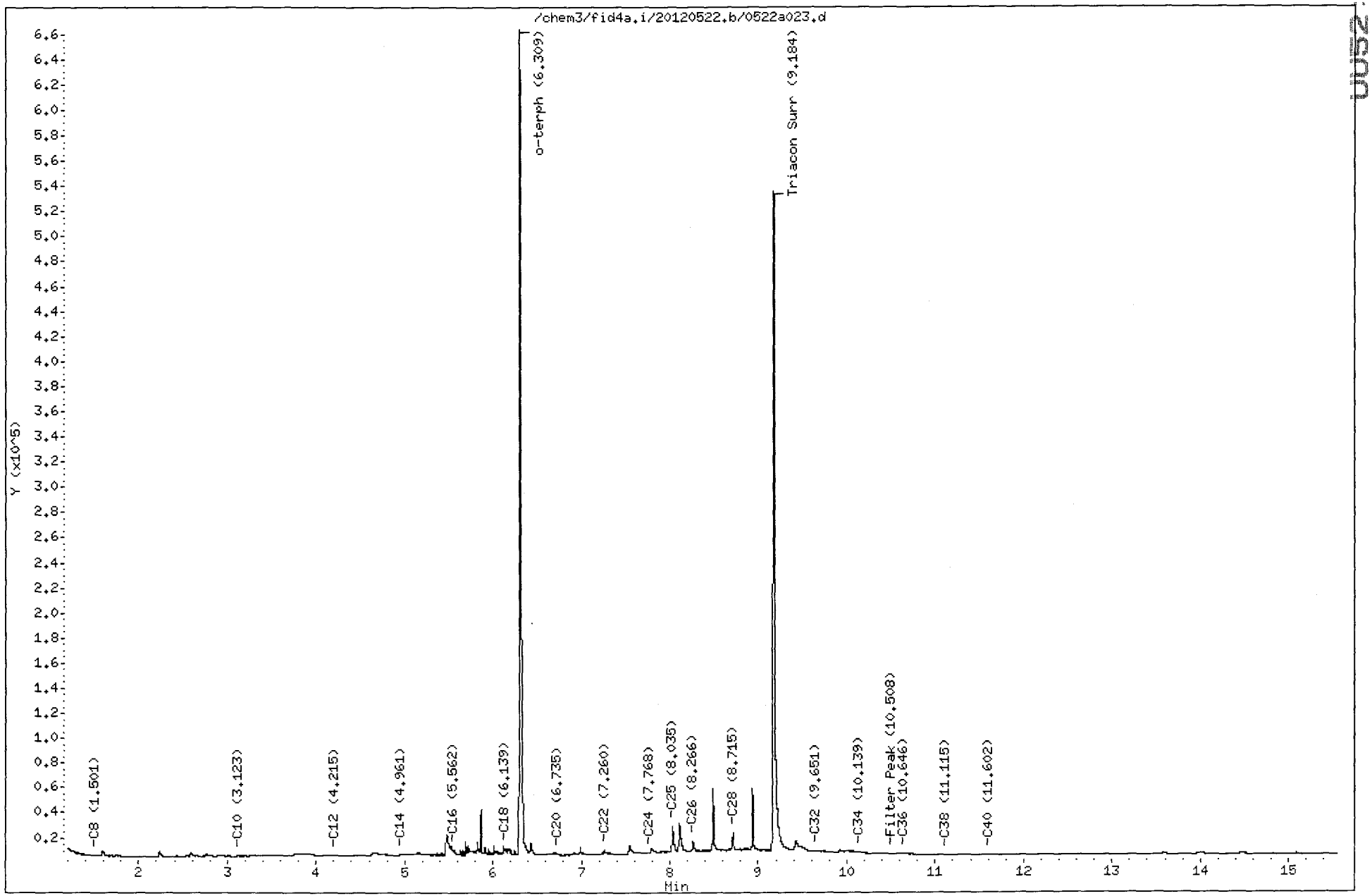
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

UU52 01953



MH
5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a024.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL #3
Client ID:
Injection: 22-MAY-2012 15:37
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.313	0.044	2757	3760	GAS (Tol-C12)	941014	62.55	
C8	1.476	0.007	1300	1968	DIESEL (C12-C24)	3577293	262.50	
C10	3.127	0.002	4459	4165	M.OIL (C24-C38)	113882	11.68	
C12	4.212	-0.005	13393	18446	AK-102 (C10-C25)	4275348	264.02	M
C14	4.940	0.012	24622	63173	AK-103 (C25-C36)	87003	11.21	
C16	5.549	-0.013	79280	108373	OR.DIES (C10-C28)	4343513	338.20	M
C18	6.137	-0.004	57359	79945	OR.MOIL (C28-C40)	23594	3.12	
C20	6.738	0.012	24208	78380	JET-A (C10-C18)	3170726	213.63	
C22	7.254	-0.016	7595	9772	MIN.OIL (C24-C38)	113882	8.47	
C24	7.786	0.007	3383	3012				
C25	8.028	0.002	2223	834				
C26	8.273	0.006	2366	3214				
C28	8.733	0.013	956	2426				
C32	9.659	0.003	167	147				
C34	10.151	0.007	56	54				
Filter Peak	10.503	-0.005	32	21	CREOSOT (C12-C22)	3440353	936.37	M
C36	10.633	0.004	27	6				
C38	11.125	0.012	54	65				
C40	11.585	-0.009	106	171				
o-terph	6.312	0.000	686942	796052	CRUDE (Tol-C40)	4634836	613.66	M
Triacon Surr	9.196	0.007	286	402				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	796052	46.3	102.9
Triacontane	402	0.0	0.1

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a024.d

Date : 22-MAY-2012 15:37

Client ID:

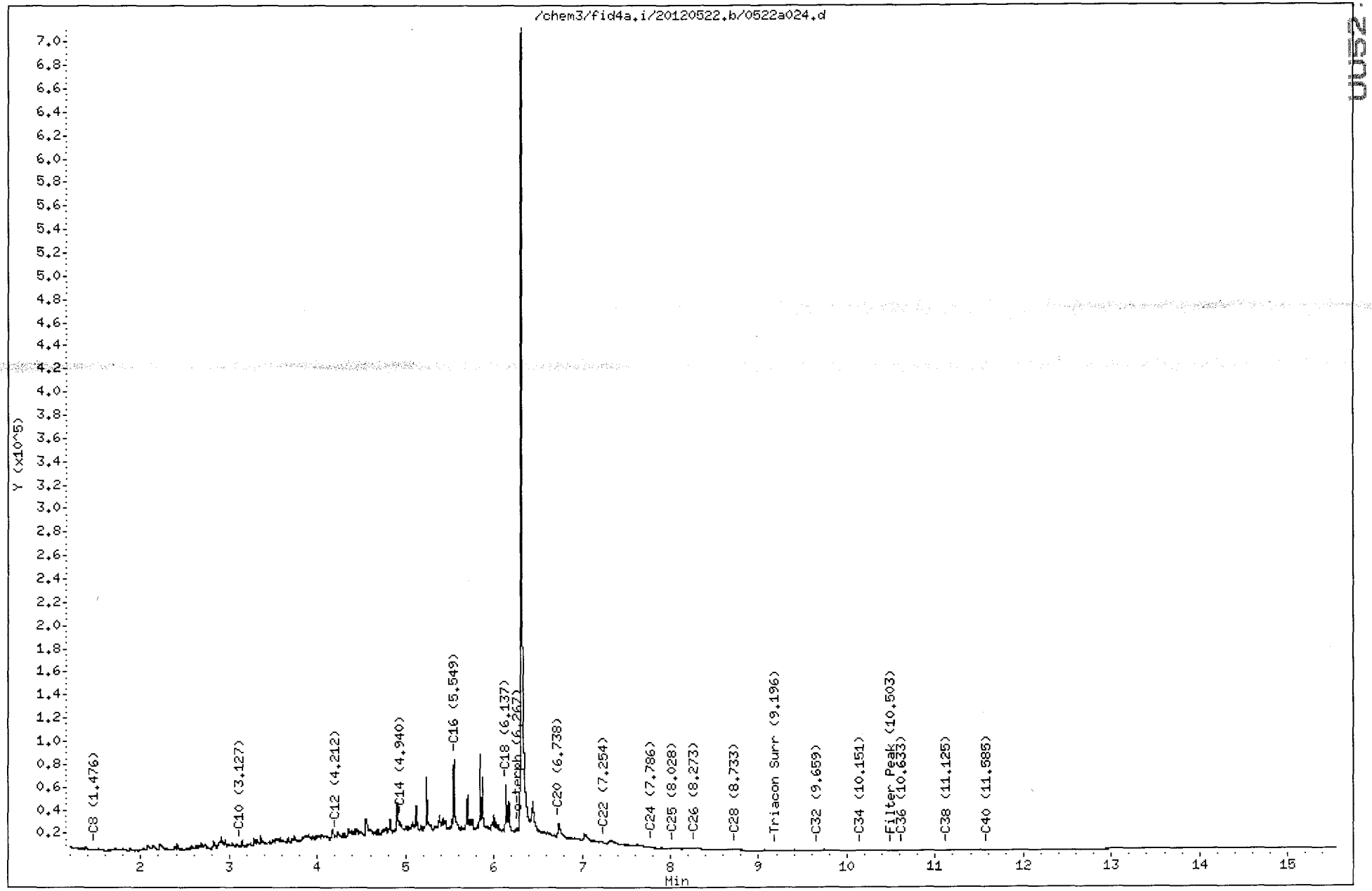
Sample Info: DIESEL #3

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



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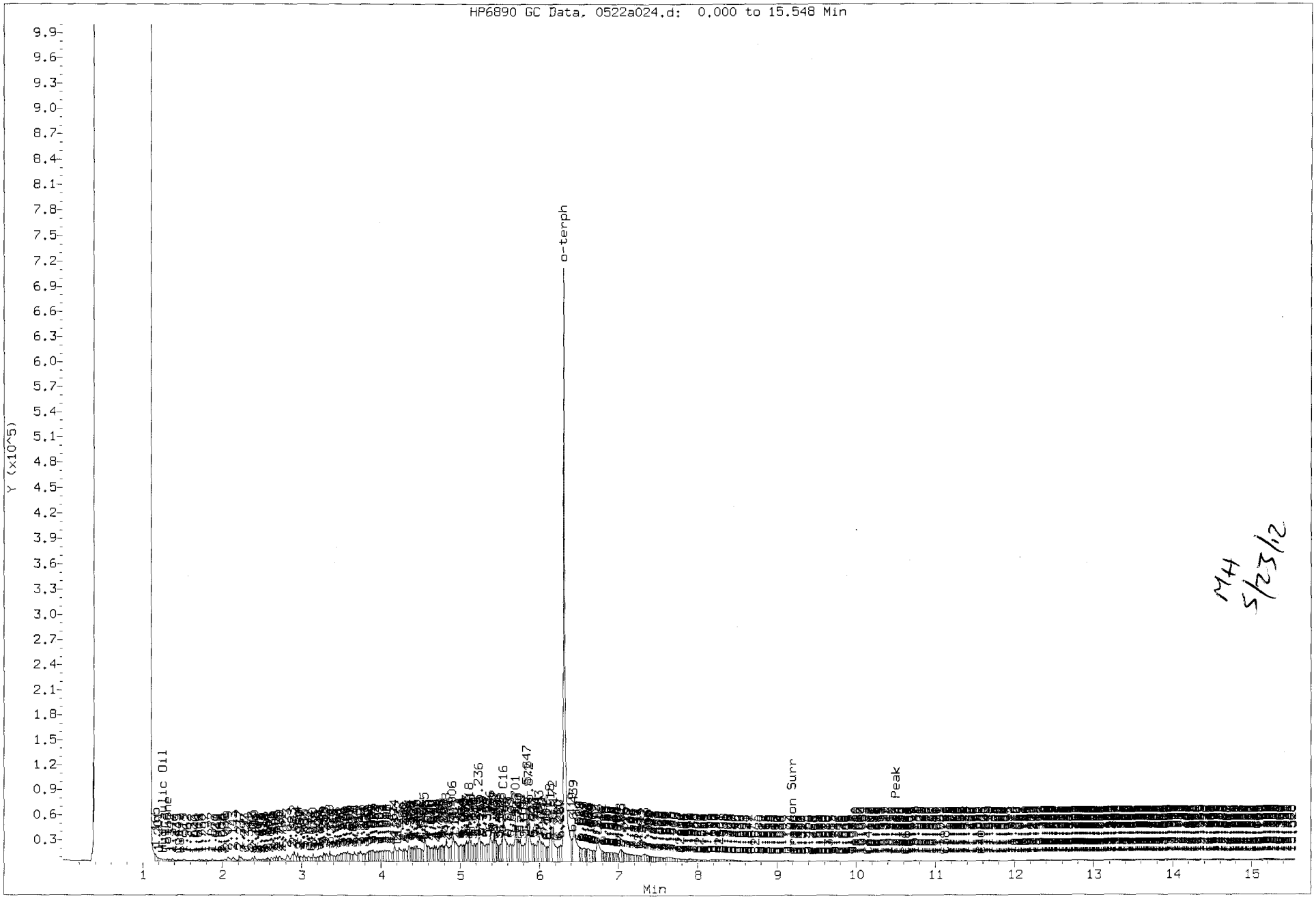
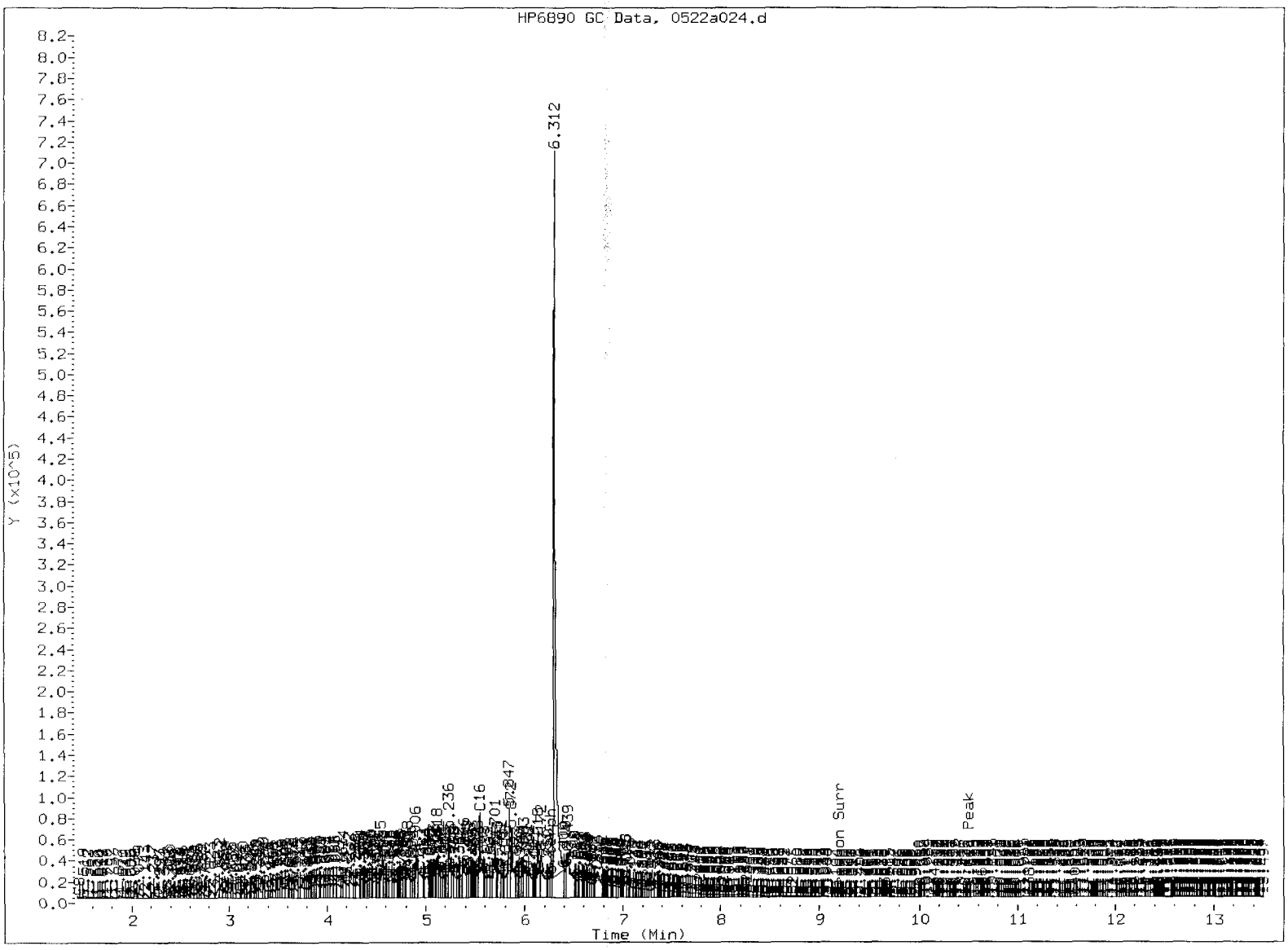
Injection Date: 22-MAY-2012 15:37
Instrument: fid4a.i
Client Sample ID:



MH 5/23/12

JUS2 : 91.956

FID:4A-2C/RTX-1 DIESEL #3 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a025.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: MOIL #3
Client ID:
Injection: 22-MAY-2012 16:01
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.266	-0.003	32677	74168	GAS (Tol-C12)	153474	10.20	
C8	1.519	0.050	841	783	DIESEL (C12-C24)	554082	40.66	
C10	3.122	-0.003	405	236	M.OIL (C24-C38)	4642811	476.20	
C12	4.234	0.017	533	323	AK-102 (C10-C25)	785901	48.53	
C14	4.934	0.006	470	687	AK-103 (C25-C36)	4213139	542.98	M
C16	5.557	-0.005	440	732	OR.DIES (C10-C28)	2231817	173.78	
C18	6.115	-0.025	748	2295	OR.MOIL (C28-C40)	3138606	415.56	M
C20	6.731	0.005	973	1560	JET-A (C10-C18)	80518	5.43	
C22	7.270	0.000	4758	4111	MIN.OIL (C24-C38)	4642811	345.43	M
C24	7.784	0.005	20461	9254				
C25	8.030	0.003	26308	17186				
C26	8.267	0.000	31022	24685				
C28	8.715	-0.005	34422	50645				
C32	9.656	-0.001	29161	43232				
C34	10.142	-0.002	21227	18977				
Filter Peak	10.502	-0.006	14674	16563	CREOSOT (C12-C22)	155029	42.19	
C36	10.625	-0.004	12763	17412				
C38	11.120	0.006	7186	3170				
C40	11.590	-0.004	3912	3164				
o-terph	6.315	0.004	494	326	CRUDE (Tol-C40)	5488979	726.75	M
Triacon Surr	9.190	0.001	666221	758370				

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	326	0.0	0.0
Triacontane	758370	44.2	98.3

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120522.b/0522a025.d

Page 1

Date : 22-MAY-2012 16:01

Client ID:

Instrument: fid4a.i

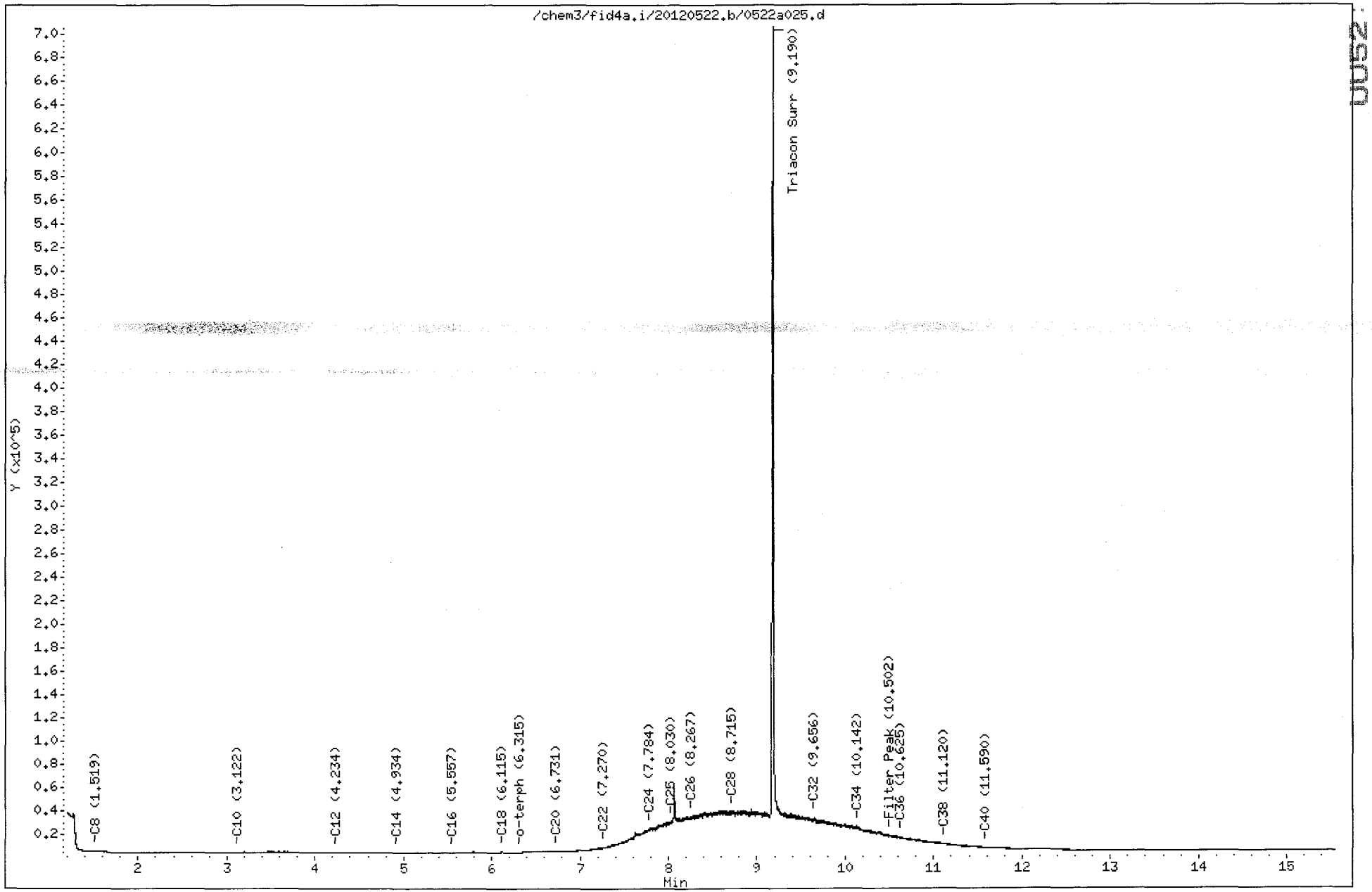
Sample Info: MOIL #3

Operator: MH

Column phase: RTX-1

Column diameter: 0.25

UU52.01953



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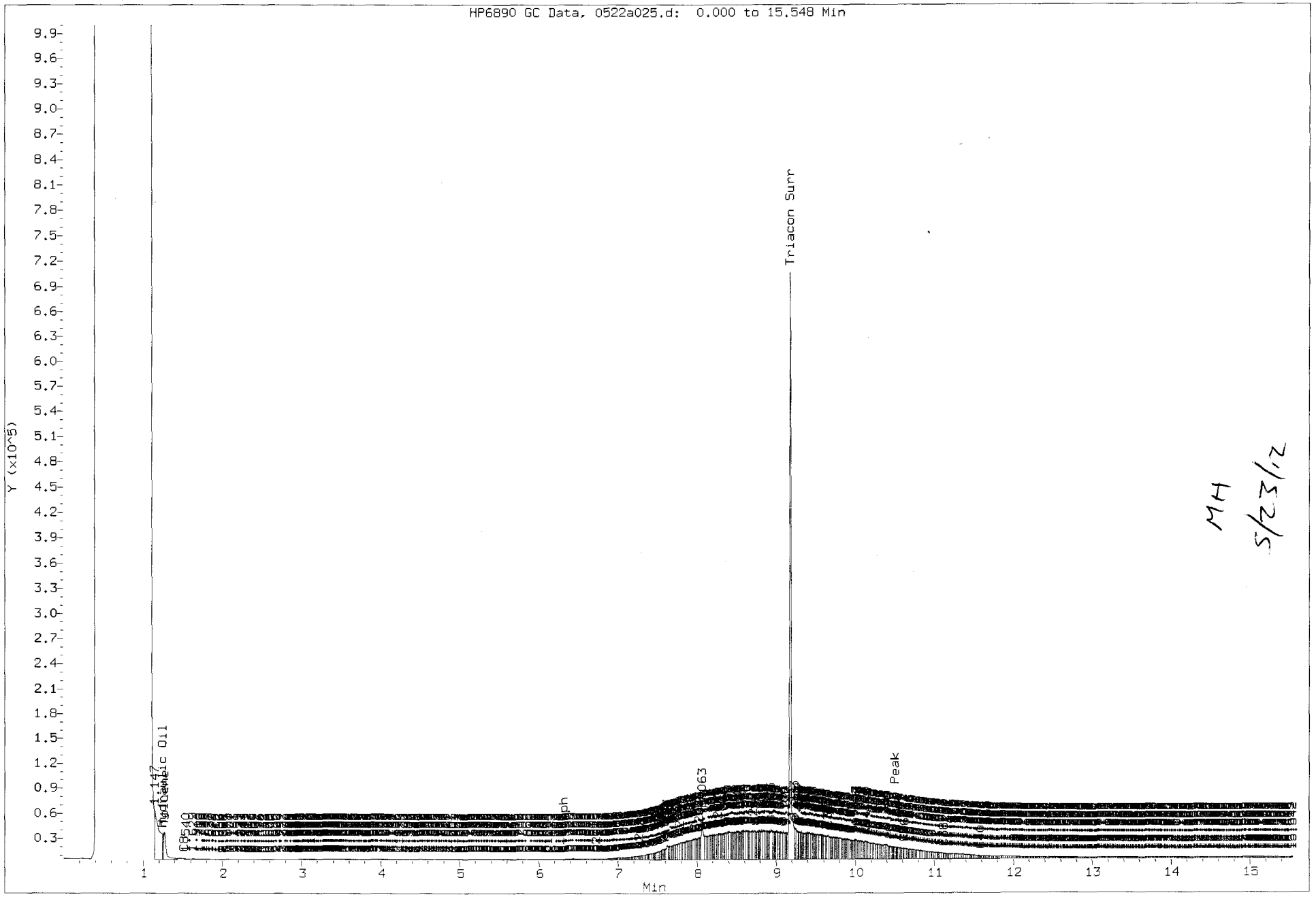
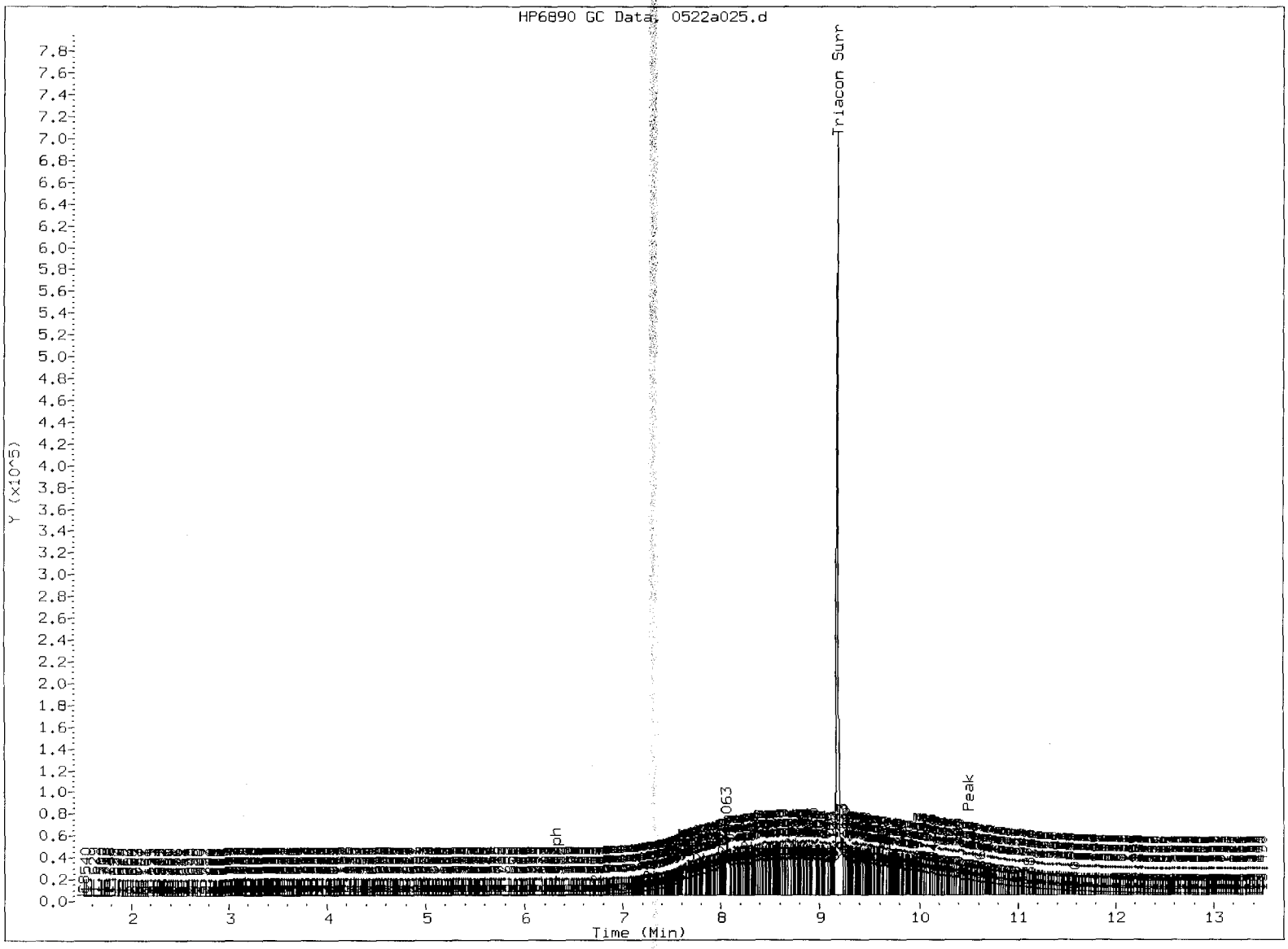
Injection Date: 22-MAY-2012 16:01
Instrument: fid4a.i
Client Sample ID:



MH 5/23/12

FID:4A-2C/RTX-1 MOIL #3 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: UU62 Client ID: Anchor QEA, LLC

ARI SOP: **403S**(PCB) **405S**(Herb) (**407S**(TPH-D)) **409S**(HCID) **412S**(PCP) **423S**(Pest) **427S**(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): A/S NWTPHD + M.011

Instrument: FID-3A FID-3B (FID-4A) FID-4B FID-5 FID-7 FID-8 FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/14/12 MO:1 5/15/12 Diesel Analysis Start: 5/21/12

Endrin/DDT Breakdown <15%? YES / NO / NA

Method Blank In Control? (YES) / N

ICal Meets RF & %RSD Criteria? (YES) / NO

LCS/LCSD Recovery In Control? (YES) / N

CCal Meets RF & %RSD Criteria? (YES) / NO

Surrogate Recovery In Control? (YES) / N

Manual Integrations for ICal? (YES) / NO

Manual Integrations for Samples? YES / (N)

Internal Standard Meets Criteria? YES / NO / (NA)

Special Analysis Criteria Met? YES / NO / (N)

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst: [signature] **Date:** 5/22/12

Reviewer: [signature] **Date:** 5/22

Analytical Resources Inc.: Organics Instrument Log

FID-4A Serial No.: US00003247

Date: 5/21/12 Analysis: NWTPHD Analyst: MH

Column 1 Serial No.: 977444 Column Type: RTX-1

Column 2 Serial No.: ——— Column Type: ———

GC Method: TPH ICal Date: 5/15/12 Diesel 5/14/12 MOil Injection Volume: 1µl

IS	Ical/Ccal	ICV
	1932-1	
	1960-1	
	1972-1	
	1971-3	

Document All Maintenance Tasks In StarLIMS

	Inject Date/Time	Filename	DF	LabID
1	21-MAY-2012 09:13	0521a001.d	1	RINSE
2	21-MAY-2012 09:36	0521a002.d	1	RT
3	21-MAY-2012 10:01	0521a003.d	1	IB
4	21-MAY-2012 10:25	0521a004.d	1	DIESEL #1
5	21-MAY-2012 10:49	0521a005.d	1	MOIL #1
6	21-MAY-2012 11:44	0521a006.d	1	UU62MBW1
7	21-MAY-2012 12:08	0521a007.d	1	UU62LCSW1
8	21-MAY-2012 12:33	0521a008.d	1	UU62LCSDW1
9	21-MAY-2012 12:57	0521a009.d	1	UU62QLS
10	21-MAY-2012 13:22	0521a010.d	1	UU62J
11	21-MAY-2012 13:46	0521a011.d	1	UU62K
12	21-MAY-2012 14:11	0521a012.d	1	UU74A
13	21-MAY-2012 14:35	0521a013.d	1	UU74B
14	21-MAY-2012 15:00	0521a014.d	1	UU74C
15	21-MAY-2012 15:24	0521a015.d	1	UU74D
16	21-MAY-2012 15:49	0521a016.d	1	UU74E
17	21-MAY-2012 16:13	0521a017.d	1	DIESEL #2
18	21-MAY-2012 16:37	0521a018.d	1	MOIL #2
19	21-MAY-2012 17:02	0521a019.d	1	UU68MBW1
20	21-MAY-2012 17:26	0521a020.d	1	UU68LCSW1
21	21-MAY-2012 17:50	0521a021.d	1	UU68LCSDW1
22	21-MAY-2012 18:14	0521a022.d	1	UU68A
23	21-MAY-2012 18:39	0521a023.d	1	UU66A
24	21-MAY-2012 19:03	0521a024.d	1	UU66B
25	21-MAY-2012 19:27	0521a025.d	1	DIESEL #3
26	21-MAY-2012 19:51	0521a026.d	1	MOIL #3
27	21-MAY-2012 20:15	0521a027.d	1	UU96MBS1
28	21-MAY-2012 20:39	0521a028.d	1	UU96LCSS1
29	21-MAY-2012 21:03	0521a029.d	1	UU96LCSDS1
30	21-MAY-2012 21:28	0521a030.d	1	UU96A
31	21-MAY-2012 21:52	0521a031.d	1	DIESEL #4
32	21-MAY-2012 22:16	0521a032.d	1	MOIL #4

MH 5/22/12

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a002.d ARI ID: RT
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 21-MAY-2012 09:36
Operator: MH
Report Date: 05/22/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.261	0.000	533873	430402	GAS (Tol-C12)	1209908	80.43
C8	1.469	0.000	269194	259383	DIESEL (C12-C24)	1553423	113.99
C10	3.123	0.000	114234	176363	M.OIL (C24-C38)	1694634	173.82
C12	4.202	0.000	41963	135228	AK-102 (C10-C25)	2000812	123.56
C14	4.924	0.000	88966	221541	AK-103 (C25-C36)	1551244	199.92
C16	5.563	0.000	128044	213983	OR.DIES (C10-C28)	2912728	226.79
C18	6.142	0.000	125589	223833	CRUDE (Tol-C40)	4534490	600.38
C20	6.724	0.000	141594	234160	MIN.OIL (C24-C38)	1694634	126.08
C22	7.268	0.000	209040	239054			
C24	7.778	0.000	282468	252084			
C25	8.027	0.000	366999	331942			
C26	8.264	0.000	221619	261403			
C28	8.720	0.000	273011	264368			
C32	9.665	0.000	168191	234518			
C34	10.146	0.000	131490	208635	CREOSOT (C12-C22)	1299905	353.80
Filter Peak	10.516	0.000	532	362			
C36	10.627	0.000	98676	159596			
C38	11.098	0.000	56055	112028			
C40	11.560	0.000	19587	45321			
o-terph	6.313	0.000	598321	820750	JET-A (C10-C18)	1262101	85.04
Triacon Surr	9.193	0.000	638664	804533			

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	820750	47.8	106.1
Triacontane	804533	46.9	104.3

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120521.b/0521a002.d

Date : 21-MAY-2012 09:36

Client ID:

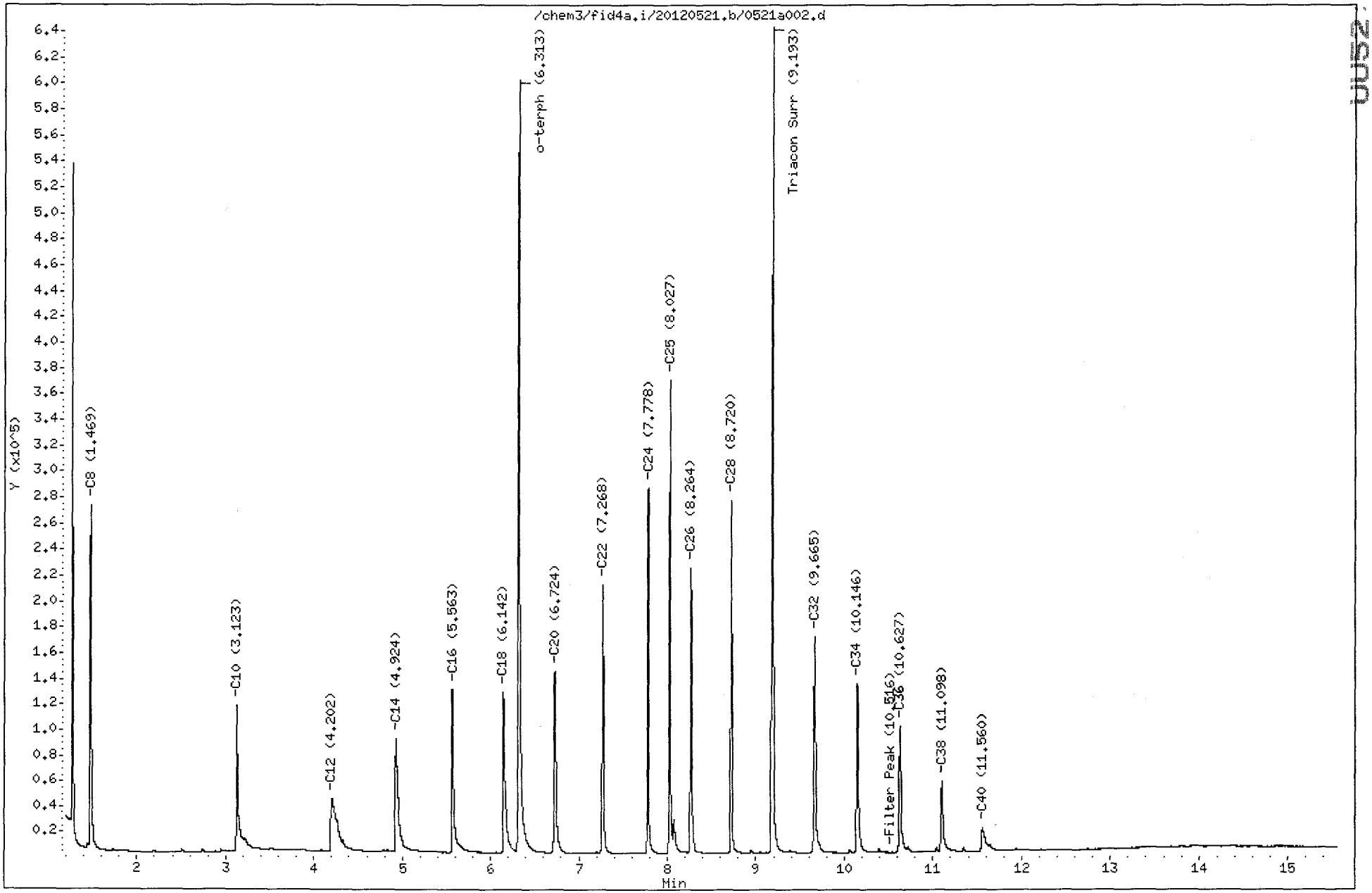
Sample Info: RT

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a003.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: IB
Client ID:
Injection: 21-MAY-2012 10:01
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.262	0.001	64899	143076	GAS (Tol-C12)	309031	20.54
C8	----				DIESEL (C12-C24)	160175	11.75
C10	3.130	0.006	1102	3292	M.OIL (C24-C38)	306314	31.42
C12	4.150	-0.052	1495	4143	AK-102 (C10-C25)	257847	15.92
C14	4.934	0.011	1293	1560	AK-103 (C25-C36)	271802	35.03
C16	5.564	0.001	724	381	OR.DIES (C10-C28)	411260	32.02
C18	6.133	-0.009	442	416	CRUDE (Tol-C40)	804322	106.49
C20	6.735	0.010	1315	1226	MIN.OIL (C24-C38)	306314	22.79
C22	7.254	-0.014	485	546			
C24	7.782	0.004	57	25			
C25	8.021	-0.007	1079	918			
C26	8.281	0.017	391	814			
C28	8.704	-0.017	2496	2949			
C32	9.660	-0.005	879	1554			
C34	10.146	0.000	530	271	CREOSOT (C12-C22)	158367	43.10
Filter Peak	10.514	-0.002	550	448			
C36	10.640	0.013	532	615			
C38	11.125	0.028	748	384			
C40	11.565	0.005	869	548			
o-terph	6.312	-0.002	539358	839049	JET-A (C10-C18)	201862	13.60
Triacon Surr	9.189	-0.004	591520	768387			

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	839049	48.8	108.5
Triacontane	768387	44.8	99.6

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120521.b/0521a003.d

Date : 21-MAY-2012 10:01

Client ID:

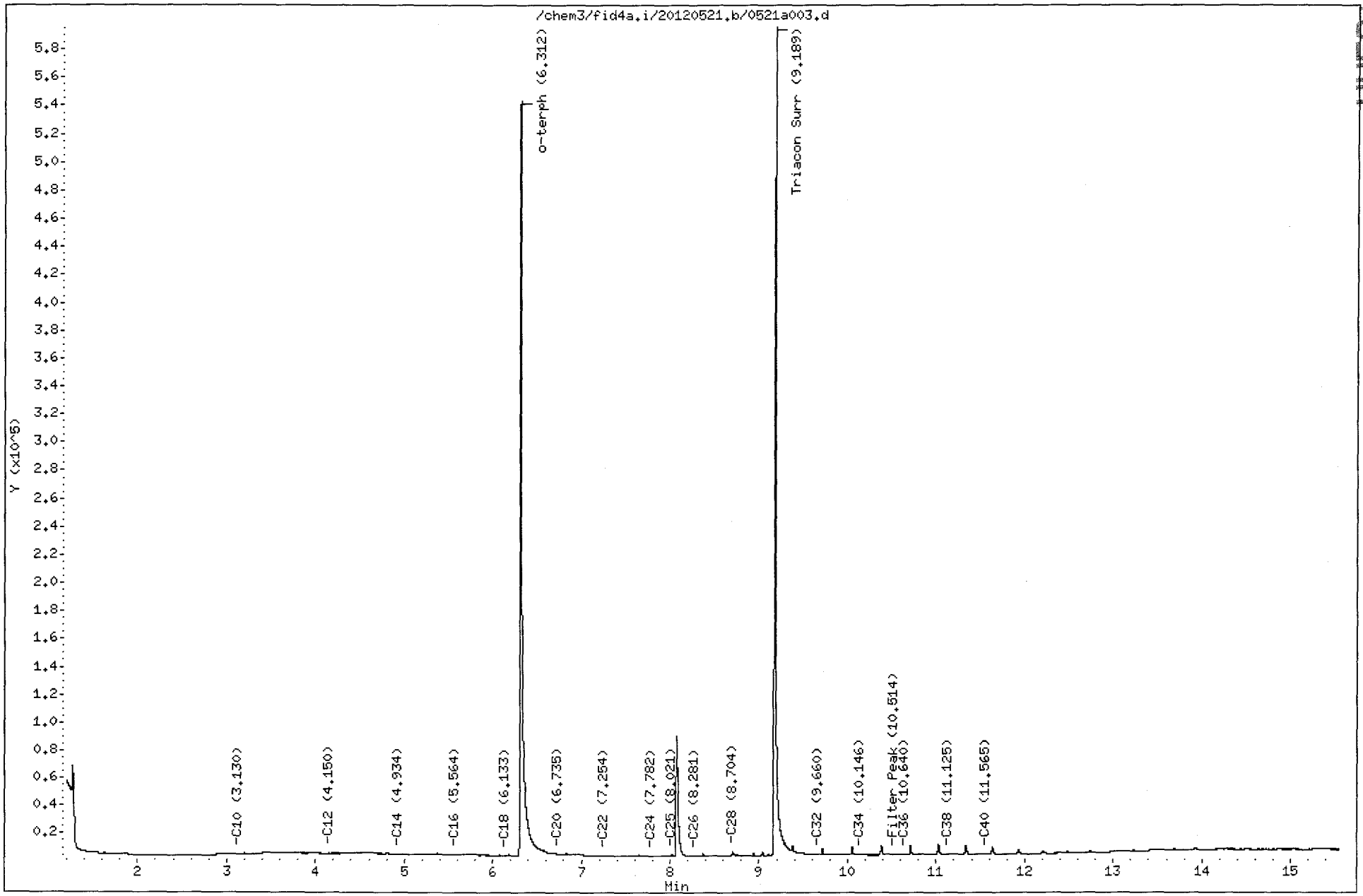
Sample Info: IB

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



MH 5/21/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a004.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL #1
Client ID:
Injection: 21-MAY-2012 10:25

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.308	0.046	2622	3182	GAS (Tol-C12)	881109	58.57	
C8	1.468	-0.001	1047	1417	DIESEL (C12-C24)	3581267	262.79	
C10	3.121	-0.002	4028	4388	M.OIL (C24-C38)	113068	11.60	
C12	4.209	0.007	13218	16391	AK-102 (C10-C25)	4244941	262.15	M
C14	4.940	0.016	23788	31993	AK-103 (C25-C36)	79154	10.20	
C16	5.574	0.011	26264	69940	OR.DIES (C10-C28)	4300316	334.84	M
C18	6.137	-0.005	67686	79926	CRUDE (Tol-C40)	4588580	607.54	M
C20	6.728	0.003	32023	84287	MIN.OIL (C24-C38)	113068	8.41	
C22	7.249	-0.019	7400	9296				
C24	7.785	0.007	2781	3506				
C25	8.025	-0.003	2269	5292				
C26	8.276	0.011	1533	1579				
C28	8.713	-0.007	1624	2573				
C32	9.658	-0.008	58	73				
C34	10.145	-0.001	46	43	CREOSOT (C12-C22)	3450926	939.24	M
Filter Peak	10.524	0.008	86	59				
C36	10.624	-0.003	86	99				
C38	11.103	0.005	244	299				
C40	11.552	-0.008	422	462				
o-terph	6.315	0.002	752711	835976	JET-A (C10-C18)	3138186	211.44	
Triacon Surr	9.195	0.002	103	62				

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	835976	48.6	108.1
Triacontane	62	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120521.b/0521a004.d

Date : 21-MAY-2012 10:25

Client ID:

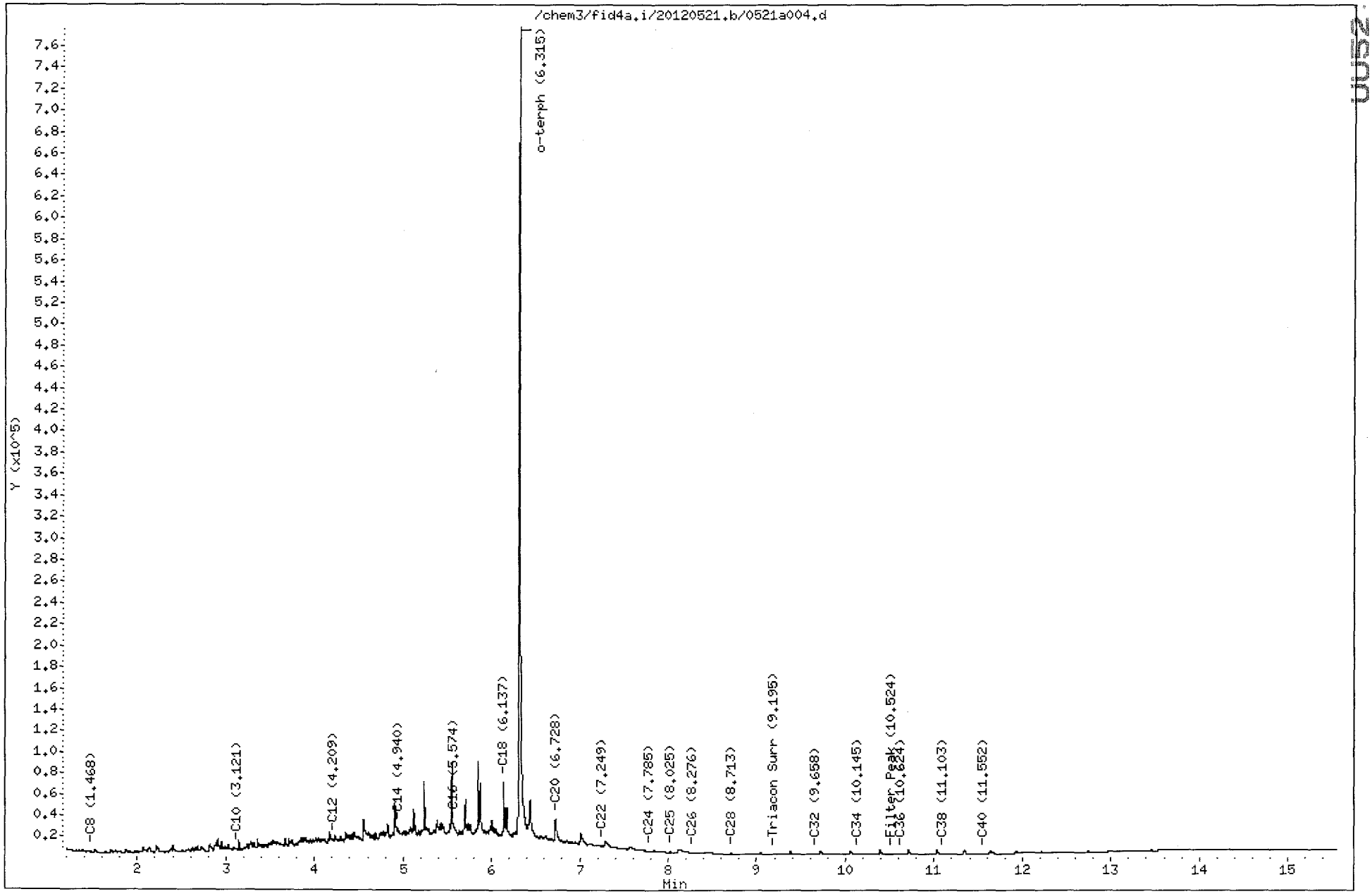
Sample Info: DIESEL #1

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



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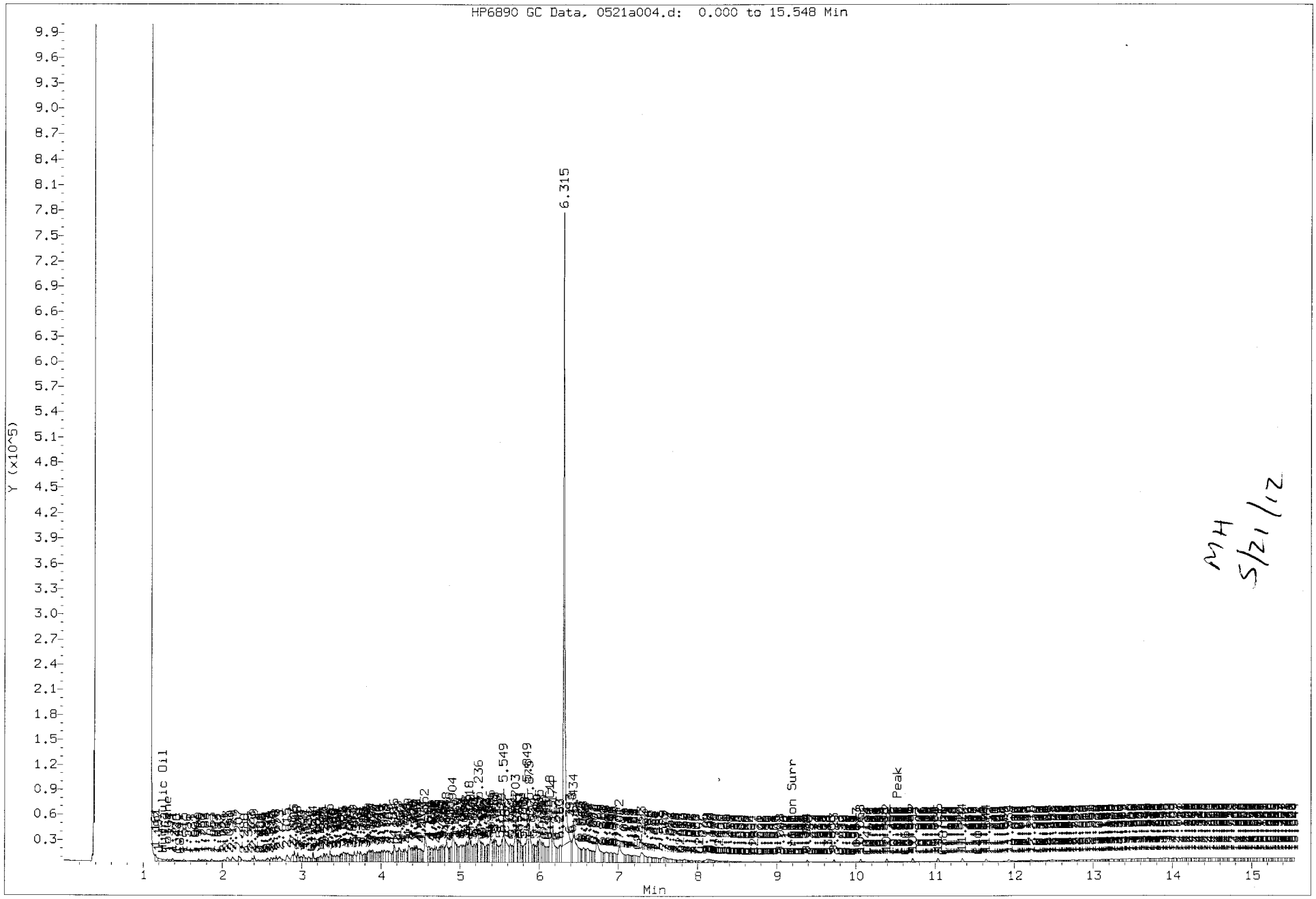
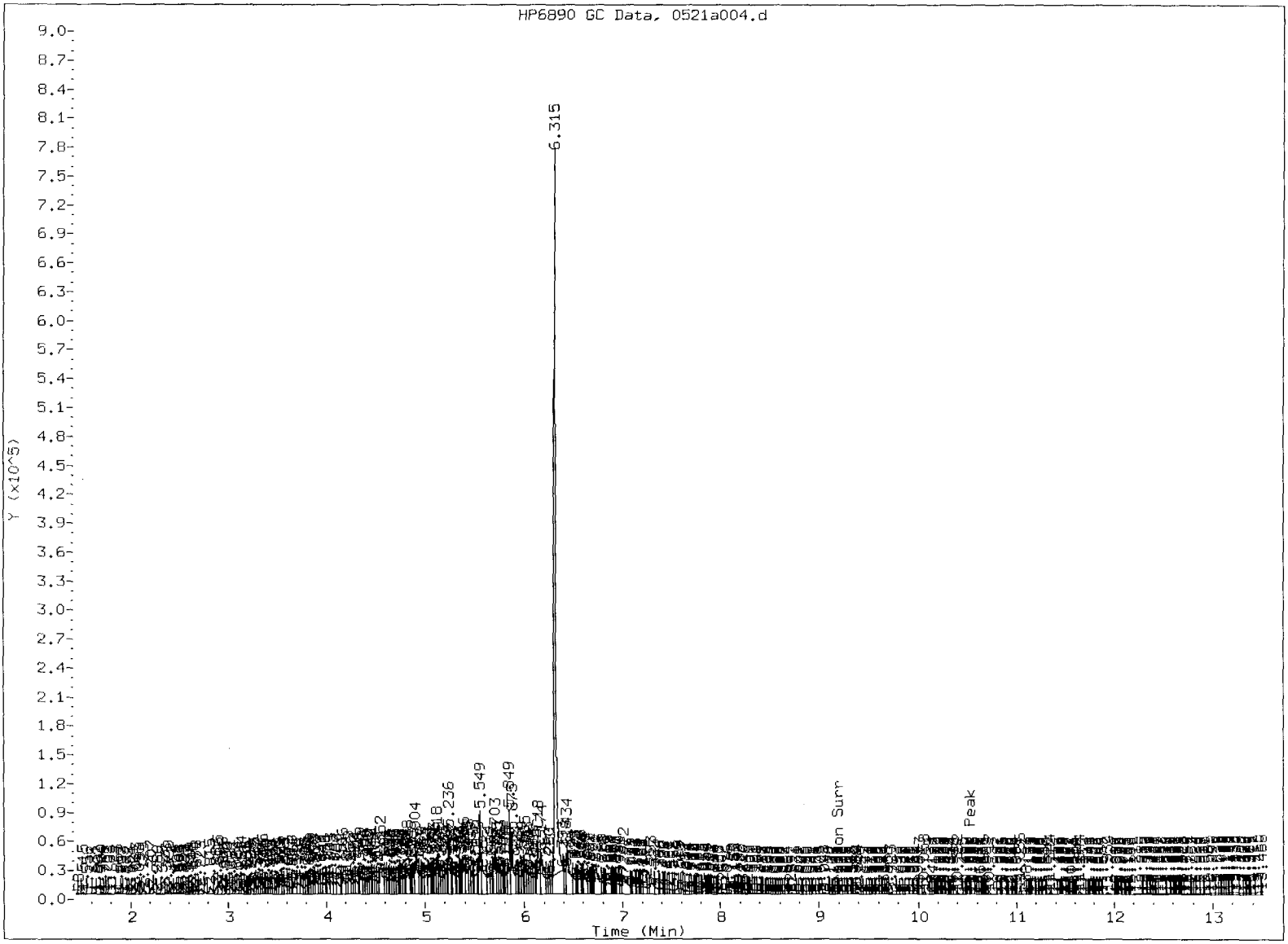
Injection Date: 21-MAY-2012 10:25
Instrument: fid4a.i
Client Sample ID:



MH 5/21/12

UU52 : 91579

FID:4A-2C/RTX-1 DIESEL #1 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/21/12

MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a005.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: MOIL #1
Client ID:
Injection: 21-MAY-2012 10:49
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.265	0.004	45229	93639	GAS (Tol-C12)	201539	13.40	
C8	1.498	0.029	1232	3806	DIESEL (C12-C24)	577999	42.41	
C10	3.119	-0.004	642	291	M.OIL (C24-C38)	4834117	495.83	
C12	4.203	0.000	990	2095	AK-102 (C10-C25)	829968	51.25	
C14	4.926	0.002	895	1239	AK-103 (C25-C36)	4334601	558.63	M
C16	5.558	-0.005	790	1656	OR.DIES (C10-C28)	2266370	176.47	
C18	6.175	0.032	446	830	CRUDE (Tol-C40)	5798539	767.74	M
C20	6.732	0.007	1010	1700	MIN.OIL (C24-C38)	4834117	359.66	M
C22	7.265	-0.003	4657	3078				
C24	7.772	-0.006	19384	19491				
C25	8.025	-0.003	26341	18418				
C26	8.259	-0.005	30838	17047				
C28	8.719	-0.002	34826	21485				
C32	9.661	-0.005	29756	47213				
C34	10.146	0.000	23425	18936	CREOSOT (C12-C22)	190195	51.77	
Filter Peak	10.519	0.003	16258	5078				
C36	10.622	-0.005	14942	8422				
C38	11.107	0.009	9131	4130				
C40	11.564	0.004	5612	2805				
o-terph	6.320	0.006	392	158	JET-A (C10-C18)	140845	9.49	
Triacon Surr	9.196	0.003	593724	764223				

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	158	0.0	0.0
Triacontane	764223	44.6	99.1

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120521.b/0521a005.d

Page 1

Date : 21-MAY-2012 10:49

Client ID:

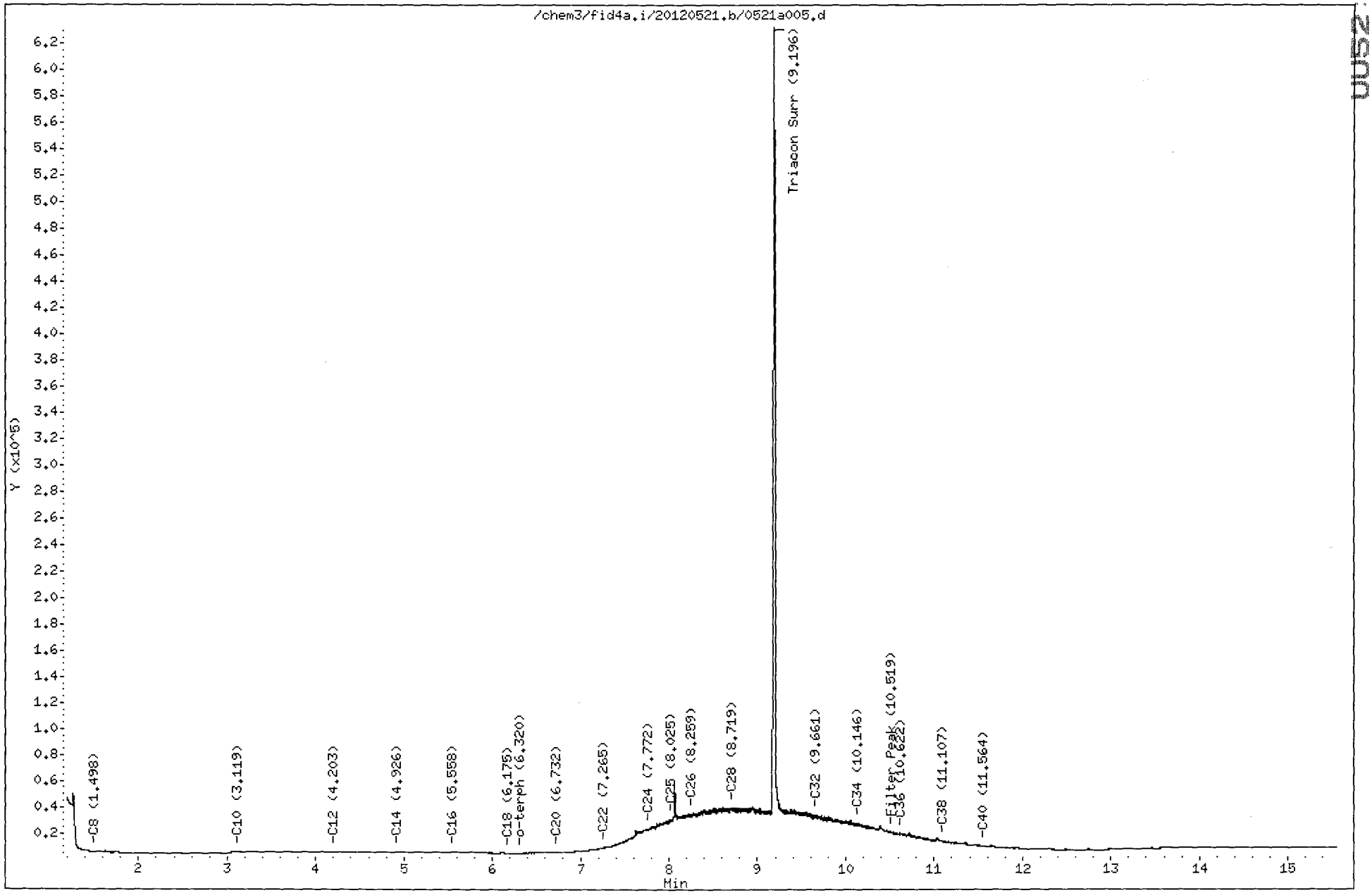
Instrument: fid4a.i

Sample Info: MOIL #1

Operator: MH

Column phase: RTX-1

Column diameter: 0.25



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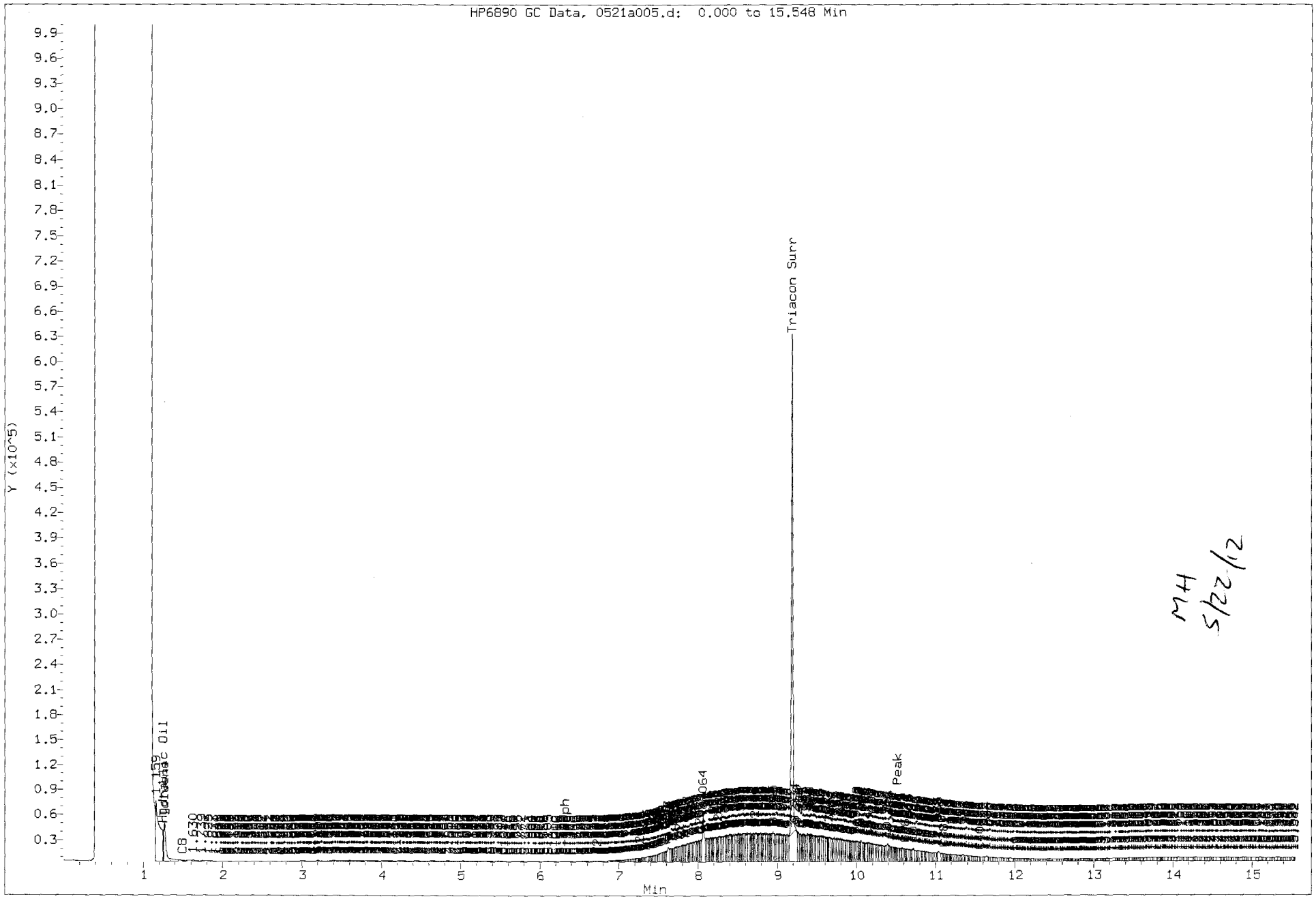
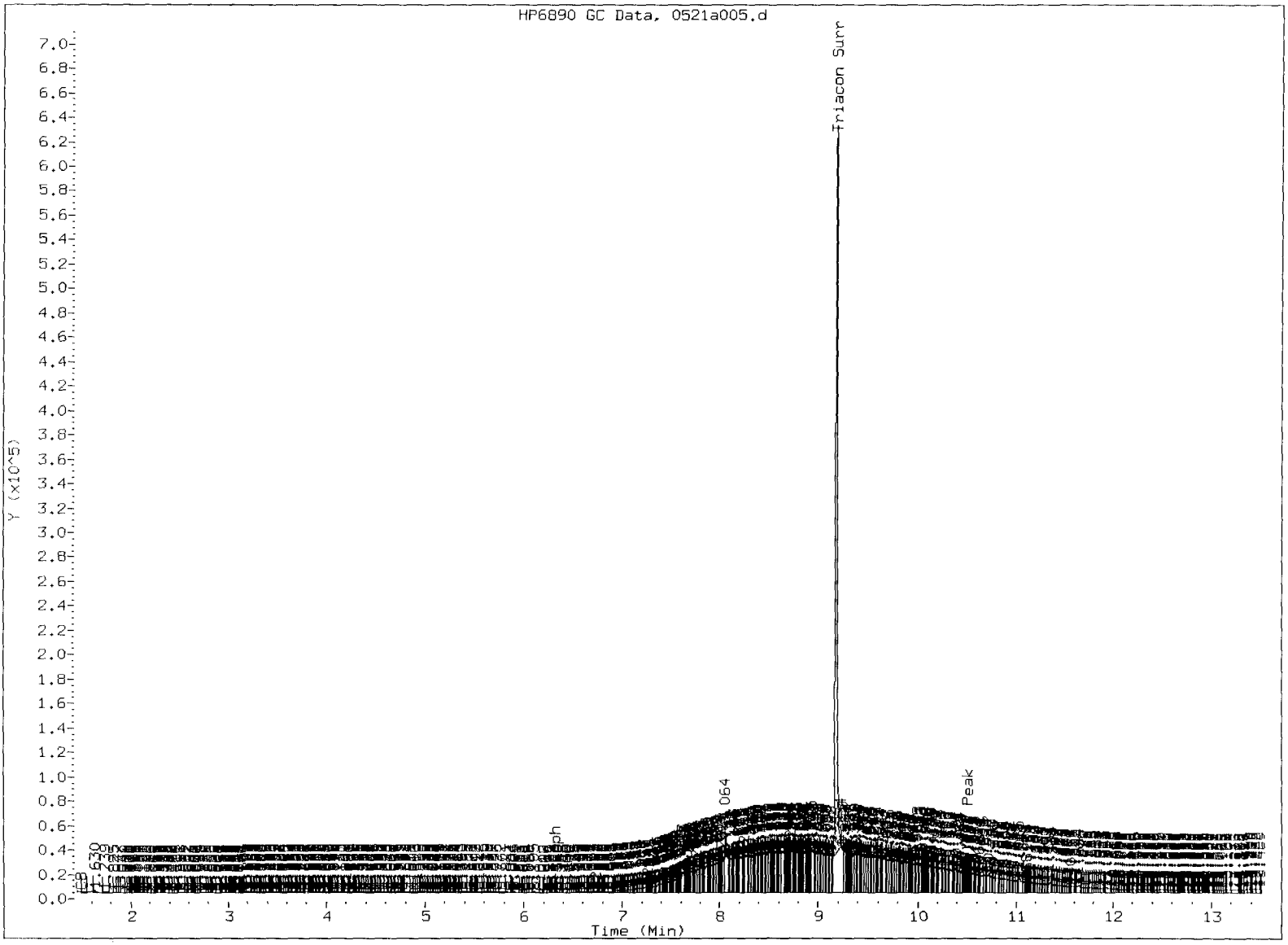
Injection Date: 21-MAY-2012 10:49
Instrument: fid4a.i
Client Sample ID:



MH 5/22/12

US52-91975

FID:4A-2C/RTX-1 MOIL #1 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/22/12

MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a006.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU62MBW1
Client ID: UU62MBW1
Injection: 21-MAY-2012 11:44
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.269	0.008	6000	14024	GAS (Tol-C12)	48037	3.19
C8	1.384	-0.085	992	4934	DIESEL (C12-C24)	129572	9.51
C10	3.128	0.005	192	146	M.OIL (C24-C38)	175246	17.97
C12	4.225	0.023	262	317	AK-102 (C10-C25)	146434	9.04
C14	4.927	0.004	192	201	AK-103 (C25-C36)	148613	19.15
C16	5.549	-0.014	279	252	OR.DIES (C10-C28)	163318	12.72
C18	6.136	-0.006	177	377	CRUDE (Tol-C40)	377270	49.95
C20	6.736	0.011	1515	2458	MIN.OIL (C24-C38)	175246	13.04
C22	7.255	-0.013	582	1069			
C24	7.779	0.001	178	91			
C25	8.027	0.000	873	1288			
C26	8.261	-0.004	237	231			
C28	8.711	-0.009	1970	1990			
C32	9.667	0.001	1021	1747			
C34	10.149	0.003	652	626	CREOSOT (C12-C22)	124465	33.88
Filter Peak	10.523	0.007	598	341			
C36	10.623	-0.004	593	461			
C38	11.112	0.014	709	195			
C40	11.564	0.004	805	589			
o-terph	6.314	0.001	514226	782889	JET-A (C10-C18)	40880	2.75
Triacon Surr	9.200	0.006	565876	781669			

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	782889	45.6	101.2
Triacontane	781669	45.6	101.3

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

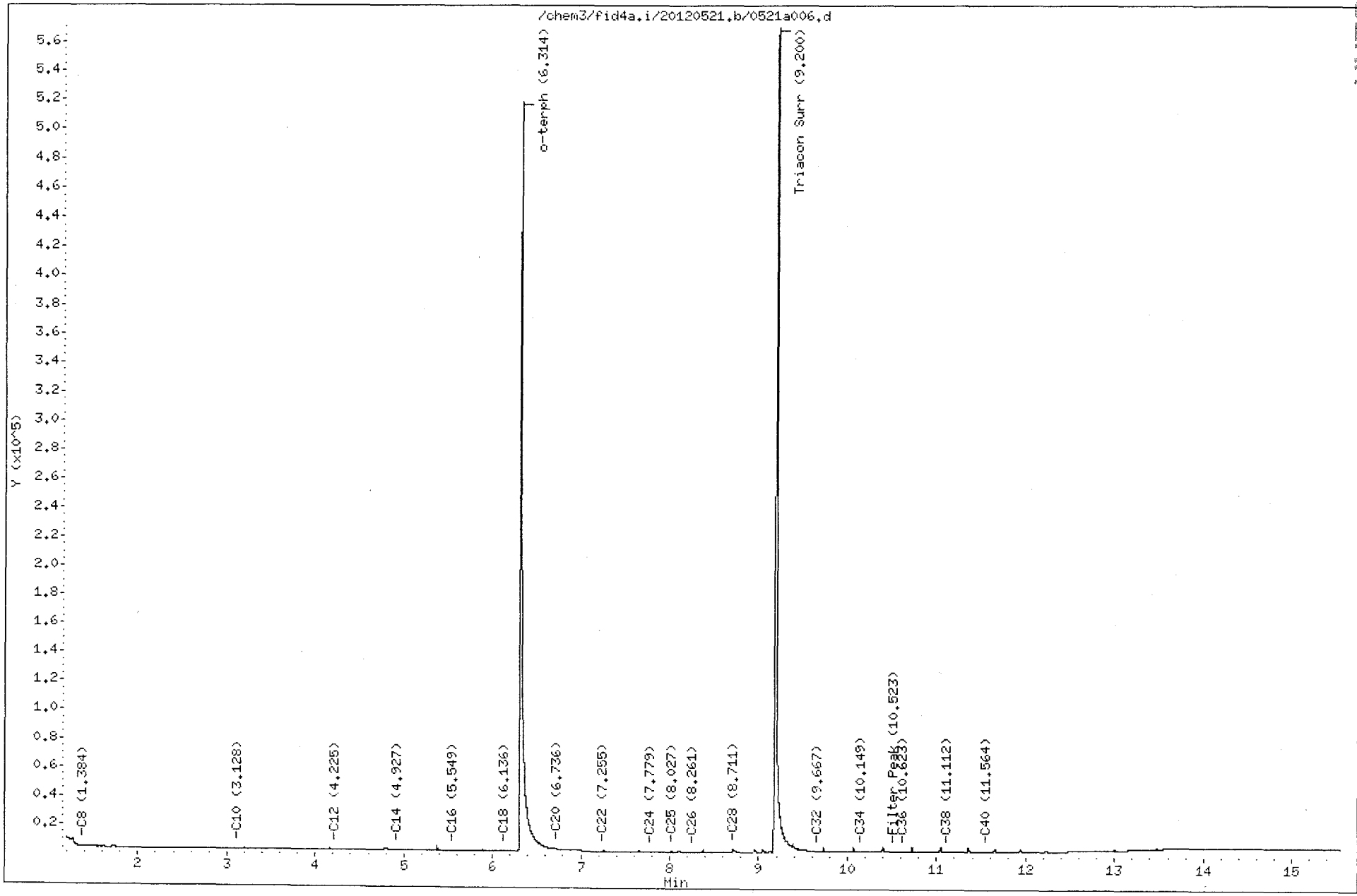
Data File: /chem3/fid4a.i/20120521.b/0521a006.d
Date : 21-MAY-2012 11:44
Client ID: UU62MBW1
Sample Info: UU62MBW1

Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1

UU62 : 04577



MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a007.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU62LCSW1
Client ID: UU62LCSW1
Injection: 21-MAY-2012 12:08
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.262	0.001	6174	8778	GAS (Tol-C12)	4034928	268.21	
C8	1.455	-0.014	2333	2486	DIESEL (C12-C24)	18066162	1325.66	
C10	3.122	-0.002	80277	66033	M.OIL (C24-C38)	260241	26.69	
C12	4.196	-0.007	107101	82519	AK-102 (C10-C25)	21058735	1300.48	M
C14	4.924	0.000	113884	140884	AK-103 (C25-C36)	188151	24.25	
C16	5.545	-0.018	572077	617410	OR.DIES (C10-C28)	21175807	1648.82	M
C18	6.142	-0.001	488061	480460	CRUDE (Tol-C40)	22367875	2961.55	M
C20	6.715	-0.010	316224	368719	MIN.OIL (C24-C38)	260241	19.36	
C22	7.263	-0.005	129179	196362				
C24	7.793	0.014	26080	68064				
C25	8.015	-0.012	5703	3387				
C26	8.277	0.012	5868	12669				
C28	8.721	0.000	1609	1677				
C32	9.657	-0.009	500	625				
C34	10.137	-0.009	108	128	CREOSOT (C12-C22)	17462539	4752.81	M
Filter Peak	10.499	-0.017	53	62				
C36	10.629	0.001	32	17				
C38	11.115	0.017	98	83				
C40	11.553	-0.008	233	148				
o-terph	6.320	0.006	1032808	829112	JET-A (C10-C18)	15522839	1045.87	
Triacon Surr	9.190	-0.004	583747	813135				

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	829112	48.2	107.2
Triacontane	813135	47.4	105.4

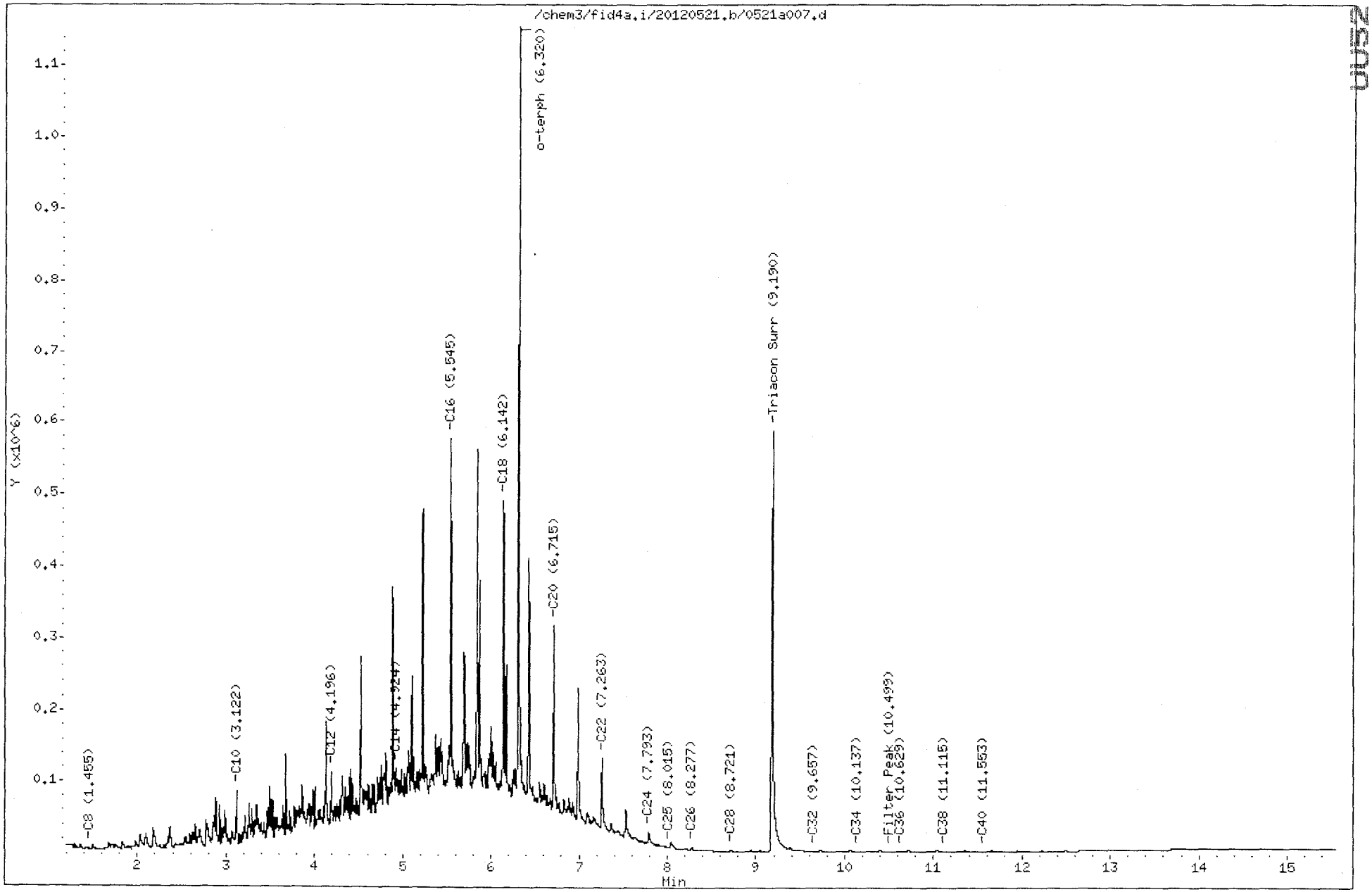
Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120521.b/0521a007.d
Date : 21-MAY-2012 12:08
Client ID: UU62LCSW1
Sample Info: UU62LCSW1

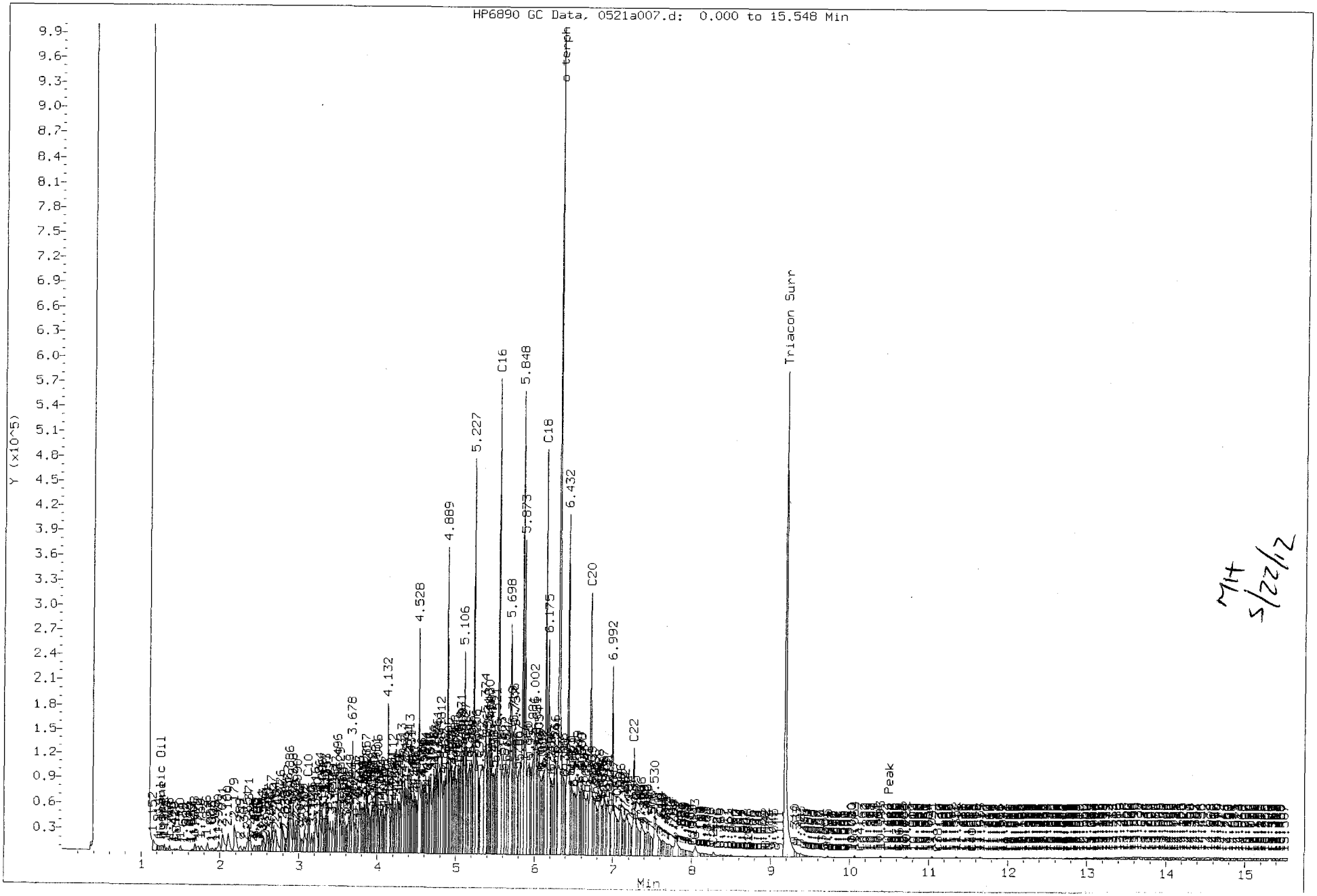
Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1



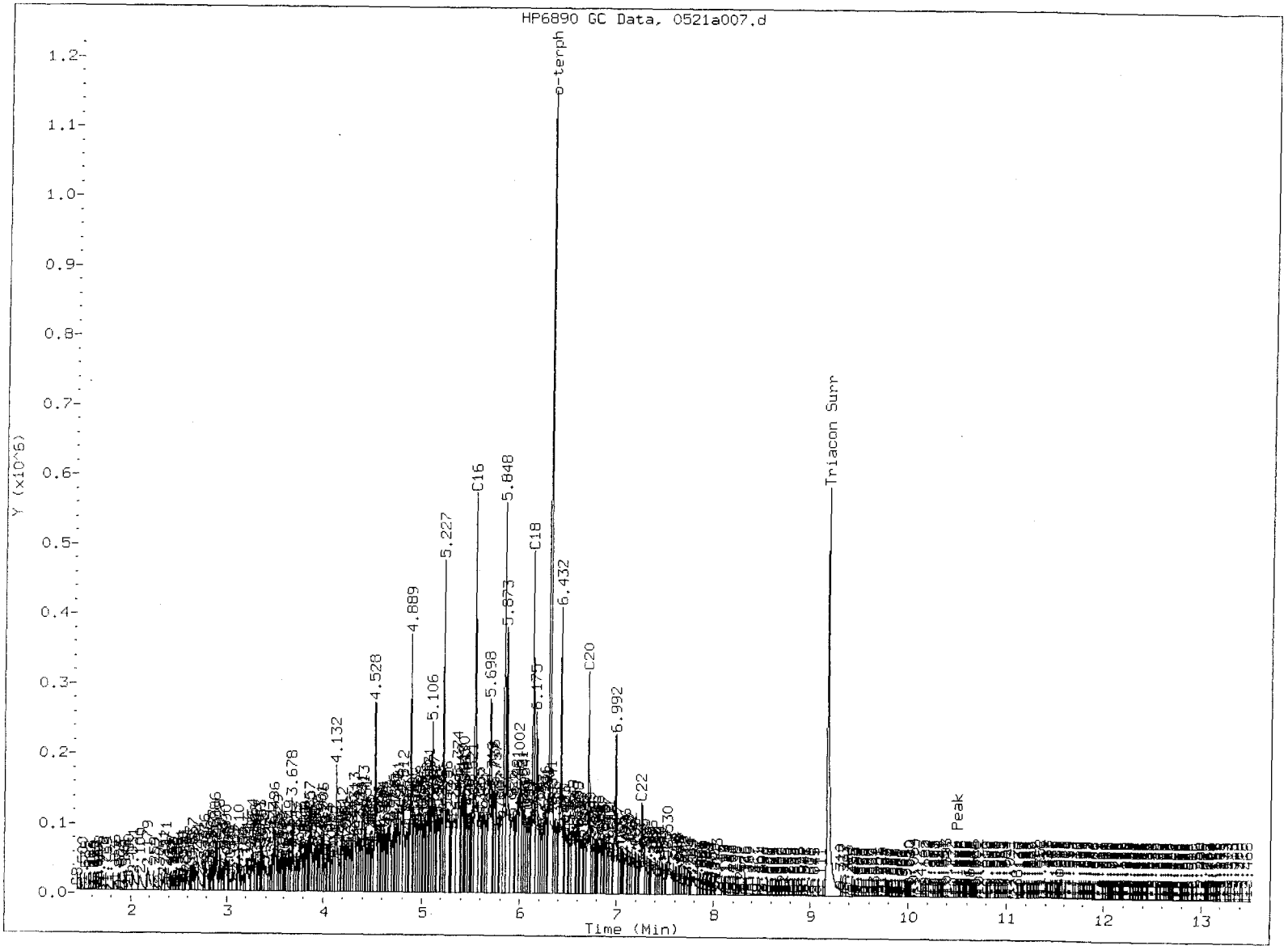
Data File: /chem3/fid4a.i/20120521.b/0521a007.d
Injection Date: 21-MAY-2012 12:08
Instrument: fid4a.i
Client Sample ID: UU62LCSW1



UU62 : 91585

MH
5/22/12

FID:4A-2C/RTX-1 UU62LCSW1 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/22/12

MH
5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a008.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU62LCSDW1
Client ID: UU62LCSDW1
Injection: 21-MAY-2012 12:33
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.262	0.000	7027	10017	GAS (Tol-C12)	4196722	278.97	
C8	1.454	-0.015	2233	2733	DIESEL (C12-C24)	18279787	1341.34	
C10	3.122	-0.001	81300	68151	M.OIL (C24-C38)	270596	27.75	
C12	4.195	-0.007	108654	84512	AK-102 (C10-C25)	21414601	1322.46	M
C14	4.925	0.001	116735	153350	AK-103 (C25-C36)	194281	25.04	
C16	5.567	0.004	129621	112988	OR.DIES (C10-C28)	21531580	1676.52	M
C18	6.141	-0.002	494473	496882	CRUDE (Tol-C40)	22751819	3012.39	M
C20	6.714	-0.011	337460	454133	MIN.OIL (C24-C38)	270596	20.13	
C22	7.262	-0.006	126133	233161				
C24	7.773	-0.006	12265	8868				
C25	8.019	-0.009	5844	1917				
C26	8.252	-0.013	2643	811				
C28	8.719	-0.001	1689	1632				
C32	9.663	-0.003	484	121				
C34	10.148	0.002	94	94	CREOSOT (C12-C22)	17673206	4810.14	M
Filter Peak	10.523	0.006	52	17				
C36	10.615	-0.012	47	37				
C38	11.107	0.009	83	73				
C40	11.562	0.001	196	55				
o-terph	6.319	0.005	1029607	836669	JET-A (C10-C18)	15880696	1069.98	
Triacon Surr	9.190	-0.004	587212	810923				

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	836669	48.7	108.2
Triacontane	810923	47.3	105.1

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120521.b/0521a008.d

Date : 21-MAY-2012 12:33

Client ID: UU62LCSDW1

Sample Info: UU62LCSDW1

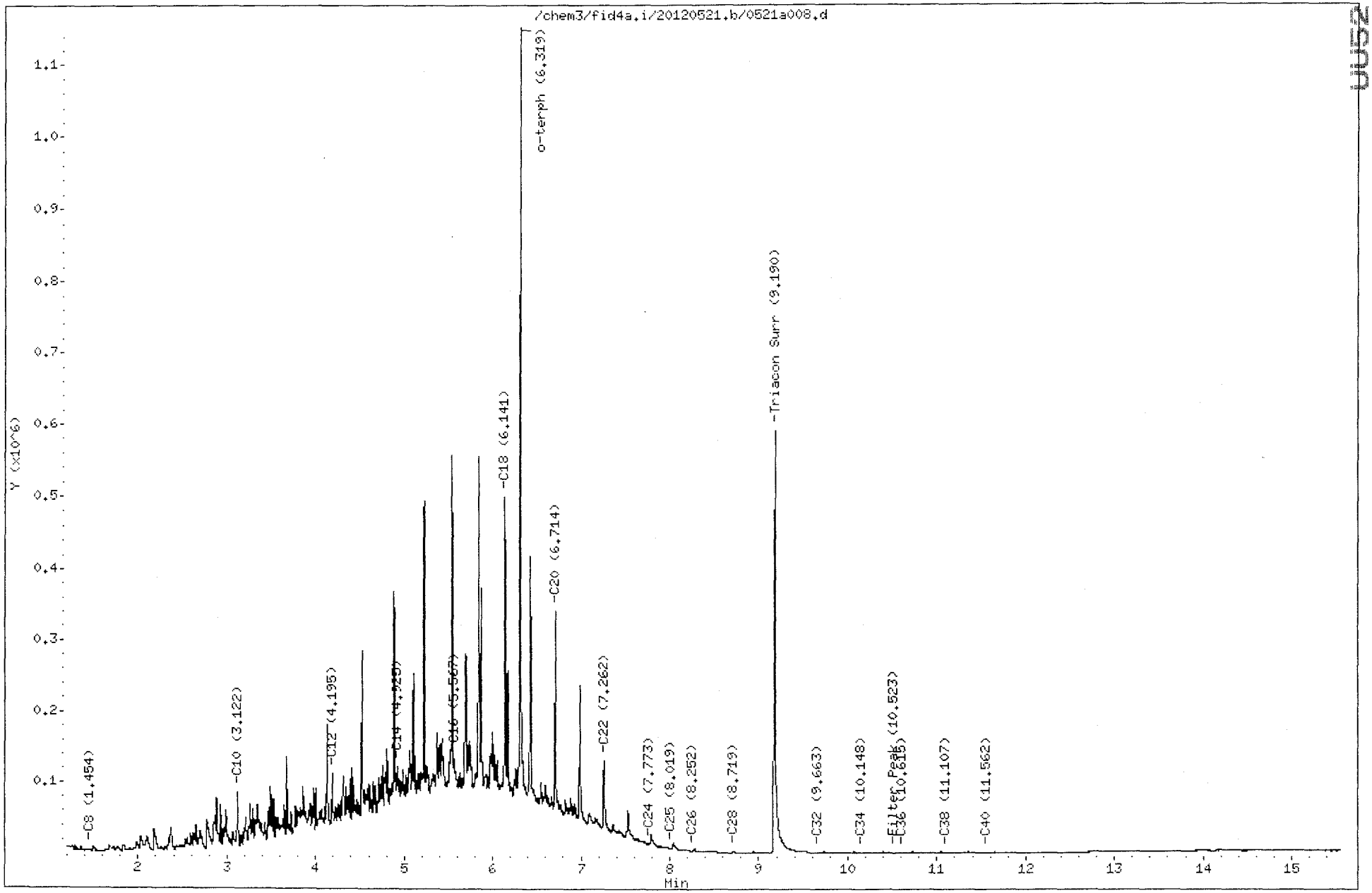
Instrument: fid4a.i

Operator: MH

Column phase: RTX-1

Column diameter: 0.25

UU62:91583



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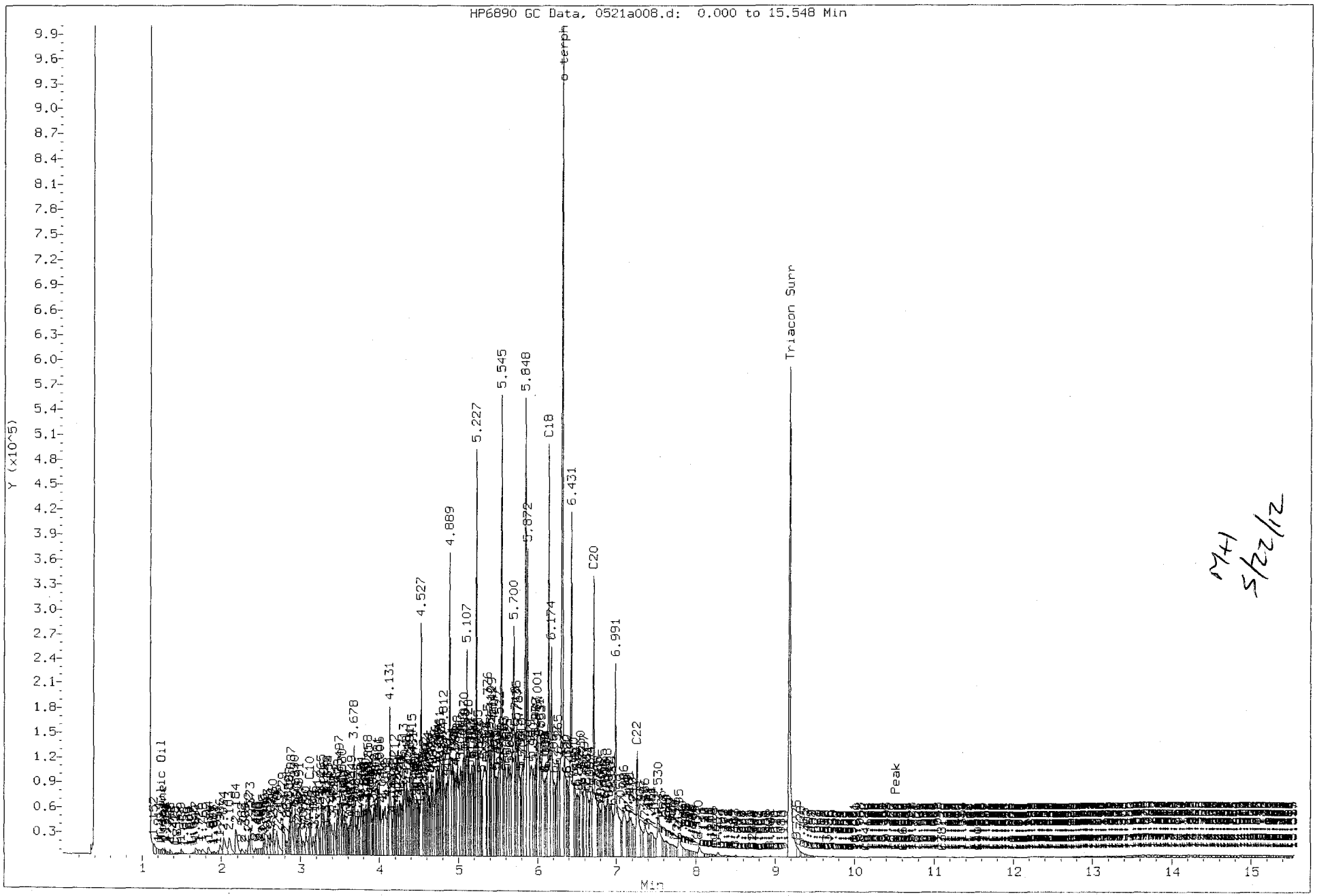
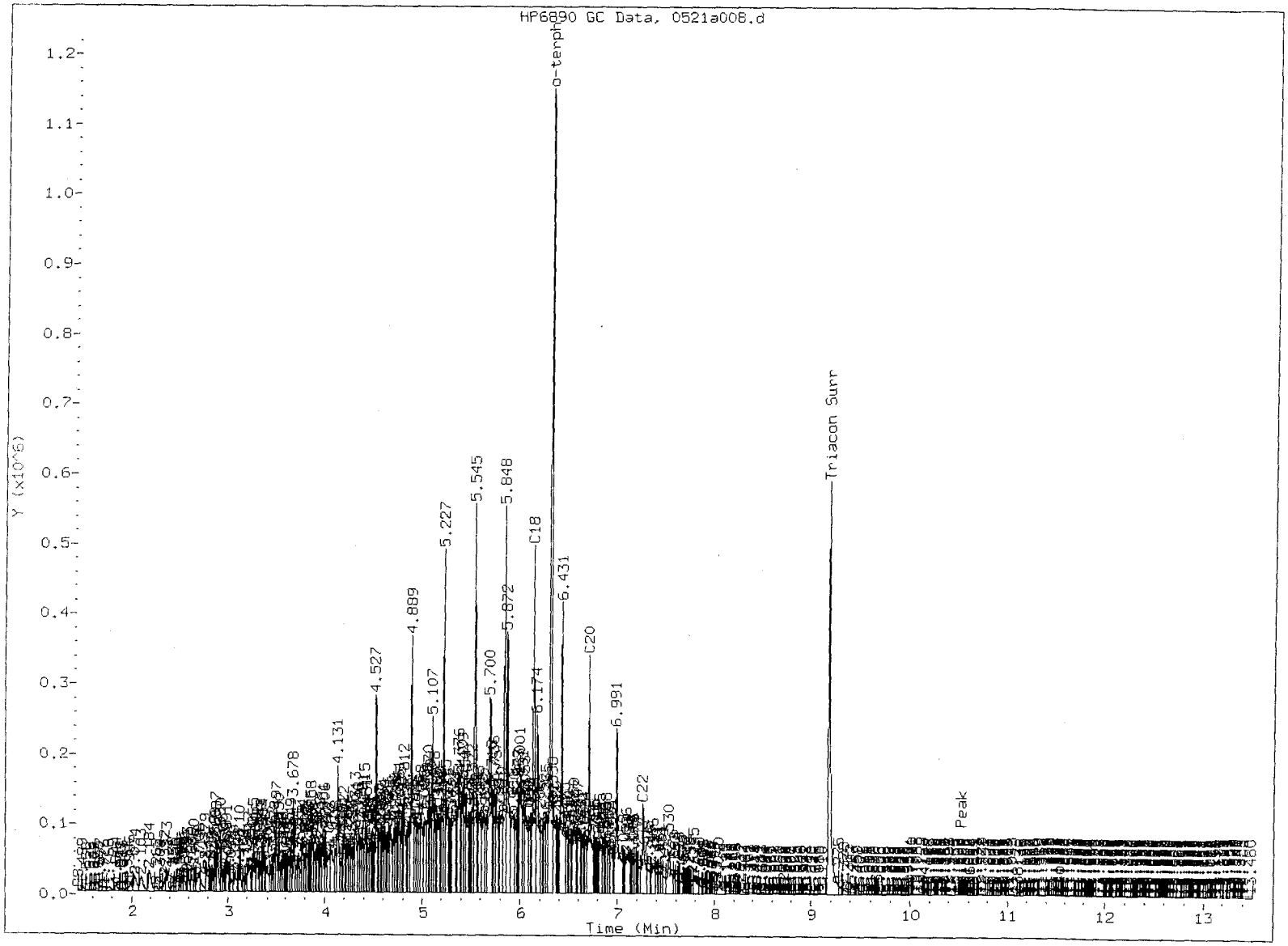
Injection Date: 21-MAY-2012 12:33
Instrument: fid4a.i
Client Sample ID: UU62LCSDW1



UU1552 : 0.1551

5/22/12

FID:4A-2C/RTX-1 UU62LCSDW1 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/22/12

MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a010.d ARI ID: UU62J
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m Client ID: MS-SSRB-120515
Instrument: fid4a.i Injection: 21-MAY-2012 13:22
Operator: MH
Report Date: 05/22/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.267	0.006	6137	7220	GAS (Tol-C12)	62450	4.15
C8	1.485	0.016	694	1111	DIESEL (C12-C24)	105853	7.77
C10	3.126	0.003	260	120	M.OIL (C24-C38)	163967	16.82
C12	4.202	0.000	492	576	AK-102 (C10-C25)	129838	8.02
C14	4.908	-0.015	334	644	AK-103 (C25-C36)	147269	18.98
C16	5.576	0.013	296	119	OR.DIES (C10-C28)	144743	11.27
C18	6.134	-0.008	205	293	CRUDE (Tol-C40)	346813	45.92
C20	6.731	0.007	1363	1360	MIN.OIL (C24-C38)	163967	12.20
C22	7.269	0.001	265	357			
C24	7.773	-0.005	207	189			
C25	8.030	0.002	447	702			
C26	8.257	-0.007	267	268			
C28	8.709	-0.011	893	1457			
C32	9.674	0.009	942	433			
C34	10.145	-0.001	515	292	CREOSOT (C12-C22)	100733	27.42
Filter Peak	10.510	-0.006	461	697			
C36	10.590	-0.037	1674	6354			
C38	11.097	-0.001	538	680			
C40	11.565	0.005	617	326			
o-terph	6.312	-0.001	488359	809242	JET-A (C10-C18)	53547	3.61
Triacon Surr	9.186	-0.008	518116	747010			

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	809242	47.1	104.6
Triacontane	747010	43.6	96.8

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120521.b/0521a010.d

Date : 21-MAY-2012 13:22

Client ID: MS-SSRB-120515

Sample Info: UU62J

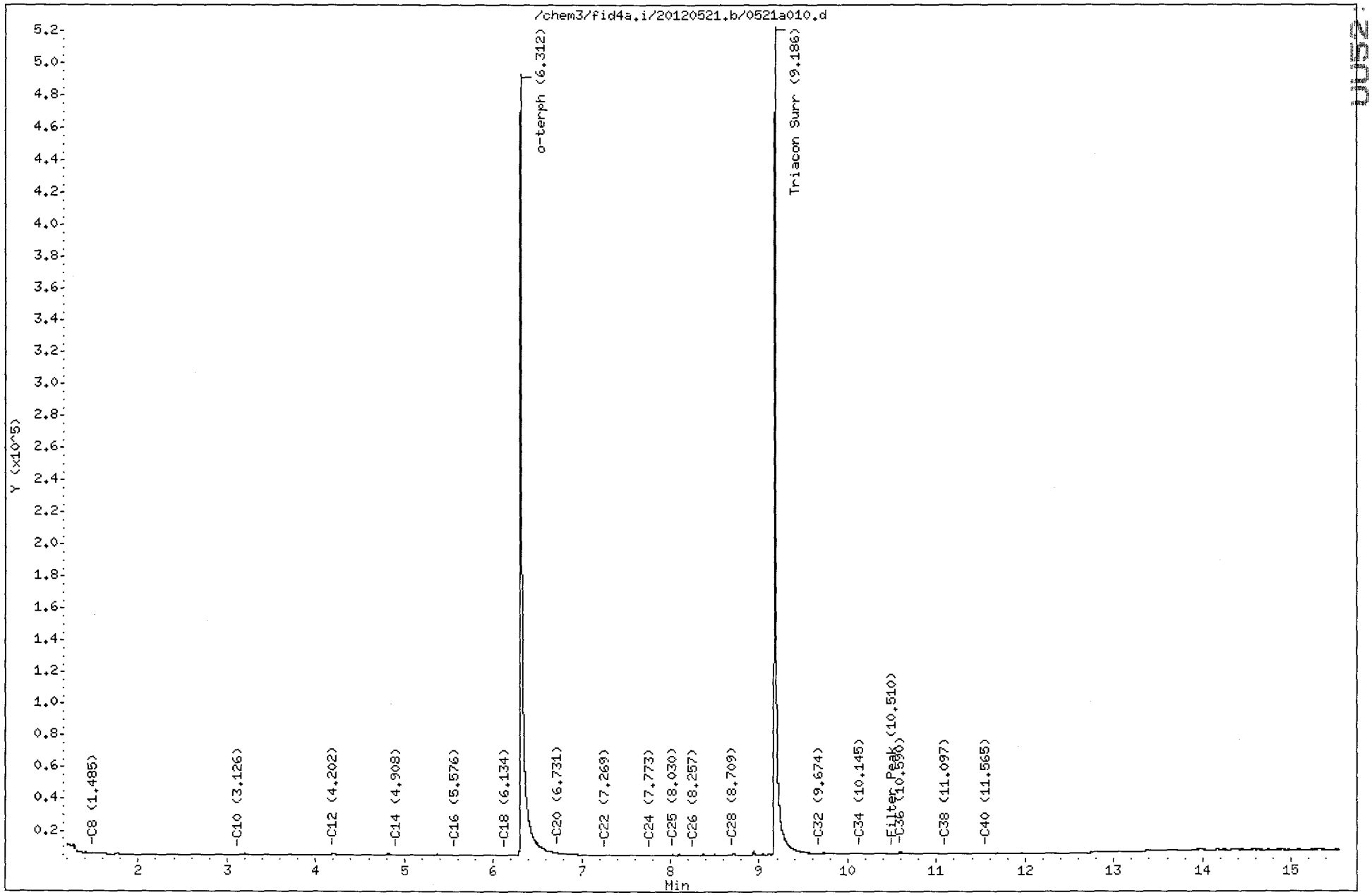
Instrument: fid4a.i

Operator: MH

Column phase: RTX-1

Column diameter: 0.25

UU52 01587



MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a011.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU62K
Client ID: MS-SSFB-120515
Injection: 21-MAY-2012 13:46
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.269	0.008	7244	8410	GAS (Tol-C12)	66914	4.45
C8	1.455	-0.014	1137	3395	DIESEL (C12-C24)	85250	6.26
C10	3.117	-0.006	230	328	M.OIL (C24-C38)	83951	8.61
C12	4.209	0.007	349	1009	AK-102 (C10-C25)	101274	6.25
C14	4.925	0.001	192	195	AK-103 (C25-C36)	72932	9.40
C16	5.566	0.003	213	290	OR.DIES (C10-C28)	107027	8.33
C18	6.153	0.011	109	78	CRUDE (Tol-C40)	246897	32.69
C20	6.725	0.001	1418	1629	MIN.OIL (C24-C38)	83951	6.25
C22	7.272	0.004	126	160			
C24	7.787	0.009	87	49			
C25	8.029	0.002	247	271			
C26	8.262	-0.002	62	14			
C28	8.721	0.000	549	446			
C32	9.674	0.009	850	933			
C34	10.142	-0.004	384	330	CREOSOT (C12-C22)	83900	22.84
Filter Peak	10.507	-0.009	322	343			
C36	10.638	0.011	443	470			
C38	11.113	0.015	373	388			
C40	11.564	0.003	441	758			
o-terph	6.313	-0.001	485576	770594	JET-A (C10-C18)	34836	2.35
Triacon Surr	9.186	-0.007	562186	768542			

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	770594	44.8	99.6
Triacontane	768542	44.8	99.6

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120521.b/0521a011.d

Date : 21-MAY-2012 13:46

Client ID: MS-SSFB-120515

Sample Info: UU62K

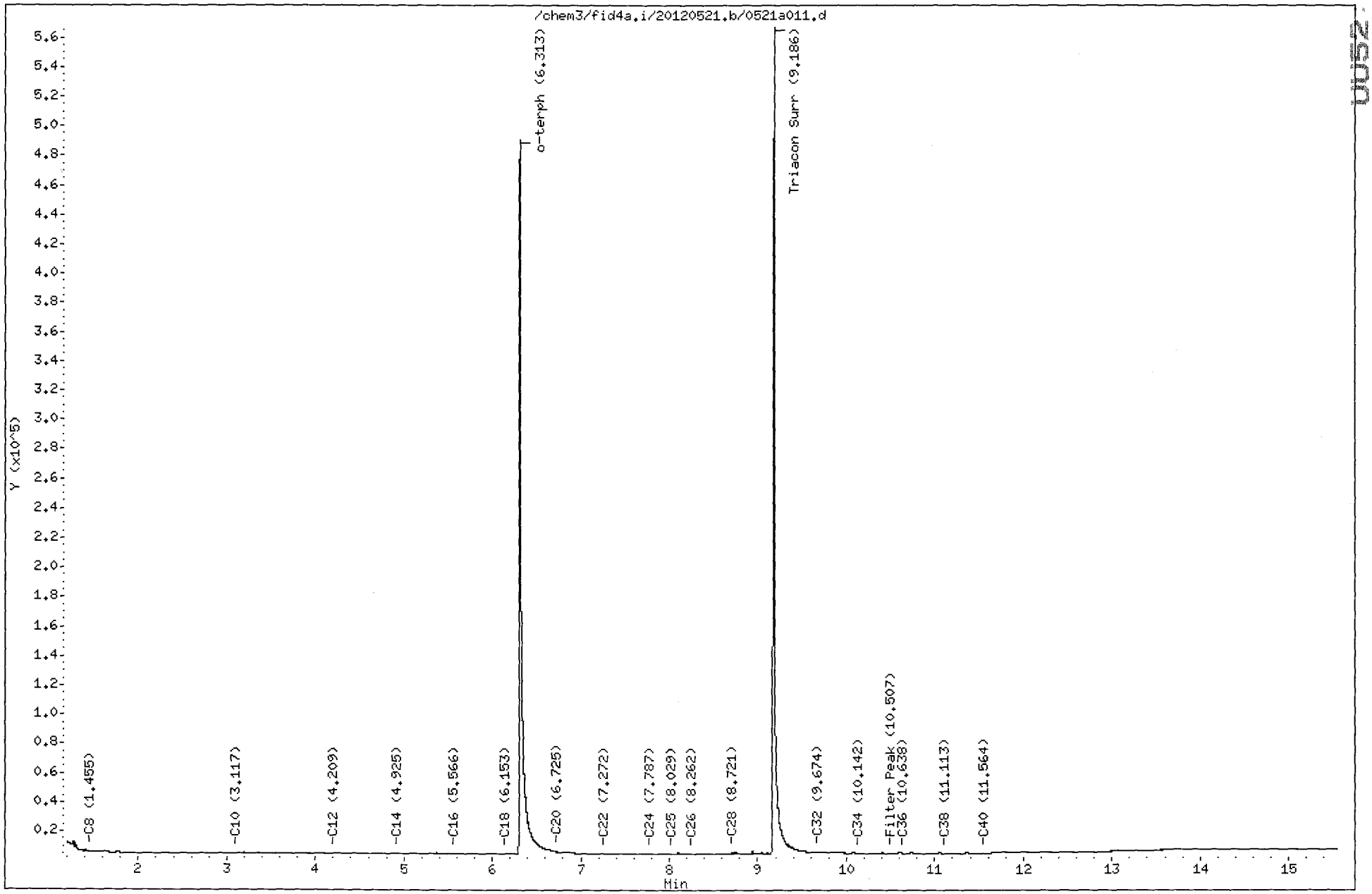
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

UU52 61583



MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a017.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL #2
Client ID:
Injection: 21-MAY-2012 16:13
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.301	0.040	3169	3900	GAS (Tol-C12)	941430	62.58	
C8	1.463	-0.005	1384	2045	DIESEL (C12-C24)	3640149	267.11	
C10	3.124	0.001	4225	4320	M.OIL (C24-C38)	99415	10.20	
C12	4.214	0.012	13779	19684	AK-102 (C10-C25)	4335684	267.75	M
C14	4.938	0.015	24925	30802	AK-103 (C25-C36)	76046	9.80	
C16	5.576	0.013	26850	50114	OR.DIES (C10-C28)	4394428	342.17	M
C18	6.137	-0.005	65248	79825	OR.MOIL (C28-C40)	24658	3.26	
C20	6.729	0.004	29663	70727	JET-A (C10-C18)	3234893	217.96	
C22	7.256	-0.012	7597	8048	MIN.OIL (C24-C38)	99415	7.40	
C24	7.765	-0.014	3431	5515				
C25	8.032	0.005	2214	5536				
C26	8.275	0.011	2019	4377				
C28	8.724	0.004	1023	2823				
C32	9.663	-0.003	110	171				
C34	10.136	-0.010	32	30				
Filter Peak	10.505	-0.011	36	41	CREOSOT (C12-C22)	3507106	954.53	M
C36	10.635	0.008	36	24				
C38	11.094	-0.004	89	84				
C40	11.565	0.005	156	55				
o-terph	6.313	0.000	733601	821721	CRUDE (Tol-C40)	4684648	620.26	M
Triacon Surr	9.190	-0.003	225	111				

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	821721	47.8	106.2
Triacontane	111	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
OR Moil	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120521.b/0521a017.d

Date : 21-MAY-2012 16:13

Client ID:

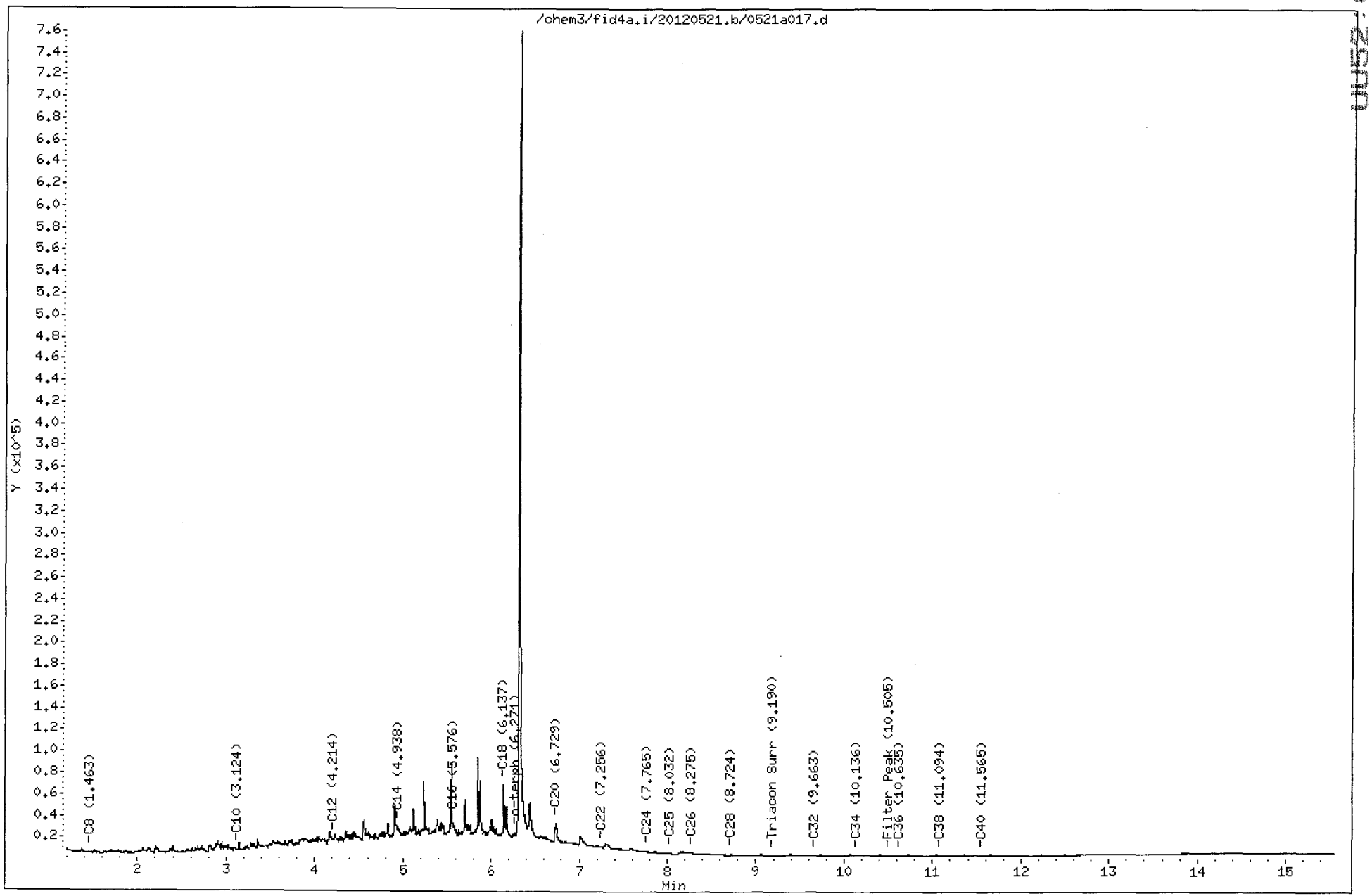
Sample Info: DIESEL #2

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



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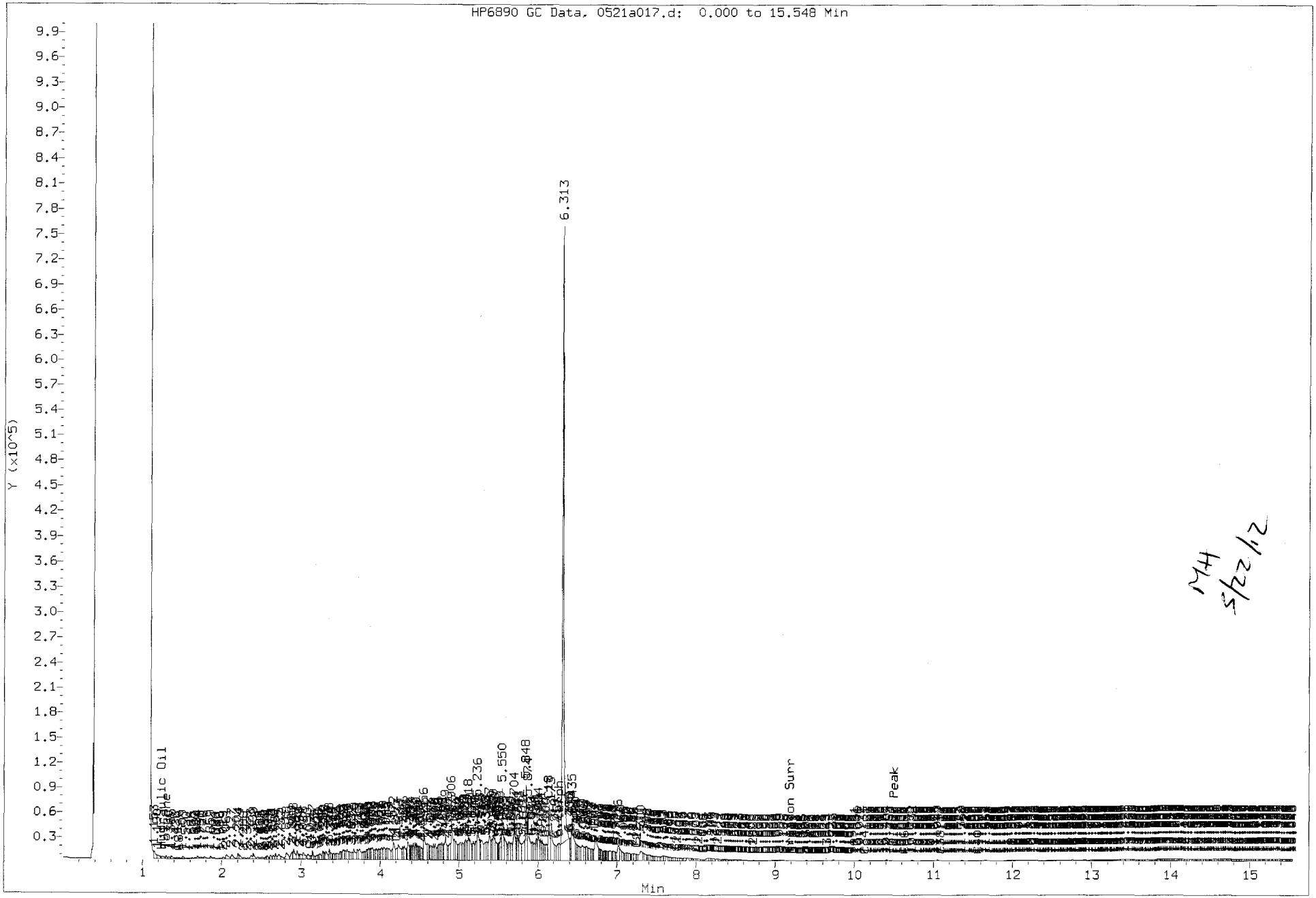
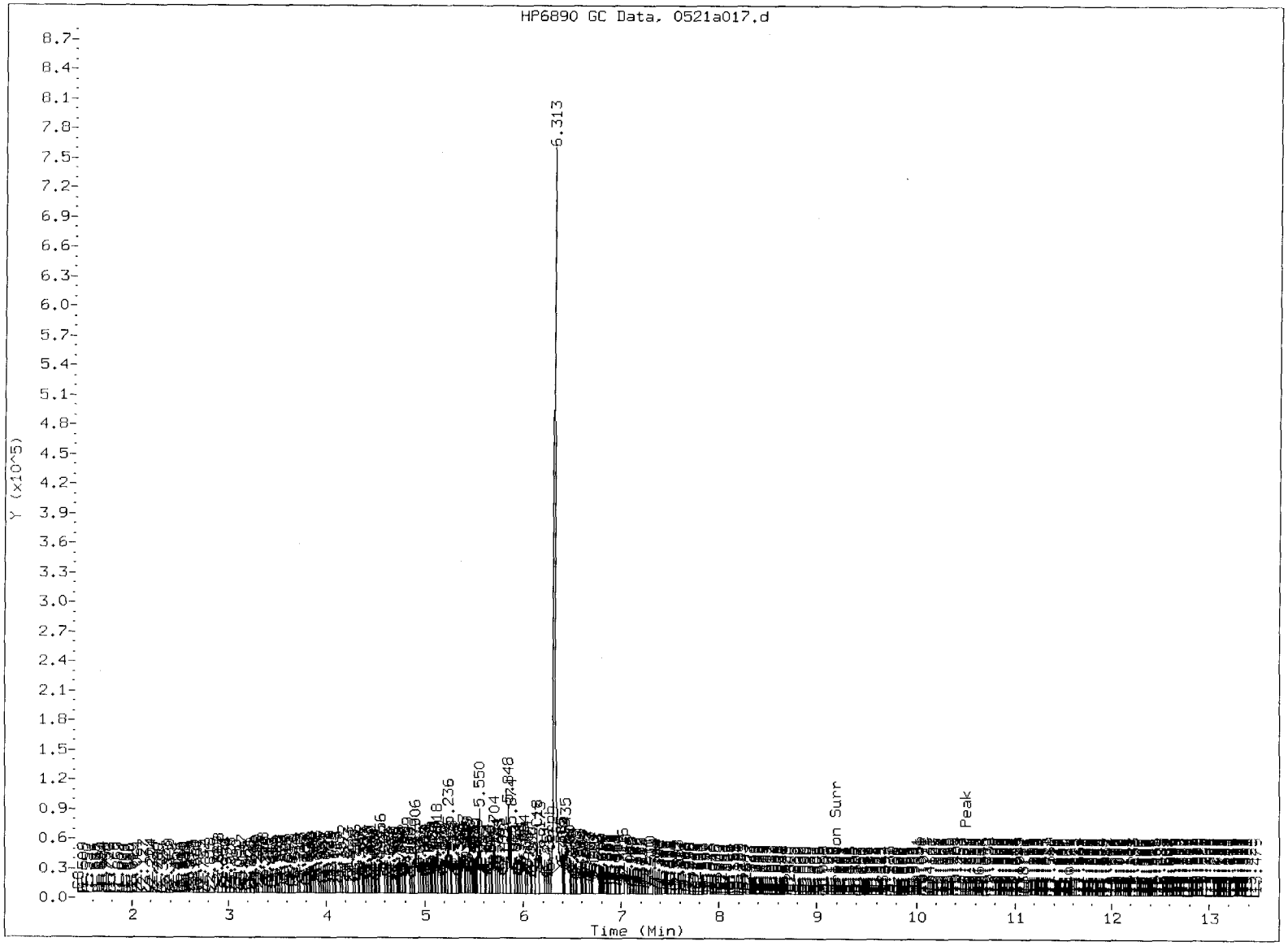
Injection Date: 21-MAY-2012 16:13
Instrument: fid4a.i
Client Sample ID:



MH 5/22/12

0521a017.d 5/22/12

FID:4A-2C/RTX-1 DIESEL #2 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/22/12

MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a018.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: MOIL #2
Client ID:
Injection: 21-MAY-2012 16:37

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.264	0.003	45255	100477	GAS (Tol-C12)	203520	13.53	
C8	1.541	0.073	1274	4920	DIESEL (C12-C24)	521148	38.24	
C10	3.122	-0.001	613	374	M.OIL (C24-C38)	4694165	481.47	
C12	4.194	-0.008	862	886	AK-102 (C10-C25)	773031	47.74	
C14	4.924	0.001	749	1168	AK-103 (C25-C36)	4238035	546.19	M
C16	5.557	-0.006	658	808	OR.DIES (C10-C28)	2193852	170.82	
C18	6.171	0.029	341	360	CRUDE (Tol-C40)	5558563	735.97	M
C20	6.720	-0.004	768	293	MIN.OIL (C24-C38)	4694165	349.25	M
C22	7.268	0.000	4474	3621				
C24	7.777	-0.001	19135	6749				
C25	8.024	-0.004	25480	20413				
C26	8.272	0.007	31000	45080				
C28	8.722	0.001	34908	21913				
C32	9.665	0.000	27999	20086				
C34	10.147	0.001	22025	12983	CREOSOT (C12-C22)	160673	43.73	
Filter Peak	10.517	0.001	14670	17445				
C36	10.634	0.007	13177	7207				
C38	11.109	0.011	7528	4370				
C40	11.556	-0.004	4209	2673				
o-terph	6.326	0.013	286	147	JET-A (C10-C18)	124671	8.40	
Triacon Surr	9.194	0.001	665258	744597				

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

Surrogate	Area	Amount	%Rec
o-Terphenyl	147	0.0	0.0
Triacontane	744597	43.4	96.5

Analyte	RF	Curve Date
o-Terph Surr	17187.2	15-MAY-2012
Triacon Surr	17141.7	14-MAY-2012
Gas	15043.9	10-MAY-2012
Diesel	13628.0	15-MAY-2012
Motor Oil	9749.6	14-MAY-2012
AK102	16193.0	15-MAY-2012
AK103	7759.3	29-DEC-2011
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
OR Diesel	12843.0	22-JAN-2010
CRUDE	7552.8	22-MAY-2010
Bunker C	7100.0	16-DEC-2011
Creosote	3674.2	15-AUG-2011

Data File: /chem3/fid4a.i/20120521.b/0521a018.d

Date : 21-MAY-2012 16:37

Client ID:

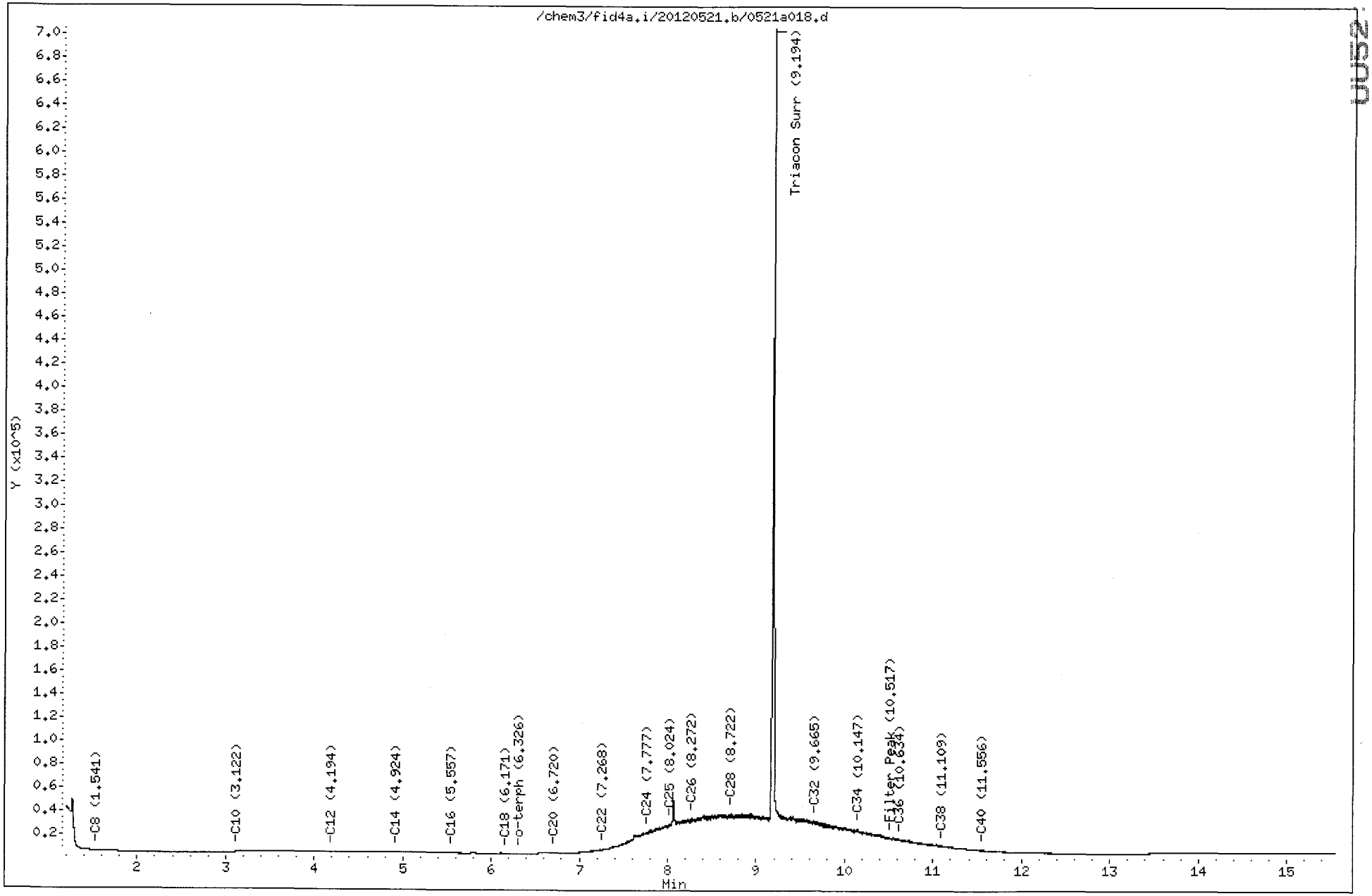
Sample Info: MOIL #2

Column phase: RTX-1

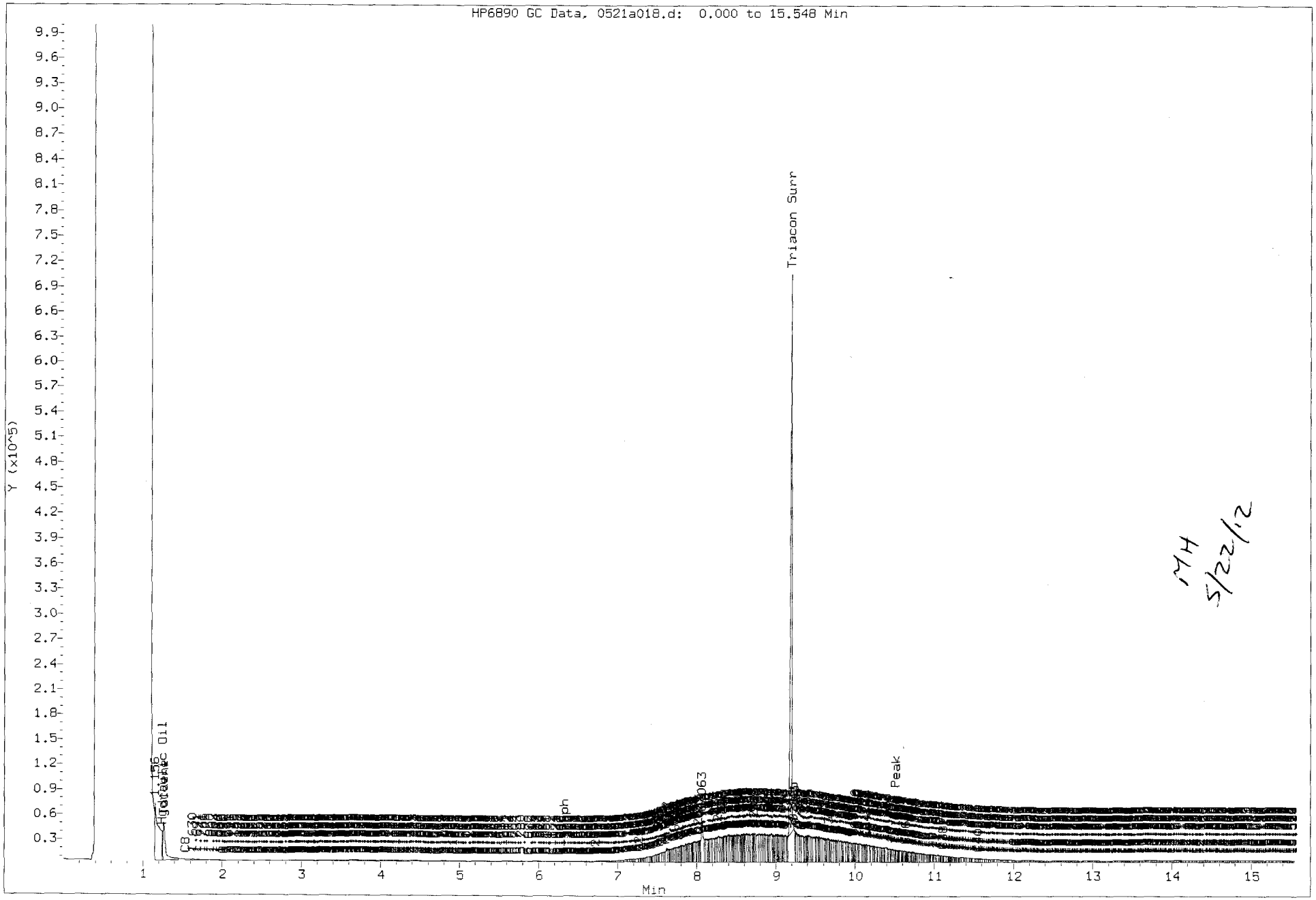
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



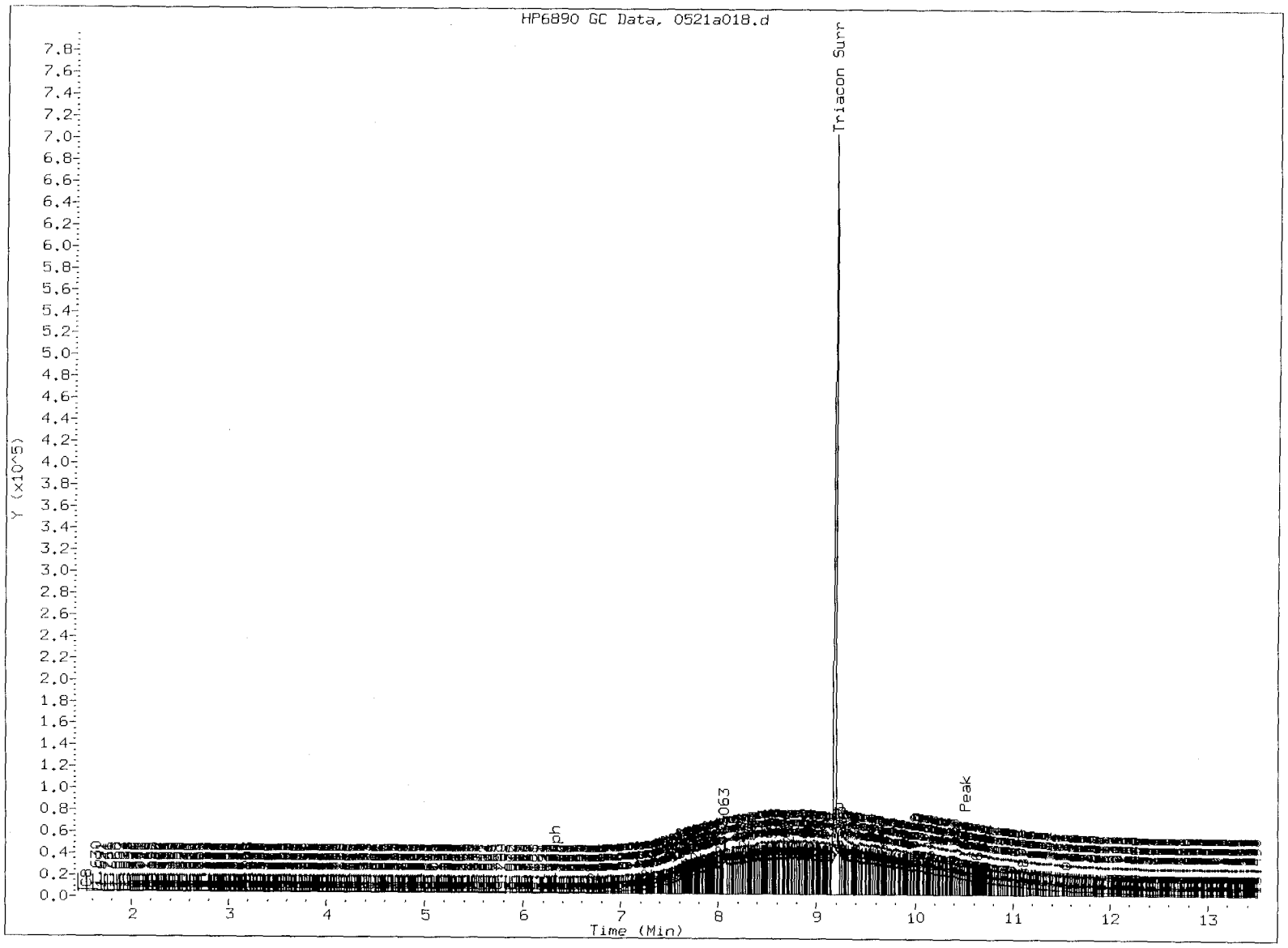
Data File: /chem3/fid4a.i/20120521.b/0521a018.d
Injection Date: 21-MAY-2012 16:37
Instrument: fid4a.i
Client Sample ID:



MH
5/22/12

UU52 : 01 936

FID:4A-2C/RTX-1 MOIL #2 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/22/12

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	UU52
Unacceptable Blank:	☐	Date of Event:	5.23.12
Unacceptable Duplicate:	☐	Client ID:	Anchor
Unacceptable Spike:	☑	Method/Element:	ICPMS
Unacceptable Reference:	☐	Prep Code:	SON

Details of Problem/Recommended Corrective Action:

UU52 CSph Sb 10% R

CPost OK

Samples Affected:

Corrective Action Taken: CPost Sb

Analyst Initials: RC

Date: 5.24.12

Supervisor:

Date: 6.21.12

5049F

Revision 007
6/11/10

UU52:01999

Analytical Resources,Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: KM

Date: 5/18/12

Final Volume 50

Final Volume (Hg): 50

Sample ID UU52 CSPK, MBISPK

		Prepcode:	SWC		
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No.:	2902-1		
		Vol Added (mL):	1.0		
STOCK CONCENTRATION	Ag		50		2.0
	Al		200	200	
	As		200		10
	Ba		200	200	
	Be		50	50	
	Ca		1000	1000	
	Cd		50		2.0
	Co		50	50	
	Cr		50 ✓	50	
	Cu		50 ✓	50	
	Fe		200	200	
	K		1000	1000	
	Mg		1000	1000	
	Mn		50	50	
	Na		1000	1000	
	Ni		50 ✓	50	
	Pb		200 ✓		10
	Se		200		10
	Sr		50	50	
	Tl		200		10
	V		50	50	
	Zn		50 ✓	50	

	SWN	SWN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2927-9	2893-16	
	1.0	1.0	
Ag	25 ✓		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25 ✓	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SMM	CVA	1.0	0.05	2908-7
Hg MBSPK	SMM	CVA	1.0	0.1	2908-7
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

5033F

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: KM
Bath Temp: 95°C
Start Time: 1445
Matrix: Soil
Date: 5/18/12
End Time: 1515

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
UU52 A	3	—	0.225	50.0	5/26 1	Y	
UU52 B	3	—	0.269	50.0	1	Y	
UU52 C	3	—	0.267	50.0	1	Y	
UU52 D	3	—	0.247	50.0	1	Y	
UU52 E	3	—	0.270	50.0	1	Y	
UU52 CDUP	3	—	0.268	50.0	1	Y	
UU52 CSPK	3	—	0.267	50.0	1	Y	
UU52 F	3	—	0.216	50.0	1	Y	
UU52 G	3	—	0.223	50.0	1	Y	
UU52 H	3	—	0.253	50.0	1	Y	
UU52 I	3	—	0.234	50.0	1	Y	
UU52 J	3	—	0.286	50.0	1	Y	
UU52 MB1	—	—	—	50.0	1	Y	
UU52 MB1SPK	—	—	—	50.0	1	Y	

KM 5/18/12

Chemical/Reagent ID:

HNO_3: I7466
H_2SO_4: I7184
HCl: —
5% $K_2S_2O_8$: MP2272
5% $KMnO_4$: MP2273
Digest Tube Lot: 1108215

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Start time: 1420

Analyst: KM

Date: 5/18/12

Matrix: Soil Block ID: #1/#2 Block Temp: 90°C/88°C Thermometer: MP30/MP12

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) Vol (mL)	Prep Code: SWC Final Vol (mL)	Prep Code: SWN Initial Wt (g) Vol (mL)	Prep Code: SWN Final Vol (mL)	Comments
UU52 A	3	—	1.033	50.0	1.052	50.0	
UU52 B	3	—	1.024	50.0	1.039	50.0	
UU52 C	3	—	1.050	50.0	1.013	50.0	
UU52 CDUP	3	—	1.051	50.0	1.012	50.0	
UU52 CSPK	3	—	1.054	50.0	1.011	50.0	
UU52 D	3	—	1.017	50.0	1.063	50.0	
UU52 E	3	—	1.034	50.0	1.036	50.0	
UU52 F	3	—	1.049	50.0	1.070	50.0	
UU52 G	3	—	1.086	50.0	1.041	50.0	
UU52 H	3	—	1.057	50.0	1.014	50.0	
UU52 I	3	—	1.038	50.0	1.065	50.0	
UU52 J	3	—	1.082	50.0	1.019	50.0	
UU52 MB1	—	—	—	50.0	—	50.0	
UU52 MB1SPK	—	—	—	50.0	—	50.0	

KM 5/18/12

Chemical/Reagent ID:

HNO_3: MP2280 I7466 HCl: I7305 H_2O_2: I7403 Tube Lot #: 111173

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section MetaB

Oven Identification: 67 **Balance ID:** 068755

Samples in Oven: Date: 5-21-12 Time: 0835 Temp: 102°C Analyst: DM

Removed from Oven: Date: 5-22-12 Time: 0700 Temp: 103°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
UU69 A	0.952	10.549	10.072	–	✓
UU77 A	1.004	10.448	8.064	–	✓
UU77 B	0.981	10.456	6.251	–	✓
UU77 C	1.032	10.541	4.178	–	✓
DM 5-21-12 UU77 ~~UU99~~ D	0.967	10.348	6.191	–	✓
UU77 E	0.990	10.262	5.721	–	✓
UU52 A	1.020	10.570	1.982	–	✓
UU52 B	1.011	10.051	1.947	–	✓
UU52 C	1.007	10.634	2.026	–	✓
UU52 D	0.999	10.912	1.995	–	✓
UU52 E	0.966	10.745	1.941	–	✓
UU52 F	0.953	10.608	1.711	–	✓
UU52 G	1.002	10.263	1.903	–	✓
UU52 H	0.933	10.903	2.599	–	✓
UU52 I	1.018	10.608	2.058	–	✓
UU52 J	1.005	10.326	1.963	–	✓
		5-21-12 DM			

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

UU52 : 02003

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: KM

Date: 5/21/12

Final Volume 25

Final Volume (Hg):

Sample ID 11462 JSPK, MBISPK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN	REN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2927-9	2893-16	
	0.05	0.05	
Ag	25 ✓		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25 ✓	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: MJ

Date: 05.18.12

Final Volume 50

Final Volume (Hg): 20

Sample ID 11162 JSPK, MBISPK

		Prepcode:	TWC		
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No.:	2902-1		
		Vol Added (mL):	0.5		
	Ag		50		2.0
S	Al		200	200	
T	As		200		10
O	Ba		200	200	
C	Be		50	50	
K	Ca		1000	1000	
	Cd		50		2.0
	Co		50	50	
C	Cr		50 ✓	50	
O	Cu		50 ✓	50	
N	Fe		200	200	
C	K		1000	1000	
E	Mg		1000	1000	
N	Mn		50	50	
T	Na		1000	1000	
R	Ni		50 ✓	50	
A	Pb		200 ✓		10
T	Se		200		10
I	Sr		50	50	
O	Tl		200		10
N	V		50	50	
	Zn		50 ✓	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	TWM	CVA	1.0	0.02	2908-7
Hg MBSPK	TWM	CVA	1.0	0.04	2908-7
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

JUS2 : 05/05

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TWM1 Matrix: Water

Analyst: MJ Date: 05.18.12

Bath Temp: 90°C Start Time: 1035 End Time: 1235

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
UU662 J	1	✓	20.0	20.0	05.26 1	Y	
UU662 JDUP	1	✓	20.0	20.0	1	Y	
UU662 JSPK	1	✓	20.0	20.0	1	Y	
UU662 K	1	✓	20.0	20.0	1	Y	
UU662 MB1	—	✓	20.0	20.0	1	Y	
UU662 MB1SPK	—	✓	20.0	20.0	1	Y	
UU666 A	6	✓	20.0	20.0	05.27 1	N	
UU666 B	6	✓	20.0	20.0	1	N	
UU666 MB	—	✓	20.0	20.0	1	N	BATCH
UU666 MBSPK	—	✓	20.0	20.0	1	N	
UU668 A	6	✓	20.0	20.0	05.27 1	N	

05.18.12 MJ

Chemical/Reagent ID:

HNO_3: I7466 H_2SO_4: I7184 HCl: —

5% $K_2S_2O_8$: MP2272 5% $KMnO_4$: MP2273 Digest Tube Lot: UU673

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: MJ Date: 05.18.12 Time: 0955

Matrix: Water Block ID: #7 Block Temp: 90°C Thermometer: MP28

ARI Sample ID	Btl #	pH<2	Prep Code: TWC Initial ~~Wt (g)~~ Vol (mL)	Prep Code: TWC Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
UU57 A	7	—	50.0	50.0			
UU57 ADUP	7	—	50.0	50.0			preserved in lab
UU57 ASPK	7	—	50.0	50.0			
UU57 B	7	—	50.0	50.0			
UU57 C	6	✓	50.0	50.0			
UU57 D	6	—	50.0	50.0			preserved in lab
UU57 E	6	✓	50.0	50.0			
UU57 F	10	✓	50.0	50.0			
UU57 H	10	✓	50.0	50.0			
UU57 MB	—	✓	50.0	50.0			
UU57 MBSPK	—	✓	50.0	50.0			
UU62 J	1	✓	50.0	50.0			
UU62 JDUP	1	✓	50.0	50.0			
UU62 JSPK	1	✓	50.0	50.0			
UU62 K	1	✓	50.0	50.0			
UU62 MB1	—	✓	50.0	50.0			
UU62 MB1SPK	—	✓	50.0	50.0			
UU72 A	1	✓	50.0	50.0			
UU72 MB	—	✓	50.0	50.0			
UU72 MBSPK	—	✓	50.0	50.0			

05.15.12 MJ

Chemical/Reagent ID:

HNO_3: I7466 HCl: MP2295 H_2O_2: —— Tube Lot #: 111173

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: KM Date: 5/21/12 Time: 1040

Matrix: Water Block ID: #12 Block Temp: 90°C Thermometer: MP39

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial Wt (g) Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
UU66 A	6	✓	50.0	25.0			- Batched
UU66 B	6	✓	50.0	25.0			
UU66 C	6	✓	50.0	25.0			
UU66 MB	—	✓	50.0	25.0			
UU66 MBSPK	—	✓	50.0	25.0			
UU68 A	6	✓	50.0	25.0			
UU57 A	7	—	50.0	25.0			- preserved in lab
UU57 ADUP	7	—	50.0	25.0			
UU57 ASPK	7	—	50.0	25.0			
UU57 B	7	—	50.0	25.0			
UU57 C	6	✓	50.0	25.0			
UU57 D	6	—	50.0	25.0			preserved in lab
UU57 E	6	✓	50.0	25.0			
UU57 F	10	✓	50.0	25.0			
UU57 G	2	✓	50.0	25.0			
UU57 H	10	✓	50.0	25.0			
UU57 MB	—	✓	50.0	25.0			
UU57 MBSPK	—	✓	50.0	25.0			
UU62 J	1	✓	50.0	25.0			
UU62 JDUP	1	✓	50.0	25.0			
UU62 JSPK	1	✓	50.0	25.0			
UU62 K	1	✓	50.0	25.0			
UU62 MB1	—	✓	50.0	25.0			
UU62 MB1SPK	—	✓	50.0	25.0			
				KM	5/21/12		

Chemical/Reagent ID:

HNO_3: MP2293 HCl: — H_2O_2: I7403 Tube Lot #: 111173

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG ICP-OES-01
Perkin Elmer OPTIMA 4300
Serial No. - 077N0060101

IEC Date: 5.29.12 Analysis Date: 5.29.12 Analyst: BW

LR Date: 1.12.12 Page: 1 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		std 0			2941-1
		2			2954-3
		3			-4
		4			-5
		5			-6
		ICV			Sb Si high 2925-3
		ICB			
V		222222			Ni low
		std 0			
		CCV1			Sb Si high
		CCB1			
		CRI			
		ICSA			Sn -0.027
		ICSAB			
		CCV2			Sb Si high
		CCB2			
		DI check			
		UU52 MB1	SWC	2	
		QC21			Sb high
		QC7M			Si high
		UU52 A	SWC	2	
		B			
		cdup			✓
		C			

UU52:02010

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG ICP-OES-01
Perkin Elmer OPTIMA 4300
Serial No. - 077N0060101

IEC Date: — Analysis Date: 5.29.12 Analyst: BW

LR Date: — Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		UU52Csdl	SwC	2 ✓	
		↓ MBlsdl	↓	↓ ✓	
		CCV3			Sb Si high
		CCB3			
		UU62 MB1	TwC		
		K			
		Jdup		✓	
		J			
		Jsdl		✓	
		UU52 D	SwC	2	
		E			
		F			
		G			
		UU62 MB1sdl	TwC	✓	
		CCV4			Sb Si high
		CCB4			
		UU94 MB	WMW		
✓		B			noisy - Fe Mn
		C			
		Adup		✓	
		A			
✓		Asdl			0.08 ml ICPsdl Fe 70.6 % recovery
		UU52 H	SwC	2	
		↓ I	↓	↓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG ICP-OES-01
Perkin Elmer OPTIMA 4300
Serial No. - 077N0060101

IEC Date: — Analysis Date: 5.29.12 Analyst: BLW

LR Date: — Page: 3 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		UU52 S	SWC	2	
		UU94 MBSph	WMW	✓	0.08 ml ICPsph
		CCV 5			Sb Si high end package
		CCB 5			
		UU72 MB	TWC		
		UU69 MB	SWC	2	Al Ca cont. - NR
		UU19 MB	LEW	5	
		Adup		✓	
A		A			
↓		ASph	↓	↓	
		UU94 D	WMW		
		↓ E	↓		
		UU69 A	SWC	2	
		↓ MBSph	↓	↓	
		CCV			Sb Si high
		CCB			
	✓	UU57 MB	TWC		CB out
		B			
		C			As high - rerun 1/2
		D			As Mg Na high rerun 1/5
		E			
		F			
		Adup			6/3/12 Ba high - rr 1/2
		A	↓	↓	

UU52 : 02012

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA **Analysis Date:** 5.29.12

ICP 1	Analyst BW 5.30	Peer HST	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	see log
ICB/CCB	✓	✓	↓
Samples:			
RSD's & SD's	✓	✓	see log
Internal Standards	✓	✓	↓
Carry-over	✓	✓	↓
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	—	—	

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	179.0 kPa	0.55 L/min

5/29/2012 1:01:56 PM Hg ReAlign... Actual peak offset (nm): -0.000
Drift (nm): 0.000 Slit adjustment: 0

Align View XY Axial for analyte Mn 257.610

X-position	Y-position	Intensity
-2.0	15.0	215197.7
-1.6	15.0	311095.7
-1.2	15.0	423298.4
-0.8	15.0	545017.7
-0.4	15.0	650944.2
0.0	15.0	703656.1
0.4	15.0	700694.3
0.8	15.0	642065.8
1.2	15.0	550643.7
1.6	15.0	443431.8
2.0	15.0	346523.3
0.0	10.0	8563.9
0.0	10.5	25529.1
0.0	11.0	45220.2
0.0	11.5	76429.5
0.0	12.0	114433.9
0.0	12.5	240980.2
0.0	13.0	352181.9
0.0	13.5	454166.7
0.0	14.0	582531.5
0.0	14.5	704752.6
0.0	15.0	726172.1
0.0	15.5	668801.3
0.0	16.0	567404.2
0.0	16.5	360661.0
0.0	17.0	263155.9
0.0	17.5	190530.0
0.0	18.0	132151.4
0.0	18.5	87719.1
0.0	19.0	27272.8
0.0	19.5	11013.0
0.0	20.0	4902.7
-0.8	15.0	562067.5
-0.4	15.0	652647.7
0.0	15.0	710829.6
0.4	15.0	691983.4
0.8	15.0	637412.4
0.0	13.0	378791.5
0.0	13.5	463068.6
0.0	14.0	587410.1
0.0	14.5	716379.4
0.0	15.0	709146.1
0.0	15.5	637767.2
0.0	16.0	555588.7
0.0	16.5	355263.3
0.0	17.0	256250.8

5/29/2012 1:07:19 PM aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 716379.4 for Axial viewing
Y viewing position set to 14.5 mm having Peak intensity 716379.4 for Axial viewing

Align View X Radial for analyte Mn 257.610

X-position	Y-position	Intensity
-7.0	15.0	3714.4
-6.5	15.0	6007.7
-6.0	15.0	9372.0
-5.5	15.0	13704.1
-5.0	15.0	18742.7
-4.5	15.0	26057.7

-4.0	15.0	32691.2
-3.5	15.0	45736.7
-3.0	15.0	54155.2
-2.5	15.0	82443.8
-2.0	15.0	128472.2
-1.5	15.0	208168.0
-1.0	15.0	346064.9
-0.5	15.0	399115.1
0.0	15.0	393200.7
0.5	15.0	361595.5
1.0	15.0	309583.9
1.5	15.0	241939.2
2.0	15.0	160555.6
2.5	15.0	84058.5
3.0	15.0	31477.8
3.5	15.0	27480.0
4.0	15.0	29508.4
4.5	15.0	25781.5
5.0	15.0	19660.8
5.5	15.0	13363.9
6.0	15.0	10263.5
6.5	15.0	6797.6
7.0	15.0	4171.5

5/29/2012 1:10:56 PM aligned for analyte Mn 257.610
X viewing position set to -0.5 mm having Peak intensity 399115.1 for Radial viewing

Analysis Begun

Start Time: 5/29/2012 1:22:53 PM **Plasma On Time: 5/29/2012 12:14:35 PM**
Logged In Analyst: metals **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N0060101Autosampler Model: S10

Sample Information File: C:\pe\Administrator\Sample Information\CRISET.sif
Batch ID:
Results Data Set: PE120529
Results Library: C:\pe\metals\Results\Results.mdb

Method Loaded
Method Name: ARIIEC6AN.552AS **Method Last Saved: 5/25/2012 2:47:26 PM**
IEC File: IEC47A.iec **MSF File:**
Method Description: 12Axial Elements

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No

Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

Sequence No.: 1
Sample ID: Calib Blank 1

Autosampler Location: 1
Date Collected: 5/29/2012 1:22:53 PM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1913709.3	12092.53	0.63%	100.0	%
ScR 361.383	196436.4	245.94	0.13%	100.00	%
Ag 328.068†	-30.8	20.47	66.50%	[0.00]	mg/L
Al 308.215†	-166.9	9.79	5.87%	[0.00]	mg/L
As 188.979†	45.1	2.91	6.45%	[0.00]	mg/L
B 249.677†	-161.3	0.87	0.54%	[0.00]	mg/L
Ba 233.527†	-60.6	1.23	2.03%	[0.00]	mg/L
Be 313.042†	766.6	12.11	1.58%	[0.00]	mg/L
Ca 317.933†	-15.4	10.18	66.22%	[0.00]	mg/L
Cd 228.802†	204.5	3.30	1.61%	[0.00]	mg/L
Co 228.616†	-322.1	3.35	1.04%	[0.00]	mg/L
Cr 267.716†	106.4	6.16	5.79%	[0.00]	mg/L
Cu 324.752†	1003.1	24.09	2.40%	[0.00]	mg/L
Fe 273.955†	-43.4	2.73	6.30%	[0.00]	mg/L
K 766.490†	1795.8	19.09	1.06%	[0.00]	mg/L
Mg 279.077†	-90.3	4.46	4.94%	[0.00]	mg/L
Mn 257.610†	228.4	2.80	1.23%	[0.00]	mg/L
Mo 202.031†	76.6	3.00	3.92%	[0.00]	mg/L
Na 589.592†	2064.1	37.73	1.83%	[0.00]	mg/L
Na 330.237†	-170.8	9.12	5.34%	[0.00]	mg/L
Ni 231.604†	-167.7	3.29	1.96%	[0.00]	mg/L
Pb 220.353†	100.3	3.64	3.63%	[0.00]	mg/L
Sb 206.836†	-79.7	6.54	8.20%	[0.00]	mg/L
Se 196.026†	61.0	5.20	8.52%	[0.00]	mg/L
Si 288.158†	82.6	5.07	6.14%	[0.00]	mg/L
Sn 189.927†	-44.4	2.02	4.55%	[0.00]	mg/L
Sr 421.552†	362.8	30.82	8.49%	[0.00]	mg/L
Ti 334.903†	42.2	14.76	34.96%	[0.00]	mg/L
Tl 190.801†	-12.0	2.74	22.92%	[0.00]	mg/L
V 292.402†	745.5	21.19	2.84%	[0.00]	mg/L
Zn 206.200†	-35.2	3.90	11.08%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 5/29/2012 1:28:51 PM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1924415.4	6687.06	0.35%	100.6	%
ScR 361.383	201360.4	865.25	0.43%	102.5	%
Ba 233.527†	71972.9	50.17	0.07%	[10]	mg/L
Cd 228.802†	487821.5	821.75	0.17%	[10]	mg/L
Co 228.616†	469944.7	766.32	0.16%	[10]	mg/L
Cr 267.716†	44134.4	25.80	0.06%	[10]	mg/L
Cu 324.752†	2438762.4	1628.48	0.07%	[10]	mg/L
Mn 257.610†	395548.2	493.66	0.12%	[10]	mg/L
V 292.402†	1346437.1	3472.78	0.26%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 5/29/2012 1:32:40 PM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1881016.5	8856.32	0.47%	98.29	%
ScR 361.383	197541.0	529.95	0.27%	100.6	%
Ag 328.068†	205403.1	808.55	0.39%	[1.0]	mg/L
As 188.979†	12735.6	208.91	1.64%	[10]	mg/L
B 249.677†	16730.9	85.28	0.51%	[10]	mg/L
Be 313.042†	1400358.3	11767.05	0.84%	[5.0]	mg/L
Na 589.592†	336916.1	3375.18	1.00%	[50]	mg/L
Ni 231.604†	18685.7	69.85	0.37%	[10]	mg/L
Pb 220.353†	70159.9	381.82	0.54%	[10]	mg/L
Se 196.026†	8317.8	136.12	1.64%	[10]	mg/L
Sr 421.552†	2276274.0	12113.90	0.53%	[5]	mg/L
Tl 190.801†	16092.1	180.65	1.12%	[10]	mg/L
Zn 206.200†	25508.6	72.91	0.29%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 5/29/2012 1:37:00 PM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1916900.5	11776.11	0.61%	100.2	%
ScR 361.383	200820.8	2830.87	1.41%	102.2	%
Mo 202.031†	101188.9	421.46	0.42%	[10]	mg/L
Sb 206.836†	12351.1	97.52	0.79%	[10]	mg/L
Si 288.158†	12374.2	254.02	2.05%	[10]	mg/L
Sn 189.927†	31802.4	197.56	0.62%	[10]	mg/L
Ti 334.903†	190841.8	2852.55	1.49%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 5/29/2012 1:41:13 PM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1811583.9	3381.48	0.19%	94.66	%
ScR 361.383	195868.3	987.81	0.50%	99.71	%
Al 308.215†	39253.9	239.62	0.61%	[30]	mg/L
Ca 317.933†	317324.1	456.07	0.14%	[30]	mg/L
Fe 273.955†	118490.9	401.02	0.34%	[100]	mg/L
K 766.490†	260584.0	690.78	0.27%	[100]	mg/L
Mg 279.077†	31574.7	171.46	0.54%	[30]	mg/L
Na 330.237†	2018.1	10.53	0.52%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	205400	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1308	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1274	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	1673	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	7197	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	280100	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	10580	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	48780	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	46990	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	4413	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	243900	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1185	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2606	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1052	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	39550	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	10120	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	6738	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	20.18	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	1869	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	7016	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	1235	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	831.8	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1237	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3180	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	455300	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	19080	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	1609	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	134600	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	2551	0.00000	1.000000	

Analysis Begun

Start Time: 5/29/2012 1:55:22 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/29/2012 12:14:35 PM
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\metals\Sample Information\0529.sif
Batch ID:
Results Data Set: PE120529
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Autosampler Location: 7
Date Collected: 5/29/2012 1:55:24 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1863523.8	97.38	%	0.168				0.17%
ScR 361.383	197733.8	100.7	%	0.80				0.79%
Ag 328.068†	199692.9	0.9723	mg/L	0.00375	0.9723	mg/L	0.00375	0.39%
Al 308.215†	2693.8	2.019	mg/L	0.0217	2.019	mg/L	0.0217	1.08%
As 188.979†	2592.9	2.035	mg/L	0.0080	2.035	mg/L	0.0080	0.39%
B 249.677†	1610.1	0.9607	mg/L	0.00610	0.9607	mg/L	0.00610	0.64%
Ba 233.527†	6823.8	0.9477	mg/L	0.00774	0.9477	mg/L	0.00774	0.82%
Be 313.042†	273218.6	0.9730	mg/L	0.00260	0.9730	mg/L	0.00260	0.27%
Ca 317.933†	21511.7	2.034	mg/L	0.0125	2.034	mg/L	0.0125	0.61%
Cd 228.802†	49070.9	1.003	mg/L	0.0033	1.003	mg/L	0.0033	0.33%
Co 228.616†	45184.9	0.9596	mg/L	0.00352	0.9596	mg/L	0.00352	0.37%
Cr 267.716†	4204.5	0.9522	mg/L	0.00678	0.9522	mg/L	0.00678	0.71%
Cu 324.752†	248473.1	1.019	mg/L	0.0036	1.019	mg/L	0.0036	0.35%
Fe 273.955†	2432.4	2.052	mg/L	0.0175	2.052	mg/L	0.0175	0.85%
K 766.490†	53843.2	20.66	mg/L	0.073	20.66	mg/L	0.073	0.35%
Mg 279.077†	2192.4	2.086	mg/L	0.0130	2.086	mg/L	0.0130	0.63%
Mn 257.610†	37865.1	0.9577	mg/L	0.00183	0.9577	mg/L	0.00183	0.19%
Mo 202.031†	10303.6	1.018	mg/L	0.0022	1.018	mg/L	0.0022	0.21%
Na 589.592†	330743.6	49.08	mg/L	0.204	49.08	mg/L	0.204	0.42%
Na 330.237†	1051.5	51.98	mg/L	0.376	51.98	mg/L	0.376	0.72%
Ni 231.604†	1791.2	0.9594	mg/L	0.00427	0.9594	mg/L	0.00427	0.45%
Pb 220.353†	13918.2	1.986	mg/L	0.0083	1.986	mg/L	0.0083	0.42%
Sb 206.836†	2781.2	2.251	mg/L	0.0088	2.251	mg/L	0.0088	0.39%
Se 196.026†	1639.3	1.968	mg/L	0.0151	1.968	mg/L	0.0151	0.77%
Si 288.158†	2781.6	2.255	mg/L	0.0183	2.255	mg/L	0.0183	0.81%
Sn 189.927†	3022.7	0.9519	mg/L	0.00248	0.9519	mg/L	0.00248	0.26%
Sr 421.552†	449426.8	0.9872	mg/L	0.00505	0.9872	mg/L	0.00505	0.51%
Ti 334.903†	19611.5	1.026	mg/L	0.0022	1.026	mg/L	0.0022	0.21%
Tl 190.801†	3173.1	1.956	mg/L	0.0135	1.956	mg/L	0.0135	0.69%
V 292.402†	133242.6	1.002	mg/L	0.0062	1.002	mg/L	0.0062	0.62%
Zn 206.200†	2558.7	1.002	mg/L	0.0099	1.002	mg/L	0.0099	0.99%

Sequence No.: 2
Sample ID: CB

Autosampler Location: 1
Date Collected: 5/29/2012 2:01:26 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1916343.7	100.1	%	0.63				0.63%
ScR 361.383	198705.3	101.2	%	0.75				0.74%
Ag 328.068†	91.2	0.00044	mg/L	0.000053	0.00044	mg/L	0.000053	11.87%
Al 308.215†	-3.1	-0.00237	mg/L	0.005001	-0.00237	mg/L	0.005001	211.08%
As 188.979†	-1.2	-0.00094	mg/L	0.001495	-0.00094	mg/L	0.001495	159.37%
B 249.677†	21.8	0.01304	mg/L	0.001239	0.01304	mg/L	0.001239	9.51%
Ba 233.527†	-2.5	-0.00035	mg/L	0.000738	-0.00035	mg/L	0.000738	208.70%
Be 313.042†	33.3	0.00012	mg/L	0.000012	0.00012	mg/L	0.000012	10.25%
Ca 317.933†	-2.1	-0.00020	mg/L	0.000744	-0.00020	mg/L	0.000744	367.89%
Cd 228.802†	9.0	0.00019	mg/L	0.000177	0.00019	mg/L	0.000177	95.20%
Co 228.616†	-2.0	-0.00004	mg/L	0.000237	-0.00004	mg/L	0.000237	561.79%
Cr 267.716†	-1.1	-0.00024	mg/L	0.001506	-0.00024	mg/L	0.001506	630.20%
Cu 324.752†	153.8	0.00063	mg/L	0.000208	0.00063	mg/L	0.000208	33.05%
Fe 273.955†	0.9	0.00074	mg/L	0.001398	0.00074	mg/L	0.001398	189.35%
K 766.490†	101.7	0.03902	mg/L	0.025602	0.03902	mg/L	0.025602	65.61%
Mg 279.077†	-7.2	-0.00680	mg/L	0.003695	-0.00680	mg/L	0.003695	54.31%
Mn 257.610†	9.1	0.00023	mg/L	0.000136	0.00023	mg/L	0.000136	58.70%
Mo 202.031†	5.8	0.00057	mg/L	0.000289	0.00057	mg/L	0.000289	50.45%
Na 589.592†	110.7	0.01643	mg/L	0.004825	0.01643	mg/L	0.004825	29.36%
Na 330.237†	3.2	0.1594	mg/L	1.04490	0.1594	mg/L	1.04490	655.38%
Ni 231.604†	-7.1	-0.00380	mg/L	0.002609	-0.00380	mg/L	0.002609	68.72%
Pb 220.353†	19.9	0.00284	mg/L	0.000987	0.00284	mg/L	0.000987	34.73%
Sb 206.836†	-1.1	-0.00088	mg/L	0.006235	-0.00088	mg/L	0.006235	711.30%
Se 196.026†	6.5	0.00787	mg/L	0.003990	0.00787	mg/L	0.003990	50.68%
Si 288.158†	-0.9	-0.00072	mg/L	0.002215	-0.00072	mg/L	0.002215	306.85%
Sn 189.927†	6.6	0.00206	mg/L	0.000297	0.00206	mg/L	0.000297	14.42%
Sr 421.552†	55.5	0.00012	mg/L	0.000081	0.00012	mg/L	0.000081	66.08%
Ti 334.903†	-3.2	-0.00017	mg/L	0.001040	-0.00017	mg/L	0.001040	616.00%
Tl 190.801†	0.5	0.00030	mg/L	0.003456	0.00030	mg/L	0.003456	>999.9%
V 292.402†	37.8	0.00028	mg/L	0.000105	0.00028	mg/L	0.000105	37.25%
Zn 206.200†	0.7	0.00026	mg/L	0.000462	0.00026	mg/L	0.000462	177.41%

Sequence No.: 3
Sample ID: ~~CRI~~ 222222
Dilution: 1X

Autosampler Location: 21
Date Collected: 5/29/2012 2:07:24 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1886886.9	98.60	%	2.321				2.35%
ScR 361.383	197662.9	100.6	%	0.78				0.77%
Ag 328.068†	627.7	0.00306	mg/L	0.000282	0.00306	mg/L	0.000282	9.22%
Al 308.215†	61.5	0.04680	mg/L	0.003978	0.04680	mg/L	0.003978	8.50%
As 188.979†	67.1	0.05269	mg/L	0.001593	0.05269	mg/L	0.001593	3.02%
B 249.677†	48.5	0.02899	mg/L	0.002432	0.02899	mg/L	0.002432	8.39%
Ba 233.527†	16.9	0.00235	mg/L	0.000043	0.00235	mg/L	0.000043	1.83%
Be 313.042†	317.8	0.00113	mg/L	0.000022	0.00113	mg/L	0.000022	1.94%
Ca 317.933†	594.3	0.05619	mg/L	0.001055	0.05619	mg/L	0.001055	1.88%
Cd 228.802†	110.9	0.00218	mg/L	0.000255	0.00218	mg/L	0.000255	11.69%
Co 228.616†	133.2	0.00283	mg/L	0.000144	0.00283	mg/L	0.000144	5.11%
Cr 267.716†	14.9	0.00337	mg/L	0.001345	0.00337	mg/L	0.001345	39.93%
Cu 324.752†	644.1	0.00264	mg/L	0.000029	0.00264	mg/L	0.000029	1.08%
Fe 273.955†	64.4	0.05435	mg/L	0.003242	0.05435	mg/L	0.003242	5.97%
K 766.490†	1514.7	0.5813	mg/L	0.04459	0.5813	mg/L	0.04459	7.67%
Mg 279.077†	55.4	0.05262	mg/L	0.012425	0.05262	mg/L	0.012425	23.61%
Mn 257.610†	50.6	0.00128	mg/L	0.000099	0.00128	mg/L	0.000099	7.73%
Mo 202.031†	54.5	0.00538	mg/L	0.000618	0.00538	mg/L	0.000618	11.50%
Na 589.592†	3516.2	0.5218	mg/L	0.00549	0.5218	mg/L	0.00549	1.05%
Na 330.237†	15.3	0.7560	mg/L	0.55543	0.7560	mg/L	0.55543	73.46%
Ni 231.604†	7.0	0.00376	mg/L	0.001343	0.00376	mg/L	0.001343	35.69%
Pb 220.353†	159.2	0.02272	mg/L	0.002235	0.02272	mg/L	0.002235	9.84%
Sb 206.836†	71.1	0.05768	mg/L	0.001820	0.05768	mg/L	0.001820	3.15%
Se 196.026†	44.5	0.05343	mg/L	0.008944	0.05343	mg/L	0.008944	16.74%
Si 288.158†	81.4	0.06580	mg/L	0.001397	0.06580	mg/L	0.001397	2.12%
Sn 189.927†	34.1	0.01076	mg/L	0.000821	0.01076	mg/L	0.000821	7.63%
Sr 421.552†	503.8	0.00111	mg/L	0.000034	0.00111	mg/L	0.000034	3.06%
Ti 334.903†	72.3	0.00378	mg/L	0.000577	0.00378	mg/L	0.000577	15.25%
Tl 190.801†	83.4	0.05177	mg/L	0.002267	0.05177	mg/L	0.002267	4.38%
V 292.402†	388.0	0.00293	mg/L	0.000422	0.00293	mg/L	0.000422	14.40%
Zn 206.200†	24.2	0.00949	mg/L	0.000008	0.00949	mg/L	0.000008	0.09%

Analysis Begun

Start Time: 5/29/2012 2:13:56 PM
Plasma On Time: 5/29/2012 12:14:35 PM
Logged In Analyst: metals
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N0060101Autosampler Model: S10

Sample Information File: C:\pe\metals\Sample Information\0529.sif
Batch ID:
Results Data Set: PE120529
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Date Collected: 5/29/2012 2:13:58 PM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1902099.9	8576.99	0.45%	99.39	%
ScR 361.383	198718.8	366.35	0.18%	101.2	%
Ag 328.068†	-39.6	38.15	96.46%	[0.00]	mg/L
Al 308.215†	-175.3	11.27	6.43%	[0.00]	mg/L
As 188.979†	45.8	0.82	1.80%	[0.00]	mg/L
B 249.677†	-156.3	5.77	3.69%	[0.00]	mg/L
Ba 233.527†	-66.1	0.69	1.04%	[0.00]	mg/L
Be 313.042†	784.3	2.81	0.36%	[0.00]	mg/L
Ca 317.933†	-13.9	2.51	18.00%	[0.00]	mg/L
Cd 228.802†	209.9	1.98	0.94%	[0.00]	mg/L
Co 228.616†	-327.8	7.77	2.37%	[0.00]	mg/L
Cr 267.716†	110.3	1.87	1.70%	[0.00]	mg/L
Cu 324.752†	1124.9	59.63	5.30%	[0.00]	mg/L
Fe 273.955†	-42.8	1.36	3.16%	[0.00]	mg/L
K 766.490†	1861.0	22.53	1.21%	[0.00]	mg/L
Mg 279.077†	-93.1	8.02	8.61%	[0.00]	mg/L
Mn 257.610†	234.7	6.53	2.78%	[0.00]	mg/L
Mo 202.031†	76.8	4.38	5.70%	[0.00]	mg/L
Na 589.592†	2072.9	30.25	1.46%	[0.00]	mg/L
Na 330.237†	-180.1	12.23	6.79%	[0.00]	mg/L
Ni 231.604†	-177.9	2.96	1.66%	[0.00]	mg/L
Pb 220.353†	119.4	7.29	6.10%	[0.00]	mg/L
Sb 206.836†	-76.6	3.16	4.12%	[0.00]	mg/L
Se 196.026†	62.4	4.75	7.61%	[0.00]	mg/L
Si 288.158†	80.6	5.69	7.07%	[0.00]	mg/L
Sn 189.927†	-40.7	4.05	9.94%	[0.00]	mg/L
Sr 421.552†	425.2	35.91	8.45%	[0.00]	mg/L
Ti 334.903†	21.6	13.22	61.35%	[0.00]	mg/L
Tl 190.801†	-9.2	2.14	23.33%	[0.00]	mg/L
V 292.402†	774.4	27.04	3.49%	[0.00]	mg/L
Zn 206.200†	-35.9	3.25	9.05%	[0.00]	mg/L

Analysis Begun

Start Time: 5/29/2012 2:18:15 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/29/2012 12:14:35 PM
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\metals\Sample Information\0529.sif
Batch ID:
Results Data Set: PE120529
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: CV
Autosampler Location: 7
Date Collected: 5/29/2012 2:18:17 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1851422.5	96.75	%	0.316				0.33%
ScR 361.383	197782.3	100.7	%	1.15				1.15%
Ag 328.068†	199918.5	0.9734	mg/L	0.00750	0.9734	mg/L	0.00750	0.77%
Al 308.215†	2713.8	2.035	mg/L	0.0083	2.035	mg/L	0.0083	0.41%
As 188.979†	2604.0	2.044	mg/L	0.0075	2.044	mg/L	0.0075	0.37%
B 249.677†	1610.8	0.9610	mg/L	0.01852	0.9610	mg/L	0.01852	1.93%
Ba 233.527†	6849.3	0.9512	mg/L	0.01302	0.9512	mg/L	0.01302	1.37%
Be 313.042†	273954.3	0.9757	mg/L	0.00208	0.9757	mg/L	0.00208	0.21%
Ca 317.933†	21572.5	2.039	mg/L	0.0229	2.039	mg/L	0.0229	1.12%
Cd 228.802†	49118.9	1.003	mg/L	0.0065	1.003	mg/L	0.0065	0.65%
Co 228.616†	45405.9	0.9643	mg/L	0.00545	0.9643	mg/L	0.00545	0.57%
Cr 267.716†	4219.9	0.9557	mg/L	0.00973	0.9557	mg/L	0.00973	1.02%
Cu 324.752†	249431.4	1.023	mg/L	0.0080	1.023	mg/L	0.0080	0.78%
Fe 273.955†	2449.4	2.066	mg/L	0.0250	2.066	mg/L	0.0250	1.21%
K 766.490†	53696.4	20.61	mg/L	0.096	20.61	mg/L	0.096	0.46%
Mg 279.077†	2209.6	2.102	mg/L	0.0281	2.102	mg/L	0.0281	1.33%
Mn 257.610†	37606.2	0.9512	mg/L	0.01142	0.9512	mg/L	0.01142	1.20%
Mo 202.031†	10348.7	1.022	mg/L	0.0023	1.022	mg/L	0.0023	0.23%
Na 589.592†	331287.6	49.16	mg/L	0.102	49.16	mg/L	0.102	0.21%
Na 330.237†	1066.7	52.73	mg/L	0.659	52.73	mg/L	0.659	1.25%
Ni 231.604†	1809.9	0.9694	mg/L	0.00923	0.9694	mg/L	0.00923	0.95%
Pb 220.353†	13965.5	1.993	mg/L	0.0188	1.993	mg/L	0.0188	0.95%
Sb 206.836†	2781.1	2.250	mg/L	0.0049	2.250	mg/L	0.0049	0.22%
Se 196.026†	1653.1	1.985	mg/L	0.0072	1.985	mg/L	0.0072	0.36%
Si 288.158†	2806.7	2.275	mg/L	0.0267	2.275	mg/L	0.0267	1.17%
Sn 189.927†	3024.0	0.9523	mg/L	0.00206	0.9523	mg/L	0.00206	0.22%
Sr 421.552†	448872.6	0.9860	mg/L	0.00543	0.9860	mg/L	0.00543	0.55%
Ti 334.903†	19728.7	1.032	mg/L	0.0035	1.032	mg/L	0.0035	0.34%
Tl 190.801†	3194.7	1.969	mg/L	0.0091	1.969	mg/L	0.0091	0.46%
V 292.402†	133481.6	1.004	mg/L	0.0112	1.004	mg/L	0.0112	1.11%
Zn 206.200†	2582.6	1.012	mg/L	0.0120	1.012	mg/L	0.0120	1.18%

Sequence No.: 2
Sample ID: CB

Autosampler Location: 1
Date Collected: 5/29/2012 2:24:18 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1878056.2	98.14	%	0.479				0.49%
ScR 361.383	194571.7	99.05	%	0.242				0.24%
Ag 328.068†	23.9	0.00012	mg/L	0.000249	0.00012	mg/L	0.000249	214.24%
Al 308.215†	-4.3	-0.00327	mg/L	0.002234	-0.00327	mg/L	0.002234	68.23%
As 188.979†	1.2	0.00091	mg/L	0.001002	0.00091	mg/L	0.001002	110.17%
B 249.677†	11.8	0.00706	mg/L	0.002338	0.00706	mg/L	0.002338	33.13%
Ba 233.527†	0.9	0.00013	mg/L	0.000167	0.00013	mg/L	0.000167	133.56%
Be 313.042†	15.8	0.00006	mg/L	0.000014	0.00006	mg/L	0.000014	24.08%
Ca 317.933†	-0.1	-0.00001	mg/L	0.001196	-0.00001	mg/L	0.001196	>999.9%
Cd 228.802†	-0.5	-0.00001	mg/L	0.000087	-0.00001	mg/L	0.000087	682.23%
Co 228.616†	2.1	0.00005	mg/L	0.000302	0.00005	mg/L	0.000302	669.11%
Cr 267.716†	-3.6	-0.00080	mg/L	0.001348	-0.00080	mg/L	0.001348	167.53%
Cu 324.752†	31.0	0.00013	mg/L	0.000025	0.00013	mg/L	0.000025	19.95%
Fe 273.955†	0.1	0.00007	mg/L	0.001289	0.00007	mg/L	0.001289	>999.9%
K 766.490†	33.0	0.01268	mg/L	0.038074	0.01268	mg/L	0.038074	300.29%
Mg 279.077†	-2.5	-0.00239	mg/L	0.003110	-0.00239	mg/L	0.003110	130.25%
Mn 257.610†	4.5	0.00011	mg/L	0.000040	0.00011	mg/L	0.000040	34.86%
Mo 202.031†	4.2	0.00041	mg/L	0.000617	0.00041	mg/L	0.000617	150.10%
Na 589.592†	151.1	0.02243	mg/L	0.006591	0.02243	mg/L	0.006591	29.39%
Na 330.237†	2.1	0.1065	mg/L	0.35065	0.1065	mg/L	0.35065	329.24%
Ni 231.604†	-1.8	-0.00099	mg/L	0.002636	-0.00099	mg/L	0.002636	267.21%
Pb 220.353†	0.3	0.00005	mg/L	0.000559	0.00005	mg/L	0.000559	>999.9%
Sb 206.836†	-4.3	-0.00346	mg/L	0.002859	-0.00346	mg/L	0.002859	82.69%
Se 196.026†	-0.7	-0.00088	mg/L	0.002642	-0.00088	mg/L	0.002642	300.57%
Si 288.158†	4.0	0.00324	mg/L	0.004432	0.00324	mg/L	0.004432	136.63%
Sn 189.927†	5.8	0.00182	mg/L	0.000757	0.00182	mg/L	0.000757	41.56%
Sr 421.552†	12.1	0.00003	mg/L	0.000058	0.00003	mg/L	0.000058	215.96%
Ti 334.903†	3.3	0.00017	mg/L	0.001037	0.00017	mg/L	0.001037	602.38%
Tl 190.801†	1.7	0.00103	mg/L	0.001477	0.00103	mg/L	0.001477	143.98%
V 292.402†	-2.4	-0.00002	mg/L	0.000082	-0.00002	mg/L	0.000082	387.04%
Zn 206.200†	-0.3	-0.00010	mg/L	0.000992	-0.00010	mg/L	0.000992	948.26%

Sequence No.: 3
Sample ID: CRI

Autosampler Location: 21
Date Collected: 5/29/2012 2:30:16 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1882997.7	98.40	%	0.873				0.89%
ScR 361.383	196910.7	100.2	%	2.22				2.21%
Ag 328.068†	624.1	0.00304	mg/L	0.000153	0.00304	mg/L	0.000153	5.03%
Al 308.215†	72.2	0.05501	mg/L	0.009230	0.05501	mg/L	0.009230	16.78%
As 188.979†	68.3	0.05359	mg/L	0.001829	0.05359	mg/L	0.001829	3.41%
B 249.677†	38.2	0.02282	mg/L	0.002446	0.02282	mg/L	0.002446	10.72%
Ba 233.527†	22.3	0.00310	mg/L	0.000683	0.00310	mg/L	0.000683	22.04%
Be 313.042†	284.3	0.00101	mg/L	0.000115	0.00101	mg/L	0.000115	11.42%
Ca 317.933†	578.4	0.05468	mg/L	0.003969	0.05468	mg/L	0.003969	7.26%
Cd 228.802†	99.2	0.00194	mg/L	0.000163	0.00194	mg/L	0.000163	8.40%
Co 228.616†	144.0	0.00305	mg/L	0.000049	0.00305	mg/L	0.000049	1.62%
Cr 267.716†	20.8	0.00472	mg/L	0.001610	0.00472	mg/L	0.001610	34.12%
Cu 324.752†	513.7	0.00211	mg/L	0.000197	0.00211	mg/L	0.000197	9.34%
Fe 273.955†	58.5	0.04936	mg/L	0.000641	0.04936	mg/L	0.000641	1.30%
K 766.490†	1427.1	0.5477	mg/L	0.01242	0.5477	mg/L	0.01242	2.27%
Mg 279.077†	54.2	0.05147	mg/L	0.003225	0.05147	mg/L	0.003225	6.26%
Mn 257.610†	50.7	0.00129	mg/L	0.000264	0.00129	mg/L	0.000264	20.49%
Mo 202.031†	55.8	0.00551	mg/L	0.000337	0.00551	mg/L	0.000337	6.12%
Na 589.592†	3554.9	0.5276	mg/L	0.02097	0.5276	mg/L	0.02097	3.98%
Na 330.237†	25.8	1.278	mg/L	0.7909	1.278	mg/L	0.7909	61.87%
Ni 231.604†	20.3	0.01085	mg/L	0.001186	0.01085	mg/L	0.001186	10.93%
Pb 220.353†	140.9	0.02011	mg/L	0.000256	0.02011	mg/L	0.000256	1.27%
Sb 206.836†	64.5	0.05228	mg/L	0.003177	0.05228	mg/L	0.003177	6.08%
Se 196.026†	44.1	0.05292	mg/L	0.002370	0.05292	mg/L	0.002370	4.48%
Si 288.158†	82.7	0.06682	mg/L	0.006109	0.06682	mg/L	0.006109	9.14%
Sn 189.927†	30.0	0.00947	mg/L	0.000702	0.00947	mg/L	0.000702	7.41%
Sr 421.552†	494.8	0.00109	mg/L	0.000114	0.00109	mg/L	0.000114	10.53%
Ti 334.903†	100.5	0.00526	mg/L	0.000733	0.00526	mg/L	0.000733	13.95%
Tl 190.801†	83.5	0.05185	mg/L	0.000655	0.05185	mg/L	0.000655	1.26%
V 292.402†	422.5	0.00320	mg/L	0.000265	0.00320	mg/L	0.000265	8.29%
Zn 206.200†	24.4	0.00955	mg/L	0.001163	0.00955	mg/L	0.001163	12.18%

Sequence No.: 4
Sample ID: ICSA

Autosampler Location: 22
Date Collected: 5/29/2012 2:36:16 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1778406.4	92.93	%	0.371				0.40%
ScR 361.383	191271.3	97.37	%	0.922				0.95%
Ag 328.068†	-1282.2	0.00206	mg/L	0.000420	0.00206	mg/L	0.000420	20.38%
Al 308.215†	276439.6	211.3	mg/L	0.58	211.3	mg/L	0.58	0.27%
As 188.979†	45.8	-0.00282	mg/L	0.004446	-0.00282	mg/L	0.004446	157.89%
B 249.677†	-22.7	-0.01357	mg/L	0.001808	-0.01357	mg/L	0.001808	13.33%
Ba 233.527†	65.7	0.00181	mg/L	0.000891	0.00181	mg/L	0.000891	49.11%
Be 313.042†	22.5	0.00003	mg/L	0.000016	0.00003	mg/L	0.000016	56.16%
Ca 317.933†	1068592.4	101.0	mg/L	0.19	101.0	mg/L	0.19	0.19%
Cd 228.802†	54.4	0.00105	mg/L	0.000100	0.00105	mg/L	0.000100	9.57%
Co 228.616†	41.4	0.00088	mg/L	0.000177	0.00088	mg/L	0.000177	20.24%
Cr 267.716†	13.4	0.00210	mg/L	0.001596	0.00210	mg/L	0.001596	76.09%
Cu 324.752†	-3770.7	0.00259	mg/L	0.000066	0.00259	mg/L	0.000066	2.53%
Fe 273.955†	243581.5	205.6	mg/L	1.11	205.6	mg/L	1.11	0.54%
K 766.490†	2.5	0.00095	mg/L	0.002861	0.00095	mg/L	0.002861	302.17%
Mg 279.077†	108882.9	103.3	mg/L	1.43	103.3	mg/L	1.43	1.39%
Mn 257.610†	74.3	0.00007	mg/L	0.000543	0.00007	mg/L	0.000543	752.33%
Mo 202.031†	172.5	0.00733	mg/L	0.000772	0.00733	mg/L	0.000772	10.54%
Na 589.592†	338.7	0.05027	mg/L	0.004716	0.05027	mg/L	0.004716	9.38%
Na 330.237†	16.0	0.3438	mg/L	0.13836	0.3438	mg/L	0.13836	40.25%
Ni 231.604†	-21.5	0.00076	mg/L	0.004381	0.00076	mg/L	0.004381	577.36%
Pb 220.353†	-437.7	0.00478	mg/L	0.001175	0.00478	mg/L	0.001175	24.57%
Sb 206.836†	-122.3	-0.03214	mg/L	0.000679	-0.03214	mg/L	0.000679	2.11%
Se 196.026†	69.4	-0.00398	mg/L	0.004802	-0.00398	mg/L	0.004802	120.74%
Si 288.158†	-38.1	-0.01194	mg/L	0.003419	-0.01194	mg/L	0.003419	28.63%
Sn 189.927†	-104.2	-0.02725	mg/L	0.001419	-0.02725	mg/L	0.001419	5.21%
Sr 421.552†	4698.3	0.01032	mg/L	0.000120	0.01032	mg/L	0.000120	1.17%
Ti 334.903†	76.3	0.00068	mg/L	0.002072	0.00068	mg/L	0.002072	306.86%
Tl 190.801†	-49.9	-0.00877	mg/L	0.002725	-0.00877	mg/L	0.002725	31.08%
V 292.402†	2835.6	-0.00559	mg/L	0.000483	-0.00559	mg/L	0.000483	8.65%
Zn 206.200†	-14.2	-0.00183	mg/L	0.001063	-0.00183	mg/L	0.001063	58.05%

cont.

