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Client: Anchor QEA

Project: 010128-01.01 JFOS Phase 2

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Signature

April-06-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

April 9, 2012

Nathan Soccorsy
Anchor QEA
720 Olive Way, Suite 1900
Seattle, WA 98101

RE: Client Project: JFOS Phase 2, 010128-01.01
ARI Job No.: UO17

Dear Nathan:

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
-For-
Susan Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile UO17

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

Chain of Custody Documentation

ARI Job ID: UO17

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: U017	Turn-around Requested: Standard
ARI Client Company: Anchor QEA	Phone: 206 903 3385
Client Contact: Nathan Soccorsy	
Client Project Name: JFOS Phase 2	
Client Project #: 010128-01.01	Samplers: Nathan Soccorsy & Kellee Christensen

Page: 2 of 3

Date: 3/27/12 | Ice Present? X

No. of Coolers: 1 | Cooler Temps: 6.9

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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	PCBs	Metals	Archive						Notes/Comments
B-DGP1-SO-00'-02'	3/27/12	13:33	SO	2	X	X							
B-DGP1-SO-02'-03'	3/27/12	13:49	SO	1	X								
B-DGP1-SO-05'-07'	3/27/12	13:55	SO	1	X								
B-DGP1-SO-07'-08.0'	3/27/12	13:58	SO	1	X								
B-DGP1-SO-10'-12'	3/27/12	14:06	SO	1	X								
B-DGP1-SO-12'-13.35	3/27/12	14:08	SO	1	X								
B-DGP1-SO-15'-17'	3/27/12	14:15	SO	1	X								
B-DGP1-SO-17'-19'	3/27/12	14:15	SO	1			X						

Comments/Special Instructions: Lab Split or Retain Excess PCB Volume for future lab composit.

	Relinquished by:	Received by:	Relinquished by:	Received by:
(Signature)	Kellee C			
Printed Name:	Kellee Christensen	Taylor Streeter		
Company:	Anchor QEA	ARI		
Date & Time:	3/27/12 16:45	3-27-12 1645		

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:	Turn-around Requested: Standard	Page: 1 of 3	
ARI Client Company: Anchor QEA	Phone: 206-903-3385	Date: 3/27/12	Ice Present? Y
Client Contact: Nathan Soccorsy		No. of Coolers: 1	Cooler Temps: 6.9
Client Project Name: JFOS Phase 2			
Client Project #: 010128-01.01	Samplers: Nathan Soccorsy & Kellee Christensen		

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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								Notes/Comments
B-DGS1-SO-00'-02'	3/27/12	11:54	SO	1	X								
B-DGS1-SO-02'-02.5'	3/27/12	12:02	SO	1	X								
B-DGS1-SO-05'-07'	3/27/12	12:19	SO	1	X								
B-DGS1-SO-07'-07.5'	3/27/12	12:23	SO	1	X								
B-DGS1-SO-10'-12'	3/27/12	12:38	SO	1	X								
B-DGS1-SO-15'-17'	3/27/12	13:04	SO	1	X								
B-DGS1-SO-17'-19'	3/27/12	13:08	SO	1	X								

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
	(Signature) Kellee Christensen	(Signature)	(Signature)	(Signature)
	Printed Name: Kellee Christensen	Printed Name: Taylor Streater	Printed Name:	Printed Name:
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 3/27/12 16:45	Date & Time: 3-27-12 1645	Date & Time:	Date & Time:

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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: 5017	Turn-around Requested: Standard	Page: 3 of 3	
ARI Client Company: Anchor QEA	Phone: 206-903-3385	Date:	Ice Present? Y
Client Contact: Nathan Soccorsy		No. of Coolers: 1	Cooler Temps: 6.9
Client Project Name: JFOS Phase 2			
Client Project #: 010128-01.01	Samplers: Nathan Soccorsy & Kellee Christensen		

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								Notes/Comments
JF-DGS1-SO-00'-02'	3/27/12	15:12	SO	1	X								
JF-DGS1-SO-02'-03'	3/27/12	15:12	SO	1	X								
JF-DGS1-SO-05'-07'	3/27/12	15:18	SO	1	X								
JF-DGS1-SO-10'-12'	3/27/12	15:28	SO	1	X								
JF-DGS1-SO-15'-17'	3/27/12	15:33	SO	1	X								
JF-DGS1-SO-17'-19'	3/27/12	15:36	SO	1	X								
JF-DGS1-SO-19'-19.75'	3/27/12	15:40	SO	1	X								
JF-DGS1-SO-20'-22'	3/27/12	15:48	SO	1	X								
JF-DGS1-SO-25'-27'	3/27/12	15:56	SO	1	X								
JF-DGS1-SO-30'-32'	3/27/12	16:08	SO	1	X								

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
	(Signature) Kellee C	(Signature)	(Signature)	(Signature)
	Printed Name: Kellee Christensen	Printed Name: Taylor Streeter	Printed Name:	Printed Name:
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 3/27/12 16:45	Date & Time: 3-27-12 16:45	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

COC No(s): _____ (NA)

Assigned ARI Job No: U017

Project Name: JF OS Phase 2

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

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) 6.9

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90916 19

Cooler Accepted by: TS Date: 3-27-12 Time: 16 15

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: 3-27-12 Time: 1730

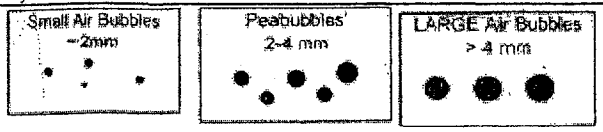
***** Notify Project Manager of discrepancies or concerns *****

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

Additional Notes, Discrepancies, & Resolutions:

foot marker (') added to all sample IDs for consistency.

By: W Date: 3/30/12



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

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: UO17

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: Anchor QEA
Project: JFOS Phase 2, 010128-01.01
Matrix: Soil
ARI Job No.: UO17

Sample receipt

Twenty-five soil samples were received on March 27, 2012, under ARI job UO17. The cooler temperature measured by IR thermometer following ARI SOP was 6.9°C. Select samples were archived upon receipt. For further details regarding sample receipt, refer to the Cooler Receipt Form.

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 recoveries of Decachlorobiphenyl and Tetrachlorometaxylene were outside the control limits high for sample **B-DGP1-SO-00'-02'**. All other percent recoveries were within control limits. No corrective action was taken.

The method blank was clean at the reporting limit. 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 6010B/200.8/7471

The sample and associated laboratory QC were digested 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 matrix spike percent recoveries of antimony, barium, lead, nickel, and silver were outside the control limits for sample **B-DGP1-SO-00'-02'**. A post digestion spike was performed and all recoveries were within control limits. All relevant data have been flagged with an "N" qualifier on the Form V. No further corrective action was required.

The duplicate RPDs of cadmium and lead were outside the control limits for sample **B-DGP1-SO-00'-02'**. All relevant data have been flagged with a "*" qualifier on the Form VI. No further corrective action was taken.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: U017
Client: Anchor QEA
Project Event: 010128-01.01
Project Name: JFOS Phase 2

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	B-DGP1-SO-00'-02'	U017A	12-5305	Soil	03/27/12 13:33	03/27/12 16:45
2.	B-DGP1-SO-02'-03'	U017B	12-5306	Soil	03/27/12 13:49	03/27/12 16:45
3.	B-DGP1-SO-05'-07'	U017C	12-5307	Soil	03/27/12 13:55	03/27/12 16:45
4.	B-DGP1-SO-07'-08.0'	U017D	12-5308	Soil	03/27/12 13:58	03/27/12 16:45
5.	B-DGP1-SO-10'-12'	U017E	12-5309	Soil	03/27/12 14:06	03/27/12 16:45
6.	B-DGP1-SO-12'-13.33'	U017F	12-5310	Soil	03/27/12 14:08	03/27/12 16:45
7.	B-DGP1-SO-15'-17'	U017G	12-5311	Soil	03/27/12 14:15	03/27/12 16:45
8.	B-DGP1-SO-17'-19'	U017H	12-5312	Soil	03/27/12 14:15	03/27/12 16:45
9.	JF-DGS1-SO-00'-02'	U017I	12-5313	Soil	03/27/12 15:12	03/27/12 16:45
10.	JF-DGS1-SO-02'-03'	U017J	12-5314	Soil	03/27/12 15:12	03/27/12 16:45
11.	JF-DGS1-SO-05'-07'	U017K	12-5315	Soil	03/27/12 15:18	03/27/12 16:45
12.	JF-DGS1-SO-10'-12'	U017L	12-5316	Soil	03/27/12 15:28	03/27/12 16:45
13.	JF-DGS1-SO-15'-17'	U017M	12-5317	Soil	03/27/12 15:33	03/27/12 16:45
14.	JF-DGS1-SO-17'-19'	U017N	12-5318	Soil	03/27/12 15:36	03/27/12 16:45
15.	JF-DGS1-SO-19'-19.75'	U017O	12-5319	Soil	03/27/12 15:40	03/27/12 16:45
16.	JF-DGS1-SO-20'-22'	U017P	12-5320	Soil	03/27/12 15:48	03/27/12 16:45
17.	JF-DGS1-SO-25'-27'	U017Q	12-5321	Soil	03/27/12 15:56	03/27/12 16:45
18.	JF-DGS1-SO-30'-32'	U017R	12-5322	Soil	03/27/12 16:08	03/27/12 16:45
19.	B-DGS1-SO-00'-02'	U017S	12-5323	Soil	03/27/12 11:54	03/27/12 16:45
20.	B-DGS1-SO-02'-02.5'	U017T	12-5324	Soil	03/27/12 12:02	03/27/12 16:45
21.	B-DGS1-SO-05'-07'	U017U	12-5325	Soil	03/27/12 12:19	03/27/12 16:45
22.	B-DGS1-SO-07'-07.5'	U017V	12-5326	Soil	03/27/12 12:23	03/27/12 16:45
23.	B-DGS1-SO-10'-12'	U017W	12-5327	Soil	03/27/12 12:38	03/27/12 16:45
24.	B-DGS1-SO-15'-17'	U017X	12-5328	Soil	03/27/12 13:04	03/27/12 16:45
25.	B-DGS1-SO-17'-19'	U017Y	12-5329	Soil	03/27/12 13:08	03/27/12 16:45

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).

U017:00010

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

U017:00012

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

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

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					

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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]			RPD[4]
						LCS	MB/LCS Surrogate	Sample Surrogate	
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

U017:00016

Analytical Resources,Incorporated
Analytical Chemists and Consultants

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	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	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

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

U017:00017

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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	**0.1**	**0.02**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
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	**5.0**	**1.0**
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

U017:00018

Analytical Resources,Incorporated
Analytical Chemists and Consultants

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

U017:00019

PCB Analysis
Report and Summary QC Forms

ARI Job ID: UO17

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGP1-SO-00'-02'
SAMPLE

Lab Sample ID: U017A
LIMS ID: 12-5305
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 04/03/12
Date Analyzed: 04/04/12 19:33
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 9.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	39	< 39 U
53469-21-9	Aroclor 1242	39	< 39 U
12672-29-6	Aroclor 1248	58	< 58 Y
11097-69-1	**Aroclor 1254**	**39**	**360**
11096-82-5	**Aroclor 1260**	**39**	**410**
11104-28-2	Aroclor 1221	39	< 39 U
11141-16-5	Aroclor 1232	39	< 39 U
37324-23-5	Aroclor 1262	39	< 39 U
11100-14-4	Aroclor 1268	39	< 39 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	131%
Tetrachlorometaxylene	118%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGP1-SO-02'-03'
SAMPLE

Lab Sample ID: UO17B
LIMS ID: 12-5306
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: UO17-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 04/03/12
Date Analyzed: 04/04/12 19:52
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 7.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	**Aroclor 1254**	**3.8**	**6.7**
11096-82-5	**Aroclor 1260**	**3.8**	**7.8**
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	83.0%
Tetrachlorometaxylene	74.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGP1-SO-05'-07'
SAMPLE

Lab Sample ID: U017C
LIMS ID: 12-5307
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 04/03/12
Date Analyzed: 04/04/12 20:49
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.5 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 16.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.7	< 3.7 U
53469-21-9	Aroclor 1242	3.7	< 3.7 U
12672-29-6	Aroclor 1248	3.7	< 3.7 U
11097-69-1	Aroclor 1254	3.7	< 3.7 U
11096-82-5	Aroclor 1260	3.7	< 3.7 U
11104-28-2	Aroclor 1221	3.7	< 3.7 U
11141-16-5	Aroclor 1232	3.7	< 3.7 U
37324-23-5	Aroclor 1262	3.7	< 3.7 U
11100-14-4	Aroclor 1268	3.7	< 3.7 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	87.8%
Tetrachlorometaxylene	91.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGP1-SO-07'-08.0'
SAMPLE

Lab Sample ID: U017D
LIMS ID: 12-5308
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 04/03/12
Date Analyzed: 04/04/12 21:08
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.2 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 23.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	Aroclor 1254	3.8	< 3.8 U
11096-82-5	Aroclor 1260	3.8	< 3.8 U
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	85.5%
Tetrachlorometaxylene	87.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGP1-SO-10'-12'
SAMPLE

Lab Sample ID: U017E
LIMS ID: 12-5309
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 04/03/12
Date Analyzed: 04/04/12 21:26
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 23.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	Aroclor 1254	3.8	< 3.8 U
11096-82-5	Aroclor 1260	3.8	< 3.8 U
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	83.8%
Tetrachlorometaxylene	79.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGP1-SO-12'-13.33'
SAMPLE

Lab Sample ID: U017F
LIMS ID: 12-5310
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 04/03/12
Date Analyzed: 04/04/12 21:45
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.2 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 23.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	Aroclor 1254	3.8	< 3.8 U
11096-82-5	Aroclor 1260	3.8	< 3.8 U
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	82.0%
Tetrachlorometaxylene	81.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGP1-SO-15'-17'
SAMPLE

Lab Sample ID: UO17G
LIMS ID: 12-5311
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: UO17-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 04/03/12
Date Analyzed: 04/04/12 22:04
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.0 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 25.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	< 3.8 U
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	Aroclor 1254	3.8	< 3.8 U
11096-82-5	Aroclor 1260	3.8	< 3.8 U
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	85.2%
Tetrachlorometaxylene	88.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
B-DGP1-SO-00'-02'	131%*	24-127	118%*	34-109	2
MB-040312	90.0%	48-123	80.2%	43-107	0
LCS-040312	88.5%	48-123	85.2%	43-107	0
LCSD-040312	87.8%	48-123	83.2%	43-107	0
B-DGP1-SO-02'-03'	83.0%	24-127	74.8%	34-109	0
B-DGP1-SO-02'-03' MS	84.2%	24-127	86.8%	34-109	0
B-DGP1-SO-02'-03' MSD	88.5%	24-127	91.5%	34-109	0
B-DGP1-SO-05'-07'	87.8%	24-127	91.0%	34-109	0
B-DGP1-SO-07'-08.0'	85.5%	24-127	87.0%	34-109	0
B-DGP1-SO-10'-12'	83.8%	24-127	79.0%	34-109	0
B-DGP1-SO-12'-13.33'	82.0%	24-127	81.5%	34-109	0
B-DGP1-SO-15'-17'	85.2%	24-127	88.8%	34-109	0

Microwave (MARS) Control Limits PCBSMM
Prep Method: SW3546
Log Number Range: 12-5305 to 12-5311

FORM-II SW8082

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGP1-SO-02'-03'
MS/MSD

Lab Sample ID: U017B
LIMS ID: 12-5306
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted MS/MSD: 04/03/12

Date Analyzed MS: 04/04/12 20:11
MSD: 04/04/12 20:30
Instrument/Analyst MS: ECD5/JGR
MSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 13.1 g-dry-wt
MSD: 13.1 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: 7.4%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 3.8 U	83.7	96.2	87.0%	88.6	96.3	92.0%	5.7%
Aroclor 1260	7.8	96.5	96.2	92.2%	102	96.3	97.8%	5.5%

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

Sample ID: B-DGP1-SO-02'-03'
MATRIX SPIKE

Lab Sample ID: U017B
LIMS ID: 12-5306
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 04/03/12
Date Analyzed: 04/04/12 20:11
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 7.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	---
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	**Aroclor 1254**	**3.8**	**43**
11096-82-5	Aroclor 1260	3.8	---
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	84.2%
Tetrachlorometaxylene	86.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGP1-SO-02'-03'
MATRIX SPIKE DUP

Lab Sample ID: U017B
LIMS ID: 12-5306
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 04/03/12
Date Analyzed: 04/04/12 20:30
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 7.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.8	---
53469-21-9	Aroclor 1242	3.8	< 3.8 U
12672-29-6	Aroclor 1248	3.8	< 3.8 U
11097-69-1	**Aroclor 1254**	**3.8**	**45**
11096-82-5	Aroclor 1260	3.8	---
11104-28-2	Aroclor 1221	3.8	< 3.8 U
11141-16-5	Aroclor 1232	3.8	< 3.8 U
37324-23-5	Aroclor 1262	3.8	< 3.8 U
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	91.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: LCS-040312
LCS/LCSD

Lab Sample ID: LCS-040312
LIMS ID: 12-5306
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 04/03/12

Date Analyzed LCS: 04/04/12 18:17
LCSD: 04/04/12 18:36
Instrument/Analyst LCS: ECD5/JGR
LCSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount LCS: 12.5 g-dry-wt
LCSD: 12.5 g-dry-wt
Final Extract Volume LCS: 2.50 mL
LCSD: 2.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	89.0	101	88.1%	89.4	101	88.5%	0.4%
Aroclor 1260	101	101	100%	103	101	102%	2.0%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	88.5%	87.8%
Tetrachlorometaxylene	85.2%	83.2%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

PCB METHOD BLANK SUMMARY

BLANK NO.

U017MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA

ARI Job No.: U017

Project: JFOS PHASE 2

Lab Sample ID: U017MBS1

Lab File ID: 0404B026

Date Extracted: 04/03/12

Matrix: SOLID

Date Analyzed: 04/04/12

Instrument ID: ECD5

Time Analyzed: 1758

GC Columns: ZB5/ZB5

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	U017LCSS1	U017LCSS1	04/04/12
02	U017LCSDS1	U017LCSDS1	04/04/12
03	B-DGP1-SO-00'-02'	U017A	04/04/12
04	B-DGP1-SO-02'-03'	U017B	04/04/12
05	B-DGP1-SO-02'-0 MS	U017BMS	04/04/12
06	B-DGP1-SO-02'-0 MSD	U017BMSD	04/04/12
07	B-DGP1-SO-05'-07'	U017C	04/04/12
08	B-DGP1-SO-07'-08.0'	U017D	04/04/12
09	B-DGP1-SO-10'-12'	U017E	04/04/12
10	B-DGP1-SO-12'-13.33	U017F	04/04/12
11	B-DGP1-SO-15'-17'	U017G	04/04/12

ALL RUNS ARE DUAL COLUMN

FORM IV PCB

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: MB-040312
METHOD BLANK

Lab Sample ID: MB-040312
LIMS ID: 12-5306
Matrix: Soil
Data Release Authorized:
Reported: 04/05/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 04/03/12
Date Analyzed: 04/04/12 17:58
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	4.0	< 4.0 U
53469-21-9	Aroclor 1242	4.0	< 4.0 U
12672-29-6	Aroclor 1248	4.0	< 4.0 U
11097-69-1	Aroclor 1254	4.0	< 4.0 U
11096-82-5	Aroclor 1260	4.0	< 4.0 U
11104-28-2	Aroclor 1221	4.0	< 4.0 U
11141-16-5	Aroclor 1232	4.0	< 4.0 U
37324-23-5	Aroclor 1262	4.0	< 4.0 U
11100-14-4	Aroclor 1268	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	90.0%
Tetrachlorometaxylene	80.2%

FORM I

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC — Client: ANCHOR QEA

ARI Job No.: U017 — Project: JFOS PHASE 2

GC Column: ZB5 — Instrument ID: ECD5

Calibration Date: 03/27/12

SURROGATES

RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX 4.52- 4.72	1.2199	1.1301	1.2051	1.1562	1.1707	1.0772	1.1599	4.5
DCB 12.90-13.10	1.2020	1.1535	1.2626	1.1895	1.1238	1.0967	1.1713	5.1

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	6.15- 6.35	0.0328	0.0297	0.0307	0.0278	0.0267	0.0256	0.0289	9.3
2	6.55- 6.75	0.1127	0.1020	0.1037	0.0948	0.0892	0.0859	0.0981	10.2
3	6.70- 6.90	0.0448	0.0401	0.0409	0.0370	0.0350	0.0335	0.0386	10.9
4	6.81- 7.01	0.0325	0.0287	0.0293	0.0263	0.0249	0.0239	0.0276	11.5

AROCLOR AVERAGE %RSD = 10.5

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	0.0522	0.0481	0.0499	0.0456	0.0431	0.0407	0.0466	9.3
2	10.73-10.93	0.1282	0.1169	0.1214	0.1118	0.1059	0.1028	0.1145	8.4
3	11.13-11.33	0.0684	0.0630	0.0658	0.0609	0.0577	0.0551	0.0618	8.0
4	11.25-11.45	0.0276	0.0262	0.0274	0.0249	0.0236	0.0224	0.0254	8.2
5	11.32-11.52	0.0327	0.0309	0.0326	0.0302	0.0289	0.0276	0.0305	6.6

AROCLOR AVERAGE %RSD = 8.1

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA

ARI Job No.: U017

Project: JFOS PHASE 2

GC Column: ZB35

Instrument ID: ECD5

Calibration Date: 03/27/12

SURROGATES

RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX 4.52- 4.72	1.2416	1.1274	1.1912	1.1074	1.0807	1.0308	1.1298	6.7
DCB 13.28-13.48	1.2101	1.0789	1.1114	1.0533	0.9866	0.9406	1.0635	8.9

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	0.0520	0.0455	0.0448	0.0420	0.0372	0.0348	0.0427	14.4
2	6.88- 7.08	0.0965	0.0884	0.0888	0.0841	0.0776	0.0737	0.0849	9.7
3	7.26- 7.46	0.0241	0.0226	0.0230	0.0215	0.0198	0.0187	0.0216	9.5
4	7.37- 7.57	0.0273	0.0251	0.0252	0.0231	0.0210	0.0196	0.0235	12.2

AROCLOR AVERAGE %RSD = 11.5

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	10.33-10.53	0.0546	0.0468	0.0476	0.0433	0.0403	0.0382	0.0451	13.1
2	10.78-10.98	0.0624	0.0560	0.0574	0.0534	0.0500	0.0479	0.0545	9.6
3	11.05-11.25	0.1243	0.1106	0.1142	0.1086	0.1029	0.1001	0.1101	7.8
4	11.57-11.77	0.0361	0.0320	0.0333	0.0308	0.0288	0.0273	0.0314	10.0

AROCLOR AVERAGE %RSD = 10.1

FORM VI PCB-1

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UO17 Project: JFOS PHASE 2

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 03/27/12

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	4.899	4.80- 5.00	0.00472
2	5.171	5.07- 5.27	0.00920
3	5.276	5.18- 5.38	0.03053

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.254	6.15- 6.35	0.01215
2	6.653	6.55- 6.75	0.04030
3	6.802	6.70- 6.90	0.01608
4	7.994	7.89- 8.09	0.01490

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.252	6.15- 6.35	0.02268
2	6.652	6.55- 6.75	0.07605
3	6.800	6.70- 6.90	0.02990
4	7.992	7.89- 8.09	0.02639

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.647	6.55- 6.75	0.04774
2	7.445	7.35- 7.55	0.03535
3	7.990	7.89- 8.09	0.04505
4	8.281	8.18- 8.38	0.04475

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: U017 Project: JFOS PHASE 2

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 03/27/12

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.365	8.26- 8.46	0.06672
2	8.736	8.64- 8.84	0.04268
3	8.871	8.77- 8.97	0.08055
4	9.222	9.12- 9.32	0.08778
5	9.583	9.48- 9.68	0.05788

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.142	10.04-10.24	0.07217
2	10.458	10.36-10.56	0.05368
3	10.832	10.73-10.93	0.14593
4	11.349	11.25-11.45	0.05034
5	11.423	11.32-11.52	0.05733

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.351	11.25-11.45	0.14675
2	11.421	11.32-11.52	0.14646
3	11.808	11.71-11.91	0.12275
4	12.599	12.50-12.70	0.39052

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UO17 Project: JFOS PHASE 2

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 03/27/12

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.304	5.20- 5.40	0.01274
2	5.551	5.45- 5.65	0.00754
3	5.664	5.56- 5.76	0.02276
4	5.731	5.63- 5.83	0.00409

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.358	6.26- 6.46	0.01812
2	6.984	6.88- 7.08	0.03376
3	7.192	7.09- 7.29	0.01163
4	8.337	8.24- 8.44	0.01231

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.355	6.26- 6.46	0.03177
2	6.981	6.88- 7.08	0.06483
3	7.189	7.09- 7.29	0.02599
4	8.334	8.23- 8.43	0.02169

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.975	6.88- 7.08	0.04050
2	7.881	7.78- 7.98	0.03151
3	8.333	8.23- 8.43	0.03606
4	8.754	8.65- 8.85	0.03895

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: U017 Project: JFOS PHASE 2

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 03/27/12

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.473	8.37- 8.57	0.02992
2	8.646	8.55- 8.75	0.03795
3	9.168	9.07- 9.27	0.02917
4	9.318	9.22- 9.42	0.06237
5	10.101	10.00-10.20	0.03757

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.434	10.33-10.53	0.06951
2	10.885	10.79-10.99	0.05929
3	11.157	11.06-11.26	0.13501
4	11.679	11.58-11.78	0.05257
5	12.478	12.38-12.58	0.05421

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.679	11.58-11.78	0.13931
2	11.746	11.65-11.85	0.12781
3	12.143	12.04-12.24	0.11195
4	12.965	12.87-13.07	0.33824

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: U017 Project: JFOS PHASE 2

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 03/27/12

Date Analyzed :04/04/12

Lab Standard ID: AR1660 Time Analyzed :1642

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.25	6.15	6.35	281.1	250.0	12.4
Aroclor-1016-2	6.65	6.55	6.75	284.0	250.0	13.6
Aroclor-1016-3	6.80	6.70	6.90	280.9	250.0	12.4
Aroclor-1016-4	6.91	6.81	7.01	282.3	250.0	12.9

AVERAGE %D = 12.8

Date Analyzed :04/04/12

Lab Standard ID: AR1660 Time Analyzed :1642

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	268.2	250.0	7.3
Aroclor-1260-2	10.83	10.73	10.93	263.8	250.0	5.5
Aroclor-1260-3	11.23	11.13	11.33	261.4	250.0	4.6
Aroclor-1260-4	11.34	11.25	11.45	262.4	250.0	5.0
Aroclor-1260-5	11.42	11.32	11.52	266.6	250.0	6.6

AVERAGE %D = 5.8

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: U017 Project: JFOS PHASE 2

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 03/27/12

Date Analyzed :04/04/12

Lab Standard ID: AR1660 Time Analyzed :1642

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	255.3	250.0	2.1
Aroclor-1016-2	6.98	6.88	7.08	271.6	250.0	8.6
Aroclor-1016-3	7.36	7.26	7.46	262.5	250.0	5.0
Aroclor-1016-4	7.47	7.37	7.57	267.9	250.0	7.1

AVERAGE %D = 5.7

Date Analyzed :04/04/12

Lab Standard ID: AR1660 Time Analyzed :1642

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.43	10.33	10.53	286.8	250.0	14.7
Aroclor-1260-2	10.88	10.78	10.98	280.1	250.0	12.0
Aroclor-1260-3	11.15	11.05	11.25	281.7	250.0	12.7
Aroclor-1260-4	11.67	11.57	11.77	282.5	250.0	13.0

AVERAGE %D = 13.1

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UO17 Project: JFOS PHASE 2

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 03/27/12

Date Analyzed :04/04/12

Lab Standard ID: AR1254 Time Analyzed :1701

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	267.4	250.0	7.0
Aroclor-1254-2	8.74	8.64	8.84	250.3	250.0	0.1
Aroclor-1254-3	8.87	8.77	8.97	258.8	250.0	3.5
Aroclor-1254-4	9.22	9.12	9.32	249.9	250.0	-0.0
Aroclor-1254-5	9.58	9.48	9.68	245.8	250.0	-1.7

AVERAGE %D = 2.5

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC
Client: ANCHOR QEA

ARI Job No.: U017
Project: JFOS PHASE 2

GC Column: ZB35
Intrument: ECD5

Init. Calib. Date: 03/27/12

Date Analyzed :04/04/12

Lab Standard ID: AR1254
Time Analyzed :1701

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	269.2	250.0	7.7
Aroclor-1254-2	8.65	8.55	8.75	276.6	250.0	10.6
Aroclor-1254-3	9.17	9.07	9.27	257.2	250.0	2.9
Aroclor-1254-4	9.32	9.22	9.42	266.7	250.0	6.7
Aroclor-1254-5	10.10	10.00	10.20	259.8	250.0	3.9

AVERAGE %D = 6.4

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: U017 Project: JFOS PHASE 2

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 03/27/12

Date Analyzed :04/04/12

Lab Standard ID: AR1660 Time Analyzed :2223

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.25	6.15	6.35	287.6	250.0	15.0
Aroclor-1016-2	6.65	6.55	6.75	288.3	250.0	15.3
Aroclor-1016-3	6.80	6.70	6.90	286.0	250.0	14.4
Aroclor-1016-4	6.91	6.81	7.01	287.7	250.0	15.1

AVERAGE %D = 15.0

Date Analyzed :04/04/12

Lab Standard ID: AR1660 Time Analyzed :2223

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.46	10.35	10.55	268.9	250.0	7.6
Aroclor-1260-2	10.83	10.73	10.93	258.8	250.0	3.5
Aroclor-1260-3	11.23	11.13	11.33	259.2	250.0	3.7
Aroclor-1260-4	11.35	11.25	11.45	266.7	250.0	6.7
Aroclor-1260-5	11.42	11.32	11.52	268.0	250.0	7.2

AVERAGE %D = 5.7

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: UO17 Project: JFOS PHASE 2

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 03/27/12

Date Analyzed :04/04/12

Lab Standard ID: AR1660 Time Analyzed :2223

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	253.5	250.0	1.4
Aroclor-1016-2	6.98	6.88	7.08	269.3	250.0	7.7
Aroclor-1016-3	7.36	7.26	7.46	262.1	250.0	4.8
Aroclor-1016-4	7.47	7.37	7.57	270.3	250.0	8.1

AVERAGE %D = 5.5

Date Analyzed :04/04/12

Lab Standard ID: AR1660 Time Analyzed :2223

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.43	10.33	10.53	283.9	250.0	13.6
Aroclor-1260-2	10.88	10.78	10.98	286.1	250.0	14.4
Aroclor-1260-3	11.15	11.05	11.25	284.4	250.0	13.8
Aroclor-1260-4	11.68	11.57	11.77	292.6	250.0	17.0

AVERAGE %D = 14.7

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: U017 Project: JFOS PHASE 2

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 03/27/12

Date Analyzed :04/04/12

Lab Standard ID: AR1242 Time Analyzed :2242

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.25	6.15	6.35	291.7	250.0	16.7
Aroclor-1242-2	6.65	6.55	6.75	293.4	250.0	17.3
Aroclor-1242-3	6.80	6.70	6.90	292.3	250.0	16.9
Aroclor-1242-4	7.99	7.89	8.09	303.5	250.0	21.4

AVERAGE %D = 18.1

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA

ARI Job No.: U017

Project: JFOS PHASE 2

GC Column: ZB35

Intrument: ECD5

Init. Calib. Date: 03/27/12

Date Analyzed :04/04/12

Lab Standard ID: AR1242

Time Analyzed :2242

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.36	6.26	6.46	267.5	250.0	7.0
Aroclor-1242-2	6.98	6.88	7.08	277.1	250.0	10.8
Aroclor-1242-3	7.19	7.09	7.29	232.8	250.0	-6.9
Aroclor-1242-4	8.33	8.23	8.43	285.1	250.0	14.0

AVERAGE %D = 9.7

FORM VII PCB

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: U017 Project: JFOS PHASE 2

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 03/27/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	IS1 AREA	RT	IS2 AREA	RT
ICAL MIDPT	125364794	2.422	146489015	13.369
UPPER LIMIT	250729588	2.522	292978030	13.469
LOWER LIMIT	62682397	2.322	73244508	13.269

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	03/27/12	1316	122878636	2.421	146063471	13.369
02		0.25 PPM AR1	03/27/12	1334	125364794	2.422	146489015	13.369
03		0.02 PPM AR1	03/27/12	1354	128603581	2.423	150762090	13.369
04		0.05 PPM AR1	03/27/12	1413	128578326	2.423	150870708	13.368
05		1 PPM AR1660	03/27/12	1431	121525253	2.422	146969791	13.367
06		0.1 PPM AR16	03/27/12	1450	133333144	2.421	153255866	13.367
07		0.5 PPM AR16	03/27/12	1509	131217821	2.421	153296151	13.368
08		AR1242	03/27/12	1528	132191383	2.421	153244445	13.368
09		AR1248	03/27/12	1547	132150277	2.420	153576604	13.367
10		AR1254	03/27/12	1606	132504977	2.421	154279858	13.367
11		AR2162	03/27/12	1625	133360477	2.420	155421371	13.368
12		AR3268	03/27/12	1644	136095464	2.421	157503656	13.367
13	ZZZZZ	ZZZZZ	03/27/12	1703	134704856	2.421	158144808	13.367
14	ZZZZZ	ZZZZZ	03/27/12	1722	134603696	2.420	157885305	13.367
15	ZZZZZ	ZZZZZ	03/27/12	1741	133736565	2.420	156295082	13.367
16	ZZZZZ	ZZZZZ	03/27/12	1800	137865693	2.421	162584924	13.366
17	ZZZZZ	ZZZZZ	03/27/12	1819	135674361	2.421	159208386	13.366
18	ZZZZZ	ZZZZZ	03/27/12	1838	136675922	2.421	159959474	13.367
19		AR1660	04/04/12	1642	107358027	2.419	117331527	13.362
20		AR1254	04/04/12	1701	122359209	2.419	127580948	13.361
21	ZZZZZ	ZZZZZ	04/04/12	1720	8021896*	2.419	176455102	13.362
22	ZZZZZ	ZZZZZ	04/04/12	1739	155200280	2.420	167931245	13.363
23	U017MBS1	U017MBS1	04/04/12	1758	137100870	2.419	154670107	13.363
24	U017LCSS1	U017LCSS1	04/04/12	1817	139470724	2.420	161748038	13.363
25	U017LCSDS1	U017LCSDS1	04/04/12	1836	137709540	2.421	156912368	13.362
26	ZZZZZ	ZZZZZ	04/04/12	1855	137376483	2.420	158266760	13.362
27	U017MBS1	U017MBS1	04/04/12	1914	140258644	2.419	165320106	13.362
28	B-DGP1-SO-00	U017A	04/04/12	1933	135868238	2.421	157497293	13.362
29	B-DGP1-SO-02	U017B	04/04/12	1952	136000860	2.421	164083209	13.362
30	B-DGP1-SO-02	U017BMS	04/04/12	2011	139648362	2.421	168621359	13.362
31	B-DGP1-SO-02	U017BMSD	04/04/12	2030	137190891	2.420	167319206	13.362
32	B-DGP1-SO-05	U017C	04/04/12	2049	133460093	2.420	164261898	13.363

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.: U017 Project: JFOS PHASE 2

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 03/27/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	IS1 AREA	RT	IS2 AREA	RT
ICAL MIDPT	125364794	2.422	146489015	13.369
UPPER LIMIT	250729588	2.522	292978030	13.469
LOWER LIMIT	62682397	2.322	73244508	13.269

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
33	B-DGP1-SO-07	U017D	04/04/12	2108	137819367	2.422	170725934	13.362
34	B-DGP1-SO-10	U017E	04/04/12	2126	136736705	2.421	170627976	13.363
35	B-DGP1-SO-12	U017F	04/04/12	2145	141868777	2.420	174123685	13.364
36	B-DGP1-SO-15	U017G	04/04/12	2204	134936861	2.421	168586961	13.363
37		AR1660	04/04/12	2223	96156068	2.420	122043351	13.362
38		AR1242	04/04/12	2242	115008869	2.421	142202169	13.363

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.: UO17 Project: JFOS PHASE 2

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 03/27/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	IS1 AREA	RT	IS2 AREA	RT
ICAL MIDPT	73208642	2.907	55066880	14.252
UPPER LIMIT	146417284	3.007	110133760	14.352
LOWER LIMIT	36604321	2.807	27533440	14.152

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	03/27/12	1316	72572812	2.906	55049055	14.251
02		0.25 PPM AR1	03/27/12	1334	73208642	2.907	55066880	14.252
03		0.02 PPM AR1	03/27/12	1354	75656254	2.907	55611445	14.252
04		0.05 PPM AR1	03/27/12	1413	74850496	2.909	56905843	14.251
05		1 PPM AR1660	03/27/12	1431	75625938	2.907	55720029	14.250
06		0.1 PPM AR16	03/27/12	1450	78500572	2.906	58326893	14.249
07		0.5 PPM AR16	03/27/12	1509	79154396	2.905	58180283	14.250
08		AR1242	03/27/12	1528	79089707	2.906	58105925	14.251
09		AR1248	03/27/12	1547	78801612	2.905	58263772	14.250
10		AR1254	03/27/12	1606	79362242	2.906	58567138	14.249
11		AR2162	03/27/12	1625	80258106	2.904	59058204	14.250
12		AR3268	03/27/12	1644	81760164	2.905	60169896	14.249
13	ZZZZZ	ZZZZZ	03/27/12	1703	82249960	2.905	60284706	14.249
14	ZZZZZ	ZZZZZ	03/27/12	1722	80849586	2.905	60280606	14.249
15	ZZZZZ	ZZZZZ	03/27/12	1741	81367674	2.905	59832601	14.250
16	ZZZZZ	ZZZZZ	03/27/12	1800	83687352	2.905	62227353	14.249
17	ZZZZZ	ZZZZZ	03/27/12	1819	81994698	2.906	61008027	14.248
18	ZZZZZ	ZZZZZ	03/27/12	1838	83546712	2.906	61473028	14.248
19		AR1660	04/04/12	1642	72735102	2.902	46091671	14.243
20		AR1254	04/04/12	1701	82382645	2.901	50067056	14.244
21	ZZZZZ	ZZZZZ	04/04/12	1720	6063894*	2.903	68783264	14.244
22	ZZZZZ	ZZZZZ	04/04/12	1739	103260957	2.902	66035688	14.244
23	UO17MBS1	UO17MBS1	04/04/12	1758	92598817	2.901	61131545	14.244
24	UO17LCSS1	UO17LCSS1	04/04/12	1817	95387787	2.903	64295466	14.245
25	UO17LCSDS1	UO17LCSDS1	04/04/12	1836	92548678	2.904	62155476	14.244
26	ZZZZZ	ZZZZZ	04/04/12	1855	94050359	2.903	62894304	14.243
27	UO17MBS1	UO17MBS1	04/04/12	1914	94493920	2.902	64902533	14.245
28	B-DGP1-SO-00	UO17A	04/04/12	1933	92978562	2.904	62822028	14.244
29	B-DGP1-SO-02	UO17B	04/04/12	1952	93548930	2.904	67170584	14.245
30	B-DGP1-SO-02	UO17BMS	04/04/12	2011	96086619	2.904	67718419	14.243
31	B-DGP1-SO-02	UO17BMSD	04/04/12	2030	94865964	2.902	67625177	14.243
32	B-DGP1-SO-05	UO17C	04/04/12	2049	91949716	2.903	66329019	14.244

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.: U017 Project: JFOS PHASE 2

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 03/27/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	IS1 AREA	RT	IS2 AREA	RT
ICAL MIDPT	73208642	2.907	55066880	14.252
UPPER LIMIT	146417284	3.007	110133760	14.352
LOWER LIMIT	36604321	2.807	27533440	14.152

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
33	B-DGP1-SO-07	U017D	04/04/12	2108	95482508	2.904	68745284	14.243
34	B-DGP1-SO-10	U017E	04/04/12	2126	96112528	2.904	69255368	14.244
35	B-DGP1-SO-12	U017F	04/04/12	2145	98583508	2.902	70039483	14.244
36	B-DGP1-SO-15	U017G	04/04/12	2204	93538044	2.903	68001750	14.246
37		AR1660	04/04/12	2223	67764440	2.903	48671863	14.243
38		AR1242	04/04/12	2242	81239432	2.903	56854272	14.244

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

Metals Analysis
Report and Summary QC Forms

ARI Job ID: UO17

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

SDG: U017

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
B-DGP1-SO-00'-02'	U017A	12-5305	
B-DGP1-SO-00'-02'D	U017ADUP	12-5305	
B-DGP1-SO-00'-02'S	U017ASPK	12-5305	
PBS	U017MB1	12-5305	
LCSS	U017MB1SPK	12-5305	
JF-DGP4-SO-20'-22'	U032D	12-5472	