Sequence No.: 5
Sample ID: ICSAB

Autosampler Location: 23
Date Collected: 5/29/2012 2:42:18 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	180.0 kPa	0.55 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1782383.7	93.14	%	0.411				0.44%
ScR 361.383	195693.8	99.62	%	1.030				1.03%
Ag 328.068†	211075.6	1.036	mg/L	0.0043	1.036	mg/L	0.0043	0.41%
Al 308.215†	270845.9	207.0	mg/L	1.20	207.0	mg/L	1.20	0.58%
As 188.979†	1380.8	1.046	mg/L	0.0148	1.046	mg/L	0.0148	1.42%
B 249.677†	-26.5	-0.01896	mg/L	0.001263	-0.01896	mg/L	0.001263	6.66%
Ba 233.527†	6939.1	0.9565	mg/L	0.01345	0.9565	mg/L	0.01345	1.41%
Be 313.042†	283700.9	1.010	mg/L	0.0047	1.010	mg/L	0.0047	0.46%
Ca 317.933†	1080936.3	102.2	mg/L	0.47	102.2	mg/L	0.47	0.46%
Cd 228.802†	49030.7	1.003	mg/L	0.0021	1.003	mg/L	0.0021	0.21%
Co 228.616†	43517.3	0.9256	mg/L	0.00086	0.9256	mg/L	0.00086	0.09%
Cr 267.716†	4256.1	0.9631	mg/L	0.01216	0.9631	mg/L	0.01216	1.26%
Cu 324.752†	249157.3	1.040	mg/L	0.0026	1.040	mg/L	0.0026	0.25%
Fe 273.955†	241595.3	203.9	mg/L	1.31	203.9	mg/L	1.31	0.64%
K 766.490†	19.2	0.00736	mg/L	0.012161	0.00736	mg/L	0.012161	165.33%
Mg 279.077†	110256.9	104.6	mg/L	0.48	104.6	mg/L	0.48	0.46%
Mn 257.610†	38101.0	0.9617	mg/L	0.00494	0.9617	mg/L	0.00494	0.51%
Mo 202.031†	182.3	0.00816	mg/L	0.001111	0.00816	mg/L	0.001111	13.62%
Na 589.592†	400.4	0.05942	mg/L	0.003853	0.05942	mg/L	0.003853	6.48%
Na 330.237†	21.7	0.3034	mg/L	0.13333	0.3034	mg/L	0.13333	43.95%
Ni 231.604†	1724.0	0.9353	mg/L	0.00926	0.9353	mg/L	0.00926	0.99%
Pb 220.353†	6299.7	0.9650	mg/L	0.00848	0.9650	mg/L	0.00848	0.88%
Sb 206.836†	1207.3	1.032	mg/L	0.0027	1.032	mg/L	0.0027	0.26%
Se 196.026†	912.9	1.010	mg/L	0.0098	1.010	mg/L	0.0098	0.97%
Si 288.158†	-41.1	-0.00959	mg/L	0.010016	-0.00959	mg/L	0.010016	104.47%
Sn 189.927†	-112.5	-0.02934	mg/L	0.000657	-0.02934	mg/L	0.000657	2.24%
Sr 421.552†	5079.4	0.01116	mg/L	0.000063	0.01116	mg/L	0.000063	0.56%
Ti 334.903†	67.0	-0.00009	mg/L	0.000732	-0.00009	mg/L	0.000732	847.54%
Tl 190.801†	1506.5	0.9419	mg/L	0.00928	0.9419	mg/L	0.00928	0.98%
V 292.402†	138039.7	1.006	mg/L	0.0057	1.006	mg/L	0.0057	0.57%
Zn 206.200†	2352.6	0.9254	mg/L	0.01410	0.9254	mg/L	0.01410	1.52%

Sequence No.: 6
Sample ID: CV 7

Dilution: 1X

Autosampler Location: 7
Date Collected: 5/29/2012 2:49:18 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1848302.0	96.58	%	1.077				1.12%
ScR 361.383	195384.7	99.46	%	0.458				0.46%
Ag 328.068†	199818.1	0.9729	mg/L	0.01165	0.9729	mg/L	0.01165	1.20%
Al 308.215†	2763.3	2.072	mg/L	0.0175	2.072	mg/L	0.0175	0.85%
As 188.979†	2600.6	2.041	mg/L	0.0235	2.041	mg/L	0.0235	1.15%
B 249.677†	1624.6	0.9693	mg/L	0.01610	0.9693	mg/L	0.01610	1.66%
Ba 233.527†	6977.6	0.9690	mg/L	0.00912	0.9690	mg/L	0.00912	0.94%
Be 313.042†	272207.2	0.9694	mg/L	0.00268	0.9694	mg/L	0.00268	0.28%
Ca 317.933†	21770.7	2.058	mg/L	0.0175	2.058	mg/L	0.0175	0.85%
Cd 228.802†	49222.4	1.006	mg/L	0.0090	1.006	mg/L	0.0090	0.90%
Co 228.616†	45788.4	0.9724	mg/L	0.00818	0.9724	mg/L	0.00818	0.84%
Cr 267.716†	4280.5	0.9694	mg/L	0.00705	0.9694	mg/L	0.00705	0.73%
Cu 324.752†	250319.5	1.026	mg/L	0.0084	1.026	mg/L	0.0084	0.82%
Fe 273.955†	2500.0	2.109	mg/L	0.0217	2.109	mg/L	0.0217	1.03%
K 766.490†	54069.9	20.75	mg/L	0.082	20.75	mg/L	0.082	0.39%
Mg 279.077†	2243.6	2.135	mg/L	0.0136	2.135	mg/L	0.0136	0.64%
Mn 257.610†	38316.3	0.9692	mg/L	0.00221	0.9692	mg/L	0.00221	0.23%
Mo 202.031†	10350.7	1.023	mg/L	0.0109	1.023	mg/L	0.0109	1.06%
Na 589.592†	333682.0	49.52	mg/L	0.156	49.52	mg/L	0.156	0.32%
Na 330.237†	1067.7	52.78	mg/L	0.474	52.78	mg/L	0.474	0.90%
Ni 231.604†	1844.4	0.9879	mg/L	0.01071	0.9879	mg/L	0.01071	1.08%
Pb 220.353†	14053.8	2.005	mg/L	0.0217	2.005	mg/L	0.0217	1.08%
Sb 206.836†	2787.0	2.255	mg/L	0.0208	2.255	mg/L	0.0208	0.92%
Se 196.026†	1656.7	1.989	mg/L	0.0258	1.989	mg/L	0.0258	1.30%
Si 288.158†	2870.7	2.327	mg/L	0.0339	2.327	mg/L	0.0339	1.46%
Sn 189.927†	3012.0	0.9486	mg/L	0.01095	0.9486	mg/L	0.01095	1.15%
Sr 421.552†	452747.8	0.9945	mg/L	0.00210	0.9945	mg/L	0.00210	0.21%
Ti 334.903†	19817.9	1.037	mg/L	0.0023	1.037	mg/L	0.0023	0.23%
Tl 190.801†	3201.9	1.974	mg/L	0.0183	1.974	mg/L	0.0183	0.93%
V 292.402†	133637.4	1.005	mg/L	0.0079	1.005	mg/L	0.0079	0.79%
Zn 206.200†	2635.2	1.032	mg/L	0.0109	1.032	mg/L	0.0109	1.06%

Sequence No.: 7
Sample ID: CB

Autosampler Location: 1
Date Collected: 5/29/2012 2:55:19 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1881790.9	98.33	%	0.365				0.37%
ScR 361.383	195003.1	99.27	%	0.582				0.59%
Ag 328.068†	78.6	0.00038	mg/L	0.000110	0.00038	mg/L	0.000110	28.70%
Al 308.215†	6.1	0.00468	mg/L	0.005982	0.00468	mg/L	0.005982	127.93%
As 188.979†	-0.2	-0.00013	mg/L	0.001251	-0.00013	mg/L	0.001251	949.99%
B 249.677†	11.1	0.00666	mg/L	0.000705	0.00666	mg/L	0.000705	10.59%
Ba 233.527†	6.6	0.00091	mg/L	0.000726	0.00091	mg/L	0.000726	79.50%
Be 313.042†	29.4	0.00011	mg/L	0.000030	0.00011	mg/L	0.000030	28.87%
Ca 317.933†	10.8	0.00102	mg/L	0.001831	0.00102	mg/L	0.001831	179.47%
Cd 228.802†	-4.1	-0.00008	mg/L	0.000038	-0.00008	mg/L	0.000038	45.51%
Co 228.616†	3.6	0.00008	mg/L	0.000147	0.00008	mg/L	0.000147	195.42%
Cr 267.716†	2.7	0.00062	mg/L	0.001359	0.00062	mg/L	0.001359	220.16%
Cu 324.752†	97.3	0.00040	mg/L	0.000037	0.00040	mg/L	0.000037	9.16%
Fe 273.955†	0.2	0.00019	mg/L	0.004278	0.00019	mg/L	0.004278	>999.9%
K 766.490†	82.2	0.03156	mg/L	0.016320	0.03156	mg/L	0.016320	51.71%
Mg 279.077†	-4.4	-0.00422	mg/L	0.003991	-0.00422	mg/L	0.003991	94.67%
Mn 257.610†	4.6	0.00012	mg/L	0.000199	0.00012	mg/L	0.000199	171.58%
Mo 202.031†	4.2	0.00042	mg/L	0.000153	0.00042	mg/L	0.000153	36.37%
Na 589.592†	189.2	0.02808	mg/L	0.010504	0.02808	mg/L	0.010504	37.41%
Na 330.237†	10.4	0.5152	mg/L	0.42580	0.5152	mg/L	0.42580	82.64%
Ni 231.604†	-2.4	-0.00127	mg/L	0.001887	-0.00127	mg/L	0.001887	148.51%
Pb 220.353†	3.3	0.00048	mg/L	0.000353	0.00048	mg/L	0.000353	73.99%
Sb 206.836†	-5.0	-0.00406	mg/L	0.002422	-0.00406	mg/L	0.002422	59.67%
Se 196.026†	0.5	0.00061	mg/L	0.004342	0.00061	mg/L	0.004342	711.43%
Si 288.158†	-1.7	-0.00136	mg/L	0.001759	-0.00136	mg/L	0.001759	129.27%
Sn 189.927†	8.3	0.00261	mg/L	0.001226	0.00261	mg/L	0.001226	47.05%
Sr 421.552†	36.2	0.00008	mg/L	0.000112	0.00008	mg/L	0.000112	141.48%
Ti 334.903†	12.0	0.00063	mg/L	0.001070	0.00063	mg/L	0.001070	170.38%
Tl 190.801†	-0.4	-0.00027	mg/L	0.002961	-0.00027	mg/L	0.002961	>999.9%
V 292.402†	-8.7	-0.00006	mg/L	0.000213	-0.00006	mg/L	0.000213	365.53%
Zn 206.200†	-0.1	-0.00003	mg/L	0.000624	-0.00003	mg/L	0.000624	>999.9%

Sequence No.: 8
Sample ID: DI CHECK

Autosampler Location: 24
Date Collected: 5/29/2012 3:01:17 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: DI CHECK

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: DI CHECK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1952861.9	102.0	%	0.36				0.35%
ScR 361.383	202225.4	102.9	%	0.90				0.87%
Ag 328.068†	22.7	0.00011	mg/L	0.000098	0.00011	mg/L	0.000098	89.02%
Al 308.215†	9.1	0.00694	mg/L	0.006899	0.00694	mg/L	0.006899	99.45%
As 188.979†	-2.5	-0.00193	mg/L	0.001939	-0.00193	mg/L	0.001939	100.50%
B 249.677†	6.3	0.00376	mg/L	0.002496	0.00376	mg/L	0.002496	66.35%
Ba 233.527†	5.6	0.00077	mg/L	0.000393	0.00077	mg/L	0.000393	50.87%
Be 313.042†	-17.5	-0.00006	mg/L	0.000077	-0.00006	mg/L	0.000077	124.19%
Ca 317.933†	-7.1	-0.00067	mg/L	0.001675	-0.00067	mg/L	0.001675	248.92%
Cd 228.802†	-1.6	-0.00003	mg/L	0.000080	-0.00003	mg/L	0.000080	299.16%
Co 228.616†	18.6	0.00039	mg/L	0.000098	0.00039	mg/L	0.000098	24.97%
Cr 267.716†	-8.6	-0.00194	mg/L	0.002417	-0.00194	mg/L	0.002417	124.73%
Cu 324.752†	32.1	0.00013	mg/L	0.000034	0.00013	mg/L	0.000034	25.83%
Fe 273.955†	0.9	0.00076	mg/L	0.002787	0.00076	mg/L	0.002787	368.90%
K 766.490†	-23.6	-0.00907	mg/L	0.032726	-0.00907	mg/L	0.032726	360.95%
Mg 279.077†	0.3	0.00029	mg/L	0.003585	0.00029	mg/L	0.003585	>999.9%
Mn 257.610†	-13.0	-0.00033	mg/L	0.000050	-0.00033	mg/L	0.000050	15.27%
Mo 202.031†	-4.0	-0.00040	mg/L	0.000585	-0.00040	mg/L	0.000585	147.89%
Na 589.592†	396.3	0.05881	mg/L	0.020697	0.05881	mg/L	0.020697	35.19%
Na 330.237†	1.6	0.07981	mg/L	0.227852	0.07981	mg/L	0.227852	285.48%
Ni 231.604†	13.2	0.00708	mg/L	0.003188	0.00708	mg/L	0.003188	45.00%
Pb 220.353†	-10.5	-0.00150	mg/L	0.000020	-0.00150	mg/L	0.000020	1.37%
Sb 206.836†	0.6	0.00050	mg/L	0.000775	0.00050	mg/L	0.000775	154.96%
Se 196.026†	-0.8	-0.00100	mg/L	0.006536	-0.00100	mg/L	0.006536	651.89%
Si 288.158†	-10.9	-0.00884	mg/L	0.001802	-0.00884	mg/L	0.001802	20.38%
Sn 189.927†	0.8	0.00024	mg/L	0.001117	0.00024	mg/L	0.001117	460.38%
Sr 421.552†	-4.5	-0.00001	mg/L	0.000086	-0.00001	mg/L	0.000086	880.73%
Ti 334.903†	26.4	0.00139	mg/L	0.001582	0.00139	mg/L	0.001582	114.15%
Tl 190.801†	-2.2	-0.00137	mg/L	0.004004	-0.00137	mg/L	0.004004	291.26%
V 292.402†	-35.6	-0.00028	mg/L	0.000249	-0.00028	mg/L	0.000249	88.32%
Zn 206.200†	2.0	0.00077	mg/L	0.000842	0.00077	mg/L	0.000842	109.00%

Sequence No.: 9
Sample ID: UU52 MB1 SWC

Autosampler Location: 25
Date Collected: 5/29/2012 3:07:17 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 MB1 SWC

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: UU52 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1896431.5	99.10	%	0.274				0.28%
ScR 361.383	197778.3	100.7	%	0.95				0.95%
Ag 328.068†	34.1	0.00017	mg/L	0.000060	0.00033	mg/L	0.000119	35.88%
Al 308.215†	16.4	0.01255	mg/L	0.003679	0.02510	mg/L	0.007358	29.32%
As 188.979†	4.1	0.00318	mg/L	0.001539	0.00636	mg/L	0.003077	48.40%
B 249.677†	-0.7	-0.00042	mg/L	0.001316	-0.00083	mg/L	0.002632	316.08%
Ba 233.527†	220.2	0.03060	mg/L	0.000855	0.06120	mg/L	0.001710	2.79%
Be 313.042†	16.9	0.00006	mg/L	0.000032	0.00012	mg/L	0.000064	53.19%
Ca 317.933†	197.7	0.01869	mg/L	0.001466	0.03738	mg/L	0.002932	7.84%
Cd 228.802†	4.2	0.00008	mg/L	0.000076	0.00016	mg/L	0.000152	95.57%
Co 228.616†	5.7	0.00011	mg/L	0.000077	0.00022	mg/L	0.000154	70.23%
Cr 267.716†	-4.9	-0.00111	mg/L	0.000613	-0.00221	mg/L	0.001226	55.42%
Cu 324.752†	102.4	0.00042	mg/L	0.000165	0.00084	mg/L	0.000330	39.24%
Fe 273.955†	12.5	0.01054	mg/L	0.001550	0.02109	mg/L	0.003099	14.70%
K 766.490†	40.2	0.01543	mg/L	0.003913	0.03086	mg/L	0.007826	25.36%
Mg 279.077†	7.2	0.00685	mg/L	0.001976	0.01369	mg/L	0.003952	28.87%
Mn 257.610†	5.8	0.00015	mg/L	0.000013	0.00029	mg/L	0.000027	9.23%
Mo 202.031†	7.0	0.00069	mg/L	0.000236	0.00137	mg/L	0.000471	34.30%
Na 589.592†	190.3	0.02824	mg/L	0.007441	0.05649	mg/L	0.014881	26.34%
Na 330.237†	0.0	-0.00007	mg/L	0.532435	-0.00014	mg/L	1.064869	>999.9%
Ni 231.604†	0.0	0.00002	mg/L	0.002553	0.00005	mg/L	0.005106	>999.9%
Pb 220.353†	-3.2	-0.00045	mg/L	0.000515	-0.00091	mg/L	0.001030	113.78%
Sb 206.836†	-3.7	-0.00301	mg/L	0.002998	-0.00601	mg/L	0.005996	99.74%
Se 196.026†	2.5	0.00298	mg/L	0.004892	0.00596	mg/L	0.009783	164.28%
Si 288.158†	9.1	0.00733	mg/L	0.001742	0.01465	mg/L	0.003485	23.78%
Sn 189.927†	-1.8	-0.00056	mg/L	0.000494	-0.00113	mg/L	0.000989	87.68%
Sr 421.552†	224.4	0.00049	mg/L	0.000045	0.00099	mg/L	0.000090	9.15%
Ti 334.903†	1.3	0.00007	mg/L	0.000843	0.00013	mg/L	0.001686	>999.9%
Tl 190.801†	-1.9	-0.00116	mg/L	0.002268	-0.00232	mg/L	0.004536	195.82%
V 292.402†	-8.9	-0.00007	mg/L	0.000286	-0.00014	mg/L	0.000572	401.73%
Zn 206.200†	6.0	0.00236	mg/L	0.001201	0.00472	mg/L	0.002402	50.87%

Sequence No.: 10
Sample ID: QC21

Autosampler Location: 26
Date Collected: 5/29/2012 3:13:16 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: QC21

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: QC21

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1855793.7	96.97	%	0.422				0.43%
ScR 361.383	195030.5	99.28	%	0.342				0.34%
Ag 328.068†	25.7	0.00014	mg/L	0.000102	0.00014	mg/L	0.000102	75.25%
Al 308.215†	107.1	0.00330	mg/L	0.004743	0.00330	mg/L	0.004743	143.63%
As 188.979†	2624.7	2.060	mg/L	0.0184	2.060	mg/L	0.0184	0.90%
B 249.677†	2.3	-0.00235	mg/L	0.002397	-0.00235	mg/L	0.002397	101.97%
Ba 233.527†	4.4	-0.00016	mg/L	0.000801	-0.00016	mg/L	0.000801	508.57%
Be 313.042†	563011.9	2.005	mg/L	0.0048	2.005	mg/L	0.0048	0.24%
Ca 317.933†	23128.8	2.187	mg/L	0.0009	2.187	mg/L	0.0009	0.04%
Cd 228.802†	96408.1	1.973	mg/L	0.0080	1.973	mg/L	0.0080	0.40%
Co 228.616†	94095.5	1.999	mg/L	0.0153	1.999	mg/L	0.0153	0.77%
Cr 267.716†	8791.7	1.991	mg/L	0.0101	1.991	mg/L	0.0101	0.51%
Cu 324.752†	489804.1	2.008	mg/L	0.0058	2.008	mg/L	0.0058	0.29%
Fe 273.955†	2463.9	2.078	mg/L	0.0152	2.078	mg/L	0.0152	0.73%
K 766.490†	23.4	0.00899	mg/L	0.016731	0.00899	mg/L	0.016731	186.01%
Mg 279.077†	2288.4	2.181	mg/L	0.0067	2.181	mg/L	0.0067	0.31%
Mn 257.610†	79690.2	2.015	mg/L	0.0020	2.015	mg/L	0.0020	0.10%
Mo 202.031†	20437.4	2.019	mg/L	0.0090	2.019	mg/L	0.0090	0.45%
Na 589.592†	262.9	0.03902	mg/L	0.007299	0.03902	mg/L	0.007299	18.71%
Na 330.237†	17.2	0.6438	mg/L	0.34100	0.6438	mg/L	0.34100	52.97%
Ni 231.604†	3728.2	1.996	mg/L	0.0071	1.996	mg/L	0.0071	0.35%
Pb 220.353†	14353.1	2.049	mg/L	0.0100	2.049	mg/L	0.0100	0.49%
Sb 206.836†	2773.2	2.222	mg/L	0.0137	2.222	mg/L	0.0137	0.62%
Se 196.026†	1687.3	2.025	mg/L	0.0193	2.025	mg/L	0.0193	0.95%
Si 288.158†	15.5	0.02542	mg/L	0.001900	0.02542	mg/L	0.001900	7.48%
Sn 189.927†	-13.9	-0.00246	mg/L	0.000675	-0.00246	mg/L	0.000675	27.38%
Sr 421.552†	942622.8	2.071	mg/L	0.0042	2.071	mg/L	0.0042	0.20%
Ti 334.903†	39818.1	2.084	mg/L	0.0011	2.084	mg/L	0.0011	0.05%
Tl 190.801†	3476.8	2.128	mg/L	0.0135	2.128	mg/L	0.0135	0.64%
V 292.402†	266683.1	2.006	mg/L	0.0059	2.006	mg/L	0.0059	0.29%
Zn 206.200†	5006.7	1.961	mg/L	0.0134	1.961	mg/L	0.0134	0.68%

Sequence No.: 11
Sample ID: QC7M

Autosampler Location: 27
Date Collected: 5/29/2012 3:19:36 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: QC7M

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: QC7M

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1861861.7	97.29	%	0.660				0.68%
ScR 361.383	193272.9	98.39	%	0.439				0.45%
Ag 328.068†	202490.0	0.9858	mg/L	0.00816	0.9858	mg/L	0.00816	0.83%
Al 308.215†	2790.1	2.132	mg/L	0.0072	2.132	mg/L	0.0072	0.34%
As 188.979†	0.2	-0.00003	mg/L	0.001026	-0.00003	mg/L	0.001026	>999.9%
B 249.677†	3341.2	1.997	mg/L	0.0214	1.997	mg/L	0.0214	1.07%
Ba 233.527†	14268.6	1.982	mg/L	0.0032	1.982	mg/L	0.0032	0.16%
Be 313.042†	35.6	0.00013	mg/L	0.000019	0.00013	mg/L	0.000019	14.56%
Ca 317.933†	37.0	0.00350	mg/L	0.001839	0.00350	mg/L	0.001839	52.54%
Cd 228.802†	-0.3	-0.00001	mg/L	0.000033	-0.00001	mg/L	0.000033	507.32%
Co 228.616†	24.2	-0.00020	mg/L	0.000162	-0.00020	mg/L	0.000162	81.13%
Cr 267.716†	0.8	0.00018	mg/L	0.001108	0.00018	mg/L	0.001108	606.05%
Cu 324.752†	120.9	0.00050	mg/L	0.000142	0.00050	mg/L	0.000142	28.64%
Fe 273.955†	-0.4	-0.00035	mg/L	0.001464	-0.00035	mg/L	0.001464	419.93%
K 766.490†	56660.7	21.74	mg/L	0.070	21.74	mg/L	0.070	0.32%
Mg 279.077†	-1.8	-0.00169	mg/L	0.003223	-0.00169	mg/L	0.003223	190.34%
Mn 257.610†	13.2	0.00032	mg/L	0.000072	0.00032	mg/L	0.000072	22.84%
Mo 202.031†	10.0	0.00095	mg/L	0.000231	0.00095	mg/L	0.000231	24.43%
Na 589.592†	13935.9	2.068	mg/L	0.0077	2.068	mg/L	0.0077	0.37%
Na 330.237†	36.7	1.819	mg/L	0.7057	1.819	mg/L	0.7057	38.80%
Ni 231.604†	-4.4	-0.00235	mg/L	0.001179	-0.00235	mg/L	0.001179	50.22%
Pb 220.353†	-1.8	0.00043	mg/L	0.000916	0.00043	mg/L	0.000916	214.59%
Sb 206.836†	-9.6	-0.00721	mg/L	0.001432	-0.00721	mg/L	0.001432	19.87%
Se 196.026†	2.4	0.00235	mg/L	0.004496	0.00235	mg/L	0.004496	191.49%
Si 288.158†	2836.8	2.292	mg/L	0.0080	2.292	mg/L	0.0080	0.35%
Sn 189.927†	-1.2	-0.00037	mg/L	0.000847	-0.00037	mg/L	0.000847	226.43%
Sr 421.552†	51.0	0.00011	mg/L	0.000070	0.00011	mg/L	0.000070	62.51%
Ti 334.903†	26.0	0.00136	mg/L	0.000460	0.00136	mg/L	0.000460	33.80%
Tl 190.801†	-0.8	-0.00051	mg/L	0.003357	-0.00051	mg/L	0.003357	656.48%
V 292.402†	-32.1	-0.00023	mg/L	0.000293	-0.00023	mg/L	0.000293	126.43%
Zn 206.200†	0.0	0.00001	mg/L	0.000630	0.00001	mg/L	0.000630	>999.9%

Sequence No.: 12
Sample ID: UU52 A SWC

Autosampler Location: 28
Date Collected: 5/29/2012 3:25:36 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 A SWC

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: UU52 A SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1866561.8	97.54	%	1.382				1.42%
ScR 361.383	198778.1	101.2	%	0.60				0.59%
Ag 328.068†	-62.0	0.00132	mg/L	0.000266	0.00264	mg/L	0.000531	20.14%
Al 308.215†	21274.0	16.26	mg/L	0.112	32.51	mg/L	0.224	0.69%
As 188.979†	56.1	0.04035	mg/L	0.000784	0.08070	mg/L	0.001567	1.94%
B 249.677†	161.9	0.09675	mg/L	0.001341	0.1935	mg/L	0.00268	1.39%
Ba 233.527†	387.6	0.05238	mg/L	0.001044	0.1048	mg/L	0.00209	1.99%
Be 313.042†	100.2	0.00021	mg/L	0.000063	0.00041	mg/L	0.000126	30.42%
Ca 317.933†	91096.3	8.612	mg/L	0.0579	17.22	mg/L	0.116	0.67%
Cd 228.802†	154.2	0.00310	mg/L	0.000063	0.00619	mg/L	0.000126	2.04%
Co 228.616†	559.1	0.01050	mg/L	0.000236	0.02100	mg/L	0.000472	2.25%
Cr 267.716†	171.7	0.03895	mg/L	0.000289	0.07791	mg/L	0.000579	0.74%
Cu 324.752†	31874.0	0.1341	mg/L	0.00204	0.2682	mg/L	0.00408	1.52%
Fe 273.955†	48172.6	40.66	mg/L	0.461	81.31	mg/L	0.922	1.13%
K 766.490†	8312.5	3.190	mg/L	0.0440	6.380	mg/L	0.0879	1.38%
Mg 279.077†	14838.5	14.07	mg/L	0.112	28.15	mg/L	0.224	0.79%
Mn 257.610†	13144.7	0.3322	mg/L	0.00333	0.6644	mg/L	0.00666	1.00%
Mo 202.031†	186.8	0.01729	mg/L	0.000680	0.03459	mg/L	0.001359	3.93%
Na 589.592†	210308.6	31.21	mg/L	0.198	62.42	mg/L	0.397	0.64%
Na 330.237†	675.2	33.46	mg/L	0.340	66.93	mg/L	0.681	1.02%
Ni 231.604†	84.4	0.04761	mg/L	0.004067	0.09522	mg/L	0.008133	8.54%
Pb 220.353†	1237.2	0.1815	mg/L	0.00272	0.3630	mg/L	0.00543	1.50%
Sb 206.836†	-23.8	-0.01305	mg/L	0.003747	-0.02609	mg/L	0.007494	28.72%
Se 196.026†	15.4	0.00869	mg/L	0.004945	0.01737	mg/L	0.009889	56.92%
Si 288.158†	4551.3	3.681	mg/L	0.0234	7.361	mg/L	0.0468	0.64%
Sn 189.927†	-10.6	-0.00224	mg/L	0.001344	-0.00449	mg/L	0.002688	59.90%
Sr 421.552†	52492.8	0.1153	mg/L	0.00116	0.2306	mg/L	0.00232	1.01%
Ti 334.903†	15755.8	0.8253	mg/L	0.00641	1.651	mg/L	0.0128	0.78%
Tl 190.801†	-7.7	-0.00266	mg/L	0.001670	-0.00532	mg/L	0.003339	62.74%
V 292.402†	7422.1	0.04960	mg/L	0.001065	0.09921	mg/L	0.002130	2.15%
Zn 206.200†	1059.7	0.4158	mg/L	0.00174	0.8317	mg/L	0.00347	0.42%

Sequence No.: 13
Sample ID: UU52 B SWC

Autosampler Location: 29
Date Collected: 5/29/2012 3:31:37 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 B SWC

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: UU52 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1856729.2	97.02	%	0.398				0.41%
ScR 361.383	197032.0	100.3	%	1.25				1.24%
Ag 328.068†	1.7	0.00159	mg/L	0.000255	0.00317	mg/L	0.000510	16.07%
Al 308.215†	20965.1	16.02	mg/L	0.041	32.04	mg/L	0.083	0.26%
As 188.979†	48.3	0.03431	mg/L	0.001197	0.06862	mg/L	0.002394	3.49%
B 249.677†	137.7	0.08225	mg/L	0.000948	0.1645	mg/L	0.00190	1.15%
Ba 233.527†	442.5	0.06006	mg/L	0.001067	0.1201	mg/L	0.00213	1.78%
Be 313.042†	107.9	0.00024	mg/L	0.000011	0.00048	mg/L	0.000021	4.42%
Ca 317.933†	89730.5	8.483	mg/L	0.0049	16.97	mg/L	0.010	0.06%
Cd 228.802†	152.1	0.00306	mg/L	0.000199	0.00613	mg/L	0.000397	6.49%
Co 228.616†	545.6	0.01025	mg/L	0.000068	0.02049	mg/L	0.000137	0.67%
Cr 267.716†	176.4	0.04001	mg/L	0.001681	0.08003	mg/L	0.003361	4.20%
Cu 324.752†	31389.5	0.1320	mg/L	0.00033	0.2640	mg/L	0.00066	0.25%
Fe 273.955†	46864.2	39.55	mg/L	0.183	79.10	mg/L	0.366	0.46%
K 766.490†	8219.9	3.154	mg/L	0.0580	6.309	mg/L	0.1160	1.84%
Mg 279.077†	14576.4	13.83	mg/L	0.014	27.65	mg/L	0.029	0.10%
Mn 257.610†	12651.1	0.3197	mg/L	0.00306	0.6395	mg/L	0.00612	0.96%
Mo 202.031†	186.0	0.01724	mg/L	0.000616	0.03447	mg/L	0.001231	3.57%
Na 589.592†	208674.8	30.97	mg/L	0.128	61.94	mg/L	0.257	0.41%
Na 330.237†	676.8	33.55	mg/L	0.587	67.10	mg/L	1.174	1.75%
Ni 231.604†	79.4	0.04483	mg/L	0.000257	0.08966	mg/L	0.000514	0.57%
Pb 220.353†	1197.9	0.1758	mg/L	0.00206	0.3516	mg/L	0.00413	1.17%
Sb 206.836†	-24.1	-0.01337	mg/L	0.004182	-0.02674	mg/L	0.008364	31.28%
Se 196.026†	16.4	0.01013	mg/L	0.006960	0.02025	mg/L	0.013919	68.73%
Si 288.158†	4447.4	3.597	mg/L	0.0423	7.193	mg/L	0.0845	1.18%
Sn 189.927†	-9.6	-0.00195	mg/L	0.001602	-0.00390	mg/L	0.003205	82.15%
Sr 421.552†	51153.0	0.1124	mg/L	0.00046	0.2247	mg/L	0.00092	0.41%
Ti 334.903†	15348.3	0.8039	mg/L	0.00082	1.608	mg/L	0.0016	0.10%
Tl 190.801†	-6.4	-0.00188	mg/L	0.000918	-0.00377	mg/L	0.001836	48.71%
V 292.402†	7107.7	0.04744	mg/L	0.000236	0.09487	mg/L	0.000472	0.50%
Zn 206.200†	1011.1	0.3968	mg/L	0.00567	0.7935	mg/L	0.01133	1.43%

Sequence No.: 14
Sample ID: UU52 CDUP SWC

Autosampler Location: 30
Date Collected: 5/29/2012 3:37:39 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 CDUP SWC

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: UU52 CDUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1854798.4	96.92	%	0.965				1.00%
ScR 361.383	197075.4	100.3	%	0.91				0.91%
Ag 328.068†	-150.9	0.00095	mg/L	0.000246	0.00190	mg/L	0.000492	25.86%
Al 308.215†	24863.9	19.00	mg/L	0.019	38.00	mg/L	0.037	0.10%
As 188.979†	44.2	0.03087	mg/L	0.000855	0.06173	mg/L	0.001709	2.77%
B 249.677†	111.7	0.06673	mg/L	0.001349	0.1335	mg/L	0.00270	2.02%
Ba 233.527†	381.6	0.05149	mg/L	0.000837	0.1030	mg/L	0.00167	1.63%
Be 313.042†	114.9	0.00026	mg/L	0.000020	0.00052	mg/L	0.000039	7.60%
Ca 317.933†	89647.2	8.475	mg/L	0.0186	16.95	mg/L	0.037	0.22%
Cd 228.802†	154.1	0.00311	mg/L	0.000102	0.00622	mg/L	0.000204	3.28%
Co 228.616†	596.5	0.01106	mg/L	0.000199	0.02212	mg/L	0.000397	1.80%
Cr 267.716†	198.3	0.04500	mg/L	0.001218	0.09000	mg/L	0.002437	2.71%
Cu 324.752†	36539.7	0.1533	mg/L	0.00244	0.3067	mg/L	0.00489	1.59%
Fe 273.955†	50090.6	42.27	mg/L	0.127	84.55	mg/L	0.253	0.30%
K 766.490†	9528.9	3.657	mg/L	0.0115	7.313	mg/L	0.0229	0.31%
Mg 279.077†	15338.7	14.55	mg/L	0.040	29.10	mg/L	0.080	0.27%
Mn 257.610†	14466.5	0.3656	mg/L	0.00041	0.7312	mg/L	0.00083	0.11%
Mo 202.031†	149.4	0.01353	mg/L	0.000561	0.02706	mg/L	0.001122	4.14%
Na 589.592†	194900.7	28.92	mg/L	0.075	57.85	mg/L	0.151	0.26%
Na 330.237†	630.3	31.29	mg/L	0.402	62.57	mg/L	0.803	1.28%
Ni 231.604†	90.2	0.05078	mg/L	0.002012	0.1016	mg/L	0.00402	3.96%
Pb 220.353†	1144.8	0.1692	mg/L	0.00092	0.3384	mg/L	0.00184	0.54%
Sb 206.836†	-22.2	-0.01082	mg/L	0.003200	-0.02163	mg/L	0.006399	29.58%
Se 196.026†	17.4	0.01017	mg/L	0.004183	0.02035	mg/L	0.008367	41.12%
Si 288.158†	5103.6	4.127	mg/L	0.0477	8.254	mg/L	0.0955	1.16%
Sn 189.927†	-9.1	-0.00168	mg/L	0.000991	-0.00336	mg/L	0.001982	58.95%
Sr 421.552†	48900.8	0.1074	mg/L	0.00055	0.2148	mg/L	0.00110	0.51%
Ti 334.903†	18445.0	0.9662	mg/L	0.00160	1.932	mg/L	0.0032	0.17%
Tl 190.801†	-5.6	-0.00149	mg/L	0.002509	-0.00298	mg/L	0.005017	168.55%
V 292.402†	7281.0	0.04826	mg/L	0.000750	0.09651	mg/L	0.001500	1.55%
Zn 206.200†	945.7	0.3711	mg/L	0.00503	0.7423	mg/L	0.01006	1.36%

Sequence No.: 15
Sample ID: UU52 C SWC

Autosampler Location: 31
Date Collected: 5/29/2012 3:43:41 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 C SWC

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: UU52 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1848755.9	96.61	%	0.325				0.34%
ScR 361.383	197476.4	100.5	%	0.65				0.65%
Ag 328.068†	-198.7	0.00069	mg/L	0.000047	0.00139	mg/L	0.000093	6.71%
Al 308.215†	24920.0	19.04	mg/L	0.009	38.08	mg/L	0.017	0.04%
As 188.979†	42.6	0.02967	mg/L	0.001580	0.05935	mg/L	0.003161	5.33%
B 249.677†	116.9	0.06985	mg/L	0.001287	0.1397	mg/L	0.00257	1.84%
Ba 233.527†	604.7	0.08251	mg/L	0.001303	0.1650	mg/L	0.00261	1.58%
Be 313.042†	117.0	0.00027	mg/L	0.000016	0.00053	mg/L	0.000033	6.10%
Ca 317.933†	89483.0	8.460	mg/L	0.0185	16.92	mg/L	0.037	0.22%
Cd 228.802†	156.7	0.00317	mg/L	0.000079	0.00633	mg/L	0.000158	2.49%
Co 228.616†	590.9	0.01093	mg/L	0.000170	0.02186	mg/L	0.000339	1.55%
Cr 267.716†	201.5	0.04572	mg/L	0.000817	0.09143	mg/L	0.001633	1.79%
Cu 324.752†	36914.7	0.1548	mg/L	0.00090	0.3096	mg/L	0.00180	0.58%
Fe 273.955†	49346.9	41.65	mg/L	0.183	83.29	mg/L	0.366	0.44%
K 766.490†	9634.5	3.697	mg/L	0.0253	7.395	mg/L	0.0505	0.68%
Mg 279.077†	15287.9	14.50	mg/L	0.044	29.00	mg/L	0.089	0.31%
Mn 257.610†	14273.5	0.3607	mg/L	0.00040	0.7215	mg/L	0.00080	0.11%
Mo 202.031†	150.2	0.01361	mg/L	0.000228	0.02723	mg/L	0.000456	1.67%
Na 589.592†	192163.0	28.52	mg/L	0.024	57.04	mg/L	0.048	0.08%
Na 330.237†	622.2	30.89	mg/L	0.450	61.77	mg/L	0.899	1.46%
Ni 231.604†	91.2	0.05132	mg/L	0.003718	0.1026	mg/L	0.00744	7.24%
Pb 220.353†	1114.3	0.1649	mg/L	0.00103	0.3297	mg/L	0.00205	0.62%
Sb 206.836†	-26.6	-0.01439	mg/L	0.004149	-0.02877	mg/L	0.008298	28.84%
Se 196.026†	17.3	0.01012	mg/L	0.002860	0.02024	mg/L	0.005719	28.26%
Si 288.158†	5469.6	4.423	mg/L	0.0058	8.846	mg/L	0.0116	0.13%
Sn 189.927†	-11.8	-0.00252	mg/L	0.000973	-0.00504	mg/L	0.001945	38.63%
Sr 421.552†	48667.6	0.1069	mg/L	0.00102	0.2138	mg/L	0.00203	0.95%
Ti 334.903†	18440.7	0.9660	mg/L	0.00169	1.932	mg/L	0.0034	0.18%
Tl 190.801†	-7.1	-0.00247	mg/L	0.002787	-0.00494	mg/L	0.005575	112.96%
V 292.402†	7302.7	0.04850	mg/L	0.000229	0.09701	mg/L	0.000458	0.47%
Zn 206.200†	934.6	0.3668	mg/L	0.00082	0.7336	mg/L	0.00164	0.22%

Sequence No.: 16
Sample ID: UU52 CSPK SWC

Dilution: 2X

Autosampler Location: 32
Date Collected: 5/29/2012 3:49:43 PM
Data Type: Original

Nebulizer Parameters: UU52 CSPK SWC

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: UU52 CSPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1835145.1	95.89	%	0.522				0.54%
ScR 361.383	200520.5	102.1	%	0.34				0.34%
Ag 328.068†	100225.9	0.4897	mg/L	0.00029	0.9794	mg/L	0.00057	0.06%
Al 308.215†	26507.8	20.25	mg/L	0.094	40.50	mg/L	0.188	0.46%
As 188.979†	2654.4	2.080	mg/L	0.0160	4.160	mg/L	0.0319	0.77%
B 249.677†	115.6	0.06736	mg/L	0.003414	0.1347	mg/L	0.00683	5.07%
Ba 233.527†	14066.8	1.953	mg/L	0.0113	3.905	mg/L	0.0225	0.58%
Be 313.042†	142818.2	0.5085	mg/L	0.00230	1.017	mg/L	0.0046	0.45%
Ca 317.933†	199179.1	18.83	mg/L	0.107	37.66	mg/L	0.213	0.57%
Cd 228.802†	24899.6	0.5069	mg/L	0.00127	1.014	mg/L	0.0025	0.25%
Co 228.616†	24023.3	0.5089	mg/L	0.00137	1.018	mg/L	0.0027	0.27%
Cr 267.716†	2329.0	0.5272	mg/L	0.00252	1.054	mg/L	0.0050	0.48%
Cu 324.752†	159102.3	0.6562	mg/L	0.00053	1.312	mg/L	0.0011	0.08%
Fe 273.955†	51344.6	43.33	mg/L	0.134	86.66	mg/L	0.267	0.31%
K 766.490†	36713.7	14.09	mg/L	0.019	28.18	mg/L	0.038	0.14%
Mg 279.077†	25713.3	24.41	mg/L	0.147	48.81	mg/L	0.294	0.60%
Mn 257.610†	32783.5	0.8291	mg/L	0.00420	1.658	mg/L	0.0084	0.51%
Mo 202.031†	173.3	0.01542	mg/L	0.000361	0.03084	mg/L	0.000722	2.34%
Na 589.592†	259066.9	38.45	mg/L	0.033	76.89	mg/L	0.066	0.09%
Na 330.237†	826.8	40.81	mg/L	0.407	81.63	mg/L	0.815	1.00%
Ni 231.604†	991.2	0.5321	mg/L	0.00158	1.064	mg/L	0.0032	0.30%
Pb 220.353†	15015.1	2.147	mg/L	0.0057	4.294	mg/L	0.0114	0.26%
Sb 206.836†	-28.5	-0.02030	mg/L	0.002427	-0.04060	mg/L	0.004853	11.95%
Se 196.026†	1702.4	2.034	mg/L	0.0177	4.068	mg/L	0.0353	0.87%
Si 288.158†	5091.8	4.122	mg/L	0.0210	8.243	mg/L	0.0421	0.51%
Sn 189.927†	-23.7	-0.00576	mg/L	0.000466	-0.01151	mg/L	0.000932	8.10%
Sr 421.552†	279134.5	0.6131	mg/L	0.00193	1.226	mg/L	0.0039	0.31%
Ti 334.903†	18183.5	0.9520	mg/L	0.00517	1.904	mg/L	0.0103	0.54%
Tl 190.801†	3114.5	1.929	mg/L	0.0086	3.858	mg/L	0.0171	0.44%
V 292.402†	74471.5	0.5506	mg/L	0.00199	1.101	mg/L	0.0040	0.36%
Zn 206.200†	2135.8	0.8379	mg/L	0.00479	1.676	mg/L	0.0096	0.57%

Sequence No.: 17
Sample ID: UU52 MB1SPK SWC

Autosampler Location: 33
Date Collected: 5/29/2012 3:55:48 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 MB1SPK SWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU52 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1851882.3	96.77	%	0.628				0.65%
ScR 361.383	196920.6	100.2	%	1.36				1.35%
Ag 328.068†	105550.4	0.5140	mg/L	0.00672	1.028	mg/L	0.0134	1.31%
Al 308.215†	2837.7	2.161	mg/L	0.0279	4.321	mg/L	0.0558	1.29%
As 188.979†	2689.7	2.111	mg/L	0.0136	4.223	mg/L	0.0273	0.65%
B 249.677†	4.9	0.00124	mg/L	0.001953	0.00248	mg/L	0.003905	157.72%
Ba 233.527†	14093.2	1.958	mg/L	0.0226	3.916	mg/L	0.0451	1.15%
Be 313.042†	143917.3	0.5126	mg/L	0.00514	1.025	mg/L	0.0103	1.00%
Ca 317.933†	112942.2	10.68	mg/L	0.105	21.36	mg/L	0.211	0.99%
Cd 228.802†	25642.3	0.5220	mg/L	0.00673	1.044	mg/L	0.0135	1.29%
Co 228.616†	23748.4	0.5046	mg/L	0.00696	1.009	mg/L	0.0139	1.38%
Cr 267.716†	2230.3	0.5048	mg/L	0.00569	1.010	mg/L	0.0114	1.13%
Cu 324.752†	125989.5	0.5170	mg/L	0.00628	1.034	mg/L	0.0126	1.22%
Fe 273.955†	2557.8	2.158	mg/L	0.0262	4.317	mg/L	0.0524	1.21%
K 766.490†	28698.3	11.01	mg/L	0.204	22.03	mg/L	0.407	1.85%
Mg 279.077†	11530.9	10.96	mg/L	0.136	21.91	mg/L	0.273	1.25%
Mn 257.610†	19556.0	0.4949	mg/L	0.00600	0.9897	mg/L	0.01200	1.21%
Mo 202.031†	33.0	0.00274	mg/L	0.000588	0.00548	mg/L	0.001176	21.44%
Na 589.592†	69901.4	10.37	mg/L	0.165	20.75	mg/L	0.329	1.59%
Na 330.237†	235.2	11.44	mg/L	0.347	22.87	mg/L	0.694	3.04%
Ni 231.604†	919.6	0.4913	mg/L	0.00227	0.9826	mg/L	0.00454	0.46%
Pb 220.353†	14573.0	2.078	mg/L	0.0300	4.157	mg/L	0.0600	1.44%
Sb 206.836†	-11.2	-0.01344	mg/L	0.001490	-0.02688	mg/L	0.002980	11.09%
Se 196.026†	1732.7	2.081	mg/L	0.0166	4.162	mg/L	0.0332	0.80%
Si 288.158†	1.4	0.00548	mg/L	0.004902	0.01096	mg/L	0.009804	89.45%
Sn 189.927†	-18.9	-0.00535	mg/L	0.000965	-0.01071	mg/L	0.001929	18.02%
Sr 421.552†	232956.7	0.5117	mg/L	0.00807	1.023	mg/L	0.0161	1.58%
Ti 334.903†	22.3	0.00069	mg/L	0.000674	0.00138	mg/L	0.001348	97.72%
Tl 190.801†	3296.6	2.040	mg/L	0.0111	4.080	mg/L	0.0223	0.55%
V 292.402†	70527.6	0.5272	mg/L	0.00700	1.054	mg/L	0.0140	1.33%
Zn 206.200†	1276.6	0.5007	mg/L	0.00471	1.001	mg/L	0.0094	0.94%

Sequence No.: 18
Sample ID: CV 3
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/29/2012 4:01:50 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1822413.0	95.23	%	0.490				0.51%
ScR 361.383	194830.3	99.18	%	0.212				0.21%
Ag 328.068†	201272.2	0.9799	mg/L	0.00302	0.9799	mg/L	0.00302	0.31%
Al 308.215†	2740.4	2.055	mg/L	0.0050	2.055	mg/L	0.0050	0.24%
As 188.979†	2599.7	2.041	mg/L	0.0028	2.041	mg/L	0.0028	0.14%
B 249.677†	1614.1	0.9630	mg/L	0.00381	0.9630	mg/L	0.00381	0.40%
Ba 233.527†	6908.9	0.9595	mg/L	0.00220	0.9595	mg/L	0.00220	0.23%
Be 313.042†	273681.7	0.9747	mg/L	0.00280	0.9747	mg/L	0.00280	0.29%
Ca 317.933†	21555.9	2.038	mg/L	0.0053	2.038	mg/L	0.0053	0.26%
Cd 228.802†	49443.2	1.010	mg/L	0.0067	1.010	mg/L	0.0067	0.66%
Co 228.616†	45774.7	0.9721	mg/L	0.00863	0.9721	mg/L	0.00863	0.89%
Cr 267.716†	4231.9	0.9584	mg/L	0.00392	0.9584	mg/L	0.00392	0.41%
Cu 324.752†	250745.8	1.028	mg/L	0.0083	1.028	mg/L	0.0083	0.81%
Fe 273.955†	2468.1	2.082	mg/L	0.0040	2.082	mg/L	0.0040	0.19%
K 766.490†	54212.4	20.80	mg/L	0.042	20.80	mg/L	0.042	0.20%
Mg 279.077†	2221.5	2.114	mg/L	0.0136	2.114	mg/L	0.0136	0.64%
Mn 257.610†	38464.6	0.9729	mg/L	0.00487	0.9729	mg/L	0.00487	0.50%
Mo 202.031†	10334.8	1.021	mg/L	0.0027	1.021	mg/L	0.0027	0.27%
Na 589.592†	334407.2	49.63	mg/L	0.245	49.63	mg/L	0.245	0.49%
Na 330.237†	1065.6	52.68	mg/L	0.196	52.68	mg/L	0.196	0.37%
Ni 231.604†	1826.8	0.9784	mg/L	0.00292	0.9784	mg/L	0.00292	0.30%
Pb 220.353†	13945.1	1.990	mg/L	0.0209	1.990	mg/L	0.0209	1.05%
Sb 206.836†	2773.8	2.245	mg/L	0.0041	2.245	mg/L	0.0041	0.18%
Se 196.026†	1653.3	1.985	mg/L	0.0111	1.985	mg/L	0.0111	0.56%
Si 288.158†	2851.5	2.311	mg/L	0.0030	2.311	mg/L	0.0030	0.13%
Sn 189.927†	3036.1	0.9561	mg/L	0.00407	0.9561	mg/L	0.00407	0.43%
Sr 421.552†	455367.3	1.000	mg/L	0.0033	1.000	mg/L	0.0033	0.33%
Ti 334.903†	19912.3	1.042	mg/L	0.0056	1.042	mg/L	0.0056	0.54%
Tl 190.801†	3203.2	1.975	mg/L	0.0074	1.975	mg/L	0.0074	0.38%
V 292.402†	133128.3	1.001	mg/L	0.0085	1.001	mg/L	0.0085	0.85%
Zn 206.200†	2605.3	1.021	mg/L	0.0032	1.021	mg/L	0.0032	0.32%

Sequence No.: 19
Sample ID: CB 3
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/29/2012 4:07:51 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1857959.8	97.09	%	0.578				0.59%
ScR 361.383	195914.0	99.73	%	1.517				1.52%
Ag 328.068†	102.2	0.00050	mg/L	0.000172	0.00050	mg/L	0.000172	34.57%
Al 308.215†	12.9	0.00985	mg/L	0.009940	0.00985	mg/L	0.009940	100.87%
As 188.979†	-2.2	-0.00177	mg/L	0.001060	-0.00177	mg/L	0.001060	59.96%
B 249.677†	15.3	0.00912	mg/L	0.004898	0.00912	mg/L	0.004898	53.67%
Ba 233.527†	3.7	0.00052	mg/L	0.000393	0.00052	mg/L	0.000393	76.15%
Be 313.042†	20.7	0.00007	mg/L	0.000040	0.00007	mg/L	0.000040	54.46%
Ca 317.933†	4.3	0.00041	mg/L	0.001048	0.00041	mg/L	0.001048	256.63%
Cd 228.802†	1.1	0.00003	mg/L	0.000059	0.00003	mg/L	0.000059	229.02%
Co 228.616†	0.5	0.00001	mg/L	0.000126	0.00001	mg/L	0.000126	>999.9%
Cr 267.716†	-3.0	-0.00068	mg/L	0.001151	-0.00068	mg/L	0.001151	168.13%
Cu 324.752†	-4.1	-0.00002	mg/L	0.000086	-0.00002	mg/L	0.000086	519.83%
Fe 273.955†	0.3	0.00026	mg/L	0.001574	0.00026	mg/L	0.001574	610.22%
K 766.490†	28.4	0.01088	mg/L	0.011339	0.01088	mg/L	0.011339	104.21%
Mg 279.077†	3.1	0.00299	mg/L	0.006621	0.00299	mg/L	0.006621	221.56%
Mn 257.610†	2.4	0.00006	mg/L	0.000196	0.00006	mg/L	0.000196	318.40%
Mo 202.031†	5.5	0.00054	mg/L	0.000444	0.00054	mg/L	0.000444	82.28%
Na 589.592†	201.6	0.02993	mg/L	0.007835	0.02993	mg/L	0.007835	26.18%
Na 330.237†	-13.4	-0.6640	mg/L	0.72120	-0.6640	mg/L	0.72120	108.62%
Ni 231.604†	-2.0	-0.00108	mg/L	0.001641	-0.00108	mg/L	0.001641	152.08%
Pb 220.353†	4.8	0.00068	mg/L	0.002274	0.00068	mg/L	0.002274	334.34%
Sb 206.836†	-3.9	-0.00311	mg/L	0.003352	-0.00311	mg/L	0.003352	107.86%
Se 196.026†	2.9	0.00351	mg/L	0.004073	0.00351	mg/L	0.004073	116.19%
Si 288.158†	-1.5	-0.00124	mg/L	0.005061	-0.00124	mg/L	0.005061	407.26%
Sn 189.927†	6.2	0.00194	mg/L	0.000296	0.00194	mg/L	0.000296	15.28%
Sr 421.552†	39.3	0.00009	mg/L	0.000018	0.00009	mg/L	0.000018	21.25%
Ti 334.903†	-14.8	-0.00077	mg/L	0.000594	-0.00077	mg/L	0.000594	76.74%
Tl 190.801†	5.2	0.00325	mg/L	0.002174	0.00325	mg/L	0.002174	66.88%
V 292.402†	-11.6	-0.00009	mg/L	0.000137	-0.00009	mg/L	0.000137	157.55%
Zn 206.200†	1.9	0.00075	mg/L	0.000624	0.00075	mg/L	0.000624	82.80%

Sequence No.: 20
Sample ID: UU62 MB1 TWC

Autosampler Location: 34
Date Collected: 5/29/2012 4:13:53 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU62 MB1 TWC

Analyte	Back Pressure	Flow
All	181.0 kPa	0.55 L/min

Mean Data: UU62 MB1 TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1885895.3	98.55	%	0.647				0.66%
ScR 361.383	194931.1	99.23	%	0.670				0.68%
Ag 328.068†	61.8	0.00030	mg/L	0.000297	0.00030	mg/L	0.000297	98.85%
Al 308.215†	4.7	0.00358	mg/L	0.005230	0.00358	mg/L	0.005230	146.13%
As 188.979†	0.8	0.00061	mg/L	0.002277	0.00061	mg/L	0.002277	373.28%
B 249.677†	2.8	0.00165	mg/L	0.003372	0.00165	mg/L	0.003372	204.81%
Ba 233.527†	6.2	0.00086	mg/L	0.001091	0.00086	mg/L	0.001091	126.19%
Be 313.042†	6.6	0.00002	mg/L	0.000019	0.00002	mg/L	0.000019	78.07%
Ca 317.933†	135.0	0.01276	mg/L	0.000718	0.01276	mg/L	0.000718	5.62%
Cd 228.802†	-4.9	-0.00010	mg/L	0.000069	-0.00010	mg/L	0.000069	68.31%
Co 228.616†	-2.7	-0.00006	mg/L	0.000295	-0.00006	mg/L	0.000295	523.24%
Cr 267.716†	-2.6	-0.00058	mg/L	0.000313	-0.00058	mg/L	0.000313	53.75%
Cu 324.752†	11.9	0.00005	mg/L	0.000134	0.00005	mg/L	0.000134	273.65%
Fe 273.955†	0.2	0.00019	mg/L	0.002801	0.00019	mg/L	0.002801	>999.9%
K 766.490†	86.7	0.03326	mg/L	0.017976	0.03326	mg/L	0.017976	54.04%
Mg 279.077†	1.4	0.00136	mg/L	0.003192	0.00136	mg/L	0.003192	235.51%
Mn 257.610†	10.0	0.00025	mg/L	0.000072	0.00025	mg/L	0.000072	28.35%
Mo 202.031†	6.4	0.00063	mg/L	0.000316	0.00063	mg/L	0.000316	49.81%
Na 589.592†	144.7	0.02147	mg/L	0.005676	0.02147	mg/L	0.005676	26.44%
Na 330.237†	16.2	0.8014	mg/L	0.51967	0.8014	mg/L	0.51967	64.85%
Ni 231.604†	0.8	0.00043	mg/L	0.001860	0.00043	mg/L	0.001860	431.13%
Pb 220.353†	-5.9	-0.00084	mg/L	0.000582	-0.00084	mg/L	0.000582	69.49%
Sb 206.836†	-3.8	-0.00308	mg/L	0.000502	-0.00308	mg/L	0.000502	16.27%
Se 196.026†	2.4	0.00283	mg/L	0.003766	0.00283	mg/L	0.003766	133.16%
Si 288.158†	2.7	0.00220	mg/L	0.005790	0.00220	mg/L	0.005790	263.74%
Sn 189.927†	1.5	0.00047	mg/L	0.001449	0.00047	mg/L	0.001449	306.75%
Sr 421.552†	51.1	0.00011	mg/L	0.000016	0.00011	mg/L	0.000016	13.90%
Ti 334.903†	-13.5	-0.00071	mg/L	0.000188	-0.00071	mg/L	0.000188	26.55%
Tl 190.801†	-4.5	-0.00278	mg/L	0.002265	-0.00278	mg/L	0.002265	81.58%
V 292.402†	-32.0	-0.00024	mg/L	0.000461	-0.00024	mg/L	0.000461	194.09%
Zn 206.200†	1.5	0.00058	mg/L	0.001273	0.00058	mg/L	0.001273	219.61%

Sequence No.: 21
Sample ID: UU62 K TWC

Autosampler Location: 35
Date Collected: 5/29/2012 4:19:55 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU62 K TWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU62 K TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1893403.0	98.94	%	0.989				1.00%
ScR 361.383	194853.3	99.19	%	1.390				1.40%
Ag 328.068†	14.0	0.00007	mg/L	0.000364	0.00007	mg/L	0.000364	538.18%
Al 308.215†	9.6	0.00734	mg/L	0.004454	0.00734	mg/L	0.004454	60.67%
As 188.979†	3.0	0.00234	mg/L	0.001799	0.00234	mg/L	0.001799	76.90%
B 249.677†	-3.3	-0.00200	mg/L	0.004200	-0.00200	mg/L	0.004200	209.96%
Ba 233.527†	1.0	0.00013	mg/L	0.000417	0.00013	mg/L	0.000417	313.52%
Be 313.042†	25.4	0.00009	mg/L	0.000020	0.00009	mg/L	0.000020	22.19%
Ca 317.933†	304.1	0.02875	mg/L	0.001124	0.02875	mg/L	0.001124	3.91%
Cd 228.802†	0.0	-0.00001	mg/L	0.000081	-0.00001	mg/L	0.000081	>999.9%
Co 228.616†	-0.4	-0.00001	mg/L	0.000170	-0.00001	mg/L	0.000170	>999.9%
Cr 267.716†	-3.3	-0.00074	mg/L	0.001440	-0.00074	mg/L	0.001440	195.24%
Cu 324.752†	1591.3	0.00653	mg/L	0.000289	0.00653	mg/L	0.000289	4.42%
Fe 273.955†	4.9	0.00416	mg/L	0.001364	0.00416	mg/L	0.001364	32.75%
K 766.490†	105.8	0.04059	mg/L	0.017526	0.04059	mg/L	0.017526	43.17%
Mg 279.077†	1.9	0.00182	mg/L	0.001699	0.00182	mg/L	0.001699	93.26%
Mn 257.610†	104.6	0.00264	mg/L	0.000101	0.00264	mg/L	0.000101	3.83%
Mo 202.031†	2.3	0.00022	mg/L	0.000065	0.00022	mg/L	0.000065	28.78%
Na 589.592†	331.7	0.04923	mg/L	0.002319	0.04923	mg/L	0.002319	4.71%
Na 330.237†	17.3	0.8561	mg/L	0.24908	0.8561	mg/L	0.24908	29.09%
Ni 231.604†	-7.5	-0.00404	mg/L	0.002299	-0.00404	mg/L	0.002299	56.97%
Pb 220.353†	-7.0	-0.00100	mg/L	0.000794	-0.00100	mg/L	0.000794	79.25%
Sb 206.836†	-2.6	-0.00208	mg/L	0.001661	-0.00208	mg/L	0.001661	79.83%
Se 196.026†	1.0	0.00119	mg/L	0.003574	0.00119	mg/L	0.003574	300.92%
Si 288.158†	15.1	0.01222	mg/L	0.003527	0.01222	mg/L	0.003527	28.85%
Sn 189.927†	0.7	0.00021	mg/L	0.000585	0.00021	mg/L	0.000585	278.15%
Sr 421.552†	50.9	0.00011	mg/L	0.000075	0.00011	mg/L	0.000075	67.46%
Ti 334.903†	5.5	0.00029	mg/L	0.001392	0.00029	mg/L	0.001392	487.43%
Tl 190.801†	1.4	0.00090	mg/L	0.001552	0.00090	mg/L	0.001552	172.68%
V 292.402†	-57.8	-0.00043	mg/L	0.000330	-0.00043	mg/L	0.000330	76.08%
Zn 206.200†	11.7	0.00458	mg/L	0.000723	0.00458	mg/L	0.000723	15.78%

Sequence No.: 22
Sample ID: UU62 JDUP TWC

Autosampler Location: 36
Date Collected: 5/29/2012 4:25:56 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU62 JDUP TWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU62 JDUP TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1870685.4	97.75	%	0.572				0.58%
ScR 361.383	195531.6	99.54	%	0.467				0.47%
Ag 328.068†	-18.5	-0.00009	mg/L	0.000339	-0.00009	mg/L	0.000339	376.86%
Al 308.215†	14.2	0.01082	mg/L	0.004349	0.01082	mg/L	0.004349	40.19%
As 188.979†	-1.8	-0.00143	mg/L	0.003103	-0.00143	mg/L	0.003103	216.65%
B 249.677†	-3.3	-0.00196	mg/L	0.001109	-0.00196	mg/L	0.001109	56.58%
Ba 233.527†	0.0	0.00000	mg/L	0.000272	0.00000	mg/L	0.000272	>999.9%
Be 313.042†	28.9	0.00010	mg/L	0.000018	0.00010	mg/L	0.000018	17.27%
Ca 317.933†	292.5	0.02765	mg/L	0.002486	0.02765	mg/L	0.002486	8.99%
Cd 228.802†	-1.0	-0.00002	mg/L	0.000065	-0.00002	mg/L	0.000065	341.58%
Co 228.616†	2.1	0.00004	mg/L	0.000105	0.00004	mg/L	0.000105	238.73%
Cr 267.716†	-8.9	-0.00203	mg/L	0.001395	-0.00203	mg/L	0.001395	68.83%
Cu 324.752†	16.4	0.00007	mg/L	0.000077	0.00007	mg/L	0.000077	114.14%
Fe 273.955†	8.2	0.00691	mg/L	0.001741	0.00691	mg/L	0.001741	25.18%
K 766.490†	152.5	0.05853	mg/L	0.023029	0.05853	mg/L	0.023029	39.34%
Mg 279.077†	-2.0	-0.00188	mg/L	0.005938	-0.00188	mg/L	0.005938	316.57%
Mn 257.610†	47.3	0.00119	mg/L	0.000142	0.00119	mg/L	0.000142	11.91%
Mo 202.031†	8.0	0.00079	mg/L	0.000439	0.00079	mg/L	0.000439	55.60%
Na 589.592†	643.5	0.09550	mg/L	0.007666	0.09550	mg/L	0.007666	8.03%
Na 330.237†	1.0	0.04762	mg/L	0.474559	0.04762	mg/L	0.474559	996.63%
Ni 231.604†	-5.8	-0.00311	mg/L	0.003361	-0.00311	mg/L	0.003361	108.19%
Pb 220.353†	-3.4	-0.00048	mg/L	0.000353	-0.00048	mg/L	0.000353	72.99%
Sb 206.836†	-4.7	-0.00374	mg/L	0.001929	-0.00374	mg/L	0.001929	51.58%
Se 196.026†	4.6	0.00549	mg/L	0.003913	0.00549	mg/L	0.003913	71.35%
Si 288.158†	1.7	0.00138	mg/L	0.001735	0.00138	mg/L	0.001735	125.68%
Sn 189.927†	0.1	0.00002	mg/L	0.000519	0.00002	mg/L	0.000519	>999.9%
Sr 421.552†	101.0	0.00022	mg/L	0.000121	0.00022	mg/L	0.000121	54.68%
Ti 334.903†	5.3	0.00028	mg/L	0.001025	0.00028	mg/L	0.001025	371.64%
Tl 190.801†	-2.2	-0.00140	mg/L	0.003310	-0.00140	mg/L	0.003310	236.94%
V 292.402†	-31.2	-0.00024	mg/L	0.000076	-0.00024	mg/L	0.000076	31.35%
Zn 206.200†	8.2	0.00322	mg/L	0.000873	0.00322	mg/L	0.000873	27.14%

Sequence No.: 23
Sample ID: UU62 J TWC

Autosampler Location: 37
Date Collected: 5/29/2012 4:31:56 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU62 J TWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU62 J TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1877381.1	98.10	%	0.259				0.26%
ScR 361.383	194799.6	99.17	%	0.901				0.91%
Ag 328.068†	3.3	0.00002	mg/L	0.000277	0.00002	mg/L	0.000277	>999.9%
Al 308.215†	8.8	0.00670	mg/L	0.002090	0.00670	mg/L	0.002090	31.18%
As 188.979†	1.3	0.00099	mg/L	0.002211	0.00099	mg/L	0.002211	223.48%
B 249.677†	-2.1	-0.00127	mg/L	0.000989	-0.00127	mg/L	0.000989	77.67%
Ba 233.527†	-0.4	-0.00005	mg/L	0.000722	-0.00005	mg/L	0.000722	>999.9%
Be 313.042†	29.4	0.00011	mg/L	0.000019	0.00011	mg/L	0.000019	18.38%
Ca 317.933†	370.1	0.03499	mg/L	0.001102	0.03499	mg/L	0.001102	3.15%
Cd 228.802†	-0.8	-0.00002	mg/L	0.000133	-0.00002	mg/L	0.000133	747.63%
Co 228.616†	0.0	0.00000	mg/L	0.000078	0.00000	mg/L	0.000078	>999.9%
Cr 267.716†	-2.5	-0.00057	mg/L	0.000928	-0.00057	mg/L	0.000928	163.12%
Cu 324.752†	28.4	0.00012	mg/L	0.000289	0.00012	mg/L	0.000289	246.78%
Fe 273.955†	11.9	0.01008	mg/L	0.002757	0.01008	mg/L	0.002757	27.34%
K 766.490†	166.3	0.06381	mg/L	0.015287	0.06381	mg/L	0.015287	23.96%
Mg 279.077†	3.2	0.00303	mg/L	0.008011	0.00303	mg/L	0.008011	264.79%
Mn 257.610†	43.1	0.00109	mg/L	0.000137	0.00109	mg/L	0.000137	12.55%
Mo 202.031†	3.4	0.00033	mg/L	0.000468	0.00033	mg/L	0.000468	141.79%
Na 589.592†	958.0	0.1422	mg/L	0.00335	0.1422	mg/L	0.00335	2.36%
Na 330.237†	0.7	0.03196	mg/L	0.638743	0.03196	mg/L	0.638743	>999.9%
Ni 231.604†	1.2	0.00066	mg/L	0.002904	0.00066	mg/L	0.002904	439.08%
Pb 220.353†	-2.4	-0.00034	mg/L	0.000508	-0.00034	mg/L	0.000508	147.80%
Sb 206.836†	-3.7	-0.00301	mg/L	0.002334	-0.00301	mg/L	0.002334	77.52%
Se 196.026†	8.1	0.00978	mg/L	0.003088	0.00978	mg/L	0.003088	31.57%
Si 288.158†	4.1	0.00334	mg/L	0.004022	0.00334	mg/L	0.004022	120.27%
Sn 189.927†	-2.5	-0.00078	mg/L	0.001079	-0.00078	mg/L	0.001079	138.13%
Sr 421.552†	109.3	0.00024	mg/L	0.000054	0.00024	mg/L	0.000054	22.56%
Ti 334.903†	2.2	0.00011	mg/L	0.001411	0.00011	mg/L	0.001411	>999.9%
Tl 190.801†	1.6	0.00097	mg/L	0.001965	0.00097	mg/L	0.001965	202.86%
V 292.402†	-2.1	-0.00002	mg/L	0.000049	-0.00002	mg/L	0.000049	262.36%
Zn 206.200†	8.7	0.00342	mg/L	0.001003	0.00342	mg/L	0.001003	29.30%

Sequence No.: 24
Sample ID: UU62 JSPK TWC

Autosampler Location: 38
Date Collected: 5/29/2012 4:37:56 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU62 JSPK TWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU62 JSPK TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1856368.1	97.00	%	0.245				0.25%
ScR 361.383	196802.3	100.2	%	0.11				0.11%
Ag 328.068†	104168.6	0.5073	mg/L	0.00133	0.5073	mg/L	0.00133	0.26%
Al 308.215†	2819.0	2.146	mg/L	0.0030	2.146	mg/L	0.0030	0.14%
As 188.979†	2683.3	2.106	mg/L	0.0092	2.106	mg/L	0.0092	0.44%
B 249.677†	-4.1	-0.00416	mg/L	0.001610	-0.00416	mg/L	0.001610	38.73%
Ba 233.527†	13966.4	1.940	mg/L	0.0027	1.940	mg/L	0.0027	0.14%
Be 313.042†	146892.9	0.5232	mg/L	0.00176	0.5232	mg/L	0.00176	0.34%
Ca 317.933†	114859.1	10.86	mg/L	0.036	10.86	mg/L	0.036	0.33%
Cd 228.802†	25156.5	0.5121	mg/L	0.00071	0.5121	mg/L	0.00071	0.14%
Co 228.616†	23427.0	0.4978	mg/L	0.00201	0.4978	mg/L	0.00201	0.40%
Cr 267.716†	2254.3	0.5102	mg/L	0.00059	0.5102	mg/L	0.00059	0.12%
Cu 324.752†	123905.8	0.5085	mg/L	0.00179	0.5085	mg/L	0.00179	0.35%
Fe 273.955†	2553.3	2.154	mg/L	0.0065	2.154	mg/L	0.0065	0.30%
K 766.490†	28624.5	10.98	mg/L	0.041	10.98	mg/L	0.041	0.38%
Mg 279.077†	11568.2	10.99	mg/L	0.021	10.99	mg/L	0.021	0.20%
Mn 257.610†	19572.1	0.4953	mg/L	0.00115	0.4953	mg/L	0.00115	0.23%
Mo 202.031†	37.8	0.00321	mg/L	0.000435	0.00321	mg/L	0.000435	13.52%
Na 589.592†	69724.2	10.35	mg/L	0.024	10.35	mg/L	0.024	0.23%
Na 330.237†	230.7	11.21	mg/L	0.156	11.21	mg/L	0.156	1.39%
Ni 231.604†	908.2	0.4852	mg/L	0.00168	0.4852	mg/L	0.00168	0.35%
Pb 220.353†	14307.2	2.041	mg/L	0.0058	2.041	mg/L	0.0058	0.29%
Sb 206.836†	-6.3	-0.00960	mg/L	0.002869	-0.00960	mg/L	0.002869	29.89%
Se 196.026†	1707.6	2.051	mg/L	0.0063	2.051	mg/L	0.0063	0.31%
Si 288.158†	6.1	0.00932	mg/L	0.004855	0.00932	mg/L	0.004855	52.06%
Sn 189.927†	-14.5	-0.00398	mg/L	0.000028	-0.00398	mg/L	0.000028	0.69%
Sr 421.552†	234153.1	0.5143	mg/L	0.00558	0.5143	mg/L	0.00558	1.08%
Ti 334.903†	22.9	0.00072	mg/L	0.000437	0.00072	mg/L	0.000437	61.09%
Tl 190.801†	3272.5	2.025	mg/L	0.0127	2.025	mg/L	0.0127	0.63%
V 292.402†	69456.9	0.5193	mg/L	0.00232	0.5193	mg/L	0.00232	0.45%
Zn 206.200†	1273.5	0.4994	mg/L	0.00237	0.4994	mg/L	0.00237	0.47%

Sequence No.: 25
Sample ID: UU52 D SWC

Autosampler Location: 39
Date Collected: 5/29/2012 4:43:58 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 D SWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU52 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1845543.1	96.44	%	0.108				0.11%
ScR 361.383	197523.3	100.6	%	0.48				0.48%
Ag 328.068†	-58.9	0.00087	mg/L	0.000144	0.00174	mg/L	0.000287	16.55%
Al 308.215†	18167.8	13.88	mg/L	0.110	27.77	mg/L	0.219	0.79%
As 188.979†	30.9	0.02147	mg/L	0.000755	0.04294	mg/L	0.001509	3.52%
B 249.677†	130.9	0.07824	mg/L	0.000320	0.1565	mg/L	0.00064	0.41%
Ba 233.527†	256.0	0.03452	mg/L	0.000229	0.06904	mg/L	0.000457	0.66%
Be 313.042†	101.8	0.00024	mg/L	0.000013	0.00049	mg/L	0.000027	5.56%
Ca 317.933†	98846.8	9.345	mg/L	0.0986	18.69	mg/L	0.197	1.05%
Cd 228.802†	97.3	0.00196	mg/L	0.000114	0.00392	mg/L	0.000228	5.82%
Co 228.616†	425.9	0.00792	mg/L	0.000107	0.01584	mg/L	0.000214	1.35%
Cr 267.716†	144.8	0.03274	mg/L	0.000279	0.06547	mg/L	0.000557	0.85%
Cu 324.752†	18968.3	0.08017	mg/L	0.000361	0.1603	mg/L	0.00072	0.45%
Fe 273.955†	34184.6	28.85	mg/L	0.226	57.70	mg/L	0.452	0.78%
K 766.490†	8527.2	3.272	mg/L	0.0226	6.545	mg/L	0.0452	0.69%
Mg 279.077†	13046.0	12.38	mg/L	0.051	24.76	mg/L	0.101	0.41%
Mn 257.610†	9324.0	0.2356	mg/L	0.00077	0.4713	mg/L	0.00154	0.33%
Mo 202.031†	122.5	0.01114	mg/L	0.000592	0.02229	mg/L	0.001185	5.31%
Na 589.592†	204021.7	30.28	mg/L	0.233	60.56	mg/L	0.466	0.77%
Na 330.237†	663.6	32.92	mg/L	0.198	65.84	mg/L	0.397	0.60%
Ni 231.604†	62.7	0.03526	mg/L	0.002876	0.07051	mg/L	0.005753	8.16%
Pb 220.353†	678.3	0.1011	mg/L	0.00126	0.2022	mg/L	0.00252	1.24%
Sb 206.836†	-20.9	-0.01144	mg/L	0.005919	-0.02287	mg/L	0.011839	51.76%
Se 196.026†	14.5	0.00963	mg/L	0.001198	0.01926	mg/L	0.002395	12.44%
Si 288.158†	4635.8	3.749	mg/L	0.0130	7.497	mg/L	0.0261	0.35%
Sn 189.927†	-10.2	-0.00225	mg/L	0.001401	-0.00450	mg/L	0.002803	62.22%
Sr 421.552†	56052.5	0.1231	mg/L	0.00041	0.2462	mg/L	0.00082	0.33%
Ti 334.903†	12915.6	0.6764	mg/L	0.00396	1.353	mg/L	0.0079	0.59%
Tl 190.801†	-7.3	-0.00320	mg/L	0.002427	-0.00639	mg/L	0.004855	75.95%
V 292.402†	5925.3	0.04005	mg/L	0.000215	0.08010	mg/L	0.000431	0.54%
Zn 206.200†	549.7	0.2159	mg/L	0.00020	0.4318	mg/L	0.00040	0.09%

Sequence No.: 26
Sample ID: UU52 E SWC

Autosampler Location: 40
Date Collected: 5/29/2012 4:50:00 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 E SWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU52 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1830505.8	95.65	%	0.497				0.52%
ScR 361.383	195851.9	99.70	%	1.067				1.07%
Ag 328.068†	-119.3	0.00086	mg/L	0.000198	0.00172	mg/L	0.000397	23.10%
Al 308.215†	21434.9	16.38	mg/L	0.027	32.76	mg/L	0.053	0.16%
As 188.979†	36.3	0.02520	mg/L	0.000414	0.05040	mg/L	0.000827	1.64%
B 249.677†	113.2	0.06762	mg/L	0.002965	0.1352	mg/L	0.00593	4.38%
Ba 233.527†	382.9	0.05189	mg/L	0.001407	0.1038	mg/L	0.00281	2.71%
Be 313.042†	84.9	0.00017	mg/L	0.000041	0.00034	mg/L	0.000082	23.99%
Ca 317.933†	86690.9	8.196	mg/L	0.0361	16.39	mg/L	0.072	0.44%
Cd 228.802†	113.4	0.00228	mg/L	0.000026	0.00457	mg/L	0.000052	1.15%
Co 228.616†	527.4	0.00981	mg/L	0.000091	0.01962	mg/L	0.000183	0.93%
Cr 267.716†	156.4	0.03547	mg/L	0.002148	0.07094	mg/L	0.004296	6.06%
Cu 324.752†	24113.0	0.1019	mg/L	0.00028	0.2037	mg/L	0.00056	0.27%
Fe 273.955†	42741.7	36.07	mg/L	0.199	72.14	mg/L	0.399	0.55%
K 766.490†	8576.9	3.291	mg/L	0.0321	6.583	mg/L	0.0642	0.98%
Mg 279.077†	13638.6	12.94	mg/L	0.138	25.87	mg/L	0.277	1.07%
Mn 257.610†	12177.7	0.3078	mg/L	0.00328	0.6155	mg/L	0.00655	1.06%
Mo 202.031†	123.8	0.01115	mg/L	0.000556	0.02230	mg/L	0.001112	4.99%
Na 589.592†	181549.2	26.94	mg/L	0.044	53.89	mg/L	0.087	0.16%
Na 330.237†	587.9	29.19	mg/L	0.213	58.38	mg/L	0.426	0.73%
Ni 231.604†	71.4	0.04039	mg/L	0.002510	0.08078	mg/L	0.005020	6.21%
Pb 220.353†	747.0	0.1117	mg/L	0.00117	0.2233	mg/L	0.00233	1.04%
Sb 206.836†	-19.5	-0.00947	mg/L	0.001314	-0.01894	mg/L	0.002627	13.87%
Se 196.026†	13.9	0.00743	mg/L	0.009403	0.01487	mg/L	0.018806	126.49%
Si 288.158†	4876.5	3.943	mg/L	0.0342	7.887	mg/L	0.0683	0.87%
Sn 189.927†	-14.6	-0.00356	mg/L	0.001992	-0.00712	mg/L	0.003983	55.95%
Sr 421.552†	49482.7	0.1087	mg/L	0.00086	0.2174	mg/L	0.00172	0.79%
Ti 334.903†	15937.4	0.8348	mg/L	0.00150	1.670	mg/L	0.0030	0.18%
Tl 190.801†	-6.9	-0.00259	mg/L	0.004294	-0.00519	mg/L	0.008587	165.58%
V 292.402†	6428.2	0.04274	mg/L	0.000420	0.08549	mg/L	0.000840	0.98%
Zn 206.200†	677.6	0.2660	mg/L	0.00253	0.5320	mg/L	0.00506	0.95%

Sequence No.: 27
Sample ID: UU52 F SWC

Autosampler Location: 41
Date Collected: 5/29/2012 4:56:02 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 F SWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU52 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1846034.5	96.46	%	0.545				0.57%
ScR 361.383	194812.3	99.17	%	0.842				0.85%
Ag 328.068†	-87.9	0.00096	mg/L	0.000588	0.00192	mg/L	0.001177	61.17%
Al 308.215†	7326.6	5.598	mg/L	0.0488	11.20	mg/L	0.098	0.87%
As 188.979†	65.4	0.04853	mg/L	0.000961	0.09706	mg/L	0.001921	1.98%
B 249.677†	133.9	0.08000	mg/L	0.001413	0.1600	mg/L	0.00283	1.77%
Ba 233.527†	342.3	0.04631	mg/L	0.000536	0.09261	mg/L	0.001071	1.16%
Be 313.042†	48.6	0.00008	mg/L	0.000040	0.00017	mg/L	0.000080	48.13%
Ca 317.933†	70764.6	6.690	mg/L	0.0355	13.38	mg/L	0.071	0.53%
Cd 228.802†	112.9	0.00223	mg/L	0.000036	0.00447	mg/L	0.000071	1.60%
Co 228.616†	356.1	0.00695	mg/L	0.000127	0.01389	mg/L	0.000254	1.83%
Cr 267.716†	88.7	0.02038	mg/L	0.000838	0.04077	mg/L	0.001676	4.11%
Cu 324.752†	49735.7	0.2069	mg/L	0.00231	0.4139	mg/L	0.00462	1.12%
Fe 273.955†	41395.1	34.94	mg/L	0.255	69.87	mg/L	0.510	0.73%
K 766.490†	3225.3	1.238	mg/L	0.0349	2.475	mg/L	0.0699	2.82%
Mg 279.077†	6997.1	6.627	mg/L	0.0625	13.25	mg/L	0.125	0.94%
Mn 257.610†	8684.1	0.2197	mg/L	0.00256	0.4395	mg/L	0.00511	1.16%
Mo 202.031†	171.5	0.01615	mg/L	0.000195	0.03231	mg/L	0.000390	1.21%
Na 589.592†	83956.2	12.46	mg/L	0.094	24.92	mg/L	0.188	0.76%
Na 330.237†	276.5	13.62	mg/L	0.163	27.23	mg/L	0.326	1.20%
Ni 231.604†	54.2	0.03112	mg/L	0.001878	0.06225	mg/L	0.003757	6.03%
Pb 220.353†	6834.7	0.9758	mg/L	0.00351	1.952	mg/L	0.0070	0.36%
Sb 206.836†	20.8	0.02042	mg/L	0.007088	0.04083	mg/L	0.014176	34.72%
Se 196.026†	11.6	0.00781	mg/L	0.006191	0.01563	mg/L	0.012382	79.23%
Si 288.158†	1728.4	1.398	mg/L	0.0173	2.796	mg/L	0.0346	1.24%
Sn 189.927†	477.5	0.1507	mg/L	0.00077	0.3013	mg/L	0.00154	0.51%
Sr 421.552†	42965.7	0.09438	mg/L	0.000502	0.1888	mg/L	0.00100	0.53%
Ti 334.903†	7029.7	0.3681	mg/L	0.00166	0.7362	mg/L	0.00331	0.45%
Tl 190.801†	-5.8	-0.00100	mg/L	0.000966	-0.00200	mg/L	0.001933	96.61%
V 292.402†	4555.3	0.02927	mg/L	0.000301	0.05854	mg/L	0.000602	1.03%
Zn 206.200†	1046.0	0.4104	mg/L	0.00483	0.8207	mg/L	0.00966	1.18%

Sequence No.: 28
Sample ID: UU52 G SWC

Autosampler Location: 42
Date Collected: 5/29/2012 5:02:02 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 G SWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU52 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1859189.8	97.15	%	0.327				0.34%
ScR 361.383	196423.5	99.99	%	0.635				0.64%
Ag 328.068†	53.7	0.00116	mg/L	0.000171	0.00232	mg/L	0.000341	14.72%
Al 308.215†	9772.2	7.466	mg/L	0.0560	14.93	mg/L	0.112	0.75%
As 188.979†	102.2	0.07827	mg/L	0.004980	0.1565	mg/L	0.00996	6.36%
B 249.677†	69.1	0.04133	mg/L	0.001584	0.08266	mg/L	0.003167	3.83%
Ba 233.527†	365.7	0.05000	mg/L	0.000713	0.10000	mg/L	0.001427	1.43%
Be 313.042†	69.3	0.00010	mg/L	0.000028	0.00020	mg/L	0.000055	27.92%
Ca 317.933†	69881.1	6.607	mg/L	0.0121	13.21	mg/L	0.024	0.18%
Cd 228.802†	116.4	0.00225	mg/L	0.000053	0.00451	mg/L	0.000106	2.34%
Co 228.616†	229.2	0.00412	mg/L	0.000034	0.00825	mg/L	0.000068	0.82%
Cr 267.716†	76.9	0.01751	mg/L	0.001320	0.03502	mg/L	0.002640	7.54%
Cu 324.752†	22875.6	0.09564	mg/L	0.000234	0.1913	mg/L	0.00047	0.24%
Fe 273.955†	26116.7	22.04	mg/L	0.046	44.08	mg/L	0.092	0.21%
K 766.490†	3353.4	1.287	mg/L	0.0412	2.574	mg/L	0.0824	3.20%
Mg 279.077†	6493.0	6.156	mg/L	0.0467	12.31	mg/L	0.093	0.76%
Mn 257.610†	3763.6	0.09518	mg/L	0.000760	0.1904	mg/L	0.00152	0.80%
Mo 202.031†	295.3	0.02853	mg/L	0.000239	0.05706	mg/L	0.000478	0.84%
Na 589.592†	78083.2	11.59	mg/L	0.026	23.18	mg/L	0.053	0.23%
Na 330.237†	257.9	12.77	mg/L	0.349	25.54	mg/L	0.697	2.73%
Ni 231.604†	63.1	0.03511	mg/L	0.002510	0.07022	mg/L	0.005019	7.15%
Pb 220.353†	2687.0	0.3853	mg/L	0.00140	0.7706	mg/L	0.00281	0.36%
Sb 206.836†	-8.8	-0.00409	mg/L	0.005131	-0.00819	mg/L	0.010262	125.31%
Se 196.026†	14.2	0.01200	mg/L	0.001714	0.02400	mg/L	0.003428	14.29%
Si 288.158†	1313.7	1.063	mg/L	0.0140	2.126	mg/L	0.0279	1.31%
Sn 189.927†	2.0	0.00113	mg/L	0.000538	0.00227	mg/L	0.001077	47.50%
Sr 421.552†	53863.2	0.1183	mg/L	0.00026	0.2366	mg/L	0.00052	0.22%
Ti 334.903†	8447.5	0.4424	mg/L	0.00222	0.8848	mg/L	0.00444	0.50%
Tl 190.801†	-3.2	-0.00075	mg/L	0.002595	-0.00150	mg/L	0.005190	345.77%
V 292.402†	7610.7	0.05362	mg/L	0.000484	0.1072	mg/L	0.00097	0.90%
Zn 206.200†	583.0	0.2288	mg/L	0.00255	0.4576	mg/L	0.00509	1.11%

Sequence No.: 29
Sample ID: UU62 MB1SPK TWC

Autosampler Location: 43
Date Collected: 5/29/2012 5:08:03 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU62 MB1SPK TWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU62 MB1SPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1838001.3	96.04	%	0.765				0.80%
ScR 361.383	196955.8	100.3	%	0.71				0.71%
Ag 328.068†	105655.8	0.5145	mg/L	0.00336	0.5145	mg/L	0.00336	0.65%
Al 308.215†	2804.9	2.135	mg/L	0.0108	2.135	mg/L	0.0108	0.51%
As 188.979†	2720.8	2.136	mg/L	0.0170	2.136	mg/L	0.0170	0.79%
B 249.677†	-4.2	-0.00424	mg/L	0.002051	-0.00424	mg/L	0.002051	48.41%
Ba 233.527†	13936.5	1.936	mg/L	0.0075	1.936	mg/L	0.0075	0.39%
Be 313.042†	147647.1	0.5259	mg/L	0.00204	0.5259	mg/L	0.00204	0.39%
Ca 317.933†	115435.7	10.91	mg/L	0.032	10.91	mg/L	0.032	0.29%
Cd 228.802†	25715.7	0.5235	mg/L	0.00432	0.5235	mg/L	0.00432	0.83%
Co 228.616†	23914.4	0.5082	mg/L	0.00386	0.5082	mg/L	0.00386	0.76%
Cr 267.716†	2242.4	0.5075	mg/L	0.00518	0.5075	mg/L	0.00518	1.02%
Cu 324.752†	125855.3	0.5164	mg/L	0.00328	0.5164	mg/L	0.00328	0.64%
Fe 273.955†	2541.8	2.145	mg/L	0.0109	2.145	mg/L	0.0109	0.51%
K 766.490†	28722.9	11.02	mg/L	0.036	11.02	mg/L	0.036	0.32%
Mg 279.077†	11544.8	10.97	mg/L	0.038	10.97	mg/L	0.038	0.35%
Mn 257.610†	19484.4	0.4931	mg/L	0.00205	0.4931	mg/L	0.00205	0.42%
Mo 202.031†	37.0	0.00314	mg/L	0.000177	0.00314	mg/L	0.000177	5.65%
Na 589.592†	69554.0	10.32	mg/L	0.019	10.32	mg/L	0.019	0.18%
Na 330.237†	233.5	11.35	mg/L	0.423	11.35	mg/L	0.423	3.72%
Ni 231.604†	911.8	0.4871	mg/L	0.00537	0.4871	mg/L	0.00537	1.10%
Pb 220.353†	14607.4	2.083	mg/L	0.0169	2.083	mg/L	0.0169	0.81%
Sb 206.836†	-16.2	-0.01748	mg/L	0.000641	-0.01748	mg/L	0.000641	3.67%
Se 196.026†	1732.2	2.080	mg/L	0.0219	2.080	mg/L	0.0219	1.05%
Si 288.158†	-1.8	0.00293	mg/L	0.006685	0.00293	mg/L	0.006685	227.76%
Sn 189.927†	-14.6	-0.00402	mg/L	0.001067	-0.00402	mg/L	0.001067	26.52%
Sr 421.552†	234835.1	0.5158	mg/L	0.00107	0.5158	mg/L	0.00107	0.21%
Ti 334.903†	6.4	-0.00015	mg/L	0.000413	-0.00015	mg/L	0.000413	273.44%
Tl 190.801†	3290.4	2.036	mg/L	0.0104	2.036	mg/L	0.0104	0.51%
V 292.402†	70857.8	0.5297	mg/L	0.00372	0.5297	mg/L	0.00372	0.70%
Zn 206.200†	1266.2	0.4966	mg/L	0.00316	0.4966	mg/L	0.00316	0.64%

Sequence No.: 30
Sample ID: CV 4
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/29/2012 5:14:06 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1819935.2	95.10	%	0.537				0.56%
ScR 361.383	192731.1	98.11	%	3.367				3.43%
Ag 328.068†	202766.5	0.9872	mg/L	0.00282	0.9872	mg/L	0.00282	0.29%
Al 308.215†	2776.7	2.082	mg/L	0.0671	2.082	mg/L	0.0671	3.22%
As 188.979†	2620.4	2.057	mg/L	0.0116	2.057	mg/L	0.0116	0.56%
B 249.677†	1632.3	0.9739	mg/L	0.02071	0.9739	mg/L	0.02071	2.13%
Ba 233.527†	7013.7	0.9741	mg/L	0.03103	0.9741	mg/L	0.03103	3.19%
Be 313.042†	276140.7	0.9835	mg/L	0.02945	0.9835	mg/L	0.02945	2.99%
Ca 317.933†	21728.0	2.054	mg/L	0.0661	2.054	mg/L	0.0661	3.22%
Cd 228.802†	49491.6	1.011	mg/L	0.0043	1.011	mg/L	0.0043	0.42%
Co 228.616†	45713.8	0.9708	mg/L	0.00194	0.9708	mg/L	0.00194	0.20%
Cr 267.716†	4273.5	0.9678	mg/L	0.03185	0.9678	mg/L	0.03185	3.29%
Cu 324.752†	251802.7	1.033	mg/L	0.0012	1.033	mg/L	0.0012	0.12%
Fe 273.955†	2498.4	2.108	mg/L	0.0698	2.108	mg/L	0.0698	3.31%
K 766.490†	54853.7	21.05	mg/L	0.646	21.05	mg/L	0.646	3.07%
Mg 279.077†	2240.5	2.132	mg/L	0.0609	2.132	mg/L	0.0609	2.86%
Mn 257.610†	38981.0	0.9860	mg/L	0.03030	0.9860	mg/L	0.03030	3.07%
Mo 202.031†	10377.1	1.025	mg/L	0.0071	1.025	mg/L	0.0071	0.69%
Na 589.592†	340382.5	50.51	mg/L	1.470	50.51	mg/L	1.470	2.91%
Na 330.237†	1081.0	53.44	mg/L	1.599	53.44	mg/L	1.599	2.99%
Ni 231.604†	1854.4	0.9932	mg/L	0.03223	0.9932	mg/L	0.03223	3.24%
Pb 220.353†	13771.2	1.965	mg/L	0.0119	1.965	mg/L	0.0119	0.61%
Sb 206.836†	2791.6	2.259	mg/L	0.0132	2.259	mg/L	0.0132	0.58%
Se 196.026†	1662.7	1.996	mg/L	0.0099	1.996	mg/L	0.0099	0.50%
Si 288.158†	2893.2	2.345	mg/L	0.0838	2.345	mg/L	0.0838	3.57%
Sn 189.927†	3076.1	0.9687	mg/L	0.00546	0.9687	mg/L	0.00546	0.56%
Sr 421.552†	456366.3	1.002	mg/L	0.0259	1.002	mg/L	0.0259	2.59%
Ti 334.903†	20222.2	1.058	mg/L	0.0310	1.058	mg/L	0.0310	2.93%
Tl 190.801†	3222.5	1.987	mg/L	0.0145	1.987	mg/L	0.0145	0.73%
V 292.402†	134063.9	1.008	mg/L	0.0033	1.008	mg/L	0.0033	0.32%
Zn 206.200†	2647.0	1.037	mg/L	0.0331	1.037	mg/L	0.0331	3.19%

Sequence No.: 31
Sample ID: CB
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/29/2012 5:19:54 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1859153.4	97.15	%	0.560				0.58%
ScR 361.383	191092.7	97.28	%	1.341				1.38%
Ag 328.068†	43.7	0.00021	mg/L	0.000090	0.00021	mg/L	0.000090	42.26%
Al 308.215†	-0.4	-0.00033	mg/L	0.007737	-0.00033	mg/L	0.007737	>999.9%
As 188.979†	-0.5	-0.00042	mg/L	0.000378	-0.00042	mg/L	0.000378	89.59%
B 249.677†	1.5	0.00087	mg/L	0.001362	0.00087	mg/L	0.001362	155.93%
Ba 233.527†	2.3	0.00032	mg/L	0.000327	0.00032	mg/L	0.000327	101.95%
Be 313.042†	49.3	0.00018	mg/L	0.000075	0.00018	mg/L	0.000075	42.74%
Ca 317.933†	14.0	0.00132	mg/L	0.000908	0.00132	mg/L	0.000908	68.80%
Cd 228.802†	-3.0	-0.00006	mg/L	0.000133	-0.00006	mg/L	0.000133	213.36%
Co 228.616†	0.9	0.00002	mg/L	0.000134	0.00002	mg/L	0.000134	779.66%
Cr 267.716†	-3.3	-0.00074	mg/L	0.000575	-0.00074	mg/L	0.000575	77.80%
Cu 324.752†	-29.4	-0.00012	mg/L	0.000263	-0.00012	mg/L	0.000263	217.79%
Fe 273.955†	1.1	0.00097	mg/L	0.001733	0.00097	mg/L	0.001733	178.84%
K 766.490†	98.4	0.03777	mg/L	0.012731	0.03777	mg/L	0.012731	33.71%
Mg 279.077†	-2.6	-0.00243	mg/L	0.001327	-0.00243	mg/L	0.001327	54.66%
Mn 257.610†	9.1	0.00023	mg/L	0.000062	0.00023	mg/L	0.000062	26.93%
Mo 202.031†	4.8	0.00048	mg/L	0.000441	0.00048	mg/L	0.000441	92.67%
Na 589.592†	192.7	0.02860	mg/L	0.007451	0.02860	mg/L	0.007451	26.06%
Na 330.237†	3.4	0.1693	mg/L	0.17848	0.1693	mg/L	0.17848	105.42%
Ni 231.604†	-6.2	-0.00331	mg/L	0.001906	-0.00331	mg/L	0.001906	57.57%
Pb 220.353†	7.0	0.00099	mg/L	0.000662	0.00099	mg/L	0.000662	66.59%
Sb 206.836†	-2.7	-0.00213	mg/L	0.002808	-0.00213	mg/L	0.002808	132.05%
Se 196.026†	-0.0	-0.00001	mg/L	0.005595	-0.00001	mg/L	0.005595	>999.9%
Si 288.158†	1.9	0.00153	mg/L	0.004323	0.00153	mg/L	0.004323	282.93%
Sn 189.927†	3.6	0.00114	mg/L	0.000278	0.00114	mg/L	0.000278	24.37%
Sr 421.552†	88.2	0.00019	mg/L	0.000143	0.00019	mg/L	0.000143	73.85%
Ti 334.903†	18.9	0.00099	mg/L	0.000687	0.00099	mg/L	0.000687	69.39%
Tl 190.801†	4.9	0.00308	mg/L	0.000442	0.00308	mg/L	0.000442	14.37%
V 292.402†	-4.8	-0.00004	mg/L	0.000183	-0.00004	mg/L	0.000183	473.71%
Zn 206.200†	-3.2	-0.00123	mg/L	0.000676	-0.00123	mg/L	0.000676	54.79%

Sequence No.: 32
Sample ID: UU94 MB WMN

Autosampler Location: 44
Date Collected: 5/29/2012 5:25:52 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU94 MB WMN

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU94 MB WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1899128.2	99.24	%	0.142				0.14%
ScR 361.383	202409.1	103.0	%	0.97				0.94%
Ag 328.068†	-12.8	-0.00006	mg/L	0.000234	-0.00006	mg/L	0.000234	376.79%
Al 308.215†	2.1	0.00161	mg/L	0.007662	0.00161	mg/L	0.007662	475.89%
As 188.979†	-1.2	-0.00092	mg/L	0.002390	-0.00092	mg/L	0.002390	258.42%
B 249.677†	6.6	0.00393	mg/L	0.002847	0.00393	mg/L	0.002847	72.35%
Ba 233.527†	4.5	0.00063	mg/L	0.000224	0.00063	mg/L	0.000224	35.65%
Be 313.042†	10.6	0.00004	mg/L	0.000032	0.00004	mg/L	0.000032	84.66%
Ca 317.933†	61.7	0.00584	mg/L	0.000893	0.00584	mg/L	0.000893	15.30%
Cd 228.802†	-4.2	-0.00008	mg/L	0.000102	-0.00008	mg/L	0.000102	122.69%
Co 228.616†	14.3	0.00030	mg/L	0.000197	0.00030	mg/L	0.000197	65.14%
Cr 267.716†	-8.6	-0.00195	mg/L	0.001276	-0.00195	mg/L	0.001276	65.57%
Cu 324.752†	7.7	0.00003	mg/L	0.000105	0.00003	mg/L	0.000105	328.49%
Fe 273.955†	3.3	0.00277	mg/L	0.001305	0.00277	mg/L	0.001305	47.09%
K 766.490†	32.4	0.01244	mg/L	0.016086	0.01244	mg/L	0.016086	129.35%
Mg 279.077†	1.0	0.00091	mg/L	0.003664	0.00091	mg/L	0.003664	402.25%
Mn 257.610†	-8.3	-0.00021	mg/L	0.000126	-0.00021	mg/L	0.000126	60.41%
Mo 202.031†	2.2	0.00022	mg/L	0.000440	0.00022	mg/L	0.000440	200.56%
Na 589.592†	536.5	0.07963	mg/L	0.013499	0.07963	mg/L	0.013499	16.95%
Na 330.237†	12.9	0.6376	mg/L	0.51257	0.6376	mg/L	0.51257	80.38%
Ni 231.604†	7.4	0.00396	mg/L	0.002285	0.00396	mg/L	0.002285	57.67%
Pb 220.353†	-6.5	-0.00094	mg/L	0.001340	-0.00094	mg/L	0.001340	142.98%
Sb 206.836†	-3.2	-0.00255	mg/L	0.003603	-0.00255	mg/L	0.003603	141.17%
Se 196.026†	1.6	0.00195	mg/L	0.000692	0.00195	mg/L	0.000692	35.41%
Si 288.158†	-3.3	-0.00264	mg/L	0.006587	-0.00264	mg/L	0.006587	249.60%
Sn 189.927†	-2.8	-0.00088	mg/L	0.000722	-0.00088	mg/L	0.000722	82.37%
Sr 421.552†	-19.0	-0.00004	mg/L	0.000149	-0.00004	mg/L	0.000149	356.34%
Ti 334.903†	10.6	0.00056	mg/L	0.000700	0.00056	mg/L	0.000700	125.87%
Tl 190.801†	-2.2	-0.00140	mg/L	0.001887	-0.00140	mg/L	0.001887	135.09%
V 292.402†	-14.4	-0.00012	mg/L	0.000232	-0.00012	mg/L	0.000232	193.34%
Zn 206.200†	9.7	0.00380	mg/L	0.001224	0.00380	mg/L	0.001224	32.23%

Sequence No.: 33
Sample ID: UU94 B WMN

Autosampler Location: 45
Date Collected: 5/29/2012 5:31:52 PM
Data Type: Original

Dilution: 1X

rerun

Nebulizer Parameters: UU94 B WMN

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU94 B WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1887108.2	98.61	%	0.623				0.63%
ScR 361.383	207644.6	105.7	%	2.08				1.97%
Ag 328.068†	-61.9	0.00005	mg/L	0.000104	0.00005	mg/L	0.000104	223.04%
Al 308.215†	9103.0	6.955	mg/L	0.2050	6.955	mg/L	0.2050	2.95%
As 188.979†	30.8	0.02257	mg/L	0.002069	0.02257	mg/L	0.002069	9.17%
B 249.677†	161.1	0.09628	mg/L	0.001999	0.09628	mg/L	0.001999	2.08%
Ba 233.527†	369.5	0.05098	mg/L	0.001431	0.05098	mg/L	0.001431	2.81%
Be 313.042†	129.1	0.00030	mg/L	0.000069	0.00030	mg/L	0.000069	22.75%
Ca 317.933†	126197.1	11.93	mg/L	0.408	11.93	mg/L	0.408	3.42%
Cd 228.802†	7.5	0.00012	mg/L	0.000019	0.00012	mg/L	0.000019	15.87%
Co 228.616†	541.9	0.01140	mg/L	0.000099	0.01140	mg/L	0.000099	0.87%
Cr 267.716†	44.4	0.00985	mg/L	0.001034	0.00985	mg/L	0.001034	10.50%
Cu 324.752†	15720.4	0.06526	mg/L	0.000532	0.06526	mg/L	0.000532	0.82%
Fe 273.955†	10953.9	9.244	mg/L	0.3441	9.244	mg/L	0.3441	3.72%
K 766.490†	9445.4	3.625	mg/L	0.1549	3.625	mg/L	0.1549	4.27%
Mg 279.077†	5663.8	5.376	mg/L	0.1763	5.376	mg/L	0.1763	3.28%
Mn 257.610†	8907.1	0.2251	mg/L	0.00712	0.2251	mg/L	0.00712	3.16%
Mo 202.031†	248.9	0.02400	mg/L	0.000522	0.02400	mg/L	0.000522	2.17%
Na 589.592†	419965.0	62.32	mg/L	1.355	62.32	mg/L	1.355	2.17%
Na 330.237†	1352.0	66.93	mg/L	2.653	66.93	mg/L	2.653	3.96%
Ni 231.604†	47.3	0.02586	mg/L	0.001417	0.02586	mg/L	0.001417	5.48%
Pb 220.353†	50.8	0.00942	mg/L	0.000812	0.00942	mg/L	0.000812	8.62%
Sb 206.836†	-10.9	-0.00636	mg/L	0.003234	-0.00636	mg/L	0.003234	50.84%
Se 196.026†	7.9	0.00579	mg/L	0.001213	0.00579	mg/L	0.001213	20.96%
Si 288.158†	36722.6	29.68	mg/L	0.932	29.68	mg/L	0.932	3.14%
Sn 189.927†	-15.8	-0.00466	mg/L	0.000752	-0.00466	mg/L	0.000752	16.14%
Sr 421.552†	52431.5	0.1152	mg/L	0.00267	0.1152	mg/L	0.00267	2.32%
Ti 334.903†	1340.8	0.06984	mg/L	0.001578	0.06984	mg/L	0.001578	2.26%
Tl 190.801†	-3.7	-0.00228	mg/L	0.002652	-0.00228	mg/L	0.002652	116.54%
V 292.402†	8571.7	0.06266	mg/L	0.000546	0.06266	mg/L	0.000546	0.87%
Zn 206.200†	164.2	0.06466	mg/L	0.001080	0.06466	mg/L	0.001080	1.67%

Sequence No.: 34
Sample ID: UU94 C WMN

Autosampler Location: 46
Date Collected: 5/29/2012 5:38:10 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU94 C WMN

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU94 C WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1890300.8	98.78	%	0.652				0.66%
ScR 361.383	201610.5	102.6	%	1.41				1.37%
Ag 328.068†	-25.9	-0.00002	mg/L	0.000087	-0.00002	mg/L	0.000087	477.16%
Al 308.215†	4339.9	3.314	mg/L	0.0344	3.314	mg/L	0.0344	1.04%
As 188.979†	23.6	0.01806	mg/L	0.001918	0.01806	mg/L	0.001918	10.62%
B 249.677†	82.6	0.04937	mg/L	0.002092	0.04937	mg/L	0.002092	4.24%
Ba 233.527†	48.3	0.00659	mg/L	0.000262	0.00659	mg/L	0.000262	3.98%
Be 313.042†	129.8	0.00013	mg/L	0.000054	0.00013	mg/L	0.000054	40.51%
Ca 317.933†	30065.5	2.842	mg/L	0.0011	2.842	mg/L	0.0011	0.04%
Cd 228.802†	-14.1	-0.00032	mg/L	0.000055	-0.00032	mg/L	0.000055	17.31%
Co 228.616†	37.1	0.00071	mg/L	0.000162	0.00071	mg/L	0.000162	22.93%
Cr 267.716†	34.0	0.00766	mg/L	0.000653	0.00766	mg/L	0.000653	8.53%
Cu 324.752†	3238.0	0.01343	mg/L	0.000537	0.01343	mg/L	0.000537	4.00%
Fe 273.955†	2252.2	1.901	mg/L	0.0314	1.901	mg/L	0.0314	1.65%
K 766.490†	6601.3	2.533	mg/L	0.0304	2.533	mg/L	0.0304	1.20%
Mg 279.077†	778.7	0.7387	mg/L	0.01409	0.7387	mg/L	0.01409	1.91%
Mn 257.610†	481.5	0.01215	mg/L	0.000235	0.01215	mg/L	0.000235	1.93%
Mo 202.031†	154.3	0.01509	mg/L	0.000180	0.01509	mg/L	0.000180	1.19%
Na 589.592†	877458.8	130.2	mg/L	1.77	130.2	mg/L	1.77	1.36%
Na 330.237†	2821.0	139.8	mg/L	1.42	139.8	mg/L	1.42	1.01%
Ni 231.604†	16.9	0.00918	mg/L	0.000609	0.00918	mg/L	0.000609	6.63%
Pb 220.353†	-2.6	0.00070	mg/L	0.000965	0.00070	mg/L	0.000965	138.15%
Sb 206.836†	-8.3	-0.00537	mg/L	0.004067	-0.00537	mg/L	0.004067	75.73%
Se 196.026†	12.5	0.01375	mg/L	0.008770	0.01375	mg/L	0.008770	63.79%
Si 288.158†	78668.4	63.57	mg/L	0.547	63.57	mg/L	0.547	0.86%
Sn 189.927†	-12.2	-0.00377	mg/L	0.001044	-0.00377	mg/L	0.001044	27.72%
Sr 421.552†	8547.8	0.01878	mg/L	0.000026	0.01878	mg/L	0.000026	0.14%
Ti 334.903†	953.2	0.04984	mg/L	0.001000	0.04984	mg/L	0.001000	2.01%
Tl 190.801†	-2.2	-0.00199	mg/L	0.001143	-0.00199	mg/L	0.001143	57.52%
V 292.402†	17806.2	0.1321	mg/L	0.00182	0.1321	mg/L	0.00182	1.38%
Zn 206.200†	-1.3	-0.00044	mg/L	0.000587	-0.00044	mg/L	0.000587	132.88%

Sequence No.: 35
Sample ID: UU94 ADUP WMN

Autosampler Location: 47
Date Collected: 5/29/2012 5:44:29 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU94 ADUP WMN

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU94 ADUP WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1906596.5	99.63	%	0.708				0.71%
ScR 361.383	206043.0	104.9	%	0.81				0.77%
Ag 328.068†	-104.3	-0.00016	mg/L	0.000314	-0.00016	mg/L	0.000314	194.67%
Al 308.215†	9675.5	7.391	mg/L	0.0912	7.391	mg/L	0.0912	1.23%
As 188.979†	11.1	0.00733	mg/L	0.002349	0.00733	mg/L	0.002349	32.04%
B 249.677†	83.6	0.04999	mg/L	0.003571	0.04999	mg/L	0.003571	7.14%
Ba 233.527†	367.0	0.05064	mg/L	0.000695	0.05064	mg/L	0.000695	1.37%
Be 313.042†	399.4	0.00091	mg/L	0.000058	0.00091	mg/L	0.000058	6.38%
Ca 317.933†	91750.7	8.674	mg/L	0.1388	8.674	mg/L	0.1388	1.60%
Cd 228.802†	-7.8	-0.00017	mg/L	0.000069	-0.00017	mg/L	0.000069	40.20%
Co 228.616†	230.4	0.00474	mg/L	0.000077	0.00474	mg/L	0.000077	1.64%
Cr 267.716†	66.1	0.01487	mg/L	0.001007	0.01487	mg/L	0.001007	6.77%
Cu 324.752†	6866.0	0.02879	mg/L	0.000185	0.02879	mg/L	0.000185	0.64%
Fe 273.955†	8858.7	7.476	mg/L	0.0903	7.476	mg/L	0.0903	1.21%
K 766.490†	8547.8	3.280	mg/L	0.0456	3.280	mg/L	0.0456	1.39%
Mg 279.077†	3675.0	3.487	mg/L	0.0240	3.487	mg/L	0.0240	0.69%
Mn 257.610†	1964.7	0.04961	mg/L	0.000387	0.04961	mg/L	0.000387	0.78%
Mo 202.031†	129.8	0.01235	mg/L	0.000254	0.01235	mg/L	0.000254	2.06%
Na 589.592†	720101.7	106.9	mg/L	0.63	106.9	mg/L	0.63	0.59%
Na 330.237†	2333.0	115.6	mg/L	2.23	115.6	mg/L	2.23	1.93%
Ni 231.604†	29.9	0.01645	mg/L	0.000217	0.01645	mg/L	0.000217	1.32%
Pb 220.353†	7.3	0.00340	mg/L	0.000776	0.00340	mg/L	0.000776	22.80%
Sb 206.836†	-14.5	-0.00876	mg/L	0.002359	-0.00876	mg/L	0.002359	26.93%
Se 196.026†	8.4	0.00673	mg/L	0.008614	0.00673	mg/L	0.008614	127.99%
Si 288.158†	47585.8	38.46	mg/L	0.477	38.46	mg/L	0.477	1.24%
Sn 189.927†	-13.9	-0.00415	mg/L	0.001151	-0.00415	mg/L	0.001151	27.72%
Sr 421.552†	36654.7	0.08051	mg/L	0.000725	0.08051	mg/L	0.000725	0.90%
Ti 334.903†	1698.5	0.08870	mg/L	0.000422	0.08870	mg/L	0.000422	0.48%
Tl 190.801†	-0.7	-0.00106	mg/L	0.002722	-0.00106	mg/L	0.002722	257.75%
V 292.402†	27645.2	0.2045	mg/L	0.00228	0.2045	mg/L	0.00228	1.11%
Zn 206.200†	63.4	0.02506	mg/L	0.000290	0.02506	mg/L	0.000290	1.16%

Sequence No.: 36
Sample ID: UU94 A WMN

Dilution: 1X

Autosampler Location: 48
Date Collected: 5/29/2012 5:50:49 PM
Data Type: Original

Nebulizer Parameters: UU94 A WMN

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU94 A WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	1892723.9	98.90	%	1.066				1.08%
ScR 361.383	203049.1	103.4	%	0.64				0.62%
Ag 328.068†	-107.2	-0.00017	mg/L	0.000151	-0.00017	mg/L	0.000151	89.59%
Al 308.215†	9950.4	7.601	mg/L	0.0608	7.601	mg/L	0.0608	0.80%
As 188.979†	4.8	0.00229	mg/L	0.001627	0.00229	mg/L	0.001627	71.12%
B 249.677†	88.0	0.05262	mg/L	0.004834	0.05262	mg/L	0.004834	9.19%
Ba 233.527†	368.0	0.05077	mg/L	0.000707	0.05077	mg/L	0.000707	1.39%
Be 313.042†	422.4	0.00100	mg/L	0.000032	0.00100	mg/L	0.000032	3.17%
Ca 317.933†	92804.0	8.774	mg/L	0.0558	8.774	mg/L	0.0558	0.64%
Cd 228.802†	-8.5	-0.00018	mg/L	0.000055	-0.00018	mg/L	0.000055	31.18%
Co 228.616†	234.3	0.00482	mg/L	0.000051	0.00482	mg/L	0.000051	1.06%
Cr 267.716†	64.3	0.01447	mg/L	0.000452	0.01447	mg/L	0.000452	3.13%
Cu 324.752†	6981.1	0.02928	mg/L	0.000432	0.02928	mg/L	0.000432	1.47%
Fe 273.955†	9064.0	7.650	mg/L	0.0189	7.650	mg/L	0.0189	0.25%
K 766.490†	8636.6	3.314	mg/L	0.0216	3.314	mg/L	0.0216	0.65%
Mg 279.077†	3719.2	3.529	mg/L	0.0096	3.529	mg/L	0.0096	0.27%
Mn 257.610†	1995.4	0.05039	mg/L	0.000315	0.05039	mg/L	0.000315	0.63%
Mo 202.031†	133.5	0.01270	mg/L	0.000237	0.01270	mg/L	0.000237	1.87%
Na 589.592†	718597.2	106.6	mg/L	0.24	106.6	mg/L	0.24	0.23%
Na 330.237†	2336.5	115.7	mg/L	1.59	115.7	mg/L	1.59	1.37%
Ni 231.604†	29.8	0.01640	mg/L	0.002780	0.01640	mg/L	0.002780	16.96%
Pb 220.353†	2.4	0.00277	mg/L	0.000462	0.00277	mg/L	0.000462	16.66%
Sb 206.836†	-17.6	-0.01122	mg/L	0.002843	-0.01122	mg/L	0.002843	25.34%
Se 196.026†	10.0	0.00852	mg/L	0.005691	0.00852	mg/L	0.005691	66.83%
Si 288.158†	47836.1	38.66	mg/L	0.173	38.66	mg/L	0.173	0.45%
Sn 189.927†	-12.4	-0.00368	mg/L	0.000208	-0.00368	mg/L	0.000208	5.64%
Sr 421.552†	36973.7	0.08122	mg/L	0.000310	0.08122	mg/L	0.000310	0.38%
Ti 334.903†	1707.4	0.08916	mg/L	0.001611	0.08916	mg/L	0.001611	1.81%
Tl 190.801†	-3.8	-0.00297	mg/L	0.000531	-0.00297	mg/L	0.000531	17.90%
V 292.402†	27517.1	0.2035	mg/L	0.00294	0.2035	mg/L	0.00294	1.44%
Zn 206.200†	64.2	0.02535	mg/L	0.001590	0.02535	mg/L	0.001590	6.27%

Sequence No.: 37
Sample ID: UU94 ASPK WMN

Autosampler Location: 49
Date Collected: 5/29/2012 5:57:10 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU94 ASPK WMN

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU94 ASPK WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1893351.2	98.94	%	0.518				0.52%
ScR 361.383	206476.4	105.1	%	0.76				0.72%
Ag 328.068†	84407.1	0.4114	mg/L	0.00390	0.4114	mg/L	0.00390	0.95%
Al 308.215†	11866.8	9.058	mg/L	0.0680	9.058	mg/L	0.0680	0.75%
As 188.979†	2832.3	2.222	mg/L	0.0082	2.222	mg/L	0.0082	0.37%
B 249.677†	85.7	0.04953	mg/L	0.000877	0.04953	mg/L	0.000877	1.77%
Ba 233.527†	14240.7	1.978	mg/L	0.0154	1.978	mg/L	0.0154	0.78%
Be 313.042†	147535.7	0.5250	mg/L	0.00179	0.5250	mg/L	0.00179	0.34%
Ca 317.933†	207748.2	19.64	mg/L	0.064	19.64	mg/L	0.064	0.33%
Cd 228.802†	26361.4	0.5366	mg/L	0.00578	0.5366	mg/L	0.00578	1.08%
Co 228.616†	24083.0	0.5116	mg/L	0.00645	0.5116	mg/L	0.00645	1.26%
Cr 267.716†	2206.7	0.4993	mg/L	0.00494	0.4993	mg/L	0.00494	0.99%
Cu 324.752†	135738.0	0.5576	mg/L	0.00582	0.5576	mg/L	0.00582	1.04%
Fe 273.955†	10737.8	9.062	mg/L	0.0750	9.062	mg/L	0.0750	0.83%
K 766.490†	36805.5	14.12	mg/L	0.051	14.12	mg/L	0.051	0.36%
Mg 279.077†	14749.3	14.01	mg/L	0.112	14.01	mg/L	0.112	0.80%
Mn 257.610†	21309.6	0.5392	mg/L	0.00422	0.5392	mg/L	0.00422	0.78%
Mo 202.031†	153.6	0.01419	mg/L	0.000317	0.01419	mg/L	0.000317	2.23%
Na 589.592†	763075.5	113.2	mg/L	0.13	113.2	mg/L	0.13	0.11%
Na 330.237†	2416.0	119.5	mg/L	0.69	119.5	mg/L	0.69	0.58%
Ni 231.604†	923.6	0.4938	mg/L	0.00345	0.4938	mg/L	0.00345	0.70%
Pb 220.353†	14718.0	2.101	mg/L	0.0252	2.101	mg/L	0.0252	1.20%
Sb 206.836†	-21.7	-0.01893	mg/L	0.002391	-0.01893	mg/L	0.002391	12.63%
Se 196.026†	1942.3	2.330	mg/L	0.0103	2.330	mg/L	0.0103	0.44%
Si 288.158†	47055.5	38.03	mg/L	0.123	38.03	mg/L	0.123	0.32%
Sn 189.927†	-30.5	-0.00880	mg/L	0.000834	-0.00880	mg/L	0.000834	9.48%
Sr 421.552†	270894.6	0.5950	mg/L	0.00267	0.5950	mg/L	0.00267	0.45%
Ti 334.903†	1617.4	0.08397	mg/L	0.000911	0.08397	mg/L	0.000911	1.09%
Tl 190.801†	3280.5	2.030	mg/L	0.0043	2.030	mg/L	0.0043	0.21%
V 292.402†	96129.4	0.7164	mg/L	0.00892	0.7164	mg/L	0.00892	1.24%
Zn 206.200†	1370.6	0.5377	mg/L	0.00632	0.5377	mg/L	0.00632	1.18%

Sequence No.: 38
Sample ID: UU52 H SWC

Autosampler Location: 50
Date Collected: 5/29/2012 6:03:18 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 H SWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU52 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1871682.6	97.80	%	0.218				0.22%
ScR 361.383	198815.3	101.2	%	0.69				0.68%
Ag 328.068†	-252.4	0.00146	mg/L	0.000195	0.00292	mg/L	0.000390	13.32%
Al 308.215†	34904.2	26.67	mg/L	0.095	53.34	mg/L	0.190	0.36%
As 188.979†	76.5	0.05465	mg/L	0.001976	0.1093	mg/L	0.00395	3.62%
B 249.677†	151.1	0.09028	mg/L	0.002876	0.1806	mg/L	0.00575	3.19%
Ba 233.527†	495.6	0.06643	mg/L	0.000769	0.1329	mg/L	0.00154	1.16%
Be 313.042†	158.9	0.00032	mg/L	0.000036	0.00064	mg/L	0.000072	11.20%
Ca 317.933†	131322.8	12.42	mg/L	0.007	24.83	mg/L	0.015	0.06%
Cd 228.802†	329.2	0.00666	mg/L	0.000038	0.01332	mg/L	0.000076	0.57%
Co 228.616†	862.2	0.01543	mg/L	0.000113	0.03086	mg/L	0.000226	0.73%
Cr 267.716†	308.1	0.07010	mg/L	0.001755	0.1402	mg/L	0.00351	2.50%
Cu 324.752†	46627.1	0.1967	mg/L	0.00149	0.3935	mg/L	0.00297	0.76%
Fe 273.955†	79704.6	67.27	mg/L	0.442	134.5	mg/L	0.88	0.66%
K 766.490†	10438.8	4.006	mg/L	0.0194	8.012	mg/L	0.0388	0.48%
Mg 279.077†	19214.2	18.21	mg/L	0.045	36.43	mg/L	0.090	0.25%
Mn 257.610†	22478.2	0.5682	mg/L	0.00146	1.136	mg/L	0.0029	0.26%
Mo 202.031†	217.5	0.01961	mg/L	0.000337	0.03922	mg/L	0.000674	1.72%
Na 589.592†	146337.6	21.72	mg/L	0.080	43.43	mg/L	0.160	0.37%
Na 330.237†	475.2	23.53	mg/L	0.462	47.05	mg/L	0.924	1.96%
Ni 231.604†	137.0	0.07735	mg/L	0.001586	0.1547	mg/L	0.00317	2.05%
Pb 220.353†	4231.1	0.6115	mg/L	0.00318	1.223	mg/L	0.0064	0.52%
Sb 206.836†	-33.0	-0.01635	mg/L	0.000958	-0.03269	mg/L	0.001917	5.86%
Se 196.026†	20.7	0.00878	mg/L	0.005257	0.01755	mg/L	0.010514	59.90%
Si 288.158†	4575.9	3.701	mg/L	0.0355	7.403	mg/L	0.0710	0.96%
Sn 189.927†	155.0	0.05044	mg/L	0.001979	0.1009	mg/L	0.00396	3.92%
Sr 421.552†	61525.5	0.1351	mg/L	0.00063	0.2703	mg/L	0.00125	0.46%
Ti 334.903†	33070.2	1.732	mg/L	0.0026	3.465	mg/L	0.0051	0.15%
Tl 190.801†	-5.4	-0.00043	mg/L	0.004097	-0.00086	mg/L	0.008195	952.53%
V 292.402†	11736.6	0.07772	mg/L	0.000925	0.1554	mg/L	0.00185	1.19%
Zn 206.200†	2674.1	1.049	mg/L	0.0103	2.098	mg/L	0.0206	0.98%

Sequence No.: 39
Sample ID: UU52 I SWC

Autosampler Location: 51
Date Collected: 5/29/2012 6:09:20 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 I SWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU52 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1839881.3	96.14	%	0.570				0.59%
ScR 361.383	196247.5	99.90	%	0.936				0.94%
Ag 328.068†	-93.3	0.00072	mg/L	0.000162	0.00144	mg/L	0.000324	22.51%
Al 308.215†	22414.4	17.13	mg/L	0.052	34.25	mg/L	0.104	0.30%
As 188.979†	36.3	0.02563	mg/L	0.001872	0.05125	mg/L	0.003743	7.30%
B 249.677†	127.9	0.07644	mg/L	0.001495	0.1529	mg/L	0.00299	1.96%
Ba 233.527†	364.2	0.04953	mg/L	0.000093	0.09906	mg/L	0.000186	0.19%
Be 313.042†	116.5	0.00025	mg/L	0.000073	0.00050	mg/L	0.000147	29.56%
Ca 317.933†	112108.3	10.60	mg/L	0.013	21.20	mg/L	0.026	0.12%
Cd 228.802†	108.8	0.00219	mg/L	0.000107	0.00438	mg/L	0.000213	4.87%
Co 228.616†	465.8	0.00839	mg/L	0.000153	0.01678	mg/L	0.000305	1.82%
Cr 267.716†	186.0	0.04209	mg/L	0.000568	0.08419	mg/L	0.001136	1.35%
Cu 324.752†	25145.3	0.1055	mg/L	0.00041	0.2110	mg/L	0.00082	0.39%
Fe 273.955†	34750.4	29.33	mg/L	0.131	58.65	mg/L	0.261	0.45%
K 766.490†	6724.4	2.581	mg/L	0.0306	5.161	mg/L	0.0611	1.18%
Mg 279.077†	11559.6	10.97	mg/L	0.136	21.93	mg/L	0.273	1.24%
Mn 257.610†	11952.4	0.3021	mg/L	0.00343	0.6041	mg/L	0.00685	1.13%
Mo 202.031†	196.8	0.01839	mg/L	0.000429	0.03678	mg/L	0.000858	2.33%
Na 589.592†	52876.3	7.847	mg/L	0.0141	15.69	mg/L	0.028	0.18%
Na 330.237†	178.0	8.880	mg/L	0.2544	17.76	mg/L	0.509	2.86%
Ni 231.604†	73.9	0.04132	mg/L	0.001078	0.08264	mg/L	0.002155	2.61%
Pb 220.353†	1224.8	0.1800	mg/L	0.00111	0.3600	mg/L	0.00222	0.62%
Sb 206.836†	-21.5	-0.01105	mg/L	0.004363	-0.02211	mg/L	0.008726	39.47%
Se 196.026†	17.3	0.01202	mg/L	0.001941	0.02405	mg/L	0.003883	16.14%
Si 288.158†	3820.5	3.090	mg/L	0.0325	6.179	mg/L	0.0650	1.05%
Sn 189.927†	-6.6	-0.00111	mg/L	0.001716	-0.00223	mg/L	0.003431	154.05%
Sr 421.552†	52282.6	0.1148	mg/L	0.00071	0.2297	mg/L	0.00142	0.62%
Ti 334.903†	17196.3	0.9007	mg/L	0.00251	1.801	mg/L	0.0050	0.28%
Tl 190.801†	-9.7	-0.00522	mg/L	0.000708	-0.01044	mg/L	0.001416	13.56%
V 292.402†	8272.4	0.05736	mg/L	0.000297	0.1147	mg/L	0.00059	0.52%
Zn 206.200†	719.2	0.2823	mg/L	0.00368	0.5646	mg/L	0.00737	1.30%

Sequence No.: 40
Sample ID: UU52 J SWC

Autosampler Location: 52
Date Collected: 5/29/2012 6:15:25 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 J SWC

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU52 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1847263.5	96.53	%	0.557				0.58%
ScR 361.383	197859.8	100.7	%	1.31				1.30%
Ag 328.068†	-141.7	0.00050	mg/L	0.000460	0.00101	mg/L	0.000920	91.21%
Al 308.215†	28630.3	21.88	mg/L	0.082	43.76	mg/L	0.165	0.38%
As 188.979†	19.0	0.01185	mg/L	0.003169	0.02371	mg/L	0.006339	26.74%
B 249.677†	129.6	0.07743	mg/L	0.001531	0.1549	mg/L	0.00306	1.98%
Ba 233.527†	386.6	0.05263	mg/L	0.000927	0.1053	mg/L	0.00185	1.76%
Be 313.042†	112.8	0.00025	mg/L	0.000053	0.00049	mg/L	0.000107	21.77%
Ca 317.933†	82833.3	7.831	mg/L	0.0281	15.66	mg/L	0.056	0.36%
Cd 228.802†	105.0	0.00214	mg/L	0.000026	0.00427	mg/L	0.000053	1.23%
Co 228.616†	571.6	0.01043	mg/L	0.000087	0.02085	mg/L	0.000173	0.83%
Cr 267.716†	213.2	0.04811	mg/L	0.000896	0.09622	mg/L	0.001792	1.86%
Cu 324.752†	17285.0	0.07327	mg/L	0.000502	0.1465	mg/L	0.00100	0.69%
Fe 273.955†	35317.7	29.81	mg/L	0.234	59.61	mg/L	0.468	0.79%
K 766.490†	10327.9	3.963	mg/L	0.0178	7.927	mg/L	0.0356	0.45%
Mg 279.077†	16305.7	15.47	mg/L	0.041	30.95	mg/L	0.081	0.26%
Mn 257.610†	12342.1	0.3119	mg/L	0.00332	0.6237	mg/L	0.00663	1.06%
Mo 202.031†	159.5	0.01466	mg/L	0.000031	0.02932	mg/L	0.000061	0.21%
Na 589.592†	176185.9	26.15	mg/L	0.114	52.29	mg/L	0.229	0.44%
Na 330.237†	565.3	28.15	mg/L	0.384	56.30	mg/L	0.768	1.36%
Ni 231.604†	76.5	0.04273	mg/L	0.003221	0.08547	mg/L	0.006443	7.54%
Pb 220.353†	426.6	0.06781	mg/L	0.001927	0.1356	mg/L	0.00385	2.84%
Sb 206.836†	-25.7	-0.01259	mg/L	0.001554	-0.02517	mg/L	0.003109	12.35%
Se 196.026†	17.4	0.01091	mg/L	0.004001	0.02182	mg/L	0.008002	36.67%
Si 288.158†	4803.2	3.885	mg/L	0.0395	7.769	mg/L	0.0790	1.02%
Sn 189.927†	-22.5	-0.00582	mg/L	0.001931	-0.01163	mg/L	0.003863	33.21%
Sr 421.552†	42489.8	0.09333	mg/L	0.000436	0.1867	mg/L	0.00087	0.47%
Ti 334.903†	19656.5	1.030	mg/L	0.0033	2.059	mg/L	0.0066	0.32%
Tl 190.801†	-1.8	-0.00045	mg/L	0.003840	-0.00091	mg/L	0.007679	848.52%
V 292.402†	7602.3	0.05224	mg/L	0.000561	0.1045	mg/L	0.00112	1.07%
Zn 206.200†	458.2	0.1800	mg/L	0.00121	0.3601	mg/L	0.00243	0.67%

Sequence No.: 41
Sample ID: UU94 MBSPK WMN

Autosampler Location: 53
Date Collected: 5/29/2012 6:21:26 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU94 MBSPK WMN

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: UU94 MBSPK WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1896780.0	99.12	%	0.460				0.46%
ScR 361.383	202929.3	103.3	%	0.56				0.54%
Ag 328.068†	100057.4	0.4873	mg/L	0.00486	0.4873	mg/L	0.00486	1.00%
Al 308.215†	2840.5	2.163	mg/L	0.0106	2.163	mg/L	0.0106	0.49%
As 188.979†	2732.3	2.145	mg/L	0.0087	2.145	mg/L	0.0087	0.41%
B 249.677†	-0.2	-0.00185	mg/L	0.005413	-0.00185	mg/L	0.005413	292.93%
Ba 233.527†	14015.5	1.947	mg/L	0.0103	1.947	mg/L	0.0103	0.53%
Be 313.042†	146441.2	0.5216	mg/L	0.00397	0.5216	mg/L	0.00397	0.76%
Ca 317.933†	114167.2	10.79	mg/L	0.085	10.79	mg/L	0.085	0.78%
Cd 228.802†	26790.5	0.5455	mg/L	0.00389	0.5455	mg/L	0.00389	0.71%
Co 228.616†	23870.8	0.5072	mg/L	0.00322	0.5072	mg/L	0.00322	0.63%
Cr 267.716†	2189.9	0.4956	mg/L	0.00501	0.4956	mg/L	0.00501	1.01%
Cu 324.752†	123108.4	0.5052	mg/L	0.00305	0.5052	mg/L	0.00305	0.60%
Fe 273.955†	2538.6	2.142	mg/L	0.0073	2.142	mg/L	0.0073	0.34%
K 766.490†	28958.8	11.11	mg/L	0.062	11.11	mg/L	0.062	0.55%
Mg 279.077†	11356.0	10.79	mg/L	0.066	10.79	mg/L	0.066	0.61%
Mn 257.610†	19545.7	0.4946	mg/L	0.00308	0.4946	mg/L	0.00308	0.62%
Mo 202.031†	29.4	0.00238	mg/L	0.000445	0.00238	mg/L	0.000445	18.66%
Na 589.592†	70658.4	10.49	mg/L	0.064	10.49	mg/L	0.064	0.61%
Na 330.237†	242.7	11.81	mg/L	0.228	11.81	mg/L	0.228	1.93%
Ni 231.604†	934.9	0.4994	mg/L	0.00397	0.4994	mg/L	0.00397	0.79%
Pb 220.353†	14920.6	2.128	mg/L	0.0079	2.128	mg/L	0.0079	0.37%
Sb 206.836†	-9.7	-0.01211	mg/L	0.000661	-0.01211	mg/L	0.000661	5.46%
Se 196.026†	1896.4	2.278	mg/L	0.0060	2.278	mg/L	0.0060	0.26%
Si 288.158†	0.0	0.00443	mg/L	0.006046	0.00443	mg/L	0.006046	136.42%
Sn 189.927†	-14.1	-0.00386	mg/L	0.001333	-0.00386	mg/L	0.001333	34.55%
Sr 421.552†	234370.4	0.5148	mg/L	0.00271	0.5148	mg/L	0.00271	0.53%
Ti 334.903†	9.2	0.00000	mg/L	0.000474	0.00000	mg/L	0.000474	>999.9%
Tl 190.801†	3457.3	2.140	mg/L	0.0053	2.140	mg/L	0.0053	0.25%
V 292.402†	70493.0	0.5269	mg/L	0.00139	0.5269	mg/L	0.00139	0.26%
Zn 206.200†	1293.1	0.5071	mg/L	0.00300	0.5071	mg/L	0.00300	0.59%

Sequence No.: 42
Sample ID: CV 5

Dilution: 1X

Autosampler Location: 7
Date Collected: 5/29/2012 6:27:29 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1826694.1	95.45	%	0.328				0.34%
ScR 361.383	195414.9	99.48	%	0.355				0.36%
Ag 328.068†	201598.4	0.9815	mg/L	0.00825	0.9815	mg/L	0.00825	0.84%
Al 308.215†	2745.2	2.059	mg/L	0.0017	2.059	mg/L	0.0017	0.08%
As 188.979†	2600.8	2.041	mg/L	0.0114	2.041	mg/L	0.0114	0.56%
B 249.677†	1634.2	0.9750	mg/L	0.00636	0.9750	mg/L	0.00636	0.65%
Ba 233.527†	6943.7	0.9643	mg/L	0.00317	0.9643	mg/L	0.00317	0.33%
Be 313.042†	275940.7	0.9828	mg/L	0.00268	0.9828	mg/L	0.00268	0.27%
Ca 317.933†	21828.6	2.064	mg/L	0.0033	2.064	mg/L	0.0033	0.16%
Cd 228.802†	49705.4	1.016	mg/L	0.0059	1.016	mg/L	0.0059	0.58%
Co 228.616†	46013.5	0.9772	mg/L	0.00782	0.9772	mg/L	0.00782	0.80%
Cr 267.716†	4265.3	0.9660	mg/L	0.00262	0.9660	mg/L	0.00262	0.27%
Cu 324.752†	251470.9	1.031	mg/L	0.0091	1.031	mg/L	0.0091	0.89%
Fe 273.955†	2488.5	2.099	mg/L	0.0089	2.099	mg/L	0.0089	0.42%
K 766.490†	54087.2	20.76	mg/L	0.106	20.76	mg/L	0.106	0.51%
Mg 279.077†	2229.1	2.121	mg/L	0.0109	2.121	mg/L	0.0109	0.51%
Mn 257.610†	38261.4	0.9678	mg/L	0.00280	0.9678	mg/L	0.00280	0.29%
Mo 202.031†	10278.9	1.015	mg/L	0.0039	1.015	mg/L	0.0039	0.38%
Na 589.592†	333896.7	49.55	mg/L	0.083	49.55	mg/L	0.083	0.17%
Na 330.237†	1072.0	52.99	mg/L	0.289	52.99	mg/L	0.289	0.54%
Ni 231.604†	1835.7	0.9832	mg/L	0.00129	0.9832	mg/L	0.00129	0.13%
Pb 220.353†	14031.9	2.002	mg/L	0.0190	2.002	mg/L	0.0190	0.95%
Sb 206.836†	2775.8	2.246	mg/L	0.0077	2.246	mg/L	0.0077	0.34%
Se 196.026†	1655.6	1.988	mg/L	0.0146	1.988	mg/L	0.0146	0.73%
Si 288.158†	2879.0	2.333	mg/L	0.0066	2.333	mg/L	0.0066	0.28%
Sn 189.927†	3134.9	0.9872	mg/L	0.00416	0.9872	mg/L	0.00416	0.42%
Sr 421.552†	451123.7	0.9909	mg/L	0.00688	0.9909	mg/L	0.00688	0.69%
Ti 334.903†	19930.5	1.043	mg/L	0.0011	1.043	mg/L	0.0011	0.11%
Tl 190.801†	3192.1	1.968	mg/L	0.0049	1.968	mg/L	0.0049	0.25%
V 292.402†	133660.9	1.005	mg/L	0.0125	1.005	mg/L	0.0125	1.24%
Zn 206.200†	2624.5	1.028	mg/L	0.0022	1.028	mg/L	0.0022	0.21%

Sequence No.: 43
Sample ID: CB 6

Autosampler Location: 1
Date Collected: 5/29/2012 6:33:31 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	182.0 kPa	0.55 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1863841.4	97.39	%	0.676				0.69%
ScR 361.383	194624.0	99.08	%	0.815				0.82%
Ag 328.068†	115.9	0.00056	mg/L	0.000173	0.00056	mg/L	0.000173	30.66%
Al 308.215†	-5.4	-0.00415	mg/L	0.001709	-0.00415	mg/L	0.001709	41.22%
As 188.979†	-0.3	-0.00025	mg/L	0.001274	-0.00025	mg/L	0.001274	508.68%
B 249.677†	8.0	0.00477	mg/L	0.002471	0.00477	mg/L	0.002471	51.81%
Ba 233.527†	6.3	0.00088	mg/L	0.000372	0.00088	mg/L	0.000372	42.51%
Be 313.042†	36.6	0.00013	mg/L	0.000038	0.00013	mg/L	0.000038	29.53%
Ca 317.933†	25.0	0.00237	mg/L	0.000254	0.00237	mg/L	0.000254	10.74%
Cd 228.802†	0.6	0.00001	mg/L	0.000066	0.00001	mg/L	0.000066	521.18%
Co 228.616†	2.7	0.00006	mg/L	0.000152	0.00006	mg/L	0.000152	269.30%
Cr 267.716†	-3.9	-0.00088	mg/L	0.001844	-0.00088	mg/L	0.001844	209.06%
Cu 324.752†	-32.6	-0.00013	mg/L	0.000086	-0.00013	mg/L	0.000086	64.41%
Fe 273.955†	1.3	0.00107	mg/L	0.000661	0.00107	mg/L	0.000661	61.68%
K 766.490†	97.5	0.03743	mg/L	0.007964	0.03743	mg/L	0.007964	21.28%
Mg 279.077†	-0.6	-0.00055	mg/L	0.001633	-0.00055	mg/L	0.001633	297.15%
Mn 257.610†	11.6	0.00029	mg/L	0.000106	0.00029	mg/L	0.000106	35.92%
Mo 202.031†	6.8	0.00067	mg/L	0.000194	0.00067	mg/L	0.000194	28.88%
Na 589.592†	332.8	0.04938	mg/L	0.002080	0.04938	mg/L	0.002080	4.21%
Na 330.237†	0.4	0.02000	mg/L	0.262009	0.02000	mg/L	0.262009	>999.9%
Ni 231.604†	-3.6	-0.00195	mg/L	0.002490	-0.00195	mg/L	0.002490	127.46%
Pb 220.353†	5.0	0.00071	mg/L	0.000237	0.00071	mg/L	0.000237	33.55%
Sb 206.836†	-4.5	-0.00360	mg/L	0.003765	-0.00360	mg/L	0.003765	104.68%
Se 196.026†	0.9	0.00111	mg/L	0.010577	0.00111	mg/L	0.010577	948.74%
Si 288.158†	7.4	0.00602	mg/L	0.005886	0.00602	mg/L	0.005886	97.77%
Sn 189.927†	2.6	0.00083	mg/L	0.000555	0.00083	mg/L	0.000555	67.17%
Sr 421.552†	20.9	0.00005	mg/L	0.000131	0.00005	mg/L	0.000131	285.04%
Ti 334.903†	11.6	0.00061	mg/L	0.000714	0.00061	mg/L	0.000714	117.43%
Tl 190.801†	3.1	0.00193	mg/L	0.001791	0.00193	mg/L	0.001791	92.60%
V 292.402†	14.8	0.00011	mg/L	0.000044	0.00011	mg/L	0.000044	40.68%
Zn 206.200†	-1.3	-0.00049	mg/L	0.000505	-0.00049	mg/L	0.000505	102.77%

end package

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 5.23.12 **Analyst:** BLW **Page:** 1 of 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		std 0			2936-2
		1			2935-1
		2			1 -2
		3			2936-11
		4			2935-4
		rinse sample			
		std 0			
		ICV			2925-2
		ICB			
		CCV1			
		CCB1			
		low check			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		CCV2			
		CCB2			
		new I.S.		✓	2939-1
		UV05 MB1	REW	2	Zn 8
		MB2			
		UV06 MB1			
		MB2			
		MB2sph		✓	

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 5.23.12 **Analyst:** BW **Page:** 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		UV06 MB1sph	REW	2	
		UV05 MB2sph			
		MB1sph			
	✓	A			Zn high - rerun 1/10
		CCV3			
		CCB3			Pb high
		UV14 MB1	REW	2	
		MB2			
		MB2sph			Cu 122%
		MB1sph		✓	
		A			
		B			
		C			
		UV05 B			
	✓	UV06 A			Zn high - rerun 1/10
	✓	B			↓
		CCV4			
		CCB4			Pb high
		UV16 MB1	REW	2	rerun Pb
		MB2			
		MB2sph		✓	
		MB1sph			
		A			
		UV14 D			

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 5.23.12 **Analyst:** RW **Page:** 3 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		UV14 E	RW	2	
		F			
		G			
		H		1	
		CCV5			
		CCB5			
		UU62 MB1	RW	2	
		MB1sph		✓	
		Jdup		✓	
		J			
		Jsph		✓	
		K			
		UU27 G			
		UV16 B			
		C			
		D			
		CCV6			53Cr high
		CCB6			V2 53Cr high
		UU52 MB1	SW	20	
		MB1sph		✓	
		Cdup		✓	
		C			
		Csph			Sb 10% CAF
		Cpost		✓	0.06 ml spk #1, spk #2

UU52 : 02070

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 5.23.12 **Analyst:** BW **Page:** 4 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		UU52 A	SWN	20	
		B			
		D			
		E			
		CCV7			
		CCB7			V2 ^{53}Cr high
		UU31 MB	REN	2	
		MBspk			
		Adup			
		A			
		Aspk			
		UU52 F	SWN	20	
		G			
		H			
		I			
		J			
		CCV8			
		CCB8			end package
		UT84 Adup	REN	20	Cr
		A			
		Aspk			
		B			
		C			
		D		50	

5/24/12

UU52 : 020771

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ~~ICP-MS~~ GFA CVA **Analysis Date:** 5.23.12

M1	Analyst BWO 5.24	Peer JWB 5.24.12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	see log
ICB/CCB	✓	✓	↓
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	see log
Matrix Spikes	✓	✓	UU52
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	see log UV14
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	UU52, UV14

UU52:02072

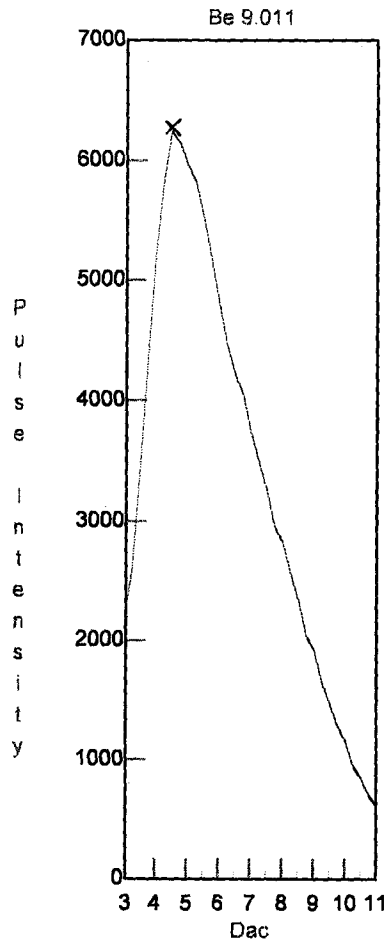
1st

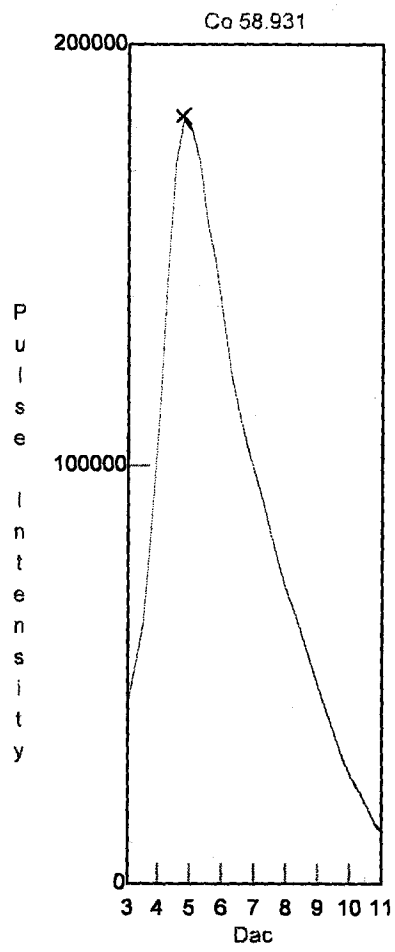
Instrument Tuning Report

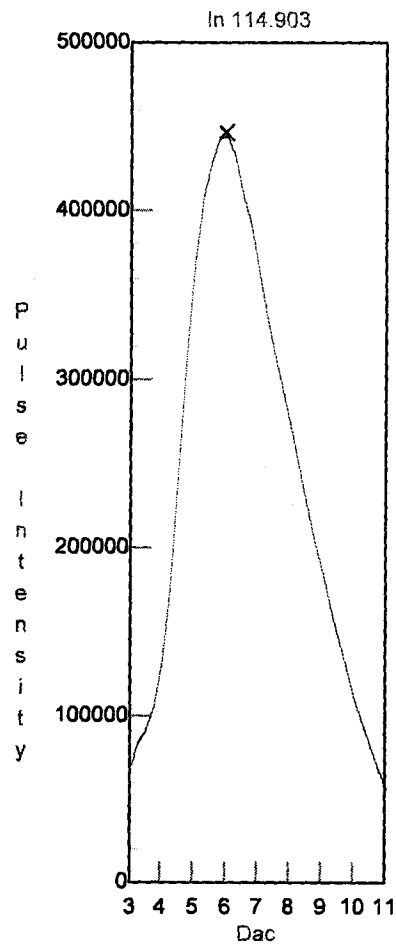
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

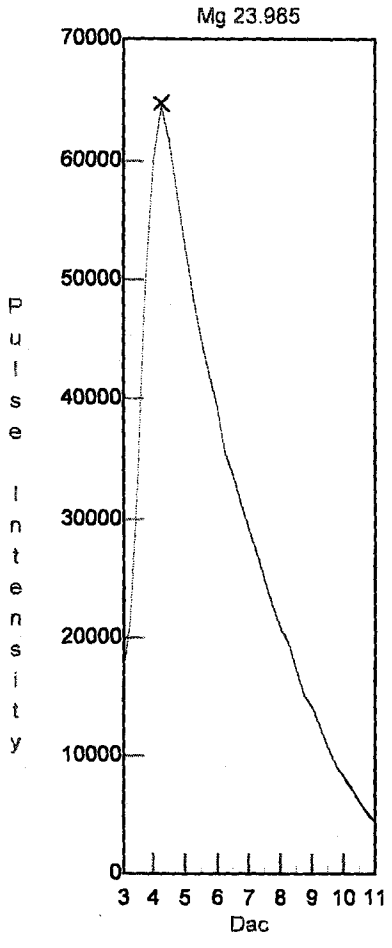
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.974	2019	2156	0.707	
Mg	23.985	23.979	5662	2274	0.711	
Co	58.933	58.929	14156	2539	0.705	✓
In	114.904	114.928	27789	2983	0.685	
Pb	207.977	207.976	50433	3738	0.706	