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: 4/6/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: B-DGP1-SO-00'-02'
SAMPLE

Lab Sample ID: U017A
LIMS ID: 12-5305
Matrix: Soil
Data Release Authorized:
Reported: 04/06/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Percent Total Solids: 91.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	04/02/12	6010B	04/04/12	**7440-36-0**	**Antimony**	10	**20**	
3050B	04/02/12	6010B	04/04/12	7440-38-2	Arsenic	10	10	U
3050B	04/02/12	6010B	04/04/12	**7440-39-3**	**Barium**	0.8	**335**	
3050B	04/02/12	6010B	04/04/12	**7440-43-9**	**Cadmium**	0.5	**27.1**	
3050B	04/02/12	6010B	04/04/12	**7440-47-3**	**Chromium**	1	**89**	
3050B	04/02/12	6010B	04/04/12	**7440-50-8**	**Copper**	0.5	**413**	
3050B	04/02/12	6010B	04/04/12	**7439-92-1**	**Lead**	5	**453**	
CLP	04/02/12	7471A	04/04/12	**7439-97-6**	**Mercury**	0.02	**0.78**	
3050B	04/02/12	6010B	04/04/12	**7440-02-0**	**Nickel**	3	**57**	
3050B	04/02/12	200.8	04/05/12	7782-49-2	Selenium	0.5	0.5	U
3050B	04/02/12	6010B	04/04/12	**7440-22-4**	**Silver**	0.8	**33.6**	
3050B	04/02/12	6010B	04/04/12	**7440-66-6**	**Zinc**	3	**911**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: B-DGP1-SO-00'-02'
MATRIX SPIKE

Lab Sample ID: U017A
LIMS ID: 12-5305
Matrix: Soil
Data Release Authorized:
Reported: 04/06/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	6010B	20	100	208	38.5%	N
Arsenic	6010B	10 U	220	208	106%	
Barium	6010B	335	5,260	208	2370%	N
Cadmium	6010B	27.1	74.2	51.9	90.8%	
Chromium	6010B	89	139	51.9	96.3%	
Copper	6010B	413	628	51.9	414%	H
Lead	6010B	453	486	208	15.9%	N
Mercury	7471A	0.78	1.15	0.194	191%	H
Nickel	6010B	57	123	51.9	127%	N
Selenium	200.8	0.5 U	84.7	84.6	100%	
Silver	6010B	33.6	117	51.9	161%	N
Zinc	6010B	911	857	51.9	-104%	H

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%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: B-DGP1-SO-00'-02'
DUPLICATE

Lab Sample ID: U017A
LIMS ID: 12-5305
Matrix: Soil
Data Release Authorized:
Reported: 04/06/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	20	10 U	66.7%	+/- 10	L
Arsenic	6010B	10 U	10 U	0.0%	+/- 10	L
Barium	6010B	335	282	17.2%	+/- 20%	
Cadmium	6010B	27.1	17.5	43.0%	+/- 20%	*
Chromium	6010B	89	73	19.8%	+/- 20%	
Copper	6010B	413	363	12.9%	+/- 20%	
Lead	6010B	453	236	63.0%	+/- 20%	*
Mercury	7471A	0.78	0.79	1.3%	+/- 20%	
Nickel	6010B	57	62	8.4%	+/- 20%	
Selenium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Silver	6010B	33.6	22.1	41.3%	+/- 20%	*
Zinc	6010B	911	657	32.4%	+/- 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: U017LCS
LIMS ID: 12-5305
Matrix: Soil
Data Release Authorized:
Reported: 04/06/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	6010B	204	200	102%	
Arsenic	6010B	206	200	103%	
Barium	6010B	199	200	99.5%	
Cadmium	6010B	52.2	50.0	104%	
Chromium	6010B	51.1	50.0	102%	
Copper	6010B	51.9	50.0	104%	
Lead	6010B	204	200	102%	
Mercury	7471A	0.53	0.50	106%	
Nickel	6010B	47	50	94.0%	
Selenium	200.8	81.2	80.0	102%	
Silver	6010B	52.4	50.0	105%	
Zinc	6010B	49	50	98.0%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: U017MB
LIMS ID: 12-5305
Matrix: Soil
Data Release Authorized:
Reported: 04/06/12

QC Report No: U017-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	04/02/12	6010B	04/04/12	7440-36-0	Antimony	5	5	U
3050B	04/02/12	6010B	04/04/12	7440-38-2	Arsenic	5	5	U
3050B	04/02/12	6010B	04/04/12	7440-39-3	Barium	0.3	0.3	U
3050B	04/02/12	6010B	04/04/12	7440-43-9	Cadmium	0.2	0.2	U
3050B	04/02/12	6010B	04/04/12	7440-47-3	Chromium	0.5	0.5	U
3050B	04/02/12	6010B	04/04/12	7440-50-8	Copper	0.2	0.2	U
3050B	04/02/12	6010B	04/04/12	7439-92-1	Lead	2	2	U
CLP	04/02/12	7471A	04/04/12	7439-97-6	Mercury	0.02	0.02	U
3050B	04/02/12	6010B	04/04/12	7440-02-0	Nickel	1	1	U
3050B	04/02/12	200.8	04/05/12	7782-49-2	Selenium	0.5	0.5	U
3050B	04/02/12	6010B	04/04/12	7440-22-4	Silver	0.3	0.3	U
3050B	04/02/12	6010B	04/04/12	7440-66-6	Zinc	1	1	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

SDG: U017

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	ICP	IP040471	2000.0	2050.77	**102.5**	2000.0	2012.85	**100.6**	2025.69	**101.3**	1981.26	**99.1**	1966.78	**98.3**	1971.09	**98.6**
Arsenic	AS	ICP	IP040471	2000.0	2018.01	**100.9**	2000.0	1964.14	**98.2**	1960.05	**98.0**	1938.09	**96.9**	1931.74	**96.6**	2001.79	**100.1**
Barium	BA	ICP	IP040471	1000.0	981.35	**98.1**	1000.0	958.40	**95.8**	965.83	**96.6**	942.84	**94.3**	949.92	**95.0**	1000.06	**100.0**
Cadmium	CD	ICP	IP040471	1000.0	1010.34	**101.0**	1000.0	1005.53	**100.6**	1016.94	**101.7**	989.81	**99.0**	1007.59	**100.8**	1011.78	**101.2**
Chromium	CR	ICP	IP040471	1000.0	996.29	**99.6**	1000.0	982.20	**98.2**	994.41	**99.4**	975.88	**97.6**	991.50	**99.2**	1002.49	**100.2**
Copper	CU	ICP	IP040471	1000.0	984.86	**98.5**	1000.0	996.06	**99.6**	1004.33	**100.4**	989.34	**98.9**	997.24	**99.7**	993.53	**99.4**
Lead	PB	ICP	IP040471	2000.0	2065.22	**103.3**	2000.0	2012.19	**100.6**	2007.49	**100.4**	1980.05	**99.0**	1969.17	**98.5**	2042.37	**102.1**
Mercury	HG	CVA	HG040401	8.0	8.29	**103.6**	4.0	4.18	**104.5**	4.25	**106.3**	4.17	**104.3**	4.23	**105.8**	4.20	**105.0**
Nickel	NI	ICP	IP040471	1000.0	974.98	**97.5**	1000.0	944.08	**94.4**	955.76	**95.6**	931.51	**93.2**	939.69	**94.0**	1008.99	**100.9**
Selenium	SE	PMS	MS040511	80.0	76.38	**95.5**	50.0	50.77	**101.5**	50.87	**101.7**	50.72	**101.4**	51.87	**103.7**	50.77	**101.5**
Silver	AG	ICP	IP040471	1000.0	1000.12	**100.0**	1000.0	1006.32	**100.6**	996.85	**99.7**	983.09	**98.3**	975.13	**97.5**	1035.91	**103.6**
Zinc	ZN	ICP	IP040471	1000.0	1008.53	**100.9**	1000.0	995.22	**99.5**	1011.04	**101.1**	984.00	**98.4**	998.38	**99.8**	1033.75	**103.4**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

U017:00096

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

UNITS:ug/L

SDG: U017

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	ICP	IP040471	2000.0	2046.48	**102.3**										
Arsenic	AS	ICP	IP040471	2000.0	2029.73	**101.5**										
Barium	BA	ICP	IP040471	1000.0	1010.82	**101.1**										
Cadmium	CD	ICP	IP040471	1000.0	1023.11	**102.3**										
Chromium	CR	ICP	IP040471	1000.0	1012.79	**101.3**										
Copper	CU	ICP	IP040471	1000.0	1005.73	**100.6**										
Lead	PB	ICP	IP040471	2000.0	2069.39	**103.5**										
Mercury	HG	CVA	HG040401	4.0	4.17	**104.3**										
Nickel	NI	ICP	IP040471	1000.0	1015.52	**101.6**										
Selenium	SE	PMS	MS040511	50.0												
Silver	AG	ICP	IP040471	1000.0	1049.58	**105.0**										
Zinc	ZN	ICP	IP040471	1000.0	1037.89	**103.8**										

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

U017.00061

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

UNITS: ug/L

SDG: U017

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	ICP	IP040471	50.0	47.21	**94.4**										
Arsenic	AS	ICP	IP040471	50.0	49.44	**98.9**										
Barium	BA	ICP	IP040471	3.0	3.10	**103.3**										
Cadmium	CD	ICP	IP040471	2.0	1.97	**98.5**										
Chromium	CR	ICP	IP040471	5.0	5.68	**113.6**										
Copper	CU	ICP	IP040471	2.0	2.19	**109.5**										
Lead	PB	ICP	IP040471	20.0	18.60	**93.0**										
Mercury	HG	CVA	HG040401	0.1	0.12	**120.0**										
Nickel	NI	ICP	IP040471	10.0	10.07	**100.7**										
Selenium	SE	PMS	MS040511	0.5	0.49	**98.0**										
Silver	AG	ICP	IP040471	3.0	2.95	**98.3**										
Zinc	ZN	ICP	IP040471	10.0	11.20	**112.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

U017 00092

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

SDG: U017

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	ICP	IP040471	60.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Arsenic	AS	ICP	IP040471	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Barium	BA	ICP	IP040471	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Cadmium	CD	ICP	IP040471	5.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Chromium	CR	ICP	IP040471	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	IP040471	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	IP040471	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	HG040401	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Nickel	NI	ICP	IP040471	40.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U
Selenium	SE	PMS	MS040511	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Silver	AG	ICP	IP040471	10.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Zinc	ZN	ICP	IP040471	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U

U017.00063

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

UNITS: ug/L

SDG: U017

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	ICP	IP040471	60.0	50.0	50.0	U										
Arsenic	AS	ICP	IP040471	10.0	50.0	50.0	U										
Barium	BA	ICP	IP040471	200.0	3.0	3.0	U										
Cadmium	CD	ICP	IP040471	5.0	2.0	2.0	U										
Chromium	CR	ICP	IP040471	10.0	5.0	5.0	U										
Copper	CU	ICP	IP040471	25.0	2.0	2.0	U										
Lead	PB	ICP	IP040471	3.0	20.0	20.0	U										
Mercury	HG	CVA	HG040401	0.2	0.1	0.1	U										
Nickel	NI	ICP	IP040471	40.0	10.0	10.0	U										
Selenium	SE	PMS	MS040511	5.0	0.5												
Silver	AG	ICP	IP040471	10.0	3.0	3.0	U										
Zinc	ZN	ICP	IP040471	20.0	10.0	10.0	U										

U017 : 00091

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

SDG: U017

ICS SOURCE: I.V.

RUNID: IP040471

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	199312.6	199067.0	**99.5**						
Antimony		1000	4.0	918.5	**91.9**						
Arsenic		1000	-7.3	985.5	**98.6**						
Barium		1000	1.1	967.0	**96.7**						
Beryllium		1000	0.0	954.0	**95.4**						
Boron			-1.2	-0.4							
Cadmium		1000	0.2	1020.5	**102.1**						
Calcium	100000	100000	101242.7	101234.9	**101.2**						
Chromium		1000	0.8	992.6	**99.3**						
Cobalt		1000	2.3	936.2	**93.6**						
Copper		1000	-0.6	1030.1	**103.0**						
Iron	200000	200000	196303.1	196487.6	**98.2**						
Lead		1000	-7.9	970.8	**97.1**						
Magnesium	100000	100000	98580.4	98605.9	**98.6**						
Manganese		1000	0.2	916.0	**91.6**						
Molybdenum			4.8	4.6							
Nickel		1000	-0.7	920.5	**92.1**						
Potassium			18.3	6.8							
Selenium		1000	-7.1	978.0	**97.8**						
Silicon			-20.6	-17.7							
Silver		1000	-1.2	1039.7	**104.0**						
Sodium			24.9	21.0							
Strontium			9.9	9.8							
Thallium		1000	13.1	947.4	**94.7**						
Tin			-10.7	-11.2							
Vanadium		1000	3.2	988.9	**98.9**						
Zinc		1000	-1.5	922.4	**92.2**						

U017.00005

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

SDG: U017

ICS SOURCE: I.V.

RUNID: MS040511

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Cadmium		20	0.1	19.1	**95.5**						
Chromium		20	0.9	20.6	**103.0**						
Cobalt		20	0.0	19.0	**95.0**						
Copper		20	1.0	20.2	**101.0**						
Manganese		20	0.1	19.6	**98.0**						
Molybdenum	400	400	403.5	400.4	**100.1**						
Nickel		20	0.4	19.1	**95.5**						
Selenium			-0.3	-0.3							
Silver		20	0.0	19.8	**99.0**						
Thorium			0.3	0.1							
Zinc		20	0.8	19.2	**96.0**						

U017.00096

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

ANALYSIS METHOD: ICP

SDG: U017

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Silver	B-DGP1-SO-00'-02'A	U017APOST	IP040471	3260.81		645.65		2500	Soil	**104.6**
Barium	B-DGP1-SO-00'-02'A	U017APOST	IP040471	16955.44		6443.65		10000	Soil	**105.1**
Nickel	B-DGP1-SO-00'-02'A	U017APOST	IP040471	3633.53		1088.10		2500	Soil	**101.8**
Lead	B-DGP1-SO-00'-02'A	U017APOST	IP040471	18928.89		8722.10		10000	Soil	**102.1**
Antimony	B-DGP1-SO-00'-02'A	U017APOST	IP040471	10468.52		292.05	**B**	10000	Soil	**101.8**

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

SDG: U017

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	ICP	OPTIMA ICP 2	206.84		60	50.0	4/1/2011	30000.0	8/3/2011
Arsenic	AS	ICP	OPTIMA ICP 2	197.20		10	50.0	4/1/2011	30000.0	8/3/2011
Barium	BA	ICP	OPTIMA ICP 2	455.50		200	3.0	4/1/2011	100000.0	8/3/2011
Cadmium	CD	ICP	OPTIMA ICP 2	228.80		5	2.0	4/1/2011	20000.0	8/3/2011
Chromium	CR	ICP	OPTIMA ICP 2	267.72		10	5.0	4/1/2011	100000.0	8/3/2011
Copper	CU	ICP	OPTIMA ICP 2	324.75		25	2.0	4/1/2011	40000.0	8/3/2011
Lead	PB	ICP	OPTIMA ICP 2	220.35		3	20.0	4/1/2011	300000.0	8/3/2011
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2011		
Nickel	NI	ICP	OPTIMA ICP 2	231.60		40	10.0	4/1/2011	100000.0	8/3/2011
Selenium	SE	PMS	NEXION 300D MS	0.00		5	0.5	4/1/2011		
Silver	AG	ICP	OPTIMA ICP 2	328.07		10	3.0	4/1/2011	5000.0	8/3/2011
Zinc	ZN	ICP	OPTIMA ICP 2	213.86		20	10.0	4/1/2011	100000.0	8/3/2011

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

IEC DATE: 3/19/2012

SDG: U017

INSTRUMENT ID: OPTIMA ICP 2

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	0.3219720	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	10.2020000	0.0000000	0.1202730
Arsenic	188.98	0.0676681	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.9907570	1.0929900	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1617070	0.0000000	0.0000000	0.0509863
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	3.4090200	0.0000000	0.0000000	0.0000000	0.0000000	0.1642300	0.0000000	0.0000000	0.0094737
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	0.0229989	0.0000000	-0.0409619	0.0000000	0.0000000	-0.0447283
Cobalt	228.62	0.0000000	0.0000000	0.2151410	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.2203550	-0.0248240	0.0000000	-0.0717630
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7214060	0.0000000	0.0000000
Lead	220.35	-0.1395300	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-2.0199800	1.2549900	0.0665058
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.7927700	-1.2197100	0.0000000	0.5858900
Manganese	257.61	0.0071452	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0059831
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0169987	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	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	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1147630
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.7375200	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0067168	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	6.5303700	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	2.5520300	0.3828500	0.0000000	-0.1317480
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0292008	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0348510	0.0000000	0.0000000	0.2207060	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.2513600	0.0000000	0.1207740
Zinc	206.20	-0.0433063	0.0000000	0.0000000	0.0000000	0.0131448	0.0000000	0.0000000	-0.4942180	0.0000000	0.0000000

U017 66666

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

IEC DATE: 3/19/2012

SDG: U017

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	8.7251100	0.0000000	0.0000000	0.0000000	1.2350800	0.0000000	19.6337000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.6262000	0.0000000	-2.0479800	0.0000000
Arsenic	188.98	0.0231456	0.0000000	1.4466600	0.0000000	0.0000000	0.0000000	-6.9568100	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0777109	0.0000000	0.0000000	0.0000000	0.0000000	0.4101220	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0114175	0.0000000	0.6735850	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0576937	-0.6515750	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	0.0373272	0.0000000	0.1461890	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2854520	0.0267072
Cobalt	228.62	0.0000000	0.0000000	-0.2518640	0.1618730	0.0000000	0.0000000	1.6854600	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0046107	0.0000000	0.1890580	0.0000000	0.0000000	0.0000000	0.2839350	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	5.2682800	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.3516970	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-3.2487800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0062324	0.0000000	0.0000000	0.0000000	-0.3367650	0.0000000	0.0000000	0.0000000	-0.0331334	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.9494270	0.0000000	0.0000000	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	0.9119740	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.2105810	0.1262930	0.0000000	0.0000000	0.0000000	-0.0406459	0.0000000	-0.2398130	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	271.7310000	0.0000000	0.0000000	373.0000000
Thallium	190.80	0.0000000	0.0000000	-3.8706100	0.0000000	0.0917790	0.0000000	0.5514110	0.0000000	1.6549500	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0344764	-0.7123520	-0.4958940	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.3260700	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1562030	-0.7955440	0.0000000	0.0000000	0.0000000	0.6246810	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2669400	0.0000000	-0.1628880	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

SDG: UO17

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 4/2/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
B-DGP1-SO-00'-02'	UO17A	1.046	0.0	50.0
B-DGP1-SO-00'-02'D	UO17ADUP	1.049	0.0	50.0
B-DGP1-SO-00'-02'S	UO17ASPK	1.047	0.0	50.0
PBS	UO17MB1	1.000	0.0	50.0
LCSS	UO17MB1SPK	1.000	0.0	50.0
JF-DGP4-SO-20'-22'	UO32D	1.023	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

SDG: UO17

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 4/2/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
B-DGP1-SO-00'-02'	UO17A	1.026	0.0	50.0
B-DGP1-SO-00'-02'D	UO17ADUP	1.024	0.0	50.0
B-DGP1-SO-00'-02'S	UO17ASPK	1.029	0.0	50.0
PBS	UO17MB1	1.000	0.0	50.0
LCSS	UO17MB1SPK	1.000	0.0	50.0
JF-DGP4-SO-20'-22'	UO32D	1.028	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2

SDG: UO17

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 4/2/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
B-DGP1-SO-00'-02'	UO17A	0.278	0.0	50.0
B-DGP1-SO-00'-02'D	UO17ADUP	0.280	0.0	50.0
B-DGP1-SO-00'-02'S	UO17ASPK	0.281	0.0	50.0
PBS	UO17MB1	0.200	0.0	50.0
LCSW	UO17MB1SPK	0.200	0.0	50.0
JF-DGP4-SO-20'-22'	UO32D	0.238	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2 | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 4/4/2012

SDG: U017 | RUNID: IP040471 METHOD: ICP | END DATE: 4/4/2012

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	10264		X		X		X			X		X	X								X	X	X								X
S2	S2	1.00	10305						X			X		X	X																		
S3	S3	1.00	10324		X		X																X	X									X
S4	S4	1.00	10345																						X								
S5	S5	1.00	10370																														
ICV	ICV	1.00	10424		X		X		X			X		X	X								X	X	X								X
ICB	ICB	1.00	10454		X		X		X			X		X	X								X	X	X								X
CRI	CRII	1.00	10500		X		X		X			X		X	X								X	X	X								X
ICSA	ICSAI	1.00	10541		X		X		X			X		X	X								X	X	X								X
ICSAB	ICSABI	1.00	10582		X		X		X			X		X	X								X	X	X								X
CCV	CCV1	1.00	11022		X		X		X			X		X	X								X	X	X								X
CCB	CCB1	1.00	11054		X		X		X			X		X	X								X	X	X								X
PBS	U017MB1	2.00	11095		X		X		X			X		X	X								X	X	X								X
ZZZZZZ	U057B	1.00	11140																														
ZZZZZZ	U057C	1.00	11182																														
ZZZZZZ	U057D	1.00	11223																														
JF-DGP4-SO-20'-22'	U032D	2.00	11264																														
B-DGP1-SO-00'-02'D	U017ADUP	2.00	11304																														
B-DGP1-SO-00'-02'	U017A	2.00	11340																														
B-DGP1-SO-00'-02'S	U017ASPK	2.00	11375																														
ZZZZZZ	ZZZZZZ	2.00	11401																														
LCSS	U017MB1SPK	2.00	11423		X		X		X			X		X	X								X	X	X								X
CCV	CCV2	1.00	11463		X		X		X			X		X	X								X	X	X								X
CCB	CCB2	1.00	11494		X		X		X			X		X	X								X	X	X								X
ZZZZZZ	U057MB1	1.00	11540																														
ZZZZZZ	U023CDUP	1.00	11581																														
ZZZZZZ	U023C	1.00	12024																														
ZZZZZZ	U023CSPK	1.00	12072																														
ZZZZZZ	U057E	1.00	12114																														
ZZZZZZ	U057F	1.00	12155																														
ZZZZZZ	U057ADUP	1.00	12200																														
ZZZZZZ	U057A	1.00	12240																														
ZZZZZZ	U057ASPK	1.00	12280																														
ZZZZZZ	U057MB1SPK	1.00	12315																														
CCV	CCV3	1.00	12355		X		X		X			X		X	X								X	X	X								X

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U017:00071

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2 INSTRUMENT ID: OPTIMA ICP 2 START DATE: 4/4/2012

SDG: UO17 RUNID: IP040471 METHOD: ICP END DATE: 4/4/2012

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
CCB	CCB3	1.00	12391		X		X		X			X		X	X								X	X	X								X
ZZZZZZ	UO41MB	1.00	12432																														
ZZZZZZ	UO23MB1	1.00	12473																														
ZZZZZZ	UO23MB2	1.00	12514																														
ZZZZZZ	UO23D	1.00	12560																														
ZZZZZZ	UO23B	1.00	13001																														
ZZZZZZ	UO23ADUP	1.00	13042																														
ZZZZZZ	UO23A	1.00	13085																														
ZZZZZZ	UO23ASPK	1.00	13133																														
ZZZZZZ	UO23MB1SPK	1.00	13175																														
ZZZZZZ	UO23MB2SPK	1.00	13215																														
CCV	CCV4	1.00	13254		X		X		X			X		X	X								X	X	X								X
CCB	CCB4	1.00	13295		X		X		X			X		X	X								X	X	X								X
S2	S2	1.00	13352						X			X		X	X																		
S3	S3	1.00	13365		X		X																X	X									X
CCV	CCV5	1.00	13390		X		X		X			X		X	X								X	X	X								X
CCB	CCB5	1.00	13421		X		X		X			X		X	X								X	X	X								X
ZZZZZZ	UO45F	1.00	13463																														
ZZZZZZ	UO45G	1.00	13504																														
ZZZZZZ	UO45H	1.00	13545																														
ZZZZZZ	UO45I	1.00	13591																														
JF-DGP4-SO-20'-22'	UO32D	5.00	14032		X		X		X			X		X	X								X	X	X								X
B-DGP1-SO-00'-02'D	UO17ADUP	5.00	14071		X		X		X			X		X	X								X	X	X								X
B-DGP1-SO-00'-02'	UO17A	5.00	14111		X		X		X			X		X	X								X	X	X								X
B-DGP1-SO-00'-02'S	UO17ASPK	5.00	14151		X		X		X			X		X	X								X	X	X								X
B-DGP1-SO-00'-02'A	UO17APOST	5.00	14191		X				X														X	X	X								
ZZZZZZ	UO45MB2SPK	1.00	14222																														
CCV	CCV6	1.00	14262		X		X		X			X		X	X								X	X	X								X
CCB	CCB6	1.00	14294		X		X		X			X		X	X								X	X	X								X

UO17:00075

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2 INSTRUMENT ID: NEXION 300D MS START DATE: 4/5/2012

SDG: UO17 RUNID: MS040511 METHOD: PMS END DATE: 4/5/2012

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	09180																							X							
S1	S1	1.00	09220																							X							
S2	S2	1.00	09260																							X							
S3	S3	1.00	09300																							X							
S4	S4	1.00	09350																							X							
S5	S5	1.00	09400																														
ZZZZZZ	Rinse sampl	1.00	09450																														
ICV	MICV	1.00	09510																							X							
ICB	ICB	1.00	09550																							X							
CCV	MCCV1	1.00	10000																							X							
CCB	CCB1	1.00	10040																							X							
CRI	MCRI	1.00	10080																							X							
ICSA	ICSAI	1.00	10130																							X							
ICSAB	ICSABI	1.00	10170																							X							
ZZZZZZ	B1	1.00	10220																														
ZZZZZZ	B2	1.00	10280																														
CCV	MCCV2	1.00	10320																							X							
CCB	CCB2	1.00	10360																							X							
ZZZZZZ	LR200	1.00	10450																														
ZZZZZZ	LR300	1.00	10500																														
ZZZZZZ	B3	1.00	10560																														
ZZZZZZ	UO28MB	2.00	11010																														
ZZZZZZ	UP02MB	2.00	11050																														
ZZZZZZ	UP02MBSPK	2.00	11090																														
ZZZZZZ	UO28MBSPK	2.00	11130																														
ZZZZZZ	UO34B	100.00	11170																														
ZZZZZZ	UP02A	2.00	11210																														
ZZZZZZ	UP02B	2.00	11250																														
CCV	MCCV3	1.00	11300																							X							
CCB	CCB3	1.00	11350																							X							
ZZZZZZ	UO26MB1	2.00	11390																														
ZZZZZZ	UO35MB1	2.00	11430																														
ZZZZZZ	UO35MB1SPK	2.00	11470																														
ZZZZZZ	UO26MB1SPK	2.00	11510																														
ZZZZZZ	UO26GDUP	2.00	11550																														

FORM XIV

UO17 : 00075

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2 INSTRUMENT ID: NEXION 300D MS START DATE: 4/5/2012

SDG: UO17 RUNID: MS040511 METHOD: PMS END DATE: 4/5/2012

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	UO26G	2.00	11590																														
ZZZZZZ	UO26GSPK	2.00	12030																														
ZZZZZZ	UO28ADUP	2.00	12070																														
ZZZZZZ	UO28A	2.00	12110																														
ZZZZZZ	UO28ASPK	2.00	12160																														
CCV	MCCV4	1.00	12200																							X							
CCB	CCB4	1.00	12240																							X							
PBS	UO17MB1	20.00	12300																							X							
LCSS	UO17MB1SPK	20.00	12350																							X							
ZZZZZZ	UO35ADUP	2.00	12390																														
ZZZZZZ	UO35A	2.00	12430																														
ZZZZZZ	UO35ASPK	2.00	12470																														
B-DGP1-SO-00'-02'D	UO17ADUP	20.00	12510																							X							
B-DGP1-SO-00'-02'	UO17A	20.00	12550																							X							
B-DGP1-SO-00'-02'S	UO17ASPK	20.00	12590																							X							
JF-DGP4-SO-20'-22'	UO32D	20.00	13030																							X							
ZZZZZZ	UO76C	20.00	13070																														
CCV	MCCV5	1.00	13110																							X							
CCB	CCB5	1.00	13160																							X							

UO17 : 0097

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2 | INSTRUMENT ID: CETAC MERCURY | START DATE: 4/4/2012

SDG: UO17 | RUNID: HG040401 METHOD: CVA | END DATE: 4/4/2012

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	10043														X																
S0.1	S0.1	1.00	10060														X																
S0.5	S0.5	1.00	10074														X																
S1	S1	1.00	10091														X																
S2	S2	1.00	10105														X																
S5	S5	1.00	10123														X																
S10	S10	1.00	10141														X																
ICV	AICV	1.00	10173														X																
ICB	ICB	1.00	10190														X																
CCV	ACCV1	1.00	10204														X																
CCB	CCB1	1.00	10222														X																
CRA	CRA	1.00	10240														X																
ZZZZZZ	UO71MB1	1.00	10254																														
ZZZZZZ	UO71MB1SPK	1.00	10271																														
ZZZZZZ	UO71F	1.00	10285																														
ZZZZZZ	UO71FDUP	1.00	10302																														
ZZZZZZ	UO71FSPK	1.00	10320																														
ZZZZZZ	UO71G	1.00	10334																														
ZZZZZZ	UO71K	1.00	10351																														
ZZZZZZ	UO71Q	1.00	10365																														
ZZZZZZ	UO71W	1.00	10383																														
CCV	ACCV2	1.00	10401														X																
CCB	CCB2	1.00	10415														X																
ZZZZZZ	UO76C	1.00	10433																														
ZZZZZZ	UO76G	1.00	10450																														
ZZZZZZ	UO86MB1	1.00	10464																														
ZZZZZZ	UO86MB1SPK	1.00	10481																														
ZZZZZZ	UO86MB1SPD	1.00	10495																														
ZZZZZZ	UO86A	1.00	10513																														
PBW	UO17MB1	1.00	10530														X																
LCSW	UO17MB1SPK	1.00	10544														X																
B-DGP1-SO-00'-02'	UO17A	1.00	10562														X																
B-DGP1-SO-00'-02'D	UO17ADUP	1.00	10580														X																
CCV	ACCV3	1.00	10594														X																
CCB	CCB3	1.00	11012														X																

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UO17 00078

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA

PROJECT: JFOS Phase 2 | INSTRUMENT ID: CETAC MERCURY | START DATE: 4/4/2012

SDG: UO17 | RUNID: HG040401 METHOD: CVA | END DATE: 4/4/2012

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
B-DGP1-SO-00'-02'S	UO17ASPK	1.00	11030														X																
JF-DGP4-SO-20'-22'	UO32D	1.00	11043														X																
CCV	ACCV4	1.00	11061														X																
CCB	CCB4	1.00	11075														X																
ZZZZZZ	UO98MB	1.00	11093																														
ZZZZZZ	UO98MBSPK	1.00	11111																														
ZZZZZZ	UO98A	1.00	11124																														
ZZZZZZ	UO98ADUP	1.00	11142																														
ZZZZZZ	UO98ASPK	1.00	11160																														
ZZZZZZ	UO98B	1.00	11173																														
CCV	ACCV5	1.00	11191														X																
CCB	CCB5	1.00	11205														X																
B-DGP1-SO-00'-02'	UO17A	1.00	11225																														
B-DGP1-SO-00'-02'D	UO17ADUP	1.00	11242																														
B-DGP1-SO-00'-02'S	UO17ASPK	1.00	11260																														
CCV	ACCV6	1.00	11274														X																
CCB	CCB6	1.00	11292														X																

UO17 : 00079

Total Solids

ARI Job ID: UO17

Extractions Total Solids-extts
Data By: Rosie V. Rodriguez
Created: 3/29/12

Worklist: 8467
Analyst: RVR
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.	U017A 12-5305 B-DGP1-SO-00'-02'	1.16	12.52	11.47	90.8	NR
2.	U017B 12-5306 B-DGP1-SO-02'-03'	1.15	12.11	11.30	92.6	NR
3.	U017C 12-5307 B-DGP1-SO-05'-07'	1.18	12.51	10.60	83.1	NR
4.	U017D 12-5308 B-DGP1-SO-07'-08.0'	1.19	13.98	10.96	76.4	NR
5.	U017E 12-5309 B-DGP1-SO-10'-12'	1.19	14.02	10.97	76.2	NR
6.	U017F 12-5310 B-DGP1-SO-12'-13.33'	1.16	12.56	9.94	77.0	NR
7.	U017G 12-5311 B-DGP1-SO-15'-17'	1.15	13.34	10.28	74.9	NR

Extractions Total Solids-extts
Data By: Rosie V. Rodriguez
Created: 3/29/12

Worklist: 8467
Analyst: RVR
Comments:

Oven ID: 015

Balance ID: B14642614

Samples In: Date 03/29/12 Time: 13:10 Temp: 100° Analyst: RR

Samples Out: Date 03/30/12 Time: 06:05 Temp: 100° Analyst: RR

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	U017A 12-5305 B-DGP1-SO-00'-02'	1.16	12.52	11.47		NR
2.	U017B 12-5306 B-DGP1-SO-02'-03'	1.15	12.11	11.30		NR
3.	U017C 12-5307 B-DGP1-SO-05'-07'	1.18	12.51	10.60		NR
4.	U017D 12-5308 B-DGP1-SO-07'-08.0'	1.19	13.98	10.96		NR
5.	U017E 12-5309 B-DGP1-SO-10'-12'	1.19	14.02	10.97		NR
6.	U017F 12-5310 B-DGP1-SO-12'-13.33'	1.16	12.56	9.94		NR
7.	U017G 12-5311 B-DGP1-SO-15'-17'	1.15	13.34	10.28		NR

Solids Data Entry Report Checked by: KM Date: 4/03/12
Date: 04/03/12 Data Analyst: DM

Solids Determination performed on 04/02/12 by MJ

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
U017	A	B-DGP1-SO-00'-02'	0.996	10.140	9.403	91.94

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 **Balance ID:** 068755

Samples in Oven: Date: 04-02-12 Time: 0840 Temp: 106°C Analyst: MJ

Removed from Oven: Date: 4-03-12 Time: 0700 Temp: 105°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]
U017 A	0.996	10.140	9.403	–	✓
U032 D	0.991	10.434	8.634	–	✓

04-02-12 MJ

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.

PCB Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UO17

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

PCB – Soil / Sediment
Microwave (3546) (SOP # 3304S)

Preparation Test PCB PSDDA # 5 (PCBSDMP4)-(PCBSDMP10)-(PCBSDMP20)

PSDDA (4-10-20ppb)

ARI Job No(s) U017, U032 High sulfur content

Batch set up by: JH

ARI Sample I.D.	Verify Client ID	Volume Extracted (dry wt)	KD 100°C Hex X (X 2)	(REQ) Acid Clean	(REQ) Sulfur Clean 1 2 3	(REQ/Opt) Silica Gel Clean (1:2.5) Y N	Extraction Final Volume	Volume to Lab	GC Dilution	GC Final Effective Volume	Comments
U017											
MBS	Date NL	12.5g		2.5mL	2.5mL	1mL	2.5mL	1mL			10g Actua Weight
SBS	4/3/12	↓		↓	↓	↓	↓	↓			↓
SBSDup		↓		↓	↓	↓	↓	↓			↓
QLS		↓		↓	↓	↓	↓	↓			↓
A	Checked	17.18									
B		14.11									
BMS		14.15									
BMSD		14.12									
C		16.28									
D		17.34									
E		17.21									
F		17.15									
G		17.34									
U032A		10.25									See Notes
B		12.55									
C		5.06									
D		10.10									
E		16.06									
F		17.27									
G		17.39									
H		16.41									
I		16.29									
J		16.34									
			YL	CJZ							
Analyst/Date	NL 4/3/12		4/3/12	4/4/12							

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	N	50µL	5/28/12	NL	SP
Spike	1	63µL	11/01/12	NL	SP
QLS Spike	5	~~125/62.5~~ (25µL)	11/01/12	NL	SP

Extraction Time: 0940 Balance ID: B139298002

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 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: 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 (if Silica Clean). 16. Vial with Hexane.

A. Need Total Solids Y / N B. ~~Archive~~/Freeze Y / N Both

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: U017 Client ID: Anchor QEA

Parameter: PCB PSDDA (4 ppb) Client Project: JF05 Phase 2

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= A, B, C, d, F	RR 03/29/12
☒ Standing Water Decanted (Not shared)= G	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☒ Rocks (%+size)? Small rocks; A small rock removed sample "B"	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☒ Other (Details)= Sample "E" is wet.	RR 03/29/12
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions). GC analyst, Sample pre-screens indicate possible aroclor activity.	JH 4/02/12

3056F

Revision 008
11/02/11

U017 : 00087

PCB Raw Data
Initial Calibration

ARI Job ID: UO17

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: _____ Client ID: _____

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 DPT's

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: 03/27/12 Analysis Start: 03/27/12

Endrin/DDT Breakdown <15%? YES / NO / NA

Method Blank In Control? NA YES / NO

ICal Meets RF & %RSD Criteria? YES / NO

LCS/LCSD Recovery In Control? NA 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? NA YES / NO

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: _____ Date: 03/~~27~~ 28/12

Reviewer: VTD Date: 3/28/12 03/28/12

Form 4060F Version 007 UC17 00085 6/18/10

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120327.B/ical-2.b

ARI Job No.: IB Method: PCB2.m Instrument: ecd5.i Date: 27-MAR-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1316	0327B007.d	IB		1	NO MANUAL INTEGRATION
1334	0327B008.d	0.25 PPM	AR1660	1	NO MANUAL INTEGRATION
1354	0327B009.d	0.02 PPM	AR1660	1	NO MANUAL INTEGRATION
1413	0327B010.d	0.05 PPM	AR1660	1	NO MANUAL INTEGRATION
1431	0327B011.d	1 PPM	AR1660	1	NO MANUAL INTEGRATION
1450	0327B012.d	0.1 PPM	AR1660	1	NO MANUAL INTEGRATION
1509	0327B013.d	0.5 PPM	AR1660	1	NO MANUAL INTEGRATION
1528	0327B014.d	AR1242		1	NO MANUAL INTEGRATION
1547	0327B015.d	AR1248		1	NO MANUAL INTEGRATION
1606	0327B016.d	AR1254		1	NO MANUAL INTEGRATION
1625	0327B017.d	AR2162		1	NO MANUAL INTEGRATION
1644	0327B018.d	AR3268		1	NO MANUAL INTEGRATION
1703	0327B019.d	AR1660	ICV	1	NO MANUAL INTEGRATION
1722	0327B020.d	AR1242	ICV	1	NO MANUAL INTEGRATION
1741	0327B021.d	AR1248	ICV	1	NO MANUAL INTEGRATION
1800	0327B022.d	AR1254	ICV	1	NO MANUAL INTEGRATION
1819	0327B023.d	AR2162	ICV	1	NO MANUAL INTEGRATION
1838	0327B024.d	AR3268	ICV	1	NO MANUAL INTEGRATION
1316	0327B007.d	IB		1	NO MANUAL INTEGRATION
1334	0327B008.d	0.25 PPM	AR1660	1	NO MANUAL INTEGRATION
1354	0327B009.d	0.02 PPM	AR1660	1	NO MANUAL INTEGRATION

00090

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120327.B/ical-2.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1413	0327B010.d	0.05 PPM	AR1660	1	NO MANUAL INTEGRATION
1431	0327B011.d	1 PPM	AR1660	1	NO MANUAL INTEGRATION
1450	0327B012.d	0.1 PPM	AR1660	1	NO MANUAL INTEGRATION
1509	0327B013.d	0.5 PPM	AR1660	1	NO MANUAL INTEGRATION
1528	0327B014.d	AR1242		1	NO MANUAL INTEGRATION
1547	0327B015.d	AR1248		1	NO MANUAL INTEGRATION
1606	0327B016.d	AR1254		1	NO MANUAL INTEGRATION
1625	0327B017.d	AR2162		1	NO MANUAL INTEGRATION
1644	0327B018.d	AR3268		1	NO MANUAL INTEGRATION
1703	0327B019.d	AR1660	ICV	1	NO MANUAL INTEGRATION
1722	0327B020.d	AR1242	ICV	1	NO MANUAL INTEGRATION
1741	0327B021.d	AR1248	ICV	1	NO MANUAL INTEGRATION
1800	0327B022.d	AR1254	ICV	1	NO MANUAL INTEGRATION
1819	0327B023.d	AR2162	ICV	1	NO MANUAL INTEGRATION
1838	0327B024.d	AR3268	ICV	1	NO MANUAL INTEGRATION

LOT: 69051

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120327.B/PCB1.m
Batch File: /chem2/ecd5.i/20120327.B/ical-1.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0327B008	0327B009	0327B010	0327B011	0327B012	0327B013
INJ.DATE:	27-MAR-2012	27-MAR-2012	27-MAR-2012	27-MAR-2012	27-MAR-2012	27-MAR-2012
INJ.TIME:	13:34	13:54	14:13	14:31	14:50	15:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	2.422	2.423	2.423	2.422	2.421	2.421	2.420	2.320-2.520	2.422	0.001
$ 1 Tetrachloro-m-xylene	4.623	4.623	4.623	4.622	4.621	4.621	4.621	4.521-4.721	4.622	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.899	4.799-4.999	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.254	6.154-6.354	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.254	6.154-6.354	+++++	+++++
7 Aroclor-1016	6.255	6.256	6.255	6.255	6.254	6.254	6.254	6.154-6.354	6.255	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	6.649	6.549-6.749	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.368	8.268-8.468	+++++	+++++
9 Aroclor-1260	10.460	10.460	10.459	10.460	10.459	10.460	10.460	10.360-10.560	10.460	0.001
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.142	10.042-10.242	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.351	11.251-11.451	+++++	+++++
$ 13 Decachlorobiphenyl	13.007	13.007	13.006	13.006	13.005	13.005	13.005	12.905-13.105	13.006	0.001
* 12 IS-HBBP	13.369	13.369	13.368	13.367	13.367	13.368	13.367	13.267-13.467	13.368	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.335	8.284-8.384	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	8.885	8.835-8.935	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.388	9.338-9.438	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.766	8.666-8.866	+++++	+++++

Reviewer 1 _____ Date: 03/28/12
Reviewer 2 _____ Date: 3/28/12

0017 00002

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120327.B/PCB1.m
Batch File: /chem2/ecd5.i/20120327.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	+++++	+++++	+++++	+++++	+++++	+++++	9.339	9.239-9.439	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.851	9.751-9.951	+++++	+++++

J017 : 00093

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120327.B/PCB2.m
Batch File: /chem2/ecd5.i/20120327.B/ical-2.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0327B008	0327B009	0327B010	0327B011	0327B012	0327B013
INJ.DATE:	27-MAR-2012	27-MAR-2012	27-MAR-2012	27-MAR-2012	27-MAR-2012	27-MAR-2012
INJ.TIME:	13:34	13:54	14:13	14:31	14:50	15:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB	2.907	2.907	2.909	2.907	2.906	2.905	2.904	2.804-3.004	2.907	0.001
$ 2 Tetrachloro-m-xylene	4.622	4.622	4.623	4.622	4.621	4.620	4.620	4.520-4.720	4.622	0.001
1 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	5.304	5.204-5.404	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.358	6.258-6.458	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.358	6.258-6.458	+++++	+++++
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	6.980	6.880-7.080	+++++	+++++
7 Aroclor-1016	6.359	6.360	6.360	6.359	6.359	6.358	6.358	6.258-6.458	6.359	0.001
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.477	8.377-8.577	+++++	+++++
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.434	10.334-10.534	+++++	+++++
9 Aroclor-1260	10.435	10.436	10.434	10.436	10.434	10.435	10.435	10.335-10.535	10.435	0.001
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.679	11.579-11.779	+++++	+++++
$ 13 Decachlorobiphenyl	13.381	13.382	13.381	13.382	13.380	13.380	13.380	13.280-13.480	13.381	0.001
* 12 IS-HBBP	14.252	14.252	14.251	14.250	14.249	14.250	14.248	14.148-14.348	14.251	0.001
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.739	8.689-8.789	+++++	+++++
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.422	9.372-9.472	+++++	+++++
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.124	9.024-9.224	+++++	+++++
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.885	9.785-9.985	+++++	+++++

Reviewer 1 _____ Date: 03/28/12
Reviewer 2 _____ Date: 3/28/12

00017:00009

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120327.B/PCB2.m
Batch File: /chem2/ecd5.i/20120327.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	+++++	+++++	+++++	+++++	+++++	+++++	10.322	10.222-10.422	+++++	+++++

UG17 : 00035

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB2.m
Cal Date : 28-Mar-2012 07:14 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20120327.B/ical-2.b/0327B009.d
Level 2: /chem2/ecd5.i/20120327.B/ical-2.b/0327B010.d
Level 3: /chem2/ecd5.i/20120327.B/ical-2.b/0327B012.d
Level 4: /chem2/ecd5.i/20120327.B/ical-2.b/0327B008.d
Level 5: /chem2/ecd5.i/20120327.B/ical-2.b/0327B013.d
Level 6: /chem2/ecd5.i/20120327.B/ical-2.b/0327B011.d
Level 7: /chem2/ecd5.i/20120327.B/ical-2.b/0327B018.d
Level 8: /chem2/ecd5.i/20120327.B/ddt-2.b/0327B025.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	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
1 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01274	+++++					0.01274	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00754	+++++					0.00754	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02276	+++++					0.02276	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00409	+++++					0.00409	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01812	+++++					0.01812	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03376	+++++					0.03376	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB2.m
Cal Date : 28-Mar-2012 07:14 jrains
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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01163	+++++					0.01163	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01231	+++++					0.01231	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03177	+++++					0.03177	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06483	+++++					0.06483	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02599	+++++					0.02599	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02169	+++++					0.02169	0.000
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04050	+++++					0.04050	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03151	+++++					0.03151	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03606	+++++					0.03606	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB2.m
Cal Date : 28-Mar-2012 07:14 jrains
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)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03895	+++++							0.03895	0.000
7 Aroclor-1016(1)	0.05195	0.04551	0.04478	0.04198	0.03722	0.03483				
	+++++	+++++							0.04271	14.447
(2)	0.09651	0.08836	0.08878	0.08412	0.07764	0.07371				
	+++++	+++++							0.08485	9.722
(3)	0.02412	0.02256	0.02300	0.02151	0.01976	0.01868				
	+++++	+++++							0.02161	9.513
(4)	0.02732	0.02509	0.02517	0.02309	0.02099	0.01962				
	+++++	+++++							0.02355	12.228
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.02992	+++++							0.02992	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03795	+++++							0.03795	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.02917	+++++							0.02917	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.06237	+++++							0.06237	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB2.m
Cal Date : 28-Mar-2012 07:14 jrains
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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03757	+++++					0.03757	0.000
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06951	+++++					0.06951	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05929	+++++					0.05929	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.13501	+++++					0.13501	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05257	+++++					0.05257	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05421	+++++					0.05421	0.000
9 Aroclor-1260(1)	0.05464	0.04684	0.04758	0.04331	0.04032	0.03821		
	+++++	+++++					0.04515	13.057
(2)	0.06239	0.05604	0.05740	0.05340	0.04999	0.04789		
	+++++	+++++					0.05452	9.644
(3)	0.12429	0.11058	0.11425	0.10860	0.10288	0.10013		
	+++++	+++++					0.11012	7.841

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB2.m
Cal Date : 28-Mar-2012 07:14 jrains
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)	0.03606	0.03199	0.03326	0.03080	0.02880	0.02735		
	++++++	++++++					0.03138	9.983
11 Aroclor-1268(1)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.13931	++++++					0.13931	0.000
(2)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.12781	++++++					0.12781	0.000
(3)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.11195	++++++					0.11195	0.000
(4)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.33824	++++++					0.33824	0.000
41 2,4-DDE	++++++	++++++	++++++	++++++	++++++	++++++		
	++++++	594					594	0.000
42 2,4-DDD	++++++	++++++	++++++	++++++	++++++	++++++		
	++++++	503					503	0.000
44 4,4-DDE	++++++	++++++	++++++	++++++	++++++	++++++		
	++++++	922					922	0.000
45 4,4-DDD/2,4-DDT	++++++	++++++	++++++	++++++	++++++	++++++		
	++++++	649					649	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB2.m
Cal Date : 28-Mar-2012 07:14 jrains
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	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	649					649	0.000
$ 2 Tetrachloro-m-xylene	1.24163	1.12736	1.19123	1.10736	1.08071	1.03080		
	+++++	+++++					1.12985	6.741
$ 13 Decachlorobiphenyl	1.21008	1.07888	1.11140	1.05326	0.98661	0.94055		
	+++++	+++++					1.06346	8.936

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB1.m
Cal Date : 28-Mar-2012 07:17 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20120327.B/ical-1.b/0327B009.d
Level 2: /chem2/ecd5.i/20120327.B/ical-1.b/0327B010.d
Level 3: /chem2/ecd5.i/20120327.B/ical-1.b/0327B012.d
Level 4: /chem2/ecd5.i/20120327.B/ical-1.b/0327B008.d
Level 5: /chem2/ecd5.i/20120327.B/ical-1.b/0327B013.d
Level 6: /chem2/ecd5.i/20120327.B/ical-1.b/0327B011.d
Level 7: /chem2/ecd5.i/20120327.B/ical-1.b/0327B018.d
Level 8: /chem2/ecd5.i/20120327.B/ddt-1.b/0327B025.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	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00472	+++++					0.00472	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00920	+++++					0.00920	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03053	+++++					0.03053	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02268	+++++					0.02268	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.07605	+++++					0.07605	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02990	+++++					0.02990	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB1.m
Cal Date : 28-Mar-2012 07:17 jrains
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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02639	+++++					0.02639	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01215	+++++					0.01215	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04030	+++++					0.04030	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01608	+++++					0.01608	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01490	+++++					0.01490	0.000
7 Aroclor-1016(1)	0.03285	0.02973	0.03065	0.02781	0.02674	0.02559		
	+++++	+++++					0.02889	9.304
(2)	0.11270	0.10201	0.10372	0.09478	0.08920	0.08590		
	+++++	+++++					0.09805	10.188
(3)	0.04483	0.04012	0.04090	0.03701	0.03496	0.03351		
	+++++	+++++					0.03855	10.885
(4)	0.03246	0.02874	0.02931	0.02630	0.02494	0.02391		
	+++++	+++++					0.02761	11.474

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB1.m
Cal Date : 28-Mar-2012 07:17 jrains
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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04774	+++++					0.04774	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03535	+++++					0.03535	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04505	+++++					0.04505	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04475	+++++					0.04475	0.000
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06672	+++++					0.06672	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04268	+++++					0.04268	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.08055	+++++					0.08055	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.08778	+++++					0.08778	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05788	+++++					0.05788	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB1.m
Cal Date : 28-Mar-2012 07:17 jrains
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)	0.05224	0.04806	0.04993	0.04564	0.04311	0.04069		
	++++++	++++++					0.04661	9.256
(2)	0.12822	0.11688	0.12140	0.11185	0.10589	0.10280		
	++++++	++++++					0.11451	8.375
(3)	0.06839	0.06305	0.06580	0.06086	0.05774	0.05508		
	++++++	++++++					0.06182	8.039
(4)	0.02759	0.02624	0.02738	0.02491	0.02365	0.02243		
	++++++	++++++					0.02537	8.184
(5)	0.03266	0.03092	0.03259	0.03019	0.02893	0.02764		
	++++++	++++++					0.03049	6.554
10 Aroclor-1262(1)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.07217	++++++					0.07217	0.000
(2)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.05368	++++++					0.05368	0.000
(3)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.14593	++++++					0.14593	0.000
(4)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.05034	++++++					0.05034	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB1.m
Cal Date : 28-Mar-2012 07:17 jrains
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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05733	+++++					0.05733	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.14675	+++++					0.14675	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.14646	+++++					0.14646	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.12275	+++++					0.12275	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.39052	+++++					0.39052	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	864					864	0.000
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	757					757	0.000
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	854					854	0.000
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1330					1330	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAR-2012 13:34
End Cal Date : 27-MAR-2012 18:57
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120327.B/PCB1.m
Cal Date : 28-Mar-2012 07:17 jrains
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						
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1069					1069	0.000
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	995					995	0.000
$ 1 Tetrachloro-m-xylene	1.21993	1.13008	1.20509	1.15616	1.17065	1.07723		
	+++++	+++++					1.15986	4.480
$ 13 Decachlorobiphenyl	1.20199	1.15354	1.26260	1.18949	1.12379	1.09667		
	+++++	+++++					1.17135	5.087

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B007.d
Data file 2: 20120327.B/ical-2.b/0327B007.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 27-MAR-2012 13:16
Ical Date: 27-MAR-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
4.622	0.001	66665295	4.622	0.001	39691518	37.4	38.7	3.4	Tetrachloro-m-xylene
13.006	0.001	81256936	13.383	0.003	26700282	38.0	36.5	4.0	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	93.6	96.8
Decachlorobiphenyl	95.0	91.2

R 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	122878636	-2.0
Hexabromobiphenyl	146489015	146063471	-0.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	72572812	-0.9
Hexabromobiphenyl	55066880	55049055	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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-1016	1	6.258	0.004	17782	0.4	1	6.341	-0.017	19680	0.5
Aroclor-1016	2	6.635	-0.019	12481	0.1	2	7.024	0.040	29691	0.4
Aroclor-1016	3	---			0.0	3	7.328	-0.039	35736	1.8
Aroclor-1016	4	6.912	0.000	69311	1.6	4	7.549	0.075	38133	1.8
Total Col1Ave (3 peaks):				0.7	Total Col2Ave (4 peaks):				1.1	RPD = 46*
Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				0.9	
Aroclor-1221	1	4.899	0.000	6819948	940.2	1	5.354	0.049	6239676	539.7
Aroclor-1221	2	5.158	-0.014	1790402	126.7	2	---			0.0
Aroclor-1221	3	5.321	0.045	105776	2.3	3	5.670	0.007	270636	13.1
Aroclor-1221	NS	---			----	4	5.784	0.052	20844	5.6
Total Col1Ave (3 peaks):				356.4	Total Col2Ave (3 peaks):				186.2	RPD = 63*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	6.258	0.004	17782	1.0	1	6.341	-0.017	19680	1.2
Aroclor-1232	2	6.635	-0.018	12481	0.2	2	7.024	0.041	29691	1.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	7.924	-0.069	107470	4.7	4	8.294	-0.043	546937	49.0
Total Col1Ave (3 peaks):				2.0	Total Col2Ave (3 peaks):				17.1	RPD = 159*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1242	1	6.258	0.004	17782	0.5	1	6.341	-0.017	19680	0.7
Aroclor-1242	2	6.635	-0.019	12481	0.1	2	7.024	0.041	29691	0.5
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	7.924	-0.069	107470	2.7	4	8.294	-0.043	546937	27.8
Total Col1Ave (3 peaks):				1.1	Total Col2Ave (3 peaks):				9.7	RPD = 159*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1248	1	6.635	-0.014	12481	0.2	1	7.024	0.044	29691	0.8
Aroclor-1248	2	7.459	0.011	230382	4.2	2	7.884	-0.001	64288	2.2
Aroclor-1248	3	7.924	-0.069	107470	1.6	3	8.294	-0.043	546937	16.7
Aroclor-1248	4	8.270	-0.014	710243	10.3	4	8.705	-0.053	449105	12.7
Total Col1Ave (4 peaks):				4.1	Total Col2Ave (4 peaks):				8.1	RPD = 66*
Corrected Ave (3 peaks):				2.0	Corrected Ave (3 peaks):				5.3	RPD = 90*
Aroclor-1254	1	8.385	0.017	66778	0.7	1	8.483	0.006	40106	1.5
Aroclor-1254	2	8.807	0.068	91603	1.4	2	8.705	0.056	449105	13.0
Aroclor-1254	3	8.917	0.041	34428	0.3	3	9.182	0.010	13733	0.5
Aroclor-1254	4	---			0.0	4	9.293	-0.028	81560	1.4
Aroclor-1254	5	9.593	0.007	78915	0.9	5	10.076	-0.028	21730	0.6
Total Col1Ave (4 peaks):				0.8	Total Col2Ave (5 peaks):				3.4	RPD = 124*
Corrected Ave (3 peaks):				0.6	Corrected Ave (4 peaks):				1.0	RPD = 51*
Aroclor-1260	1	10.478	0.018	137833	1.6	1	10.477	0.042	123186	4.0
Aroclor-1260	2	10.874	0.040	157174	0.8	2	10.952	0.066	60225	1.6
Aroclor-1260	3	11.312	0.078	97528	0.9	3	---			0.0
Aroclor-1260	4	11.335	-0.015	23641	0.5	4	11.637	-0.042	83998	3.9
Aroclor-1260	5	11.471	0.048	46602	0.8	NS	---			----
Total Col1Ave (5 peaks):				0.9	Total Col2Ave (3 peaks):				3.2	RPD = 110*
Corrected Ave (4 peaks):				0.7	Corrected Ave: < 3 Peaks					
Aroclor-1262	1	10.128	-0.014	116406	0.9	1	10.477	0.043	123186	2.6
Aroclor-1262	2	10.478	0.020	137833	1.4	2	10.952	0.067	60225	1.5
Aroclor-1262	3	10.874	0.042	157174	0.6	3	---			0.0
Aroclor-1262	4	11.335	-0.015	23641	0.3	4	11.637	-0.041	83998	2.3
Aroclor-1262	5	11.471	0.049	46602	0.4	5	12.523	0.045	648623	17.4
Total Col1Ave (5 peaks):				0.7	Total Col2Ave (4 peaks):				5.9	RPD = 157*
Corrected Ave (4 peaks):				0.5	Corrected Ave (3 peaks):				2.1	RPD = 118*
Aroclor-1268	1	11.335	-0.016	23641	0.1	1	11.637	-0.042	83998	0.9
Aroclor-1268	2	11.471	0.050	46602	0.2	2	11.747	0.001	20203	0.2

Aroclor-1268	3	11.818	0.010	70918	0.3	3	---		0.0
Aroclor-1268	4	12.584	-0.015	908020	1.3	4	12.971	0.006	75616	0.3

Total Col1Ave (4 peaks): 0.5 Total Col2Ave (3 peaks): 0.5 RPD = 3

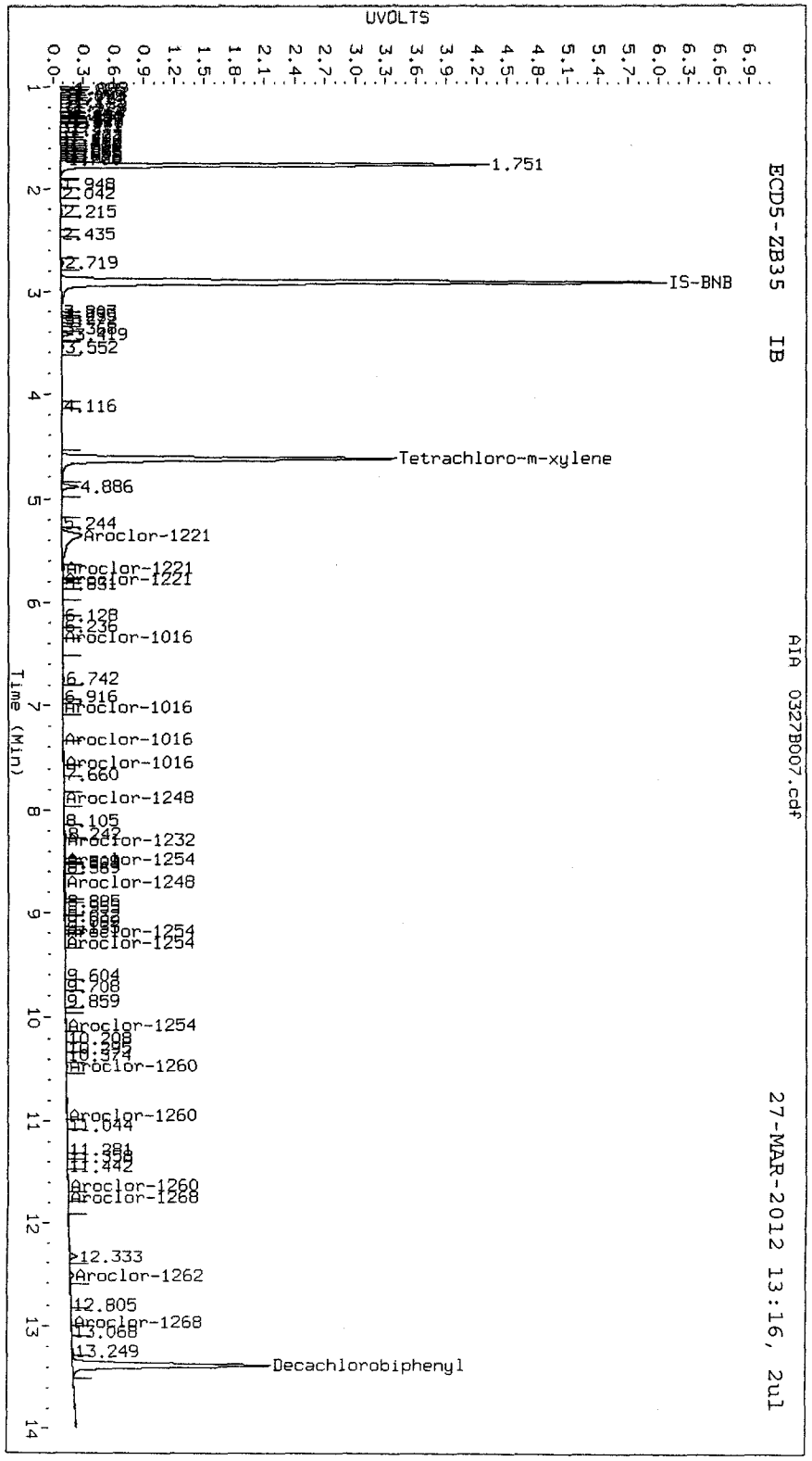
Corrected Ave (3 peaks): 0.2 Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.721 - 12.905) = 28936848 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 13577586 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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IS-BNB
Tetrachloro-m-xylene
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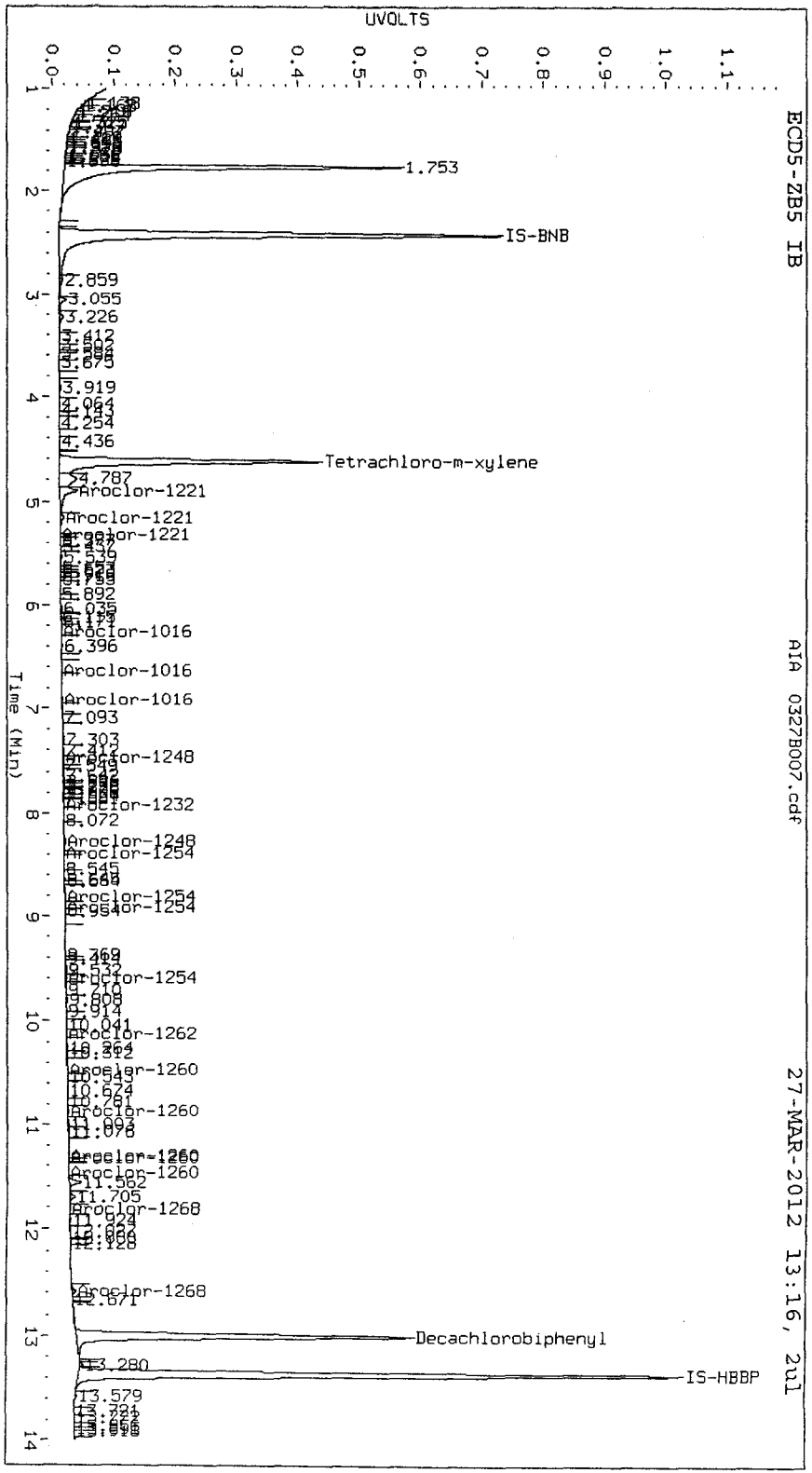
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Aroclor-1248
Aroclor-1232
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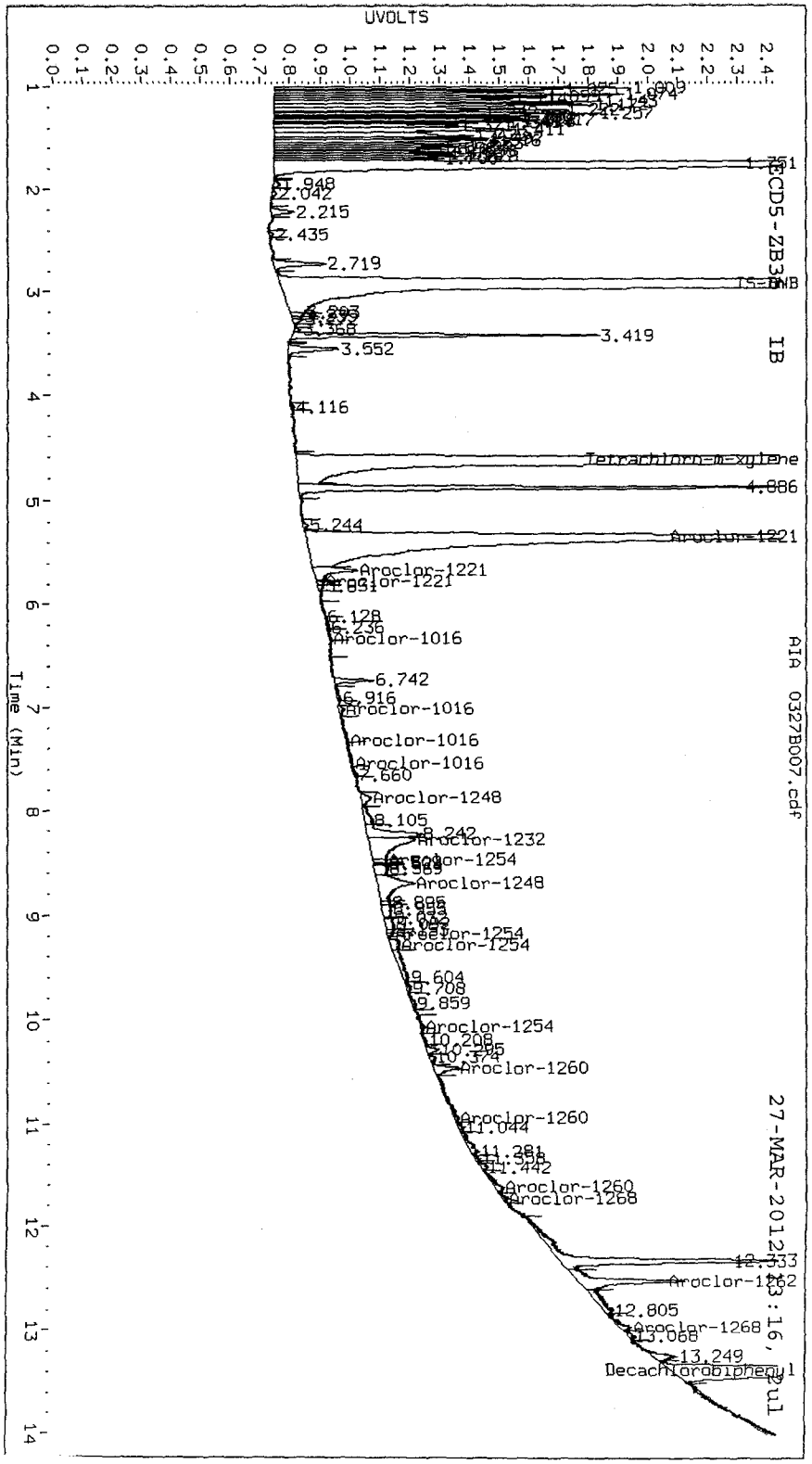
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

U017:081111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5.244
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Aroclor-1016
6.742
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268
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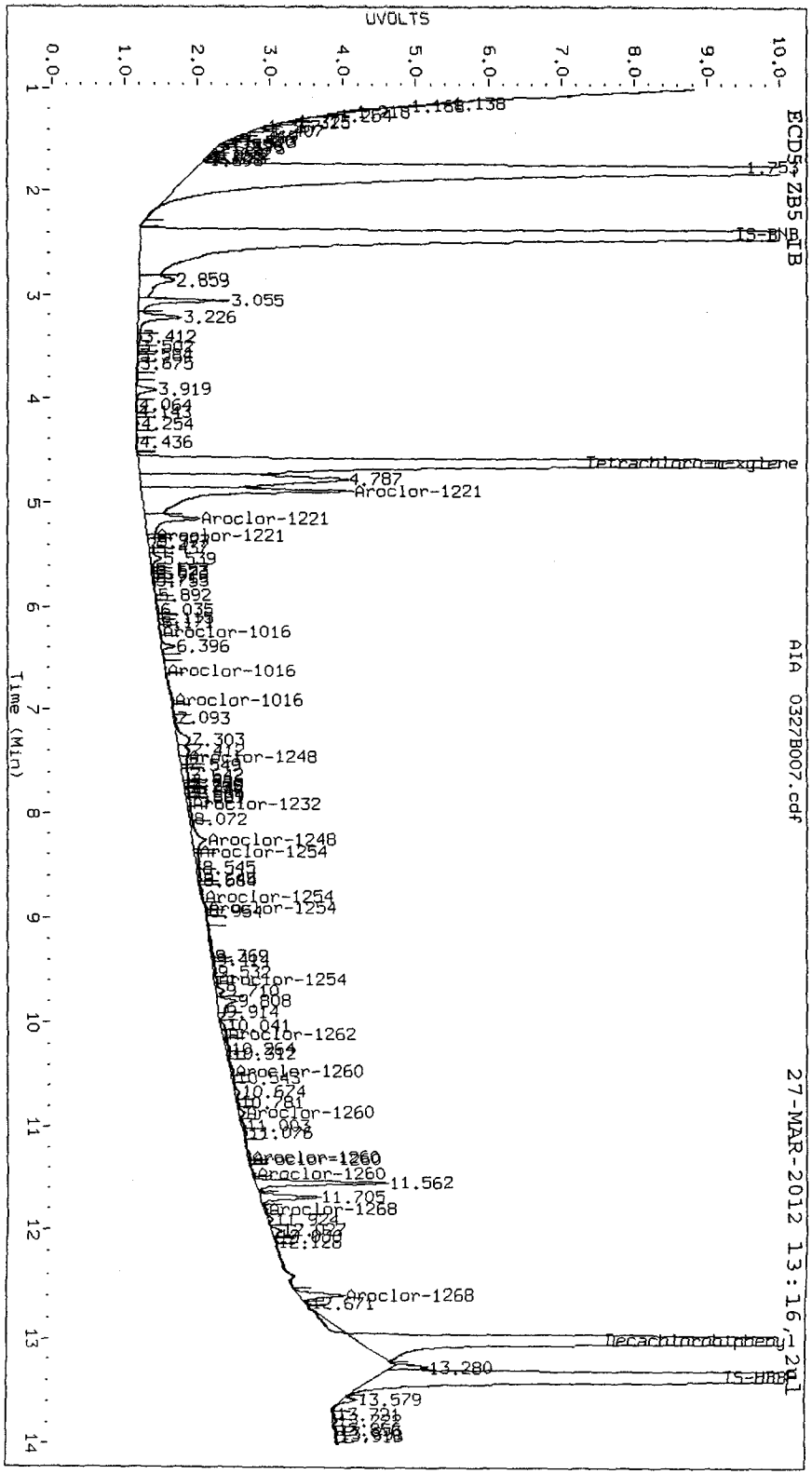
12.805
13.249
Decachlorobiphenyl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3.226
3.919
4.436
Tetrachloro-m-xylene
4.787
Aroclor-1221
Aroclor-1016
6.396
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
11.562
11.705
Aroclor-1268
13.280
IS-HBB
13.579
Decachlorobiphenyl

U017:0012

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B008.d
Data file 2: 20120327.B/ical-2.b/0327B008.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25 PPM AR1660
Client ID:
Injection Date: 27-MAR-2012 13:34
Ical Date: 27-MAR-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
4.623	0.002	36235348	4.622	0.002	20267169	19.9	19.6	1.7	Tetrachloro-m-xylene
13.007	0.001	43561886	13.381	0.001	14499938	20.3	19.8	2.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

JK 03/28/12

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.8	49.0
Decachlorobiphenyl	50.8	49.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	125364794	0.0
Hexabromobiphenyl	146489015	146489015	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	73208642	0.0
Hexabromobiphenyl	55066880	55066880	0.0

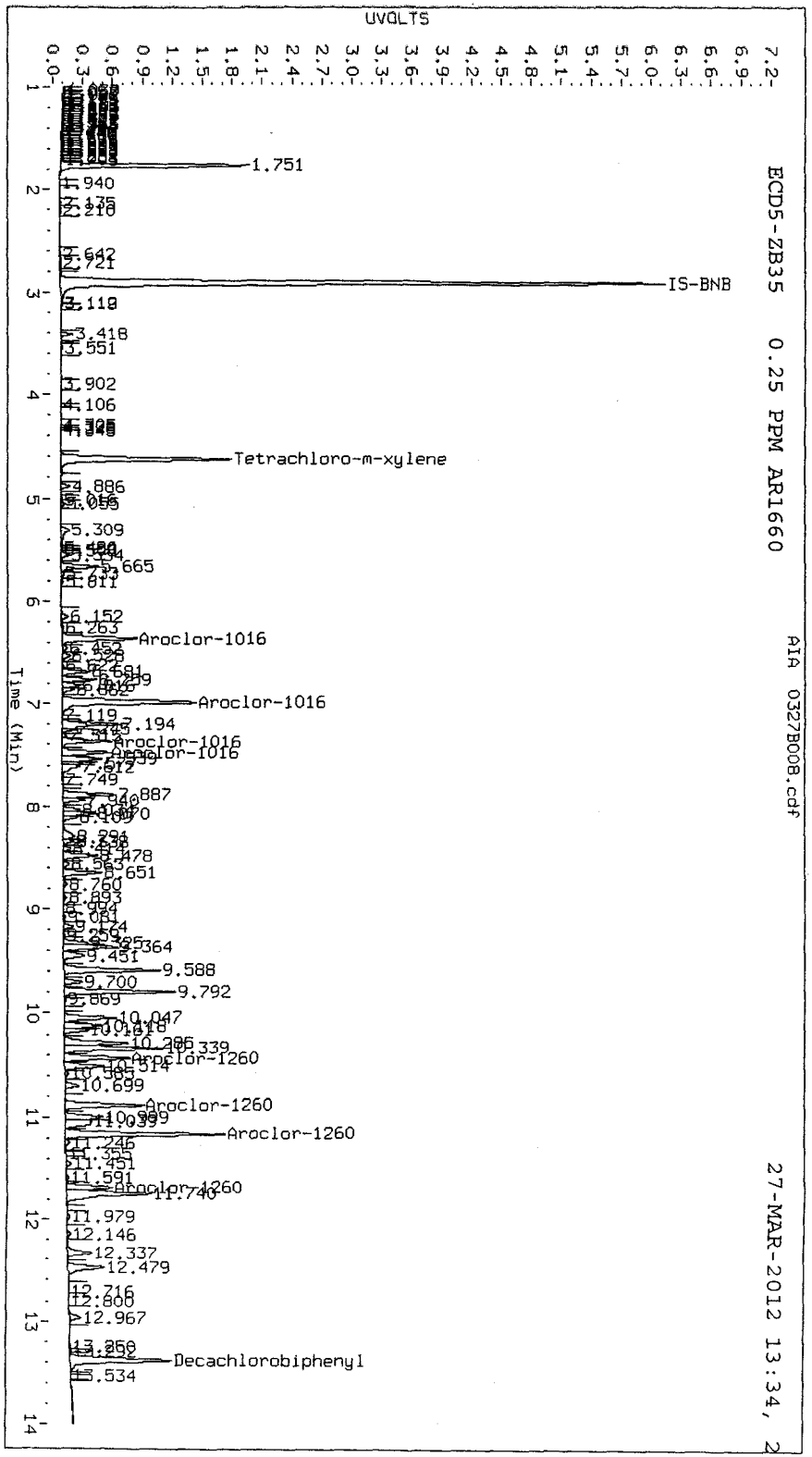
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.255	0.001	10896219	240.6	1	6.359	0.001	9603200	245.7
Aroclor-1016	2	6.654	0.001	37130829	241.7	2	6.985	0.001	19245291	247.8
Aroclor-1016	3	6.803	0.000	14500417	240.0	3	7.368	0.001	4921886	248.9
Aroclor-1016	4	6.913	0.001	10303785	238.1	4	7.475	0.001	5282513	245.1
Total Col1Ave (4 peaks):				240.1		Total Col2Ave (4 peaks):			246.9	RPD = 3
Corrected Ave (3 peaks):				239.6		Corrected Ave (3 peaks):			246.2	RPD = 3
Aroclor-1260	1	10.460	0.001	20892616	244.8	1	10.435	0.001	7453524	239.8
Aroclor-1260	2	10.834	0.000	51200736	244.2	2	10.886	0.001	9189304	244.9
Aroclor-1260	3	11.234	0.001	27858739	246.1	3	11.159	0.001	18688187	246.5
Aroclor-1260	4	11.350	0.000	11402033	245.5	4	11.681	0.002	5299777	245.4
Aroclor-1260	5	11.424	0.001	13819133	247.5	NS	---			----
Total Col1Ave (5 peaks):				245.6		Total Col2Ave (4 peaks):			244.2	RPD = 1
Corrected Ave (4 peaks):				245.1		Corrected Ave (3 peaks):			243.4	RPD = 1