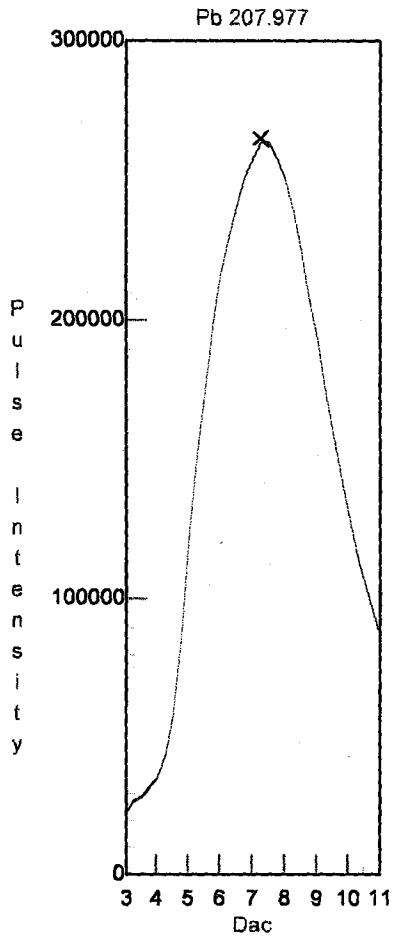
05.23.12

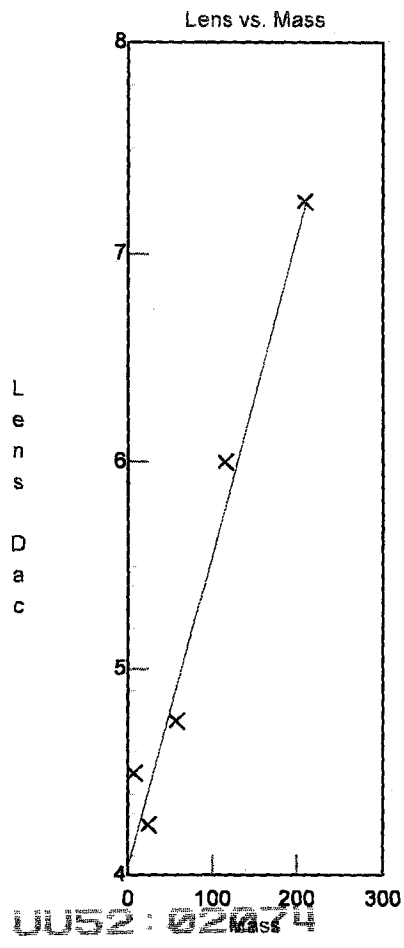












Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, May 23, 2012 15:40:29
Sample Description:
Sample File: 1120.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.746
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

neb 0.97

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	47069.033	656.817	1.395
	In	115	336669.059	1679.553	0.499
	Pb	208	213023.952	1239.249	0.582
⌈>	Ba	138	266659.234	3030.305	1.136
⌊	Ba++	69	0.013	0.000	2.029
⌈>	Ce	140	327444.236	4819.690	1.472
⌊	CeO	156	0.027	0.001	2.662
	Bkgd	220	3.500	1.046	29.881

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 16:00:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				473160	1
[	Be	9		ug/L				2	65
	C	13		mg/L				5976	1
	Cl	37		mg/L				2184345	0
[>	Sc	45		ug/L				249769	0
[	V	51		ug/L				1708	10
[	V-1	51		ug/L				10262	3
[	Cr	52		ug/L				6499	0
[	Cr	53		ug/L				3469	4
[	Mn	55		ug/L				733	6
[	Co	59		ug/L				106	3
[>	Ge	72		ug/L				317543	1
[	Ni	60		ug/L				99	10
[	Ni	62		ug/L				62	13
[	Cu	63		ug/L				229	3
[	Cu	65		ug/L				116	23
[	Zn	66		ug/L				545	6
[	Zn	67		ug/L				251	7
[	Zn	68		ug/L				7815	2
[	As	75		ug/L				730	2
[	As-1	75		ug/L				10537	0
[	Se	82		ug/L				-5	223
[	Se	78		ug/L				10699	0
[	Mo	98		ug/L				2478	27
	Y	89		ug/L				288507	0
	Kr	83		ug/L				371	2
[>	In	115		ug/L				339261	0
[	Ag	107		ug/L				72	20
[	Cd	111		ug/L				158	7
[	Cd	114		ug/L				25	15
[	Sb	121		ug/L				64	14
[	Sb	123		ug/L				44	12
[	Ba	135		ug/L				25	19
[	Ba	137		ug/L				41	30
[>	Tb	159		ug/L				406804	1
[	Tl	205		ug/L				57	12
[	Pb	208		ug/L				1094	5
[	Bi	209		ug/L				323780	1
[	Th	232		ug/L				267	23
[	U	238		ug/L				42	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 16:06:53
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			473160	472524	1
[	Be	9	10.000	ug/L	0.139	1	2	4520	1
	C	13		mg/L			5976	6309	2
	Cl	37		mg/L			2184345	2235079	0
[>	Sc	45		ug/L			249769	251726	1
[	V	51	10.000	ug/L	0.158	1	1708	109311	1
[	V-1	51	10.000	ug/L	0.227	2	10262	119464	1
[	Cr	52	10.000	ug/L	0.153	1	6499	102744	0
[	Cr	53	10.000	ug/L	0.326	3	3469	14857	1
[	Mn	55	10.000	ug/L	0.149	1	733	158924	0
[	Co	59	10.000	ug/L	0.139	1	106	122109	0
[>	Ge	72		ug/L			317543	322173	0
[	Ni	60	10.000	ug/L	0.126	1	99	26202	0
[	Ni	62	10.000	ug/L	0.307	3	62	4022	3
[	Cu	63	10.000	ug/L	0.095	0	229	59308	0
[	Cu	65	10.000	ug/L	0.152	1	116	28412	1
[	Zn	66	10.000	ug/L	0.067	0	545	18243	0
[	Zn	67	10.000	ug/L	0.335	3	251	3205	2
[	Zn	68	10.000	ug/L	0.171	1	7815	20312	1
[	As	75	10.000	ug/L	0.260	2	730	18613	2
[	As-1	75	10.000	ug/L	0.285	2	10537	28227	1
[	Se	82	10.000	ug/L	0.227	2	-5	1967	2
[	Se	78	10.000	ug/L	0.448	4	10699	15510	0
[	Mo	98	10.000	ug/L	0.131	1	2478	65320	0
	Y	89		ug/L			288507	294426	1
	Kr	83		ug/L			371	368	2
[>	In	115		ug/L			339261	340798	0
[	Ag	107	10.000	ug/L	0.100	1	72	113324	1
[	Cd	111	10.000	ug/L	0.044	0	158	27558	0
[	Cd	114	10.000	ug/L	0.069	0	25	64368	0
[	Sb	121	10.000	ug/L	0.087	0	64	92077	1
[	Sb	123	10.000	ug/L	0.100	1	44	69677	1
[	Ba	135	10.000	ug/L	0.109	1	25	23011	0
[	Ba	137	10.000	ug/L	0.049	0	41	40179	0
[>	Tb	159		ug/L			406804	411545	0
[	Tl	205	10.000	ug/L	0.118	1	57	279431	1
[	Pb	208	10.000	ug/L	0.022	0	1094	385993	0
[	Bi	209		ug/L			323780	325486	0
[	Th	232	10.000	ug/L	0.024	0	267	430666	0
[	U	238	10.000	ug/L	0.123	1	42	463283	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 16:13:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			473160	480741	0
[	Be	9	19.937	ug/L	0.075	0	2	9054	1
	C	13		mg/L			5976	6012	0
	Cl	37		mg/L			2184345	2246774	0
[>	Sc	45		ug/L			249769	258255	1
[	V	51	20.034	ug/L	0.094	0	1708	224441	1
[	V-1	51	20.031	ug/L	0.157	0	10262	236256	1
[	Cr	52	19.964	ug/L	0.187	0	6499	202376	2
[	Cr	53	19.956	ug/L	0.267	1	3469	26647	1
[	Mn	55	20.046	ug/L	0.357	1	733	329090	2
[	Co	59	20.017	ug/L	0.375	1	106	251460	0
[>	Ge	72		ug/L			317543	327331	1
[	Ni	60	20.049	ug/L	0.215	1	99	53799	0
[	Ni	62	19.908	ug/L	0.090	0	62	7927	0
[	Cu	63	20.010	ug/L	0.072	0	229	120581	0
[	Cu	65	19.994	ug/L	0.424	2	116	57528	1
[	Zn	66	20.002	ug/L	0.226	1	545	36521	0
[	Zn	67	20.163	ug/L	0.432	2	251	6506	1
[	Zn	68	20.019	ug/L	0.140	0	7815	33337	0
[	As	75	19.985	ug/L	0.135	0	730	36934	1
[	As-1	75	20.009	ug/L	0.166	0	10537	46577	1
[	Se	82	20.027	ug/L	0.241	1	-5	4030	2
[	Se	78	20.121	ug/L	0.383	1	10699	20782	1
[	Mo	98	20.074	ug/L	0.041	0	2478	132587	1
	Y	89		ug/L			288507	304824	1
	Kr	83		ug/L			371	370	2
[>	In	115		ug/L			339261	351452	2
[	Ag	107	19.977	ug/L	0.456	2	72	232240	1
[	Cd	111	20.037	ug/L	0.430	2	158	57187	2
[	Cd	114	19.968	ug/L	0.457	2	25	131667	2
[	Sb	121	20.021	ug/L	0.154	0	64	190828	1
[	Sb	123	19.965	ug/L	0.159	0	44	142398	1
[	Ba	135	20.003	ug/L	0.171	0	25	47469	2
[	Ba	137	19.978	ug/L	0.233	1	41	82375	2
[>	Tb	159		ug/L			406804	420426	1
[	Tl	205	20.039	ug/L	0.250	1	57	576479	2
[	Pb	208	20.022	ug/L	0.136	0	1094	791919	1
[	Bi	209		ug/L			323780	334715	0
[	Th	232	20.102	ug/L	0.188	0	267	902415	1
[	U	238	20.066	ug/L	0.275	1	42	962442	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 16:19:09
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			473160	494273	1
[	Be	9	49.916	ug/L	1.441	2	2	23098	0
	C	13		mg/L			5976	5559	1
	Cl	37		mg/L			2184345	2264545	0
[>	Sc	45		ug/L			249769	264324	1
[	V	51	50.191	ug/L	0.734	1	1708	583796	0
[	V-1	51	50.203	ug/L	0.912	1	10262	601631	0
[	Cr	52	50.060	ug/L	0.538	1	6499	511963	0
[	Cr	53	50.106	ug/L	1.163	2	3469	63555	0
[	Mn	55	50.173	ug/L	1.508	3	733	856388	1
[	Co	59	50.177	ug/L	1.185	2	106	656608	0
[>	Ge	72		ug/L			317543	337182	0
[	Ni	60	49.948	ug/L	0.934	1	99	137191	1
[	Ni	62	50.110	ug/L	0.680	1	62	20678	0
[	Cu	63	49.966	ug/L	0.421	0	229	308742	0
[	Cu	65	49.886	ug/L	1.011	2	116	146003	1
[	Zn	66	50.079	ug/L	0.812	1	545	94062	1
[	Zn	67	49.819	ug/L	0.889	1	251	15885	1
[	Zn	68	50.079	ug/L	0.578	1	7815	73962	0
[	As	75	49.934	ug/L	0.305	0	730	93292	0
[	As-1	75	49.983	ug/L	0.450	0	10537	102931	0
[	Se	82	50.110	ug/L	0.741	1	-5	10511	0
[	Se	78	50.307	ug/L	1.078	2	10699	37268	0
[	Mo	98	50.272	ug/L	0.207	0	2478	347448	0
	Y	89		ug/L			288507	312562	2
	Kr	83		ug/L			371	381	6
[>	In	115		ug/L			339261	366069	0
[	Ag	107	49.940	ug/L	0.716	1	72	601158	1
[	Cd	111	49.866	ug/L	0.509	1	158	146048	0
[	Cd	114	50.129	ug/L	0.195	0	25	348792	0
[	Sb	121	49.939	ug/L	0.063	0	64	492724	0
[	Sb	123	49.910	ug/L	0.343	0	44	367437	0
[	Ba	135	50.126	ug/L	0.713	1	25	125442	0
[	Ba	137	50.068	ug/L	0.847	1	41	216416	1
[>	Tb	159		ug/L			406804	436529	0
[	Tl	205	50.205	ug/L	0.430	0	57	1530843	1
[	Pb	208	50.112	ug/L	0.284	0	1094	2079392	0
[	Bi	209		ug/L			323780	346682	1
[	Th	232	49.925	ug/L	0.455	0	267	2309310	0
[	U	238	49.875	ug/L	0.208	0	42	2452672	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 16:25:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			473160	473998	0
[	Be	9	99.684	ug/L	0.500	0	2	43789	1
	C	13		mg/L			5976	6261	1
	Cl	37		mg/L			2184345	2265913	0
[>	Sc	45		ug/L			249769	251508	1
[	V	51	100.422	ug/L	0.968	0	1708	1125632	0
[	V-1	51	100.385	ug/L	0.817	0	10262	1149145	0
[	Cr	52	100.344	ug/L	1.440	1	6499	981048	0
[	Cr	53	100.231	ug/L	1.244	1	3469	118377	0
[	Mn	55	100.300	ug/L	1.180	1	733	1645215	1
[	Co	59	100.027	ug/L	0.619	0	106	1246825	1
[>	Ge	72		ug/L			317543	323388	0
[	Ni	60	99.740	ug/L	0.840	0	99	260419	1
[	Ni	62	99.683	ug/L	1.164	1	62	38979	0
[	Cu	63	99.584	ug/L	1.575	1	229	581915	2
[	Cu	65	99.906	ug/L	1.008	1	116	279461	1
[	Zn	66	99.632	ug/L	1.266	1	545	176767	0
[	Zn	67	99.397	ug/L	1.976	1	251	29554	1
[	Zn	68	99.676	ug/L	0.507	0	7815	131976	0
[	As	75	100.217	ug/L	0.733	0	730	180123	0
[	As-1	75	100.069	ug/L	1.141	1	10537	187301	0
[	Se	82	99.746	ug/L	0.781	0	-5	19905	1
[	Se	78	99.231	ug/L	1.410	1	10699	58687	0
[	Mo	98	100.076	ug/L	0.863	0	2478	662553	1
	Y	89		ug/L			288507	297583	0
	Kr	83		ug/L			371	386	0
[>	In	115		ug/L			339261	342029	0
[	Ag	107	100.171	ug/L	0.591	0	72	1133044	0
[	Cd	111	100.509	ug/L	0.884	0	158	279627	0
[	Cd	114	100.196	ug/L	0.927	0	25	655653	1
[	Sb	121	100.777	ug/L	0.879	0	64	953647	1
[	Sb	123	100.959	ug/L	0.083	0	44	717342	0
[	Ba	135	100.432	ug/L	2.310	2	25	238229	1
[	Ba	137	100.434	ug/L	0.787	0	41	411545	0
[>	Tb	159		ug/L			406804	416855	1
[	Tl	205	99.044	ug/L	0.744	0	57	2794693	1
[	Pb	208	99.300	ug/L	1.184	1	1094	3843613	0
[	Bi	209		ug/L			323780	322000	0
[	Th	232	100.037	ug/L	2.042	2	267	4423303	1
[	U	238	100.187	ug/L	0.659	0	42	4734148	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 16:31:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			473160	487276	2
[	Be	9	0.011	ug/L	0.013	123	2	7	77
	C	13		mg/L			5976	5761	1
	Cl	37		mg/L			2184345	2316310	0
[>	Sc	45		ug/L			249769	264187	0
[	V	51	0.047	ug/L	0.024	50	1708	2361	12
[	V-1	51	-0.196	ug/L	0.007	3	10262	8516	0
[	Cr	52	0.061	ug/L	0.016	26	6499	7499	2
[	Cr	53	-0.709	ug/L	0.071	10	3469	2815	2
[	Mn	55	0.039	ug/L	0.003	7	733	1439	3
[	Co	59	0.010	ug/L	0.007	70	106	246	38
[>	Ge	72		ug/L			317543	337343	0
[	Ni	60	0.014	ug/L	0.009	65	99	142	17
[	Ni	62	0.012	ug/L	0.014	118	62	71	8
[	Cu	63	0.014	ug/L	0.010	74	229	327	19
[	Cu	65	0.012	ug/L	0.008	68	116	157	15
[	Zn	66	0.050	ug/L	0.014	27	545	671	3
[	Zn	67	-0.073	ug/L	0.024	33	251	244	2
[	Zn	68	0.192	ug/L	0.041	21	7815	8551	0
[	As	75	-0.033	ug/L	0.007	22	730	714	1
[	As-1	75	0.265	ug/L	0.092	34	10537	11680	0
[	Se	82	-0.052	ug/L	0.027	52	-5	-16	34
[	Se	78	0.971	ug/L	0.321	33	10699	11854	0
[	Mo	98	-0.310	ug/L	0.015	4	2478	500	21
	Y	89		ug/L			288507	312421	0
	Kr	83		ug/L			371	382	1
[>	In	115		ug/L			339261	364930	1
[	Ag	107	0.031	ug/L	0.010	32	72	452	25
[	Cd	111	0.015	ug/L	0.008	55	158	214	10
[	Cd	114	0.011	ug/L	0.006	50	25	104	36
[	Sb	121	0.128	ug/L	0.034	26	64	1357	23
[	Sb	123	0.122	ug/L	0.029	23	44	974	21
[	Ba	135	0.018	ug/L	0.009	52	25	71	31
[	Ba	137	0.017	ug/L	0.009	51	41	117	30
[>	Tb	159		ug/L			406804	433391	0
[	Tl	205	0.031	ug/L	0.014	44	57	969	41
[	Pb	208	0.024	ug/L	0.011	45	1094	2114	20
[	Bi	209		ug/L			323780	345574	0
[	Th	232	0.064	ug/L	0.014	22	267	3221	19
[	U	238	0.015	ug/L	0.007	47	42	802	44

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 16:44:40
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				477870	0
[	Be	9		ug/L				3	78
	C	13		mg/L				5654	1
	Cl	37		mg/L				2331174	0
[>	Sc	45		ug/L				262568	0
[	V	51		ug/L				2402	4
[	V-1	51		ug/L				8286	2
[	Cr	52		ug/L				7360	2
[	Cr	53		ug/L				2713	2
[	Mn	55		ug/L				1178	4
[	Co	59		ug/L				123	9
[>	Ge	72		ug/L				333920	1
[	Ni	60		ug/L				109	6
[	Ni	62		ug/L				54	12
[	Cu	63		ug/L				248	15
[	Cu	65		ug/L				118	4
[	Zn	66		ug/L				695	8
[	Zn	67		ug/L				255	3
[	Zn	68		ug/L				8462	0
[	As	75		ug/L				693	3
[	As-1	75		ug/L				11505	0
[	Se	82		ug/L				-5	426
[	Se	78		ug/L				11713	0
[	Mo	98		ug/L				207	5
	Y	89		ug/L				309412	0
	Kr	83		ug/L				376	5
[>	In	115		ug/L				365357	0
[	Ag	107		ug/L				101	3
[	Cd	111		ug/L				166	12
[	Cd	114		ug/L				27	9
[	Sb	121		ug/L				240	11
[	Sb	123		ug/L				169	3
[	Ba	135		ug/L				32	13
[	Ba	137		ug/L				65	11
[>	Tb	159		ug/L				430587	0
[	Tl	205		ug/L				147	12
[	Pb	208		ug/L				1493	2
[	Bi	209		ug/L				345109	0
[	Th	232		ug/L				719	5
[	U	238		ug/L				97	5

Quantitative Analysis - Calibration Report

Sample Date/Time: Wednesday, May 23, 2012 16:44:40
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0009	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0445	10	20	50	100	
V-1	51	1.0000	0.0451	10	20	50	100	
Cr	52	1.0000	0.0386	10	20	50	100	
Cr	53	1.0000	0.0046	10	20	50	100	
Mn	55	1.0000	0.0652	10	20	50	100	
Co	59	1.0000	0.0496	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0081	10	20	50	100	
Ni	62	1.0000	0.0012	10	20	50	100	
Cu	63	1.0000	0.0181	10	20	50	100	
Cu	65	1.0000	0.0086	10	20	50	100	
Zn	66	1.0000	0.0055	10	20	50	100	
Zn	67	0.9999	0.0009	10	20	50	100	
Zn	68	1.0000	0.0038	10	20	50	100	
As	75	1.0000	0.0055	10	20	50	100	
As-1	75	1.0000	0.0055	10	20	50	100	
Se	82	1.0000	0.0006	10	20	50	100	
Se	78	0.9999	0.0015	10	20	50	100	
Mo	98	1.0000	0.0204	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0331	10	20	50	100	
Cd	111	1.0000	0.0081	10	20	50	100	
Cd	114	1.0000	0.0191	10	20	50	100	
Sb	121	0.9999	0.0277	10	20	50	100	
Sb	123	0.9998	0.0208	10	20	50	100	
Ba	135	1.0000	0.0069	10	20	50	100	
Ba	137	1.0000	0.0120	10	20	50	100	
Tb	159							
Tl	205	0.9998	0.0677	10	20	50	100	
Pb	208	0.9999	0.0928	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1061	10	20	50	100	
U	238	1.0000	0.1134	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 16:51:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			477870	490658	1
⌊	Be	9	50.329	ug/L	0.667	1	3	22884	1
	C	13		mg/L			5654	7550	1
	Cl	37		mg/L			2331174	2345847	0
⌈>	Sc	45		ug/L			262568	267637	1
|	V	51	48.598	ug/L	0.200	0	2402	581238	1
|	V-1	51	48.631	ug/L	0.105	0	8286	595547	1
|	Cr	52	49.119	ug/L	0.567	1	7360	515132	1
|	Cr	53	49.203	ug/L	0.361	0	2713	62785	2
|	Mn	55	48.501	ug/L	0.409	0	1178	847437	2
⌊	Co	59	48.981	ug/L	0.841	1	123	649648	0
⌈>	Ge	72		ug/L			333920	341258	0
|	Ni	60	49.563	ug/L	0.460	0	109	136610	0
|	Ni	62	49.332	ug/L	0.171	0	54	20378	0
|	Cu	63	49.056	ug/L	0.537	1	248	302605	0
|	Cu	65	48.999	ug/L	0.362	0	118	144692	0
|	Zn	66	48.273	ug/L	0.483	1	695	90807	0
|	Zn	67	49.539	ug/L	0.660	1	255	15670	1
|	Zn	68	48.143	ug/L	0.594	1	8462	71858	1
|	As	75	49.584	ug/L	0.224	0	693	94363	0
|	As-1	75	48.738	ug/L	0.216	0	11505	102511	0
|	Se	82	77.878	ug/L	0.453	0	-5	16398	0
|	Se	78	76.298	ug/L	1.121	1	11713	50749	1
⌊	Mo	98	49.643	ug/L	0.953	1	207	345716	2
	Y	89		ug/L			309412	313650	0
	Kr	83		ug/L			376	387	1
⌈>	In	115		ug/L			365357	362326	1
|	Ag	107	49.851	ug/L	0.400	0	101	597386	1
|	Cd	111	49.256	ug/L	0.545	1	166	145259	2
|	Cd	114	48.851	ug/L	0.251	0	27	338655	1
|	Sb	121	48.941	ug/L	0.752	1	240	490800	1
|	Sb	123	49.006	ug/L	0.329	0	169	368995	0
|	Ba	135	49.185	ug/L	1.163	2	32	123600	1
⌊	Ba	137	49.321	ug/L	0.412	0	65	214139	1
⌈>	Tb	159		ug/L			430587	435941	0
|	Tl	205	50.663	ug/L	0.458	0	147	1495146	1
|	Pb	208	50.491	ug/L	0.289	0	1493	2044953	0
|	Bi	209		ug/L			345109	346330	0
|	Th	232	49.542	ug/L	0.446	0	719	2291656	0
⌊	U	238	49.858	ug/L	0.616	1	97	2463790	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 16:58:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	476869	0
[	Be	9	0.002	ug/L	0.004	227	3	4	45
	C	13		mg/L			5654	5906	1
	Cl	37		mg/L			2331174	2362729	1
[>	Sc	45		ug/L			262568	259437	0
[	V	51	-0.013	ug/L	0.016	125	2402	2220	7
[	V-1	51	-0.010	ug/L	0.016	164	8286	8071	2
[	Cr	52	-0.015	ug/L	0.005	34	7360	7126	1
[	Cr	53	-0.005	ug/L	0.075	1654	2713	2676	3
[	Mn	55	-0.018	ug/L	0.004	22	1178	864	8
[	Co	59	0.002	ug/L	0.002	100	123	150	20
[>	Ge	72		ug/L			333920	332412	0
[	Ni	60	-0.003	ug/L	0.001	44	109	101	3
[	Ni	62	0.030	ug/L	0.006	20	54	65	3
[	Cu	63	-0.001	ug/L	0.004	442	248	242	10
[	Cu	65	0.000	ug/L	0.003	786	118	119	6
[	Zn	66	-0.121	ug/L	0.013	10	695	472	5
[	Zn	67	-0.128	ug/L	0.027	21	255	215	3
[	Zn	68	-0.161	ug/L	0.022	13	8462	8218	0
[	As	75	0.020	ug/L	0.017	86	693	726	4
[	As-1	75	-0.035	ug/L	0.100	287	11505	11391	1
[	Se	82	-0.006	ug/L	0.076	1204	-5	-6	232
[	Se	78	-0.191	ug/L	0.301	157	11713	11566	1
[	Mo	98	0.005	ug/L	0.007	146	207	240	20
	Y	89		ug/L			309412	303762	0
	Kr	83		ug/L			376	377	4
[>	In	115		ug/L			365357	356275	1
[	Ag	107	0.012	ug/L	0.007	56	101	240	32
[	Cd	111	0.008	ug/L	0.003	38	166	185	4
[	Cd	114	0.004	ug/L	0.002	59	27	54	29
[	Sb	121	0.022	ug/L	0.011	51	240	446	24
[	Sb	123	0.021	ug/L	0.013	60	169	317	28
[	Ba	135	0.004	ug/L	0.003	81	32	41	18
[	Ba	137	-0.003	ug/L	0.003	114	65	52	23
[>	Tb	159		ug/L			430587	420529	1
[	Tl	205	0.011	ug/L	0.005	49	147	449	33
[	Pb	208	0.005	ug/L	0.005	90	1493	1673	11
[	Bi	209		ug/L			345109	340783	0
[	Th	232	0.022	ug/L	0.008	34	719	1680	20
[	U	238	0.006	ug/L	0.003	60	97	359	44

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 17:04:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	469254	1
[	Be	9	51.262	ug/L	0.316	0	3	22294	1
	C	13		mg/L			5654	5295	0
	Cl	37		mg/L			2331174	2354500	0
[>	Sc	45		ug/L			262568	255460	1
[	V	51	49.087	ug/L	1.561	3	2402	560238	1
[	V-1	51	49.229	ug/L	1.315	2	8286	575223	1
[	Cr	52	49.713	ug/L	0.940	1	7360	497521	0
[	Cr	53	50.136	ug/L	0.346	0	2713	61012	1
[	Mn	55	48.433	ug/L	0.785	1	1178	807635	0
[	Co	59	49.292	ug/L	0.926	1	123	624040	0
[>	Ge	72		ug/L			333920	327011	0
[	Ni	60	49.661	ug/L	0.981	1	109	131158	1
[	Ni	62	49.977	ug/L	0.511	1	54	19781	0
[	Cu	63	50.116	ug/L	0.801	1	248	296217	0
[	Cu	65	49.766	ug/L	0.535	1	118	140817	0
[	Zn	66	50.319	ug/L	0.675	1	695	90671	0
[	Zn	67	50.598	ug/L	0.281	0	255	15332	1
[	Zn	68	50.727	ug/L	0.776	1	8462	72105	0
[	As	75	50.389	ug/L	0.610	1	693	91878	0
[	As-1	75	50.259	ug/L	0.528	1	11505	100942	0
[	Se	82	49.944	ug/L	0.737	1	-5	10075	0
[	Se	78	49.542	ug/L	0.550	1	11713	35598	0
[	Mo	98	49.828	ug/L	0.533	1	207	332501	0
	Y	89		ug/L			309412	302099	0
	Kr	83		ug/L			376	386	2
[>	In	115		ug/L			365357	348408	0
[	Ag	107	50.316	ug/L	0.788	1	101	579792	1
[	Cd	111	49.933	ug/L	0.400	0	166	141585	0
[	Cd	114	49.793	ug/L	0.310	0	27	331917	1
[	Sb	121	49.547	ug/L	0.616	1	240	477772	0
[	Sb	123	50.183	ug/L	0.433	0	169	363347	0
[	Ba	135	49.533	ug/L	0.270	0	32	119711	0
[	Ba	137	49.505	ug/L	0.391	0	65	206677	0
[>	Tb	159		ug/L			430587	421335	1
[	Tl	205	51.086	ug/L	0.895	1	147	1456924	0
[	Pb	208	50.629	ug/L	0.666	1	1493	1981624	0
[	Bi	209		ug/L			345109	331041	0
[	Th	232	49.579	ug/L	0.963	1	719	2216279	0
[	U	238	50.221	ug/L	0.818	1	97	2398467	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 17:10:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	466536	1
[	Be	9	0.003	ug/L	0.007	238	3	4	68
	C	13		mg/L			5654	5708	2
	Cl	37		mg/L			2331174	2368194	0
[>	Sc	45		ug/L			262568	254681	1
[	V	51	-0.033	ug/L	0.013	39	2402	1950	6
[	V-1	51	0.010	ug/L	0.021	210	8286	8147	1
[	Cr	52	-0.029	ug/L	0.003	11	7360	6852	1
[	Cr	53	0.107	ug/L	0.047	44	2713	2756	2
[	Mn	55	-0.020	ug/L	0.003	12	1178	803	7
[	Co	59	0.002	ug/L	0.004	206	123	145	37
[>	Ge	72		ug/L			333920	324380	1
[	Ni	60	-0.003	ug/L	0.006	210	109	98	16
[	Ni	62	0.004	ug/L	0.026	670	54	54	19
[	Cu	63	-0.002	ug/L	0.003	126	248	229	7
[	Cu	65	0.000	ug/L	0.008	3244	118	116	20
[	Zn	66	-0.094	ug/L	0.013	13	695	509	3
[	Zn	67	-0.139	ug/L	0.031	22	255	207	3
[	Zn	68	-0.227	ug/L	0.047	20	8462	7938	2
[	As	75	0.042	ug/L	0.009	21	693	749	0
[	As-1	75	-0.090	ug/L	0.070	77	11505	11019	2
[	Se	82	-0.077	ug/L	0.011	14	-5	-20	9
[	Se	78	-0.393	ug/L	0.259	65	11713	11190	2
[	Mo	98	0.001	ug/L	0.009	786	207	209	27
	Y	89		ug/L			309412	296782	1
	Kr	83		ug/L			376	398	0
[>	In	115		ug/L			365357	342170	3
[	Ag	107	0.013	ug/L	0.006	49	101	241	31
[	Cd	111	0.003	ug/L	0.006	180	166	165	8
[	Cd	114	0.005	ug/L	0.004	76	27	60	45
[	Sb	121	0.042	ug/L	0.014	33	240	620	22
[	Sb	123	0.043	ug/L	0.012	28	169	462	20
[	Ba	135	0.005	ug/L	0.005	105	32	42	30
[	Ba	137	0.001	ug/L	0.002	223	65	64	12
[>	Tb	159		ug/L			430587	410680	2
[	Tl	205	0.011	ug/L	0.005	42	147	453	30
[	Pb	208	0.011	ug/L	0.005	42	1493	1845	10
[	Bi	209		ug/L			345109	332046	1
[	Th	232	0.032	ug/L	0.010	32	719	2070	22
[	U	238	0.006	ug/L	0.003	48	97	391	38

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 17:16:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	454399	0
[	Be	9	0.240	ug/L	0.051	21	3	104	20
	C	13		mg/L			5654	5522	0
	Cl	37		mg/L			2331174	2375579	0
[>	Sc	45		ug/L			262568	250205	1
[	V	51	0.173	ug/L	0.012	7	2402	4209	1
[	V-1	51	0.249	ug/L	0.020	7	8286	10709	2
[	Cr	52	0.446	ug/L	0.018	4	7360	11317	0
[	Cr	53	0.677	ug/L	0.034	5	2713	3357	1
[	Mn	55	0.453	ug/L	0.014	3	1178	8514	1
[	Co	59	0.200	ug/L	0.004	2	123	2593	2
[>	Ge	72		ug/L			333920	317664	1
[	Ni	60	0.516	ug/L	0.025	4	109	1427	4
[	Ni	62	0.527	ug/L	0.047	8	54	253	5
[	Cu	63	0.555	ug/L	0.010	1	248	3420	1
[	Cu	65	0.548	ug/L	0.017	3	118	1617	1
[	Zn	66	4.241	ug/L	0.074	1	695	8029	0
[	Zn	67	3.763	ug/L	0.039	1	255	1332	2
[	Zn	68	4.018	ug/L	0.136	3	8462	12959	0
[	As	75	0.278	ug/L	0.022	8	693	1148	3
[	As-1	75	-0.019	ug/L	0.088	462	11505	10911	0
[	Se	82	0.463	ug/L	0.035	7	-5	85	9
[	Se	78	-0.466	ug/L	0.265	56	11713	10922	0
[	Mo	98	0.180	ug/L	0.008	4	207	1362	3
	Y	89		ug/L			309412	287442	1
	Kr	83		ug/L			376	385	1
[>	In	115		ug/L			365357	335790	2
[	Ag	107	0.192	ug/L	0.003	1	101	2228	0
[	Cd	111	0.103	ug/L	0.008	8	166	435	5
[	Cd	114	0.106	ug/L	0.004	4	27	705	2
[	Sb	121	0.204	ug/L	0.012	5	240	2114	3
[	Sb	123	0.208	ug/L	0.004	2	169	1606	1
[	Ba	135	0.538	ug/L	0.017	3	32	1281	1
[	Ba	137	0.520	ug/L	0.000	0	65	2150	2
[>	Tb	159		ug/L			430587	402179	0
[	Tl	205	0.214	ug/L	0.003	1	147	5969	1
[	Pb	208	0.114	ug/L	0.003	2	1493	5660	1
[	Bi	209		ug/L			345109	320387	1
[	Th	232	0.216	ug/L	0.002	1	719	9873	0
[	U	238	0.207	ug/L	0.007	3	97	9549	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 17:22:26
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	470316	1
[	Be	9	-0.003	ug/L	0.003	119	3	2	69
	C	13		mg/L			5654	19819	1
	Cl	37		mg/L			2331174	3741035	0
[>	Sc	45		ug/L			262568	252171	0
[	V	51	-0.036	ug/L	0.068	187	2402	1897	40
[	V-1	51	0.529	ug/L	0.043	8	8286	13978	3
[	Cr	52	0.701	ug/L	0.027	3	7360	13897	1
[	Cr	53	2.460	ug/L	0.118	4	2713	5433	3
[	Mn	55	0.040	ug/L	0.005	13	1178	1795	5
[	Co	59	0.012	ug/L	0.001	9	123	274	5
[>	Ge	72		ug/L			333920	325562	1
[	Ni	60	0.559	ug/L	0.008	1	109	1574	1
[	Ni	62	3.622	ug/L	0.126	3	54	1476	3
[	Cu	63	0.493	ug/L	0.021	4	248	3143	5
[	Cu	65	0.545	ug/L	0.015	2	118	1649	3
[	Zn	66	1.115	ug/L	0.053	4	695	2663	3
[	Zn	67	1.810	ug/L	0.058	3	255	785	0
[	Zn	68	0.351	ug/L	0.093	26	8462	8691	2
[	As	75	0.026	ug/L	0.044	168	693	721	9
[	As-1	75	-0.073	ug/L	0.044	60	11505	11088	1
[	Se	82	-0.077	ug/L	0.034	43	-5	-20	33
[	Se	78	-0.232	ug/L	0.275	118	11713	11308	2
[	Mo	98	401.580	ug/L	8.145	2	207	2666752	3
	Y	89		ug/L			309412	300936	1
	Kr	83		ug/L			376	406	3
[>	In	115		ug/L			365357	345777	1
[	Ag	107	0.032	ug/L	0.005	17	101	457	12
[	Cd	111	0.015	ug/L	0.013	86	166	200	17
[	Cd	114	0.592	ug/L	0.017	2	27	3940	3
[	Sb	121	0.046	ug/L	0.004	9	240	666	5
[	Sb	123	0.047	ug/L	0.001	1	169	501	0
[	Ba	135	0.041	ug/L	0.004	9	32	130	5
[	Ba	137	0.028	ug/L	0.001	4	65	177	3
[>	Tb	159		ug/L			430587	415988	1
[	Tl	205	0.002	ug/L	0.001	60	147	210	18
[	Pb	208	0.064	ug/L	0.005	8	1493	3921	4
[	Bi	209		ug/L			345109	324605	2
[	Th	232	0.094	ug/L	0.002	1	719	4864	0
[	U	238	0.001	ug/L	0.000	14	97	131	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 17:28:44
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	474105	0
[	Be	9	-0.001	ug/L	0.004	499	3	2	65
	C	13		mg/L			5654	20023	1
	Cl	37		mg/L			2331174	3727900	0
[>	Sc	45		ug/L			262568	252874	0
[	V	51	-0.422	ug/L	0.081	19	2402	-2431	36
[	V-1	51	0.633	ug/L	0.040	6	8286	15204	2
[	Cr	52	20.117	ug/L	0.071	0	7360	203536	0
[	Cr	53	22.583	ug/L	0.304	1	2713	28639	0
[	Mn	55	19.611	ug/L	0.068	0	1178	324416	0
[	Co	59	19.251	ug/L	0.058	0	123	241358	0
[>	Ge	72		ug/L			333920	325764	0
[	Ni	60	19.228	ug/L	0.265	1	109	50658	1
[	Ni	62	22.485	ug/L	0.123	0	54	8895	0
[	Cu	63	20.010	ug/L	0.211	1	248	117973	1
[	Cu	65	20.336	ug/L	0.378	1	118	57394	1
[	Zn	66	20.091	ug/L	0.159	0	695	36474	0
[	Zn	67	19.264	ug/L	0.142	0	255	5969	0
[	Zn	68	18.989	ug/L	0.291	1	8462	32055	1
[	As	75	19.592	ug/L	0.069	0	693	36002	0
[	As-1	75	19.801	ug/L	0.065	0	11505	46421	0
[	Se	82	-0.110	ug/L	0.066	60	-5	-27	48
[	Se	78	-0.133	ug/L	0.130	97	11713	11363	0
[	Mo	98	403.264	ug/L	4.194	1	207	2679376	1
	Y	89		ug/L			309412	302450	1
	Kr	83		ug/L			376	414	2
[>	In	115		ug/L			365357	350106	0
[	Ag	107	18.887	ug/L	0.120	0	101	218764	1
[	Cd	111	19.424	ug/L	0.169	0	166	55447	1
[	Cd	114	19.934	ug/L	0.221	1	27	133545	1
[	Sb	121	0.051	ug/L	0.001	2	240	723	1
[	Sb	123	0.054	ug/L	0.003	6	169	553	4
[	Ba	135	0.037	ug/L	0.001	3	32	120	2
[	Ba	137	0.043	ug/L	0.011	25	65	243	19
[>	Tb	159		ug/L			430587	421707	1
[	Tl	205	-0.000	ug/L	0.000	718	147	142	10
[	Pb	208	0.057	ug/L	0.003	5	1493	3696	3
[	Bi	209		ug/L			345109	323958	0
[	Th	232	0.051	ug/L	0.002	2	719	2979	1
[	U	238	0.001	ug/L	0.000	66	97	121	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 17:35:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	463400	1
[	Be	9	205.147	ug/L	3.477	1	3	88095	1
	C	13		mg/L			5654	5910	1
	Cl	37		mg/L			2331174	2308965	1
[>	Sc	45		ug/L			262568	256335	0
[	V	51	192.853	ug/L	0.854	0	2402	2202290	0
[	V-1	51	193.585	ug/L	0.648	0	8286	2246457	0
[	Cr	52	197.678	ug/L	2.817	1	7360	1964012	1
[	Cr	53	199.787	ug/L	2.008	1	2713	236057	0
[	Mn	55	190.327	ug/L	0.620	0	1178	3181645	0
[	Co	59	189.183	ug/L	0.974	0	123	2403292	0
[>	Ge	72		ug/L			333920	330664	0
[	Ni	60	193.944	ug/L	1.741	0	109	517670	0
[	Ni	62	192.108	ug/L	0.963	0	54	76738	0
[	Cu	63	194.808	ug/L	2.399	1	248	1163623	0
[	Cu	65	192.066	ug/L	0.804	0	118	549240	1
[	Zn	66	190.922	ug/L	2.185	1	695	345969	1
[	Zn	67	193.029	ug/L	2.109	1	255	58430	0
[	Zn	68	191.440	ug/L	1.586	0	8462	251926	0
[	As	75	198.413	ug/L	1.170	0	693	363822	0
[	As-1	75	198.170	ug/L	1.141	0	11505	368934	0
[	Se	82	194.565	ug/L	0.199	0	-5	39706	0
[	Se	78	193.745	ug/L	1.725	0	11713	107008	0
[	Mo	98	203.625	ug/L	2.016	0	207	1373350	0
	Y	89		ug/L			309412	303605	1
	Kr	83		ug/L			376	422	2
[>	In	115		ug/L			365357	349771	0
[	Ag	107	190.844	ug/L	2.807	1	101	2207474	1
[	Cd	111	196.856	ug/L	1.914	0	166	559902	0
[	Cd	114	198.789	ug/L	1.426	0	27	1330153	0
[	Sb	121	202.624	ug/L	1.252	0	240	1960856	0
[	Sb	123	201.464	ug/L	0.548	0	169	1463918	0
[	Ba	135	201.654	ug/L	0.550	0	32	489170	0
[	Ba	137	200.866	ug/L	3.108	1	65	841758	2
[>	Tb	159		ug/L			430587	426006	1.
[	Tl	205	196.419	ug/L	1.576	0	147	5664018	1
[	Pb	208	197.757	ug/L	1.080	0	1493	7822357	1
[	Bi	209		ug/L			345109	331961	0
[	Th	232	203.455	ug/L	0.324	0	719	9195010	1
[	U	238	203.804	ug/L	1.885	0	97	9841383	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 17:41:36
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	448573	1
[	Be	9	300.500	ug/L	4.629	1	3	124906	1
	C	13		mg/L			5654	5278	1
	Cl	37		mg/L			2331174	2341588	0
[>	Sc	45		ug/L			262568	254296	0
[	V	51	291.382	ug/L	3.216	1	2402	3299738	1
[	V-1	51	294.508	ug/L	3.423	1	8286	3386227	1
[	Cr	52	288.530	ug/L	3.929	1	7360	2840417	0
[	Cr	53	298.544	ug/L	3.902	1	2713	348626	1
[	Mn	55	288.024	ug/L	5.757	1	1178	4775787	1
[	Co	59	284.056	ug/L	5.008	1	123	3579487	1
[>	Ge	72		ug/L			333920	331517	1
[	Ni	60	286.843	ug/L	5.690	1	109	767454	0
[	Ni	62	284.179	ug/L	4.032	1	54	113778	1
[	Cu	63	285.585	ug/L	4.047	1	248	1710047	0
[	Cu	65	283.631	ug/L	4.546	1	118	813034	1
[	Zn	66	277.391	ug/L	5.658	2	695	503587	1
[	Zn	67	281.162	ug/L	4.182	1	255	85208	0
[	Zn	68	278.520	ug/L	4.125	1	8462	363638	1
[	As	75	293.932	ug/L	2.381	0	693	540005	0
[	As-1	75	294.094	ug/L	2.210	0	11505	543381	0
[	Se	82	279.634	ug/L	4.711	1	-5	57209	0
[	Se	78	279.825	ug/L	4.584	1	11713	149771	0
[	Mo	98	298.035	ug/L	2.017	0	207	2015184	1
	Y	89		ug/L			309412	304443	1
	Kr	83		ug/L			376	438	3
[>	In	115		ug/L			365357	348492	0
[	Ag	107	283.867	ug/L	3.424	1	101	3271290	0
[	Cd	111	289.611	ug/L	3.199	1	166	820608	0
[	Cd	114	291.460	ug/L	6.109	2	27	1942952	1
[	Sb	121	294.442	ug/L	3.838	1	240	2838775	0
[	Sb	123	294.478	ug/L	6.277	2	169	2131768	1
[	Ba	135	298.787	ug/L	4.596	1	32	722075	0
[	Ba	137	300.503	ug/L	4.453	1	65	1254496	0
[>	Tb	159		ug/L			430587	418356	0
[	Tl	205	298.639	ug/L	3.682	1	147	8457482	1
[	Pb	208	294.553	ug/L	1.270	0	1493	11441671	0
[	Bi	209		ug/L			345109	322341	1
[	Th	232	309.549	ug/L	2.879	0	719	13738819	1
[	U	238	308.674	ug/L	0.820	0	97	14638930	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 17:48:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	462814	0
[	Be	9	50.934	ug/L	0.245	0	3	21848	1
	C	13		mg/L			5654	5368	0
	Cl	37		mg/L			2331174	2425456	0
[>	Sc	45		ug/L			262568	263088	1
[	V	51	48.781	ug/L	0.207	0	2402	573543	1
[	V-1	51	49.031	ug/L	0.159	0	8286	590170	1
[	Cr	52	49.242	ug/L	0.252	0	7360	507641	1
[	Cr	53	50.011	ug/L	0.485	0	2713	62680	0
[	Mn	55	48.342	ug/L	0.738	1	1178	830201	0
[	Co	59	49.576	ug/L	1.509	3	123	646291	1
[>	Ge	72		ug/L			333920	336205	0
[	Ni	60	49.741	ug/L	0.475	0	109	135074	0
[	Ni	62	50.403	ug/L	0.248	0	54	20511	0
[	Cu	63	50.258	ug/L	1.078	2	248	305423	1
[	Cu	65	50.624	ug/L	0.295	0	118	147275	0
[	Zn	66	50.740	ug/L	0.471	0	695	93999	0
[	Zn	67	51.124	ug/L	0.471	0	255	15924	0
[	Zn	68	51.097	ug/L	0.606	1	8462	74614	0
[	As	75	50.540	ug/L	0.484	0	693	94744	0
[	As-1	75	50.376	ug/L	0.390	0	11505	103997	0
[	Se	82	49.864	ug/L	0.605	1	-5	10342	0
[	Se	78	49.315	ug/L	0.282	0	11713	36486	0
[	Mo	98	50.020	ug/L	0.985	1	207	343167	1
	Y	89		ug/L			309412	307744	0
	Kr	83		ug/L			376	394	2
[>	In	115		ug/L			365357	356357	0
[	Ag	107	50.651	ug/L	1.440	2	101	596957	2
[	Cd	111	51.045	ug/L	0.381	0	166	148037	0
[	Cd	114	49.910	ug/L	0.279	0	27	340276	0
[	Sb	121	49.917	ug/L	0.257	0	240	492349	0
[	Sb	123	50.457	ug/L	0.495	0	169	373691	1
[	Ba	135	49.956	ug/L	0.456	0	32	123484	0
[	Ba	137	49.737	ug/L	0.493	0	65	212387	1
[>	Tb	159		ug/L			430587	430772	1
[	Tl	205	51.189	ug/L	0.464	0	147	1492718	0
[	Pb	208	50.879	ug/L	0.239	0	1493	2036200	0
[	Bi	209		ug/L			345109	336462	0
[	Th	232	51.137	ug/L	0.959	1	719	2337251	1
[	U	238	50.853	ug/L	0.595	1	97	2483254	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 17:54:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	456010	1
[	Be	9	0.005	ug/L	0.002	34	3	5	13
	C	13		mg/L			5654	5521	1
	Cl	37		mg/L			2331174	2429105	0
[>	Sc	45		ug/L			262568	254612	1
[	V	51	-0.026	ug/L	0.018	68	2402	2037	10
[	V-1	51	0.061	ug/L	0.028	45	8286	8736	1
[	Cr	52	-0.027	ug/L	0.009	34	7360	6876	3
[	Cr	53	0.249	ug/L	0.117	47	2713	2919	3
[	Mn	55	-0.010	ug/L	0.005	46	1178	974	9
[	Co	59	0.007	ug/L	0.005	62	123	213	29
[>	Ge	72		ug/L			333920	331255	1
[	Ni	60	0.002	ug/L	0.006	284	109	114	14
[	Ni	62	0.069	ug/L	0.028	40	54	81	15
[	Cu	63	0.011	ug/L	0.004	38	248	313	9
[	Cu	65	0.003	ug/L	0.003	84	118	127	6
[	Zn	66	-0.050	ug/L	0.018	35	695	599	4
[	Zn	67	-0.007	ug/L	0.020	287	255	251	0
[	Zn	68	-0.109	ug/L	0.172	157	8462	8256	3
[	As	75	0.040	ug/L	0.006	15	693	761	1
[	As-1	75	-0.170	ug/L	0.090	52	11505	11107	2
[	Se	82	0.006	ug/L	0.017	272	-5	-4	85
[	Se	78	-0.699	ug/L	0.289	41	11713	11276	2
[	Mo	98	0.024	ug/L	0.014	57	207	368	26
	Y	89		ug/L			309412	296816	2
	Kr	83		ug/L			376	385	1
[>	In	115		ug/L			365357	347308	3
[	Ag	107	0.035	ug/L	0.009	25	101	497	23
[	Cd	111	0.014	ug/L	0.002	11	166	197	4
[	Cd	114	0.009	ug/L	0.005	52	27	89	40
[	Sb	121	0.176	ug/L	0.025	14	240	1920	15
[	Sb	123	0.186	ug/L	0.031	16	169	1509	18
[	Ba	135	0.011	ug/L	0.002	19	32	57	9
[	Ba	137	0.008	ug/L	0.005	61	65	97	25
[>	Tb	159		ug/L			430587	408423	2
[	Tl	205	0.027	ug/L	0.009	31	147	903	29
[	Pb	208	0.031	ug/L	0.009	30	1493	2579	15
[	Bi	209		ug/L			345109	327203	2
[	Th	232	0.065	ug/L	0.016	24	719	3504	21
[	U	238	0.013	ug/L	0.005	40	97	675	37

ICP-MS Quantitative Analysis - Summary Report

2939-1

Sample ID: NEW IS
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 18:01:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	442000	0
[	Be	9	0.007	ug/L	0.012	172	3	5	81
	C	13		mg/L			5654	5167	1
	Cl	37		mg/L			2331174	2442592	1
[>	Sc	45		ug/L			262568	253589	0
|	V	51	-0.030	ug/L	0.003	10	2402	1980	2
|	V-1	51	0.072	ug/L	0.020	27	8286	8831	1
|	Cr	52	-0.063	ug/L	0.004	6	7360	6492	0
|	Cr	53	0.263	ug/L	0.071	26	2713	2924	1
|	Mn	55	-0.043	ug/L	0.002	3	1178	419	5
[	Co	59	-0.003	ug/L	0.001	29	123	78	14
[>	Ge	72		ug/L			333920	331289	0
|	Ni	60	-0.014	ug/L	0.002	15	109	70	8
|	Ni	62	0.016	ug/L	0.027	171	54	60	17
|	Cu	63	0.003	ug/L	0.003	88	248	266	6
|	Cu	65	0.001	ug/L	0.006	730	118	120	13
|	Zn	66	-0.140	ug/L	0.022	15	695	436	8
|	Zn	67	-0.112	ug/L	0.110	98	255	219	14
|	Zn	68	-0.299	ug/L	0.114	38	8462	8014	1
|	As	75	0.060	ug/L	0.012	19	693	797	2
|	As-1	75	-0.383	ug/L	0.051	13	11505	10722	0
|	Se	82	-0.039	ug/L	0.102	258	-5	-13	154
|	Se	78	-1.566	ug/L	0.171	10	11713	10848	0
[	Mo	98	-0.002	ug/L	0.000	28	207	196	1
	Y	89		ug/L			309412	291502	0
	Kr	83		ug/L			376	391	2
[>	In	115		ug/L			365357	342532	0
|	Ag	107	0.015	ug/L	0.003	20	101	266	13
|	Cd	111	0.003	ug/L	0.002	70	166	163	3
|	Cd	114	0.004	ug/L	0.002	59	27	48	28
|	Sb	121	0.073	ug/L	0.006	7	240	915	5
|	Sb	123	0.080	ug/L	0.011	14	169	726	11
|	Ba	135	0.009	ug/L	0.003	36	32	52	14
[	Ba	137	0.006	ug/L	0.000	8	65	85	2
[>	Tb	159		ug/L			430587	407105	0
|	Tl	205	0.008	ug/L	0.001	17	147	369	10
|	Pb	208	0.023	ug/L	0.003	13	1493	2291	4
|	Bi	209		ug/L			345109	330518	0
|	Th	232	0.033	ug/L	0.004	12	719	2090	7
[	U	238	0.003	ug/L	0.000	17	97	210	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV05 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 18:07:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	459563	1
[	Be	9	0.001	ug/L	0.008	587	3	3	88
	C	13		mg/L			5654	6467	1
	Cl	37		mg/L			2331174	2418575	0
[>	Sc	45		ug/L			262568	254552	0
[	V	51	-0.034	ug/L	0.020	56	2402	1937	10
[	V-1	51	0.049	ug/L	0.024	48	8286	8595	2
[	Cr	52	-0.041	ug/L	0.011	26	7360	6728	2
[	Cr	53	0.223	ug/L	0.071	31	2713	2889	2
[	Mn	55	-0.026	ug/L	0.002	7	1178	704	4
[	Co	59	0.002	ug/L	0.001	56	123	145	9
[>	Ge	72		ug/L			333920	330152	0
[	Ni	60	-0.012	ug/L	0.008	71	109	77	27
[	Ni	62	0.011	ug/L	0.019	171	54	57	12
[	Cu	63	0.239	ug/L	0.011	4	248	1671	4
[	Cu	65	0.232	ug/L	0.013	5	118	778	4
[	Zn	66	8.523	ug/L	0.196	2	695	16079	2
[	Zn	67	7.624	ug/L	0.293	3	255	2546	2
[	Zn	68	8.196	ug/L	0.133	1	8462	18777	0
[	As	75	0.076	ug/L	0.005	6	693	823	1
[	As-1	75	-0.289	ug/L	0.069	23	11505	10854	0
[	Se	82	0.011	ug/L	0.049	434	-5	-3	321
[	Se	78	-1.173	ug/L	0.224	19	11713	11004	0
[	Mo	98	0.022	ug/L	0.007	31	207	355	12
	Y	89		ug/L			309412	297183	1
	Kr	83		ug/L			376	401	1
[>	In	115		ug/L			365357	343225	0
[	Ag	107	0.006	ug/L	0.001	22	101	158	8
[	Cd	111	0.000	ug/L	0.006	2318	166	157	10
[	Cd	114	0.002	ug/L	0.001	38	27	39	13
[	Sb	121	0.051	ug/L	0.008	15	240	709	11
[	Sb	123	0.052	ug/L	0.006	12	169	531	9
[	Ba	135	0.012	ug/L	0.005	38	32	59	19
[	Ba	137	0.011	ug/L	0.005	42	65	106	17
[>	Tb	159		ug/L			430587	413966	1
[	Tl	205	0.005	ug/L	0.001	25	147	272	13
[	Pb	208	0.024	ug/L	0.001	3	1493	2350	1
[	Bi	209		ug/L			345109	328499	0
[	Th	232	0.035	ug/L	0.003	7	719	2227	6
[	U	238	0.002	ug/L	0.000	15	97	178	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV05 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 18:13:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			477870	459129	1
	Be	9	0.002	ug/L	0.005	200	3	4	45
	C	13		mg/L			5654	6941	1
	Cl	37		mg/L			2331174	2411683	0
>	Sc	45		ug/L			262568	255955	0
	V	51	-0.038	ug/L	0.019	49	2402	1909	11
	V-1	51	0.026	ug/L	0.011	43	8286	8376	2
	Cr	52	0.021	ug/L	0.005	25	7360	7378	1
	Cr	53	0.220	ug/L	0.087	39	2713	2901	3
	Mn	55	-0.013	ug/L	0.002	15	1178	936	3
	Co	59	-0.001	ug/L	0.001	194	123	112	13
>	Ge	72		ug/L			333920	333578	0
	Ni	60	0.012	ug/L	0.004	29	109	141	6
	Ni	62	0.008	ug/L	0.013	156	54	57	9
	Cu	63	0.217	ug/L	0.013	5	248	1555	5
	Cu	65	0.220	ug/L	0.012	5	118	753	4
	Zn	66	0.117	ug/L	0.014	11	695	908	2
	Zn	67	0.128	ug/L	0.043	33	255	294	4
	Zn	68	-0.005	ug/L	0.072	1377	8462	8447	1
	As	75	0.052	ug/L	0.019	36	693	787	4
	As-1	75	-0.229	ug/L	0.049	21	11505	11077	0
	Se	82	-0.045	ug/L	0.094	209	-5	-14	131
	Se	78	-0.951	ug/L	0.161	16	11713	11228	0
	Mo	98	0.000	ug/L	0.004	948	207	210	13
	Y	89		ug/L			309412	302413	0
	Kr	83		ug/L			376	399	2
>	In	115		ug/L			365357	344638	0
	Ag	107	0.003	ug/L	0.001	19	101	131	5
	Cd	111	0.005	ug/L	0.003	69	166	170	4
	Cd	114	0.002	ug/L	0.001	31	27	38	10
	Sb	121	0.027	ug/L	0.004	15	240	487	7
	Sb	123	0.033	ug/L	0.002	6	169	399	3
	Ba	135	0.028	ug/L	0.003	10	32	97	7
	Ba	137	0.027	ug/L	0.004	14	65	173	9
>	Tb	159		ug/L			430587	411722	0
	Tl	205	0.003	ug/L	0.000	16	147	211	6
	Pb	208	0.040	ug/L	0.001	2	1493	2943	0
	Bi	209		ug/L			345109	325676	0
	Th	232	0.032	ug/L	0.001	2	719	2092	2
	U	238	0.001	ug/L	0.000	52	97	133	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV06 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 18:19:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	452707	1
[	Be	9	0.002	ug/L	0.006	257	3	4	62
	C	13		mg/L			5654	6667	0
	Cl	37		mg/L			2331174	2403724	0
[>	Sc	45		ug/L			262568	251971	1
[	V	51	-0.036	ug/L	0.013	35	2402	1905	8
[	V-1	51	0.023	ug/L	0.019	83	8286	8211	1
[	Cr	52	-0.011	ug/L	0.018	173	7360	6958	1
[	Cr	53	0.174	ug/L	0.106	60	2713	2802	3
[	Mn	55	-0.035	ug/L	0.001	2	1178	548	1
[	Co	59	-0.003	ug/L	0.000	11	123	76	5
[>	Ge	72		ug/L			333920	328032	1
[	Ni	60	-0.008	ug/L	0.002	28	109	87	7
[	Ni	62	-0.009	ug/L	0.023	246	54	49	19
[	Cu	63	0.137	ug/L	0.003	2	248	1058	3
[	Cu	65	0.139	ug/L	0.010	7	118	510	5
[	Zn	66	0.122	ug/L	0.013	10	695	902	1
[	Zn	67	0.038	ug/L	0.074	195	255	262	7
[	Zn	68	0.003	ug/L	0.052	1842	8462	8316	1
[	As	75	0.056	ug/L	0.008	13	693	782	0
[	As-1	75	-0.196	ug/L	0.099	50	11505	10950	0
[	Se	82	0.002	ug/L	0.123	7046	-5	-5	483
[	Se	78	-0.819	ug/L	0.370	45	11713	11105	0
[	Mo	98	-0.011	ug/L	0.001	8	207	128	6
	Y	89		ug/L			309412	292265	0
	Kr	83		ug/L			376	389	3
[>	In	115		ug/L			365357	340051	0
[	Ag	107	0.001	ug/L	0.001	57	101	106	6
[	Cd	111	0.003	ug/L	0.006	169	166	164	10
[	Cd	114	0.001	ug/L	0.001	196	27	28	23
[	Sb	121	0.017	ug/L	0.003	19	240	385	7
[	Sb	123	0.019	ug/L	0.002	12	169	292	5
[	Ba	135	0.009	ug/L	0.004	38	32	52	15
[	Ba	137	0.005	ug/L	0.002	34	65	81	9
[>	Tb	159		ug/L			430587	401103	1
[	Tl	205	0.001	ug/L	0.000	40	147	157	4
[	Pb	208	0.035	ug/L	0.001	3	1493	2686	3
[	Bi	209		ug/L			345109	320021	0
[	Th	232	0.013	ug/L	0.001	6	719	1220	3
[	U	238	0.001	ug/L	0.000	15	97	119	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV06 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 18:25:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	424049	1
[	Be	9	-0.002	ug/L	0.002	84	3	2	34
	C	13		mg/L			5654	6782	3
	Cl	37		mg/L			2331174	2402411	0
[>	Sc	45		ug/L			262568	237404	1
[	V	51	-0.007	ug/L	0.008	123	2402	2101	5
[	V-1	51	0.065	ug/L	0.008	12	8286	8184	0
[	Cr	52	0.047	ug/L	0.004	7	7360	7083	1
[	Cr	53	0.270	ug/L	0.045	16	2713	2745	0
[	Mn	55	-0.027	ug/L	0.002	8	1178	655	4
[	Co	59	0.003	ug/L	0.001	42	123	152	12
[>	Ge	72		ug/L			333920	308058	0
[	Ni	60	-0.003	ug/L	0.004	116	109	92	10
[	Ni	62	0.011	ug/L	0.027	237	54	54	18
[	Cu	63	0.145	ug/L	0.007	4	248	1038	3
[	Cu	65	0.147	ug/L	0.003	1	118	500	1
[	Zn	66	0.163	ug/L	0.002	1	695	916	0
[	Zn	67	0.163	ug/L	0.044	27	255	281	4
[	Zn	68	0.490	ug/L	0.155	31	8462	8387	1
[	As	75	0.092	ug/L	0.013	13	693	796	2
[	As-1	75	0.254	ug/L	0.035	13	11505	11040	0
[	Se	82	-0.091	ug/L	0.118	129	-5	-22	100
[	Se	78	0.820	ug/L	0.160	19	11713	11182	0
[	Mo	98	-0.011	ug/L	0.004	30	207	119	18
	Y	89		ug/L			309412	276271	0
	Kr	83		ug/L			376	406	3
[>	In	115		ug/L			365357	320018	0
[	Ag	107	0.001	ug/L	0.000	44	101	99	4
[	Cd	111	0.001	ug/L	0.010	1296	166	148	17
[	Cd	114	0.002	ug/L	0.000	21	27	35	7
[	Sb	121	0.014	ug/L	0.001	8	240	332	3
[	Sb	123	0.015	ug/L	0.005	32	169	250	13
[	Ba	135	0.051	ug/L	0.006	10	32	141	8
[	Ba	137	0.048	ug/L	0.008	17	65	240	13
[>	Tb	159		ug/L			430587	382461	0
[	Tl	205	0.000	ug/L	0.001	232	147	143	19
[	Pb	208	0.053	ug/L	0.002	3	1493	3224	1
[	Bi	209		ug/L			345109	305114	1
[	Th	232	0.016	ug/L	0.002	11	719	1296	6
[	U	238	0.001	ug/L	0.000	27	97	111	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV06 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 18:30:49
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	451717	1
[	Be	9	26.701	ug/L	0.351	1	3	11178	0
	C	13		mg/L			5654	7439	1
	Cl	37		mg/L			2331174	2401907	0
[>	Sc	45		ug/L			262568	254117	1
[	V	51	25.862	ug/L	0.108	0	2402	294795	1
[	V-1	51	25.942	ug/L	0.128	0	8286	305380	0
[	Cr	52	26.091	ug/L	0.359	1	7360	263164	1
[	Cr	53	26.334	ug/L	0.563	2	2713	33122	1
[	Mn	55	25.830	ug/L	0.125	0	1178	429023	0
[	Co	59	26.415	ug/L	0.424	1	123	332738	1
[>	Ge	72		ug/L			333920	327073	1
[	Ni	60	27.061	ug/L	0.556	2	109	71528	1
[	Ni	62	27.399	ug/L	0.105	0	54	10871	0
[	Cu	63	28.408	ug/L	0.314	1	248	168051	1
[	Cu	65	28.534	ug/L	0.529	1	118	80799	0
[	Zn	66	83.151	ug/L	0.521	0	695	149421	0
[	Zn	67	76.869	ug/L	1.745	2	255	23164	1
[	Zn	68	82.550	ug/L	0.540	0	8462	112164	0
[	As	75	27.579	ug/L	0.789	2	693	50597	1
[	As-1	75	26.646	ug/L	0.388	1	11505	58819	0
[	Se	82	78.295	ug/L	1.980	2	-5	15798	1
[	Se	78	77.741	ug/L	0.815	1	11713	49341	1
[	Mo	98	-0.005	ug/L	0.002	51	207	173	8
	Y	89		ug/L			309412	293808	1
	Kr	83		ug/L			376	403	3
[>	In	115		ug/L			365357	340906	1
[	Ag	107	26.942	ug/L	0.364	1	101	303808	1
[	Cd	111	25.958	ug/L	0.198	0	166	72096	1
[	Cd	114	25.827	ug/L	0.227	0	27	168452	1
[	Sb	121	0.012	ug/L	0.001	12	240	334	3
[	Sb	123	0.008	ug/L	0.002	23	169	218	6
[	Ba	135	26.425	ug/L	0.249	0	32	62498	0
[	Ba	137	26.346	ug/L	0.424	1	65	107636	0
[>	Tb	159		ug/L			430587	406605	1
[	Tl	205	27.510	ug/L	0.324	1	147	757193	0
[	Pb	208	27.529	ug/L	0.334	1	1493	1040430	0
[	Bi	209		ug/L			345109	322698	0
[	Th	232	27.505	ug/L	0.738	2	719	1186696	1
[	U	238	27.314	ug/L	0.410	1	97	1258897	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV06 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 18:37:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	435587	0
[	Be	9	27.313	ug/L	0.310	1	3	11028	1
	C	13		mg/L			5654	7013	1
	Cl	37		mg/L			2331174	2435906	0
[>	Sc	45		ug/L			262568	242881	1
[	V	51	26.216	ug/L	0.274	1	2402	285550	0
[	V-1	51	26.430	ug/L	0.243	0	8286	297206	0
[	Cr	52	26.729	ug/L	0.743	2	7360	257446	1
[	Cr	53	27.386	ug/L	0.631	2	2713	32818	0
[	Mn	55	26.572	ug/L	0.484	1	1178	421757	0
[	Co	59	27.083	ug/L	0.435	1	123	326046	0
[>	Ge	72		ug/L			333920	314248	0
[	Ni	60	27.334	ug/L	0.533	1	109	69423	1
[	Ni	62	27.587	ug/L	0.813	2	54	10515	2
[	Cu	63	28.641	ug/L	0.322	1	248	162783	0
[	Cu	65	28.703	ug/L	0.121	0	118	78101	1
[	Zn	66	85.804	ug/L	0.247	0	695	148125	0
[	Zn	67	80.122	ug/L	0.239	0	255	23190	0
[	Zn	68	85.821	ug/L	0.362	0	8462	111725	0
[	As	75	28.481	ug/L	0.043	0	693	50191	0
[	As-1	75	27.692	ug/L	0.159	0	11505	58310	0
[	Se	82	81.050	ug/L	1.013	1	-5	15715	0
[	Se	78	81.118	ug/L	1.389	1	11713	48984	0
[	Mo	98	-0.011	ug/L	0.001	9	207	126	5
	Y	89		ug/L			309412	282155	0
	Kr	83		ug/L			376	387	5
[>	In	115		ug/L			365357	323980	0
[	Ag	107	28.002	ug/L	0.435	1	101	300098	1
[	Cd	111	27.141	ug/L	0.391	1	166	71631	1
[	Cd	114	26.789	ug/L	0.324	1	27	166056	1
[	Sb	121	0.006	ug/L	0.001	10	240	266	2
[	Sb	123	0.006	ug/L	0.002	39	169	192	8
[	Ba	135	27.117	ug/L	0.297	1	32	60956	1
[	Ba	137	27.295	ug/L	0.290	1	65	105989	0
[>	Tb	159		ug/L			430587	389533	2
[	Tl	205	28.019	ug/L	0.979	3	147	738586	1
[	Pb	208	28.213	ug/L	0.565	2	1493	1021340	0
[	Bi	209		ug/L			345109	315383	0
[	Th	232	27.900	ug/L	0.478	1	719	1153275	0
[	U	238	27.900	ug/L	0.806	2	97	1231609	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV05 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 18:43:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	421197	0
[	Be	9	28.588	ug/L	0.187	0	3	11161	0
	C	13		mg/L			5654	7162	1
	Cl	37		mg/L			2331174	2470099	0
[>	Sc	45		ug/L			262568	236244	1
[	V	51	27.050	ug/L	0.102	0	2402	286548	1
[	V-1	51	27.217	ug/L	0.166	0	8286	297491	1
[	Cr	52	27.761	ug/L	0.077	0	7360	259896	1
[	Cr	53	28.261	ug/L	0.453	1	2713	32867	1
[	Mn	55	27.364	ug/L	0.273	0	1178	422480	1
[	Co	59	28.161	ug/L	0.285	1	123	329787	1
[>	Ge	72		ug/L			333920	305895	0
[	Ni	60	28.286	ug/L	0.450	1	109	69930	1
[	Ni	62	28.382	ug/L	0.535	1	54	10530	1
[	Cu	63	30.168	ug/L	0.489	1	248	166896	1
[	Cu	65	30.147	ug/L	0.549	1	118	79841	1
[	Zn	66	87.696	ug/L	0.848	0	695	147352	0
[	Zn	67	81.081	ug/L	1.405	1	255	22841	1
[	Zn	68	86.667	ug/L	0.739	0	8462	109750	0
[	As	75	28.878	ug/L	0.084	0	693	49528	0
[	As-1	75	28.383	ug/L	0.153	0	11505	57914	0
[	Se	82	81.719	ug/L	0.812	0	-5	15424	0
[	Se	78	82.946	ug/L	0.442	0	11713	48518	0
[	Mo	98	-0.011	ug/L	0.001	10	207	120	5
	Y	89		ug/L			309412	273738	0
	Kr	83		ug/L			376	389	1
[>	In	115		ug/L			365357	316975	1
[	Ag	107	28.693	ug/L	0.421	1	101	300836	1
[	Cd	111	27.916	ug/L	0.382	1	166	72082	2
[	Cd	114	27.410	ug/L	0.344	1	27	166218	1
[	Sb	121	0.005	ug/L	0.001	16	240	250	1
[	Sb	123	0.005	ug/L	0.001	13	169	181	4
[	Ba	135	28.069	ug/L	0.565	2	32	61717	1
[	Ba	137	28.194	ug/L	0.700	2	65	107097	1
[>	Tb	159		ug/L			430587	381587	0
[	Tl	205	29.108	ug/L	0.365	1	147	752020	1
[	Pb	208	29.155	ug/L	0.101	0	1493	1034147	0
[	Bi	209		ug/L			345109	305371	0
[	Th	232	28.977	ug/L	0.232	0	719	1173575	0
[	U	238	29.106	ug/L	0.254	0	97	1259093	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV05 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 18:49:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	435422	1
[	Be	9	27.593	ug/L	0.475	1	3	11135	0
	C	13		mg/L			5654	7482	3
	Cl	37		mg/L			2331174	2468691	0
[>	Sc	45		ug/L			262568	240811	0
[	V	51	26.640	ug/L	0.318	1	2402	287691	1
[	V-1	51	26.801	ug/L	0.182	0	8286	298722	0
[	Cr	52	27.056	ug/L	0.371	1	7360	258369	1
[	Cr	53	27.548	ug/L	0.172	0	2713	32723	0
[	Mn	55	26.876	ug/L	0.335	1	1178	422989	1
[	Co	59	27.464	ug/L	0.477	1	123	327859	1
[>	Ge	72		ug/L			333920	316652	0
[	Ni	60	27.504	ug/L	0.440	1	109	70386	0
[	Ni	62	27.453	ug/L	0.352	1	54	10545	1
[	Cu	63	28.689	ug/L	0.372	1	248	164307	0
[	Cu	65	28.832	ug/L	0.447	1	118	79044	0
[	Zn	66	85.968	ug/L	0.219	0	695	149541	0
[	Zn	67	79.389	ug/L	0.418	0	255	23156	0
[	Zn	68	85.877	ug/L	0.642	0	8462	112644	0
[	As	75	28.530	ug/L	0.253	0	693	50659	0
[	As-1	75	27.314	ug/L	0.440	1	11505	58099	0
[	Se	82	82.038	ug/L	1.709	2	-5	16028	1
[	Se	78	80.594	ug/L	2.354	2	11713	49109	1
[	Mo	98	-0.013	ug/L	0.002	17	207	114	13
	Y	89		ug/L			309412	283854	0
	Kr	83		ug/L			376	390	5
[>	In	115		ug/L			365357	325207	0
[	Ag	107	27.840	ug/L	0.462	1	101	299468	0
[	Cd	111	27.381	ug/L	0.370	1	166	72533	0
[	Cd	114	27.388	ug/L	0.185	0	27	170409	0
[	Sb	121	-0.000	ug/L	0.002	2472	240	213	7
[	Sb	123	0.002	ug/L	0.002	94	169	166	8
[	Ba	135	27.543	ug/L	0.477	1	32	62141	1
[	Ba	137	27.438	ug/L	0.438	1	65	106943	0
[>	Tb	159		ug/L			430587	392786	1
[	Tl	205	28.486	ug/L	0.483	1	147	757501	2
[	Pb	208	28.384	ug/L	0.329	1	1493	1036306	0
[	Bi	209		ug/L			345109	317516	2
[	Th	232	28.380	ug/L	0.363	1	719	1183047	0
[	U	238	27.940	ug/L	0.353	1	97	1244037	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV05 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 18:56:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	441755	0
[	Be	9	0.012	ug/L	0.006	54	3	7	32
	C	13		mg/L			5654	7763	1
	Cl	37		mg/L			2331174	2493140	0
[>	Sc	45		ug/L			262568	251444	0
[	V	51	0.809	ug/L	0.021	2	2402	11357	2
[	V-1	51	0.809	ug/L	0.012	1	8286	17106	0
[	Cr	52	0.991	ug/L	0.030	3	7360	16673	1
[	Cr	53	0.981	ug/L	0.074	7	2713	3722	2
[	Mn	55	12.755	ug/L	0.184	1	1178	210199	1
[	Co	59	0.118	ug/L	0.001	0	123	1588	0
[>	Ge	72		ug/L			333920	326973	0
[	Ni	60	0.806	ug/L	0.013	1	109	2234	1
[	Ni	62	0.796	ug/L	0.083	10	54	367	8
[	Cu	63	4.656	ug/L	0.059	1	248	27738	0
[	Cu	65	4.683	ug/L	0.041	0	118	13355	0
[	Zn	66	341.260	ug/L	0.938	0	695	610950	0
[	Zn	67	303.816	ug/L	0.631	0	255	90800	0
[	Zn	68	336.640	ug/L	1.162	0	8462	431777	0
[	As	75	1.974	ug/L	0.023	1	693	4250	1
[	As-1	75	1.641	ug/L	0.101	6	11505	14194	0
[	Se	82	0.170	ug/L	0.137	80	-5	29	95
[	Se	78	-1.071	ug/L	0.331	30	11713	10947	1
[	Mo	98	0.416	ug/L	0.006	1	207	2979	1
	Y	89		ug/L			309412	292124	1
	Kr	83		ug/L			376	381	3
[>	In	115		ug/L			365357	339212	1
[	Ag	107	0.023	ug/L	0.005	20	101	356	15
[	Cd	111	1.102	ug/L	0.029	2	166	3195	3
[	Cd	114	1.077	ug/L	0.025	2	27	7016	1
[	Sb	121	33.083	ug/L	0.424	1	240	310655	0
[	Sb	123	32.700	ug/L	0.233	0	169	230560	0
[	Ba	135	6.828	ug/L	0.100	1	32	16090	0
[	Ba	137	6.840	ug/L	0.098	1	65	27853	0
[>	Tb	159		ug/L			430587	404466	0
[	Tl	205	0.038	ug/L	0.005	13	147	1171	12
[	Pb	208	1.604	ug/L	0.016	1	1493	61615	1
[	Bi	209		ug/L			345109	322383	1
[	Th	232	0.083	ug/L	0.015	18	719	4249	16
[	U	238	0.023	ug/L	0.002	9	97	1151	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 19:02:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	448647	0
[	Be	9	52.102	ug/L	0.402	0	3	21665	1
	C	13		mg/L			5654	5517	1
	Cl	37		mg/L			2331174	2482968	0
[>	Sc	45		ug/L			262568	249627	2
[	V	51	48.870	ug/L	0.538	1	2402	545143	1
[	V-1	51	48.920	ug/L	0.694	1	8286	558656	1
[	Cr	52	49.056	ug/L	0.733	1	7360	479806	0
[	Cr	53	49.207	ug/L	1.576	3	2713	58539	1
[	Mn	55	48.007	ug/L	1.604	3	1178	782002	1
[	Co	59	48.716	ug/L	1.383	2	123	602529	1
[>	Ge	72		ug/L			333920	326589	0
[	Ni	60	48.921	ug/L	0.217	0	109	129051	0
[	Ni	62	48.948	ug/L	0.733	1	54	19351	1
[	Cu	63	49.678	ug/L	0.486	0	248	293268	0
[	Cu	65	49.680	ug/L	0.340	0	118	140398	0
[	Zn	66	50.257	ug/L	1.056	2	695	90452	2
[	Zn	67	50.414	ug/L	0.553	1	255	15257	0
[	Zn	68	50.157	ug/L	0.233	0	8462	71300	0
[	As	75	50.375	ug/L	0.311	0	693	91738	0
[	As-1	75	49.973	ug/L	0.109	0	11505	100304	0
[	Se	82	48.586	ug/L	0.763	1	-5	9789	1
[	Se	78	47.145	ug/L	0.390	0	11713	34387	0
[	Mo	98	48.492	ug/L	0.189	0	207	323180	0
	Y	89		ug/L			309412	293197	0
	Kr	83		ug/L			376	390	2
[>	In	115		ug/L			365357	338918	0
[	Ag	107	49.791	ug/L	0.263	0	101	558130	0
[	Cd	111	50.007	ug/L	0.490	0	166	137932	0
[	Cd	114	49.438	ug/L	0.109	0	27	320568	0
[	Sb	121	50.557	ug/L	0.268	0	240	474253	0
[	Sb	123	50.018	ug/L	0.141	0	169	352295	0
[	Ba	135	49.426	ug/L	0.616	1	32	116201	1
[	Ba	137	49.349	ug/L	0.627	1	65	200422	1
[>	Tb	159		ug/L			430587	403368	0
[	Tl	205	51.340	ug/L	0.507	0	147	1401850	0
[	Pb	208	51.448	ug/L	0.082	0	1493	1927998	0
[	Bi	209		ug/L			345109	322472	0
[	Th	232	51.896	ug/L	0.586	1	719	2221134	0
[	U	238	51.465	ug/L	0.709	1	97	2353157	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 19:08:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	445559	0
[	Be	9	0.002	ug/L	0.003	195	3	3	33
	C	13		mg/L			5654	5784	2
	Cl	37		mg/L			2331174	2511664	0
[>	Sc	45		ug/L			262568	249460	1
|	V	51	-0.023	ug/L	0.022	93	2402	2027	11
|	V-1	51	-0.059	ug/L	0.010	16	8286	7209	1
|	Cr	52	-0.026	ug/L	0.017	64	7360	6736	1
|	Cr	53	-0.140	ug/L	0.101	72	2713	2418	4
|	Mn	55	-0.024	ug/L	0.002	7	1178	724	4
[	Co	59	0.024	ug/L	0.004	15	123	411	11
[>	Ge	72		ug/L			333920	324289	0
|	Ni	60	0.003	ug/L	0.005	132	109	115	10
|	Ni	62	0.030	ug/L	0.014	46	54	64	7
|	Cu	63	0.012	ug/L	0.005	39	248	311	9
|	Cu	65	0.011	ug/L	0.003	32	118	145	6
|	Zn	66	0.214	ug/L	0.018	8	695	1055	3
|	Zn	67	0.059	ug/L	0.036	61	255	265	3
|	Zn	68	-0.132	ug/L	0.021	16	8462	8053	0
|	As	75	0.069	ug/L	0.033	48	693	796	7
|	As-1	75	-0.263	ug/L	0.108	41	11505	10707	1
|	Se	82	-0.022	ug/L	0.081	359	-5	-9	163
|	Se	78	-1.099	ug/L	0.392	35	11713	10844	0
[	Mo	98	-0.009	ug/L	0.005	56	207	145	22
	Y	89		ug/L			309412	291440	0
	Kr	83		ug/L			376	391	1
[>	In	115		ug/L			365357	336672	1
|	Ag	107	0.014	ug/L	0.007	49	101	249	29
|	Cd	111	0.010	ug/L	0.006	63	166	180	8
|	Cd	114	0.007	ug/L	0.002	24	27	72	15
|	Sb	121	0.046	ug/L	0.022	48	240	644	31
|	Sb	123	0.045	ug/L	0.019	43	169	469	27
|	Ba	135	0.015	ug/L	0.007	48	32	65	25
[	Ba	137	0.010	ug/L	0.006	59	65	102	23
[>	Tb	159		ug/L			430587	405331	0
|	Tl	205	0.012	ug/L	0.005	45	147	466	31
|	Pb	208	0.123	ug/L	0.007	5	1493	6037	4
|	Bi	209		ug/L			345109	323902	0
|	Th	232	0.033	ug/L	0.008	24	719	2105	16
[	U	238	0.006	ug/L	0.003	46	97	375	35

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 19:14:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6			ug/L			477870	453853	1
⌊	Be	9	-0.001		ug/L	0.003	591	3	2	49
	C	13			mg/L			5654	6900	1
	Cl	37			mg/L			2331174	2487889	0
⌈>	Sc	45			ug/L			262568	254355	1
⌈	V	51	-0.025		ug/L	0.007	28	2402	2041	4
⌊	V-1	51	-0.104		ug/L	0.033	32	8286	6833	4
⌈	Cr	52	0.009		ug/L	0.001	15	7360	7220	1
⌊	Cr	53	-0.241		ug/L	0.103	42	2713	2348	3
⌈	Mn	55	-0.035		ug/L	0.003	8	1178	554	9
⌊	Co	59	-0.004		ug/L	0.001	21	123	65	16
⌈>	Ge	72			ug/L			333920	330325	1
⌈	Ni	60	-0.008		ug/L	0.003	38	109	86	11
⌊	Ni	62	0.014		ug/L	0.027	188	54	59	16
⌈	Cu	63		U	0.149	ug/L	0.004	2	248	1134
⌊	Cu	65	0.138		ug/L	0.009	6	118	511	3
⌈	Zn	66	0.246		ug/L	0.019	7	695	1133	4
⌊	Zn	67		U	0.159	ug/L	0.058	36	255	300
⌊	Zn	68	0.075		ug/L	0.204	271	8462	8469	4
⌈	As	75	0.024		ug/L	0.021	87	693	729	4
⌊	As-1	75	-0.116		ug/L	0.064	55	11505	11173	2
⌈	Se	82	-0.058		ug/L	0.035	61	-5	-17	40
⌊	Se	78	-0.431		ug/L	0.280	64	11713	11376	2
⌊	Mo	98	-0.017		ug/L	0.004	21	207	92	24
	Y	89			ug/L			309412	304704	3
	Kr	83			ug/L			376	400	1
⌈>	In	115			ug/L			365357	349564	3
⌈	Ag	107	0.003		ug/L	0.002	73	101	127	13
⌊	Cd	111	0.004		ug/L	0.004	124	166	169	6
⌈	Cd	114	0.002		ug/L	0.001	33	27	37	11
⌊	Sb	121	0.013		ug/L	0.004	30	240	355	7
⌈	Sb	123	0.014		ug/L	0.003	19	169	263	4
⌈	Ba	135	0.015		ug/L	0.004	29	32	66	14
⌊	Ba	137	0.009		ug/L	0.001	15	65	99	5
⌈>	Tb	159			ug/L			430587	413610	2
⌈	Tl	205	0.002		ug/L	0.002	61	147	210	17
⌊	Pb	208	0.103		ug/L	0.004	3	1493	5406	1
⌈	Bi	209			ug/L			345109	333698	1
⌊	Th	232	0.034		ug/L	0.005	14	719	2184	7
⌊	U	238	0.001		ug/L	0.001	49	97	150	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 19:20:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	448883	0
[	Be	9	-0.002	ug/L	0.003	198	3	2	50
	C	13		mg/L			5654	6635	2
	Cl	37		mg/L			2331174	2487338	0
[>	Sc	45		ug/L			262568	256336	1
|	V	51	-0.007	ug/L	0.016	243	2402	2267	6
|	V-1	51	-0.139	ug/L	0.013	9	8286	6484	0
|	Cr	52	0.062	ug/L	0.019	31	7360	7793	1
|	Cr	53	-0.359	ug/L	0.038	10	2713	2229	1
|	Mn	55	-0.014	ug/L	0.006	46	1178	921	9
[	Co	59	0.004	ug/L	0.000	10	123	171	4
[>	Ge	72		ug/L			333920	331072	0
|	Ni	60	-0.004	ug/L	0.001	15	109	97	1
|	Ni	62	0.013	ug/L	0.031	242	54	58	20
|	Cu	63	0.244	ug/L	0.002	0	248	1704	1
|	Cu	65	0.249	ug/L	0.010	4	118	829	4
|	Zn	66	0.261	ug/L	0.018	6	695	1163	3
|	Zn	67	0.133	ug/L	0.038	28	255	293	4
|	Zn	68	0.497	ug/L	0.116	23	8462	9023	1
|	As	75	0.022	ug/L	0.020	88	693	727	4
|	As-1	75	0.164	ug/L	0.142	87	11505	11701	1
|	Se	82	-0.082	ug/L	0.033	39	-5	-22	30
|	Se	78	0.600	ug/L	0.460	76	11713	11908	0
[	Mo	98	-0.020	ug/L	0.001	5	207	71	10
	Y	89		ug/L			309412	305035	1
	Kr	83		ug/L			376	406	4
[>	In	115		ug/L			365357	353350	1
|	Ag	107	0.000	ug/L	0.001	228	101	103	13
|	Cd	111	-0.002	ug/L	0.002	158	166	157	5
|	Cd	114	0.003	ug/L	0.001	51	27	45	20
|	Sb	121	-0.001	ug/L	0.003	194	240	217	13
|	Sb	123	0.001	ug/L	0.003	189	169	174	10
|	Ba	135	0.032	ug/L	0.009	27	32	110	19
[	Ba	137	0.033	ug/L	0.007	21	65	202	13
[>	Tb	159		ug/L			430587	419671	0
|	Tl	205	-0.001	ug/L	0.001	83	147	125	12
|	Pb	208	0.103	ug/L	0.002	1	1493	5458	1
|	Bi	209		ug/L			345109	332634	1
|	Th	232	0.028	ug/L	0.002	6	719	1928	4
[	U	238	0.001	ug/L	0.000	14	97	124	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 19:26:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			477870	437753	1
⌊	Be	9	28.612	ug/L	0.294	1	3	11609	0
	C	13		mg/L			5654	8109	1
	Cl	37		mg/L			2331174	2477507	0
⌈>	Sc	45		ug/L			262568	247831	2
|	V	51	27.396	ug/L	0.624	2	2402	304314	0
|	V-1	51	27.359	ug/L	0.671	2	8286	313565	1
|	Cr	52	28.062	ug/L	0.368	1	7360	275461	1
|	Cr	53	27.917	ug/L	0.482	1	2713	34085	1
|	Mn	55	27.869	ug/L	0.871	3	1178	451152	0
⌊	Co	59	28.299	ug/L	0.770	2	123	347518	0
⌈>	Ge	72		ug/L			333920	317440	1
|	Ni	60	28.888	ug/L	0.613	2	109	74093	0
|	Ni	62	29.156	ug/L	0.523	1	54	11222	0
|	Cu	63	30.488	ug/L	0.174	0	248	175026	1
|	Cu	65	30.067	ug/L	0.428	1	118	82632	2
|	Zn	66	89.151	ug/L	1.115	1	695	155418	0
|	Zn	67	81.519	ug/L	1.438	1	255	23825	0
|	Zn	68	88.605	ug/L	1.248	1	8462	116242	0
|	As	75	29.418	ug/L	0.392	1	693	52338	0
|	As-1	75	29.050	ug/L	0.787	2	11505	61238	0
|	Se	82	84.639	ug/L	1.148	1	-5	16576	0
|	Se	78	86.386	ug/L	2.639	3	11713	51960	0
⌊	Mo	98	-0.016	ug/L	0.001	9	207	94	8
	Y	89		ug/L			309412	292270	0
	Kr	83		ug/L			376	391	0
⌈>	In	115		ug/L			365357	339920	0
|	Ag	107	28.810	ug/L	0.254	0	101	323941	0
|	Cd	111	27.762	ug/L	0.229	0	166	76871	0
|	Cd	114	27.397	ug/L	0.186	0	27	178187	0
|	Sb	121	-0.001	ug/L	0.003	363	240	215	13
|	Sb	123	-0.000	ug/L	0.001	186	169	155	2
|	Ba	135	27.903	ug/L	0.263	0	32	65806	1
⌊	Ba	137	28.036	ug/L	0.285	1	65	114222	0
⌈>	Tb	159		ug/L			430587	406558	0
|	Tl	205	29.224	ug/L	0.356	1	147	804391	1
|	Pb	208	29.429	ug/L	0.147	0	1493	1112155	0
|	Bi	209		ug/L			345109	327408	0
|	Th	232	29.519	ug/L	0.455	1	719	1273791	1
⌊	U	238	29.493	ug/L	0.082	0	97	1359345	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 19:32:36
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	453325	1
[	Be	9	26.966	ug/L	0.444	1	3	11329	1
	C	13		mg/L			5654	7256	2
	Cl	37		mg/L			2331174	2478205	0
[>	Sc	45		ug/L			262568	253413	0
[	V	51	26.056	ug/L	0.229	0	2402	296172	1
[	V-1	51	26.170	ug/L	0.207	0	8286	307159	1
[	Cr	52	26.303	ug/L	0.405	1	7360	264493	1
[	Cr	53	26.655	ug/L	0.482	1	2713	33401	1
[	Mn	55	26.518	ug/L	0.360	1	1178	439217	1
[	Co	59	27.238	ug/L	0.410	1	123	342145	0
[>	Ge	72		ug/L			333920	329314	0
[	Ni	60	27.332	ug/L	0.559	2	109	72745	1
[	Ni	62	27.569	ug/L	0.392	1	54	11013	1
[	Cu	63	28.387	ug/L	0.178	0	248	169082	0
[	Cu	65	28.868	ug/L	0.239	0	118	82314	1
[	Zn	66	84.917	ug/L	0.075	0	695	153630	0
[	Zn	67	78.909	ug/L	0.697	0	255	23938	1
[	Zn	68	85.008	ug/L	1.296	1	8462	116050	1
[	As	75	28.016	ug/L	0.043	0	693	51750	0
[	As-1	75	27.369	ug/L	0.196	0	11505	60524	0
[	Se	82	81.840	ug/L	0.858	1	-5	16629	0
[	Se	78	82.436	ug/L	1.321	1	11713	51979	0
[	Mo	98	-0.016	ug/L	0.003	16	207	96	18
	Y	89		ug/L			309412	305641	1
	Kr	83		ug/L			376	395	1
[>	In	115		ug/L			365357	352343	1
[	Ag	107	27.391	ug/L	0.141	0	101	319241	0
[	Cd	111	26.342	ug/L	0.578	2	166	75605	1
[	Cd	114	26.293	ug/L	0.781	2	27	177228	2
[	Sb	121	-0.006	ug/L	0.001	17	240	174	6
[	Sb	123	-0.004	ug/L	0.002	56	169	133	13
[	Ba	135	26.497	ug/L	0.218	0	32	64773	0
[	Ba	137	26.390	ug/L	0.244	0	65	111446	0
[>	Tb	159		ug/L			430587	416385	0
[	Tl	205	28.047	ug/L	0.173	0	147	790651	0
[	Pb	208	28.181	ug/L	0.075	0	1493	1090793	0
[	Bi	209		ug/L			345109	338943	1
[	Th	232	28.192	ug/L	0.205	0	719	1245920	0
[	U	238	27.892	ug/L	0.375	1	97	1316647	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 19:38:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			477870	433918	1
[	**Be**	**9**	**0.006**	ug/L	0.008	133	3	5	58
	C	**13**		mg/L			5654	11683	0
	Cl	**37**		mg/L			2331174	2516181	0
[>	**Sc**	**45**		ug/L			262568	274186	0
[	**V**	**51**	**2.566**	ug/L	0.098	3	2402	33809	2
[	**V-1**	**51**	**2.536**	ug/L	0.049	1	8286	40016	0
[	**Cr**	**52**	**10.022**	ug/L	0.095	0	7360	113797	0
[	**Cr**	**53**	**9.611**	ug/L	0.102	1	2713	14844	1
[	**Mn**	**55**	**968.563**	ug/L	3.791	0	1178	17313495	0
[	**Co**	**59**	**0.920**	ug/L	0.017	1	123	12629	1
[>	**Ge**	**72**		ug/L			333920	330561	0
[	**Ni**	**60**	**2.238**	ug/L	0.016	0	109	6079	0
[	**Ni**	**62**	**1.951**	ug/L	0.147	7	54	832	7
[	**Cu**	**63**	**62.940**	ug/L	0.875	1	248	376011	1
[	**Cu**	**65**	**61.883**	ug/L	0.542	0	118	176982	0
[	**Zn**	**66**	**136.751**	ug/L	1.566	1	695	247922	1
[	**Zn**	**67**	**122.523**	ug/L	1.371	1	255	37169	0
[	**Zn**	**68**	**135.921**	ug/L	1.393	1	8462	181239	0
[	**As**	**75**	**13.187**	ug/L	0.078	0	693	24812	0
[	**As-1**	**75**	**13.327**	ug/L	0.048	0	11505	35428	0
[	**Se**	**82**	**0.263**	ug/L	0.067	25	-5	48	28
[	**Se**	**78**	**0.156**	ug/L	0.222	142	11713	11672	0
[	**Mo**	**98**	**3.637**	ug/L	0.036	0	207	24725	0
	Y	**89**		ug/L			309412	310707	1
	Kr	**83**		ug/L			376	383	1
[>	**In**	**115**		ug/L			365357	349845	0
[	**Ag**	**107**	**0.023**	ug/L	0.006	27	101	367	20
[	**Cd**	**111**	**0.829**	ug/L	0.016	1	166	2518	1
[	**Cd**	**114**	**0.805**	ug/L	0.012	1	27	5412	1
[	**Sb**	**121**	**0.483**	ug/L	0.003	0	240	4900	0
[	**Sb**	**123**	**0.492**	ug/L	0.016	3	169	3739	2
[	**Ba**	**135**	**13.851**	ug/L	0.102	0	32	33636	0
[	**Ba**	**137**	**13.973**	ug/L	0.107	0	65	58622	0
[>	**Tb**	**159**		ug/L			430587	415661	1
[	**Tl**	**205**	**0.014**	ug/L	0.004	26	147	545	18
[	**Pb**	**208**	**2.441**	ug/L	0.056	2	1493	95633	1
[	**Bi**	**209**		ug/L			345109	327060	1
[	**Th**	**232**	**0.159**	ug/L	0.018	11	719	7713	9
[	**U**	**238**	**0.037**	ug/L	0.003	7	97	1832	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 19:45:09
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	438054	0
[	Be	9	0.005	ug/L	0.003	64	3	5	25
	C	13		mg/L			5654	10123	1
	Cl	37		mg/L			2331174	2509899	0
[>	Sc	45		ug/L			262568	285929	1
|	V	51	0.976	ug/L	0.036	3	2402	15031	3
|	V-1	51	0.865	ug/L	0.018	2	8286	20183	1
|	Cr	52	4.495	ug/L	0.042	0	7360	57648	0
|	Cr	53	3.996	ug/L	0.084	2	2713	8161	0
|	Mn	55	1239.413	ug/L	15.369	1	1178	23101538	0
[	Co	59	0.960	ug/L	0.031	3	123	13738	2
[>	Ge	72		ug/L			333920	328238	0
|	Ni	60	2.153	ug/L	0.026	1	109	5809	0
|	Ni	62	1.965	ug/L	0.033	1	54	831	1
|	Cu	63	34.594	ug/L	0.267	0	248	205321	0
|	Cu	65	34.295	ug/L	0.179	0	118	97442	0
|	Zn	66	88.341	ug/L	0.094	0	695	159275	0
|	Zn	67	79.506	ug/L	0.743	0	255	24037	0
|	Zn	68	88.335	ug/L	0.981	1	8462	119872	1
|	As	75	6.790	ug/L	0.094	1	693	13017	0
|	As-1	75	6.919	ug/L	0.080	1	11505	23702	0
|	Se	82	0.184	ug/L	0.028	15	-5	31	18
|	Se	78	0.455	ug/L	0.216	47	11713	11736	1
[	Mo	98	3.226	ug/L	0.063	1	207	21798	1
	Y	89		ug/L			309412	306144	1
	Kr	83		ug/L			376	398	1
[>	In	115		ug/L			365357	348661	1
|	Ag	107	0.005	ug/L	0.001	18	101	153	5
|	Cd	111	0.388	ug/L	0.010	2	166	1260	3
|	Cd	114	0.401	ug/L	0.006	1	27	2698	0
|	Sb	121	0.377	ug/L	0.013	3	240	3868	2
|	Sb	123	0.373	ug/L	0.004	1	169	2866	1
|	Ba	135	9.981	ug/L	0.081	0	32	24164	0
[	Ba	137	9.835	ug/L	0.066	0	65	41142	1
[>	Tb	159		ug/L			430587	417833	0
|	Tl	205	0.005	ug/L	0.001	22	147	284	11
|	Pb	208	0.722	ug/L	0.012	1	1493	29467	1
|	Bi	209		ug/L			345109	326676	1
|	Th	232	0.077	ug/L	0.005	6	719	4116	5
[	U	238	0.023	ug/L	0.000	1	97	1163	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 19:51:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	407598	1
[	Be	9	0.003	ug/L	0.008	217	3	4	69
	C	13		mg/L			5654	10204	0
	Cl	37		mg/L			2331174	2547808	0
[>	Sc	45		ug/L			262568	249257	0
[	V	51	1.773	ug/L	0.025	1	2402	21950	1
[	V-1	51	1.638	ug/L	0.026	1	8286	26284	1
[	Cr	52	0.578	ug/L	0.012	2	7360	12547	0
[	Cr	53	0.200	ug/L	0.011	5	2713	2803	1
[	Mn	55	596.368	ug/L	4.744	0	1178	9691557	0
[	Co	59	0.612	ug/L	0.004	0	123	7681	0
[>	Ge	72		ug/L			333920	308910	0
[	Ni	60	1.529	ug/L	0.040	2	109	3913	2
[	Ni	62	1.670	ug/L	0.115	6	54	673	6
[	Cu	63	10.136	ug/L	0.014	0	248	56784	0
[	Cu	65	10.199	ug/L	0.099	0	118	27350	0
[	Zn	66	80.613	ug/L	0.661	0	695	136836	0
[	Zn	67	73.690	ug/L	0.336	0	255	20985	0
[	Zn	68	82.021	ug/L	0.701	0	8462	105311	0
[	As	75	7.509	ug/L	0.052	0	693	13479	0
[	As-1	75	8.098	ug/L	0.078	0	11505	24292	0
[	Se	82	0.138	ug/L	0.095	69	-5	21	85
[	Se	78	2.153	ug/L	0.205	9	11713	11827	0
[	Mo	98	3.610	ug/L	0.034	0	207	22936	0
	Y	89		ug/L			309412	286669	1
	Kr	83		ug/L			376	393	2
[>	In	115		ug/L			365357	325759	1
[	Ag	107	0.006	ug/L	0.002	33	101	153	15
[	Cd	111	0.146	ug/L	0.004	2	166	534	3
[	Cd	114	0.128	ug/L	0.006	4	27	819	3
[	Sb	121	0.613	ug/L	0.020	3	240	5741	3
[	Sb	123	0.625	ug/L	0.012	1	169	4380	0
[	Ba	135	24.301	ug/L	0.674	2	32	54909	0
[	Ba	137	24.115	ug/L	0.749	3	65	94130	1
[>	Tb	159		ug/L			430587	387854	1
[	Tl	205	0.004	ug/L	0.001	22	147	232	8
[	Pb	208	3.982	ug/L	0.033	0	1493	144719	0
[	Bi	209		ug/L			345109	308369	0
[	Th	232	0.058	ug/L	0.003	5	719	3032	2
[	U	238	0.021	ug/L	0.001	6	97	1023	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV05 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 19:57:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	450485	0
[	Be	9	0.006	ug/L	0.012	188	3	5	86
	C	13		mg/L			5654	7902	1
	Cl	37		mg/L			2331174	2514270	0
[>	Sc	45		ug/L			262568	263044	2
[	V	51	0.648	ug/L	0.024	3	2402	9984	1
[	V-1	51	0.504	ug/L	0.024	4	8286	14277	0
[	Cr	52	0.888	ug/L	0.045	5	7360	16386	0
[	Cr	53	0.423	ug/L	0.054	12	2713	3224	0
[	Mn	55	11.246	ug/L	0.151	1	1178	193999	1
[	Co	59	0.083	ug/L	0.002	2	123	1200	2
[>	Ge	72		ug/L			333920	336212	0
[	Ni	60	0.759	ug/L	0.025	3	109	2170	2
[	Ni	62	0.969	ug/L	0.032	3	54	447	3
[	Cu	63	3.376	ug/L	0.055	1	248	20751	1
[	Cu	65	3.373	ug/L	0.076	2	118	9922	1
[	Zn	66	327.402	ug/L	3.425	1	695	602731	1
[	Zn	67	291.576	ug/L	1.662	0	255	89615	1
[	Zn	68	322.995	ug/L	3.898	1	8462	426309	0
[	As	75	1.800	ug/L	0.001	0	693	4048	0
[	As-1	75	1.864	ug/L	0.019	1	11505	15003	0
[	Se	82	0.090	ug/L	0.087	96	-5	13	136
[	Se	78	0.311	ug/L	0.082	26	11713	11949	1
[	Mo	98	0.402	ug/L	0.015	3	207	2968	3
	Y	89		ug/L			309412	308078	1
	Kr	83		ug/L			376	394	2
[>	In	115		ug/L			365357	354741	0
[	Ag	107	0.001	ug/L	0.000	33	101	114	4
[	Cd	111	0.941	ug/L	0.037	3	166	2876	4
[	Cd	114	0.928	ug/L	0.017	1	27	6324	1
[	Sb	121	30.573	ug/L	0.355	1	240	300253	0
[	Sb	123	30.656	ug/L	0.298	0	169	226051	0
[	Ba	135	6.073	ug/L	0.110	1	32	14971	1
[	Ba	137	6.068	ug/L	0.123	2	65	25849	1
[>	Tb	159		ug/L			430587	420443	1
[	Tl	205	0.016	ug/L	0.001	5	147	587	2
[	Pb	208	0.484	ug/L	0.004	0	1493	20353	1
[	Bi	209		ug/L			345109	337556	0
[	Th	232	0.015	ug/L	0.004	23	719	1357	11
[	U	238	0.012	ug/L	0.000	2	97	680	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV06 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 20:04:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	414655	0
[	Be	9	0.005	ug/L	0.009	156	3	5	66
	C	13		mg/L			5654	8319	1
	Cl	37		mg/L			2331174	2463071	1
[>	Sc	45		ug/L			262568	242739	1
[	V	51	1.067	ug/L	0.020	1	2402	13751	1
[	V-1	51	0.953	ug/L	0.011	1	8286	18091	0
[	Cr	52	1.600	ug/L	0.045	2	7360	21803	2
[	Cr	53	1.214	ug/L	0.114	9	2713	3851	3
[	Mn	55	90.690	ug/L	1.520	1	1178	1436040	0
[	Co	59	0.664	ug/L	0.005	0	123	8095	1
[>	Ge	72		ug/L			333920	303932	0
[	Ni	60	2.487	ug/L	0.062	2	109	6198	2
[	Ni	62	2.740	ug/L	0.200	7	54	1054	7
[	Cu	63	17.701	ug/L	0.103	0	248	97395	0
[	Cu	65	17.623	ug/L	0.082	0	118	46418	0
[	Zn	66	406.510	ug/L	0.991	0	695	676367	0
[	Zn	67	360.340	ug/L	1.574	0	255	100060	0
[	Zn	68	401.484	ug/L	2.923	0	8462	477175	0
[	As	75	2.023	ug/L	0.014	0	693	4033	0
[	As-1	75	2.543	ug/L	0.025	0	11505	14690	0
[	Se	82	-0.030	ug/L	0.075	251	-5	-10	132
[	Se	78	2.117	ug/L	0.129	6	11713	11619	0
[	Mo	98	0.639	ug/L	0.008	1	207	4151	1
	Y	89		ug/L			309412	290327	1
	Kr	83		ug/L			376	405	1
[>	In	115		ug/L			365357	319035	1
[	Ag	107	0.026	ug/L	0.001	3	101	357	2
[	Cd	111	0.318	ug/L	0.013	3	166	969	2
[	Cd	114	0.278	ug/L	0.011	3	27	1720	3
[	Sb	121	0.988	ug/L	0.009	0	240	8934	2
[	Sb	123	0.998	ug/L	0.009	0	169	6763	1
[	Ba	135	5.482	ug/L	0.043	0	32	12157	1
[	Ba	137	5.484	ug/L	0.012	0	65	21018	1
[>	Tb	159		ug/L			430587	377190	1
[	Tl	205	0.012	ug/L	0.001	8	147	435	6
[	Pb	208	1.337	ug/L	0.023	1	1493	48121	0
[	Bi	209		ug/L			345109	306213	0
[	Th	232	0.038	ug/L	0.001	2	719	2163	0
[	U	238	0.026	ug/L	0.000	1	97	1195	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV06 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 20:10:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			477870	411922	0
⌊	Be	9	0.013	ug/L	0.002	13	3	7	9
	C	13		mg/L			5654	8159	2
	Cl	37		mg/L			2331174	2427130	0
⌈>	Sc	45		ug/L			262568	238955	1
|	V	51	0.584	ug/L	0.023	3	2402	8398	2
|	V-1	51	0.490	ug/L	0.016	3	8286	12819	0
|	Cr	52	1.156	ug/L	0.005	0	7360	17368	0
|	Cr	53	0.833	ug/L	0.051	6	2713	3376	1
|	Mn	55	72.300	ug/L	1.292	1	1178	1127367	2
⌊	Co	59	0.432	ug/L	0.007	1	123	5222	1
⌈>	Ge	72		ug/L			333920	299531	0
|	Ni	60	2.054	ug/L	0.026	1	109	5063	1
|	Ni	62	1.985	ug/L	0.118	5	54	766	5
|	Cu	63	14.023	ug/L	0.251	1	248	76084	1
|	Cu	65	13.920	ug/L	0.133	0	118	36157	1
|	Zn	66	358.922	ug/L	3.732	1	695	588616	1
|	Zn	67	322.418	ug/L	4.358	1	255	88258	1
|	Zn	68	359.168	ug/L	3.568	0	8462	421504	0
|	As	75	1.674	ug/L	0.033	1	693	3397	1
|	As-1	75	2.102	ug/L	0.038	1	11505	13756	0
|	Se	82	0.065	ug/L	0.076	117	-5	7	198
|	Se	78	1.894	ug/L	0.191	10	11713	11352	0
⌊	Mo	98	0.572	ug/L	0.012	2	207	3682	1
	Y	89		ug/L			309412	279653	0
	Kr	83		ug/L			376	399	4
⌈>	In	115		ug/L			365357	318089	0
|	Ag	107	0.012	ug/L	0.001	8	101	215	5
|	Cd	111	0.210	ug/L	0.011	5	166	689	3
|	Cd	114	0.223	ug/L	0.006	2	27	1381	3
|	Sb	121	0.860	ug/L	0.014	1	240	7778	1
|	Sb	123	0.882	ug/L	0.006	0	169	5974	1
|	Ba	135	3.436	ug/L	0.035	1	32	7608	1
⌊	Ba	137	3.442	ug/L	0.059	1	65	13170	0
⌈>	Tb	159		ug/L			430587	377939	1
|	Tl	205	0.008	ug/L	0.001	13	147	332	9
|	Pb	208	0.417	ug/L	0.010	2	1493	15955	1
|	Bi	209		ug/L			345109	301204	1
|	Th	232	0.012	ug/L	0.001	7	719	1124	3
⌊	U	238	0.013	ug/L	0.001	9	97	651	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 20:16:44
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	442781	0
[	Be	9	52.490	ug/L	0.427	0	3	21540	0
	C	13		mg/L			5654	5494	1
	Cl	37		mg/L			2331174	2476583	0
[>	Sc	45		ug/L			262568	246512	1
[	V	51	49.076	ug/L	0.201	0	2402	540639	1
[	V-1	51	49.372	ug/L	0.048	0	8286	556775	1
[	Cr	52	49.264	ug/L	0.265	0	7360	475864	0
[	Cr	53	50.192	ug/L	0.722	1	2713	58932	0
[	Mn	55	48.578	ug/L	0.106	0	1178	781757	1
[	Co	59	49.585	ug/L	0.607	1	123	605857	2
[>	Ge	72		ug/L			333920	327674	0
[	Ni	60	48.723	ug/L	0.565	1	109	128952	0
[	Ni	62	48.707	ug/L	0.322	0	54	19319	0
[	Cu	63	49.632	ug/L	0.170	0	248	293976	0
[	Cu	65	49.758	ug/L	0.838	1	118	141088	1
[	Zn	66	50.134	ug/L	0.110	0	695	90529	0
[	Zn	67	50.189	ug/L	0.620	1	255	15240	1
[	Zn	68	50.694	ug/L	0.310	0	8462	72215	0
[	As	75	50.740	ug/L	0.157	0	693	92706	0
[	As-1	75	50.356	ug/L	0.080	0	11505	101323	0
[	Se	82	48.618	ug/L	0.477	0	-5	9827	0
[	Se	78	47.166	ug/L	1.008	2	11713	34510	1
[	Mo	98	48.427	ug/L	0.176	0	207	323827	0
	Y	89		ug/L			309412	287153	0
	Kr	83		ug/L			376	380	1
[>	In	115		ug/L			365357	337061	0
[	Ag	107	50.390	ug/L	0.808	1	101	561698	0
[	Cd	111	49.815	ug/L	1.052	2	166	136636	1
[	Cd	114	49.746	ug/L	0.749	1	27	320774	0
[	Sb	121	50.076	ug/L	0.786	1	240	467128	0
[	Sb	123	50.039	ug/L	0.755	1	169	350481	0
[	Ba	135	49.461	ug/L	0.368	0	32	115643	0
[	Ba	137	49.548	ug/L	0.586	1	65	200124	1
[>	Tb	159		ug/L			430587	404724	0
[	Tl	205	50.790	ug/L	0.290	0	147	1391592	1
[	Pb	208	50.515	ug/L	0.638	1	1493	1899504	1
[	Bi	209		ug/L			345109	315280	1
[	Th	232	51.120	ug/L	0.141	0	719	2195454	0
[	U	238	50.505	ug/L	0.363	0	97	2317214	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 20:23:22
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	443438	1
[	Be	9	0.003	ug/L	0.010	377	3	4	96
	C	13		mg/L			5654	5618	2
	Cl	37		mg/L			2331174	2520052	0
[>	Sc	45		ug/L			262568	247693	1
|	V	51	-0.030	ug/L	0.025	84	2402	1934	14
|	V-1	51	-0.094	ug/L	0.018	19	8286	6762	1
|	Cr	52	-0.022	ug/L	0.032	141	7360	6724	2
|	Cr	53	-0.226	ug/L	0.108	47	2713	2303	4
|	Mn	55	-0.015	ug/L	0.004	24	1178	869	7
[	Co	59	0.023	ug/L	0.001	5	123	393	2
[>	Ge	72		ug/L			333920	331377	1
|	Ni	60	0.005	ug/L	0.006	129	109	121	13
|	Ni	62	0.067	ug/L	0.038	57	54	80	18
|	Cu	63	0.026	ug/L	0.006	22	248	401	7
|	Cu	65	0.019	ug/L	0.009	48	118	172	14
|	Zn	66	0.253	ug/L	0.011	4	695	1148	1
|	Zn	67	0.073	ug/L	0.118	161	255	275	12
|	Zn	68	-0.123	ug/L	0.084	67	8462	8240	0
|	As	75	0.056	ug/L	0.008	15	693	789	2
|	As-1	75	-0.366	ug/L	0.092	25	11505	10755	0
|	Se	82	-0.042	ug/L	0.053	126	-5	-13	77
|	Se	78	-1.480	ug/L	0.328	22	11713	10892	0
[	Mo	98	-0.010	ug/L	0.006	57	207	140	26
	Y	89		ug/L			309412	292561	0
	Kr	83		ug/L			376	393	0
[>	In	115		ug/L			365357	336184	0
|	Ag	107	0.013	ug/L	0.008	64	101	232	39
|	Cd	111	0.007	ug/L	0.009	133	166	172	15
|	Cd	114	0.007	ug/L	0.004	60	27	68	39
|	Sb	121	0.035	ug/L	0.014	39	240	542	23
|	Sb	123	0.041	ug/L	0.017	41	169	443	27
|	Ba	135	0.020	ug/L	0.005	24	32	75	15
[	Ba	137	0.011	ug/L	0.003	24	65	105	10
[>	Tb	159		ug/L			430587	401796	0
|	Tl	205	0.013	ug/L	0.006	50	147	478	36
|	Pb	208	0.109	ug/L	0.004	3	1493	5465	3
|	Bi	209		ug/L			345109	320578	0
|	Th	232	0.022	ug/L	0.007	32	719	1618	19
[	U	238	0.006	ug/L	0.003	55	97	370	42

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV16 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 20:29:09
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

rerun Pb

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	479708	0
[	Be	9	0.003		ug/L	0.002	58	3	4	15
	C	13			mg/L			5654	6409	1
	Cl	37			mg/L			2331174	2520591	0
[>	Sc	45			ug/L			262568	275194	1
|	V	51	-0.002		ug/L	0.011	511	2402	2490	4
|	V-1	51	-0.191		ug/L	0.019	9	8286	6314	2
|	Cr	52	-0.006		ug/L	0.010	167	7360	7646	0
|	Cr	53	-0.603		ug/L	0.043	7	2713	2087	0
|	Mn	55	-0.035		ug/L	0.002	5	1178	613	4
[	Co	59	-0.004		ug/L	0.002	38	123	70	30
[>	Ge	72			ug/L			333920	361299	0
|	Ni	60	-0.010		ug/L	0.005	49	109	88	17
|	Ni	62	0.045		ug/L	0.019	42	54	78	10
|	Cu	63	0.223	U	ug/L	0.007	2	248	1722	1
|	Cu	65	0.232		ug/L	0.011	4	118	853	4
|	Zn	66	0.217	U	ug/L	0.013	5	695	1182	2
|	Zn	67	0.071		ug/L	0.008	11	255	299	1
|	Zn	68	-0.247		ug/L	0.127	51	8462	8812	1
|	As	75	0.000		ug/L	0.009	2313	693	750	3
|	As-1	75	-0.366		ug/L	0.046	12	11505	11727	0
|	Se	82	-0.042		ug/L	0.083	196	-5	-15	120
|	Se	78	-1.438		ug/L	0.162	11	11713	11900	0
[	Mo	98	-0.016		ug/L	0.002	11	207	103	13
	Y	89			ug/L			309412	327007	1
	Kr	83			ug/L			376	395	1
[>	In	115			ug/L			365357	377761	0
|	Ag	107	0.001		ug/L	0.001	146	101	116	14
|	Cd	111	0.003		ug/L	0.006	231	166	180	9
|	Cd	114	0.001		ug/L	0.001	48	27	36	11
|	Sb	121	0.002		ug/L	0.003	157	240	271	12
|	Sb	123	0.003		ug/L	0.003	104	169	200	12
|	Ba	135	0.009		ug/L	0.002	22	32	57	9
[	Ba	137	0.006		ug/L	0.003	61	65	93	17
[>	Tb	159			ug/L			430587	444493	0
|	Tl	205	0.001		ug/L	0.001	68	147	175	9
|	Pb	208	0.115		ug/L	0.003	2	1493	6288	1
|	Bl	209			ug/L			345109	355052	0
|	Th	232	0.017		ug/L	0.004	24	719	1525	13
[	U	238	0.001		ug/L	0.000	13	97	149	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV16 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 20:34:58
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

new Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	484526	1
[	Be	9	-0.003	ug/L	0.004	146	3	2	91
	C	13		mg/L			5654	6777	0
	Cl	37		mg/L			2331174	2503542	0
[>	Sc	45		ug/L			262568	273086	0
[	V	51	-0.003	ug/L	0.013	412	2402	2459	7
[	V-1	51	-0.197	ug/L	0.008	4	8286	6196	1
[	Cr	52	0.023	ug/L	0.015	64	7360	7898	1
[	Cr	53	-0.590	ug/L	0.047	7	2713	2087	1
[	Mn	55	-0.010	ug/L	0.002	21	1178	1051	4
[	Co	59	-0.003	ug/L	0.000	13	123	92	5
[>	Ge	72		ug/L			333920	358322	1
[	Ni	60	-0.003	ug/L	0.004	101	109	107	8
[	Ni	62	0.049	ug/L	0.033	67	54	79	16
[	Cu	63	U 0.142	ug/L	0.005	3	248	1188	1
[	Cu	65	0.141	ug/L	0.009	6	118	564	3
[	Zn	66	U 0.147	ug/L	0.014	9	695	1034	4
[	Zn	67	0.027	ug/L	0.009	35	255	282	2
[	Zn	68	-0.090	ug/L	0.157	175	8462	8955	1
[	As	75	-0.003	ug/L	0.025	764	693	737	7
[	As-1	75	-0.219	ug/L	0.151	68	11505	11914	0
[	Se	82	-0.019	ug/L	0.085	443	-5	-9	188
[	Se	78	-0.867	ug/L	0.568	65	11713	12103	0
[	Mo	98	-0.017	ug/L	0.002	11	207	99	12
	Y	89		ug/L			309412	326017	1
	Kr	83		ug/L			376	391	0
[>	In	115		ug/L			365357	379695	0
[	Ag	107	-0.001	ug/L	0.001	100	101	92	14
[	Cd	111	0.001	ug/L	0.003	312	166	176	6
[	Cd	114	0.001	ug/L	0.001	137	27	32	17
[	Sb	121	-0.008	ug/L	0.001	11	240	165	6
[	Sb	123	-0.006	ug/L	0.001	19	169	129	7
[	Ba	135	0.029	ug/L	0.003	10	32	109	6
[	Ba	137	0.020	ug/L	0.001	5	65	160	3
[>	Tb	159		ug/L			430587	446765	0
[	Tl	205	-0.001	ug/L	0.000	35	147	119	10
[	Pb	208	0.091	ug/L	0.002	1	1493	5331	1
[	Bi	209		ug/L			345109	360787	0
[	Th	232	0.010	ug/L	0.001	8	719	1216	3
[	U	238	0.000	ug/L	0.000	45	97	122	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV16 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 20:40:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

rerun Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	476050	0
[	Be	9	25.701	ug/L	0.239	0	3	11341	1
	C	13		mg/L			5654	7652	1
	Cl	37		mg/L			2331174	2493937	0
[>	Sc	45		ug/L			262568	272683	2
|	V	51	24.395	ug/L	0.218	0	2402	298486	1
|	V-1	51	24.440	ug/L	0.256	1	8286	309189	1
|	Cr	52	24.830	ug/L	0.229	0	7360	269083	1
|	Cr	53	24.956	ug/L	0.352	1	2713	33829	1
|	Mn	55	24.847	ug/L	0.343	1	1178	442820	0
[	Co	59	25.635	ug/L	0.249	0	123	346567	2
[>	Ge	72		ug/L			333920	356019	1
|	Ni	60	25.586	ug/L	0.130	0	109	73631	1
|	Ni	62	25.958	ug/L	0.307	1	54	11213	1
|	Cu	63	26.923	ug/L	0.211	0	248	173376	0
|	Cu	65	26.826	ug/L	0.333	1	118	82705	2
|	Zn	66	80.136	ug/L	0.198	0	695	156780	1
|	Zn	67	74.632	ug/L	0.334	0	255	24491	1
|	Zn	68	78.718	ug/L	0.221	0	8462	116846	1
|	As	75	25.807	ug/L	0.170	0	693	51594	1
|	As-1	75	24.916	ug/L	0.186	0	11505	60666	1
|	Se	82	75.303	ug/L	0.510	0	-5	16543	1
|	Se	78	74.625	ug/L	0.210	0	11713	52055	1
[	Mo	98	-0.014	ug/L	0.001	3	207	121	2
	Y	89		ug/L			309412	325909	2
	Kr	83		ug/L			376	394	2
[>	In	115		ug/L			365357	373442	1
|	Ag	107	26.018	ug/L	0.282	1	101	321392	1
|	Cd	111	24.718	ug/L	0.293	1	166	75204	1
|	Cd	114	24.850	ug/L	0.144	0	27	177554	1
|	Sb	121	-0.008	ug/L	0.000	6	240	166	4
|	Sb	123	-0.006	ug/L	0.002	41	169	130	14
|	Ba	135	25.240	ug/L	0.513	2	32	65399	2
[	Ba	137	25.331	ug/L	0.745	2	65	113373	2
[>	Tb	159		ug/L			430587	443435	1
|	Tl	205	26.346	ug/L	0.253	0	147	790930	1
|	Pb	208	26.156	ug/L	0.412	1	1493	1078404	2
|	Bi	209		ug/L			345109	356329	1
|	Th	232	26.481	ug/L	0.405	1	719	1246398	1
[	U	238	26.358	ug/L	0.352	1	97	1325123	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV16 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 20:47:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

rear Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	481504	1
[	Be	9	25.851	ug/L	0.458	1	3	11536	0
	C	13		mg/L			5654	6980	0
	Cl	37		mg/L			2331174	2504534	0
[>	Sc	45		ug/L			262568	274452	0
[	V	51	24.618	ug/L	0.192	0	2402	303169	0
[	V-1	51	24.646	ug/L	0.208	0	8286	313765	0
[	Cr	52	24.678	ug/L	0.287	1	7360	269246	1
[	Cr	53	24.765	ug/L	0.282	1	2713	33813	1
[	Mn	55	25.420	ug/L	0.200	0	1178	456028	0
[	Co	59	25.735	ug/L	0.242	0	123	350126	0
[>	Ge	72		ug/L			333920	360404	0
[	Ni	60	25.552	ug/L	0.302	1	109	74436	0
[	Ni	62	26.303	ug/L	0.577	2	54	11502	2
[	Cu	63	26.707	ug/L	0.393	1	248	174104	1
[	Cu	65	26.951	ug/L	0.232	0	118	84111	1
[	Zn	66	80.136	ug/L	0.413	0	695	158710	0
[	Zn	67	73.644	ug/L	0.647	0	255	24467	0
[	Zn	68	79.471	ug/L	0.962	1	8462	119324	0
[	As	75	26.101	ug/L	0.299	1	693	52812	0
[	As-1	75	25.021	ug/L	0.408	1	11505	61619	0
[	Se	82	77.142	ug/L	1.002	1	-5	17154	0
[	Se	78	75.866	ug/L	1.502	1	11713	53359	0
[	Mo	98	-0.012	ug/L	0.003	24	207	133	17
	Y	89		ug/L			309412	331227	0
	Kr	83		ug/L			376	401	1
[>	In	115		ug/L			365357	383758	0
[	Ag	107	25.476	ug/L	0.402	1	101	323409	1
[	Cd	111	24.674	ug/L	0.211	0	166	77155	1
[	Cd	114	24.735	ug/L	0.234	0	27	181626	1
[	Sb	121	-0.009	ug/L	0.003	28	240	157	17
[	Sb	123	-0.009	ug/L	0.001	14	169	107	9
[	Ba	135	24.782	ug/L	0.307	1	32	65985	0
[	Ba	137	24.663	ug/L	0.132	0	65	113449	0
[>	Tb	159		ug/L			430587	449154	0
[	Tl	205	26.359	ug/L	0.442	1	147	801520	1
[	Pb	208	26.632	ug/L	0.344	1	1493	1112008	0
[	Bi	209		ug/L			345109	365373	1
[	Th	232	26.465	ug/L	0.215	0	719	1261669	0
[	U	238	26.581	ug/L	0.282	1	97	1353549	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV16 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 20:53:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

rem
Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	333285	5
[	Be	9	0.007	ug/L	0.006	77	3	4	41
	C	13		mg/L			5654	8448	0
	Cl	37		mg/L			2331174	11927728	3
[>	Sc	45		ug/L			262568	248311	5
[	V	51	1.952	ug/L	0.137	7	2402	23852	8
[	V-1	51	6.035	ug/L	0.417	6	8286	75294	3
[	Cr	52	2.533	ug/L	0.076	2	7360	31228	2
[	Cr	53	15.430	ug/L	1.684	10	2713	19979	6
[	Mn	55	185.286	ug/L	0.248	0	1178	3000585	5
[	Co	59	0.572	ug/L	0.009	1	123	7157	5
[>	Ge	72		ug/L			333920	285385	3
[	Ni	60	8.981	ug/L	0.229	2	109	20785	5
[	Ni	62	16.000	ug/L	2.505	15	54	5577	19
[	Cu	63	38.420	ug/L	0.426	1	248	198298	4
[	Cu	65	31.242	ug/L	0.180	0	118	77200	4
[	Zn	66	271.218	ug/L	1.823	0	695	423967	4
[	Zn	67	245.573	ug/L	0.982	0	255	64095	3
[	Zn	68	271.598	ug/L	1.948	0	8462	305441	3
[	As	75	2.592	ug/L	0.095	3	693	4687	5
[	As-1	75	1.260	ug/L	0.122	9	11505	11791	2
[	Se	82	6.441	ug/L	0.210	3	-5	1130	6
[	Se	78	2.737	ug/L	0.406	14	11713	11170	2
[	Mo	98	16.794	ug/L	0.142	0	207	97936	4
	Y	89		ug/L			309412	286507	5
	Kr	83		ug/L			376	481	2
[>	In	115		ug/L			365357	322415	3
[	Ag	107	0.052	ug/L	0.013	23	101	650	23
[	Cd	111	0.562	ug/L	0.219	39	166	1625	37
[	Cd	114	1.340	ug/L	0.012	0	27	8288	3
[	Sb	121	1.708	ug/L	0.008	0	240	15449	3
[	Sb	123	1.694	ug/L	0.015	0	169	11497	3
[	Ba	135	91.438	ug/L	0.541	0	32	204479	3
[	Ba	137	90.716	ug/L	1.134	1	65	350401	3
[>	Tb	159		ug/L			430587	386477	3
[	Tl	205	0.024	ug/L	0.006	24	147	755	24
[	Pb	208	15.483	ug/L	0.041	0	1493	556821	3
[	Bi	209		ug/L			345109	274053	3
[	Th	232	0.128	ug/L	0.041	32	719	5934	32
[	U	238	0.209	ug/L	0.004	1	97	9233	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 20:59:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	381146	1
[	Be	9	0.007	ug/L	0.006	90	3	5	43
	C	13		mg/L			5654	7045	1
	Cl	37		mg/L			2331174	2561209	0
[>	Sc	45		ug/L			262568	242513	0
[	V	51	0.688	ug/L	0.013	1	2402	9641	1
[	V-1	51	1.419	ug/L	0.096	6	8286	23175	4
[	Cr	52	0.285	ug/L	0.031	10	7360	9465	3
[	Cr	53	2.615	ug/L	0.321	12	2713	5397	6
[	Mn	55	452.182	ug/L	3.798	0	1178	7149838	0
[	Co	59	0.444	ug/L	0.007	1	123	5451	1
[>	Ge	72		ug/L			333920	308205	1
[	Ni	60	1.234	ug/L	0.021	1	109	3170	2
[	Ni	62	1.187	ug/L	0.031	2	54	491	1
[	Cu	63	7.172	ug/L	0.051	0	248	40153	0
[	Cu	65	7.053	ug/L	0.062	0	118	18903	1
[	Zn	66	54.762	ug/L	0.458	0	695	92950	1
[	Zn	67	50.761	ug/L	0.702	1	255	14497	2
[	Zn	68	55.614	ug/L	0.518	0	8462	73754	0
[	As	75	3.749	ug/L	0.065	1	693	7035	1
[	As-1	75	3.568	ug/L	0.079	2	11505	16619	1
[	Se	82	0.130	ug/L	0.054	41	-5	19	51
[	Se	78	-0.473	ug/L	0.110	23	11713	10594	1
[	Mo	98	2.689	ug/L	0.050	1	207	17089	0
	Y	89		ug/L			309412	277948	1
	Kr	83		ug/L			376	392	0
[>	In	115		ug/L			365357	329136	1
[	Ag	107	-0.001	ug/L	0.001	111	101	82	10
[	Cd	111	0.088	ug/L	0.013	14	166	386	8
[	Cd	114	0.082	ug/L	0.006	7	27	542	5
[	Sb	121	0.502	ug/L	0.002	0	240	4786	0
[	Sb	123	0.501	ug/L	0.013	2	169	3578	3
[	Ba	135	18.384	ug/L	0.385	2	32	41993	2
[	Ba	137	18.209	ug/L	0.244	1	65	71849	0
[>	Tb	159		ug/L			430587	388709	1
[	Tl	205	0.003	ug/L	0.001	29	147	201	9
[	Pb	208	1.759	ug/L	0.002	0	1493	64820	1
[	Bi	209		ug/L			345109	317072	2
[	Th	232	0.017	ug/L	0.002	13	719	1368	8
[	U	238	0.011	ug/L	0.000	2	97	582	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 21:05:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	383732	1
[	Be	9	0.003	ug/L	0.007	231	3	3	66
	C	13		mg/L			5654	6797	1
	Cl	37		mg/L			2331174	2528348	0
[>	Sc	45		ug/L			262568	241529	1
|	V	51	0.366	ug/L	0.016	4	2402	6145	2
|	V-1	51	0.870	ug/L	0.072	8	8286	17090	3
|	Cr	52	0.840	ug/L	0.018	2	7360	14602	2
|	Cr	53	2.412	ug/L	0.211	8	2713	5150	3
|	Mn	55	4.140	ug/L	0.074	1	1178	66256	0
[	Co	59	0.082	ug/L	0.002	2	123	1094	2
[>	Ge	72		ug/L			333920	318751	0
|	Ni	60	0.462	ug/L	0.018	3	109	1292	3
|	Ni	62	0.599	ug/L	0.125	20	54	282	16
|	Cu	63	4.920	ug/L	0.107	2	248	28559	1
|	Cu	65	4.904	ug/L	0.051	1	118	13629	0
|	Zn	66	191.635	ug/L	2.548	1	695	334727	0
|	Zn	67	170.611	ug/L	1.195	0	255	49812	0
|	Zn	68	191.166	ug/L	1.653	0	8462	242511	0
|	As	75	0.259	ug/L	0.017	6	693	1119	2
|	As-1	75	-0.243	ug/L	0.082	33	11505	10560	0
|	Se	82	-0.020	ug/L	0.092	469	-5	-9	198
|	Se	78	-1.695	ug/L	0.302	17	11713	10376	0
[	Mo	98	0.505	ug/L	0.004	0	207	3480	1
	Y	89		ug/L			309412	281880	1
	Kr	83		ug/L			376	391	3
[>	In	115		ug/L			365357	332303	0
|	Ag	107	0.001	ug/L	0.001	41	101	107	5
|	Cd	111	0.298	ug/L	0.003	0	166	955	0
|	Cd	114	0.272	ug/L	0.005	1	27	1751	1
|	Sb	121	0.468	ug/L	0.008	1	240	4518	2
|	Sb	123	0.483	ug/L	0.018	3	169	3490	4
|	Ba	135	2.437	ug/L	0.042	1	32	5645	2
[	Ba	137	2.438	ug/L	0.020	0	65	9765	0
[>	Tb	159		ug/L			430587	395925	1
|	Tl	205	0.001	ug/L	0.000	16	147	164	1
|	Pb	208	1.207	ug/L	0.030	2	1493	45714	0
|	Bi	209		ug/L			345109	323359	0
|	Th	232	-0.001	ug/L	0.001	123	719	637	3
[	U	238	0.004	ug/L	0.000	8	97	280	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 21:12:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	**Li**	**6**		ug/L			477870	376991	1
⌊	**Be**	**9**	**0.002**	ug/L	0.005	272	3	3	57
	C	**13**		mg/L			5654	6609	2
	Cl	**37**		mg/L			2331174	2498525	0
⌈>	**Sc**	**45**		ug/L			262568	232934	0
|	**V**	**51**	**0.259**	ug/L	0.019	7	2402	4817	4
|	**V-1**	**51**	**0.658**	ug/L	0.024	3	8286	14263	2
|	**Cr**	**52**	**0.259**	ug/L	0.012	4	7360	8856	1
|	**Cr**	**53**	**1.520**	ug/L	0.035	2	2713	4021	1
|	**Mn**	**55**	**2.685**	ug/L	0.029	1	1178	41822	1
⌊	**Co**	**59**	**0.062**	ug/L	0.006	9	123	829	7
⌈>	**Ge**	**72**		ug/L			333920	310577	0
|	**Ni**	**60**	**0.300**	ug/L	0.016	5	109	854	4
|	**Ni**	**62**	**0.381**	ug/L	0.024	6	54	193	4
|	**Cu**	**63**	**3.732**	ug/L	0.042	1	248	21162	0
|	**Cu**	**65**	**3.739**	ug/L	0.091	2	118	10151	2
|	**Zn**	**66**	**170.113**	ug/L	0.495	0	695	289604	0
|	**Zn**	**67**	**151.012**	ug/L	1.789	1	255	42989	1
|	**Zn**	**68**	**168.993**	ug/L	2.175	1	8462	209800	1
|	**As**	**75**	**0.210**	ug/L	0.010	4	693	1005	1
|	**As-1**	**75**	**-0.193**	ug/L	0.046	23	11505	10373	0
|	**Se**	**82**	**-0.050**	ug/L	0.060	119	-5	-14	78
|	**Se**	**78**	**-1.292**	ug/L	0.118	9	11713	10297	0
⌊	**Mo**	**98**	**0.458**	ug/L	0.006	1	207	3092	1
	Y	**89**		ug/L			309412	271284	0
	Kr	**83**		ug/L			376	394	2
⌈>	**In**	**115**		ug/L			365357	328326	1
|	**Ag**	**107**	**-0.003**	ug/L	0.001	40	101	59	23
|	**Cd**	**111**	**0.238**	ug/L	0.004	1	166	786	2
|	**Cd**	**114**	**0.225**	ug/L	0.012	5	27	1436	5
|	**Sb**	**121**	**0.411**	ug/L	0.015	3	240	3948	2
|	**Sb**	**123**	**0.425**	ug/L	0.017	3	169	3050	2
|	**Ba**	**135**	**1.762**	ug/L	0.011	0	32	4040	1
⌊	**Ba**	**137**	**1.768**	ug/L	0.027	1	65	7012	1
⌈>	**Tb**	**159**		ug/L			430587	386278	0
|	**Tl**	**205**	**-0.001**	ug/L	0.000	80	147	117	11
|	**Pb**	**208**	**0.122**	ug/L	0.005	3	1493	5716	2
|	**Bi**	**209**		ug/L			345109	311526	1
|	**Th**	**232**	**-0.006**	ug/L	0.000	1	719	406	0
⌊	**U**	**238**	**0.002**	ug/L	0.000	3	97	192	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 21:18:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	405533	2
[	Be	9	0.037	ug/L	0.011	31	3	16	24
	C	13		mg/L			5654	7536	0
	Cl	37		mg/L			2331174	2477118	0
[>	Sc	45		ug/L			262568	258972	1
|	V	51	5.866	ug/L	0.095	1	2402	69982	2
|	V-1	51	6.078	ug/L	0.105	1	8286	79175	1
|	Cr	52	4.198	ug/L	0.082	1	7360	49242	2
|	Cr	53	4.939	ug/L	0.187	3	2713	8504	1
|	Mn	55	60.063	ug/L	0.530	0	1178	1015191	1
[	Co	59	1.261	ug/L	0.020	1	123	16305	1
[>	Ge	72		ug/L			333920	319111	0
|	Ni	60	3.931	ug/L	0.033	0	109	10228	1
|	Ni	62	4.766	ug/L	0.215	4	54	1887	4
|	Cu	63	13.095	ug/L	0.111	0	248	75712	0
|	Cu	65	13.293	ug/L	0.160	1	118	36788	0
|	Zn	66	68.536	ug/L	0.720	1	695	120279	1
|	Zn	67	62.609	ug/L	0.607	0	255	18454	0
|	Zn	68	68.194	ug/L	0.128	0	8462	91813	0
|	As	75	1.743	ug/L	0.030	1	693	3740	1
|	As-1	75	1.233	ug/L	0.075	6	11505	13142	0
|	Se	82	-0.026	ug/L	0.069	270	-5	-10	132
|	Se	78	-1.774	ug/L	0.207	11	11713	10350	0
[	Mo	98	7.217	ug/L	0.073	1	207	47165	1
	Y	89		ug/L			309412	300849	2
	Kr	83		ug/L			376	397	2
[>	In	115		ug/L			365357	335906	0
|	Ag	107	0.027	ug/L	0.001	4	101	390	4
|	Cd	111	0.238	ug/L	0.044	18	166	805	15
|	Cd	114	0.204	ug/L	0.005	2	27	1339	2
|	Sb	121	1.083	ug/L	0.022	1	240	10280	1
|	Sb	123	1.082	ug/L	0.012	1	169	7707	1
|	Ba	135	21.156	ug/L	0.138	0	32	49311	0
[	Ba	137	21.174	ug/L	0.465	2	65	85263	2
[>	Tb	159		ug/L			430587	396686	1
|	Tl	205	0.014	ug/L	0.002	11	147	499	7
|	Pb	208	5.842	ug/L	0.040	0	1493	216508	0
|	Bi	209		ug/L			345109	325096	1
|	Th	232	0.138	ug/L	0.004	2	719	6480	1
[	U	238	0.068	ug/L	0.003	4	97	3170	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV14 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 21:24:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			477870	412524	0
⌊	Be	9	0.008	ug/L	0.002	24	3	5	12
	C	13		mg/L			5654	7636	0
	Cl	37		mg/L			2331174	2465844	0
⌈>	Sc	45		ug/L			262568	247617	0
|	V	51	1.087	ug/L	0.019	1	2402	14246	1
|	V-1	51	1.219	ug/L	0.040	3	8286	21424	1
|	Cr	52	0.478	ug/L	0.006	1	7360	11507	0
|	Cr	53	0.919	ug/L	0.102	11	2713	3595	2
|	Mn	55	12.022	ug/L	0.129	1	1178	195161	0
⌊	Co	59	0.113	ug/L	0.005	4	123	1503	3
⌈>	Ge	72		ug/L			333920	321826	0
|	Ni	60	0.758	ug/L	0.019	2	109	2074	2
|	Ni	62	0.702	ug/L	0.067	9	54	325	8
|	Cu	63	5.194	ug/L	0.058	1	248	30428	1
|	Cu	65	5.246	ug/L	0.010	0	118	14711	0
|	Zn	66	9.966	ug/L	0.147	1	695	18212	1
|	Zn	67	9.113	ug/L	0.052	0	255	2919	0
|	Zn	68	9.857	ug/L	0.134	1	8462	20361	0
|	As	75	0.887	ug/L	0.007	0	693	2248	0
|	As-1	75	0.272	ug/L	0.075	27	11505	11566	1
|	Se	82	0.027	ug/L	0.027	100	-5	0	3118
|	Se	78	-1.818	ug/L	0.265	14	11713	10418	1
⌊	Mo	98	7.172	ug/L	0.126	1	207	47272	1
	Y	89		ug/L			309412	289576	0
	Kr	83		ug/L			376	447	0
⌈>	In	115		ug/L			365357	338594	0
|	Ag	107	-0.001	ug/L	0.001	78	101	86	6
|	Cd	111	0.019	ug/L	0.013	65	166	208	16
|	Cd	114	0.036	ug/L	0.005	14	27	257	12
|	Sb	121	0.556	ug/L	0.009	1	240	5428	1
|	Sb	123	0.579	ug/L	0.019	3	169	4230	3
|	Ba	135	3.637	ug/L	0.099	2	32	8569	2
⌊	Ba	137	3.610	ug/L	0.069	1	65	14702	1
⌈>	Tb	159		ug/L			430587	395612	1
|	Tl	205	-0.001	ug/L	0.001	81	147	113	16
|	Pb	208	0.193	ug/L	0.001	0	1493	8474	0
|	Bi	209		ug/L			345109	324606	0
|	Th	232	0.002	ug/L	0.001	41	719	743	3
⌊	U	238	0.016	ug/L	0.000	2	97	816	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 21:31:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	397873	1
[	Be	9	52.260	ug/L	0.540	1	3	19270	0
	C	13		mg/L			5654	5124	1
	Cl	37		mg/L			2331174	2510570	0
[>	Sc	45		ug/L			262568	234949	0
[	V	51	49.402	ug/L	0.160	0	2402	518680	0
[	V-1	51	49.751	ug/L	0.205	0	8286	534676	0
[	Cr	52	49.718	ug/L	0.178	0	7360	457685	0
[	Cr	53	50.811	ug/L	0.947	1	2713	56834	1
[	Mn	55	49.182	ug/L	0.662	1	1178	754318	0
[	Co	59	50.145	ug/L	0.978	1	123	583916	1
[>	Ge	72		ug/L			333920	312203	1
[	Ni	60	48.982	ug/L	0.659	1	109	123513	1
[	Ni	62	49.639	ug/L	1.150	2	54	18756	1
[	Cu	63	50.364	ug/L	0.524	1	248	284210	0
[	Cu	65	50.320	ug/L	0.486	0	118	135933	0
[	Zn	66	50.993	ug/L	0.991	1	695	87714	1
[	Zn	67	52.577	ug/L	1.198	2	255	15199	1
[	Zn	68	51.440	ug/L	1.112	2	8462	69691	0
[	As	75	50.174	ug/L	0.315	0	693	87347	0
[	As-1	75	49.887	ug/L	0.440	0	11505	95736	0
[	Se	82	47.350	ug/L	0.968	2	-5	9118	1
[	Se	78	46.642	ug/L	1.138	2	11713	32635	0
[	Mo	98	48.294	ug/L	0.282	0	207	307678	0
	Y	89		ug/L			309412	274779	2
	Kr	83		ug/L			376	440	5
[>	In	115		ug/L			365357	324292	1
[	Ag	107	50.332	ug/L	0.751	1	101	539779	0
[	Cd	111	49.694	ug/L	0.387	0	166	131151	0
[	Cd	114	49.679	ug/L	0.803	1	27	308220	2
[	Sb	121	50.655	ug/L	1.034	2	240	454576	0
[	Sb	123	50.495	ug/L	1.050	2	169	340236	0
[	Ba	135	49.489	ug/L	0.844	1	32	111307	0
[	Ba	137	49.748	ug/L	0.940	1	65	193285	0
[>	Tb	159		ug/L			430587	386560	1
[	Tl	205	51.879	ug/L	0.870	1	147	1357457	0
[	Pb	208	51.511	ug/L	0.745	1	1493	1849720	0
[	Bi	209		ug/L			345109	307037	1
[	Th	232	52.466	ug/L	0.676	1	719	2151894	0
[	U	238	51.118	ug/L	0.640	1	97	2239904	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 21:37:44
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	396589	1
[	Be	9	0.000	ug/L	0.011	2754	3	2	137
	C	13		mg/L			5654	5108	1
	Cl	37		mg/L			2331174	2552551	0
[>	Sc	45		ug/L			262568	233173	0
[	V	51	-0.010	ug/L	0.036	356	2402	2028	19
[	V-1	51	0.112	ug/L	0.013	11	8286	8534	0
[	Cr	52	-0.012	ug/L	0.011	89	7360	6429	1
[	Cr	53	0.374	ug/L	0.150	40	2713	2807	5
[	Mn	55	-0.017	ug/L	0.002	8	1178	781	3
[	Co	59	0.021	ug/L	0.001	5	123	353	4
[>	Ge	72		ug/L			333920	307306	0
[	Ni	60	0.001	ug/L	0.005	1074	109	102	12
[	Ni	62	0.036	ug/L	0.036	97	54	63	20
[	Cu	63	0.025	ug/L	0.002	9	248	367	3
[	Cu	65	0.023	ug/L	0.007	30	118	170	10
[	Zn	66	0.284	ug/L	0.005	1	695	1118	0
[	Zn	67	0.309	ug/L	0.153	49	255	321	13
[	Zn	68	0.251	ug/L	0.162	64	8462	8085	2
[	As	75	0.157	ug/L	0.007	4	693	905	1
[	As-1	75	-0.227	ug/L	0.040	17	11505	10207	0
[	Se	82	-0.044	ug/L	0.114	255	-5	-13	159
[	Se	78	-0.965	ug/L	0.174	18	11713	10338	0
[	Mo	98	-0.016	ug/L	0.003	18	207	89	21
	Y	89		ug/L			309412	270720	1
	Kr	83		ug/L			376	435	1
[>	In	115		ug/L			365357	323236	1
[	Ag	107	0.004	ug/L	0.005	105	101	137	37
[	Cd	111	0.009	ug/L	0.002	19	166	170	2
[	Cd	114	0.002	ug/L	0.001	75	27	33	21
[	Sb	121	0.027	ug/L	0.012	42	240	457	24
[	Sb	123	0.033	ug/L	0.015	46	169	371	29
[	Ba	135	0.011	ug/L	0.004	33	32	53	15
[	Ba	137	0.010	ug/L	0.003	24	65	98	9
[>	Tb	159		ug/L			430587	381099	1
[	Tl	205	0.005	ug/L	0.003	52	147	255	24
[	Pb	208	0.067	ug/L	0.004	5	1493	3692	2
[	Bi	209		ug/L			345109	307694	1
[	Th	232	0.018	ug/L	0.006	34	719	1370	18
[	U	238	0.002	ug/L	0.001	50	97	183	26