Total PCB Area Col1 (4.721 - 12.905) = 620809784 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 257121515 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
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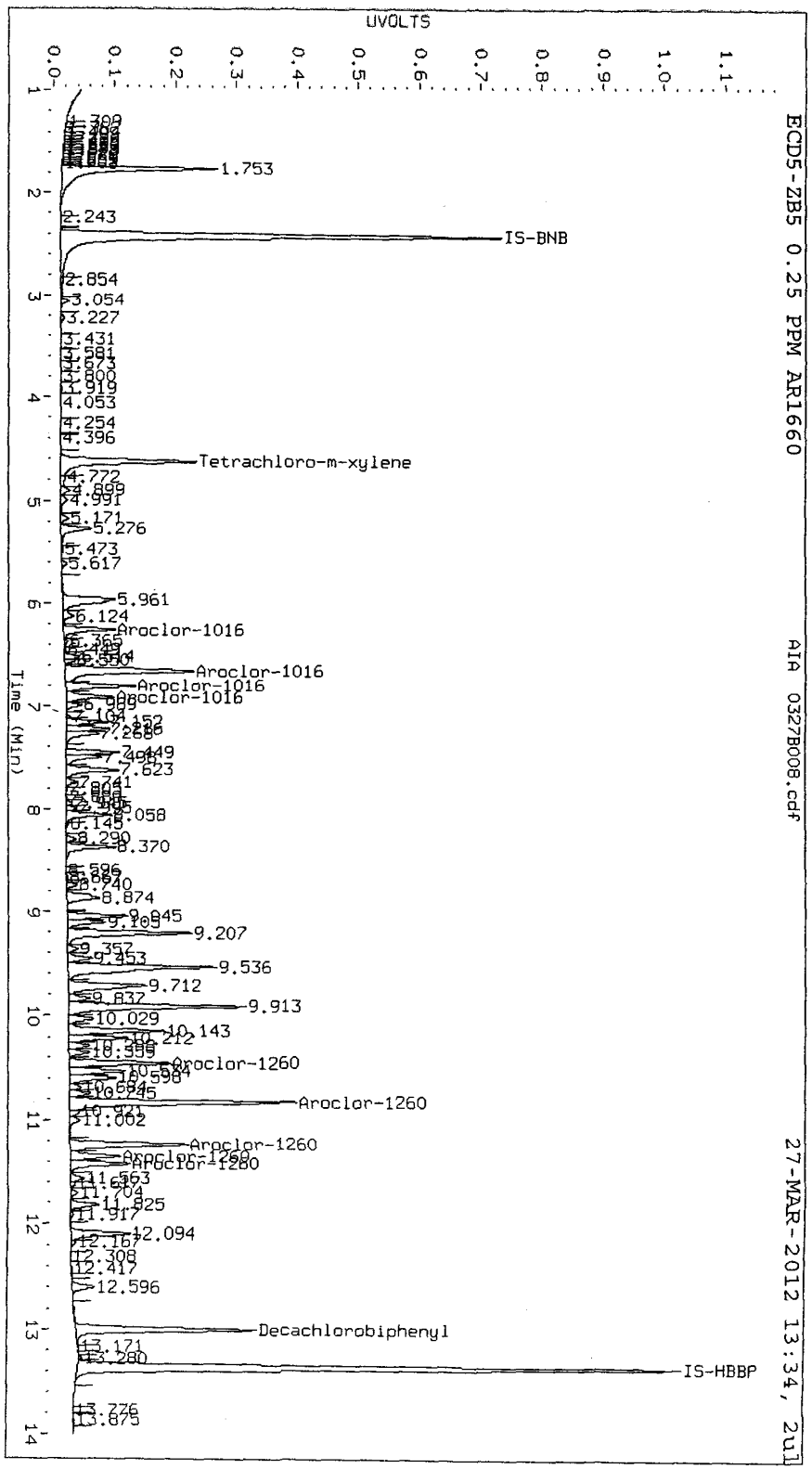
Decachlorobiphenyl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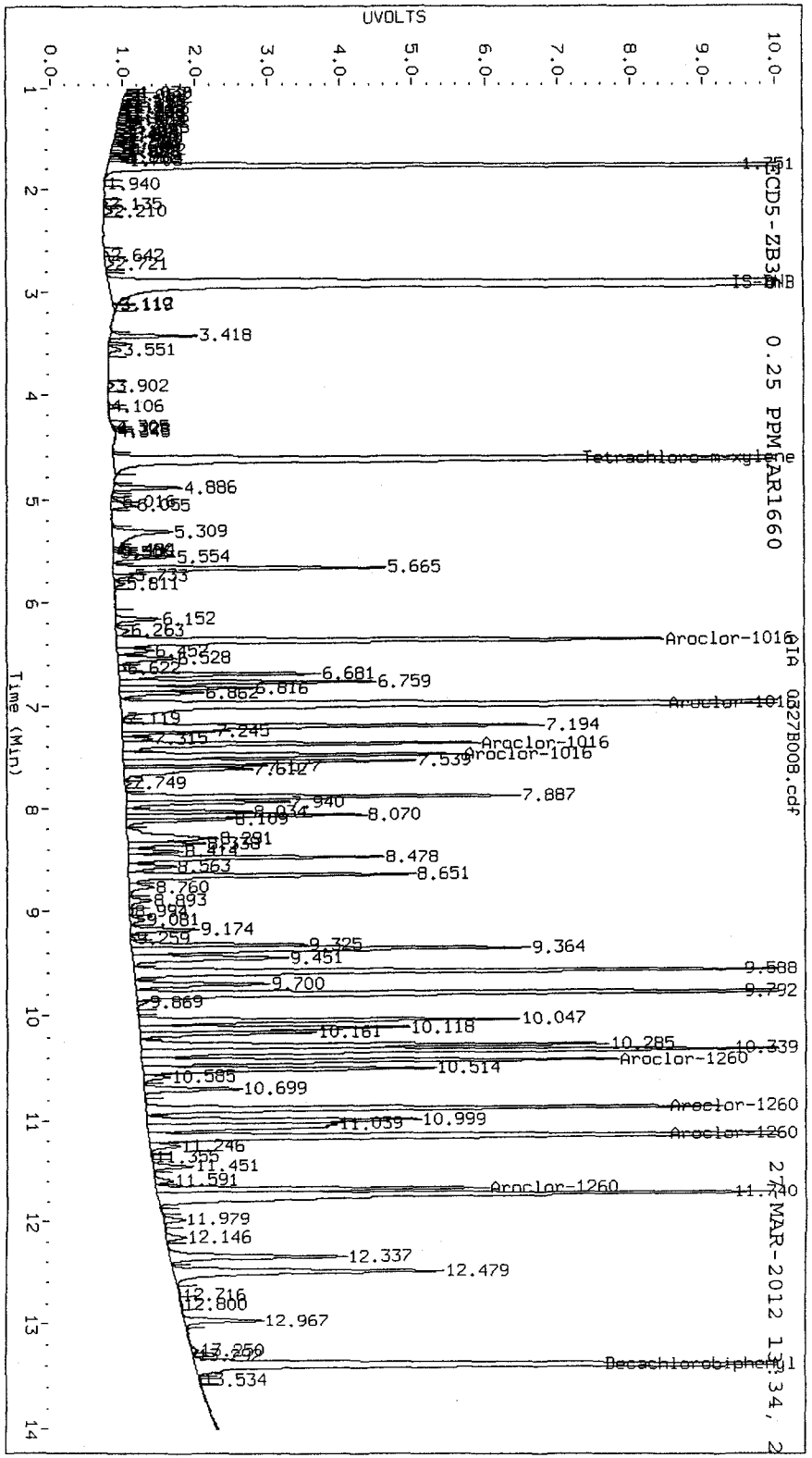
Decachlorobiphenyl
IS-HBBP

10017 : 001 15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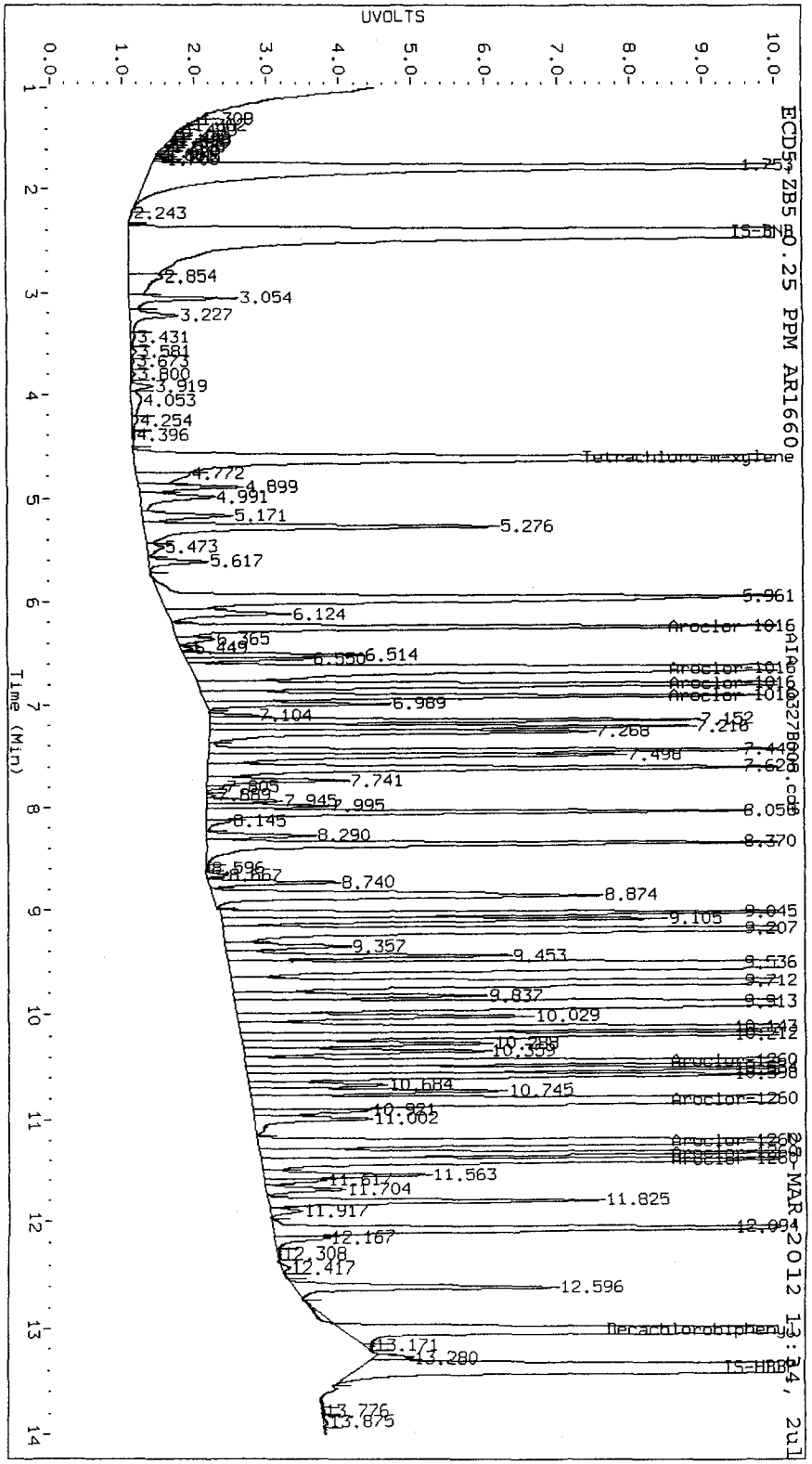
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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0.25 PPM AR1660
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27-MAR-2012 13:34, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB

0017.0021.6

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B009.d
Data file 2: 20120327.B/ical-2.b/0327B009.d
Method: /chem2/ecd5.i/20120327.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: 27-MAR-2012 13:54
Ical Date: 27-MAR-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
4.623	0.002	3137758	4.622	0.002	1878748	1.7	1.8	4.4	Tetrachloro-m-xylene
13.007	0.002	3624295	13.382	0.002	1345886	1.6	1.8	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	4.2	4.4
Decachlorobiphenyl	4.1	4.6

JK 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	128603581	2.6
Hexabromobiphenyl	146489015	150762090	2.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	75656254	3.3
Hexabromobiphenyl	55066880	55611445	1.0

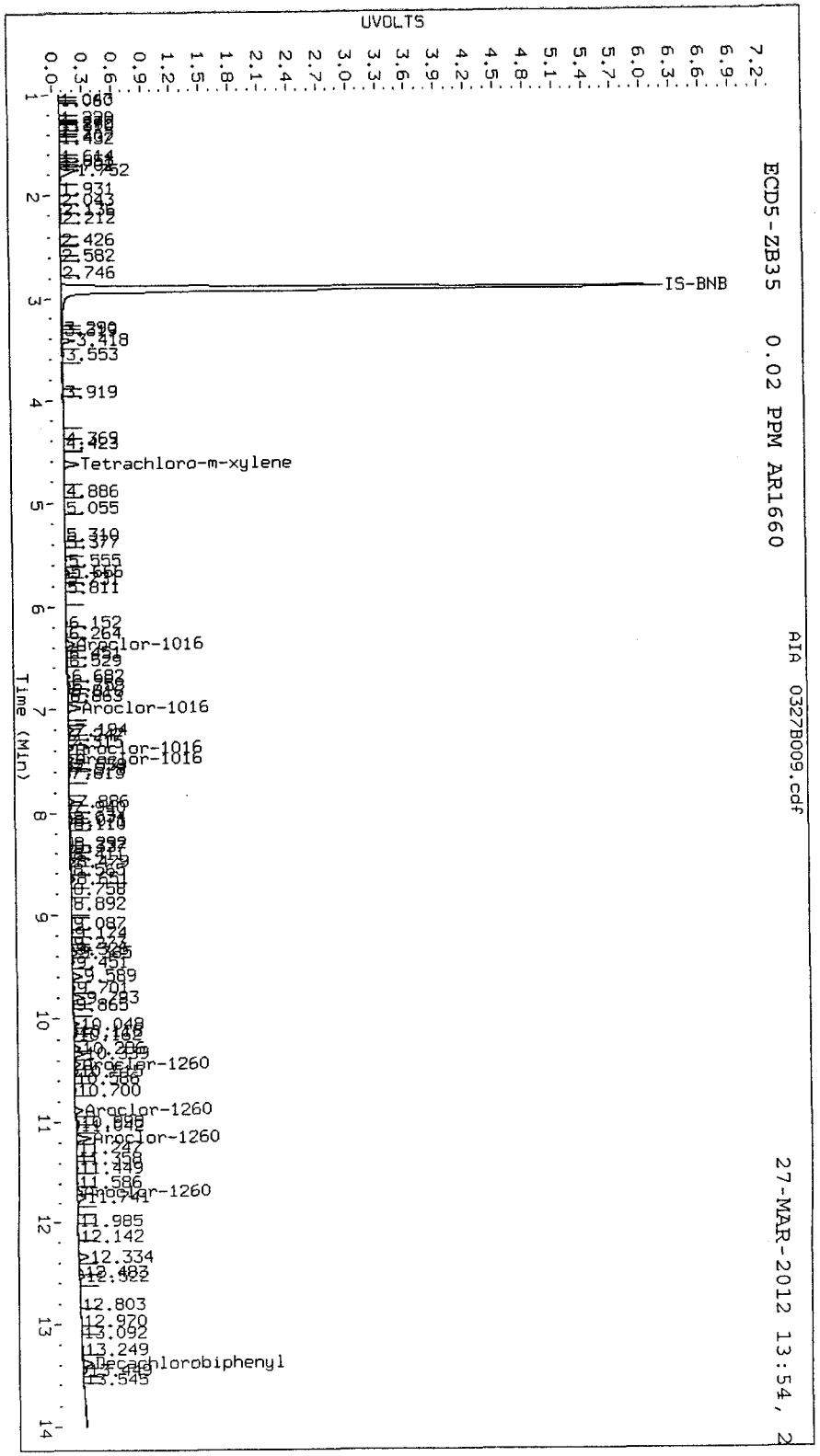
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-2012
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.256	0.002	1056024	22.7	1	6.360	0.002	982631	24.3
Aroclor-1016	2	6.655	0.002	3623278	23.0	2	6.985	0.001	1825313	22.7
Aroclor-1016	3	6.804	0.002	1441214	23.3	3	7.368	0.001	456191	22.3
Aroclor-1016	4	6.914	0.002	1043575	23.5	4	7.476	0.002	516761	23.2
Total Col1Ave (4 peaks):				23.1		Total Col2Ave (4 peaks):			23.2	RPD = 0
Corrected Ave (3 peaks):				23.0		Corrected Ave (3 peaks):			22.8	RPD = 1
Aroclor-1260	1	10.460	0.001	1968989	22.4	1	10.436	0.001	759679	24.2
Aroclor-1260	2	10.834	0.000	4832753	22.4	2	10.887	0.001	867359	22.9
Aroclor-1260	3	11.235	0.001	2577682	22.1	3	11.159	0.001	1728011	22.6
Aroclor-1260	4	11.351	0.001	1039843	21.8	4	11.681	0.001	501312	23.0
Aroclor-1260	5	11.424	0.001	1231040	21.4	NS	---			----
Total Col1Ave (5 peaks):				22.0		Total Col2Ave (4 peaks):			23.2	RPD = 5
Corrected Ave (4 peaks):				21.9		Corrected Ave (3 peaks):			22.8	RPD = 4

Total PCB Area Col1 (4.721 - 12.905) = 66899070 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 27218147 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical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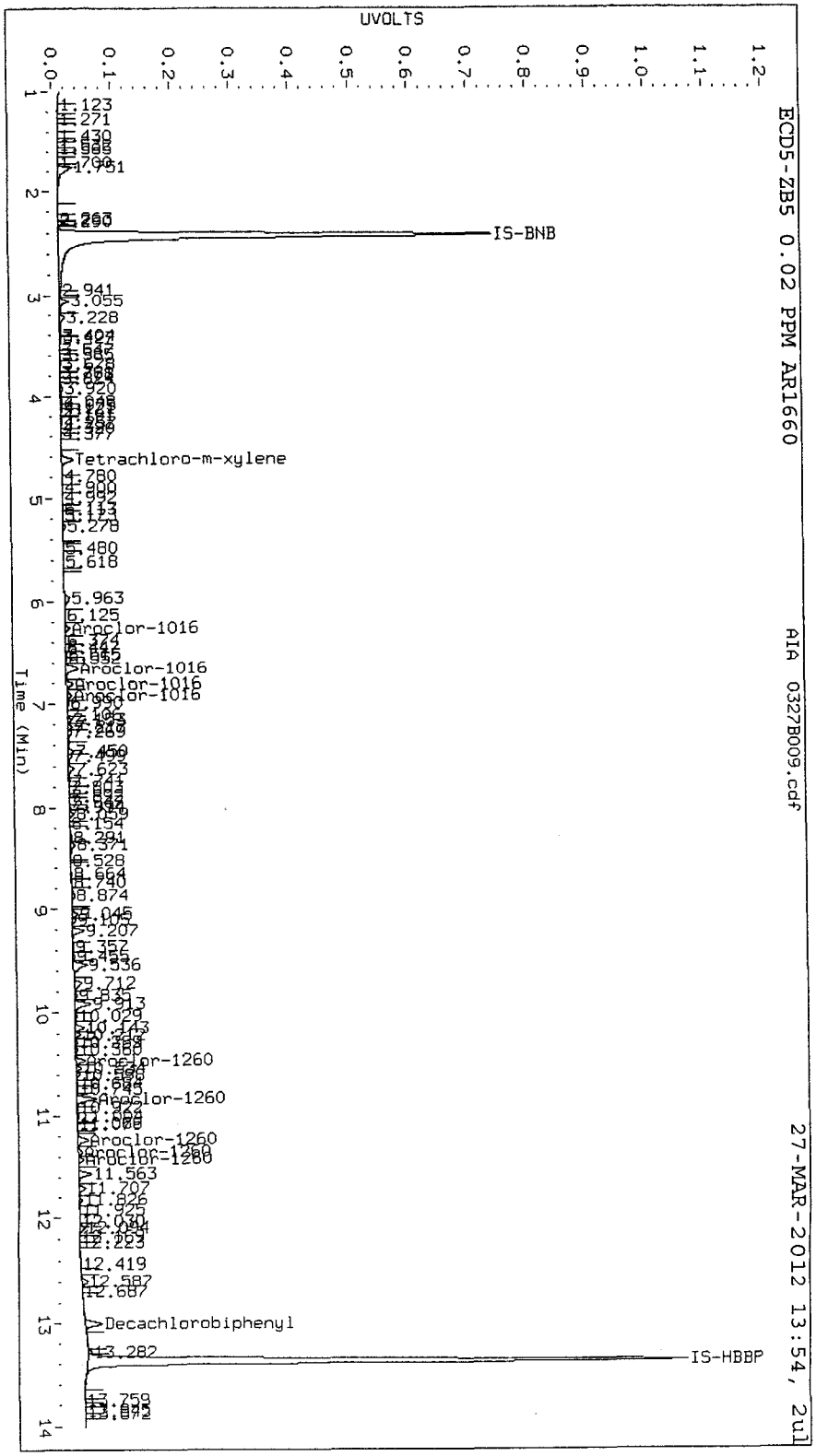
Decachlorobiphenyl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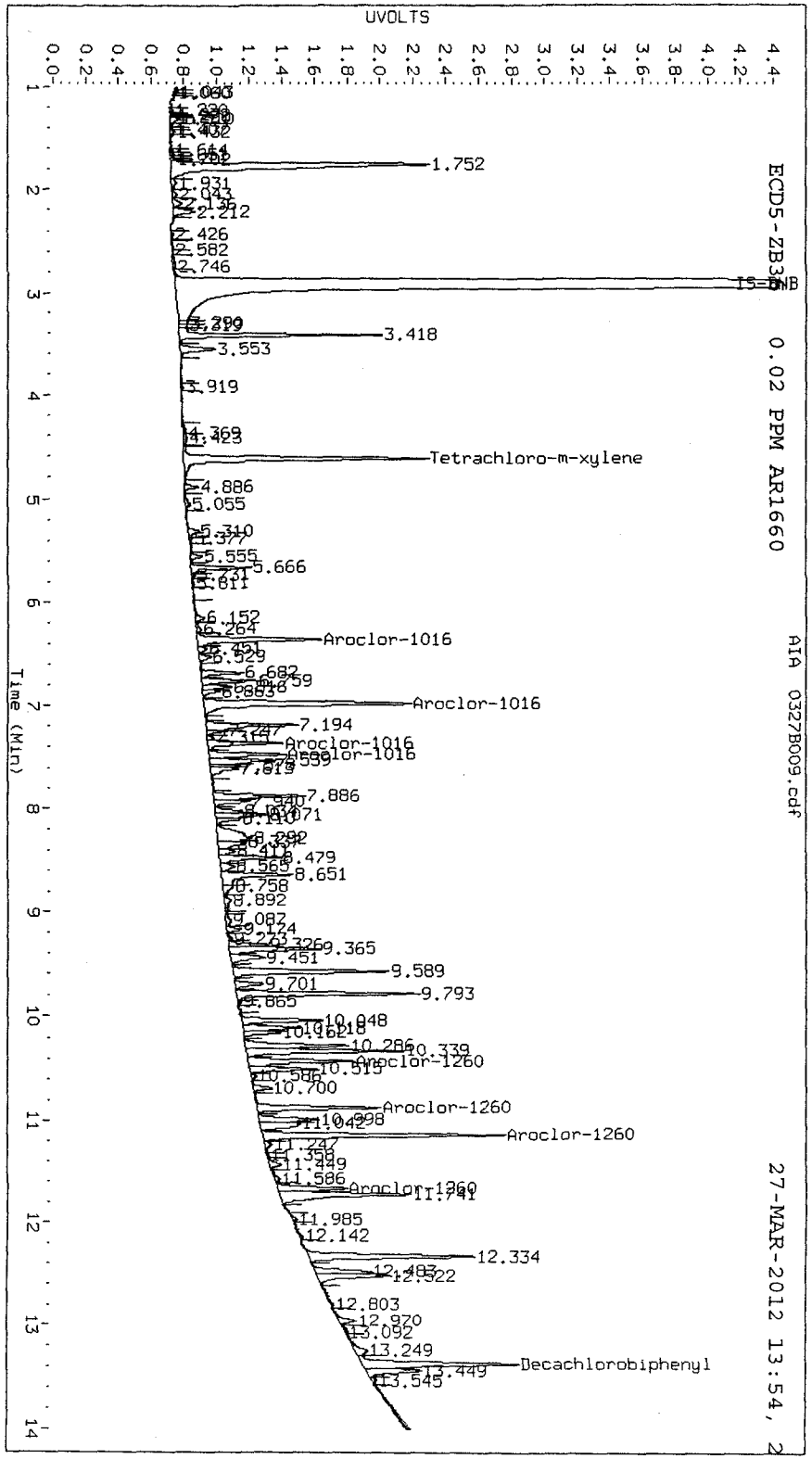
L0017:00119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Aroclor-1016
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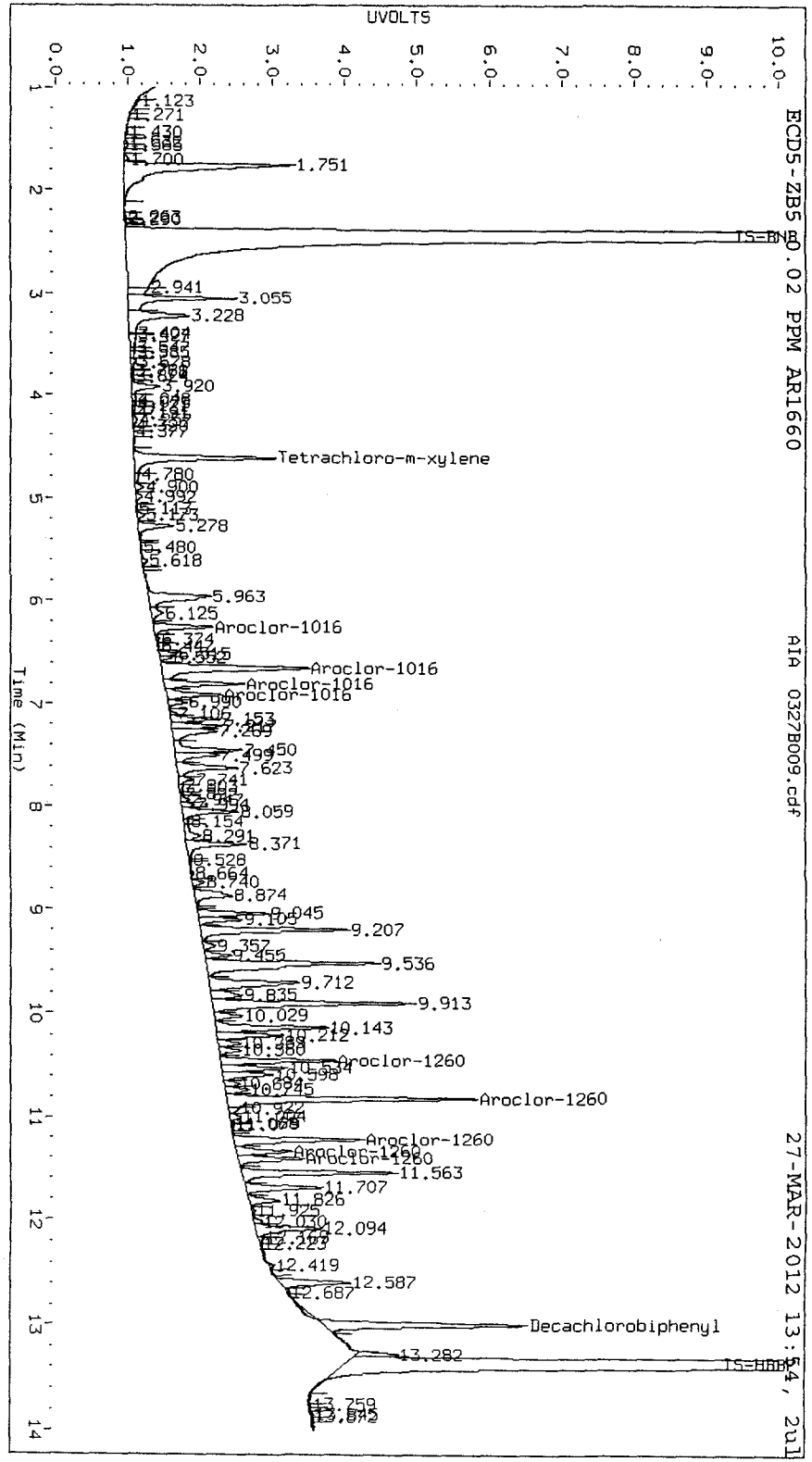
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Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1016
Aroclor-1016
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9.536
9.712
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Aroclor-1260
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Decachlorobiphenyl
13.282
IS=HBB

U017:061120

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B010.d
Data file 2: 20120327.B/ical-2.b/0327B010.d
Method: /chem2/ecd5.i/20120327.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: 27-MAR-2012 14:13
Ical Date: 27-MAR-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
4.623	0.002	7265218	4.623	0.002	4219172	3.9	4.0	2.4	Tetrachloro-m-xylene
13.006	0.001	8701758	13.381	0.001	3069727	3.9	4.1	3.0	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	9.7	10.0
Decachlorobiphenyl	9.8	10.1

JK 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	128578326	2.6
Hexabromobiphenyl	146489015	150870708	3.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	74850496	2.2
Hexabromobiphenyl	55066880	56905843	3.3

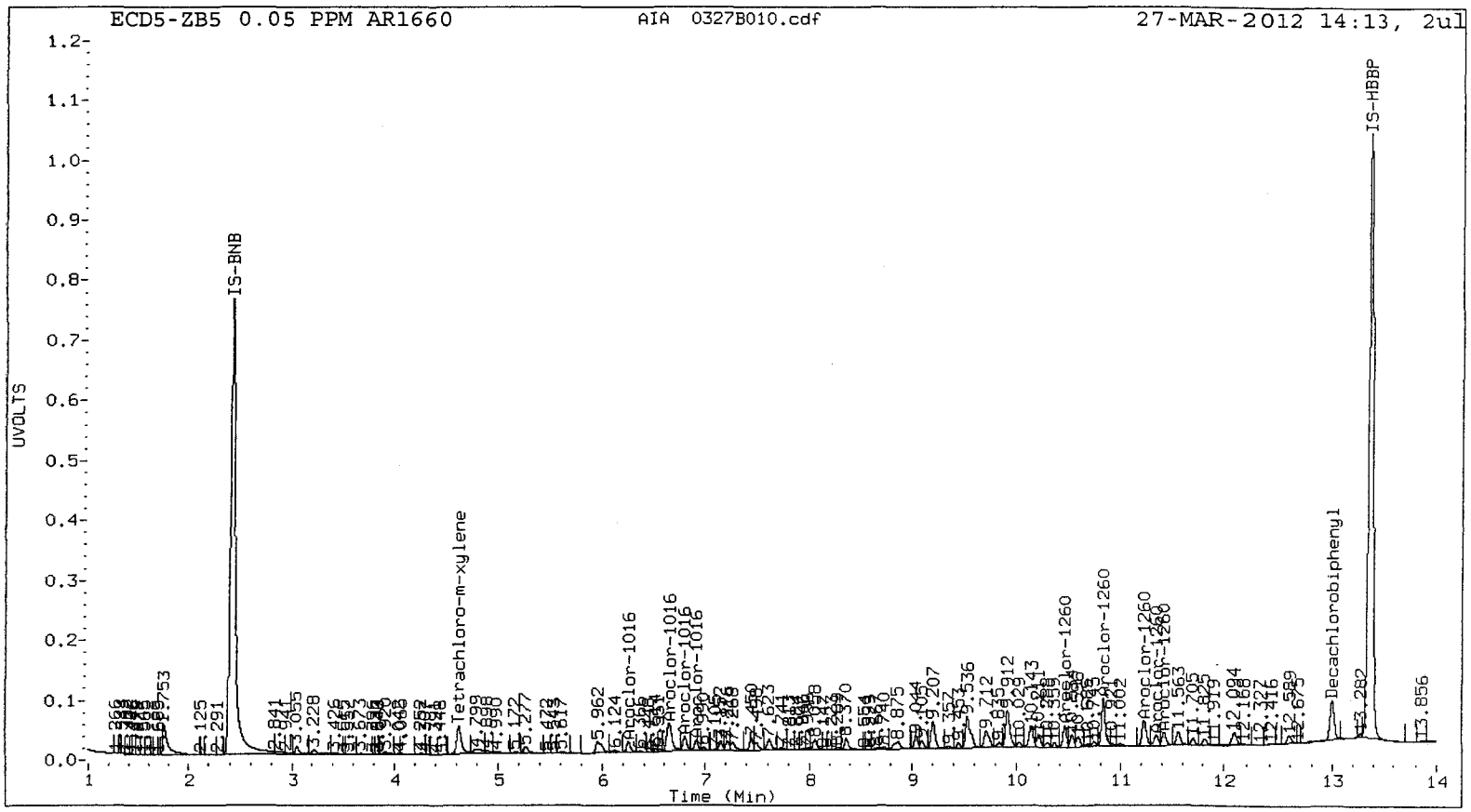
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.255	0.001	2389073	51.4	1	6.360	0.002	2129022	53.3
Aroclor-1016	2	6.654	0.001	8197303	52.0	2	6.985	0.001	4133618	52.1
Aroclor-1016	3	6.803	0.000	3224297	52.0	3	7.368	0.001	1055218	52.2
Aroclor-1016	4	6.913	0.001	2309386	52.0	4	7.475	0.001	1173926	53.3
Total Col1Ave (4 peaks):				51.9		Total Col2Ave (4 peaks):			52.7	RPD = 2
Corrected Ave (3 peaks):				51.8		Corrected Ave (3 peaks):			52.5	RPD = 1
Aroclor-1260	1	10.459	-0.001	4531311	51.5	1	10.434	0.000	1665903	51.9
Aroclor-1260	2	10.833	-0.001	11021104	51.0	2	10.886	0.001	1993205	51.4
Aroclor-1260	3	11.234	0.000	5945117	51.0	3	11.158	0.001	3932769	50.2
Aroclor-1260	4	11.350	0.000	2474457	51.7	4	11.680	0.001	1137741	51.0
Aroclor-1260	5	11.424	0.001	2915781	50.7	NS	---			----
Total Col1Ave (5 peaks):				51.2		Total Col2Ave (4 peaks):			51.1	RPD = 0
Corrected Ave (4 peaks):				51.1		Corrected Ave (3 peaks):			50.9	RPD = 0

Total PCB Area Col1 (4.721 - 12.905) = 144674161 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 60361663 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 0.05 PPM AR1660
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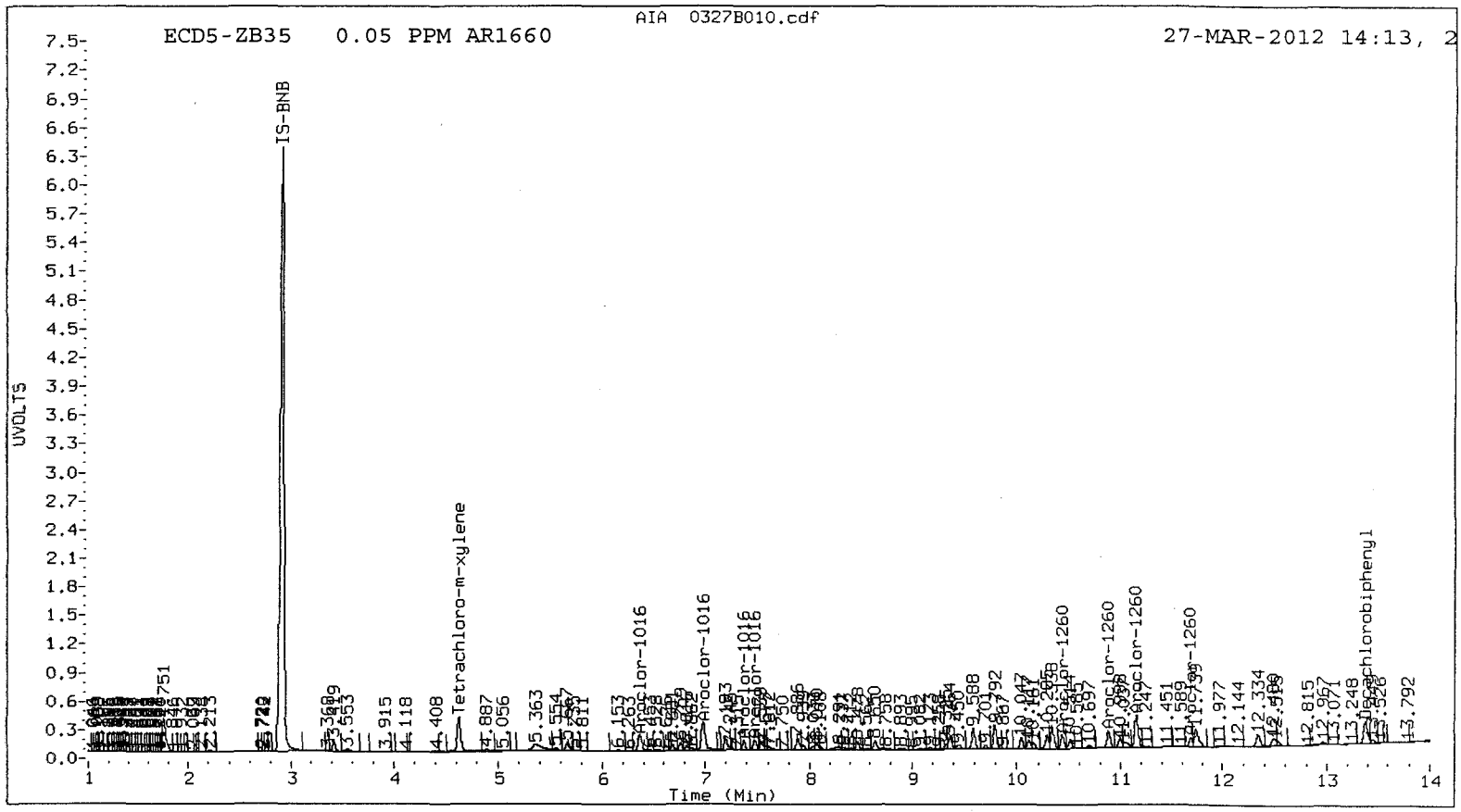
27-MAR-2012 14:13, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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Time (Min)
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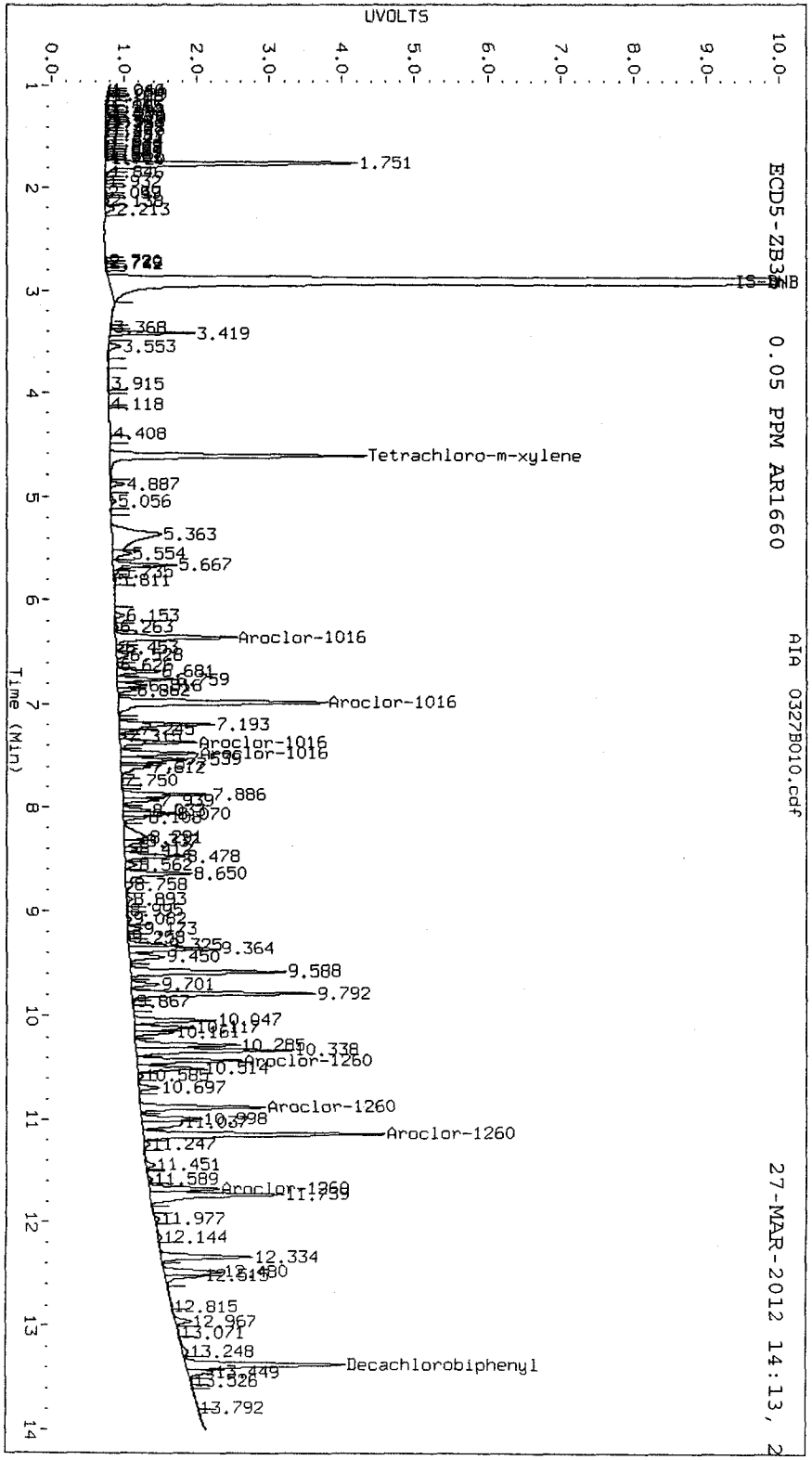
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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3.419
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1016
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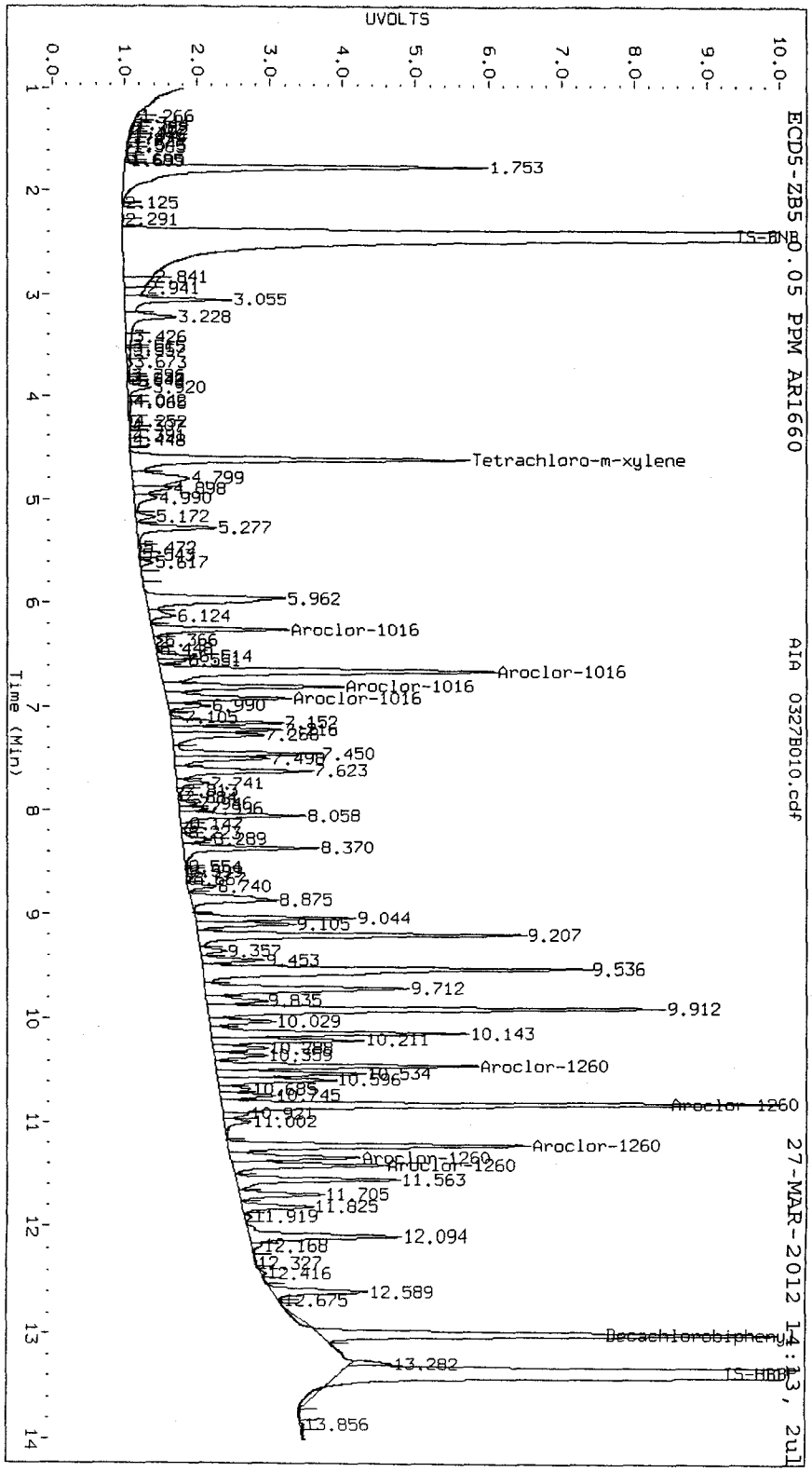
Aroclor-1016
7.886
8.478
8.650
9.364
9.588
9.792
10.947
Aroclor-1260
10.697
Aroclor-1260
Aroclor-1260
11.451
11.977
12.144
12.334
12.815
12.967
13.248
Decachlorobiphenyl
13.792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27-MAR-2012 14:13, 2ul
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IS=BNB
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Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
7.450
7.623
8.058
8.370
8.875
9.044
9.207
9.536
9.712
9.912
10.143
Aroclor-1260
Aroclor-1260
Aroclor-1260
11.563
11.705
12.094
12.589
Decachlorobiphenyl
13.282
IS=HBB
13.856

U017:001214

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B011.d
Data file 2: 20120327.B/ical-2.b/0327B011.d
Method: /chem2/ecd5.i/20120327.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: 27-MAR-2012 14:31
Ical Date: 27-MAR-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
4.622	0.002	130910674	4.622	0.002	77955413	74.3	73.0	1.8	Tetrachloro-m-xylene
13.006	0.001	161177752	13.382	0.002	52407632	74.9	70.8	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	185.8	182.5
Decachlorobiphenyl	187.2	176.9

pm 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	121525253	-3.1
Hexabromobiphenyl	146489015	146969791	0.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	75625938	3.3
Hexabromobiphenyl	55066880	55720029	1.2

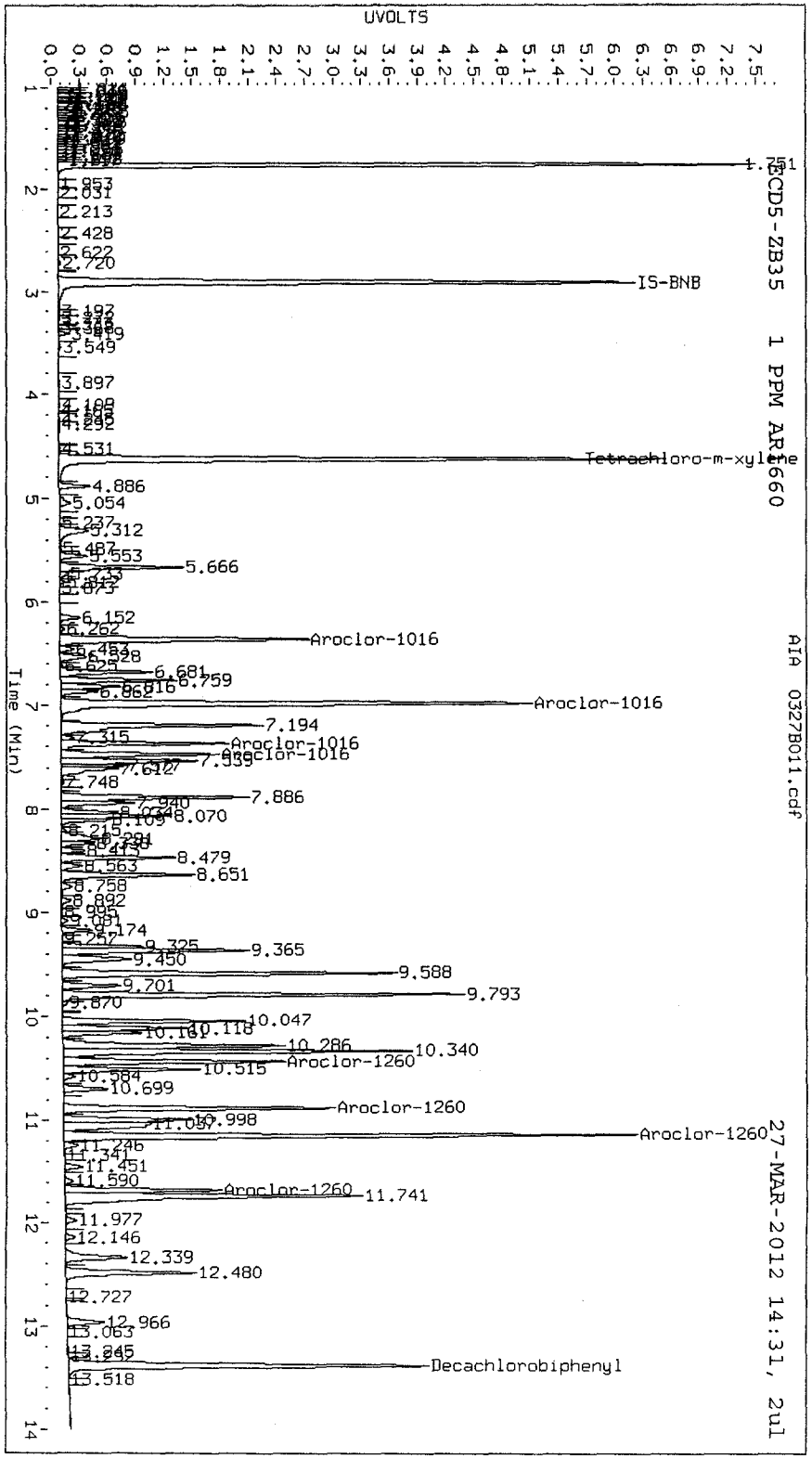
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-2012
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.255	0.001	38874841	885.7	1	6.359	0.001	32921816	815.4
Aroclor-1016	2	6.654	0.000	130492135	876.1	2	6.986	0.001	69677769	868.6
Aroclor-1016	3	6.802	0.000	50902861	869.1	3	7.368	0.001	17660967	864.7
Aroclor-1016	4	6.913	0.001	36322577	866.0	4	7.475	0.001	18546987	833.2
Total Col1Ave (4 peaks):				874.2		Total Col2Ave (4 peaks):			845.5	RPD = 3
Corrected Ave (3 peaks):				870.4		Corrected Ave (3 peaks):			837.7	RPD = 4
Aroclor-1260	1	10.460	0.000	74745419	872.9	1	10.436	0.001	26611685	846.2
Aroclor-1260	2	10.835	0.001	188847615	897.7	2	10.887	0.001	33354900	878.4
Aroclor-1260	3	11.234	0.001	101193830	891.0	3	11.159	0.001	69738220	909.3
Aroclor-1260	4	11.350	0.000	41202337	884.2	4	11.681	0.001	19048856	871.7
Aroclor-1260	5	11.424	0.001	50773597	906.5	NS	---			----
Total Col1Ave (5 peaks):				890.5		Total Col2Ave (4 peaks):			876.4	RPD = 2
Corrected Ave (4 peaks):				886.5		Corrected Ave (3 peaks):			865.4	RPD = 2

Total PCB Area Col1 (4.721 - 12.905) = 2197491148 Col1 Total PCB = 1.8 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 908448808 Col2 Total PCB = 1.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical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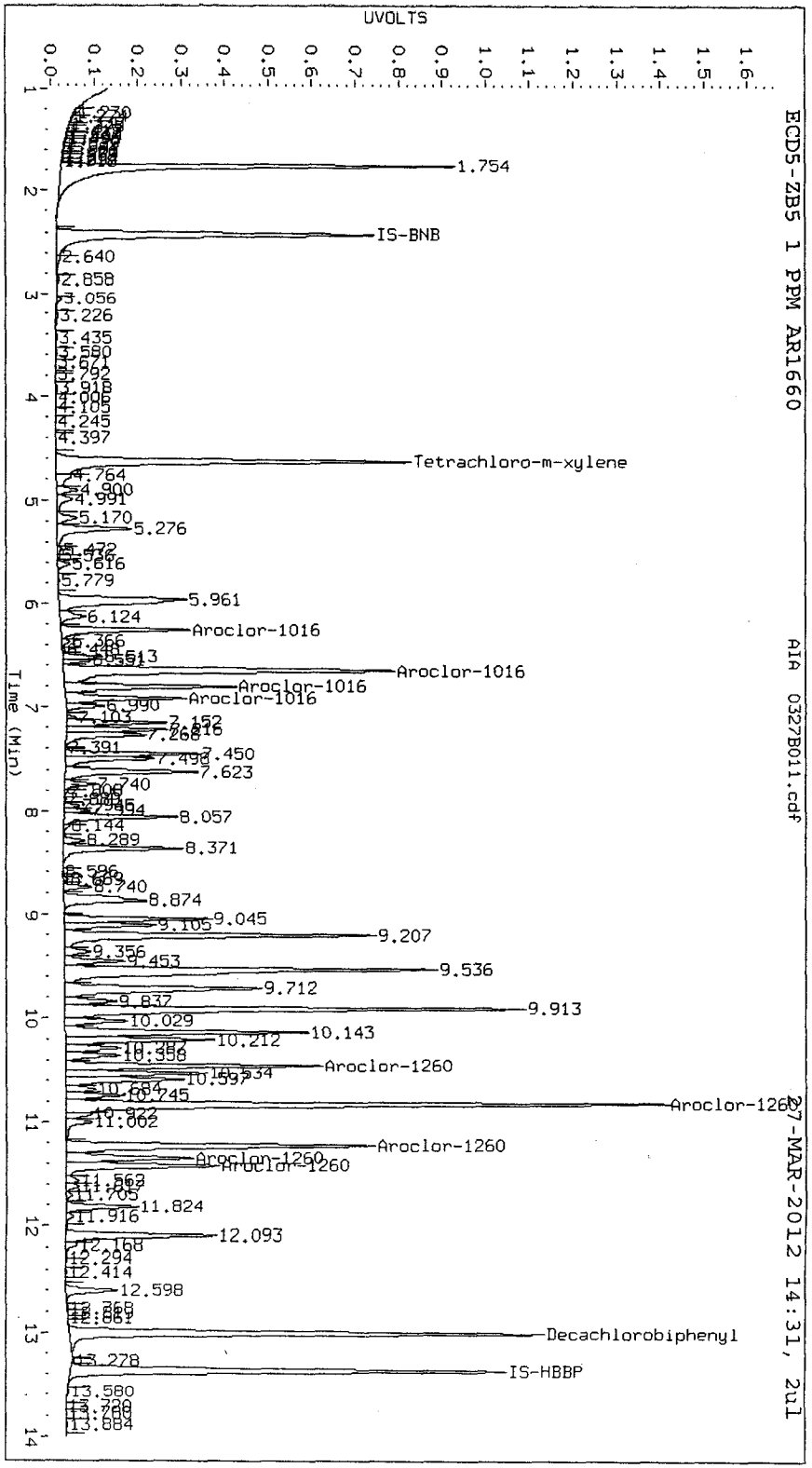
AIA 0327B011.cdf
27-MAR-2012 14:31, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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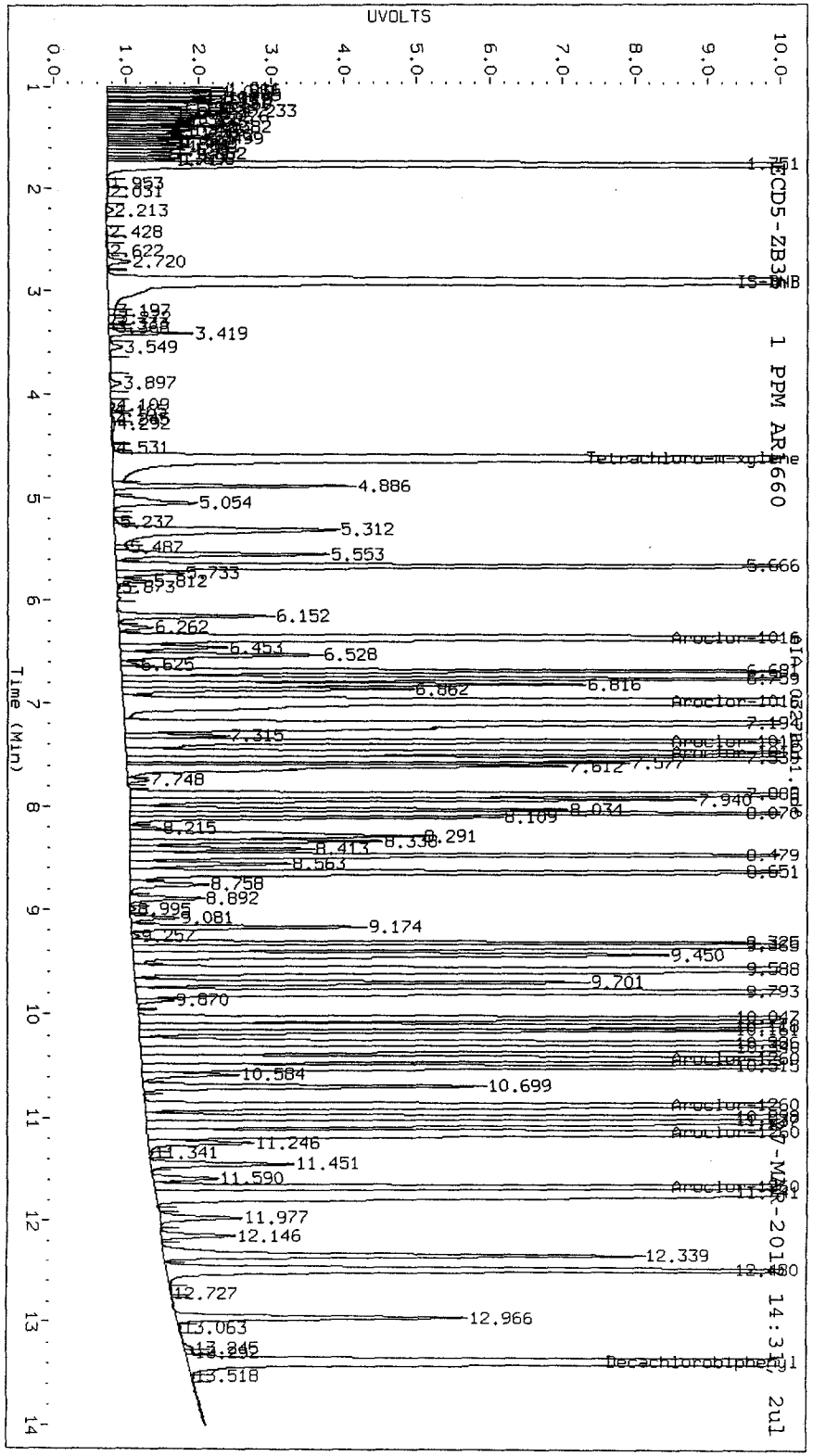
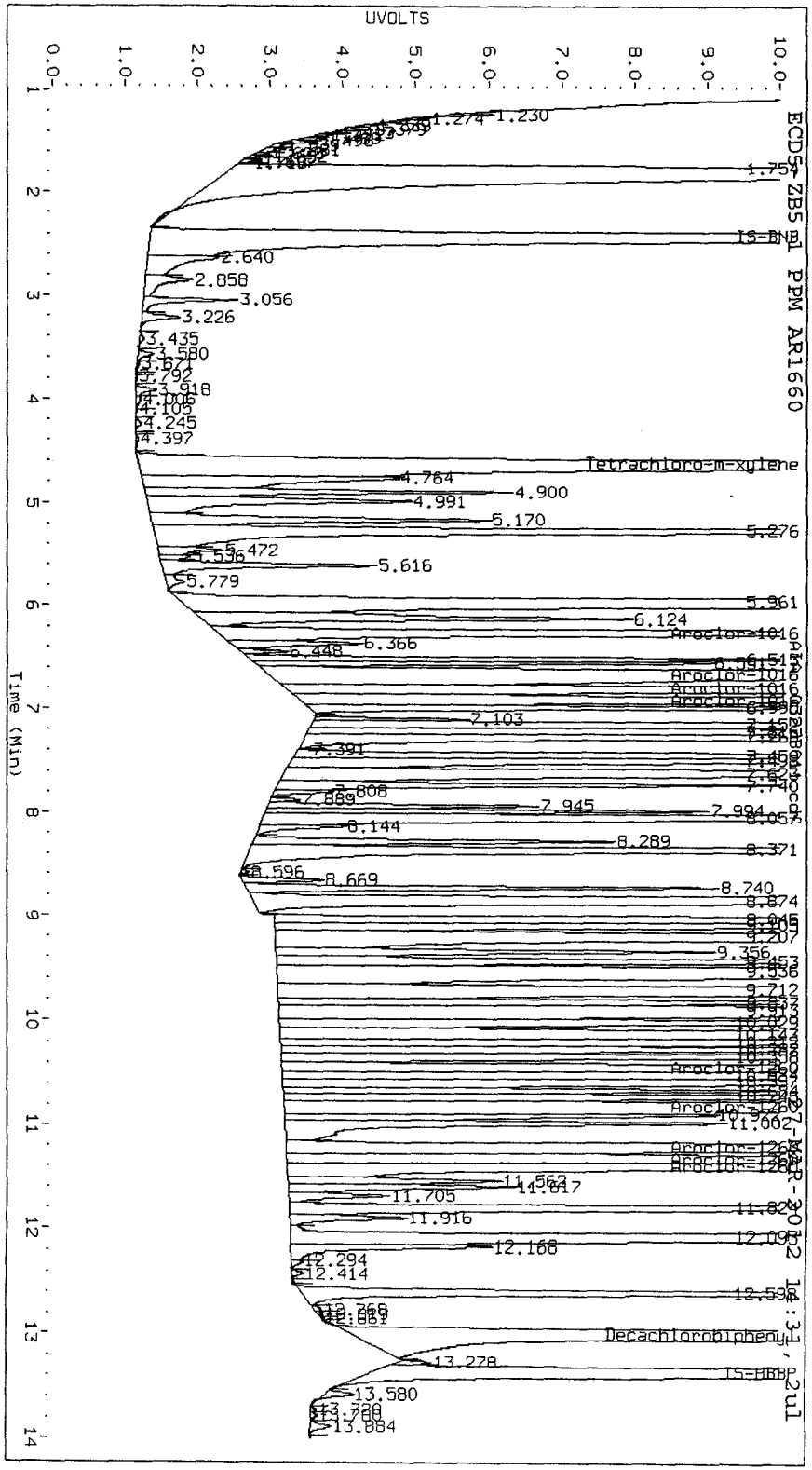
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


UVOLTS
ECD5-ZB35 1 PPM AR1660
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260
14:31, 2ul


UVOLTS
ECD5 ZB5 1 PPM AR1660
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260
14:31, 2ul

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B012.d
Data file 2: 20120327.B/ical-2.b/0327B012.d
Method: /chem2/ecd5.i/20120327.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: 27-MAR-2012 14:50
Ical Date: 27-MAR-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
4.621	0.001	16067899	4.621	0.000	9351229	8.3	8.4	1.5	Tetrachloro-m-xylene
13.005	0.000	19350017	13.380	0.000	6482471	8.6	8.4	3.1	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	20.8	21.1
Decachlorobiphenyl	21.6	20.9

pk 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	133333144	6.4
Hexabromobiphenyl	146489015	153255866	4.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	78500572	7.2
Hexabromobiphenyl	55066880	58326893	5.9

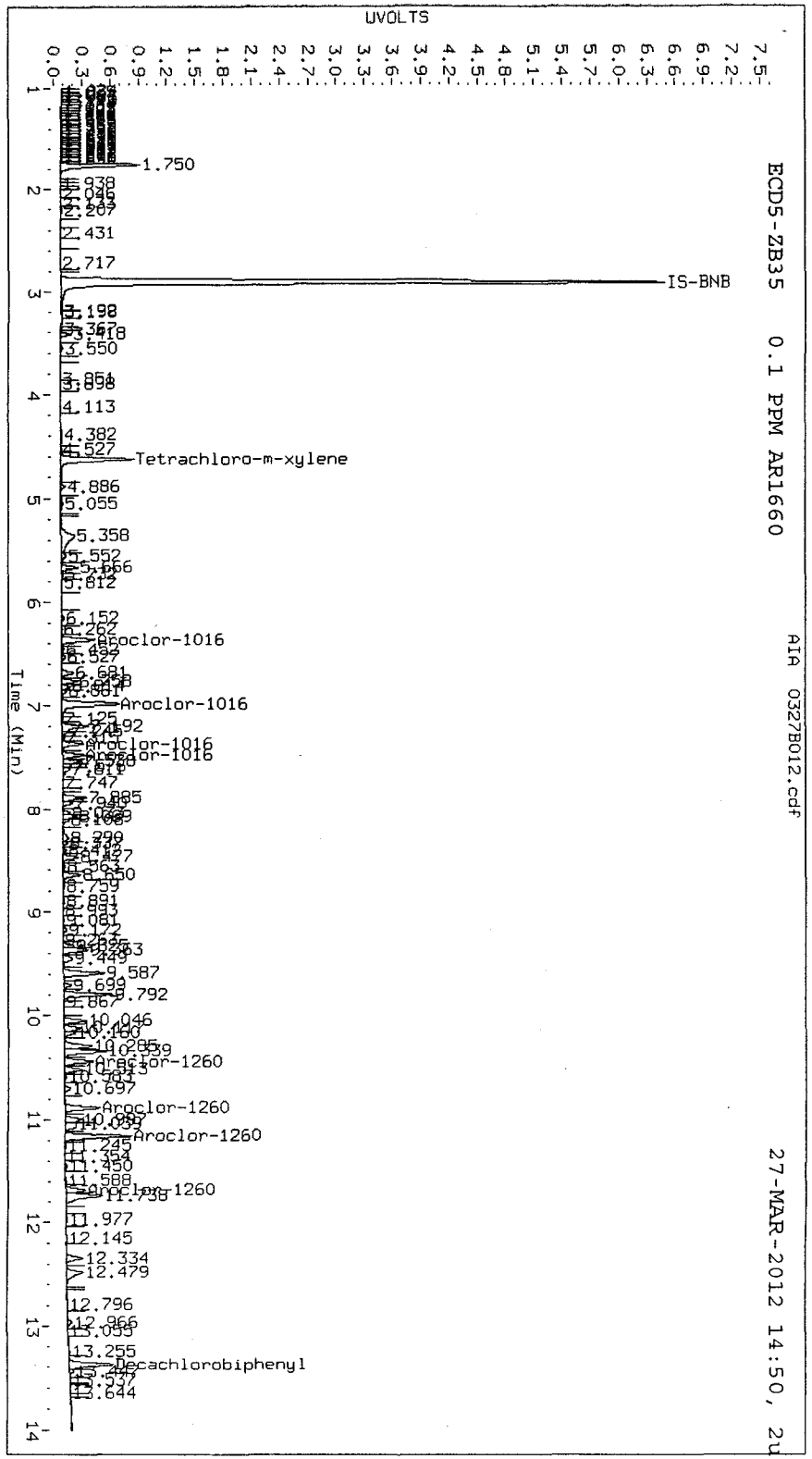
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-2012
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.254	0.000	5108794	106.1	1	6.359	0.001	4394348	104.8
Aroclor-1016	2	6.654	0.000	17287235	105.8	2	6.984	0.000	8712048	104.6
Aroclor-1016	3	6.802	0.000	6816415	106.1	3	7.367	0.000	2257273	106.5
Aroclor-1016	4	6.913	0.001	4885399	106.2	4	7.474	0.000	2470224	106.9
Total Col1Ave (4 peaks):				106.0		Total Col2Ave (4 peaks):			105.7	RPD = 0
Corrected Ave (3 peaks):				106.0		Corrected Ave (3 peaks):			105.3	RPD = 1
Aroclor-1260	1	10.459	-0.001	9564556	107.1	1	10.434	0.000	3468974	105.4
Aroclor-1260	2	10.833	-0.001	23257457	106.0	2	10.885	0.000	4185064	105.3
Aroclor-1260	3	11.234	0.000	12604555	106.4	3	11.158	0.000	8329557	103.7
Aroclor-1260	4	11.349	-0.001	5244806	107.9	4	11.680	0.000	2424957	106.0
Aroclor-1260	5	11.423	0.000	6243147	106.9	NS	---			----
Total Col1Ave (5 peaks):				106.9		Total Col2Ave (4 peaks):			105.1	RPD = 2
Corrected Ave (4 peaks):				106.6		Corrected Ave (3 peaks):			104.8	RPD = 2

Total PCB Area Col1 (4.721 - 12.905) = 298110901 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 124269345 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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27-MAR-2012 14:50, 2u
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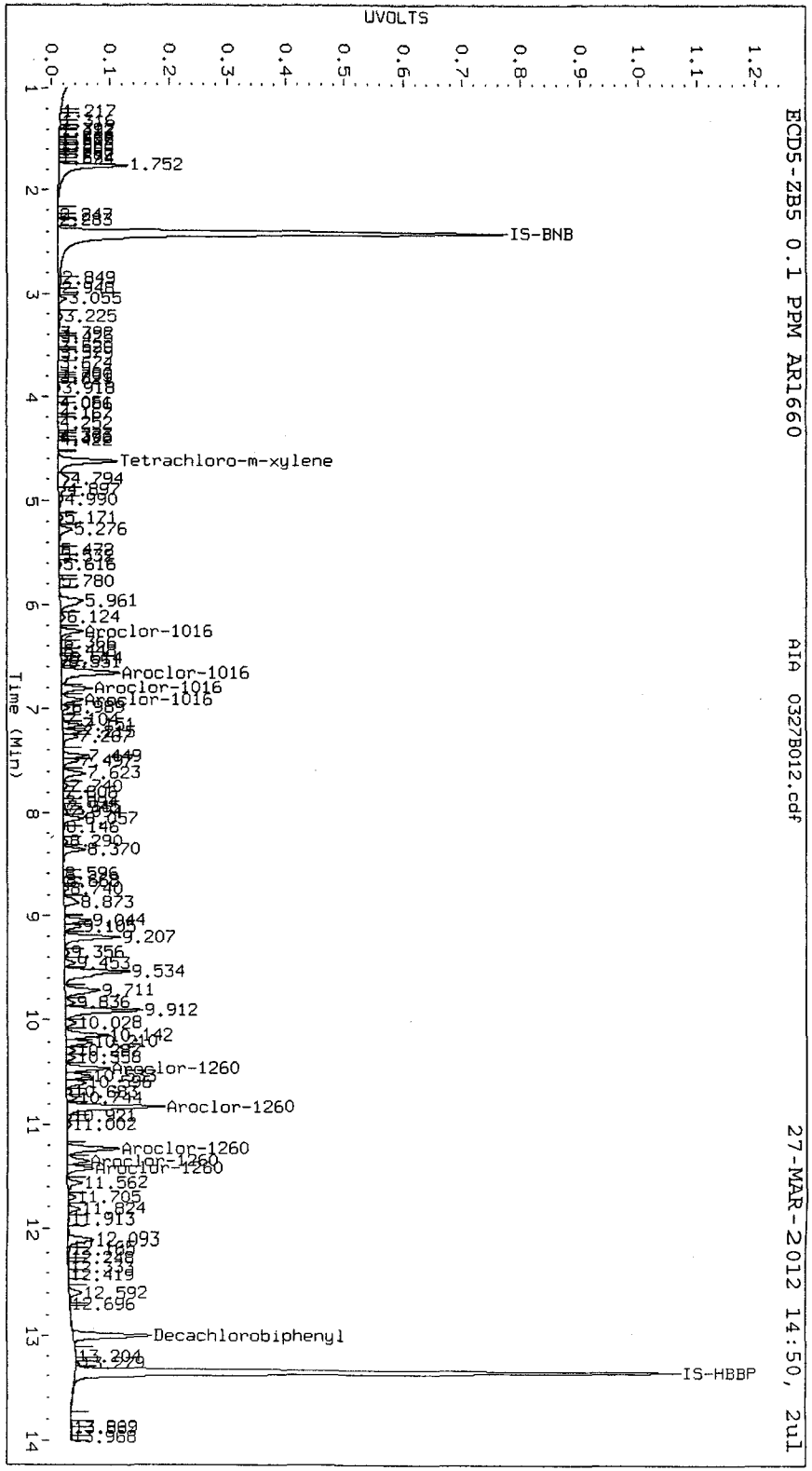
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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UVOLTS
Time (Min)
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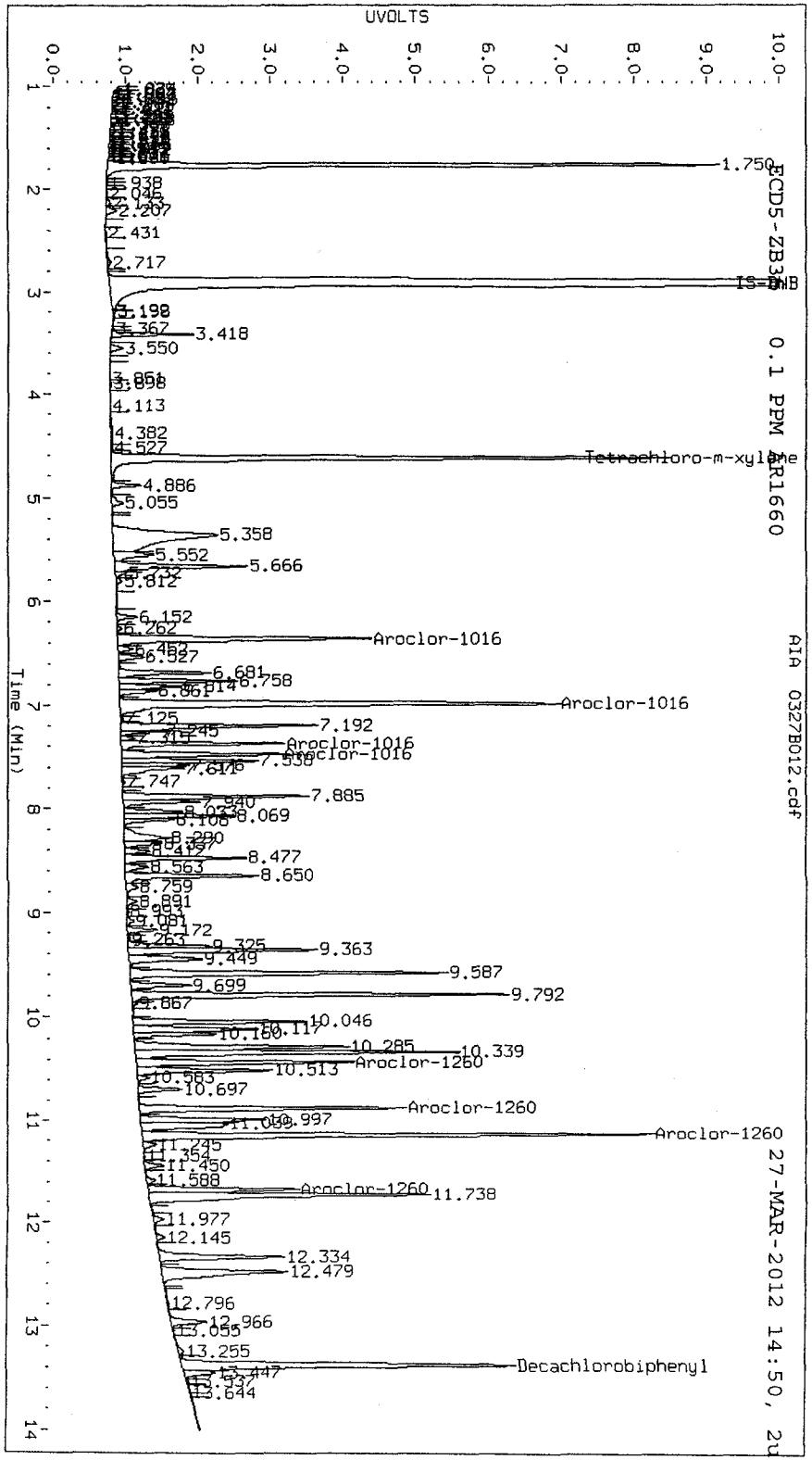
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

LOA 7:00 PM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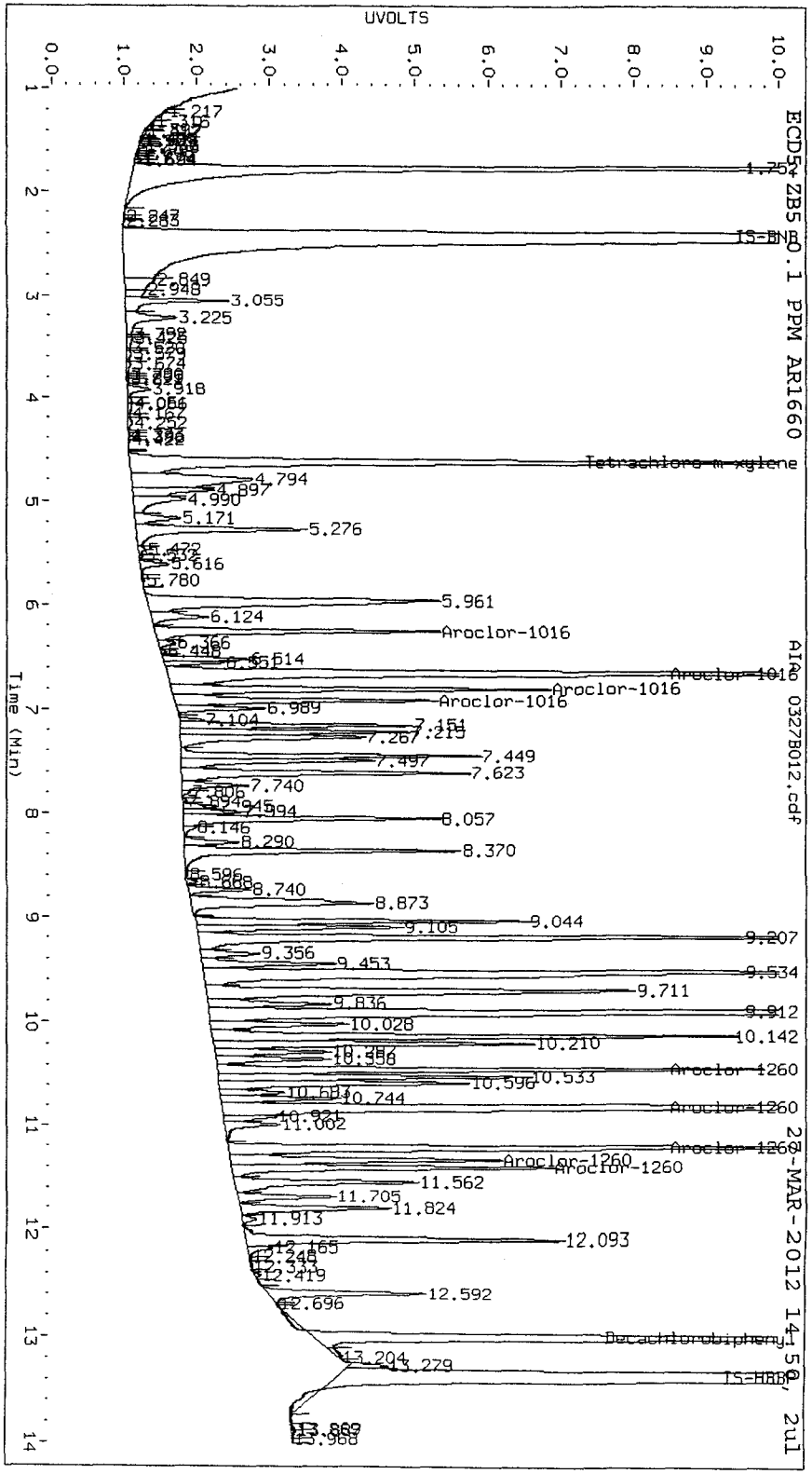
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HRB

1017.00132

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B013.d
Data file 2: 20120327.B/ical-2.b/0327B013.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5 PPM AR1660
Client ID:
Injection Date: 27-MAR-2012 15:09
Ical Date: 27-MAR-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
4.621	0.000	76805202	4.620	0.000	42771344	40.4	38.3	5.4	Tetrachloro-m-xylene
13.005	0.000	86136539	13.380	0.000	28700533	38.4	37.1	3.4	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	100.9	95.7
Decachlorobiphenyl	95.9	92.8

JC 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	131217821	4.7
Hexabromobiphenyl	146489015	153296151	4.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	79154396	8.1
Hexabromobiphenyl	55066880	58180283	5.7