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU62 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 21:43:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass		Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	414483	0
[	Be	9		0.004	ug/L	0.012	280	3	4	103
	C	13			mg/L			5654	6189	2
	Cl	37			mg/L			2331174	2552420	0
[>	Sc	45			ug/L			262568	245926	0
[	V	51		-0.012	ug/L	0.008	62	2402	2118	4
[	V-1	51		0.058	ug/L	0.023	39	8286	8403	2
[	Cr	52		-0.002	ug/L	0.017	912	7360	6875	2
[	Cr	53		0.219	ug/L	0.082	37	2713	2787	3
[	Mn	55		-0.027	ug/L	0.002	9	1178	672	6
[	Co	59		0.003	ug/L	0.002	53	123	151	12
[>	Ge	72			ug/L			333920	327718	0
[	Ni	60		-0.004	ug/L	0.002	58	109	96	7
[	Ni	62		0.046	ug/L	0.016	36	54	71	9
[	Cu	63		0.224	ug/L	0.003	1	248	1567	0
[	Cu	65		0.233	ug/L	0.009	4	118	775	2
[	Zn	66		1.136	ug/L	0.013	1	695	2719	0
[	Zn	67		1.046	ug/L	0.057	5	255	562	2
[	Zn	68		0.882	ug/L	0.091	10	8462	9416	0
[	As	75	U	0.123	ug/L	0.020	16	693	903	3
[	As-1	75		-0.526	ug/L	0.084	15	11505	10350	0
[	Se	82		-0.081	ug/L	0.085	105	-5	-21	79
[	Se	78		-2.119	ug/L	0.276	13	11713	10461	0
[	Mo	98		0.005	ug/L	0.004	67	207	240	10
	Y	89			ug/L			309412	291735	1
	Kr	83			ug/L			376	435	2
[>	In	115			ug/L			365357	346056	1
[	Ag	107	U	-0.000	ug/L	0.001	502	101	94	5
[	Cd	111	U	0.010	ug/L	0.006	63	166	185	8
[	Cd	114		0.000	ug/L	0.001	186	27	28	19
[	Sb	121	U	0.001	ug/L	0.002	185	240	240	10
[	Sb	123		0.001	ug/L	0.003	393	169	166	13
[	Ba	135		0.019	ug/L	0.004	22	32	77	12
[	Ba	137		0.023	ug/L	0.003	13	65	155	6
[>	Tb	159			ug/L			430587	404759	0
[	Tl	205		-0.000	ug/L	0.001	849	147	135	24
[	Pb	208		0.061	ug/L	0.002	3	1493	3685	1
[	Bi	209			ug/L			345109	325801	1
[	Th	232		0.011	ug/L	0.003	31	719	1142	13
[	U	238		0.000	ug/L	0.000	95	97	101	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU62 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 21:49:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	412375	0
[	Be	9	24.427	ug/L	0.224	0	3	9337	1
	C	13		mg/L			5654	6626	0
	Cl	37		mg/L			2331174	2555264	0
[>	Sc	45		ug/L			262568	241677	0
[	V	51	24.090	ug/L	0.227	0	2402	261285	0
[	V-1	51	24.381	ug/L	0.217	0	8286	273412	0
[	Cr	52	24.293	ug/L	0.210	0	7360	233511	1
[	Cr	53	25.208	ug/L	0.152	0	2713	30264	1
[	Mn	55	24.393	ug/L	0.209	0	1178	385382	0
[	Co	59	24.809	ug/L	0.070	0	123	297238	0
[>	Ge	72		ug/L			333920	317549	1
[	Ni	60	24.908	ug/L	0.224	0	109	63936	0
[	Ni	62	25.124	ug/L	0.918	3	54	9680	2
[	Cu	63	26.102	ug/L	0.218	0	248	149935	0
[	Cu	65	26.531	ug/L	0.051	0	118	72957	1
[	Zn	66	79.869	ug/L	0.301	0	695	139373	1
[	Zn	67	72.953	ug/L	0.910	1	255	21357	0
[	Zn	68	77.448	ug/L	0.616	0	8462	102664	0
[	As	75	25.662	ug/L	0.362	1	693	45760	0
[	As-1	75	24.722	ug/L	0.443	1	11505	53772	0
[	Se	82	72.248	ug/L	0.941	1	-5	14155	0
[	Se	78	71.573	ug/L	1.273	1	11713	44984	0
[	Mo	98	24.377	ug/L	0.292	1	207	158055	0
	Y	89		ug/L			309412	284726	0
	Kr	83		ug/L			376	414	3
[>	In	115		ug/L			365357	335089	0
[	Ag	107	24.401	ug/L	0.332	1	101	270463	0
[	Cd	111	24.125	ug/L	0.066	0	166	65873	0
[	Cd	114	24.007	ug/L	0.351	1	27	153912	1
[	Sb	121	24.539	ug/L	0.463	1	240	227693	1
[	Sb	123	24.746	ug/L	0.197	0	169	172397	0
[	Ba	135	24.281	ug/L	0.338	1	32	56451	1
[	Ba	137	24.313	ug/L	0.441	1	65	97646	0
[>	Tb	159		ug/L			430587	397842	0
[	Tl	205	25.508	ug/L	0.306	1	147	687074	1
[	Pb	208	25.644	ug/L	0.229	0	1493	948529	0
[	Bi	209		ug/L			345109	321033	0
[	Th	232	25.593	ug/L	0.158	0	719	1080759	0
[	U	238	25.440	ug/L	0.350	1	97	1147411	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU62 JDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 21:55:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass		Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	424201	2
[	Be	9		0.002	ug/L	0.003	158	3	3	33
	C	13			mg/L			5654	6664	1
	Cl	37			mg/L			2331174	2541939	0
[>	Sc	45			ug/L			262568	251519	2
[	V	51		0.006	ug/L	0.024	426	2402	2362	11
[	V-1	51		-0.026	ug/L	0.030	115	8286	7638	2
[	Cr	52		0.165	ug/L	0.033	19	7360	8648	4
[	Cr	53		0.058	ug/L	0.119	205	2713	2664	4
[	Mn	55		0.849	ug/L	0.012	1	1178	15042	2
[	Co	59		0.008	ug/L	0.001	15	123	219	9
[>	Ge	72			ug/L			333920	331115	1
[	Ni	60		0.049	ug/L	0.008	16	109	240	10
[	Ni	62		0.087	ug/L	0.018	20	54	88	7
[	Cu	63		0.199	ug/L	0.008	4	248	1434	2
[	Cu	65		0.185	ug/L	0.006	3	118	648	1
[	Zn	66		1.745	ug/L	0.021	1	695	3850	1
[	Zn	67		1.618	ug/L	0.078	4	255	741	4
[	Zn	68		1.608	ug/L	0.114	7	8462	10439	1
[	As	75	U	0.066	ug/L	0.025	37	693	808	6
[	As-1	75		-0.210	ug/L	0.096	45	11505	11031	2
[	Se	82		-0.041	ug/L	0.123	300	-5	-13	183
[	Se	78		-0.853	ug/L	0.342	40	11713	11195	2
[	Mo	98		-0.021	ug/L	0.001	6	207	61	12
	Y	89			ug/L			309412	300784	3
	Kr	83			ug/L			376	411	2
[>	In	115			ug/L			365357	356015	3
[	Ag	107	U	0.001	ug/L	0.002	208	101	107	14
[	Cd	111	U	0.012	ug/L	0.007	59	166	199	13
[	Cd	114		0.003	ug/L	0.002	69	27	44	30
[	Sb	121	J	0.006	ug/L	0.009	133	240	295	24
[	Sb	123		0.008	ug/L	0.008	105	169	223	24
[	Ba	135		0.074	ug/L	0.008	10	32	214	10
[	Ba	137		0.073	ug/L	0.003	4	65	373	1
[>	Tb	159			ug/L			430587	423559	1
[	Tl	205		0.002	ug/L	0.002	137	147	196	34
[	Pb	208		0.090	ug/L	0.001	1	1493	5026	0
[	Bi	209			ug/L			345109	339309	2
[	Th	232		0.026	ug/L	0.008	30	719	1892	18
[	U	238		0.002	ug/L	0.001	38	97	210	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU62 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 22:01:58
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass		Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	430952	0
[	Be	9		-0.005	ug/L	0.002	33	3	0	86
	C	13			mg/L			5654	6954	0
	Cl	37			mg/L			2331174	2545258	0
[>	Sc	45			ug/L			262568	256125	0
[	V	51		-0.008	ug/L	0.010	122	2402	2254	5
[	V-1	51		-0.062	ug/L	0.018	28	8286	7363	2
[	Cr	52		0.157	ug/L	0.003	1	7360	8735	0
[	Cr	53		-0.022	ug/L	0.069	315	2713	2621	2
[	Mn	55		0.873	ug/L	0.007	0	1178	15723	0
[	Co	59		0.015	ug/L	0.001	9	123	312	5
[>	Ge	72			ug/L			333920	330456	0
[	Ni	60		0.052	ug/L	0.004	8	109	246	4
[	Ni	62		0.084	ug/L	0.006	7	54	87	2
[	Cu	63		0.204	ug/L	0.004	1	248	1461	1
[	Cu	65		0.199	ug/L	0.009	4	118	685	3
[	Zn	66		1.832	ug/L	0.019	1	695	3998	1
[	Zn	67		1.560	ug/L	0.066	4	255	722	3
[	Zn	68		1.852	ug/L	0.105	5	8462	10729	1
[	As	75	U	0.064	ug/L	0.049	76	693	803	10
[	As-1	75		-0.165	ug/L	0.032	19	11505	11089	0
[	Se	82		-0.015	ug/L	0.140	926	-5	-8	334
[	Se	78		-0.669	ug/L	0.068	10	11713	11262	0
[	Mo	98		-0.021	ug/L	0.001	3	207	61	6
	Y	89			ug/L			309412	302799	1
	Kr	83			ug/L			376	408	2
[>	In	115			ug/L			365357	359160	0
[	Ag	107	U	-0.002	ug/L	0.000	10	101	72	4
[	Cd	111		0.005	ug/L	0.008	157	166	179	13
[	Cd	114	U	0.003	ug/L	0.001	48	27	45	20
[	Sb	121		-0.012	ug/L	0.001	8	240	119	9
[	Sb	123	U	-0.009	ug/L	0.000	0	169	97	0
[	Ba	135		0.070	ug/L	0.006	8	32	207	7
[	Ba	137		0.068	ug/L	0.004	5	65	357	5
[>	Tb	159			ug/L			430587	423208	1
[	Tl	205		-0.002	ug/L	0.000	25	147	92	13
[	Pb	208		0.097	ug/L	0.005	4	1493	5282	1
[	Bi	209			ug/L			345109	342808	1
[	Th	232		0.005	ug/L	0.001	29	719	909	7
[	U	238		-0.000	ug/L	0.000	347	97	94	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU62 JSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 22:08:14
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	422494	2
[	Be	9	24.486	ug/L	0.497	2	3	9588	2
	C	13		mg/L			5654	6999	0
	Cl	37		mg/L			2331174	2535717	0
[>	Sc	45		ug/L			262568	251250	1
[	V	51	24.472	ug/L	0.150	0	2402	275903	1
[	V-1	51	24.541	ug/L	0.197	0	8286	286047	0
[	Cr	52	24.653	ug/L	0.328	1	7360	246218	1
[	Cr	53	24.866	ug/L	0.465	1	2713	31066	1
[	Mn	55	25.921	ug/L	0.589	2	1178	425610	1
[	Co	59	25.337	ug/L	0.333	1	123	315548	0
[>	Ge	72		ug/L			333920	328276	1
[	Ni	60	25.197	ug/L	0.164	0	109	66860	0
[	Ni	62	25.696	ug/L	0.175	0	54	10236	0
[	Cu	63	26.953	ug/L	0.323	1	248	160037	0
[	Cu	65	26.770	ug/L	0.309	1	118	76096	0
[	Zn	66	79.773	ug/L	0.588	0	695	143902	0
[	Zn	67	73.926	ug/L	1.875	2	255	22368	1
[	Zn	68	79.470	ug/L	0.371	0	8462	108692	1
[	As	75	25.373	ug/L	0.118	0	693	46783	0
[	As-1	75	24.488	ug/L	0.216	0	11505	55171	0
[	Se	82	72.998	ug/L	0.989	1	-5	14784	0
[	Se	78	72.465	ug/L	1.287	1	11713	46939	0
[	Mo	98	24.671	ug/L	0.350	1	207	165371	1
	Y	89		ug/L			309412	299534	0
	Kr	83		ug/L			376	407	3
[>	In	115		ug/L			365357	352875	0
[	Ag	107	25.081	ug/L	0.194	0	101	292772	0
[	Cd	111	24.617	ug/L	0.335	1	166	70778	1
[	Cd	114	24.194	ug/L	0.434	1	27	163356	1
[	Sb	121	24.302	ug/L	0.092	0	240	237477	0
[	Sb	123	24.611	ug/L	0.137	0	169	180564	0
[	Ba	135	24.621	ug/L	0.142	0	32	60283	0
[	Ba	137	24.517	ug/L	0.152	0	65	103704	0
[>	Tb	159		ug/L			430587	418602	0
[	Tl	205	25.959	ug/L	0.277	1	147	735680	0
[	Pb	208	26.272	ug/L	0.328	1	1493	1022414	1
[	Bi	209		ug/L			345109	337521	0
[	Th	232	26.018	ug/L	0.328	1	719	1156048	1
[	U	238	26.001	ug/L	0.150	0	97	1233903	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU62 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 22:14:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass		Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	427131	0
[	Be	9		-0.003	ug/L	0.002	54	3	1	43
	C	13			mg/L			5654	6864	3
	Cl	37			mg/L			2331174	2550798	0
[>	Sc	45			ug/L			262568	252360	1
|	V	51		0.010	ug/L	0.003	30	2402	2418	0
|	V-1	51		-0.062	ug/L	0.021	33	8286	7253	2
|	Cr	52		0.136	ug/L	0.010	7	7360	8399	2
|	Cr	53		-0.098	ug/L	0.049	49	2713	2495	1
|	Mn	55		2.236	ug/L	0.027	1	1178	37911	1
[	Co	59		0.017	ug/L	0.001	5	123	334	3
[>	Ge	72			ug/L			333920	328595	1
|	Ni	60		0.034	ug/L	0.002	4	109	199	1
|	Ni	62		0.086	ug/L	0.013	15	54	87	6
|	Cu	63		6.563	ug/L	0.088	1	248	39197	1
|	Cu	65		6.614	ug/L	0.069	1	118	18907	0
|	Zn	66		2.720	ug/L	0.061	2	695	5573	2
|	Zn	67		2.444	ug/L	0.094	3	255	983	3
|	Zn	68		2.682	ug/L	0.152	5	8462	11717	1
|	As	75	U	0.064	ug/L	0.006	10	693	798	1
|	As-1	75		-0.186	ug/L	0.084	45	11505	10987	0
|	Se	82		0.006	ug/L	0.034	603	-5	-4	162
|	Se	78		-0.775	ug/L	0.319	41	11713	11146	0
[	Mo	98		-0.024	ug/L	0.002	6	207	43	24
	Y	89			ug/L			309412	301403	2
	Kr	83			ug/L			376	396	1
[>	In	115			ug/L			365357	359712	0
|	Ag	107	U	0.002	ug/L	0.002	103	101	126	21
|	Cd	111	U	0.012	ug/L	0.004	29	166	199	5
|	Cd	114		0.003	ug/L	0.000	15	27	49	6
|	Sb	121	U	0.011	ug/L	0.004	35	240	350	11
|	Sb	123		0.013	ug/L	0.005	35	169	267	13
|	Ba	135		0.037	ug/L	0.001	3	32	125	2
[	Ba	137		0.037	ug/L	0.002	5	65	224	4
[>	Tb	159			ug/L			430587	421347	0
|	Tl	205		0.001	ug/L	0.002	143	147	183	29
|	Pb	208		0.171	ug/L	0.004	2	1493	8152	1
|	Bi	209			ug/L			345109	340987	0
|	Th	232		0.026	ug/L	0.010	38	719	1852	23
[	U	238		0.003	ug/L	0.001	55	97	222	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU27 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 22:20:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	419356	1
[	Be	9	0.003		ug/L	0.005	154	3	4	45
	C	13			mg/L			5654	6843	1
	Cl	37			mg/L			2331174	2564742	0
[>	Sc	45			ug/L			262568	253180	0
[	V	51	0.007		ug/L	0.017	246	2402	2393	7
[	V-1	51	-0.072		ug/L	0.021	29	8286	7164	3
[	Cr	52	0.104		ug/L	0.016	15	7360	8112	1
[	Cr	53	-0.151		ug/L	0.071	46	2713	2442	3
[	Mn	55	0.482		ug/L	0.010	2	1178	9098	1
[	Co	59	0.027		ug/L	0.000	1	123	456	0
[>	Ge	72			ug/L			333920	330731	0
[	Ni	60	0.847		ug/L	0.011	1	109	2369	0
[	Ni	62	0.936		ug/L	0.040	4	54	427	3
[	Cu	63	0.599		ug/L	0.002	0	248	3823	0
[	Cu	65	0.600		ug/L	0.017	2	118	1834	2
[	Zn	66	1.416		ug/L	0.014	0	695	3251	1
[	Zn	67	1.223		ug/L	0.031	2	255	621	1
[	Zn	68	1.313		ug/L	0.110	8	8462	10051	1
[	As	75	U	0.103	ug/L	0.024	23	693	874	5
[	As-1	75	-0.222		ug/L	0.045	20	11505	10994	0
[	Se	82	-0.079		ug/L	0.100	126	-5	-21	94
[	Se	78	-1.075		ug/L	0.162	15	11713	11072	0
[	Mo	98	-0.023		ug/L	0.003	12	207	52	35
	Y	89			ug/L			309412	299347	2
	Kr	83			ug/L			376	411	2
[>	In	115			ug/L			365357	354057	0
[	Ag	107	0.005		ug/L	0.001	22	101	154	7
[	Cd	111	0.016		ug/L	0.009	57	166	206	12
[	Cd	114	0.002		ug/L	0.000	19	27	40	7
[	Sb	121	-0.010		ug/L	0.001	10	240	131	7
[	Sb	123	-0.007		ug/L	0.003	39	169	116	16
[	Ba	135	0.081		ug/L	0.005	6	32	230	5
[	Ba	137	0.078		ug/L	0.011	13	65	393	10
[>	Tb	159			ug/L			430587	419222	1
[	Tl	205	0.001		ug/L	0.000	14	147	176	3
[	Pb	208	0.096		ug/L	0.003	3	1493	5182	1
[	Bi	209			ug/L			345109	339500	0
[	Th	232	0.005		ug/L	0.001	16	719	919	4
[	U	238	0.003		ug/L	0.001	27	97	221	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV16 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 22:27:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	329282	0
[	Be	9	-0.001	ug/L	0.005	681	3	2	69
	C	13		mg/L			5654	8382	1
	Cl	37		mg/L			2331174	12532422	1
[>	Sc	45		ug/L			262568	231272	1
|	V	51	0.161	ug/L	0.099	61	2402	3769	26
|	V-1	51	4.857	ug/L	0.441	9	8286	58004	9
|	Cr	52	0.770	ug/L	0.029	3	7360	13364	2
|	Cr	53	15.607	ug/L	1.669	10	2713	18854	10
|	Mn	55	162.425	ug/L	0.865	0	1178	2450006	1
[	Co	59	0.418	ug/L	0.006	1	123	4894	2
[>	Ge	72		ug/L			333920	273399	0
|	Ni	60	5.918	ug/L	0.056	0	109	13149	1
|	Ni	62	12.295	ug/L	1.174	9	54	4104	10
|	Cu	63	17.187	ug/L	0.320	1	248	85079	2
|	Cu	65	9.753	ug/L	0.220	2	118	23154	3
|	Zn	66	123.096	ug/L	0.702	0	695	184640	1
|	Zn	67	112.886	ug/L	1.094	0	255	28342	1
|	Zn	68	123.789	ug/L	1.075	0	8462	137144	1
|	As	75	2.175	ug/L	0.055	2	693	3859	1
|	As-1	75	0.891	ug/L	0.118	13	11505	10749	0
|	Se	82	5.758	ug/L	0.166	2	-5	967	3
|	Se	78	2.344	ug/L	0.274	11	11713	10544	0
[	Mo	98	14.063	ug/L	0.095	0	207	78584	1
	Y	89		ug/L			309412	267281	0
	Kr	83		ug/L			376	482	1
[>	In	115		ug/L			365357	299398	2
|	Ag	107	0.007	ug/L	0.002	33	101	155	13
|	Cd	111	-0.345	ug/L	0.288	83	166	-692	99
|	Cd	114	0.752	ug/L	0.008	1	27	4327	1
|	Sb	121	1.337	ug/L	0.021	1	240	11267	2
|	Sb	123	1.339	ug/L	0.015	1	169	8467	1
|	Ba	135	81.096	ug/L	0.963	1	32	168384	1
[	Ba	137	80.841	ug/L	1.389	1	65	289938	1
[>	Tb	159		ug/L			430587	357119	0
|	Tl	205	0.012	ug/L	0.002	13	147	402	9
|	Pb	208	0.673	ug/L	0.022	3	1493	23540	3
|	Bi	209		ug/L			345109	253867	0
|	Th	232	0.023	ug/L	0.003	14	719	1476	7
[	U	238	0.227	ug/L	0.005	2	97	9285	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV16 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 22:33:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	347377	3
[	Be	9	0.011	ug/L	0.010	92	3	5	53
	C	13		mg/L			5654	9202	1
	Cl	37		mg/L			2331174	11740159	1
[>	Sc	45		ug/L			262568	239815	2
|	V	51	0.213	ug/L	0.121	56	2402	4450	27
|	V-1	51	5.278	ug/L	0.081	1	8286	64677	3
|	Cr	52	0.823	ug/L	0.027	3	7360	14342	2
|	Cr	53	16.828	ug/L	0.621	3	2713	20880	5
|	Mn	55	159.224	ug/L	1.528	0	1178	2490087	1
[	Co	59	0.342	ug/L	0.007	2	123	4180	0
[>	Ge	72		ug/L			333920	286080	1
|	Ni	60	7.874	ug/L	0.167	2	109	18271	2
|	Ni	62	14.336	ug/L	1.085	7	54	5001	9
|	Cu	63	24.780	ug/L	0.184	0	248	128248	1
|	Cu	65	18.216	ug/L	0.225	1	118	45159	2
|	Zn	66	176.972	ug/L	1.305	0	695	277515	2
|	Zn	67	164.836	ug/L	0.834	0	255	43203	2
|	Zn	68	177.830	ug/L	1.135	0	8462	202969	1
|	As	75	1.921	ug/L	0.086	4	693	3635	4
|	As-1	75	0.608	ug/L	0.062	10	11505	10805	1
|	Se	82	5.087	ug/L	0.146	2	-5	893	4
|	Se	78	1.447	ug/L	0.353	24	11713	10650	0
[	Mo	98	14.965	ug/L	0.091	0	207	87486	1
	Y	89		ug/L			309412	279162	2
	Kr	83		ug/L			376	487	2
[>	In	115		ug/L			365357	318729	1
|	Ag	107	0.004	ug/L	0.001	32	101	135	12
|	Cd	111	0.610	ug/L	0.127	20	166	1728	20
|	Cd	114	1.116	ug/L	0.036	3	27	6829	3
|	Sb	121	1.403	ug/L	0.024	1	240	12580	2
|	Sb	123	1.415	ug/L	0.035	2	169	9519	3
|	Ba	135	83.021	ug/L	1.347	1	32	183524	1
[	Ba	137	81.524	ug/L	1.481	1	65	311313	1
[>	Tb	159		ug/L			430587	372826	1
|	Tl	205	0.016	ug/L	0.001	4	147	526	5
|	Pb	208	0.314	ug/L	0.012	3	1493	12167	1
|	Bi	209		ug/L			345109	265062	1
|	Th	232	0.008	ug/L	0.001	12	719	920	5
[	U	238	0.180	ug/L	0.003	1	97	7689	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UV16 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, May 23, 2012 22:39:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	349256	1
[	Be	9	0.016	ug/L	0.007	47	3	7	33
	C	13		mg/L			5654	8618	1
	Cl	37		mg/L			2331174	12816126	0
[>	Sc	45		ug/L			262568	240485	1
[	V	51	0.182	ug/L	0.130	71	2402	4153	34
[	V-1	51	6.304	ug/L	0.144	2	8286	75986	3
[	Cr	52	0.697	ug/L	0.005	0	7360	13216	1
[	Cr	53	20.052	ug/L	0.318	1	2713	24465	2
[	Mn	55	159.581	ug/L	1.909	1	1178	2502681	0
[	Co	59	0.406	ug/L	0.011	2	123	4946	2
[>	Ge	72		ug/L			333920	286109	1
[	Ni	60	5.701	ug/L	0.091	1	109	13259	2
[	Ni	62	14.536	ug/L	1.133	7	54	5069	8
[	Cu	63	14.546	ug/L	0.133	0	248	75380	1
[	Cu	65	7.092	ug/L	0.122	1	118	17644	2
[	Zn	66	115.104	ug/L	1.688	1	695	180689	0
[	Zn	67	107.678	ug/L	1.008	0	255	28298	0
[	Zn	68	116.340	ug/L	1.629	1	8462	135309	1
[	As	75	2.052	ug/L	0.119	5	693	3841	3
[	As-1	75	0.671	ug/L	0.103	15	11505	10905	0
[	Se	82	5.322	ug/L	0.194	3	-5	934	2
[	Se	78	1.592	ug/L	0.212	13	11713	10714	0
[	Mo	98	13.724	ug/L	0.250	1	207	80248	1
	Y	89		ug/L			309412	280063	1
	Kr	83		ug/L			376	513	0
[>	In	115		ug/L			365357	316886	1
[	Ag	107	-0.000	ug/L	0.002	1859	101	86	22
[	Cd	111	-0.206	ug/L	0.196	94	166	-383	129
[	Cd	114	0.697	ug/L	0.012	1	27	4247	1
[	Sb	121	1.280	ug/L	0.016	1	240	11426	0
[	Sb	123	1.294	ug/L	0.027	2	169	8664	0
[	Ba	135	77.891	ug/L	1.352	1	32	171176	0
[	Ba	137	77.325	ug/L	0.894	1	65	293565	0
[>	Tb	159		ug/L			430587	368456	0
[	Tl	205	0.012	ug/L	0.001	4	147	417	2
[	Pb	208	0.121	ug/L	0.006	5	1493	5414	3
[	Bi	209		ug/L			345109	261465	1
[	Th	232	0.003	ug/L	0.000	9	719	727	0
[	U	238	0.218	ug/L	0.003	1	97	9185	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 22:45:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	340469	2
[	Be	9	50.751	ug/L	0.644	1	3	16018	4
	C	13		mg/L			5654	4535	2
	Cl	37		mg/L			2331174	2652235	2
[>	Sc	45		ug/L			262568	239379	1
[	V	51	50.109	ug/L	0.151	0	2402	535996	1
[	V-1	51	52.684	ug/L	0.330	0	8286	576456	1
[	Cr	52	50.872	ug/L	0.577	1	7360	476989	1
[	Cr	53	58.990	ug/L	0.863	1	2713	66838	2
[	Mn	55	49.903	ug/L	0.514	1	1178	779894	2
[	Co	59	51.861	ug/L	0.215	0	123	615303	0
[>	Ge	72		ug/L			333920	325953	1
[	Ni	60	50.435	ug/L	0.221	0	109	132776	1
[	Ni	62	51.627	ug/L	0.414	0	54	20365	1
[	Cu	63	52.034	ug/L	0.440	0	248	306544	1
[	Cu	65	52.105	ug/L	0.117	0	118	146958	1
[	Zn	66	52.071	ug/L	0.927	1	695	93501	2
[	Zn	67	55.158	ug/L	1.398	2	255	16633	1
[	Zn	68	52.540	ug/L	0.918	1	8462	74147	2
[	As	75	50.222	ug/L	0.283	0	693	91278	1
[	As-1	75	50.000	ug/L	0.504	1	11505	100147	1
[	Se	82	47.298	ug/L	0.403	0	-5	9510	1
[	Se	78	46.637	ug/L	1.309	2	11713	34066	1
[	Mo	98	50.746	ug/L	0.579	1	207	337535	2
	Y	89		ug/L			309412	284331	1
	Kr	83		ug/L			376	424	1
[>	In	115		ug/L			365357	366440	1
[	Ag	107	49.577	ug/L	1.351	2	101	600777	2
[	Cd	111	48.989	ug/L	0.819	1	166	146088	0
[	Cd	114	49.226	ug/L	0.806	1	27	345071	0
[	Sb	121	49.614	ug/L	0.842	1	240	503149	0
[	Sb	123	49.665	ug/L	0.582	1	169	378186	0
[	Ba	135	49.071	ug/L	0.509	1	32	124732	1
[	Ba	137	48.230	ug/L	0.639	1	65	211765	0
[>	Tb	159		ug/L			430587	416878	1
[	Tl	205	53.015	ug/L	0.092	0	147	1496156	1
[	Pb	208	52.076	ug/L	0.485	0	1493	2016750	0
[	Bi	209		ug/L			345109	337030	1
[	Th	232	53.393	ug/L	1.332	2	719	2361508	1
[	U	238	52.118	ug/L	0.740	1	97	2462822	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, May 23, 2012 22:52:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	290892	1
[	Be	9	0.003	ug/L	0.011	323	3	2	98
	C	13		mg/L			5654	4190	1
	Cl	37		mg/L			2331174	2482650	0
[>	Sc	45		ug/L			262568	215945	1
[	V	51	-0.035	ug/L	0.028	79	2402	1638	15
[	V-1	51	1.597	ug/L	0.088	5	8286	22376	4
[	Cr	52	0.067	ug/L	0.012	18	7360	6615	1
[	Cr	53	5.228	ug/L	0.331	6	2713	7379	5
[	Mn	55	-0.006	ug/L	0.004	71	1178	887	7
[	Co	59	0.024	ug/L	0.001	5	123	356	4
[>	Ge	72		ug/L			333920	310054	1
[	Ni	60	0.001	ug/L	0.003	348	109	103	7
[	Ni	62	0.431 ✓	ug/L	0.029	6	54	211	5
[	Cu	63	0.091	ug/L	0.010	11	248	738	8
[	Cu	65	0.043	ug/L	0.011	25	118	225	13
[	Zn	66	0.514	ug/L	0.021	4	695	1517	2
[	Zn	67	1.480	ug/L	0.093	6	255	655	4
[	Zn	68	1.035	ug/L	0.117	11	8462	9091	1
[	As	75	0.087	ug/L	0.029	33	693	793	5
[	As-1	75	-0.138	ug/L	0.024	17	11505	10450	0
[	Se	82	-0.109	ug/L	0.128	117	-5	-26	95
[	Se	78	-0.611	ug/L	0.039	6	11713	10594	0
[	Mo	98	-0.014	ug/L	0.004	28	207	106	24
	Y	89		ug/L			309412	269247	2
	Kr	83		ug/L			376	409	4
[>	In	115		ug/L			365357	355722	1
[	Ag	107	0.003	ug/L	0.005	145	101	136	41
[	Cd	111	0.018	ug/L	0.005	26	166	214	7
[	Cd	114	0.001	ug/L	0.001	109	27	34	26
[	Sb	121	0.032	ug/L	0.016	49	240	547	28
[	Sb	123	0.031	ug/L	0.012	39	169	396	23
[	Ba	135	0.014	ug/L	0.005	37	32	66	18
[	Ba	137	0.008	ug/L	0.001	18	65	96	5
[>	Tb	159		ug/L			430587	400993	1
[	Tl	205	0.004	ug/L	0.002	62	147	239	27
[	Pb	208	0.064 ✓	ug/L	0.003	5	1493	3786	3
[	Bi	209		ug/L			345109	332914	0
[	Th	232	0.025	ug/L	0.009	38	719	1717	24
[	U	238	0.002	ug/L	0.001	55	97	189	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, May 23, 2012 22:58:22
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass		Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	303736	0
[	Be	9		-0.000	ug/L	0.005	5149	3	2	69
	C	13			mg/L			5654	4281	1
	Cl	37			mg/L			2331174	2419876	0
[>	Sc	45			ug/L			262568	217385	0
[	V	51		-0.063	ug/L	0.046	73	2402	1381	32
[	V-1	51		1.193	ug/L	0.123	10	8286	18555	6
[	Cr	52		0.070	ug/L	0.017	23	7360	6685	2
[	Cr	53		4.038	ug/L	0.293	7	2713	6247	4
[	Mn	55		-0.038	ug/L	0.000	1	1178	435	1
[	Co	59		-0.000	ug/L	0.001	392	123	98	15
[>	Ge	72			ug/L			333920	313852	0
[	Ni	60		-0.009	ug/L	0.003	35	109	80	9
[	Ni	62		0.343	ug/L	0.013	3	54	180	3
[	Cu	63		0.065	ug/L	0.003	4	248	602	3
[	Cu	65		0.040	ug/L	0.007	17	118	220	8
[	Zn	66		0.338	ug/L	0.010	3	695	1234	1
[	Zn	67		1.130	ug/L	0.098	8	255	563	5
[	Zn	68		0.830	ug/L	0.093	11	8462	8955	0
[	As	75	U	0.074	ug/L	0.047	63	693	780	10
[	As-1	75		-0.282	ug/L	0.050	17	11505	10332	1
[	Se	82		-0.034	ug/L	0.106	309	-5	-11	175
[	Se	78		-1.150	ug/L	0.096	8	11713	10472	0
[	Mo	98		-0.023	ug/L	0.001	3	207	48	11
	Y	89			ug/L			309412	274938	0
	Kr	83			ug/L			376	388	1
[>	In	115			ug/L			365357	360104	1
[	Ag	107	U	-0.003	ug/L	0.000	13	101	60	9
[	Cd	111		0.017	ug/L	0.004	20	166	213	5
[	Cd	114	U	0.000	ug/L	0.001	324	27	28	22
[	Sb	121	U	-0.002	ug/L	0.001	54	240	215	6
[	Sb	123		0.000	ug/L	0.001	234	169	169	3
[	Ba	135		0.010	ug/L	0.002	18	32	57	7
[	Ba	137		0.012	ug/L	0.004	36	65	114	15
[>	Tb	159			ug/L			430587	413689	0
[	Tl	205		-0.000	ug/L	0.000	22	147	128	2
[	Pb	208		0.060	ug/L	0.001	1	1493	3727	1
[	Bi	209			ug/L			345109	347531	2
[	Th	232		0.003	ug/L	0.002	64	719	841	11
[	U	238		-0.000	ug/L	0.000	603	97	90	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, May 23, 2012 23:04:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	302630	1
[	Be	9	25.209	ug/L	0.090	0	3	7071	1
	C	13		mg/L			5654	4071	1
	Cl	37		mg/L			2331174	2380341	0
[>	Sc	45		ug/L			262568	217800	0
[	V	51	25.321	ug/L	0.348	1	2402	247416	1
[	V-1	51	26.597	ug/L	0.260	0	8286	268174	1
[	Cr	52	26.110	ug/L	0.365	1	7360	225717	1
[	Cr	53	30.115	ug/L	0.268	0	2713	32144	0
[	Mn	55	25.757	ug/L	0.068	0	1178	366688	0
[	Co	59	27.069	ug/L	0.045	0	123	292265	0
[>	Ge	72		ug/L			333920	312721	0
[	Ni	60	25.365	ug/L	0.128	0	109	64120	0
[	Ni	62	26.094	ug/L	0.181	0	54	9901	0
[	Cu	63	27.312	ug/L	0.276	1	248	154494	1
[	Cu	65	27.404	ug/L	0.358	1	118	74206	1
[	Zn	66	81.116	ug/L	0.292	0	695	139389	0
[	Zn	67	77.364	ug/L	0.440	0	255	22291	0
[	Zn	68	82.702	ug/L	0.730	0	8462	107430	0
[	As	75	25.501	ug/L	0.223	0	693	44789	0
[	As-1	75	24.933	ug/L	0.080	0	11505	53319	0
[	Se	82	74.020	ug/L	0.831	1	-5	14283	1
[	Se	78	74.674	ug/L	0.723	0	11713	45748	0
[	Mo	98	25.785	ug/L	0.193	0	207	164641	0
	Y	89		ug/L			309412	273339	0
	Kr	83		ug/L			376	384	2
[>	In	115		ug/L			365357	367979	1
[	Ag	107	24.962	ug/L	0.366	1	101	303830	0
[	Cd	111	24.063	ug/L	0.325	1	166	72146	0
[	Cd	114	24.059	ug/L	0.447	1	27	169367	0
[	Sb	121	24.782	ug/L	0.277	1	240	252507	0
[	Sb	123	24.752	ug/L	0.550	2	169	189339	1
[	Ba	135	24.259	ug/L	0.413	1	32	61929	0
[	Ba	137	24.484	ug/L	0.212	0	65	107990	0
[>	Tb	159		ug/L			430587	423606	0
[	Tl	205	26.564	ug/L	0.195	0	147	761839	0
[	Pb	208	26.615	ug/L	0.049	0	1493	1048141	0
[	Bi	209		ug/L			345109	352637	0
[	Th	232	25.857	ug/L	0.221	0	719	1162587	0
[	U	238	25.570	ug/L	0.257	1	97	1227910	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 CDUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, May 23, 2012 23:10:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	321915	1
[	Be	9	0.030		ug/L	0.005	15	3	11	11
	C	13			mg/L			5654	7241	2
	Cl	37			mg/L			2331174	2411298	1
[>	Sc	45			ug/L			262568	230646	1
[	V	51	4.410		ug/L	0.156	3	2402	47367	3
[	V-1	51	5.235		ug/L	0.091	1	8286	61739	0
[	Cr	52	4.546		ug/L	0.134	2	7360	46947	1
[	Cr	53	7.153		ug/L	0.330	4	2713	9901	3
[	Mn	55	32.943		ug/L	0.588	1	1178	496293	0
[	Co	59	1.062		ug/L	0.027	2	123	12241	1
[>	Ge	72			ug/L			333920	323226	0
[	Ni	60	4.807		ug/L	0.064	1	109	12645	1
[	Ni	62	6.256		ug/L	0.045	0	54	2493	1
[	Cu	63	14.320		ug/L	0.128	0	248	83835	1
[	Cu	65	14.419		ug/L	0.030	0	118	40412	0
[	Zn	66	34.755		ug/L	0.244	0	695	62112	0
[	Zn	67	32.954		ug/L	0.144	0	255	9956	0
[	Zn	68	35.049		ug/L	0.495	1	8462	51775	0
[	As	75	2.936		ug/L	0.048	1	693	5923	0
[	As-1	75	2.465		ug/L	0.119	4	11505	15484	0
[	Se	82	0.158		ug/L	0.023	14	-5	26	16
[	Se	78	-1.603		ug/L	0.305	19	11713	10566	0
[	Mo	98	0.915		ug/L	0.023	2	207	6235	1
	Y	89			ug/L			309412	299074	0
	Kr	83			ug/L			376	384	0
[>	In	115			ug/L			365357	370811	0
[	Ag	107	U	0.069	ug/L	0.004	5	101	952	4
[	Cd	111		0.319	ug/L	0.014	4	166	1130	3
[	Cd	114		0.271	ug/L	0.003	1	27	1951	0
[	Sb	121	U	0.029	ug/L	0.010	35	240	542	19
[	Sb	123		0.030	ug/L	0.014	45	169	402	25
[	Ba	135	4.572		ug/L	0.092	2	32	11790	2
[	Ba	137	4.523		ug/L	0.018	0	65	20157	0
[>	Tb	159			ug/L			430587	431785	0
[	Tl	205	0.023		ug/L	0.001	6	147	830	6
[	Pb	208	15.917		ug/L	0.202	1	1493	639534	1
[	Bi	209			ug/L			345109	356790	1
[	Th	232	0.189		ug/L	0.004	2	719	9383	2
[	U	238	0.444		ug/L	0.003	0	97	21834	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, May 23, 2012 23:16:49
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	333321	0
[	Be	9	0.021		ug/L	0.008	39	3	8	28
	C	13			mg/L			5654	7242	2
	Cl	37			mg/L			2331174	2429719	0
[>	Sc	45			ug/L			262568	230004	0
[	V	51	4.443		ug/L	0.067	1	2402	47581	0
[	V-1	51	5.233		ug/L	0.055	1	8286	61552	0
[	Cr	52	4.669		ug/L	0.092	1	7360	47911	1
[	Cr	53	7.159		ug/L	0.103	1	2713	9881	1
[	Mn	55	33.146		ug/L	0.756	2	1178	497976	1
[	Co	59	1.097		ug/L	0.026	2	123	12608	1
[>	Ge	72			ug/L			333920	326958	0
[	Ni	60	4.685		ug/L	0.150	3	109	12468	2
[	Ni	62	5.931		ug/L	0.084	1	54	2393	1
[	Cu	63	15.027		ug/L	0.103	0	248	88980	0
[	Cu	65	15.137		ug/L	0.093	0	118	42908	0
[	Zn	66	34.970		ug/L	0.456	1	695	63212	0
[	Zn	67	32.672		ug/L	0.428	1	255	9987	1
[	Zn	68	35.044		ug/L	0.242	0	8462	52369	0
[	As	75	2.919		ug/L	0.028	0	693	5960	0
[	As-1	75	2.331		ug/L	0.052	2	11505	15424	0
[	Se	82	0.142		ug/L	0.176	123	-5	23	152
[	Se	78	-2.030		ug/L	0.176	8	11713	10481	1
[	Mo	98	0.903		ug/L	0.025	2	207	6224	2
	Y	89			ug/L			309412	297544	0
	Kr	83			ug/L			376	391	6
[>	In	115		U	ug/L			365357	371599	1
[	Ag	107	0.061		ug/L	0.003	5	101	850	5
[	Cd	111	0.313		ug/L	0.008	2	166	1115	1
[	Cd	114	0.274	U	ug/L	0.006	2	27	1977	3
[	Sb	121	0.008		ug/L	0.003	36	240	330	8
[	Sb	123	0.011		ug/L	0.005	41	169	258	14
[	Ba	135	4.557		ug/L	0.026	0	32	11776	1
[	Ba	137	4.491		ug/L	0.114	2	65	20055	1
[>	Tb	159			ug/L			430587	427237	0
[	Tl	205	0.020		ug/L	0.001	6	147	735	5
[	Pb	208	16.897		ug/L	0.057	0	1493	671672	0
[	Bi	209			ug/L			345109	354307	0
[	Th	232	0.170		ug/L	0.002	1	719	8420	1
[	U	238	0.442		ug/L	0.003	0	97	21498	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 CSPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, May 23, 2012 23:23:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	323538	0
[	Be	9	24.798	ug/L	0.191	0	3	7437	1
	C	13		mg/L			5654	6381	0
	Cl	37		mg/L			2331174	2419277	0
[>	Sc	45		ug/L			262568	223805	0
|	V	51	29.050	ug/L	0.243	0	2402	291382	1
|	V-1	51	30.036	ug/L	0.090	0	8286	310292	0
|	Cr	52	29.778	ug/L	0.408	1	7360	263626	0
|	Cr	53	32.867	ug/L	0.877	2	2713	35837	2
|	Mn	55	58.065	ug/L	0.727	1	1178	848151	0
[	Co	59	27.537	ug/L	0.173	0	123	305508	0
[>	Ge	72		ug/L			333920	318087	0
|	Ni	60	29.587	ug/L	0.124	0	109	76058	0
|	Ni	62	30.868	ug/L	0.539	1	54	11904	1
|	Cu	63	40.605	ug/L	0.350	0	248	233515	1
|	Cu	65	40.950	ug/L	0.614	1	118	112732	1
|	Zn	66	114.774	ug/L	0.695	0	695	200333	0
|	Zn	67	107.329	ug/L	1.756	1	255	31361	1
|	Zn	68	114.244	ug/L	0.731	0	8462	147876	0
|	As	75	27.956	ug/L	0.176	0	693	49879	0
|	As-1	75	27.167	ug/L	0.089	0	11505	58111	0
|	Se	82	70.847	ug/L	0.392	0	-5	13904	0
|	Se	78	70.447	ug/L	0.174	0	11713	44530	0
[	Mo	98	24.301	ug/L	0.221	0	207	157842	0
	Y	89		ug/L			309412	290700	1
	Kr	83		ug/L			376	399	3
[>	In	115		ug/L			365357	356853	0
|	Ag	107	23.755	ug/L	0.184	0	101	280418	0
|	Cd	111	23.974	ug/L	0.260	1	166	69713	0
|	Cd	114	24.080	ug/L	0.584	2	27	164412	2
|	Sb	121	2.421	ug/L	0.004	0	240	24139	0
|	Sb	123	2.422	ug/L	0.024	0	169	18120	1
|	Ba	135	29.169	ug/L	0.340	1	32	72219	1
[	Ba	137	29.049	ug/L	0.238	0	65	124244	0
[>	Tb	159		ug/L			430587	414269	0
|	Tl	205	25.590	ug/L	0.172	0	147	717729	0
|	Pb	208	42.963	ug/L	0.119	0	1493	1653808	0
|	Bi	209		ug/L			345109	341493	0
|	Th	232	25.233	ug/L	0.115	0	719	1109591	0
[	U	238	25.179	ug/L	0.121	0	97	1182551	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 CPOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, May 23, 2012 23:29:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	328646	0
[	Be	9	24.124	ug/L	0.294	1	3	7349	1
	C	13		mg/L			5654	7437	1
	Cl	37		mg/L			2331174	2444845	0
[>	Sc	45		ug/L			262568	230441	0
|	V	51	28.353	ug/L	0.394	1	2402	292857	1
|	V-1	51	28.976	ug/L	0.422	1	8286	308447	1
|	Cr	52	29.387	ug/L	0.170	0	7360	267970	0
|	Cr	53	31.313	ug/L	0.361	1	2713	35266	0
|	Mn	55	56.852	ug/L	0.154	0	1178	855115	1
[	Co	59	26.776	ug/L	0.316	1	123	305875	1
[>	Ge	72		ug/L			333920	319471	1
|	Ni	60	29.175	ug/L	0.426	1	109	75318	0
|	Ni	62	30.996	ug/L	0.057	0	54	12005	1
|	Cu	63	41.347	ug/L	0.267	0	248	238802	0
|	Cu	65	41.607	ug/L	0.482	1	118	115028	0
|	Zn	66	112.014	ug/L	1.463	1	695	196378	1
|	Zn	67	105.565	ug/L	1.598	1	255	30983	1
|	Zn	68	113.761	ug/L	1.589	1	8462	147909	0
|	As	75	27.431	ug/L	0.094	0	693	49166	1
|	As-1	75	26.945	ug/L	0.157	0	11505	57976	1
|	Se	82	71.368	ug/L	0.514	0	-5	14067	0
|	Se	78	72.070	ug/L	0.700	0	11713	45495	1
[	Mo	98	26.449	ug/L	0.406	1	207	172520	2
	Y	89		ug/L			309412	295174	1
	Kr	83		ug/L			376	390	3
[>	In	115		ug/L			365357	360330	0
|	Ag	107	23.970	ug/L	0.241	1	101	285738	1
|	Cd	111	23.823	ug/L	0.233	0	166	69945	0
|	Cd	114	23.502	ug/L	0.121	0	27	162031	0
|	Sb	121	25.155	ug/L	0.441	1	240	250976	1
|	Sb	123	25.336	ug/L	0.267	1	169	189799	0
|	Ba	135	28.486	ug/L	0.300	1	32	71212	0
[	Ba	137	28.126	ug/L	0.355	1	65	121470	1
[>	Tb	159		ug/L			430587	417290	0
|	Tl	205	25.657	ug/L	0.162	0	147	724882	1
|	Pb	208	42.349	ug/L	0.233	0	1493	1641983	0
|	Bi	209		ug/L			345109	346362	1
|	Th	232	25.099	ug/L	0.418	1	719	1111760	2
[	U	238	24.821	ug/L	0.172	0	97	1174267	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, May 23, 2012 23:35:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	344837	0
[	Be	9	0.055	ug/L	0.011	19	3	20	16
	C	13		mg/L			5654	7421	1
	Cl	37		mg/L			2331174	2476159	0
[>	Sc	45		ug/L			262568	237574	0
[	V	51	4.867	ug/L	0.115	2	2402	53625	2
[	V-1	51	5.290	ug/L	0.062	1	8286	64189	1
[	Cr	52	4.218	ug/L	0.054	1	7360	45354	1
[	Cr	53	5.586	ug/L	0.182	3	2713	8503	2
[	Mn	55	31.484	ug/L	0.169	0	1178	488684	0
[	Co	59	1.098	ug/L	0.008	0	123	13033	0
[>	Ge	72		ug/L			333920	331292	0
[	Ni	60	4.703	ug/L	0.028	0	109	12682	0
[	Ni	62	5.896	ug/L	0.265	4	54	2411	4
[	Cu	63	14.928	ug/L	0.269	1	248	89570	2
[	Cu	65	15.014	ug/L	0.130	0	118	43124	0
[	Zn	66	42.637	ug/L	0.215	0	695	77946	0
[	Zn	67	39.545	ug/L	0.530	1	255	12195	1
[	Zn	68	43.195	ug/L	0.368	0	8462	63452	0
[	As	75	3.499	ug/L	0.060	1	693	7103	1
[	As-1	75	3.150	ug/L	0.058	1	11505	17110	0
[	Se	82	0.106	ug/L	0.046	43	-5	16	58
[	Se	78	-1.214	ug/L	0.148	12	11713	11022	0
[	Mo	98	1.301	ug/L	0.019	1	207	8999	1
	Y	89		ug/L			309412	305680	0
	Kr	83		ug/L			376	398	2
[>	In	115		ug/L			365357	368600	0
[	Ag	107	U 0.083	ug/L	0.003	3	101	1114	3
[	Cd	111	0.335	ug/L	0.016	4	166	1173	3
[	Cd	114	0.298	ug/L	0.008	2	27	2131	3
[	Sb	121	U 0.028	ug/L	0.007	24	240	523	13
[	Sb	123	0.032	ug/L	0.008	24	169	418	14
[	Ba	135	4.228	ug/L	0.020	0	32	10841	1
[	Ba	137	4.226	ug/L	0.077	1	65	18722	0
[>	Tb	159		ug/L			430587	426058	0
[	Tl	205	0.029	ug/L	0.001	3	147	972	4
[	Pb	208	19.711	ug/L	0.119	0	1493	781107	0
[	Bi	209		ug/L			345109	349959	0
[	Th	232	0.183	ug/L	0.003	1	719	8964	2
[	U	238	0.750	ug/L	0.006	0	97	36294	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, May 23, 2012 23:42:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	345544	0
[	Be	9	0.033	ug/L	0.015	44	3	12	36
	C	13		mg/L			5654	7418	1
	Cl	37		mg/L			2331174	2518957	0
[>	Sc	45		ug/L			262568	241861	0
[	V	51	4.631	ug/L	0.056	1	2402	52059	1
[	V-1	51	5.021	ug/L	0.047	0	8286	62406	0
[	Cr	52	4.078	ug/L	0.041	1	7360	44867	1
[	Cr	53	5.334	ug/L	0.241	4	2713	8378	2
[	Mn	55	31.462	ug/L	0.213	0	1178	497151	0
[	Co	59	1.045	ug/L	0.011	1	123	12639	1
[>	Ge	72		ug/L			333920	332680	1
[	Ni	60	4.645	ug/L	0.065	1	109	12579	1
[	Ni	62	5.882	ug/L	0.144	2	54	2415	1
[	Cu	63	13.456	ug/L	0.197	1	248	81091	1
[	Cu	65	13.608	ug/L	0.388	2	118	39250	1
[	Zn	66	41.000	ug/L	0.311	0	695	75289	1
[	Zn	67	37.896	ug/L	0.580	1	255	11745	1
[	Zn	68	41.647	ug/L	0.912	2	8462	61726	0
[	As	75	3.540	ug/L	0.078	2	693	7207	1
[	As-1	75	3.257	ug/L	0.148	4	11505	17373	0
[	Se	82	0.081	ug/L	0.047	57	-5	11	85
[	Se	78	-1.018	ug/L	0.313	30	11713	11164	0
[	Mo	98	1.322	ug/L	0.010	0	207	9175	2
	Y	89		ug/L			309412	305488	1
	Kr	83		ug/L			376	397	1
[>	In	115		ug/L			365357	366893	1
[	Ag	107	U 0.087	ug/L	0.002	2	101	1152	3
[	Cd	111	0.369	ug/L	0.014	3	166	1267	2
[	Cd	114	0.281	ug/L	0.007	2	27	1999	1
[	Sb	121	J 0.023	ug/L	0.003	13	240	473	5
[	Sb	123	0.023	ug/L	0.005	23	169	346	12
[	Ba	135	4.637	ug/L	0.025	0	32	11831	1
[	Ba	137	4.611	ug/L	0.129	2	65	20325	1
[>	Tb	159		ug/L			430587	431284	0
[	Tl	205	0.021	ug/L	0.000	2	147	758	0
[	Pb	208	18.284	ug/L	0.033	0	1493	733596	0
[	Bi	209		ug/L			345109	348541	0
[	Th	232	0.149	ug/L	0.002	1	719	7550	0
[	U	238	0.718	ug/L	0.012	1	97	35209	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, May 23, 2012 23:48:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	359199	0
[	Be	9	0.023	ug/L	0.004	16	3	10	12
	C	13		mg/L			5654	7350	1
	Cl	37		mg/L			2331174	2539103	0
[>	Sc	45		ug/L			262568	247409	0
[	V	51	3.962	ug/L	0.059	1	2402	45884	2
[	V-1	51	4.274	ug/L	0.022	0	8286	55508	0
[	Cr	52	3.717	ug/L	0.077	2	7360	42448	1
[	Cr	53	4.717	ug/L	0.201	4	2713	7874	2
[	Mn	55	23.827	ug/L	0.228	0	1178	385399	1
[	Co	59	0.823	ug/L	0.016	1	123	10202	1
[>	Ge	72		ug/L			333920	341103	0
[	Ni	60	3.915	ug/L	0.073	1	109	10889	1
[	Ni	62	4.934	ug/L	0.175	3	54	2087	3
[	Cu	63	8.428	ug/L	0.229	2	248	52175	2
[	Cu	65	8.496	ug/L	0.086	1	118	25176	0
[	Zn	66	24.243	ug/L	0.327	1	695	45939	1
[	Zn	67	22.422	ug/L	0.414	1	255	7232	1
[	Zn	68	24.343	ug/L	0.285	1	8462	40590	0
[	As	75	2.018	ug/L	0.051	2	693	4518	1
[	As-1	75	1.654	ug/L	0.063	3	11505	14831	0
[	Se	82	0.157	ug/L	0.055	35	-5	27	42
[	Se	78	-1.213	ug/L	0.117	9	11713	11349	0
[	Mo	98	0.724	ug/L	0.018	2	207	5245	2
	Y	89		ug/L			309412	309380	0
	Kr	83		ug/L			376	395	3
[>	In	115		ug/L			365357	375052	1
[	Ag	107	U 0.042	ug/L	0.001	1	101	623	2
[	Cd	111	0.235	ug/L	0.022	9	166	885	5
[	Cd	114	0.188	ug/L	0.010	5	27	1375	4
[	Sb	121	J 0.007	ug/L	0.002	25	240	324	4
[	Sb	123	0.010	ug/L	0.003	27	169	255	7
[	Ba	135	3.542	ug/L	0.047	1	32	9246	1
[	Ba	137	3.552	ug/L	0.144	4	65	16020	2
[>	Tb	159		ug/L			430587	430337	1
[	Tl	205	0.013	ug/L	0.001	8	147	537	7
[	Pb	208	10.705	ug/L	0.060	0	1493	429140	0
[	Bi	209		ug/L			345109	357189	0
[	Th	232	0.121	ug/L	0.002	1	719	6254	0
[	U	238	0.425	ug/L	0.005	1	97	20814	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, May 23, 2012 23:54:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	360737	1
[	Be	9	0.027	ug/L	0.011	40	3	11	32
	C	13		mg/L			5654	7540	1
	Cl	37		mg/L			2331174	2547749	0
[>	Sc	45		ug/L			262568	249561	0
|	V	51	4.135	ug/L	0.049	1	2402	48203	1
|	V-1	51	4.394	ug/L	0.049	1	8286	57339	1
|	Cr	52	3.909	ug/L	0.056	1	7360	44668	1
|	Cr	53	4.739	ug/L	0.060	1	2713	7969	0
|	Mn	55	30.005	ug/L	0.287	0	1178	489266	0
[	Co	59	1.027	ug/L	0.009	0	123	12822	0
[>	Ge	72		ug/L			333920	341024	0
|	Ni	60	4.161	ug/L	0.084	2	109	11564	1
|	Ni	62	5.140	ug/L	0.171	3	54	2171	2
|	Cu	63	10.670	ug/L	0.063	0	248	65973	1
|	Cu	65	10.732	ug/L	0.063	0	118	31766	0
|	Zn	66	27.810	ug/L	0.126	0	695	52581	0
|	Zn	67	25.803	ug/L	0.387	1	255	8281	1
|	Zn	68	28.345	ug/L	0.595	2	8462	45835	2
|	As	75	2.451	ug/L	0.012	0	693	5333	0
|	As-1	75	2.172	ug/L	0.059	2	11505	15792	0
|	Se	82	0.163	ug/L	0.105	64	-5	28	76
|	Se	78	-0.876	ug/L	0.142	16	11713	11517	0
[	Mo	98	0.798	ug/L	0.014	1	207	5761	1
	Y	89		ug/L			309412	313295	1
	Kr	83		ug/L			376	403	2
[>	In	115		ug/L			365357	374575	0
|	Ag	107	U 0.056	ug/L	0.002	3	101	803	3
|	Cd	111	0.264	ug/L	0.001	0	166	975	0
|	Cd	114	J 0.213	ug/L	0.004	1	27	1550	1
|	Sb	121	J -0.002	ug/L	0.003	167	240	230	11
|	Sb	123	0.000	ug/L	0.003	1034	169	176	11
|	Ba	135	4.343	ug/L	0.060	1	32	11314	1
[	Ba	137	4.319	ug/L	0.028	0	65	19445	0
[>	Tb	159		ug/L			430587	430098	0
|	Tl	205	0.019	ug/L	0.001	5	147	708	4
|	Pb	208	11.398	ug/L	0.102	0	1493	456610	0
|	Bi	209		ug/L			345109	351837	0
|	Th	232	0.138	ug/L	0.001	0	719	7021	0
[	U	238	0.407	ug/L	0.001	0	97	19929	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, May 24, 2012 00:00:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	339179	0
[	Be	9	51.346	ug/L	0.577	1	3	16141	1
	C	13		mg/L			5654	4362	1
	Cl	37		mg/L			2331174	2546777	0
[>	Sc	45		ug/L			262568	231763	0
[	V	51	50.921	ug/L	0.129	0	2402	527303	0
[	V-1	51	51.612	ug/L	0.282	0	8286	546868	0
[	Cr	52	51.690	ug/L	0.312	0	7360	469144	1
[	Cr	53	53.845	ug/L	0.395	0	2713	59270	0
[	Mn	55	50.165	ug/L	0.725	1	1178	758930	0
[	Co	59	53.749	ug/L	0.425	0	123	617452	1
[>	Ge	72		ug/L			333920	325558	0
[	Ni	60	50.336	ug/L	0.256	0	109	132357	0
[	Ni	62	50.872	ug/L	0.805	1	54	20047	1
[	Cu	63	51.894	ug/L	0.410	0	248	305388	1
[	Cu	65	51.542	ug/L	0.142	0	118	145199	0
[	Zn	66	51.986	ug/L	0.115	0	695	93243	0
[	Zn	67	53.605	ug/L	0.996	1	255	16157	2
[	Zn	68	53.325	ug/L	0.260	0	8462	75042	0
[	As	75	50.111	ug/L	0.548	1	693	90973	1
[	As-1	75	50.367	ug/L	0.377	0	11505	100688	0
[	Se	82	46.324	ug/L	0.570	1	-5	9303	1
[	Se	78	47.262	ug/L	0.408	0	11713	34334	0
[	Mo	98	49.928	ug/L	0.282	0	207	331706	1
	Y	89		ug/L			309412	278413	1
	Kr	83		ug/L			376	404	4
[>	In	115		ug/L			365357	356236	1
[	Ag	107	50.240	ug/L	1.051	2	101	591861	1
[	Cd	111	49.974	ug/L	1.106	2	166	144882	2
[	Cd	114	49.240	ug/L	1.126	2	27	335552	1
[	Sb	121	49.475	ug/L	0.796	1	240	487766	0
[	Sb	123	49.728	ug/L	0.477	0	169	368127	0
[	Ba	135	48.512	ug/L	1.038	2	32	119861	1
[	Ba	137	48.869	ug/L	0.361	0	65	208599	0
[>	Tb	159		ug/L			430587	406927	0
[	Tl	205	52.735	ug/L	0.320	0	147	1452707	0
[	Pb	208	52.465	ug/L	0.333	0	1493	1983399	0
[	Bi	209		ug/L			345109	328617	0
[	Th	232	52.672	ug/L	0.246	0	719	2274369	0
[	U	238	51.790	ug/L	0.708	1	97	2389023	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, May 24, 2012 00:07:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	339995	0
[	Be	9	0.004	ug/L	0.007	156	3	3	57
	C	13		mg/L			5654	4510	0
	Cl	37		mg/L			2331174	2577782	0
[>	Sc	45		ug/L			262568	232392	1
[	V	51	-0.051	ug/L	0.009	17	2402	1604	6
[	V-1	51	0.219	ug/L	0.026	11	8286	9637	4
[	Cr	52	0.045	ug/L	0.013	29	7360	6915	1
[	Cr	53	0.895	ug/L	0.047	5	2713	3350	2
[	Mn	55	-0.008	ug/L	0.001	11	1178	917	2
[	Co	59	0.020	ug/L	0.002	8	123	341	6
[>	Ge	72		ug/L			333920	323240	1
[	Ni	60	-0.000	ug/L	0.004	981	109	105	10
[	Ni	62	0.136	ug/L	0.016	11	54	105	5
[	Cu	63	0.031	ug/L	0.003	9	248	419	5
[	Cu	65	0.026	ug/L	0.003	13	118	186	5
[	Zn	66	0.376	ug/L	0.013	3	695	1338	1
[	Zn	67	0.489	ug/L	0.071	14	255	391	5
[	Zn	68	1.250	ug/L	0.155	12	8462	9745	1
[	As	75	0.065	ug/L	0.014	22	693	788	4
[	As-1	75	0.100	ug/L	0.051	51	11505	11312	0
[	Se	82	-0.049	ug/L	0.121	244	-5	-14	160
[	Se	78	0.322	ug/L	0.188	58	11713	11493	0
[	Mo	98	-0.016	ug/L	0.005	33	207	99	35
	Y	89		ug/L			309412	281440	1
	Kr	83		ug/L			376	411	2
[>	In	115		ug/L			365357	352160	0
[	Ag	107	0.000	ug/L	0.003	2466	101	98	31
[	Cd	111	0.014	ug/L	0.009	65	166	200	12
[	Cd	114	0.001	ug/L	0.001	109	27	32	20
[	Sb	121	0.028	ug/L	0.013	47	240	506	25
[	Sb	123	0.030	ug/L	0.016	54	169	380	30
[	Ba	135	0.012	ug/L	0.001	11	32	60	5
[	Ba	137	0.005	ug/L	0.006	117	65	84	29
[>	Tb	159		ug/L			430587	401877	0
[	Tl	205	0.001	ug/L	0.001	101	147	175	22
[	Pb	208	0.072	ug/L	0.001	1	1493	4097	1
[	Bi	209		ug/L			345109	328576	1
[	Th	232	0.022	ug/L	0.007	31	719	1622	19
[	U	238	0.002	ug/L	0.001	69	97	161	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU31 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, May 24, 2012 00:13:14
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass		Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	357222	0
[	Be	9		0.003	ug/L	0.006	227	3	3	57
	C	13			mg/L			5654	5091	1
	Cl	37			mg/L			2331174	2607449	0
[>	Sc	45			ug/L			262568	243169	0
[	V	51		-0.039	ug/L	0.035	90	2402	1806	21
[	V-1	51		0.167	ug/L	0.015	9	8286	9502	1
[	Cr	52		0.073	ug/L	0.025	34	7360	7502	3
[	Cr	53		0.718	ug/L	0.111	15	2713	3308	3
[	Mn	55		-0.023	ug/L	0.001	5	1178	732	2
[	Co	59		0.006	ug/L	0.001	18	123	184	7
[>	Ge	72			ug/L			333920	337240	0
[	Ni	60		-0.010	ug/L	0.001	14	109	84	4
[	Ni	62		0.114	ug/L	0.026	22	54	101	9
[	Cu	63		0.123	ug/L	0.003	2	248	1002	1
[	Cu	65		0.123	ug/L	0.018	14	118	477	10
[	Zn	66		0.273	ug/L	0.015	5	695	1206	2
[	Zn	67		0.512	ug/L	0.063	12	255	415	4
[	Zn	68		0.924	ug/L	0.140	15	8462	9745	1
[	As	75	U	0.066	ug/L	0.032	48	693	823	7
[	As-1	75		-0.060	ug/L	0.056	93	11505	11509	0
[	Se	82	J	-0.086	ug/L	0.089	103	-5	-23	78
[	Se	78		-0.311	ug/L	0.198	63	11713	11673	0
[	Mo	98		-0.019	ug/L	0.004	18	207	76	33
	Y	89			ug/L			309412	292645	1
	Kr	83			ug/L			376	428	0
[>	In	115			ug/L			365357	369099	0
[	Ag	107		-0.004	ug/L	0.000	9	101	59	6
[	Cd	111		0.018	ug/L	0.004	20	166	222	5
[	Cd	114		0.000	ug/L	0.001	176	27	29	13
[	Sb	121		-0.002	ug/L	0.003	216	240	227	16
[	Sb	123		-0.002	ug/L	0.002	138	169	158	12
[	Ba	135		0.004	ug/L	0.003	84	32	42	19
[	Ba	137		-0.004	ug/L	0.001	36	65	48	13
[>	Tb	159			ug/L			430587	415711	0
[	Tl	205		-0.001	ug/L	0.001	185	147	126	22
[	Pb	208	J	0.059	ug/L	0.003	4	1493	3709	2
[	Bi	209			ug/L			345109	338752	0
[	Th	232		0.012	ug/L	0.004	31	719	1232	13
[	U	238		0.001	ug/L	0.000	24	97	118	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU31 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, May 24, 2012 00:18:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	359248	0
[	Be	9	24.621	ug/L	0.097	0	3	8199	0
	C	13		mg/L			5654	5519	2
	Cl	37		mg/L			2331174	2623364	0
[>	Sc	45		ug/L			262568	244835	1
	V	51	24.683	ug/L	0.243	0	2402	271151	0
	V-1	51	24.945	ug/L	0.445	1	8286	283167	0
	Cr	52	25.445	ug/L	0.194	0	7360	247425	1
	Cr	53	26.241	ug/L	0.843	3	2713	31801	1
	Mn	55	24.960	ug/L	0.402	1	1178	399419	0
[	Co	59	26.377	ug/L	0.319	1	123	320122	1
[>	Ge	72		ug/L			333920	338108	0
	Ni	60	25.487	ug/L	0.273	1	109	69658	1
	Ni	62	25.941	ug/L	0.398	1	54	10643	1
	Cu	63	26.658	ug/L	0.203	0	248	163043	0
	Cu	65	27.224	ug/L	0.351	1	118	79704	1
	Zn	66	80.560	ug/L	1.077	1	695	149676	1
	Zn	67	76.023	ug/L	0.224	0	255	23688	0
	Zn	68	81.115	ug/L	0.393	0	8462	114087	0
	As	75	25.535	ug/L	0.187	0	693	48487	0
	As-1	75	24.863	ug/L	0.180	0	11505	57518	0
	Se	82	71.956	ug/L	0.202	0	-5	15011	0
	Se	78	72.099	ug/L	0.642	0	11713	48165	0
[	Mo	98	-0.022	ug/L	0.001	2	207	60	6
	Y	89		ug/L			309412	295123	0
	Kr	83		ug/L			376	410	2
[>	In	115		ug/L			365357	368517	1
	Ag	107	24.975	ug/L	0.455	1	101	304420	0
	Cd	111	23.943	ug/L	0.301	1	166	71891	0
	Cd	114	23.553	ug/L	0.333	1	27	166060	0
	Sb	121	-0.008	ug/L	0.000	4	240	159	1
	Sb	123	-0.006	ug/L	0.001	20	169	125	7
	Ba	135	23.765	ug/L	0.060	0	32	60767	1
[	Ba	137	23.830	ug/L	0.401	1	65	105252	0
[>	Tb	159		ug/L			430587	415432	1
	Tl	205	25.971	ug/L	0.509	1	147	730349	0
	Pb	208	26.123	ug/L	0.378	1	1493	1008822	0
	Bi	209		ug/L			345109	340292	0
	Th	232	25.691	ug/L	0.413	1	719	1132758	0
[	U	238	25.322	ug/L	0.474	1	97	1192462	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU31 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, May 24, 2012 00:25:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	362652	2
[	Be	9	0.007	ug/L	0.006	85	3	5	43
	C	13		mg/L			5654	6480	2
	Cl	37		mg/L			2331174	2599823	0
[>	Sc	45		ug/L			262568	262733	0
[	V	51	0.116	ug/L	0.012	10	2402	3756	4
[	V-1	51	0.200	ug/L	0.032	15	8286	10665	3
[	Cr	52	0.178	ug/L	0.019	10	7360	9165	1
[	Cr	53	0.443	ug/L	0.072	16	2713	3245	2
[	Mn	55	665.789	ug/L	6.503	0	1178	11404049	0
[	Co	59	0.872	ug/L	0.002	0	123	11473	1
[>	Ge	72		ug/L			333920	329380	0
[	Ni	60	3.373	ug/L	0.154	4	109	9072	4
[	Ni	62	1.745	ug/L	0.037	2	54	747	2
[	Cu	63	0.941	ug/L	0.017	1	248	5846	1
[	Cu	65	1.019	ug/L	0.025	2	118	3019	2
[	Zn	66	32.030	ug/L	0.276	0	695	58386	0
[	Zn	67	31.304	ug/L	0.190	0	255	9650	0
[	Zn	68	34.144	ug/L	0.488	1	8462	51616	1
[	As	75	3.190	ug/L	0.035	1	693	6500	1
[	As-1	75	2.910	ug/L	0.086	2	11505	16578	0
[	Se	82	J 0.253	ug/L	0.046	18	-5	46	20
[	Se	78	-0.676	ug/L	0.260	38	11713	11222	0
[	Mo	98	0.090	ug/L	0.001	1	207	812	1
	Y	89		ug/L			309412	292798	0
	Kr	83		ug/L			376	419	1
[>	In	115		ug/L			365357	355717	0
[	Ag	107	0.004	ug/L	0.003	71	101	141	22
[	Cd	111	0.078	ug/L	0.003	4	166	387	1
[	Cd	114	0.045	ug/L	0.004	9	27	332	9
[	Sb	121	0.056	ug/L	0.003	5	240	782	2
[	Sb	123	0.060	ug/L	0.005	8	169	612	6
[	Ba	135	65.427	ug/L	0.785	1	32	161426	0
[	Ba	137	64.740	ug/L	1.102	1	65	275926	1
[>	Tb	159		ug/L			430587	413025	0
[	Tl	205	0.003	ug/L	0.001	42	147	230	16
[	Pb	208	J 0.071	ug/L	0.004	6	1493	4158	4
[	Bi	209		ug/L			345109	319543	0
[	Th	232	0.080	ug/L	0.023	29	719	4208	24
[	U	238	0.066	ug/L	0.001	1	97	3191	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU31 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, May 24, 2012 00:31:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	388268	1
[	Be	9	-0.001		ug/L	0.003	553	3	2	50
	C	13			mg/L			5654	6596	3
	Cl	37			mg/L			2331174	2617903	0
[>	Sc	45			ug/L			262568	268273	0
[	V	51	0.120		ug/L	0.016	13	2402	3881	5
[	V-1	51	0.142		ug/L	0.018	12	8286	10181	1
[	Cr	52	0.135		ug/L	0.007	5	7360	8918	1
[	Cr	53	0.205		ug/L	0.101	49	2713	3022	3
[	Mn	55	656.146		ug/L	6.203	0	1178	11476234	0
[	Co	59	0.841		ug/L	0.011	1	123	11311	1
[>	Ge	72			ug/L			333920	330263	0
[	Ni	60	3.239		ug/L	0.014	0	109	8740	0
[	Ni	62	1.717		ug/L	0.081	4	54	738	4
[	Cu	63	1.095		ug/L	0.020	1	248	6774	1
[	Cu	65	1.202		ug/L	0.024	2	118	3550	1
[	Zn	66	32.088		ug/L	0.137	0	695	58648	0
[	Zn	67	31.124		ug/L	0.598	1	255	9622	1
[	Zn	68	34.001		ug/L	0.179	0	8462	51574	0
[	As	75	3.146		ug/L	0.009	0	693	6436	0
[	As-1	75	2.858		ug/L	0.106	3	11505	16529	1
[	Se	82	0.146	J	ug/L	0.060	41	-5	24	50
[	Se	78	-0.835		ug/L	0.352	42	11713	11175	1
[	Mo	98	0.096		ug/L	0.003	3	207	852	2
	Y	89			ug/L			309412	296235	0
	Kr	83			ug/L			376	416	4
[>	In	115			ug/L			365357	354719	0
[	Ag	107	-0.000		ug/L	0.000	231	101	96	3
[	Cd	111	0.070		ug/L	0.005	7	166	364	3
[	Cd	114	0.044		ug/L	0.000	0	27	327	0
[	Sb	121	0.056		ug/L	0.003	5	240	785	2
[	Sb	123	0.065		ug/L	0.006	8	169	640	7
[	Ba	135	64.904		ug/L	1.018	1	32	159676	0
[	Ba	137	64.994		ug/L	0.259	0	65	276239	0
[>	Tb	159			ug/L			430587	409276	0
[	Tl	205	-0.001		ug/L	0.000	30	147	111	7
[	Pb	208	0.075	U	ug/L	0.002	2	1493	4261	1
[	Bi	209			ug/L			345109	320885	0
[	Th	232	0.017		ug/L	0.001	7	719	1436	4
[	U	238	0.062		ug/L	0.001	0	97	2979	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU31 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, May 24, 2012 00:37:58
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			477870	399206	0
⌊	Be	9	24.954	ug/L	0.298	1	3	9234	1
	C	13		mg/L			5654	6625	2
	Cl	37		mg/L			2331174	2622662	0
⌈>	Sc	45		ug/L			262568	266694	0
|	V	51	22.679	ug/L	0.051	0	2402	271606	0
|	V-1	51	22.912	ug/L	0.121	0	8286	284043	0
|	Cr	52	22.527	ug/L	0.046	0	7360	239481	0
|	Cr	53	23.269	ug/L	0.244	1	2713	31038	0
|	Mn	55	692.189	ug/L	1.887	0	1178	12035592	0
⌊	Co	59	23.370	ug/L	0.075	0	123	308990	0
⌈>	Ge	72		ug/L			333920	329694	0
|	Ni	60	26.915	ug/L	0.467	1	109	71719	1
|	Ni	62	25.546	ug/L	0.635	2	54	10220	2
|	Cu	63	24.804	ug/L	0.469	1	248	147934	1
|	Cu	65	24.825	ug/L	0.377	1	118	70881	1
|	Zn	66	104.860	ug/L	0.736	0	695	189771	1
|	Zn	67	98.838	ug/L	0.201	0	255	29954	0
|	Zn	68	104.963	ug/L	1.056	1	8462	141493	0
|	As	75	28.672	ug/L	0.595	2	693	53002	1
|	As-1	75	27.894	ug/L	0.614	2	11505	61535	1
|	Se	82	71.235	ug/L	0.935	1	-5	14490	1
|	Se	78	70.825	ug/L	1.095	1	11713	46339	0
⌊	Mo	98	0.100	ug/L	0.001	1	207	878	1
	Y	89		ug/L			309412	296884	0
	Kr	83		ug/L			376	407	2
⌈>	In	115		ug/L			365357	352740	0
|	Ag	107	23.666	ug/L	0.431	1	101	276152	1
|	Cd	111	23.865	ug/L	0.282	1	166	68597	1
|	Cd	114	23.784	ug/L	0.310	1	27	160525	1
|	Sb	121	0.058	ug/L	0.002	3	240	801	2
|	Sb	123	0.061	ug/L	0.004	7	169	611	5
|	Ba	135	90.324	ug/L	0.886	0	32	220984	0
⌊	Ba	137	89.871	ug/L	0.489	0	65	379827	0
⌈>	Tb	159		ug/L			430587	414302	0
|	Tl	205	24.945	ug/L	0.376	1	147	699646	1
|	Pb	208	24.772	ug/L	0.155	0	1493	954199	0
|	Bi	209		ug/L			345109	321783	0
|	Th	232	25.647	ug/L	0.516	2	719	1127720	1
⌊	U	238	25.937	ug/L	0.395	1	97	1218136	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, May 24, 2012 00:44:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	433878	0
[	Be	9	0.011	ug/L	0.005	47	3	7	28
	C	13		mg/L			5654	9610	2
	Cl	37		mg/L			2331174	2741294	0
[>	Sc	45		ug/L			262568	259228	0
[	V	51	2.783	ug/L	0.044	1	2402	34477	0
[	V-1	51	2.786	ug/L	0.028	1	8286	40755	0
[	Cr	52	1.788	ug/L	0.015	0	7360	25168	0
[	Cr	53	1.839	ug/L	0.047	2	2713	4851	1
[	Mn	55	22.342	ug/L	0.167	0	1178	378733	1
[	Co	59	0.689	ug/L	0.007	1	123	8976	1
[>	Ge	72		ug/L			333920	336832	1
[	Ni	60	3.068	ug/L	0.069	2	109	8448	0
[	Ni	62	3.744	ug/L	0.081	2	54	1576	2
[	Cu	63	22.284	ug/L	0.378	1	248	135797	0
[	Cu	65	22.235	ug/L	0.259	1	118	64869	0
[	Zn	66	36.856	ug/L	0.514	1	695	68596	1
[	Zn	67	33.567	ug/L	0.203	0	255	10563	1
[	Zn	68	37.318	ug/L	0.733	1	8462	56892	1
[	As	75	4.625	ug/L	0.058	1	693	9320	0
[	As-1	75	4.262	ug/L	0.111	2	11505	19436	0
[	Se	82	0.098	ug/L	0.039	40	-5	14	54
[	Se	78	-1.298	ug/L	0.250	19	11713	11163	0
[	Mo	98	1.429	ug/L	0.035	2	207	10026	1
	Y	89		ug/L			309412	314362	0
	Kr	83		ug/L			376	412	4
[>	In	115		ug/L			365357	361238	0
[	Ag	107	0.052	ug/L	0.002	4	101	725	3
[	Cd	111	0.233	ug/L	0.015	6	166	848	5
[	Cd	114	0.203	ug/L	0.006	2	27	1430	2
[	Sb	121	0.233	ug/L	0.003	1	240	2567	1
[	Sb	123	0.237	ug/L	0.003	1	169	1943	0
[	Ba	135	2.309	ug/L	0.053	2	32	5816	2
[	Ba	137	2.304	ug/L	0.025	1	65	10034	0
[>	Tb	159		ug/L			430587	425579	0
[	Tl	205	0.012	ug/L	0.000	2	147	492	2
[	Pb	208	19.436	ug/L	0.059	0	1493	769370	0
[	Bi	209		ug/L			345109	342910	0
[	Th	232	0.064	ug/L	0.006	9	719	3617	7
[	U	238	0.696	ug/L	0.014	2	97	33677	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, May 24, 2012 00:50:36
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	435645	1
[	Be	9	0.015		ug/L	0.003	21	3	9	15
	C	13			mg/L			5654	10534	2
	Cl	37			mg/L			2331174	2734279	0
[>	Sc	45			ug/L			262568	263547	1
[	V	51	4.564		ug/L	0.070	1	2402	55929	0
[	V-1	51	4.518		ug/L	0.101	2	8286	62010	0
[	Cr	52	1.805		ug/L	0.008	0	7360	25757	2
[	Cr	53	1.776		ug/L	0.100	5	2713	4855	1
[	Mn	55	9.390		ug/L	0.152	1	1178	162488	0
[	Co	59	0.396		ug/L	0.001	0	123	5291	1
[>	Ge	72			ug/L			333920	339778	0
[	Ni	60	3.168		ug/L	0.041	1	109	8799	1
[	Ni	62	3.607		ug/L	0.272	7	54	1534	7
[	Cu	63	10.549		ug/L	0.054	0	248	64991	0
[	Cu	65	10.604		ug/L	0.041	0	118	31272	0
[	Zn	66	26.903		ug/L	0.307	1	695	50702	0
[	Zn	67	24.623		ug/L	0.105	0	255	7886	0
[	Zn	68	26.938		ug/L	0.136	0	8462	43826	0
[	As	75	8.094		ug/L	0.038	0	693	15928	0
[	As-1	75	7.829		ug/L	0.047	0	11505	26222	0
[	Se	82	0.152		ug/L	0.087	57	-5	26	69
[	Se	78	-1.091		ug/L	0.177	16	11713	11367	0
[	Mo	98	2.494		ug/L	0.050	1	207	17496	1
	Y	89			ug/L			309412	321544	0
	Kr	83			ug/L			376	411	3
[>	In	115			ug/L			365357	367332	0
[	Ag	107	J	0.099	ug/L	0.008	7	101	1306	7
[	Cd	111		0.338	ug/L	0.016	4	166	1176	4
[	Cd	114		0.306	ug/L	0.010	3	27	2175	2
[	Sb	121		0.466	ug/L	0.008	1	240	4973	0
[	Sb	123		0.478	ug/L	0.011	2	169	3816	2
[	Ba	135		4.673	ug/L	0.033	0	32	11935	0
[	Ba	137		4.678	ug/L	0.070	1	65	20650	0
[>	Tb	159			ug/L			430587	424425	0
[	Tl	205	0.017		ug/L	0.001	5	147	639	3
[	Pb	208	52.310		ug/L	0.566	1	1493	2062500	0
[	Bi	209			ug/L			345109	344476	0
[	Th	232	0.070		ug/L	0.002	3	719	3880	2
[	U	238	0.972		ug/L	0.012	1	97	46872	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, May 24, 2012 00:56:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass		Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			477870	441311	1
[	Be	9		0.035	ug/L	0.003	7	3	17	7
	C	13			mg/L			5654	9411	1
	Cl	37			mg/L			2331174	2729203	0
[>	Sc	45			ug/L			262568	271710	0
[	V	51		6.917	ug/L	0.095	1	2402	86121	0
[	V-1	51		6.876	ug/L	0.103	1	8286	92839	0
[	Cr	52		6.132	ug/L	0.100	1	7360	71955	0
[	Cr	53		6.034	ug/L	0.129	2	2713	10279	0
[	Mn	55		50.131	ug/L	0.736	1	1178	889118	0
[	Co	59		1.369	ug/L	0.021	1	123	18565	0
[>	Ge	72			ug/L			333920	348982	0
[	Ni	60		7.250	ug/L	0.044	0	109	20533	0
[	Ni	62		8.785	ug/L	0.272	3	54	3757	3
[	Cu	63		17.415	ug/L	0.223	1	248	110028	1
[	Cu	65		17.463	ug/L	0.090	0	118	52818	0
[	Zn	66		94.248	ug/L	0.071	0	695	180615	0
[	Zn	67		85.958	ug/L	0.872	1	255	27609	0
[	Zn	68		93.444	ug/L	0.455	0	8462	134312	0
[	As	75		4.708	ug/L	0.063	1	693	9817	1
[	As-1	75		4.259	ug/L	0.118	2	11505	20133	0
[	Se	82		0.130	ug/L	0.019	14	-5	22	18
[	Se	78		-1.570	ug/L	0.305	19	11713	11425	0
[	Mo	98		1.410	ug/L	0.022	1	207	10253	1
	Y	89			ug/L			309412	338603	1
	Kr	83			ug/L			376	430	1
[>	In	115			ug/L			365357	367050	0
[	Ag	107	U	0.087	ug/L	0.004	4	101	1159	4
[	Cd	111		0.621	ug/L	0.023	3	166	2019	3
[	Cd	114		0.562	ug/L	0.003	0	27	3973	0
[	Sb	121	J	0.034	ug/L	0.003	7	240	589	4
[	Sb	123		0.033	ug/L	0.003	7	169	425	4
[	Ba	135		6.188	ug/L	0.014	0	32	15784	0
[	Ba	137		6.211	ug/L	0.079	1	65	27377	1
[>	Tb	159			ug/L			430587	429536	2
[	Tl	205		0.025	ug/L	0.001	3	147	874	1
[	Pb	208		49.207	ug/L	1.234	2	1493	1963039	0
[	Bi	209			ug/L			345109	344544	0
[	Th	232		0.219	ug/L	0.002	0	719	10675	1
[	U	238		0.632	ug/L	0.016	2	97	30864	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, May 24, 2012 01:03:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	440119	0
[	Be	9	0.049	ug/L	0.015	31	3	22	26
	C	13		mg/L			5654	9874	0
	Cl	37		mg/L			2331174	2721081	0
[>	Sc	45		ug/L			262568	266339	0
|	V	51	6.921	ug/L	0.080	1	2402	84473	1
|	V-1	51	6.886	ug/L	0.056	0	8286	91138	1
|	Cr	52	5.700	ug/L	0.018	0	7360	66095	0
|	Cr	53	5.642	ug/L	0.153	2	2713	9600	1
|	Mn	55	35.690	ug/L	0.533	1	1178	620840	0
[	Co	59	1.115	ug/L	0.012	1	123	14846	0
[>	Ge	72		ug/L			333920	346076	1
|	Ni	60	5.830	ug/L	0.170	2	109	16395	2
|	Ni	62	7.117	ug/L	0.103	1	54	3029	1
|	Cu	63	15.818	ug/L	0.380	2	248	99114	1
|	Cu	65	16.010	ug/L	0.172	1	118	48025	0
|	Zn	66	48.128	ug/L	0.562	1	695	91815	1
|	Zn	67	44.091	ug/L	0.149	0	255	14173	0
|	Zn	68	47.803	ug/L	0.275	0	8462	72420	1
|	As	75	3.112	ug/L	0.025	0	693	6679	1
|	As-1	75	2.748	ug/L	0.070	2	11505	17112	0
|	Se	82	0.053	ug/L	0.082	156	-5	5	310
|	Se	78	-1.194	ug/L	0.249	20	11713	11524	0
[	Mo	98	1.801	ug/L	0.025	1	207	12926	1
	Y	89		ug/L			309412	330458	0
	Kr	83		ug/L			376	439	3
[>	In	115		ug/L			365357	361180	1
|	Ag	107	U 0.072	ug/L	0.002	2	101	954	0
|	Cd	111	0.352	ug/L	0.021	6	166	1199	4
|	Cd	114	0.302	ug/L	0.016	5	27	2111	4
|	Sb	121	U 0.035	ug/L	0.004	11	240	591	7
|	Sb	123	0.040	ug/L	0.003	7	169	466	4
|	Ba	135	6.220	ug/L	0.070	1	32	15609	0
[	Ba	137	6.082	ug/L	0.050	0	65	26380	1
[>	Tb	159		ug/L			430587	423101	0
|	Tl	205	0.021	ug/L	0.001	3	147	748	3
|	Pb	208	28.096	ug/L	0.075	0	1493	1105084	0
|	Bi	209		ug/L			345109	338871	1
|	Th	232	0.186	ug/L	0.002	1	719	9073	0
[	U	238	1.041	ug/L	0.017	1	97	50030	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UU52 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, May 24, 2012 01:09:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	439636	0
[	Be	9	0.019	ug/L	0.004	19	3	10	13
	C	13		mg/L			5654	9009	0
	Cl	37		mg/L			2331174	2738165	0
[>	Sc	45		ug/L			262568	268691	0
[	V	51	4.369	ug/L	0.046	1	2402	54695	1
[	V-1	51	4.300	ug/L	0.026	0	8286	60600	0
[	Cr	52	4.328	ug/L	0.061	1	7360	52444	1
[	Cr	53	4.115	ug/L	0.155	3	2713	7814	1
[	Mn	55	27.476	ug/L	0.473	1	1178	482432	1
[	Co	59	0.918	ug/L	0.018	1	123	12353	1
[>	Ge	72		ug/L			333920	346876	0
[	Ni	60	4.135	ug/L	0.055	1	109	11689	0
[	Ni	62	4.927	ug/L	0.137	2	54	2119	2
[	Cu	63	6.770	ug/L	0.063	0	248	42670	1
[	Cu	65	6.979	ug/L	0.090	1	118	21052	0
[	Zn	66	16.782	ug/L	0.266	1	695	32558	1
[	Zn	67	15.685	ug/L	0.504	3	255	5224	2
[	Zn	68	16.852	ug/L	0.341	2	8462	31282	1
[	As	75	0.890	ug/L	0.056	6	693	2427	4
[	As-1	75	0.537	ug/L	0.052	9	11505	12968	0
[	Se	82	0.005	ug/L	0.130	2852	-5	-4	589
[	Se	78	-1.125	ug/L	0.085	7	11713	11586	0
[	Mo	98	0.984	ug/L	0.016	1	207	7177	1
	Y	89		ug/L			309412	329695	1
	Kr	83		ug/L			376	432	1
[>	In	115		ug/L			365357	366365	0
[	Ag	107	U 0.039	ug/L	0.003	6	101	573	6
[	Cd	111	0.217	ug/L	0.006	2	166	814	1
[	Cd	114	0.180	ug/L	0.002	1	27	1289	1
[	Sb	121	J -0.010	ug/L	0.001	9	240	135	7
[	Sb	123	-0.011	ug/L	0.001	8	169	86	7
[	Ba	135	4.724	ug/L	0.044	0	32	12033	1
[	Ba	137	4.647	ug/L	0.077	1	65	20462	1
[>	Tb	159		ug/L			430587	421537	0
[	Tl	205	0.021	ug/L	0.001	4	147	746	4
[	Pb	208	6.064	ug/L	0.085	1	1493	238744	0
[	Bi	209		ug/L			345109	338576	0
[	Th	232	0.157	ug/L	0.002	1	719	7722	0
[	U	238	0.476	ug/L	0.003	0	97	22851	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, May 24, 2012 01:15:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	415800	0
[	Be	9	53.273	ug/L	0.871	1	3	20528	0
	C	13		mg/L			5654	5157	1
	Cl	37		mg/L			2331174	2695359	0
[>	Sc	45		ug/L			262568	249883	0
[	V	51	48.923	ug/L	0.269	0	2402	546317	0
[	V-1	51	49.155	ug/L	0.127	0	8286	561947	0
[	Cr	52	48.948	ug/L	0.611	1	7360	479339	1
[	Cr	53	49.682	ug/L	0.418	0	2713	59163	0
[	Mn	55	48.556	ug/L	0.362	0	1178	792086	0
[	Co	59	49.907	ug/L	0.118	0	123	618131	0
[>	Ge	72		ug/L			333920	329368	1
[	Ni	60	49.815	ug/L	0.850	1	109	132511	0
[	Ni	62	50.007	ug/L	1.091	2	54	19934	1
[	Cu	63	50.344	ug/L	0.391	0	248	299730	1
[	Cu	65	50.794	ug/L	1.168	2	118	144743	1
[	Zn	66	52.366	ug/L	0.277	0	695	95020	1
[	Zn	67	52.700	ug/L	0.772	1	255	16072	0
[	Zn	68	53.460	ug/L	1.164	2	8462	76083	0
[	As	75	50.862	ug/L	0.723	1	693	93399	0
[	As-1	75	50.719	ug/L	0.560	1	11505	102493	0
[	Se	82	48.970	ug/L	1.255	2	-5	9948	1
[	Se	78	48.646	ug/L	0.636	1	11713	35414	0
[	Mo	98	49.296	ug/L	0.891	1	207	331291	0
	Y	89		ug/L			309412	294064	0
	Kr	83		ug/L			376	428	2
[>	In	115		ug/L			365357	346114	1
[	Ag	107	50.567	ug/L	1.159	2	101	578776	1
[	Cd	111	50.164	ug/L	0.565	1	166	141301	0
[	Cd	114	49.789	ug/L	1.132	2	27	329648	1
[	Sb	121	49.822	ug/L	0.132	0	240	477294	1
[	Sb	123	49.674	ug/L	0.551	1	169	357280	0
[	Ba	135	48.630	ug/L	0.406	0	32	116752	0
[	Ba	137	48.514	ug/L	0.955	1	65	201196	1
[>	Tb	159		ug/L			430587	404229	0
[	Tl	205	51.291	ug/L	0.415	0	147	1403600	1
[	Pb	208	51.087	ug/L	0.223	0	1493	1918553	0
[	Bi	209		ug/L			345109	319139	0
[	Th	232	52.897	ug/L	0.541	1	719	2268867	0
[	U	238	51.783	ug/L	0.463	0	97	2372919	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, May 24, 2012 01:22:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			477870	407996	0
[	Be	9	-0.002	ug/L	0.004	193	3	2	69
	C	13		mg/L			5654	5141	2
	Cl	37		mg/L			2331174	2735401	0
[>	Sc	45		ug/L			262568	245522	0
|	V	51	-0.021	ug/L	0.011	50	2402	2014	5
|	V-1	51	-0.045	ug/L	0.011	23	8286	7255	2
|	Cr	52	-0.007	ug/L	0.014	207	7360	6815	1
|	Cr	53	-0.081	ug/L	0.055	67	2713	2446	3
|	Mn	55	-0.010	ug/L	0.003	31	1178	935	6
[	Co	59	0.019	ug/L	0.003	15	123	350	10
[>	Ge	72		ug/L			333920	329382	0
|	Ni	60	-0.006	ug/L	0.003	46	109	90	8
|	Ni	62	0.048	ug/L	0.027	56	54	72	14
|	Cu	63	0.014	ug/L	0.002	17	248	327	4
|	Cu	65	0.023	ug/L	0.008	35	118	183	12
|	Zn	66	0.337	ug/L	0.018	5	695	1294	2
|	Zn	67	0.318	ug/L	0.091	28	255	347	7
|	Zn	68	0.760	ug/L	0.181	23	8462	9310	2
|	As	75	0.077	ug/L	0.024	31	693	824	5
|	As-1	75	-0.072	ug/L	0.028	38	11505	11220	0
|	Se	82	-0.046	ug/L	0.052	112	-5	-14	71
|	Se	78	-0.323	ug/L	0.151	46	11713	11395	0
[	Mo	98	-0.017	ug/L	0.004	21	207	91	27
	Y	89		ug/L			309412	289804	0
	Kr	83		ug/L			376	423	3
[>	In	115		ug/L			365357	339102	0
|	Ag	107	0.001	ug/L	0.002	287	101	102	24
|	Cd	111	0.017	ug/L	0.003	17	166	201	3
|	Cd	114	0.001	ug/L	0.000	61	27	30	10
|	Sb	121	0.029	ug/L	0.015	50	240	496	27
|	Sb	123	0.031	ug/L	0.010	33	169	378	19
|	Ba	135	0.013	ug/L	0.002	14	32	59	7
[	Ba	137	0.007	ug/L	0.002	32	65	88	11
[>	Tb	159		ug/L			430587	393951	0
|	Tl	205	0.001	ug/L	0.001	66	147	173	14
|	Pb	208	0.061	ug/L	0.004	6	1493	3606	4
|	Bi	209		ug/L			345109	319967	0
|	Th	232	0.022	ug/L	0.009	39	719	1571	22
[	U	238	0.002	ug/L	0.001	73	97	175	36

end package

Mercury Analysis Log

Analyst: DM

Date: 5-21-12

Instrument: CETAC

Page: 2 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments	
CCV	TWM	1X	4.15	%R=104	✓
CCB	TWM	1X	-0.01		✓
UU31 A	TWM	1X	0.00		
UU31 AOUP	TWM	1X	0.00	ND RPD: Undetected	✓
UU31 ASPK	TWM	1X	1.10	%R=110	✓
CCV	TWM	1X	4.18	%R=105	✓
CCB	TWM	1X	-0.00		✓
STD 0.0	SMM	1X			
STD 0.1	SMM	1X			
STD 0.5	SMM	1X			
STD 1.0	SMM	1X			
STD 2.0	SMM	1X			
STD 5.0	SMM	1X			
STD 10.0	SMM	1X			
ICV	SMM	1X	8.26	Rzgin CLP %R=103	✓
ICB	SMM	1X	-0.03		✓
CCV1	SMM	1X	4.18	%R=105	✓
CCB1	SMM	1X	-0.02		✓
CRA	SMM	1X	0.11		✓
UU52 MB1	SMM	1X	-0.00		✓
UU52 MB1SPK	SMM	1X	2.11	%R=101	✓
UU52 A	SMM	1X			
UU52 B	SMM	1X			
UU52 C	SMM	1X	0.19		
UU52 COUP	SMM	1X	0.19		✓
UU52 CSPK	SMM	1X	1.28	%R=109	✓
UU52 D	SMM	1X			
UU52 E	SMM	1X			
CCV2	SMM	1X	4.21	%R=105	✓
CCB2	SMM	1X	-0.01		✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2301

14% NH_2OH/NaCl: MP2289

Standard ID:

Standard: 2936-9 (TWM)

2936-8 (SMM)

ICV/CCV: 56-8

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 5-21-12

Page: 3 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments	
UU52 F	5mm	1x			
UU52 G	5mm	1x			
UU52 H	5mm	1x			
UU52 I	5mm	1x			
UU52 J	5mm	1x			
UU77 MB1	5mm	1x	0.00		✓
UU77 MB1SPK	5mm	1x	2.05	%R=103	✓
UU77 A	5mm	1x			
UU77 B	5mm	1x	0.45		
UU77 BDUP	5mm	1x	0.68	DIFF > 0.1	x
CCV3	5mm	1x	4.19	%R=105	✓
CCB3	5mm	1x	-0.01		✓
UU77 BSPK	5mm	1x	1.46	%R=101	✓
UU77 C	5mm	1x			
UU77 D	5mm	1x			
UU77 E	5mm	1x			
CCV4	5mm	1x	4.20	%R=105	✓
CCB4	5mm	1x	-0.01	END CLP	✓
UU69 MB	5mm	1x	-0.00		✓
UU69 MBSPK	5mm	1x	2.15	%R=108	✓
UU69 A	5mm	1x			
UU03 MB3	5mm	1x	-0.00		✓
UU03 MB3SPK	5mm	1x	2.18	%R=109	✓
UU03 K	5mm	1x			
CCV	5mm	1x	4.24	%R=106	✓
CCB	5mm	1x	-0.01		✓
CCV	5mm	1x	4.24	%R=106	✓
CCB	5mm	1x	-0.01		✓
UU77 B	5mm	1x	0.45		
UU77 BDUP	5mm	1x	0.70	DIFF > 0.1	x

Chemical/Reagent ID:

10% $SnCl_2$: MP2301

14% NH_2OH/NaCl: MP2289

Standard ID:

Standard: 2936-8

ICV/CCV: 56-18

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 5-21-12

	Analyst 5-21 am	Peer 5.21.12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	–	–	
Carry-over	–	–	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	–	–	
Post Spikes/Serial Dilutions	–	–	
Analytic Spikes	–	–	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	W77 BAVP 0.ff70.1
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	See CAF

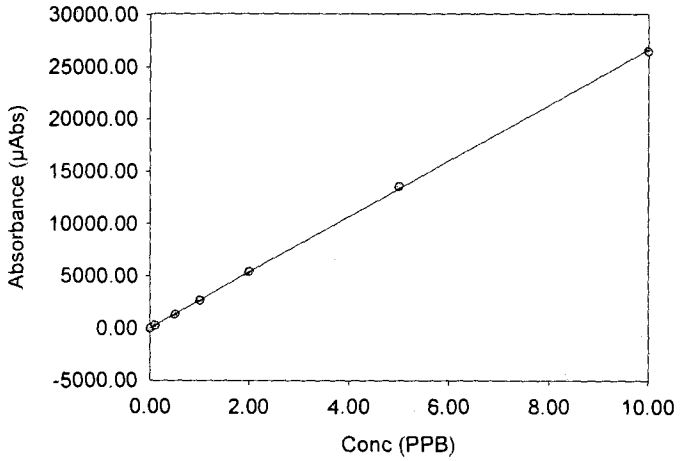
Analyst
Date Started Monday, May 21, 2012, 14:16:29
Worksheet ARI 10ppb CALIB
Comment

JMB 5/22/12

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	21-May-2012, 14:16	0.00	6.14	-14.40	1.00	
Standard #1	21-May-2012, 14:18	0.10	0.92	267.00	1.00	
Standard #2	21-May-2012, 14:19	0.50	0.22	1320.00	1.00	
Standard #3	21-May-2012, 14:21	1.00	0.30	2660.00	1.00	
Standard #4	21-May-2012, 14:22	2.00	0.32	5410.00	1.00	
Standard #5	21-May-2012, 14:24	5.00	0.32	13600.00	1.00	
Standard #6	21-May-2012, 14:26	10.00	0.46	26500.00	1.00	

SMM

Calibration Data



Int.	0.000
Slope	2664.996
Correlation	0.99992

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	21-May-2012, 14:29	8.26	0.34	22000.00	1.00	
ICB	21-May-2012, 14:30	-0.03	1.14	-74.30	1.00	

BCL in CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	21-May-2012, 14:32	4.18	0.38	11100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	21-May-2012, 14:34	-0.02	5.35	-48.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	21-May-2012, 14:35	0.11	0.53	283.00	1.00	
UU52 MB1 SMM	21-May-2012, 14:37	-0.00	8.75	-9.37	1.00	
UU52 MB1SPK SMM	21-May-2012, 14:38	2.11	0.45	5630.00	1.00	
UU52 A SMM	21-May-2012, 14:40	0.17	0.51	448.00	1.00	
UU52 B SMM	21-May-2012, 14:42	0.21	0.48	550.00	1.00	
UU52 C SMM	21-May-2012, 14:43	0.19	0.74	512.00	1.00	
UU52 CDUP SMM	21-May-2012, 14:45	0.19	0.53	516.00	1.00	
UU52 CSPK SMM	21-May-2012, 14:46	1.28	0.42	3410.00	1.00	
UU52 D SMM	21-May-2012, 14:48	0.15	2.57	393.00	1.00	
UU52 E SMM	21-May-2012, 14:50	0.13	0.56	350.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	21-May-2012, 14:51	4.21	0.53	11200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	21-May-2012, 14:53	-0.01	7.48	-17.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
UU52 F SMM	21-May-2012, 14:55	0.14	0.40	360.00	1.00	
UU52 G SMM	21-May-2012, 14:56	0.31	0.42	814.00	1.00	
UU52 H SMM	21-May-2012, 14:58	0.21	0.62	546.00	1.00	
UU52 I SMM	21-May-2012, 14:59	0.12	1.03	312.00	1.00	

Analyst
Date Started Monday, May 21, 2012, 15:01:35
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
UU52 J SMM	21-May-2012, 15:01	0.13	0.61	334.00	1.00	
UU77 MB1 SMM	21-May-2012, 15:03	0.00	37.70	2.96	1.00	
UU77 MB1SPK SMM	21-May-2012, 15:04	2.05	0.32	5450.00	1.00	
UU77 A SMM	21-May-2012, 15:06	0.33	0.40	885.00	1.00	
UU77 B SMM	21-May-2012, 15:08	0.45	0.31	1200.00	1.00	
UU77 BDUP SMM	21-May-2012, 15:09	0.68	0.35	1820.00	1.00	- D:FF70.1

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	21-May-2012, 15:11	4.19	0.31	11200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	21-May-2012, 15:13	-0.01	22.10	-19.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
UU77 BSPK SMM	21-May-2012, 15:14	1.46	0.31	3890.00	1.00	
UU77 C SMM	21-May-2012, 15:16	7.02	0.25	18700.00	1.00	
UU77 D SMM	21-May-2012, 15:17	6.09	0.33	16200.00	1.00	
UU77 E SMM	21-May-2012, 15:19	0.46	0.50	1230.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	21-May-2012, 15:21	4.20	0.30	11200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	21-May-2012, 15:22	-0.01	5.38	-26.50	1.00	END CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
UU69 MB SMM	21-May-2012, 15:24	-0.00	26.90	-8.85	1.00	
UU69 MBSPK SMM	21-May-2012, 15:26	2.15	0.33	5730.00	1.00	
UU69 A SMM	21-May-2012, 15:27	0.06	2.75	150.00	1.00	
UU03 MB3 SMM	21-May-2012, 15:29	-0.00	24.60	-9.91	1.00	
UU03 MB3SPK SMM	21-May-2012, 15:30	2.18	0.39	5810.00	1.00	
UU03 K SMM	21-May-2012, 15:32	0.03	2.16	87.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	21-May-2012, 15:34	4.24	0.40	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	21-May-2012, 15:35	-0.01	6.38	-32.30	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	21-May-2012, 15:45	4.24	0.41	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	21-May-2012, 15:47	-0.01	14.30	-22.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
UU77 B SMM	21-May-2012, 15:49	0.45	0.11	1200.00	1.00	
UU77 BDUP SMM	21-May-2012, 15:50	0.70	0.45	1870.00	1.00	- D:FF70.1
UU77 BSPK SMM	21-May-2012, 15:52	1.47	0.38	3930.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	21-May-2012, 15:54	4.23	0.34	11300.00	1.00	

5/21/12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Instrument: CETAC
Date: 5-16-12
Start Time: 1010
End Time: 1210

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	2936-6	0.02	100.0	0.02	1
STD2	2936-6	0.05	100.0	0.05	1
STD3	2936-6	0.10	100.0	0.1	1
STD4	2936-6	0.20	100.0	0.2	1
STD5	2936-6	~~0.50~~ 0.4	100.0	0.4	1
STD6	2936-6	1.00	100.0	1.00	1
CRA	2936-6	0.02	100.0	0.02	1
ICB/CCB	—	0.00	100.0	0.0	1
ICV/LCS	2936-7	1.0	100.0	0.5	1
CCV	2936-7	1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I7466
H_2SO_4: I7184
HCl: —
5% $K_2S_2O_8$: MP2272
5% $KMnO_4$: MP2273

Prep Code: SMM
Analyst: KM
Bath Temp: 95°C
Instrument: CETAC
Date: 5/16/12
Start Time: 1130
End Time: 1200

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	——	0.00	50.0	0.0	3
STD1	2936-8	0.01	50.0	0.1	2
STD2	2936-8	0.05	50.0	0.5	2
STD3	2936-8	0.10	50.0	1.0	2
STD4	2936-8	0.20	50.0	2.0	2
STD5	2936-8	0.50	50.0	5.0	2
STD6	2936-8	1.00	50.0	10.0	2
CRA	2936-8	0.01	50.0	0.1	1
ICB/CCB	——	0.00	50.0	0.0	3
ICV/LCS	56-18	0.08	50.0	8.0	2
CCV	56-18	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO_3: I7466
H_2SO_4: I7184
HCl: ——
5% $K_2S_2O_8$: MP2272
5% $KMnO_4$: MP2273

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: KM
Bath Temp: 95°C
Start Time: 1445
Matrix: Soil
Date: 5/18/12
End Time: 1515

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
UU52 A	3	—	0.225	50.0	5/20 1	Y	
UU52 B	3	—	0.269	50.0	1	Y	
UU52 C	3	—	0.267	50.0	1	Y	
UU52 D	3	—	0.247	50.0	1	Y	
UU52 E	3	—	0.270	50.0	1	Y	
UU52 CDUP	3	—	0.268	50.0	1	Y	
UU52 CSPK	3	—	0.267	50.0	1	Y	
UU52 F	3	—	0.216	50.0	1	Y	
UU52 G	3	—	0.223	50.0	1	Y	
UU52 H	3	—	0.253	50.0	1	Y	
UU52 I	3	—	0.234	50.0	1	Y	
UU52 J	3	—	0.286	50.0	1	Y	
UU52 MB1	—	—	—	50.0	1	Y	
UU52 MB1SPK	—	—	—	50.0	1	Y	

KM 5/18/12

Chemical/Reagent ID:

HNO_3: I7466
H_2SO_4: I7184
HCl: —
5% $K_2S_2O_8$: MP2272
5% $KMnO_4$: MP2273
Digest Tube Lot: 1108215

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 5-21-12

Page: 1 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments	
STD 0.0	TWM	1X			
STD 0.1	TWM	1X			
STD 0.5	TWM	1X			
STD 1.0	TWM	1X			
STD 2.0	TWM	1X			
STD 5.0	TWM	1X			
STD 10.0	TWM	1X			
ICV	TWM	1X	8.42	Begin CLP %R=105	✓
ICB	TWM	1X	-0.02		✓
CCV	TWM	1X	4.17	%R=104	✓
CCB	TWM	1X	-0.01		✓
CRA	TWM	1X	0.10		✓
UU62 MB1	TWM	1X	0.00		✓
UU62 MB1SPK	TWM	1X	2.21	%R=111	✓
UU62 J	TWM	1X	-0.00		
UU62 JDUP	TWM	1X	-0.00	NO RPD: Unbracketed	✓
UU62 JSPK	TWM	1X	1.13	%R=113	✓
UU62 K	TWM	1X			
CCV2	TWM	1X	4.14	%R=104	✓
CCB2	TWM	1X	-0.01	END CLP	✓
UU64 MB	TWM	1X	0.00		✓
UU64 MBSPK	TWM	1X	2.15	%R=108	✓
UU64 A	TWM	1X			
UU64 B	TWM	1X			
UU68 A	TWM	1X			
UU25 MB	TWM	1X	0.00		✓
UU25 MBSPK	TWM	1X	2.18	%R=109	✓
UU26 A	TWM	1X			
UU31 MB	TWM	1X	0.00		✓
UU31 MBSPK	TWM	1X	2.15	%R=108	✓

5/21/12

Chemical/Reagent ID:

10% $SnCl_2$: MP2301

14% NH_2OH/NaCl: MP2269

Standard ID:

Standard: 2936-9

ICV/CCV: ~~SG-17~~ SG-18

DM 5-21-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 5-21-12

	Analyst 5-21 DM	Peer 5/22/12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	–	–	
Carry-over	–	–	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	–	–	
Post Spikes/Serial Dilutions	–	–	
Analytic Spikes	–	–	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	W77 Boup 0.ff70.1
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	See CAF

UU52 : 021 75

Analyst
Date Started Monday, May 21, 2012, 13:12:31
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	21-May-2012, 13:12	10.00	0.72	30900.00	1.00	

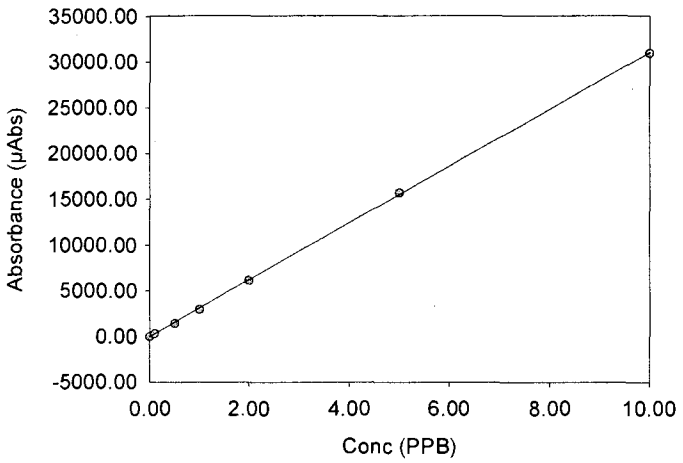
✓ JB 5/22/12

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	21-May-2012, 13:14	0.00	8.48	-14.40	1.00	
Standard #1	21-May-2012, 13:16	0.10	0.91	300.00	1.00	
Standard #2	21-May-2012, 13:18	0.50	0.63	1390.00	1.00	
Standard #3	21-May-2012, 13:19	1.00	0.53	2930.00	1.00	
Standard #4	21-May-2012, 13:21	2.00	0.62	6120.00	1.00	
Standard #5	21-May-2012, 13:22	5.00	0.59	15700.00	1.00	
Standard #6	21-May-2012, 13:24	10.00	0.49	31000.00	1.00	

TWM

Calibration Data



Int.	0.000
Slope	3105.070
Correlation	0.99992

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	21-May-2012, 13:27	8.42	0.24	26100.00	1.00	
ICB	21-May-2012, 13:29	-0.02	2.63	-71.20	1.00	

Begin CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	21-May-2012, 13:30	4.17	0.37	12900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	21-May-2012, 13:32	-0.01	6.05	-34.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	21-May-2012, 13:34	0.10	0.66	309.00	1.00	
UU62 MB1 TWM	21-May-2012, 13:35	0.00	37.50	8.57	1.00	
UU62 MB1SPK TWM	21-May-2012, 13:37	2.21	0.32	6870.00	1.00	
UU62 J TWM	21-May-2012, 13:38	-0.00	16.90	-10.70	1.00	
UU62 JDUP TWM	21-May-2012, 13:40	-0.00	44.80	-7.28	1.00	
UU62 JSPK TWM	21-May-2012, 13:42	1.13	0.39	3490.00	1.00	
UU62 K TWM	21-May-2012, 13:43	0.00	48.80	5.01	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	21-May-2012, 13:45	4.14	0.43	12900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	21-May-2012, 13:46	-0.01	11.30	-16.50	1.00	

END CLP

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TWM Instrument: CETAC

Analyst: KM Date: 5/16/12

Bath Temp: 91°C Start Time: 1520 End Time: 1720

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	2936-9	0.01	100.0	0.1	1
STD2	2936-9	0.05	100.0	0.5	1
STD3	2936-9	0.10	100.0	1.0	1
STD4	2936-9	0.20	100.0	2.0	1
STD5	2936-9	0.50	100.0	5.0	1
STD6	2936-9	1.00	100.0	10.0	1
CRA	2936-9	0.01	100.0	0.1	1
ICB/CCB	—	0.00	100.0	0.0	1
ICV/LCS	56-18	0.16	100.0	8.0	1
CCV	56-18	0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO_3: I7466 H_2SO_4: I7184 HCl: —

5% $K_2S_2O_8$: MP2272 5% $KMnO_4$: MP2273

Prep Code: _____ Instrument: _____

Analyst: _____ Date: _____

Bath Temp: _____ Start Time: _____ End Time: _____

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3: _____ H_2SO_4: _____ HCl: _____

5% $K_2S_2O_8$: _____ 5% $KMnO_4$: _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TWM **Matrix:** Water

Analyst: MJ **Date:** 05.18.12

Bath Temp: 90°C **Start Time:** 1035 **End Time:** 1235

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
UU662 J	1	✓	20.0	20.0	05.26 1	Y	
UU662 JDUP	1	✓	20.0	20.0	1	Y	
UU662 JSPK	1	✓	20.0	20.0	1	Y	
UU662 K	1	✓	20.0	20.0	1	Y	
UU662 MB1	—	✓	20.0	20.0	1	Y	
UU662 MB1SPK	—	✓	20.0	20.0	1	Y	
UU666 A	6	✓	20.0	20.0	05.27 1	N	
UU666 B	6	✓	20.0	20.0	1	N	
UU666 MB	—	✓	20.0	20.0	1	N	BATCH
UU666 MBSPK	—	✓	20.0	20.0	1	N	
UU668 A	6	✓	20.0	20.0	05.27 1	N	

05.18.12 MJ

Chemical/Reagent ID:

HNO_3: I-7466 H_2SO_4: I-7184 HCl: —

5% $K_2S_2O_8$: MP2272 5% $KMnO_4$: MP2273 Digest Tube Lot: UU173

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: UU52, UU62

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* **ZnOAc PRES.**

DATE: 5/21/2012

ANALYST: CDE / KE 18:46

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time *record times as mm/dd/yy hh:mm*		
5/21/2012 18:46	date/time in oven	CDE
5/22/2012 9:50	date/time out	KE
elapsed hrs =	15.1	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02			
	Date & Time	5/21/17 18:31 CDE	5/21/12 18:02 CDE	5/22/12 10:07 KE									
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000									
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*									

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank			1.0697	1.0695			0.00							
UU52 A1		5.7549	1.1032	1.5528			0.45	9.7%						
UU52 B1		5.9279	1.1152	1.5816			0.47	9.7%						
UU52 C1		6.0710	1.0846	1.6088			0.52	10.5%						
UU52 D1		5.9068	1.0853	1.6087			0.52	10.9%						
UU52 E1		5.6996	1.0903	1.5517			0.46	10.0%						
UU52 F1		7.0072	1.1037	1.5950			0.49	8.3%						
UU52 G1		7.1493	1.1040	1.5189			0.41	6.9%						
UU52 H1		7.1873	1.1164	2.2680			1.15	19.0%						
UU52 I 1		6.7462	1.1051	1.5634			0.46	8.1%						
UU52 J 1		6.1080	1.0705	1.6069			0.54	10.6%						
UU52 K1		6.2759	1.1027	1.6435			0.54	10.5%						
UU62 A2		5.4002	1.1191	1.5754			0.46	10.7%						
UU62 A2 dup		6.2273	1.0920	1.6397			0.55	10.7%						
							RPD =	0.06%				RPD =		NA
UU62 B2		6.7711	1.1052	1.7301			0.62	11.0%						
UU62 C2		5.9420	1.0731	1.5823			0.51	10.5%						
UU62 D2		6.9835	1.0837	1.6509			0.57	9.6%						
UU62 E2		6.2392	1.0827	1.6378			0.56	10.8%						
UU62 F2		6.0887	1.0727	1.6248			0.55	11.0%						
UU62 G2		7.2866	1.0940	1.7732			0.68	11.0%						
UU62 H2		7.1339	1.0867	1.5338			0.45	7.4%						
UU62 I 2		7.2643	1.0665	1.7520			0.69	11.1%						

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TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

ZnOAc Preserved

Analyst: CWC / (N)	Date: 5-21-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: 18:46	Time Out of Oven: 9:50	Elapsed Time (> 12 Hrs):	

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:	5-21-12 19:31	5-21-12 18:07	5-22-12 10:07						
Cal Weight (10.0000):	10.0000 CWC	10.0000 CWC	10.0000 (N)						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C		
				1	2	3	grams	1	2	3
BLANK	Z1	Ø	1.0697	1.0695						
1152 A'	2	5.7549	1.1032	1.5528						
B'	3	5.9279	1.1152	1.5816						
C'	4	6.0710	1.0846	1.6088						
D'	5	5.9068	1.0853	1.6087						
E'	6	5.6996	1.0903	1.5517						
F'	7	7.0072	1.1037	1.5950						
G'	8	7.1493	1.1040	1.5189						
H'	9	7.1873	1.1164	2.2680						
I'	10	6.7462	1.1051	1.5634						
J'	11	6.1080	1.0705	1.6069						
K'	12	6.2759	1.1027	1.6435						
1152 A²	13	5.4002	1.1191	1.5754						
A²d	14	6.2273	1.0920	1.6397						
B²	15	6.7711	1.1052	1.7301						
C²	16	5.9420	1.0731	1.5823						
D²	17	6.9835	1.0837	1.6509						
E²	18	6.2392	1.0827	1.6378						
F²	19	6.0887	1.0727	1.6248						
G²	20	7.2866	1.0940	1.7732						
H²	21	7.1339	1.0867	1.5338						
I²	22	7.2643	1.0665	1.7520						
				5-21-12 (N)						

5/23/12

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 5/22/2012

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: KE 19:59 (A)

Instrumentation **Drying Ovens:** 12 **Analytical Balance:** 1123230597

Muffle Furnace: N / A

Batch drying time		
record times as mm/dd/yy hh:mm		
5/22/2012 19:59	date/time in oven	KE
5/23/2012 11:24	date/time out	KE
elapsed hrs =	15.4	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02					
	Date & Time	5/22/12 14:10 KE	5/22/12 13:10 KE	5/23/12 11:39 KE											
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000											
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*											

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank			1.0920	1.0919			0.00							
UU52 A1		6.4621	1.0627	1.6154			0.55	10.2%						
UU52 B1		6.2811	1.0880	1.6202			0.53	10.2%						
UU52 C1		6.7227	1.0774	1.6636			0.59	10.4%						
UU52 D1		6.6617	1.1141	1.6305			0.52	9.3%						
UU52 E1		6.5580	1.1073	1.6687			0.56	10.3%						
UU52 F1		6.9637	1.0952	1.6367			0.54	9.2%						
UU52 G1		6.2645	1.0996	1.6055			0.51	9.8%						
UU52 H1		6.3479	1.0822	1.9688			0.89	16.8%						
UU52 I 1		6.0304	1.0868	1.6179			0.53	10.7%						
UU52 J 1		7.4572	1.0873	1.7334			0.65	10.1%						
UU62 A1		5.7385	1.1214	1.6022			0.48	10.4%						
UU62 A1 dup		5.9644	1.0850	1.5891			0.50	10.3%						
							RPD =	0.79%				RPD =	NA	
UU62 A1 trp		5.8348	1.0790	1.5736			0.49	10.4%						
							RSD =	0.42%				RSD =	NA	
UU62 B1		6.3197	1.0853	1.5963			0.51	9.8%						
UU62 B1		8.1428	1.0999	1.7818			0.68	9.7%						
UU62 B1		7.0330	1.1032	1.6553			0.55	9.3%						
UU62 B1		7.3446	1.0745	1.6899			0.62	9.8%						
UU62 B1		6.7839	1.1072	1.6913			0.58	10.3%						
UU62 B1		7.1027	1.1112	1.8522			0.74	12.4%						

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 5/22/2012

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: KE 19:59 (A)

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time

record times as mm/dd/yy hh:mm

5/22/2012 19:59 date/time in oven KE

5/23/2012 11:24 date/time out KE

elapsed hrs = 15.4

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

Cal Weight ID		CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
Date & Time		5/22/12 14:10 KE	5/22/12 13:10 KE	5/23/12 11:39 KE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
record weights to 4 places		*Cal OK!*	*Cal OK!*	*Cal OK!*										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
UU61 B2		6.5073	1.0778	1.5330			0.46	**8.4%**						
UU61 B2		6.5346	1.0854	1.7256			0.64	**11.7%**						
UU52 K1		7.1779	1.0738	1.7226			0.65	**10.6%**						

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TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Analyst: (W)	Date: 5-22-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: 19:59	Time Out of Oven: 11:84	Elapsed Time (> 12 Hrs):	

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000
(A)

Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:	5-22-12 19:10	5-22-12 13:10	5-23-12 11:39						
Cal Weight (10.0000):	10.0000 (W)	10.0000 (W)	10.0000 (W)						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	Dry Weight 104°C 2	Dry Weight 104°C 3	Dry Weight grams	Ash Weight 550°C 1	Ash Weight 550°C 2	Ash Weight 550°C 3
BLANK	1	0	1.0920	1.0919						
UU52 A1	2	6.4621	1.0627	1.6154						
B1	3	6.2811	1.0880	1.6202						
C1	4	6.7227	1.0774	1.6636						
D1	5	6.6617	1.1141	1.6305						
E1	6	6.5580	1.1073	1.6687						
F1	7	6.9637	1.0952	1.6367						
G1	8	6.2645	1.0996	1.6055						
H1	9	6.3479	1.0822	1.9688						
I1	10	6.0304	1.0868	1.6179						
J1	11	7.4572	1.0873	1.7334						
UU62 A1	12	5.7385	1.1214	1.6022						
2xA1	13	5.9644	1.0858	1.5891						
10xA1	14	5.8348	1.0790	1.5736						
D1	15	6.3197	1.0853	1.5963						
C1	16	5.1428	1.0999	1.7818						
D1	17	7.0330	1.1032	1.6553						
E1	18	7.3446	1.0745	1.6899						
F1	19	6.7839	1.1072	1.6913						
G1	20	7.1027	1.1112	1.8522						
H1	21	6.5073	1.0778	1.5330						
I1	22	6.5346	1.0854	1.7256						
UU52 J1	23	7.1779	1.0738	1.7226						

5/24/12

TOC Solids Prep Log

DATE:	5/22/2012
ANALYST:	KE 20:16 (A)

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.2166		13.2166	0 mg	
UU52 A1		-	13.2789	18.4767	13.8568	11.12%	
UU52 B1		-	13.2959	18.4106	13.8641	11.11%	
UU52 C1		-	13.3543	18.1976	13.9180	11.64%	
UU52 D1		-	13.3613	18.5305	13.9056	10.53%	
UU52 E1		-	13.4183	19.5993	14.1012	11.05%	
UU52 F1		-	13.2879	19.2153	13.8039	8.71%	
UU52 G1		-	13.2933	17.6730	13.7292	9.95%	
UU52 H1		-	13.2445	19.3995	14.3521	18.00%	
UU52 I 1		-	13.3466	19.9070	14.1765	12.65%	
UU52 J 1		-	13.3198	19.1937	13.9878	11.37%	
UU62 A1		-	13.3426	17.5260	13.8293	11.63%	
UU62 A1 dup		-	13.4002	17.5174	13.8807	11.67%	RPD = 0.31%
UU62 A1 trip		-	13.2918	17.6138	13.7951	11.65%	RSD = 0.16%
UU62 B1		-	13.2982	17.8189	13.7296	9.54%	
UU62 C1		-	13.2593	18.8427	13.8487	10.56%	
UU62 D1		-	13.3530	18.2639	13.8584	10.29%	
UU62 E1		-	13.2843	20.2848	14.0388	10.78%	
UU62 F1		-	13.3865	18.4751	13.9651	11.37%	
UU62 G1		-	13.2466	18.2343	14.0005	15.12%	
UU62 H1		-	13.3433	18.1257	13.7770	9.07%	
UU62 I 1		-	13.1241	18.2178	13.7988	13.25%	
UU52 K1		-	13.2392	19.5091	13.9541	11.40%	

(2) 13.2166 5-22-12 (K)

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TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

(1) - 5-23-12 (L)

Analyst (D) 20:16 Date 5-22-12 (A)

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			(2)	0	13.2166		
UU52 A1		—	13.2789	18.4767	13.8568		V. wet Sed + Rubble
B1		—	13.2959	18.4106	13.8641		
C1		—	13.3543	18.1976	13.9180		
D1		—	13.3613	18.5305	13.9056		
E1		—	13.4183	19.5993	14.1012		
F1		—	13.2879	19.2153	13.8039		Debri & Sed+
G1		—	13.2933	17.6730	13.7292		Debri & moisture
H1		—	13.2445	19.3995	14.3521		Wet Sed+ + Rubble
I1		—	13.3466	19.9070	14.1765		
J1		—	13.3198	19.1937	13.9878		V-wet Sed+
UU52 A1		—	13.3426	17.5760	13.8293		
AA1		—	13.4002	17.5174	13.8807		
AD1		—	13.2918	17.6138	13.7951		
B1		—	13.2982	~~17.8210~~	17.8189	13.7296	Debri wet Sed+ & moisture
C1		—	13.2593	18.8427	~~13.7293~~ (C)	13.8487	Sed+ V.Wet + Rubble
D1		—	13.3530	18.2639	~~13.8487~~ (D)	13.8584	
E1		—	13.2843	20.2848	~~13.8584~~ (E)	14.0388	
F1		—	13.3865	18.4751	~~14.0388~~ (F)	13.9651	
G1		—	13.2466	18.7343	~~13.9651~~ (G)	14.0005	
H1		—	13.3433	18.1257	~~13.9~~ (H)	~~14.0005~~	13.7770
I1		—	13.1241	18.2178	~~13.7768~~	13.7788	Debri-Sed+-Moisture
UU52 K1		—	13.2392	19.5091	13.9541		Wet Sed + Rubble
				5-22-12 (L)			

Original Run Filename: OM_5-21-2012_12-47-10PM.OMN Created: 5/21/2012 12:47:10 PM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 052112NH3A.omn Last Modified: 5/21/2012 3:04:13 PM
Current Run Author's Signature: [Carol Hawkins]
Description: LACHAT 1
ARI In-House Standards: 00122-3

Sample	Cup No.	Channel 1 NH3 Conc. (mg N/L)	Channel 1 NH3 Area (V.s)	Detection Time	MANUAL DILUTION FACTOR
STD 1.0	S1	1	40.2259	5/21/2012@12:48:09 PM	
STD 0.8	S2	0.8	32.0222	5/21/2012@12:49:20 PM	
STD 0.5	S3	0.5	19.8143	5/21/2012@12:50:30 PM	
STD 0.2	S4	0.2	7.981	5/21/2012@12:51:40 PM	
STD 0.05	S5	0.05	1.9237	5/21/2012@12:52:50 PM	
STD 0.02	S6	0.02	0.8151	5/21/2012@12:54:01 PM	
STD 0.01	S7	0.01	0.4091	5/21/2012@12:55:11 PM	
BLANK	S8	0	-0.3586	5/21/2012@12:56:21 PM	
ICV ERA 130611	9	0.5275	21.1039	5/21/2012@12:57:32 PM	
Known Conc:		0.5			
ICB	10	-0.0052	-0.3331	5/21/2012@1:03:28 PM	
Known Conc:		0			
LOW	11	0.0136	0.4225	5/21/2012@1:09:25 PM	
Known Conc:		0.01			
PREP BLANK	12	-0.0044	-0.2993	5/21/2012@1:15:22 PM	
~~PREP CHECK~~	~~13~~	~~39.856~~	~~80.0689~~	~~5/21/2012@1:16:32 PM~~	~~20~~
~~Spiking Conc:~~		~~10~~			

%R= 105.50

UU62A1	14	0.9842	39.4815	5/21/2012@1:17:43 PM		
~~UU62A1-DUP~~	~~15~~	~~1.0276~~	~~41.2291~~	~~5/21/2012@1:18:53 PM~~		
~~UU62A1-MS~~	~~16~~	~~41.3349~~	~~83.0447~~	~~5/21/2012@1:20:04 PM~~	~~20~~	
~~Spiking Conc:~~		~~10~~				
UU62B1	19	0.2162	8.5762	5/21/2012@1:21:15 PM		
~~UU62C1~~	~~20~~	~~1.5325~~	~~61.545~~	~~5/21/2012@1:22:25 PM~~		
~~UU62D1~~	~~21~~	~~1.0591~~	~~42.4959~~	~~5/21/2012@1:23:36 PM~~		
~~UU62E1~~	~~22~~	~~1.9593~~	~~78.72~~	~~5/21/2012@1:24:48 PM~~		
CCV	17	0.5262	21.0497	5/21/2012@1:25:58 PM		%R= 105.24
Known Conc:		0.5				
CCB	18	-0.0056	-0.3486	5/21/2012@1:31:55 PM		
Known Conc:		0				
~~UU62F1~~	~~23~~	~~1.2848~~	~~51.5793~~	~~5/21/2012@1:37:52 PM~~		
~~UU62G1~~	~~24~~	~~1.5016~~	~~60.302~~	~~5/21/2012@1:39:03 PM~~		
UU62H1	25	0.954	38.2667	5/21/2012@1:40:13 PM		
~~UU62I1~~	~~26~~	~~1.4353~~	~~57.6342~~	~~5/21/2012@1:41:25 PM~~		
~~UU52A2~~	~~27~~	~~1.3537~~	~~54.35~~	~~5/21/2012@1:42:37 PM~~		
~~UU52B2~~	~~28~~	~~1.3099~~	~~52.588~~	~~5/21/2012@1:43:48 PM~~		
~~UU52C2~~	~~29~~	~~2.1347~~	~~85.7796~~	~~5/21/2012@1:44:59 PM~~		
~~UU52D2~~	~~30~~	~~1.4843~~	~~59.6048~~	~~5/21/2012@1:46:10 PM~~		
~~UU52E2~~	~~31~~	~~1.8371~~	~~73.8039~~	~~5/21/2012@1:47:22 PM~~		
UU52F2	32	0.6199	24.8216	5/21/2012@1:48:33 PM		
CCV	17	0.5265	21.0616	5/21/2012@1:49:44 PM		%R= 105.30
Known Conc:		0.5				
CCB	18	-0.0059	-0.3618	5/21/2012@1:55:40 PM		
Known Conc:		0				

UU52G2	33	0.1747	6.9063	5/21/2012@2:01:38 PM		
UU52H2	34	0.5669	22.6888	5/21/2012@2:02:48 PM		
UU52I2	35	0.1269	4.9835	5/21/2012@2:04:00 PM		
~~UU52J2~~	~~36~~	~~1.1247~~	~~45.1362~~	~~5/21/2012@2:05:12 PM~~		
~~UU52K2~~	~~37~~	~~1.1343~~	~~45.5205~~	~~5/21/2012@2:06:24 PM~~		
PREP CHECK	38	10.0876	20.1731	5/21/2012@2:07:35 PM	20	%R= 100.88
UU62A1 MS	39	10.424	20.849	5/21/2012@2:08:46 PM	20	%R= 93.87
Spiking Conc:		10			SPK=0.4ML@1000PPM/40ML=10PPM	
UU62A1 DUP	40	1.0373	20.7476	5/21/2012@2:09:58 PM	2	%RPD= 5.25
UU62C1	41	1.5427	30.9172	5/21/2012@2:11:09 PM	2	
UU62D1	42	1.0635	21.2749	5/21/2012@2:12:21 PM	2	
CCV	17	0.5268	21.074	5/21/2012@2:13:32 PM		%R= 105.36
Known Conc:		0.5				
CCB	18	-0.003	-0.2446	5/21/2012@2:19:28 PM		
Known Conc:		0				
UU62E1	43	1.9343	15.4442	5/21/2012@2:25:26 PM	5	
UU62F1	44	1.2823	25.6772	5/21/2012@2:26:38 PM	2	
UU62G1	45	1.5107	30.2719	5/21/2012@2:27:49 PM	2	
UU62I1	46	1.4366	28.7815	5/21/2012@2:29:01 PM	2	
UU52A2	47	1.3558	27.1552	5/21/2012@2:30:13 PM	2	
UU52B2	48	1.3064	26.1615	5/21/2012@2:31:25 PM	2	
UU52C2	49	2.1155	16.9026	5/21/2012@2:32:37 PM	5	
UU52D2	50	1.4922	29.9	5/21/2012@2:33:49 PM	2	
UU52E2	51	1.8262	14.5737	5/21/2012@2:35:01 PM	5	
UU52J2	52	1.1319	22.6501	5/21/2012@2:36:13 PM	2	

CCV	17	0.5277	21.1127	5/21/2012@2:37:24 PM	
Known Conc:		0.5			
CCB	18	-0.0047	-0.3116	5/21/2012@2:43:21 PM	
Known Conc:		0			
UU52K2	53	1.1393	22.7995	5/21/2012@2:49:19 PM	2
KCL	54	-0.0062	-0.3714	5/21/2012@2:50:31 PM	
CCV	17	0.5291	21.1675	5/21/2012@2:51:42 PM	
Known Conc:		0.5			
CCB	18	-0.0054	-0.3411	5/21/2012@2:57:39 PM	
Known Conc:		0			

%R= 105.54

%R= 105.82

Soil Extraction Log

Parameter:

Date: 5-21-12 11:10

Analyst: [illegible]

Extraction Procedure: N45 Soil 40 ml KCl
Shake 1 hr allow settle, filter, Analyze

Time	Sample ID	Sample Wt (grams)	Extract Vol (mL)	Spikes and Standards: Vol added (mL)	Spikes and Standards: Conc of Std (mg/L)	Spikes and Standards: Conc in Extract (mg/L)	Notes & Comments
11:10	Blank		40 ml				
	PrepCheck			0.4	1000	10	ERA 130611
	UU52A1	3.96					
	dup	4.06					
	MS	3.84		0.4	1000	10	ACT
	B1	4.24					
	C1	4.09					
	D1	4.28					
	E1	3.87					
	F1	4.11					
	G1	3.79					
	H1	3.87					
	I1	3.80					
	UU52A2	4.04					
	B2	3.94					
	C2	3.83					
	D2	3.77					
	E2	4.00					
	F2	3.79					
	G2	4.00					
	H2	4.07					
	I2	3.77					
	J2	3.84					
	K2	4.29					

Author: Carol Hawkins

Date : 5/21/2012

Original Run Filename: OM_5-21-2012_12-47-10PM.OMN Created: 5/21/2012 12:47:10 PM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 052112NH3A.omn Last Modified: 5/21/2012 3:04:13 PM
Current Run Author's Signature: [Carol Hawkins]
Description: Default New Run

Sample	Cup No.	Channel 1 NH3 Conc. (mg N/L)	Channel 1 NH3 Area (V.s)	Detection Time	MDF
STD 1.0	S1	1.0000	40.2259	5/21/2012@12:48:09 PM	
STD 0.8	S2	0.8000	32.0222	5/21/2012@12:49:20 PM	
STD 0.5	S3	0.5000	19.8143	5/21/2012@12:50:30 PM	
STD 0.2	S4	0.2000	7.9810	5/21/2012@12:51:40 PM	
STD 0.05	S5	0.0500	1.9237	5/21/2012@12:52:50 PM	
STD 0.02	S6	0.0200	0.8151	5/21/2012@12:54:01 PM	
STD 0.01	S7	0.0100	0.4091	5/21/2012@12:55:11 PM	
BLANK	S8	0.0000	-0.3586	5/21/2012@12:56:21 PM	
ICV	9	0.5275	21.1039	5/21/2012@12:57:32 PM	
Known Conc:		0.5000			
Calibration:		Table/Fig. : 1			
ICB	10	-0.0052	-0.3331	5/21/2012@1:03:28 PM	
Known Conc:		0.0000			
LOW	11	0.0136	0.4225	5/21/2012@1:09:25 PM	
Known Conc:		0.0100			
PREP BLANK	12	-0.0044	-0.2993	5/21/2012@1:15:22 PM	
PREP CHECK	13	39.8560	80.0689	5/21/2012@1:16:32 PM	20.00 5
Spiking Conc:		10.0000			
UU62A1	14	0.9842	39.4815	5/21/2012@1:17:43 PM	
UU62A1 DUP	15	1.0276	41.2291	5/21/2012@1:18:53 PM	
UU62A1 MS	16	41.3349	83.0447	5/21/2012@1:20:04 PM	20.00 5
Spiking Conc:		10.0000			
UU62B1	19	0.2162	8.5762	5/21/2012@1:21:15 PM	
UU62C1	20	1.5325	61.5450	5/21/2012@1:22:25 PM	
UU62D1	21	1.0591	42.4959	5/21/2012@1:23:36 PM	
UU62E1	22	1.9593	78.7200	5/21/2012@1:24:48 PM	
CCV	17	0.5262	21.0497	5/21/2012@1:25:58 PM	
Known Conc:		0.5000			
CCB	18	-0.0056	-0.3486	5/21/2012@1:31:55 PM	
Known Conc:		0.0000			
UU62F1	23	1.2848	51.5793	5/21/2012@1:37:52 PM	
UU62G1	24	1.5016	60.3020	5/21/2012@1:39:03 PM	
UU62H1	25	0.9540	38.2667	5/21/2012@1:40:13 PM	
UU62I1	26	1.4353	57.6342	5/21/2012@1:41:25 PM	
UU52A2	27	1.3537	54.3500	5/21/2012@1:42:37 PM	
UU52B2	28	1.3099	52.5880	5/21/2012@1:43:48 PM	
UU52C2	29	2.1347	85.7796	5/21/2012@1:44:59 PM	
UU52D2	30	1.4843	59.6048	5/21/2012@1:46:10 PM	
UU52E2	31	1.8371	73.8039	5/21/2012@1:47:22 PM	
UU52F2	32	0.6199	24.8216	5/21/2012@1:48:33 PM	
CCV	17	0.5265	21.0616	5/21/2012@1:49:44 PM	
Known Conc:		0.5000			
CCB	18	-0.0059	-0.3618	5/21/2012@1:55:40 PM	
Known Conc:		0.0000			
UU52G2	33	0.1747	6.9063	5/21/2012@2:01:38 PM	
UU52H2	34	0.5669	22.6888	5/21/2012@2:02:48 PM	
UU52I2	35	0.1269	4.9835	5/21/2012@2:04:00 PM	
UU52J2	36	1.1247	45.1362	5/21/2012@2:05:12 PM	
UU52K2	37	1.1343	45.5205	5/21/2012@2:06:24 PM	
PREP CHECK	38	10.0876	20.1731	5/21/2012@2:07:35 PM	20.00
UU62A1 MS	39	~~10.4240.5212~~	20.8490	5/21/2012@2:08:46 PM	~~1.00~~ 20
Spiking Conc:		10.0000			
UU62A1 DUP	40	1.0373	20.7476	5/21/2012@2:09:58 PM	2.00
UU62C1	41	1.5427	30.9172	5/21/2012@2:11:09 PM	2.00
UU62D1	42	1.0635	21.2749	5/21/2012@2:12:21 PM	2.00
CCV	17	0.5268	21.0740	5/21/2012@2:13:32 PM	
Known Conc:		0.5000			
CCB	18	-0.0030	-0.2446	5/21/2012@2:19:28 PM	

PH
5-21-12

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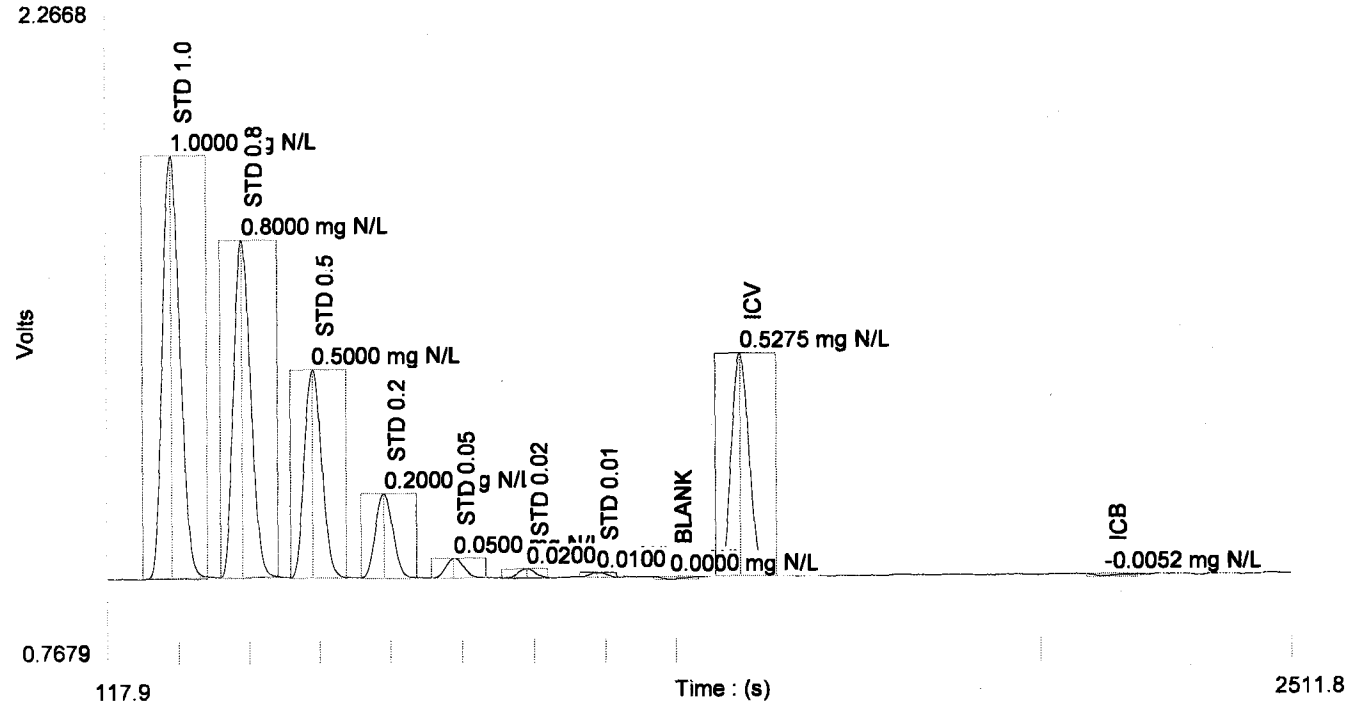
Date : 5/21/2012

	Known Conc:	0.0000			
UU62E1	43	1.9343	15.4442	5/21/2012@2:25:26 PM	5.00
UU62F1	44	1.2823	25.6772	5/21/2012@2:26:38 PM	2.00
UU62G1	45	1.5107	30.2719	5/21/2012@2:27:49 PM	2.00
UU62I1	46	1.4366	28.7815	5/21/2012@2:29:01 PM	2.00
UU52A2	47	1.3558	27.1552	5/21/2012@2:30:13 PM	2.00
UU52B2	48	1.3064	26.1615	5/21/2012@2:31:25 PM	2.00
UU52C2	49	2.1155	16.9026	5/21/2012@2:32:37 PM	5.00
UU52D2	50	1.4922	29.9000	5/21/2012@2:33:49 PM	2.00
UU52E2	51	1.8262	14.5737	5/21/2012@2:35:01 PM	5.00
UU52J2	52	1.1319	22.6501	5/21/2012@2:36:13 PM	2.00
CCV	17	0.5277	21.1127	5/21/2012@2:37:24 PM	
	Known Conc:	0.5000			
CCB	18	-0.0047	-0.3116	5/21/2012@2:43:21 PM	
	Known Conc:	0.0000			
UU52K2	53	1.1393	22.7995	5/21/2012@2:49:19 PM	2.00
KCL	54	-0.0062	-0.3714	5/21/2012@2:50:31 PM	
CCV	17	0.5291	21.1675	5/21/2012@2:51:42 PM	
	Known Conc:	0.5000			
CCB	18	-0.0054	-0.3411	5/21/2012@2:57:39 PM	
	Known Conc:	0.0000			

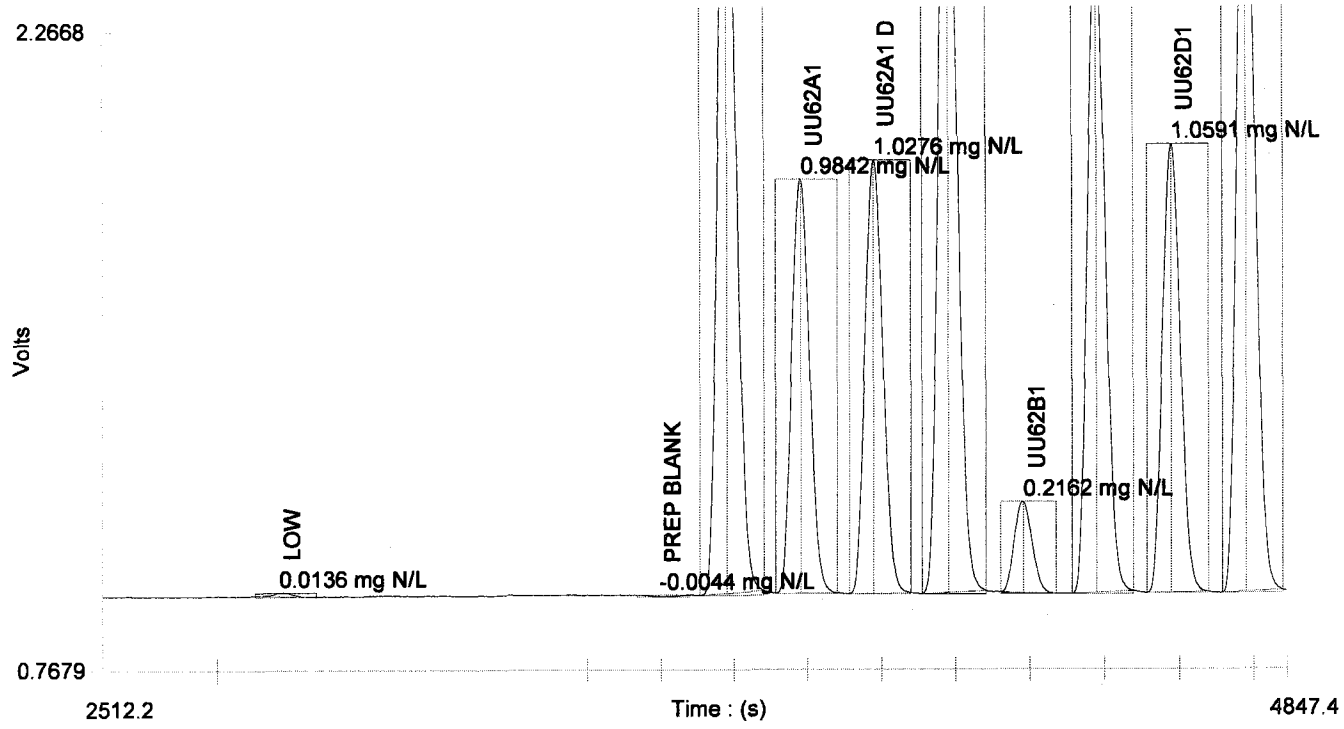
Channel 1 - Set: 1 / 7



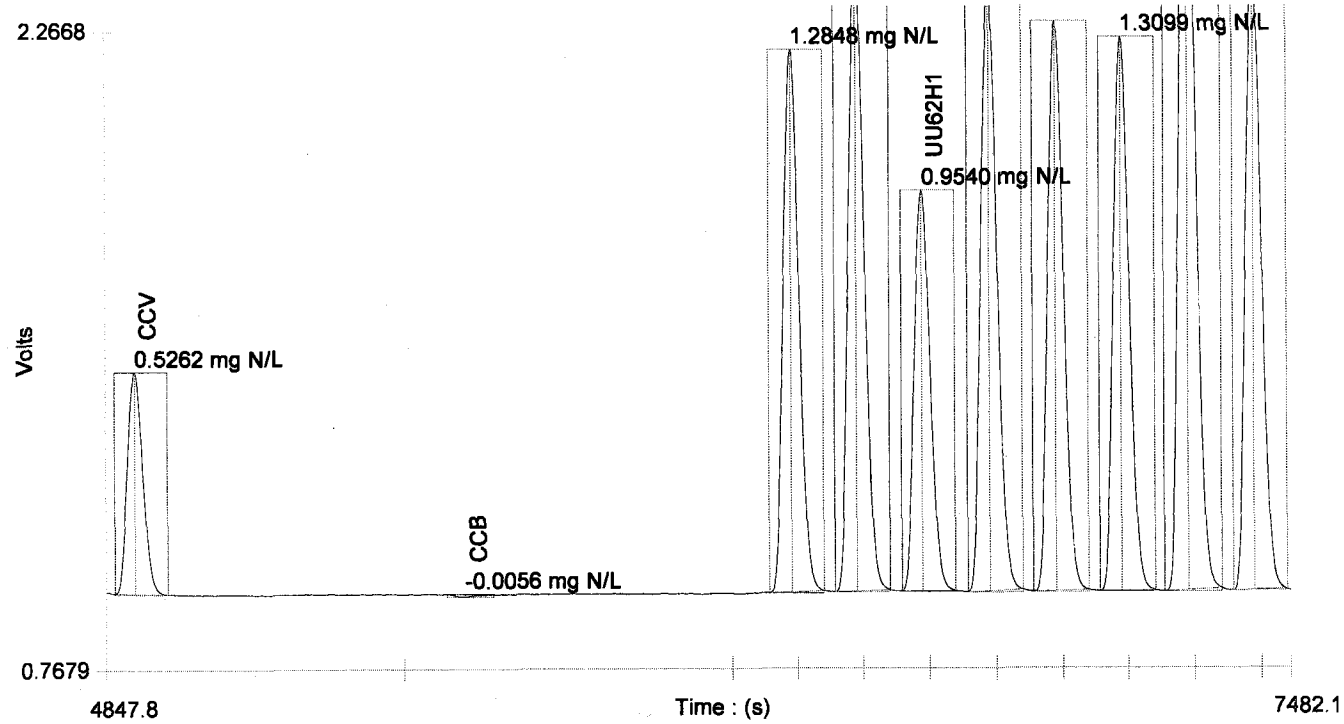
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 2 / 7



Channel 1 - Set: 3 / 7



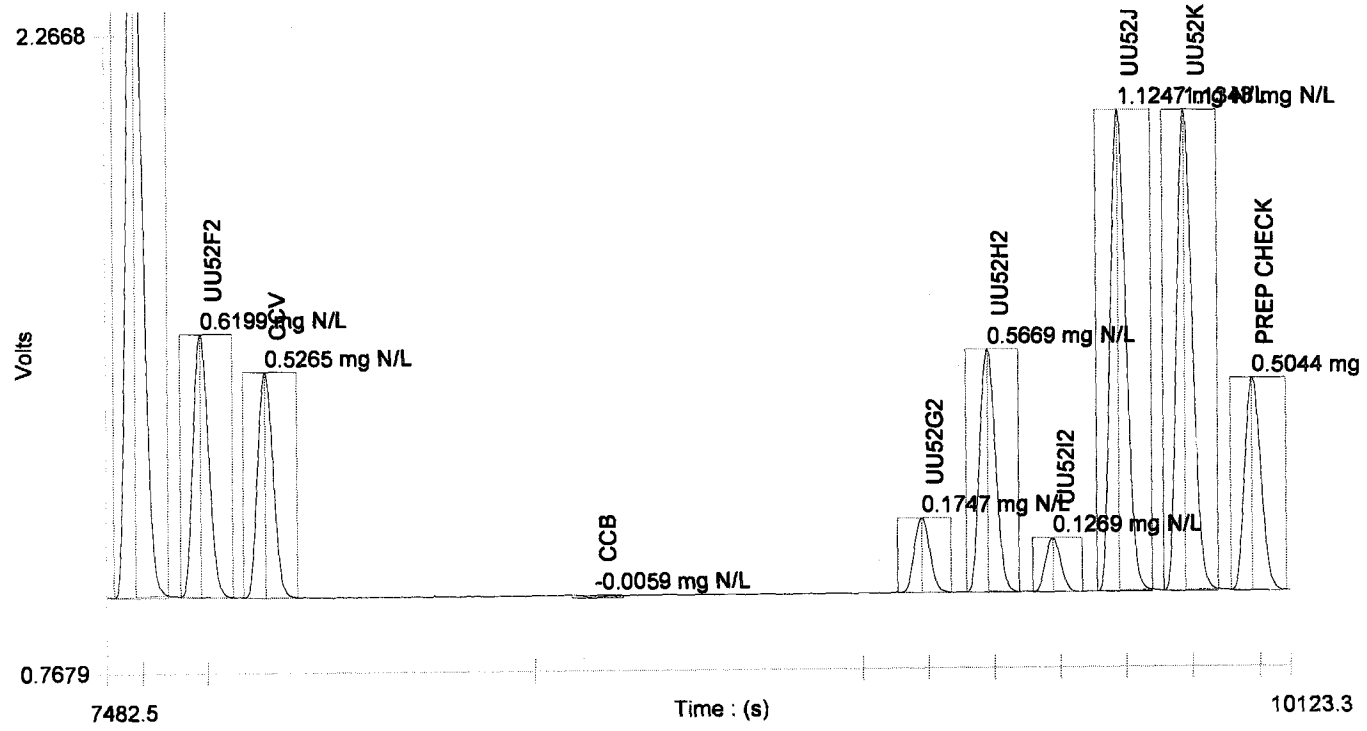
05212012NH3A SOILS LACHAT 1

UU52 : 0219H

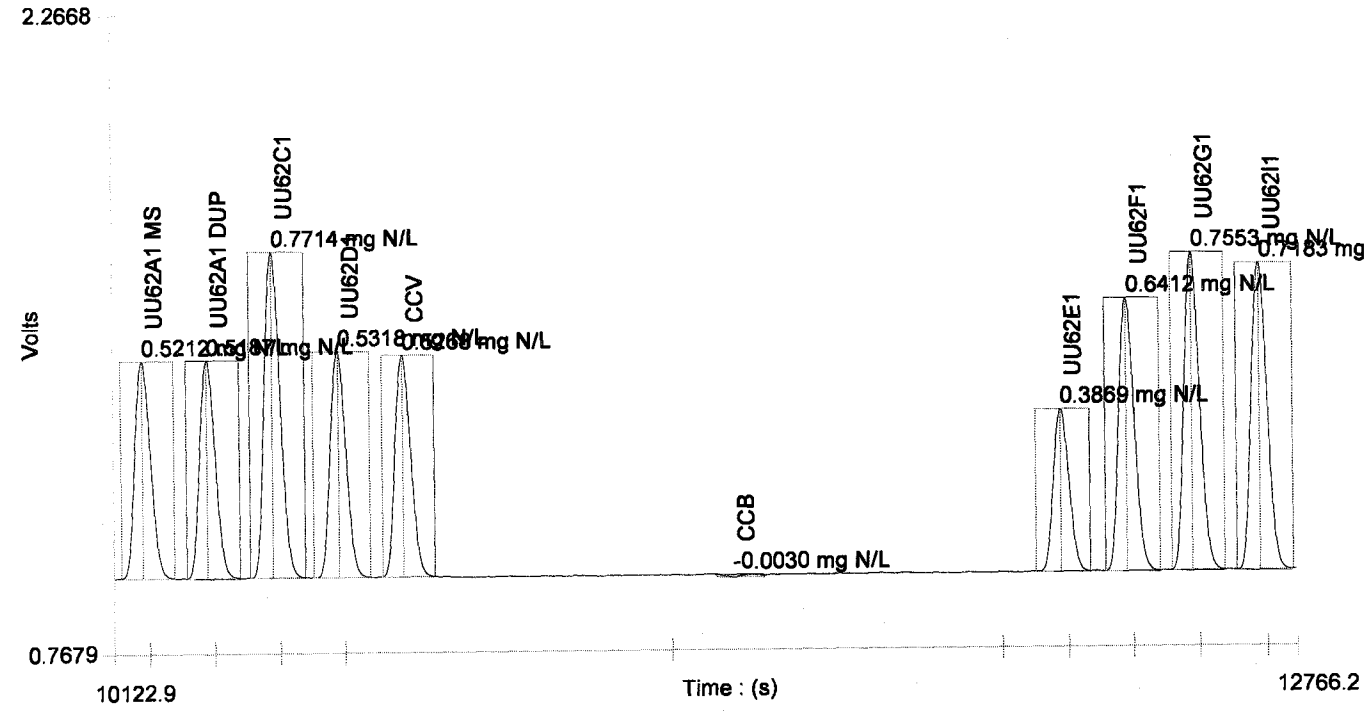
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 4 / 7



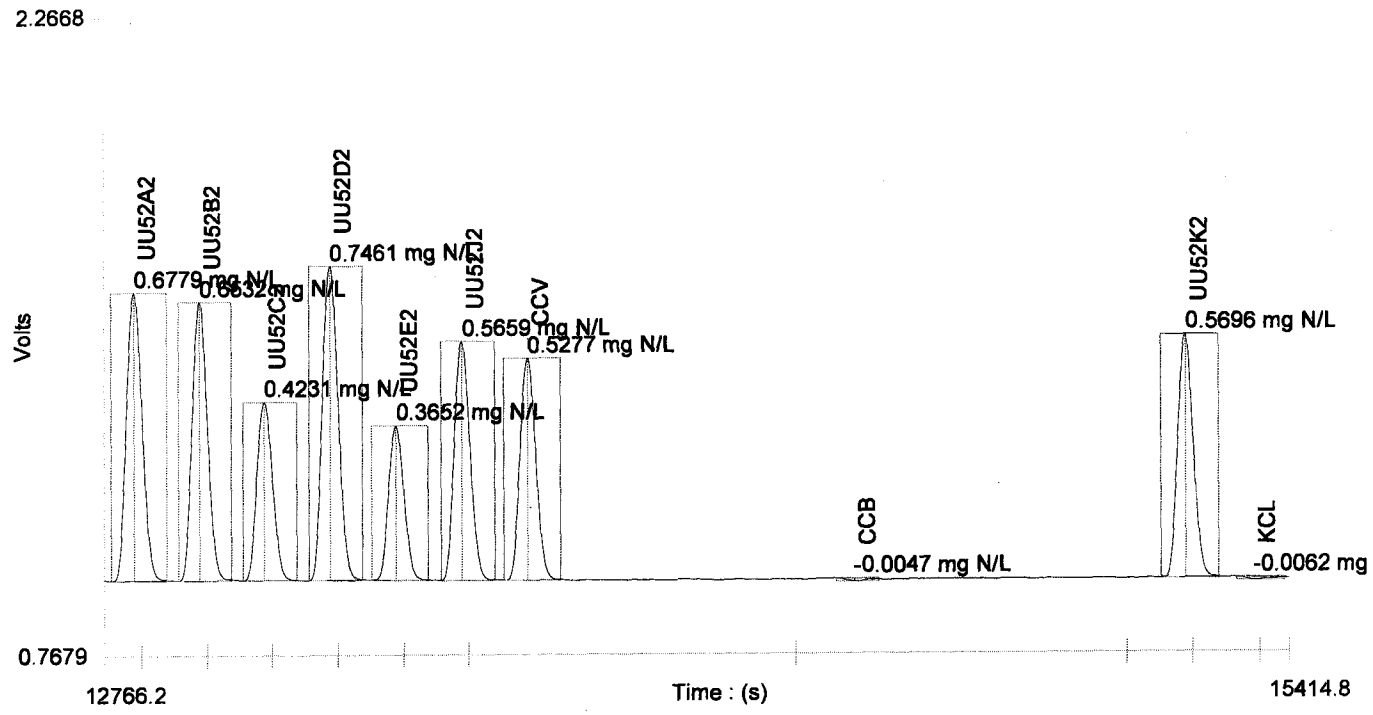
Channel 1 - Set: 5 / 7



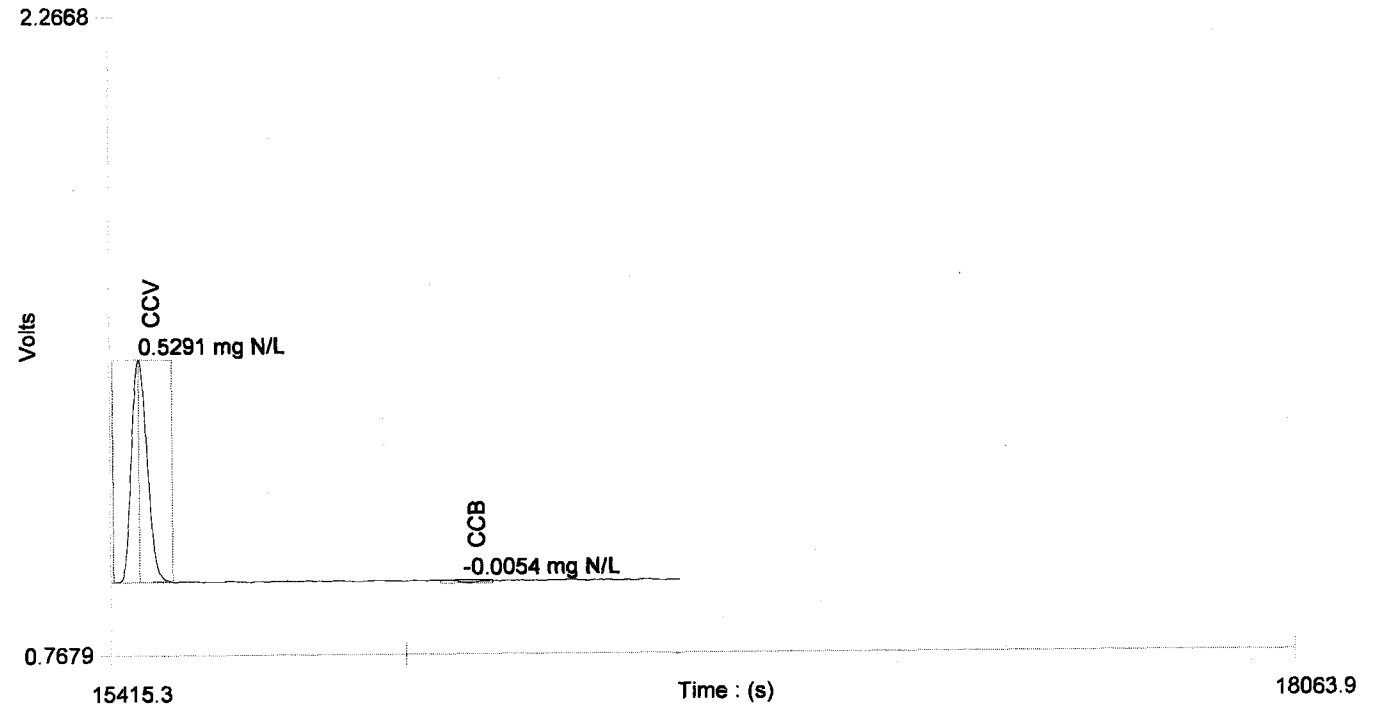
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 6 / 7



Channel 1 - Set: 7 / 7

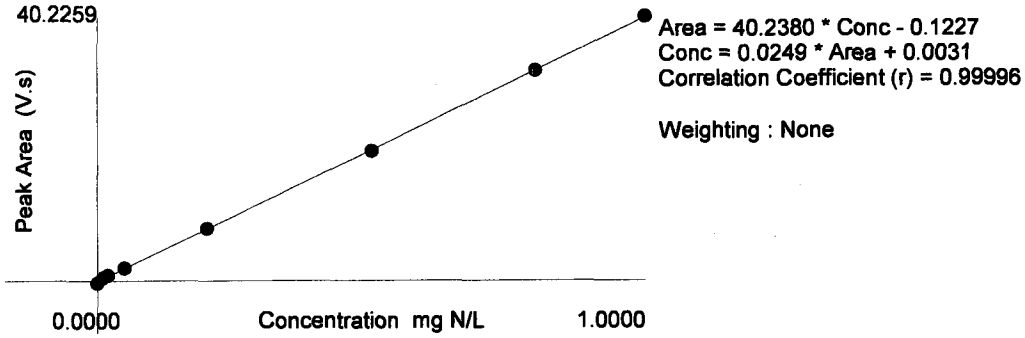


05212012NH3A SOILS LACHAT 1

Table : 1 (NH3)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	1.0000	1	40.2259	0.9906	0.0	-0.3	1.0027	5/21/2012	12:48:09 PM
2	0.8000	1	32.0222	0.7910	0.0	0.1	0.7988	5/21/2012	12:49:20 PM
3	0.5000	1	19.8143	0.4876	0.0	0.9	0.4955	5/21/2012	12:50:30 PM
4	0.2000	1	7.9810	0.1977	0.0	-0.7	0.2014	5/21/2012	12:51:40 PM
5	0.0500	1	1.9237	0.0467	0.0	-1.8	0.0509	5/21/2012	12:52:50 PM
6	0.0200	1	0.8151	0.0212	0.0	-19.5	0.0233	5/21/2012	12:54:01 PM
7	0.0100	1	0.4091	0.0114	0.0	-46.3	0.0132	5/21/2012	12:55:11 PM
8	0.0000	1	-0.3586	-0.0067			-0.0058	5/21/2012	12:56:21 PM

Figure : 1 (NH3)



SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2)		Date Time	Analyst
Soils, sediments and solid phase samples	*Distillation*	5/18/12 8:40	CLH/CR
	Finish	5/18/12 17:31	CLH/CR

If distilled, specify Procedure: **PSEP**

1. *Standardization of sodium thiosulfate titrant*

Buret used for titrations: CLASS A GLASS S2

Thiosulfate ID: **9237C**

Bi-iodate ID: **8560C**

Stock bi-iodate = **0.8130** *grams to* 1000 *mL*

Normality = **0.025**

Titration of bi-iodate with thiosulfate

mL bi-iodate =	3.00	3.00	3.00	
mL thiosulfate =	3.15	3.10	3.10	*nthio*
*Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate =*	0.024	0.024	0.024	**0.024**

2. *Normality of Iodine*

Iodine ID: **9182C**

Titration of Iodine with thiosulfate

mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	3.05	3.05	3.05	*ni*
*Normality iodine = (mL thiosulfate*nthio) / mL iodine=*	0.024	0.024	0.024	**0.024**

3. *Standardization of Sodium Sulfide Stock*

Stock ID = **00122-6**

Approx conc in 100ml

g Na2S = 0.6026 *mg /mL =* 0.804

Titration of standard with thiosulfate

mL Standard =	1.00	1.00	1.00	
mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	1.40	1.40	1.40	*stkconc (mg/mL)*
*Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16) / mL standard =*	0.636	0.636	0.636	**0.636**

Intermediate Standard

Add 9.8 *mL stk to* 250 *mL 0.01M NaOH =* **0.025** ***mg/mL***

mL required for for 0.025 mg/mL 9.8

4. *Calibration Standard Curve*

spectrophotometer used:

Inter Std Volume (mL)	Final Volume (mL)	Calc Conc (mg S/L)	Absorbance @650 nm 1	Absorbance @650 nm 2	AVG ABS	mg/L
0.00	50	0.000	0.000		0.000	*0.013*
0.10	50	0.050	0.033		0.033	*0.054*
0.25	50	0.125	0.087		0.087	*0.122*
0.50	50	0.249	0.175		0.175	*0.233*
1.00	50	0.498	0.381		0.381	*0.493*
2.00	50	0.997	0.787		0.787	*1.004*
Calib Verif Std =		1.0	*ml INT to*	50	*ml ZnOAc=*	0.498 *mg/l*
Distillation Std =		1.0	*ml stk to*	100	=	6.36 *mg/l*

RegressionData

intercept = -0.010

slope = 0.794

r = 0.9996

Comment: Calibration OK!

maxabs = 0.787

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Abs @ 650 nm Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
ICB		na	na	1.00	0.000		0.013	< 0.05	*OK!*
~~ICV~~		~~na~~	~~na~~	~~1.00~~	~~0.338~~		~~0.438~~	~~0.438~~	~~*Err @88%*~~
ICV		na	na	1.00	0.347		0.450	0.450	*90.23%*
Distilled samples									
Dist Blk	100.0	100%	100	1.00	0.004		0.018	< 0.05	*OK!*
Dist Chk	100.0	100%	100	10.00	0.486		0.625	6.249	*98.28%*
Dist Chk2	100.0	100%	100	10.00	0.439		0.566	5.657	*88.97%*
Soil Samples	**(grams)**	**% Solids**	**(mL)**		**Sample**	**Bkg**	**(mg/L)**	**mg/kg**	
UU62A2	5.1130	10.7%	100	10.00	0.748		0.955	1745.335	
UU62A2 dup	5.1500	10.7%	100	10.00	0.655		0.838	1520.232	*RPD=13.79%*
~~UU62A2 ms~~	5.1740	10.7%	100	20.00	0.880		1.121	4050.125	*offscale*
		Spike at	*2.00*	*ml stock to*	*0.554*	*g dry wt =*		*2296.959*	*mg/kg*
UU62B2	5.122	11.0%	100	1.00	0.024		0.043	< 8.847	
UU62C2	5.054	10.5%	100	20.00	0.448		0.577	2174.637	
UU62D2	5.084	9.6%	100	10.00	0.580		0.743	1522.876	
~~UU62E2~~	~~5.253~~	~~10.8%~~	~~100~~	~~20.00~~	~~1.529~~		~~1.939~~	~~6833.930~~	~~*offscale*~~
Cal Blk		na	na	1.00	-0.001		0.011	< 0.05	*OK!*
CCV		na	na	1.00	0.370		0.479	0.479	*96.04%*

UU52 : 02198

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
~~UU62F2~~	~~5.106~~	~~11.0%~~	~~100~~	~~10.00~~	~~0.947~~		~~1.205~~	~~2146.312~~	~~*offscale*~~
UU62G2	5.085	11.0%	100	10.00	0.301		0.392	700.565	
UU62H2	5.139	7.9%	100	10.00	0.728		0.930	2289.928	
~~UU62I2~~	~~4.754~~	~~11.1%~~	~~100~~	~~10.00~~	~~1.101~~		~~1.399~~	~~2652.030~~	~~*offscale*~~
~~UU52A1~~	~~4.992~~	~~9.7%~~	~~100~~	~~10.00~~	~~1.107~~		~~1.407~~	~~2905.716~~	~~*offscale*~~
~~UU52B1~~	~~5.000~~	~~9.7%~~	~~100~~	~~10.00~~	~~1.155~~		~~1.467~~	~~3025.718~~	~~*offscale*~~
~~UU52C1~~	~~4.831~~	~~10.5%~~	~~100~~	~~10.00~~	~~1.274~~		~~1.617~~	~~3188.443~~	~~*offscale*~~
UU52D1	4.564	10.9%	100	20.00	0.708		0.904	3636.264	
UU52E1	4.824	10.0%	100	20.00	0.768		0.980	4063.213	
UU52F1	5.100	8.3%	100	10.00	0.609		0.780	1842.161	
Cal Blk		na	na	1.00	-0.001		0.011	< 0.05	*OK!*
CCV		na	na	1.00	0.358		0.464	0.464	*93.01%*
UU52G1	5.154	6.9%	100	1.00	0.048		0.073	20.585	
UU52H1	5.003	19.0%	100	10.00	0.531		0.682	716.986	
UU52I1	5.447	8.1%	100	10.00	0.610		0.781	1770.249	
UU52J1	5.254	10.6%	100	10.00	0.749		0.956	1716.781	
UU52K1	5.376	10.5%	100	20.00	0.445		0.573	2030.997	
UU62A2 ms	5.1740	10.7%	100	50.00	0.362		0.469	4232.975	*108.30%*
		Spike at	*2.00*	*ml stock to*	*0.554*	*g dry wt =*		*2296.959*	*mg/kg*
UU62E2	5.253	10.8%	100	50.00	0.391		0.505	4452.621	
UU62F2	5.106	11.0%	100	20.00	0.465		0.598	2130.893	
UU62I2	4.754	11.1%	100	20.00	0.610		0.781	2960.224	
UU52A1	4.992	9.7%	100	20.00	0.558		0.716	2955.459	
Cal Blk		na	na	1.00	-0.004		0.008	< 0.05	*OK!*
CCV		na	na	1.00	0.347		0.450	0.450	*90.23%*
UU52B1	5.000	9.7%	100	20.00	0.587		0.752	3101.351	
UU52C1	4.831	10.5%	100	20.00	0.463		0.596	2349.507	
Cal Blk		na	na	1.00	-0.003		0.009	< 0.05	*OK!*
CCV		na	na	1.00	0.348		0.451	0.451	*90.49%*

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2)
Soils, sediments and solid phase samples

	Date Time	Analyst
Distillation	5-18-12 8:40	JCR
Finish	5-18-12 17:31	JCR

If distilled, specify Procedure: PSEP

1. Standardization of sodium thiosulfate titrant

Buret used for titrations: Class A Glass J2

Thiosulfate ID: 12371C
Bi-iodate ID: 15.30C
Stock bi-iodate = 0.8130 grams to 1000 mL
Normality =

Titration of bi-iodate with thiosulfate

mL bi-iodate =	3.0	3.0	3.0	
mL thiosulfate =				nthio

Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate =

2. Normality of Iodine

Iodine ID: 9182C

Titration of iodine with thiosulfate

mL iodine =	3.0	3.0	3.0	
mL thiosulfate =	3.05	3.05	3.05	ni

Normality iodine = (mL thiosulfate*nthio) / mL iodine=

3. Standardization of Sodium Sulfide Stock

Stock ID = 00122-6
Approx conc in 100ml
g Na2S = 0.6026 mg /mL =

Titration of standard with thiosulfate

mL Standard =	1.0	1.0	1.0	
mL iodine =	3.0	3.0	3.0	
mL thiosulfate =	1.4	1.4	1.4	stkconc (mg/mL)

Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =

Intermediate Standard

Add 9.8 mL stk to 250 mL 0.01M NaOH = mg/mL

4. Calibration Standard Curve

spectrophotometer used:

Inter Std Volume (mL)	Final Volume (mL)	Calc Conc (mg S/L)	Absorbance @650 nm 1	Absorbance @650 nm 2	AVG ABS	mg/L
0.00	50		0.000			
0.10	50		0.033			
0.25	50		0.087			
0.50	50		0.175			
1.00	50		0.351			
1.50	50		0.789			
Calib Verif Std =	0.5	ml int to	50	ml ZnOAc=		mg/l
Distillation Std =	1	ml stk to	100	=		mg/l

RegressionData
intercept =
slope =
r =
Comment:
maxabs =

SAMPLE DATA

enter dilution as mL final/mL sample

SAMPLE ID	Distillation Data: SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Spectrophotometric Data: Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	SAMPLE DATA: CORR CONC (ppm)
Soil Samples	**(grams)**	**% Solids**	**(mL)**		**Sample**	**Bkg**	**(mg/L)**	**mg/kg**
ICB					0.000			
ICV/ICV					0.338/0.347			
D. Blank	—	—	100	9	~~0.344~~ 0.004			
LCS	—	—		10	~~0.0641~~ 0.486			
LCSD	—	—		10	0.439			
UU62A2	5.1130	10.7		10	0.748			
A1	5.150	↓		10	0.655			
A5	5.174			20	0.880			
B2	5.122	11.0		1	0.029			
C2	5.054	10.5		20	0.448			
D2	5.084	9.6		10	0.580			
E2	5.353	10.8	↓	20	1.539			
CCB					-0.001			
CCV					0.370			
UU62F2	5.106	11.0	100	10	0.997			
C2	5.085	11.0		10	0.301			
H2	5.139	7.9		10	0.728			
I2	4.755	11.1		10	1.101			
UU52A1	4.992	9.7		10	1.107			
B1	5.000	9.8		10	1.155			
C1	4.831	10.5		10	1.274			
D1	4.564	10.9		20	0.708			
E1	4.829	10.0		20	0.768			
F1	5.100	9.3	↓	10	0.609			
CCB					-0.001			
CCV					0.358			
UU52G1	5.154	~~11.0~~ 19.0	100	1	0.044			
H1	5.003	~~7.9~~ 19.0	↓	10	0.531			

UU52 : 02206

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids (W	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
UU52I1	5.447	11.1	100	10	0.610				
J1	5.254	10.6		10	0.749				
K1	5.396	10.5		20	0.445				
UU62AK	5.1740	10.7		~~10~~ 50	0.362				
E2	5.253	10.8		50	0.351				
F2	5.106	11.0		~~50~~ 20	0.465				
I2	4.754	11.1		20	0.610				
UU52L1	4.992	97	↓	20	0.558				
CCB				~~10~~	-0.004				
CCV					0.343				
UU52B1	5.000	97	100	20	0.587				
C1	4.831	10.5	↓	20	0.463				
CCB					-0.003				
CCV					0.348				

UU52 : 022201

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Sulfide Digestion Log

Sample ID	% Solids	% Water	Pretreatment Data: Date	Sample Weight	Extract Method*	Acid	Required pH	mL DI Water	Observed mL acid	Sample Extraction Data: Date	Sample Weight	mL Acid Required	mL DI Water Required	Trap Volume (mL)
PB			5-8-12	ND	PSEP	HCl/NaOH	< 3	NA	NA	5-8-12	100mL	NA	NA	100mL
LCS											↓		↓	
UU62 I2	10.7										5.113		50mL	
A2 DUP	↓										5.150			
A2 MS	↓										5.174			
B2	12.0										5.122			
C2	10.5										5.054			
D2	9.6										5.084			
E2	10.8										5.253			
F2	11.0										5.106			
G2	11.0										5.085			
H2	7.9										5.139			
I2	11.1										4.754			
UU52 A2	9.7										4.992			
B2	9.7										5.000			
C2	6.5										4.831			
D2	10.9										4.564			
E2	10.0										4.824			
F2	8.3										5.100			
G2	6.9										5.154			

1 mL AVS 0.012 to 2.92

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: CW Date: 5-16-12 Time: 8:40

UU52: 9252

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Sulfide Digestion Log

			Pretreatment Data							Sample Extraction Data				
Sample ID	% Solids	% Water	Date	Sample Weight	Extract Method*	Acid	Required pH	mL DI Water	Observed mL acid	Date	Sample Weight	mL Acid Required	mL DI Water Required	Trap Volume (mL)
~~CB~~														
H2 A1	19.0		5.18.12	NA	PSEP	HCl w/ AA	2.3	NA	NA	5-15-12	5.003	NA	50 mL	100 mL
D2 A1	8.1										5.247			
[illegible]	19.6										5.254			
K2 A1	19.5										5.376			
LCS											100 mL		NA	

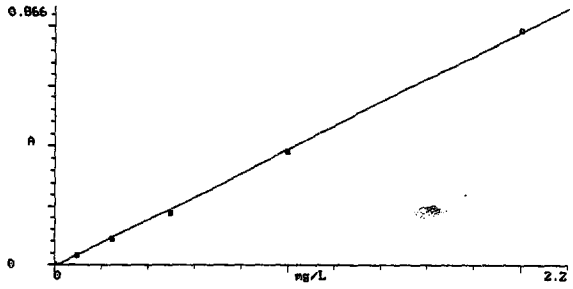
1 M SAA

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: _____ Date: _____ Time: _____

TEST SETUP
GENESYS 10 v2.021 2G2G048006

Standard Curve	17:31 18May12
Test Name	SULFIDE[Saved]
Date Standards Measured	18May12
Wavelength	650nm
Ref. Wavelength Correction	Off
Curve Fit	Linear
Number of Standards	6
Units	mg/L
ID# (0=OFF)	Off
Low/High Limits	0.050/1.000
Statistics	Off
Auto Print	On



Curve Fit	Linear
Slope	0.396
Intercept	-0.0101
Std Dev	0.009
Corr Coeff	1.000

Conc. mg/L	Abs 650nm
0.000	0.000
0.100	0.033
0.250	0.087
0.500	0.175
1.000	0.381
2.000	0.787

5-18-12

TEST SETUP
GENESYS 10 v2.021 2G2G048006

Advanced A-%T-C	17:32 18May12
Test Name	SULFIDE[Saved]
Measurement Mode	Absorbance
Wavelength	650nm
Ref. Wavelength Correction	Off
Delay Time (min:sec)	0:00
ID# (0=OFF)	1
Low/High Limits	0.000/1.000
Statistics	Off
Auto Print	On

ID#	Abs 650nm
1	0.000

2	0.338
3	0.347
4	0.004
5	0.486
6	0.439
7	0.748
8	0.655
9	0.880
10	0.024
11	0.448
12	0.580
13	1.529
14	-0.001
15	0.370

16 0.947

17 0.301

18 0.728

19 1.101

20 1.107

21 1.155

22 1.274

23 0.708

24 0.768

25 0.609

26 -0.001

27 0.358

28 0.048

29 0.531

30 0.610

31 0.749

32 0.445

33 0.362

34 0.391

35 0.465

36 0.610

37 0.558

38 -0.004

39 0.347

40 0.587

41 0.463

42 -0.003

43 0.348

TOC, Solids Data Analysis

DATE: 5/24/2012
ANALYST: KE 11:48

Instrument: Apollo 2
Mode: NPOC *Inlet:* Boat
Spike Std = 2,500 *ppm C*

Calibration Data

Cal Curve ID: **4/30/12 BOAT CAL** *Conc:* 5,000 *ppm*
Calibration Curve Standard: **00123 - 4** *Curve Date:* **04/30/12**
CalFact: **2.796E+05** *intercept:* **-226534** *r2 :* **0.99943**
Curve Range (ppm) 200 *to* 2,500
Curve Range (µgC): 8 *to* 100 *40 µL injections of designated standard*

Verification Standard

Source: ***ERA# 0513 - 10 - 06*** *Conc:* **5,000** *ppm*
dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material

Source: ***NIST 8704*** *Conc:* **33,510** *ppm*
Source: ***NIST 1941B*** *Conc:* **29,900** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
18.8	26.7	31.6				25.7	25.1%	*OK*

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	*comments*
ICV				1.00		40.0	971	971	*97.10%*
Blank				1.00		40.0	24.77	25	*Blank OK*
~~NIST 1941B~~			-	~~1.00~~		~~3.5~~	~~29334~~	~~29,334~~	~~*Offscale, dilute*~~
NIST 1941B				1.00		2.8	27419	27,419	*91.70%*
~~UU62 A1~~			-	~~1.00~~		~~0.8~~	~~129030~~	~~129,030~~	~~*Offscale, dilute*~~
Silica Blanks 1				1.00		36.0	18.81	19	*Low Scale*
Silica Blanks 2				1.00		36.5	26.65	27	*Low Scale*
Silica Blanks 3				1.00		34.3	31.6	32	*Low Scale*
UU62 A1	10.0	100.0	90.00%	10.00		1.8	14036	140,129	*Range OK!*
UU62 A1 dup	10.4	104.0	90.00%	10.00		1.7	13357	133,339	*RPD=5%*
UU62 A1 trp	10.1	100.2	89.92%	9.92		1.9	14320	141,837	*RSD=3.2%*
UU62 A1 ms	10.0	100.0	90.00%	10.00	10	1.5	34016	339,929	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.2*	*mg samp=*	*166,667*	*ppm*		*120%*	
CCV				1.00		40.0	1001	1,001	*100.10%*
Blank				1.00		40.0	57.85	58	*Blank OK*

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
UU62 B1	11.1	109.7	89.88%	9.88		0.9	32808	324,009	*Range OK!*
UU62 C1	11.8	117.5	89.96%	9.96		1.3	20861	207,496	*Range OK!*
UU62 D1	10.7	104.2	89.73%	9.74		1.2	17437	169,583	*Range OK!*
UU62 E1	12.2	117.3	89.60%	9.61		1.8	16031	153,913	*Range OK!*
UU62 F1	11.3	112.6	89.96%	9.96		1.4	13041	129,718	*Range OK!*
UU62 G1	11.2	109.1	89.73%	9.74		1.6	16535	160,844	*Range OK!*
UU62 H1	11.6	113.7	89.80%	9.80		1.8	20591	201,601	*Range OK!*
UU62 I 1	11.2	111.3	89.94%	9.94		1.5	16041	159,178	*Range OK!*
UU52 A1	14.6	141.1	89.65%	9.66		1.9	18666	180,173	*Range OK!*
UU52 B1	11.9	110.8	89.26%	9.31		1.5	18166	168,929	*Range OK!*
CCV				1.00		40.0	956	956	*95.60%*
Blank				1.00		40.0	24.33	24	*Blank OK*
UU52 C1	12.3	119.8	89.73%	9.74		1.8	15684	152,535	*Range OK!*
UU52 D1	10.4	103.6	89.96%	9.96		1.3	20977	208,733	*Range OK!*
UU52 E1	23.7	216.8	89.07%	9.15		1.8	18284	167,047	*Range OK!*
UU52 F1	12.7	121.4	89.54%	9.56		1.8	32095	306,578	*Range OK!*
UU52 G1	10.3	107.5	90.42%	10.44		1.7	30151	314,440	*Range OK!*
UU52 H1	16.4	161.6	89.85%	9.85		1.1	15836	155,815	*Range OK!*
UU52 I 1	10.2	102.0	90.00%	10.00		1.1	19014	189,909	*Range OK!*
UU52 J 1	10.9	103.6	89.48%	9.50		2.2	11417	108,295	*Range OK!*
UU52 K1	13.7	112.8	87.85%	8.23		1.4	13394	110,095	*Range OK!*
US34 L (PE)				1.00		8.8	8809	8,809	*Range OK!*
NIST 1941B				1.00		3.1	31263	31,263	*104.56%*
CCV				1.00		40.0	973	973	*97.30%*
Blank				1.00		40.0	25.70	26	*Blank OK*

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(1) 5-24-12 (4)

TOC Solids Sample Run Log
Apollo 9000

Page 1 of 2

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler
Standards:	Source	Conc (ppm)	
Calibration:	ARI – 00123-4	5000	
Verification:	ERA – 1513-10-06	5000 to 1000 for CVS	11:48
SRM:	NBS ~~1941b~~ or 8704	29900	

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICB			40			
NBS 1941B			3.5			offscale Rslts
NBS 1941B			2.8			
UU62 A1			0.8			offscale Rslts
SB 1			36.0			
2			36.5			
3			34.3			
UU62 A'	10.0	100.0	1.8			
DPA'	10.4	104.0	1.7			
MPA'	10.1	100.2	1.9			
MSA'	10.0	100.0	1.5	2500	10	
CCV			40			
CCB			40			
UU62 B'	11.1	109.7	0.9			
C'	11.8	117.8	1.3			
D'	10.7	104.2	1.2			
E'	12.2	117.3	1.8			
F'	11.3	112.6	1.4			
G'	11.2	109.1	1.6			
H'	11.6	113.7	1.8			
I'	11.2	111.3	1.5			
UU52 A'	14.6	141.1	1.9			
B'	11.9	110.8	1.5			
CCV			40			
CCB			40			
UU52 C'	12.3	119.8	1.8			
D'	10.4	103.6	1.3			
E'	23.7	216.8	1.8			
F'	12.7	121.4	1.8			
G'	10.3	107.5	1.7			
H'	16.4	161.6	1.1			

UU52:02210

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(i) 5-24-12 (w)

TOC Solids Sample Run Log
Apollo 9000

Page 2 of 2

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler
Standards:	Source	Conc (ppm)	
Calibration:	ARI – 00123-4	5000	11:48
Verification:	ERA – 1513-1006	5000 to 1000 for CVS	
SRM:	NBS – 1941b or 8704	299.00	

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
UU52 J	10.2	102.0	1.1			
J'	10.9	103.6	2.2			
K	13.7	112.8	1.4			
UU39(pc) L			8.8			
NB19 B			3.1			
CCV		~~400~~ (i)	40			
CCB		~~400~~ (i)	40			

5-24-12 (w)

UU52:02211

5-24-12 (W)

Detailed Analysis Report Print Date/Time: 2012/05/24 19:27:55

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 05241136
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 11:41
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	971.3245	38.8530	10637403	37.141	38.137	184

Last Message: ~~Out of Calibration~~ OK 5-24-12

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 05241144
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 11:47
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24.7707	0.9908	50518	36.955	36.934	120

Last Message: Low Sample Detected

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 05241227
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 12:32
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29334.1992	102.6697	28481616	36.810	37.807	277

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 05241251
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 12:57
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	27418.7734	76.7726	21240346	36.996	37.994	270

Sample ID: UU62 A1 Mode: TOC
Method: Boat Sampler Filename: 05241308
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 13:23
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	129029.6562	103.2237	28863064	36.915	37.913	241

Last Message: Over-range

Sample ID: Silica Blank 1 Mode: TOC
Method: Boat Sampler Filename: 05241334
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 13:38
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18.8074	0.6771	189319	36.892	37.892	62

Sample ID: Silica Blank 2 Mode: TOC
Method: Boat Sampler Filename: 05241345
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 13:48

UU52 : 62212

Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26.6516	0.9728	272007	37.228	38.219	68

Sample ID: Silica Blank 3 Mode: TOC
Method: Boat Sampler Filename: 05241359
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 14:01
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31.5980	1.0838	303052	37.059	38.056	66

Sample ID: UU62 A1 Mode: TOC
Method: Boat Sampler Filename: 05241449
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 14:53
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	14035.7002	25.2643	7064306	37.097	38.096	174

Sample ID: UU62 A1 DD Mode: TOC
Method: Boat Sampler Filename: 05241457
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:02
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13356.9072	22.7067	6349181	37.286	38.280	159

Sample ID: UU62 A1 iP Mode: TOC
Method: Boat Sampler Filename: 05241520
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:23
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	14319.8271	27.2077	7607715	37.403	38.397	166

Sample ID: UU62 A1 MS Mode: TOC
Method: Boat Sampler Filename: 05241527
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:31
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34015.6445	51.0235	14267006	37.298	38.295	211

Sample ID: CVS BOAT 1000 Mode: TOC
Method: Boat Sampler Filename: 05241537
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:41
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1001.3187	40.0527	10972878	37.392	38.390	178

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 05241548
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:51
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	57.8453	2.3138	420446	37.024	38.019	67

Sample ID: UU62 B1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241558
Timestamp: 2012/05/24 16:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32808.4688	29.5276	8256412	36.857	37.853	169

Sample ID: UU62 C1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241622
Timestamp: 2012/05/24 16:26
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20860.7637	27.1190	7582919	36.683	37.674	175

Sample ID: UU62 D1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241630
Timestamp: 2012/05/24 16:34
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17437.0371	20.9244	5850821	36.974	37.972	165

Sample ID: UU62 E1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241640
Timestamp: 2012/05/24 16:49
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16030.5889	28.8551	8068353	37.345	38.344	187

Sample ID: UU62 F1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241652
Timestamp: 2012/05/24 16:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13040.6104	18.2569	5104919	37.690	38.686	147

Sample ID: UU62 G1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241659
Timestamp: 2012/05/24 17:03
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16535.1309	26.4562	7397594	37.853	38.852	160

Sample ID: UU62 H1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241707
Timestamp: 2012/05/24 17:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20591.4219	37.0646	10363864	37.683	38.679	177

Sample ID: UU62 I 1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241715
Timestamp: 2012/05/24 17:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16040.7617	24.0611	6727894	37.313	38.303	157

Sample ID: UU52 A1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241723
Timestamp: 2012/05/24 17:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18665.8730	35.4652	9916646	36.955	37.949	184

Sample ID: UU52 B1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241730
Timestamp: 2012/05/24 17:34
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18165.8848	27.2488	7619224	36.825	37.824	175

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241739
Timestamp: 2012/05/24 17:43
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	956.1100	38.2444	10467234	36.809	37.808	179

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241746
Timestamp: 2012/05/24 17:51
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24.3262	0.9730	45546	36.453	36.455	120

Last Message: Low Sample Detected

Sample ID: UU52 C1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241753
Timestamp: 2012/05/24 17:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15683.7822	28.2308	7893802	36.443	37.437	160

Sample ID: UU52 D1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241758
Timestamp: 2012/05/24 18:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20976.8145	27.2699	7625104	37.007	38.004	143

Sample ID: UU52 E1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241807
Timestamp: 2012/05/24 18:10
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18284.0977	32.9114	9202566	36.346	37.343	177

Sample ID: UU52 F1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241813
Timestamp: 2012/05/24 18:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32095.4609	57.7718	16153960	36.423	37.419	204

Sample ID: UU52 G1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241820
Timestamp: 2012/05/24 18:25
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30150.9082	51.2565	14332179	36.400	37.398	233

Sample ID: UU52 H1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241827
Timestamp: 2012/05/24 18:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15836.4854	17.4201	4870958	36.736	37.736	130

Sample ID: UU52 I 1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241833
Timestamp: 2012/05/24 18:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19014.4082	20.9158	5848418	36.683	37.682	145

Sample ID: UU52 J1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241841
Timestamp: 2012/05/24 18:46
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11417.4170	25.1183	7023497	36.703	37.703	154

Sample ID: UU52 K1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241851
Timestamp: 2012/05/24 18:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13394.1924	18.7519	5243333	36.458	37.458	147

Sample ID: US34 L (PE)
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241857
Timestamp: 2012/05/24 19:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8809.4980	77.5236	21676876	36.423	37.421	281

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241910
Timestamp: 2012/05/24 19:15
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31263.0469	96.9154	26872630	36.223	37.220	251

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241918
Timestamp: 2012/05/24 19:22
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	973.2827	38.9313	10659304	36.274	37.273	176

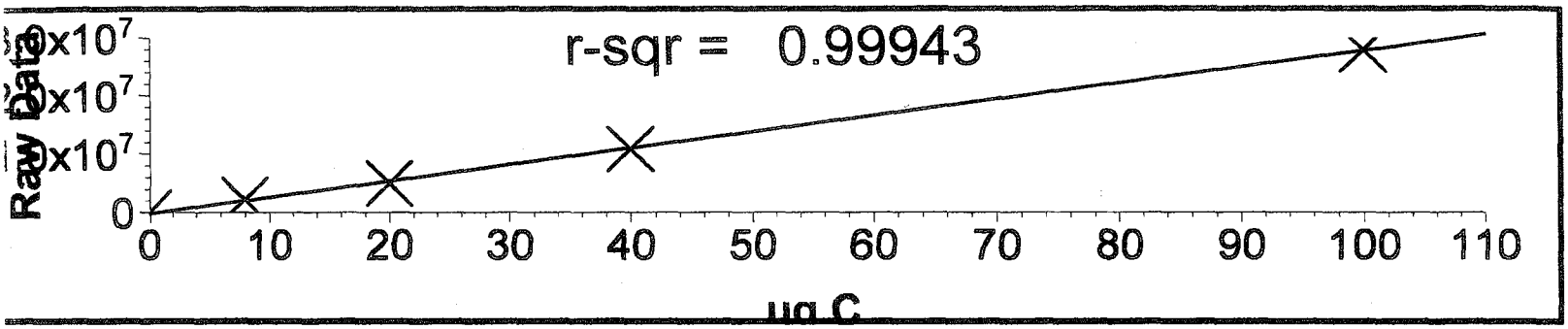
Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241923
Timestamp: 2012/05/24 19:25
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25.7007	1.0280	60920	35.814	36.813	50

Calibration Report Print Date/Time: 2012/04/30 14:05:52

Cal. Curve ID: 43012 BOAT CAL
Created: 2012/04/30 13:43
Calibration Factor (m): 2.796e+05
Y Intercept (b): -226534
r-squared: 0.99943

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI WATER	52595	0.000	0.998		2012/04/30 11:58
200	2144822	8.000	8.481		2012/04/30 12:17
500	4986789	20.000	18.645		2012/04/30 12:34
1000	10792143	40.000	39.406		2012/04/30 12:59
2500	27866566	100.000	100.470	Max Integrati	2012/04/30 13:42


r-sqr = 0.99943
Raw Data
x10^7
x10^7
x10^7
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report Print Date/Time: 2012/04/30 14:01:21

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301036
Timestamp: 2012/04/30 10:51
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			47566	33.280	33.185	120
2			203139	33.304	34.302	63
3			1104	33.476	33.511	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 83936 Std Dev: 105814 RSD: 126.06

Sample ID: 200
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301053
Timestamp: 2012/04/30 10:56
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1241941	33.597	34.592	83

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301141
Timestamp: 2012/04/30 11:43
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			723490	34.109	41.661	46

Last Message: Canceled

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301150
Timestamp: 2012/04/30 11:58
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			92631	34.301	35.189	120
2			19076	34.635	34.665	120
3			46077	35.023	36.011	43

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 52595 Std Dev: 37208 RSD: 70.75

Sample ID: 200
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301202
Timestamp: 2012/04/30 12:17
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2354047	34.824	35.822	117
2			2071224	34.958	35.956	106
3			2009197	35.047	36.046	100

<<<Statistics>>> Mean: 2144823 Std Dev: 183829 RSD: 8.57

Sample ID: 500
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301220
Timestamp: 2012/04/30 12:34
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5039759	35.057	36.056	104
2			4609986	35.167	36.164	123
3			5310623	35.293	36.291	131

<<<Statistics>>> Mean: 4986790 Std Dev: 353309 RSD: 7.08

Sample ID: 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301241
Timestamp: 2012/04/30 12:59
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			10754481	35.424	36.423	161
2			10442873	36.018	37.015	150
3			11179075	36.556	37.551	190

<<<Statistics>>> Mean: 10792143 Std Dev: 369543 RSD: 3.42

Sample ID: 2500
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301309
Timestamp: 2012/04/30 13:42
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			29661636	37.962	38.960	254
2			29032984	38.591	39.586	273
3			24905076	39.615	40.673	300