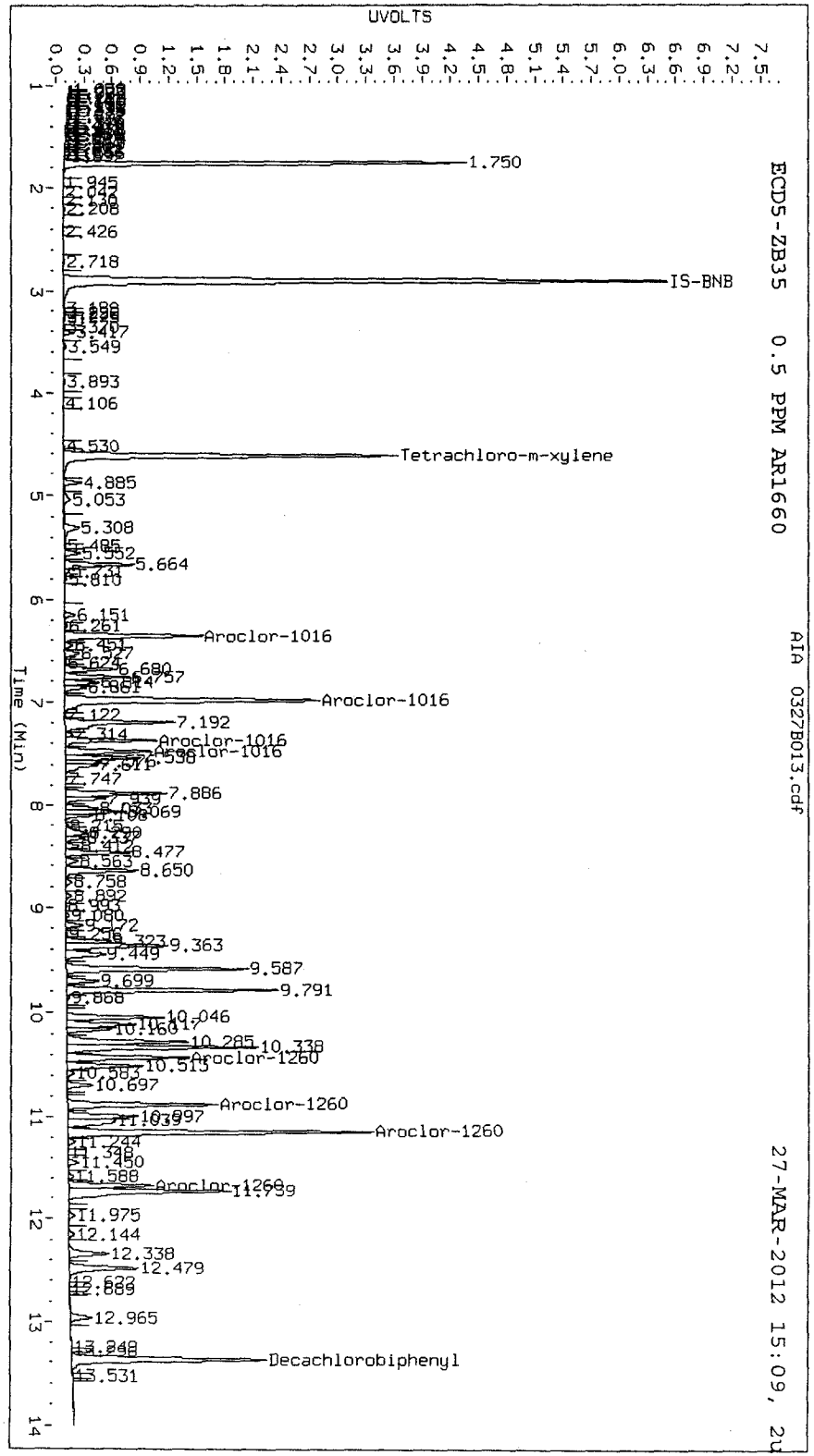
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.254	0.000	21927742	462.7	1	6.358	0.000	18413829	435.7
Aroclor-1016	2	6.653	0.000	73153103	454.9	2	6.984	0.000	38410807	457.5
Aroclor-1016	3	6.802	0.000	28668241	453.3	3	7.367	0.000	9777061	457.3
Aroclor-1016	4	6.912	0.000	20456487	451.7	4	7.474	0.000	10383930	445.7
Total Col1Ave (4 peaks):				455.6		Total Col2Ave (4 peaks):			449.1	RPD = 1
Corrected Ave (3 peaks):				453.3		Corrected Ave (3 peaks):			446.2	RPD = 2
Aroclor-1260	1	10.460	0.000	41306492	462.5	1	10.435	0.000	14660408	446.5
Aroclor-1260	2	10.834	0.000	101449235	462.4	2	10.885	0.000	18178410	458.5
Aroclor-1260	3	11.234	0.000	55316473	467.0	3	11.158	0.000	37408596	467.1
Aroclor-1260	4	11.350	0.000	22658883	466.2	4	11.680	0.000	10471195	458.9
Aroclor-1260	5	11.423	0.000	27720195	474.5	NS	---			----
Total Col1Ave (5 peaks):				466.5		Total Col2Ave (4 peaks):			457.7	RPD = 2
Corrected Ave (4 peaks):				464.5		Corrected Ave (3 peaks):			454.6	RPD = 2

Total PCB Area Col1 (4.721 - 12.905) = 1221457429 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 502226648 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical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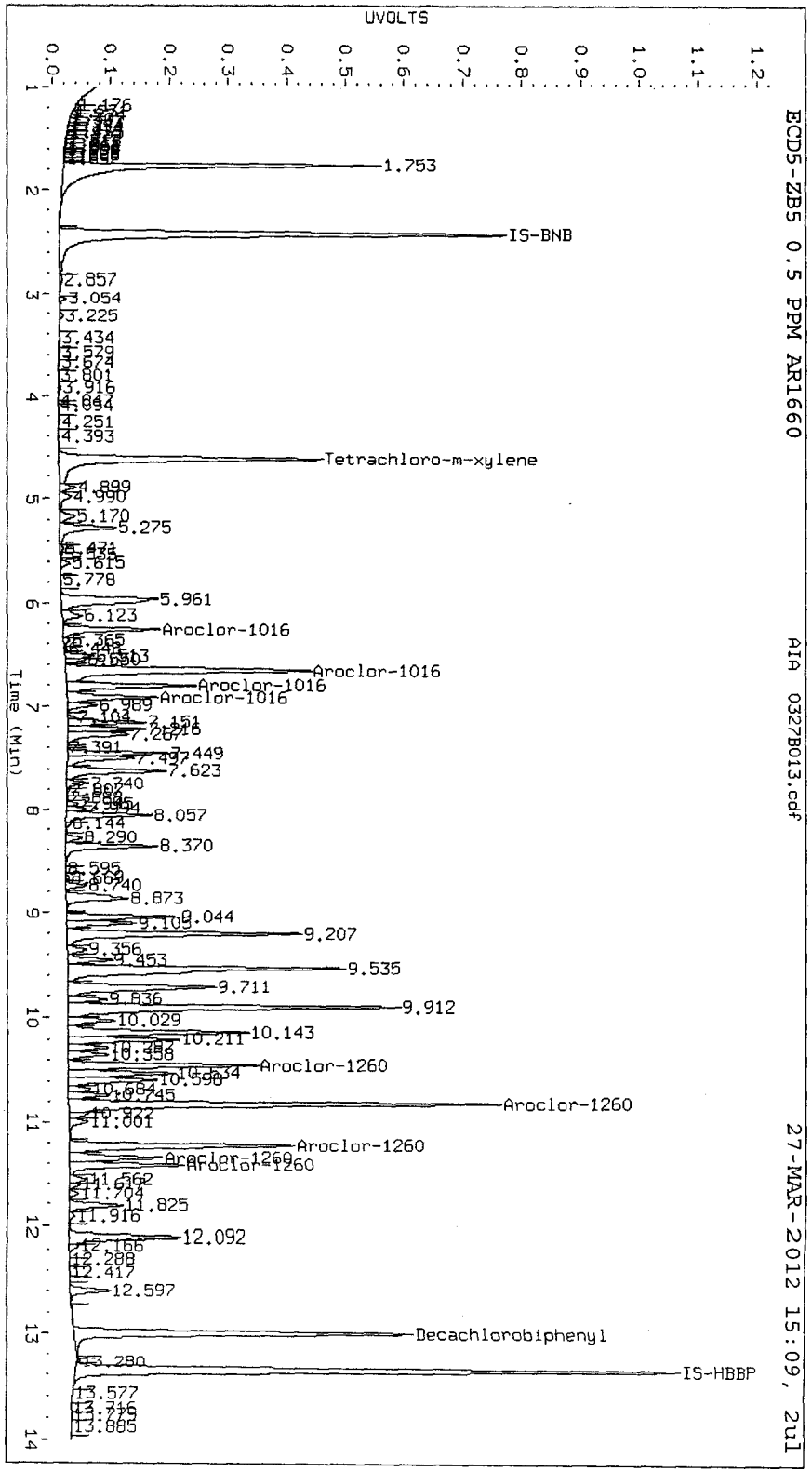
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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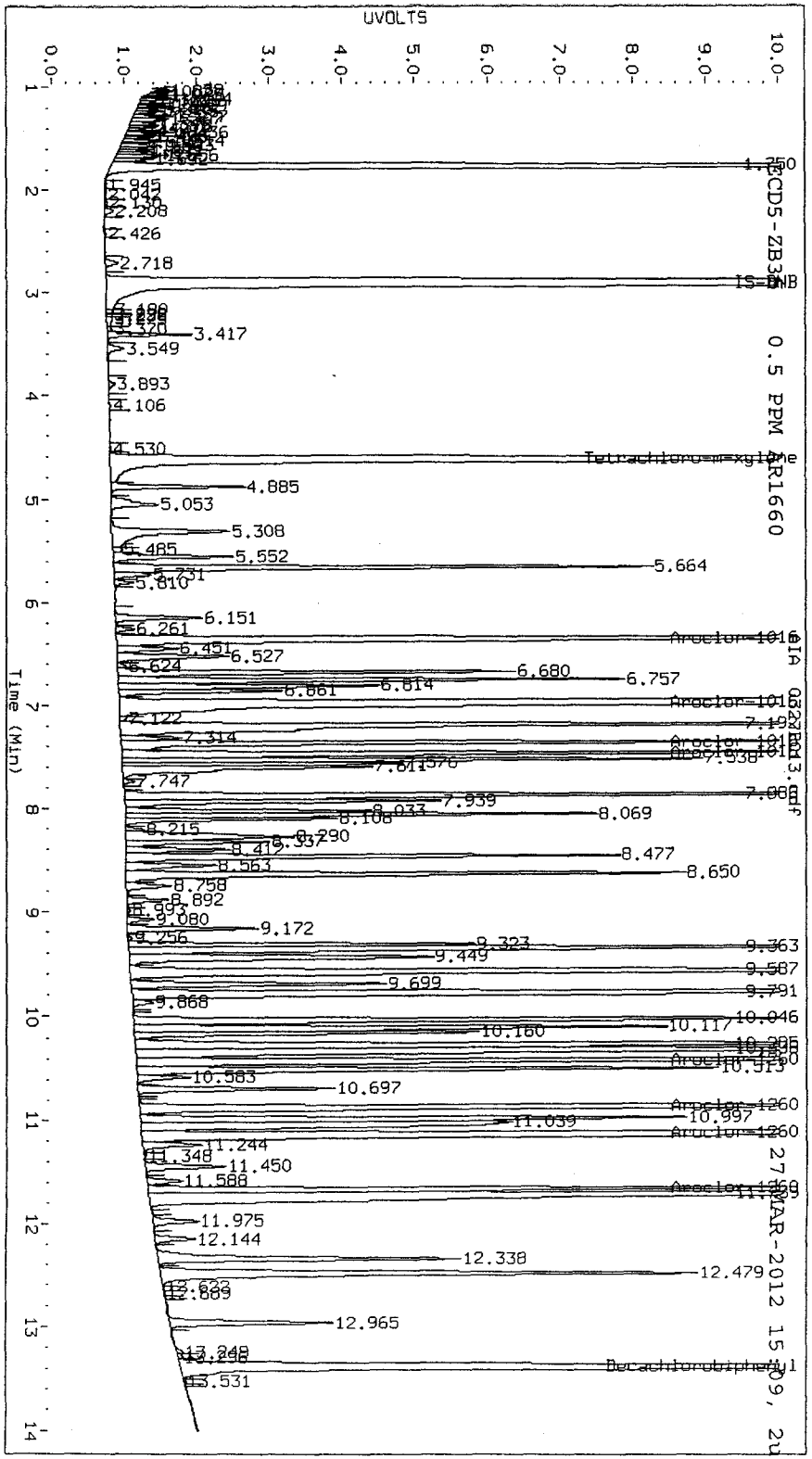
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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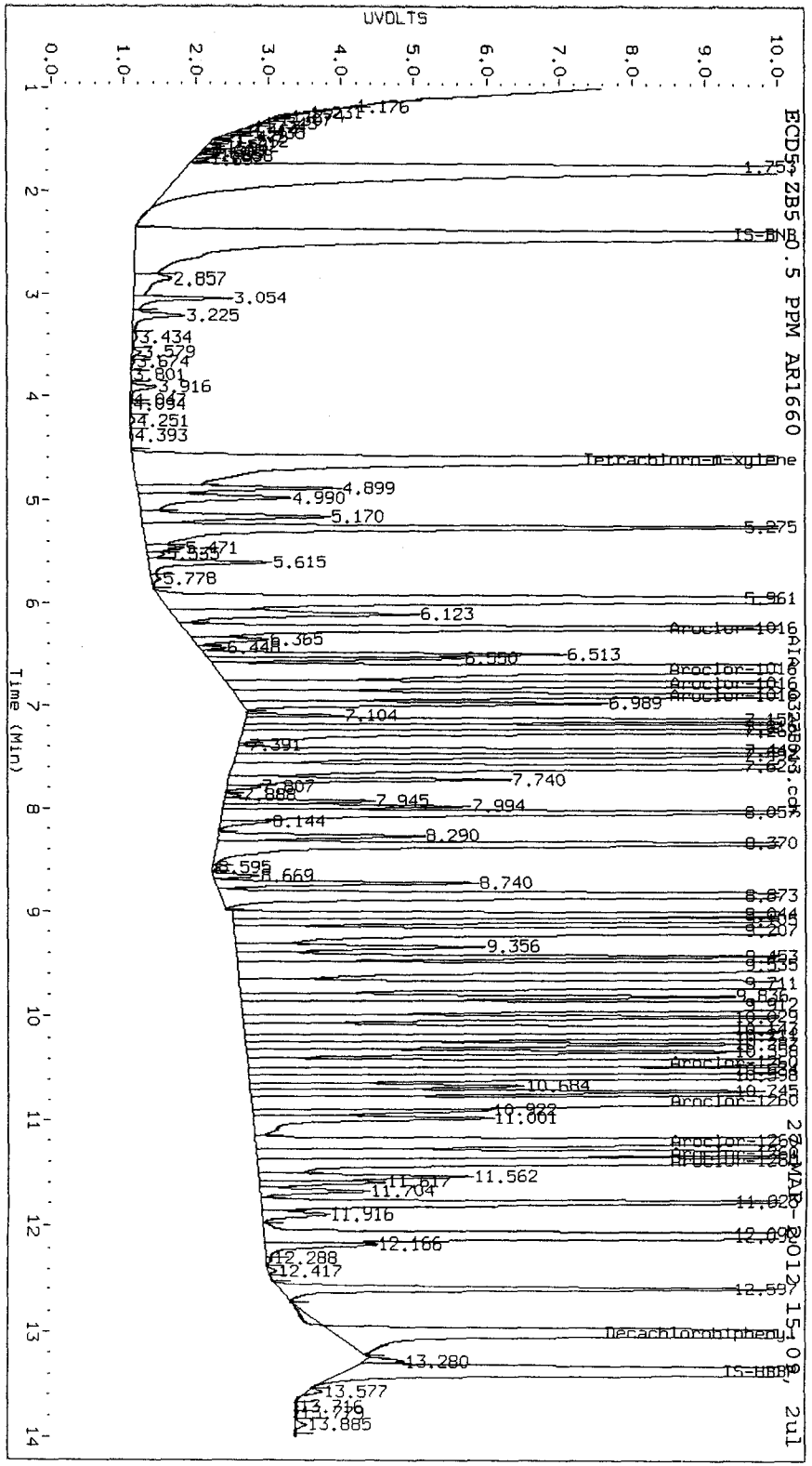
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
27-MAR-2012 15:09, 2ul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0.5 PPM AR1660
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB
27-MAR-2012 15:09, 2ul

1017.00135

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B014.d
Data file 2: 20120327.B/ical-2.b/0327B014.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 27-MAR-2012 15:28
Ical Date: 27-MAR-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
4.621	0.000	40704797	4.620	0.000	22637947	21.2	20.3	4.7	Tetrachloro-m-xylene
13.006	0.001	45336906	13.381	0.001	15403961	20.2	19.9	1.3	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	53.1	50.7
Decachlorobiphenyl	50.5	49.9

JM 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	132191383	5.4
Hexabromobiphenyl	146489015	153244445	4.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	79089707	8.0
Hexabromobiphenyl	55066880	58105925	5.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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-1242	1	6.254	0.000	9369854	250.0	1	6.358	0.000	7852735	250.0
Aroclor-1242	2	6.654	0.000	31417329	250.0	2	6.984	0.000	16022387	250.0
Aroclor-1242	3	6.801	0.000	12353230	250.0	3	7.192	0.000	6422428	250.0
Aroclor-1242	4	7.993	0.000	10901142	250.0	4	8.338	0.000	5360562	250.0

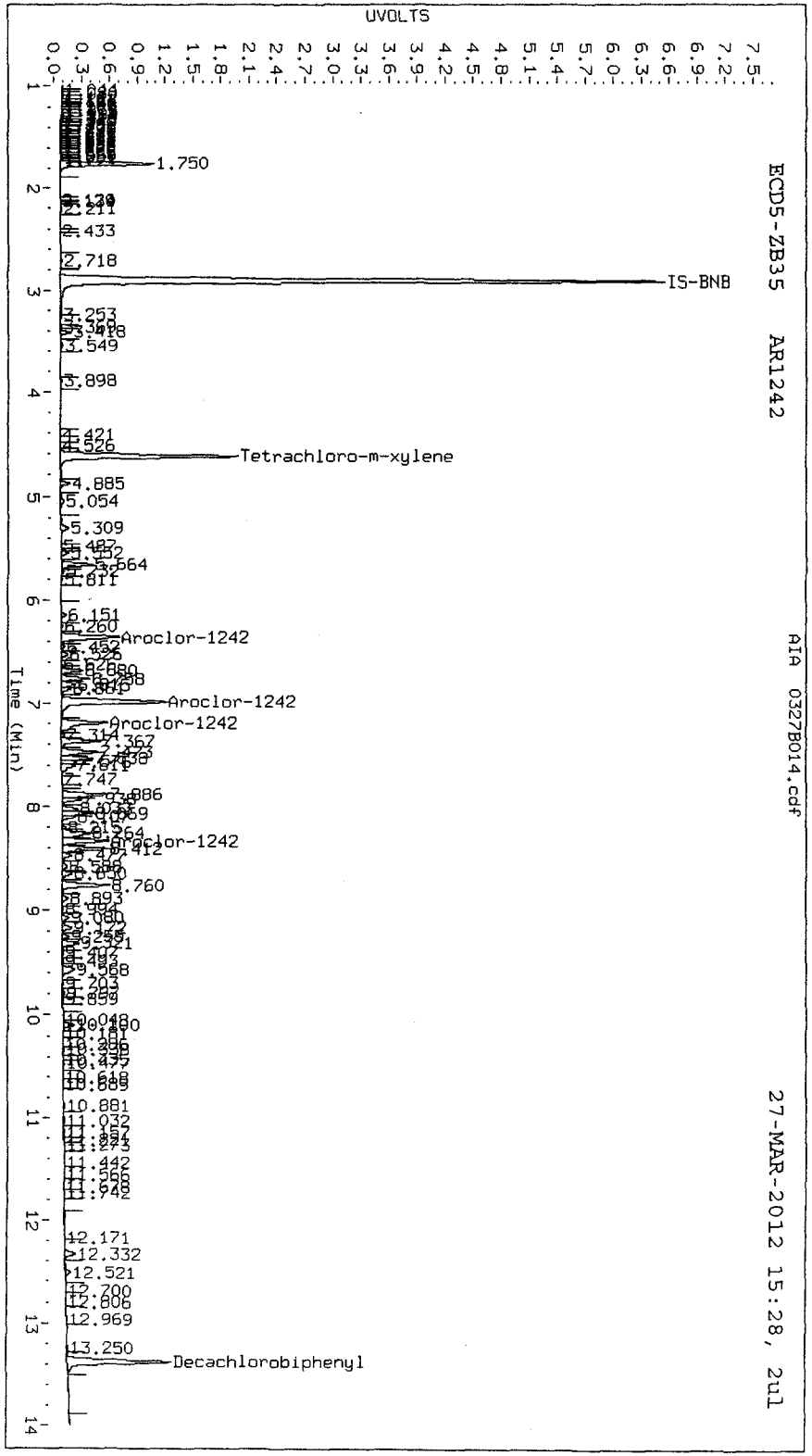
Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.721 - 12.905) = 238320225 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 115202965 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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AIA 0327B014.cdf
27-MAR-2012 15:28, 2ul
Time (Min)
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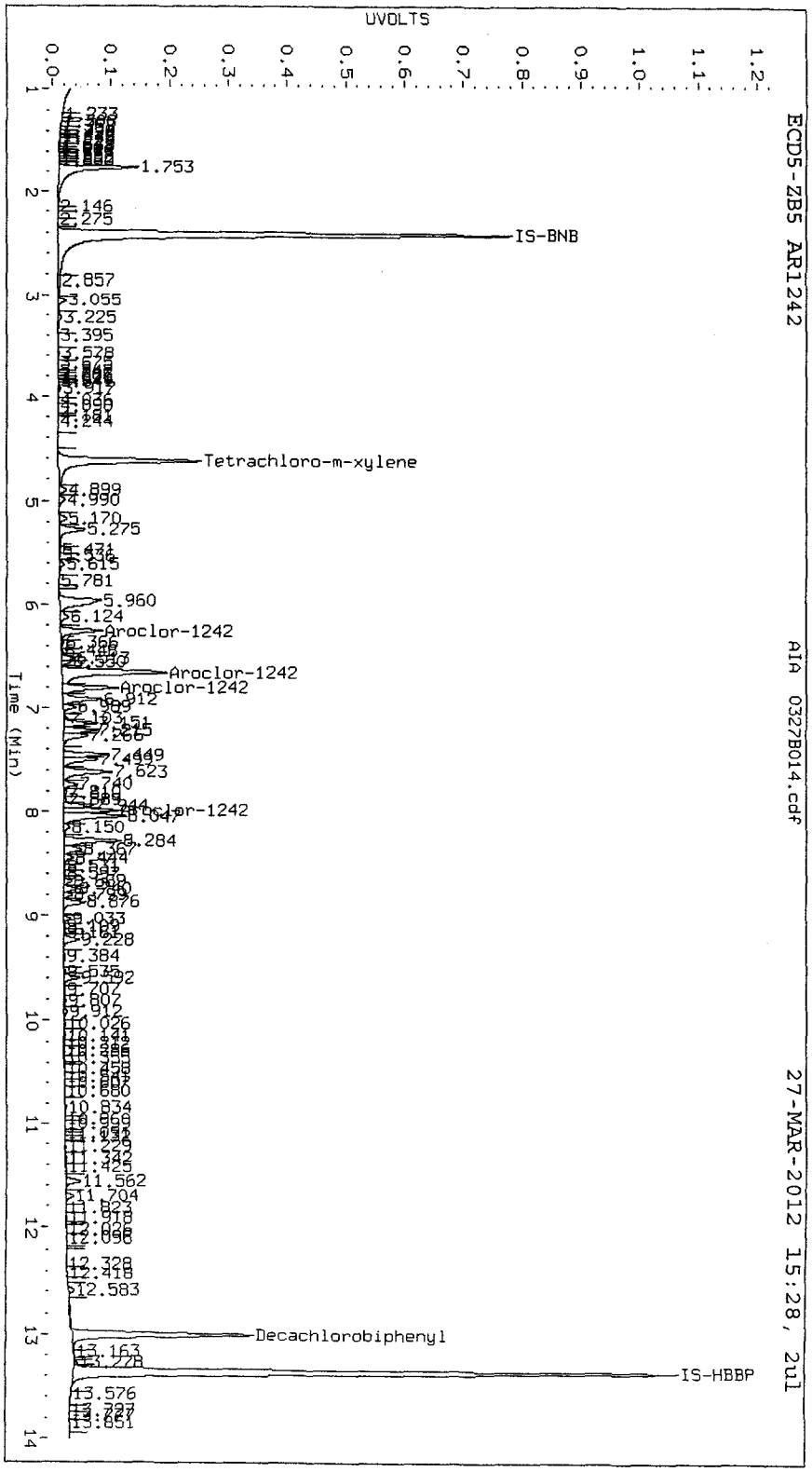
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl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ECD5-ZB5 AR1242
AIA 0327B014.cdf
27-MAR-2012 15:28, 2ul
Time (Min)
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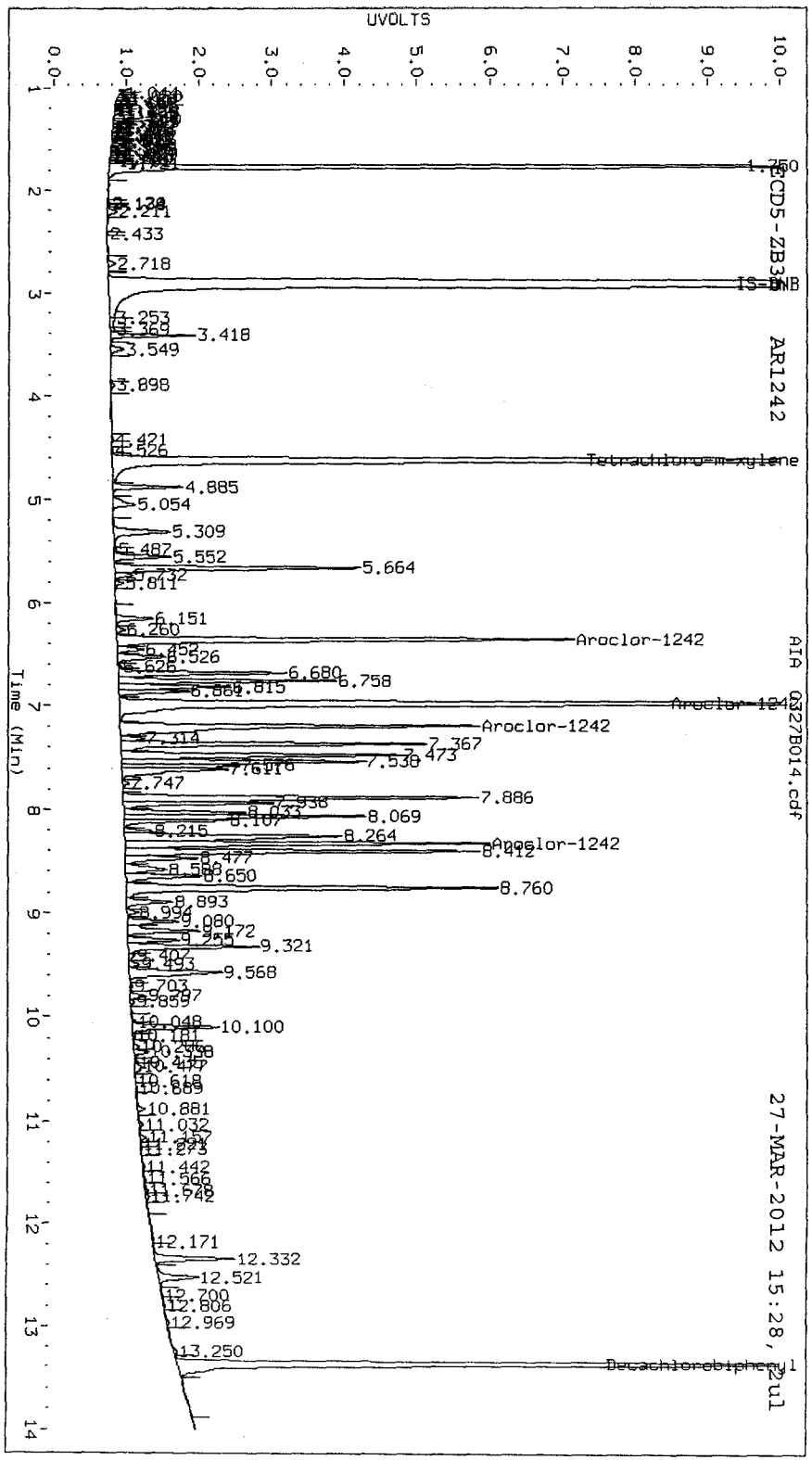
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP

101.7 : 09/13/06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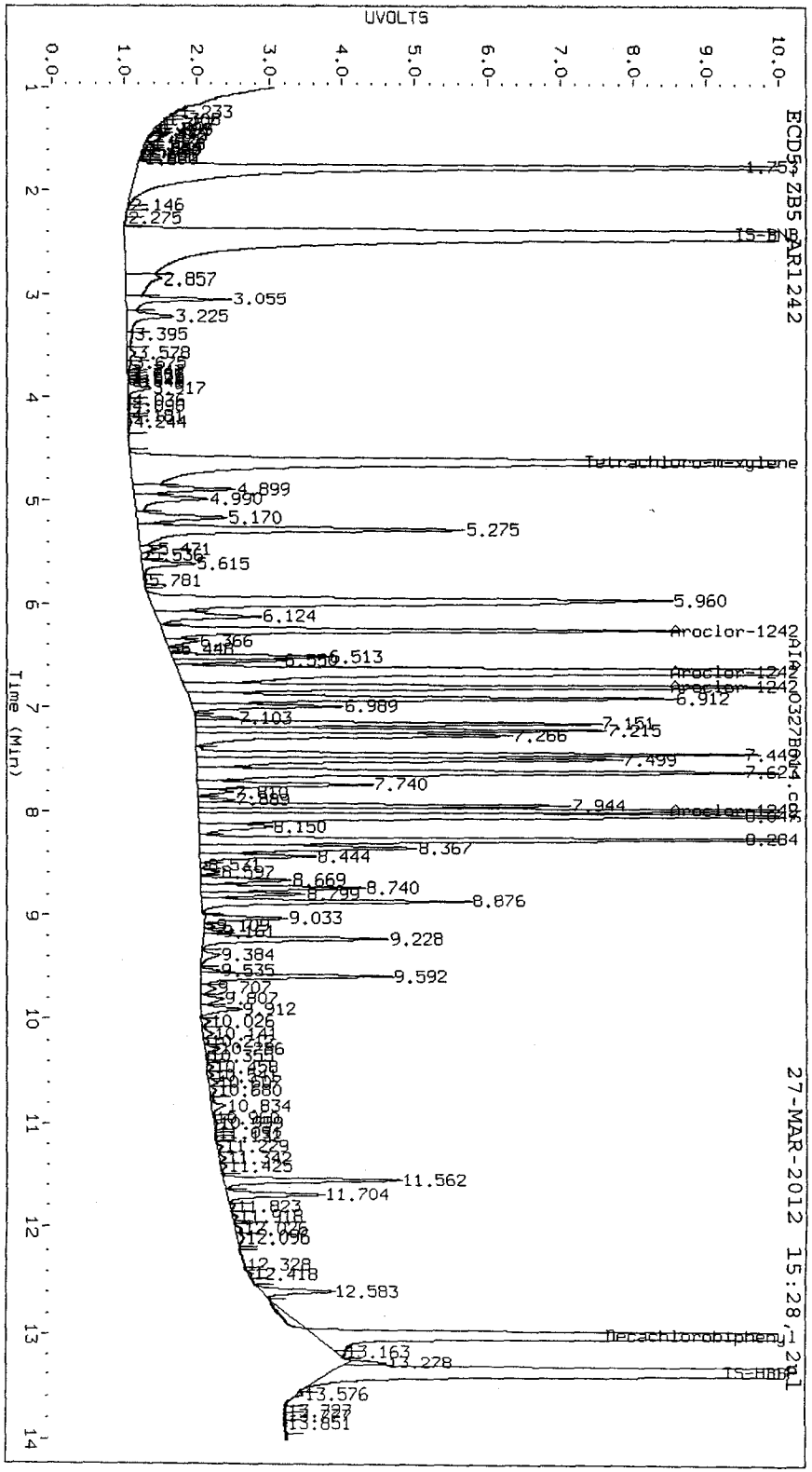
AIA 0327B014.cdf
27-MAR-2012 15:28, 2ul
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
Time (Min)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ECD5-ZB5 AR1242
AIA 0327B014.cdf
27-MAR-2012 15:28, 2ul
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
Time (Min)

10017.00140

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B015.d
Data file 2: 20120327.B/ical-2.b/0327B015.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 27-MAR-2012 15:47
Ical Date: 27-MAR-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
4.621	0.000	39312608	4.621	0.000	22229519	20.5	20.0	2.7	Tetrachloro-m-xylene
13.005	0.000	44807751	13.380	0.000	15308514	19.9	19.8	0.8	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	51.3	49.9
Decachlorobiphenyl	49.8	49.4

JC 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	132150277	5.4
Hexabromobiphenyl	146489015	153576604	4.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	78801612	7.6
Hexabromobiphenyl	55066880	58263772	5.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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-1248	1	6.649	0.000	19713432	250.0	1	6.980	0.000	9973393	250.0
Aroclor-1248	2	7.449	0.000	14596532	250.0	2	7.885	0.000	7758384	250.0
Aroclor-1248	3	7.994	0.000	18602930	250.0	3	8.337	0.000	8879440	250.0
Aroclor-1248	4	8.284	0.000	18480931	250.0	4	8.758	0.000	9590543	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

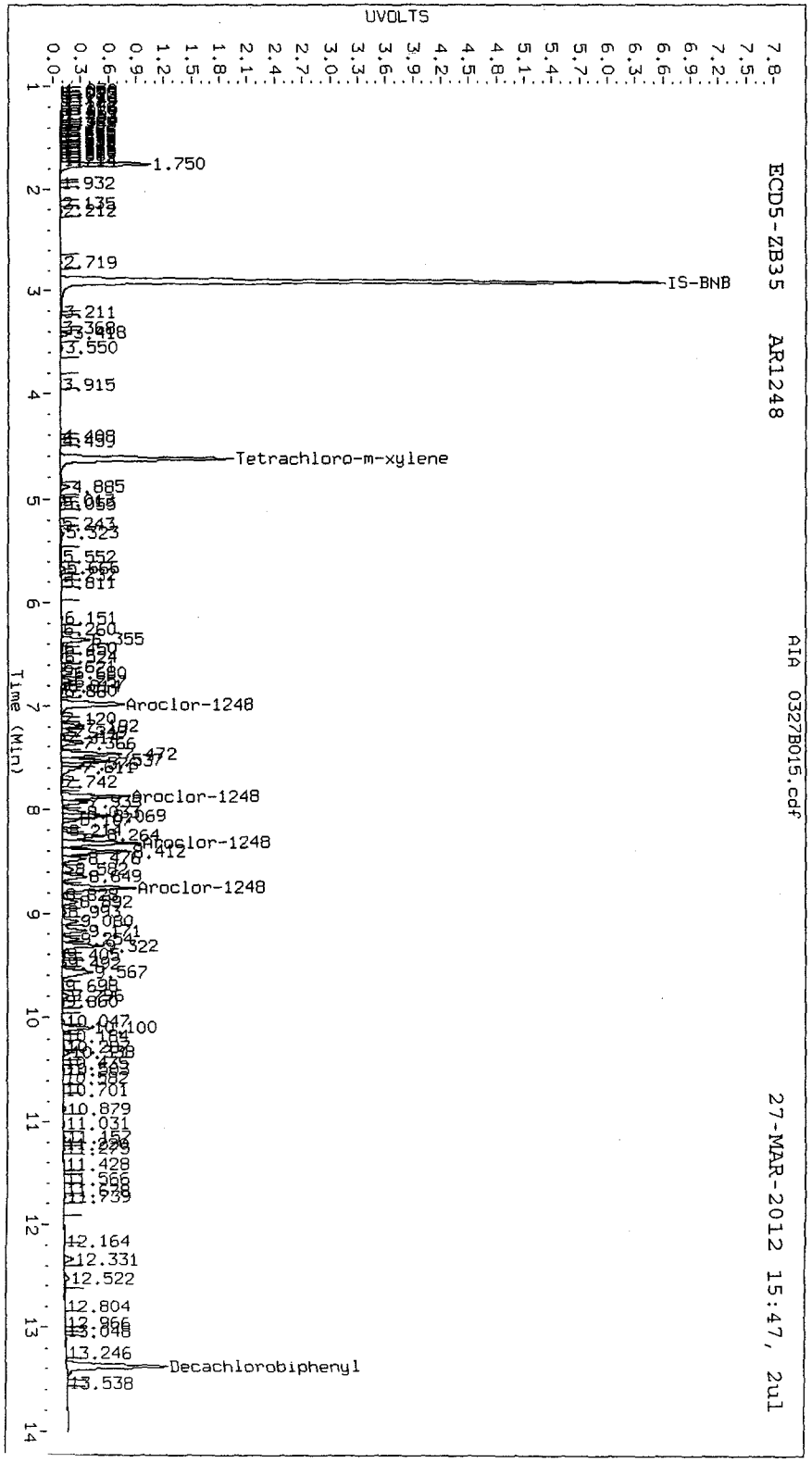
Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.721 - 12.905) = 292298312 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 133291205 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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AIA 0327B015.cdf
27-MAR-2012 15:47, 2ul
Time (Min)
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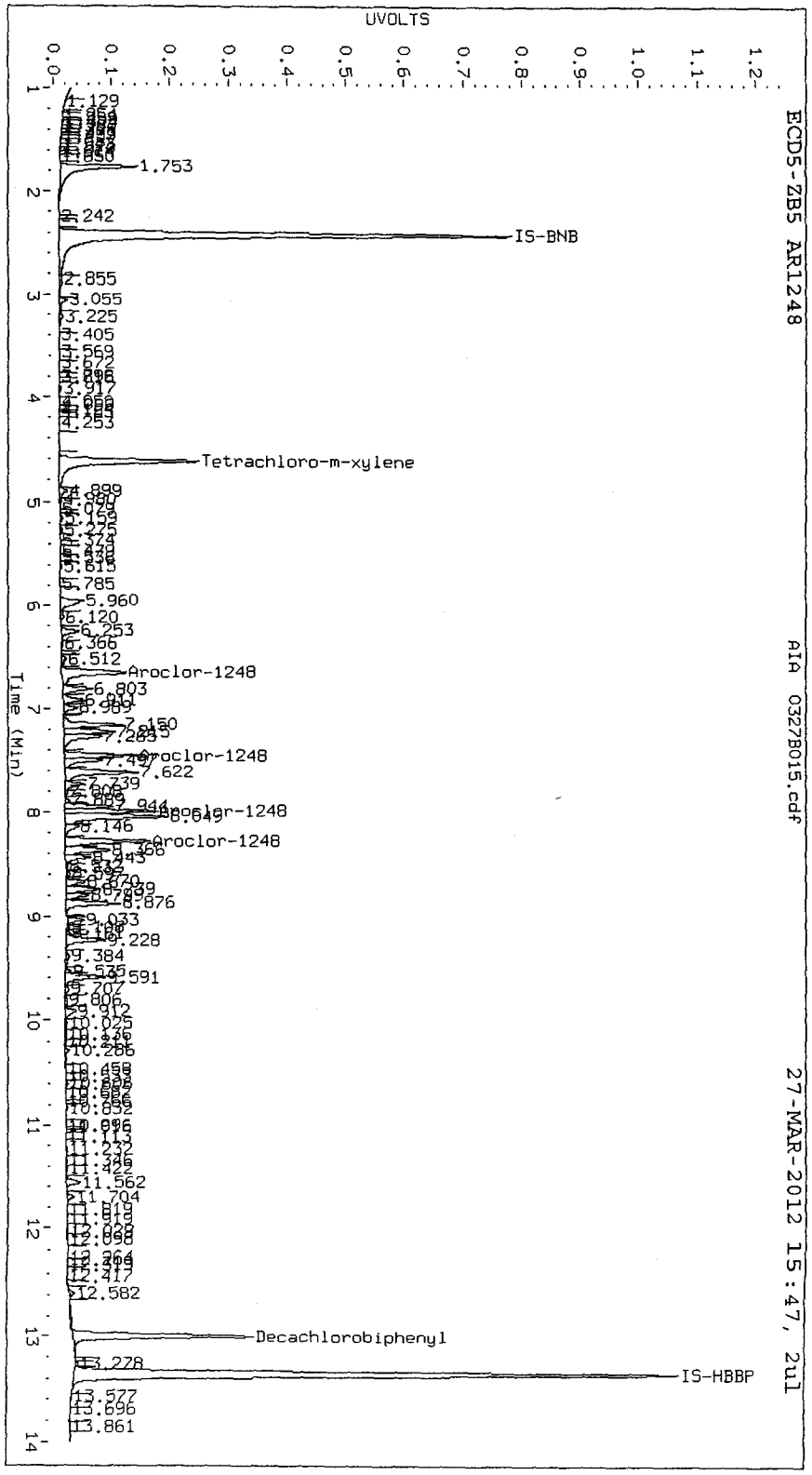
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl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27-MAR-2012 15:47, 2ul
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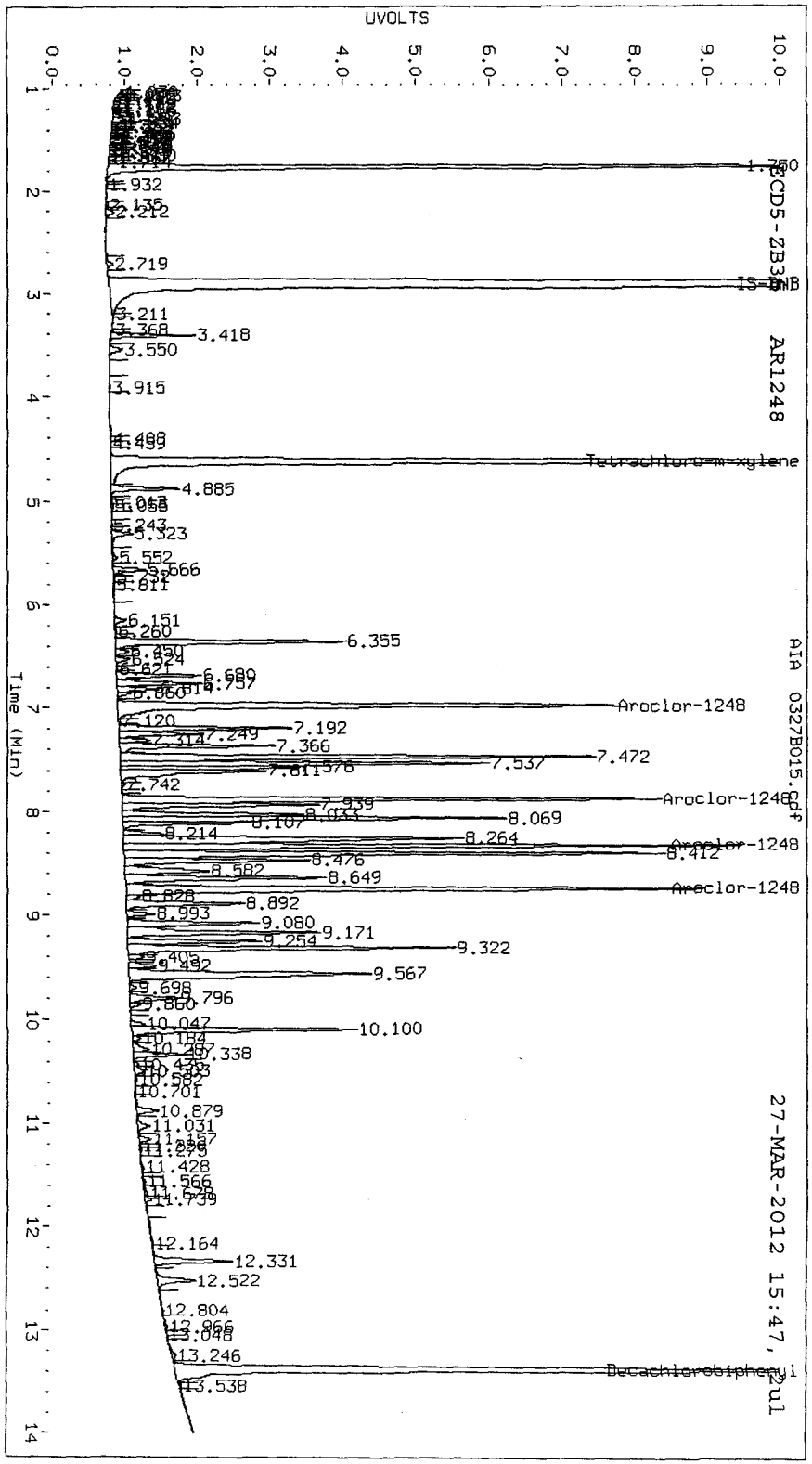
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP