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 27866566 Std Dev: 2583915 RSD: 9.27

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301346
Timestamp: 2012/04/30 13:51
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1028.4240	41.1370	11276042	40.270	41.269	235

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301352
Timestamp: 2012/04/30 13:55
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23.6818	0.9473	38339	40.923	41.149	120

Last Message: Low Sample Detected

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 5/22/2012

ANALYST: KE 19:59 (A)

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time

record times as mm/dd/yy hh:mm

5/22/2012 19:59 date/time in oven KE

5/23/2012 11:24 date/time out KE

elapsed hrs = 15.4

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	5/22/12 14:10 KE	5/22/12 13:10 KE	5/23/12 11:39 KE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank			1.0920	1.0919			0.00							
UU52 A1		6.4621	1.0627	1.6154			0.55	10.2%						
UU52 B1		6.2811	1.0880	1.6202			0.53	10.2%						
UU52 C1		6.7227	1.0774	1.6636			0.59	10.4%						
UU52 D1		6.6617	1.1141	1.6305			0.52	9.3%						
UU52 E1		6.5580	1.1073	1.6687			0.56	10.3%						
UU52 F1		6.9637	1.0952	1.6367			0.54	9.2%						
UU52 G1		6.2645	1.0996	1.6055			0.51	9.8%						
UU52 H1		6.3479	1.0822	1.9688			0.89	16.8%						
UU52 I 1		6.0304	1.0868	1.6179			0.53	10.7%						
UU52 J 1		7.4572	1.0873	1.7334			0.65	10.1%						
UU62 A1		5.7385	1.1214	1.6022			0.48	10.4%						
UU62 A1 dup		5.9644	1.0850	1.5891			0.50	10.3%						
							RPD =	0.79%				RPD =		NA
UU62 A1 trp		5.8348	1.0790	1.5736			0.49	10.4%						
							RSD =	0.42%				RSD =		NA
UU62 B1		6.3197	1.0853	1.5963			0.51	9.8%						
UU62 B1		8.1428	1.0999	1.7818			0.68	9.7%						
UU62 B1		7.0330	1.1032	1.6553			0.55	9.3%						
UU62 B1		7.3446	1.0745	1.6899			0.62	9.8%						
UU62 B1		6.7839	1.1072	1.6913			0.58	10.3%						
UU62 B1		7.1027	1.1112	1.8522			0.74	12.4%						

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 5/22/2012

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: KE 19:59 (A)

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time

record times as mm/dd/yy hh:mm

5/22/2012 19:59 date/time in oven KE

5/23/2012 11:24 date/time out KE

elapsed hrs = 15.4

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02			
	Date & Time	5/22/12 14:10 KE	5/22/12 13:10 KE	5/23/12 11:39 KE									
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000									
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*									

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
UU61 B2		6.5073	1.0778	1.5330			0.46	8.4%						
UU61 B2		6.5346	1.0854	1.7256			0.64	11.7%						
UU52 K1		7.1779	1.0738	1.7226			0.65	10.6%						

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Analyst: (W)	Date: 5-22-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: 19:59	Time Out of Oven: 11:84	Elapsed Time (> 12 Hrs):	

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000 (A)
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:		5-22-12 19:10	5-22-12 13:10	5-23-12 11:31						
Cal Weight (10.0000):		10.0002 (W)	10.0000 (R)	10.0000 (N)						
Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	2	3	Dry Weight grams	Ash Weight 550°C 1	2	3
BLANK	1	0	1.0920	1.0919						
UU52 A1	2	6.4621	1.0627	1.6154						
B1	3	6.2811	1.0880	1.6202						
C1	4	6.7227	1.0774	1.6036						
D1	5	6.6617	1.1141	1.6305						
E1	6	6.5580	1.1073	1.6687						
F1	7	6.9637	1.0952	1.6367						
G1	8	6.2645	1.0996	1.6055						
H1	9	6.3479	1.0822	1.5688						
I1	10	6.0304	1.0868	1.6179						
J1	11	7.4572	1.0873	1.7334						
UU62 A1	12	5.7385	1.1214	1.6022						
DRA1	13	5.9644	1.0858	1.5891						
DUPA1	14	5.8348	1.0790	1.5736						
B1	15	6.3197	1.0853	1.5963						
C1	16	8.1428	1.0999	1.7818						
D1	17	7.0330	1.1032	1.6553						
E1	18	7.3446	1.0745	1.6899						
F1	19	6.7839	1.1072	1.6913						
G1	20	7.1027	1.1112	1.8522						
H1	21	6.5073	1.0778	1.5330						
I1	22	6.6346	1.0854	1.7256						
UU52 K1	23	7.1779	1.0738	1.7226						

UU52: 5/22/12

5/24/12

TOC Solids Prep Log

DATE: 5/22/2012

ANALYST: KE 20:16 (A)

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	Sample description & notes
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	(homogeneity and exclusions)
Blank			13.2166		13.2166	0 mg	
UU52 A1		-	13.2789	18.4767	13.8568	11.12%	
UU52 B1		-	13.2959	18.4106	13.8641	11.11%	
UU52 C1		-	13.3543	18.1976	13.9180	11.64%	
UU52 D1		-	13.3613	18.5305	13.9056	10.53%	
UU52 E1		-	13.4183	19.5993	14.1012	11.05%	
UU52 F1		-	13.2879	19.2153	13.8039	8.71%	
UU52 G1		-	13.2933	17.6730	13.7292	9.95%	
UU52 H1		-	13.2445	19.3995	14.3521	18.00%	
UU52 I 1		-	13.3466	19.9070	14.1765	12.65%	
UU52 J 1		-	13.3198	19.1937	13.9878	11.37%	
UU62 A1		-	13.3426	17.5260	13.8293	11.63%	
UU62 A1 dup		-	13.4002	17.5174	13.8807	11.67%	RPD = 0.31%
UU62 A1 trip		-	13.2918	17.6138	13.7951	11.65%	RSD = 0.16%
UU62 B1		-	13.2982	17.8189	13.7296	9.54%	
UU62 C1		-	13.2593	18.8427	13.8487	10.56%	
UU62 D1		-	13.3530	18.2639	13.8584	10.29%	
UU62 E1		-	13.2843	20.2848	14.0388	10.78%	
UU62 F1		-	13.3865	18.4751	13.9651	11.37%	
UU62 G1		-	13.2466	18.2343	14.0005	15.12%	
UU62 H1		-	13.3433	18.1257	13.7770	9.07%	
UU62 I 1		-	13.1241	18.2178	13.7988	13.25%	
UU52 K1		-	13.2392	19.5091	13.9541	11.40%	

(2) 13.2166 5-22-12 (K)

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TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

(1)-5-22-12 (K)

Analyst (D) 20:16 Date 5-22-12 (A)

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			(2)	0	13.2166		
UU52 A1		—	13.2789	18.4767	13.8568		11. wet Sed + Rubble
B1		—	13.2959	18.4106	13.8641		
C1		—	13.3543	18.1976	13.9180		
D1		—	13.3613	18.5305	13.9056		
E1		—	13.4183	19.5993	14.1012		
F1		—	13.2879	19.2153	13.8039		Debris & Sed
G1		—	13.2933	17.6730	13.7292		Debris & moisture
H1		—	13.2445	19.3995	14.3521		wet Sed + Rubble
I1		—	13.3466	19.9070	14.1765		
J1		—	13.3198	19.1937	13.9878		V-wet Sed
UU62 A1		—	13.3426	17.5260	13.8293		
DUP A1		—	13.4002	17.5174	13.8807		
DUP1		—	13.2918	17.6138	13.7951		
B1		—	13.2982	~~17.8210~~	17.8189	13.7296	Debris wood & bark & moisture
C1		—	13.2593	18.8427	~~13.7293~~ (D)	13.8487	Sed + V. Wet + Rubble
D1		—	13.3530	18.2639	~~13.8487~~ (D)	13.8584	
E1		—	13.2843	20.2848	~~13.8584~~ (K)	14.0388	
F1		—	13.3865	18.4751	~~14.0388~~ (K)	13.9651	
G1		—	13.2466	18.7343	~~13.9651~~ (K)	14.0005	
H1		—	13.3433	18.1257	~~13.9~~ (K)	~~14.0005~~	13.7770
I1		—	13.1241	18.2178	~~13.7768~~ (K)	13.7788	Debris - Sand - Moisture
UU52 K1		—	13.2392	19.5091	13.9541		Wet Sed + Rubble

5-22-12 (K)

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* **ZnOAc PRES.**

DATE: 5/21/2012

ANALYST: CDE / KE 18:46

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time

record times as mm/dd/yy hh:mm

5/21/2012 18:46 date/time in oven CDE

5/22/2012 9:50 date/time out KE

elapsed hrs = 15.1

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02					
Date & Time	5/21/17 18:31 CDE	5/21/12 18:02 CDE	5/22/12 10:07 KE											
Cal Wt (g) 10.0000	10.0000	10.0000	10.0000											
record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*											

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank			1.0697	1.0695			0.00							
UU52 A1		5.7549	1.1032	1.5528			0.45	9.7%						
UU52 B1		5.9279	1.1152	1.5816			0.47	9.7%						
UU52 C1		6.0710	1.0846	1.6088			0.52	10.5%						
UU52 D1		5.9068	1.0853	1.6087			0.52	10.9%						
UU52 E1		5.6996	1.0903	1.5517			0.46	10.0%						
UU52 F1		7.0072	1.1037	1.5950			0.49	8.3%						
UU52 G1		7.1493	1.1040	1.5189			0.41	6.9%						
UU52 H1		7.1873	1.1164	2.2680			1.15	19.0%						
UU52 I 1		6.7462	1.1051	1.5634			0.46	8.1%						
UU52 J 1		6.1080	1.0705	1.6069			0.54	10.6%						
UU52 K1		6.2759	1.1027	1.6435			0.54	10.5%						
UU62 A2		5.4002	1.1191	1.5754			0.46	10.7%						
UU62 A2 dup		6.2273	1.0920	1.6397			0.55	10.7%						
							RPD =	0.06%				RPD =		NA
UU62 B2		6.7711	1.1052	1.7301			0.62	11.0%						
UU62 C2		5.9420	1.0731	1.5823			0.51	10.5%						
UU62 D2		6.9835	1.0837	1.6509			0.57	9.6%						
UU62 E2		6.2392	1.0827	1.6378			0.56	10.8%						
UU62 F2		6.0887	1.0727	1.6248			0.55	11.0%						
UU62 G2		7.2866	1.0940	1.7732			0.68	11.0%						
UU62 H2		7.1339	1.0867	1.5338			0.45	7.4%						
UU62 I 2		7.2643	1.0665	1.7520			0.69	11.1%						

UU52, UU62

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TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

ZnOAc preserved

Analyst: CMC / (N)	Date: 5-21-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: 18:46	Time Out of Oven: 9:50	Elapsed Time (> 12 Hrs):	

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:		5-21-12 14:31	5-21-12 18:07	5-22-12 10:07						
Cal Weight (10.0000):		10.0006 CMC	10.0000 CMC	10.0000 (N)						
Sample ID	Dish #	Sample	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C		
				1	2	3	grams	1	2	3
BLANK	Z1	Ø	1.0697	1.0695						
1452 A'	2	5.7549	1.1032	1.5528						
B'	3	5.9279	1.1152	1.5816						
C'	4	6.0710	1.0846	1.6088						
D'	5	5.9068	1.0853	1.6087						
E'	6	5.6996	1.0903	1.5517						
F'	7	7.0072	1.1037	1.5950						
G'	8	7.1493	1.1040	1.5189						
H'	9	7.1873	1.1164	2.2680						
I'	10	6.7462	1.1051	1.5634						
J'	11	6.1080	1.0705	1.6069						
K'	12	6.2759	1.1027	1.6435						
1462 A²	13	5.4002	1.1191	1.5754						
A²dup	14	6.2273	1.0920	1.6397						
B²	15	6.7711	1.1052	1.7301						
C²	16	5.9420	1.0731	1.5823						
D²	17	6.9835	1.0837	1.6509						
E²	18	6.2392	1.0827	1.6378						
F²	19	6.0987	1.0727	1.6248						
G²	20	7.2866	1.0940	1.7732						
H²	21	7.1339	1.0867	1.5338						
I²	22	7.2643	1.0665	1.7520						
				5-21-12 (N)						

Original Run Filename: OM_5-21-2012_12-47-10PM.OMN Created: 5/21/2012 12:47:10 PM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 052112NH3A.omn Last Modified: 5/21/2012 3:04:13 PM
Current Run Author's Signature: [Carol Hawkins]
Description: LACHAT 1
ARI In-House Standards: 00122-3

Sample	Cup No.	Channel 1 NH3 Conc. (mg N/L)	Channel 1 NH3 Area (V.s)	Detection Time	MANUAL DILUTION FACTOR
STD 1.0	S1	1	40.2259	5/21/2012@12:48:09 PM	
STD 0.8	S2	0.8	32.0222	5/21/2012@12:49:20 PM	
STD 0.5	S3	0.5	19.8143	5/21/2012@12:50:30 PM	
STD 0.2	S4	0.2	7.981	5/21/2012@12:51:40 PM	
STD 0.05	S5	0.05	1.9237	5/21/2012@12:52:50 PM	
STD 0.02	S6	0.02	0.8151	5/21/2012@12:54:01 PM	
STD 0.01	S7	0.01	0.4091	5/21/2012@12:55:11 PM	
BLANK	S8	0	-0.3586	5/21/2012@12:56:21 PM	
ICV ERA 130611	9	0.5275	21.1039	5/21/2012@12:57:32 PM	
Known Conc:		0.5			
ICB	10	-0.0052	-0.3331	5/21/2012@1:03:28 PM	
Known Conc:		0			
LOW	11	0.0136	0.4225	5/21/2012@1:09:25 PM	
Known Conc:		0.01			
PREP BLANK	12	-0.0044	-0.2993	5/21/2012@1:15:22 PM	
~~PREP CHECK~~	~~13~~	~~39.856~~	~~80.0689~~	~~5/21/2012@1:16:32 PM~~	~~20~~
~~Spiking Conc:~~		~~10~~			

%R= 105.50

UU62A1	14	0.9842	39.4815	5/21/2012@1:17:43 PM	
~~UU62A1-DUP~~	~~15~~	~~1.0276~~	~~41.2291~~	~~5/21/2012@1:18:53 PM~~	
~~UU62A1-MS~~	~~16~~	~~41.3349~~	~~83.0447~~	~~5/21/2012@1:20:04 PM~~	~~20~~
~~Spiking Conc:~~		~~10~~			
UU62B1	19	0.2162	8.5762	5/21/2012@1:21:15 PM	
~~UU62C1~~	~~20~~	~~1.5325~~	~~61.545~~	~~5/21/2012@1:22:25 PM~~	
~~UU62D1~~	~~21~~	~~1.0591~~	~~42.4959~~	~~5/21/2012@1:23:36 PM~~	
~~UU62E1~~	~~22~~	~~1.9593~~	~~78.72~~	~~5/21/2012@1:24:48 PM~~	
CCV	17	0.5262	21.0497	5/21/2012@1:25:58 PM	%R= 105.24
Known Conc:		0.5			
CCB	18	-0.0056	-0.3486	5/21/2012@1:31:55 PM	
Known Conc:		0			
~~UU62F1~~	~~23~~	~~1.2848~~	~~51.5793~~	~~5/21/2012@1:37:52 PM~~	
~~UU62G1~~	~~24~~	~~1.5016~~	~~60.302~~	~~5/21/2012@1:39:03 PM~~	
UU62H1	25	0.954	38.2667	5/21/2012@1:40:13 PM	
~~UU62I1~~	~~26~~	~~1.4353~~	~~57.6342~~	~~5/21/2012@1:41:25 PM~~	
~~UU52A2~~	~~27~~	~~1.3537~~	~~54.35~~	~~5/21/2012@1:42:37 PM~~	
~~UU52B2~~	~~28~~	~~1.3099~~	~~52.588~~	~~5/21/2012@1:43:48 PM~~	
~~UU52C2~~	~~29~~	~~2.1347~~	~~85.7796~~	~~5/21/2012@1:44:59 PM~~	
~~UU52D2~~	~~30~~	~~1.4843~~	~~59.6048~~	~~5/21/2012@1:46:10 PM~~	
~~UU52E2~~	~~31~~	~~1.8371~~	~~73.8039~~	~~5/21/2012@1:47:22 PM~~	
UU52F2	32	0.6199	24.8216	5/21/2012@1:48:33 PM	
CCV	17	0.5265	21.0616	5/21/2012@1:49:44 PM	%R= 105.30
Known Conc:		0.5			
CCB	18	-0.0059	-0.3618	5/21/2012@1:55:40 PM	
Known Conc:		0			

UU52G2	33	0.1747	6.9063	5/21/2012@2:01:38 PM		
UU52H2	34	0.5669	22.6888	5/21/2012@2:02:48 PM		
UU52I2	35	0.1269	4.9835	5/21/2012@2:04:00 PM		
~~UU52J2~~	~~36~~	~~1.1247~~	~~45.1362~~	~~5/21/2012@2:05:12 PM~~		
~~UU52K2~~	~~37~~	~~1.1343~~	~~45.5205~~	~~5/21/2012@2:06:24 PM~~		
PREP CHECK	38	10.0876	20.1731	5/21/2012@2:07:35 PM	20	%R= 100.88
UU62A1 MS	39	10.424	20.849	5/21/2012@2:08:46 PM	20	%R= 93.87
Spiking Conc:		10			SPK=0.4ML@1000PPM/40ML=10PPM	
UU62A1 DUP	40	1.0373	20.7476	5/21/2012@2:09:58 PM	2	%RPD= 5.25
UU62C1	41	1.5427	30.9172	5/21/2012@2:11:09 PM	2	
UU62D1	42	1.0635	21.2749	5/21/2012@2:12:21 PM	2	
CCV	17	0.5268	21.074	5/21/2012@2:13:32 PM		%R= 105.36
Known Conc:		0.5				
CCB	18	-0.003	-0.2446	5/21/2012@2:19:28 PM		
Known Conc:		0				
UU62E1	43	1.9343	15.4442	5/21/2012@2:25:26 PM	5	
UU62F1	44	1.2823	25.6772	5/21/2012@2:26:38 PM	2	
UU62G1	45	1.5107	30.2719	5/21/2012@2:27:49 PM	2	
UU62I1	46	1.4366	28.7815	5/21/2012@2:29:01 PM	2	
UU52A2	47	1.3558	27.1552	5/21/2012@2:30:13 PM	2	
UU52B2	48	1.3064	26.1615	5/21/2012@2:31:25 PM	2	
UU52C2	49	2.1155	16.9026	5/21/2012@2:32:37 PM	5	
UU52D2	50	1.4922	29.9	5/21/2012@2:33:49 PM	2	
UU52E2	51	1.8262	14.5737	5/21/2012@2:35:01 PM	5	
UU52J2	52	1.1319	22.6501	5/21/2012@2:36:13 PM	2	

CCV	17	0.5277	21.1127	5/21/2012@2:37:24 PM		%R= 105.54
Known Conc:		0.5				
CCB	18	-0.0047	-0.3116	5/21/2012@2:43:21 PM		
Known Conc:		0				
UU52K2	53	1.1393	22.7995	5/21/2012@2:49:19 PM	2	
KCL	54	-0.0062	-0.3714	5/21/2012@2:50:31 PM		
CCV	17	0.5291	21.1675	5/21/2012@2:51:42 PM		%R= 105.82
Known Conc:		0.5				
CCB	18	-0.0054	-0.3411	5/21/2012@2:57:39 PM		
Known Conc:		0				

Soil Extraction Log

Parameter:

Date: 5-21-12 11:10

Analyst: QL

Extraction Procedure: N45 Soil 40 ml KCl
Shake 1 hr allow Settle, filter, Analyze

Time	Sample ID	Sample Wt (grams)	Extract Vol (mL)	Spikes and Standards: Vol added (mL)	Spikes and Standards: Conc of Std (mg/L)	Spikes and Standards: Conc in Extract (mg/L)	Notes & Comments
11:10	Blank		40 ml				
	PrepCheck			0.4	1000	10	ERA 130611
	UU52A1	3.96					
	dup	4.06					
	MS	3.84		0.4	1000	10	ACT
	B1	4.24					
	C1	4.09					
	D1	4.28					
	E1	3.87					
	F1	4.11					
	G1	3.79					
	H1	3.87					
	I1	3.80					
	UU52A2	4.04					
	B2	3.94					
	C2	3.83					
	D2	3.77					
	E2	4.00					
	F2	3.79					
	G2	4.00					
	H2	4.07					
	I2	3.77					
	J2	3.84					
	K2	4.29					

Author: Carol Hawkins

Date : 5/21/2012

Original Run Filename: OM_5-21-2012_12-47-10PM.OMN Created: 5/21/2012 12:47:10 PM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 052112NH3A.omn Last Modified: 5/21/2012 3:04:13 PM
Current Run Author's Signature: [Carol Hawkins]
Description: Default New Run

Sample	Cup No.	Channel 1 NH3 Conc. (mg N/L)	Channel 1 NH3 Area (V.s)	Detection Time	MDF
STD 1.0	S1	1.0000	40.2259	5/21/2012@12:48:09 PM	
STD 0.8	S2	0.8000	32.0222	5/21/2012@12:49:20 PM	
STD 0.5	S3	0.5000	19.8143	5/21/2012@12:50:30 PM	
STD 0.2	S4	0.2000	7.9810	5/21/2012@12:51:40 PM	
STD 0.05	S5	0.0500	1.9237	5/21/2012@12:52:50 PM	
STD 0.02	S6	0.0200	0.8151	5/21/2012@12:54:01 PM	
STD 0.01	S7	0.0100	0.4091	5/21/2012@12:55:11 PM	
BLANK	S8	0.0000	-0.3586	5/21/2012@12:56:21 PM	
ICV	9	0.5275	21.1039	5/21/2012@12:57:32 PM	
Known Conc:		0.5000			
Calibration:		Table/Fig. : 1			
ICB	10	-0.0052	-0.3331	5/21/2012@1:03:28 PM	
Known Conc:		0.0000			
LOW	11	0.0136	0.4225	5/21/2012@1:09:25 PM	
Known Conc:		0.0100			
PREP BLANK	12	-0.0044	-0.2993	5/21/2012@1:15:22 PM	
PREP CHECK	13	39.8560	80.0689	5/21/2012@1:16:32 PM	20.00 5
Spiking Conc:		10.0000			
UU62A1	14	0.9842	39.4815	5/21/2012@1:17:43 PM	
UU62A1 DUP	15	1.0276	41.2291	5/21/2012@1:18:53 PM	
UU62A1 MS	16	41.3349	83.0447	5/21/2012@1:20:04 PM	20.00 5
Spiking Conc:		10.0000			
UU62B1	19	0.2162	8.5762	5/21/2012@1:21:15 PM	
UU62C1	20	1.5325	61.5450	5/21/2012@1:22:25 PM	
UU62D1	21	1.0591	42.4959	5/21/2012@1:23:36 PM	
UU62E1	22	1.9593	78.7200	5/21/2012@1:24:48 PM	
CCV	17	0.5262	21.0497	5/21/2012@1:25:58 PM	
Known Conc:		0.5000			
CCB	18	-0.0056	-0.3486	5/21/2012@1:31:55 PM	
Known Conc:		0.0000			
UU62F1	23	1.2848	51.5793	5/21/2012@1:37:52 PM	
UU62G1	24	1.5016	60.3020	5/21/2012@1:39:03 PM	
UU62H1	25	0.9540	38.2667	5/21/2012@1:40:13 PM	
UU62I1	26	1.4353	57.6342	5/21/2012@1:41:25 PM	
UU52A2	27	1.3537	54.3500	5/21/2012@1:42:37 PM	
UU52B2	28	1.3099	52.5880	5/21/2012@1:43:48 PM	
UU52C2	29	2.1347	85.7796	5/21/2012@1:44:59 PM	
UU52D2	30	1.4843	59.6048	5/21/2012@1:46:10 PM	
UU52E2	31	1.8371	73.8039	5/21/2012@1:47:22 PM	
UU52F2	32	0.6199	24.8216	5/21/2012@1:48:33 PM	
CCV	17	0.5265	21.0616	5/21/2012@1:49:44 PM	
Known Conc:		0.5000			
CCB	18	-0.0059	-0.3618	5/21/2012@1:55:40 PM	
Known Conc:		0.0000			
UU52G2	33	0.1747	6.9063	5/21/2012@2:01:38 PM	
UU52H2	34	0.5669	22.6888	5/21/2012@2:02:48 PM	
UU52I2	35	0.1269	4.9835	5/21/2012@2:04:00 PM	
UU52J2	36	1.1247	45.1362	5/21/2012@2:05:12 PM	
UU52K2	37	1.1343	45.5205	5/21/2012@2:06:24 PM	
PREP CHECK	38	10.0876	20.1731	5/21/2012@2:07:35 PM	20.00
UU62A1 MS	39	10.4240.5212	20.8490	5/21/2012@2:08:46 PM	1.00 20
Spiking Conc:		10.0000			
UU62A1 DUP	40	1.0373	20.7476	5/21/2012@2:09:58 PM	2.00
UU62C1	41	1.5427	30.9172	5/21/2012@2:11:09 PM	2.00
UU62D1	42	1.0635	21.2749	5/21/2012@2:12:21 PM	2.00
CCV	17	0.5268	21.0740	5/21/2012@2:13:32 PM	
Known Conc:		0.5000			
CCB	18	-0.0030	-0.2446	5/21/2012@2:19:28 PM	

5-21-12

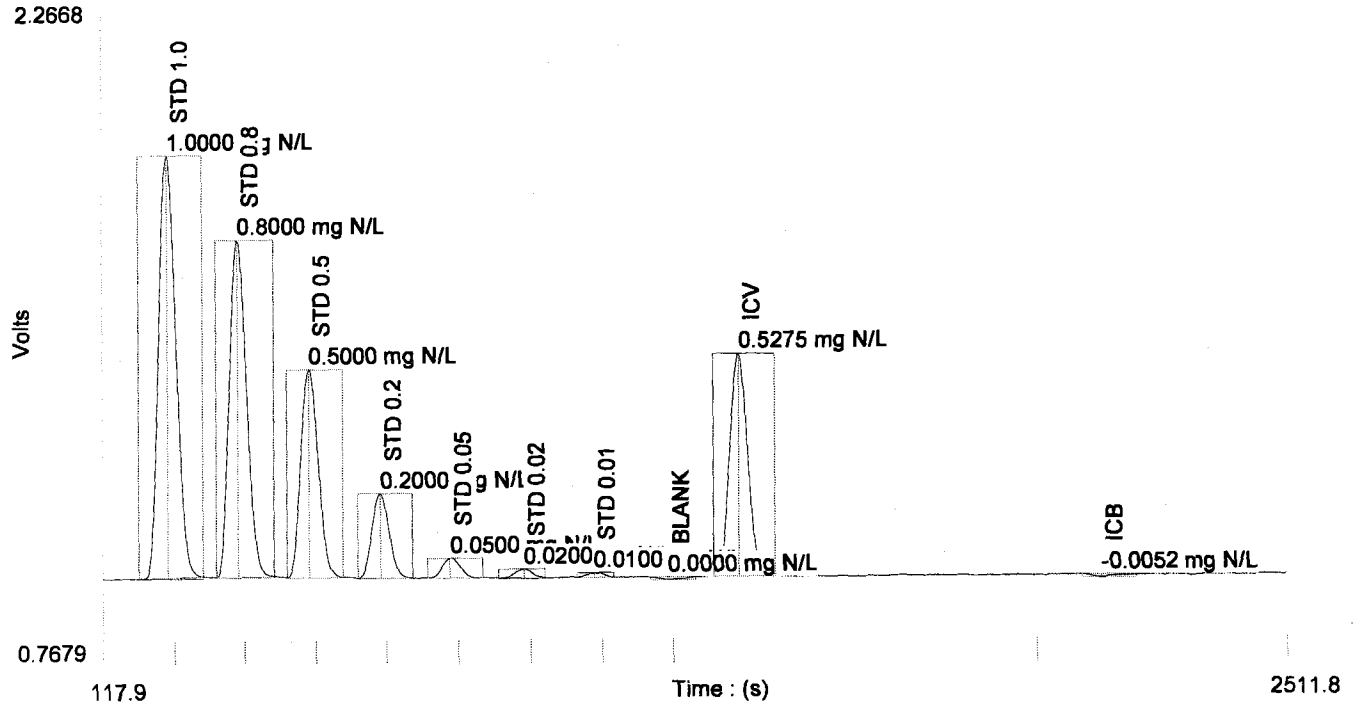
UU52 : 02234

Author: Carol Hawkins

Date : 5/21/2012

	Known Conc:	0.0000			
UU62E1	43	1.9343	15.4442	5/21/2012@2:25:26 PM	5.00
UU62F1	44	1.2823	25.6772	5/21/2012@2:26:38 PM	2.00
UU62G1	45	1.5107	30.2719	5/21/2012@2:27:49 PM	2.00
UU62I1	46	1.4366	28.7815	5/21/2012@2:29:01 PM	2.00
UU52A2	47	1.3558	27.1552	5/21/2012@2:30:13 PM	2.00
UU52B2	48	1.3064	26.1615	5/21/2012@2:31:25 PM	2.00
UU52C2	49	2.1155	16.9026	5/21/2012@2:32:37 PM	5.00
UU52D2	50	1.4922	29.9000	5/21/2012@2:33:49 PM	2.00
UU52E2	51	1.8262	14.5737	5/21/2012@2:35:01 PM	5.00
UU52J2	52	1.1319	22.6501	5/21/2012@2:36:13 PM	2.00
CCV	17	0.5277	21.1127	5/21/2012@2:37:24 PM	
	Known Conc:	0.5000			
CCB	18	-0.0047	-0.3116	5/21/2012@2:43:21 PM	
	Known Conc:	0.0000			
UU52K2	53	1.1393	22.7995	5/21/2012@2:49:19 PM	2.00
KCL	54	-0.0062	-0.3714	5/21/2012@2:50:31 PM	
CCV	17	0.5291	21.1675	5/21/2012@2:51:42 PM	
	Known Conc:	0.5000			
CCB	18	-0.0054	-0.3411	5/21/2012@2:57:39 PM	
	Known Conc:	0.0000			

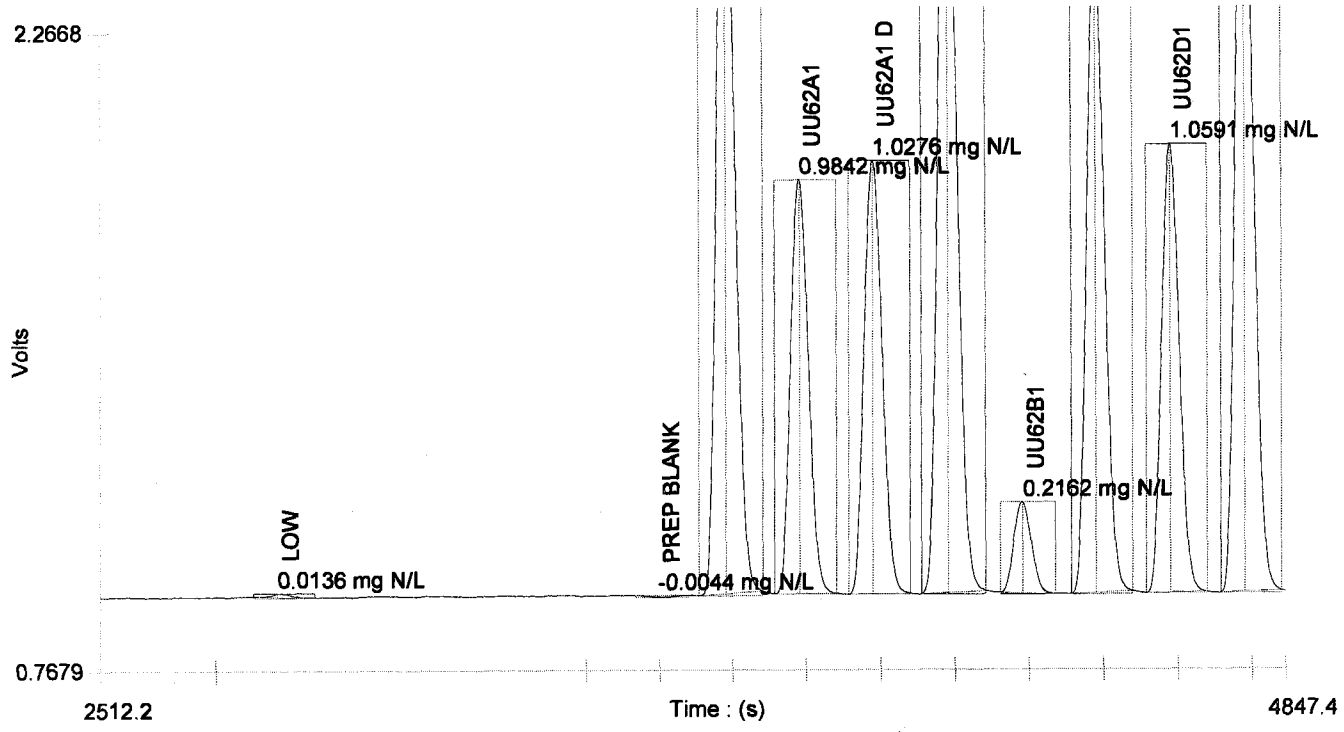
Channel 1 - Set: 1 / 7



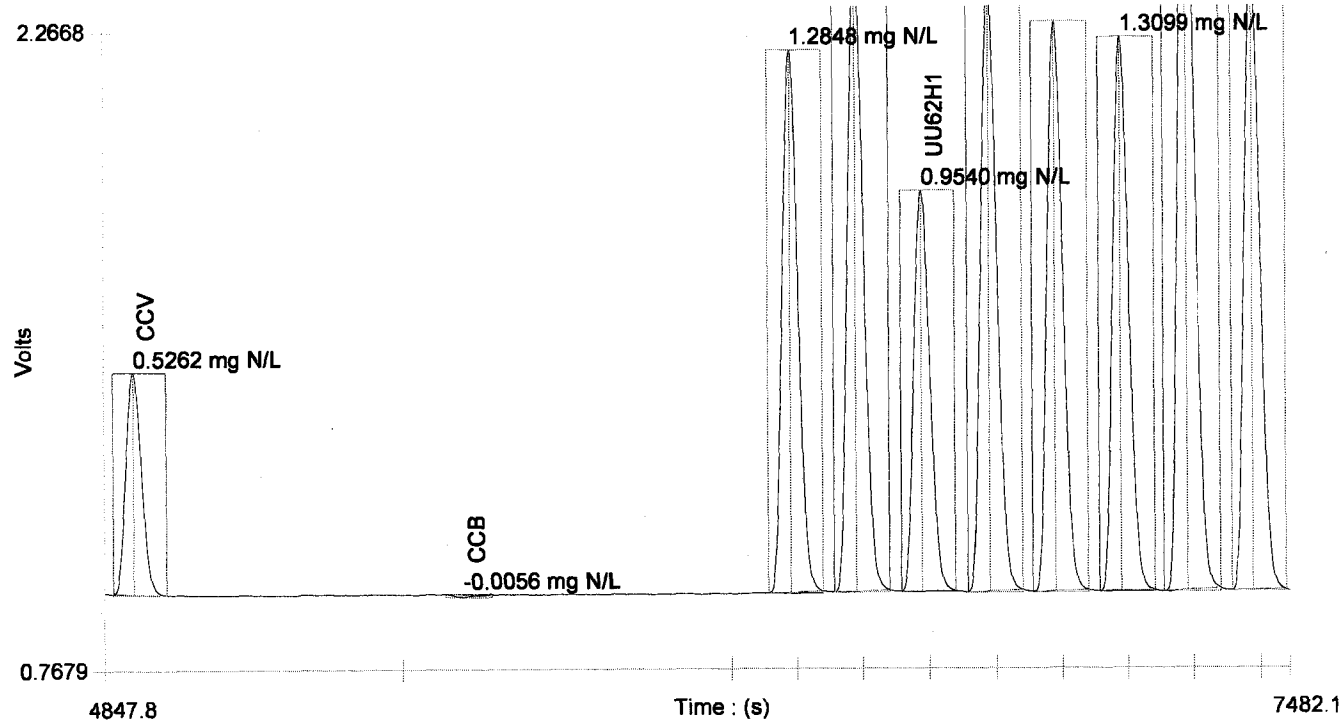
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 2 / 7



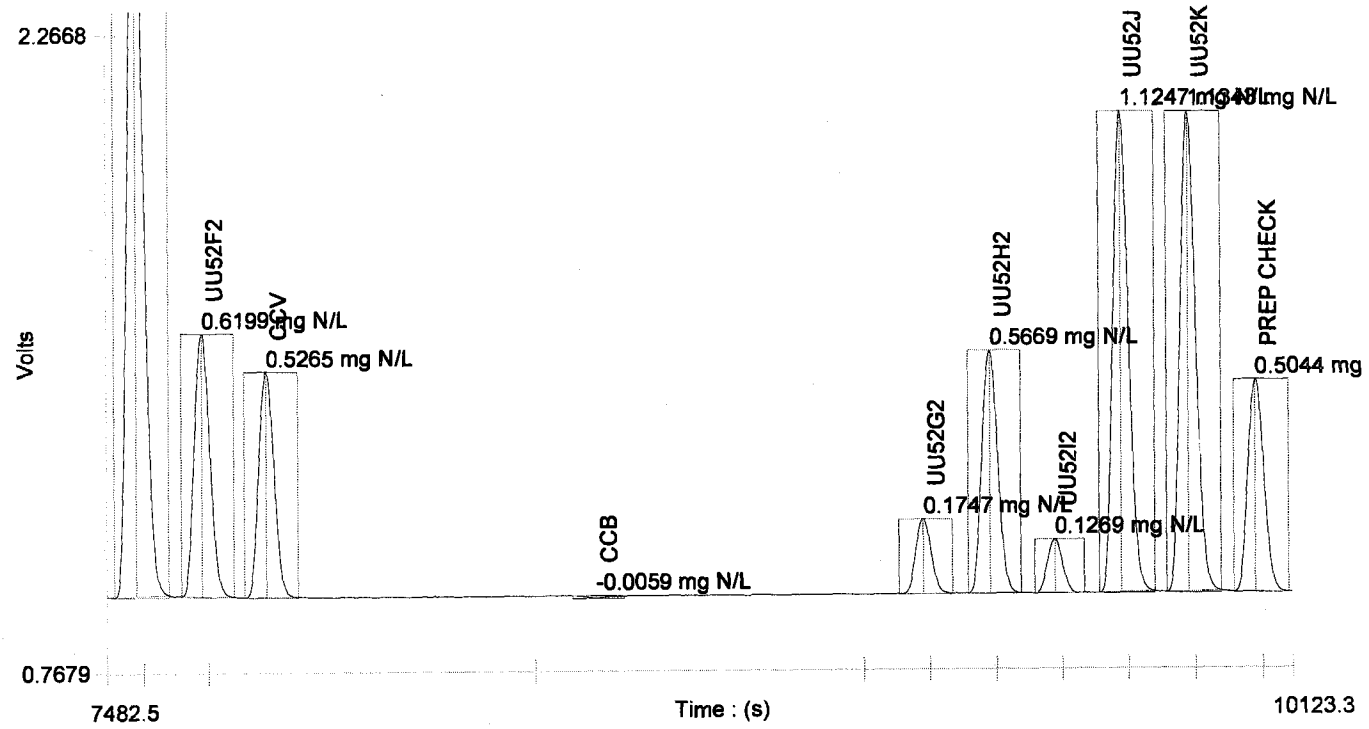
Channel 1 - Set: 3 / 7



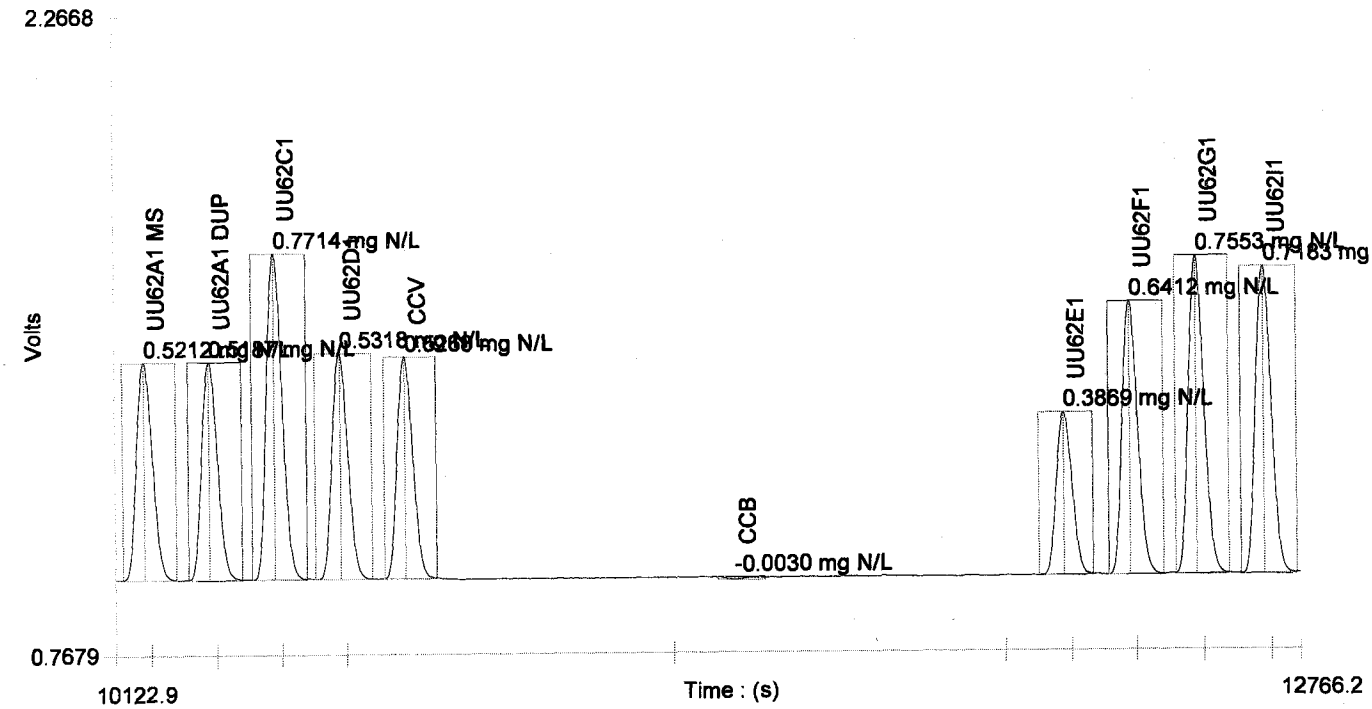
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 4 / 7



Channel 1 - Set: 5 / 7



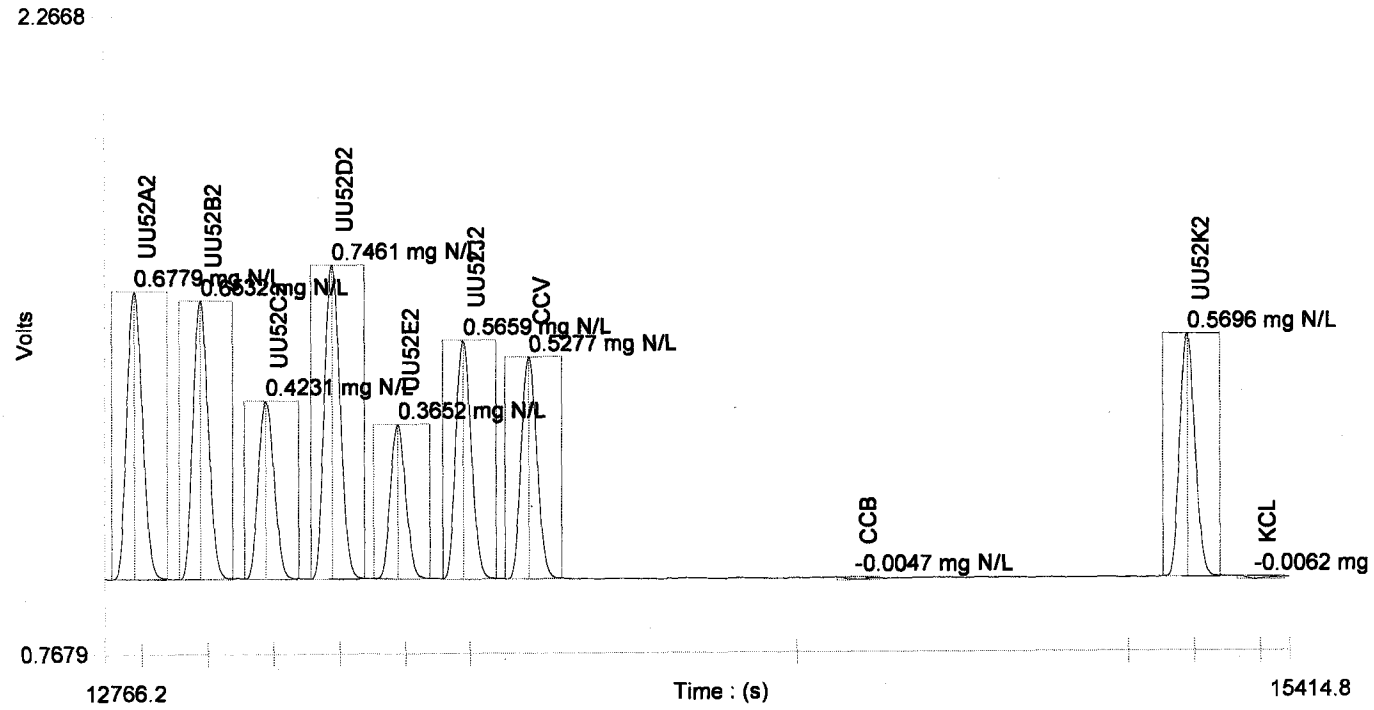
05212012NH3A SOILS LACHAT 1

UU52 : 622237

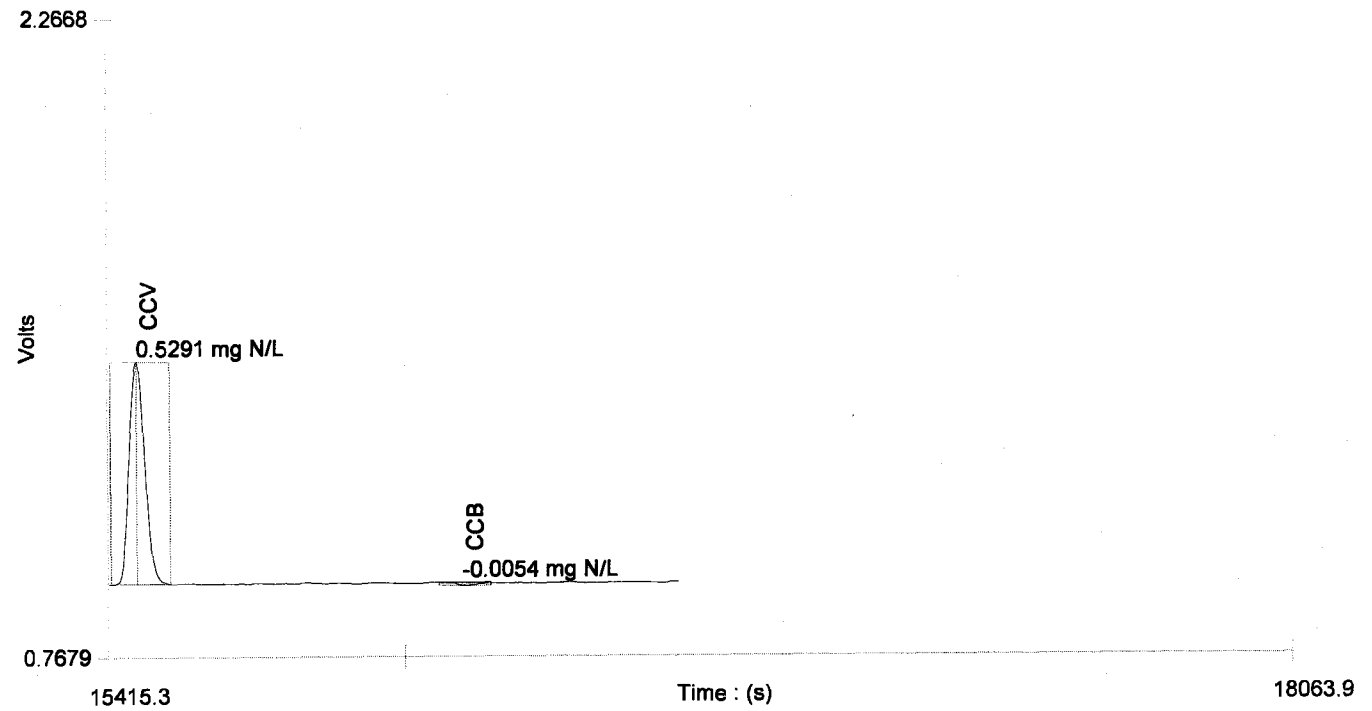
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 6 / 7



Channel 1 - Set: 7 / 7

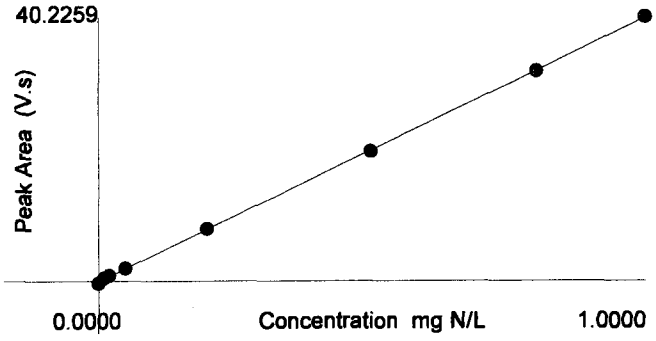


05212012NH3A SOILS LACHAT 1

Table : 1 (NH3)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	1.0000	1	40.2259	0.9906	0.0	-0.3	1.0027	5/21/2012	12:48:09 PM
2	0.8000	1	32.0222	0.7910	0.0	0.1	0.7988	5/21/2012	12:49:20 PM
3	0.5000	1	19.8143	0.4876	0.0	0.9	0.4955	5/21/2012	12:50:30 PM
4	0.2000	1	7.9810	0.1977	0.0	-0.7	0.2014	5/21/2012	12:51:40 PM
5	0.0500	1	1.9237	0.0467	0.0	-1.8	0.0509	5/21/2012	12:52:50 PM
6	0.0200	1	0.8151	0.0212	0.0	-19.5	0.0233	5/21/2012	12:54:01 PM
7	0.0100	1	0.4091	0.0114	0.0	-46.3	0.0132	5/21/2012	12:55:11 PM
8	0.0000	1	-0.3586	-0.0067			-0.0058	5/21/2012	12:56:21 PM

Figure : 1 (NH3)



Area = 40.2380 * Conc - 0.1227
Conc = 0.0249 * Area + 0.0031
Correlation Coefficient (r) = 0.99996

Weighting : None

5/28/12

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2)	Date Time	Analyst
Soils, sediments and solid phase samples — *Distillation*	5/18/12 8:40	CLH/CR
Finish	5/18/12 17:31	CLH/CR

If distilled, specify Procedure: **PSEP**

1. *Standardization of sodium thiosulfate titrant* — *Buret used for titrations:* CLASS A GLASS S2

Thiosulfate ID: **9237C**
Bi-iodate ID: **8560C**
Stock bi-iodate = **0.8130** *grams to* 1000 *mL*
Normality = **0.025**

Titration of bi-iodate with thiosulfate

mL bi-iodate =	3.00	3.00	3.00	
mL thiosulfate =	3.15	3.10	3.10	*nthio*
*Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate =*	0.024	0.024	0.024	**0.024**

2. *Normality of Iodine*

Iodine ID: **9182C**

Titration of Iodine with thiosulfate

mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	3.05	3.05	3.05	*ni*
*Normality iodine = (mL thiosulfate*nthio) / mL iodine=*	0.024	0.024	0.024	**0.024**

3. *Standardization of Sodium Sulfide Stock*

Stock ID = **00122-6**
Approx conc in 100ml
g Na2S = 0.6026 *mg /mL =* 0.804

Titration of standard with thiosulfate

mL Standard =	1.00	1.00	1.00	
mL iodine =	3.00	3.00	3.00	
mL thiosulfate =	1.40	1.40	1.40	*stkconc (mg/mL)*
*Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =*	0.636	0.636	0.636	**0.636**

Intermediate Standard — *mL required for for 0.025 mg/mL* 9.8

Add 9.8 *mL stk to* 250 *mL 0.01M NaOH =* **0.025** ***mg/mL***

4. *Calibration Standard Curve* — ***spectrophotometer used:***

Inter Std Volume (mL)	Final Volume (mL)	Calc Conc (mg S/L)	Absorbance @650 nm 1	Absorbance @650 nm 2	AVG ABS	mg/L
0.00	50	0.000	0.000		0.000	*0.013*
0.10	50	0.050	0.033		0.033	*0.054*
0.25	50	0.125	0.087		0.087	*0.122*
0.50	50	0.249	0.175		0.175	*0.233*
1.00	50	0.498	0.381		0.381	*0.493*
2.00	50	0.997	0.787		0.787	*1.004*

RegressionData

intercept = -0.010
slope = 0.794
r = 0.9996

Comment: Calibration OK!

maxabs = 0.787

Calib Verif Std =	1.0	*ml INT to*	50	*ml ZnOAc=*	0.498	*mg/l*
Distillation Std =	1.0	*ml stk to*	100	=	6.36	*mg/l*

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data			SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Abs @ 650 nm Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
ICB		na	na	1.00	0.000		0.013	< 0.05	*OK!*
~~ICV~~		~~na~~	~~na~~	~~1.00~~	~~0.338~~		~~0.438~~	~~0.438~~	~~*Err @88%*~~
ICV		na	na	1.00	0.347		0.450	0.450	*90.23%*
Distilled samples									
Dist Blk	100.0	100%	100	1.00	0.004		0.018	< 0.05	*OK!*
Dist Chk	100.0	100%	100	10.00	0.486		0.625	6.249	*98.28%*
Dist Chk2	100.0	100%	100	10.00	0.439		0.566	5.657	*88.97%*
Soil Samples	**(grams)**	**% Solids**	**(mL)**		**Sample**	**Bkg**	**(mg/L)**	**mg/kg**	
UU62A2	5.1130	10.7%	100	10.00	0.748		0.955	1745.335	
UU62A2 dup	5.1500	10.7%	100	10.00	0.655		0.838	1520.232	*RPD=13.79%*
~~UU62A2 ms~~	5.1740	10.7%	100	20.00	0.880		1.121	4050.125	*offscale*
		Spike at	*2.00*	*ml stock to*	*0.554*	*g dry wt =*		*2296.959*	*mg/kg*
UU62B2	5.122	11.0%	100	1.00	0.024		0.043	< 8.847	
UU62C2	5.054	10.5%	100	20.00	0.448		0.577	2174.637	
UU62D2	5.084	9.6%	100	10.00	0.580		0.743	1522.876	
~~UU62E2~~	~~5.253~~	~~10.8%~~	~~100~~	~~20.00~~	~~1.529~~		~~1.939~~	~~6833.930~~	~~*offscale*~~
Cal Blk		na	na	1.00	-0.001		0.011	< 0.05	*OK!*
CCV		na	na	1.00	0.370		0.479	0.479	*96.04%*

UU52 : 02246

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
~~UU62F2~~	~~5.106~~	~~11.0%~~	~~100~~	~~10.00~~	~~0.947~~		~~1.205~~	~~2146.312~~	~~*offscale*~~
UU62G2	5.085	11.0%	100	10.00	0.301		0.392	700.565	
UU62H2	5.139	7.9%	100	10.00	0.728		0.930	2289.928	
~~UU62I2~~	~~4.754~~	~~11.1%~~	~~100~~	~~10.00~~	~~1.101~~		~~1.399~~	~~2652.030~~	~~*offscale*~~
~~UU52A1~~	~~4.992~~	~~9.7%~~	~~100~~	~~10.00~~	~~1.107~~		~~1.407~~	~~2905.716~~	~~*offscale*~~
~~UU52B1~~	~~5.000~~	~~9.7%~~	~~100~~	~~10.00~~	~~1.155~~		~~1.467~~	~~3025.718~~	~~*offscale*~~
~~UU52C1~~	~~4.831~~	~~10.5%~~	~~100~~	~~10.00~~	~~1.274~~		~~1.617~~	~~3188.443~~	~~*offscale*~~
UU52D1	4.564	10.9%	100	20.00	0.708		0.904	3636.264	
UU52E1	4.824	10.0%	100	20.00	0.768		0.980	4063.213	
UU52F1	5.100	8.3%	100	10.00	0.609		0.780	1842.161	
Cal Blk		na	na	1.00	-0.001		0.011	< 0.05	*OK!*
CCV		na	na	1.00	0.358		0.464	0.464	*93.01%*
UU52G1	5.154	6.9%	100	1.00	0.048		0.073	20.585	
UU52H1	5.003	19.0%	100	10.00	0.531		0.682	716.986	
UU52I1	5.447	8.1%	100	10.00	0.610		0.781	1770.249	
UU52J1	5.254	10.6%	100	10.00	0.749		0.956	1716.781	
UU52K1	5.376	10.5%	100	20.00	0.445		0.573	2030.997	
UU62A2 ms	5.1740	10.7%	100	50.00	0.362		0.469	4232.975	*108.30%*
		Spike at	*2.00*	*ml stock to*	*0.554*	*g dry wt =*		*2296.959*	*mg/kg*
UU62E2	5.253	10.8%	100	50.00	0.391		0.505	4452.621	
UU62F2	5.106	11.0%	100	20.00	0.465		0.598	2130.893	
UU62I2	4.754	11.1%	100	20.00	0.610		0.781	2960.224	
UU52A1	4.992	9.7%	100	20.00	0.558		0.716	2955.459	
Cal Blk		na	na	1.00	-0.004		0.008	< 0.05	*OK!*
CCV		na	na	1.00	0.347		0.450	0.450	*90.23%*
UU52B1	5.000	9.7%	100	20.00	0.587		0.752	3101.351	
UU52C1	4.831	10.5%	100	20.00	0.463		0.596	2349.507	
Cal Blk		na	na	1.00	-0.003		0.009	< 0.05	*OK!*
CCV		na	na	1.00	0.348		0.451	0.451	*90.49%*

UU52 : 02241

SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2)
Soils, sediments and solid phase samples

	Date Time	Analyst
Distillation	5-18-12 8:40	JCR
Finish	5-18-12 17:31	JCR

If distilled, specify Procedure: PSEP

1. Standardization of sodium thiosulfate titrant

Buret used for titrations: Class A Glass 52

Thiosulfate ID: 1237 C
Bi-iodate ID: 5530C
Stock bi-iodate = 0.8130 grams to 1000 mL
Normality =

Titration of bi-iodate with thiosulfate			
mL bi-iodate =	3.0	3.0	3.0
mL thiosulfate =			nthio
Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate =			

2. Normality of Iodine

Iodine ID: 9182C

Titration of Iodine with thiosulfate			
mL iodine =	3.0	3.0	3.0
mL thiosulfate =	3.05	3.05	3.05
Normality iodine = (mL thiosulfate*nthio) / mL iodine=			ni

3. Standardization of Sodium Sulfide Stock

Stock ID = 001 22-6
Approx conc in 100ml
g Na2S = 0.6026 mg /mL =

Titration of standard with thiosulfate			
mL Standard =	1.0	1.0	1.0
mL iodine =	3.0	3.0	3.0
mL thiosulfate =	1.4	1.4	1.4
Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =			stkconc (mg/mL)

Intermediate Standard

Add 9.8 mL stk to 250 mL 0.01M NaOH = mg/mL

4. Calibration Standard Curve

spectrophotometer used:

Inter Std Volume (mL)	Final Volume (mL)	Calc Conc (mg S/L)	Absorbance @650 nm 1	Absorbance @650 nm 2	AVG ABS	mg/L
0.00	50		0.000			
0.10	50		0.033			
0.25	50		0.087			
0.50	50		0.175			
1.00	50		0.381			
1.50	50		0.789			

RegressionData

intercept =
slope =
r =
Comment:
maxabs =

Calib Verif Std =	0.5	ml int to	50	ml ZnOAc=		mg/l
Distillation Std =	1	ml stk to	100	=		mg/l

SAMPLE DATA

enter dilution as mL final/mL sample

SAMPLE ID	Distillation Data: SAMPLE SIZE (grams)	% Solids	TRAP VOLUME (mL)	Spectrophotometric Data: Dilution Factor	Abs @ 650 nm: Sample	Bkg	regressed Conc (mg S/L)	SAMPLE DATA: CORR CONC (ppm)	
Soil Samples									
ICB					0.000				
ICV/ICV					0.338/0.347				
D. Blank	—	—	100		~~0.347~~ 0.004				
LCS	—	—		10	~~0.354~~ 0.486				
LCSD	—	—		10	0.439				
446A2	5.1130	10.7		10	0.748				
A2	5.150			10	0.655				
B2	5.174			20	0.850				
B2	5.122	11.0		1	0.029				
C2	5.054	10.5		20	0.448				
D2	5.084	9.6		10	0.580				
E2	5.253	10.8		20	1.529				
CCB					-0.001				
CCV					0.370				
446F2	5.106	11.0	100	10	0.997				
C2	5.085	11.0		10	0.301				
H2	5.139	7.9		10	0.729				
I2	4.755	11.1		10	1.101				
446J1	4.992	9.7		10	1.107				
K1	5.000	9.9		10	1.155				
L1	4.831	10.5		10	1.274				
M1	4.564	10.9		20	0.708				
N1	4.824	10.0		20	0.768				
O1	5.100	9.3		10	0.609				
CCB					-0.001				
CCV					0.358				
446L1	5.154	~~11.0~~ 19.0	100	1	0.044				
H1	5.003	~~7.9~~ 19.0		10	0.531				

UU52:02242

SAMPLE DATA

enter dilution as mL final/mL sample

	Distillation Data			Spectrophotometric Data				SAMPLE DATA	
SAMPLE ID	SAMPLE SIZE	% Solids	TRAP VOLUME (ml)	Dilution Factor	Abs @ 650 nm Sample	Bkg	regressed Conc (mg S/L)	CORR CONC (ppm)	
4452I1	5.447	11.1 0.1	100	10	0.610				
J1	5.254	10.6		10	0.749				
K1	5.376	10.5		20	0.445				
4462-MS	5.1740	10.7		~~20~~ 50	0.362				
E2	5.253	10.8		50	0.351				
F2	5.106	11.0		~~50~~ 20	0.465				
J2	4.754	11.1		20	0.1010				
4465L1	4.992	97	↓	20	0.558				
CCB				~~20~~	-0.004				
CCV					0.343				
4452B1	5.000	97	100	20	0.587				
C1	4.831	10.5	↓	20	0.463				
CCB					-0.003				
CCV					0.348				

UU52 : 02243

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Sulfide Digestion Log

Sample ID	% Solids	% Water	Pretreatment Data: Date	Sample Weight	Extract Method*	Acid	Required pH	mL DI Water	Observed mL acid	Sample Extraction Data: Date	Sample Weight	mL Acid Required	mL DI Water Required	Trap Volume (mL)
PB			5-8-12	ND	PSEP	HCl/NaOH	< 3	NA	NA	5-8-12	100mL	NA	NA	100mL
LCS											↓		↓	
UU62 I2	10.7										5.113		50mL	
A2 DUP	↓										5.150			
A2 MS	↓										5.174			
B2	17.0										5.122			
C2	10.5										5.054			
D2	9.6										5.084			
E2	10.8										5.253			
F2	11.0										5.106			
G2	11.0										5.085			
H2	7.9										5.139			
I2	11.1										4.754			
UU52 A2	9.7										4.992			
B2	9.7										5.000			
C2	10.5										4.831			
D2	10.9										4.564			
E2	10.0										4.824			
F2	11.3										5.100			
G2	11.9										5.154			

1 mL AVS 0.12)-6 2.12

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: CW Date: 5-16-12 Time: 8:40

h1276 : 2501

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Sulfide Digestion Log

			Pretreatment Data							Sample Extraction Data				
Sample ID	% Solids	% Water	Date	Sample Weight	Extract Method*	Acid	Required pH	mL DI Water	Observed mL acid	Date	Sample Weight	mL Acid Required	mL DI Water Required	Trap Volume (mL)
~~CCV~~ H2 MI	19.0		5-18-12	NA	PSEP	HCl w/KI	2.3	NA	NA	5-15-12	5.003	NA	50 mL	100 mL
D2 I	8.1		↓	↓	↓	↓	↓	↓	↓	↓	5.447	↓	↓	↓
~~MS~~ 2J	19.6										5.259			
K2 E1	19.5										5.376		↓	
LCS 2X			↓	↓	↓	↓	↓	↓	↓	↓	100 mL	↓	NA	↓

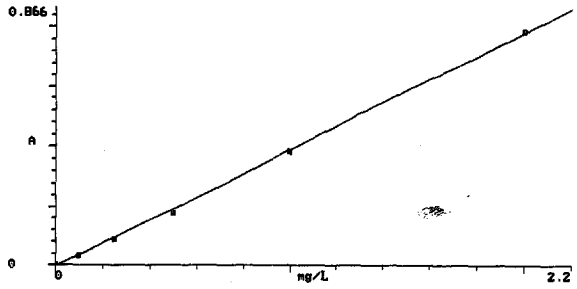
1 mL Std

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: _____ Date: _____ Time: _____

TEST SETUP
GENESYS 10 v2.021 2GZG048006

Standard Curve	17:31 18May12
Test Name	SULFIDE[Saved]
Date Standards Measured	18May12
Wavelength	650nm
Ref. Wavelength Correction	Off
Curve Fit	Linear
Number of Standards	6
Units	mg/L
ID# (0=OFF)	Off
Low/High Limits	0.050/1.000
Statistics	Off
Auto Print	On



Curve Fit	Linear
Slope	0.396
Intercept	-0.0101
Std Dev	0.009
Corr Coeff	1.000

Conc. mg/L	Abs 650nm
0.000	0.000
0.100	0.033
0.250	0.087
0.500	0.175
1.000	0.381
2.000	0.787

5-18-12

TEST SETUP
GENESYS 10 v2.021 2GZG048006

Advanced A-%T-C	17:32 18May12
Test Name	SULFIDE[Saved]
Measurement Mode	Absorbance
Wavelength	650nm
Ref. Wavelength Correction	Off
Delay Time (min:sec)	0:00
ID# (0=OFF)	1
Low/High Limits	0.000/1.000
Statistics	Off
Auto Print	On

ID#	Abs 650nm
1	0.000

2	0.338
3	0.347
4	0.004
5	0.486
6	0.439
7	0.748
8	0.655
9	0.880
10	0.024
11	0.448
12	0.580
13	1.529
14	-0.001
15	0.370

16	0.947
17	0.301
18	0.728
19	1.101
20	1.107
21	1.155
22	1.274
23	0.708
24	0.768
25	0.609
26	-0.001
27	0.358
28	0.048
29	0.531

30 0.610

31 0.749

32 0.445

33 0.362

34 0.391

35 0.465

36 0.610

37 0.558

38 -0.004

39 0.347

40 0.587

41 0.463

42 -0.003

43 0.348

TOC, Solids Data Analysis

DATE: 5/24/2012

ANALYST: KE 11:48

Instrument: Apollo 2

Mode: NPOC *Inlet:* Boat

Spike Std = **2,500** *ppm C*

Calibration Data

Cal Curve ID: **4/30/12 BOAT CAL** *Conc:* 5,000 *ppm*

Calibration Curve Standard: **00123 - 4** *Curve Date:* **04/30/12**

CalFact: ***2.796E+05*** *intercept:* **-226534** *r2 :* **0.99943**

Curve Range (ppm) 200 *to* 2,500

Curve Range (µgC): **8** *to* **100** *40 µL injections of designated standard*

Verification Standard

Source: ***ERA# 0513 - 10 - 06*** *Conc:* **5,000** *ppm*

dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material

Source: ***NIST 8704*** *Conc:* **33,510** *ppm*

Source: ***NIST 1941B*** *Conc:* **29,900** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
18.8	26.7	31.6				25.7	25.1%	*OK*

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
ICV				1.00		40.0	971	971	*97.10%*
Blank				1.00		40.0	24.77	25	*Blank OK*
~~NIST 1941B~~			-	~~1.00~~		~~3.5~~	~~29334~~	~~29,334~~	~~*Offscale, dilute*~~
NIST 1941B				1.00		2.8	27419	27,419	*91.70%*
~~UU62 A1~~			-	~~1.00~~		~~0.8~~	~~129030~~	~~129,030~~	~~*Offscale, dilute*~~
Silica Blanks 1				1.00		36.0	18.81	19	*Low Scale*
Silica Blanks 2				1.00		36.5	26.65	27	*Low Scale*
Silica Blanks 3				1.00		34.3	31.6	32	*Low Scale*
UU62 A1	10.0	100.0	90.00%	10.00		1.8	14036	140,129	*Range OK!*
UU62 A1 dup	10.4	104.0	90.00%	10.00		1.7	13357	133,339	*RPD=5%*
UU62 A1 trp	10.1	100.2	89.92%	9.92		1.9	14320	141,837	*RSD=3.2%*
UU62 A1 ms	10.0	100.0	90.00%	10.00	10	1.5	34016	339,929	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.2*	*mg samp=*	*166,667*	*ppm*		*120%*	
CCV				1.00		40.0	1001	1,001	*100.10%*
Blank				1.00		40.0	57.85	58	*Blank OK*

UU52 : 02250

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
UU62 B1	11.1	109.7	89.88%	9.88		0.9	32808	324,009	*Range OK!*
UU62 C1	11.8	117.5	89.96%	9.96		1.3	20861	207,496	*Range OK!*
UU62 D1	10.7	104.2	89.73%	9.74		1.2	17437	169,583	*Range OK!*
UU62 E1	12.2	117.3	89.60%	9.61		1.8	16031	153,913	*Range OK!*
UU62 F1	11.3	112.6	89.96%	9.96		1.4	13041	129,718	*Range OK!*
UU62 G1	11.2	109.1	89.73%	9.74		1.6	16535	160,844	*Range OK!*
UU62 H1	11.6	113.7	89.80%	9.80		1.8	20591	201,601	*Range OK!*
UU62 I 1	11.2	111.3	89.94%	9.94		1.5	16041	159,178	*Range OK!*
UU52 A1	14.6	141.1	89.65%	9.66		1.9	18666	180,173	*Range OK!*
UU52 B1	11.9	110.8	89.26%	9.31		1.5	18166	168,929	*Range OK!*
CCV				1.00		40.0	956	956	*95.60%*
Blank				1.00		40.0	24.33	24	*Blank OK*
UU52 C1	12.3	119.8	89.73%	9.74		1.8	15684	152,535	*Range OK!*
UU52 D1	10.4	103.6	89.96%	9.96		1.3	20977	208,733	*Range OK!*
UU52 E1	23.7	216.8	89.07%	9.15		1.8	18284	167,047	*Range OK!*
UU52 F1	12.7	121.4	89.54%	9.56		1.8	32095	306,578	*Range OK!*
UU52 G1	10.3	107.5	90.42%	10.44		1.7	30151	314,440	*Range OK!*
UU52 H1	16.4	161.6	89.85%	9.85		1.1	15836	155,815	*Range OK!*
UU52 I 1	10.2	102.0	90.00%	10.00		1.1	19014	189,909	*Range OK!*
UU52 J 1	10.9	103.6	89.48%	9.50		2.2	11417	108,295	*Range OK!*
UU52 K1	13.7	112.8	87.85%	8.23		1.4	13394	110,095	*Range OK!*
US34 L (PE)				1.00		8.8	8809	8,809	*Range OK!*
NIST 1941B				1.00		3.1	31263	31,263	*104.56%*
CCV				1.00		40.0	973	973	*97.30%*
Blank				1.00		40.0	25.70	26	*Blank OK*

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(1) 5-24-12 (4)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler
Standards:	Source	Conc (ppm)	
Calibration:	ARI - 00123-4	5000	11:48
Verification:	ERA - 1S13-60-06	5000 to 1000 for CVS	
SRM:	NBS ~~1941b~~ or 8704	29900	

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICB			40			
NBS 1941B			3.5			offscale Rslts
NBS 1941B			2.8			
UU62 A'			0.8			offscale Rslts
SB 1			36.0			
2			36.5			
3			34.3			
UU62 A'	10.0	100.0	1.8			
DPA'	10.4	104.0	1.7			
MPA'	10.1	100.2	1.9			
MSA'	10.0	100.0	1.5	2500	10	
CCV			40			
CCB			40			
UU62 B'	11.1	109.7	0.9			
C'	11.8	117.8	1.3			
D'	10.7	104.2	1.2			
E'	12.2	117.3	1.8			
F'	11.3	112.6	1.4			
G'	11.2	109.1	1.6			
H'	11.6	113.7	1.8			
I'	11.2	111.3	1.5			
UU52 A'	14.6	111.1	1.9			
B'	11.9	110.8	1.5			
CCV			40			
CCB			40			
UU52 C'	12.3	119.8	1.8			
D'	10.4	103.6	1.3			
E'	23.7	216.8	1.8			
F'	12.7	121.4	1.8			
G'	10.3	107.5	1.7			
H'	16.4	161.6	1.1			

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(1) 5-24-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Page 2 of 2

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler
Standards:	Source	Conc (ppm)	
Calibration:	ARI – 00123-4	5000	11:48
Verification:	ERA – 1513-10-06	5000 to 1000 for CVS	
SRM:	NBS – 1941b or 8704	299 OU	

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
UU52 I	10.2	102.0	1.1			
J	10.9	103.6	2.2			
K	13.7	112.8	1.4			
US34(PC) L			8.8			
NB19 (1/1) B			3.1			
CCV		~~400~~ (1)	40			
CCB		~~400~~ (1)	40			

5-24-12 (W)

UU52 : 02253

5-24-12 (W)

Detailed Analysis Report Print Date/Time: 2012/05/24 19:27:55

Sample ID: ICV BOAT Mode: TOC
Method: Boat Sampler Filename: 05241136
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 11:41
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	971.3245	38.8530	10637403	37.141	38.137	184

Last Message: ~~Out of Calibration~~ OK 5-24-12

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 05241144
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 11:47
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24.7707	0.9908	50518	36.955	36.934	120

Last Message: Low Sample Detected

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 05241227
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 12:32
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29334.1992	102.6697	28481616	36.810	37.807	277

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 05241251
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 12:57
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	27418.7734	76.7726	21240346	36.996	37.994	270

Sample ID: UU62 A1 Mode: TOC
Method: Boat Sampler Filename: 05241308
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 13:23
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	129029.6562	103.2237	28863064	36.915	37.913	241

Last Message: Over-range

Sample ID: Silica Blank 1 Mode: TOC
Method: Boat Sampler Filename: 05241334
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 13:38
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18.8074	0.6771	189319	36.892	37.892	62

Sample ID: Silica Blank 2 Mode: TOC
Method: Boat Sampler Filename: 05241345
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 13:48

UU52 : 02254

Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26.6516	0.9728	272007	37.228	38.219	68

Sample ID: Silica Blank 3 Mode: TOC
Method: Boat Sampler Filename: 05241359
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 14:01
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31.5980	1.0838	303052	37.059	38.056	66

Sample ID: UU62 A1 Mode: TOC
Method: Boat Sampler Filename: 05241449
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 14:53
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	14035.7002	25.2643	7064306	37.097	38.096	174

Sample ID: UU62 A1 DP Mode: TOC
Method: Boat Sampler Filename: 05241457
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:02
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13356.9072	22.7067	6349181	37.286	38.280	159

Sample ID: UU62 A1 D Mode: TOC
Method: Boat Sampler Filename: 05241520
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:23
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	14319.8271	27.2077	7607715	37.403	38.397	166

Sample ID: UU62 A1 MS Mode: TOC
Method: Boat Sampler Filename: 05241527
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:31
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34015.6445	51.0235	14267006	37.298	38.295	211

Sample ID: CVS BOAT 1000 Mode: TOC
Method: Boat Sampler Filename: 05241537
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:41
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1001.3187	40.0527	10972878	37.392	38.390	178

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 05241548
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:51
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	57.8453	2.3138	420446	37.024	38.019	67

Sample ID: UU62 B1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241558
Timestamp: 2012/05/24 16:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32808.4688	29.5276	8256412	36.857	37.853	169

Sample ID: UU62 C1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241622
Timestamp: 2012/05/24 16:26
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20860.7637	27.1190	7582919	36.683	37.674	175

Sample ID: UU62 D1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241630
Timestamp: 2012/05/24 16:34
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17437.0371	20.9244	5850821	36.974	37.972	165

Sample ID: UU62 E1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241640
Timestamp: 2012/05/24 16:49
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16030.5889	28.8551	8068353	37.345	38.344	187

Sample ID: UU62 F1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241652
Timestamp: 2012/05/24 16:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13040.6104	18.2569	5104919	37.690	38.686	147

Sample ID: UU62 G1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241659
Timestamp: 2012/05/24 17:03
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16535.1309	26.4562	7397594	37.853	38.852	160

Sample ID: UU62 H1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241707
Timestamp: 2012/05/24 17:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20591.4219	37.0646	10363864	37.683	38.679	177

Sample ID: UU62 I 1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241715
Timestamp: 2012/05/24 17:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16040.7617	24.0611	6727894	37.313	38.303	157

Sample ID: UU52 A1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241723
Timestamp: 2012/05/24 17:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18665.8730	35.4652	9916646	36.955	37.949	184

Sample ID: UU52 B1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241730
Timestamp: 2012/05/24 17:34
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18165.8848	27.2488	7619224	36.825	37.824	175

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241739
Timestamp: 2012/05/24 17:43
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	956.1100	38.2444	10467234	36.809	37.808	179

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241746
Timestamp: 2012/05/24 17:51
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24.3262	0.9730	45546	36.453	36.455	120

Last Message: Low Sample Detected

Sample ID: UU52 C1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241753
Timestamp: 2012/05/24 17:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15683.7822	28.2308	7893802	36.443	37.437	160

Sample ID: UU52 D1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241758
Timestamp: 2012/05/24 18:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20976.8145	27.2699	7625104	37.007	38.004	143

Sample ID: UU52 E1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241807
Timestamp: 2012/05/24 18:10
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18284.0977	32.9114	9202566	36.346	37.343	177

Sample ID: UU52 F1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241813
Timestamp: 2012/05/24 18:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32095.4609	57.7718	16153960	36.423	37.419	204

Sample ID: UU52 G1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241820
Timestamp: 2012/05/24 18:25
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30150.9082	51.2565	14332179	36.400	37.398	233

Sample ID: UU52 H1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241827
Timestamp: 2012/05/24 18:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15836.4854	17.4201	4870958	36.736	37.736	130

Sample ID: UU52 I 1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241833
Timestamp: 2012/05/24 18:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19014.4082	20.9158	5848418	36.683	37.682	145

Sample ID: UU52 J1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241841
Timestamp: 2012/05/24 18:46
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11417.4170	25.1183	7023497	36.703	37.703	154

Sample ID: UU52 K1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241851
Timestamp: 2012/05/24 18:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13394.1924	18.7519	5243333	36.458	37.458	147

Sample ID: US34 L (PE)
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241857
Timestamp: 2012/05/24 19:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8809.4980	77.5236	21676876	36.423	37.421	281

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241910
Timestamp: 2012/05/24 19:15
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31263.0469	96.9154	26872630	36.223	37.220	251

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241918
Timestamp: 2012/05/24 19:22
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	973.2827	38.9313	10659304	36.274	37.273	176

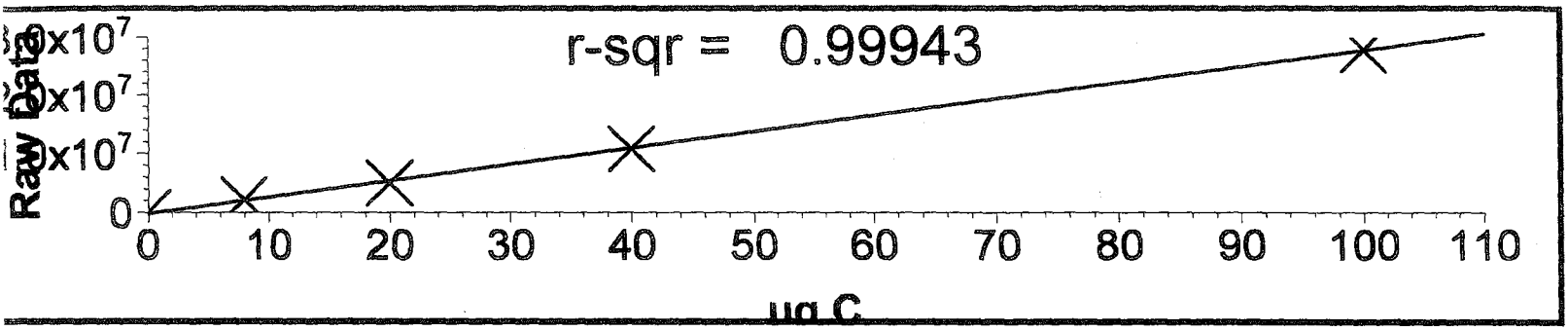
Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241923
Timestamp: 2012/05/24 19:25
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25.7007	1.0280	60920	35.814	36.813	50

Calibration Report Print Date/Time: 2012/04/30 14:05:52

Cal. Curve ID: 43012 BOAT CAL
Created: 2012/04/30 13:43
Calibration Factor (m): 2.796e+05
Y Intercept (b): -226534
r-squared: 0.99943

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI WATER	52595	0.000	0.998		2012/04/30 11:58
200	2144822	8.000	8.481		2012/04/30 12:17
500	4986789	20.000	18.645		2012/04/30 12:34
1000	10792143	40.000	39.406		2012/04/30 12:59
2500	27866566	100.000	100.470	Max Integrati	2012/04/30 13:42


r-sqr = 0.99943
Raw Data
x10^7
x10^7
x10^7
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report Print Date/Time: 2012/04/30 14:01:21

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301036
Timestamp: 2012/04/30 10:51
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			47566	33.280	33.185	120
2			203139	33.304	34.302	63
3			1104	33.476	33.511	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 83936 Std Dev: 105814 RSD: 126.06

Sample ID: 200
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301053
Timestamp: 2012/04/30 10:56
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1241941	33.597	34.592	83

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301141
Timestamp: 2012/04/30 11:43
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			723490	34.109	41.661	46

Last Message: Canceled

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301150
Timestamp: 2012/04/30 11:58
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			92631	34.301	35.189	120
2			19076	34.635	34.665	120
3			46077	35.023	36.011	43

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 52595 Std Dev: 37208 RSD: 70.75

Sample ID: 200
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301202
Timestamp: 2012/04/30 12:17
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2354047	34.824	35.822	117
2			2071224	34.958	35.956	106
3			2009197	35.047	36.046	100

<<<Statistics>>> Mean: 2144823 Std Dev: 183829 RSD: 8.57

Sample ID: 500
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301220
Timestamp: 2012/04/30 12:34
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5039759	35.057	36.056	104
2			4609986	35.167	36.164	123
3			5310623	35.293	36.291	131

<<<Statistics>>> Mean: 4986790 Std Dev: 353309 RSD: 7.08

Sample ID: 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301241
Timestamp: 2012/04/30 12:59
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			10754481	35.424	36.423	161
2			10442873	36.018	37.015	150
3			11179075	36.556	37.551	190

<<<Statistics>>> Mean: 10792143 Std Dev: 369543 RSD: 3.42

Sample ID: 2500
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301309
Timestamp: 2012/04/30 13:42
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			29661636	37.962	38.960	254
2			29032984	38.591	39.586	273
3			24905076	39.615	40.673	300

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 27866566 Std Dev: 2583915 RSD: 9.27

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301346
Timestamp: 2012/04/30 13:51
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1028.4240	41.1370	11276042	40.270	41.269	235

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301352
Timestamp: 2012/04/30 13:55
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23.6818	0.9473	38339	40.923	41.149	120

Last Message: Low Sample Detected

Geotechnical Raw Data
Analyst Notes and Raw Data

ARI Job ID: UU52, UU62

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: C-1 Client Sample No.: MS002-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	115
Tare Weight	1.5226
Wet Weight + Tare	26.8264
Dry Weight + Tare	4.1030

Test Sample	Initials: kb
Container No.	115
Tare Weight	51.2844
Wet Weight + Tare	144.6142
Dry Weight + Tare	54.3063

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 5-21-2012

Sieve Set #: 1 Initials: BR

Sieve Size	Weight Retained
Tare	51.3476
4	51.3476
10	51.3828
18	52.7330
35	53.3044
60	53.7241
120	54.0082
230	54.2244
PAN	.2274

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: BR

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:09:00			
10:09:20	C11	1.5283	1.6777
10:10:46	C12	1.5232	1.6678
10:16:05	C13	1.5368	1.6444
10:37:18	C14	1.5240	1.6076
12:02:00	C15	1.5219	1.5757
15:35:00	C16	1.5087	1.5536
8:45:00	C17	1.5062	1.5405

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: C-2 Client Sample No.: MS002-SS-120515

Set-up Date: 05/18/12 Sample Description: _____

SOLIDS CONTENT

Moisture Content	Initials: [illegible]
Container No.	142
Tare Weight	1.5386
Wet Weight + Tare	26.2812
Dry Weight + Tare	4.0695

Test Sample	Initials: [illegible]
Container No.	142
Tare Weight	50.6905
Wet Weight + Tare	144.4374
Dry Weight + Tare	53.4802

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 5-21-2012

Sieve Set #: 2 Initials: [illegible]

Sieve Size	Weight Retained
Tare	50.7552
4	50.8139
10	50.8438
18	51.8080
35	52.3723
60	52.7741
120	53.0709
230	53.3156
PAN	.2782

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: [illegible]

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:12:00	C21	1.5354	1.6908
10:12:20	C22	1.5363	1.6886
10:13:46	C23	1.5302	1.6443
10:19:05	C24	1.5312	1.6182
10:40:18	C25	1.5295	1.5842
12:05:00	C26	1.5033	1.5492
15:38:00	C27	1.5097	1.5455
8:48:00			

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: C-3 Client Sample No.: MS002-SS-120515

Set-up Date: 05/18/12 Sample Description: _____

SOLIDS CONTENT

Moisture Content	Initials: deb
Container No.	145
Tare Weight	1.5745
Wet Weight + Tare	25.1975
Dry Weight + Tare	3.9966

Test Sample	Initials: deb
Container No.	145
Tare Weight	50.7661
Wet Weight + Tare	146.1496
Dry Weight + Tare	54.6611

Calgon Batch #: 267

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: CR

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:15:00	C31	1.5337	1.6710
10:15:20	C32	1.5417	1.6763
10:16:46	C33	1.5333	1.6412
10:22:05	C34	1.5411	1.6222
10:43:18	C35	1.5384	1.5895
12:08:00	C36	1.5318	1.5747
15:41:00	C37	1.5309	1.5644
8:51:00			

SIEVE ANALYSIS

Sieve Date: 5-21-2012

Sieve Set #: 1 Initials: CR

Sieve Size	Weight Retained
Tare	50.8527
4	50.8527
10	51.1144
18	52.6273
35	53.3200
60	53.8102
120	54.1514
230	54.4180
PAN	.3087

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: A Client Sample No.: M S001 -SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and some debris

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	146
Tare Weight	1.5639
Wet Weight + Tare	28.1907
Dry Weight + Tare	4.2386

Test Sample	Initials: kb
Container No.	146
Tare Weight	50.4750
Wet Weight + Tare	142.6621
Dry Weight + Tare	54.5104

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 5-21-2012

Sieve Set #: 2 Initials: BR

Sieve Size	Weight Retained
Tare	50.5419
4	~~50.5116~~ 50.5419 m
10	~~50.5116~~ 50.5419
18	52.8042
35	53.4663
60	53.8862
120	54.1632
230	54.3589
PAN	.2649

5/24/2012

Temp:23

TIME

PIPETTE ANALYSIS

Initials: BR

10:18:00	Tare ID	Tare Wt	Dry Wt & Tare
10:18:20	A1	1.5097	1.6328
10:19:46	A2	1.5485	1.6675
10:25:05	A3	1.5219	1.6161
10:46:18	A4	1.5223	1.59~~51~~
12:11:00	A5	1.5197	1.5690
15:44:00	A6	1.5749	1.6184
8:54:00	A7	1.5418	1.5790

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: B Client Sample No.: MS101-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines and some debris

SOLIDS CONTENT

Moisture Content	Initials: leb
Container No.	159
Tare Weight	1.5589
Wet Weight + Tare	25.4710
Dry Weight + Tare	3.9582

Test Sample	Initials: leb
Container No.	159
Tare Weight	49.4112
Wet Weight + Tare	145.9912
Dry Weight + Tare	54.3370

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 5-21-2012

Sieve Set #: 1 Initials: BR

Sieve Size	Weight Retained
Tare	49.5259
4	49.5259
10	50.6657
18	52.3186
35	53.0846
60	53.5467
120	53.8586
230	54.0918
PAN	.3135

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: BR

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:21:00			
10:21:20	B1	1.5147	1.6276
10:22:46	B2	1.5161	1.6269
10:28:05	B3	1.5219	1.6104
10:49:18	B4	1.5287	1.5979
12:14:00	B5	1.5288	1.5763
15:47:00	B6	1.5124	1.5534
8:57:00	B7	1.5456	1.5800

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: D Client Sample No.: MS003-SS-120515

Set-up Date: 5-22-2012 Sample Description: Organic Fines & Debris

SOLIDS CONTENT

Moisture Content	Initials:
Container No.	102
Tare Weight	1.5461
Wet Weight + Tare	16.9686
Dry Weight + Tare	2.9819

Test Sample	Initials:
Container No.	102
Tare Weight	49.5041
Wet Weight + Tare	201.4140
Dry Weight + Tare	55.6845

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 1 Initials:

Sieve Size	Weight Retained
Tare	49.6322
4	49.7337
10	50.6913
18	52.3609
35	53.5134
60	54.3145
120	54.8849
230	55.2731
PAN	0.5313

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials:

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:24:00			
10:24:20	D1	1.5431	1.7255
10:25:46	D2	1.5453	1.7119
10:31:05	D3	1.5416	1.6383
10:52:18	D4	1.5617	1.6365
12:17:00	D5	1.5454	1.6034
15:50:00	D6	1.5496	1.6039
9:00:00	D7	1.5396 483	1.5954

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: E Client Sample No.: M8004-SS-120515

Set-up Date: 5.22.2012 Sample Description: Organic Fines, some Organic Debris

SOLIDS CONTENT

Moisture Content	Initials: BR
Container No.	117
Tare Weight	1.5446
Wet Weight + Tare	31.6308
Dry Weight + Tare	4.5162

Test Sample	Initials: BR
Container No.	117
Tare Weight	50.1511
Wet Weight + Tare	201.7921
Dry Weight + Tare	56.2979

Calgon Batch #: 267

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: BR

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:27:00			
10:27:20	E1	1.5185	1.7220
10:28:46	E2	1.5429	1.7333
10:34:05	E3	1.5425	1.6572
10:55:18	E4	1.5385	1.6279
12:20:00	E5	1.5670	1.6337
15:53:00	E6	1.5373	1.5944
9:03:00	E7	1.5130	1.5589

SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 2 Initials: leb

Sieve Size	Weight Retained
Tare	50.2502
4	50.2502
10	50.9449
18	52.1659
35	53.2943
60	54.2935
120	55.0857
230	55.6337
PAN	0.7583

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: F Client Sample No.: MS005-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris (large twigs)

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	165
Tare Weight	1.5569
Wet Weight + Tare	28.0460
Dry Weight + Tare	3.8376

Test Sample	Initials: kb
Container No.	165
Tare Weight	50.7926
Wet Weight + Tare	165.0214
Dry Weight + Tare	57.7985

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

Sieve Size	Weight Retained
Tare	50.8912
4	51.1424
10	52.7740
18	54.1397
35	55.2440
60	56.1764
120	56.8286
230	57.2289
PAN	0.5577 ~~74~~ 81 kb

3.4g

5/24/2012

Temp:23

TIME

PIPETTE ANALYSIS

Initials: BR

10:30:00	Tare ID	Tare Wt	Dry Wt & Tare
10:30:20	~~D~~ F1	1.5249	1.5991
10:31:46	F2	1.5462	1.6190
10:37:05	F3	1.5530	1.6179
10:58:18	F4	1.5521	1.6046
12:23:00	F5	1.5494	~~1.6336~~ 1.5905
15:56:00	F6	1.5541	1.5861
9:06:00	F7	1.5488	1.5764

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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~~RESPLIT~~

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: G Client Sample No.: MSØØ6-SS-12Ø515

Set-up Date: 05/18/12 Sample Description: organic fines and mostly debris (1.5" debris excluded) diameter

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	166
Tare Weight	~~1.5541~~ 1.5537 *
Wet Weight + Tare	~~28.6715~~ 18.8582
Dry Weight + Tare	~~4.0520~~ 3.2334

Test Sample	Initials: kb
Container No.	166
Tare Weight	50.8403
Wet Weight + Tare	181.3984
Dry Weight + Tare	61.2147

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

Sieve Size	Weight Retained
Tare	50.9335
4	50.9813
10	52.9902
18	55.3977
35	57.4921
60	59.0891
120	60.1000
230	60.7250
PAN	0.5729

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: BL

TIME

10:33:00	Tare ID	Tare Wt	Dry Wt & Tare
10:33:20	G1	1.5133	1.5727
10:34:46	G2	1.5142	1.5721
10:40:05	G3	1.5122	1.5643
11:01:18	G4	1.5145	1.5581
12:26:00	G5	1.5176	1.5512
15:59:00	G6	1.5216	1.5497
9:09:00	G7	1.5327	1.5551

SALT CORRECTION

~~32g~~ 28g

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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* moisture content redo.

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: H Client Sample No.: MSD07-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	172
Tare Weight	1.5638
Wet Weight + Tare	26.7949
Dry Weight + Tare	5.8038

Test Sample	Initials: kb
Container No.	172
Tare Weight	50.7376
Wet Weight + Tare	174.7784
Dry Weight + Tare	64.2657

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

Sieve Size	Weight Retained
Tare	50.8000
4	50.8703
10	51.0490
18	54.4648
35	56.4839
60	58.1849
120	60.1761
230	62.3102
PAN	2.1591

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: [illegible]

TIME			
10:36:00	Tare ID	Tare Wt	Dry Wt & Tare
10:36:20	H1	1.5287	1.7226
10:37:46	H2	1.5347	1.6838
10:43:05	H3	1.5344	1.6432
11:04:18	H4	1.5287	1.6076
12:29:00	H5	1.5299	1.5802
16:02:00	H6	1.5221	1.5633
9:12:00	H7	1.5355	1.5675

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: 11152 ARI Sample Letter: I Client Sample No.: MS008-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines and mostly debris

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	174
Tare Weight	~~1.5717~~ 1.5498
Wet Weight + Tare	~~45.1727~~ 26.5340
Dry Weight + Tare	~~6.3689~~ 4.7257

Test Sample	Initials: kb
Container No.	174
Tare Weight	49.3566
Wet Weight + Tare	184.3567
Dry Weight + Tare	63.8897

Calgon Batch #: 267

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials:

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:39:00	I1	1.5461	1.6216
10:39:20	I2	1.5458	1.6190
10:40:46	I3	1.5477	1.6125
10:46:05	I4	1.5437	1.5947
11:07:18	I5	1.5414	1.5791
12:32:00	I6	1.5438	1.5717
16:05:00	I7	1.5502	1.5716
9:15:00			

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

Sieve Size	Weight Retained
Tare	49.4822
4	55.5918
10	57.0519
18	59.0052
35	60.2405
60	61.1683
120	61.8845
230	62.4158
PAN	0.8339

1.8g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: 11452 ARI Sample Letter: J Client Sample No.: MS09-SS-120515

Set-up Date: 5-22-2012 Sample Description: Organic Fines, some Organic Debris

SOLIDS CONTENT

Moisture Content	Initials: RR
Container No.	188
Tare Weight	1.5413
Wet Weight + Tare	25.5176
Dry Weight + Tare	3.9523

Test Sample	Initials: RR
Container No.	188
Tare Weight	50.3679
Wet Weight + Tare	201.4468
Dry Weight + Tare	57.2632

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 1 Initials: kb

Sieve Size	Weight Retained
Tare	50.4835
4	50.5226
10	51.3124
18	52.5792
35	53.6485
60	54.5993
120	55.4001
230	56.0806
PAN	1.2316

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: RR

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:42:00	J1	1.5488	1.7507
10:42:20	J2	1.5442	1.7149
10:43:46	J3	1.5400	1.6738
10:49:05	J4	1.5468	1.6533
11:10:18	J5	1.5484	1.6223
12:35:00	J6	1.5500	1.6112
16:08:00	J7	1.5472	1.5959
9:18:00			

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: J Client Sample No.: MS09-SS-120515

Set-up Date: 5-22-2012 Sample Description: Organic Fines, some Organic Debris

SOLIDS CONTENT

Moisture Content	Initials: [illegible]
Container No.	188
Tare Weight	1.5413
Wet Weight + Tare	25.5176
Dry Weight + Tare	3.9523

Test Sample	Initials: [illegible]
Container No.	188
Tare Weight	50.3679
Wet Weight + Tare	201.4468
Dry Weight + Tare	57.2632

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 1 Initials: kb

Sieve Size	Weight Retained
Tare	50.4835
4	50.5226
10	51.3124
18	52.5792
35	53.6485
60	54.5993
120	55.4001
230	56.0806
PAN	1.2316

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: [illegible]

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:42:00			
10:42:20	J1	1.5488	1.7507
10:43:46	J2	1.5442	1.7149
10:49:05	J3	1.5400	1.6738
11:10:18	J4	1.5468	1.6533
12:35:00	J5	1.5484	1.6223
16:08:00	J6	1.5500	1.6112
9:18:00	J7	1.5472	1.5959

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: K Client Sample No.: MS010-SS-120515

Set-up Date: 5-22-2012 Sample Description: Organic Fines & Debris

SOLIDS CONTENT

Moisture Content	Initials: [illegible]
Container No.	107
Tare Weight	1.5406
Wet Weight + Tare	23.8149
Dry Weight + Tare	3.8104

Test Sample	Initials: [illegible]
Container No.	107
Tare Weight	51.1612
Wet Weight + Tare	203.1282
Dry Weight + Tare	58.7756

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 2 Initials: kb

Sieve Size	Weight Retained
Tare	51.2419
4	51.6558
10	53.0011
18	54.4742
35	55.5675
60	56.4609
120	57.1813
230	57.7624
PAN	1.0769

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: [illegible]

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:45:00			
10:45:20	K1	1.5546	1.7499
10:46:46	K2	1.5537	1.7210
10:52:05	K3	1.5520	1.6736
11:13:18	K4	1.5499	1.6458
12:38:00	K5	1.5472	1.6155
16:11:00	K6	1.5495	1.6085
9:21:00	K7	1.5440	1.5907

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: 4452 ARI Sample Letter: D Client Sample No.: MS003-SS-120515

Set-up Date: 05/18/12 Sample Description: organic debris and roots

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	163
Tare Weight	1.5568
Wet Weight + Tare	27.0263
Dry Weight + Tare	3.9512

Test Sample	Initials: kb
Container No.	163
Tare Weight	49.9129
Wet Weight + Tare	141.1672
Dry Weight + Tare	55.2024

Calgon Batch #: _____

PIPETTE ANALYSIS

Initials: _____

	Tare ID	Tare Wt	Dry Wt & Tare

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

Sieve Size	Weight Retained
Tare	50.0165
4	50.6823
10	51.2272
18	52.7430
35	53.6891
60	54.2712
120	54.6544
230	54.8892
PAN	0.3251

3.6g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

Result

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: E Client Sample No.: MS004-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines and some debris

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	164
Tare Weight	1.5520
Wet Weight + Tare	28.1639
Dry Weight + Tare	4.1979

Test Sample	Initials: kb
Container No.	164
Tare Weight	50.1655
Wet Weight + Tare	145.2235
Dry Weight + Tare	55.7068

Calgon Batch #: _____

PIPETTE ANALYSIS

Initials: _____

	Tare ID	Tare Wt	Dry Wt & Tare

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

Sieve Size	Weight Retained
Tare	50.2881
4	50.2881
10	50.4364
18	51.3756
35	52.8633
60	53.8469
120	54.4963
230	54.9583
PAN	0.6633

4.7g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

Result

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: 11152 ARI Sample Letter: J Client Sample No.: M5009-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines

SOLIDS CONTENT

Moisture Content	Initials: KLB
Container No.	175
Tare Weight	1.5303
Wet Weight + Tare	26.0627
Dry Weight + Tare	4.0328

Test Sample	Initials: KLB
Container No.	175
Tare Weight	51.7100
Wet Weight + Tare	154.4465
Dry Weight + Tare	58.6064

Calgon Batch #: _____

PIPETTE ANALYSIS

Initials: _____

	Tare ID	Tare Wt	Dry Wt & Tare

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: KL

Sieve Size	Weight Retained
Tare	51.8180
4	55.0883
10	55.4610
18	56.7755
35	57.3199
60	57.6910
120	57.9663
230	58.2109
PAN	0.4745

4.0g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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Rev. 01

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU152 ARI Sample Letter: K Client Sample No.: MS010-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris (leaves)

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	183
Tare Weight	1.5293
Wet Weight + Tare	28.5431
Dry Weight + Tare	4.3462

Test Sample	Initials: kb
Container No.	183
Tare Weight	50.1317
Wet Weight + Tare	162.1158
Dry Weight + Tare	57.9773

Calgon Batch #: _____

PIPETTE ANALYSIS

Initials: _____

	Tare ID	Tare Wt	Dry Wt & Tare

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

Sieve Size	Weight Retained
Tare	50.2367
4	50.3780
10	52.0966
18	54.0738
35	55.2121
60	56.0023
120	56.5738
230	56.9883
PAN	0.6908

4.8g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: A Client Sample No.: MS110-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	187
Tare Weight	1.5340
Wet Weight + Tare	24.4385
Dry Weight + Tare	3.9320

Test Sample	Initials: kb
Container No.	187
Tare Weight	51.6329
Wet Weight + Tare	140.1905
Dry Weight + Tare	56.1097

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

Sieve Size	Weight Retained
Tare	51.6947
4	kb ~~51.9343~~ 51.6947
10	kb ~~53.2542~~ 51.9343
18	kb ~~54.1234~~ 53.2542
35	kb 54.~~7217~~1234
60	54.7217
120	55.1893
230	55.5412
PAN	0.5473~~4~~ kb

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: KB

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:48:00			
10:48:20	A1	1.5509	1.6682
10:49:46	A2	1.5499	1.6633
10:55:05	A3	1.5466	1.6425
11:16:18	A4	1.5423	1.6208
12:41:00	A5	1.5469	1.5970
16:14:00	A6	1.5483	1.5882
9:24:00	A7	1.5509	1.5832

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: B Client Sample No.: MS011-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and mostly debris

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	192
Tare Weight	1.5367
Wet Weight + Tare	26.8762
Dry Weight + Tare	3.9940

Test Sample	Initials: kb
Container No.	192
Tare Weight	50.3076
Wet Weight + Tare	177.0360
Dry Weight + Tare	~~60 66.28~~ 3699 kb 60.3699

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 1 Initials: kb

Sieve Size	Weight Retained
Tare	50.3384
4	50.8763
10	53.2421
18	55.4285
35	57.2076
60	58.6427
120	59.5499
230	60.1164
PAN	0.5508

2.4g

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: BL

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:51:00			
10:51:20	B1	1.5623	1.6258
10:52:46	B2	1.5792	1.6399
10:58:05	B3	1.5761	1.6329
11:19:18	B-4	1.5705	1.6182
12:44:00	B5	1.5685	1.6058
16:17:00	B6	1.5646	1.5940
9:27:00	B7	1.5623	1.5853

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: C Client Sample No.: MS012-SS-120515

Set-up Date: 5-23-2012 Sample Description: Organic Fines & Debris

SOLIDS CONTENT

Moisture Content	Initials:
Container No.	109 A
Tare Weight	1.5269
Wet Weight + Tare	17.0493
Dry Weight + Tare	3.0252

Test Sample	Initials:
Container No.	109 A
Tare Weight	51.1594
Wet Weight + Tare	201.1164
Dry Weight + Tare	58.26x25 eg

Calgon Batch #: 267

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials:

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:54:00			
10:54:20	C1	1.5307	1.6969
10:55:46	C2	1.5232	1.6740
11:01:05	C3	1.5486	1.6442
11:22:18	C4	1.5478	1.6243
12:47:00	C5	1.5486	1.6130
16:20:00	C6	1.5480	1.6090
9:30:00	C7	1.5451	1.5997

SIEVE ANALYSIS

Sieve Date: 5-24-12

Sieve Set #: 1 Initials: eg

Sieve Size	Weight Retained
Tare	51.3621
4	51.4668
10	54.4496
18	56.0412
35	56.8947
60	57.4887
120	57.8943
230	58.16784 eg
PAN	0.3399

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: D Client Sample No.: MS013.SS.12055

Set-up Date: 5.23.2012 Sample Description: Organic Fines & Debris

SOLIDS CONTENT

Moisture Content	Initials:
Container No.	173
Tare Weight	1.5254
Wet Weight + Tare	20.2970
Dry Weight + Tare	3.27758

eg

Test Sample	Initials:
Container No.	173
Tare Weight	50.0618
Wet Weight + Tare	204.3727
Dry Weight + Tare	57.9585

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 5.24.12

Sieve Set #: 2 Initials: eg

Sieve Size	Weight Retained
Tare	50.3173
4	50.3639
10	53.7088
18	55.3751
35	56.3931
60	56.89260
120	57.5349
230	57.7976
PAN	0.3455

PIPETTE ANALYSIS

5/24/2012

Temp:23

Initials:

TIME	Tare ID	Tare Wt	Dry Wt & Tare
10:57:00	D1	1.5542	1.7011
10:57:20	D2	1.5449	1.6805
10:58:46	D3	1.5428	1.6415
11:04:05	D4	1.5429	1.6084
11:25:18	D5	1.5433	1.5890
12:50:00	D6	1.5391	1.5784
16:23:00	D7	1.5320	1.5690
9:33:00			

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: E Client Sample No.: MS014-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	212
Tare Weight	1.5309
Wet Weight + Tare	24.6228
Dry Weight + Tare	3.8196

Test Sample	Initials: kb
Container No.	212
Tare Weight	49.7864
Wet Weight + Tare	143.6680
Dry Weight + Tare	54.6256

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

Sieve Size	Weight Retained
Tare	49.8400
4	49.8400
10	50.4845
18	51.7297
35	52.6842
60	53.3366
120	53.7958
230	54.0966
PAN	0.4935

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials:

TIME	Tare ID	Tare Wt	Dry Wt & Tare
11:00:00	E1	1.5613	1.6689
11:00:20	E2	1.5641	1.6699
11:01:46	E3	1.5657	1.6574
11:07:05	E4	1.5642	1.6341
11:28:18	E5	1.5615	1.6080
12:53:00	E6	1.5624	1.6004
16:26:00	E7	1.5317	1.5635
9:36:00			

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: F Client Sample No.: MS015-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	217
Tare Weight	1.5302
Wet Weight + Tare	26.6770
Dry Weight + Tare	4.1495

Test Sample	Initials: kb
Container No.	217
Tare Weight	49.9762
Wet Weight + Tare	153.5721
Dry Weight + Tare	55.0849

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

Sieve Size	Weight Retained
Tare	50.0455
4	50.4794
10	51.7912
18	53.0154
35	53.8223
60	54.3372
120	54.6307
230	54.7945
PAN	0.2023

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: BL

TIME	Tare ID	Tare Wt	Dry Wt & Tare
11:03:00	F1	1.5248	1.6532
11:03:20	F2	1.5241	1.6492
11:04:46	F3	1.5538	1.6537
11:10:05	F4	1.5433	1.6178
11:31:18	F5	1.5354	1.5827
12:56:00	F6	1.5636	1.6023
16:29:00	F7	1.5413	1.5739
9:39:00			

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: G Client Sample No.: MSØ16-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines and debris

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	223
Tare Weight	1.5305
Wet Weight + Tare	24.8896
Dry Weight + Tare	4.2537

Test Sample	Initials: kb
Container No.	223
Tare Weight	49.5627
Wet Weight + Tare	167.0475
Dry Weight + Tare	~~73.800~~ kb 57.7657

Calgon Batch #: 267

SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 2 Initials: kb

Sieve Size	Weight Retained
Tare	49.6443
4	50.5527
10	52.0169
18	53.9328
35	55.3555
60	56.3420
120	56.9617
230	57.3443
PAN	0.5690

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials: BL

TIME	Tare ID	Tare Wt	Dry Wt & Tare
11:06:00	G1	1.5488	1.6831
11:06:20	G2	1.5394	1.6708
11:07:46	G3	1.5512	1.6589
11:13:05	G4	1.5623	1.6340
11:34:18	G5	1.5487	1.5946
12:59:00	G6	1.5558	1.5959
16:32:00	G7	1.5356	1.5687
9:42:00			

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: 1462 ARI Sample Letter: H Client Sample No.: MS017-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines and debris

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	225
Tare Weight	1.5321
Wet Weight + Tare	26.9824
Dry Weight + Tare	3.4718

Test Sample	Initials: kb
Container No.	225
Tare Weight	49.3647
Wet Weight + Tare	160.5373
Dry Weight + Tare	55.1418

Calgon Batch #: 267

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials:

TIME	Tare ID	Tare Wt	Dry Wt & Tare
11:09:00	H1	1.5784	1.6526
11:10:46	H2	1.5540	1.6270
11:16:05	H3	1.5422	1.6095
11:37:18	H4	1.5351	1.5872
13:02:00	H5	1.5384	1.5764
16:35:00	H6	1.5368	1.5707
9:45:00	H7	1.5517	1.5813

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

Sieve Size	Weight Retained
Tare	49.4370
4	49.6583
10	51.0964
18	52.3110
35	53.2829
60	53.9795
120	54.4300
230	54.7191
PAN	0.3465

3.1g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: I Client Sample No.: MS018.SS.120515

Set-up Date: 5.23.2012 Sample Description: Organic Flats & Robins

SOLIDS CONTENT

Moisture Content	Initials:
Container No.	177
Tare Weight	1.5556
Wet Weight + Tare	18.5055
Dry Weight + Tare	3.5038

Test Sample	Initials:
Container No.	177
Tare Weight	50.5436
Wet Weight + Tare	200.0182
Dry Weight + Tare	57.6077

Calgon Batch #: 267

5/24/2012

Temp:23

PIPETTE ANALYSIS

Initials:

TIME	Tare ID	Tare Wt	Dry Wt & Tare
11:12:00	I1	1.5420	1.7693
11:12:20	I2	1.5276	1.7467
11:13:46	I3	1.5502	1.7076
11:19:05	I4	1.5444	1.6568
11:40:18	I5	1.5528	1.6406
13:05:00	I6	1.5489	1.6206
16:38:00	I7	1.5554	1.6106
9:48:00			

SIEVE ANALYSIS

Sieve Date: 5.24.12

Sieve Set #: 1 Initials: eg

Sieve Size	Weight Retained
Tare	50.6958
4	50.6958
10	53.5849
18	545.0736 eg
35	55.8616
60	56.4338
120	56.9078
230	57.2734
PAN	0.4934

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

Replot

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: C Client Sample No.: MS012-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	198
Tare Weight	1.5266
Wet Weight + Tare	26.0961
Dry Weight + Tare	3.9965

Test Sample	Initials: kb
Container No.	198
Tare Weight	50.6519
Wet Weight + Tare	153.7572
Dry Weight + Tare	57.6486

Calgon Batch #: _____

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

Sieve Size	Weight Retained
Tare	50.7339
4	52.3535
10	54.7553
18	55.8784
35	56.5892
60	57.0089
120	57.2635
230	57.4035
PAN	0.1628

3.6 g

PIPETTE ANALYSIS

Initials: _____

	Tare ID	Tare Wt	Dry Wt & Tare

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

Resplit

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: LL162 ARI Sample Letter: D Client Sample No.: MS013-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	210
Tare Weight	1.5332
Wet Weight + Tare	28.0727
Dry Weight + Tare	4.0819

Test Sample	Initials: kb
Container No.	210
Tare Weight	49.8242
Wet Weight + Tare	166.2798
Dry Weight + Tare	57.0808

Calgon Batch #: _____

PIPETTE ANALYSIS

Initials: _____

	Tare ID	Tare Wt	Dry Wt & Tare

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

Sieve Size	Weight Retained
Tare	49.8873
4	50.2797
10	51.4747
18	53.1275
35	54.4599
60	55.3916
120	56.0131
230	56.4199
PAN	0.6388 4.6g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

Replot

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: I Client Sample No.: MS018-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines

SOLIDS CONTENT

Moisture Content	Initials: kb
Container No.	229
Tare Weight	1.5373
Wet Weight + Tare	25.8094
Dry Weight + Tare	4.4080

Test Sample	Initials: kb
Container No.	229
Tare Weight	49.5231
Wet Weight + Tare	146.5467
Dry Weight + Tare	57.8087

Calgon Batch #: _____

PIPETTE ANALYSIS

Initials: _____

	Tare ID	Tare Wt	Dry Wt & Tare

SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

Sieve Size	Weight Retained
Tare	49.5776
4	49.7977
10	52.0578
18	54.0900
35	55.2760
60	56.0465
120	56.5999
230	57.0147
PAN	0.6224

4.05

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

Table of Contents: ARI Job UW85

Client: Anchor QEA, LLC. Project: 120909-01.01 Jeld Wen Maulsby Marsh

BC
Signature

June-12-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

June 12, 2012

David Gillingham
Anchor QEA
720 Olive Way, Suite 1900
Seattle, WA 98101

RE: Client Project: Jeld Wen Maulsby Marsh, 120909-01.01
ARI Job No.: UW85

Dear David:

Please find enclosed the Chain of Custody (COC) record, sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: UW85

Enclosures

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

Chain of Custody Documentation

ARI Job ID: UW85

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested: Std	Page: 1 of 3	
ARI Client Company: Anchor QEA	Phone: 206 287 9130	Date: 5/16/12	Ice Present? Y
Client Contact: Nathan Saccomy / David Gillingham		No. of Coolers:	Cooler Temps:
Client Project Name: Jeld wen Maulsby Marsh			
Client Project #: 120909-01.01	Samplers: DG		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	PCB Pest	Metals	SVOC	TPH	EPH Archive	Grainsize	TS / TOC Ammonia	Sulfides	Notes/Comments
MS001-SS-120515	5/15/12	1339	Sed	8	X	X	X	X	X	X	X	X	
MS002-SS-120515		1317		8	X	X	X	X	X	X	X	X	
MS003-SS-120515		1234		8	X	X	X	X	X	X	X	X	
MS004-SS-120515		1153		8	X	X	X	X	X	X	X	X	
MS005-SS-120515		855			X	X	X	X	X	X	X	X	
MS006-SS-120515		916			X	X	X	X	X	X	X	X	
MS007-SS-120515		945			X	X	X	X	X	X	X	X	
MS008-SS-120515		940			X	X	X	X	X	X	X	X	
MS009-SS-120515		1010			X	X	X	X	X	X	X	X	
MS010-SS-120515		1030							X	X	X	X	Hold Select Analysis

Comments/Special Instructions: EPH - extract only & hold.

Relinquished by: (Signature)	Cindy Fields	Received by: (Signature)	
Printed Name:	Cindy Fields	Printed Name:	Chris Atwell
Company:	Anchor QEA	Company:	ARI
Date & Time:	5/16/2012 10:05am	Date & Time:	5/16/12 10:05

Relinquished by: (Signature)		Received by: (Signature)	
Printed Name:		Printed Name:	
Company:		Company:	
Date & Time:		Date & Time:	

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release 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 Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: JW - mailsby Marsh

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: UU52

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 0.5 0.5 0.5 0.3 4.4 3.0 0.4

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: ~~90~~ 77952

Cooler Accepted by: CA Date: 5/16/12 Time: 10:05

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: TS Date: 5-16-12 Time: 1313

** *Notify Project Manager of discrepancies or concerns* **

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

MS101-55 Added to ~~COC~~ SDG per client request.

By: TS Date: 5-16-12 Its a dupe taken from MS001-55

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm

Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

Subject: UU52/UU62 EPH Triggers
From: Cindy Fields <cfields@anchorqea.com>
Date: 6/1/2012 9:17 AM
To: Cheronne Oreiro <cheronneo@arilabs.com>
CC: Nathan Soccorsy <nsoccorsy@anchorqea.com>, David Gillingham <dgillingham@anchorqea.com>

Hi Cheronne,
Could you please trigger the following samples for EPH analysis?

MS001-SS-120515
MS002-SS-120515
MS003-SS-120515
MS006-SS-120515

Thank you,

Cindy Fields
Scientist
ANCHOR QEA, LLC
cfields@anchorqea.com
D 206.903.3394

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: UW85

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: Anchor QEA
Project: Jeld Wen Maulsby Marsh, 120909-01.01
ARI Job No.: UW85

Sample Receipt

Four sediment samples were removed from frozen archive June 1, 2012 and logged under ARI job UW85. The samples were analyzed for EPH, as requested. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Extractable Petroleum Hydrocarbons (EPH)

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times for sample stored frozen.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: UW85
Client: Anchor QEA, LLC.
Project Event: 120909-01.01
Project Name: Jeld Wen Maulsby Marsh

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	MS001-SS-120515	UW85A	12-10066	Sediment	05/15/12 13:39	05/16/12 12:26
2.	MS002-SS-120515	UW85B	12-10067	Sediment	05/15/12 13:17	05/16/12 12:26
3.	MS003-SS-120515	UW85C	12-10068	Sediment	05/15/12 12:34	05/16/12 12:26
4.	MS006-SS-120515	UW85D	12-10069	Sediment	05/15/12 09:16	05/16/12 12:26

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Extractable Petroleum Hydrocarbons (EPH) Washington Department of Ecology Interim Method[1,2]

Effective: 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Calculated Control Limits [3]	
Sample Matrix	Water	Soil / Sediment
Sample Amount / Final Volume:	500 mL / 1 mL	10 g / 1 mL
LCS Spike Recovery [4]		
C8-C10 Aliphatics	**10** - **100**	21 - **100**
C10-C12 Aliphatics	14 - **100**	23 - **100**
C12-C16 Aliphatics	43 - 110	30 - 120
C16-C21 Aliphatics	44 - 122	32 - 129
C10-C12 Aromatics	16 - 105	20 - 109
C12-C16 Aromatics	42 - 116	30 - 125
C16-C21 Aromatics	55 - 127	37 - 135
C21-C34 Aromatics	54 - 136	45 - 137
Method Blank/LCS Surrogate Recovery		
Ortho-Terphenyl	44 - 133	34 - 133
1-Chloro-octadecane	38 - 121	27 - 128
Sample Surrogate Recovery		
Ortho-Terphenyl	39 - 141	**10** - 143
1-Chloro-octadecane	42 - 120	39 - 131

(1) Control limits calculated using all available data for 1/1/08 through 11/30/08.
(2) Analytical method published in: *Washington State Department of Ecology, Analytical Methods for Petroleum Hydrocarbons, Publication No. ECY 97-602, June 1997*
(3) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.

EPH Analysis
Report and Summary QC Forms

ARI Job ID: UW85

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: MS001-SS-120515
SAMPLE

Lab Sample ID: UW85A
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 90.3%

Sample Amount: 0.98 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/08/12 15:09
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/08/12 21:01
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	20,000	< 20,000 U
C10-C12 Aliphatics	20,000	< 20,000 U
C12-C16 Aliphatics	20,000	< 20,000 U
C16-C21 Aliphatics	20,000	< 20,000 U
C21-C34 Aliphatics	**20,000**	**180,000**
C8-C10 Aromatics	20,000	< 20,000 U
C10-C12 Aromatics	20,000	< 20,000 U
C12-C16 Aromatics	20,000	< 20,000 U
C16-C21 Aromatics	20,000	< 20,000 U
C21-C34 Aromatics	**20,000**	**31,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	83.5%
Aromatic	o-Terphenyl	73.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: MS002-SS-120515
SAMPLE

Lab Sample ID: UW85B
LIMS ID: 12-10067
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 89.8%

Sample Amount: 1.04 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/08/12 16:24
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/08/12 22:17
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	**19,000**	**19,000**
C10-C12 Aliphatics	19,000	< 19,000 U
C12-C16 Aliphatics	19,000	< 19,000 U
C16-C21 Aliphatics	**19,000**	**29,000**
C21-C34 Aliphatics	**19,000**	**190,000**
C8-C10 Aromatics	19,000	< 19,000 U
C10-C12 Aromatics	19,000	< 19,000 U
C12-C16 Aromatics	19,000	< 19,000 U
C16-C21 Aromatics	19,000	< 19,000 U
C21-C34 Aromatics	**19,000**	**48,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	84.4%
Aromatic	o-Terphenyl	75.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: MS003-SS-120515
SAMPLE

Lab Sample ID: UW85C
LIMS ID: 12-10068
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 90.7%

Sample Amount: 0.95 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/08/12 16:49
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/08/12 22:42
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	21,000	< 21,000 U
C10-C12 Aliphatics	21,000	< 21,000 U
C12-C16 Aliphatics	21,000	< 21,000 U
C16-C21 Aliphatics	**21,000**	**38,000**
C21-C34 Aliphatics	**21,000**	**160,000**
C8-C10 Aromatics	21,000	< 21,000 U
C10-C12 Aromatics	21,000	< 21,000 U
C12-C16 Aromatics	21,000	< 21,000 U
C16-C21 Aromatics	21,000	< 21,000 U
C21-C34 Aromatics	**21,000**	**53,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	87.3%
Aromatic	o-Terphenyl	72.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: MS006-SS-120515
SAMPLE

Lab Sample ID: UW85D
LIMS ID: 12-10069
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 90.8%

Sample Amount: 0.95 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/08/12 17:14
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/08/12 23:07
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	**21,000**	**21,000**
C10-C12 Aliphatics	21,000	< 21,000 U
C12-C16 Aliphatics	21,000	< 21,000 U
C16-C21 Aliphatics	21,000	< 21,000 U
C21-C34 Aliphatics	**21,000**	**120,000**
C8-C10 Aromatics	21,000	< 21,000 U
C10-C12 Aromatics	21,000	< 21,000 U
C12-C16 Aromatics	21,000	< 21,000 U
C16-C21 Aromatics	21,000	< 21,000 U
C21-C34 Aromatics	**21,000**	**30,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	83.0%
Aromatic	o-Terphenyl	73.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ALEPH SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

Client ID	COD	TOT OUT
MB-060412	81.2%	0
LCS-060412	72.9%	0
LCSD-060412	80.9%	0
MS001-SS-120515	83.5%	0
MS001-SS-120515 MS	86.8%	0
MS001-SS-120515 MSD	84.5%	0
MS002-SS-120515	84.4%	0
MS003-SS-120515	87.3%	0
MS006-SS-120515	83.0%	0

	LCS/MB LIMITS	QC LIMITS
(COD) = 1-Chlorooctadecane	(27-128)	(39-131)

Prep Method: SW3550C
Log Number Range: 12-10066 to 12-10069

ANALYTICAL RESOURCES INCORPORATED

AREPH SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

Client ID	OTER	TOT OUT
MB-060412	75.5%	0
LCS-060412	68.6%	0
LCSD-060412	71.1%	0
MS001-SS-120515	73.4%	0
MS001-SS-120515 MS	73.4%	0
MS001-SS-120515 MSD	70.0%	0
MS002-SS-120515	75.1%	0
MS003-SS-120515	72.2%	0
MS006-SS-120515	73.2%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(34-133)	(10-143)

Prep Method: SW3550C
Log Number Range: 12-10066 to 12-10069

FORM-II AREPH

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: MS001-SS-120515
MS/MSD

Lab Sample ID: UW85A
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted MS/MSD: 06/04/12

Sample Amount MS: 0.97 g-dry-wt
MSD: 0.98 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL

Aliphatic
Date Analyzed MS: 06/08/12 15:34
MSD: 06/08/12 15:59
Instrument/Analyst MS: FID8/MH
MSD: FID8/MH

Dilution Factor MS: 1.00
MSD: 1.00

Aromatic
Date Analyzed MS: 06/08/12 21:26
MSD: 06/08/12 21:52
Instrument/Analyst MS: FID8/MH
MSD: FID8/MH

Dilution Factor MS: 1.00
MSD: 1.00

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
C8-C10 Aliphatics	< 20400 U	90700	155000	58.7%	104000	153000	67.9%	13.7%
C10-C12 Aliphatics	< 20400 U	97900	155000	63.3%	98000	153000	64.0%	0.1%
C12-C16 Aliphatics	< 20400 U	126000	155000	81.5%	119000	153000	77.7%	5.7%
C16-C21 Aliphatics	< 20400 U	168000	155000	109%	154000	153000	101%	8.7%
C10-C12 Aromatics	< 20400 U	87600	155000	56.6%	96900	153000	63.3%	10.1%
C12-C16 Aromatics	< 20400 U	101000	155000	65.3%	98000	153000	64.0%	3.0%
C16-C21 Aromatics	< 20400 U	233000	309000	75.3%	222000	306000	72.5%	4.8%
C21-C34 Aromatics	30600	264000	309000	75.5%	249000	306000	71.3%	5.8%

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

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH **Sample ID: MS001-SS-120515**
Extraction Method: SW3550C **MATRIX SPIKE**

Lab Sample ID: UW85A
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 90.3%

Sample Amount: 0.97 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/08/12 15:34
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/08/12 21:26
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	21,000	---
C10-C12 Aliphatics	21,000	---
C12-C16 Aliphatics	21,000	---
C16-C21 Aliphatics	21,000	---
C8-C10 Aromatics	21,000	< 21,000 U
C10-C12 Aromatics	21,000	---
C12-C16 Aromatics	21,000	---
C16-C21 Aromatics	21,000	---
C21-C34 Aromatics	21,000	---

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	86.8%
Aromatic	o-Terphenyl	73.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: MS001-SS-120515
MATRIX SPIKE DUP

Lab Sample ID: UW85A
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 90.3%

Sample Amount: 0.98 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/08/12 15:59
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/08/12 21:52
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	20,000	---
C10-C12 Aliphatics	20,000	---
C12-C16 Aliphatics	20,000	---
C16-C21 Aliphatics	20,000	---
C8-C10 Aromatics	20,000	< 20,000 U
C10-C12 Aromatics	20,000	---
C12-C16 Aromatics	20,000	---
C16-C21 Aromatics	20,000	---
C21-C34 Aromatics	20,000	---

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	84.5%
Aromatic	o-Terphenyl	70.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: LCS-060412
LCS/LCSD

Lab Sample ID: LCS-060412
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 06/04/12

Sample Amount LCS: 10.0 g-as-rec
LCSD: 10.0 g-as-rec
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL

Aliphatic
Date Analyzed LCS: 06/08/12 13:28
LCSD: 06/08/12 13:53
Dilution Factor LCS: 1.00
LCSD: 1.00
Instrument/Analyst LCS: FID8/MH
LCSD: FID8/MH

Aromatic
Date Analyzed LCS: 06/08/12 19:20
LCSD: 06/08/12 19:46
Dilution Factor LCS: 1.00
LCSD: 1.00
Instrument/Analyst LCS: FID8/MH
LCSD: FID8/MH

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
C8-C10 Aliphatics	12000	15000	80.0%	10000	15000	66.7%	18.2%
C10-C12 Aliphatics	9400	15000	62.7%	9700	15000	64.7%	3.1%
C12-C16 Aliphatics	12000	15000	80.0%	12200	15000	81.3%	1.7%
C16-C21 Aliphatics	12000	15000	80.0%	13000	15000	86.7%	8.0%
C10-C12 Aromatics	9700	15000	64.7%	9100	15000	60.7%	6.4%
C12-C16 Aromatics	9600	15000	64.0%	9400	15000	62.7%	2.1%
C16-C21 Aromatics	21300	30000	71.0%	21700	30000	72.3%	1.9%
C21-C34 Aromatics	20900	30000	69.7%	22100	30000	73.7%	5.6%

EPH Surrogate Recovery

		LCS	LCSD
Aliphatic	1-Chlorooctadecane	72.9%	80.9%
Aromatic	o-Terphenyl	68.6%	71.1%

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

EPH ALIPH METHOD BLANK SUMMARY

BLANK NO.: UW85MBS1

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

SDG No.: UW85 Project No.: JELD WEN MAULSBY

Date Analyzed : 06/08/12 Matrix: SOLID

Time Analyzed : 1302 Instrument ID : FID8

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	UW85LCSS1	UW85LCSS1	06/08/12
02	UW94LCSDS1	UW85LCSDS1	06/08/12
03	MS001-SS-120	UW85A	06/08/12
04	MS001-SS-120	UW85AMS	06/08/12
05	MS001-SS-120	UW85AMSD	06/08/12
06	MS002-SS-120	UW85B	06/08/12
07	MS003-SS-120	UW85C	06/08/12
08	MS006-SS-120	UW85D	06/08/12
09			
10			
11			
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EPH AROM METHOD BLANK SUMMARY

BLANK NO.: UW85MBS1

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

SDG No.: UW85 Project No.: JELD WEN MAULSBY

Date Analyzed : 06/08/12 Matrix: SOLID

Time Analyzed : 1855 Instrument ID : FID8

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	UW85LCSS1	UW85LCSS1	06/08/12
02	UW85LCSDS1	UW85LCSDS1	06/08/12
03	MS001-SS-120	UW85A	06/08/12
04	MS001-SS-120	UW85AMS	06/08/12
05	MS001-SS-120	UW85AMSD	06/08/12
06	MS002-SS-120	UW85B	06/08/12
07	MS003-SS-120	UW85C	06/08/12
08	MS006-SS-120	UW85D	06/08/12
09			
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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH **Sample ID: MB-060412**
Extraction Method: SW3550C **METHOD BLANK**

Lab Sample ID: MB-060412
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 06/04/12
Percent Moisture: NA

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 06/08/12 13:02
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Aromatic
Date Analyzed: 06/08/12 18:55
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,000	< 2,000 U
C10-C12 Aliphatics	2,000	< 2,000 U
C12-C16 Aliphatics	2,000	< 2,000 U
C16-C21 Aliphatics	2,000	< 2,000 U
C21-C34 Aliphatics	2,000	< 2,000 U
C8-C10 Aromatics	2,000	< 2,000 U
C10-C12 Aromatics	2,000	< 2,000 U
C12-C16 Aromatics	2,000	< 2,000 U
C16-C21 Aromatics	2,000	< 2,000 U
C21-C34 Aromatics	2,000	< 2,000 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	81.2%
Aromatic	o-Terphenyl	75.5%

6a
EPH ALIPHATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client:ANCHOR

Instrument: FID8.I Project: JELD WEN MAULSBY

Calibration Date: 18-MAY-2012 SDG No.: UW85

Aliphatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	19743	19743	18783	18410	20582	19452	4.4
C10-C12	18366	18148	17433	17019	19138	18021	4.6
C12-C16	17468	17169	16604	16160	17539	16988	3.5
C16-C21	16646	16277	15748	15297	17125	16219	4.4
C21-C34	16279	16732	16490	16906	18666	17015	5.6

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
0518A009.D	18-MAY-2012 12:05
0518A010.D	18-MAY-2012 12:30
0518A011.D	18-MAY-2012 12:55
0518A012.D	18-MAY-2012 13:20
0518A013.D	18-MAY-2012 13:46
	18-MAY-2012 13:46

6a
EPH AROMATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client:ANCHOR

Instrument: FID8.I Project: JELD WEN MAULSBY

Calibration Date: 18-MAY-2012 SDG No.: UW85

Aromatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	20027	19417	19870	21146	19509	19994	3.5
C10-C12	19373	19093	19637	20545	18711	19472	3.6
C12-C16	18967	18573	19074	19789	18051	18891	3.4
C16-C21	22427	21852	22472	23276	21709	22347	2.8
C21-C34	25303	24075	24295	24977	24387	24608	2.1

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
0518A031.D	18-MAY-2012 21:13
0518A032.D	18-MAY-2012 21:38
0518A033.D	18-MAY-2012 22:03
0518A034.D	18-MAY-2012 22:28
0518A035.D	18-MAY-2012 22:53
	18-MAY-2012 22:53

EPH ALIPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

SDG No.: UW85 Project No.: JELD WEN MAULSBY

Instrument/Det: FID8/ZB-5 Calibration Date: 06/08/12

Init. Calib. Date(s): 05/18/12 Calib. File: 0608A003.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	%D
C8	1.11	1.09	1.19	95.24	100.0	-4.7
C10	3.27	3.23	3.33	92.66	100.0	-7.3
C12	4.09	4.05	4.15	90.42	100.0	-9.5
C16	5.25	5.21	5.31	88.75	100.0	-11.2
C21	6.86	6.82	6.92	108.6	100.0	8.6
C34	11.83	11.79	11.89	96.90	100.0	-3.1
1-Chloro-Octodecane	6.80	6.76	6.86	108.5	100.0	8.5

EPH ALIPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

SDG No.: UW85 Project No.: JELD WEN MAULSBY

Instrument/Det: FID8/ZB-5 Calibration Date: 06/08/12

Init. Calib. Date(s): 05/18/12 Calib. File: 0608A015.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	%D
C8	1.11	1.09	1.19	90.43	100.0	-9.5
C10	3.27	3.23	3.33	94.33	100.0	-5.6
C12	4.09	4.05	4.15	92.57	100.0	-7.4
C16	5.25	5.21	5.31	89.43	100.0	-10.5
C21	6.84	6.82	6.92	109.4	100.0	9.4
C34	11.82	11.79	11.89	100.3	100.0	0.3
1-Chloro-Octodecane	6.79	6.76	6.86	109.2	100.0	9.2

EPH AROM CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

SDG No.: UW85 Project No.: JELD WEN MAULSBY

Instrument/Det: FID8/ZB-5 Calibration Date: 06/08/12

Init. Calib. Date(s): 05/18/12 Calib. File: 0608A017.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	%D
1-chlorooctodecane	6.78	6.73	6.83	0.000	100.0	-100.0
Toluene	0.75	0.70	0.80	96.11	100.0	-3.8
1,2,3-Trimetben	3.38	3.33	3.43	96.85	100.0	-3.1
Naphthalene	4.06	4.01	4.11	96.99	100.0	-3.0
Acenaphthene	5.00	4.95	5.05	96.54	100.0	-3.4
Pyrene	7.01	6.96	7.06	102.7	100.0	2.7
Benzo-ghi-per	11.51	11.45	11.55	87.44	100.0	-12.5
o-Terph Surr	6.08	6.03	6.13	97.44	100.0	-2.5

EPH AROM CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

SDG No.: UW85 Project No.: JELD WEN MAULSBY

Instrument/Det: FID8/ZB-5 Calibration Date: 06/08/12

Init. Calib. Date(s): 05/18/12 Calib. File: 0608A029.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	%D
1-chlorooctodecane	6.78	6.73	6.83	0.000	100.0	-100.0
Toluene	0.75	0.70	0.80	98.69	100.0	-1.3
1,2,3-Trimetben	3.38	3.33	3.43	97.84	100.0	-2.1
Naphthalene	4.06	4.01	4.11	96.57	100.0	-3.4
Acenaphthene	5.00	4.95	5.05	93.00	100.0	-7.0
Pyrene	7.01	6.96	7.06	102.0	100.0	2.0
Benzo-ghi-per	11.50	11.45	11.55	87.31	100.0	-12.6
o-Terph Surr	6.08	6.03	6.13	93.14	100.0	-6.8

EPH ALIPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

SDG No.: UW85 Project: JELD WEN MAULSBY

Instrument ID: FID8 GC Detector: ZB-5

Run Date: 06/08/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

	METHOD SURROGATE RT S1 : 6.81				
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	SURR RT
01	ZZZZZ	ZZZZZ	06/08/12	1147	
02	ALIPH IB	ALIPH IB	06/08/12	1211	6.80
03	ALIPHATIC #1	ALIPHATIC #1	06/08/12	1237	6.80
04	UW85MBS1	UW85MBS1	06/08/12	1302	6.80
05	UW85LCSS1	UW85LCSS1	06/08/12	1328	6.79
06	UW94LCSDS1	UW85LCSDS1	06/08/12	1353	6.79
07	ZZZZZ	ZZZZZ	06/08/12	1418	6.83
08	ZZZZZ	ZZZZZ	06/08/12	1443	6.82
09	MS001-SS-120	UW85A	06/08/12	1509	6.79
10	MS001-SS-120	UW85AMS	06/08/12	1534	6.79
11	MS001-SS-120	UW85AMSD	06/08/12	1559	6.79
12	MS002-SS-120	UW85B	06/08/12	1624	6.79
13	MS003-SS-120	UW85C	06/08/12	1649	6.79
14	MS006-SS-120	UW85D	06/08/12	1714	6.79
15	ALIPHATIC #2	ALIPHATIC #2	06/08/12	1740	6.79

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

EPH AROM ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

SDG No.: UW85 Project: JELD WEN MAULSBY

Instrument ID: FID8 GC Detector: ZB-5

Run Date: 06/08/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

METHOD SURROGATE RT
S1 : 6.08

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	SURR RT
01	AROM IB	AROM IB	06/08/12	1805	6.08
02	AROMATIC #1	AROMATIC #1	06/08/12	1830	6.08
03	UW85MBS1	UW85MBS1	06/08/12	1855	6.08
04	UW85LCSS1	UW85LCSS1	06/08/12	1920	6.08
05	UW85LCSDS1	UW85LCSDS1	06/08/12	1946	6.07
06	ZZZZZ	ZZZZZ	06/08/12	2011	6.08
07	ZZZZZ	ZZZZZ	06/08/12	2036	6.08
08	MS001-SS-120	UW85A	06/08/12	2101	6.08
09	MS001-SS-120	UW85AMS	06/08/12	2126	6.08
10	MS001-SS-120	UW85AMSD	06/08/12	2152	6.08
11	MS002-SS-120	UW85B	06/08/12	2217	6.08
12	MS003-SS-120	UW85C	06/08/12	2242	6.08
13	MS006-SS-120	UW85D	06/08/12	2307	6.08
14	AROMATIC #2	AROMATIC #2	06/08/12	2332	6.08

QC LIMITS
S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII-2 VPH/EPH

EPH ALIPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

SDG No.: 20120518ALIPH Project: JELD WEN MAULSBY

Instrument ID: FID8 GC Detector: ZB-5

Run Date: 05/18/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

METHOD SURROGATE RT
S1 : 6.81

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	SURR RT
01		ALIPH 20	05/18/12	1141	6.82
02		ALIPH 20	05/18/12	1205	6.80
03		ALIPH 50	05/18/12	1230	6.79
04		ALIPH 100	05/18/12	1255	6.80
05		ALIPH 150	05/18/12	1320	6.80
06		ALIPH 200	05/18/12	1346	6.81
07		ALIPH ICV	05/18/12	1411	6.80

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

EPH AROM ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

SDG No.: 20120518AROM Project: JELD WEN MAULSBY

Instrument ID: FID8 GC Detector: ZB-5

Run Date: 05/18/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

METHOD SURROGATE RT
S1 : 6.07

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	SURR RT
01		ARO IB	05/18/12	2049	6.08
02		ARO 20	05/18/12	2113	6.07
03		ARO 50	05/18/12	2138	6.08
04		ARO 100	05/18/12	2203	6.08
05		ARO 150	05/18/12	2228	6.08
06		ARO 200	05/18/12	2253	6.08
07		ARO ICV	05/18/12	2317	6.09

QC LIMITS

S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

Total Solids

ARI Job ID: UW85

Extractions Total Solids-extts
Data By: Alex Choeng
Created: 5/16/12

Worklist: 1682
Analyst: AC
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	UU52B 12-8894 MS101-SS-120515	1.13	11.68	2.16	9.76	NR
2.	UU52C 12-8895 MS002-SS-120515	1.14	12.09	2.26	10.2	NR
3.	UU52D 12-8896 MS003-SS-120515	1.14	11.81	2.13	9.28	NR
4.	UU52E 12-8897 MS004-SS-120515	1.13	12.65	2.23	9.55	NR
5.	UU52F 12-8898 MS005-SS-120515	1.14	11.67	2.08	8.93	NR
6.	UU52G 12-8899 MS006-SS-120515	1.14	11.99	2.14	9.22	NR
7.	UU52H 12-8900 MS007-SS-120515	1.12	13.33	3.09	16.1	NR
8.	UU52I 12-8901 MS008-SS-120515	1.14	11.32	2.26	11.0	NR
9.	UU52J 12-8902 MS009-SS-120515	1.13	12.50	2.25	9.85	NR

Co located

~~UU52 : 00378~~

UW85 : 00038

Extractions Total Solids-extts
Data By: Warren P. Woodard
Created: 5/17/12

Worklist: 2060
Analyst: WPW
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	UU52A 12-8893 MS001-SS-120515	1.15	13.57	2.35	9.66	NR

90 6/12/12

EPH Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UW85

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

EPH – Soil / Sediment
Sonication (3550C) (SOP # 3304S)

Preparation Test EPH # 1 (EPHSDCI)
ARI JOB No(s) UW94, UW85

Page 1 of 1

In-House (2000ppb)
Batch set up by: ~~SK~~

Bottle #	Extraction Requirements	Weight Extracted (wet wt)	Sonic Horn ID + Check	Fractionate Aromatic/ Aliphatic (1:1)	Final Effective Volume AR	Final Effective Volume AL	Volume to Lab AR	Volume to Lab AL	Comments	Verify Client ID
	UW94 MBS	10.00g	1	(1:1) 2mL	1mL	1mL	1mL	1mL		NL 6/4/12
	SBS	10.00g	2	(1:1) 2mL	1mL	1mL	1mL	1mL		Analyst/Date
	~~QLS~~ SBS Dup	10.00g	3	(1:1) 2mL	1mL	1mL	1mL	1mL		KD 80-85°C To 1mL
2	A	10.09	4	(1:1) 2mL	1mL	1mL	1mL	1mL		Exchange with 30mL 90:10 Pentane/Hexane 100°C To 1mL
2	B	10.07	5	(1:1) 2mL	1mL	1mL	1mL	1mL		RR 6/5/12
1	UW85 A	10.10	6	(1:1) 2mL	1mL	1mL	1mL	1mL		Analyst/Date
1	Ams	10.06	7	(1:1) 2mL	1mL	1mL	1mL	1mL		TurboVap 1 2 3 Pre-Fractionation
1	Amsd	10.13	8	(1:1) 2mL	1mL	1mL	1mL	1mL		
1	B	10.19	9	(1:1) 2mL	1mL	1mL	1mL	1mL		
1	C	10.27	10	(1:1) 2mL	1mL	1mL	1mL	1mL		
1	D	10.25	1	(1:1) 2mL	1mL	1mL	1mL	1mL		
				(1:1) 2mL	1mL	1mL	1mL	1mL		
				(1:1) 2mL	1mL	1mL	1mL	1mL		
				(1:1) 2mL	1mL	1mL	1mL	1mL		CSZ 6/7/12
				(1:1) 2mL	1mL	1mL	1mL	1mL		Analyst/Date
				(1:1) 2mL	1mL	1mL	1mL	1mL		TurboVap 1 2 3 Post Fractionation
				(1:1) 2mL	1mL	1mL	1mL	1mL		
				(1:1) 2mL	1mL	1mL	1mL	1mL		
				(1:1) 2mL	1mL	1mL	1mL	1mL		
Analyst/Date	NL 6/4/12									CSZ 6/8/12 Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	M (1962-4)	1500µg/mL	100µL	8/30/12	NL	AC
Spike	5 (1962-4)	1500µg/mL	100µL	10/04/12	NL	AC
~~QLS Spike~~	~~22 ( )~~	~~400µg/mL~~	~~50µL~~			

Extraction Time: 13:12

Balance ID: B139798002

SPECIAL INSTRUCTIONS: 1. Weigh into 250mL beakers. 2. Dry with neutral sodium sulfate 3. Add surr/spk. 4. Extract 3X with DCM for 5minutes. 5. Collect into KD with small funnel and neutral glasswool NO SODIUM SULFATE. 6. KD to no more than 1mL at 80°C. 7. Exchange with 30mL 90:10 Pentane/Hexane. 8. KD to no more than 1mL at 100°C. 9. Let Cool: After cooling: volume should be 5mL 10. TurboVap to 2mL 11. Fractionate Aromatic/Aliphatic- collect each fractions extract into (2) Turbo Tubes. 12. TurboVap to 1mL. 13. Vial both fractions in DCM.

A. Need Total Solids Y / N — UW94 only

B. Archive/Freeze Y / N — UW94 UW85

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: UW85 Client ID: Anchor QEA, LLC.

Parameter: EPH Client Project: Jeld Wen Maulsby Marsh

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☒ Standing Water Decanted (Not shared)= A, B, C, D	M 6/4/12
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☒ Organics (Leaves/sticks/grass)= A, B, C, D	ML 6/4/12
☒ Oily, obvious fuel/sulfur odors= A, B, C, D	ML 6/4/12
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	

EPH Raw Data
Initial Calibration

ARI Job ID: UW85

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Aliphatic

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) ~~**405S**(Herb)~~ **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) ~~**428S**(EPH)~~ **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 (FID-8)
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 5/18/12 Internal Standard ID — Expiration —

Endrin/DDT Breakdown <15%? YES / NO / NA		ICV Exceeding ±20%?	C21 YES / (NO)
ICal Meets %RSD & r^2 Criteria	(YES) / NO	ICV Exceeding ±30%?	YES / (NO)
Manual Integrations for ICal?	(YES) / NO	Linear Fits Used?	YES / (NO)
Minimum Response S/N Met	(YES) / NO	Quadratic Fits Used?	YES / (NO)
		Calibration Points Dropped?	YES / (NO)

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Ultra	I7251	8/30/12	Accustandard	I7241	8/30/12

Detail problems, corrective actions and/or other pertinent information below:

Analyst: [signature] **Date:** 5/25/12

Reviewer: [signature] **Date:** 5/25/12

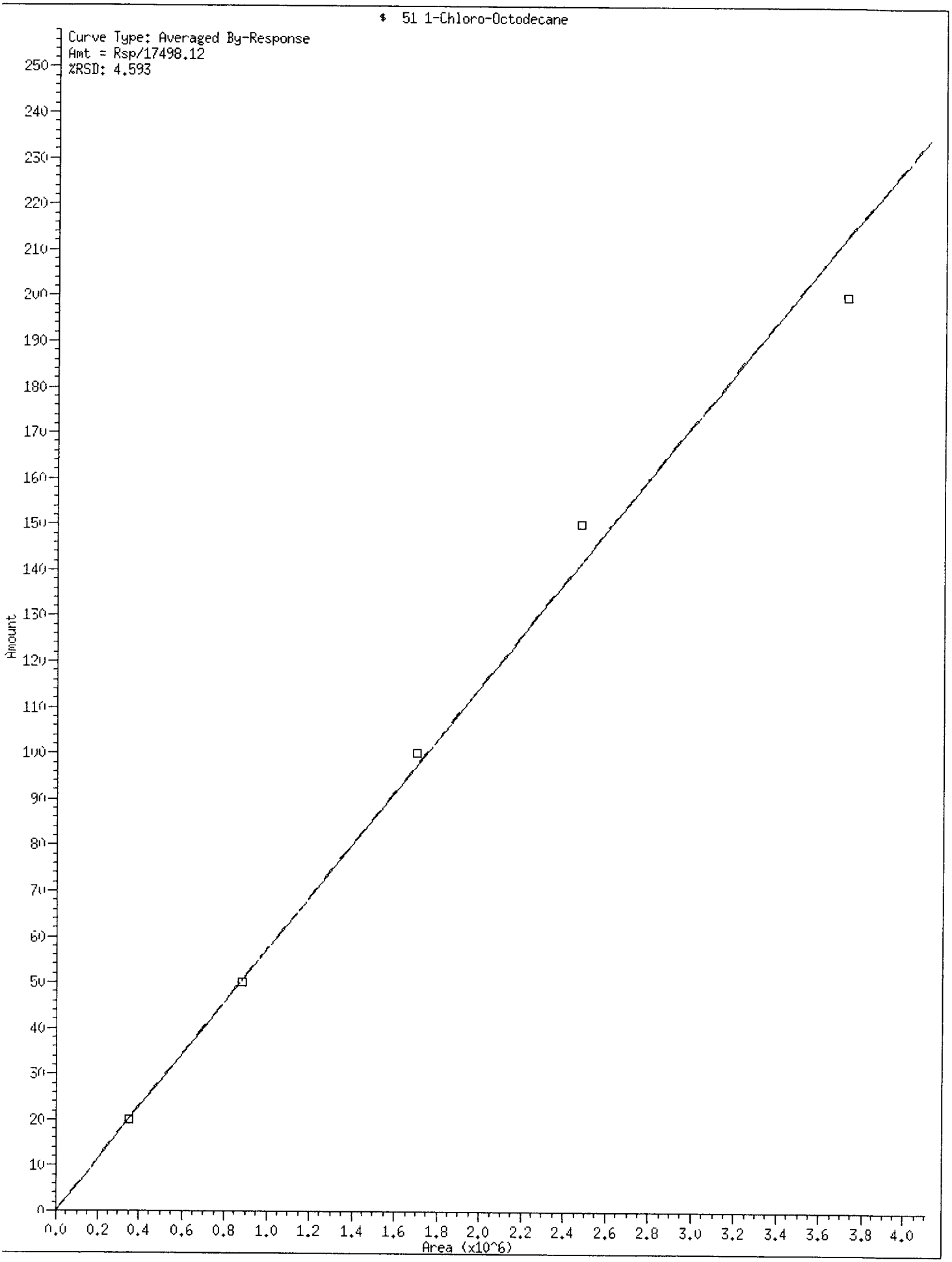
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-MAY-2012 12:05
End Cal Date : 18-MAY-2012 13:46
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Cal Date : 19-May-2012 09:32 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/fid8.i/20120518ALIPH.b/0518A009.D
Level 2: /chem2/fid8.i/20120518ALIPH.b/0518A010.D
Level 3: /chem2/fid8.i/20120518ALIPH.b/0518A011.D
Level 4: /chem2/fid8.i/20120518ALIPH.b/0518A012.D
Level 5: /chem2/fid8.i/20120518ALIPH.b/0518A013.D

Compound	20.000 Level 1	50 000 Level 2	100 000 Level 3	150.000 Level 4	200 000 Level 5	___ RRF	% RSD
2 C8	20340	20409	19139	18795	20916	19920	4.547
3 C10	19145	19077	18427	18024	20248	18984	4.456
45 C12	18366	18148	17433	17019	19138	18021	4.586
46 C16	17468	17169	16604	16160	17539	16988	3.483
47 C21	16646	16277	15748	15297	17125	16219	4 445
48 C34	16279	16732	16490	16906	18666	17015	5 603
$ 51 1-Chloro-Octodecane	17683	17603	17033	16512	18660	17498	4 593


$ 51 1-Chloro-Octodecane
Curve Type: Averaged By-Response
Amt = Rsp/17498.12
%RSD: 4.593
Amount
Area (x10^6)
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

6a

EPH ALIPHATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC.

Client: 20120518ALIPH

Instrument: FID8.I

Project:

Calibration Date: 18-MAY-2012

SDG No.: 20120518ALIPH

Aliphatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	19743	19743	18783	18410	20582	19452	4.4
C10-C12	18366	18148	17433	17019	19138	18021	4.6
C12-C16	17468	17169	16604	16160	17539	16988	3.5
C16-C21	16646	16277	15748	15297	17125	16219	4.4
C21-C34	16279	16732	16490	16906	18666	17015	5.6

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
0518A009.D	18-MAY-2012 12:05
0518A010.D	18-MAY-2012 12:30
0518A011.D	18-MAY-2012 12:55
0518A012.D	18-MAY-2012 13:20
0518A013.D	18-MAY-2012 13:46
	18-MAY-2012 13:46

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client:

SDG No.: 20120518ALIPH Project:

Instrument ID: FID8 GC Column: ZB-5

Run Date: 05/18/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.81

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01		ALIPH 20	05/18/12	1141	6.82	
02		ALIPH 20	05/18/12	1205	6.80	
03		ALIPH 50	05/18/12	1230	6.79	
04		ALIPH 100	05/18/12	1255	6.80	
05		ALIPH 150	05/18/12	1320	6.80	
06		ALIPH 200	05/18/12	1346	6.81	
07		ALIPH ICV	05/18/12	1411	6.80	

S1 = 1-Chloro-Octodecane QC LIMITS (+/- 0.05 MINUTES)

* Values outside of QC limits.

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Batch File: /chem2/fid8.i/20120518ALIPH.b
Inst ID: fid8.i

ID:	RT01	RT02	RT03	RT04	RT05
FILENAME:	0518A009	0518A010	0518A011	0518A012	0518A013
INJ.DATE:	18-MAY-2012	18-MAY-2012	18-MAY-2012	18-MAY-2012	18-MAY-2012
INJ.TIME:	12:05	12 30	12.55	13.20	13 46

Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
2 C8	1 132	1.135	1.130	1 131	1.141	1.132	1.082-1 182	1.134	0.005
3 C10	3 278	3.279	3 280	3 281	3.282	3.278	3 228-3 328	3 280	0.002
45 C12	4 093	4 093	4 095	4 095	4 096	4.093	4 043-4 143	4 094	0.002
46 C16	5 255	5 255	5.256	5 258	5.261	5.255	5.205-5 305	5 257	0.002
$ 51 1-Chloro-Octodecane	6.796	6 794	6.796	6.800	6 813	6 796	6 746-6.846	6.800	0.008
47 C21	6.851	6 850	6 851	6.856	6.867	6 851	6.801-6.901	6.855	0 007
48 C34	11.824	11.827	11.827	11.830	11 838	11 824	11.774-11.874	11 829	0 005

Reviewer 1 _____ Date: 5/23/12
Reviewer 2 _____ Date: 5/23/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A009.D
Lab Smp Id: ALIPH 20
Inj Date : 18-MAY-2012 12:05
Operator : MH Inst ID: fid8.i
Smp Info : ALIPH 20
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2 C8	1.132	1 141	-0.009	406804	20 0000	20 421
3 C10	3.278	3.282	-0 004	382897	20.0000	20 169
45 C12	4.093	4 096	-0 003	367321	20.0000	20 383
46 C16	5 255	5.261	-0.006	349352	20 0000	20 564
51 1-Chloro-Octodecane	6 796	6 813	-0.017	353665	20 0000	20.211
47 C21	6 851	6.867	-0 016	332918	20 0000	20 526
48 C34	11 824	11 838	-0.014	325586	20 0000	19 135

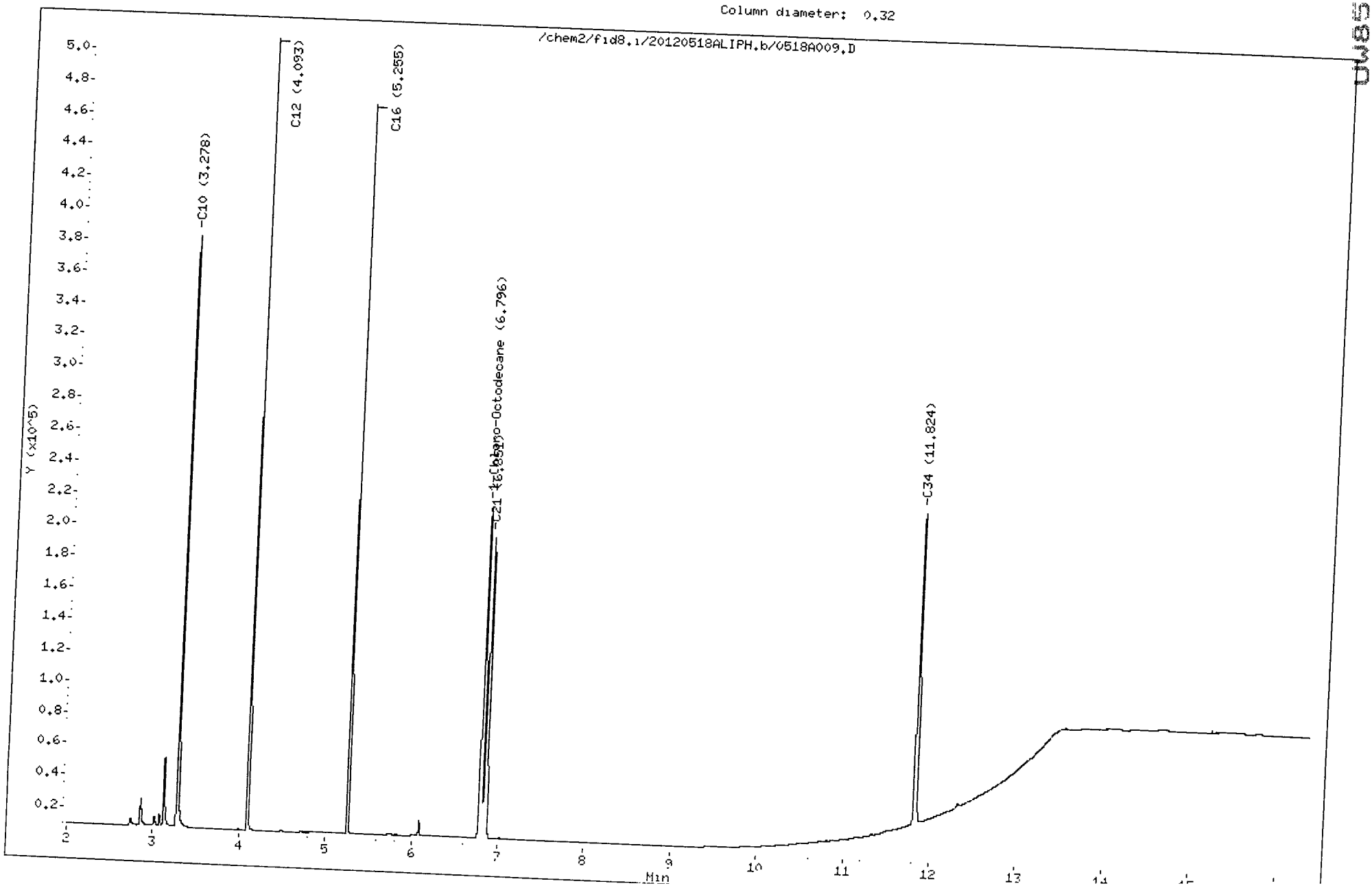
JWS 5/19/12

Data File: /chem2/fid8.1/20120518ALIPH.b/0518A009.D
Date : 18-MAY-2012 12:05
Client ID:
Sample Info: ALIPH 20

Instrument: fid8.1

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120518ALIPH.b/0518A009.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

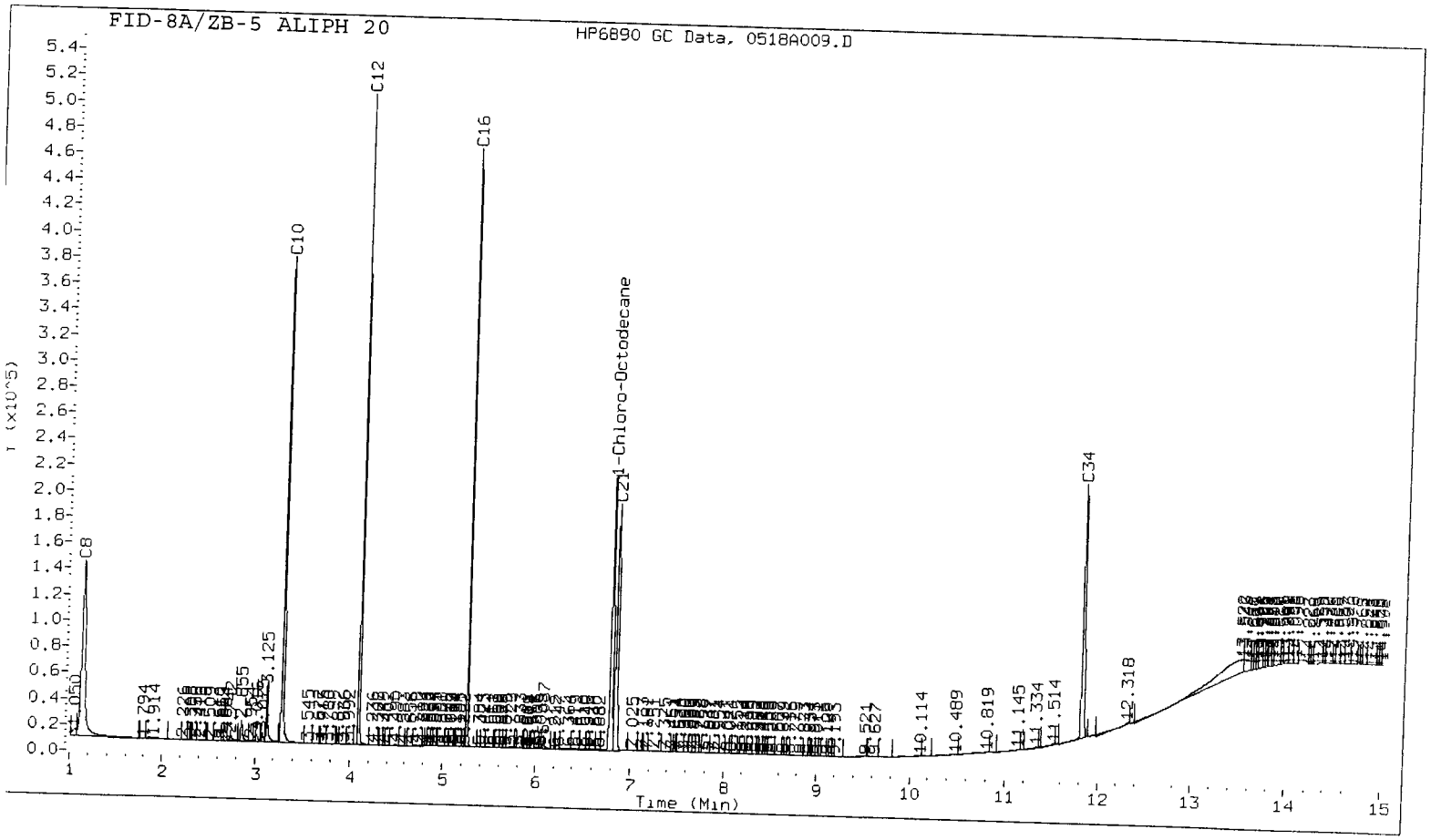
ARI ID: ALIPH 20
Client ID:
Injection: 18-MAY-2012 12:05
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	921681	47	(1.041 - 3.382)
C10-C12	Aliph.	369312	20	(3.382 - 4.196)
C12-C16	Aliph.	351527	21	(4.196 - 5.361)
C16-C21	Aliph.	358532	22	(5.361 - 6.967)
C21-C34	Aliph.	350169	21	(6.967 - 11.938)

Surrogate Rec: 13.5%

JK 05/19/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A010.D
Lab Smp Id: ALIPH 50
Inj Date : 18-MAY-2012 12:30
Operator : MH
Inst ID: fid8.i
Smp Info : ALIPH 50
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains
Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46
Cal File: 0518A013.D
Als bottle: 2
Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2 C8	1 135	1 141	-0.006	1020441	50 0000	51 227
3 C10	3 279	3 282	-0.003	953850	50 0000	50.244
45 C12	4.093	4.096	-0 003	907393	50.0000	50.353
46 C16	5 255	5.261	-0 006	858437	50 0000	50.532
$ 51 1-Chloro-Octodecane	6 794	6 813	-0.019	880169	50 0000	50 300
47 C21	6.850	6 867	-0.017	813840	50.0000	50.179
48 C34	11.827	11.838	-0.011	836609	50 0000	49 169

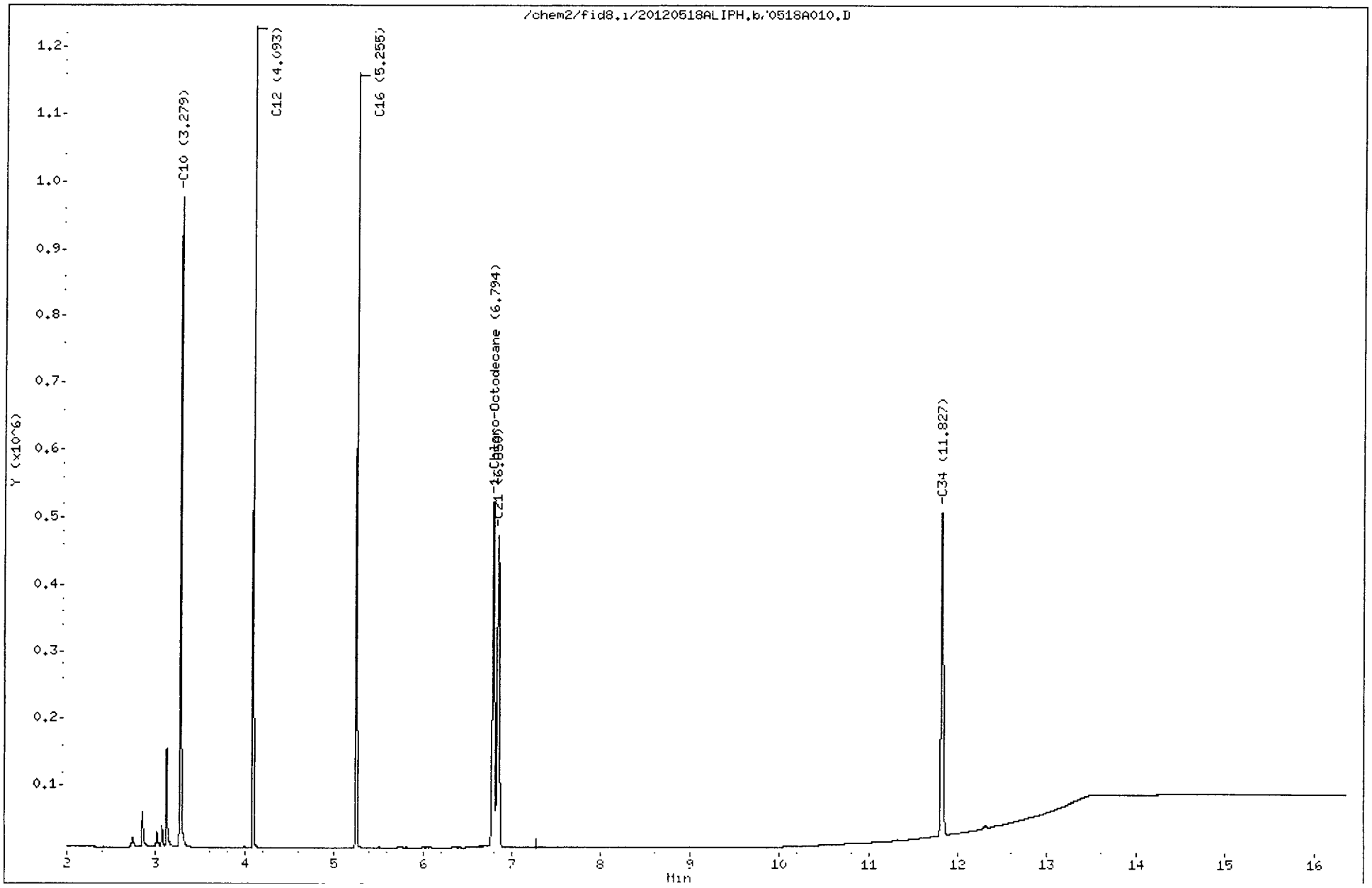
5/19/12

Data File: /chem2/fid8.i/20120518ALIPH.b/0518A010.D
Date : 18-MAY-2012 12:30
Client ID:
Sample Info: ALIPH 50

Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120518ALIPH.b/0518A010.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

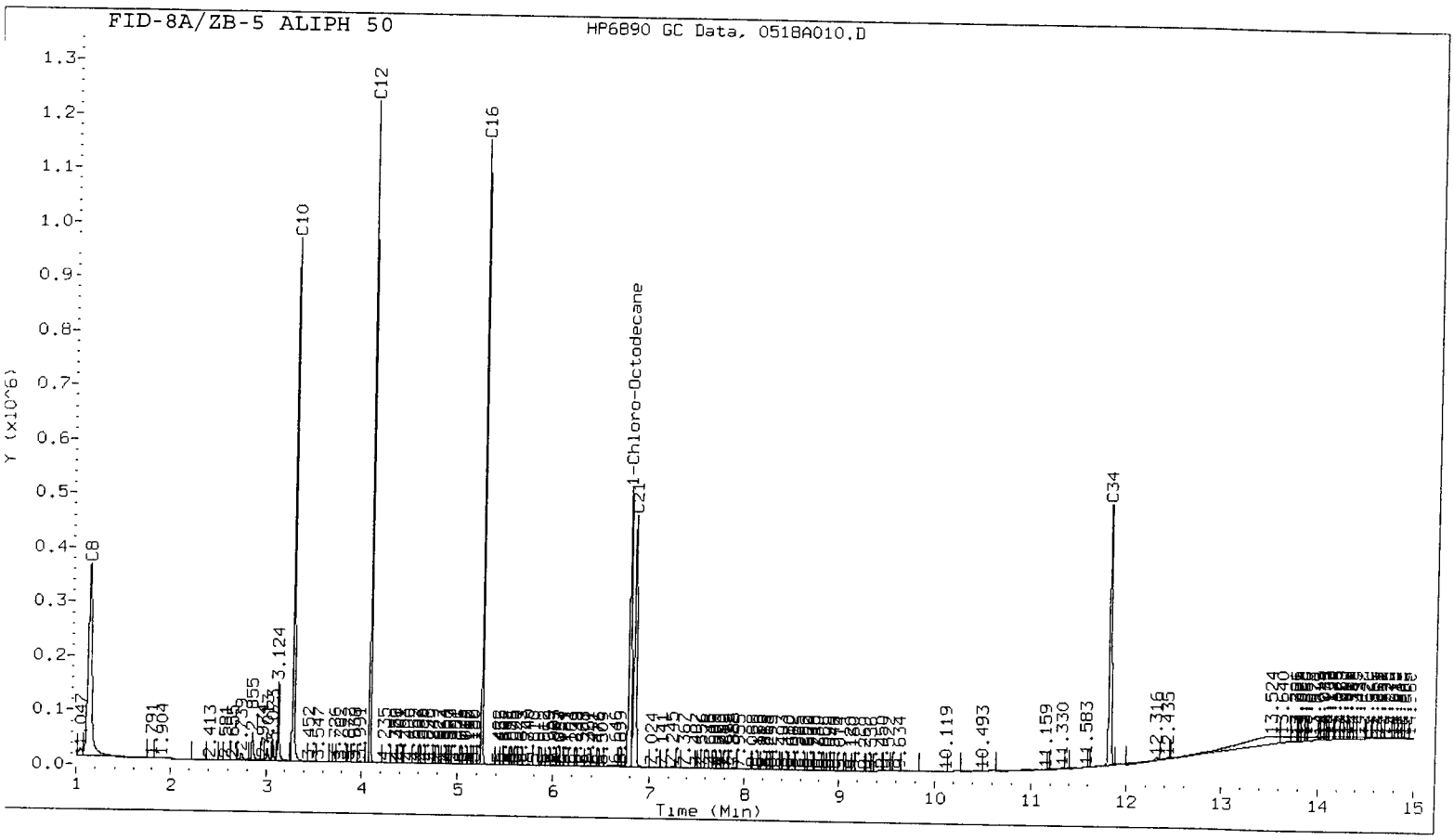
ARI ID: ALIPH 50
Client ID:
Injection: 18-MAY-2012 12:30
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	2354572	121	(1.041 - 3.382)
C10-C12	Aliph.	911868	51	(3.382 - 4.196)
C12-C16	Aliph.	861316	51	(4.196 - 5.361)
C16-C21	Aliph.	854917	53	(5.361 - 6.967)
C21-C34	Aliph.	875939	51	(6.967 - 11.938)

Surrogate Rec: 33.5%

05/19/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A011.D
Lab Smp Id: ALIPH 100
Inj Date : 18-MAY-2012 12:55
Operator : MH Inst ID: fid8.i
Smp Info : ALIPH 100
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

05/19/12

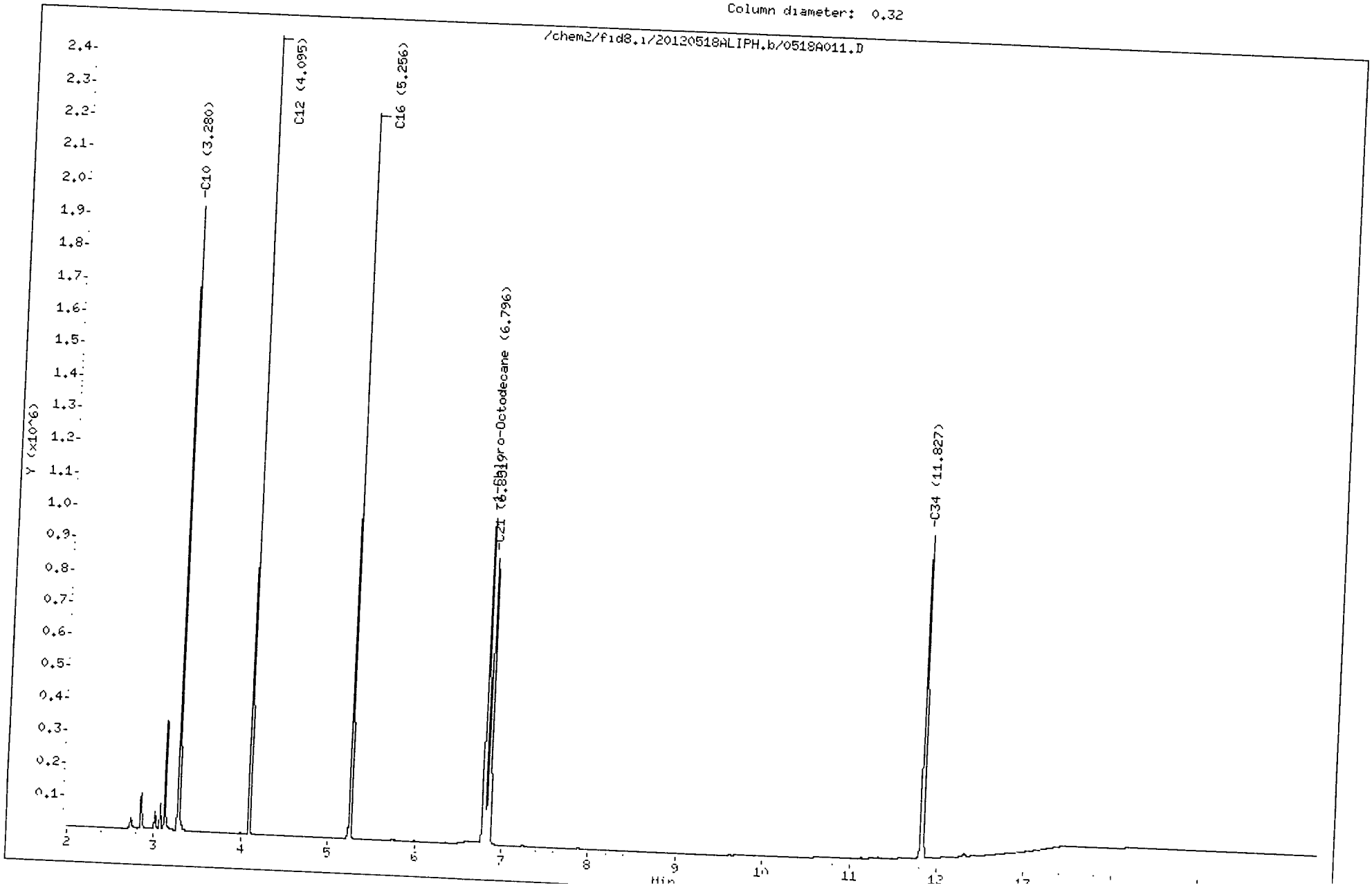
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2 C8	1.130	1 141	-0.011	1913941	100.000	96.081
3 C10	3.280	3 282	-0 002	1842656	100 000	97.063
45 C12	4 095	4 096	-0.001	1743265	100 000	96.737
46 C16	5.256	5.261	-0.005	1660405	100 000	97.740
51 1-Chloro-Octodecane	6 796	6.813	-0.017	1703265	100 000	97.339
47 C21	6.851	6 867	-0.016	1574815	100 000	97 099
48 C34	11 827	11 838	-0.011	1648999	100 000	96 915

Data File: /chem2/fid8.1/20120518ALIPH.b/0518A011.D
Date : 18-MAY-2012 12:55
Client ID:
Sample Info: ALIPH 100

Instrument: fid8.1

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120518ALIPH.b/0518A011.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

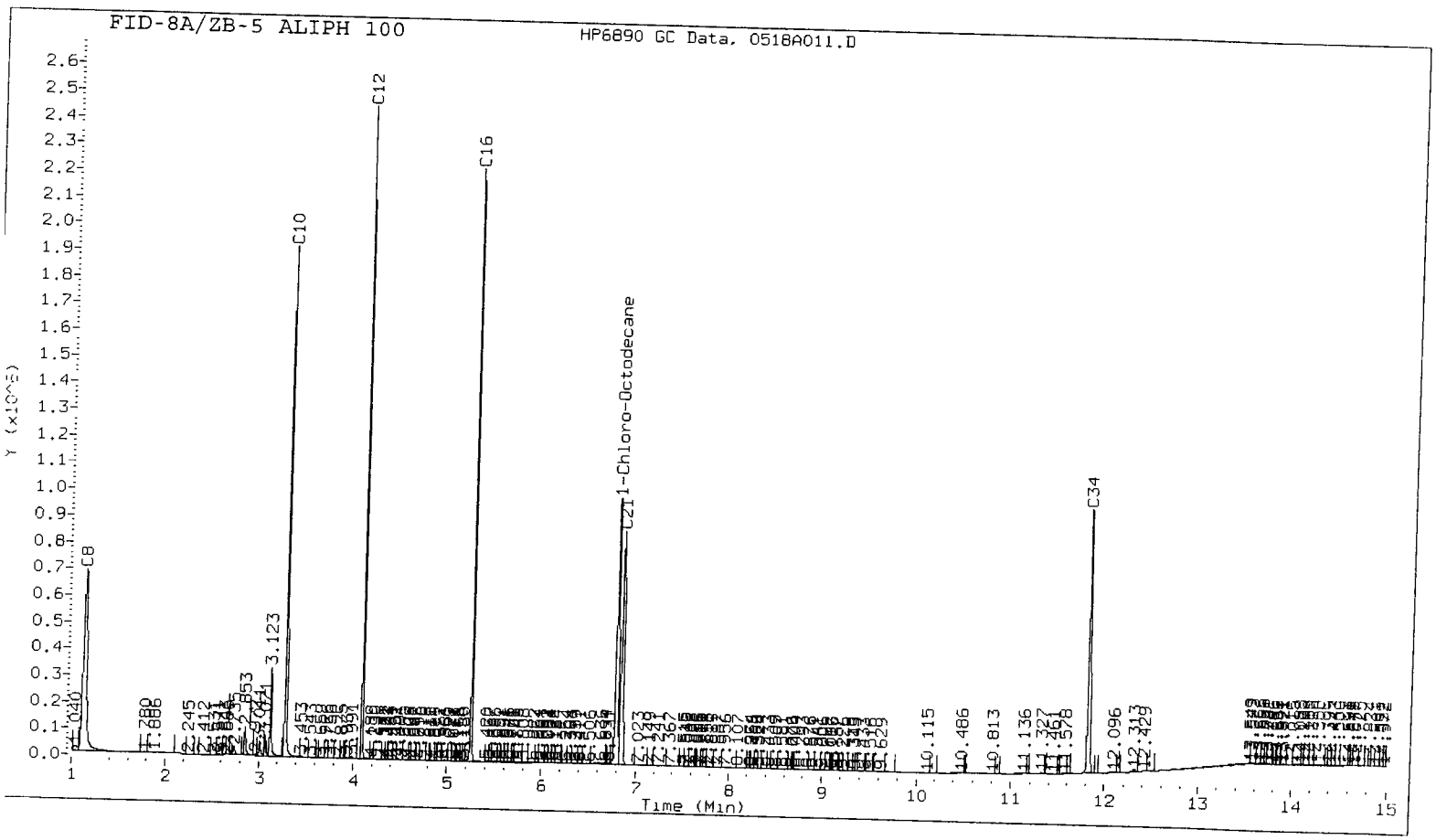
ARI ID: ALIPH 100
Client ID:
Injection: 18-MAY-2012 12:55
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	4489303	231	(1.041 - 3.382)
C10-C12	Aliph.	1752050	97	(3.382 - 4.196)
C12-C16	Aliph.	1665699	98	(4.196 - 5.361)
C16-C21	Aliph.	1686914	104	(5.361 - 6.967)
C21-C34	Aliph.	1685198	99	(6.967 - 11.938)

Surrogate Rec: 64.9%

05/9/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A012.D
Lab Smp Id: ALIPH 150
Inj Date : 18-MAY-2012 13:20
Operator : MH
Smp Info : ALIPH 150 Inst ID: fid8.i
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.50 Compound Sublist: waliph.sub

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

ompounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2 C8	1 131	1 141	-0 010	2819293	150.000	141.531
3 C10	3 281	3 282	-0 001	2703657	150.000	142.417
45 C12	4 095	4.096	-0 001	2552846	150.000	141 662
46 C16	5.258	5 261	-0 003	2423967	150.000	142.687
51 1-Chloro-Octodecane	6 800	6 813	-0 013	2476764	150.000	141 544
47 C21	6 856	6.867	-0 011	2294540	150.000	141 475
48 C34	11 830	11 838	-0 008	2535888	150.000	149 040

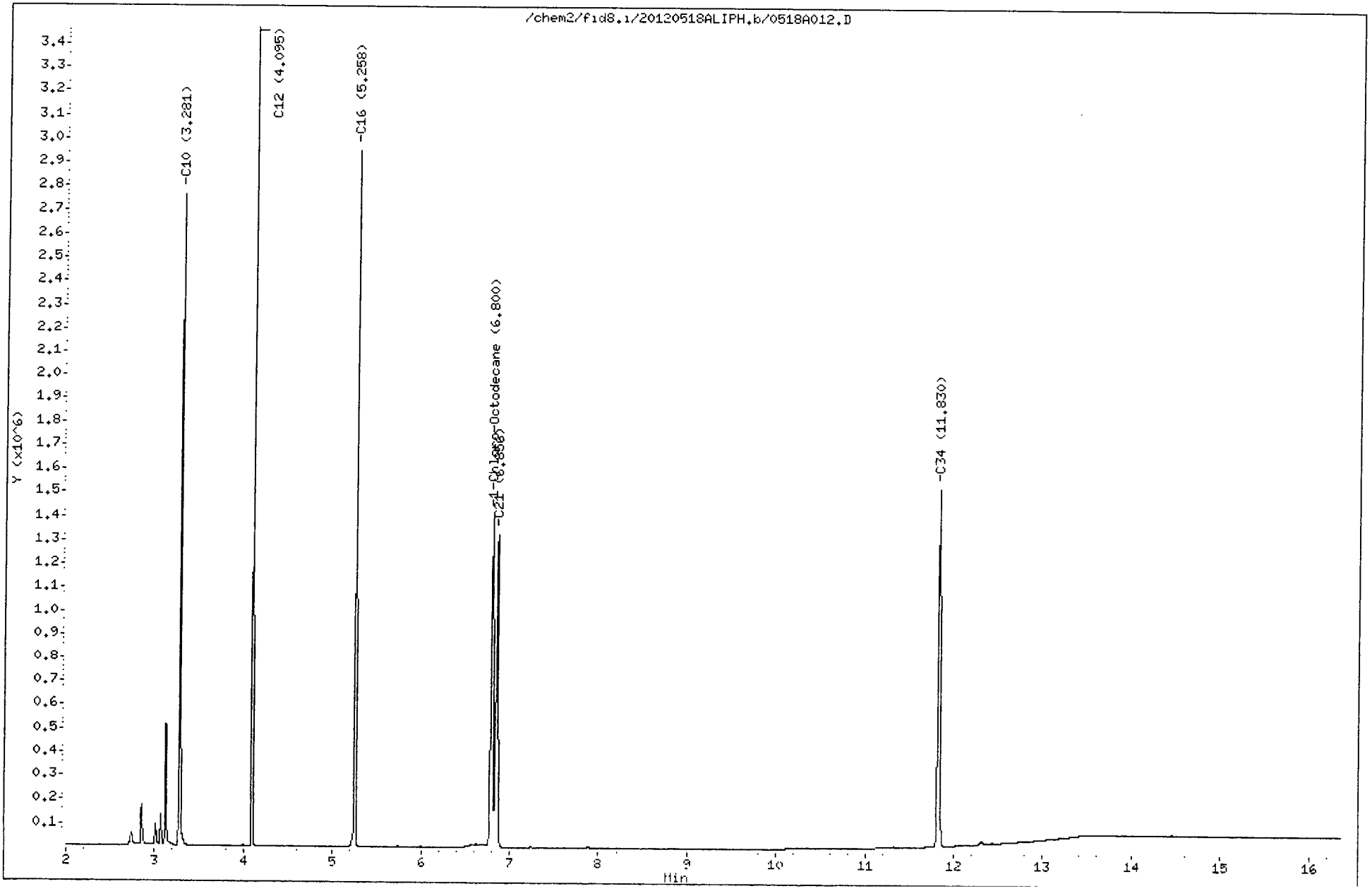
JK 05/19/12

Data File: /chem2/fid8.i/20120518ALIPH.b/0518A012.D
Date : 18-MAY-2012 13:20
Client ID:
Sample Info: ALIPH 150

Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120518ALIPH.b/0518A012.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

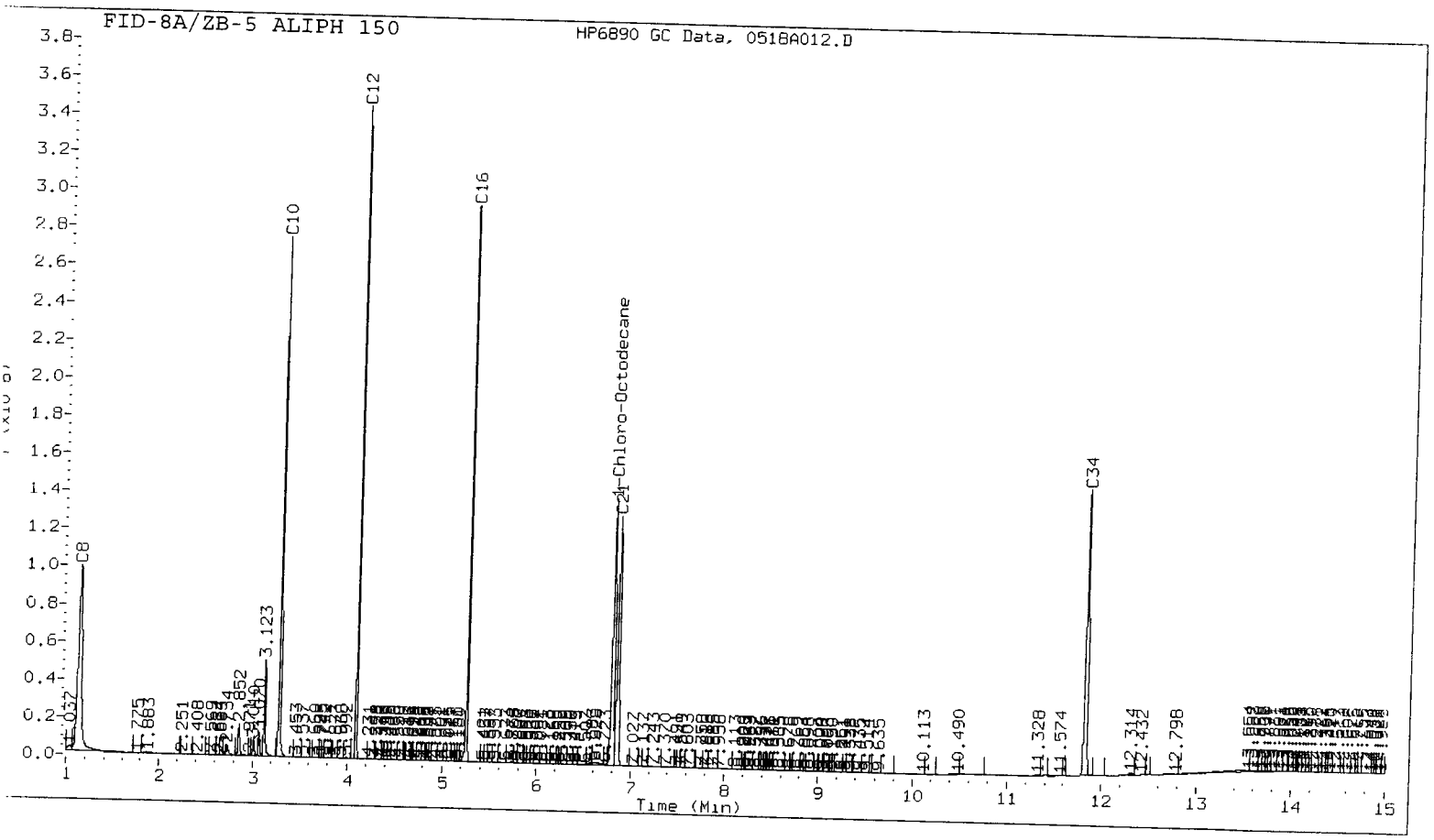
ARI ID: ALIPH 150
Client ID:
Injection: 18-MAY-2012 13:20
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	6650004	342	(1.041 - 3.382)
C10-C12	Aliph.	2565008	142	(3.382 - 4.196)
C12-C16	Aliph.	2430021	143	(4.196 - 5.361)
C16-C21	Aliph.	2466801	152	(5.361 - 6.967)
C21-C34	Aliph.	2598436	153	(6.967 - 11.938)

Surrogate Rec: 94.4%

JT 05/19/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A013.D
Lab Smp Id: ALIPH 200
Inj Date : 18-MAY-2012 13:46
Operator : MH
Inst ID: fid8.i
Smp Info : ALIPH 200
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains
Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46
Cal File: 0518A013.D
Als bottle: 5
Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable
Local Compound Variable

05/19/12

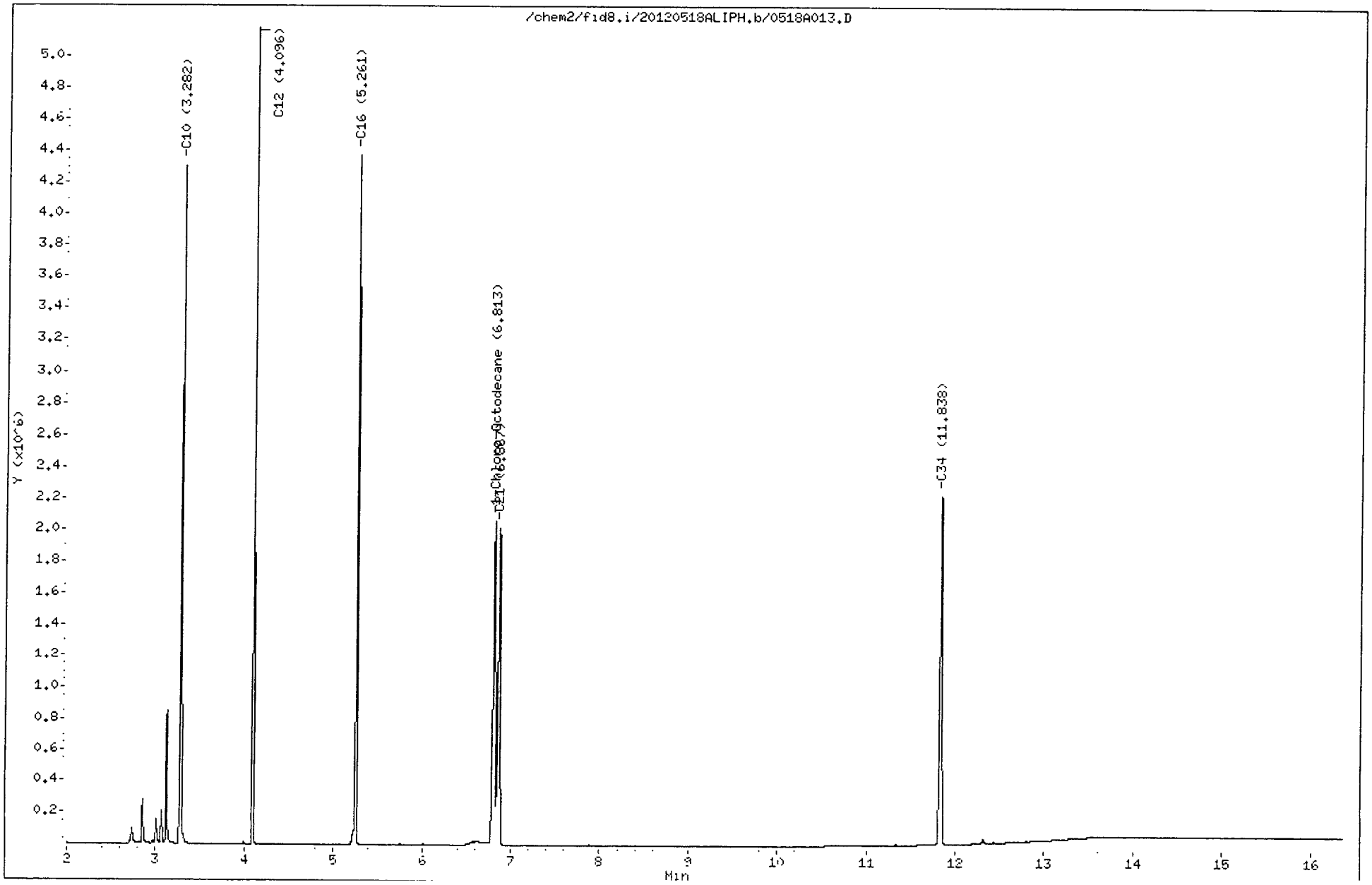
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2 C8	1.141	1.141	0.000	4183188	200 000	210 000
3 C10	3.282	3.282	0.000	4049500	200.000	213.310
45 C12	4.096	4.096	0.000	3827511	200 000	212 396
46 C16	5.261	5.261	0 000	3507865	200.000	206 491
51 1-Chloro-Octodecane	6 813	6.813	0.000	3731907	200 000	213.274
47 C21	6 867	6.867	0 000	3425030	200 000	211 179
48 C34	11 838	11 838	0.000	3733248	200 000	219 412

Data File: /chem2/fid8.i/20120518ALIPH.b/0518A013.D
Date : 18-MAY-2012 13:46
Client ID:
Sample Info: ALIPH 200

Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120518ALIPH.b/0518A013.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

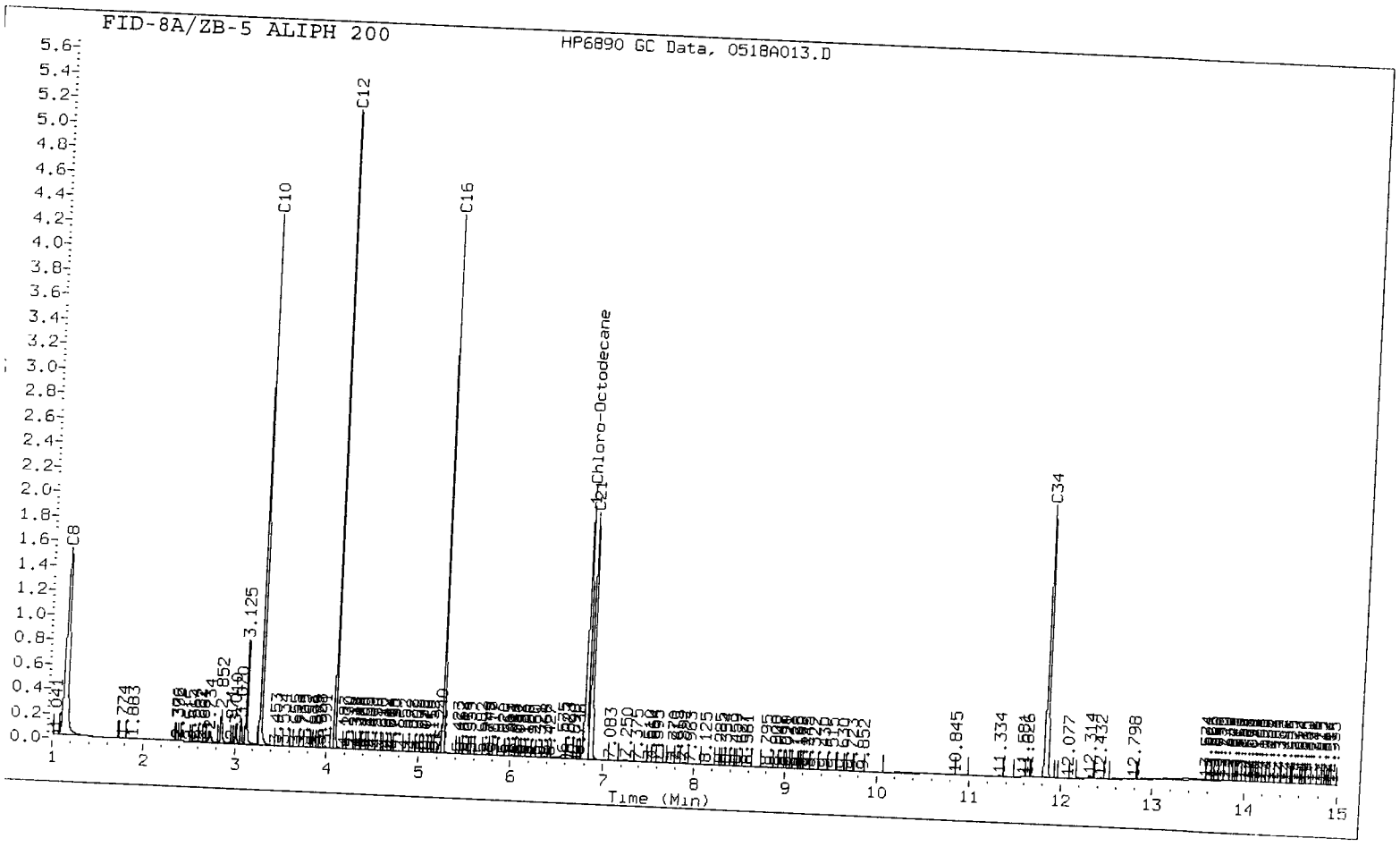
ARI ID: ALIPH 200
Client ID:
Injection: 18-MAY-2012 13:46
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	10001204	514	(1.041 - 3.382)
C10-C12	Aliph.	3847512	214	(3.382 - 4.196)
C12-C16	Aliph.	3668666	216	(4.196 - 5.361)
C16-C21	Aliph.	3737181	230	(5.361 - 6.967)
C21-C34	Aliph.	3796460	223	(6.967 - 11.938)

Surrogate Rec: 142.2%

JL 05/19/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A014.D
Lab Smp Id: ALIPH ICV
Inj Date : 18-MAY-2012 14:11
Operator : MH Inst ID: fid8.i
Smp Info : ALIPH ICV
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2	C8	1.157	1.141	0.016	2287049	114 812	114.812
3	C10	3.282	3.282	0 000	2107693	111.024	111.024
45	C12	4 095	4.096	-0 001	2044190	113 436	113 436
46	C16	5.259	5 261	-0 002	2004786	118 013	118.012
$ 51	1-Chloro-Octodecane	6 805	6 813	-0 008	2089255	119 399	119 398
47	C21	6.860	6.867	-0 007	2064469	127.290	127 290
48	C34	11.830	11.838	-0.008	1827896	107 430	107.430

FT

Data File: /chem2/fid8.i/20120518ALIPH.b/0518A014.D

Date : 18-MAY-2012 14:11

Client ID:

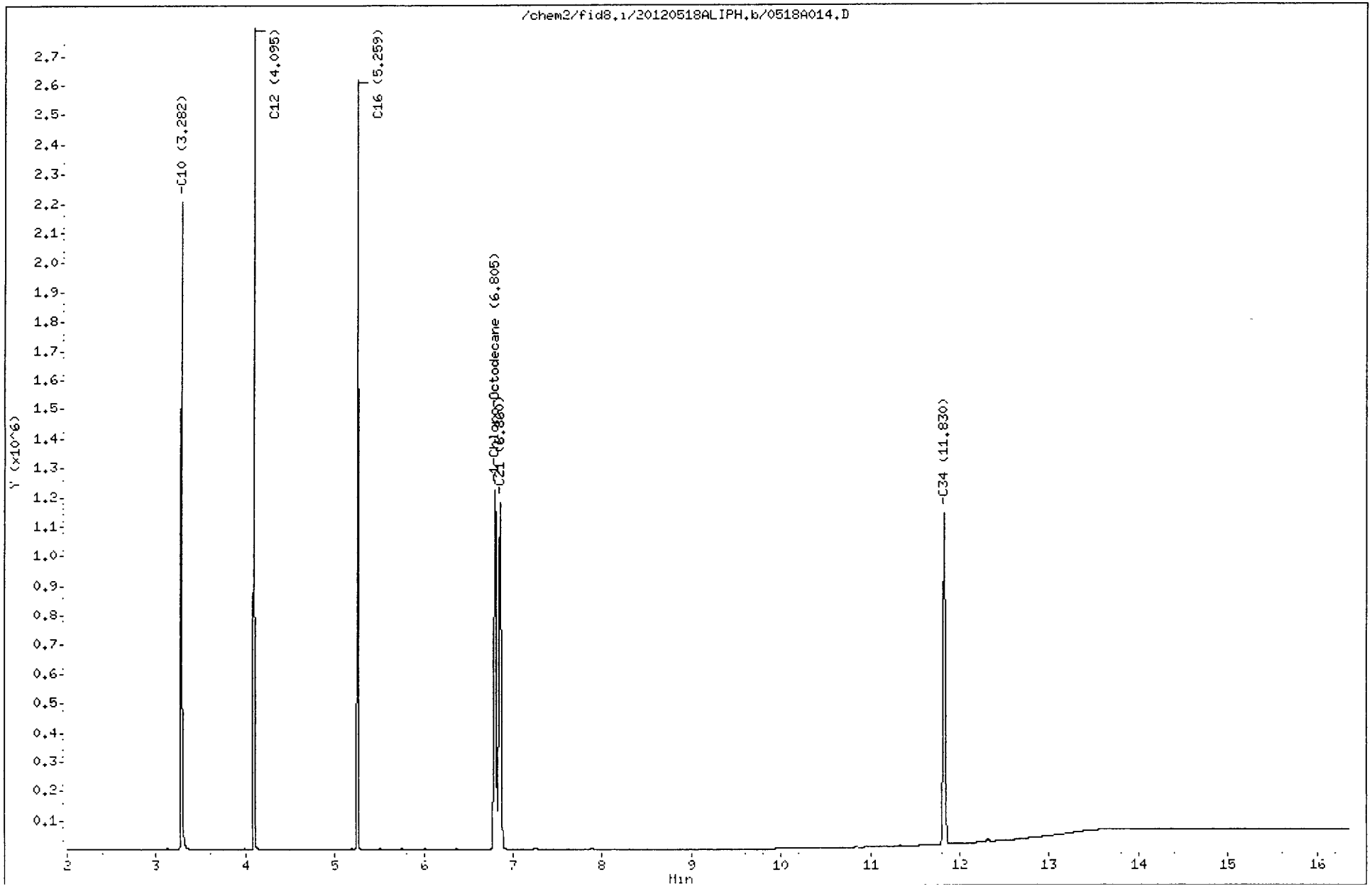
Sample Info: ALIPH ICV

Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32



Analytical Resources Inc.
WA. EPH Aliphatics Report

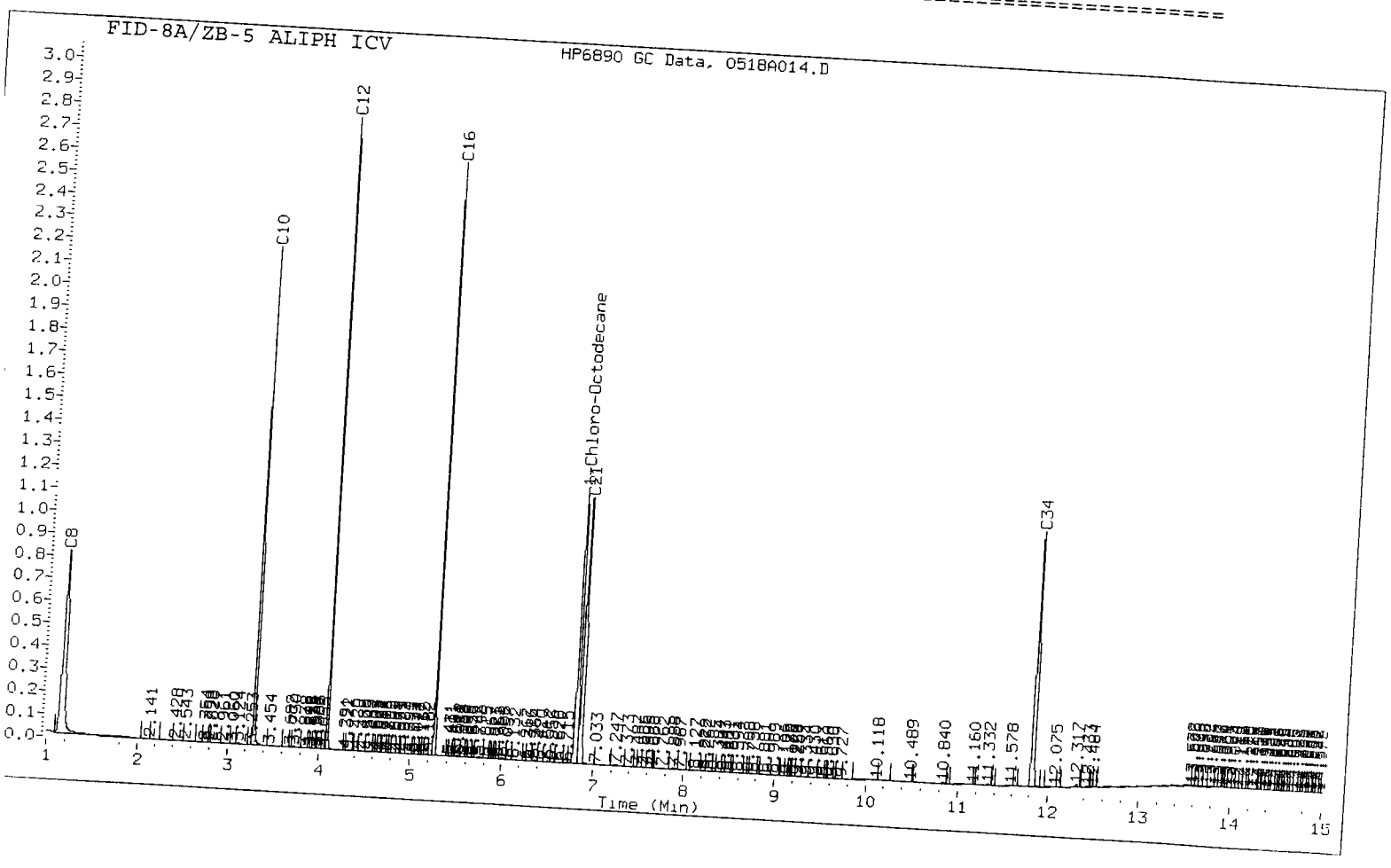
Data file: /chem2/fid8.i/20120518ALIPH.b/0518A014.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: ALIPH ICV
Client ID:
Injection: 18-MAY-2012 14:11
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	4421602	227	(1.041 - 3.382)
C10-C12	Aliph.	2056033	114	(3.382 - 4.196)
C12-C16	Aliph.	2013916	119	(4.196 - 5.361)
C16-C21	Aliph.	2103786	130	(5.361 - 6.967)
C21-C34	Aliph.	1874865	110	(6.967 - 11.938)

Surrogate Rec: 79.6%



Report Date : 25-May-2012 07:49

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Batch File: /chem2/fid8.i/20120518ALIPH.b
Inst ID: fid8.i

ID:	RT01	RT02	RT03	RT04	RT05
FILENAME.	0518A009	0518A010	0518A011	0518A012	0518A013
INJ.DATE:	18-MAY-2012	18-MAY-2012	18-MAY-2012	18-MAY-2012	18-MAY-2012
INJ.TIME	12 05	12.30	12:55	13:20	13.46

Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
2 C8	1 132	1.135	1 130	1.131	1.141	1.141	1.091-1.191	1.134	0 005
3 C10	3.278	3.279	3 280	3.281	3.282	3 282	3 232-3.332	3.280	0 002
45 C12	4 093	4.093	4.095	4 095	4.096	4 096	4.046-4 146	4.094	0.002
46 C16	5.255	5.255	5.256	5 258	5.261	5 261	5.211-5 311	5 257	0 002
$ 51 1-Chloro-Octodecane	6.796	6.794	6 796	6.800	6.813	6 813	6 763-6.863	6.800	0 008
47 C21	6.851	6.850	6 851	6 856	6 867	6 867	6.817-6 917	6.855	0.007
48 C34	11.824	11.827	11.827	11 830	11.838	11.838	11.788-11.888	11.829	0 005

Reviewer 1 MH Date: 5/24/12 5/25/12
Reviewer 2 Date: 5/25/12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Aromatic.

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) ~~**428S**(EPH)~~ **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 (FID-8)
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 5/18/12 Internal Standard ID — Expiration —

Endrin/DDT Breakdown <15%? YES / NO / NA

ICal Meets %RSD & r^2 Criteria (YES) / NO

Manual Integrations for ICal? (YES) / NO

Minimum Response S/N Met (YES) / NO

ICV Exceeding ±20%? YES / (NO)

ICV Exceeding ±30%? YES / (NO)

Linear Fits Used? YES / ~~NO~~

Quadratic Fits Used? YES / ~~NO~~

Calibration Points Dropped? YES / ~~NO~~

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Ultra	I7250	5/17/13	Accustandard	I7242	5/17/13

Detail problems, corrective actions and/or other pertinent information below:

Analyst: _____ **Date:** 5/25/12

Reviewer: _____ **Date:** 5/25/12

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-MAY-2012 21:13
End Cal Date : 18-MAY-2012 22:53
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Cal Date : 19-May-2012 10:10 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/fid8.i/20120518AROM.b/0518A031.D
Level 2: /chem2/fid8.i/20120518AROM.b/0518A032.D
Level 3: /chem2/fid8.i/20120518AROM.b/0518A033.D
Level 4: /chem2/fid8.i/20120518AROM.b/0518A034.D
Level 5: /chem2/fid8.i/20120518AROM.b/0518A035.D

Compound	20 000 Level 1	50.000 Level 2	100 000 Level 3	150.000 Level 4	200 000 Level 5	___ RRF	% RSD
2 Toluene	20969	20179	20657	22328	20698	20966	3.877
75 1-chlorooctodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 1,2,3-Trimetben	19085	18656	19084	19964	18321	19022	3.242
4 Naphthalene	19373	19093	19637	20545	18711	19472	3.550
7 Acenaphthene	18967	18573	19074	19789	18051	18891	3 402
13 Pyrene	22427	21852	22472	23276	21709	22347	2 775
21 Benzo-ghi-per	25303	24075	24295	24977	24387	24608	2 082
$ 11 o-Terph Surr	20883	20307	20799	21426	19678	20618	3.195

6a

EPH AROMATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC.

Client: 20120518AROM

Instrument: FID8.I

Project:

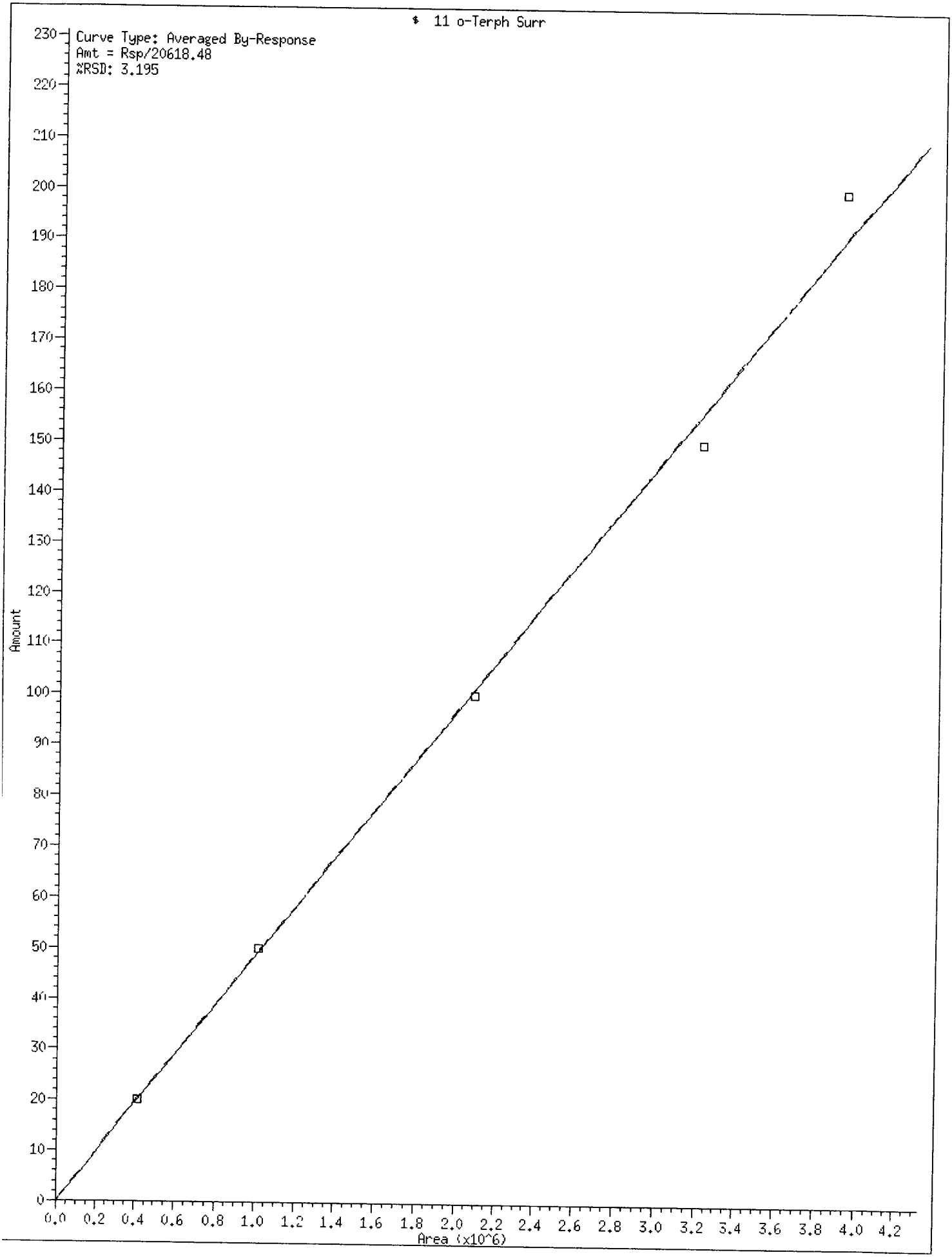
Calibration Date: 18-MAY-2012

SDG No.: 20120518AROM

Aromatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	20027	19417	19870	21146	19509	19994	3.5
C10-C12	19373	19093	19637	20545	18711	19472	3.6
C12-C16	18967	18573	19074	19789	18051	18891	3.4
C16-C21	22427	21852	22472	23276	21709	22347	2.8
C21-C34	25303	24075	24295	24977	24387	24608	2.1

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
0518A031.D	18-MAY-2012 21:13
0518A032.D	18-MAY-2012 21:38
0518A033.D	18-MAY-2012 22:03
0518A034.D	18-MAY-2012 22:28
0518A035.D	18-MAY-2012 22:53
	18-MAY-2012 22:53


$ 11 o-Terph Surr
Curve Type: Averaged By-Response
Amt = Rsp/20618.48
%RSD: 3.195
Amount
Area (x10^6)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
4.2

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Batch File: /chem2/fid8.i/20120518AROM.b
Inst ID: fid8.i

ID:	RT01	RT02	RT03	RT04	RT05
FILENAME:	0518A031	0518A032	0518A033	0518A034	0518A035
INJ DATE:	18-MAY-2012	18-MAY-2012	18-MAY-2012	18-MAY-2012	18-MAY-2012
INJ.TIME.	21:13	21.38	22:03	22.28	22:53

Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
2 Toluene	0.755	0 755	0 753	0.763	0.757	0.755	0.705-0 805	0 757	0.004
75 1-chlorooctodecane	+++++	+++++	+++++	+++++	+++++	6.780	6.730-6.830	+++++	+++++
3 1,2,3-Trimetben	3.387	3.386	3.387	3 389	3.389	3.387	3 337-3 437	3 388	0.001
4 Naphthalene	4.062	4.062	4.063	4.064	4 066	4.062	4 012-4 112	4 063	0.002
7 Acenaphthene	5.001	5 001	5.003	5 005	5.007	5.001	4 951-5.051	5 003	0 002
$ 11 o-Terph Surr	6.074	6 080	6.078	6.081	6 082	6.074	6.024-6 124	6.079	0.003
13 Pyrene	7 007	7 013	7.017	7 025	7 031	7.007	6.957-7 057	7 018	0 010
21 Benzo-ghi-per	11.493	11 500	11.511	11.519	11 529	11 493	11 443-11 543	11 510	0.015

Reviewer 1 MH Date: 5/25/12
Reviewer 2 Date: 5/25/12

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client:

SDG No.: 20120518AROM Project:

Instrument ID: FID8 GC Column: ZB-5

Run Date: 05/18/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.07

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01		ARO 20	05/18/12	2113	6.07	
02		ARO 50	05/18/12	2138	6.08	
03		ARO 100	05/18/12	2203	6.08	
04		ARO 150	05/18/12	2228	6.08	
05		ARO 200	05/18/12	2253	6.08	

S1 = o-Terph Surr

QC LIMITS
(+/- 0.05 MINUTES)

* Values outside of QC limits.

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A031.D
Lab Smp Id: ARO 20
Inj Date : 18-MAY-2012 21:13
Operator : MH
Inst ID: fid8.i
Smp Info : ARO 20
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains
Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13
Cal File: 0518A031.D
Als bottle: 20
Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

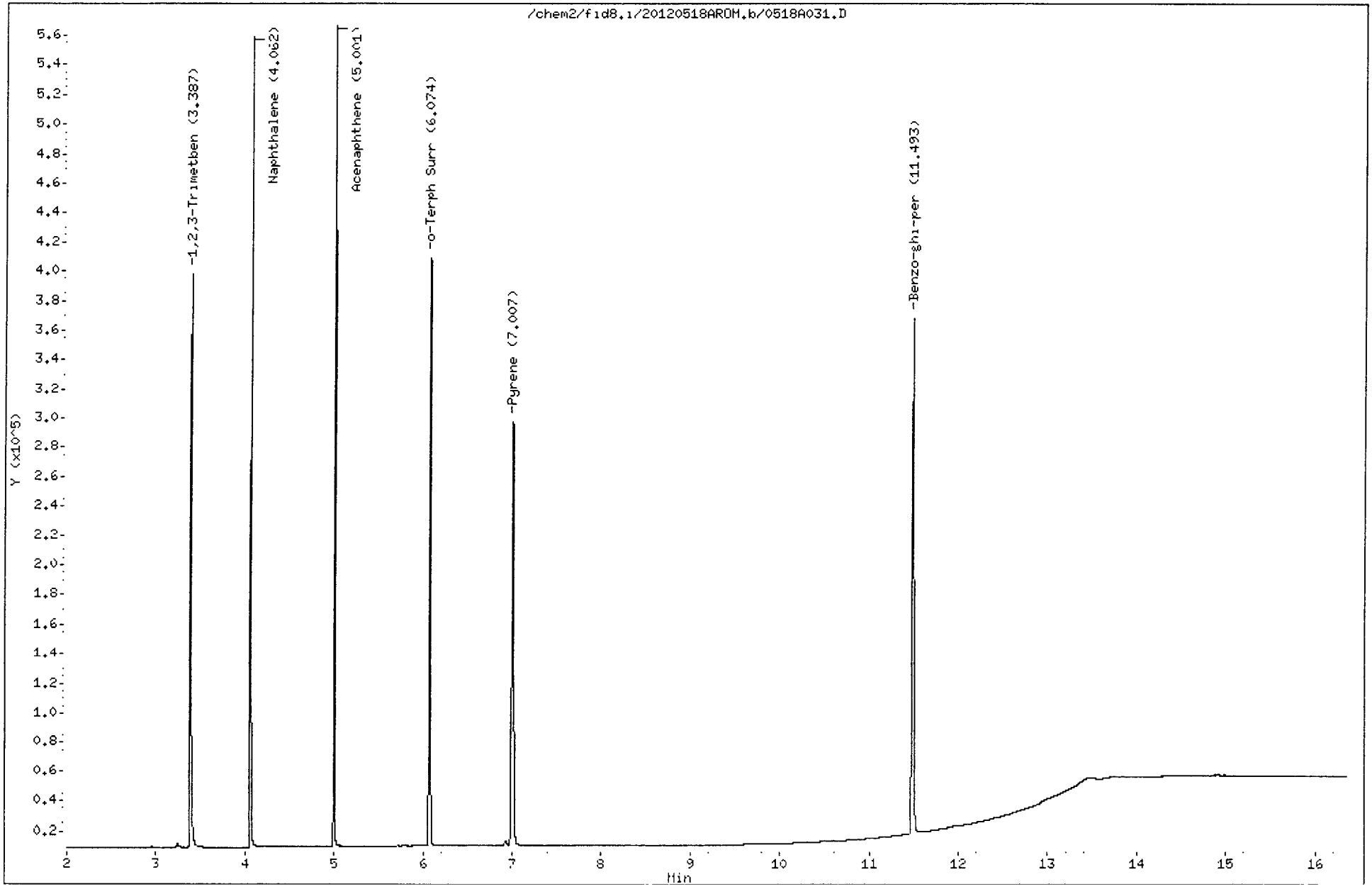
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2 Toluene	0 755	0.755	0 000	419377	20.0000	20.002
3 1,2,3-Trimetben	3.387	3.387	0.000	381694	20.0000	20.066
4 Naphthalene	4 062	4 062	0 000	387454	20.0000	19.898
7 Acenaphthene	5 001	5 001	0.000	379332	20.0000	20.080
$ 11 o-Terph Surr	6 074	6 074	0 000	417653	20.0000	20 256
75 1-chlorooctodecane	Compound Not Detected					
13 Pyrene	7.007	7 007	0 000	448547	20.0000	20.071
21 Benzo-ghi-per	11 493	11.493	0.000	506062	20.0000	20.565

Data File: /chem2/fid8.i/20120518AROM.b/0518A031.D
Date : 18-MAY-2012 21:13
Client ID:
Sample Info: ARO 20

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A031.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/19/2012
Macro: AROM120911FID8

ARI ID: ARO 20
Client ID:
Injection: 18-MAY-2012 21:13
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

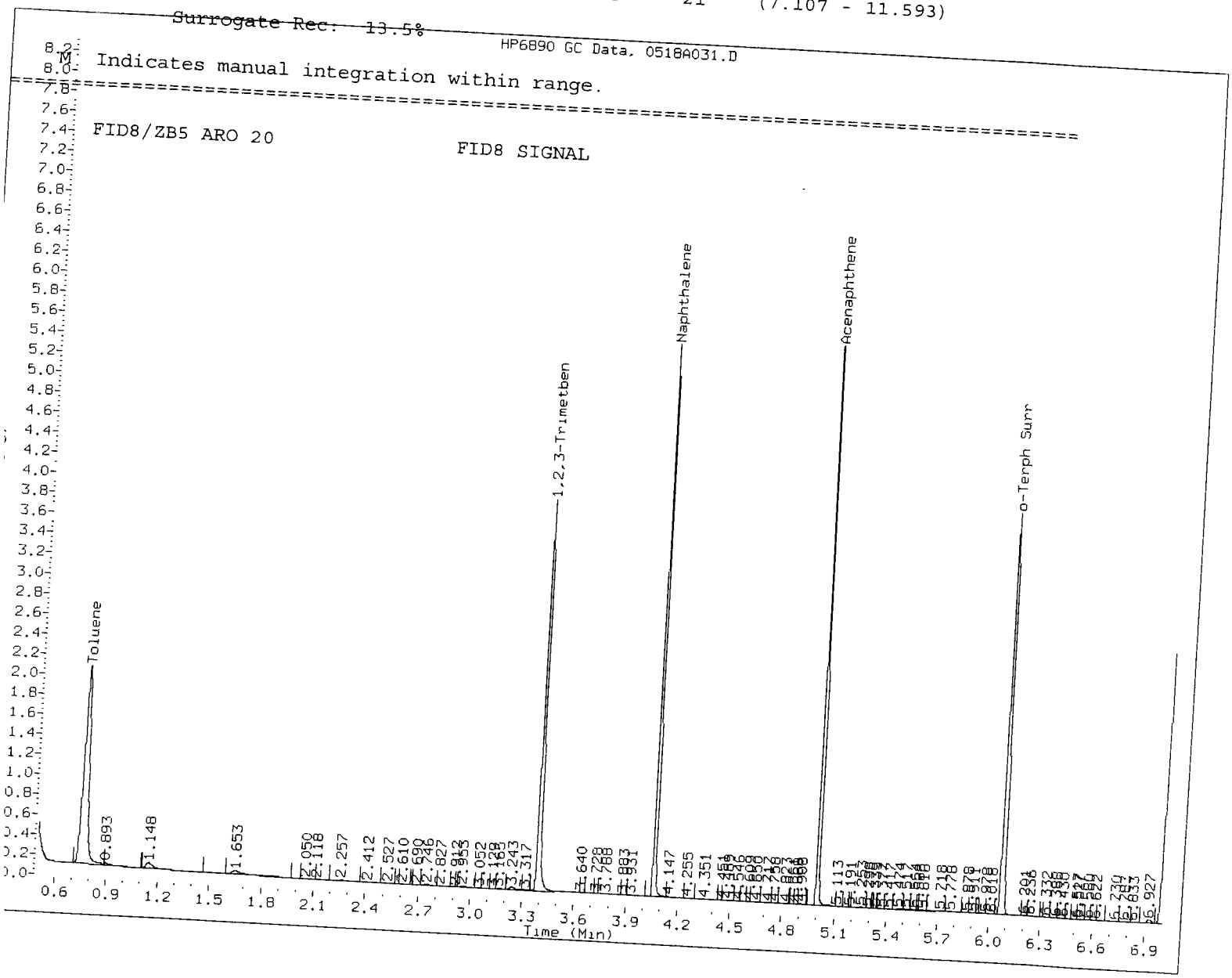
Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	848532	42	(0.655 - 3.487)
C10-C12	Arom.	19472	390255	20	(3.487 - 4.162)
C12-C16	Arom.	18891	381173	20	(4.162 - 5.101)
C16-C21	Arom.	22347	468442	21	(5.101 - 7.107)
C21-C34	Arom.	24608	512415	21	(7.107 - 11.593)

Surrogate Rec: 13.5%

M Indicates manual integration within range.

FID8/ZB5 ARO 20

FID8 SIGNAL



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A032.D
Lab Smp Id: ARO 50
Inj Date : 18-MAY-2012 21:38
Operator : MH Inst ID: fid8.i
Smp Info : ARO 50
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 21:38 Cal File: 0518A032.D
Als bottle: 21 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

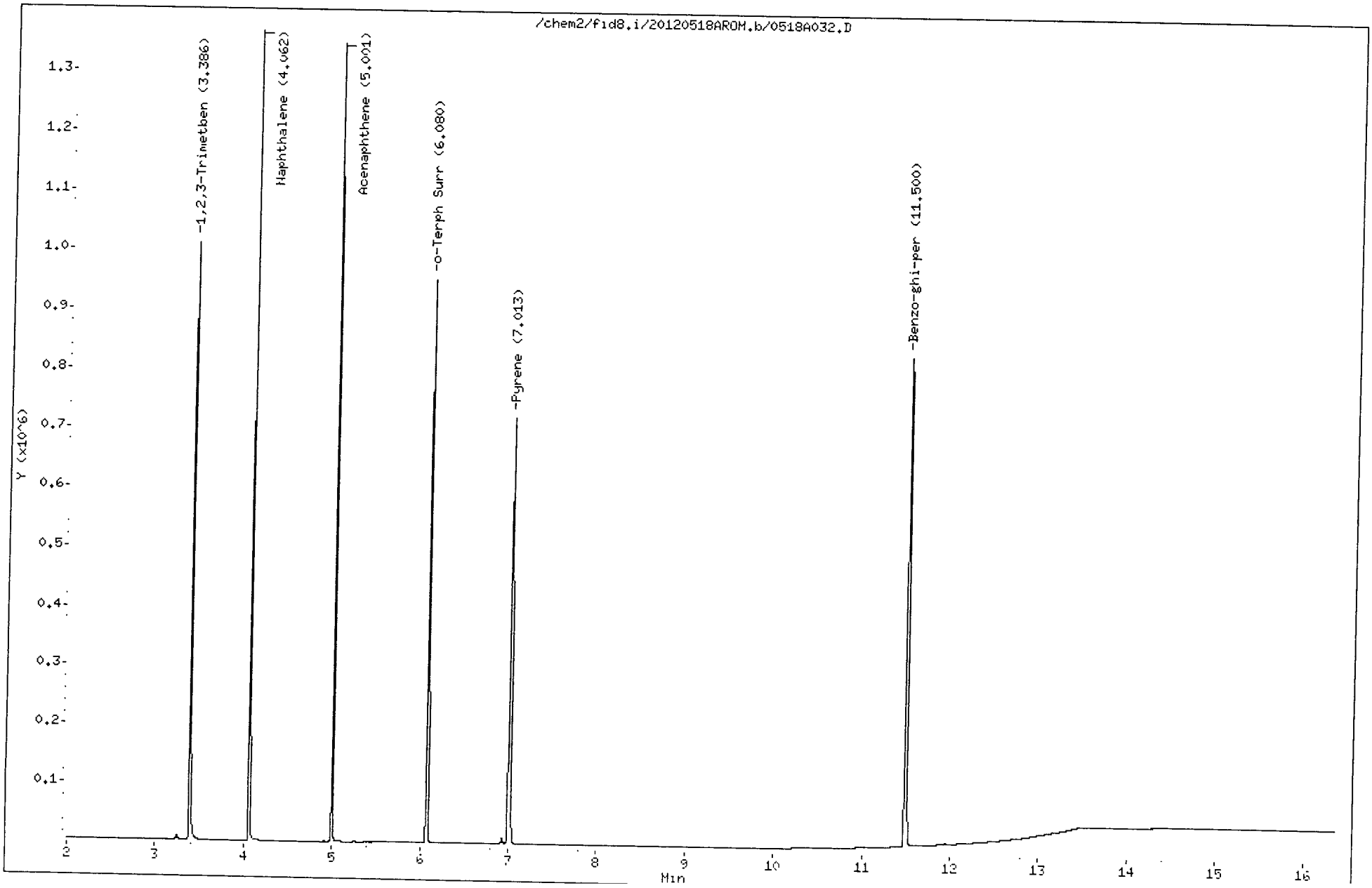
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2 Toluene	0 755	0.755	0 000	1008964	50 0000	48.123
3 1,2,3-Trimetben	3.386	3 387	-0 001	932782	50 0000	49.037
4 Naphthalene	4.062	4 062	0.000	954674	50 0000	49.028
7 Acenaphthene	5 001	5 001	0 000	928660	50 0000	49.159
11 o-Terph Surr	6.080	6 074	0.006	1015369	50.0000	49 245
75 1-chlorooctodecane	Compound Not Detected.					
13 Pyrene	7.013	7 007	0.006	1092577	50.0000	48 890
21 Benzo-ghi-per	11 500	11.493	0.007	1203771	50.0000	48 918

Data File: /chem2/fid8.i/20120518AROM.b/0518A032.D
Date : 18-MAY-2012 21:38
Client ID:
Sample Info: ARO 50

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A032.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/19/2012
Macro: AROM120911FID8

ARI ID: ARO 50
Client ID:
Injection: 18-MAY-2012 21:38
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

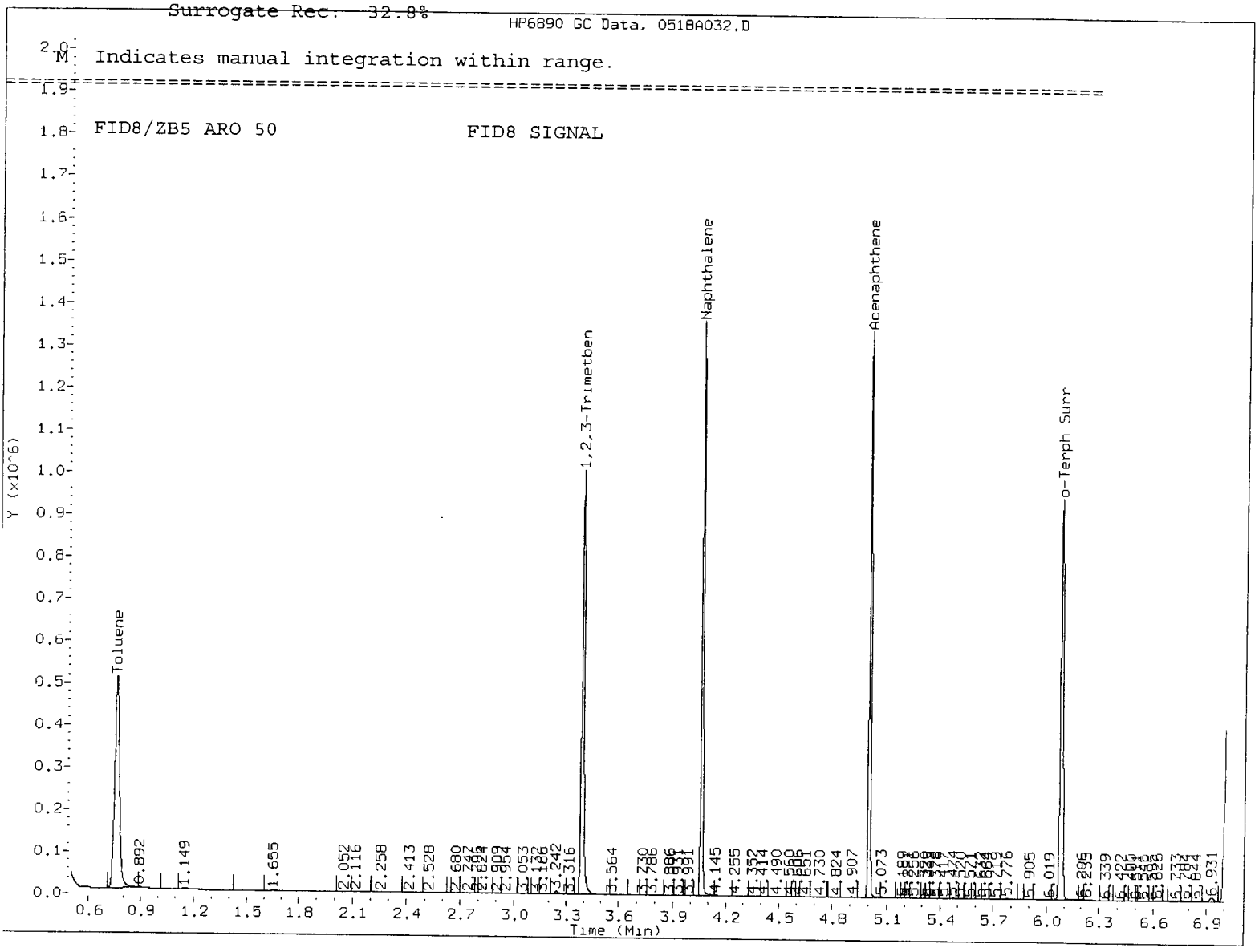
Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	1982595	99	(0.655 - 3.487)
C10-C12	Arom.	19472	960539	49	(3.487 - 4.162)
C12-C16	Arom.	18891	934415	49	(4.162 - 5.101)
C16-C21	Arom.	22347	1121943	50	(5.101 - 7.107)
C21-C34	Arom.	24608	1219688	50	(7.107 - 11.593)

Surrogate Rec: 32.8%

M Indicates manual integration within range.

FID8/ZB5 ARO 50

FID8 SIGNAL



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A033.D
Lab Smp Id: ARO 100
Inj Date : 18-MAY-2012 22:03
Operator : MH Inst ID: fid8.i
Smp Info : ARO 100
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 22:03 Cal File: 0518A033.D
Als bottle: 22 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2 Toluene	0.753	0 755	-0 002	2065713	100.000	98 525
3 1,2,3-Trimetben	3 387	3 387	0 000	1908356	100 000	100.324
4 Naphthalene	4 063	4.062	0 001	1963717	100.000	100 849
7 Acenaphthene	5 003	5 001	0 002	1907395	100.000	100 969
11 o-Terph Surr	6 078	6 074	0.004	2079908	100 000	100 875
75 1-chlorooctodecane	Compound Not Detected.					
13 Pyrene	7 017	7 007	0.010	2247249	100 000	100.559
21 Benzo-ghi-per	11 511	11.493	0.018	2429504	100.000	98.729

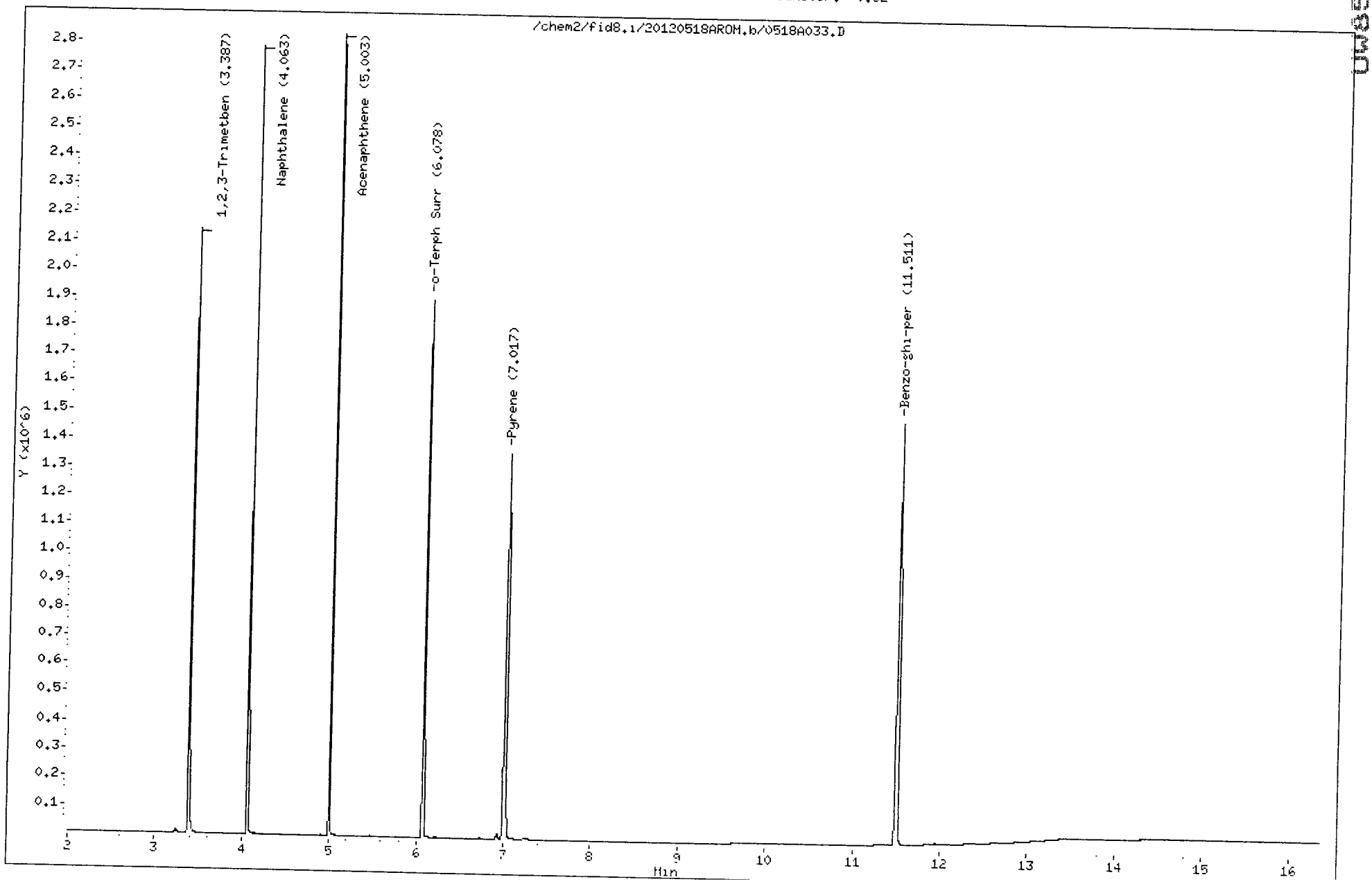
Data File: /chem2/fid8.i/20120518AROM.b/0518A033.D
Date : 18-MAY-2012 22:03
Client ID:
Sample Info: ARO 100

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5

UW35:00082



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A033.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/19/2012
Macro: AROM120911FID8

ARI ID: ARO 100
Client ID:
Injection: 18-MAY-2012 22:03
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

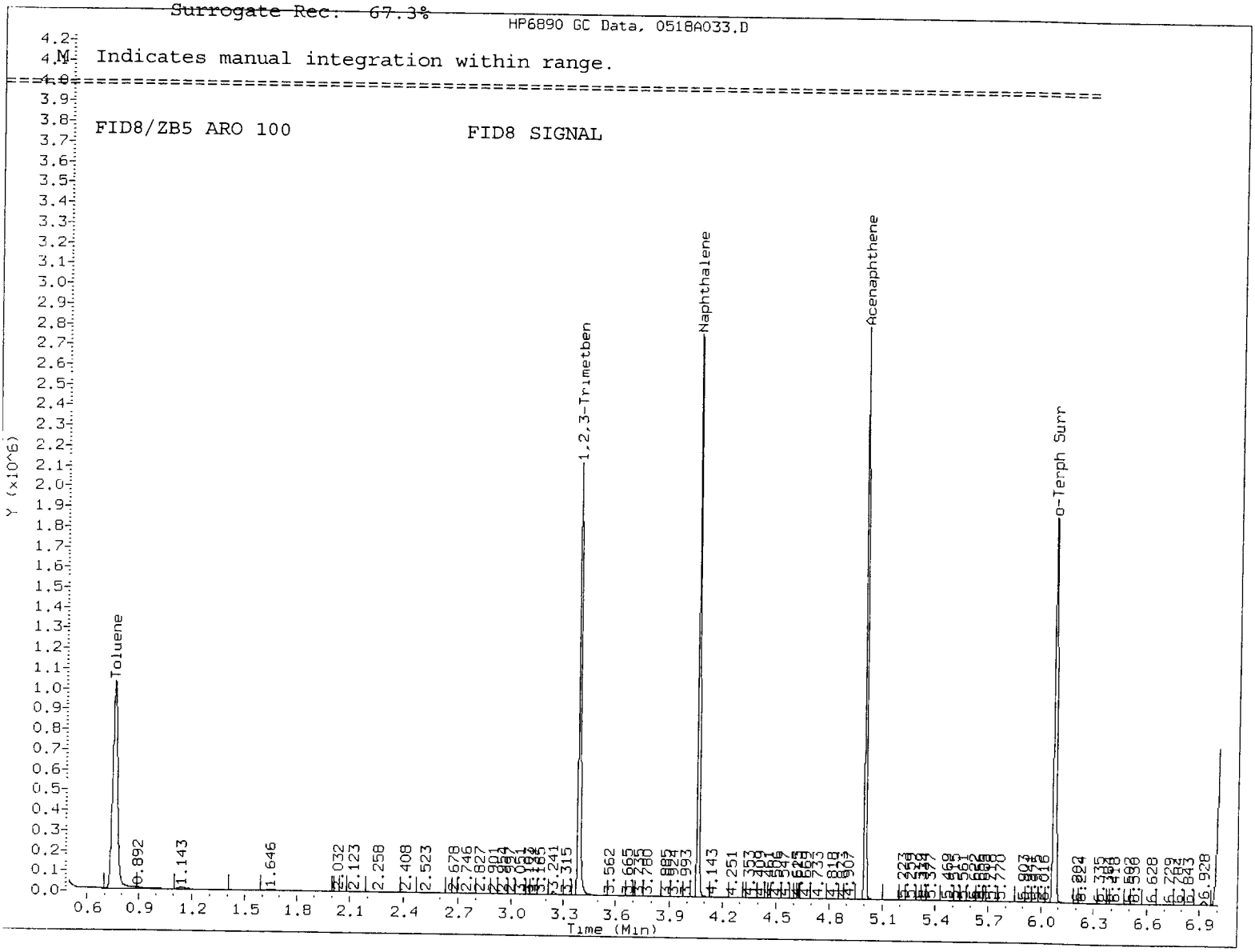
Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	4083855	204	(0.655 - 3.487)
C10-C12	Arom.	19472	1972297	101	(3.487 - 4.162)
C12-C16	Arom.	18891	1912161	101	(4.162 - 5.101)
C16-C21	Arom.	22347	2300474	103	(5.101 - 7.107)
C21-C34	Arom.	24608	2445403	99	(7.107 - 11.593)

Surrogate Rec: 67.3%

M Indicates manual integration within range.

FID8/ZB5 ARO 100

FID8 SIGNAL



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A034.D
Lab Smp Id: ARO 150
Inj Date : 18-MAY-2012 22:28
Operator : MH
Smp Info : ARO 150 Inst ID: fid8.i
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 22:28 Cal File: 0518A034.D
Als bottle: 23 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

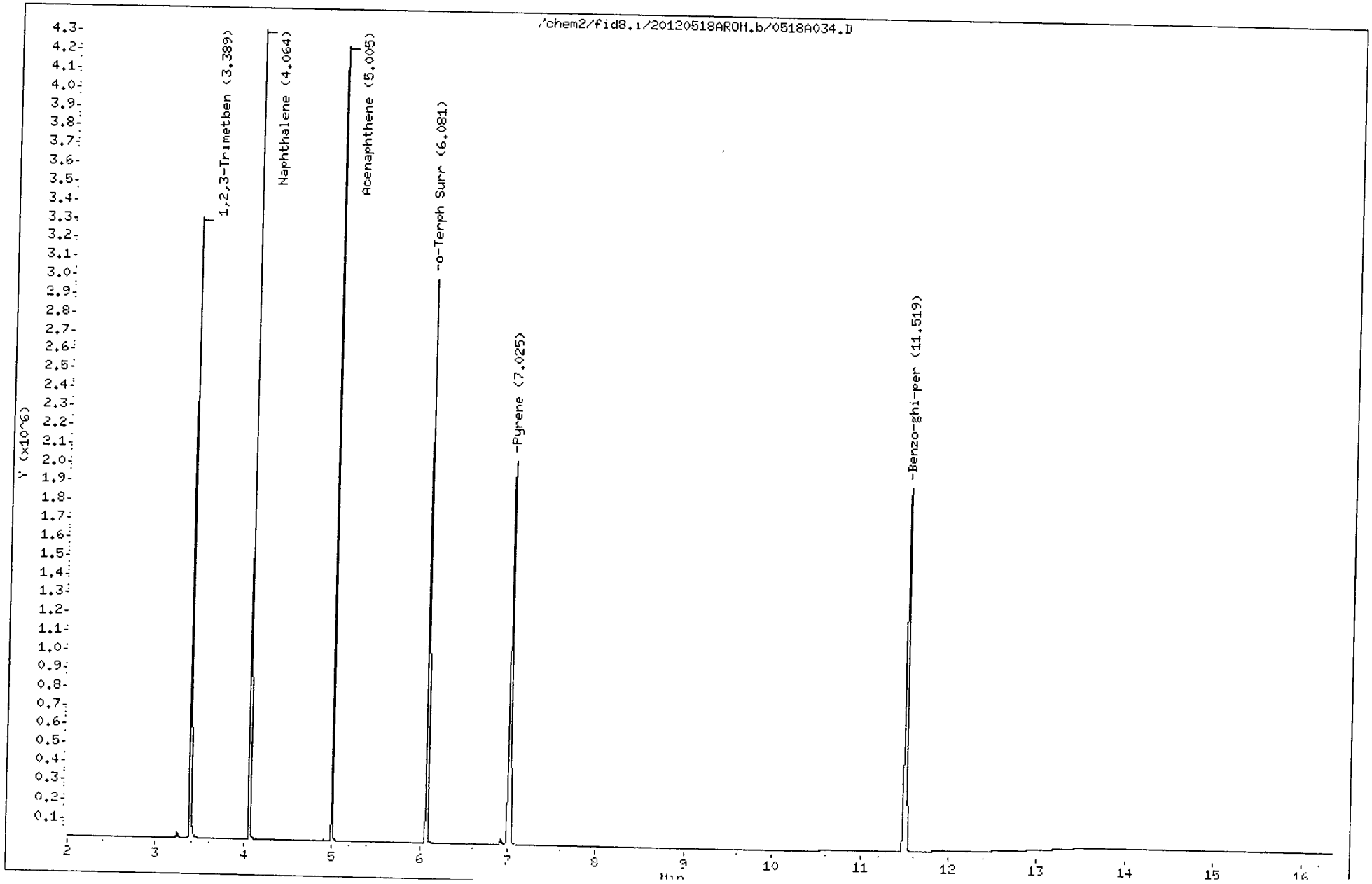
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
2 Toluene	0 763	0 755	0 008	3349251	150 000	159.744
3 1,2,3-Trimetben	3 389	3 387	0.002	2994643	150 000	157 432
4 Naphthalene	4.064	4 062	0 002	3081761	150.000	158.267
7 Acenaphthene	5.005	5.001	0 004	2968376	150 000	157.132
11 o-Terph Surr	6.081	6.074	0.007	3213834	150.000	155.871
75 1-chlorooctodecane	Compound Not Detected					
13 Pyrene	7.025	7.007	0.018	3491467	150.000	156 236
21 Benzo-ghi-per	11.519	11 493	0.026	3746611	150 000	152.253

Data File: /chem2/fid8.1/20120518AROM.b/0518A034.D
Date : 18-MAY-2012 22:28
Client ID:
Sample Info: ARO 150

Instrument: fid8.1

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A034.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/19/2012
Macro: AROM120911FID8

ARI ID: ARO 150
Client ID:
Injection: 18-MAY-2012 22:28
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

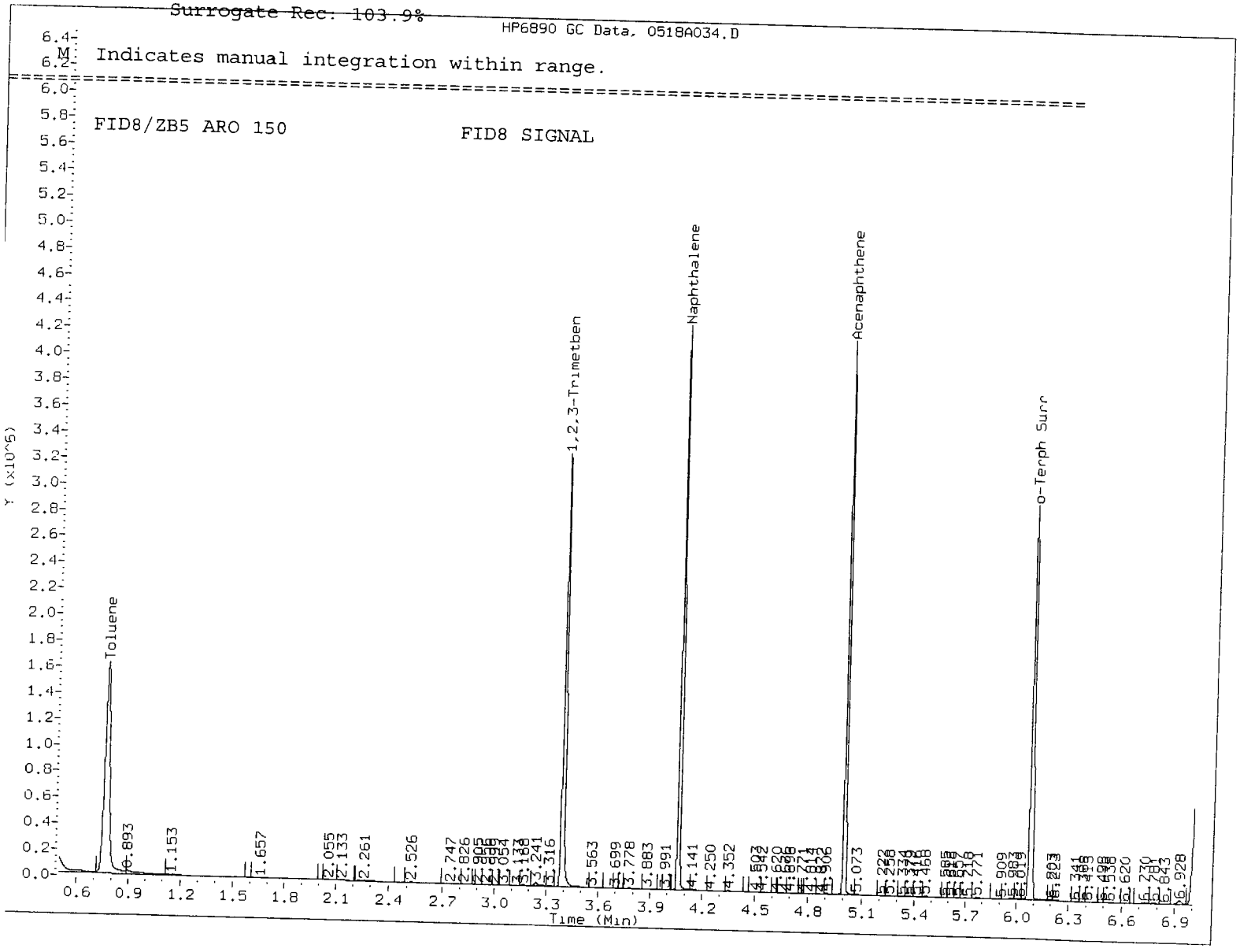
Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	6592680	330	(0.655 - 3.487)
C10-C12	Arom.	19472	3095143	159	(3.487 - 4.162)
C12-C16	Arom.	18891	2981916	158	(4.162 - 5.101)
C16-C21	Arom.	22347	3568661	160	(5.101 - 7.107)
C21-C34	Arom.	24608	3766518	153	(7.107 - 11.593)

Surrogate Rec: 103.9%

M Indicates manual integration within range.

FID8/ZB5 ARO 150

FID8 SIGNAL



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A035.D
Lab Smp Id: ARO 200
Inj Date : 18-MAY-2012 22:53
Operator : MH
Smp Info : ARO 200 Inst ID: fid8.i
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 22:53 Cal File: 0518A035.D
Als bottle: 24 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.50 Compound Sublist: warom.sub

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

ompounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
2 Toluene	0.757	0 755	0.002	4139534	200 000	197 437
3 1,2,3-Trimetben	3.389	3 387	0.002	3664156	200.000	192.629
4 Naphthalene	4.066	4.062	0.004	3742154	200.000	192.182
7 Acenaphthene	5 007	5 001	0.006	3610274	200.000	191.112
11 o-Terph Surr	6 082	6 074	0.008	3935550	200 000	190.874
75 1-chlorooctodecane	Compound Not Detected					
13 Pyrene	7 031	7 007	0 024	4341791	200.000	194.286
21 Benzo-ghi-per	11.529	11 493	0.036	4877445	200.000	198 208

Data File: /chem2/fid8.1/20120518AROM.b/0518A035.D

Date : 18-MAY-2012 22:53

Client ID:

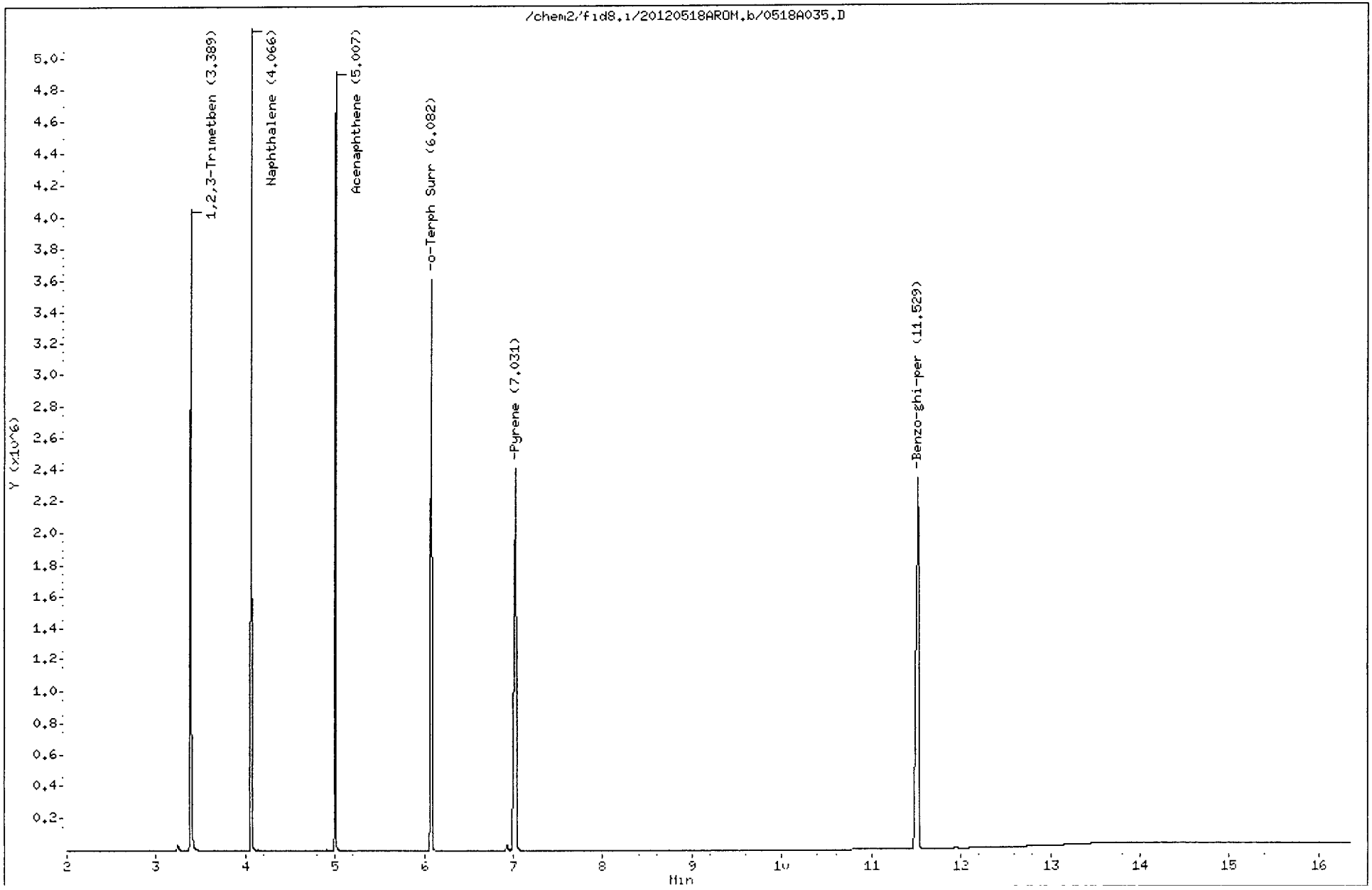
Sample Info: ARO 200

Column phase: ZB-5

Instrument: fid8.1

Operator: MH

Column diameter: 0.32



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A035.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/19/2012
Macro: AROM120911FID8

ARI ID: ARO 200
Client ID:
Injection: 18-MAY-2012 22:53
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	7953332	398	(0.655 - 3.487)
C10-C12	Arom.	19472	3758493	193	(3.487 - 4.162)
C12-C16	Arom.	18891	3626749	192	(4.162 - 5.101)
C16-C21	Arom.	22347	4446568	199	(5.101 - 7.107)
C21-C34	Arom.	24608	4896120	199	(7.107 - 11.593)

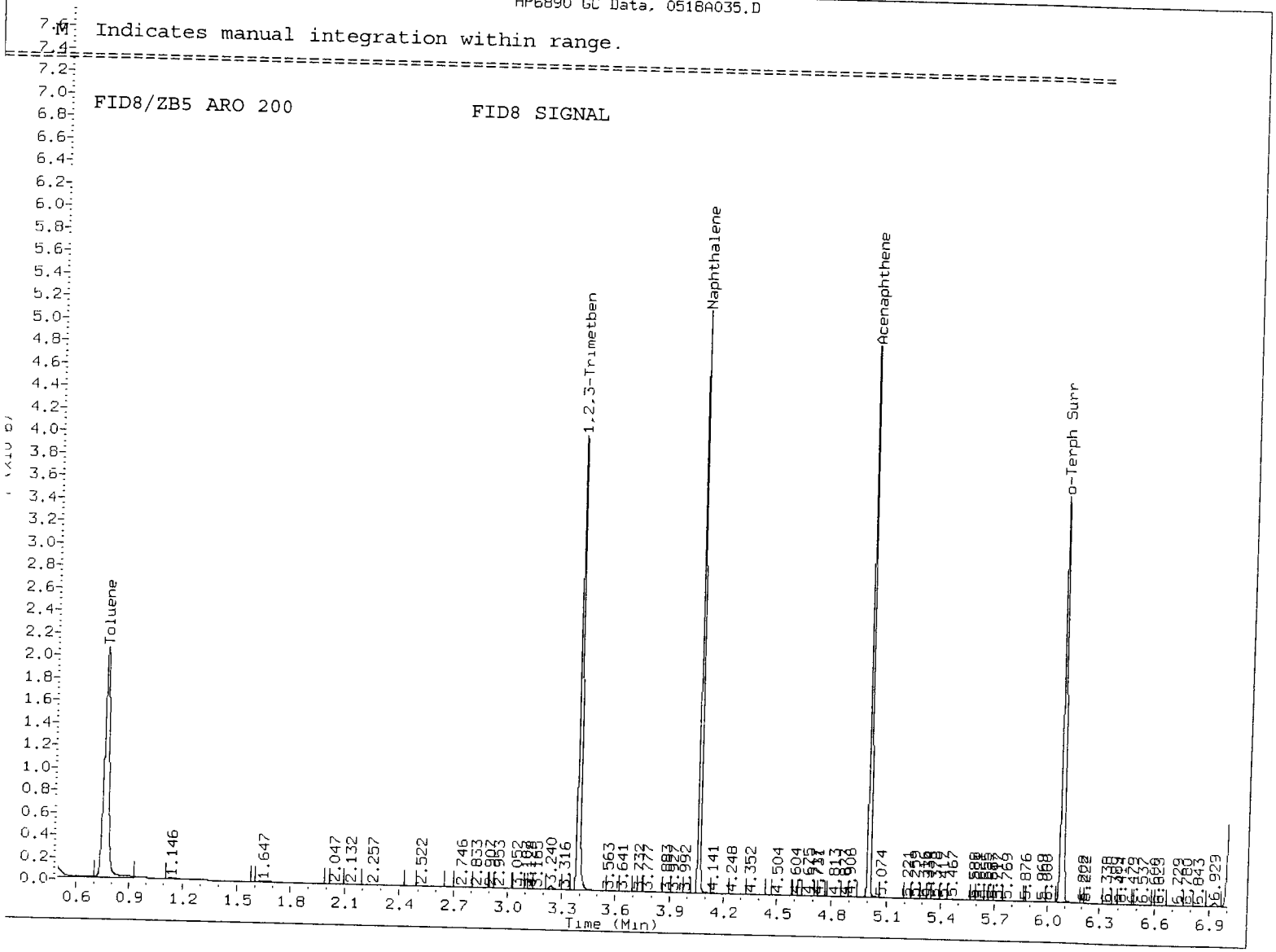
Surrogate Rec. 127.2%

M Indicates manual integration within range.

FID8/ZB5 ARO 200

FID8 SIGNAL

HP6890 GC Data, 0518A035.D



MH 5/25/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A036.D
Lab Smp Id: ARO~~ARO~~ ICV
Inj Date : 18-MAY-2012 23:17
Operator : MH
Smp Info : AROARO Inst ID: fid8.i
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 22:53 Cal File: 0518A035.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.50 Compound Sublist: warom.sub

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

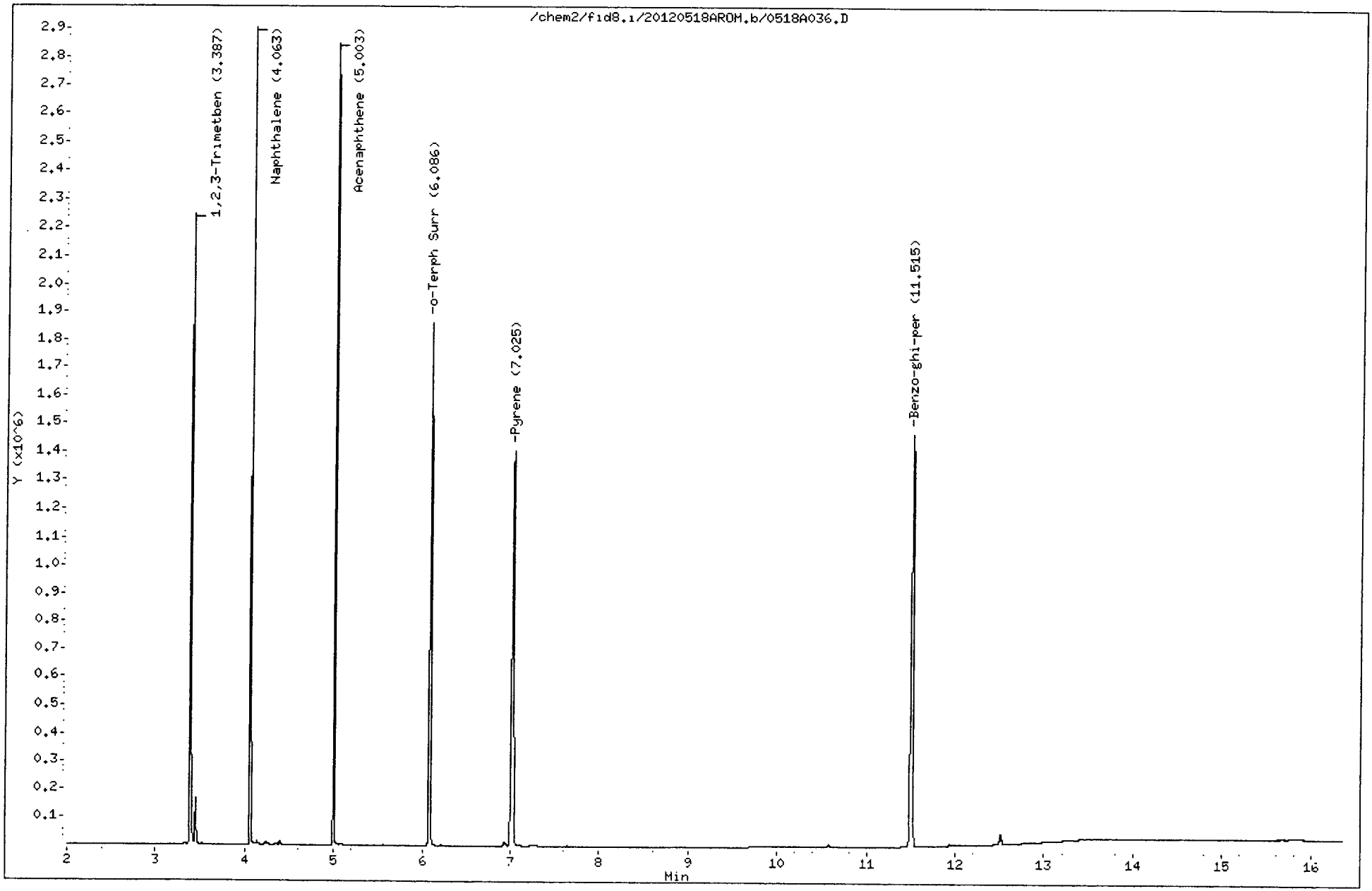
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2 Toluene	0 755	0 755	0.000	2124448	101 327	101.327
3 1,2,3-Trimetben	3 387	3.387	0 000	2069967	108.821	108 820
4 Naphthalene	4 063	4.062	0.001	2023668	103 928	103.927
7 Acenaphthene	5.003	5.001	0 002	1954049	103.439	103.438
$ 11 o-Terph Surr	6 086	6 074	0 012	2025360	98 2303	98 230
75 1-chlorooctodecane	Compound Not Detected.					
13 Pyrene	7.025	7 007	0 018	2337551	104 601	104.600
21 Benzo-ghi-per	11.515	11.493	0 022	2410395	97 9531	97 953

Data File: /chem2/fid8.1/20120518AROM.b/0518A036.D
Date : 18-MAY-2012 23:17
Client ID:
Sample Info: AROARO

Instrument: fid8.1

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A036.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/25/2012
Macro: AROM120911FID8

ARI ID: AROARO
Client ID:
Injection: 18-MAY-2012 23:17
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

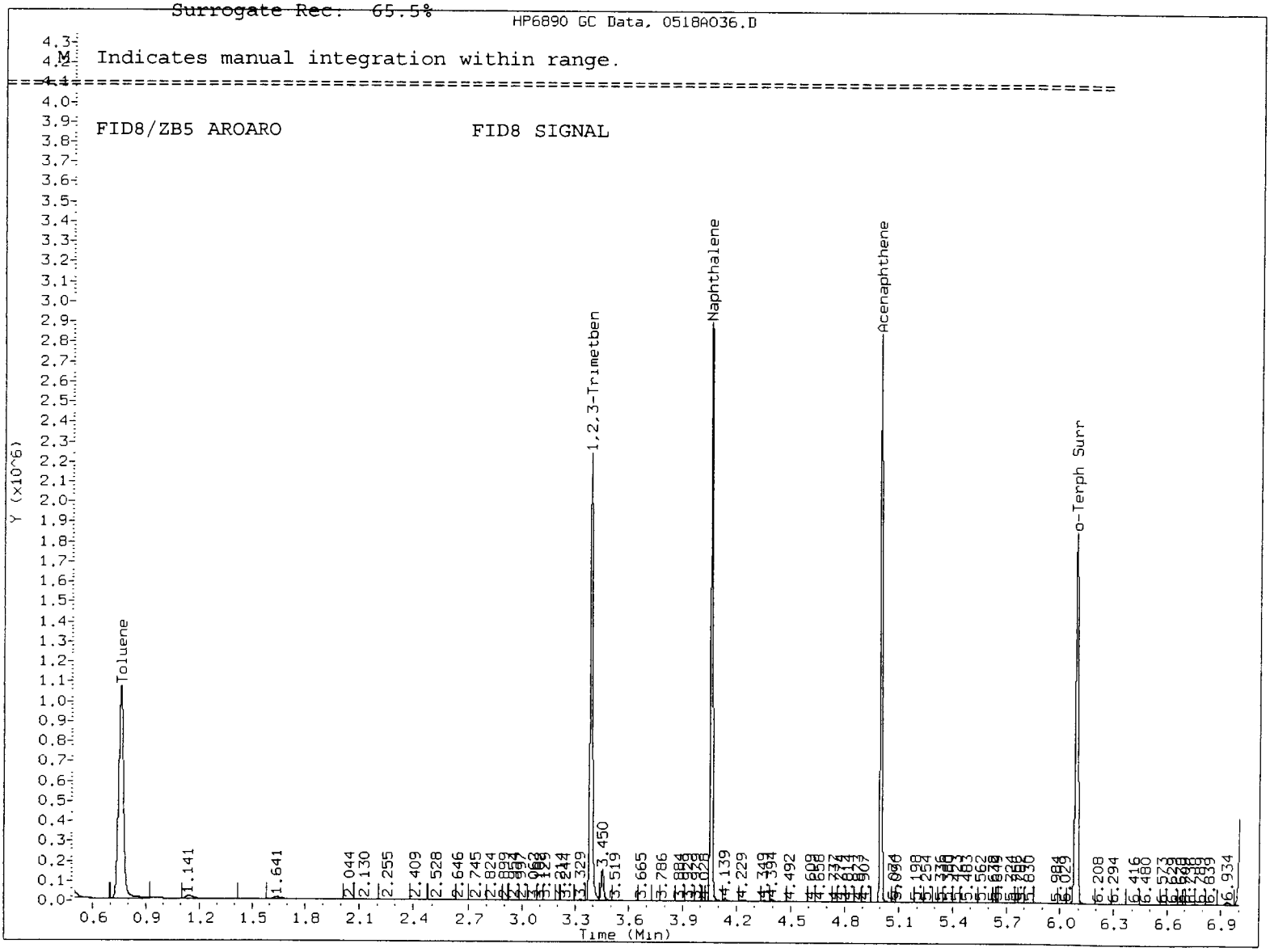
Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	4449529	223	(0.655 - 3.487)
C10-C12	Arom.	19472	2048909	105	(3.487 - 4.162)
C12-C16	Arom.	18891	2008866	106	(4.162 - 5.101)
C16-C21	Arom.	22347	2388770	107	(5.101 - 7.107)
C21-C34	Arom.	24608	2450210	100	(7.107 - 11.593)

Surrogate Rec: 65.5%

M Indicates manual integration within range.

FID8/ZB5 AROARO

FID8 SIGNAL



Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Batch File: /chem2/fid8.i/20120518AROM.b
Inst ID: fid8.i

ID.	RT01	RT02	RT03	RT04	RT05
FILENAME:	0518A031	0518A032	0518A033	0518A034	0518A035
INJ.DATE:	18-MAY-2012	18-MAY-2012	18-MAY-2012	18-MAY-2012	18-MAY-2012
INJ.TIME	21.13	21·38	22.03	22 28	22·53

	Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	2 Toluene	0.755	0.755	0 753	0.763	0 757	0.755	0 705-0.805	0.757	0 004
	75 1-chlorooctodecane	+++++	+++++	+++++	+++++	+++++	6.780	6.730-6.830	+++++	+++++
	3 1,2,3-Trimetben	3.387	3.386	3 387	3.389	3 389	3 387	3.337-3.437	3.388	0 001
	4 Naphthalene	4 062	4.062	4.063	4.064	4.066	4 062	4 012-4.112	4.063	0 002
	7 Acenaphthene	5 001	5.001	5.003	5 005	5.007	5.001	4.951-5 051	5 003	0 002
$	11 o-Terph Surr	6 074	6 080	6.078	6 081	6.082	6.074	6 024-6.124	6.079	0.003
	13 Pyrene	7 007	7.013	7.017	7.025	7 031	7.007	6.957-7.057	7 018	0.010
	21 Benzo-ghi-per	11.493	11.500	11 511	11.519	11.529	11 493	11.443-11 543	11 510	0 015

Reviewer 1 MH Date: 5/25/12

Reviewer 2 _____ Date: 5/25/12

EPH Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UW85

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: UW85 Client ID: Anchor QEA, LLC.

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): NAEPH

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/18/12 Analysis Start: 6/8/12

Endrin/DDT Breakdown <15%? YES / NO / NA
Method Blank In Control? YES / NO

ICal Meets RF & %RSD Criteria? YES / NO
LCS/LCSD Recovery In Control? YES / NO

CCal Meets RF & %RSD Criteria? YES / NO
Surrogate Recovery In Control? YES / NO

Manual Integrations for ICal? YES / NO
Manual Integrations for Samples? YES / NO

Internal Standard Meets Criteria? YES / NO / NA
Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 6/11/12

Reviewer: _____ **Date:** _____

Analytical Resources Inc.: Organics Instrument Log
FID-8 Agilent 6890N - Serial No.: US10138016

Date: 6/8/12 Analysis: EPH Analyst: MH

Column 1 Serial No.: 167634 Column Type: ZB-5

Column 2 Serial No.: Column Type: —

GC Method: EPH ICal Date: 5/18/12 Injection Volume: 1µl

IS

Ical/Ccal

~~1876-4~~ 1987-2
1978-3 MH 6/11
1978-1
1978-4

ICV

Document All Maintenance Tasks In StarLIMS

Aliphatic

	Inject Date/Time	Filename	DF	LabID	ClientID
1	08-JUN-2012 11:47	0608A001.D	1	RINSE	
2	08-JUN-2012 12:11	0608A002.D	1	ALIPH IB	
3	08-JUN-2012 12:37	0608A003.D	1	ALIPHATIC #1	
4	08-JUN-2012 13:02	0608A004.D	1	UW94MBS1	UW94MBS1
5	08-JUN-2012 13:28	0608A005.D	1	UW94LCSS1	UW94LCSS1
6	08-JUN-2012 13:53	0608A006.D	1	UW94LCSDS1	UW94LCSDS1
7	08-JUN-2012 14:18	0608A007.D	1	UW94A	C01
8	08-JUN-2012 14:43	0608A008.D	1	UW94B	C02
9	08-JUN-2012 15:09	0608A009.D	1	UW85A	MS001-SS-120515
10	08-JUN-2012 15:34	0608A010.D	1	UW85AMS	MS001-SS-120515 MS
11	08-JUN-2012 15:59	0608A011.D	1	UW85AMSD	MS001-SS-120515 MSD
12	08-JUN-2012 16:24	0608A012.D	1	UW85B	MS002-SS-120515
13	08-JUN-2012 16:49	0608A013.D	1	UW85C	MS003-SS-120515
14	08-JUN-2012 17:14	0608A014.D	1	UW85D	MS006-SS-120515
15	08-JUN-2012 17:40	0608A015.D	1	ALIPHATIC #2	

MH 6/11/12

Aromatic.

	Inject Date/Time	Filename	DF	LabID	ClientID
1	08-JUN-2012 18:05	0608A016.D	1	AROM IB	
2	08-JUN-2012 18:30	0608A017.D	1	AROMATIC #1	
3	08-JUN-2012 18:55	0608A018.D	1	UW94MBS1	UW94MBS1
4	08-JUN-2012 19:20	0608A019.D	1	UW94LCSS1	UW94LCSS1
5	08-JUN-2012 19:46	0608A020.D	1	UW94LCSDS1	UW94LCSDS1
6	08-JUN-2012 20:11	0608A021.D	1	UW94A	C01
7	08-JUN-2012 20:36	0608A022.D	1	UW94B	C02
8	08-JUN-2012 21:01	0608A023.D	1	UW85A	MS001-SS-120515
9	08-JUN-2012 21:26	0608A024.D	1	UW85AMS	MS001-SS-120515 MS
10	08-JUN-2012 21:52	0608A025.D	1	UW85AMSD	MS001-SS-120515 MSD
11	08-JUN-2012 22:17	0608A026.D	1	UW85B	MS002-SS-120515
12	08-JUN-2012 22:42	0608A027.D	1	UW85C	MS003-SS-120515
13	08-JUN-2012 23:07	0608A028.D	1	UW85D	MS006-SS-120515
14	08-JUN-2012 23:32	0608A029.D	1	AROMATIC #2	

MH 6/11/12

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A002.D
Lab Smp Id: ALIPH IB
Inj Date : 08-JUN-2012 12:11
Operator : MH Inst ID: fid8.i
Smp Info : ALIPH IB
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

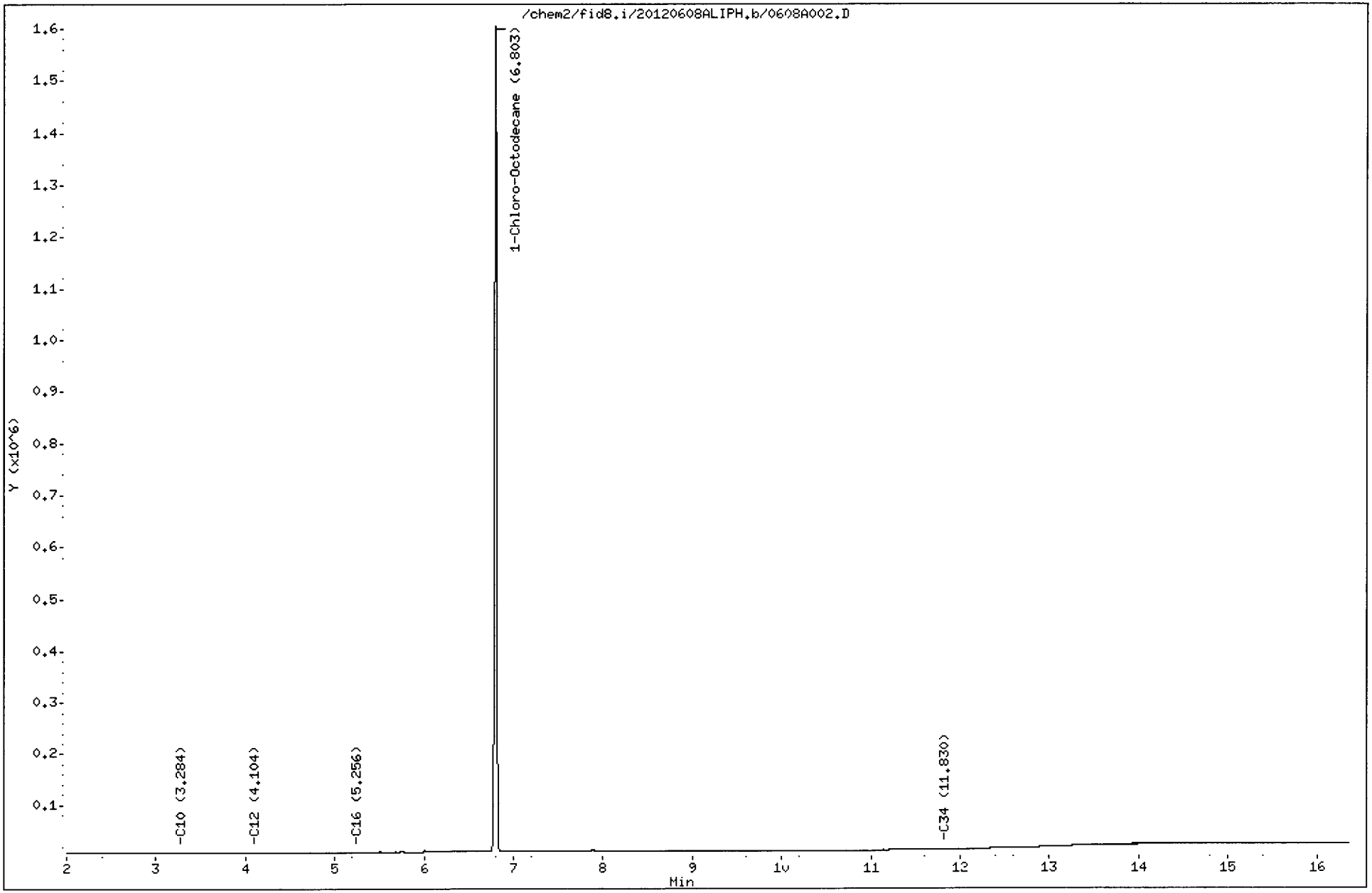
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2	C8	Compound Not Detected.					
3	C10	3.284	3.282	0.002	18	0.000948	0.000
45	C12	4.104	4.096	0.008	55	0.00305	0.003
46	C16	5.256	5.261	-0.005	181	0.01065	0 010
$ 51	1-Chloro-Octodecane	6.803	6.813	-0.010	2644623	151.138	151.137
47	C21	Compound Not Detected.					
48	C34	11.830	11.838	-0.008	90	0.00529	0.005

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A002.D
Date : 08-JUN-2012 12:11
Client ID:
Sample Info: ALIPH IB

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



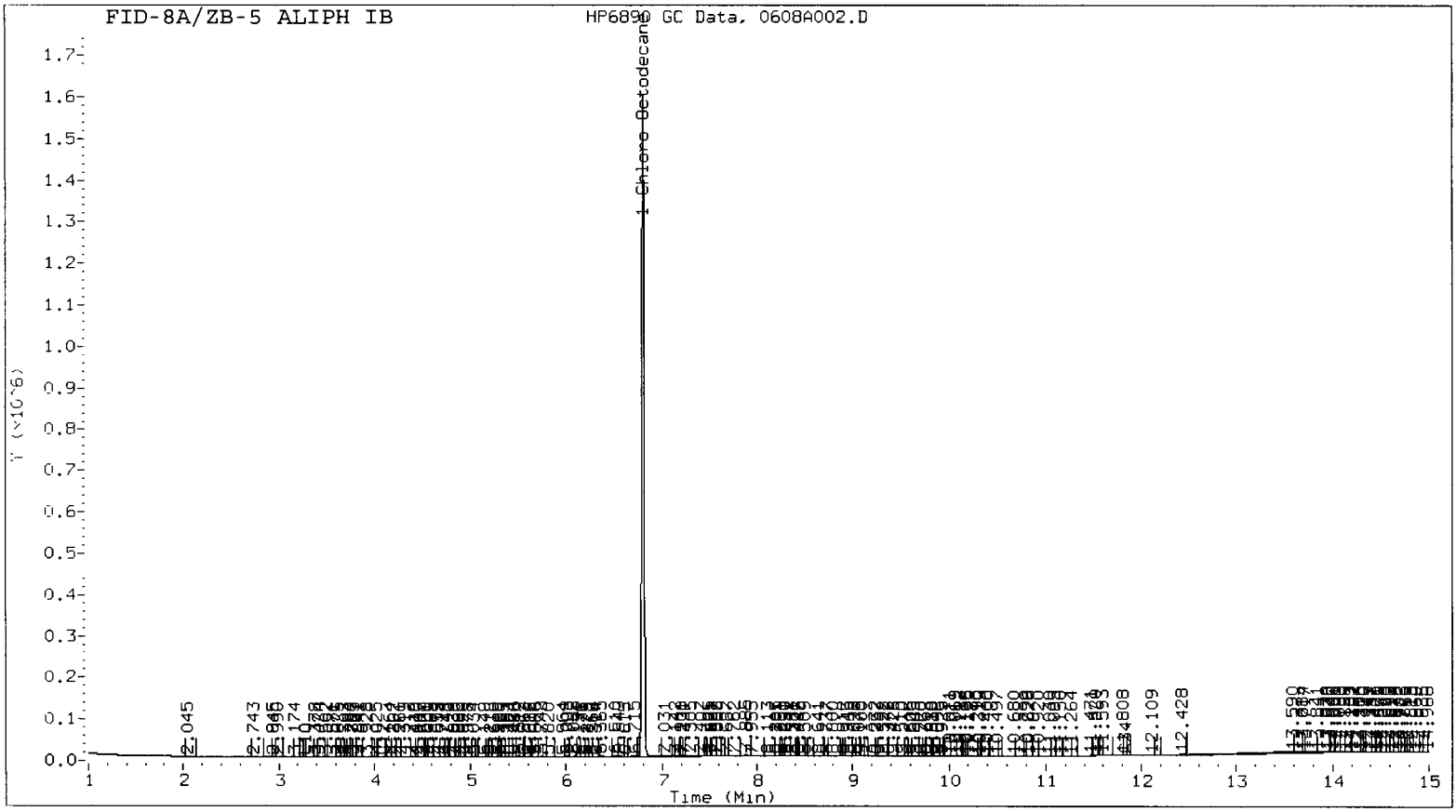
Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120608ALIPH.b/0608A002.D ARI ID: ALIPH IB
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m Client ID:
Instrument: fid8.i Injection: 08-JUN-2012 12:11
Operator: MH Matrix: SOIL
Macro: ALIPH120912FID8 Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	7728	0	(1.041 - 3.382)
C10-C12	Aliph.	597	0	(3.382 - 4.196)
C12-C16	Aliph.	1703	0	(4.196 - 5.361)
C16-C21	Aliph.	30062	2	(5.361 - 6.967)
C21-C34	Aliph.	25957	2	(6.967 - 11.938)

Surrogate Rec: 100.8%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A003.D
Lab Smp Id: ALIPHATIC #1
Inj Date : 08-JUN-2012 12:37
Operator : MH Inst ID: fid8.i
Smp Info : ALIPHATIC #1
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

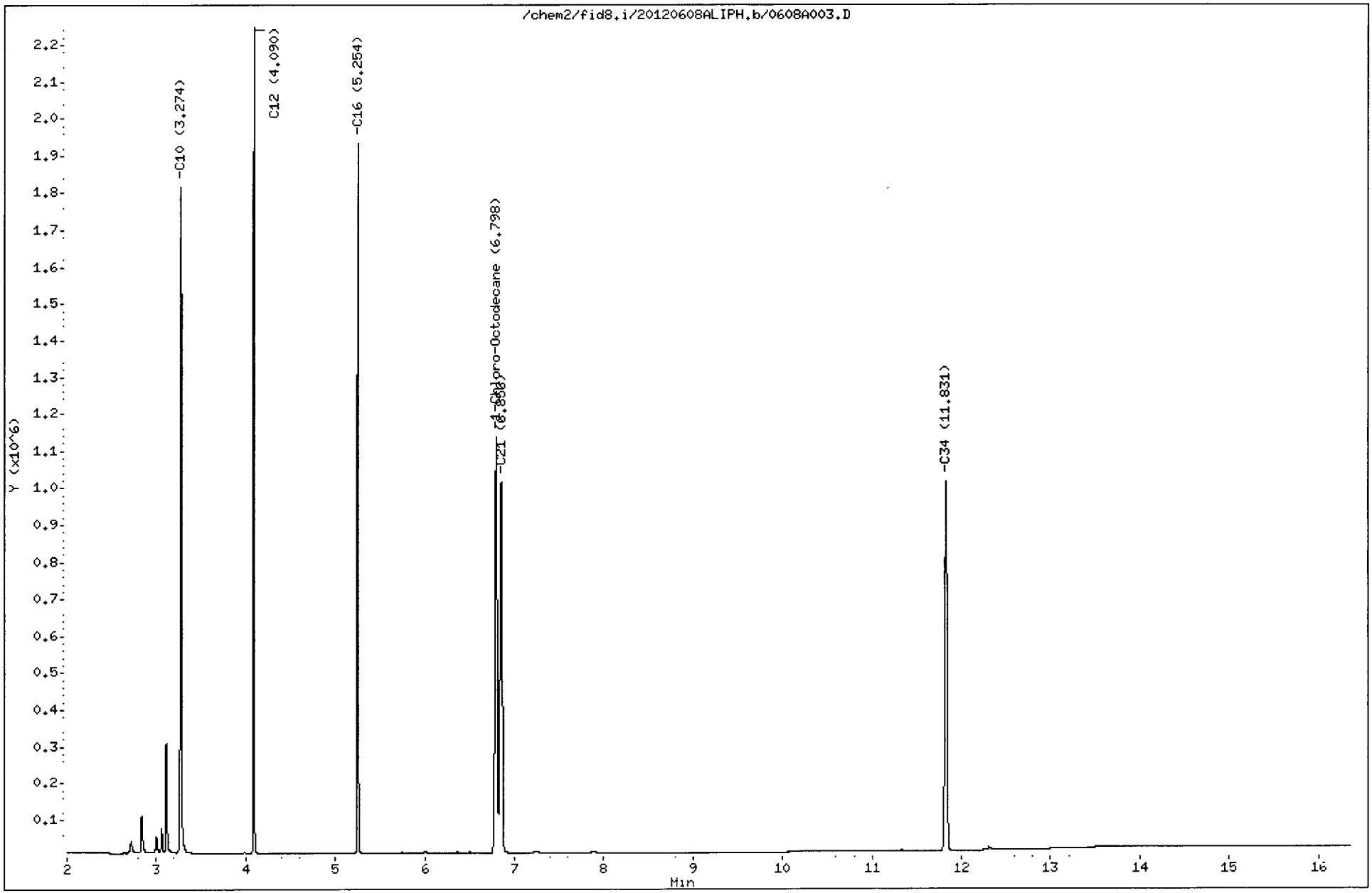
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
	2 C8	1.110	1.141	-0.031	1897139	95.2382	95.238
	3 C10	3.274	3.282	-0.008	1759063	92.6600	92.660
	45 C12	4.090	4.096	-0.006	1629356	90.4162	90.416
	46 C16	5.254	5.261	-0.007	1507669	88.7496	88.749
$	51 1-Chloro-Octodecane	6.798	6.813	-0.015	1899253	108.540	108.540
	47 C21	6.856	6.867	-0.011	1761470	108.608	108.608
	48 C34	11.831	11.838	-0.007	1648770	96.9025	96.902

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A003.D
Date : 08-JUN-2012 12:37
Client ID:
Sample Info: ALIPHATIC #1

Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32



Analytical Resources Inc.
WA. EPH Aliphatics Report

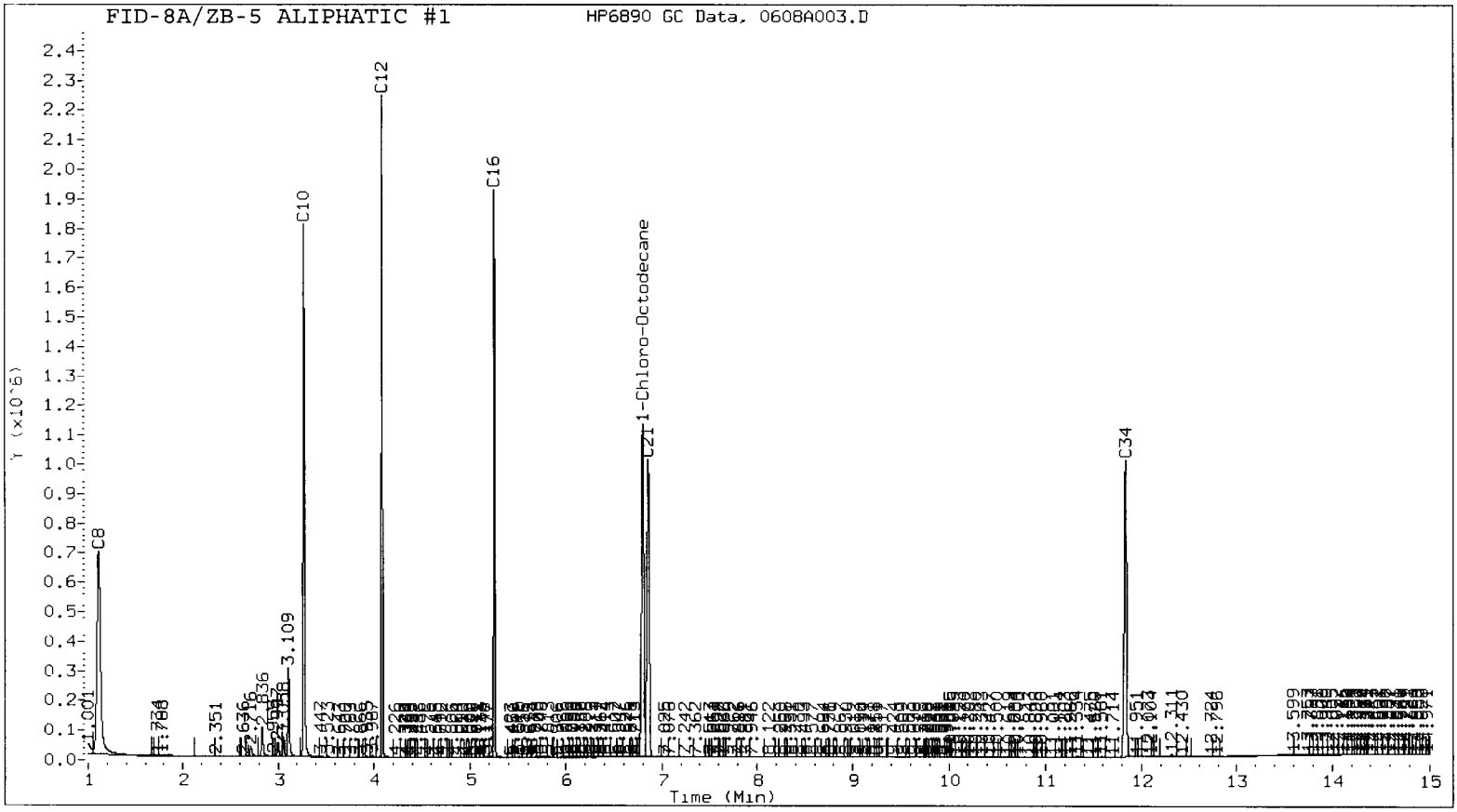
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A003.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: ALIPHATIC #1
Client ID:
Injection: 08-JUN-2012 12:37
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	4345426	223	(1.041 - 3.382)
C10-C12	Aliph.	1637006	91	(3.382 - 4.196)
C12-C16	Aliph.	1511581	89	(4.196 - 5.361)
C16-C21	Aliph.	1785574	110	(5.361 - 6.967)
C21-C34	Aliph.	1686154	99	(6.967 - 11.938)

Surrogate Rec: 72.4%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A004.D
Lab Smp Id: UW94MBS1 Client Smp ID: UW94MBS1
Inj Date : 08-JUN-2012 13:02
Operator : MH Inst ID: fid8.i
Smp Info : UW94MBS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2	C8	Compound Not Detected.					
3	C10	3.274	3.282	-0.008	3480	0.18335	0.183
45	C12	4.090	4.096	-0.006	3877	0 21520	0.215
46	C16	5.262	5.261	0.001	4403	0 25923	0.259
$ 51	1-Chloro-Octodecane	6 802	6.813	-0.011	2130030	121.729	121.729
47	C21	Compound Not Detected.					
48	C34	11.827	11.838	-0.011	166	0.00980	0.009

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A004.D

Date : 08-JUN-2012 13:02

Client ID: UW94MBS1

Sample Info: UW94MBS1

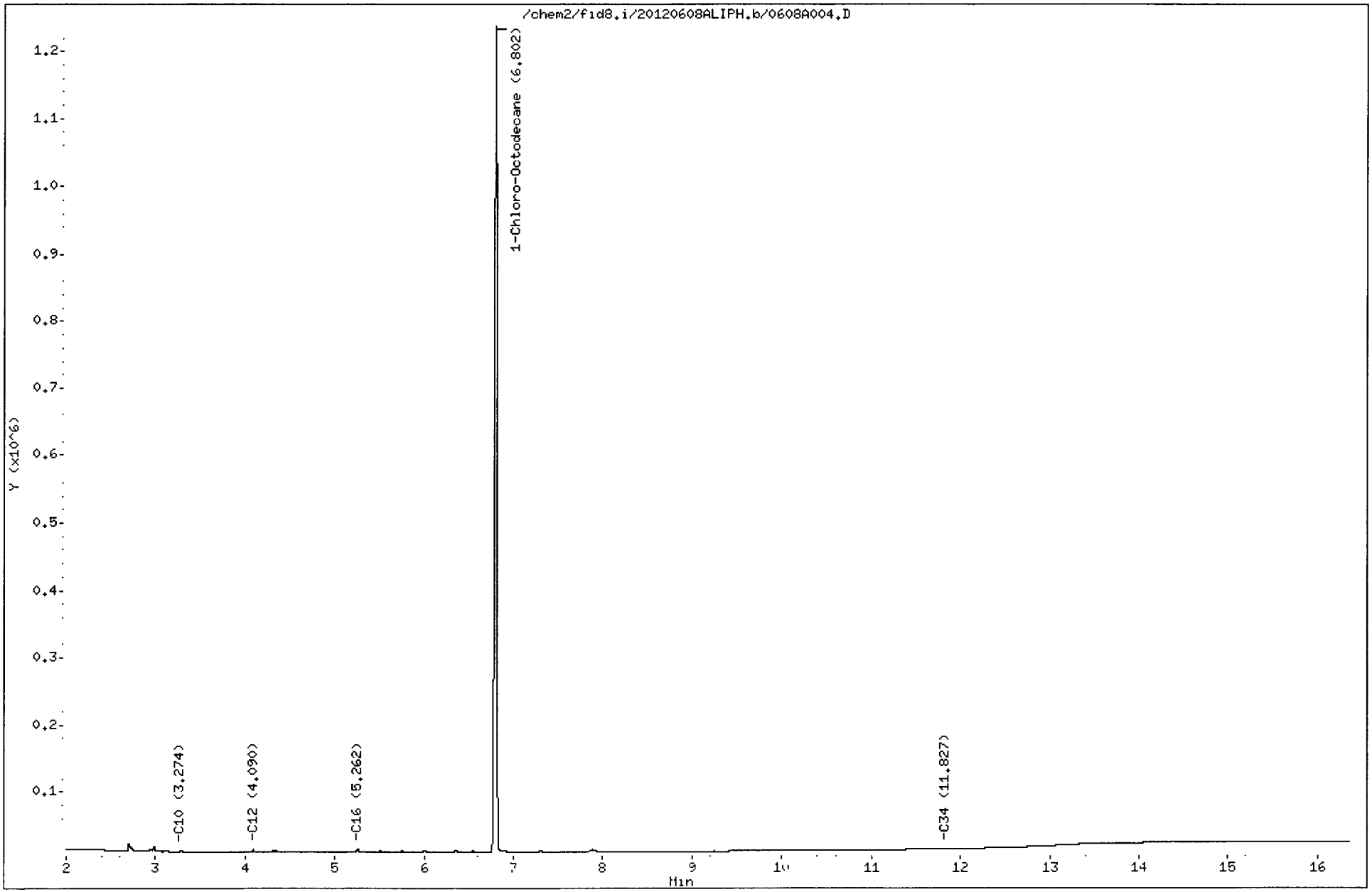
Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32

UW85-0901



Analytical Resources Inc.
WA. EPH Aliphatics Report

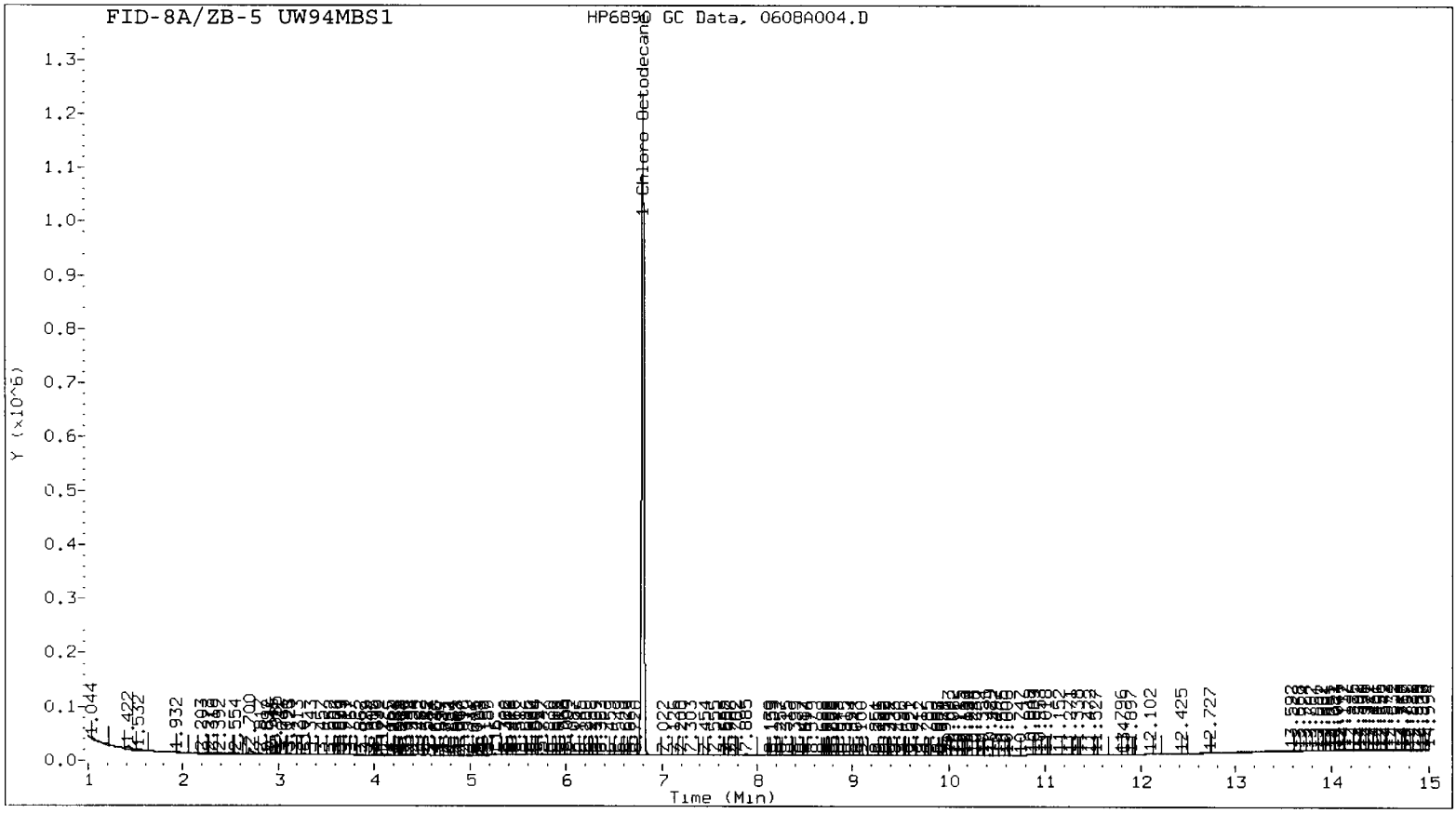
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A004.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW94MBS1
Client ID: UW94MBS1
Injection: 08-JUN-2012 13:02
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	173691	9	(1.041 - 3.382)
C10-C12	Aliph.	9664	1	(3.382 - 4.196)
C12-C16	Aliph.	10733	1	(4.196 - 5.361)
C16-C21	Aliph.	16415	1	(5.361 - 6.967)
C21-C34	Aliph.	20423	1	(6.967 - 11.938)

Surrogate Rec: 81.2%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A005.D
Lab Smp Id: UW94LCSS1 Client Smp ID: UW94LCSS1
Inj Date : 08-JUN-2012 13:28
Operator : MH Inst ID: fid8.i
Smp Info : UW94LCSS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

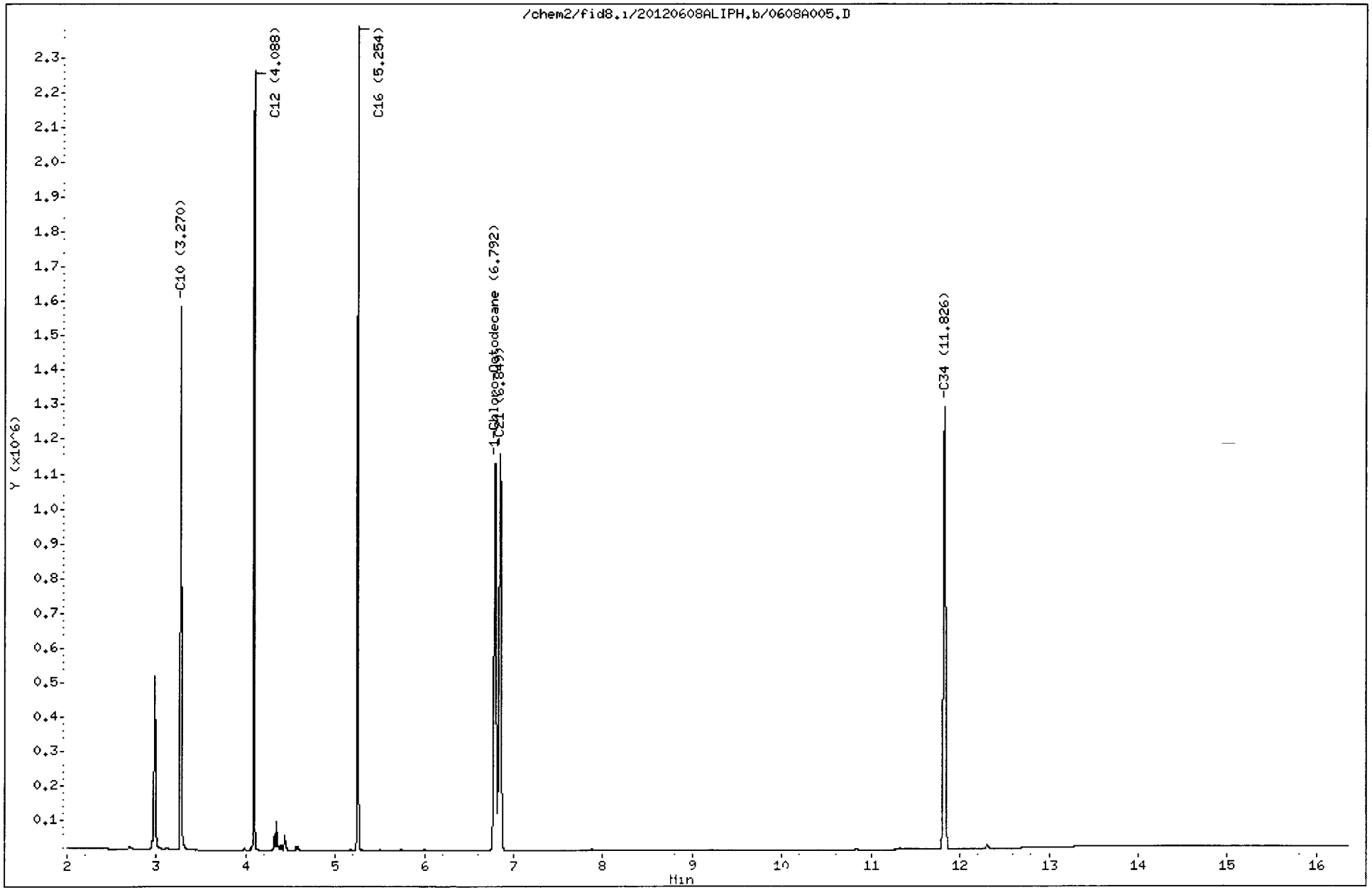
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
2	C8	Compound Not Detected.					
3	C10	3.270	3.282	-0.012	1539276	81.0826	81.082
45	C12	4.088	4.096	-0.008	1664555	92.3695	92.369
46	C16	5.254	5.261	-0.007	1853324	109 097	109.096
$ 51	1-Chloro-Octodecane	6.792	6.813	-0.021	1912113	109 275	109.275
47	C21	6.849	6.867	-0.018	1982349	122 227	122.227
48	C34	11.826	11.838	-0.012	2212086	130 010	130.010

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A005.D
Date : 08-JUN-2012 13:28
Client ID: UW94LCSS1
Sample Info: UW94LCSS1

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
WA. EPH Aliphatics Report

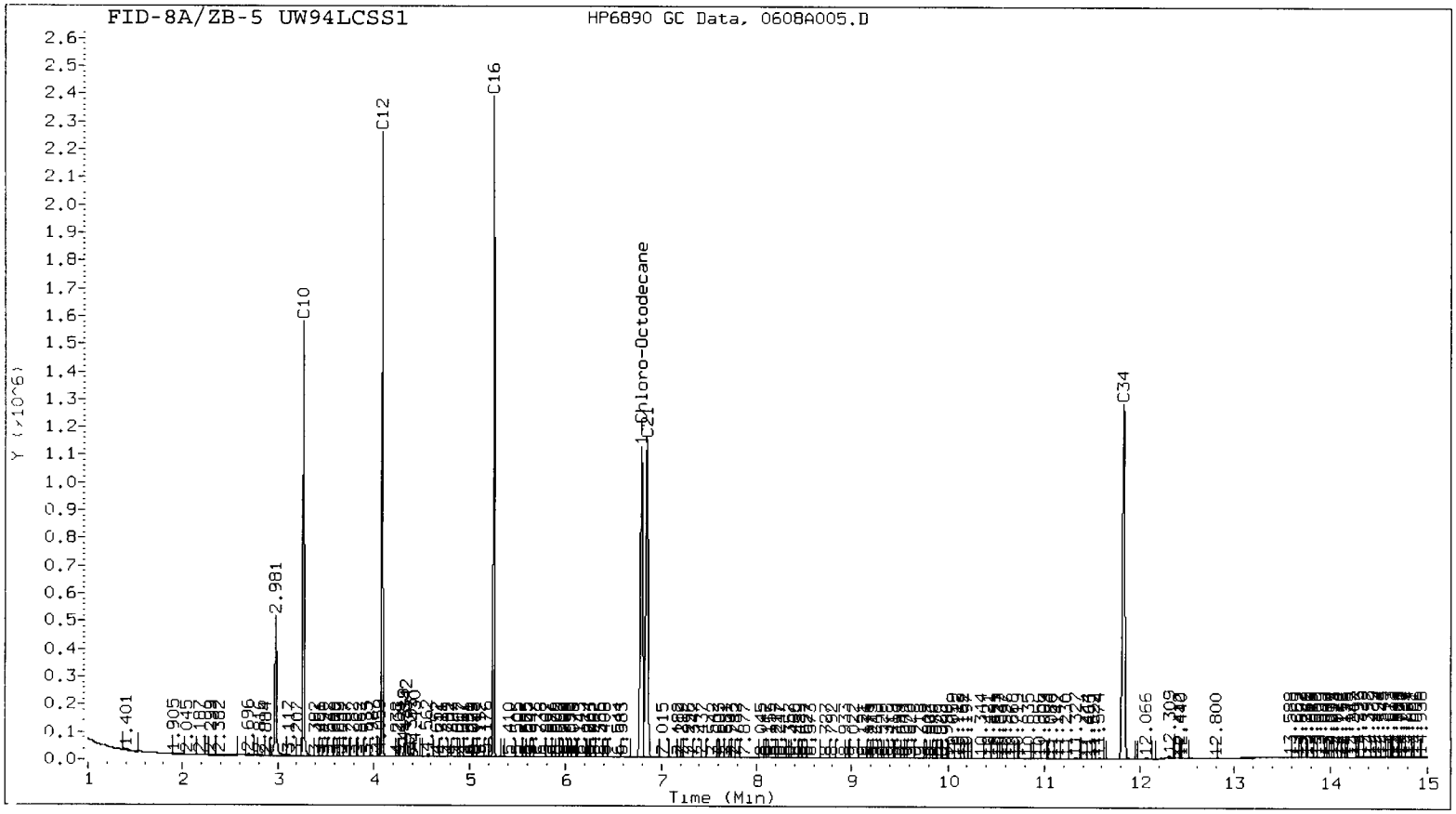
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A005.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW94LCSS1
Client ID: UW94LCSS1
Injection: 08-JUN-2012 13:28
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	2402655	124	(1.041 - 3.382)
C10-C12	Aliph.	1688397	94	(3.382 - 4.196)
C12-C16	Aliph.	2067332	122	(4.196 - 5.361)
C16-C21	Aliph.	2004367	124	(5.361 - 6.967)
C21-C34	Aliph.	2239093	132	(6.967 - 11.938)

Surrogate Rec: 72.9%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A006.D
Lab Smp Id: UW94LCSDS1 Client Smp ID: UW94LCSDS1
Inj Date : 08-JUN-2012 13:53
Operator : MH Inst ID: fid8.i
Smp Info : UW94LCSDS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

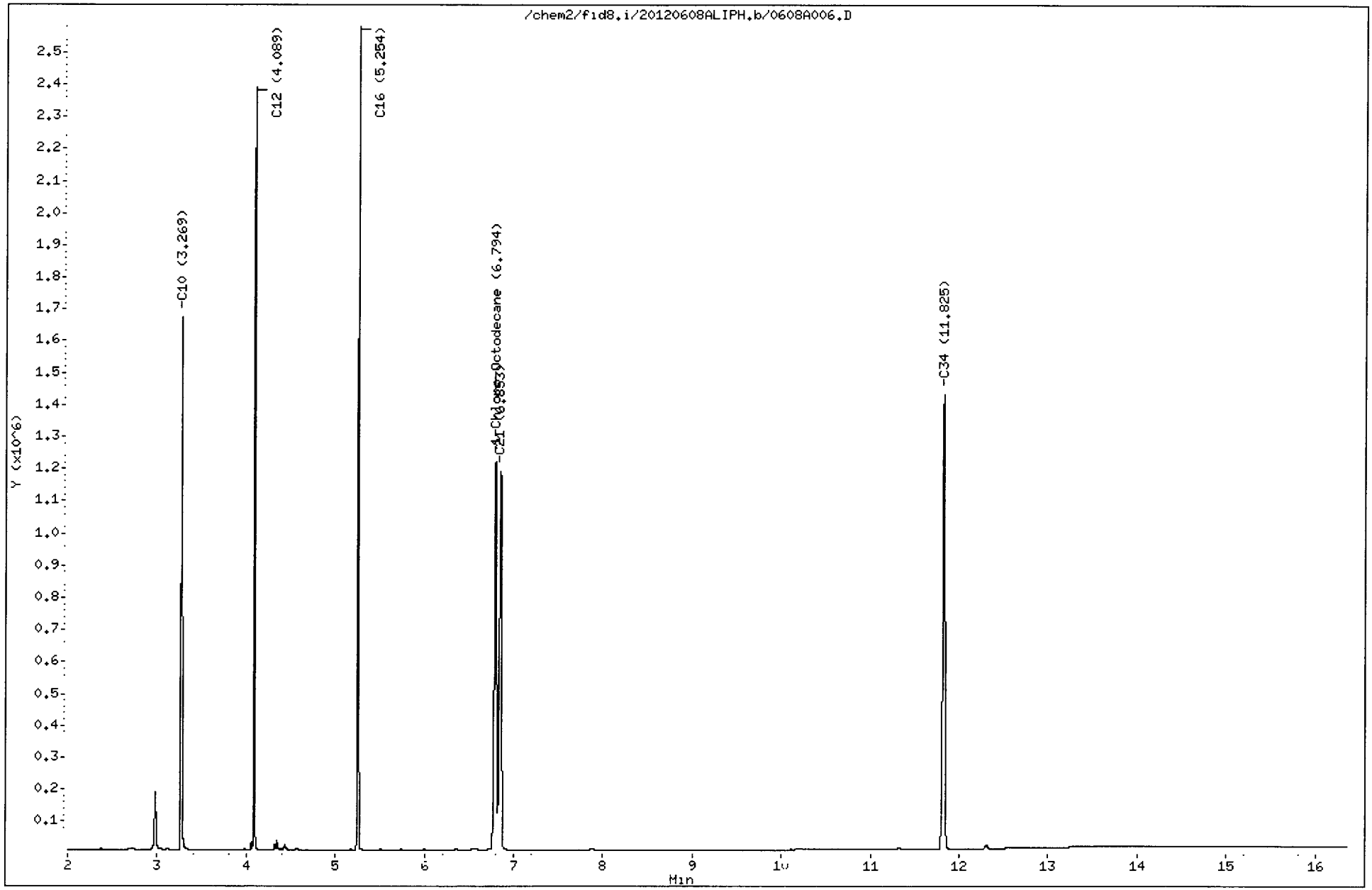
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
	2 C8	1.169	1.141	0.028	13544	0.67993	0.679
	3 C10	3 269	3.282	-0.013	1596416	84.0925	84.092
	45 C12	4.089	4.096	-0.007	1721875	95.5503	95.550
	46 C16	5.254	5.261	-0.007	1994445	117.404	117.403
$	51 1-Chloro-Octodecane	6.794	6.813	-0.019	2122901	121.322	121.321
	47 C21	6.853	6.867	-0.014	2083846	128.485	128.485
	48 C34	11.825	11.838	-0.013	2419733	142.214	142.214

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A006.D
Date : 08-JUN-2012 13:53
Client ID: UW94LCSDS1
Sample Info: UW94LCSDS1

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



UW85-00110

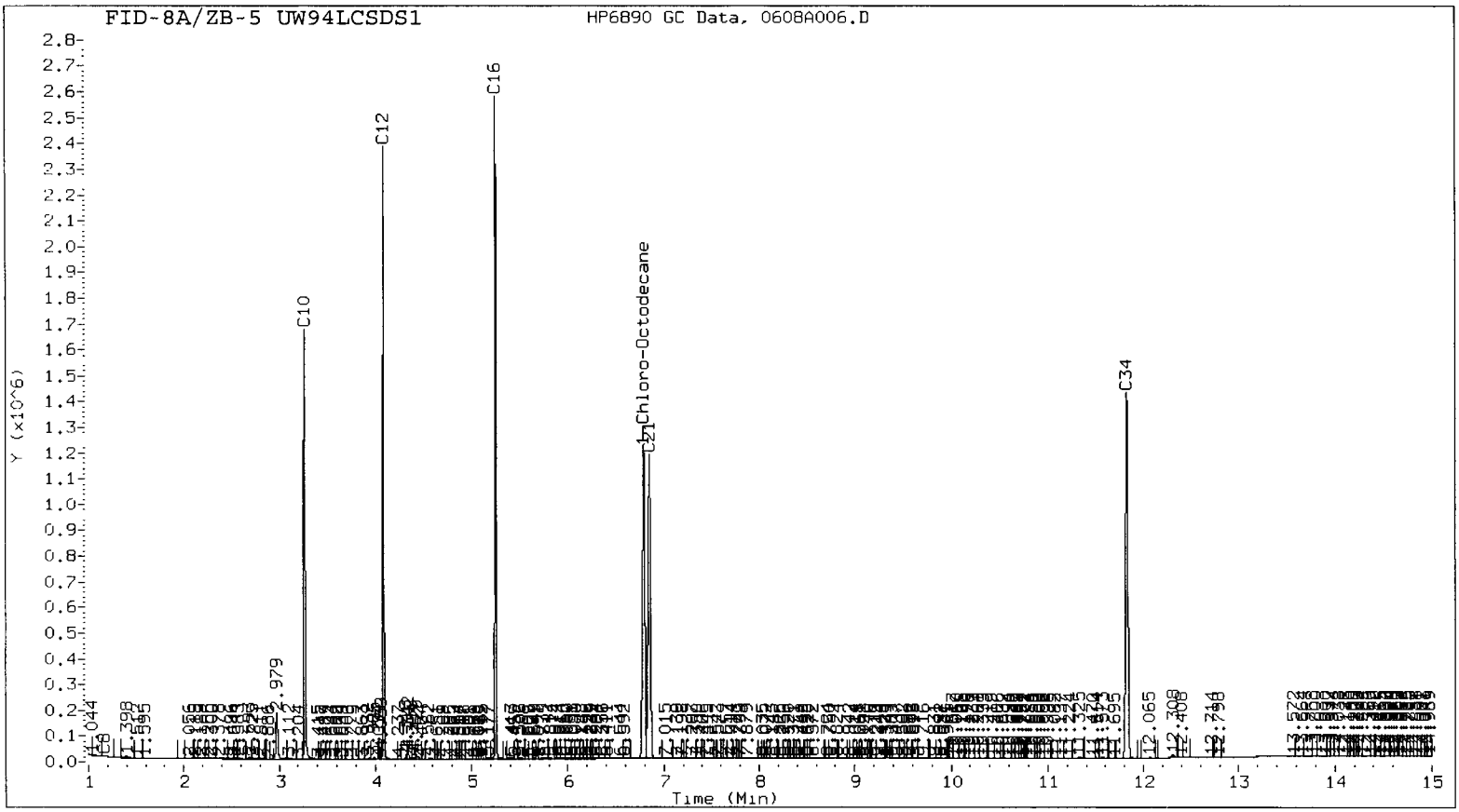
Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120608ALIPH.b/0608A006.D ARI ID: UW94LCSDS1
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m Client ID: UW94LCSDS1
Instrument: fid8.i Injection: 08-JUN-2012 13:53
Operator: MH Matrix: SOIL
Macro: ALIPH120912FID8 Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	1949277	100	(1.041 - 3.382)
C10-C12	Aliph.	1750118	97	(3.382 - 4.196)
C12-C16	Aliph.	2075357	122	(4.196 - 5.361)
C16-C21	Aliph.	2114018	130	(5.361 - 6.967)
C21-C34	Aliph.	2453144	144	(6.967 - 11.938)

Surrogate Rec: 80.9%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A010.D
Lab Smp Id: UW85AMS Client Smp ID: MS001-SS-120515 MS
Inj Date : 08-JUN-2012 15:34
Operator : MH Inst ID: fid8.i
Smp Info : UW85AMS
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 9 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

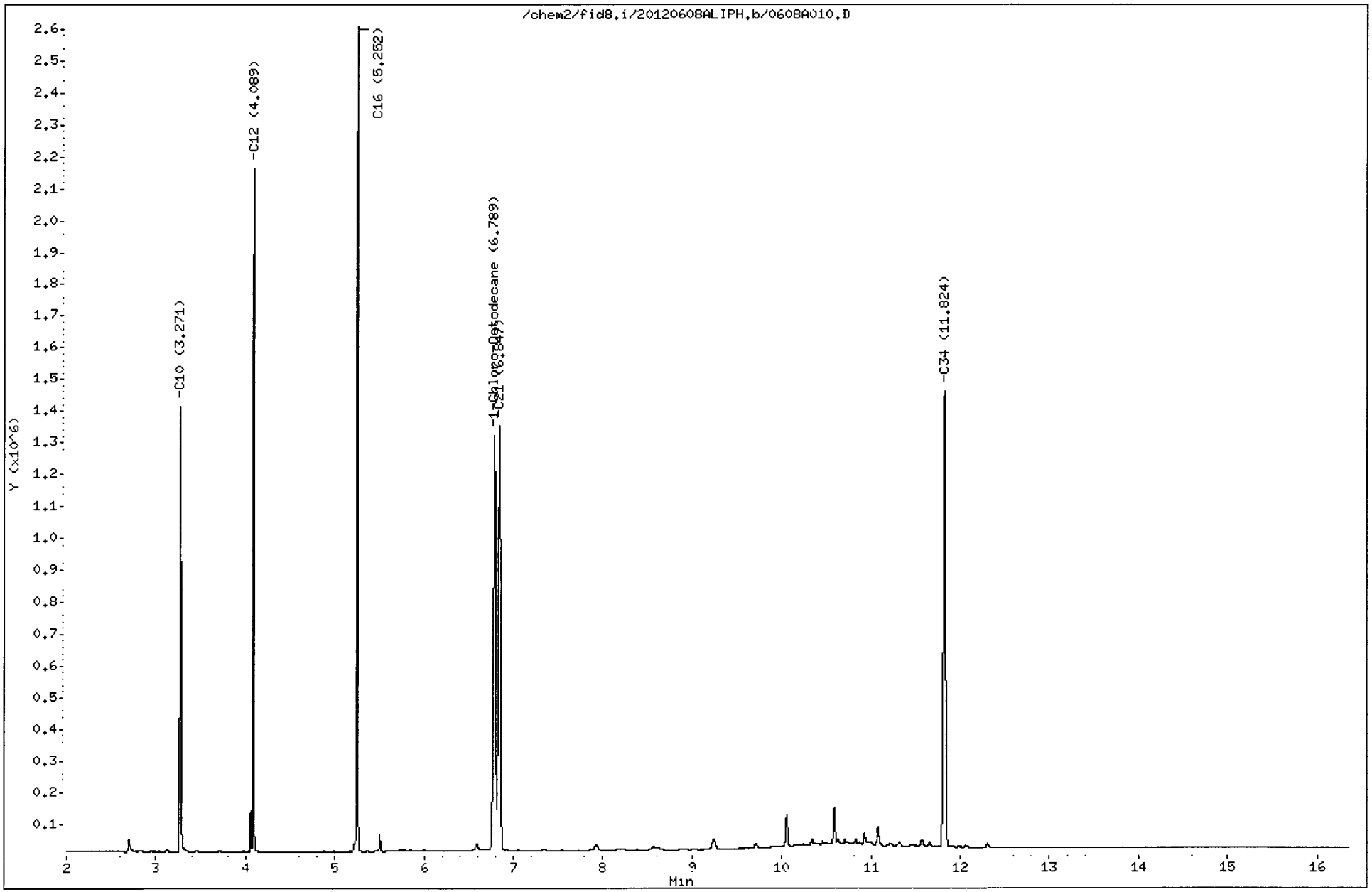
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
2	C8	Compound Not Detected.					
3	C10	3 271	3 282	-0.011	1367003	72 0080	72.007
45	C12	4.089	4.096	-0.007	1589738	88.2177	88.217
46	C16	5 252	5.261	-0.009	2023260	119.100	119.100
$ 51	1-Chloro-Octodecane	6 789	6.813	-0.024	2277007	130.129	130.128
47	C21	6.847	6.867	-0.020	2279132	140.526	140.525
48	C34	11 824	11.838	-0.014	2501494	147.019	147.019

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A010.D
Date : 08-JUN-2012 15:34
Client ID: MS001-SS-120515 MS
Sample Info: UW85AMS

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
WA. EPH Aliphatics Report

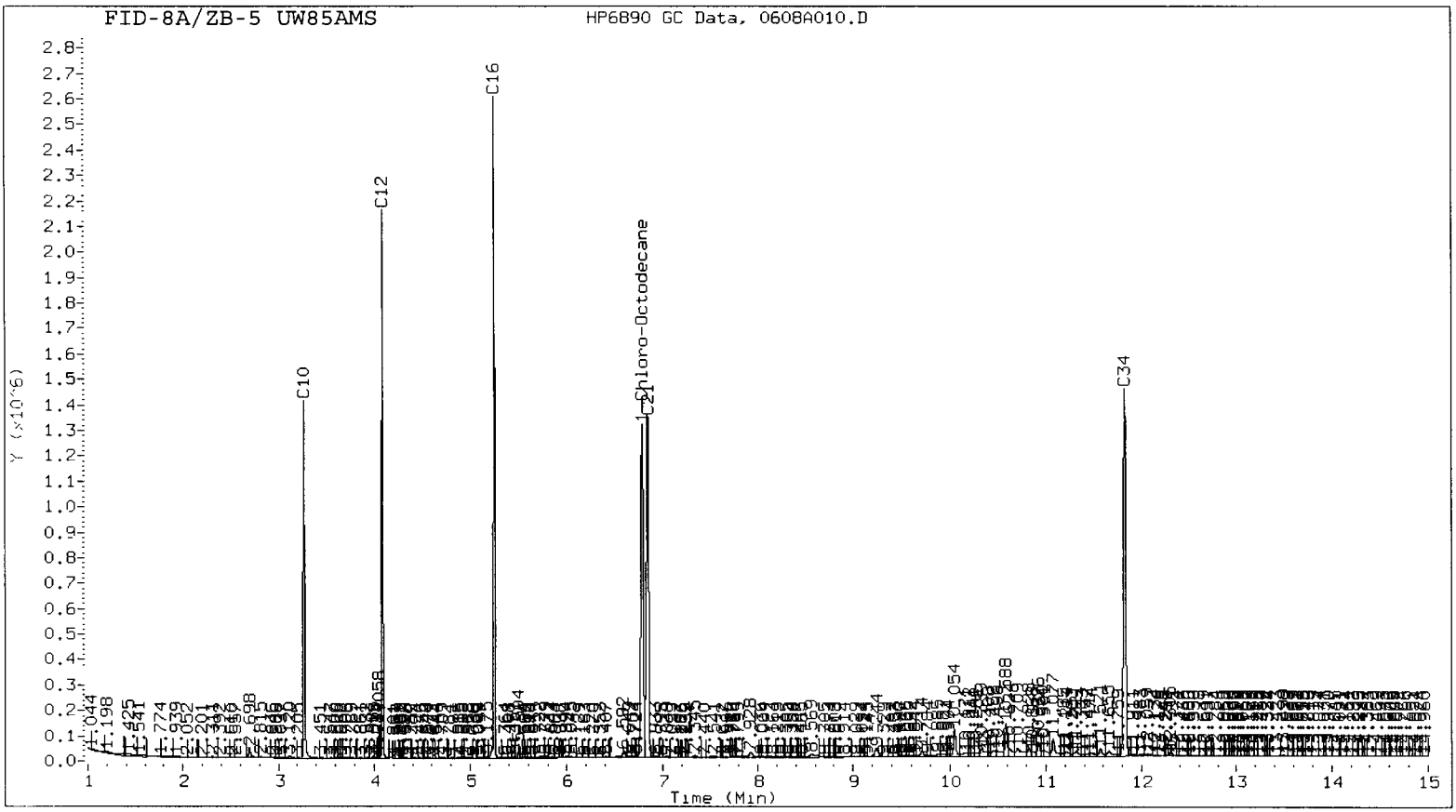
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A010.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85AMS
Client ID: MS001-SS-120515 MS
Injection: 08-JUN-2012 15:34
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	1707433	88	(1.041 - 3.382)
C10-C12	Aliph.	1717014	95	(3.382 - 4.196)
C12-C16	Aliph.	2079041	122	(4.196 - 5.361)
C16-C21	Aliph.	2641663	163	(5.361 - 6.967)
C21-C34	Aliph.	5259541	309	(6.967 - 11.938)

Surrogate Rec: 86.8%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A011.D
Lab Smp Id: UW85AMSD Client Smp ID: MS001-SS-120515 MSD
Inj Date : 08-JUN-2012 15:59
Operator : MH Inst ID: fid8.i
Smp Info : UW85AMSD
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

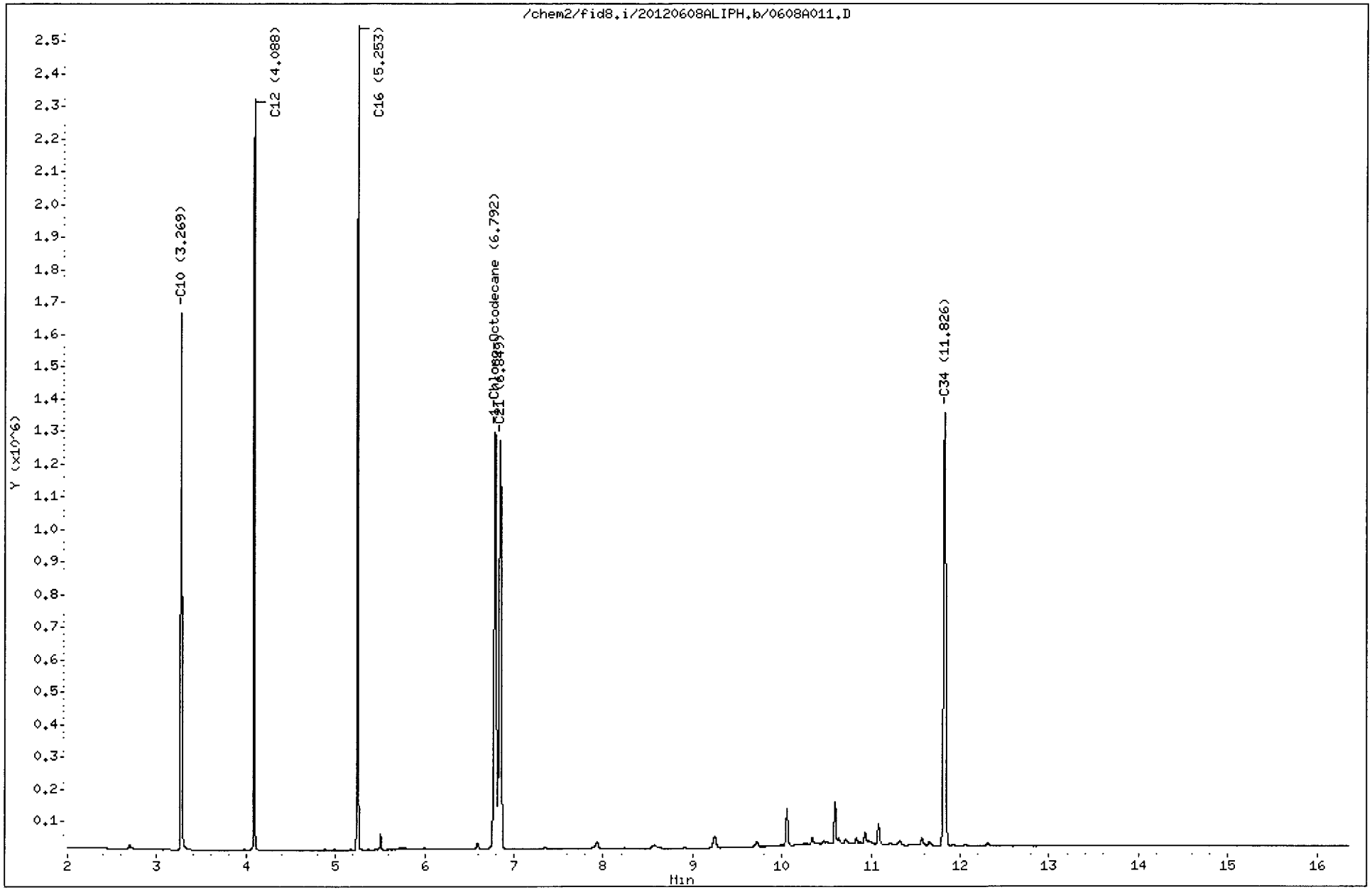
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
2	C8	Compound Not Detected.					
3	C10	3.269	3 282	-0.013	1561041	82 2291	82.229
45	C12	4.088	4 096	-0.008	1701071	94 3958	94.395
46	C16	5 253	5.261	-0.008	1958711	115 300	115.300
$ 51	1-Chloro-Octodecane	6.792	6.813	-0.021	2216670	126.681	126.680
47	C21	6.849	6.867	-0.018	2160003	133.181	133.180
48	C34	11.826	11.838	-0.012	2364827	138.987	138.987

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A011.D
Date : 08-JUN-2012 15:59
Client ID: MS001-SS-120515 MSD
Sample Info: UW85AMSD

Instrument: fid8.i
Operator: MH
Column phase: ZB-5
Column diameter: 0.32



UW85 : 2012 16

Analytical Resources Inc.
WA. EPH Aliphatics Report

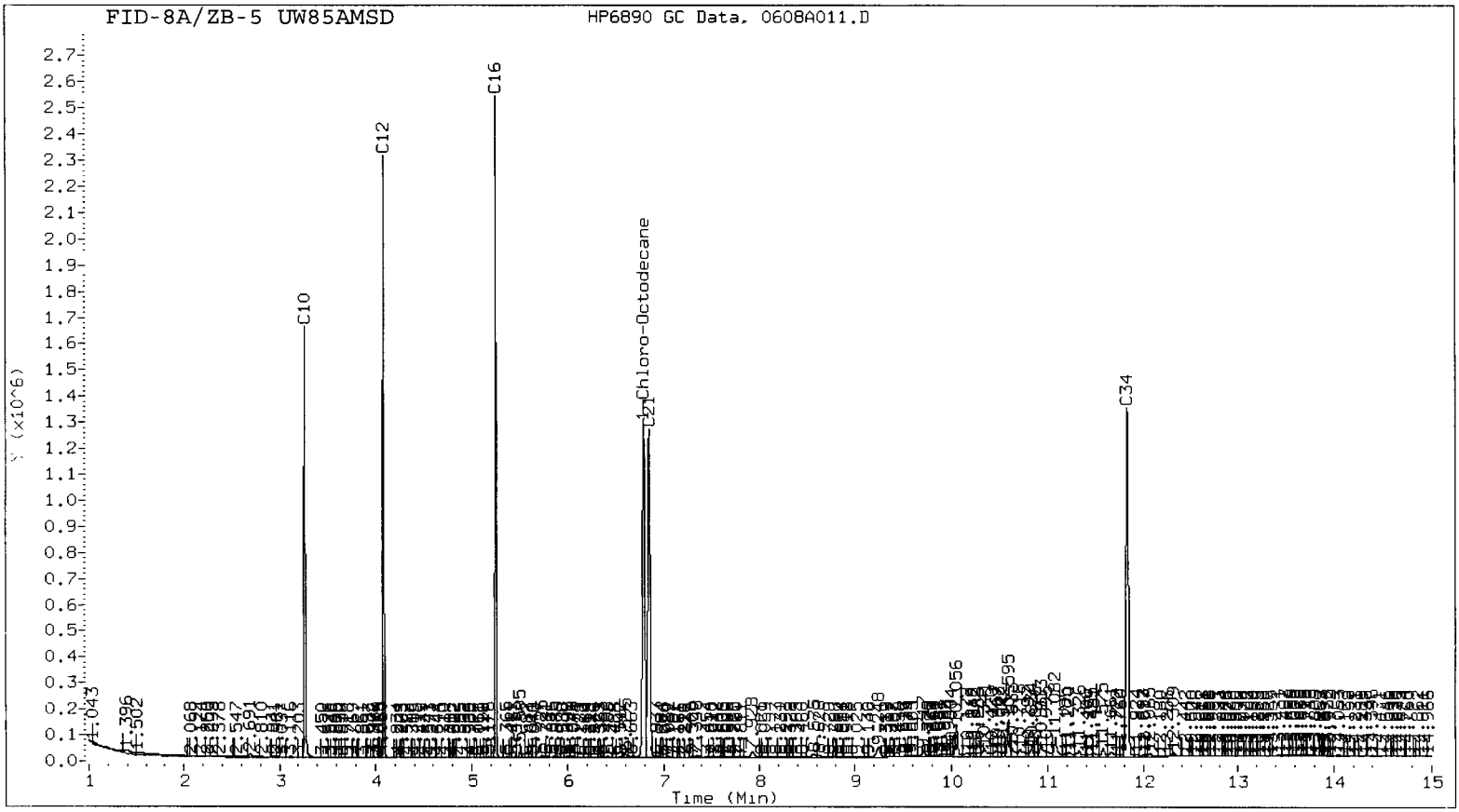
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A011.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85AMSD
Client ID: MS001-SS-120515 MSD
Injection: 08-JUN-2012 15:59
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	1978260	102	(1.041 - 3.382)
C10-C12	Aliph.	1734856	96	(3.382 - 4.196)
C12-C16	Aliph.	1989099	117	(4.196 - 5.361)
C16-C21	Aliph.	2449777	151	(5.361 - 6.967)
C21-C34	Aliph.	5081480	299	(6.967 - 11.938)

Surrogate Rec: 84.5%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A009.D
Lab Smp Id: UW85A Client Smp ID: MS001-SS-120515
Inj Date : 08-JUN-2012 15:09
Operator : MH Inst ID: fid8.i
Smp Info : UW85A
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/kg)
	2 C8	1.123	1.141	-0.018	19382	0.97301	0.973(M)
	3 C10	3.271	3.282	-0.011	7973	0.41999	0.419
	45 C12	4 089	4.096	-0.007	7164	0.39760	0 397
	46 C16	5.251	5.261	-0.010	6205	0.36529	0 365
$	51 1-Chloro-Octodecane	6.791	6.813	-0.022	2190414	125 180	125 180
	47 C21	6.839	6.867	-0.028	27368	1.68747	1.687
	48 C34	11.814	11.838	-0.024	40180	2.36151	2 361

QC Flag Legend

M - Compound response manually integrated.