U017 : 081123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Time (Min)
ECD5-ZB3
AR1248
AIA 0327B015.cdf
27-MAR-2012 15:47,
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
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2.719
3.211
3.368
3.418
3.550
3.915
4.885
5.243
5.323
5.552
5.666
6.151
6.260
6.355
6.689
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7.249
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7.742
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8.214
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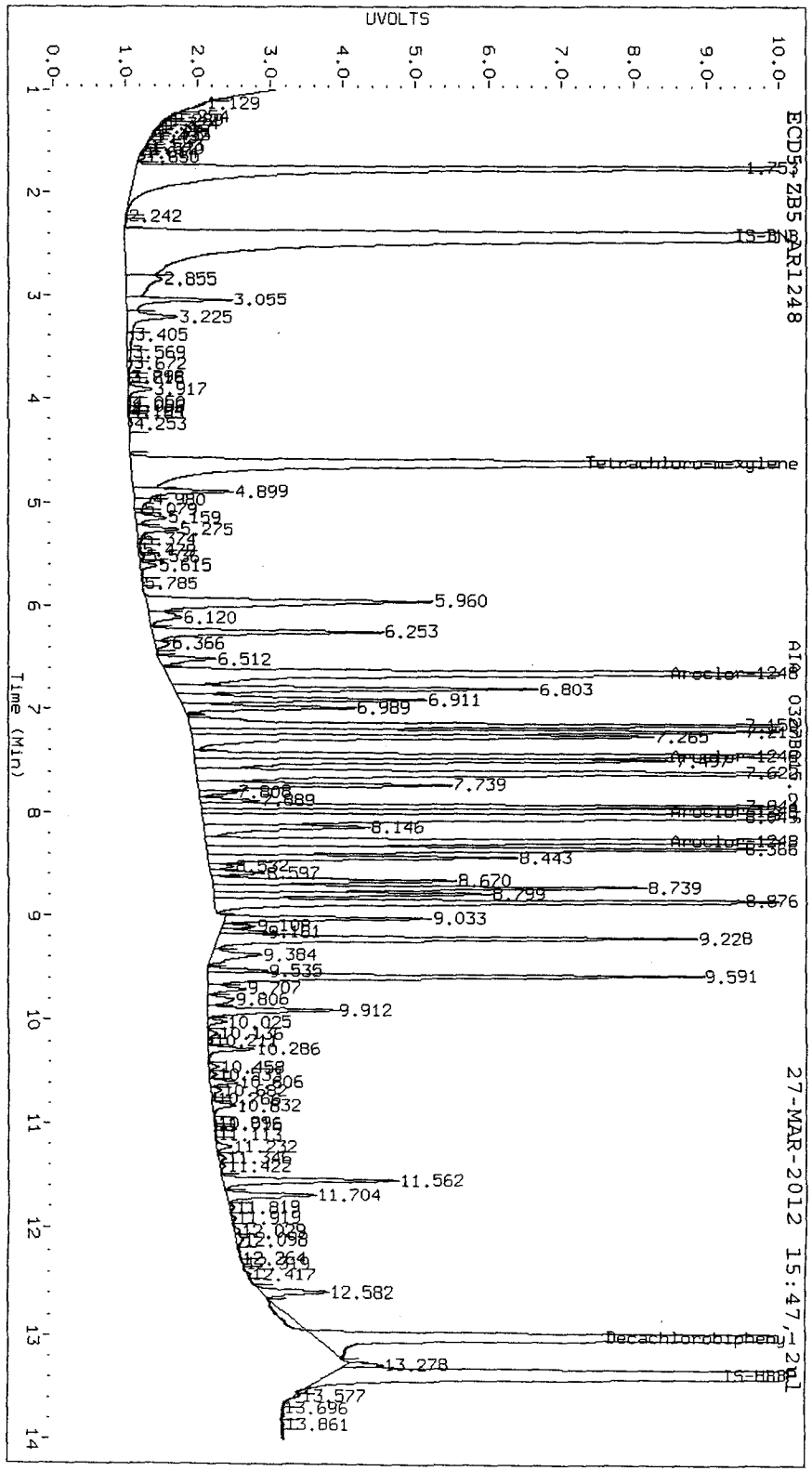
13.538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Time (Min)
ECD5-ZB5
AR1248
AIA 0327B015.cdf
27-MAR-2012 15:47,
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
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3.225
3.405
3.917
4.253
4.899
5.159
5.275
5.615
5.785
5.960
6.120
6.253
6.366
6.512
6.803
6.911
6.989
7.265
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7.889
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9.591
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9.806
9.912
10.025
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10.832
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11.422
11.562
11.704
12.098
12.417
12.582
13.278
13.577
13.696
13.861

1017.00114

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B016.d
Data file 2: 20120327.B/ical-2.b/0327B016.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 27-MAR-2012 16:06
Ical Date: 27-MAR-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
4.620	0.000	38879056	4.620	0.000	22039774	20.2	19.7	2.9	Tetrachloro-m-xylene
13.005	-0.001	45727226	13.379	-0.001	15178056	20.2	19.5	3.8	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	50.6	49.2
Decachlorobiphenyl	50.6	48.7

JL 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	132504977	5.7
Hexabromobiphenyl	146489015	154279858	5.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	79362242	8.4
Hexabromobiphenyl	55066880	58567138	6.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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-1254	1	8.368	0.000	27626617	250.0	1	8.477	0.000	7420115	250.0
Aroclor-1254	2	8.739	0.000	17673698	250.0	2	8.649	0.000	9411401	250.0
Aroclor-1254	3	8.876	0.000	33355113	250.0	3	9.172	0.000	7234383	250.0
Aroclor-1254	4	9.226	0.000	36349061	250.0	4	9.321	0.000	15467382	250.0
Aroclor-1254	5	9.587	0.000	23968457	250.0	5	10.104	0.000	9317199	250.0

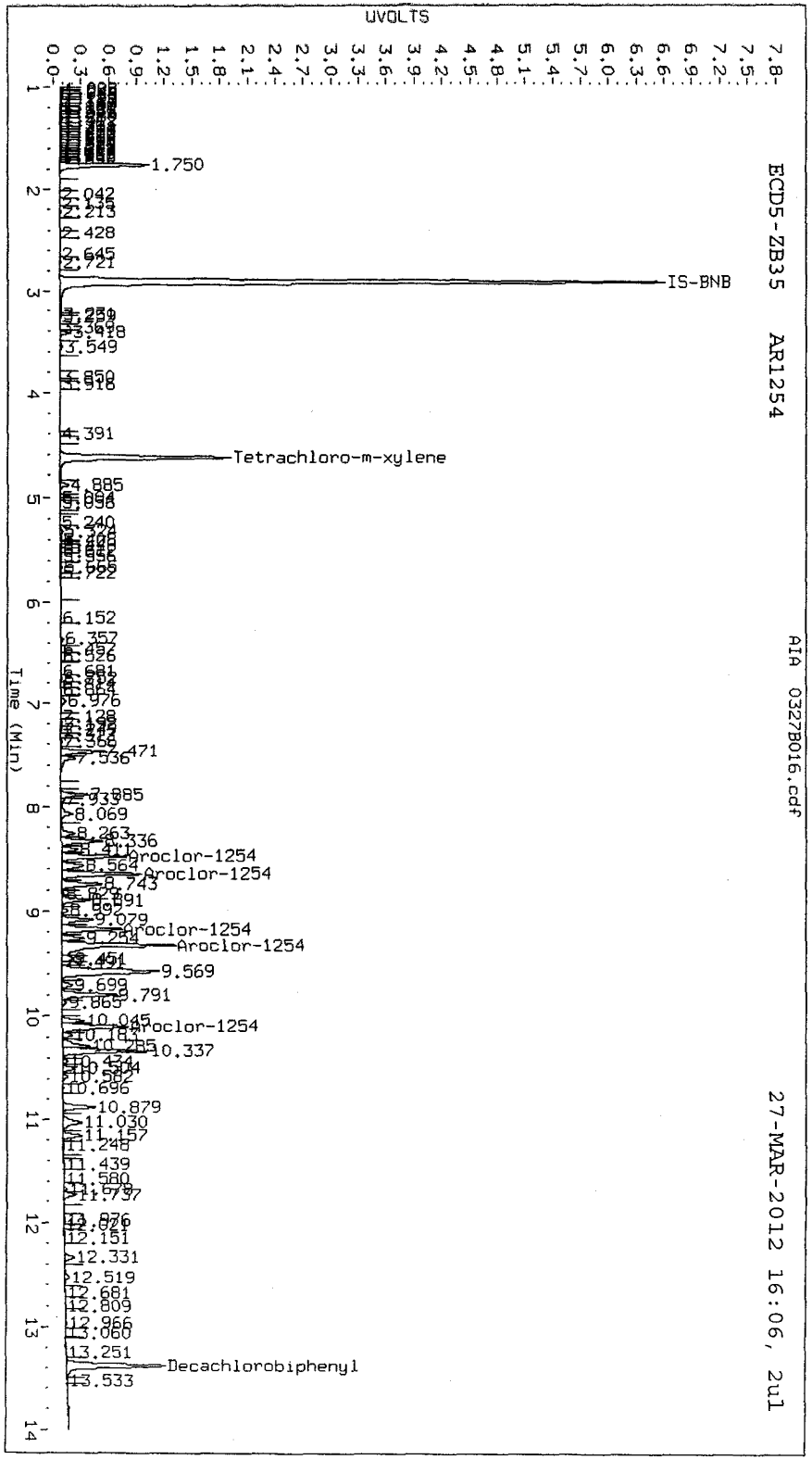
Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.721 - 12.905) = 368052263 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 155347900 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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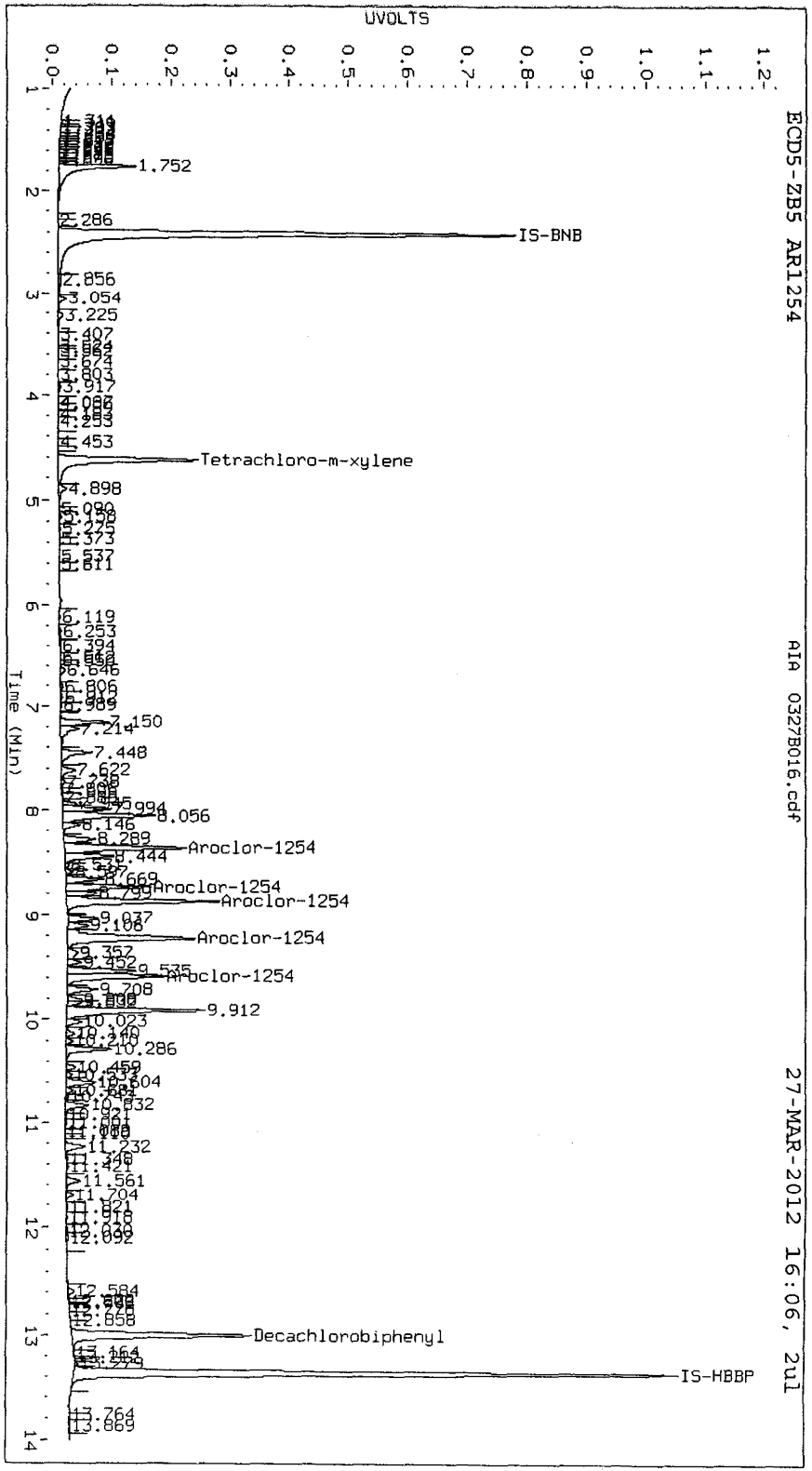
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl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AIA 0327B016.cdf
27-MAR-2012 16:06, 2ul
Time (Min)
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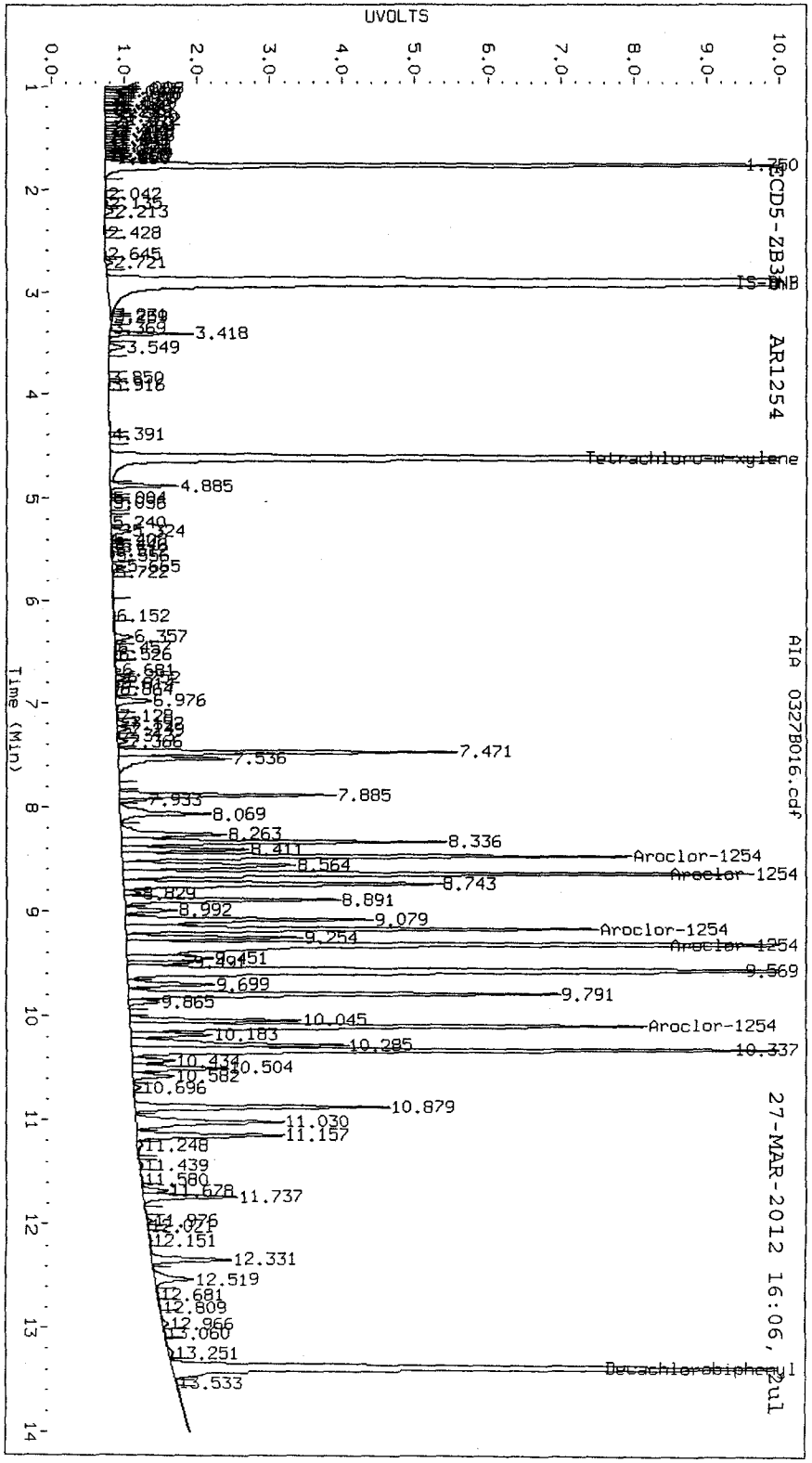
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP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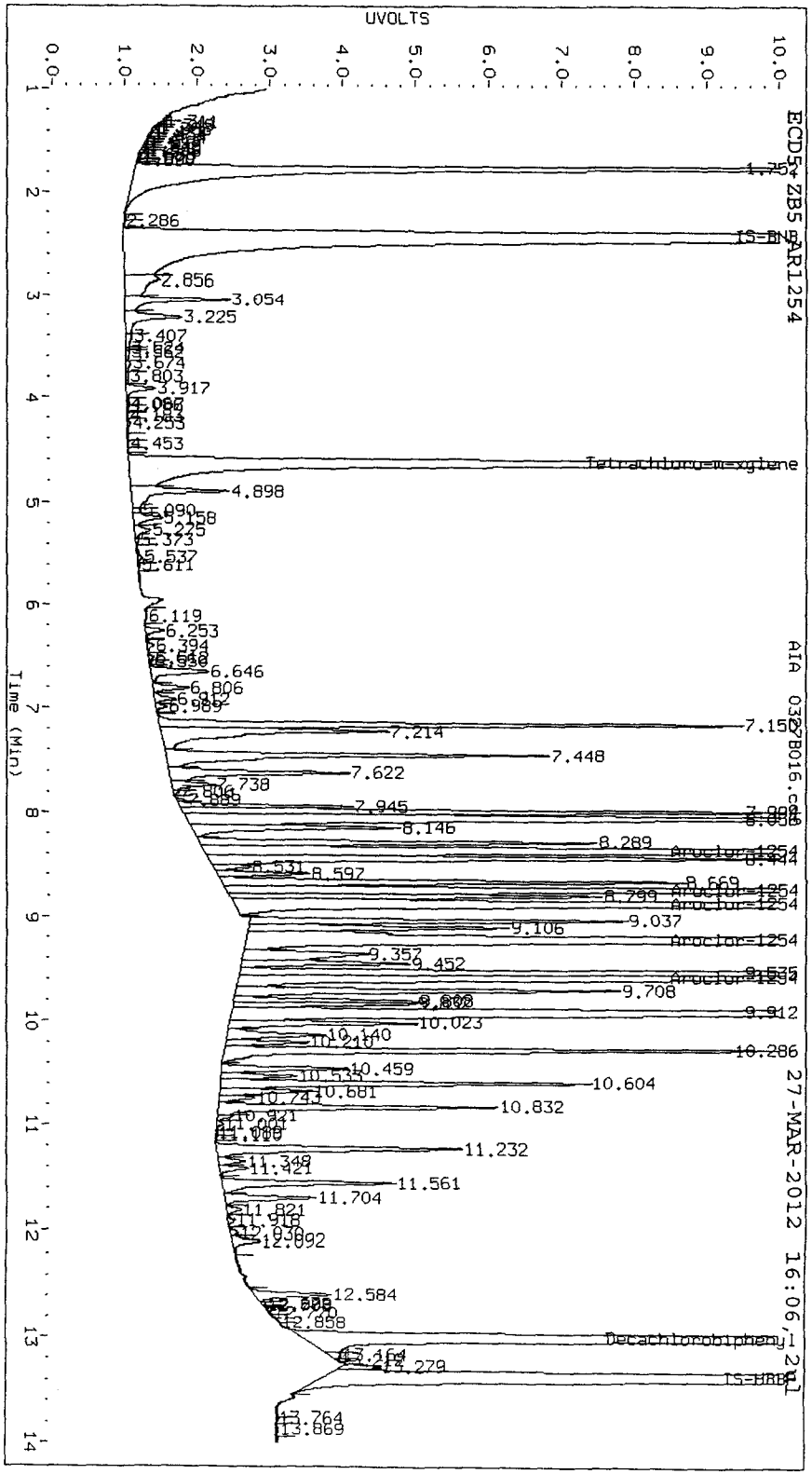
Aroclor-1254
Decachlorobiphenyl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ECD5+ ZB5
AR1254
AIA 0327B016.cdf
27-MAR-2012 16:06, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl

U017:09118

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B017.d
Data file 2: 20120327.B/ical-2.b/0327B017.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162
Client ID:
Injection Date: 27-MAR-2012 16:25
Ical Date: 27-MAR-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
4.621	0.000	40592746	4.619	-0.001	22432047	21.0	19.8	5.9	Tetrachloro-m-xylene
13.006	0.001	46157039	13.380	0.000	15380947	20.3	19.6	3.5	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	52.5	49.5
Decachlorobiphenyl	50.7	49.0

pl 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	133360477	6.4
Hexabromobiphenyl	146489015	155421371	6.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	80258106	9.6
Hexabromobiphenyl	55066880	59058204	7.2

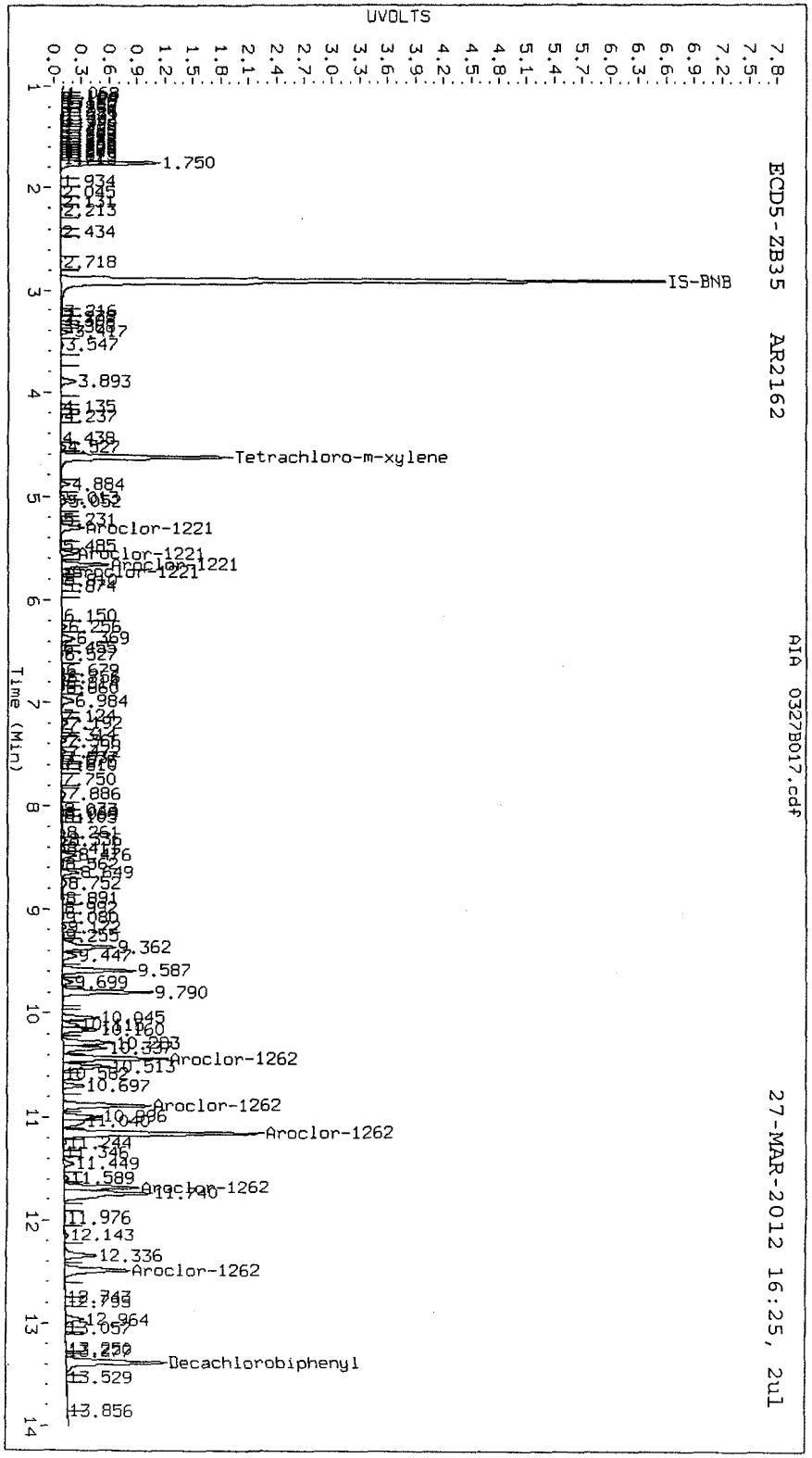
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT (ZB5 Col)	Shift	Area	Amount	Peak#	RT (ZB35 Col)	Shift	Area	Amount
Aroclor-1221	1	4.899	0.000	1968045	250.0	1	5.304	0.000	3196136	250.0
Aroclor-1221	2	5.171	0.000	3833782	250.0	2	5.551	0.000	1890378	250.0
Aroclor-1221	3	5.276	0.000	12723079	250.0	3	5.664	0.000	5708077	250.0
Aroclor-1221	NS	---			----	4	5.731	0.000	1026728	250.0
Total Col1Ave (3 peaks):					250.0	Total Col2Ave (4 peaks):			250.0	RPD = 0
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			250.0	
Aroclor-1262	1	10.142	0.000	35052745	250.0	1	10.434	0.000	12827648	250.0
Aroclor-1262	2	10.458	0.000	26069692	250.0	2	10.885	0.000	10942369	250.0
Aroclor-1262	3	10.832	0.000	70875009	250.0	3	11.157	0.000	24917647	250.0
Aroclor-1262	4	11.349	0.000	24449736	250.0	4	11.679	0.000	9702148	250.0
Aroclor-1262	5	11.423	0.000	27843287	250.0	5	12.478	0.000	10005360	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 (4.721 - 12.905) = 525532822 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 197253976 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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AIA 0327B017.cdf
27-MAR-2012 16:25, 2ul
Time (Min)
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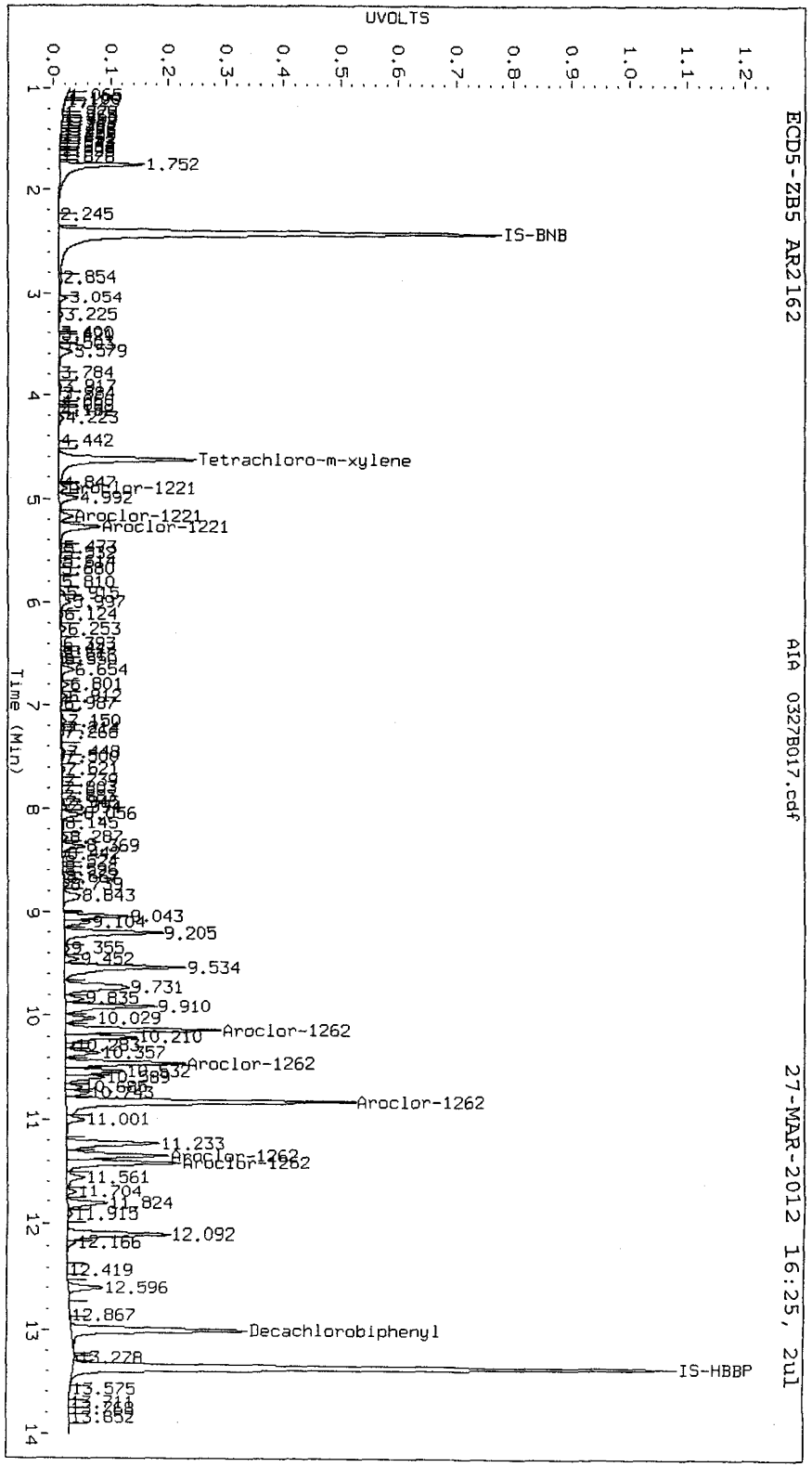
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl


UVOLTS
ECD5-ZB5 AR2162
AIA 0327B017.cdf
27-MAR-2012 16:25, 2ul
Time (Min)
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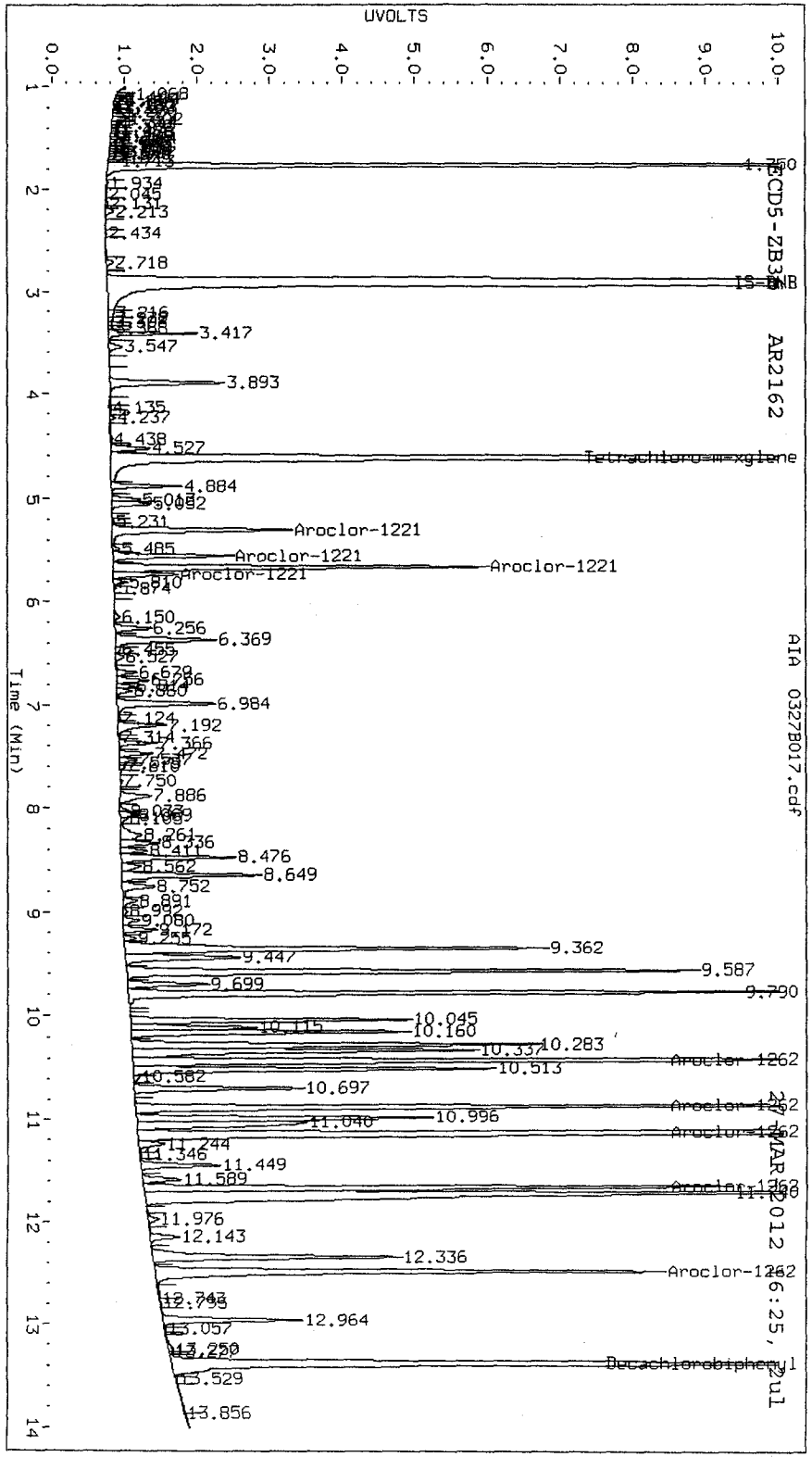
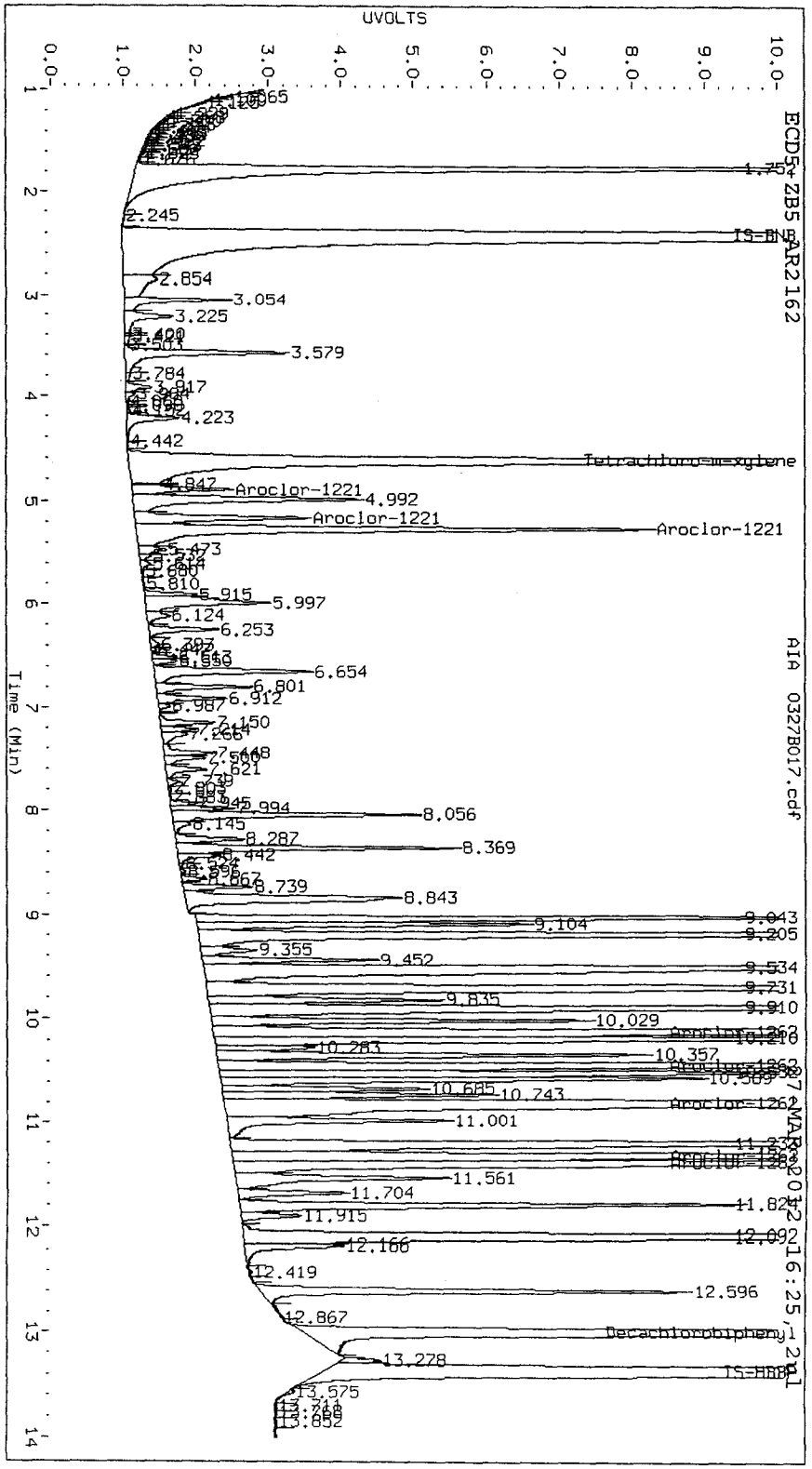
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP

L017:09151





U0417.001152

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B018.d
Data file 2: 20120327.B/ical-2.b/0327B018.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 27-MAR-2012 16:44
Ical Date: 27-MAR-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
4.621	0.000	40867581	4.620	0.000	22752141	20.7	19.7	5.0	Tetrachloro-m-xylene
13.005	0.000	82624060	13.380	0.000	27401390	35.8	34.3	4.5	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	51.8	49.3
Decachlorobiphenyl	89.6	85.6

03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	136095464	8.6
Hexabromobiphenyl	146489015	157503656	7.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	81760164	11.7
Hexabromobiphenyl	55066880	60169896	9.3