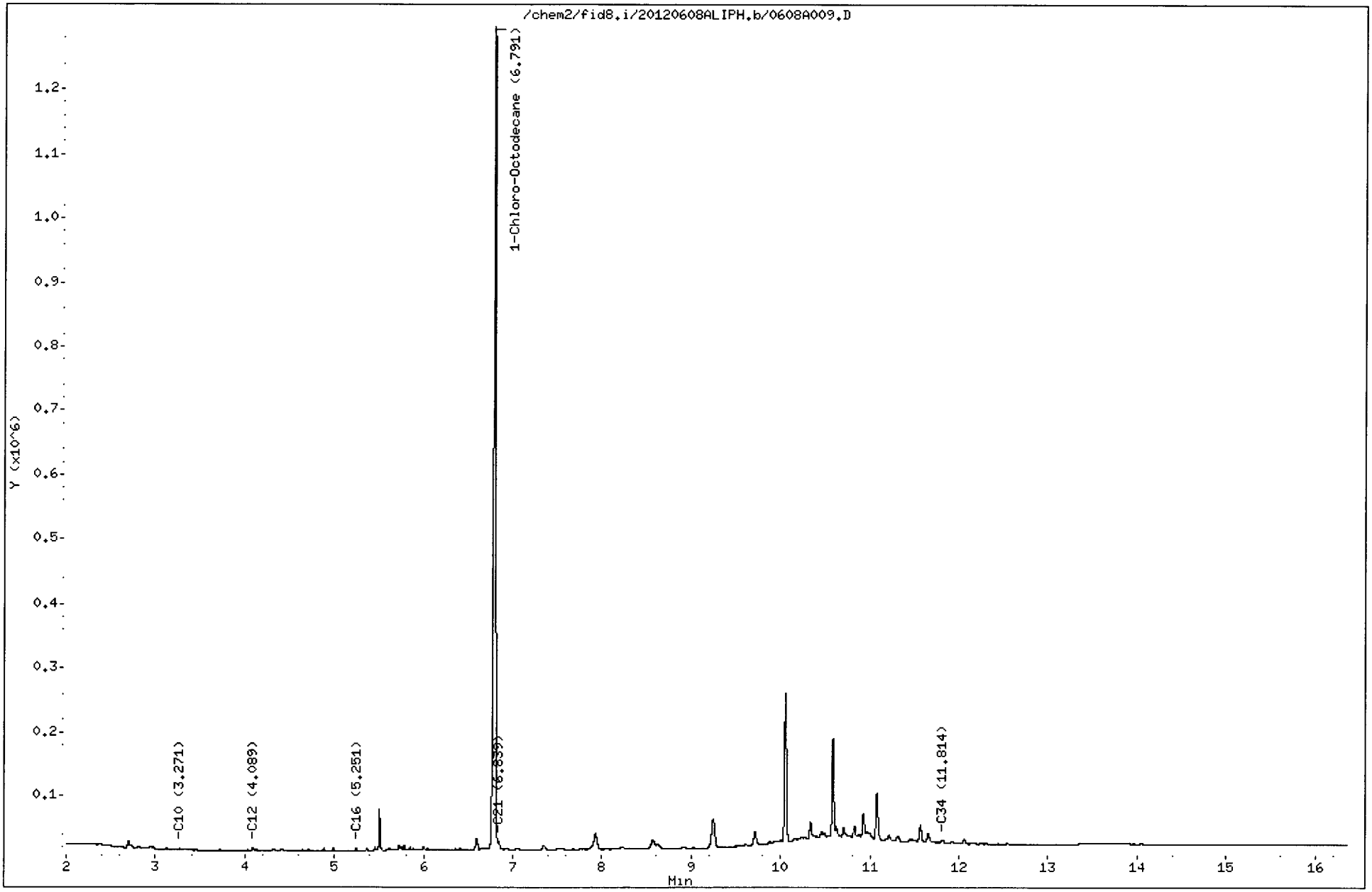
Data File: /chem2/fid8.i/20120608ALIPH.b/0608A009.D
Date : 08-JUN-2012 15:09
Client ID: MS001-SS-120515
Sample Info: UW85A

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5

UW85-062113



Analytical Resources Inc.
WA. EPH Aliphatics Report

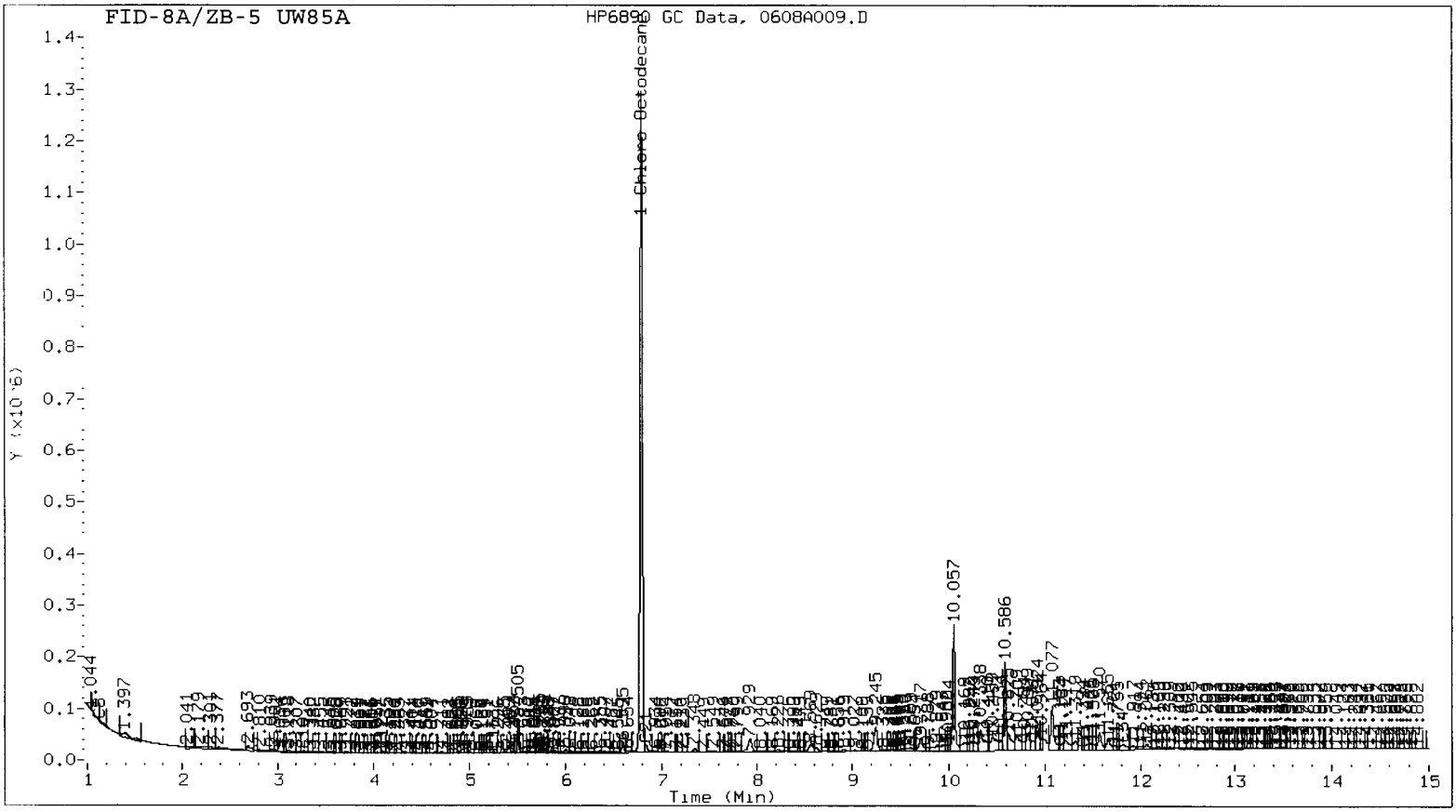
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A009.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85A
Client ID: MS001-SS-120515
Injection: 08-JUN-2012 15:09
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	269186	14	(1.041 - 3.382)
C10-C12	Aliph.	47569	3	(3.382 - 4.196)
C12-C16	Aliph.	75860	4	(4.196 - 5.361)
C16-C21	Aliph.	301512	19	(5.361 - 6.967)
C21-C34	Aliph.	3047133	179	(6.967 - 11.938)

Surrogate Rec: 83.5%



MANUAL INTEGRATION - Baseline Correction

Analyst: MH Date: 6/11/12

MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A012.D
Lab Smp Id: UW85B Client Smp ID: MS002-SS-120515
Inj Date : 08-JUN-2012 16:24
Operator : MH Inst ID: fid8.i
Smp Info : UW85B
Misc Info : 12-10067
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ug/kg)
	2 C8	Compound Not Detected.					
	3 C10	3.270	3.282	-0 012	6771	0.35668	0.356(M)
	45 C12	4.088	4.096	-0 008	3009	0.16699	0.166(M)
	46 C16	5.250	5.261	-0.011	8818	0.51913	0.519(M)
$	51 1-Chloro-Octodecane	6.790	6.813	-0.023	2216034	126.644	126.644(M)
	47 C21	6.878	6.867	0.011	11062	0.68211	0.682(M)
	48 C34	11.811	11.838	-0.027	58710	3.45057	3.450(M)

QC Flag Legend

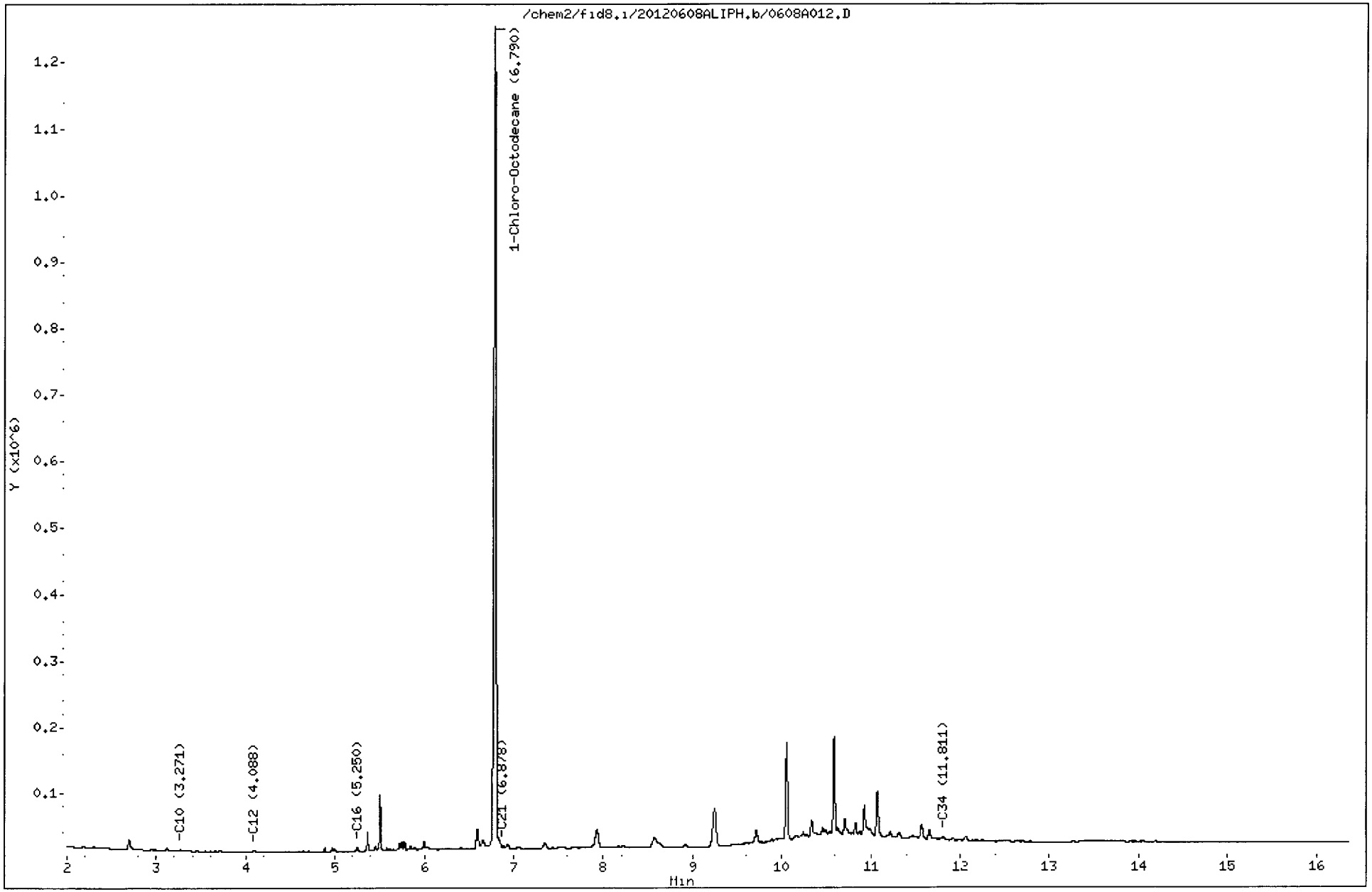
M - Compound response manually integrated.

Data File: /chem2/fid8.1/20120608ALIPH.b/0608A012.D
Date : 08-JUN-2012 16:24
Client ID: MS002-SS-120515
Sample Info: UW85B

Instrument: fid8.1

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



UW85 : 601222

Analytical Resources Inc.
WA. EPH Aliphatics Report

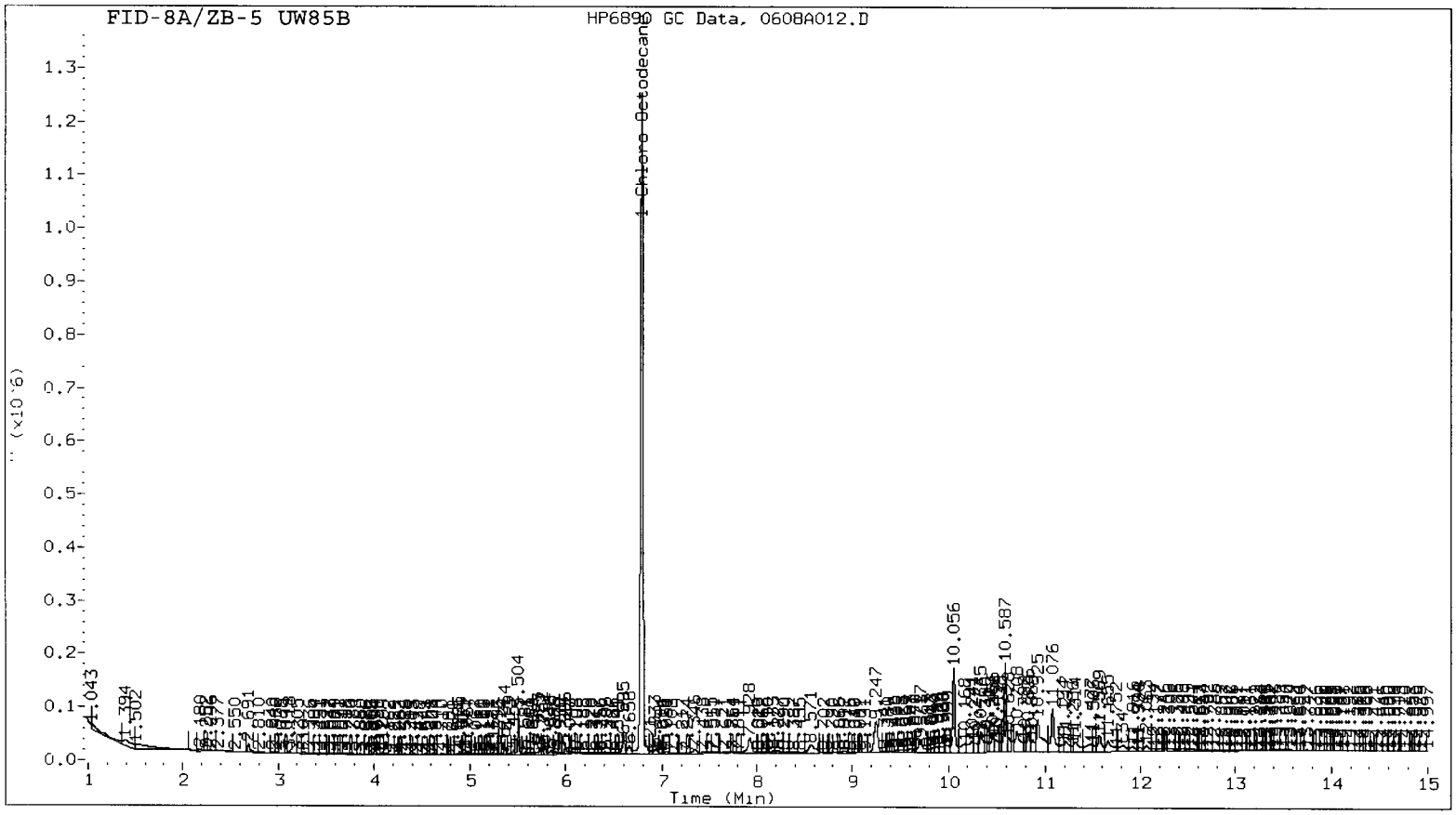
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A012.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85B
Client ID: MS002-SS-120515
Injection: 08-JUN-2012 16:24
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	382172	20	(1.041 - 3.382)
C10-C12	Aliph.	24706	1	(3.382 - 4.196)
C12-C16	Aliph.	72254	4	(4.196 - 5.361)
C16-C21	Aliph.	480093	30	(5.361 - 6.967)
C21-C34	Aliph.	3306230	194	(6.967 - 11.938)

Surrogate Rec: 84.4%



MANUAL INTEGRATION - Baseline Correction

Analyst: MH Date: 6/11/12

MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A013.D
Lab Smp Id: UW85C Client Smp ID: MS003-SS-120515
Inj Date : 08-JUN-2012 16:49
Operator : MH Inst ID: fid8.i
Smp Info : UW85C
Misc Info : 12-10068
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

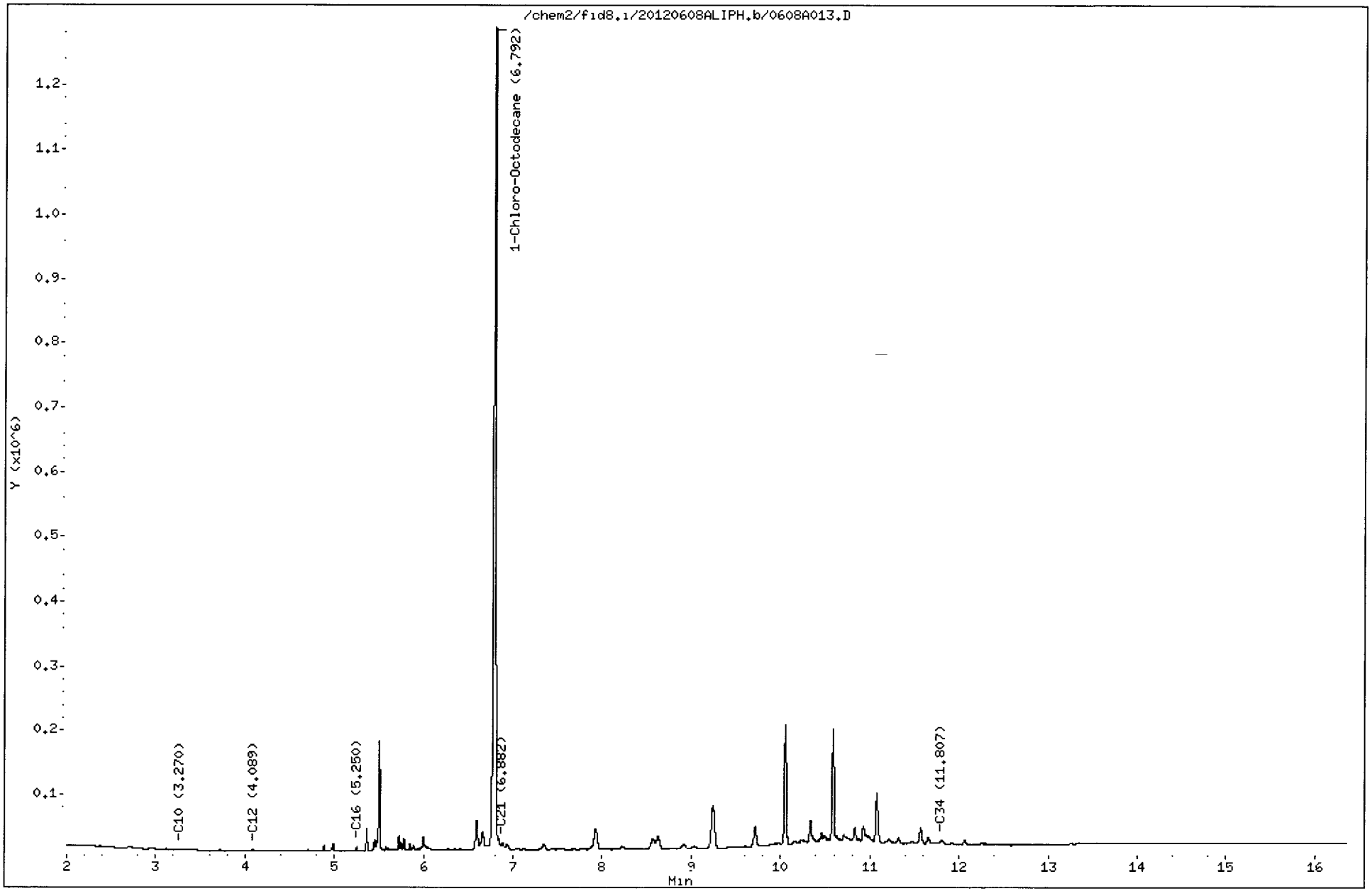
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
2	C8	Compound Not Detected					
3	C10	3.270	3.282	-0.012	2298	0.12107	0.121
45	C12	4 089	4.096	-0.007	4958	0.27513	0.275
46	C16	5.250	5.261	-0.011	4100	0.24138	0.241
$ 51	1-Chloro-Octodecane	6 792	6.813	-0.021	2290945	130 925	130.925
47	C21	6.882	6.867	0.015	20386	1.25700	1.256
48	C34	11 807	11.838	-0.031	30233	1.77690	1.776

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A013.D
Date : 08-JUN-2012 16:49
Client ID: MS003-SS-120515
Sample Info: UW85C

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



UW85 : 00125

Analytical Resources Inc.
WA. EPH Aliphatics Report

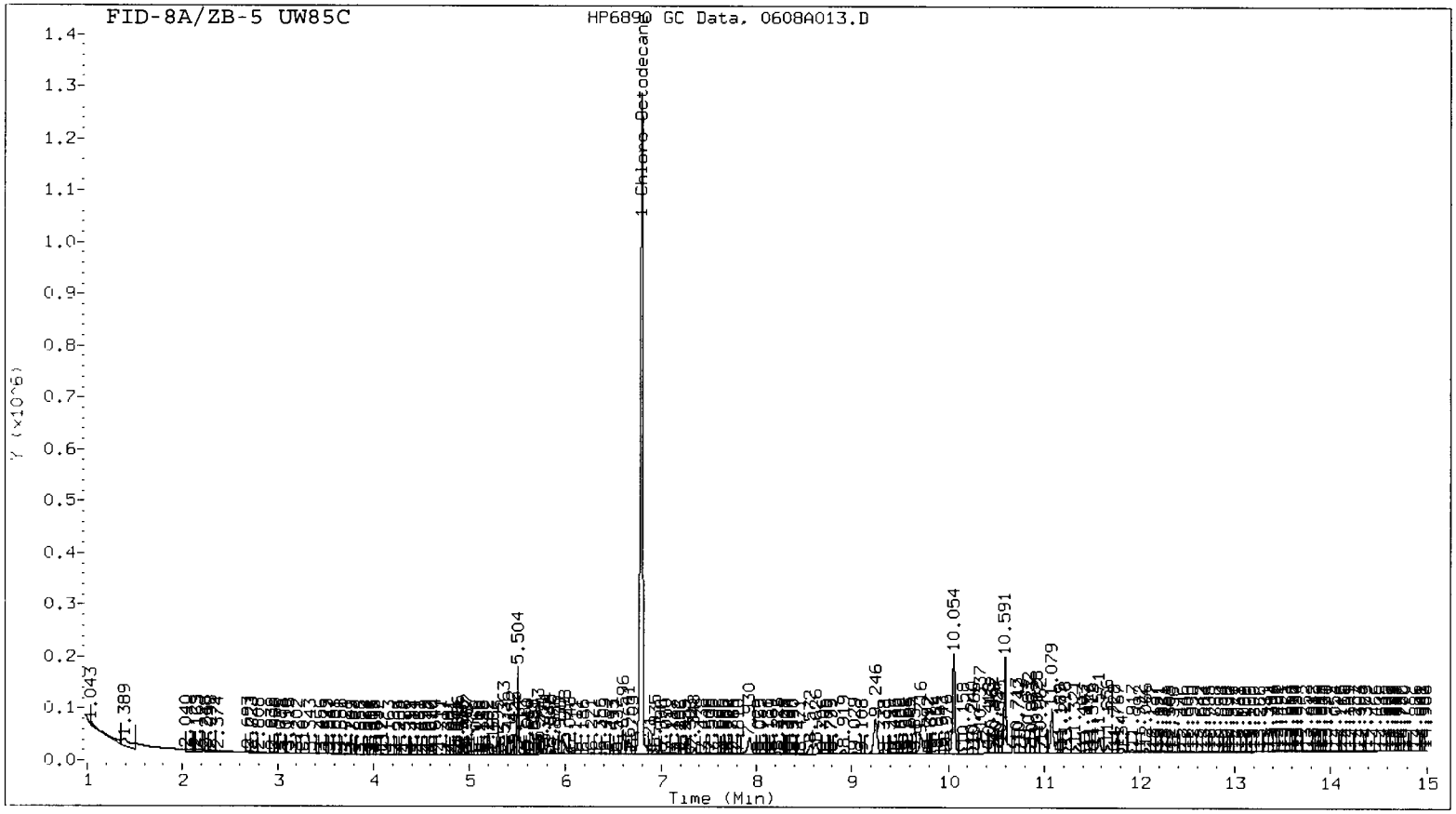
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A013.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85C
Client ID: MS003-SS-120515
Injection: 08-JUN-2012 16:49
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	315821	16	(1.041 - 3.382)
C10-C12	Aliph.	34091	2	(3.382 - 4.196)
C12-C16	Aliph.	38319	2	(4.196 - 5.361)
C16-C21	Aliph.	581565	36	(5.361 - 6.967)
C21-C34	Aliph.	2552341	150	(6.967 - 11.938)

Surrogate Rec: 87.3%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A014.D
Lab Smp Id: UW85D Client Smp ID: MS006-SS-120515
Inj Date : 08-JUN-2012 17:14
Operator : MH Inst ID: fid8.i
Smp Info : UW85D
Misc Info : 12-10069
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

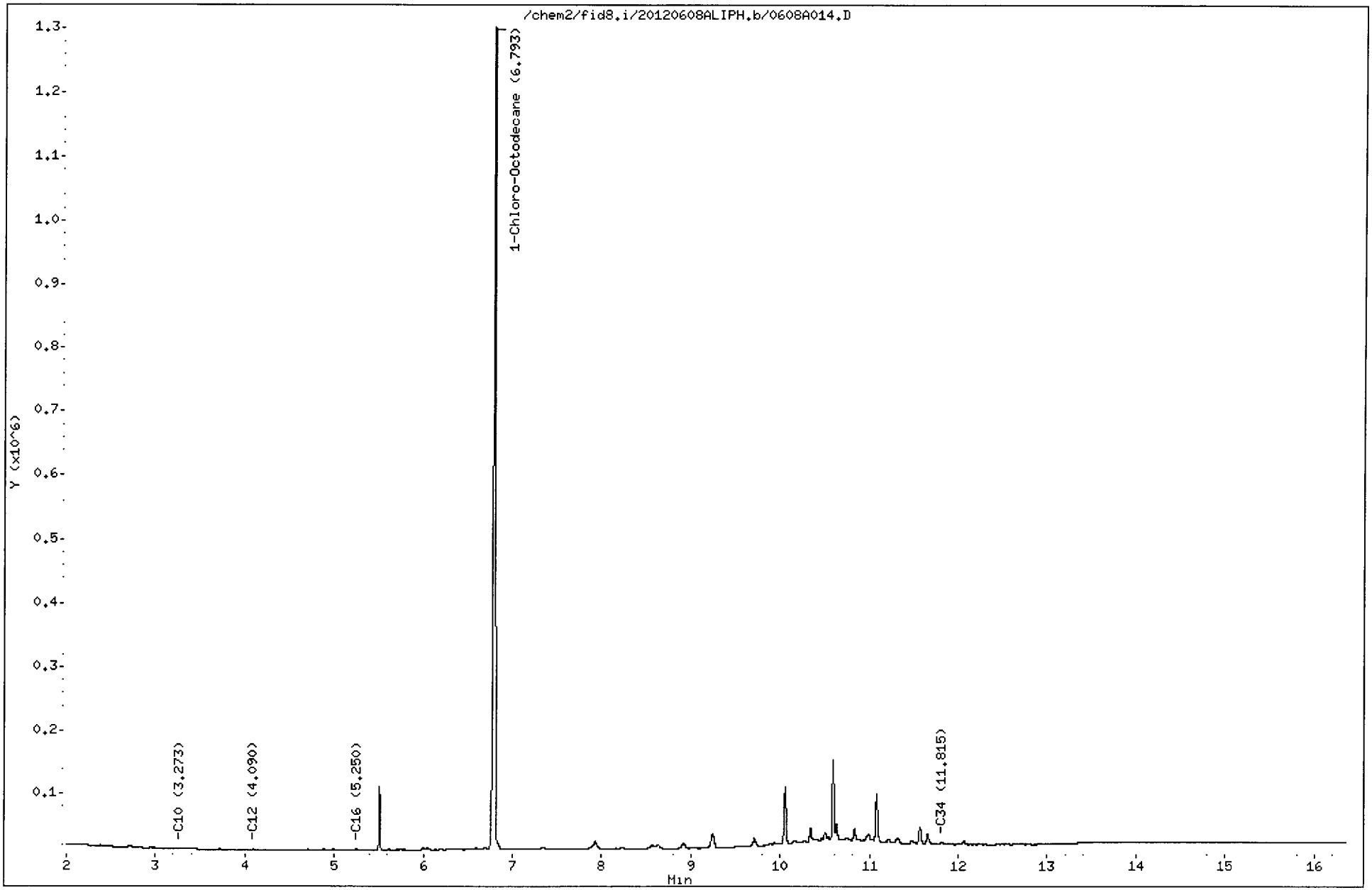
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
2	C8	Compound Not Detected.					
3	C10	3.273	3.282	-0.009	3580	0.18859	0.188
45	C12	4.090	4.096	-0.006	1224	0.06797	0 067
46	C16	5.250	5.261	-0.011	938	0.05523	0.055
$ 51	1-Chloro-Octodecane	6.793	6.813	-0.020	2179799	124.573	124.573
47	C21	Compound Not Detected.					
48	C34	11.815	11.838	-0.023	16340	0.96035	0.960

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A014.D
Date : 08-JUN-2012 17:14
Client ID: MS006-SS-120515
Sample Info: UW85D

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



UW85 : 60128

Analytical Resources Inc.
WA. EPH Aliphatics Report

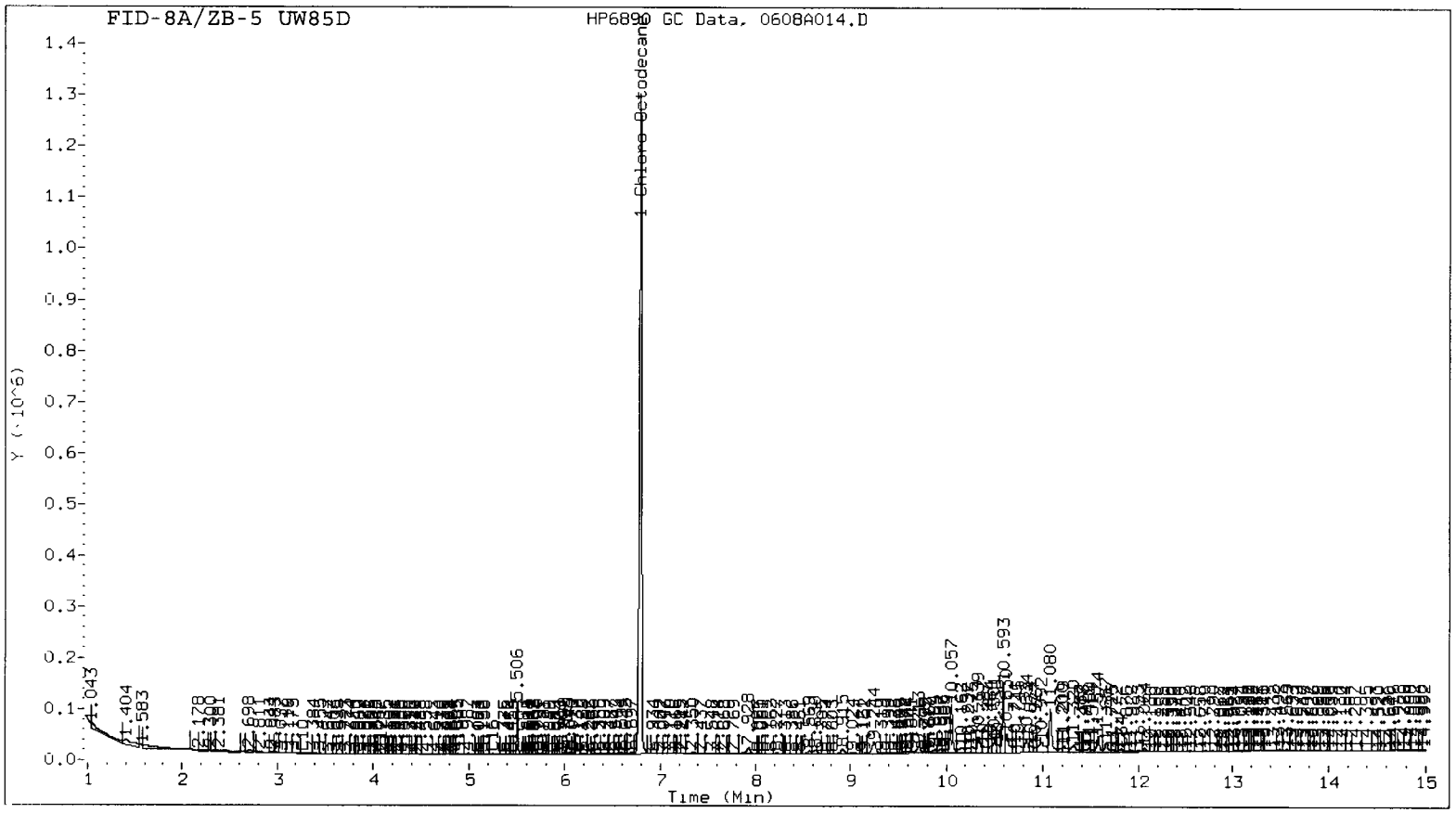
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A014.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85D
Client ID: MS006-SS-120515
Injection: 08-JUN-2012 17:14
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	385807	20	(1.041 - 3.382)
C10-C12	Aliph.	8302	0	(3.382 - 4.196)
C12-C16	Aliph.	34360	2	(4.196 - 5.361)
C16-C21	Aliph.	141031	9	(5.361 - 6.967)
C21-C34	Aliph.	1946995	114	(6.967 - 11.938)

Surrogate Rec: 83.0%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A015.D
Lab Smp Id: ALIPHATIC #2
Inj Date : 08-JUN-2012 17:40
Operator : MH Inst ID: fid8.i
Smp Info : ALIPHATIC #2
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2	C8	1.109	1.141	-0.032	1801368	90.4305	90 430(M)
3	C10	3.273	3.282	-0.009	1790761	94.3297	94.329
45	C12	4 089	4.096	-0.007	1668211	92.5724	92.572
46	C16	5 251	5.261	-0.010	1519155	89.4257	89.425
$ 51	1-Chloro-Octodecane	6.789	6.813	-0.024	1911623	109.247	109.247
47	C21	6.844	6.867	-0.023	1774208	109.394	109.393
48	C34	11.821	11.838	-0.017	1706656	100.305	100.304

QC Flag Legend

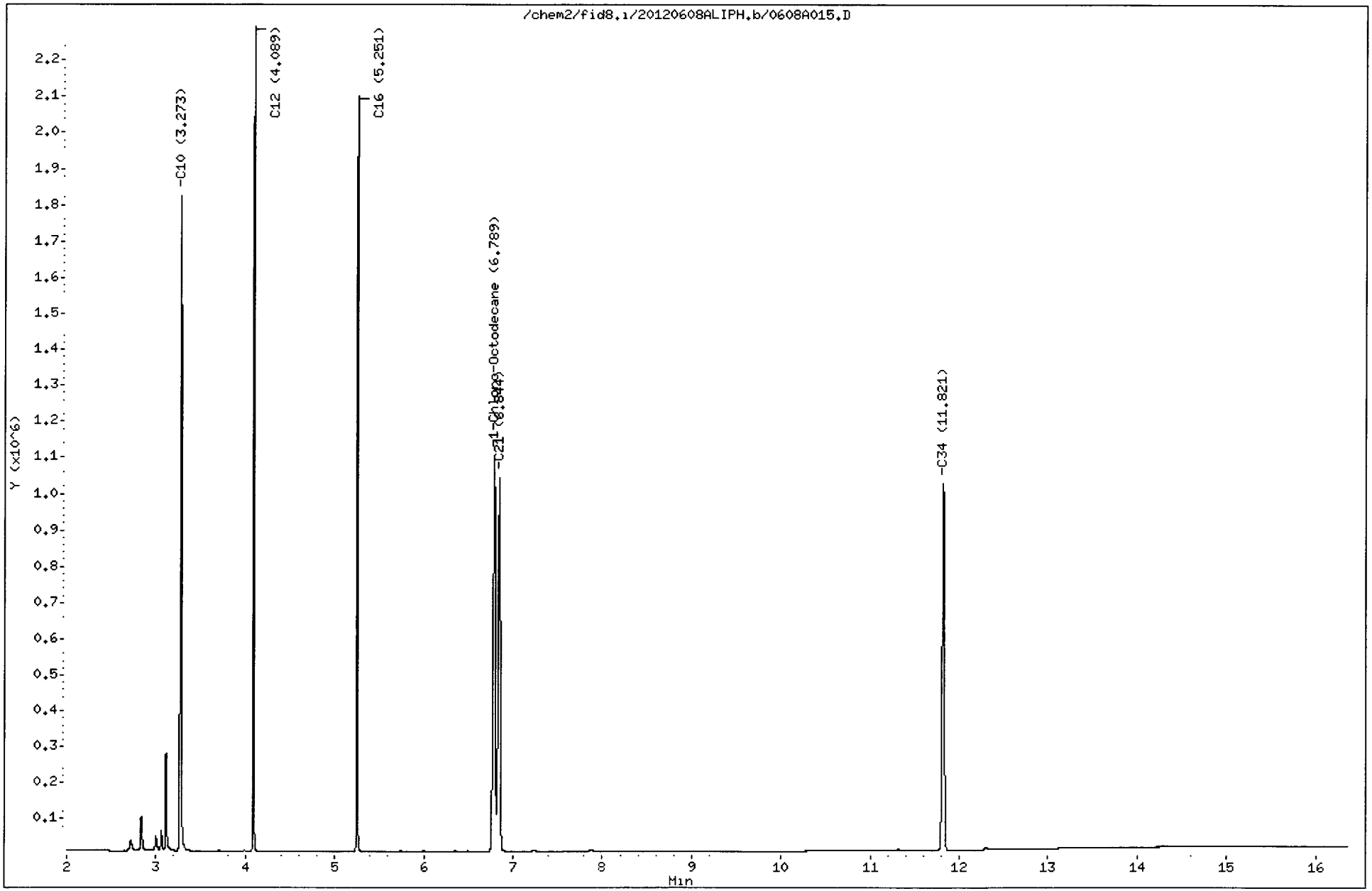
M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A015.D
Date : 08-JUN-2012 17:40
Client ID:
Sample Info: ALIPHATIC #2

Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32



Analytical Resources Inc.
WA. EPH Aliphatics Report

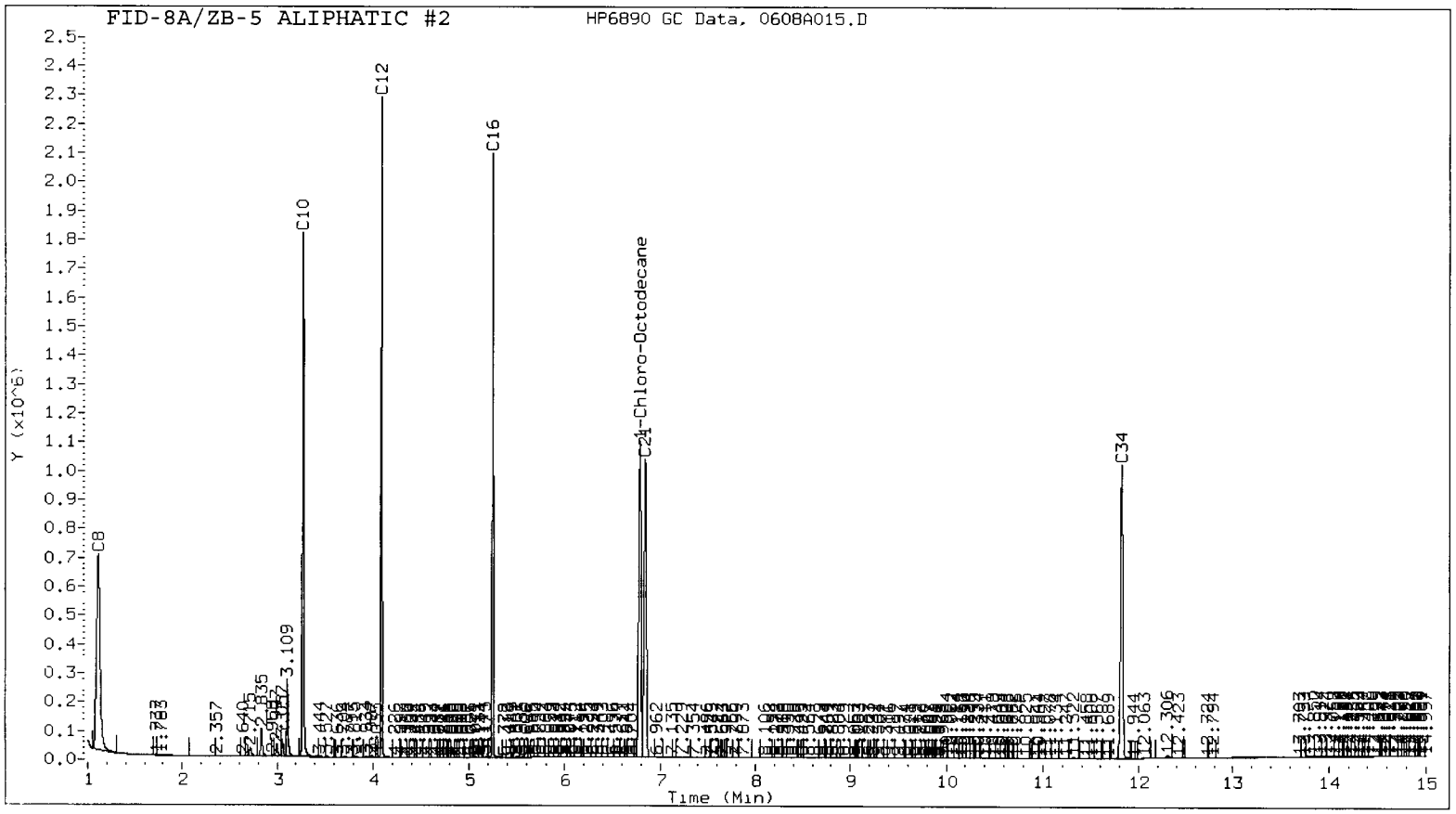
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A015.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: ALIPHATIC #2
Client ID:
Injection: 08-JUN-2012 17:40
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	4256414	219	(1.041 - 3.382)
C10-C12	Aliph.	1680755	93	(3.382 - 4.196)
C12-C16	Aliph.	1524004	90	(4.196 - 5.361)
C16-C21	Aliph.	1795635	111	(5.361 - 6.967)
C21-C34	Aliph.	1736617	102	(6.967 - 11.938)

Surrogate Rec: 72.8%



MANUAL INTEGRATION - Baseline Correction

Analyst: _____ Date: _____

MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A016.D
Lab Smp Id: AROM IB
Inj Date : 08-JUN-2012 18:05
Operator : MH Inst ID: fid8.i
Smp Info : AROM IB
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

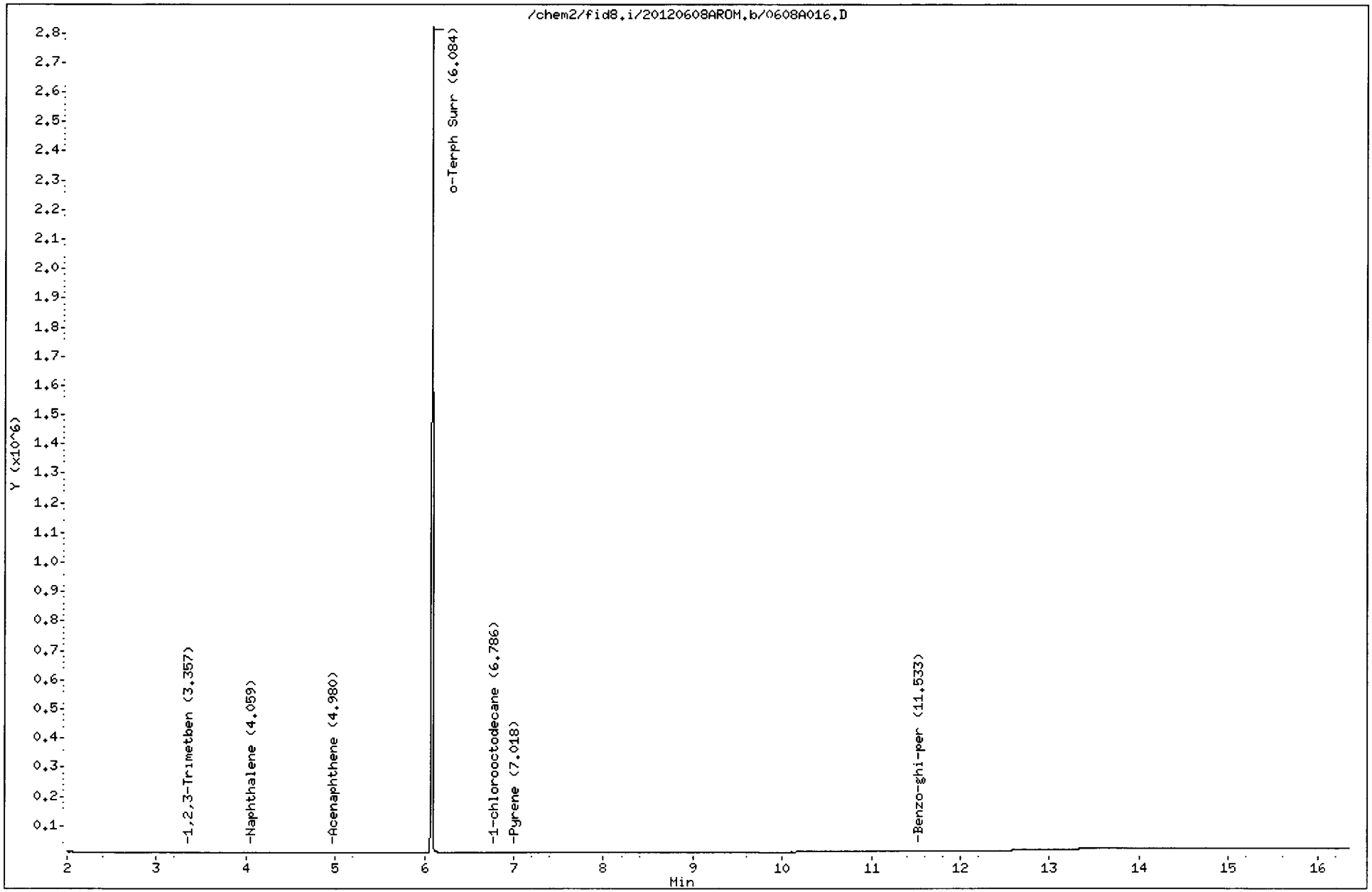
						CONCENTRATIONS	
	Compounds	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	2 Toluene	Compound Not Detected.					
	3 1,2,3-Trimetben	3.357	3.387	-0 030	48	0.00252	0.002
	4 Naphthalene	4.059	4.063	-0 004	92	0.00472	0.004
	7 Acenaphthene	4.980	5.003	-0.023	311	0.01646	0.016
$	11 o-Terph Surr	6.084	6.084	0.000	3031517	147.029	147.029
	75 1-chlorooctodecane	6.786	6.782	0.004	1229		
	13 Pyrene	7 018	7.023	-0.005	858	0.03839	0.038
	21 Benzo-ghi-per	11.533	11.516	0.017	50	0.00203	0.002

Data File: /chem2/fid8.i/20120608AROM.b/0608A016.D
Date : 08-JUN-2012 18:05
Client ID:
Sample Info: AROM IB

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A016.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: AROM IB
Client ID:
Injection: 08-JUN-2012 18:05
Matrix: SOIL
Dilution Factor: 1

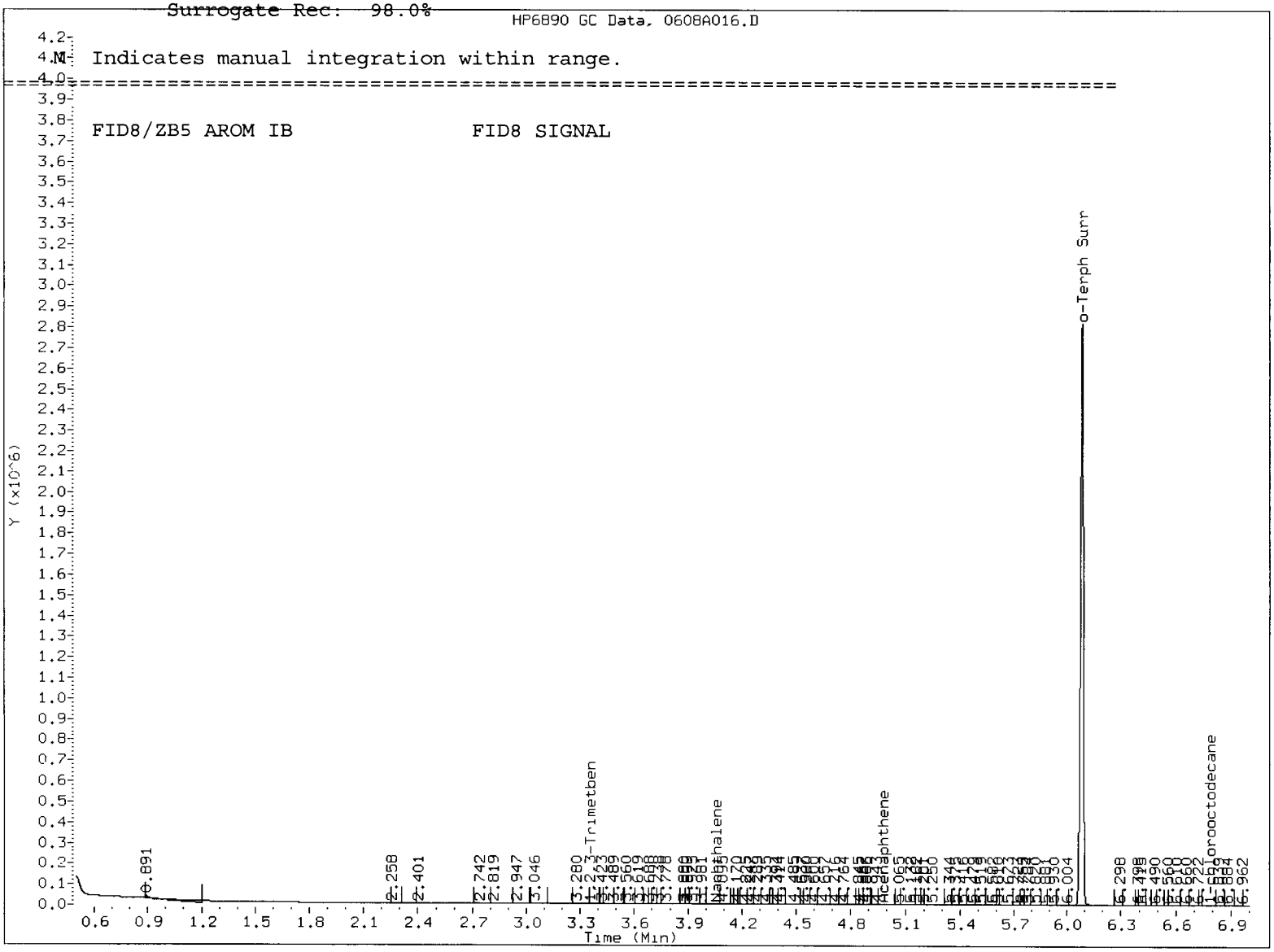
EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	71568	4	(0.656 - 3.487)
C10-C12	Arom.	19472	755	0	(3.487 - 4.163)
C12-C16	Arom.	18891	1422	0	(4.163 - 5.103)
C16-C21	Arom.	22347	10513	0	(5.103 - 7.123)
C21-C34	Arom.	24608	6781	0	(7.123 - 11.616)

Surrogate Rec: 98.0%

M Indicates manual integration within range.

FID8/ZB5 AROM IB FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A017.D
Lab Smp Id: AROMATIC #1
Inj Date : 08-JUN-2012 18:30
Operator : MH Inst ID: fid8.i
Smp Info : AROMATIC #1
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

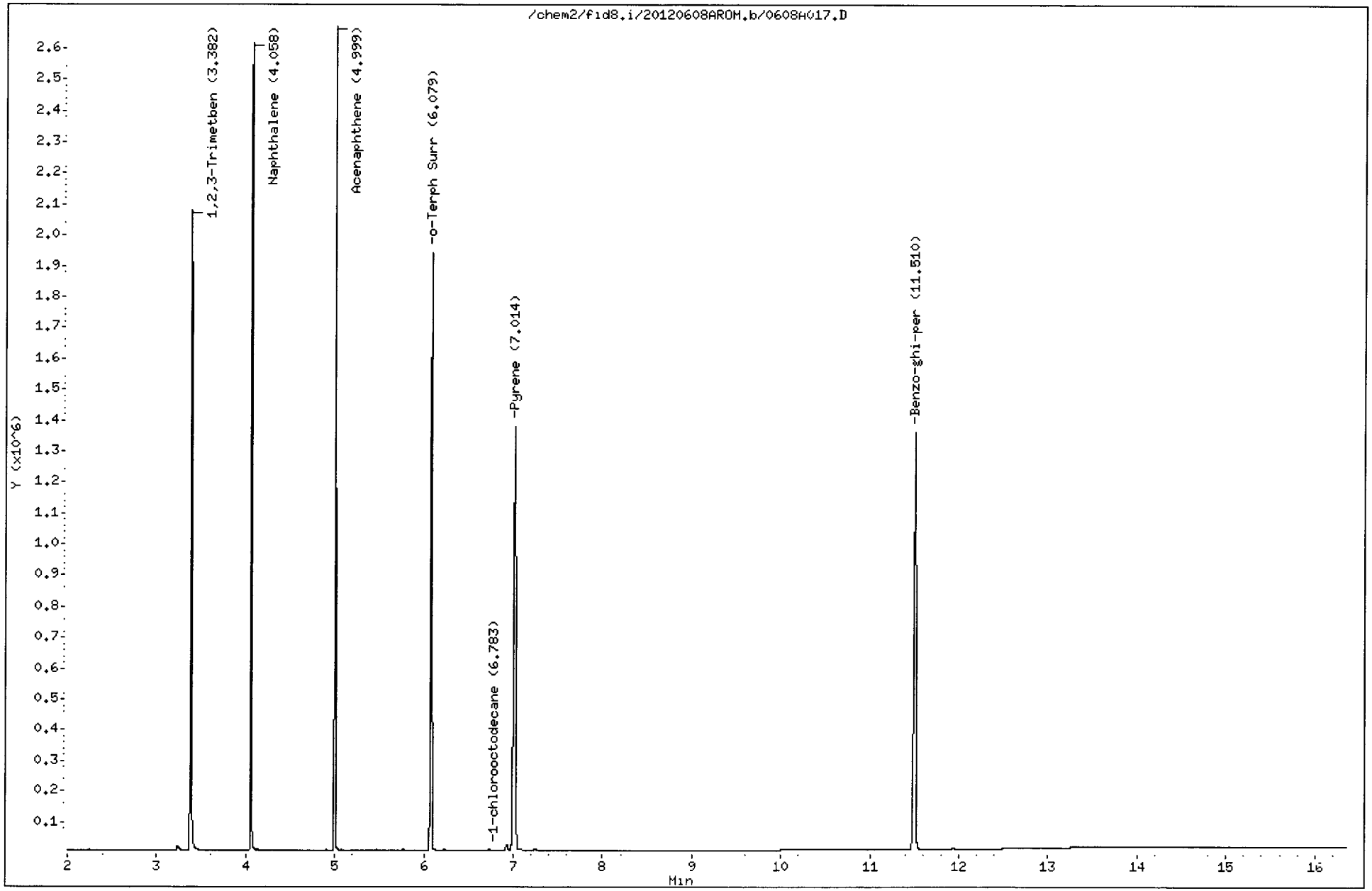
					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ug/Kg)
2 Toluene	0.753	0.756	-0.003	2015151	96.1140	96.114
3 1,2,3-Trimetben	3.382	3.387	-0.005	1842282	96.8511	96.851
4 Naphthalene	4.058	4.063	-0.005	1888526	96.9876	96.987
7 Acenaphthene	4.999	5.003	-0.004	1823678	96.5376	96.537
$ 11 o-Terph Surr	6.079	6.084	-0.005	2009105	97.4419	97.441
75 1-chlorooctodecane	6.783	6.782	0.001	1588		
13 Pyrene	7.014	7.023	-0.009	2295519	102.720	102.719
21 Benzo-ghi-per	11.510	11.516	-0.006	2151806	87.4446	87.444

Data File: /chem2/fid8.i/20120608AROM.b/0608A017.D
Date : 08-JUN-2012 18:30
Client ID:
Sample Info: AROMATIC #1

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A017.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: AROMATIC #1
Client ID:
Injection: 08-JUN-2012 18:30
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

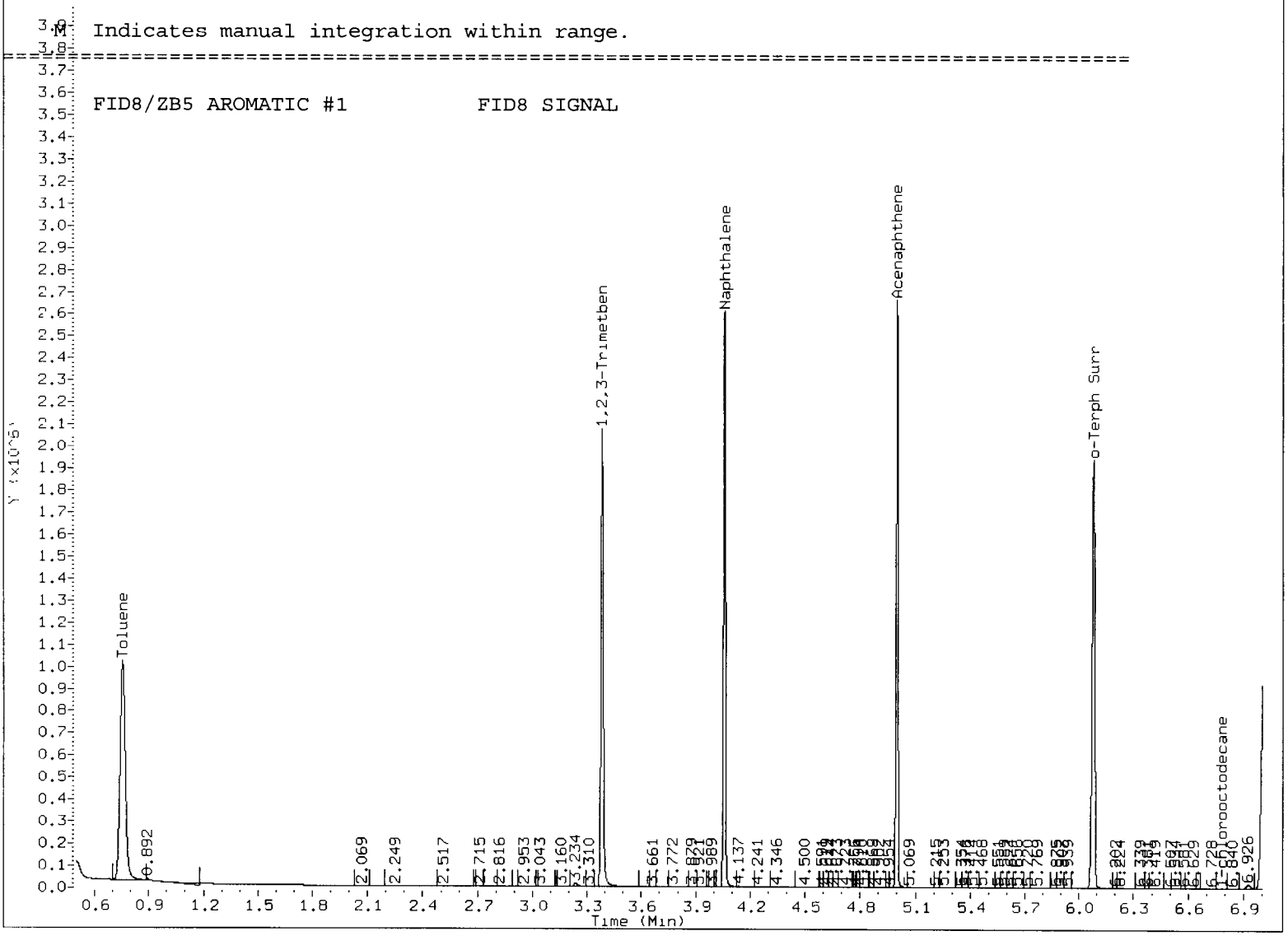
Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	3935024	197	(0.656 - 3.487)
C10-C12	Arom.	19472	1896947	97	(3.487 - 4.163)
C12-C16	Arom.	18891	1834604	97	(4.163 - 5.103)
C16-C21	Arom.	22347	2347399	105	(5.103 - 7.123)
C21-C34	Arom.	24608	2167219	88	(7.123 - 11.616)

Surrogate Rec: 65.0%

M Indicates manual integration within range.

HP6890 GC Data, 0608A017.D

FID8/ZB5 AROMATIC #1 FID8 SIGNAL



6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A018.D
Lab Smp Id: UW94MBS1 Client Smp ID: UW94MBS1
Inj Date : 08-JUN-2012 18:55
Operator : MH Inst ID: fid8.i
Smp Info : UW94MBS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

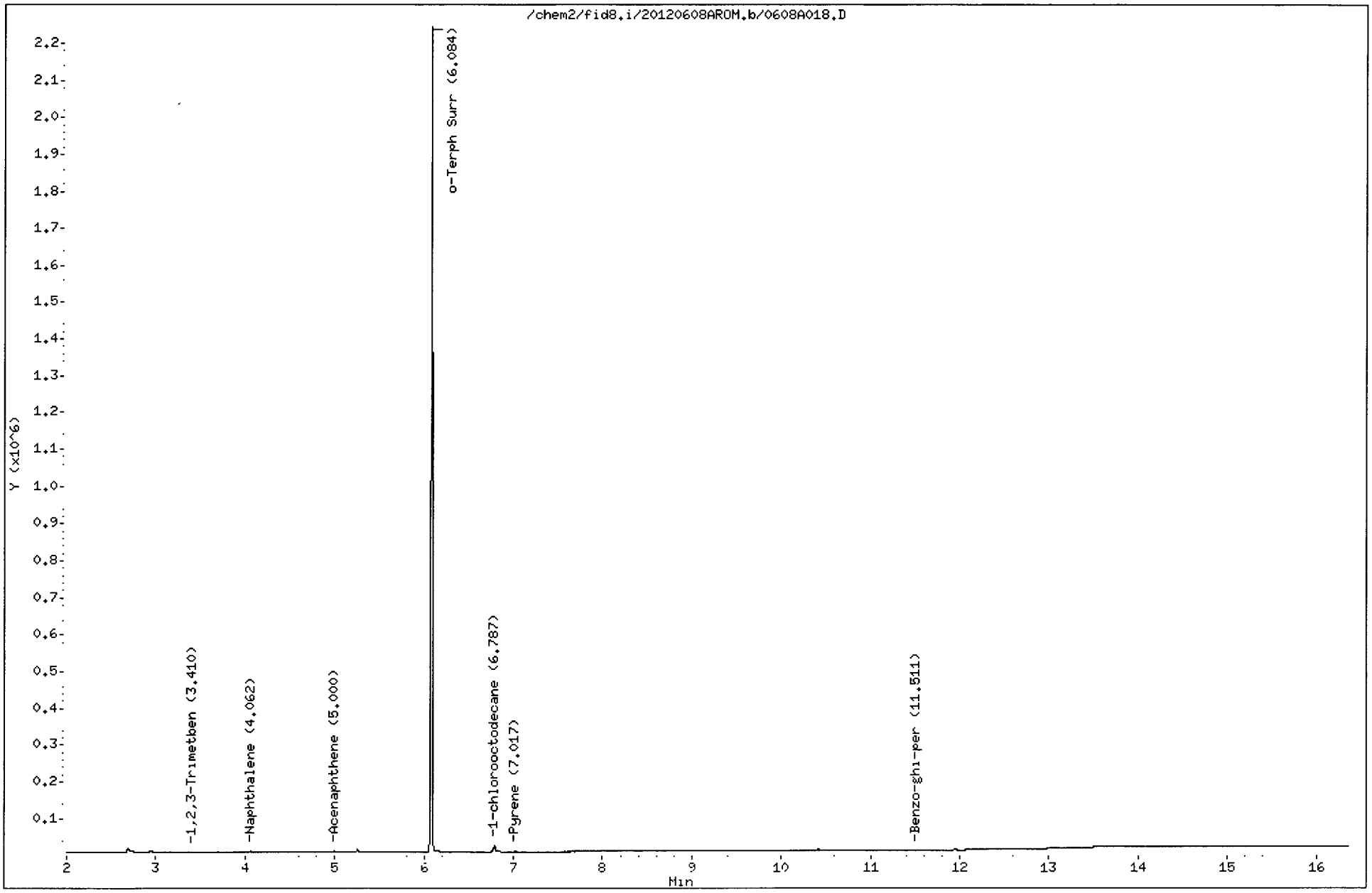
Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2	Toluene	0.785	0.756	0.029	35007	1.66968	1.669
3	1,2,3-Trimetben	3.410	3.387	0.023	462	0.02429	0.024
4	Naphthalene	4.062	4.063	-0.001	2068	0.10620	0.106
7	Acenaphthene	5.000	5.003	-0.003	2110	0.11169	0.111
$ 11	o-Terph Surr	6.084	6.084	0 000	2333649	113.182	113.182
75	1-chlorooctodecane	6.787	6.782	0.005	26025		
13	Pyrene	7 017	7.023	-0.006	1427	0.06386	0.063
21	Benzo-ghi-per	11.511	11.516	-0.005	329	0.01337	0.013

Data File: /chem2/fid8.i/20120608AROM.b/0608A018.D
Date : 08-JUN-2012 18:55
Client ID: UW94MBS1
Sample Info: UW94MBS1

Instrument: fid8.i

Operator: MH
Column phase: ZB-5
Column diameter: 0.32



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A018.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: UW94MBS1
Client ID: UW94MBS1
Injection: 08-JUN-2012 18:55
Matrix: SOIL
Dilution Factor: 1

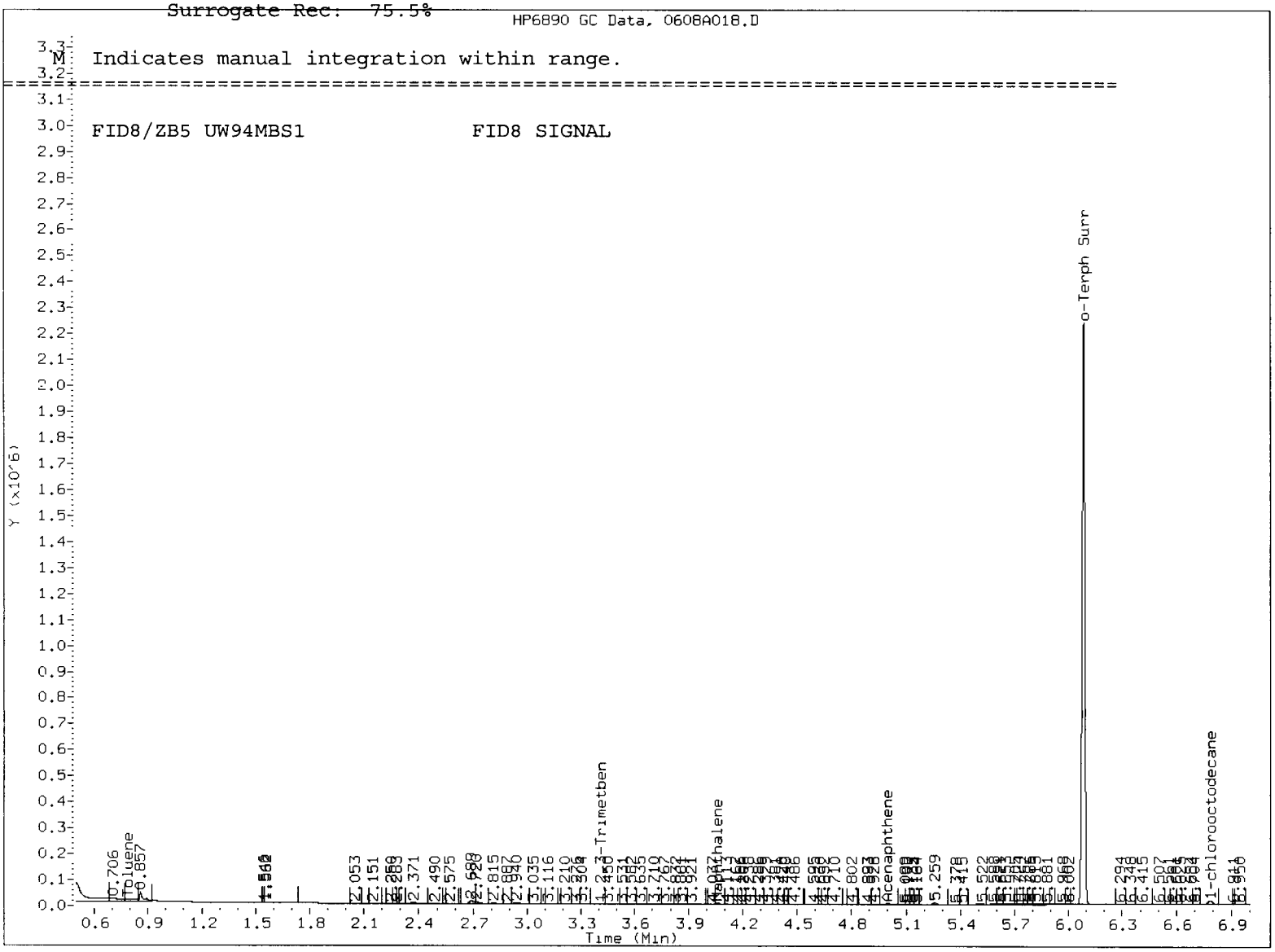
EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	187495	9	(0.656 - 3.487)
C10-C12	Arom.	19472	5380	0	(3.487 - 4.163)
C12-C16	Arom.	18891	4356	0	(4.163 - 5.103)
C16-C21	Arom.	22347	45925	2	(5.103 - 7.123)
C21-C34	Arom.	24608	14548	1	(7.123 - 11.616)

Surrogate Rec: 75.5%

M Indicates manual integration within range.

FID8/ZB5 UW94MBS1 FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A019.D
Lab Smp Id: UW94LCSS1 Client Smp ID: UW94LCSS1
Inj Date : 08-JUN-2012 19:20
Operator : MH Inst ID: fid8.i
Smp Info : UW94LCSS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

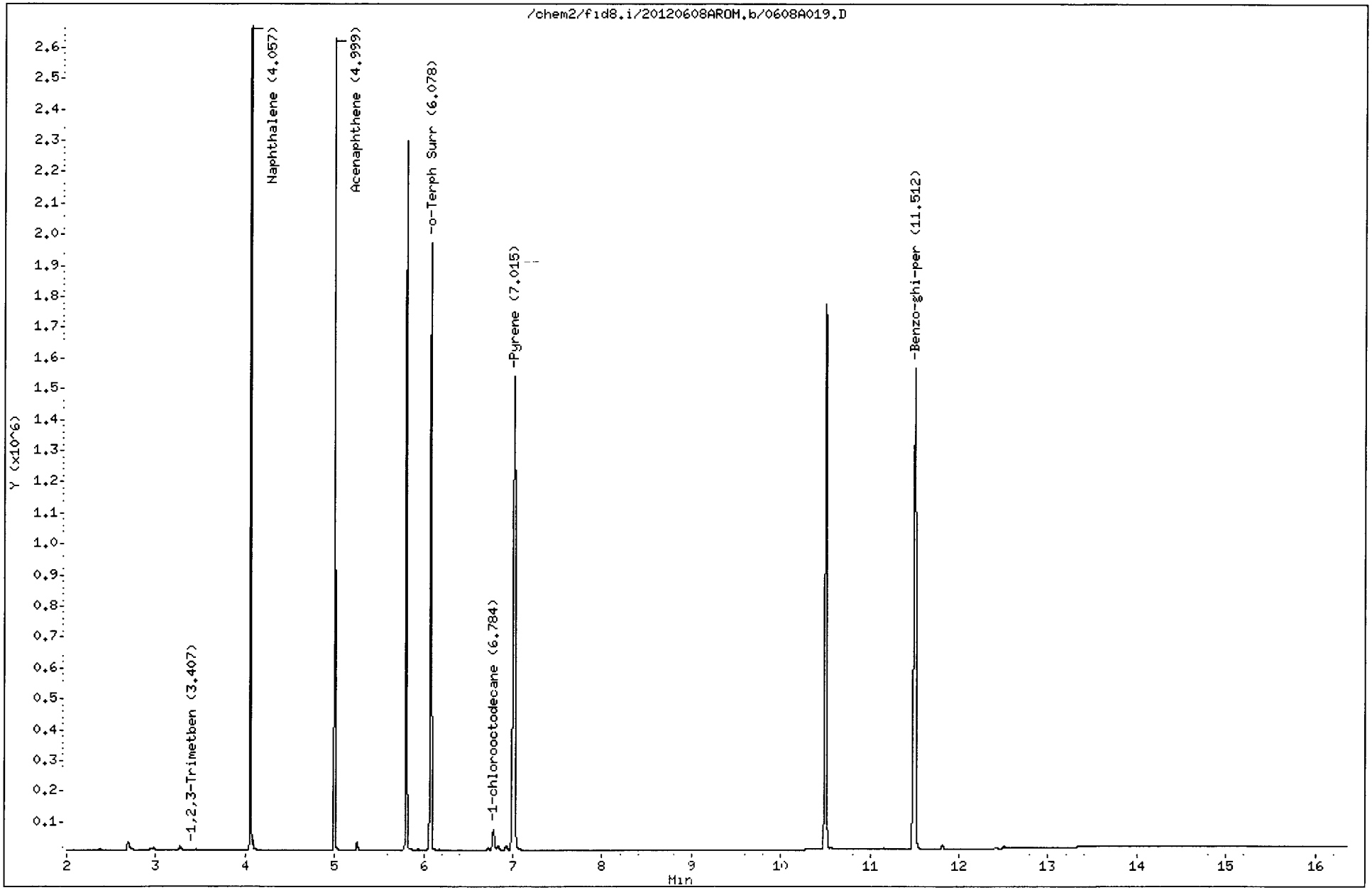
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
	==========	==	======	======	========	=======	=======
2	Toluene	0.717	0.756	-0.039	20942	0.99884	0.998
3	1,2,3-Trimetben	3.407	3.387	0.020	1078	0.05667	0.056
4	Naphthalene	4.057	4.063	-0.006	1838269	94.4065	94.406
7	Acenaphthene	4 999	5.003	-0.004	1810010	95.8141	95.814
$ 11	o-Terph Surr	6.078	6.084	-0.006	2120149	102 828	102.827
75	1-chlorooctodecane	6.784	6.782	0.002	111554		
13	Pyrene	7 015	7.023	-0.008	2572117	115.097	115.097
21	Benzo-ghi-per	11 512	11.516	-0.004	2725751	110.768	110.768

Data File: /chem2/fid8.i/20120608AROM.b/0608A019.D
Date : 08-JUN-2012 19:20
Client ID: UW94LCSS1
Sample Info: UW94LCSS1

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A019.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: UW94LCSS1
Client ID: UW94LCSS1
Injection: 08-JUN-2012 19:20
Matrix: SOIL
Dilution Factor: 1

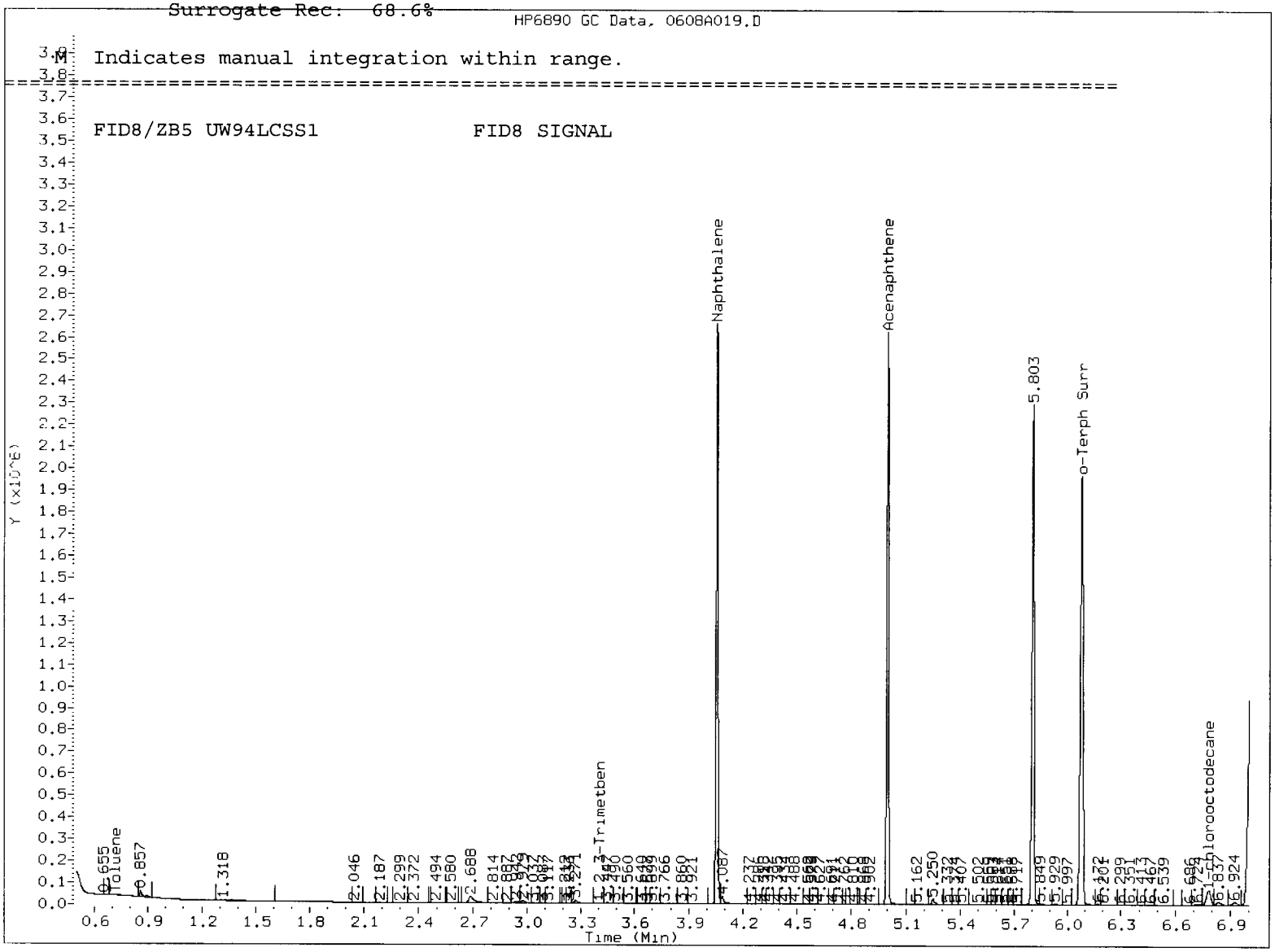
EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	159839	8	(0.656 - 3.487)
C10-C12	Arom.	19472	1880884	97	(3.487 - 4.163)
C12-C16	Arom.	18891	1819550	96	(4.163 - 5.103)
C16-C21	Arom.	22347	4765652	213	(5.103 - 7.123)
C21-C34	Arom.	24608	5150863	209	(7.123 - 11.616)

Surrogate Rec: 68.6%

M Indicates manual integration within range.

FID8/ZB5 UW94LCSS1 FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A020.D
Lab Smp Id: UW94LCSDS1 Client Smp ID: UW94LCSDS1
Inj Date : 08-JUN-2012 19:46
Operator : MH Inst ID: fid8.i
Smp Info : UW94LCSDS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2	Toluene	Compound Not Detected.					
3	1,2,3-Trimetben	3.391	3.387	0.004	171	0.00899	0.008
4	Naphthalene	4.056	4 063	-0.007	1771985	91.0024	91.002
7	Acenaphthene	4.999	5 003	-0.004	1771893	93.7963	93.796
$ 11	o-Terph Surr	6.075	6.084	-0.009	2199401	106.671	106.671
75	1-chlorooctodecane	6.780	6 782	-0.002	15591		
13	Pyrene	7.013	7 023	-0.010	2685829	120.186	120.185
21	Benzo-ghi-per	11.513	11 516	-0.003	2775834	112 804	112.803

Data File: /chem2/fid8.i/20120608AROM.b/0608A020.D

Date : 08-JUN-2012 19:46

Client ID: UW94LCSDS1

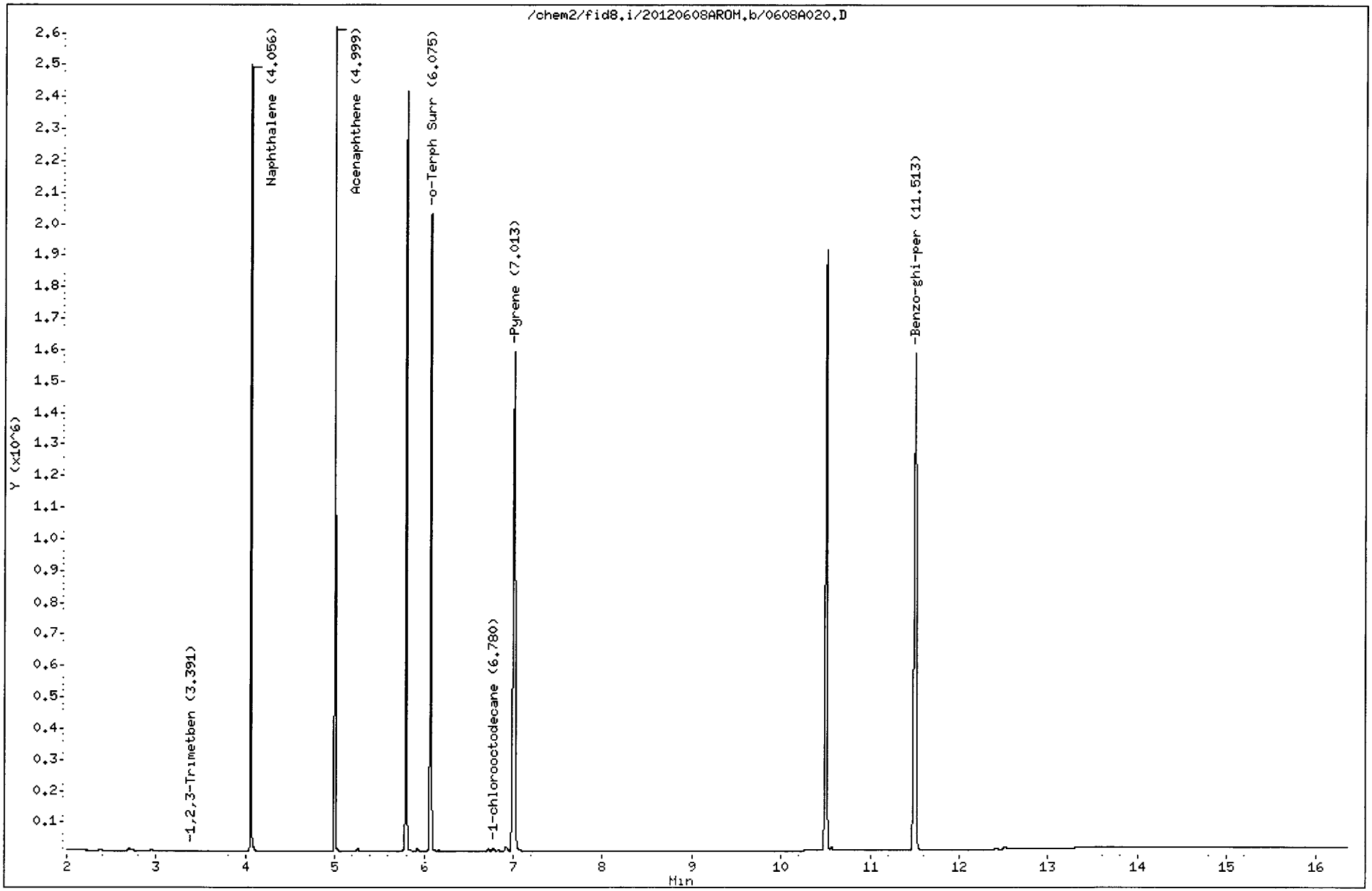
Sample Info: UW94LCSDS1

Instrument: fid8.i

Operator: MH

Column phase: ZB-5

Column diameter: 0.32



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A020.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: UW94LCSDS1
Client ID: UW94LCSDS1
Injection: 08-JUN-2012 19:46
Matrix: SOIL
Dilution Factor: 1

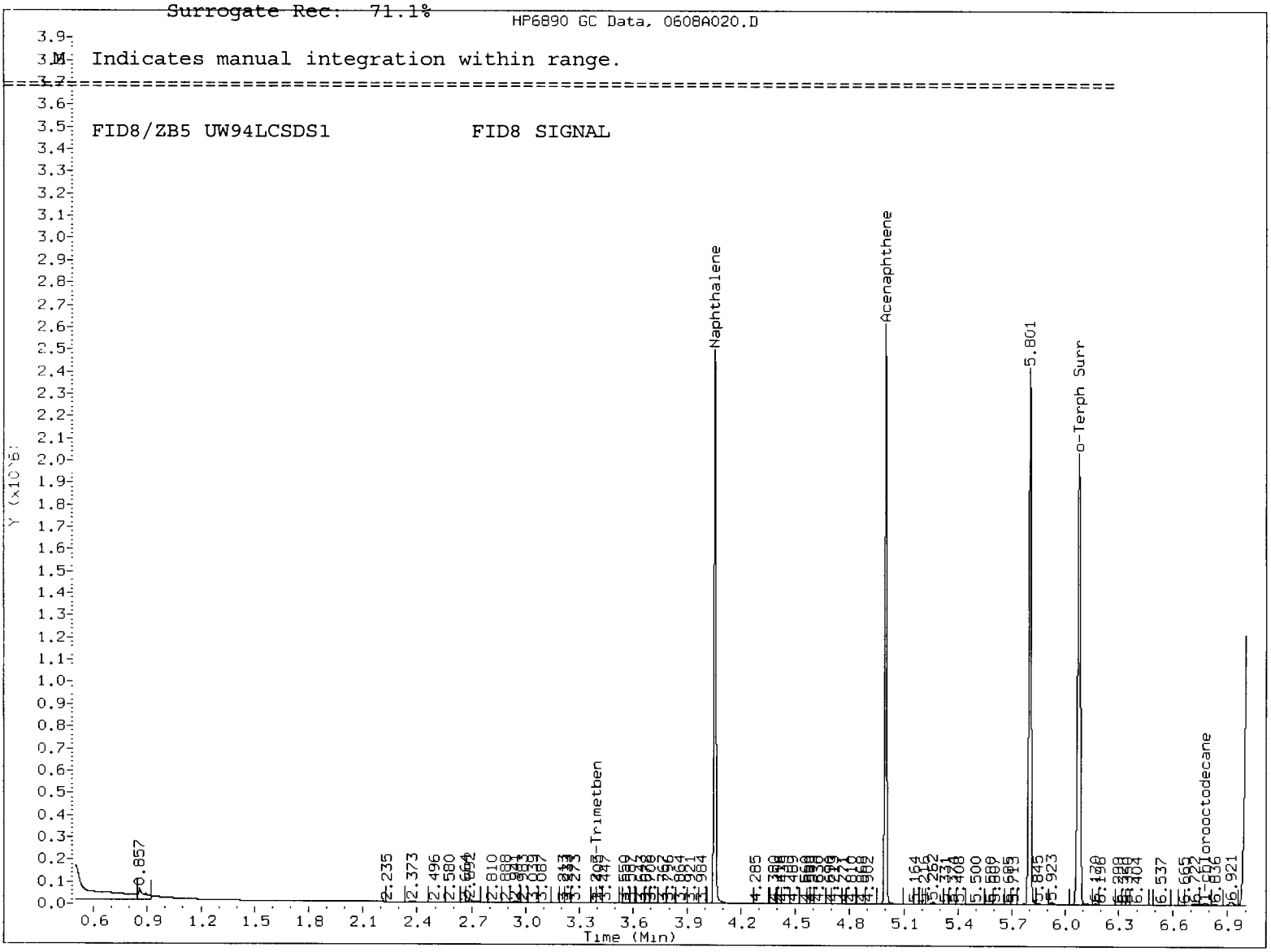
EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	179261	9	(0.656 - 3.487)
C10-C12	Arom.	19472	1774645	91	(3.487 - 4.163)
C12-C16	Arom.	18891	1775566	94	(4.163 - 5.103)
C16-C21	Arom.	22347	4852571	217	(5.103 - 7.123)
C21-C34	Arom.	24608	5450226	221	(7.123 - 11.616)

Surrogate Rec: 71.1%

M Indicates manual integration within range.

FID8/ZB5 UW94LCSDS1 FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A023.D
Lab Smp Id: UW85A Client Smp ID: MS001-SS-120515
Inj Date : 08-JUN-2012 21:01
Operator : MH Inst ID: fid8.i
Smp Info : UW85A
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ug/kg)
2 Toluene	0.770	0.756	0.014	1206	0 05755	0.057(M)
3 1,2,3-Trimetben	3.386	3.387	-0.001	334	0.01758	0 017
4 Naphthalene	4.060	4.063	-0.003	6380	0 32770	0 327
7 Acenaphthene	4.998	5.003	-0.005	4512	0 23889	0.238
$ 11 o-Terph Surr	6.080	6.084	-0.004	2270982	110.143	110.143
75 1-chlorooctodecane	6.766	6.782	-0.016	26648		
13 Pyrene	7.005	7 023	-0.018	25711	1.15055	1.150
21 Benzo-ghi-per	11.496	11 516	-0.020	19538	0.79399	0.793

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608AROM.b/0608A023.D

Date : 08-JUN-2012 21:01

Client ID: MS001-SS-120515

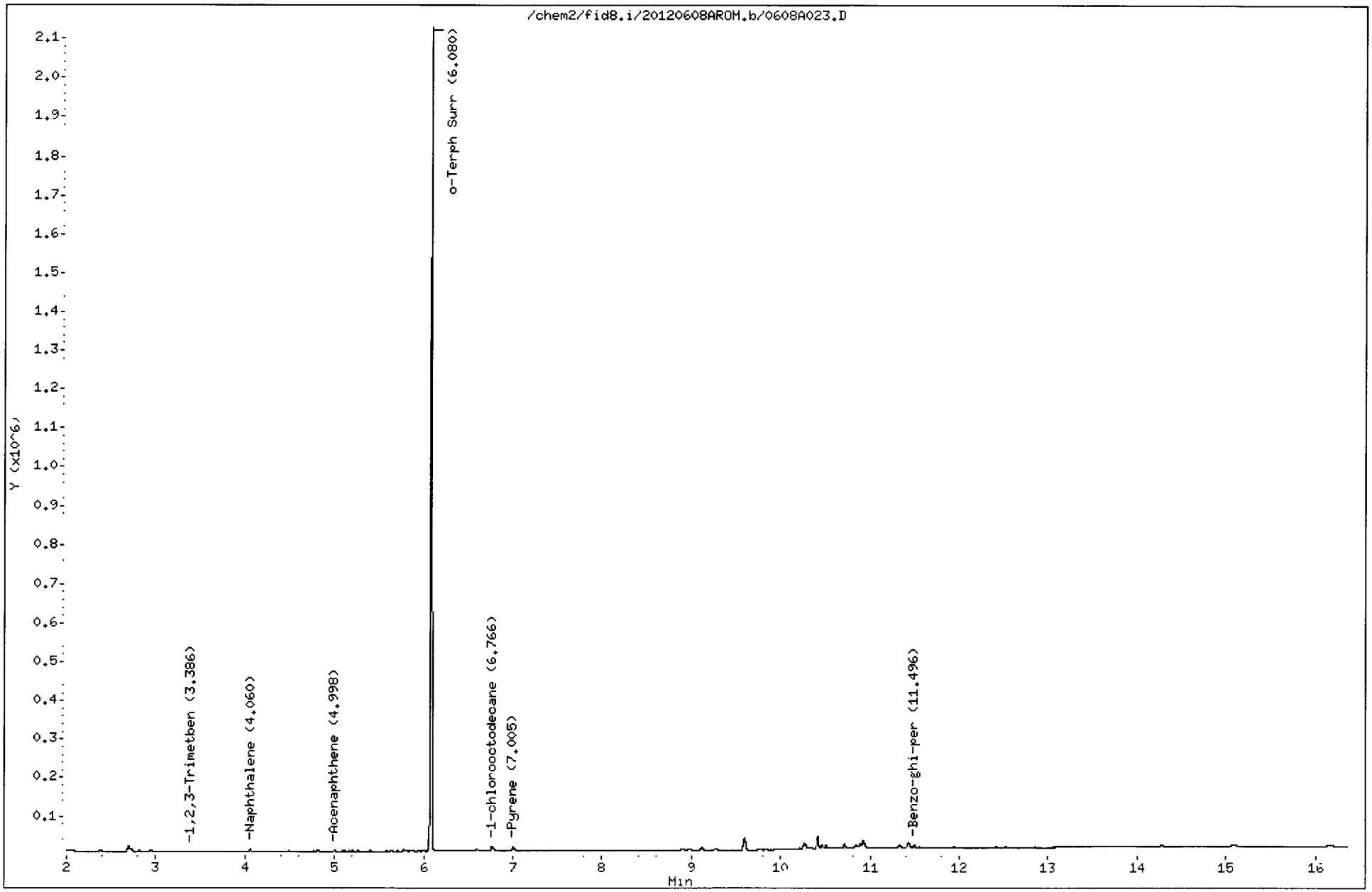
Sample Info: UW85A

Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A023.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

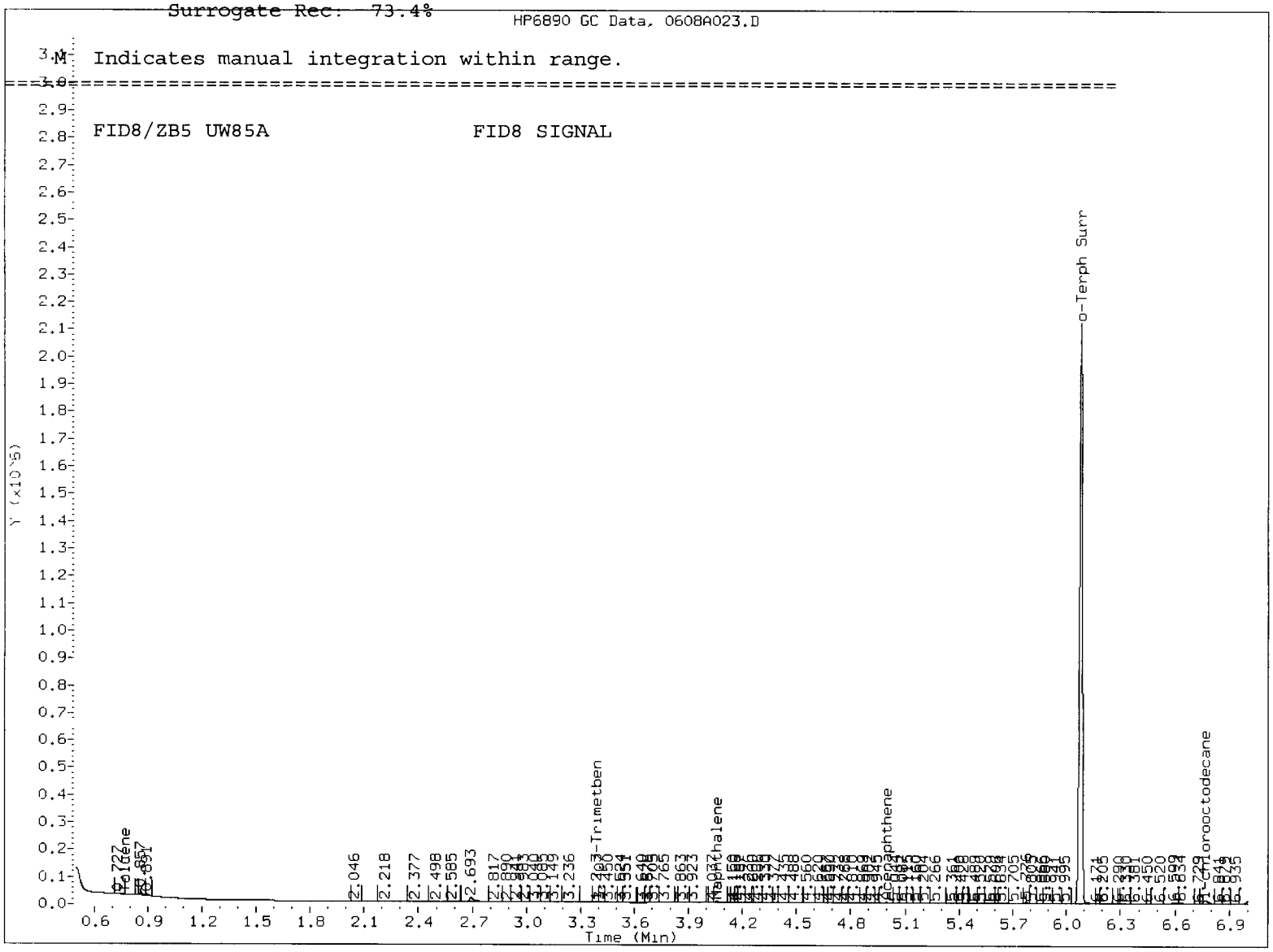
ARI ID: UW85A
Client ID: MS001-SS-120515
Injection: 08-JUN-2012 21:01
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	71950	4	(0.656 - 3.487) M
C10-C12	Arom.	19472	11028	1	(3.487 - 4.163)
C12-C16	Arom.	18891	25613	1	(4.163 - 5.103)
C16-C21	Arom.	22347	134260	6	(5.103 - 7.123)
C21-C34	Arom.	24608	727597	30	(7.123 - 11.616)

Surrogate Rec: 73.4%

M Indicates manual integration within range.



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A024.D
Lab Smp Id: UW85AMS Client Smp ID: MS001-SS-120515 MS
Inj Date : 08-JUN-2012 21:26
Operator : MH Inst ID: fid8.i
Smp Info : UW85AMS
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
	2 Toluene	0.737	0.756	-0.019	18679	0.89095	0.890
	3 1,2,3-Trimetben	3.407	3 387	0.020	4187	0.22014	0 220
	4 Naphthalene	4.057	4 063	-0 006	1641403	84.2963	84.296
	7 Acenaphthene	4.999	5.003	-0.004	1804747	95.5355	95.535
$	11 o-Terph Surr	6.082	6 084	-0 002	2270741	110.131	110.131
	75 1-chlorooctodecane	6.783	6.782	0 001	35883		
	13 Pyrene	7.020	7 023	-0 003	2727738	122.061	122.060
	21 Benzo-ghi-per	11.517	11.516	0.001	2902975	117.971	117.970

Data File: /chem2/fid8.i/20120608AROM.b/0608A024.D

Date : 08-JUN-2012 21:26

Client ID: MS001-SS-120515 MS

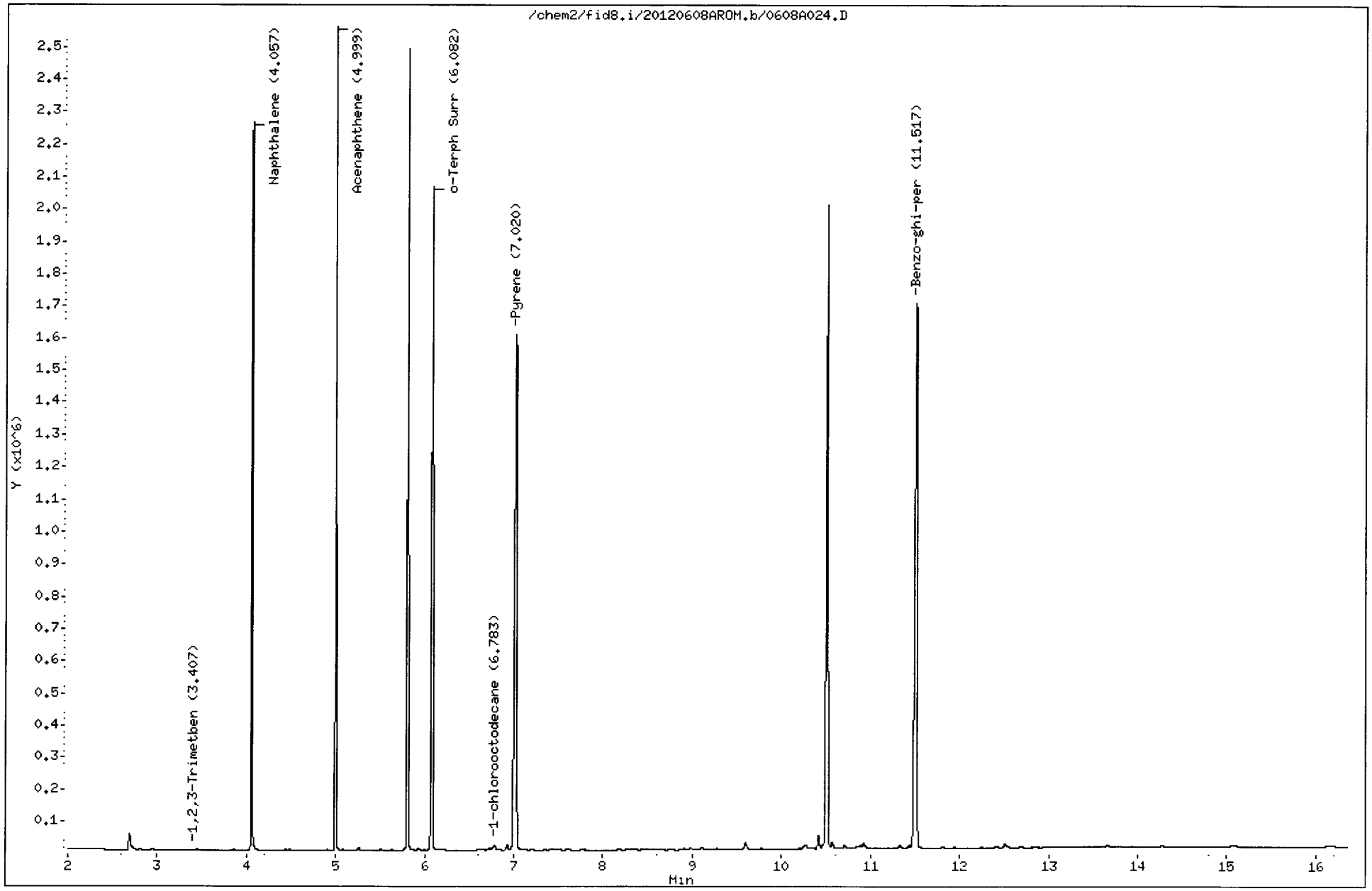
Sample Info: UW85AMS

Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A024.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

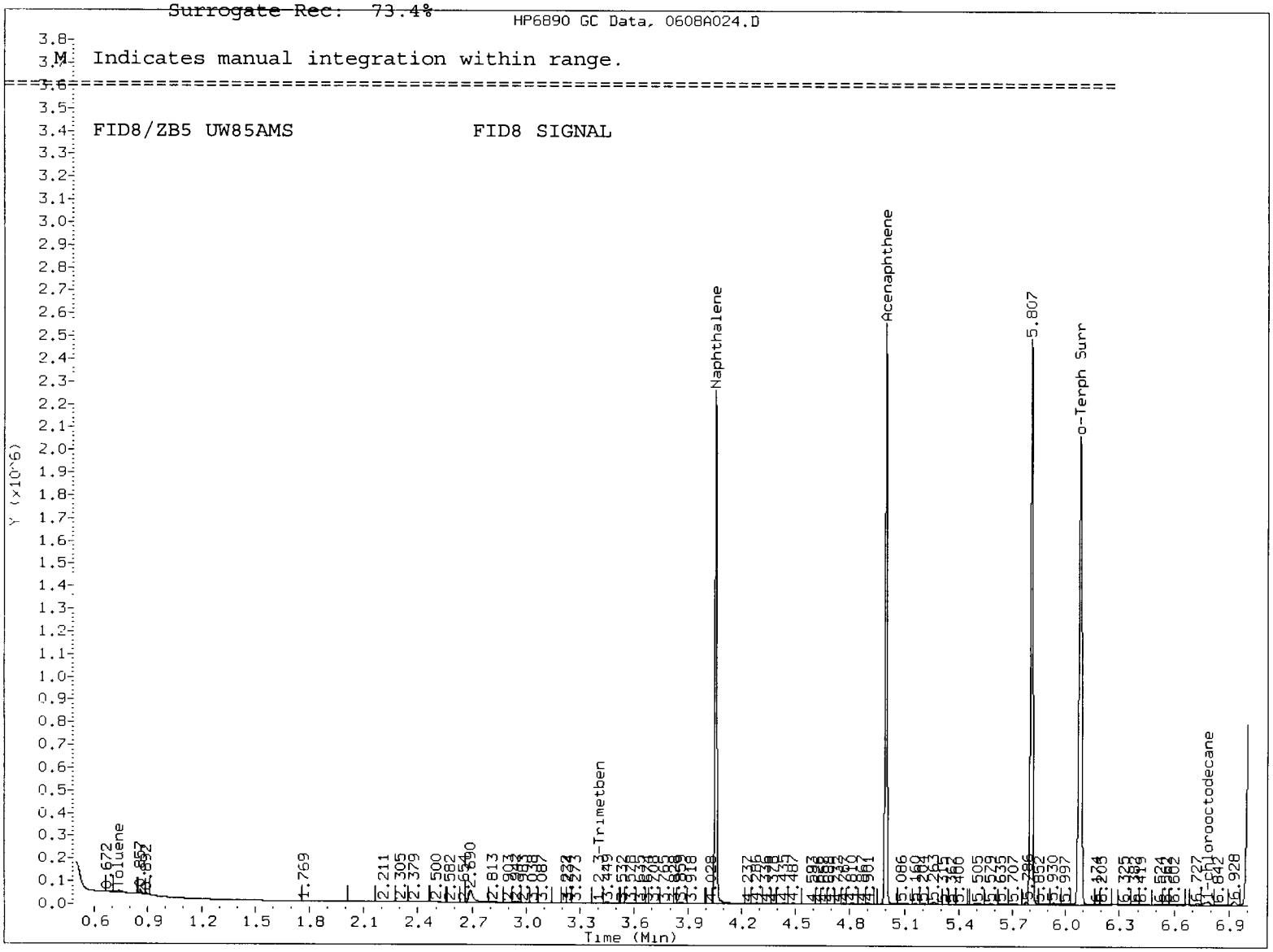
ARI ID: UW85AMS
Client ID: MS001-SS-120515 MS
Injection: 08-JUN-2012 21:26
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range	RF	Area	Conc	Time Range
C8-C10 Arom.	19994	174288	9	(0.656 - 3.487) M
C10-C12 Arom.	19472	1662252	85	(3.487 - 4.163)
C12-C16 Arom.	18891	1846107	98	(4.163 - 5.103)
C16-C21 Arom.	22347	5041136	226	(5.103 - 7.123)
C21-C34 Arom.	24608	6310927	256	(7.123 - 11.616)

Surrogate Rec: 73.4%

M Indicates manual integration within range.



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A025.D
Lab Smp Id: UW85AMSD Client Smp ID: MS001-SS-120515 MSD
Inj Date : 08-JUN-2012 21:52
Operator : MH Inst ID: fid8.i
Smp Info : UW85AMSD
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 23 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ug/kg)
2 Toluene	0.718	0.756	-0.038	7275	0.34700	0.346 (M)
3 1,2,3-Trimetben	3.384	3.387	-0.003	369	0.01940	0.019
4 Naphthalene	4.056	4.063	-0.007	1843495	94.6749	94.674 (M)
7 Acenaphthene	4.998	5.003	-0.005	1779915	94.2210	94.220 (M)
$ 11 o-Terph Surr	6.080	6.084	-0.004	2163872	104 948	104.948 (M)
75 1-chlorooctodecane	6.769	6 782	-0.013	23101		(M)
13 Pyrene	7.017	7.023	-0.006	2674752	119.690	119.689 (M)
21 Benzo-ghi-per	11.514	11 516	-0.002	2745377	111.566	111.566 (M)

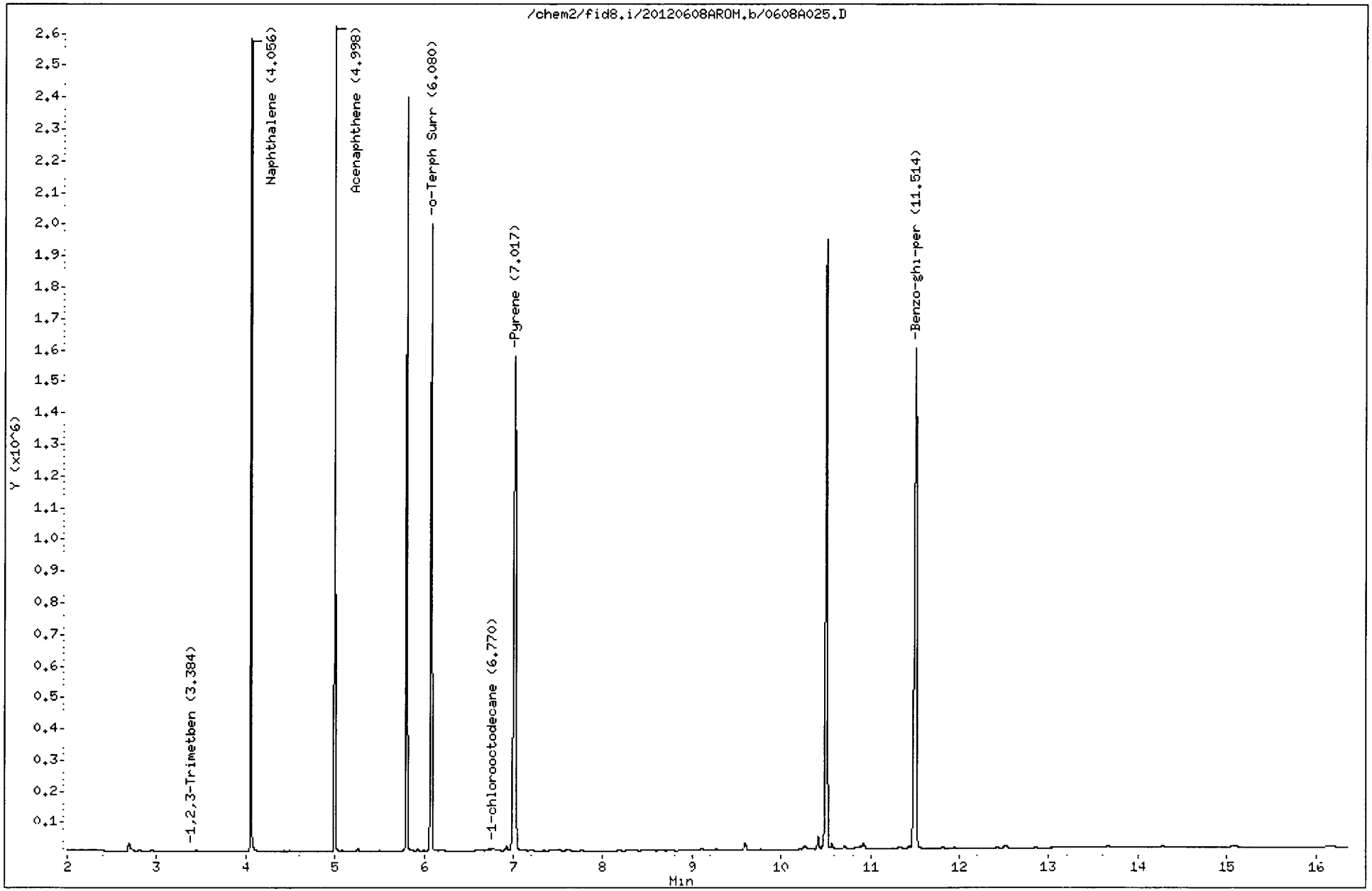
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608AROM.b/0608A025.D
Date : 08-JUN-2012 21:52
Client ID: MS001-SS-120515 MSD
Sample Info: UW85AMSD

Instrument: fid8.i
Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A025.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

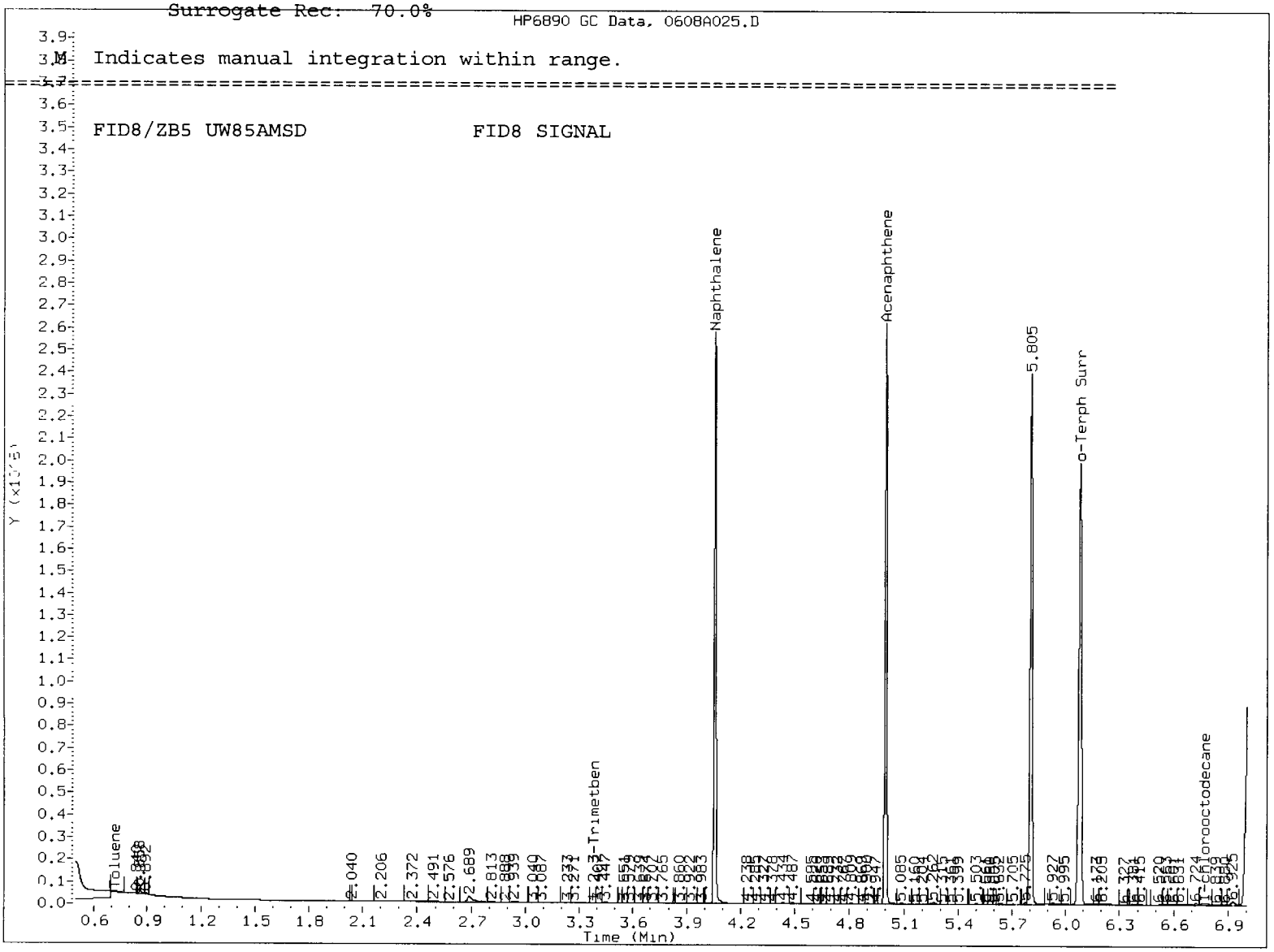
ARI ID: UW85AMSD
Client ID: MS001-SS-120515 MSD
Injection: 08-JUN-2012 21:52
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	117032	6	(0.656 - 3.487) M
C10-C12	Arom.	19472	1849253	95	(3.487 - 4.163)
C12-C16	Arom.	18891	1807457	96	(4.163 - 5.103)
C16-C21	Arom.	22347	4877425	218	(5.103 - 7.123)
C21-C34	Arom.	24608	6008620	244	(7.123 - 11.616)

Surrogate Rec: 70.0%

M Indicates manual integration within range.



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A026.D
Lab Smp Id: UW85B Client Smp ID: MS002-SS-120515
Inj Date : 08-JUN-2012 22:17
Operator : MH Inst ID: fid8.i
Smp Info : UW85B
Misc Info : 12-10067
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
2	Toluene	0.738	0 756	-0.018	10135	0.48340	0.483
3	1,2,3-Trimetben	3.408	3.387	0.021	1153	0 06062	0.060(M)
4	Naphthalene	4.060	4.063	-0.003	5676	0.29153	0.291(M)
7	Acenaphthene	4.997	5.003	-0.006	7436	0.39363	0.393(M)
$ 11	o-Terph Surr	6.080	6.084	-0 004	2321153	112.576	112 576(M)
75	1-chlorooctodecane	6 763	6.782	-0.019	33812		(M)
13	Pyrene	7.004	7.023	-0.019	30495	1.36460	1 364(M)
21	Benzo-ghi-per	11.497	11.516	-0.019	30596	1.24339	1 243(M)

QC Flag Legend

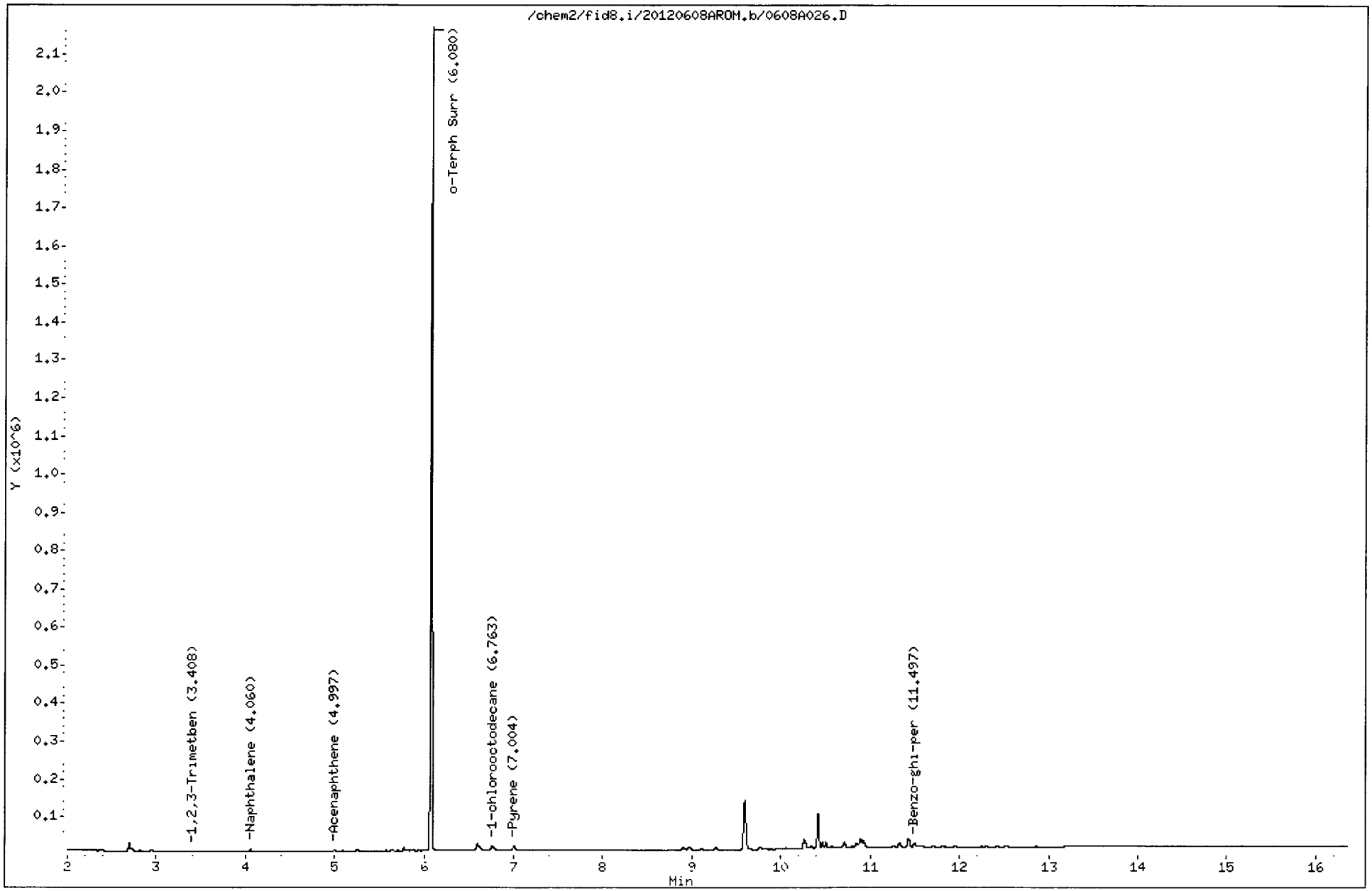
M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608AROM.b/0608A026.D
Date : 08-JUN-2012 22:17
Client ID: MS002-SS-120515
Sample Info: UW85B

Instrument: fid8.i
Operator: MH
Column diameter: 0.32

Column phase: ZB-5

UW85-00158



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A026.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

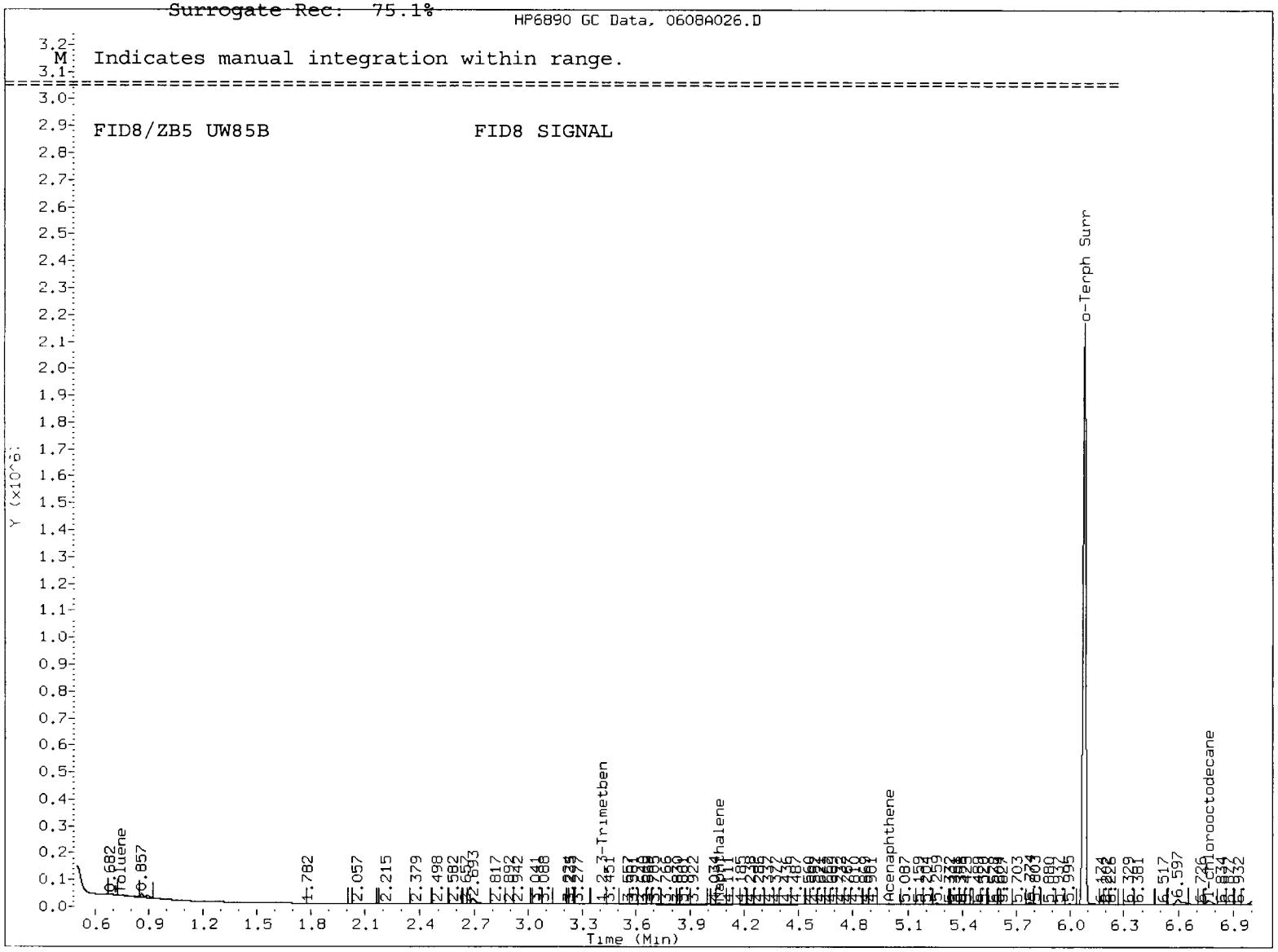
ARI ID: UW85B
Client ID: MS002-SS-120515
Injection: 08-JUN-2012 22:17
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	96047	5	(0.656 - 3.487)
C10-C12	Arom.	19472	13149	1	(3.487 - 4.163)
C12-C16	Arom.	18891	33980	2	(4.163 - 5.103)
C16-C21	Arom.	22347	222325	10	(5.103 - 7.123)
C21-C34	Arom.	24608	1232662	50	(7.123 - 11.616)

Surrogate Rec: 75.1%

M Indicates manual integration within range.



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A027.D
Lab Smp Id: UW85C Client Smp ID: MS003-SS-120515
Inj Date : 08-JUN-2012 22:42
Operator : MH Inst ID: fid8.i
Smp Info : UW85C
Misc Info : 12-10068
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

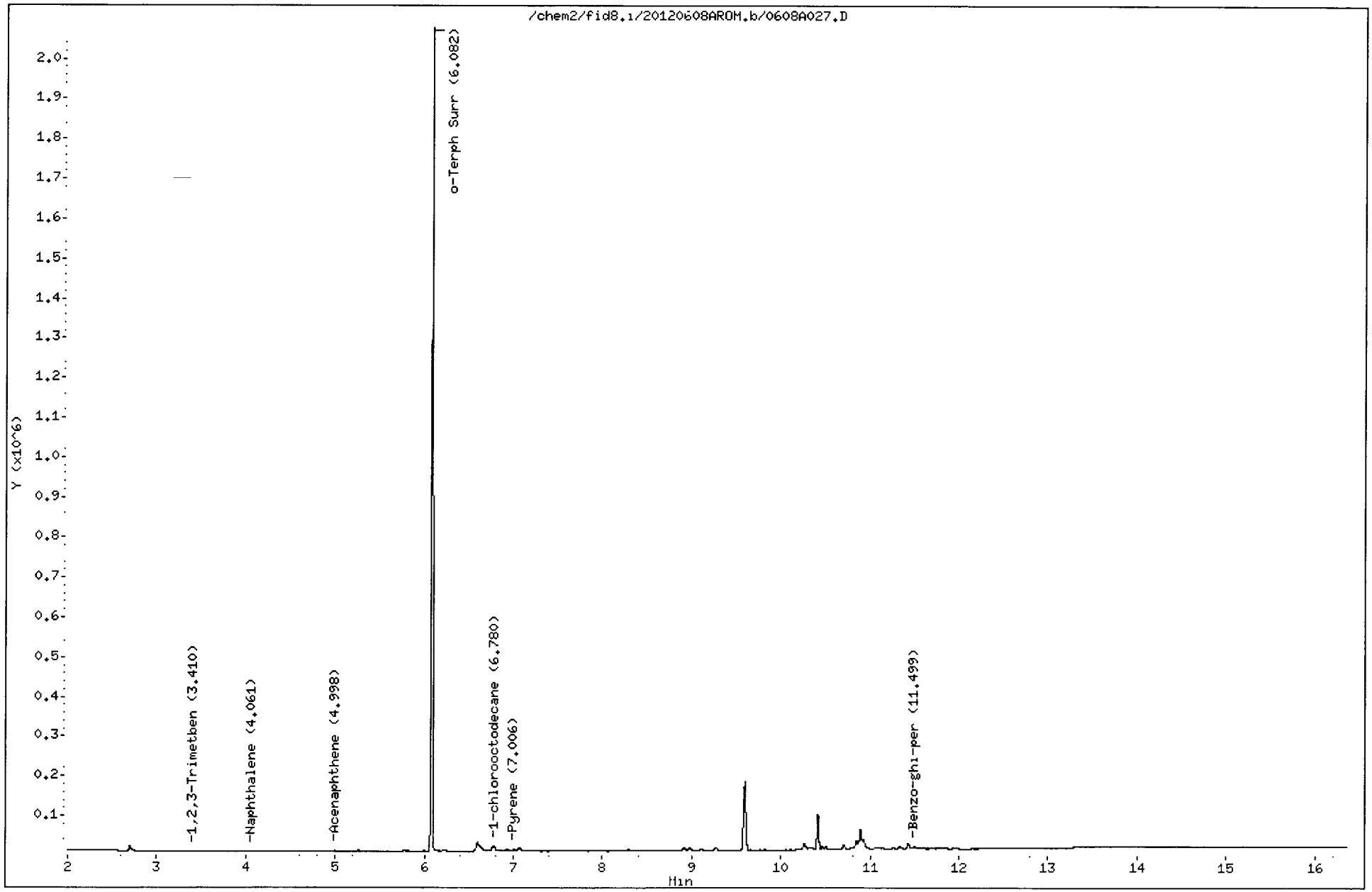
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
2	Toluene	0 738	0.756	-0.018	2753	0.13134	0.131
3	1,2,3-Trimetben	3.410	3.387	0.023	1213	0.06378	0.063
4	Naphthalene	4 061	4.063	-0.002	2558	0.13141	0.131
7	Acenaphthene	4.998	5.003	-0.005	4482	0.23730	0.237
$ 11	o-Terph Surr	6 082	6.084	-0.002	2233941	108.347	108.346
75	1-chlorooctodecane	6.780	6.782	-0 002	30279		
13	Pyrene	7.006	7.023	-0 017	14999	0.67118	0.671
21	Benzo-ghi-per	11.499	11.516	-0 017	14689	0.59696	0.596

Data File: /chem2/fid8.i/20120608AROM.b/0608A027.D
Date : 08-JUN-2012 22:42
Client ID: MS003-SS-120515
Sample Info: UW85C

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A027.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: UW85C
Client ID: MS003-SS-120515
Injection: 08-JUN-2012 22:42
Matrix: SOIL
Dilution Factor: 1

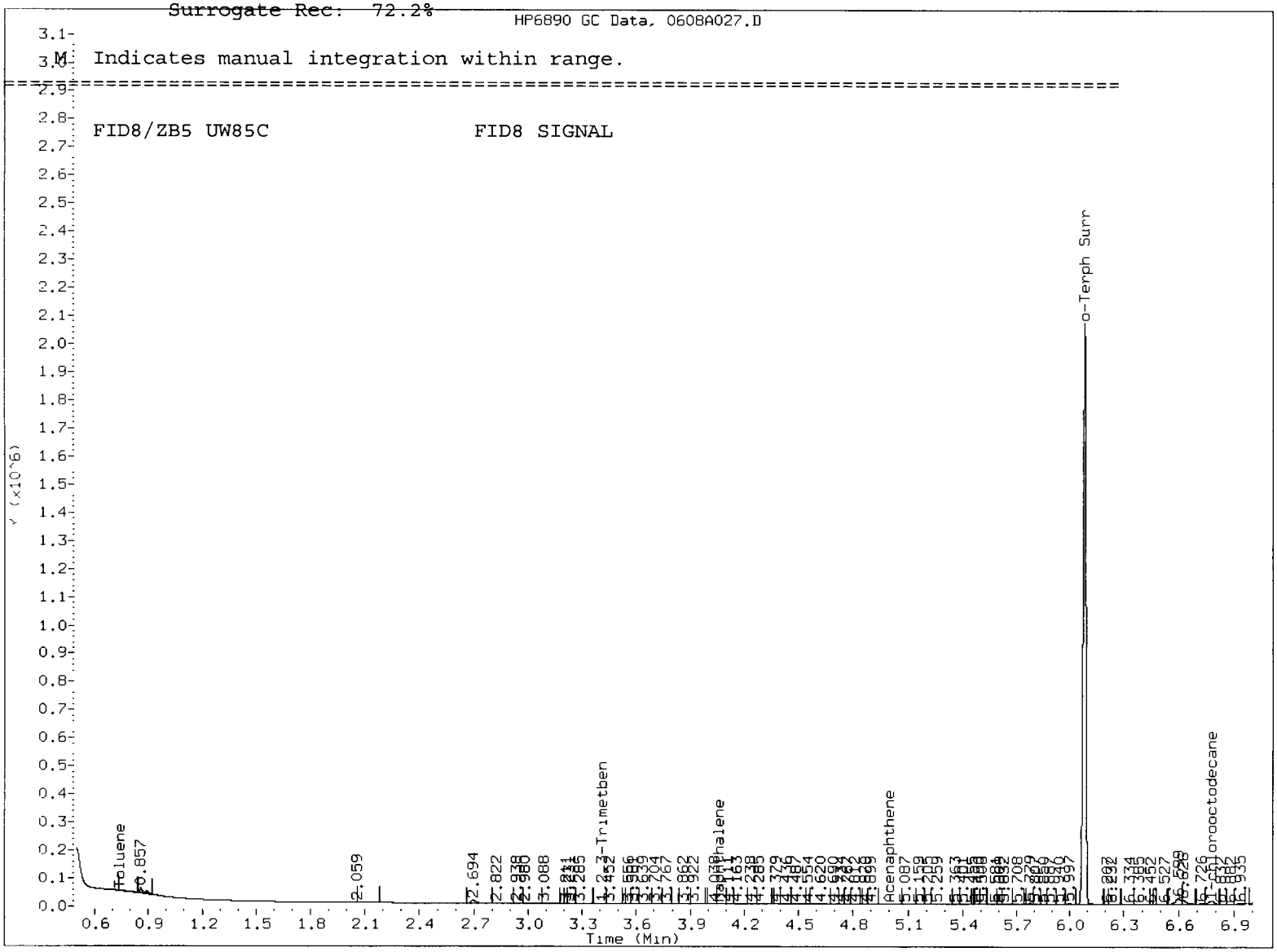
EPH-AROMATIC RESULTS

Quant Range	RF	Area	Conc	Time Range
C8-C10 Arom.	19994	66465	3	(0.656 - 3.487)
C10-C12 Arom.	19472	14273	1	(3.487 - 4.163)
C12-C16 Arom.	18891	18158	1	(4.163 - 5.103)
C16-C21 Arom.	22347	213374	10	(5.103 - 7.123)
C21-C34 Arom.	24608	1219926	50	(7.123 - 11.616)

Surrogate Rec: 72.2%

M Indicates manual integration within range.

FID8/ZB5 UW85C FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A028.D
Lab Smp Id: UW85D Client Smp ID: MS006-SS-120515
Inj Date : 08-JUN-2012 23:07
Operator : MH Inst ID: fid8.i
Smp Info : UW85D
Misc Info : 12-10069
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
2 Toluene	0.763	0.756	0 007	16155	0.77055	0.770(M)
3 1,2,3-Trimetben	3.383	3.387	-0 004	653	0.03438	0.034
4 Naphthalene	4.060	4.063	-0.003	7808	0 40101	0 401
7 Acenaphthene	4.998	5 003	-0.005	2238	0.11850	0.118
$ 11 o-Terph Surr	6.078	6.084	-0.006	2264597	109 833	109 833
75 1-chlorooctodecane	6 780	6.782	-0.002	31806		
13 Pyrene	7.004	7.023	-0.019	19068	0.85328	0 853
21 Benzo-ghi-per	11 493	11.516	-0.023	15700	0.63805	0.638

QC Flag Legend

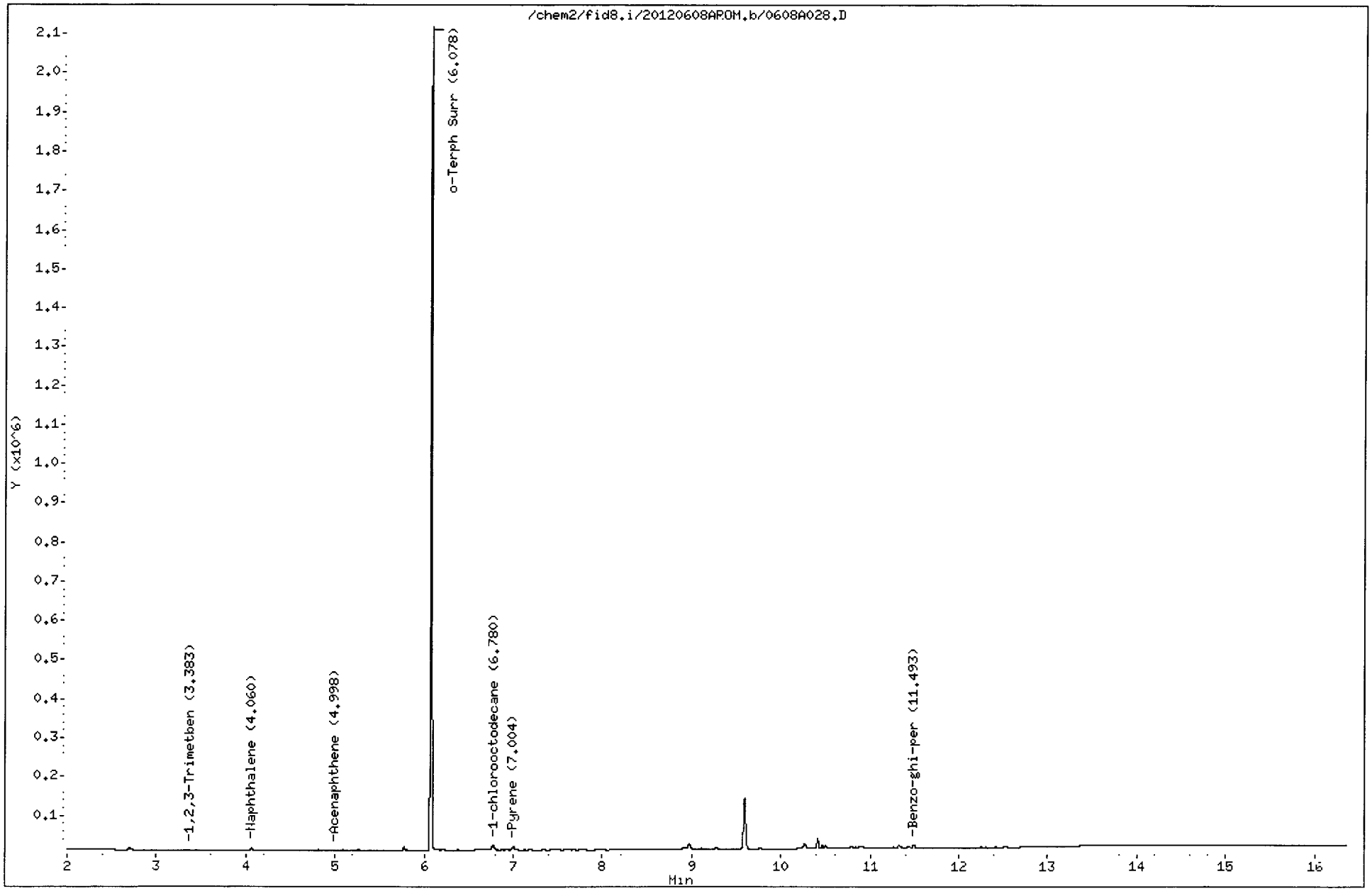
M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608AROM.b/0608A028.D
Date : 08-JUN-2012 23:07
Client ID: MS006-SS-120515
Sample Info: UW85D

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



UW85 : 001651

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A028.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: UW85D
Client ID: MS006-SS-120515
Injection: 08-JUN-2012 23:07
Matrix: SOIL
Dilution Factor: 1

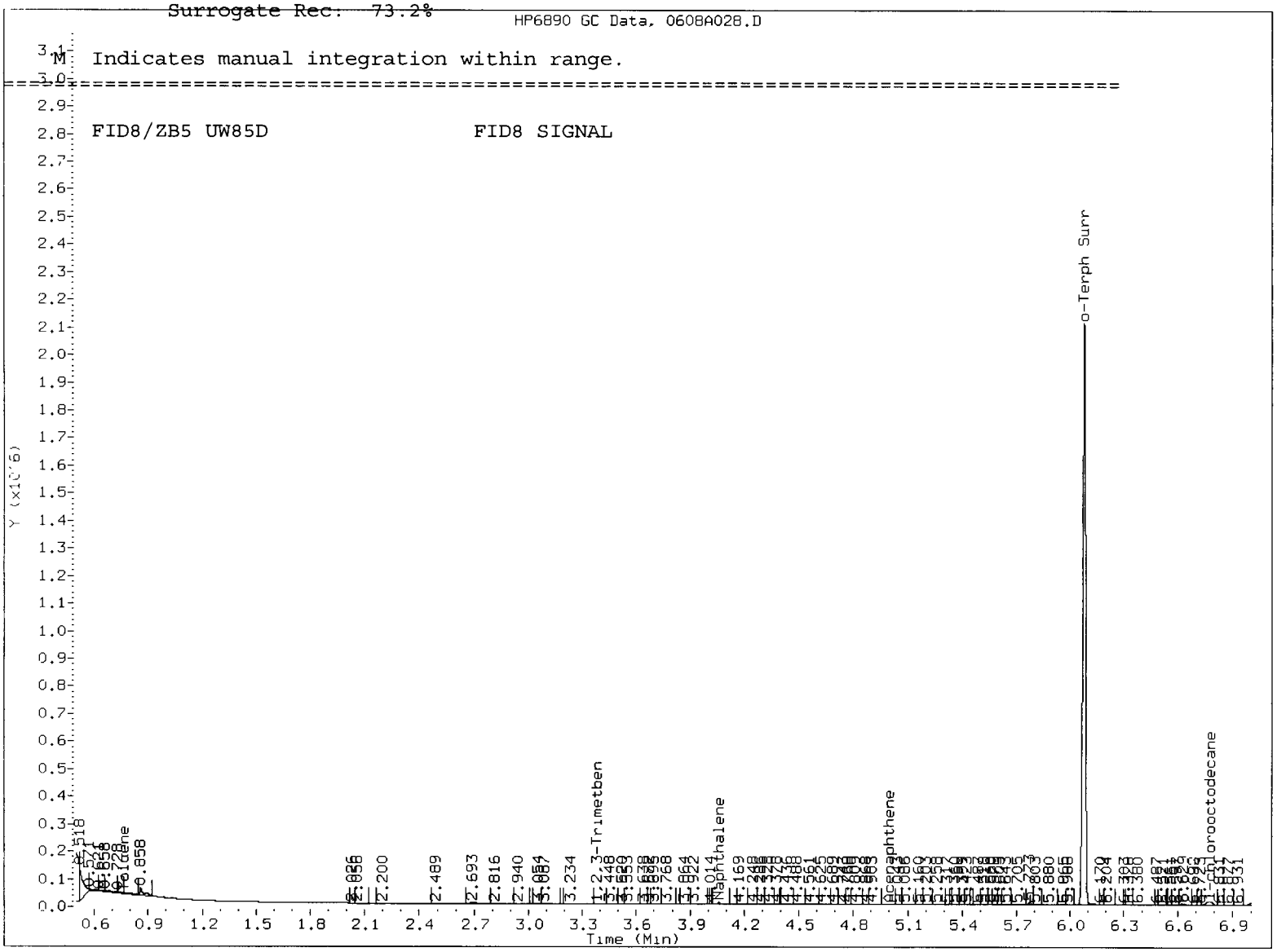
EPH-AROMATIC RESULTS

	Quant Range	RF	Area	Conc	Time Range
C8-C10	Arom.	19994	121538	6	(0.656 - 3.487) M
C10-C12	Arom.	19472	10369	1	(3.487 - 4.163)
C12-C16	Arom.	18891	16291	1	(4.163 - 5.103)
C16-C21	Arom.	22347	125577	6	(5.103 - 7.123)
C21-C34	Arom.	24608	713881	29	(7.123 - 11.616)

Surrogate Rec: 73.2%

M Indicates manual integration within range.

FID8/ZB5 UW85D FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A029.D
Lab Smp Id: AROMATIC #2
Inj Date : 08-JUN-2012 23:32
Operator : MH Inst ID: fid8.i
Smp Info : AROMATIC #2
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

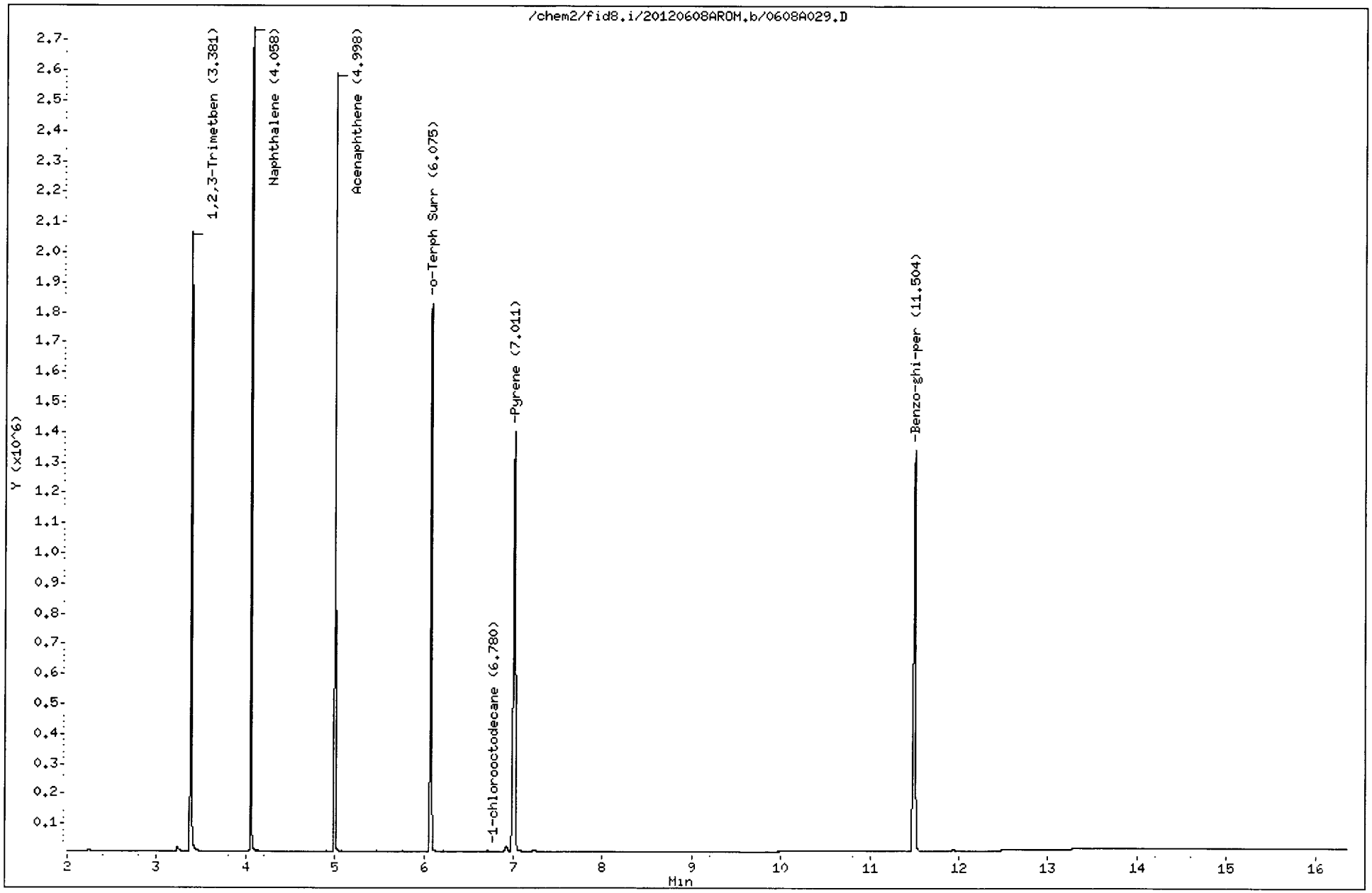
					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ug/Kg)
2 Toluene	0.749	0.756	-0 007	2069074	98 6859	98.685
3 1,2,3-Trimetben	3.381	3.387	-0 006	1861128	97 8419	97.841
4 Naphthalene	4 058	4.063	-0.005	1880475	96.5741	96.574
7 Acenaphthene	4 998	5.003	-0 005	1756844	92 9997	92.999
$ 11 o-Terph Surr	6.075	6 084	-0.009	1920443	93.1418	93.141
75 1-chlorooctodecane	6 780	6.782	-0 002	1516		
13 Pyrene	7 011	7.023	-0 012	2278416	101 955	101.954
21 Benzo-ghi-per	11.504	11.516	-0.012	2148472	87.3092	87.309

Data File: /chem2/fid8.i/20120608AROM.b/0608A029.D
Date : 08-JUN-2012 23:32
Client ID:
Sample Info: AROMATIC #2

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A029.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

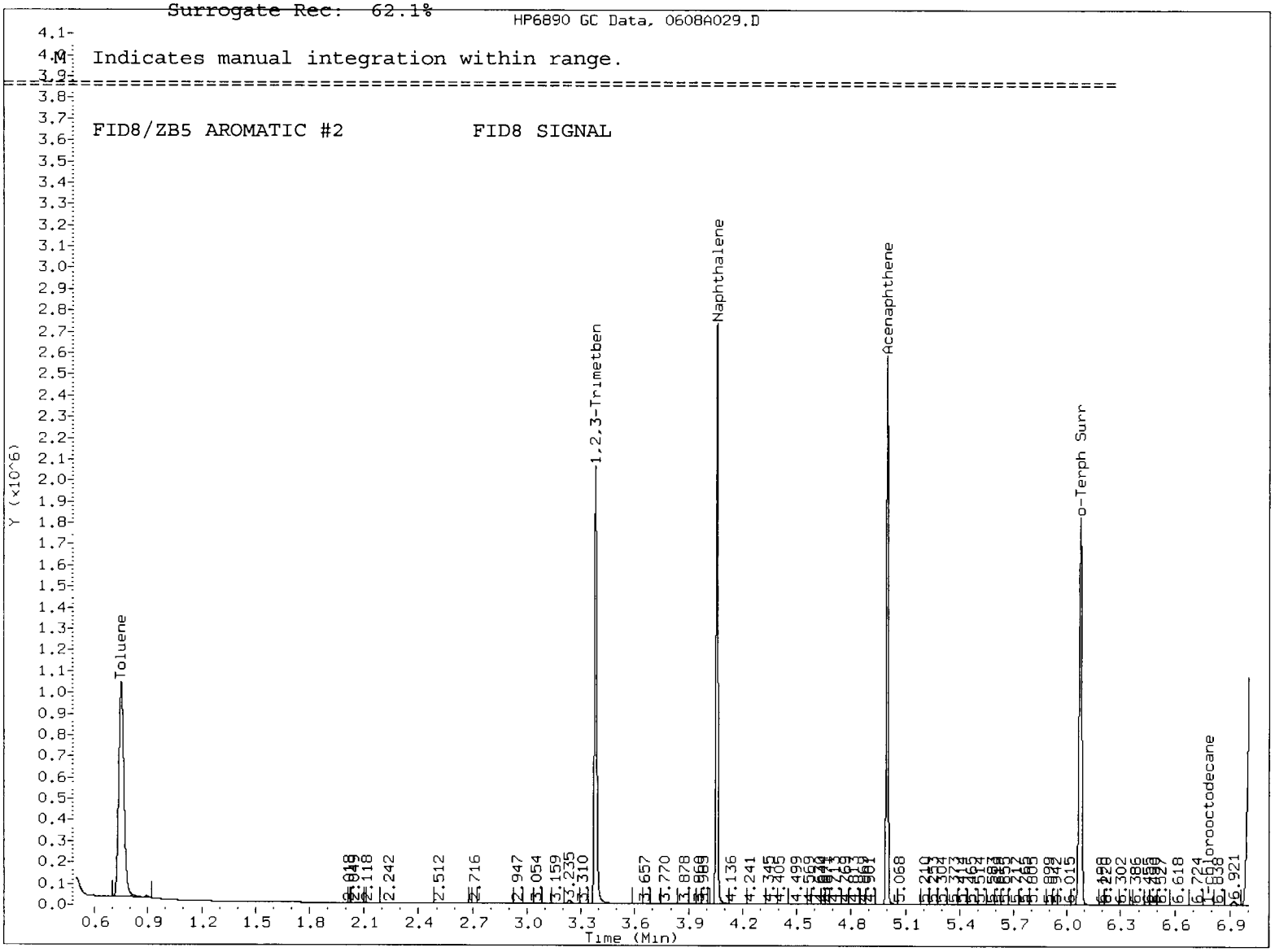
ARI ID: AROMATIC #2
Client ID:
Injection: 08-JUN-2012 23:32
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	19994	3960436	198	(0.656 - 3.487)
C10-C12	Arom.	19472	1888612	97	(3.487 - 4.163)
C12-C16	Arom.	18891	1766993	94	(4.163 - 5.103)
C16-C21	Arom.	22347	2329076	104	(5.103 - 7.123)
C21-C34	Arom.	24608	2163696	88	(7.123 - 11.616)

Surrogate Rec: 62.1%

M Indicates manual integration within range.



ATTACHMENT E-3
CHEMISTRY DATA VALIDATION REPORT

Laboratory Data Consultants, Inc.

7750 El Camino Real, Ste. 2L Carlsbad, CA 92009

Phone 760.634.0437 **Web** www.lab-data.com **Fax** 760.634.0439

Anchor QEA, LLC
720 Olive Way, Suite 900
Seattle, WA 98101
ATTN: Ms. Cindy Fields

June 28, 2012

SUBJECT: Jeld-Wen Maulsby Marsh, Data Validation

Dear Ms. Fields,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on June 14, 2012. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 27826:

SDG #	Fraction
UU52/UU62 UW85	Semivolatiles, Chlorinated Pesticides, Polychlorinated Biphenyls, Metals, Wet Chemistry, Total Petroleum Hydrocarbons as Diesel, Extractable Petroleum Hydrocarbons

The data validation was performed under Stage 2B guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Ming-Hwa Hwang
Project Manager/Senior Chemist

R-changed validation to Stage 2B

Attachment 1

EDD

LDC #27826 (Anchor Environmental-Seattle WA /Jeld-Wen Maulsby Marsh)

LDC	SDG#	DATE REC'D	(3) DATE DUE	SVOA (8270D)		Pest (8081A)		PCBs (8082)		Metals (SW846)		EPH		TPH-D (NWTPH -Dx)		NH3-N (350.1)		=S (376.2)		Total Solids (2540B)		Pres. Total Solids		TOC (9060M)		Grain Size											
Matrix:	Water/Soil/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	UU52/UU62	06/14/12	07/06/12	2	11	2	20	2	11	2	10	-	-	2	10	0	20	0	20	0	20	0	20	0	20	0	20										
B	UW85	06/14/12	07/06/12	-	-	-	-	-	-	-	-	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
Total	A/MH			2	11	2	20	2	11	2	10	0	4	2	10	0	20	0	20	0	20	0	20	0	20	0	20	0	0	0	0	0	0	0	0	0	196

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS, MSD, or DUP's.

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Jeld-Wen Maulsby Marsh

Collection Date: May 15, 2012

LDC Report Date: June 25, 2012

Matrix: Sediment/Water

Parameters: Semivolatiles

Validation Level: Stage 2B

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): UU52/UU62

Sample Identification

MS001-SS-120515
MS101-SS-120515
MS002-SS-120515
MS003-SS-120515
MS004-SS-120515
MS005-SS-120515
MS006-SS-120515
MS006-SS-120515DL
MS007-SS-120515
MS008-SS-120515
MS009-SS-120515
MS-SSRB-120515
MS-SSFB-120515
MS007-SS-120515MS
MS007-SS-120515MSD

Introduction

This data review covers 13 sediment samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270D for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
5/23/12	Pentachlorophenol	34.6	MS-SSRB-120515 MS-SSFB-120515 MB-052112	J (all detects) UJ (all non-detects)	A

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
MS007-SS-120515MS/MSD (MS007-SS-120515)	Phenol Benzoic acid 2-Methylnaphthalene	26.8 (50-150) - 48.4 (50-150)	23.2 (50-150) 47.0 (50-150) 48.8 (50-150)	- - -	J (all detects) UJ (all non-detects)	A
MS007-SS-120515MS/MSD (MS007-SS-120515)	4-Methylphenol	8.1 (50-150)	-1.6 (50-150)	-	J (all detects) R (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	Flag	A or P
LCS-052212 (MS001-SS-120515 MS101-SS-120515 MS002-SS-120515 MS003-SS-120515 MS004-SS-120515 MS005-SS-120515 MS006-SS-120515 MS006-SS-120515DL MS007-SS-120515 MS008-SS-120515 MS009-SS-120515 MB-052212)	Benzoic acid	48.4 (50-150)	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
MS006-SS-120515	Naphthalene	Sample result exceeded calibration range.	Reported result should be within calibration range.	J (all detects)	A

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

Sample	Compound	Flag	A or P
MS006-SS-120515	Naphthalene	R	A
MS006-SS-120515DL	All TCL compounds except Naphthalene	R	A

Due to calibration %D, MS/MSD and LCS %R problems, data were qualified as estimated in ten samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be rejected (R) are unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Stage 2B data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 were identified as field duplicates. No semivolatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD
	MS001-SS-120515	MS101-SS-120515	
Phenol	300	400	29 (≤50)
4-Methylphenol	1200	1600	29 (≤50)
Benzoic acid	390	640	49 (≤50)
Naphthalene	1100	1800	48 (≤50)
2-Methylnaphthalene	170	270	45 (≤50)
Acenaphthylene	74	130	55 (≤50)
Acenaphthene	110	160	37 (≤50)
Dibenzofuran	180	280	43 (≤50)
Fluorene	120	170	34 (≤50)
Pentachlorophenol	600U	160	200 (≤50)
Phenanthrene	690	1200	54 (≤50)
Carbazole	42	57	30 (≤50)
Anthracene	140	180	25 (≤50)
Fluoranthene	660	970	38 (≤50)

Compound	Concentration (ug/Kg)		RPD
	MS001-SS-120515	MS101-SS-120515	
Pyrene	580	910	44 (≤50)
Benzo(a)anthracene	160	170	6 (≤50)
Bis(2-ethylhexyl)phthalate	140	120	15 (≤50)
Chrysene	430	400	7 (≤50)
Benzo(a)pyrene	260	270	4 (≤50)
Indeno(1,2,3-cd)pyrene	200	230	14 (≤50)
Dibenzo(a,h)anthracene	57	54	5 (≤50)
Benzo(g,h,i)perylene	270	330	20 (≤50)
Retene	74	100	30 (≤50)
total-Benzofluoranthenes	570	640	12 (≤50)

XVII. Field Blanks

Sample MS-SSFB-120515 was identified as a field blank. No semivolatile contaminants were found with the following exceptions:

Blank ID	Compound	Concentration (ug/L)
MS-SSFB-120515	Dimethylphthalate Di-n-butylphthalate	0.8 3.7

Sample MS-SSRB-120515 was identified as a rinsate blank. No semivolatile contaminants were found with the following exceptions:

Blank ID	Compound	Concentration (ug/L)
MS-SSRB-120515	Dimethylphthalate	0.9

Jeld-Wen Maulsby Marsh
Semivolatiles - Data Qualification Summary - SDG UU52/UU62

SDG	Sample	Compound	Flag	A or P	Reason
UU52/UU62	MS-SSRB-120515 MS-SSFB-120515	Pentachlorophenol	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D)
UU52/UU62	MS007-SS-120515	Phenol Benzoic acid 2-Methylnaphthalene	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)
UU52/UU62	MS007-SS-120515	4-Methylphenol	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)
UU52/UU62	MS001-SS-120515 MS101-SS-120515 MS002-SS-120515 MS003-SS-120515 MS004-SS-120515 MS005-SS-120515 MS006-SS-120515 MS006-SS-120515DL MS007-SS-120515 MS008-SS-120515 MS009-SS-120515	Benzoic acid	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)
UU52/UU62	MS006-SS-120515	Naphthalene	J (all detects)	A	Compound quantitation and RLs (exceeded range)
UU52/UU62	MS006-SS-120515	Naphthalene	R	A	Overall assessment of data
UU52/UU62	MS006-SS-120515DL	All TCL compounds except Naphthalene	R	A	Overall assessment of data

Jeld-Wen Maulsby Marsh
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

LDC #: 27826A2a
SDG #: UU52/UU62
Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET
Stage 2B ~~4a~~

Date: 6/20/12
Page: 1 of 1
Reviewer: JM
2nd Reviewer: CL

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/15/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	2 RSD ≤ 20 % r
IV.	Continuing calibration/ICV	SW	CCV ≤ 20 % ICV ≤ 30 %
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	SW	
XIII.	Tentitatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	SW	
XVI.	Field duplicates	SW	D = 1, r
XVII.	Field blanks	SW	RB = 12 FB = 13

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
** level IV Sediment

1	MS001-SS-120515	D	11	MS009-SS-120515		21	MB-052212	31	
2	MS101-SS-120515	D	12	MS-SSRB-120515	W	22	MB-052112	32	
3	MS002-SS-120515	~~**~~	13	MS-SSFB-120515	W	23		33	
4	MS003-SS-120515		14	MS007-SS-120515MS		24		34	
5	MS004-SS-120515		15	MS007-SS-120515MSD		25		35	
6	MS005-SS-120515		16			26		36	
7	MS006-SS-120515		17			27		37	
8	MS006-SS-120515DL		18			28		38	
9	MS007-SS-120515		19			29		39	
10	MS008-SS-120515		20			30		40	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU. Retene
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV. total - Benzofluoranthenes
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 27826 A2c

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: SVG
2nd Reviewer: OR

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?

Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?

Y (N) N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: ~~<25.0%)~~ 30)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	5/23/17	052312Q9 (ICV)	TT	34.6		All W + MB-052117	J/UJ/A

LDC #: 27826 A2a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: JV6
2nd Reviewer: [signature]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

(Y) N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y (N) N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		14/15	A	26.8 (50-150)	23.2 (50-150)	( )	9	J/UJ/A
			I	8.1 ( )	-1.6 ( )	( )		J/R/A
			PPD	( )	47.0 ( )	( )		J/UJ/A
			S	0 ( )	0 ( )	( )		NQ *
			W	48.4 ( )	48.8 ( )	( )		J/UJ/A
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)		Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
A.	Phenol	26-90%	≤ 35%	12-110%	≤ 42%	GG	Acenaphthene	31-137%	≤ 19%	46-118%	≤ 31%
C.	2-Chlorophenol	25-102%	≤ 50%	27-123%	≤ 40%	II.	4-Nitrophenol	11-114%	≤ 50%	10-80%	≤ 50%
E.	1,4-Dichlorobenzene	28-104%	≤ 27%	36-97%	≤ 28%	KK.	2,4-Dinitrotoluene	28-89%	≤ 47%	24-96%	≤ 38%
J.	N-Nitroso-di-n-propylamine	41-126%	≤ 38%	41-116%	≤ 38%	TT.	Pentachlorophenol	17-109%	≤ 47%	9-103%	≤ 50%
R.	1,2,4-Trichlorobenzene	38-107%	≤ 23%	39-98%	≤ 28%	ZZ.	Pyrene	35-142%	≤ 36%	26-127%	≤ 31%
V.	4-Chloro-3-methylphenol	26-103%	≤ 33%	23-97%	≤ 42%						

* Parent conc > 4X Spike amt

LDC #: 27826 A2a

VALIDATION FINDINGS WORKSHEET

Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: QR

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

[✓ Y] N N/A Was a LCS required?

Y [✓ N] N/A Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	LCS-052212	PPP	48.4 (50-150)	( )	( )	All Sediment + MB-052212	J/UJ/P
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 27826 A2

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported RLs

Reviewer: JVG
2nd Reviewer: CR

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?

Y N N/A Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?

#	Date	Compound	Finding	Associated Samples	Qualifications
		S	7 cal range	7	J dets /A

Comments: See sample calculation verification worksheet for recalculations

LDC #: 27826A2A

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Page: 1 of 1
Reviewer: SVB
2nd Reviewer: CR

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

(Y) N N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Compound	Finding	Qualifications
		7	S	7 cal range	~~J (all sds) A~~ R/A
		8	All except S	dil	

Comments: _____

LDC#: 27826A2

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: JVG
2nd Reviewer: JV

METHOD: GC MS Semivolatiles (EPA SW 846 Method 8270D)

(Y) N NA Were field duplicate pairs identified in this SDG?
Y (N) NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/kg)		(≤50)
	1	2	RPD
A	300	400	29
I	1200	1600	29
PPP	390	640	49
S	1100	1800	48
W	170	270	45
DD	74	130	55
GG	110	160	37
JJ	180	280	43
NN	120	170	34
TT	600U	160	200
UU	690	1200	54
WW	42	57	30
VV	140	180	25
YY	660	970	38
ZZ	580	910	44
CCC	160	170	6
EEE	140	120	15
DDD	430	400	7
III	260	270	4
JJJ	200	230	14
KKK	57	54	5
LLL	270	330	20
UUU	74	100	30
VVV	570	640	12

LDC #: 27826 A2

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: JV6
2nd Reviewer: OR

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were field blanks identified in this SDG?

Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L **Associated sample units:** ug/kg

Sampling date: 5/15/12

Field blank type: (circle one) Field Blank / Rinsate / Other: RB Associated Samples: All sediments (MB)

Compound	Blank ID (RB)	FB	Sample Identification							
	12	13								
CC	0.9	0.8								
XX	"	3.7								

Blank units: _____ **Associated sample units:** _____

Sampling date: _____

Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: _____

Compound	Blank ID	Sample Identification								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Jeld-Wen Maulsby Marsh

Collection Date: May 15, 2012

LDC Report Date: June 25, 2012

Matrix: Sediment/Water

Parameters: Chlorinated Pesticides

Validation Level: Stage 2B

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): UU52/UU62

Sample Identification

MS001-SS-120515	MS-SSRB-120515
MS001-SS-120515DL	MS-SSFB-120515
MS101-SS-120515	MS002-SS-120515MS
MS101-SS-120515DL	MS002-SS-120515MSD
MS002-SS-120515	
MS002-SS-120515DL	
MS003-SS-120515	
MS003-SS-120515DL	
MS004-SS-120515	
MS004-SS-120515DL	
MS005-SS-120515	
MS005-SS-120515DL	
MS006-SS-120515	
MS006-SS-120515DL	
MS007-SS-120515	
MS007-SS-120515DL	
MS008-SS-120515	
MS008-SS-120515DL	
MS009-SS-120515	
MS009-SS-120515DL	

Introduction

This data review covers 22 sediment samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
5/26/12	INDAE	STX-CLP1	4,4'-DDE	26.6	MS006-SS-120515 MS007-SS-120515 MS008-SS-120515 MS009-SS-120515	J (all detects) UJ (all non-detects)	A
5/26/12	INDAE	STX-CLP2	4,4'-DDT	40.9	MS006-SS-120515 MS007-SS-120515 MS008-SS-120515 MS009-SS-120515	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

The individual 4,4'-DDT and Endrin breakdowns (%BD) were less than or equal to 15.0% with the following exceptions:

Date	Standard ID	Column	Compound	%BD	Associated Samples	Affected Compounds	Flag	A or P
5/26/12	DS	STX-CLP1	4,4'-DDT	27.5	MS006-SS-120515 MS007-SS-120515 MS008-SS-120515 MS009-SS-120515	4,4'-DDE 4,4'-DDD 4,4'-DDT	J (all detects) J (all detects) J (all detects)	P
5/26/12	DS	STX-CLP2	4,4'-DDT	40.6	MS006-SS-120515 MS007-SS-120515 MS008-SS-120515 MS009-SS-120515	4,4'-DDE 4,4'-DDD 4,4'-DDT	J (all detects) J (all detects) J (all detects)	P

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for several samples. Since the samples were diluted out, no data were qualified.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within the QC limits. Since the samples were diluted out, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation and RLs

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

Sample	Compound	Flag	A or P
MS001-SS-120515DL MS101-SS-120515DL MS002-SS-120515DL MS003-SS-120515DL MS004-SS-120515DL MS005-SS-120515DL MS006-SS-120515DL MS007-SS-120515DL MS008-SS-120515DL MS009-SS-120515DL	All TCL compounds	R	A

Due to calibration and 4,4'-DDT breakdown %D problems, data were qualified as estimated in four samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be rejected (R) are unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Stage 2B data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 and samples MS001-SS-120515DL and MS101-SS-120515DL were identified as field duplicates. No chlorinated pesticides were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)
	MS001-SS-120515	MS101-SS-120515	
beta-BHC	14	14	0 (≤50)

Compound	Concentration (ug/Kg)		RPD (Limits)
	MS001-SS-120515	MS101-SS-120515	
Dieldrin	9.9	9.9	0 (≤50)
4,4'-DDE	12	12	0 (≤50)
4,4'-DDD	13	13	0 (≤50)
4,4'-DDT	19	19	0 (≤50)
Endrin ketone	12	12	0 (≤50)

Compound	Concentration (ug/Kg)		RPD (Limits)
	MS001-SS-120515DL	MS101-SS-120515DL	
beta-BHC	140	140	0 (≤50)
Dieldrin	99	99	0 (≤50)
4,4'-DDE	120	120	0 (≤50)
4,4'-DDD	130	130	0 (≤50)
4,4'-DDT	190	190	0 (≤50)
Endrin ketone	120	120	0 (≤50)

XVI. Field Blanks

Sample MS-SSRB-120515 was identified as a rinsate blank. No chlorinated pesticide contaminants were found.

Sample MS-SSFB-120515 was identified as a field blank. No chlorinated pesticide contaminants were found.

Jeld-Wen Maulsby Marsh
Chlorinated Pesticides - Data Qualification Summary - SDG UU52/UU62

SDG	Sample	Compound	Flag	A or P	Reason
UU52/UU62	MS006-SS-120515 MS007-SS-120515 MS008-SS-120515 MS009-SS-120515	4,4'-DDE 4,4'-DDT	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
UU52/UU62	MS006-SS-120515 MS007-SS-120515 MS008-SS-120515 MS009-SS-120515	4,4'-DDE 4,4'-DDD 4,4'-DDT	J (all detects) J (all detects) J (all detects)	P	Continuing calibration (PEM %BD)
UU52/UU62	MS001-SS-120515DL MS101-SS-120515DL MS002-SS-120515DL MS003-SS-120515DL MS004-SS-120515DL MS005-SS-120515DL MS006-SS-120515DL MS007-SS-120515DL MS008-SS-120515DL MS009-SS-120515DL	All TCL compounds	R	A	Overall assessment of data

Jeld-Wen Maulsby Marsh
Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

LDC #: 27826A3a

SDG #: UU52/UU62

Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET

Stage 2B~~4~~

Date: 6/20/12

Page: 1 of 1

Reviewer: JV6

2nd Reviewer: SL

METHOD: GC Chlorinated Pesticides (EPA SW 846 Method 8081A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/15/12
II.	GC/ECD Instrument Performance Check	SW	(See CCV)
III.	Initial calibration	A	%RSD ≤ 20 % r²
IV.	Continuing calibration/ICV	SW	CCV/ICV ≤ 20 %
V.	Blanks	A	
VI.	Surrogate spikes /IS	SW	
VII.	Matrix spike/Matrix spike duplicates	SW	(100x DL - NQ)
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	~~N~~ A	
XIII.	Compound quantitation/RL/LOQ/LODs	~~N~~ A	
XIV.	Overall assessment of data	SW	
XV.	Field duplicates	ND	D_1 = 1, 3 D_2 = 2, 4
XVI.	Field blanks	ND	RB = 21 FB = 22

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

** Level IV Sediment + Water

1	MS001-SS-120515 D_1	11	MS005-SS-120515	21	MS-SSRB-120515 W	31	MB-052212
2	MS001-SS-120515DL D_2	12	MS005-SS-120515DL	22	MS-SSFB-120515	32	MB-051812
3	MS101-SS-120515 D_1	13	MS006-SS-120515	23	MS002-SS-120515MS	33	
4	MS101-SS-120515DL D_2	14	MS006-SS-120515DL	24	MS002-SS-120515MSD	34	
5	MS002-SS-120515 **	15	MS007-SS-120515	25		35	
6	MS002-SS-120515DL **	16	MS007-SS-120515DL	26		36	
7	MS003-SS-120515	17	MS008-SS-120515	27		37	
8	MS003-SS-120515DL	18	MS008-SS-120515DL	28		38	
9	MS004-SS-120515	19	MS009-SS-120515	29		39	
10	MS004-SS-120515DL	20	MS009-SS-120515DL	30		40	

Notes:

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPASW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG. Chlordane
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH. Chlordane (Technical)
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II. Aroclor 1262
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ. Aroclor 1268
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. 2,4'-DDD	KK. Oxychlordane
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. 2,4'-DDE	LL. trans-Nonachlor
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE. 2,4'-DDT	MM. cis-Nonachlor
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF. Hexachlorobenzene	NN.

Notes: _____

LDC #: 27826 A3a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: CR

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualifications below for all questions answered "N" Not applicable questions are identified as "N/A".

(Y) N N/A Were Evaluation mix standards run before initial calibration and before samples?

Y (N) N/A Were Endrin & 4,4'-DDT breakdowns acceptable in the Evaluation Mix standard (≤15.0% for individual breakdowns)?

(Y) N N/A Was at least one standard run daily to verify the working curve?

Y (N) N/A Did the continuing calibration standards meet the percent difference (%D) / relative percent difference (RPD) criteria of ≤20.0%?

Level IV/D Only

(Y) N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Column	Compound	%D (Limit ≤ 20.0)	RT (Limits)	Associated Samples	Qualifications
	5/26/12	DS	STX-CLP1	O	% Breakdown ≤15% 27.5	( )	13, 15, 17, 19	J dets/p (qual J, N, O)
		(PEM)	↓ 2	O	40.6	( )	↓	↓
						( )		
						( )		
						( )		
	5/26/12	INDAE	STX-CLP1	J	26.6 (≤20%)	( )		J/UJ/A
		(CCV)	↓ 2	O	39.6 ↓	( )	↓	↓
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		

A. alpha-BHC	E. Heptachlor	I. Dieldrin	M. 4,4'-DDD	Q. Endrin ketone	U. Toxaphene	Y. Aroclor-1242	CC. DB 608	GG.
B. beta-BHC	F. Aldrin	J. 4,4'-DDE	N. Endosulfan sulfate	R. Endrin aldehyde	V. Aroclor-1016	Z. Aroclor-1248	DD. DB 1701	HH.
C. delta-BHC	G. Heptachlor epoxide	K. Endrin	O. 4,4'-DDT	S. alpha-Chlordane	W. Aroclor-1221	AA. Aroclor-1254	EE. Hexachlobenzene	II.
D. gamma-BHC	H. Endosulfan I	L. Endosulfan II	P. Methoxychlor	T. gamma-Chlordane	X. Aroclor-1232	BB. Aroclor-1260	FF.	JJ.

LDC #: 27826 A3a

VALIDATION FINDINGS WORKSHEET
Surrogate Spikes

Reviewer: JVG
2nd Reviewer: CR

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".
(Y) N N/A Were surrogates spiked into all samples, standards and blanks?
Y (N) N/A Did all surrogate percent recoveries (%R) meet the QC limits?

#	Date	Sample ID	Column	Surrogate Compound	%R (Limits)	Qualifications
		All except 13	NS	A	DO (20 - 147)	No qual
				B	(22 - 156)	
		(DL = 100X - 5000X)			( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	

Letter Designation	Surrogate Compound	Recovery QC Limits (Soil)	Recovery QC Limits (Water)	Comments
A	Tetrachloro-m-xylene			
B	Decachlorobiphenyl			

LDC #: 27826Ana

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

(Y) N N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Compound	Finding	Qualifications
		All DL's	All TCL	Higher RL's	R/A

Comments: (Reanalyzed at lower dil, initially dil due to extract color)

LDC#: 27826A3a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: JVG
2nd Reviewer: [signature]

METHOD: GC Chlorinated Pesticides (EPA SW 846 Method 8081A)

(Y)N NA Were field duplicate pairs identified in this SDG?
Y(N) NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/kg)		(≤50)
	1	3	RPD
B	14	14	0
I	9.9	9.9	0
J	12	12	0
M	13	13	0
O	19	19	0
Q	12	12	0

Compound	Concentration (ug/kg)		(≤50)
	2	4	RPD
B	140	140	0
I	99	99	0
J	120	120	0
M	130	130	0
O	190	190	0
Q	120	120	0

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Jeld-Wen Maulsby Marsh

Collection Date: May 15, 2012

LDC Report Date: June 25, 2012

Matrix: Sediment/Water

Parameters: Polychlorinated Biphenyls

Validation Level: Stage 2B

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): UU52/UU62

Sample Identification

MS001-SS-120515
MS101-SS-120515
MS002-SS-120515
MS003-SS-120515
MS004-SS-120515
MS005-SS-120515
MS006-SS-120515
MS006-SS-120515DL
MS007-SS-120515
MS008-SS-120515
MS009-SS-120515
MS-SSRB-120515
MS-SSFB-120515
MS009-SS-120515MS
MS009-SS-120515MSD

Introduction

This data review covers 13 sediment samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
MS-SSRB-120515	Not specified	Decachlorobiphenyl	22.5 (29-118)	All TCL compounds	J (all detects) UJ (all non-detects)	P

All internal standard data were reviewed and within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation and Reported RLs

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to surrogate %R problems, data were qualified as estimated in one samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Stage 2B data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)
	MS001-SS-120515	MS101-SS-120515	
Aroclor 1248	22	17	26 (≤50)
Aroclor 1254	44	37	17 (≤50)

XVI. Field Blanks

Sample MS-SSRB-120515 was identified as a rinsate blank. No polychlorinated biphenyl contaminants were found.

Sample MS-SSFB-120515 was identified as a field blank. No polychlorinated biphenyl contaminants were found.

Jeld-Wen Maulsby Marsh
Polychlorinated Biphenyls - Data Qualification Summary - SDG UU52/UU62

SDG	Sample	Compound	Flag	A or P	Reason
UU52/ UU62	MS-SSRB-120515	All TCL compounds	J (all detects) UJ (all non-detects)	P	Surrogate spikes (%R)

Jeld-Wen Maulsby Marsh
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

LDC #: 27826A3b
SDG #: UU52/UU62
Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET
Stage 2B

Date: 6/20/12
Page: 1 of 1
Reviewer: JV6
2nd Reviewer: CR

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/15/12
II.	GC/ECD Instrument Performance Check	N	
III.	Initial calibration	A	%RSD ≤ 20%
IV.	Continuing calibration/ICV	A	CCV/ICV ≤ 20%
V.	Blanks	A	
VI.	Surrogate spikes / IS	SW/A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	N	
XIII.	Compound quantitation/RL/LOQ/LODs	SW/N	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	SW	D = 1, 2
XVI.	Field blanks	ND	RB = 12 FB = 13

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Water (2) + Sediment

1	MS001-SS-120515	11	MS009-SS-120515	21	MB-052212W	31	
2	MS101-SS-120515	12	MS-SSRB-120515 W	22	MB-052212W	32	
3	MS002-SS-120515 ***	13	MS-SSFB-120515	23		33	
4	MS003-SS-120515	14	MS009-SS-120515MS	24		34	
5	MS004-SS-120515	15	MS009-SS-120515MSD	25		35	
6	MS005-SS-120515	16		26		36	
7	MS006-SS-120515	17		27		37	
8	MS006-SS-120515DL	18		28		38	
9	MS007-SS-120515	19		29		39	
10	MS008-SS-120515	20		30		40	

Notes:

LDC #: 27826 A36

VALIDATION FINDINGS WORKSHEET
Surrogate Spikes

Reviewer: JV6
2nd Reviewer: OR

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were surrogates spiked into all samples, standards and blanks?
Y (N) N/A Did all surrogate percent recoveries (%R) meet the QC limits?

#	Date	Sample ID	Column	Surrogate Compound	%R (Limits)	Qualifications
		12	NS	B	22.5 (29-118)	J/nJ/p
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	

Letter Designation	Surrogate Compound	Recovery QC Limits (Soil)	Recovery QC Limits (Water)	Comments
A	Tetrachloro-m-xylene			
B	Decachlorobiphenyl			

LDC:27826A3b

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: JVG
2nd Reviewer: JV

METHOD: GC PCBs (EPA SW 846 Method 8082)

Analyte	Concentration (ug/kg)		RPD (≤50%)
	1	2	
Aroclor 1248	22	17	26
Aroclor 1254	44	37	17

V:\FIELD DUPLICATES\27826A3b.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Jeld-Wen Maulsby Marsh

Collection Date: May 15, 2012

LDC Report Date: June 25, 2012

Matrix: Sediment/Water

Parameters: Metals

Validation Level: Stage 2B

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): UU52/UU62

Sample Identification

MS001-SS-120515
MS101-SS-120515
MS002-SS-120515
MS003-SS-120515
MS004-SS-120515
MS005-SS-120515
MS006-SS-120515
MS007-SS-120515
MS008-SS-120515
MS009-SS-120515
MS-SSRB-120515
MS-SSFB-120515
MS002-SS-120515MS
MS002-SS-120515DUP
MS-SSRB-120515MS
MS-SSRB-120515DUP

Introduction

This data review covers 12 sediment samples and 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010C, 7471A, and 7470A, and EPA 200.8 for Metals. The metals analyzed were Antimony, Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

III. Calibration

The initial and continuing calibrations were performed at the required frequency.

The calibration standards criteria were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metals contaminants were found in the initial, continuing and preparation blanks.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	%R (Limits)	Flag	A or P
MS002-SS-120515MS (All sediment samples in SDG UU52/UU62)	Antimony	9.8 (75-125)	J (all detects) UJ (all non-detects)	A

VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Internal Standards (ICP-MS)

ICP-MS was not utilized in this SDG.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XII. Sample Result Verification

Raw data were not reviewed for this SDG.

XIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to MS %R problems, data were qualified as estimated in ten samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Stage 2B data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)
	MS001-SS-120515	MS101-SS-120515	
Arsenic	33	33	0 (≤50)
Cadmium	3.2	3.4	6 (≤50)

Analyte	Concentration (mg/Kg)		RPD (Limits)
	MS001-SS-120515	MS101-SS-120515	
Chromium	37	38	3 (≤50)
Copper	129	125	3 (≤50)
Lead	170	170	0 (≤50)
Mercury	0.4	0.4	0 (≤50)
Nickel	50	42	17 (≤50)
Zinc	400	374	7 (≤50)

XV. Field Blanks

Sample MS-SSRB-120515 was identified as a rinsate blank. No metal contaminants were found.

Sample MS-SSFB-120515 was identified as a field blank. No metal contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration (ug/L)
MS-SSFB-120515	Copper	7

Jeld-Wen Maulsby Marsh
Metals - Data Qualification Summary - SDG UU52/UU62

SDG	Sample	Analyte	Flag	A or P	Reason
UU52/UU62	MS001-SS-120515 MS101-SS-120515 MS002-SS-120515 MS003-SS-120515 MS004-SS-120515 MS005-SS-120515 MS006-SS-120515 MS007-SS-120515 MS008-SS-120515 MS009-SS-120515	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike (%R)

Jeld-Wen Maulsby Marsh
Metals - Laboratory Blank Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

LDC #: 27826A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 6/19/12

SDG #: UU52/UU62 Stage 2B Page: 1 of 1

Laboratory: Analytical Resources Inc. Reviewer: CR

2nd Reviewer: W

METHOD: Metals (EPA SW 846 Method 6010C/~~200.8~~/7471A/7470) A, EPA 200.8

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/15/12
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	MS
VII.	Duplicate Sample Analysis	A	DUP
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	Not reviewed
X.	Furnace Atomic Absorption QC	N	Not utilized
XI.	ICP Serial Dilution	N	Not performed
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	SW	(1,2)
XV	Field Blanks	SW	FB=12 ; FB=13

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: sediment/water

1	MS001-SS-120515	11	MS009-SS-120515	21		31	
2	MS101-SS-120515	12	MS-SSRB-120515 W	22		32	
3	MS002-SS-120515	13	MS-SSFB-120515	23		33	
4	MS003-SS-120515	14	MS002-SS-120515MS	24		34	
5	MS004-SS-120515	15	MS002-SS-120515DUP	25		35	
6	MS005-SS-120515	16	MS-SSRB-120515MS W	26		36	
7	MS006-SS-120515	17	MS-SSRB-120515DUP	27		37	
~~8~~	~~MS006-SS-120515DL~~	18		28		38	
9	MS007-SS-120515	19		29		39	
10	MS008-SS-120515	20		30		40	

Notes: _____

Sample Specific Element Reference

Reviewer: CR
2nd reviewer: L

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-13		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
QC 14-17		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
		Analysis Method
ICP		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
ICP-MS		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, ___
GFAA		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U

Comments: Mercury by CVAA if performed

LDC #: 27826A4

VALIDATION FINDINGS WORKSHEET
Matrix Spike Analysis

Reviewer: CR
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

(Y) N N/A Was a post digestion spike analyzed for ICP elements that did not meet the required criteria for matrix spike recovery?

LEVEL IV ONLY:

Y N (N/A) Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Matrix Spike ID	Matrix	Analyte	%R	Associated Samples	Qualifications
		14/15	S	Sb	9.8	All Sediment	J/R/~~A~~ or J/UJ/A (PS=100.6%)

Comments:

LDC#: 27826A4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: [signature]
2nd Reviewer: [signature]

METHOD: Metals (EPA Method 6010B/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	
	1	2		
Arsenic	33	33	0	
Cadmium	3.2	3.4	6	
Chromium	37	38	3	
Copper	129	125	3	
Lead	170	170	0	
Mercury	0.4	0.4	0	
Nickel	50	42	17	
Zinc	400	374	7	

V:\FIELD DUPLICATES\FD_inorganic\27826A4.wpd

LDC #: 27626TY

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: CR
2nd reviewer: [signature]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target analytes detected in the field blanks?

Sample: 13 Field Blank / Trip Blank / Rinsate / Other_____(circle one)

Analyte	Concentration Units (ug/L)
Cu	7

Sample: _____ Field Blank / Trip Blank / Rinsate / Other_____ (circle one)

Analyte	Concentration Units (____)

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Jeld-Wen Maulsby Marsh

Collection Date: May 15, 2012

LDC Report Date: June 19, 2012

Matrix: Sediment

Parameters: Wet Chemistry

Validation Level: Stage 2B

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): UU52/UU62

Sample Identification

MS001-SS-120515	MS002-SS-120515DUP
MS101-SS-120515	MS002-SS-120515TRP
MS002-SS-120515	MS110-SS-120515MS
MS003-SS-120515	MS110-SS-120515DUP
MS004-SS-120515	MS110-SS-120515TRP
MS005-SS-120515	
MS006-SS-120515	
MS007-SS-120515	
MS008-SS-120515	
MS009-SS-120515	
MS010-SS-120515	
MS110-SS-120515	
MS011-SS-120515	
MS012-SS-120515	
MS013-SS-120515	
MS014-SS-120515	
MS015-SS-120515	
MS016-SS-120515	
MS017-SS-120515	
MS018-SS-120515	

Introduction

This data review covers 25 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 350.1M for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, Standard Method 2540B for Total Solids and Preserved Total Solids, EPA SW 846 Method 9060M for Total Organic Carbon, and PSEP for Grain Size.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VI. Duplicates/Triplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

Triplicate (TRP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Sample Result Verification

Raw data were not reviewed for this SDG.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Stage 2B data validation all results are considered valid and usable for all purposes.

X. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 and samples MS010-SS-120515 and MS110-SS-120515 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration		RPD (Limits)
	MS001-SS-120515	MS101-SS-120515	
Total Solids	10.20%	10.20%	0 (≤50)
Preserved Total Solids	9.70%	9.70%	0 (≤50)
Ammonia as N	132 mg/Kg	130 mg/Kg	2 (≤50)
Sulfide	2960 mg/Kg	3100 mg/Kg	5 (≤50)
Total Organic Carbon	19.6%	18.4%	6 (≤50)

Analyte	Concentration		RPD (Limits)
	MS010-SS-120515	MS110-SS-120515	
Total Solids	10.60%	10.40%	2 (≤50)
Preserved Total Solids	10.50%	10.70%	2 (≤50)
Ammonia as N	100 mg/Kg	95.6 mg/Kg	4 (≤50)
Sulfide	2030 mg/Kg	1750 mg/Kg	15 (≤50)
Total Organic Carbon	11.8%	15.7%	28 (≤50)

Sieve Size	Percent Finer (%)		RPD (Limits)
	MS001-SS-120515	MS101-SS-120515	
Gravel: 2000 um	100.0	88.2	13 (≤50)
Very Coarse Sand: 1000 um	75.6	71.2	6 (≤50)
Coarse Sand: 500 um	68.4	63.3	8 (≤50)
Medium Sand: 250 um	63.9	58.5	9 (≤50)
Fine Sand: 125 um	60.9	55.3	10 (≤50)
Very Fine Sand: 63 um	58.8	52.9	11 (≤50)
Slit: 31um	57.5	51.8	10 (≤50)
Slit: 15.6um	44.4	40.3	10 (≤50)
Slit: 7.80um	33.1	30.4	9 (≤50)
Slit: 3.9um	20.6	19.2	7 (≤50)
Clay: 2 um	17.6	15.9	10 (≤50)
Clay: 1 um	14.2	12.5	13 (≤50)

Sieve Size	Percent Finer (%)		RPD (Limits)
	MS010-SS-120515	MS110-SS-120515	
Gravel: 4750 um	97.3	100.0	3 (≤50)
Gravel: 2000 um	88.6	97.4	9 (≤50)
Very Coarse Sand: 1000 um	79.1	83.2	5 (≤50)
Coarse Sand: 500 um	72.1	73.8	2 (≤50)
Medium Sand: 250 um	66.3	67.4	2 (≤50)
Fine Sand: 125 um	61.6	62.3	1 (≤50)
Very Fine Sand: 63 um	57.9	58.5	1 (≤50)
Slit: 31um	49.8	56.1	12 (≤50)

Sieve Size	Percent Finer (%)		RPD (Limits)
	MS010-SS-120515	MS110-SS-120515	
Slit: 15.6um	35.3	46.6	28 (≤50)
Slit: 7.80um	27.2	37.1	31 (≤50)
Slit: 3.9um	18.4	21.7	16 (≤50)
Clay: 2 um	15.5	16.1	4 (≤50)
Clay: 1 um	11.6	12.0	3 (≤50)

XI. Field Blanks

No field blanks were identified in this SDG.

Jeld-Wen Maulsby Marsh
Wet Chemistry - Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

Jeld-Wen Maulsby Marsh
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

LDC #: 27826A6 **VALIDATION COMPLETENESS WORKSHEET** Date: 6-19-12
SDG #: UU52/UU62 Stage 2B Page: 1 of 1
Laboratory: Analytical Resource Inc Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: (Analyte) Ammonia-N (EPA Method 350.1)M, Sulfide (EPA Method 376.2), Total Solids, Preserved Total Solids (SM2540B), Total Organic Carbon (EPA SW846 Method 9060M), Grain Size (PSEP)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/15/12
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Blanks	A	
V	Matrix Spike/Matrix Spike Duplicates	A	MS
VI.	Duplicates /Triplicates	A	DUP, TRP
VII.	Laboratory control samples	A	LCS
VIII.	Sample result verification	N	
IX.	Overall assessment of data	A	
X.	Field duplicates	SW	(1,2), (14,15)
XI	Field blanks	N	~~R=12, FB=13~~ 2

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Sediment ~~Tissue~~

1	MS001-SS-120515	11	MS009-SS-120515	21	MS016-SS-120515	31	
2	MS101-SS-120515	~~12~~	~~MS-SSRB-120515~~ W	22	MS017-SS-120515	32	
3	MS002-SS-120515	~~13~~	~~MS-SSFB-120515~~ W	23	MS018-SS-120515	33	
4	MS003-SS-120515	14	MS010-SS-120515	24	MS002-SS-120515DUP	34	
5	MS004-SS-120515	15	MS110-SS-120515	25	MS002-SS-120515TRP	35	
6	MS005-SS-120515	16	MS011-SS-120515	26	MS110-SS-120515MS	36	
7	MS006-SS-120515	17	MS012-SS-120515	27	MS110-SS-120515~~MSD~~ DUP	37	
~~8~~	~~MS006-SS-120515DL~~	18	MS013-SS-120515	28	MS110-SS-120515~~DUP~~ TRP	38	
9	MS007-SS-120515	19	MS014-SS-120515	29		39	
10	MS008-SS-120515	20	MS015-SS-120515	30		40	

Notes:

LDC #: 27826A6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer: CR
2nd reviewer:

All circled methods are applicable to each sample.

Sample ID	Parameter
1-11, 14-23	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN [✓ NH$_3$] TKN [✓ TOC] Cr6+ ClO$_4$ [✓ TS] [✓ PTS] [✓ Sa] [✓ Grain Size]
1-11, 14-23	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$ [✓ Grain Size]
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
QC 24	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$ [✓ Grain Size]
25	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$ [✓ Grain Size]
26	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN [✓ NH$_3$] TKN [✓ TOC] Cr6+ ClO$_4$ [✓ Sa]
27	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN [✓ NH$_3$] TKN [✓ TOC] Cr6+ ClO$_4$ [✓ TS] [✓ PTS] [✓ Sa]
28	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN [✓ TOC] Cr6+ ClO$_4$ [✓ TS]
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$
	pH TDS Cl F NO$_3$ NO$_2$ SO$_4$ O-PO$_4$ Alk CN NH$_3$ TKN TOC Cr6+ ClO$_4$

Comments:

LDC# 27826A6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: CL
2nd Reviewer:

Inorganics: Method See Cover

Analyte	Concentration (mg/Kg)		RPD (≤50)	
	1	2		
Total Solids (%)	10.20	10.20	0	
Preserved Total Solids (%)	9.70	9.70	0	
Ammonia as N	132	130	2	
Sulfide	2960	3100	5	
Total Organic Carbon (%)	19.6	18.4	6	

Analyte	Concentration (mg/Kg)		RPD (≤50)	
	14	15		
Total Solids (%)	10.60	10.40	2	
Preserved Total Solids (%)	10.50	10.70	2	
Ammonia as N	100	95.6	4	
Sulfide	2030	1750	15	
Total Organic Carbon (%)	11.8	15.7	28	

LDC# 27826A6

VALIDATION FINDINGS WORKSHEET

Field Duplicates

Reviewer: A

2nd Reviewer:

Inorganics: Method See Cover

Sieve Size	Percent Finer (%)		RPD (≤50)	
	1	2		
Gravel: 2000 um	100.0	88.2	13	
Very Coarse Sand: 1000 um	75.6	71.2	6	
Coarse Sand: 500 um	68.4	63.3	8	
Medium Sand: 250 um	63.9	58.5	9	
Fine Sand: 125 um	60.9	55.3	10	
Very Fine Sand: 63 um	58.8	52.9	11	
Slit: 31um	57.5	51.8	10	
Slit: 15.6um	44.4	40.3	10	
Slit: 7.80um	33.1	30.4	9	
Slit: 3.9um	20.6	19.2	7	
Clay: 2 um	17.6	15.9	10	
Clay: 1 um	14.2	12.5	13	

LDC# 27826A6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer:
2nd Reviewer:

Inorganics: Method See Cover

Sieve Size	Percent Finer (%)		RPD (≤50)	
	14	15		
Gravel: 4750 um	97.3	100.0	3	
Gravel: 2000 um	88.6	97.4	9	
Very Coarse Sand: 1000 um	79.1	83.2	5	
Coarse Sand: 500 um	72.1	73.8	2	
Medium Sand: 250 um	66.3	67.4	2	
Fine Sand: 125 um	61.6	62.3	1	
Very Fine Sand: 63 um	57.9	58.5	1	
Slit: 31um	49.8	56.1	12	
Slit: 15.6um	35.3	46.6	28	
Slit: 7.80um	27.2	37.1	31	
Slit: 3.9um	18.4	21.7	16	
Clay: 2 um	15.5	16.1	4	
Clay: 1 um	11.6	12.0	3	

V:\FIELD DUPLICATES\FD_inorganic\27826A6.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Jeld-Wen Maulsby Marsh

Collection Date: May 15, 2012

LDC Report Date: June 25, 2012

Matrix: Sediment/Water

Parameters: Total Petroleum Hydrocarbons as Diesel

Validation Level: Stage 2B

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): UU52/UU62

Sample Identification

MS001-SS-120515
MS101-SS-120515
MS002-SS-120515
MS003-SS-120515
MS004-SS-120515
MS005-SS-120515
MS006-SS-120515
MS007-SS-120515
MS008-SS-120515
MS009-SS-120515
MS-SSRB-120515
MS-SSFB-120515
MS008-SS-120515MS
MS008-SS-120515MSD

Introduction

This data review covers 12 sediment samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per NWTPH-Dx for Total Petroleum Hydrocarbons (TPH) as Diesel.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as diesel contaminants were found in the method blanks.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

Raw data were not reviewed for this SDG.

IX. Compound Quantitation and RLs

Raw data were not reviewed for this SDG.

X. System Performance

Raw data were not reviewed for this SDG.

XI. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Stage 2B data validation all results are considered valid and usable for all purposes.

XII. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 were identified as field duplicates. No total petroleum hydrocarbons as diesel were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD (Limits)
	MS001-SS-120515	MS101-SS-120515	
Diesel	53	54	2 (≤50)
Motor oil	150	140	7 (≤50)

XIII. Field Blanks

Sample MS-SSRB-120515 was identified as a rinsate blank. No total petroleum hydrocarbons as diesel contaminants were found.

Sample MS-SSFB-120515 was identified as a field blank. No total petroleum hydrocarbons as diesel contaminants were found.

Jeld-Wen Maulsby Marsh
Total Petroleum Hydrocarbons as Diesel - Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

Jeld-Wen Maulsby Marsh
Total Petroleum Hydrocarbons as Diesel - Laboratory Blank Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

LDC #: 27826A8 **VALIDATION COMPLETENESS WORKSHEET** Date: 6/20/12
SDG #: UU52/UU62 Stage 2B~~/4~~ Page: 1 of 1
Laboratory: Analytical Resources Inc. Reviewer: JVG
2nd Reviewer: SV

METHOD: GC TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/15/12
II	Initial calibration	A	%RSD ≤ 20%
III.	Calibration verification	A	CCV/ICV ≤ 20%
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	N	
IX.	Compound quantitation/RL/LOQ/LODs	N	
X.	System Performance	N	
XI.	Overall assessment of data	~~A~~ SW JVG	
XII.	Field duplicates	SW	D = 1, 2
XIII.	Field blanks	ND	RB = 12 FB = 13

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: ~~* Level IV~~ Sediment + Water (2)

1	MS001-SS-120515 D	11	MS009-SS-120515	21	MB-052112	31	
2	MS101-SS-120515 D	12	MS-SSRB-120515 W	22	MB-051812	32	
3	MS002-SS-120515 ~~***~~	13	MS-SSFB-120515 ↓	23		33	
4	MS003-SS-120515	14	MS008-SS-120515MS	24		34	
5	MS004-SS-120515	15	MS008-SS-120515MSD	25		35	
6	MS005-SS-120515	16		26		36	
7	MS006-SS-120515	17		27		37	
8	~~MS006-SS-120515DL~~	18		28		38	
9	MS007-SS-120515	19		29		39	
10	MS008-SS-120515	20		30		40	

Notes:

LDC#:27826A8 **VALIDATION FINDINGS WORKSHEET**
Field Duplicates

Page: 1 of 1
Reviewer: JV
2nd Reviewer: JR

METHOD: GC TPH as Diesel (Method NWTPH-Dx)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (mg/kg)		RPD (≤50)
	1	2	
Diesel	53	54	2
Motor Oil	150	140	7

V:\FIELD DUPLICATES\27826A8.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Jeld-Wen Maulsby Marsh

Collection Date: May 15, 2012

LDC Report Date: June 25, 2012

Matrix: Sediment

Parameters: Extractable Petroleum Hydrocarbons

Validation Level: Stage 2B

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): UW85

Sample Identification

MS001-SS-120515
MS002-SS-120515
MS003-SS-120515
MS006-SS-120515
MS001-SS-120515MS
MS001-SS-120515MSD

Introduction

This data review covers 6 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per WDOE Interim Method for Extractable Petroleum Hydrocarbons.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No extractable petroleum hydrocarbons contaminants were found in the method blanks.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

Raw data were not reviewed for this SDG.

IX. Compound Quantitation and RLs

Raw data were not reviewed for this SDG.

X. System Performance

Raw data were not reviewed for this SDG.

XI. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Stage 2B data validation all results are considered valid and usable for all purposes.

XII. Field Duplicates

No field duplicates were identified in this SDG.

XIII. Field Blanks

No field blanks were identified in this SDG.

Jeld-Wen Maulsby Marsh
Extractable Petroleum Hydrocarbons - Data Qualification Summary - SDG UW85

No Sample Data Qualified in this SDG

Jeld-Wen Maulsby Marsh
Extractable Petroleum Hydrocarbons - Laboratory Blank Data Qualification Summary - SDG UW85

No Sample Data Qualified in this SDG

LDC #: 27826B7 (8)

VALIDATION COMPLETENESS WORKSHEET

Stage 2B

Date: 6/20/12

SDG #: UW85

Page: 1 of 1

Laboratory: Analytical Resources Inc.

Reviewer: JV6

2nd Reviewer: [signature]

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B) EPH WDOE Interim Method

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/15/12
II	Initial calibration	A	%RSD ≤ 20%
III.	Calibration verification/ICV	A	CCV/ICV ≤ 20%
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	N	
IX.	Compound quantitation/RL/LOQ/LODs	N	
X.	System Performance	N	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Sediment

1	MS001-SS-120515	11	MB-060412	21		31	
2	MS002-SS-120515	12		22		32	
3	MS003-SS-120515	13		23		33	
4	MS006-SS-120515	14		24		34	
5	MS001-SS-120515MS	15		25		35	
6	MS001-SS-120515MSD	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

Jeld-Wen Maulsby Marsh - LDC 27826

SDG: UU52

Analytical Method	E200.8											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Antimony	5/23/2012	2		Yes	N	U	UJ	8	2	0.12	mg/kg
MS001-SS-120515	12-8893-UU52A	Arsenic	5/23/2012	33		Yes	Y				2	0.82	mg/kg
MS001-SS-120515	12-8893-UU52A	Cadmium	5/23/2012	3.2		Yes	Y				0.9	0.11	mg/kg
MS001-SS-120515	12-8893-UU52A	Silver	5/23/2012	2		Yes	N	U			2	0.076	mg/kg
MS002-SS-120515	12-8895-UU52C	Antimony	5/23/2012	2		Yes	N	U	UJ	8	2	0.12	mg/kg
MS002-SS-120515	12-8895-UU52C	Cadmium	5/23/2012	2.9		Yes	Y				0.9	0.11	mg/kg
MS002-SS-120515	12-8895-UU52C	Arsenic	5/23/2012	27		Yes	Y				2	0.81	mg/kg
MS002-SS-120515	12-8895-UU52C	Silver	5/23/2012	2		Yes	N	U			2	0.075	mg/kg
MS003-SS-120515	12-8896-UU52D	Arsenic	5/23/2012	19		Yes	Y				2	0.81	mg/kg
MS003-SS-120515	12-8896-UU52D	Silver	5/23/2012	2		Yes	N	U			2	0.075	mg/kg
MS003-SS-120515	12-8896-UU52D	Antimony	5/23/2012	2		Yes	N	U	UJ	8	2	0.12	mg/kg
MS003-SS-120515	12-8896-UU52D	Cadmium	5/23/2012	2.2		Yes	Y				0.9	0.11	mg/kg
MS004-SS-120515	12-8897-UU52E	Silver	5/23/2012	2		Yes	N	U			2	0.077	mg/kg
MS004-SS-120515	12-8897-UU52E	Antimony	5/23/2012	2		Yes	N	U	UJ	8	2	0.13	mg/kg
MS004-SS-120515	12-8897-UU52E	Arsenic	5/23/2012	24		Yes	Y				2	0.84	mg/kg
MS004-SS-120515	12-8897-UU52E	Cadmium	5/23/2012	3		Yes	Y				1	0.12	mg/kg
MS005-SS-120515	12-8898-UU52F	Arsenic	5/23/2012	55		Yes	Y				2	1.0	mg/kg
MS005-SS-120515	12-8898-UU52F	Antimony	5/23/2012	3		Yes	Y		J	8	2	0.15	mg/kg
MS005-SS-120515	12-8898-UU52F	Silver	5/23/2012	2		Yes	N	U			2	0.095	mg/kg
MS005-SS-120515	12-8898-UU52F	Cadmium	5/23/2012	3		Yes	Y				1	0.14	mg/kg
MS006-SS-120515	12-8899-UU52G	Cadmium	5/23/2012	3		Yes	Y				1	0.12	mg/kg
MS006-SS-120515	12-8899-UU52G	Antimony	5/23/2012	5		Yes	Y		J	8	2	0.13	mg/kg
MS006-SS-120515	12-8899-UU52G	Silver	5/23/2012	2		Yes	N	U			2	0.079	mg/kg
MS006-SS-120515	12-8899-UU52G	Arsenic	5/23/2012	80		Yes	Y				2	0.86	mg/kg

SDG: UU52

Analytical Method E200.8

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS007-SS-120515	12-8900-UU52H	Antimony	5/23/2012	1	Yes	N	U	UJ	8	1	0.077	mg/kg
MS007-SS-120515	12-8900-UU52H	Cadmium	5/23/2012	3.7	Yes	Y				0.6	0.071	mg/kg
MS007-SS-120515	12-8900-UU52H	Arsenic	5/23/2012	28	Yes	Y				1	0.51	mg/kg
MS007-SS-120515	12-8900-UU52H	Silver	5/23/2012	1	Yes	N	U			1	0.047	mg/kg
MS008-SS-120515	12-8901-UU52I	Cadmium	5/23/2012	3	Yes	Y				0.9	0.10	mg/kg
MS008-SS-120515	12-8901-UU52I	Arsenic	5/23/2012	27	Yes	Y				2	0.75	mg/kg
MS008-SS-120515	12-8901-UU52I	Antimony	5/23/2012	2	Yes	N	U	UJ	8	2	0.11	mg/kg
MS008-SS-120515	12-8901-UU52I	Silver	5/23/2012	2	Yes	N	U			2	0.069	mg/kg
MS009-SS-120515	12-8902-UU52J	Arsenic	5/23/2012	8	Yes	Y				2	0.83	mg/kg
MS009-SS-120515	12-8902-UU52J	Silver	5/23/2012	2	Yes	N	U			2	0.076	mg/kg
MS009-SS-120515	12-8902-UU52J	Cadmium	5/23/2012	2	Yes	Y				1	0.11	mg/kg
MS009-SS-120515	12-8902-UU52J	Antimony	5/23/2012	2	Yes	N	U	UJ	8	2	0.12	mg/kg
MS101-SS-120515	12-8894-UU52B	Cadmium	5/23/2012	3.4	Yes	Y				0.9	0.11	mg/kg
MS101-SS-120515	12-8894-UU52B	Silver	5/23/2012	2	Yes	N	U			2	0.074	mg/kg
MS101-SS-120515	12-8894-UU52B	Antimony	5/23/2012	2	Yes	N	U	UJ	8	2	0.12	mg/kg
MS101-SS-120515	12-8894-UU52B	Arsenic	5/23/2012	33	Yes	Y				2	0.81	mg/kg

Analytical Method E350.1M

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Ammonia	5/21/2012	132	Yes	Y				1.94	0.06000	mg/kg
MS002-SS-120515	12-8895-UU52C	Ammonia	5/21/2012	213	Yes	Y				5.02	0.15000	mg/kg
MS003-SS-120515	12-8896-UU52D	Ammonia	5/21/2012	170	Yes	Y				2.28	0.06000	mg/kg
MS004-SS-120515	12-8897-UU52E	Ammonia	5/21/2012	178	Yes	Y				4.85	0.15000	mg/kg
MS005-SS-120515	12-8898-UU52F	Ammonia	5/21/2012	71.1	Yes	Y				1.15	0.03000	mg/kg
MS006-SS-120515	12-8899-UU52G	Ammonia	5/21/2012	17.9	Yes	Y				1.02	0.03000	mg/kg
MS007-SS-120515	12-8900-UU52H	Ammonia	5/21/2012	33.2	Yes	Y				0.59	0.03000	mg/kg

SDG: UU52

Analytical Method	E350.1M											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS008-SS-120515	12-8901-UU52I	Ammonia	5/21/2012	12.6		Yes	Y				0.99	0.03000	mg/kg
MS009-SS-120515	12-8902-UU52J	Ammonia	5/21/2012	117		Yes	Y				2.06	0.06000	mg/kg
MS010-SS-120515	12-8903-UU52K	Ammonia	5/21/2012	100		Yes	Y				1.76	0.06000	mg/kg
MS101-SS-120515	12-8894-UU52B	Ammonia	5/21/2012	130		Yes	Y				1.99	0.06000	mg/kg

Analytical Method	E376.2											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Sulfide	5/18/2012	2960		Yes	Y				207	0.15000	mg/kg
MS002-SS-120515	12-8895-UU52C	Sulfide	5/18/2012	2350		Yes	Y				197	0.15000	mg/kg
MS003-SS-120515	12-8896-UU52D	Sulfide	5/18/2012	3640		Yes	Y				201	0.15000	mg/kg
MS004-SS-120515	12-8897-UU52E	Sulfide	5/18/2012	4070		Yes	Y				207	0.15000	mg/kg
MS005-SS-120515	12-8898-UU52F	Sulfide	5/18/2012	1840		Yes	Y				118	0.07500	mg/kg
MS006-SS-120515	12-8899-UU52G	Sulfide	5/18/2012	20.5		Yes	Y				14.1	0.00750	mg/kg
MS007-SS-120515	12-8900-UU52H	Sulfide	5/18/2012	718		Yes	Y				52.6	0.07500	mg/kg
MS008-SS-120515	12-8901-UU52I	Sulfide	5/18/2012	1770		Yes	Y				113	0.07500	mg/kg
MS009-SS-120515	12-8902-UU52J	Sulfide	5/18/2012	1720		Yes	Y				89.8	0.07500	mg/kg
MS010-SS-120515	12-8903-UU52K	Sulfide	5/18/2012	2030		Yes	Y				177	0.15000	mg/kg
MS101-SS-120515	12-8894-UU52B	Sulfide	5/18/2012	3100		Yes	Y				206	0.15000	mg/kg

Analytical Method	NWTPHDx											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Diesel Range Hydrocarbons	5/22/2012	53		Yes	Y				51	13	mg/kg
MS001-SS-120515	12-8893-UU52A	Motor Oil Range	5/22/2012	150		Yes	Y				100	16	mg/kg
MS002-SS-120515	12-8895-UU52C	Motor Oil Range	5/22/2012	180		Yes	Y				97	15	mg/kg
MS002-SS-120515	12-8895-UU52C	Diesel Range Hydrocarbons	5/22/2012	69		Yes	Y				48	12	mg/kg
MS003-SS-120515	12-8896-UU52D	Diesel Range Hydrocarbons	5/22/2012	71		Yes	Y				53	14	mg/kg
MS003-SS-120515	12-8896-UU52D	Motor Oil Range	5/22/2012	170		Yes	Y				110	17	mg/kg

SDG: UU52

Analytical Method	NWTPHDx											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS004-SS-120515	12-8897-UU52E	Diesel Range Hydrocarbons	5/22/2012	52	Yes	N	U			52	13	mg/kg
MS004-SS-120515	12-8897-UU52E	Motor Oil Range	5/22/2012	110	Yes	Y				100	16	mg/kg
MS005-SS-120515	12-8898-UU52F	Diesel Range Hydrocarbons	5/22/2012	54	Yes	N	U			54	14	mg/kg
MS005-SS-120515	12-8898-UU52F	Motor Oil Range	5/22/2012	160	Yes	Y				110	17	mg/kg
MS006-SS-120515	12-8899-UU52G	Motor Oil Range	5/22/2012	190	Yes	Y				110	17	mg/kg
MS006-SS-120515	12-8899-UU52G	Diesel Range Hydrocarbons	5/22/2012	64	Yes	Y				53	14	mg/kg
MS007-SS-120515	12-8900-UU52H	Motor Oil Range	5/22/2012	120	Yes	Y				61	9.6	mg/kg
MS007-SS-120515	12-8900-UU52H	Diesel Range Hydrocarbons	5/22/2012	37	Yes	Y				31	7.9	mg/kg
MS008-SS-120515	12-8901-UU52I	Motor Oil Range	5/22/2012	120	Yes	Y				90	14	mg/kg
MS008-SS-120515	12-8901-UU52I	Diesel Range Hydrocarbons	5/22/2012	45	Yes	N	U			45	12	mg/kg
MS009-SS-120515	12-8902-UU52J	Motor Oil Range	5/22/2012	100	Yes	N	U			100	16	mg/kg
MS009-SS-120515	12-8902-UU52J	Diesel Range Hydrocarbons	5/22/2012	50	Yes	N	U			50	13	mg/kg
MS101-SS-120515	12-8894-UU52B	Diesel Range Hydrocarbons	5/22/2012	54	Yes	Y				50	13	mg/kg
MS101-SS-120515	12-8894-UU52B	Motor Oil Range	5/22/2012	140	Yes	Y				100	16	mg/kg

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Silt, Very Fine	5/25/2012	12.4	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Sand, Medium	5/25/2012	4.5	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Sand, Fine	5/25/2012	3	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Sand, Coarse	5/25/2012	7.1	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Gravel	5/25/2012	0.1	Yes	N	U			0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Fines (silt + clay)	5/25/2012	58.8	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Clay, Medium	5/25/2012	3.3	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Clay, Fine	5/25/2012	14.2	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Clay, Coarse	5/25/2012	3.1	Yes	Y				0.1	0.1	pct

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Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Sand, Very Fine	5/25/2012	2.1	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Silt, Coarse	5/25/2012	1.3	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Silt, Fine	5/25/2012	11.3	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Sand, Very Coarse	5/25/2012	24.4	Yes	Y				0.1	0.1	pct
MS001-SS-120515	12-8893-UU52A	Silt, Medium	5/25/2012	13.1	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Sand, Very Coarse	5/25/2012	14.2	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Clay, Fine	5/25/2012	12.2	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Clay, Medium	5/25/2012	5.4	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Fines (silt + clay)	5/25/2012	69.8	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Gravel	5/25/2012	0.4	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Sand, Coarse	5/25/2012	6	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Sand, Fine	5/25/2012	3	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Sand, Medium	5/25/2012	4.4	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Sand, Very Fine	5/25/2012	2.3	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Silt, Fine	5/25/2012	12.2	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Silt, Medium	5/25/2012	18.8	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Silt, Very Fine	5/25/2012	15.2	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Clay, Coarse	5/25/2012	4.5	Yes	Y				0.1	0.1	pct
MS002-SS-120515	12-8895-UU52C	Silt, Coarse	5/25/2012	1.5	Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Sand, Medium	5/25/2012	5.7	Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Silt, Medium	5/25/2012	24.5	Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Silt, Fine	5/25/2012	7.7	Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Silt, Coarse	5/25/2012	5.2	Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Silt, Very Fine	5/25/2012	5.9	Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Clay, Coarse	5/25/2012	1.3	Yes	Y				0.1	0.1	pct

SDG: UU52

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS003-SS-120515	12-8896-UU52D	Sand, Very Coarse	5/25/2012	11.8		Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Sand, Fine	5/25/2012	4		Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Sand, Coarse	5/25/2012	8.1		Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Gravel	5/25/2012	7.5		Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Fines (silt + clay)	5/25/2012	60.1		Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Clay, Medium	5/25/2012	2.5		Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Clay, Fine	5/25/2012	12.9		Yes	Y				0.1	0.1	pct
MS003-SS-120515	12-8896-UU52D	Sand, Very Fine	5/25/2012	2.7		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Gravel	5/25/2012	4.6		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Silt, Coarse	5/25/2012	4.2		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Sand, Very Coarse	5/25/2012	8.2		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Sand, Medium	5/25/2012	6.7		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Silt, Medium	5/25/2012	25.2		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Sand, Coarse	5/25/2012	7.5		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Silt, Fine	5/25/2012	8.4		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Fines (silt + clay)	5/25/2012	64.1		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Clay, Medium	5/25/2012	3.7		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Clay, Fine	5/25/2012	11.8		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Clay, Coarse	5/25/2012	3.2		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Sand, Fine	5/25/2012	5.3		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Sand, Very Fine	5/25/2012	3.7		Yes	Y				0.1	0.1	pct
MS004-SS-120515	12-8897-UU52E	Silt, Very Fine	5/25/2012	7.5		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Sand, Very Fine	5/25/2012	4.1		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Clay, Coarse	5/25/2012	4.8		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Fines (silt + clay)	5/25/2012	35.6		Yes	Y				0.1	0.1	pct

SDG: UU52

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS005-SS-120515	12-8898-UU52F	Sand, Coarse	5/25/2012	11.2		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Sand, Fine	5/25/2012	6.6		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Sand, Very Coarse	5/25/2012	13.9		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Silt, Coarse	5/25/2012	2.8		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Silt, Fine	5/25/2012	6.5		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Silt, Medium	5/25/2012	4.1		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Silt, Very Fine	5/25/2012	6		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Clay, Fine	5/25/2012	9.1		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Clay, Medium	5/25/2012	2.3		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Gravel	5/25/2012	19.1		Yes	Y				0.1	0.1	pct
MS005-SS-120515	12-8898-UU52F	Sand, Medium	5/25/2012	9.5		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Sand, Very Fine	5/25/2012	4.9		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Silt, Very Fine	5/25/2012	2.9		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Silt, Medium	5/25/2012	2.4		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Silt, Coarse	5/25/2012	3.3		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Sand, Very Coarse	5/25/2012	19		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Sand, Medium	5/25/2012	12.6		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Sand, Fine	5/25/2012	8		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Sand, Coarse	5/25/2012	16.5		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Gravel	5/25/2012	16.2		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Fines (silt + clay)	5/25/2012	22.7		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Clay, Medium	5/25/2012	2.3		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Clay, Fine	5/25/2012	5		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Clay, Coarse	5/25/2012	3.4		Yes	Y				0.1	0.1	pct
MS006-SS-120515	12-8899-UU52G	Silt, Fine	5/25/2012	3.5		Yes	Y				0.1	0.1	pct

SDG: UU52

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS007-SS-120515	12-8900-UU52H	Silt, Medium	5/25/2012	9.7		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Clay, Coarse	5/25/2012	2.2		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Clay, Fine	5/25/2012	5.3		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Clay, Medium	5/25/2012	2.2		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Fines (silt + clay)	5/25/2012	44.8		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Sand, Coarse	5/25/2012	9.7		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Sand, Fine	5/25/2012	9.6		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Sand, Medium	5/25/2012	8.2		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Sand, Very Coarse	5/25/2012	16.4		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Sand, Very Fine	5/25/2012	10.2		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Silt, Fine	5/25/2012	7.2		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Gravel	5/25/2012	1.2		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Silt, Very Fine	5/25/2012	6.9		Yes	Y				0.1	0.1	pct
MS007-SS-120515	12-8900-UU52H	Silt, Coarse	5/25/2012	11.2		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Clay, Fine	5/25/2012	3.4		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Silt, Very Fine	5/25/2012	4.1		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Silt, Medium	5/25/2012	2.6		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Silt, Fine	5/25/2012	4.3		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Silt, Coarse	5/25/2012	5.2		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Sand, Very Fine	5/25/2012	3.1		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Sand, Very Coarse	5/25/2012	11.4		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Sand, Medium	5/25/2012	5.4		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Sand, Fine	5/25/2012	4.2		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Sand, Coarse	5/25/2012	7.2		Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Gravel	5/25/2012	44.1		Yes	Y				0.1	0.1	pct

SDG: UU52

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS008-SS-120515	12-8901-UU52I	Clay, Medium	5/25/2012	2	Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Clay, Coarse	5/25/2012	3	Yes	Y				0.1	0.1	pct
MS008-SS-120515	12-8901-UU52I	Fines (silt + clay)	5/25/2012	24.6	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Fines (silt + clay)	5/25/2012	63.2	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Clay, Coarse	5/25/2012	4.2	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Clay, Medium	5/25/2012	4.1	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Gravel	5/25/2012	5.5	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Sand, Fine	5/25/2012	5.3	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Sand, Medium	5/25/2012	6.3	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Sand, Very Coarse	5/25/2012	8.3	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Sand, Very Fine	5/25/2012	4.5	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Silt, Coarse	5/25/2012	10.3	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Silt, Fine	5/25/2012	9	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Silt, Medium	5/25/2012	12.2	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Silt, Very Fine	5/25/2012	10.7	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Clay, Fine	5/25/2012	12.7	Yes	Y				0.1	0.1	pct
MS009-SS-120515	12-8902-UU52J	Sand, Coarse	5/25/2012	7	Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Clay, Fine	5/25/2012	11.6	Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Silt, Fine	5/25/2012	8.1	Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Silt, Coarse	5/25/2012	8.1	Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Sand, Very Fine	5/25/2012	3.8	Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Sand, Very Coarse	5/25/2012	9.5	Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Clay, Coarse	5/25/2012	2.9	Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Silt, Medium	5/25/2012	14.5	Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Clay, Medium	5/25/2012	3.9	Yes	Y				0.1	0.1	pct

SDG: UU52

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS010-SS-120515	12-8903-UU52K	Fines (silt + clay)	5/25/2012	57.9		Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Gravel	5/25/2012	11.4		Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Sand, Coarse	5/25/2012	7.1		Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Sand, Fine	5/25/2012	4.7		Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Sand, Medium	5/25/2012	5.8		Yes	Y				0.1	0.1	pct
MS010-SS-120515	12-8903-UU52K	Silt, Very Fine	5/25/2012	8.7		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Sand, Medium	5/25/2012	4.8		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Fines (silt + clay)	5/25/2012	52.9		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Gravel	5/25/2012	11.8		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Clay, Fine	5/25/2012	12.5		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Silt, Coarse	5/25/2012	1		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Sand, Very Fine	5/25/2012	2.4		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Sand, Very Coarse	5/25/2012	17.1		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Silt, Fine	5/25/2012	9.9		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Sand, Fine	5/25/2012	3.2		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Silt, Medium	5/25/2012	11.5		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Clay, Medium	5/25/2012	3.4		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Clay, Coarse	5/25/2012	3.4		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Silt, Very Fine	5/25/2012	11.2		Yes	Y				0.1	0.1	pct
MS101-SS-120515	12-8894-UU52B	Sand, Coarse	5/25/2012	7.9		Yes	Y				0.1	0.1	pct

Analytical Method	SM2540B											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Total solids	5/22/2012	10.2		Yes	Y				0.01		pct
MS002-SS-120515	12-8895-UU52C	Total solids	5/22/2012	10.4		Yes	Y				0.01		pct
MS003-SS-120515	12-8896-UU52D	Total solids	5/22/2012	9.3		Yes	Y				0.01		pct

SDG: UU52

Analytical Method	SM2540B											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS004-SS-120515	12-8897-UU52E	Total solids	5/22/2012	10.3	Yes	Y				0.01		pct
MS005-SS-120515	12-8898-UU52F	Total solids	5/22/2012	9.2	Yes	Y				0.01		pct
MS006-SS-120515	12-8899-UU52G	Total solids	5/22/2012	9.8	Yes	Y				0.01		pct
MS007-SS-120515	12-8900-UU52H	Total solids	5/22/2012	16.8	Yes	Y				0.01		pct
MS008-SS-120515	12-8901-UU52I	Total solids	5/22/2012	10.7	Yes	Y				0.01		pct
MS009-SS-120515	12-8902-UU52J	Total solids	5/22/2012	10.1	Yes	Y				0.01		pct
MS010-SS-120515	12-8903-UU52K	Total solids	5/22/2012	10.6	Yes	Y				0.01		pct
MS101-SS-120515	12-8894-UU52B	Total solids	5/22/2012	10.2	Yes	Y				0.01		pct

Analytical Method	SM2540B-PRES											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Total solids (preserved)	5/21/2012	9.7	Yes	Y				0.01		pct
MS002-SS-120515	12-8895-UU52C	Total solids (preserved)	5/21/2012	10.5	Yes	Y				0.01		pct
MS003-SS-120515	12-8896-UU52D	Total solids (preserved)	5/21/2012	10.9	Yes	Y				0.01		pct
MS004-SS-120515	12-8897-UU52E	Total solids (preserved)	5/21/2012	10	Yes	Y				0.01		pct
MS005-SS-120515	12-8898-UU52F	Total solids (preserved)	5/21/2012	8.3	Yes	Y				0.01		pct
MS006-SS-120515	12-8899-UU52G	Total solids (preserved)	5/21/2012	6.9	Yes	Y				0.01		pct
MS007-SS-120515	12-8900-UU52H	Total solids (preserved)	5/21/2012	19	Yes	Y				0.01		pct
MS008-SS-120515	12-8901-UU52I	Total solids (preserved)	5/21/2012	8.1	Yes	Y				0.01		pct
MS009-SS-120515	12-8902-UU52J	Total solids (preserved)	5/21/2012	10.6	Yes	Y				0.01		pct
MS010-SS-120515	12-8903-UU52K	Total solids (preserved)	5/21/2012	10.5	Yes	Y				0.01		pct
MS101-SS-120515	12-8894-UU52B	Total solids (preserved)	5/21/2012	9.7	Yes	Y				0.01		pct

Analytical Method	SW6010C											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Copper	5/29/2012	129	Yes	Y				2	0.48	mg/kg
MS001-SS-120515	12-8893-UU52A	Lead	5/29/2012	170	Yes	Y				20	1.2	mg/kg

SDG: UU52

Analytical Method SW6010C

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Chromium	5/29/2012	37		Yes	Y				5	2.6	mg/kg
MS001-SS-120515	12-8893-UU52A	Zinc	5/29/2012	400		Yes	Y				10	1.2	mg/kg
MS001-SS-120515	12-8893-UU52A	Nickel	5/29/2012	50		Yes	Y				10	2.9	mg/kg
MS002-SS-120515	12-8895-UU52C	Lead	5/29/2012	150		Yes	Y				20	1.2	mg/kg
MS002-SS-120515	12-8895-UU52C	Zinc	5/29/2012	330		Yes	Y				9	1.1	mg/kg
MS002-SS-120515	12-8895-UU52C	Nickel	5/29/2012	46		Yes	Y				9	2.7	mg/kg
MS002-SS-120515	12-8895-UU52C	Chromium	5/29/2012	41		Yes	Y				5	2.4	mg/kg
MS002-SS-120515	12-8895-UU52C	Copper	5/29/2012	139		Yes	Y				2	0.45	mg/kg
MS003-SS-120515	12-8896-UU52D	Zinc	5/29/2012	210		Yes	Y				10	1.2	mg/kg
MS003-SS-120515	12-8896-UU52D	Copper	5/29/2012	78		Yes	Y				2	0.49	mg/kg
MS003-SS-120515	12-8896-UU52D	Chromium	5/29/2012	32		Yes	Y				5	2.6	mg/kg
MS003-SS-120515	12-8896-UU52D	Nickel	5/29/2012	30		Yes	Y				10	2.9	mg/kg
MS003-SS-120515	12-8896-UU52D	Lead	5/29/2012	100		Yes	Y				20	1.3	mg/kg
MS004-SS-120515	12-8897-UU52E	Chromium	5/29/2012	34		Yes	Y				5	2.6	mg/kg
MS004-SS-120515	12-8897-UU52E	Copper	5/29/2012	99		Yes	Y				2	0.49	mg/kg
MS004-SS-120515	12-8897-UU52E	Nickel	5/29/2012	40		Yes	Y				10	2.9	mg/kg
MS004-SS-120515	12-8897-UU52E	Lead	5/29/2012	110		Yes	Y				20	1.3	mg/kg
MS004-SS-120515	12-8897-UU52E	Zinc	5/29/2012	260		Yes	Y				10	1.2	mg/kg
MS005-SS-120515	12-8898-UU52F	Copper	5/29/2012	251		Yes	Y				2	0.61	mg/kg
MS005-SS-120515	12-8898-UU52F	Zinc	5/29/2012	500		Yes	Y				10	1.5	mg/kg
MS005-SS-120515	12-8898-UU52F	Chromium	5/29/2012	25		Yes	Y				6	3.3	mg/kg
MS005-SS-120515	12-8898-UU52F	Nickel	5/29/2012	40		Yes	Y				10	3.6	mg/kg
MS005-SS-120515	12-8898-UU52F	Lead	5/29/2012	1180		Yes	Y				20	1.6	mg/kg
MS006-SS-120515	12-8899-UU52G	Zinc	5/29/2012	217		Yes	Y				9	1.1	mg/kg
MS006-SS-120515	12-8899-UU52G	Chromium	5/29/2012	17		Yes	Y				5	2.6	mg/kg

SDG: UU52

Analytical Method	SW6010C											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS006-SS-120515	12-8899-UU52G	Nickel	5/29/2012	33		Yes	Y				9	2.8	mg/kg
MS006-SS-120515	12-8899-UU52G	Lead	5/29/2012	360		Yes	Y				20	1.2	mg/kg
MS006-SS-120515	12-8899-UU52G	Copper	5/29/2012	91		Yes	Y				2	0.47	mg/kg
MS007-SS-120515	12-8900-UU52H	Lead	5/29/2012	350		Yes	Y				10	0.74	mg/kg
MS007-SS-120515	12-8900-UU52H	Zinc	5/29/2012	594		Yes	Y				6	0.68	mg/kg
MS007-SS-120515	12-8900-UU52H	Nickel	5/29/2012	44		Yes	Y				6	1.7	mg/kg
MS007-SS-120515	12-8900-UU52H	Copper	5/29/2012	111		Yes	Y				1	0.28	mg/kg
MS007-SS-120515	12-8900-UU52H	Chromium	5/29/2012	40		Yes	Y				3	1.5	mg/kg
MS008-SS-120515	12-8901-UU52I	Nickel	5/29/2012	37		Yes	Y				9	2.7	mg/kg
MS008-SS-120515	12-8901-UU52I	Lead	5/29/2012	160		Yes	Y				20	1.2	mg/kg
MS008-SS-120515	12-8901-UU52I	Zinc	5/29/2012	251		Yes	Y				9	1.1	mg/kg
MS008-SS-120515	12-8901-UU52I	Copper	5/29/2012	94		Yes	Y				2	0.44	mg/kg
MS008-SS-120515	12-8901-UU52I	Chromium	5/29/2012	37		Yes	Y				4	2.4	mg/kg
MS009-SS-120515	12-8902-UU52J	Nickel	5/29/2012	38		Yes	Y				9	2.7	mg/kg
MS009-SS-120515	12-8902-UU52J	Lead	5/29/2012	60		Yes	Y				20	1.2	mg/kg
MS009-SS-120515	12-8902-UU52J	Zinc	5/29/2012	162		Yes	Y				9	1.1	mg/kg
MS009-SS-120515	12-8902-UU52J	Chromium	5/29/2012	43		Yes	Y				4	2.4	mg/kg
MS009-SS-120515	12-8902-UU52J	Copper	5/29/2012	66		Yes	Y				2	0.45	mg/kg
MS101-SS-120515	12-8894-UU52B	Copper	5/29/2012	125		Yes	Y				2	0.47	mg/kg
MS101-SS-120515	12-8894-UU52B	Chromium	5/29/2012	38		Yes	Y				5	2.5	mg/kg
MS101-SS-120515	12-8894-UU52B	Nickel	5/29/2012	42		Yes	Y				9	2.8	mg/kg
MS101-SS-120515	12-8894-UU52B	Lead	5/29/2012	170		Yes	Y				20	1.2	mg/kg
MS101-SS-120515	12-8894-UU52B	Zinc	5/29/2012	374		Yes	Y				9	1.1	mg/kg

Analytical Method	SW7471A											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units

SDG: UU52

Analytical Method	SW7471A											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
MS001-SS-120515	12-8893-UU52A	Mercury	5/21/2012	0.4	Yes	Y				0.2	0.011	mg/kg
MS002-SS-120515	12-8895-UU52C	Mercury	5/21/2012	0.3	Yes	Y				0.2	0.0092	mg/kg
MS003-SS-120515	12-8896-UU52D	Mercury	5/21/2012	0.3	Yes	Y				0.2	0.010	mg/kg
MS004-SS-120515	12-8897-UU52E	Mercury	5/21/2012	0.2	Yes	Y				0.2	0.0097	mg/kg
MS005-SS-120515	12-8898-UU52F	Mercury	5/21/2012	0.4	Yes	Y				0.3	0.015	mg/kg
MS006-SS-120515	12-8899-UU52G	Mercury	5/21/2012	0.7	Yes	Y				0.2	0.012	mg/kg
MS007-SS-120515	12-8900-UU52H	Mercury	5/21/2012	0.2	Yes	Y				0.1	0.0062	mg/kg
MS008-SS-120515	12-8901-UU52I	Mercury	5/21/2012	0.2	Yes	Y				0.2	0.010	mg/kg
MS009-SS-120515	12-8902-UU52J	Mercury	5/21/2012	0.2	Yes	Y				0.2	0.0088	mg/kg
MS101-SS-120515	12-8894-UU52B	Mercury	5/21/2012	0.4	Yes	Y				0.2	0.0093	mg/kg

Analytical Method	SW8081B											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
MS001-SS-120515	12-8893-UU52A	4,4'-DDT (p,p'-DDT)	5/26/2012	99	Yes	N	U			99	19	ug/kg
MS001-SS-120515	12-8893-UU52A	Dieldrin	5/26/2012	99	Yes	N	U			99	9.9	ug/kg
MS001-SS-120515	12-8893-UU52A	4,4'-DDD (p,p'-DDD)	5/26/2012	99	Yes	N	U			99	13	ug/kg
MS001-SS-120515	12-8893-UU52A	4,4'-DDE (p,p'-DDE)	5/26/2012	99	Yes	N	U			99	12	ug/kg
MS001-SS-120515	12-8893-UU52A	Endrin ketone	5/26/2012	99	Yes	N	U			99	12	ug/kg
MS001-SS-120515	12-8893-UU52A	Hexachlorocyclohexane, beta- (BHC)	5/26/2012	50	Yes	N	U			50	14	ug/kg
MS001-SS-120515	12-8893-UU52AD	4,4'-DDD (p,p'-DDD)	5/25/2012	990	No	N	U	R	22	990	130	ug/kg
MS001-SS-120515	12-8893-UU52AD	Dieldrin	5/25/2012	990	No	N	U	R	22	990	99	ug/kg
MS001-SS-120515	12-8893-UU52AD	Endrin ketone	5/25/2012	990	No	N	U	R	22	990	120	ug/kg
MS001-SS-120515	12-8893-UU52AD	4,4'-DDE (p,p'-DDE)	5/25/2012	990	No	N	U	R	22	990	120	ug/kg
MS001-SS-120515	12-8893-UU52AD	Hexachlorocyclohexane, beta- (BHC)	5/25/2012	500	No	N	U	R	22	500	140	ug/kg
MS001-SS-120515	12-8893-UU52AD	4,4'-DDT (p,p'-DDT)	5/25/2012	990	No	N	U	R	22	990	190	ug/kg
MS002-SS-120515	12-8895-UU52C	4,4'-DDD (p,p'-DDD)	5/26/2012	99	Yes	N	U			99	13	ug/kg

SDG: UU52

Analytical Method SW8081B

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS002-SS-120515	12-8895-UU52C	Dieldrin	5/26/2012	99		Yes	N	U			99	9.9	ug/kg
MS002-SS-120515	12-8895-UU52C	Endrin ketone	5/26/2012	99		Yes	N	U			99	12	ug/kg
MS002-SS-120515	12-8895-UU52C	4,4'-DDT (p,p'-DDT)	5/26/2012	99		Yes	N	U			99	19	ug/kg
MS002-SS-120515	12-8895-UU52C	Hexachlorocyclohexane, beta- (BHC)	5/26/2012	50		Yes	N	U			50	14	ug/kg
MS002-SS-120515	12-8895-UU52C	4,4'-DDE (p,p'-DDE)	5/26/2012	99		Yes	N	U			99	12	ug/kg
MS002-SS-120515	12-8895-UU52CD	Endrin ketone	5/25/2012	5000		No	N	U	R	22	5000	590	ug/kg
MS002-SS-120515	12-8895-UU52CD	4,4'-DDT (p,p'-DDT)	5/25/2012	5000		No	N	U	R	22	5000	950	ug/kg
MS002-SS-120515	12-8895-UU52CD	Dieldrin	5/25/2012	5000		No	N	U	R	22	5000	500	ug/kg
MS002-SS-120515	12-8895-UU52CD	4,4'-DDD (p,p'-DDD)	5/25/2012	5000		No	N	U	R	22	5000	670	ug/kg
MS002-SS-120515	12-8895-UU52CD	4,4'-DDE (p,p'-DDE)	5/25/2012	5000		No	N	U	R	22	5000	620	ug/kg
MS002-SS-120515	12-8895-UU52CD	Hexachlorocyclohexane, beta- (BHC)	5/25/2012	2500		No	N	U	R	22	2500	690	ug/kg
MS003-SS-120515	12-8896-UU52D	Endrin ketone	5/26/2012	99		Yes	N	U			99	12	ug/kg
MS003-SS-120515	12-8896-UU52D	4,4'-DDE (p,p'-DDE)	5/26/2012	99		Yes	N	U			99	12	ug/kg
MS003-SS-120515	12-8896-UU52D	4,4'-DDD (p,p'-DDD)	5/26/2012	99		Yes	N	U			99	13	ug/kg
MS003-SS-120515	12-8896-UU52D	Dieldrin	5/26/2012	99		Yes	N	U			99	9.9	ug/kg
MS003-SS-120515	12-8896-UU52D	4,4'-DDT (p,p'-DDT)	5/26/2012	99		Yes	N	U			99	19	ug/kg
MS003-SS-120515	12-8896-UU52D	Hexachlorocyclohexane, beta- (BHC)	5/26/2012	50		Yes	N	U			50	14	ug/kg
MS003-SS-120515	12-8896-UU52DD	Hexachlorocyclohexane, beta- (BHC)	5/25/2012	500		No	N	U	R	22	500	140	ug/kg
MS003-SS-120515	12-8896-UU52DD	Dieldrin	5/25/2012	990		No	N	U	R	22	990	99	ug/kg
MS003-SS-120515	12-8896-UU52DD	4,4'-DDE (p,p'-DDE)	5/25/2012	990		No	N	U	R	22	990	120	ug/kg
MS003-SS-120515	12-8896-UU52DD	Endrin ketone	5/25/2012	990		No	N	U	R	22	990	120	ug/kg
MS003-SS-120515	12-8896-UU52DD	4,4'-DDT (p,p'-DDT)	5/25/2012	990		No	N	U	R	22	990	190	ug/kg
MS003-SS-120515	12-8896-UU52DD	4,4'-DDD (p,p'-DDD)	5/25/2012	990		No	N	U	R	22	990	130	ug/kg
MS004-SS-120515	12-8897-UU52E	4,4'-DDD (p,p'-DDD)	5/26/2012	100		Yes	N	U			100	13	ug/kg
MS004-SS-120515	12-8897-UU52E	Dieldrin	5/26/2012	100		Yes	N	U			100	9.9	ug/kg

SDG: UU52

Analytical Method SW8081B

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS004-SS-120515	12-8897-UU52E	4,4'-DDT (p,p'-DDT)	5/26/2012	100		Yes	N	U			100	19	ug/kg
MS004-SS-120515	12-8897-UU52E	4,4'-DDE (p,p'-DDE)	5/26/2012	100		Yes	N	U			100	12	ug/kg
MS004-SS-120515	12-8897-UU52E	Hexachlorocyclohexane, beta- (BHC)	5/26/2012	50		Yes	N	U			50	14	ug/kg
MS004-SS-120515	12-8897-UU52E	Endrin ketone	5/26/2012	100		Yes	N	U			100	12	ug/kg
MS004-SS-120515	12-8897-UU52ED	4,4'-DDD (p,p'-DDD)	5/25/2012	1000		No	N	U	R	22	1000	130	ug/kg
MS004-SS-120515	12-8897-UU52ED	Dieldrin	5/25/2012	1000		No	N	U	R	22	1000	99	ug/kg
MS004-SS-120515	12-8897-UU52ED	Endrin ketone	5/25/2012	1000		No	N	U	R	22	1000	120	ug/kg
MS004-SS-120515	12-8897-UU52ED	4,4'-DDT (p,p'-DDT)	5/25/2012	1000		No	N	U	R	22	1000	190	ug/kg
MS004-SS-120515	12-8897-UU52ED	Hexachlorocyclohexane, beta- (BHC)	5/25/2012	500		No	N	U	R	22	500	140	ug/kg
MS004-SS-120515	12-8897-UU52ED	4,4'-DDE (p,p'-DDE)	5/25/2012	1000		No	N	U	R	22	1000	120	ug/kg
MS005-SS-120515	12-8898-UU52F	4,4'-DDT (p,p'-DDT)	5/26/2012	99		Yes	N	U			99	19	ug/kg
MS005-SS-120515	12-8898-UU52F	4,4'-DDE (p,p'-DDE)	5/26/2012	99		Yes	N	U			99	12	ug/kg
MS005-SS-120515	12-8898-UU52F	Dieldrin	5/26/2012	99		Yes	N	U			99	9.9	ug/kg
MS005-SS-120515	12-8898-UU52F	Hexachlorocyclohexane, beta- (BHC)	5/26/2012	49		Yes	N	U			49	14	ug/kg
MS005-SS-120515	12-8898-UU52F	Endrin ketone	5/26/2012	99		Yes	N	U			99	12	ug/kg
MS005-SS-120515	12-8898-UU52F	4,4'-DDD (p,p'-DDD)	5/26/2012	99		Yes	N	U			99	13	ug/kg
MS005-SS-120515	12-8898-UU52FDL	4,4'-DDE (p,p'-DDE)	5/25/2012	990		No	N	U	R	22	990	120	ug/kg
MS005-SS-120515	12-8898-UU52FDL	Hexachlorocyclohexane, beta- (BHC)	5/25/2012	490		No	N	U	R	22	490	140	ug/kg
MS005-SS-120515	12-8898-UU52FDL	4,4'-DDT (p,p'-DDT)	5/25/2012	990		No	N	U	R	22	990	190	ug/kg
MS005-SS-120515	12-8898-UU52FDL	4,4'-DDD (p,p'-DDD)	5/25/2012	990		No	N	U	R	22	990	130	ug/kg
MS005-SS-120515	12-8898-UU52FDL	Dieldrin	5/25/2012	990		No	N	U	R	22	990	99	ug/kg
MS005-SS-120515	12-8898-UU52FDL	Endrin ketone	5/25/2012	990		No	N	U	R	22	990	120	ug/kg
MS006-SS-120515	12-8899-UU52G	4,4'-DDE (p,p'-DDE)	5/26/2012	9.9		Yes	N	U	UJ	5	9.9	1.2	ug/kg
MS006-SS-120515	12-8899-UU52G	4,4'-DDD (p,p'-DDD)	5/26/2012	40		Yes	Y	P	J	5	9.9	1.3	ug/kg
MS006-SS-120515	12-8899-UU52G	Dieldrin	5/26/2012	9.9		Yes	N	U			9.9	0.99	ug/kg

SDG: UU52

Analytical Method	SW8081B											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS006-SS-120515	12-8899-UU52G	Endrin ketone	5/26/2012	28		Yes	N	Y			28	1.2	ug/kg
MS006-SS-120515	12-8899-UU52G	4,4'-DDT (p,p'-DDT)	5/26/2012	19		Yes	Y		J	5	9.9	1.9	ug/kg
MS006-SS-120515	12-8899-UU52G	Hexachlorocyclohexane, beta- (BHC)	5/26/2012	12		Yes	N	Y			12	1.4	ug/kg
MS006-SS-120515	12-8899-UU52GD	4,4'-DDT (p,p'-DDT)	5/25/2012	99		No	N	U	R	22	99	19	ug/kg
MS006-SS-120515	12-8899-UU52GD	Endrin ketone	5/25/2012	99		No	N	U	R	22	99	12	ug/kg
MS006-SS-120515	12-8899-UU52GD	Dieldrin	5/25/2012	99		No	N	U	R	22	99	9.9	ug/kg
MS006-SS-120515	12-8899-UU52GD	4,4'-DDD (p,p'-DDD)	5/25/2012	99		No	N	U	R	22	99	13	ug/kg
MS006-SS-120515	12-8899-UU52GD	4,4'-DDE (p,p'-DDE)	5/25/2012	99		No	N	U	R	22	99	12	ug/kg
MS006-SS-120515	12-8899-UU52GD	Hexachlorocyclohexane, beta- (BHC)	5/25/2012	50		No	N	U	R	22	50	14	ug/kg
MS007-SS-120515	12-8900-UU52H	4,4'-DDE (p,p'-DDE)	5/26/2012	99		Yes	N	U	UJ	5	99	12	ug/kg
MS007-SS-120515	12-8900-UU52H	4,4'-DDD (p,p'-DDD)	5/26/2012	99		Yes	N	U			99	13	ug/kg
MS007-SS-120515	12-8900-UU52H	Dieldrin	5/26/2012	99		Yes	N	U			99	9.9	ug/kg
MS007-SS-120515	12-8900-UU52H	Endrin ketone	5/26/2012	99		Yes	N	U			99	12	ug/kg
MS007-SS-120515	12-8900-UU52H	4,4'-DDT (p,p'-DDT)	5/26/2012	99		Yes	N	U	UJ	5	99	19	ug/kg
MS007-SS-120515	12-8900-UU52H	Hexachlorocyclohexane, beta- (BHC)	5/26/2012	50		Yes	N	U			50	14	ug/kg
MS007-SS-120515	12-8900-UU52HD	Endrin ketone	5/25/2012	990		No	N	U	R	22	990	120	ug/kg
MS007-SS-120515	12-8900-UU52HD	4,4'-DDT (p,p'-DDT)	5/25/2012	990		No	N	U	R	22	990	190	ug/kg
MS007-SS-120515	12-8900-UU52HD	Hexachlorocyclohexane, beta- (BHC)	5/25/2012	500		No	N	U	R	22	500	140	ug/kg
MS007-SS-120515	12-8900-UU52HD	Dieldrin	5/25/2012	990		No	N	U	R	22	990	99	ug/kg
MS007-SS-120515	12-8900-UU52HD	4,4'-DDD (p,p'-DDD)	5/25/2012	990		No	N	U	R	22	990	130	ug/kg
MS007-SS-120515	12-8900-UU52HD	4,4'-DDE (p,p'-DDE)	5/25/2012	990		No	N	U	R	22	990	120	ug/kg
MS008-SS-120515	12-8901-UU52I	4,4'-DDE (p,p'-DDE)	5/26/2012	99		Yes	N	U	UJ	5	99	12	ug/kg
MS008-SS-120515	12-8901-UU52I	Hexachlorocyclohexane, beta- (BHC)	5/26/2012	50		Yes	N	U			50	14	ug/kg
MS008-SS-120515	12-8901-UU52I	4,4'-DDT (p,p'-DDT)	5/26/2012	99		Yes	N	U	UJ	5	99	19	ug/kg
MS008-SS-120515	12-8901-UU52I	Endrin ketone	5/26/2012	99		Yes	N	U			99	12	ug/kg

SDG: UU52

Analytical Method	SW8081B											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS008-SS-120515	12-8901-UU52I	4,4'-DDD (p,p'-DDD)	5/26/2012	99		Yes	N	U			99	13	ug/kg
MS008-SS-120515	12-8901-UU52I	Dieldrin	5/26/2012	99		Yes	N	U			99	9.9	ug/kg
MS008-SS-120515	12-8901-UU52IDL	4,4'-DDE (p,p'-DDE)	5/25/2012	5000		No	N	U	R	22	5000	620	ug/kg
MS008-SS-120515	12-8901-UU52IDL	4,4'-DDD (p,p'-DDD)	5/25/2012	5000		No	N	U	R	22	5000	670	ug/kg
MS008-SS-120515	12-8901-UU52IDL	Dieldrin	5/25/2012	5000		No	N	U	R	22	5000	500	ug/kg
MS008-SS-120515	12-8901-UU52IDL	Endrin ketone	5/25/2012	5000		No	N	U	R	22	5000	590	ug/kg
MS008-SS-120515	12-8901-UU52IDL	4,4'-DDT (p,p'-DDT)	5/25/2012	5000		No	N	U	R	22	5000	950	ug/kg
MS008-SS-120515	12-8901-UU52IDL	Hexachlorocyclohexane, beta- (BHC)	5/25/2012	2500		No	N	U	R	22	2500	690	ug/kg
MS009-SS-120515	12-8902-UU52J	4,4'-DDE (p,p'-DDE)	5/26/2012	100		Yes	N	U	UJ	5	100	12	ug/kg
MS009-SS-120515	12-8902-UU52J	Hexachlorocyclohexane, beta- (BHC)	5/26/2012	50		Yes	N	U			50	14	ug/kg
MS009-SS-120515	12-8902-UU52J	4,4'-DDT (p,p'-DDT)	5/26/2012	100		Yes	N	U	UJ	5	100	19	ug/kg
MS009-SS-120515	12-8902-UU52J	Endrin ketone	5/26/2012	100		Yes	N	U			100	12	ug/kg
MS009-SS-120515	12-8902-UU52J	Dieldrin	5/26/2012	100		Yes	N	U			100	10	ug/kg
MS009-SS-120515	12-8902-UU52J	4,4'-DDD (p,p'-DDD)	5/26/2012	100		Yes	N	U			100	13	ug/kg
MS009-SS-120515	12-8902-UU52JDL	Hexachlorocyclohexane, beta- (BHC)	5/25/2012	500		No	N	U	R	22	500	140	ug/kg
MS009-SS-120515	12-8902-UU52JDL	4,4'-DDD (p,p'-DDD)	5/25/2012	1000		No	N	U	R	22	1000	130	ug/kg
MS009-SS-120515	12-8902-UU52JDL	4,4'-DDT (p,p'-DDT)	5/25/2012	1000		No	N	U	R	22	1000	190	ug/kg
MS009-SS-120515	12-8902-UU52JDL	Dieldrin	5/25/2012	1000		No	N	U	R	22	1000	100	ug/kg
MS009-SS-120515	12-8902-UU52JDL	Endrin ketone	5/25/2012	1000		No	N	U	R	22	1000	120	ug/kg
MS009-SS-120515	12-8902-UU52JDL	4,4'-DDE (p,p'-DDE)	5/25/2012	1000		No	N	U	R	22	1000	120	ug/kg
MS101-SS-120515	12-8894-UU52B	4,4'-DDE (p,p'-DDE)	5/26/2012	99		Yes	N	U			99	12	ug/kg
MS101-SS-120515	12-8894-UU52B	4,4'-DDD (p,p'-DDD)	5/26/2012	99		Yes	N	U			99	13	ug/kg
MS101-SS-120515	12-8894-UU52B	Dieldrin	5/26/2012	99		Yes	N	U			99	9.9	ug/kg
MS101-SS-120515	12-8894-UU52B	Endrin ketone	5/26/2012	99		Yes	N	U			99	12	ug/kg
MS101-SS-120515	12-8894-UU52B	4,4'-DDT (p,p'-DDT)	5/26/2012	99		Yes	N	U			99	19	ug/kg

SDG: UU52

Analytical Method	SW8081B											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS101-SS-120515	12-8894-UU52B	Hexachlorocyclohexane, beta- (BHC)	5/26/2012	50	Yes	N	U			50	14	ug/kg
MS101-SS-120515	12-8894-UU52BD	4,4'-DDE (p,p'-DDE)	5/25/2012	990	No	N	U	R	22	990	120	ug/kg
MS101-SS-120515	12-8894-UU52BD	4,4'-DDD (p,p'-DDD)	5/25/2012	990	No	N	U	R	22	990	130	ug/kg
MS101-SS-120515	12-8894-UU52BD	Endrin ketone	5/25/2012	990	No	N	U	R	22	990	120	ug/kg
MS101-SS-120515	12-8894-UU52BD	Dieldrin	5/25/2012	990	No	N	U	R	22	990	99	ug/kg
MS101-SS-120515	12-8894-UU52BD	Hexachlorocyclohexane, beta- (BHC)	5/25/2012	500	No	N	U	R	22	500	140	ug/kg
MS101-SS-120515	12-8894-UU52BD	4,4'-DDT (p,p'-DDT)	5/25/2012	990	No	N	U	R	22	990	190	ug/kg

Analytical Method	SW8082											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Aroclor 1248	5/25/2012	22	Yes	Y				4.0	1.4	ug/kg
MS001-SS-120515	12-8893-UU52A	Aroclor 1254	5/25/2012	44	Yes	Y				4.0	1.4	ug/kg
MS001-SS-120515	12-8893-UU52A	Aroclor 1221	5/25/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS001-SS-120515	12-8893-UU52A	Aroclor 1242	5/25/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS001-SS-120515	12-8893-UU52A	Aroclor 1260	5/25/2012	20	Yes	N	Y			20	1.4	ug/kg
MS001-SS-120515	12-8893-UU52A	Aroclor 1016	5/25/2012	4	Yes	N	U			4.0	1.0	ug/kg
MS001-SS-120515	12-8893-UU52A	Aroclor 1262	5/25/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS001-SS-120515	12-8893-UU52A	Aroclor 1268	5/25/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS001-SS-120515	12-8893-UU52A	Aroclor 1232	5/25/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS002-SS-120515	12-8895-UU52C	Aroclor 1248	5/25/2012	17	Yes	Y	P			4.0	1.4	ug/kg
MS002-SS-120515	12-8895-UU52C	Aroclor 1016	5/25/2012	4	Yes	N	U			4.0	1.0	ug/kg
MS002-SS-120515	12-8895-UU52C	Aroclor 1262	5/25/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS002-SS-120515	12-8895-UU52C	Aroclor 1232	5/25/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS002-SS-120515	12-8895-UU52C	Aroclor 1254	5/25/2012	39	Yes	Y				4.0	1.4	ug/kg
MS002-SS-120515	12-8895-UU52C	Aroclor 1221	5/25/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS002-SS-120515	12-8895-UU52C	Aroclor 1268	5/25/2012	4	Yes	N	U			4.0	1.4	ug/kg

SDG: UU52

Analytical Method	SW8082											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS002-SS-120515	12-8895-UU52C	Aroclor 1242	5/25/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS002-SS-120515	12-8895-UU52C	Aroclor 1260	5/25/2012	20		Yes	N	Y			20	1.4	ug/kg
MS003-SS-120515	12-8896-UU52D	Aroclor 1254	5/25/2012	28		Yes	Y				4.0	1.4	ug/kg
MS003-SS-120515	12-8896-UU52D	Aroclor 1262	5/25/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS003-SS-120515	12-8896-UU52D	Aroclor 1260	5/25/2012	14		Yes	N	Y			14	1.4	ug/kg
MS003-SS-120515	12-8896-UU52D	Aroclor 1268	5/25/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS003-SS-120515	12-8896-UU52D	Aroclor 1221	5/25/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS003-SS-120515	12-8896-UU52D	Aroclor 1248	5/25/2012	20		Yes	N	Y			20	1.4	ug/kg
MS003-SS-120515	12-8896-UU52D	Aroclor 1016	5/25/2012	4		Yes	N	U			4.0	1.0	ug/kg
MS003-SS-120515	12-8896-UU52D	Aroclor 1242	5/25/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS003-SS-120515	12-8896-UU52D	Aroclor 1232	5/25/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS004-SS-120515	12-8897-UU52E	Aroclor 1268	5/26/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS004-SS-120515	12-8897-UU52E	Aroclor 1262	5/26/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS004-SS-120515	12-8897-UU52E	Aroclor 1254	5/26/2012	28		Yes	Y	P			4.0	1.4	ug/kg
MS004-SS-120515	12-8897-UU52E	Aroclor 1221	5/26/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS004-SS-120515	12-8897-UU52E	Aroclor 1232	5/26/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS004-SS-120515	12-8897-UU52E	Aroclor 1248	5/26/2012	16		Yes	N	Y			16	1.4	ug/kg
MS004-SS-120515	12-8897-UU52E	Aroclor 1016	5/26/2012	4		Yes	N	U			4.0	1.0	ug/kg
MS004-SS-120515	12-8897-UU52E	Aroclor 1242	5/26/2012	4		Yes	N	U			4.0	1.4	ug/kg
MS004-SS-120515	12-8897-UU52E	Aroclor 1260	5/26/2012	20		Yes	N	Y			20	1.4	ug/kg
MS005-SS-120515	12-8898-UU52F	Aroclor 1242	5/26/2012	4		Yes	N	U			4.0	1.3	ug/kg
MS005-SS-120515	12-8898-UU52F	Aroclor 1262	5/26/2012	4		Yes	N	U			4.0	1.3	ug/kg
MS005-SS-120515	12-8898-UU52F	Aroclor 1016	5/26/2012	4		Yes	N	U			4.0	1.0	ug/kg
MS005-SS-120515	12-8898-UU52F	Aroclor 1248	5/26/2012	12		Yes	Y				4.0	1.3	ug/kg
MS005-SS-120515	12-8898-UU52F	Aroclor 1260	5/26/2012	12		Yes	N	Y			12	1.3	ug/kg

SDG: UU52

Analytical Method	SW8082											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS005-SS-120515	12-8898-UU52F	Aroclor 1254	5/26/2012	25	Yes	Y				4.0	1.3	ug/kg
MS005-SS-120515	12-8898-UU52F	Aroclor 1268	5/26/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS005-SS-120515	12-8898-UU52F	Aroclor 1221	5/26/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS005-SS-120515	12-8898-UU52F	Aroclor 1232	5/26/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS006-SS-120515	12-8899-UU52G	Aroclor 1260	5/26/2012	20	Yes	N	Y			20	1.4	ug/kg
MS006-SS-120515	12-8899-UU52G	Aroclor 1254	5/26/2012	27	Yes	Y				4.0	1.4	ug/kg
MS006-SS-120515	12-8899-UU52G	Aroclor 1268	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS006-SS-120515	12-8899-UU52G	Aroclor 1242	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS006-SS-120515	12-8899-UU52G	Aroclor 1262	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS006-SS-120515	12-8899-UU52G	Aroclor 1248	5/26/2012	16	Yes	Y				4.0	1.4	ug/kg
MS006-SS-120515	12-8899-UU52G	Aroclor 1232	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS006-SS-120515	12-8899-UU52G	Aroclor 1221	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS006-SS-120515	12-8899-UU52G	Aroclor 1016	5/26/2012	4	Yes	N	U			4.0	1.0	ug/kg
MS007-SS-120515	12-8900-UU52H	Aroclor 1262	5/26/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS007-SS-120515	12-8900-UU52H	Aroclor 1242	5/26/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS007-SS-120515	12-8900-UU52H	Aroclor 1016	5/26/2012	4	Yes	N	U			4.0	1.0	ug/kg
MS007-SS-120515	12-8900-UU52H	Aroclor 1254	5/26/2012	31	Yes	Y				4.0	1.3	ug/kg
MS007-SS-120515	12-8900-UU52H	Aroclor 1260	5/26/2012	14	Yes	N	Y			14	1.3	ug/kg
MS007-SS-120515	12-8900-UU52H	Aroclor 1248	5/26/2012	15	Yes	Y				4.0	1.3	ug/kg
MS007-SS-120515	12-8900-UU52H	Aroclor 1268	5/26/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS007-SS-120515	12-8900-UU52H	Aroclor 1221	5/26/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS007-SS-120515	12-8900-UU52H	Aroclor 1232	5/26/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS008-SS-120515	12-8901-UU52I	Aroclor 1262	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS008-SS-120515	12-8901-UU52I	Aroclor 1242	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS008-SS-120515	12-8901-UU52I	Aroclor 1260	5/26/2012	9.9	Yes	N	Y			9.9	1.4	ug/kg

SDG: UU52

Analytical Method SW8082

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS008-SS-120515	12-8901-UU52I	Aroclor 1016	5/26/2012	4	Yes	N	U			4.0	1.0	ug/kg
MS008-SS-120515	12-8901-UU52I	Aroclor 1232	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS008-SS-120515	12-8901-UU52I	Aroclor 1221	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS008-SS-120515	12-8901-UU52I	Aroclor 1268	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS008-SS-120515	12-8901-UU52I	Aroclor 1254	5/26/2012	23	Yes	Y				4.0	1.4	ug/kg
MS008-SS-120515	12-8901-UU52I	Aroclor 1248	5/26/2012	9.9	Yes	N	Y			9.9	1.4	ug/kg
MS009-SS-120515	12-8902-UU52J	Aroclor 1262	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS009-SS-120515	12-8902-UU52J	Aroclor 1242	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS009-SS-120515	12-8902-UU52J	Aroclor 1248	5/26/2012	10	Yes	N	Y			10	1.4	ug/kg
MS009-SS-120515	12-8902-UU52J	Aroclor 1254	5/26/2012	20	Yes	Y				4.0	1.4	ug/kg
MS009-SS-120515	12-8902-UU52J	Aroclor 1268	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS009-SS-120515	12-8902-UU52J	Aroclor 1221	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS009-SS-120515	12-8902-UU52J	Aroclor 1232	5/26/2012	4	Yes	N	U			4.0	1.4	ug/kg
MS009-SS-120515	12-8902-UU52J	Aroclor 1016	5/26/2012	4	Yes	N	U			4.0	1.0	ug/kg
MS009-SS-120515	12-8902-UU52J	Aroclor 1260	5/26/2012	10	Yes	N	Y			10	1.4	ug/kg
MS101-SS-120515	12-8894-UU52B	Aroclor 1262	5/25/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS101-SS-120515	12-8894-UU52B	Aroclor 1248	5/25/2012	17	Yes	Y				4.0	1.3	ug/kg
MS101-SS-120515	12-8894-UU52B	Aroclor 1016	5/25/2012	4	Yes	N	U			4.0	1.0	ug/kg
MS101-SS-120515	12-8894-UU52B	Aroclor 1232	5/25/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS101-SS-120515	12-8894-UU52B	Aroclor 1268	5/25/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS101-SS-120515	12-8894-UU52B	Aroclor 1254	5/25/2012	37	Yes	Y				4.0	1.3	ug/kg
MS101-SS-120515	12-8894-UU52B	Aroclor 1260	5/25/2012	16	Yes	N	Y			16	1.3	ug/kg
MS101-SS-120515	12-8894-UU52B	Aroclor 1242	5/25/2012	4	Yes	N	U			4.0	1.3	ug/kg
MS101-SS-120515	12-8894-UU52B	Aroclor 1221	5/25/2012	4	Yes	N	U			4.0	1.3	ug/kg

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Analytical Method SW8270D

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Chrysene	5/26/2012	430		Yes	Y				60	11	ug/kg
MS001-SS-120515	12-8893-UU52A	4-Methylphenol (p-Cresol)	5/26/2012	1200		Yes	Y				120	20	ug/kg
MS001-SS-120515	12-8893-UU52A	Phenol	5/26/2012	300		Yes	Y				60	26	ug/kg
MS001-SS-120515	12-8893-UU52A	Butylbenzyl phthalate	5/26/2012	60		Yes	N	U			60	18	ug/kg
MS001-SS-120515	12-8893-UU52A	Phenanthrene	5/26/2012	690		Yes	Y				60	11	ug/kg
MS001-SS-120515	12-8893-UU52A	Di-n-octyl phthalate	5/26/2012	60		Yes	N	UJ			60	17	ug/kg
MS001-SS-120515	12-8893-UU52A	Di-n-butyl phthalate	5/26/2012	60		Yes	N	U			60	24	ug/kg
MS001-SS-120515	12-8893-UU52A	Acenaphthene	5/26/2012	110		Yes	Y				60	9.8	ug/kg
MS001-SS-120515	12-8893-UU52A	Benzoic acid	5/26/2012	390		Yes	Y	J	J	10	1200	300	ug/kg
MS001-SS-120515	12-8893-UU52A	Benzo(a)anthracene	5/26/2012	160		Yes	Y				60	9.8	ug/kg
MS001-SS-120515	12-8893-UU52A	Dibenzo(a,h)anthracene	5/26/2012	57		Yes	Y	J			60	13	ug/kg
MS001-SS-120515	12-8893-UU52A	Benzo(b,j,k)fluoranthenes	5/26/2012	570		Yes	Y				60	8.2	ug/kg
MS001-SS-120515	12-8893-UU52A	Retene	5/26/2012	74		Yes	Y				60	60	ug/kg
MS001-SS-120515	12-8893-UU52A	Acenaphthylene	5/26/2012	74		Yes	Y				60	17	ug/kg
MS001-SS-120515	12-8893-UU52A	2-Methylnaphthalene	5/26/2012	170		Yes	Y				60	9.1	ug/kg
MS001-SS-120515	12-8893-UU52A	Bis(2-ethylhexyl) phthalate	5/26/2012	140		Yes	Y				74	43	ug/kg
MS001-SS-120515	12-8893-UU52A	Anthracene	5/26/2012	140		Yes	Y				60	13	ug/kg
MS001-SS-120515	12-8893-UU52A	Pyrene	5/26/2012	580		Yes	Y				60	5.8	ug/kg
MS001-SS-120515	12-8893-UU52A	Benzo(a)pyrene	5/26/2012	260		Yes	Y				60	16	ug/kg
MS001-SS-120515	12-8893-UU52A	Dibenzofuran	5/26/2012	180		Yes	Y				60	12	ug/kg
MS001-SS-120515	12-8893-UU52A	Fluoranthene	5/26/2012	660		Yes	Y				60	8.7	ug/kg
MS001-SS-120515	12-8893-UU52A	Naphthalene	5/26/2012	1100		Yes	Y				60	8.2	ug/kg
MS001-SS-120515	12-8893-UU52A	Pentachlorophenol	5/26/2012	600		Yes	N	U			600	140	ug/kg
MS001-SS-120515	12-8893-UU52A	Carbazole	5/26/2012	42		Yes	Y	J			60	8.0	ug/kg
MS001-SS-120515	12-8893-UU52A	Fluorene	5/26/2012	120		Yes	Y				60	13	ug/kg

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Benzo(g,h,i)perylene	5/26/2012	270		Yes	Y				60	13	ug/kg
MS001-SS-120515	12-8893-UU52A	Indeno(1,2,3-c,d)pyrene	5/26/2012	200		Yes	Y				60	14	ug/kg
MS001-SS-120515	12-8893-UU52A	Dimethyl phthalate	5/26/2012	60		Yes	N	U			60	8.6	ug/kg
MS002-SS-120515	12-8895-UU52C	Benzo(g,h,i)perylene	5/26/2012	430		Yes	Y				59	13	ug/kg
MS002-SS-120515	12-8895-UU52C	Retene	5/26/2012	80		Yes	Y				59	59	ug/kg
MS002-SS-120515	12-8895-UU52C	Acenaphthylene	5/26/2012	86		Yes	Y				59	17	ug/kg
MS002-SS-120515	12-8895-UU52C	Chrysene	5/26/2012	800		Yes	Y				59	11	ug/kg
MS002-SS-120515	12-8895-UU52C	Indeno(1,2,3-c,d)pyrene	5/26/2012	340		Yes	Y				59	14	ug/kg
MS002-SS-120515	12-8895-UU52C	Di-n-octyl phthalate	5/26/2012	59		Yes	N	UJ			59	17	ug/kg
MS002-SS-120515	12-8895-UU52C	Phenanthrene	5/26/2012	830		Yes	Y				59	11	ug/kg
MS002-SS-120515	12-8895-UU52C	Fluoranthene	5/26/2012	860		Yes	Y				59	8.6	ug/kg
MS002-SS-120515	12-8895-UU52C	Benzo(b,j,k)fluoranthenes	5/26/2012	1000		Yes	Y				59	8.2	ug/kg
MS002-SS-120515	12-8895-UU52C	2-Methylnaphthalene	5/26/2012	240		Yes	Y				59	9.1	ug/kg
MS002-SS-120515	12-8895-UU52C	Naphthalene	5/26/2012	1300		Yes	Y				59	8.2	ug/kg
MS002-SS-120515	12-8895-UU52C	Pentachlorophenol	5/26/2012	590		Yes	N	U			590	140	ug/kg
MS002-SS-120515	12-8895-UU52C	Carbazole	5/26/2012	56		Yes	Y	J			59	8.0	ug/kg
MS002-SS-120515	12-8895-UU52C	Fluorene	5/26/2012	160		Yes	Y				59	13	ug/kg
MS002-SS-120515	12-8895-UU52C	Pyrene	5/26/2012	860		Yes	Y				59	5.8	ug/kg
MS002-SS-120515	12-8895-UU52C	Butylbenzyl phthalate	5/26/2012	59		Yes	N	U			59	18	ug/kg
MS002-SS-120515	12-8895-UU52C	Dibenzofuran	5/26/2012	240		Yes	Y				59	12	ug/kg
MS002-SS-120515	12-8895-UU52C	Di-n-butyl phthalate	5/26/2012	59		Yes	N	U			59	24	ug/kg
MS002-SS-120515	12-8895-UU52C	Bis(2-ethylhexyl) phthalate	5/26/2012	150		Yes	Y				74	43	ug/kg
MS002-SS-120515	12-8895-UU52C	Dimethyl phthalate	5/26/2012	59		Yes	N	U			59	8.6	ug/kg
MS002-SS-120515	12-8895-UU52C	4-Methylphenol (p-Cresol)	5/26/2012	1400		Yes	Y				120	20	ug/kg
MS002-SS-120515	12-8895-UU52C	Anthracene	5/26/2012	170		Yes	Y				59	13	ug/kg

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS002-SS-120515	12-8895-UU52C	Acenaphthene	5/26/2012	140		Yes	Y				59	9.7	ug/kg
MS002-SS-120515	12-8895-UU52C	Phenol	5/26/2012	260		Yes	Y				59	26	ug/kg
MS002-SS-120515	12-8895-UU52C	Benzo(a)pyrene	5/26/2012	470		Yes	Y				59	16	ug/kg
MS002-SS-120515	12-8895-UU52C	Dibenzo(a,h)anthracene	5/26/2012	100		Yes	Y				59	13	ug/kg
MS002-SS-120515	12-8895-UU52C	Benzo(a)anthracene	5/26/2012	280		Yes	Y				59	9.8	ug/kg
MS002-SS-120515	12-8895-UU52C	Benzoic acid	5/26/2012	420		Yes	Y	J	J	10	1200	300	ug/kg
MS003-SS-120515	12-8896-UU52D	Butylbenzyl phthalate	5/26/2012	60		Yes	N	U			60	18	ug/kg
MS003-SS-120515	12-8896-UU52D	Pyrene	5/26/2012	510		Yes	Y				60	5.8	ug/kg
MS003-SS-120515	12-8896-UU52D	Anthracene	5/26/2012	120		Yes	Y				60	13	ug/kg
MS003-SS-120515	12-8896-UU52D	Di-n-octyl phthalate	5/26/2012	60		Yes	N	UJ			60	17	ug/kg
MS003-SS-120515	12-8896-UU52D	Bis(2-ethylhexyl) phthalate	5/26/2012	120		Yes	Y				74	43	ug/kg
MS003-SS-120515	12-8896-UU52D	Phenol	5/26/2012	180		Yes	Y				60	26	ug/kg
MS003-SS-120515	12-8896-UU52D	4-Methylphenol (p-Cresol)	5/26/2012	1100		Yes	Y				120	20	ug/kg
MS003-SS-120515	12-8896-UU52D	Pentachlorophenol	5/26/2012	600		Yes	N	U			600	140	ug/kg
MS003-SS-120515	12-8896-UU52D	Di-n-butyl phthalate	5/26/2012	60		Yes	N	U			60	24	ug/kg
MS003-SS-120515	12-8896-UU52D	Dibenzofuran	5/26/2012	110		Yes	Y				60	12	ug/kg
MS003-SS-120515	12-8896-UU52D	Benzo(b,j,k)fluoranthenes	5/26/2012	580		Yes	Y				60	8.2	ug/kg
MS003-SS-120515	12-8896-UU52D	2-Methylnaphthalene	5/26/2012	86		Yes	Y				60	9.1	ug/kg
MS003-SS-120515	12-8896-UU52D	Naphthalene	5/26/2012	550		Yes	Y				60	8.2	ug/kg
MS003-SS-120515	12-8896-UU52D	Carbazole	5/26/2012	60		Yes	N	U			60	8.0	ug/kg
MS003-SS-120515	12-8896-UU52D	Fluorene	5/26/2012	74		Yes	Y				60	13	ug/kg
MS003-SS-120515	12-8896-UU52D	Dimethyl phthalate	5/26/2012	60		Yes	N	U			60	8.6	ug/kg
MS003-SS-120515	12-8896-UU52D	Phenanthrene	5/26/2012	500		Yes	Y				60	11	ug/kg
MS003-SS-120515	12-8896-UU52D	Acenaphthene	5/26/2012	72		Yes	Y				60	9.8	ug/kg
MS003-SS-120515	12-8896-UU52D	Acenaphthylene	5/26/2012	60		Yes	Y				60	17	ug/kg

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS003-SS-120515	12-8896-UU52D	Benzo(g,h,i)perylene	5/26/2012	230	Yes	Y				60	13	ug/kg
MS003-SS-120515	12-8896-UU52D	Benzoic acid	5/26/2012	330	Yes	Y	J	J	10	1200	300	ug/kg
MS003-SS-120515	12-8896-UU52D	Fluoranthene	5/26/2012	550	Yes	Y				60	8.7	ug/kg
MS003-SS-120515	12-8896-UU52D	Indeno(1,2,3-c,d)pyrene	5/26/2012	180	Yes	Y				60	14	ug/kg
MS003-SS-120515	12-8896-UU52D	Chrysene	5/26/2012	390	Yes	Y				60	11	ug/kg
MS003-SS-120515	12-8896-UU52D	Retene	5/26/2012	32	Yes	Y	J			60	60	ug/kg
MS003-SS-120515	12-8896-UU52D	Benzo(a)pyrene	5/26/2012	250	Yes	Y				60	16	ug/kg
MS003-SS-120515	12-8896-UU52D	Dibenzo(a,h)anthracene	5/26/2012	51	Yes	Y	J			60	13	ug/kg
MS003-SS-120515	12-8896-UU52D	Benzo(a)anthracene	5/26/2012	130	Yes	Y				60	9.8	ug/kg
MS004-SS-120515	12-8897-UU52E	Dibenzo(a,h)anthracene	5/26/2012	87	Yes	Y				60	13	ug/kg
MS004-SS-120515	12-8897-UU52E	Phenanthrene	5/26/2012	890	Yes	Y				60	11	ug/kg
MS004-SS-120515	12-8897-UU52E	Benzoic acid	5/26/2012	390	Yes	Y	J	J	10	1200	300	ug/kg
MS004-SS-120515	12-8897-UU52E	Acenaphthene	5/26/2012	140	Yes	Y				60	9.8	ug/kg
MS004-SS-120515	12-8897-UU52E	Di-n-butyl phthalate	5/26/2012	60	Yes	N	U			60	24	ug/kg
MS004-SS-120515	12-8897-UU52E	Benzo(a)anthracene	5/26/2012	240	Yes	Y				60	9.8	ug/kg
MS004-SS-120515	12-8897-UU52E	Butylbenzyl phthalate	5/26/2012	60	Yes	N	U			60	18	ug/kg
MS004-SS-120515	12-8897-UU52E	Fluorene	5/26/2012	170	Yes	Y				60	13	ug/kg
MS004-SS-120515	12-8897-UU52E	2-Methylnaphthalene	5/26/2012	270	Yes	Y				60	9.1	ug/kg
MS004-SS-120515	12-8897-UU52E	Pentachlorophenol	5/26/2012	600	Yes	N	U			600	140	ug/kg
MS004-SS-120515	12-8897-UU52E	Naphthalene	5/26/2012	1400	Yes	Y				60	8.2	ug/kg
MS004-SS-120515	12-8897-UU52E	Benzo(a)pyrene	5/26/2012	380	Yes	Y				60	16	ug/kg
MS004-SS-120515	12-8897-UU52E	Bis(2-ethylhexyl) phthalate	5/26/2012	120	Yes	Y				75	44	ug/kg
MS004-SS-120515	12-8897-UU52E	Carbazole	5/26/2012	69	Yes	Y				60	8.0	ug/kg
MS004-SS-120515	12-8897-UU52E	Retene	5/26/2012	120	Yes	Y				60	60	ug/kg
MS004-SS-120515	12-8897-UU52E	Chrysene	5/26/2012	680	Yes	Y				60	11	ug/kg

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS004-SS-120515	12-8897-UU52E	Acenaphthylene	5/26/2012	78	Yes	Y				60	17	ug/kg
MS004-SS-120515	12-8897-UU52E	Fluoranthene	5/26/2012	870	Yes	Y				60	8.7	ug/kg
MS004-SS-120515	12-8897-UU52E	Indeno(1,2,3-c,d)pyrene	5/26/2012	280	Yes	Y				60	14	ug/kg
MS004-SS-120515	12-8897-UU52E	Benzo(g,h,i)perylene	5/26/2012	360	Yes	Y				60	13	ug/kg
MS004-SS-120515	12-8897-UU52E	Dibenzofuran	5/26/2012	300	Yes	Y				60	12	ug/kg
MS004-SS-120515	12-8897-UU52E	Dimethyl phthalate	5/26/2012	60	Yes	N	U			60	8.7	ug/kg
MS004-SS-120515	12-8897-UU52E	Pyrene	5/26/2012	790	Yes	Y				60	5.8	ug/kg
MS004-SS-120515	12-8897-UU52E	Di-n-octyl phthalate	5/26/2012	60	Yes	N	UJ			60	17	ug/kg
MS004-SS-120515	12-8897-UU52E	Phenol	5/26/2012	200	Yes	Y				60	26	ug/kg
MS004-SS-120515	12-8897-UU52E	4-Methylphenol (p-Cresol)	5/26/2012	690	Yes	Y				120	20	ug/kg
MS004-SS-120515	12-8897-UU52E	Benzo(b,j,k)fluoranthenes	5/26/2012	970	Yes	Y				60	8.2	ug/kg
MS004-SS-120515	12-8897-UU52E	Anthracene	5/26/2012	180	Yes	Y				60	13	ug/kg
MS005-SS-120515	12-8898-UU52F	Benzo(a)pyrene	5/26/2012	330	Yes	Y				59	16	ug/kg
MS005-SS-120515	12-8898-UU52F	4-Methylphenol (p-Cresol)	5/26/2012	3300	Yes	Y				120	20	ug/kg
MS005-SS-120515	12-8898-UU52F	Phenol	5/26/2012	1100	Yes	Y				59	26	ug/kg
MS005-SS-120515	12-8898-UU52F	Bis(2-ethylhexyl) phthalate	5/26/2012	170	Yes	Y				74	43	ug/kg
MS005-SS-120515	12-8898-UU52F	Di-n-octyl phthalate	5/26/2012	59	Yes	N	UJ			59	17	ug/kg
MS005-SS-120515	12-8898-UU52F	Pyrene	5/26/2012	1600	Yes	Y				59	5.7	ug/kg
MS005-SS-120515	12-8898-UU52F	Dimethyl phthalate	5/26/2012	59	Yes	N	U			59	8.6	ug/kg
MS005-SS-120515	12-8898-UU52F	Dibenzofuran	5/26/2012	660	Yes	Y				59	12	ug/kg
MS005-SS-120515	12-8898-UU52F	Benzo(g,h,i)perylene	5/26/2012	320	Yes	Y				59	13	ug/kg
MS005-SS-120515	12-8898-UU52F	Indeno(1,2,3-c,d)pyrene	5/26/2012	240	Yes	Y				59	14	ug/kg
MS005-SS-120515	12-8898-UU52F	Fluoranthene	5/26/2012	1900	Yes	Y				59	8.6	ug/kg
MS005-SS-120515	12-8898-UU52F	Acenaphthylene	5/26/2012	250	Yes	Y				59	17	ug/kg
MS005-SS-120515	12-8898-UU52F	Anthracene	5/26/2012	350	Yes	Y				59	13	ug/kg

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS005-SS-120515	12-8898-UU52F	Retene	5/26/2012	140		Yes	Y				59	59	ug/kg
MS005-SS-120515	12-8898-UU52F	Benzo(b,j,k)fluoranthenes	5/26/2012	970		Yes	Y				59	8.1	ug/kg
MS005-SS-120515	12-8898-UU52F	Dibenzo(a,h)anthracene	5/26/2012	95		Yes	Y				59	13	ug/kg
MS005-SS-120515	12-8898-UU52F	Benzo(a)anthracene	5/26/2012	300		Yes	Y				59	9.7	ug/kg
MS005-SS-120515	12-8898-UU52F	Benzoic acid	5/26/2012	3100		Yes	Y		J	10	1200	300	ug/kg
MS005-SS-120515	12-8898-UU52F	Acenaphthene	5/26/2012	820		Yes	Y				59	9.7	ug/kg
MS005-SS-120515	12-8898-UU52F	Di-n-butyl phthalate	5/26/2012	59		Yes	N	U			59	24	ug/kg
MS005-SS-120515	12-8898-UU52F	Phenanthrene	5/26/2012	1800		Yes	Y				59	11	ug/kg
MS005-SS-120515	12-8898-UU52F	Butylbenzyl phthalate	5/26/2012	59		Yes	N	U			59	18	ug/kg
MS005-SS-120515	12-8898-UU52F	Fluorene	5/26/2012	450		Yes	Y				59	13	ug/kg
MS005-SS-120515	12-8898-UU52F	Carbazole	5/26/2012	130		Yes	Y				59	8.0	ug/kg
MS005-SS-120515	12-8898-UU52F	Pentachlorophenol	5/26/2012	590		Yes	N	U			590	140	ug/kg
MS005-SS-120515	12-8898-UU52F	Naphthalene	5/26/2012	4400		Yes	Y				59	8.2	ug/kg
MS005-SS-120515	12-8898-UU52F	2-Methylnaphthalene	5/26/2012	600		Yes	Y				59	9.1	ug/kg
MS005-SS-120515	12-8898-UU52F	Chrysene	5/26/2012	570		Yes	Y				59	11	ug/kg
MS006-SS-120515	12-8899-UU52G	Benzo(g,h,i)perylene	5/26/2012	310		Yes	Y				60	13	ug/kg
MS006-SS-120515	12-8899-UU52G	Butylbenzyl phthalate	5/26/2012	60		Yes	N	U			60	18	ug/kg
MS006-SS-120515	12-8899-UU52G	Benzo(b,j,k)fluoranthenes	5/26/2012	650		Yes	Y				60	8.2	ug/kg
MS006-SS-120515	12-8899-UU52G	2-Methylnaphthalene	5/26/2012	600		Yes	Y				60	9.1	ug/kg
MS006-SS-120515	12-8899-UU52G	Naphthalene	5/26/2012	6200		No	Y	E	R	22	60	8.2	ug/kg
MS006-SS-120515	12-8899-UU52G	Pentachlorophenol	5/26/2012	600		Yes	N	U			600	140	ug/kg
MS006-SS-120515	12-8899-UU52G	Dimethyl phthalate	5/26/2012	60		Yes	N	U			60	8.6	ug/kg
MS006-SS-120515	12-8899-UU52G	Fluorene	5/26/2012	130		Yes	Y				60	13	ug/kg
MS006-SS-120515	12-8899-UU52G	4-Methylphenol (p-Cresol)	5/26/2012	270		Yes	Y				120	20	ug/kg
MS006-SS-120515	12-8899-UU52G	Phenanthrene	5/26/2012	2200		Yes	Y				60	11	ug/kg

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS006-SS-120515	12-8899-UU52G	Di-n-butyl phthalate	5/26/2012	60	Yes	N	U			60	24	ug/kg
MS006-SS-120515	12-8899-UU52G	Acenaphthene	5/26/2012	110	Yes	Y				60	9.8	ug/kg
MS006-SS-120515	12-8899-UU52G	Benzoic acid	5/26/2012	3100	Yes	Y		J	10	1200	300	ug/kg
MS006-SS-120515	12-8899-UU52G	Benzo(a)anthracene	5/26/2012	230	Yes	Y				60	9.8	ug/kg
MS006-SS-120515	12-8899-UU52G	Anthracene	5/26/2012	220	Yes	Y				60	13	ug/kg
MS006-SS-120515	12-8899-UU52G	Carbazole	5/26/2012	95	Yes	Y				60	8.0	ug/kg
MS006-SS-120515	12-8899-UU52G	Dibenzo(a,h)anthracene	5/26/2012	54	Yes	Y	J			60	13	ug/kg
MS006-SS-120515	12-8899-UU52G	Di-n-octyl phthalate	5/26/2012	60	Yes	N	UJ			60	17	ug/kg
MS006-SS-120515	12-8899-UU52G	Phenol	5/26/2012	380	Yes	Y				60	26	ug/kg
MS006-SS-120515	12-8899-UU52G	Pyrene	5/26/2012	1400	Yes	Y				60	5.8	ug/kg
MS006-SS-120515	12-8899-UU52G	Dibenzofuran	5/26/2012	480	Yes	Y				60	12	ug/kg
MS006-SS-120515	12-8899-UU52G	Indeno(1,2,3-c,d)pyrene	5/26/2012	220	Yes	Y				60	14	ug/kg
MS006-SS-120515	12-8899-UU52G	Fluoranthene	5/26/2012	1700	Yes	Y				60	8.7	ug/kg
MS006-SS-120515	12-8899-UU52G	Acenaphthylene	5/26/2012	220	Yes	Y				60	17	ug/kg
MS006-SS-120515	12-8899-UU52G	Chrysene	5/26/2012	410	Yes	Y				60	11	ug/kg
MS006-SS-120515	12-8899-UU52G	Retene	5/26/2012	270	Yes	Y				60	60	ug/kg
MS006-SS-120515	12-8899-UU52G	Benzo(a)pyrene	5/26/2012	250	Yes	Y				60	16	ug/kg
MS006-SS-120515	12-8899-UU52G	Bis(2-ethylhexyl) phthalate	5/26/2012	120	Yes	Y				74	43	ug/kg
MS006-SS-120515	12-8899-UU52GD	Fluorene	5/30/2012	130	No	Y		R	22	120	26	ug/kg
MS006-SS-120515	12-8899-UU52GD	Dimethyl phthalate	5/30/2012	120	No	N	U	R	22	120	17	ug/kg
MS006-SS-120515	12-8899-UU52GD	2-Methylnaphthalene	5/30/2012	580	No	Y		R	22	120	18	ug/kg
MS006-SS-120515	12-8899-UU52GD	Naphthalene	5/30/2012	6300	Yes	Y				120	16	ug/kg
MS006-SS-120515	12-8899-UU52GD	Pentachlorophenol	5/30/2012	1200	No	N	U	R	22	1200	290	ug/kg
MS006-SS-120515	12-8899-UU52GD	Carbazole	5/30/2012	110	No	Y	J	R	22	120	16	ug/kg
MS006-SS-120515	12-8899-UU52GD	Butylbenzyl phthalate	5/30/2012	120	No	N	U	R	22	120	37	ug/kg

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS006-SS-120515	12-8899-UU52GD	Phenanthrene	5/30/2012	2200		No	Y		R	22	120	22	ug/kg
MS006-SS-120515	12-8899-UU52GD	Di-n-butyl phthalate	5/30/2012	120		No	N	U	R	22	120	49	ug/kg
MS006-SS-120515	12-8899-UU52GD	Acenaphthene	5/30/2012	89		No	Y	J	R	22	120	20	ug/kg
MS006-SS-120515	12-8899-UU52GD	Benzoic acid	5/30/2012	5200		No	Y		R	22	2400	600	ug/kg
MS006-SS-120515	12-8899-UU52GD	Dibenzo(a,h)anthracene	5/30/2012	65		No	Y	J	R	22	120	26	ug/kg
MS006-SS-120515	12-8899-UU52GD	Benzo(a)anthracene	5/30/2012	210		No	Y		R	22	120	20	ug/kg
MS006-SS-120515	12-8899-UU52GD	Acenaphthylene	5/30/2012	210		No	Y		R	22	120	34	ug/kg
MS006-SS-120515	12-8899-UU52GD	Benzo(b,j,k)fluoranthenes	5/30/2012	640		No	Y		R	22	120	16	ug/kg
MS006-SS-120515	12-8899-UU52GD	Benzo(a)pyrene	5/30/2012	240		No	Y		R	22	120	32	ug/kg
MS006-SS-120515	12-8899-UU52GD	Chrysene	5/30/2012	400		No	Y		R	22	120	22	ug/kg
MS006-SS-120515	12-8899-UU52GD	Fluoranthene	5/30/2012	1800		No	Y		R	22	120	17	ug/kg
MS006-SS-120515	12-8899-UU52GD	Indeno(1,2,3-c,d)pyrene	5/30/2012	260		No	Y		R	22	120	28	ug/kg
MS006-SS-120515	12-8899-UU52GD	Benzo(g,h,i)perylene	5/30/2012	380		No	Y		R	22	120	26	ug/kg
MS006-SS-120515	12-8899-UU52GD	Phenol	5/30/2012	490		No	Y		R	22	120	51	ug/kg
MS006-SS-120515	12-8899-UU52GD	Retene	5/30/2012	270		No	Y		R	22	120	120	ug/kg
MS006-SS-120515	12-8899-UU52GD	4-Methylphenol (p-Cresol)	5/30/2012	280		No	Y		R	22	240	39	ug/kg
MS006-SS-120515	12-8899-UU52GD	Dibenzofuran	5/30/2012	540		No	Y		R	22	120	24	ug/kg
MS006-SS-120515	12-8899-UU52GD	Bis(2-ethylhexyl) phthalate	5/30/2012	130		No	Y	J	R	22	150	87	ug/kg
MS006-SS-120515	12-8899-UU52GD	Di-n-octyl phthalate	5/30/2012	120		No	N	UJ	R	22	120	35	ug/kg
MS006-SS-120515	12-8899-UU52GD	Pyrene	5/30/2012	1300		No	Y		R	22	120	12	ug/kg
MS006-SS-120515	12-8899-UU52GD	Anthracene	5/30/2012	200		No	Y		R	22	120	27	ug/kg
MS007-SS-120515	12-8900-UU52H	Benzo(b,j,k)fluoranthenes	5/26/2012	540		Yes	Y				59	8.1	ug/kg
MS007-SS-120515	12-8900-UU52H	Benzo(a)anthracene	5/26/2012	180		Yes	Y				59	9.7	ug/kg
MS007-SS-120515	12-8900-UU52H	Fluoranthene	5/26/2012	1100		Yes	Y				59	8.6	ug/kg
MS007-SS-120515	12-8900-UU52H	Acenaphthylene	5/26/2012	140		Yes	Y				59	17	ug/kg

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS007-SS-120515	12-8900-UU52H	Chrysene	5/26/2012	290		Yes	Y				59	11	ug/kg
MS007-SS-120515	12-8900-UU52H	Retene	5/26/2012	85		Yes	Y				59	59	ug/kg
MS007-SS-120515	12-8900-UU52H	Benzo(a)pyrene	5/26/2012	270		Yes	Y				59	16	ug/kg
MS007-SS-120515	12-8900-UU52H	Dibenzo(a,h)anthracene	5/26/2012	59		Yes	Y				59	13	ug/kg
MS007-SS-120515	12-8900-UU52H	Indeno(1,2,3-c,d)pyrene	5/26/2012	190		Yes	Y				59	14	ug/kg
MS007-SS-120515	12-8900-UU52H	Acenaphthene	5/26/2012	130		Yes	Y				59	9.6	ug/kg
MS007-SS-120515	12-8900-UU52H	Phenanthrene	5/26/2012	1100		Yes	Y				59	11	ug/kg
MS007-SS-120515	12-8900-UU52H	Butylbenzyl phthalate	5/26/2012	59		Yes	N	U			59	18	ug/kg
MS007-SS-120515	12-8900-UU52H	Fluorene	5/26/2012	120		Yes	Y				59	13	ug/kg
MS007-SS-120515	12-8900-UU52H	Carbazole	5/26/2012	62		Yes	Y				59	7.9	ug/kg
MS007-SS-120515	12-8900-UU52H	Pentachlorophenol	5/26/2012	590		Yes	N	U			590	140	ug/kg
MS007-SS-120515	12-8900-UU52H	Benzo(g,h,i)perylene	5/26/2012	250		Yes	Y				59	13	ug/kg
MS007-SS-120515	12-8900-UU52H	2-Methylnaphthalene	5/26/2012	290		Yes	Y		J	8	59	9.0	ug/kg
MS007-SS-120515	12-8900-UU52H	Benzoic acid	5/26/2012	1300		Yes	Y		J	8,10	1200	300	ug/kg
MS007-SS-120515	12-8900-UU52H	Naphthalene	5/26/2012	2200		Yes	Y				59	8.1	ug/kg
MS007-SS-120515	12-8900-UU52H	4-Methylphenol (p-Cresol)	5/26/2012	1800		Yes	Y		J	8	120	19	ug/kg
MS007-SS-120515	12-8900-UU52H	Dimethyl phthalate	5/26/2012	59		Yes	N	U			59	8.5	ug/kg
MS007-SS-120515	12-8900-UU52H	Pyrene	5/26/2012	960		Yes	Y				59	5.7	ug/kg
MS007-SS-120515	12-8900-UU52H	Anthracene	5/26/2012	170		Yes	Y				59	13	ug/kg
MS007-SS-120515	12-8900-UU52H	Di-n-octyl phthalate	5/26/2012	59		Yes	N	UJ			59	17	ug/kg
MS007-SS-120515	12-8900-UU52H	Bis(2-ethylhexyl) phthalate	5/26/2012	120		Yes	Y				74	43	ug/kg
MS007-SS-120515	12-8900-UU52H	Dibenzofuran	5/26/2012	210		Yes	Y				59	12	ug/kg
MS007-SS-120515	12-8900-UU52H	Phenol	5/26/2012	430		Yes	Y		J	8	59	25	ug/kg
MS007-SS-120515	12-8900-UU52H	Di-n-butyl phthalate	5/26/2012	59		Yes	N	U			59	24	ug/kg
MS008-SS-120515	12-8901-UU52I	Dibenzo(a,h)anthracene	5/29/2012	54		Yes	Y	J			60	13	ug/kg

SDG: UU52

Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS008-SS-120515	12-8901-UU52I	Benzo(a)pyrene	5/29/2012	220	Yes	Y				60	16	ug/kg
MS008-SS-120515	12-8901-UU52I	Retene	5/29/2012	60	Yes	N	U			60	60	ug/kg
MS008-SS-120515	12-8901-UU52I	Chrysene	5/29/2012	240	Yes	Y				60	11	ug/kg
MS008-SS-120515	12-8901-UU52I	Acenaphthylene	5/29/2012	39	Yes	Y	J			60	17	ug/kg
MS008-SS-120515	12-8901-UU52I	Fluoranthene	5/29/2012	600	Yes	Y				60	8.7	ug/kg
MS008-SS-120515	12-8901-UU52I	Benzo(a)anthracene	5/29/2012	190	Yes	Y				60	9.8	ug/kg
MS008-SS-120515	12-8901-UU52I	Benzo(g,h,i)perylene	5/29/2012	170	Yes	Y				60	13	ug/kg
MS008-SS-120515	12-8901-UU52I	Butylbenzyl phthalate	5/29/2012	60	Yes	N	U			60	18	ug/kg
MS008-SS-120515	12-8901-UU52I	Indeno(1,2,3-c,d)pyrene	5/29/2012	140	Yes	Y				60	14	ug/kg
MS008-SS-120515	12-8901-UU52I	Benzoic acid	5/29/2012	740	Yes	Y	J	J	10	1200	300	ug/kg
MS008-SS-120515	12-8901-UU52I	Acenaphthene	5/29/2012	57	Yes	Y	J			60	9.8	ug/kg
MS008-SS-120515	12-8901-UU52I	Phenanthrene	5/29/2012	480	Yes	Y				60	11	ug/kg
MS008-SS-120515	12-8901-UU52I	Pyrene	5/29/2012	460	Yes	Y				60	5.8	ug/kg
MS008-SS-120515	12-8901-UU52I	Fluorene	5/29/2012	66	Yes	Y				60	13	ug/kg
MS008-SS-120515	12-8901-UU52I	Carbazole	5/29/2012	63	Yes	Y				60	8.0	ug/kg
MS008-SS-120515	12-8901-UU52I	Pentachlorophenol	5/29/2012	600	Yes	N	U			600	140	ug/kg
MS008-SS-120515	12-8901-UU52I	Naphthalene	5/29/2012	460	Yes	Y				60	8.2	ug/kg
MS008-SS-120515	12-8901-UU52I	2-Methylnaphthalene	5/29/2012	66	Yes	Y				60	9.1	ug/kg
MS008-SS-120515	12-8901-UU52I	Benzo(b,j,k)fluoranthenes	5/29/2012	420	Yes	Y				60	8.2	ug/kg
MS008-SS-120515	12-8901-UU52I	Di-n-butyl phthalate	5/29/2012	60	Yes	N	U			60	24	ug/kg
MS008-SS-120515	12-8901-UU52I	Anthracene	5/29/2012	110	Yes	Y				60	13	ug/kg
MS008-SS-120515	12-8901-UU52I	Di-n-octyl phthalate	5/29/2012	60	Yes	N	UJ			60	17	ug/kg
MS008-SS-120515	12-8901-UU52I	Bis(2-ethylhexyl) phthalate	5/29/2012	98	Yes	Y				75	44	ug/kg
MS008-SS-120515	12-8901-UU52I	Phenol	5/29/2012	190	Yes	Y				60	26	ug/kg
MS008-SS-120515	12-8901-UU52I	4-Methylphenol (p-Cresol)	5/29/2012	610	Yes	Y				120	20	ug/kg

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS008-SS-120515	12-8901-UU52I	Dibenzofuran	5/29/2012	69	Yes	Y				60	12	ug/kg
MS008-SS-120515	12-8901-UU52I	Dimethyl phthalate	5/29/2012	60	Yes	N	U			60	8.7	ug/kg
MS009-SS-120515	12-8902-UU52J	Benzo(g,h,i)perylene	5/29/2012	80	Yes	Y				60	13	ug/kg
MS009-SS-120515	12-8902-UU52J	Dibenzo(a,h)anthracene	5/29/2012	60	Yes	N	U			60	13	ug/kg
MS009-SS-120515	12-8902-UU52J	Benzo(a)pyrene	5/29/2012	80	Yes	Y				60	16	ug/kg
MS009-SS-120515	12-8902-UU52J	Chrysene	5/29/2012	120	Yes	Y				60	11	ug/kg
MS009-SS-120515	12-8902-UU52J	Acenaphthylene	5/29/2012	60	Yes	N	U			60	17	ug/kg
MS009-SS-120515	12-8902-UU52J	Benzo(a)anthracene	5/29/2012	57	Yes	Y	J			60	9.8	ug/kg
MS009-SS-120515	12-8902-UU52J	Indeno(1,2,3-c,d)pyrene	5/29/2012	63	Yes	Y				60	14	ug/kg
MS009-SS-120515	12-8902-UU52J	Di-n-butyl phthalate	5/29/2012	60	Yes	N	U			60	24	ug/kg
MS009-SS-120515	12-8902-UU52J	Dibenzofuran	5/29/2012	54	Yes	Y	J			60	12	ug/kg
MS009-SS-120515	12-8902-UU52J	Fluoranthene	5/29/2012	290	Yes	Y				60	8.7	ug/kg
MS009-SS-120515	12-8902-UU52J	Pentachlorophenol	5/29/2012	600	Yes	N	U			600	140	ug/kg
MS009-SS-120515	12-8902-UU52J	Benzoic acid	5/29/2012	410	Yes	Y	J	J	10	1200	300	ug/kg
MS009-SS-120515	12-8902-UU52J	Acenaphthene	5/29/2012	60	Yes	N	U			60	9.8	ug/kg
MS009-SS-120515	12-8902-UU52J	Phenanthrene	5/29/2012	250	Yes	Y				60	11	ug/kg
MS009-SS-120515	12-8902-UU52J	Butylbenzyl phthalate	5/29/2012	60	Yes	N	U			60	18	ug/kg
MS009-SS-120515	12-8902-UU52J	Fluorene	5/29/2012	42	Yes	Y	J			60	13	ug/kg
MS009-SS-120515	12-8902-UU52J	Carbazole	5/29/2012	60	Yes	N	U			60	8.0	ug/kg
MS009-SS-120515	12-8902-UU52J	Naphthalene	5/29/2012	290	Yes	Y				60	8.2	ug/kg
MS009-SS-120515	12-8902-UU52J	Benzo(b,j,k)fluoranthenes	5/29/2012	180	Yes	Y				60	8.2	ug/kg
MS009-SS-120515	12-8902-UU52J	Retene	5/29/2012	60	Yes	N	U			60	60	ug/kg
MS009-SS-120515	12-8902-UU52J	Dimethyl phthalate	5/29/2012	60	Yes	N	U			60	8.6	ug/kg
MS009-SS-120515	12-8902-UU52J	2-Methylnaphthalene	5/29/2012	36	Yes	Y	J			60	9.1	ug/kg
MS009-SS-120515	12-8902-UU52J	Anthracene	5/29/2012	51	Yes	Y	J			60	13	ug/kg

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS009-SS-120515	12-8902-UU52J	Di-n-octyl phthalate	5/29/2012	60	Yes	N	UJ			60	17	ug/kg
MS009-SS-120515	12-8902-UU52J	Bis(2-ethylhexyl) phthalate	5/29/2012	90	Yes	Y				75	44	ug/kg
MS009-SS-120515	12-8902-UU52J	Phenol	5/29/2012	100	Yes	Y				60	26	ug/kg
MS009-SS-120515	12-8902-UU52J	4-Methylphenol (p-Cresol)	5/29/2012	470	Yes	Y				120	20	ug/kg
MS009-SS-120515	12-8902-UU52J	Pyrene	5/29/2012	240	Yes	Y				60	5.8	ug/kg
MS101-SS-120515	12-8894-UU52B	Dibenzofuran	5/26/2012	280	Yes	Y				60	12	ug/kg
MS101-SS-120515	12-8894-UU52B	Dimethyl phthalate	5/26/2012	60	Yes	N	U			60	8.6	ug/kg
MS101-SS-120515	12-8894-UU52B	Pyrene	5/26/2012	910	Yes	Y				60	5.8	ug/kg
MS101-SS-120515	12-8894-UU52B	Anthracene	5/26/2012	180	Yes	Y				60	13	ug/kg
MS101-SS-120515	12-8894-UU52B	Di-n-octyl phthalate	5/26/2012	60	Yes	N	UJ			60	17	ug/kg
MS101-SS-120515	12-8894-UU52B	Bis(2-ethylhexyl) phthalate	5/26/2012	120	Yes	Y				74	43	ug/kg
MS101-SS-120515	12-8894-UU52B	Phenol	5/26/2012	400	Yes	Y				60	26	ug/kg
MS101-SS-120515	12-8894-UU52B	4-Methylphenol (p-Cresol)	5/26/2012	1600	Yes	Y				120	20	ug/kg
MS101-SS-120515	12-8894-UU52B	Phenanthrene	5/26/2012	1200	Yes	Y				60	11	ug/kg
MS101-SS-120515	12-8894-UU52B	Benzo(g,h,i)perylene	5/26/2012	330	Yes	Y				60	13	ug/kg
MS101-SS-120515	12-8894-UU52B	Acenaphthene	5/26/2012	160	Yes	Y				60	9.8	ug/kg
MS101-SS-120515	12-8894-UU52B	Chrysene	5/26/2012	400	Yes	Y				60	11	ug/kg
MS101-SS-120515	12-8894-UU52B	Benzoic acid	5/26/2012	640	Yes	Y	J	J	10	1200	300	ug/kg
MS101-SS-120515	12-8894-UU52B	Benzo(a)anthracene	5/26/2012	170	Yes	Y				60	9.8	ug/kg
MS101-SS-120515	12-8894-UU52B	Dibenzo(a,h)anthracene	5/26/2012	54	Yes	Y	J			60	13	ug/kg
MS101-SS-120515	12-8894-UU52B	Benzo(a)pyrene	5/26/2012	270	Yes	Y				60	16	ug/kg
MS101-SS-120515	12-8894-UU52B	Retene	5/26/2012	100	Yes	Y				60	60	ug/kg
MS101-SS-120515	12-8894-UU52B	Di-n-butyl phthalate	5/26/2012	60	Yes	N	U			60	24	ug/kg
MS101-SS-120515	12-8894-UU52B	Pentachlorophenol	5/26/2012	160	Yes	Y	J			600	140	ug/kg
MS101-SS-120515	12-8894-UU52B	2-Methylnaphthalene	5/26/2012	270	Yes	Y				60	9.1	ug/kg

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS101-SS-120515	12-8894-UU52B	Fluoranthene	5/26/2012	970	Yes	Y				60	8.7	ug/kg
MS101-SS-120515	12-8894-UU52B	Indeno(1,2,3-c,d)pyrene	5/26/2012	230	Yes	Y				60	14	ug/kg
MS101-SS-120515	12-8894-UU52B	Naphthalene	5/26/2012	1800	Yes	Y				60	8.2	ug/kg
MS101-SS-120515	12-8894-UU52B	Carbazole	5/26/2012	57	Yes	Y	J			60	8.0	ug/kg
MS101-SS-120515	12-8894-UU52B	Fluorene	5/26/2012	170	Yes	Y				60	13	ug/kg
MS101-SS-120515	12-8894-UU52B	Butylbenzyl phthalate	5/26/2012	60	Yes	N	U			60	18	ug/kg
MS101-SS-120515	12-8894-UU52B	Benzo(b,j,k)fluoranthenes	5/26/2012	640	Yes	Y				60	8.2	ug/kg
MS101-SS-120515	12-8894-UU52B	Acenaphthylene	5/26/2012	130	Yes	Y				60	17	ug/kg

Analytical Method	SW9060M											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-8893-UU52A	Total organic carbon	5/24/2012	19.6	Yes	Y				0.194	0.02813	pct
MS002-SS-120515	12-8895-UU52C	Total organic carbon	5/24/2012	17.1	Yes	Y				0.194	0.02813	pct
MS003-SS-120515	12-8896-UU52D	Total organic carbon	5/24/2012	23.6	Yes	Y				0.200	0.02900	pct
MS004-SS-120515	12-8897-UU52E	Total organic carbon	5/24/2012	17.9	Yes	Y				0.184	0.02668	pct
MS005-SS-120515	12-8898-UU52F	Total organic carbon	5/24/2012	29	Yes	Y				0.192	0.02784	pct
MS006-SS-120515	12-8899-UU52G	Total organic carbon	5/24/2012	31.9	Yes	Y				0.208	0.03016	pct
MS007-SS-120515	12-8900-UU52H	Total organic carbon	5/24/2012	16.7	Yes	Y				0.196	0.02842	pct
MS008-SS-120515	12-8901-UU52I	Total organic carbon	5/24/2012	22.5	Yes	Y				0.200	0.02900	pct
MS009-SS-120515	12-8902-UU52J	Total organic carbon	5/24/2012	12.2	Yes	Y				0.190	0.02755	pct
MS010-SS-120515	12-8903-UU52K	Total organic carbon	5/24/2012	11.8	Yes	Y				0.164	0.02378	pct
MS101-SS-120515	12-8894-UU52B	Total organic carbon	5/24/2012	18.4	Yes	Y				0.186	0.02697	pct

SDG: UU62

Analytical Method	E200.8											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS-SSFB-120515	12-8938-UU62K	Arsenic	5/23/2012	0.2	Yes	N	U			0.2	0.048	ug/L
MS-SSFB-120515	12-8938-UU62K	Cadmium	5/23/2012	0.1	Yes	N	U			0.1	0.010	ug/L
MS-SSFB-120515	12-8938-UU62K	Antimony	5/23/2012	0.2	Yes	N	U			0.2	0.010	ug/L
MS-SSFB-120515	12-8938-UU62K	Silver	5/23/2012	0.2	Yes	N	U			0.2	0.0080	ug/L
MS-SSRB-120515	12-8937-UU62J	Cadmium	5/23/2012	0.1	Yes	N	U			0.1	0.010	ug/L
MS-SSRB-120515	12-8937-UU62J	Silver	5/23/2012	0.2	Yes	N	U			0.2	0.0080	ug/L
MS-SSRB-120515	12-8937-UU62J	Arsenic	5/23/2012	0.2	Yes	N	U			0.2	0.048	ug/L
MS-SSRB-120515	12-8937-UU62J	Antimony	5/23/2012	0.2	Yes	N	U			0.2	0.010	ug/L

Analytical Method	E350.1M											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS011-SS-120515	12-8929-UU62B	Ammonia	5/21/2012	20.8	Yes	Y				0.96	0.03000	mg/kg
MS012-SS-120515	12-8930-UU62C	Ammonia	5/21/2012	155	Yes	Y				2.02	0.06000	mg/kg
MS013-SS-120515	12-8931-UU62D	Ammonia	5/21/2012	107	Yes	Y				2.01	0.06000	mg/kg
MS014-SS-120515	12-8932-UU62E	Ammonia	5/21/2012	204	Yes	Y				5.27	0.15000	mg/kg
MS015-SS-120515	12-8933-UU62F	Ammonia	5/21/2012	121	Yes	Y				1.89	0.06000	mg/kg
MS016-SS-120515	12-8934-UU62G	Ammonia	5/21/2012	129	Yes	Y				1.70	0.06000	mg/kg
MS017-SS-120515	12-8935-UU62H	Ammonia	5/21/2012	117	Yes	Y				1.23	0.03000	mg/kg
MS018-SS-120515	12-8936-UU62I	Ammonia	5/21/2012	130	Yes	Y				1.80	0.06000	mg/kg
MS110-SS-120515	12-8928-UU62A	Ammonia	5/21/2012	95.6	Yes	Y				0.97	0.03000	mg/kg

Analytical Method	E376.2											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS011-SS-120515	12-8929-UU62B	Sulfide	5/18/2012	8.88	Yes	N	U			8.88	0.00750	mg/kg
MS012-SS-120515	12-8930-UU62C	Sulfide	5/18/2012	2180	Yes	Y				189	0.15000	mg/kg
MS013-SS-120515	12-8931-UU62D	Sulfide	5/18/2012	1520	Yes	Y				103	0.07500	mg/kg
MS014-SS-120515	12-8932-UU62E	Sulfide	5/18/2012	4450	Yes	Y				441	0.37500	mg/kg

Analytical Method	E376.2											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS015-SS-120515	12-8933-UU62F	Sulfide	5/18/2012	2130	Yes	Y				178	0.15000	mg/kg
MS016-SS-120515	12-8934-UU62G	Sulfide	5/18/2012	702	Yes	Y				89.5	0.07500	mg/kg
MS017-SS-120515	12-8935-UU62H	Sulfide	5/18/2012	2450	Yes	Y				131	0.07500	mg/kg
MS018-SS-120515	12-8936-UU62I	Sulfide	5/18/2012	2960	Yes	Y				190	0.15000	mg/kg
MS110-SS-120515	12-8928-UU62A	Sulfide	5/18/2012	1750	Yes	Y				91.4	0.07500	mg/kg

Analytical Method	NWTPHDx											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS-SSFB-120515	12-8938-UU62K	Motor Oil Range	5/21/2012	0.2	Yes	N	U			0.20	0.01	mg/L
MS-SSFB-120515	12-8938-UU62K	Diesel Range Hydrocarbons	5/21/2012	0.1	Yes	N	U			0.10	0.04	mg/L
MS-SSRB-120515	12-8937-UU62J	Motor Oil Range	5/21/2012	0.2	Yes	N	U			0.20	0.01	mg/L
MS-SSRB-120515	12-8937-UU62J	Diesel Range Hydrocarbons	5/21/2012	0.1	Yes	N	U			0.10	0.04	mg/L

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS011-SS-120515	12-8929-UU62B	Silt, Medium	5/25/2012	1.6	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Clay, Medium	5/25/2012	2.6	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Silt, Very Fine	5/25/2012	4.2	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Fines (silt + clay)	5/25/2012	20.4	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Silt, Coarse	5/25/2012	0.2	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Sand, Very Fine	5/25/2012	4.6	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Sand, Very Coarse	5/25/2012	17.8	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Sand, Medium	5/25/2012	11.7	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Sand, Fine	5/25/2012	7.4	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Sand, Coarse	5/25/2012	14.5	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Silt, Fine	5/25/2012	3.7	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Clay, Coarse	5/25/2012	3.2	Yes	Y				0.1	0.1	pct

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Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS011-SS-120515	12-8929-UU62B	Gravel	5/25/2012	23.6	Yes	Y				0.1	0.1	pct
MS011-SS-120515	12-8929-UU62B	Clay, Fine	5/25/2012	5.1	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Silt, Coarse	5/25/2012	4.9	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Silt, Fine	5/25/2012	6.5	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Silt, Medium	5/25/2012	18.9	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Clay, Coarse	5/25/2012	1.2	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Sand, Very Fine	5/25/2012	1.9	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Silt, Very Fine	5/25/2012	4.1	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Sand, Fine	5/25/2012	2.8	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Clay, Medium	5/25/2012	2.2	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Sand, Very Coarse	5/25/2012	11	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Clay, Fine	5/25/2012	15.2	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Fines (silt + clay)	5/25/2012	53	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Gravel	5/25/2012	21.3	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Sand, Coarse	5/25/2012	5.9	Yes	Y				0.1	0.1	pct
MS012-SS-120515	12-8930-UU62C	Sand, Medium	5/25/2012	4.1	Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Sand, Coarse	5/25/2012	7.1	Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Sand, Fine	5/25/2012	4.2	Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Sand, Medium	5/25/2012	3.7	Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Clay, Fine	5/25/2012	9.3	Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Sand, Very Coarse	5/25/2012	11.6	Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Sand, Very Fine	5/25/2012	1.8	Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Silt, Coarse	5/25/2012	4.2	Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Silt, Fine	5/25/2012	11.6	Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Fines (silt + clay)	5/25/2012	48	Yes	Y				0.1	0.1	pct

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Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS013-SS-120515	12-8931-UU62D	Silt, Medium	5/25/2012	12.9		Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Clay, Medium	5/25/2012	0.8		Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Silt, Very Fine	5/25/2012	6.9		Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Clay, Coarse	5/25/2012	2.2		Yes	Y				0.1	0.1	pct
MS013-SS-120515	12-8931-UU62D	Gravel	5/25/2012	23.6		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Silt, Fine	5/25/2012	11.9		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Clay, Coarse	5/25/2012	4.7		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Silt, Medium	5/25/2012	7.7		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Clay, Fine	5/25/2012	11.8		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Fines (silt + clay)	5/25/2012	54.3		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Gravel	5/25/2012	6.9		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Sand, Coarse	5/25/2012	10.3		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Sand, Fine	5/25/2012	4.9		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Sand, Medium	5/25/2012	7		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Sand, Very Coarse	5/25/2012	13.4		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Sand, Very Fine	5/25/2012	3.2		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Silt, Coarse	5/25/2012	1.9		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Silt, Very Fine	5/25/2012	12.8		Yes	Y				0.1	0.1	pct
MS014-SS-120515	12-8932-UU62E	Clay, Medium	5/25/2012	3.4		Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Fines (silt + clay)	5/25/2012	56		Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Silt, Very Fine	5/25/2012	12.8		Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Silt, Medium	5/25/2012	11.8		Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Silt, Fine	5/25/2012	11.9		Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Silt, Coarse	5/25/2012	2.1		Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Sand, Very Fine	5/25/2012	1.5		Yes	Y				0.1	0.1	pct

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Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS015-SS-120515	12-8933-UU62F	Sand, Very Coarse	5/25/2012	11.3	Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Sand, Medium	5/25/2012	4.8	Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Sand, Fine	5/25/2012	2.7	Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Gravel	5/25/2012	16.2	Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Clay, Medium	5/25/2012	2.9	Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Clay, Fine	5/25/2012	10.5	Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Clay, Coarse	5/25/2012	4	Yes	Y				0.1	0.1	pct
MS015-SS-120515	12-8933-UU62F	Sand, Coarse	5/25/2012	7.5	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Sand, Medium	5/25/2012	7.2	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Silt, Very Fine	5/25/2012	9.3	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Clay, Fine	5/25/2012	8.2	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Clay, Medium	5/25/2012	2.5	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Fines (silt + clay)	5/25/2012	43.8	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Gravel	5/25/2012	17.3	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Sand, Coarse	5/25/2012	10.4	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Clay, Coarse	5/25/2012	2.1	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Silt, Medium	5/25/2012	8.5	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Sand, Very Coarse	5/25/2012	14	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Sand, Very Fine	5/25/2012	2.8	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Silt, Fine	5/25/2012	12.9	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Silt, Coarse	5/25/2012	0.2	Yes	Y				0.1	0.1	pct
MS016-SS-120515	12-8934-UU62G	Sand, Fine	5/25/2012	4.5	Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Silt, Very Fine	5/25/2012	8.3	Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Silt, Medium	5/25/2012	3.4	Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Clay, Coarse	5/25/2012	2.4	Yes	Y				0.1	0.1	pct

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Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS017-SS-120515	12-8935-UU62H	Clay, Fine	5/25/2012	11.4		Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Clay, Medium	5/25/2012	2.5		Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Fines (silt + clay)	5/25/2012	37.7		Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Silt, Fine	5/25/2012	9		Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Sand, Very Fine	5/25/2012	3.4		Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Sand, Very Coarse	5/25/2012	14.3		Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Sand, Medium	5/25/2012	8.2		Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Sand, Fine	5/25/2012	5.3		Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Sand, Coarse	5/25/2012	11.5		Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Gravel	5/25/2012	19.6		Yes	Y				0.1	0.1	pct
MS017-SS-120515	12-8935-UU62H	Silt, Coarse	5/25/2012	0.7		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Sand, Very Fine	5/25/2012	2.1		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Silt, Very Fine	5/25/2012	7.1		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Silt, Fine	5/25/2012	12.9		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Sand, Medium	5/25/2012	3.3		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Sand, Fine	5/25/2012	2.8		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Sand, Coarse	5/25/2012	4.6		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Gravel	5/25/2012	16.8		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Fines (silt + clay)	5/25/2012	61.7		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Sand, Very Coarse	5/25/2012	8.7		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Clay, Medium	5/25/2012	4.7		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Clay, Fine	5/25/2012	12.9		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Clay, Coarse	5/25/2012	4.6		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Silt, Medium	5/25/2012	17.7		Yes	Y				0.1	0.1	pct
MS018-SS-120515	12-8936-UU62I	Silt, Coarse	5/25/2012	1.8		Yes	Y				0.1	0.1	pct

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS110-SS-120515	12-8928-UU62A	Sand, Very Fine	5/25/2012	3.8	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Silt, Very Fine	5/25/2012	15.4	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Silt, Medium	5/25/2012	9.5	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Silt, Coarse	5/25/2012	2.4	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Clay, Coarse	5/25/2012	5.5	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Clay, Fine	5/25/2012	12	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Sand, Very Coarse	5/25/2012	14.2	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Sand, Medium	5/25/2012	6.5	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Sand, Fine	5/25/2012	5	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Clay, Medium	5/25/2012	4.1	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Fines (silt + clay)	5/25/2012	58.5	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Sand, Coarse	5/25/2012	9.4	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Gravel	5/25/2012	2.6	Yes	Y				0.1	0.1	pct
MS110-SS-120515	12-8928-UU62A	Silt, Fine	5/25/2012	9.5	Yes	Y				0.1	0.1	pct

Analytical Method	SM2540B											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS011-SS-120515	12-8929-UU62B	Total solids	5/22/2012	9.8	Yes	Y				0.01		pct
MS012-SS-120515	12-8930-UU62C	Total solids	5/22/2012	9.7	Yes	Y				0.01		pct
MS013-SS-120515	12-8931-UU62D	Total solids	5/22/2012	9.3	Yes	Y				0.01		pct
MS014-SS-120515	12-8932-UU62E	Total solids	5/22/2012	9.8	Yes	Y				0.01		pct
MS015-SS-120515	12-8933-UU62F	Total solids	5/22/2012	10.3	Yes	Y				0.01		pct
MS016-SS-120515	12-8934-UU62G	Total solids	5/22/2012	12.4	Yes	Y				0.01		pct
MS017-SS-120515	12-8935-UU62H	Total solids	5/22/2012	8.4	Yes	Y				0.01		pct
MS018-SS-120515	12-8936-UU62I	Total solids	5/22/2012	11.7	Yes	Y				0.01		pct
MS110-SS-120515	12-8928-UU62A	Total solids	5/22/2012	10.4	Yes	Y				0.01		pct

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Analytical Method	SM2540B-PRES											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS011-SS-120515	12-8929-UU62B	Total solids (preserved)	5/21/2012	11	Yes	Y				0.01		pct
MS012-SS-120515	12-8930-UU62C	Total solids (preserved)	5/21/2012	10.5	Yes	Y				0.01		pct
MS013-SS-120515	12-8931-UU62D	Total solids (preserved)	5/21/2012	9.6	Yes	Y				0.01		pct
MS014-SS-120515	12-8932-UU62E	Total solids (preserved)	5/21/2012	10.8	Yes	Y				0.01		pct
MS015-SS-120515	12-8933-UU62F	Total solids (preserved)	5/21/2012	11	Yes	Y				0.01		pct
MS016-SS-120515	12-8934-UU62G	Total solids (preserved)	5/21/2012	11	Yes	Y				0.01		pct
MS017-SS-120515	12-8935-UU62H	Total solids (preserved)	5/21/2012	7.4	Yes	Y				0.01		pct
MS018-SS-120515	12-8936-UU62I	Total solids (preserved)	5/21/2012	11.1	Yes	Y				0.01		pct
MS110-SS-120515	12-8928-UU62A	Total solids (preserved)	5/21/2012	10.7	Yes	Y				0.01		pct

Analytical Method	SW6010C											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS-SSFB-120515	12-8938-UU62K	Chromium	5/29/2012	5	Yes	N	U			5	1.2	ug/L
MS-SSFB-120515	12-8938-UU62K	Lead	5/29/2012	20	Yes	N	U			20	1.6	ug/L
MS-SSFB-120515	12-8938-UU62K	Nickel	5/29/2012	10	Yes	N	U			10	3.9	ug/L
MS-SSFB-120515	12-8938-UU62K	Zinc	5/29/2012	10	Yes	N	U			10	1.4	ug/L
MS-SSFB-120515	12-8938-UU62K	Copper	5/29/2012	7	Yes	Y				2	0.92	ug/L
MS-SSRB-120515	12-8937-UU62J	Chromium	5/29/2012	5	Yes	N	U			5	1.2	ug/L
MS-SSRB-120515	12-8937-UU62J	Lead	5/29/2012	20	Yes	N	U			20	1.6	ug/L
MS-SSRB-120515	12-8937-UU62J	Nickel	5/29/2012	10	Yes	N	U			10	3.9	ug/L
MS-SSRB-120515	12-8937-UU62J	Copper	5/29/2012	2	Yes	N	U			2	0.92	ug/L
MS-SSRB-120515	12-8937-UU62J	Zinc	5/29/2012	10	Yes	N	U			10	1.4	ug/L

Analytical Method	SW7470A											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS-SSFB-120515	12-8938-UU62K	Mercury	5/21/2012	0.1	Yes	N	U			0.1	0.0069	ug/L
MS-SSRB-120515	12-8937-UU62J	Mercury	5/21/2012	0.1	Yes	N	U			0.1	0.0069	ug/L

Analytical Method	SW8081B											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS-SSFB-120515	12-8938-UU62K	4,4'-DDT (p,p'-DDT)	5/24/2012	0.1		Yes	N	U			0.10	0.017	ug/L
MS-SSFB-120515	12-8938-UU62K	Endrin ketone	5/24/2012	0.1		Yes	N	U			0.10	0.015	ug/L
MS-SSFB-120515	12-8938-UU62K	Hexachlorocyclohexane, beta- (BHC)	5/24/2012	0.05		Yes	N	U			0.050	0.0098	ug/L
MS-SSFB-120515	12-8938-UU62K	4,4'-DDD (p,p'-DDD)	5/24/2012	0.1		Yes	N	U			0.10	0.019	ug/L
MS-SSFB-120515	12-8938-UU62K	4,4'-DDE (p,p'-DDE)	5/24/2012	0.1		Yes	N	U			0.10	0.018	ug/L
MS-SSFB-120515	12-8938-UU62K	Dieldrin	5/24/2012	0.1		Yes	N	U			0.10	0.017	ug/L
MS-SSRB-120515	12-8937-UU62J	4,4'-DDE (p,p'-DDE)	5/24/2012	0.1		Yes	N	U			0.10	0.018	ug/L
MS-SSRB-120515	12-8937-UU62J	Hexachlorocyclohexane, beta- (BHC)	5/24/2012	0.05		Yes	N	U			0.050	0.0098	ug/L
MS-SSRB-120515	12-8937-UU62J	4,4'-DDT (p,p'-DDT)	5/24/2012	0.1		Yes	N	U			0.10	0.017	ug/L
MS-SSRB-120515	12-8937-UU62J	4,4'-DDD (p,p'-DDD)	5/24/2012	0.1		Yes	N	U			0.10	0.019	ug/L
MS-SSRB-120515	12-8937-UU62J	Dieldrin	5/24/2012	0.1		Yes	N	U			0.10	0.017	ug/L
MS-SSRB-120515	12-8937-UU62J	Endrin ketone	5/24/2012	0.1		Yes	N	U			0.10	0.015	ug/L

Analytical Method	SW8082											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS-SSFB-120515	12-8938-UU62K	Aroclor 1016	5/23/2012	1		Yes	N	U			1.0	0.13	ug/L
MS-SSFB-120515	12-8938-UU62K	Aroclor 1254	5/23/2012	1		Yes	N	U			1.0	0.15	ug/L
MS-SSFB-120515	12-8938-UU62K	Aroclor 1248	5/23/2012	1		Yes	N	U			1.0	0.15	ug/L
MS-SSFB-120515	12-8938-UU62K	Aroclor 1242	5/23/2012	1		Yes	N	U			1.0	0.15	ug/L
MS-SSFB-120515	12-8938-UU62K	Aroclor 1260	5/23/2012	1		Yes	N	U			1.0	0.15	ug/L
MS-SSFB-120515	12-8938-UU62K	Aroclor 1268	5/23/2012	1		Yes	N	U			1.0	0.15	ug/L
MS-SSFB-120515	12-8938-UU62K	Aroclor 1232	5/23/2012	1		Yes	N	U			1.0	0.15	ug/L
MS-SSFB-120515	12-8938-UU62K	Aroclor 1221	5/23/2012	1		Yes	N	U			1.0	0.15	ug/L
MS-SSFB-120515	12-8938-UU62K	Aroclor 1262	5/23/2012	1		Yes	N	U			1.0	0.15	ug/L
MS-SSRB-120515	12-8937-UU62J	Aroclor 1242	5/23/2012	1		Yes	N	U	UJ	13	1.0	0.15	ug/L
MS-SSRB-120515	12-8937-UU62J	Aroclor 1254	5/23/2012	1		Yes	N	U	UJ	13	1.0	0.15	ug/L

SDG: UU62

Analytical Method	SW8082											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS-SSRB-120515	12-8937-UU62J	Aroclor 1260	5/23/2012	1	Yes	N	U	UJ	13	1.0	0.15	ug/L
MS-SSRB-120515	12-8937-UU62J	Aroclor 1268	5/23/2012	1	Yes	N	U	UJ	13	1.0	0.15	ug/L
MS-SSRB-120515	12-8937-UU62J	Aroclor 1262	5/23/2012	1	Yes	N	U	UJ	13	1.0	0.15	ug/L
MS-SSRB-120515	12-8937-UU62J	Aroclor 1016	5/23/2012	1	Yes	N	U	UJ	13	1.0	0.13	ug/L
MS-SSRB-120515	12-8937-UU62J	Aroclor 1248	5/23/2012	1	Yes	N	U	UJ	13	1.0	0.15	ug/L
MS-SSRB-120515	12-8937-UU62J	Aroclor 1232	5/23/2012	1	Yes	N	U	UJ	13	1.0	0.15	ug/L
MS-SSRB-120515	12-8937-UU62J	Aroclor 1221	5/23/2012	1	Yes	N	U	UJ	13	1.0	0.15	ug/L

Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS-SSFB-120515	12-8938-UU62K	Phenol	5/24/2012	1	Yes	N	U			1.0	0.52	ug/L
MS-SSFB-120515	12-8938-UU62K	Bis(2-ethylhexyl) phthalate	5/24/2012	1	Yes	N	U			1.0	1.0	ug/L
MS-SSFB-120515	12-8938-UU62K	Di-n-octyl phthalate	5/24/2012	1	Yes	N	U			1.0	0.51	ug/L
MS-SSFB-120515	12-8938-UU62K	Anthracene	5/24/2012	1	Yes	N	U			1.0	0.53	ug/L
MS-SSFB-120515	12-8938-UU62K	Pyrene	5/24/2012	1	Yes	N	U			1.0	0.55	ug/L
MS-SSFB-120515	12-8938-UU62K	Dimethyl phthalate	5/24/2012	0.8	Yes	Y	J			1.0	0.53	ug/L
MS-SSFB-120515	12-8938-UU62K	4-Methylphenol (p-Cresol)	5/24/2012	1	Yes	N	U			1.0	0.52	ug/L
MS-SSFB-120515	12-8938-UU62K	Acenaphthene	5/24/2012	1	Yes	N	U			1.0	0.55	ug/L
MS-SSFB-120515	12-8938-UU62K	Benzo(b,j,k)fluoranthenes	5/24/2012	1	Yes	N	U			1.0	0.48	ug/L
MS-SSFB-120515	12-8938-UU62K	2-Methylnaphthalene	5/24/2012	1	Yes	N	U			1.0	0.48	ug/L
MS-SSFB-120515	12-8938-UU62K	Naphthalene	5/24/2012	1	Yes	N	U			1.0	0.52	ug/L
MS-SSFB-120515	12-8938-UU62K	Pentachlorophenol	5/24/2012	5	Yes	N	U	UJ	5	5.0	2.4	ug/L
MS-SSFB-120515	12-8938-UU62K	Carbazole	5/24/2012	1	Yes	N	U			1.0	0.31	ug/L
MS-SSFB-120515	12-8938-UU62K	Fluorene	5/24/2012	1	Yes	N	U			1.0	0.56	ug/L
MS-SSFB-120515	12-8938-UU62K	Butylbenzyl phthalate	5/24/2012	1	Yes	N	U			1.0	0.56	ug/L
MS-SSFB-120515	12-8938-UU62K	Di-n-butyl phthalate	5/24/2012	3.7	Yes	Y				1.0	0.54	ug/L

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS-SSFB-120515	12-8938-UU62K	Phenanthrene	5/24/2012	1	Yes	N	U			1.0	0.56	ug/L
MS-SSFB-120515	12-8938-UU62K	Benzo(g,h,i)perylene	5/24/2012	1	Yes	N	U			1.0	0.55	ug/L
MS-SSFB-120515	12-8938-UU62K	Benzoic acid	5/24/2012	10	Yes	N	U			10	5.1	ug/L
MS-SSFB-120515	12-8938-UU62K	Benzo(a)anthracene	5/24/2012	1	Yes	N	U			1.0	0.52	ug/L
MS-SSFB-120515	12-8938-UU62K	Dibenzo(a,h)anthracene	5/24/2012	1	Yes	N	U			1.0	0.48	ug/L
MS-SSFB-120515	12-8938-UU62K	Benzo(a)pyrene	5/24/2012	1	Yes	N	U			1.0	0.48	ug/L
MS-SSFB-120515	12-8938-UU62K	Retene	5/24/2012	1	Yes	N	U			1.0	0.44	ug/L
MS-SSFB-120515	12-8938-UU62K	Chrysene	5/24/2012	1	Yes	N	U			1.0	0.55	ug/L
MS-SSFB-120515	12-8938-UU62K	Acenaphthylene	5/24/2012	1	Yes	N	U			1.0	0.48	ug/L
MS-SSFB-120515	12-8938-UU62K	Fluoranthene	5/24/2012	1	Yes	N	U			1.0	0.52	ug/L
MS-SSFB-120515	12-8938-UU62K	Indeno(1,2,3-c,d)pyrene	5/24/2012	1	Yes	N	U			1.0	0.48	ug/L
MS-SSFB-120515	12-8938-UU62K	Dibenzofuran	5/24/2012	1	Yes	N	U			1.0	0.48	ug/L
MS-SSRB-120515	12-8937-UU62J	Bis(2-ethylhexyl) phthalate	5/24/2012	1	Yes	N	U			1.0	1.0	ug/L
MS-SSRB-120515	12-8937-UU62J	Benzo(b,j,k)fluoranthenes	5/24/2012	1	Yes	N	U			1.0	0.48	ug/L
MS-SSRB-120515	12-8937-UU62J	Benzo(g,h,i)perylene	5/24/2012	1	Yes	N	U			1.0	0.55	ug/L
MS-SSRB-120515	12-8937-UU62J	Phenol	5/24/2012	1	Yes	N	U			1.0	0.52	ug/L
MS-SSRB-120515	12-8937-UU62J	Fluorene	5/24/2012	1	Yes	N	U			1.0	0.56	ug/L
MS-SSRB-120515	12-8937-UU62J	4-Methylphenol (p-Cresol)	5/24/2012	1	Yes	N	U			1.0	0.52	ug/L
MS-SSRB-120515	12-8937-UU62J	Phenanthrene	5/24/2012	1	Yes	N	U			1.0	0.56	ug/L
MS-SSRB-120515	12-8937-UU62J	Di-n-butyl phthalate	5/24/2012	1	Yes	N	U			1.0	0.54	ug/L
MS-SSRB-120515	12-8937-UU62J	Acenaphthene	5/24/2012	1	Yes	N	U			1.0	0.55	ug/L
MS-SSRB-120515	12-8937-UU62J	Pentachlorophenol	5/24/2012	5	Yes	N	U	UJ	5	5.0	2.4	ug/L
MS-SSRB-120515	12-8937-UU62J	Dibenzofuran	5/24/2012	1	Yes	N	U			1.0	0.48	ug/L
MS-SSRB-120515	12-8937-UU62J	Carbazole	5/24/2012	1	Yes	N	U			1.0	0.31	ug/L
MS-SSRB-120515	12-8937-UU62J	Indeno(1,2,3-c,d)pyrene	5/24/2012	1	Yes	N	U			1.0	0.48	ug/L

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Analytical Method	SW8270D											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS-SSRB-120515	12-8937-UU62J	Fluoranthene	5/24/2012	1		Yes	N	U			1.0	0.52	ug/L
MS-SSRB-120515	12-8937-UU62J	Acenaphthylene	5/24/2012	1		Yes	N	U			1.0	0.48	ug/L
MS-SSRB-120515	12-8937-UU62J	Chrysene	5/24/2012	1		Yes	N	U			1.0	0.55	ug/L
MS-SSRB-120515	12-8937-UU62J	Retene	5/24/2012	1		Yes	N	U			1.0	0.44	ug/L
MS-SSRB-120515	12-8937-UU62J	Benzo(a)pyrene	5/24/2012	1		Yes	N	U			1.0	0.48	ug/L
MS-SSRB-120515	12-8937-UU62J	Dibenzo(a,h)anthracene	5/24/2012	1		Yes	N	U			1.0	0.48	ug/L
MS-SSRB-120515	12-8937-UU62J	Benzoic acid	5/24/2012	10		Yes	N	U			10	5.1	ug/L
MS-SSRB-120515	12-8937-UU62J	2-Methylnaphthalene	5/24/2012	1		Yes	N	U			1.0	0.48	ug/L
MS-SSRB-120515	12-8937-UU62J	Benzo(a)anthracene	5/24/2012	1		Yes	N	U			1.0	0.52	ug/L
MS-SSRB-120515	12-8937-UU62J	Di-n-octyl phthalate	5/24/2012	1		Yes	N	U			1.0	0.51	ug/L
MS-SSRB-120515	12-8937-UU62J	Anthracene	5/24/2012	1		Yes	N	U			1.0	0.53	ug/L
MS-SSRB-120515	12-8937-UU62J	Pyrene	5/24/2012	1		Yes	N	U			1.0	0.55	ug/L
MS-SSRB-120515	12-8937-UU62J	Dimethyl phthalate	5/24/2012	0.9		Yes	Y	J			1.0	0.53	ug/L
MS-SSRB-120515	12-8937-UU62J	Naphthalene	5/24/2012	1		Yes	N	U			1.0	0.52	ug/L
MS-SSRB-120515	12-8937-UU62J	Butylbenzyl phthalate	5/24/2012	1		Yes	N	U			1.0	0.56	ug/L

Analytical Method	SW9060M											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS011-SS-120515	12-8929-UU62B	Total organic carbon	5/24/2012	31.5		Yes	Y				0.198	0.02871	pct
MS012-SS-120515	12-8930-UU62C	Total organic carbon	5/24/2012	22.6		Yes	Y				0.200	0.02900	pct
MS013-SS-120515	12-8931-UU62D	Total organic carbon	5/24/2012	18.8		Yes	Y				0.194	0.02813	pct
MS014-SS-120515	12-8932-UU62E	Total organic carbon	5/24/2012	16.9		Yes	Y				0.192	0.02784	pct
MS015-SS-120515	12-8933-UU62F	Total organic carbon	5/24/2012	14.3		Yes	Y				0.200	0.02900	pct
MS016-SS-120515	12-8934-UU62G	Total organic carbon	5/24/2012	19.6		Yes	Y				0.194	0.02813	pct
MS017-SS-120515	12-8935-UU62H	Total organic carbon	5/24/2012	21.8		Yes	Y				0.198	0.02871	pct
MS018-SS-120515	12-8936-UU62I	Total organic carbon	5/24/2012	18		Yes	Y				0.198	0.02871	pct

SDG: UU62

Analytical Method	SW9060M											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS110-SS-120515	12-8928-UU62A	Total organic carbon	5/24/2012	15.7		Yes	Y				0.200	0.02900	pct

SDG: UW85

Analytical Method	WAEPH											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS001-SS-120515	12-10066-UW85A	C21-C34 Aliphatics	6/8/2012	180000	Yes	Y				20000	20000	ug/kg
MS001-SS-120515	12-10066-UW85A	C16-C21 Aliphatics	6/8/2012	20000	Yes	N	U			20000	20000	ug/kg
MS001-SS-120515	12-10066-UW85A	C12-C16 Aliphatics	6/8/2012	20000	Yes	N	U			20000	20000	ug/kg
MS001-SS-120515	12-10066-UW85A	C10-C12 Aliphatics	6/8/2012	20000	Yes	N	U			20000	20000	ug/kg
MS001-SS-120515	12-10066-UW85A	C8-C10 Aliphatics	6/8/2012	20000	Yes	N	U			20000	20000	ug/kg
MS001-SS-120515	12-10066-UW85A	C21-C34 Aromatics	6/8/2012	31000	Yes	Y				20000	20000	ug/kg
MS001-SS-120515	12-10066-UW85A	C16-C21 Aromatics	6/8/2012	20000	Yes	N	U			20000	20000	ug/kg
MS001-SS-120515	12-10066-UW85A	C12-C16 Aromatics	6/8/2012	20000	Yes	N	U			20000	20000	ug/kg
MS001-SS-120515	12-10066-UW85A	C10-C12 Aromatics	6/8/2012	20000	Yes	N	U			20000	20000	ug/kg
MS001-SS-120515	12-10066-UW85A	C8-C10 Aromatics	6/8/2012	20000	Yes	N	U			20000	20000	ug/kg
MS002-SS-120515	12-10067-UW85B	C16-C21 Aliphatics	6/8/2012	29000	Yes	Y				19000	19000	ug/kg
MS002-SS-120515	12-10067-UW85B	C21-C34 Aliphatics	6/8/2012	190000	Yes	Y				19000	19000	ug/kg
MS002-SS-120515	12-10067-UW85B	C12-C16 Aliphatics	6/8/2012	19000	Yes	N	U			19000	19000	ug/kg
MS002-SS-120515	12-10067-UW85B	C10-C12 Aliphatics	6/8/2012	19000	Yes	N	U			19000	19000	ug/kg
MS002-SS-120515	12-10067-UW85B	C8-C10 Aliphatics	6/8/2012	19000	Yes	Y				19000	19000	ug/kg
MS002-SS-120515	12-10067-UW85B	C12-C16 Aromatics	6/8/2012	19000	Yes	N	U			19000	19000	ug/kg
MS002-SS-120515	12-10067-UW85B	C8-C10 Aromatics	6/8/2012	19000	Yes	N	U			19000	19000	ug/kg
MS002-SS-120515	12-10067-UW85B	C16-C21 Aromatics	6/8/2012	19000	Yes	N	U			19000	19000	ug/kg
MS002-SS-120515	12-10067-UW85B	C10-C12 Aromatics	6/8/2012	19000	Yes	N	U			19000	19000	ug/kg
MS002-SS-120515	12-10067-UW85B	C21-C34 Aromatics	6/8/2012	48000	Yes	Y				19000	19000	ug/kg
MS003-SS-120515	12-10068-UW85C	C8-C10 Aliphatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS003-SS-120515	12-10068-UW85C	C10-C12 Aliphatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS003-SS-120515	12-10068-UW85C	C12-C16 Aliphatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS003-SS-120515	12-10068-UW85C	C16-C21 Aliphatics	6/8/2012	38000	Yes	Y				21000	21000	ug/kg
MS003-SS-120515	12-10068-UW85C	C21-C34 Aliphatics	6/8/2012	160000	Yes	Y				21000	21000	ug/kg

SDG: UW85

Analytical Method	WAEPH											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
MS003-SS-120515	12-10068-UW85C	C21-C34 Aromatics	6/8/2012	53000	Yes	Y				21000	21000	ug/kg
MS003-SS-120515	12-10068-UW85C	C8-C10 Aromatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS003-SS-120515	12-10068-UW85C	C10-C12 Aromatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS003-SS-120515	12-10068-UW85C	C12-C16 Aromatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS003-SS-120515	12-10068-UW85C	C16-C21 Aromatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS006-SS-120515	12-10069-UW85D	C21-C34 Aliphatics	6/8/2012	120000	Yes	Y				21000	21000	ug/kg
MS006-SS-120515	12-10069-UW85D	C10-C12 Aliphatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS006-SS-120515	12-10069-UW85D	C8-C10 Aliphatics	6/8/2012	21000	Yes	Y				21000	21000	ug/kg
MS006-SS-120515	12-10069-UW85D	C12-C16 Aliphatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS006-SS-120515	12-10069-UW85D	C16-C21 Aliphatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS006-SS-120515	12-10069-UW85D	C10-C12 Aromatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS006-SS-120515	12-10069-UW85D	C16-C21 Aromatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS006-SS-120515	12-10069-UW85D	C8-C10 Aromatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg
MS006-SS-120515	12-10069-UW85D	C21-C34 Aromatics	6/8/2012	30000	Yes	Y				21000	21000	ug/kg
MS006-SS-120515	12-10069-UW85D	C12-C16 Aromatics	6/8/2012	21000	Yes	N	U			21000	21000	ug/kg