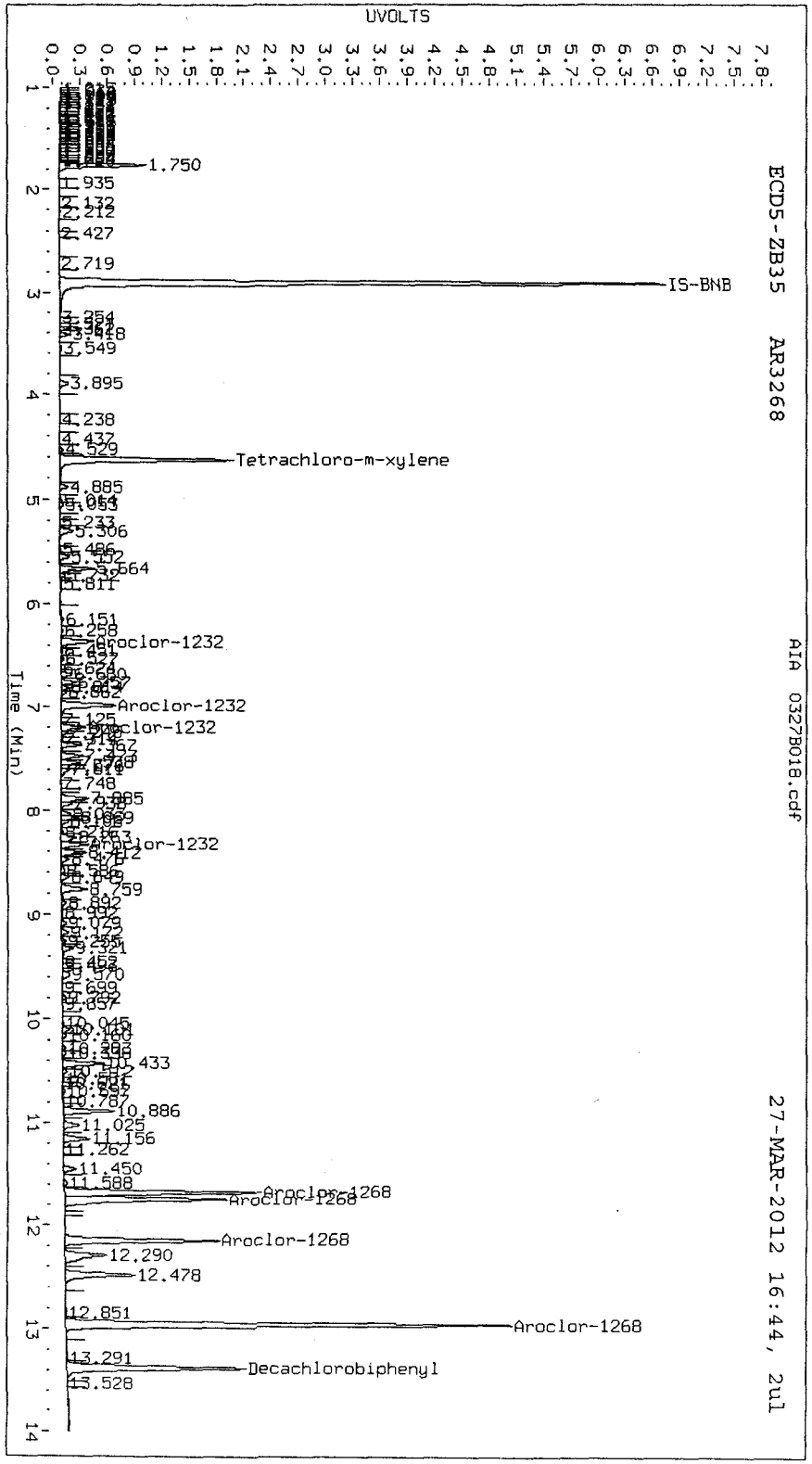
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1232	1	6.254	0.000	5169134	250.0	1	6.358	0.000	4630141	250.0
Aroclor-1232	2	6.653	0.000	17138081	250.0	2	6.984	0.000	8626006	250.0
Aroclor-1232	3	6.802	0.000	6840794	250.0	3	7.192	0.000	2970589	250.0
Aroclor-1232	4	7.994	0.000	6335631	250.0	4	8.337	0.000	3144413	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	11.351	0.000	72229808	250.0	1	11.679	0.000	26194502	250.0
Aroclor-1268	2	11.421	0.000	72087364	250.0	2	11.746	0.000	24032174	250.0
Aroclor-1268	3	11.808	0.000	60418273	250.0	3	12.143	0.000	21049321	250.0
Aroclor-1268	4	12.599	0.000	192212892	250.0	4	12.965	0.000	63599202	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 (4.721 - 12.905) = 662106752 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 245646016 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical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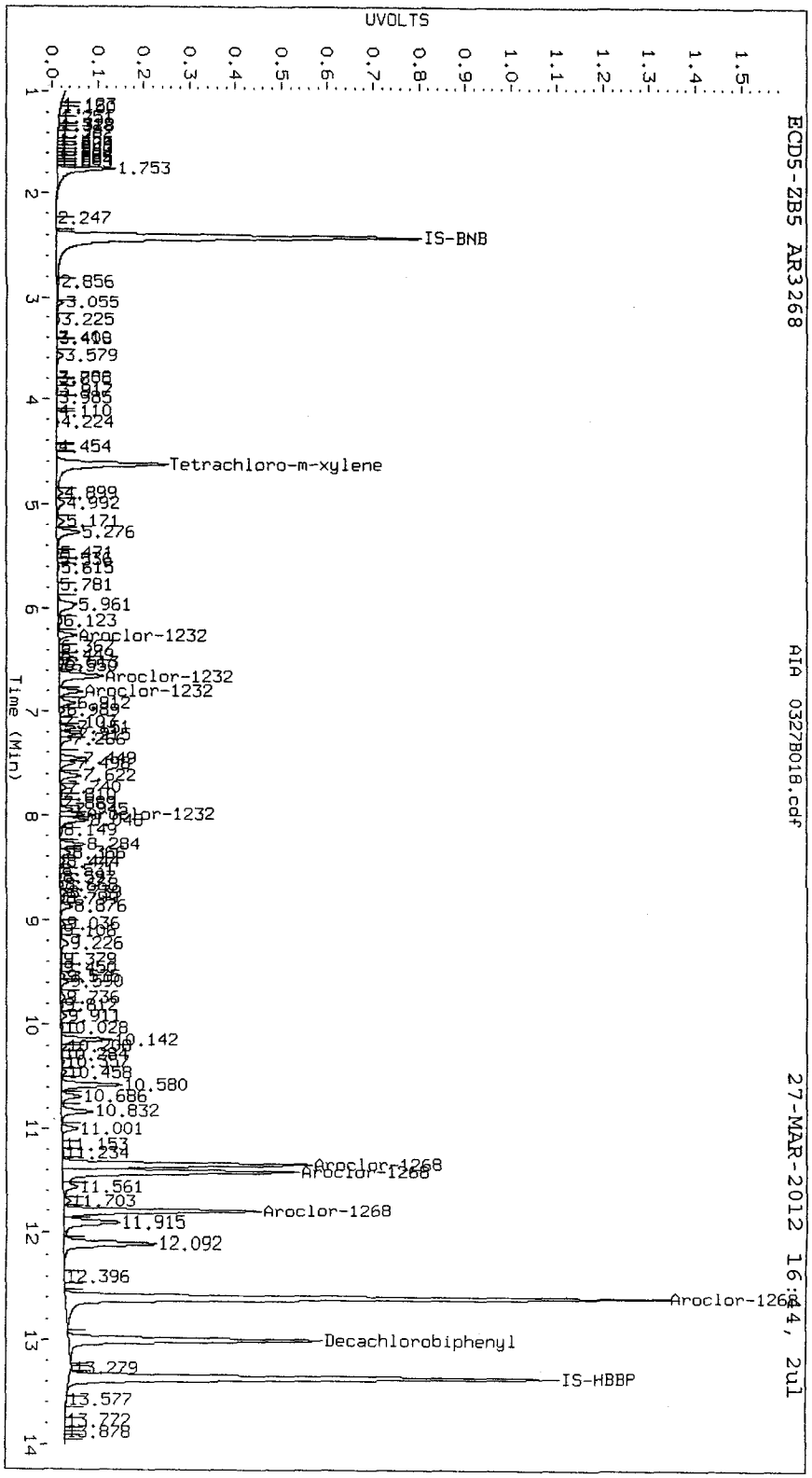
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl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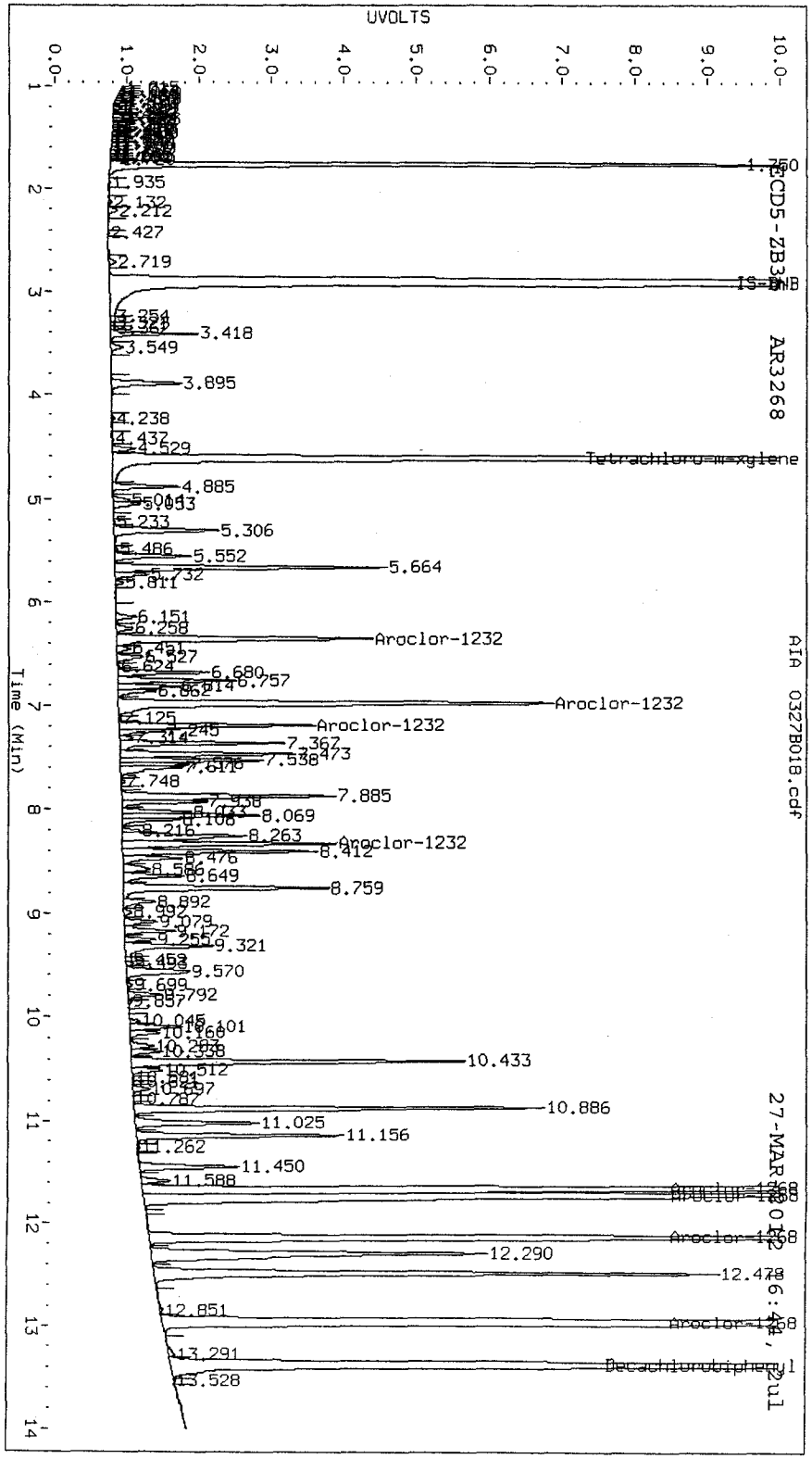
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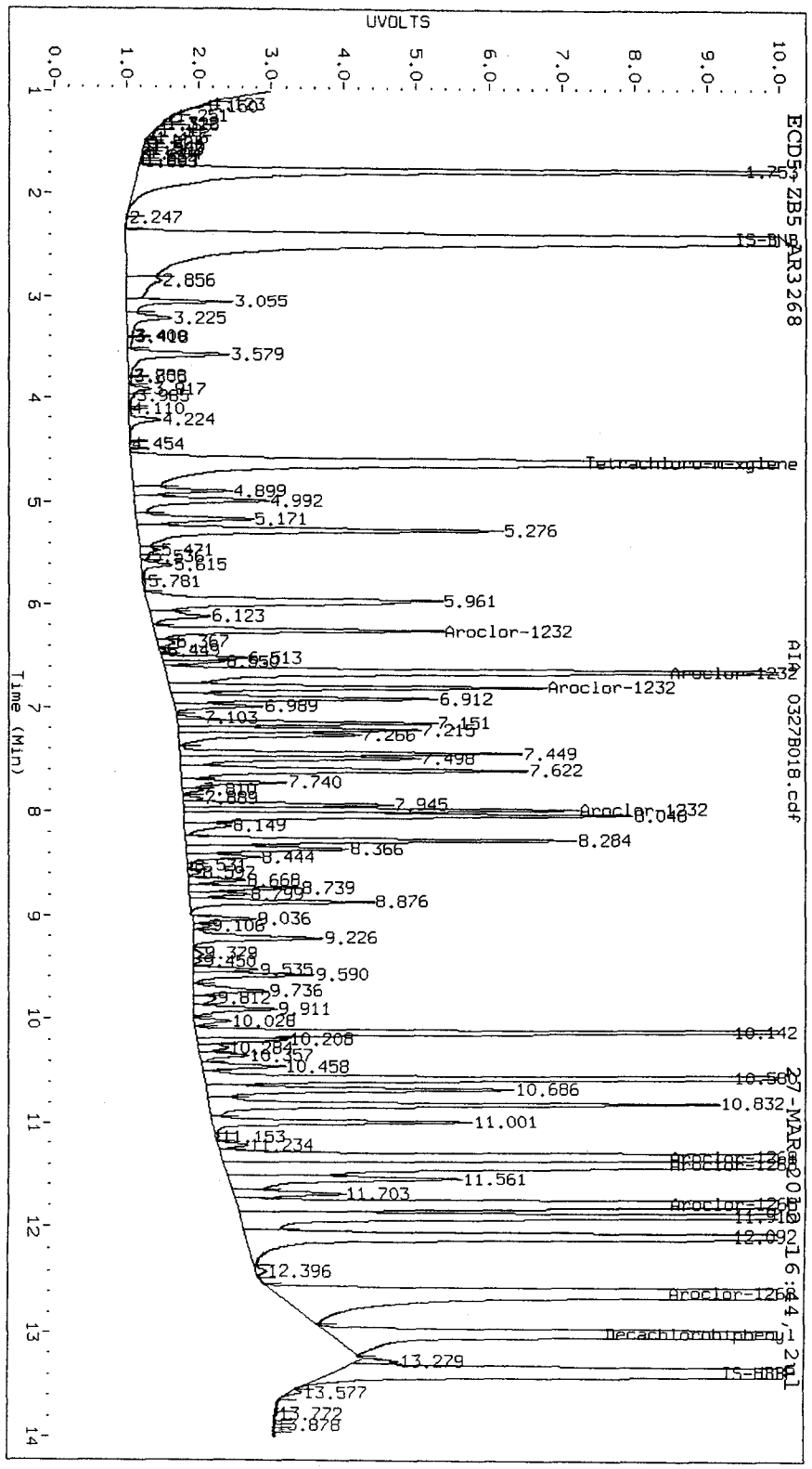
Aroclor-1232
IS-BN
Decachlorobiphenyl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AR3268
AIA 0327B01B.cdf
27-MAR
Tetrachloro-m-xylene
Aroclor-1232
IS-BN
Decachlorobiphenyl
IS-HRB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B019.d
Data file 2: 20120327.B/ical-2.b/0327B019.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 ICV
Client ID:
Injection Date: 27-MAR-2012 17:03
Ical Date: 27-MAR-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
4.621	0.000	42804754	4.620	0.000	23880153	21.9	20.6	6.4	Tetrachloro-m-xylene
13.005	0.000	47928868	13.380	0.000	16334123	20.7	20.4	1.5	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	54.8	51.4
Decachlorobiphenyl	51.7	51.0

JL 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	134704856	7.5
Hexabromobiphenyl	146489015	158144808	8.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	82249960	12.4
Hexabromobiphenyl	55066880	60284706	9.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.254	0.000	12089590	248.5	1	6.357	-0.001	10165697	231.5
Aroclor-1016	2	6.653	0.000	40067528	242.7	2	6.984	-0.001	20484483	234.8
Aroclor-1016	3	6.801	-0.001	15834973	243.9	3	7.367	0.000	5287947	238.0
Aroclor-1016	4	6.912	0.000	11260201	242.2	4	7.474	0.000	5601668	231.4
Total Col1Ave (4 peaks):				244.3		Total Col2Ave (4 peaks):			233.9	RPD = 4
Corrected Ave (3 peaks):				242.9		Corrected Ave (3 peaks):			232.6	RPD = 4
Aroclor-1221	1	4.899	0.000	2063489	259.5	1	5.308	0.004	1402451	107.0
Aroclor-1221	2	5.171	0.000	2493241	161.0	2	5.552	0.001	1100517	142.0
Aroclor-1221	3	5.275	0.000	9817406	191.0	3	5.664	0.001	4775531	204.1
Aroclor-1221	NS	---			----	4	5.732	0.000	344651	81.9
Total Col1Ave (3 peaks):				203.8		Total Col2Ave (4 peaks):			133.8	RPD = 42*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			110.3	
Aroclor-1232	1	6.254	0.000	12089590	590.7	1	6.357	-0.001	10165697	545.6
Aroclor-1232	2	6.653	0.000	40067528	590.5	2	6.984	0.000	20484483	590.1
Aroclor-1232	3	6.801	0.000	15834973	584.7	3	7.192	0.000	8222829	687.9
Aroclor-1232	4	7.994	0.000	2562742	102.2	4	8.336	0.000	1351150	106.8
Total Col1Ave (4 peaks):				467.0		Total Col2Ave (4 peaks):			482.6	RPD = 3
Corrected Ave (3 peaks):				425.8		Corrected Ave (3 peaks):			414.2	RPD = 3
Aroclor-1242	1	6.254	0.000	12089590	316.5	1	6.357	-0.001	10165697	311.2
Aroclor-1242	2	6.653	0.000	40067528	312.9	2	6.984	0.000	20484483	307.3
Aroclor-1242	3	6.801	0.000	15834973	314.5	3	7.192	0.000	8222829	307.8
Aroclor-1242	4	7.994	0.000	2562742	57.7	4	8.336	-0.001	1351150	60.6
Total Col1Ave (4 peaks):				250.4		Total Col2Ave (4 peaks):			246.7	RPD = 1
Corrected Ave (3 peaks):				228.3		Corrected Ave (3 peaks):			225.2	RPD = 1
Aroclor-1248	1	6.653	0.004	40067528	498.5	1	6.984	0.003	20484483	492.0
Aroclor-1248	2	7.449	0.000	11190934	188.0	2	7.885	0.000	6723620	207.6
Aroclor-1248	3	7.994	0.000	2562742	33.8	3	8.336	0.000	1351150	36.4
Aroclor-1248	4	8.289	0.004	1560176	20.7	4	8.759	0.000	437526	10.9
Total Col1Ave (4 peaks):				185.3		Total Col2Ave (4 peaks):			186.7	RPD = 1
Corrected Ave (3 peaks):				80.8		Corrected Ave (3 peaks):			85.0	RPD = 5
Aroclor-1254	1	8.369	0.002	9834237	87.5	1	8.477	0.000	3527729	114.7
Aroclor-1254	2	8.739	0.000	1429541	19.9	2	8.650	0.000	3684075	94.4
Aroclor-1254	3	8.870	-0.006	4940529	36.4	3	9.172	0.001	625985	20.9
Aroclor-1254	4	9.206	-0.019	29094293	196.8	4	9.362	0.041	8942258	139.5
Aroclor-1254	5	9.534	-0.053	43013603	441.3	5	10.116	0.012	3742011	96.9
Total Col1Ave (5 peaks):				156.4		Total Col2Ave (5 peaks):			93.3	RPD = 51*
Corrected Ave (4 peaks):				85.2		Corrected Ave (4 peaks):			81.7	RPD = 4
Aroclor-1260	1	10.459	-0.001	26216392	284.5	1	10.434	-0.001	9528619	280.1
Aroclor-1260	2	10.833	-0.001	63662598	281.3	2	10.885	0.000	10868028	264.5
Aroclor-1260	3	11.234	0.000	32272274	264.1	3	11.157	-0.001	23044097	277.7
Aroclor-1260	4	11.349	-0.001	14961092	298.4	4	11.679	-0.001	6698179	283.3
Aroclor-1260	5	11.423	0.000	18670687	309.8	NS	---			----
Total Col1Ave (5 peaks):				287.6		Total Col2Ave (4 peaks):			276.4	RPD = 4
Corrected Ave (4 peaks):				282.1		Corrected Ave (3 peaks):			274.1	RPD = 3
Aroclor-1262	1	10.142	0.000	26779222	187.7	1	10.434	0.000	9528619	181.9
Aroclor-1262	2	10.459	0.001	26216392	247.1	2	10.885	0.000	10868028	243.2
Aroclor-1262	3	10.833	0.001	63662598	220.7	3	11.157	0.000	23044097	226.5
Aroclor-1262	4	11.349	0.000	14961092	150.3	4	11.679	0.000	6698179	169.1
Aroclor-1262	5	11.423	0.000	18670687	164.8	5	12.478	0.000	7184962	175.9
Total Col1Ave (5 peaks):				194.1		Total Col2Ave (5 peaks):			199.3	RPD = 3
Corrected Ave (4 peaks):				180.9		Corrected Ave (4 peaks):			188.3	RPD = 4
Aroclor-1268	1	11.349	-0.002	14961092	51.6	1	11.679	-0.001	6698179	63.8
Aroclor-1268	2	11.423	0.002	18670687	64.5	2	11.739	-0.006	15200933	157.8

Aroclor-1268	3	11.825	0.016	8132397	33.5	3	12.143	0.000	225752	2.7
Aroclor-1268	4	12.594	-0.005	5181815	6.7	4	12.965	0.000	1276495	5.0

Total Col1Ave (4 peaks): 39.1 Total Col2Ave (4 peaks): 57.3 RPD = 38

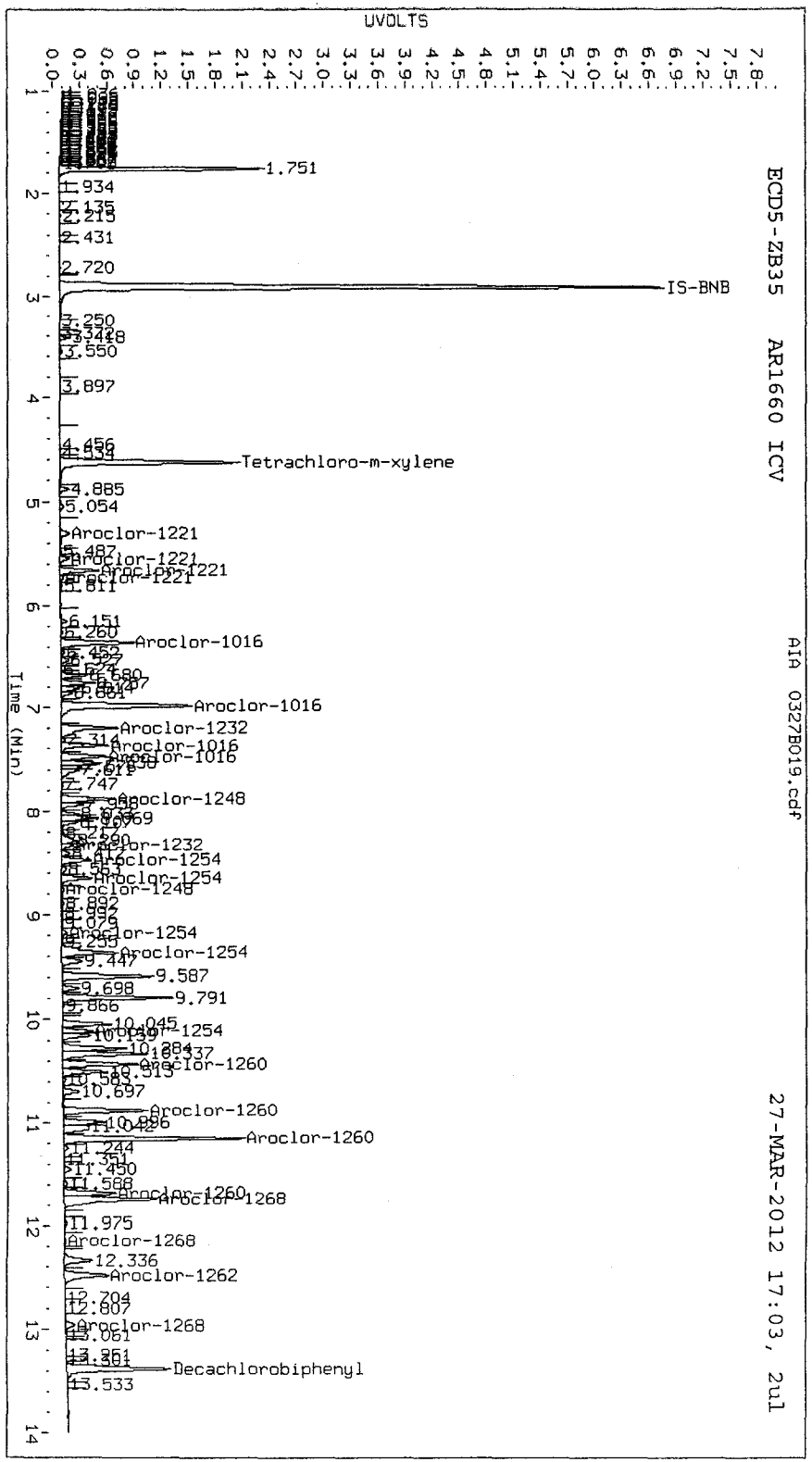
Corrected Ave (3 peaks): 30.6 Corrected Ave (3 peaks): 23.8 RPD = 25

Total PCB Area Col1 (4.721 - 12.905) = 702565417 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 283009163 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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27-MAR-2012 17:03, 2ul
Time (Min)
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IS-BNB
Tetrachloro-m-xylene
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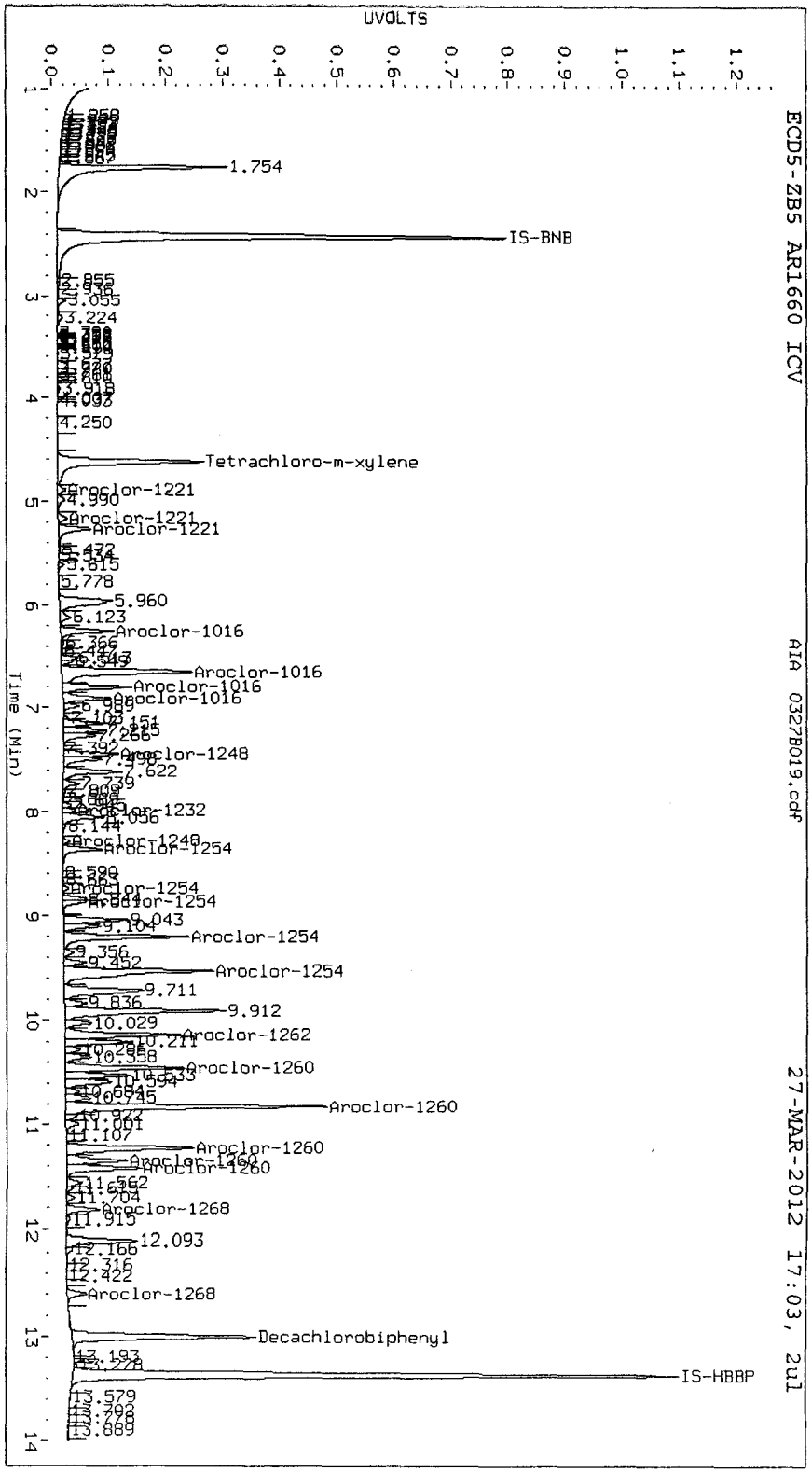
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl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Aroclor-1262
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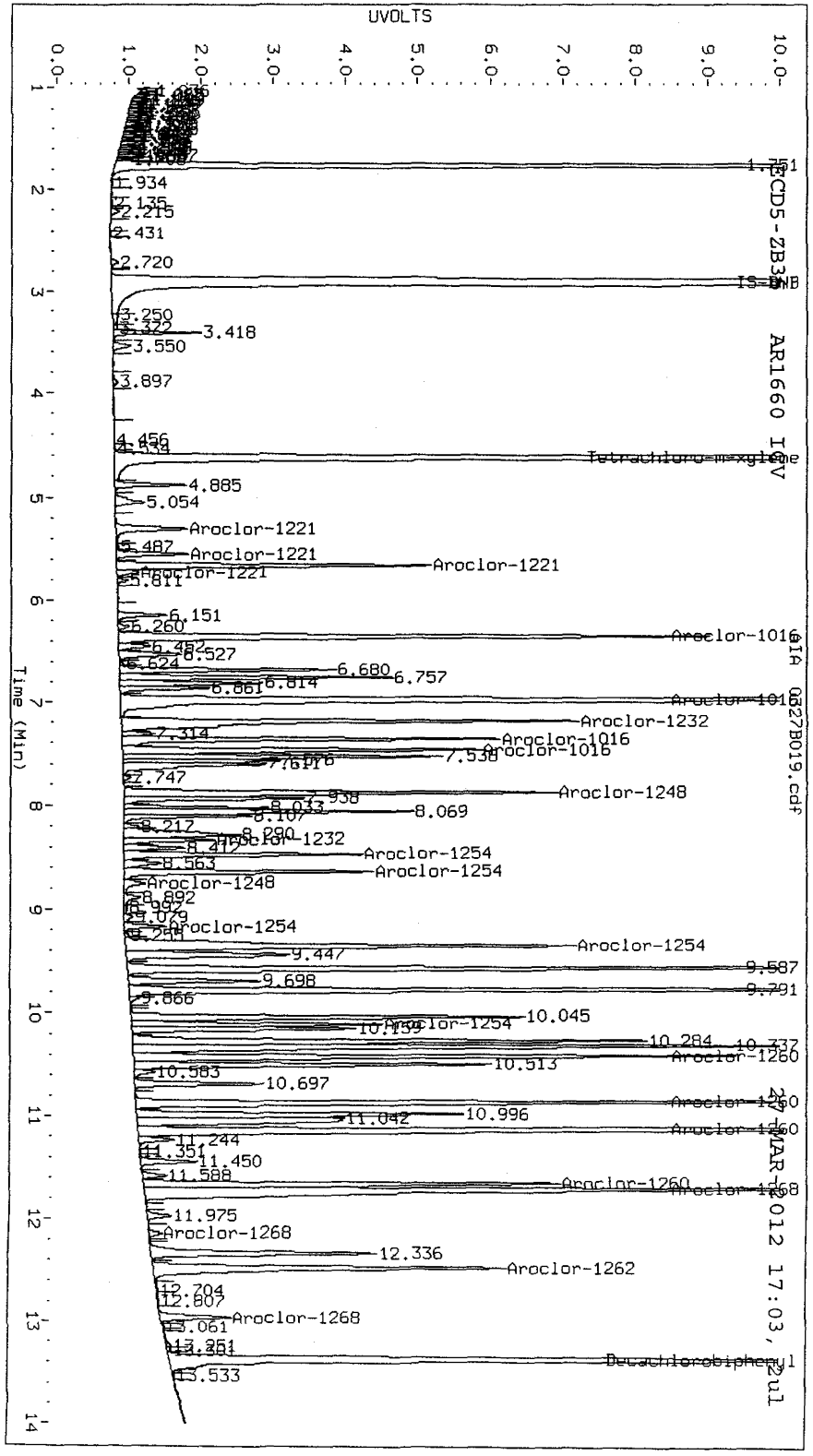
Decachlorobiphenyl
IS-HBBP

L017:00169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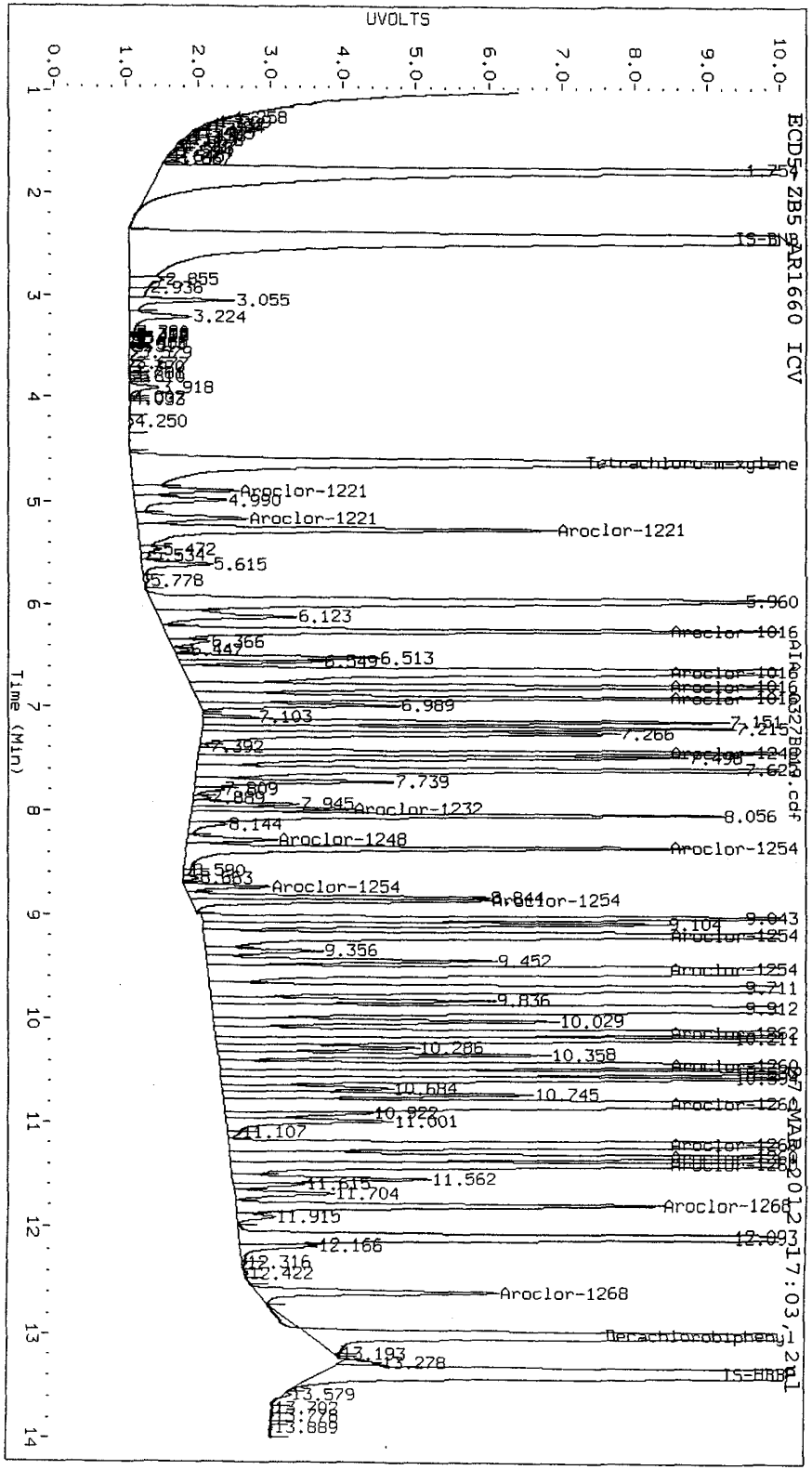
Aroclor-1268
Decachlorobiphenyl
Time (Min)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Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
Time (Min)

U017 00161

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B020.d
Data file 2: 20120327.B/ical-2.b/0327B020.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 ICV
Client ID:
Injection Date: 27-MAR-2012 17:22
Ical Date: 27-MAR-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
4.620	0.000	39948304	4.620	0.000	22384204	20.5	19.6	4.3	Tetrachloro-m-xylene
13.005	0.000	44731464	13.381	0.001	15397104	19.3	19.2	0.7	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	51.2	49.0
Decachlorobiphenyl	48.4	48.0

JL 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	134603696	7.4
Hexabromobiphenyl	146489015	157885305	7.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	80849586	10.4
Hexabromobiphenyl	55066880	60280606	9.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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-1016	1	6.253	-0.001	9106779	187.3	1	6.358	0.000	7714319	178.7
Aroclor-1016	2	6.653	0.000	30201830	183.1	2	6.983	-0.001	15266800	178.0
Aroclor-1016	3	6.801	-0.001	11968792	184.5	3	7.366	0.000	3989542	182.7
Aroclor-1016	4	6.911	-0.001	8534479	183.7	4	7.473	-0.001	4415344	185.5
Total Col1Ave (4 peaks):				184.7		Total Col2Ave (4 peaks):			181.2	RPD = 2
Corrected Ave (3 peaks):				183.8		Corrected Ave (3 peaks):			179.8	RPD = 2
Aroclor-1221	1	4.898	0.000	1983663	249.7	1	5.309	0.005	1040504	80.8
Aroclor-1221	2	5.170	-0.002	1983438	128.1	2	5.553	0.002	808212	106.1
Aroclor-1221	3	5.275	-0.001	7377408	143.6	3	5.665	0.001	3569278	155.2
Aroclor-1221	NS	---			----	4	5.731	0.000	255647	61.8
Total Col1Ave (3 peaks):				173.8		Total Col2Ave (4 peaks):			101.0	RPD = 53*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			82.9	
Aroclor-1232	1	6.253	0.000	9106779	445.3	1	6.358	0.000	7714319	421.2
Aroclor-1232	2	6.653	0.000	30201830	445.4	2	6.983	-0.001	15266800	447.4
Aroclor-1232	3	6.801	0.000	11968792	442.3	3	7.192	0.000	6201722	527.8
Aroclor-1232	4	7.994	0.000	10181934	406.2	4	8.337	0.000	4971676	399.7
Total Col1Ave (4 peaks):				434.8		Total Col2Ave (4 peaks):			449.1	RPD = 3
Corrected Ave (3 peaks):				431.3		Corrected Ave (3 peaks):			422.8	RPD = 2
Aroclor-1242	1	6.253	0.000	9106779	238.6	1	6.358	0.000	7714319	240.2
Aroclor-1242	2	6.653	-0.001	30201830	236.0	2	6.983	0.000	15266800	233.0
Aroclor-1242	3	6.801	0.000	11968792	237.9	3	7.192	-0.001	6201722	236.2
Aroclor-1242	4	7.994	0.000	10181934	229.3	4	8.337	-0.001	4971676	226.8
Total Col1Ave (4 peaks):				235.5		Total Col2Ave (4 peaks):			234.1	RPD = 1
Corrected Ave (3 peaks):				234.4		Corrected Ave (3 peaks):			232.0	RPD = 1
Aroclor-1248	1	6.653	0.004	30201830	376.0	1	6.983	0.003	15266800	373.0
Aroclor-1248	2	7.449	0.000	8663693	145.7	2	7.885	0.000	5553735	174.4
Aroclor-1248	3	7.994	0.000	10181934	134.3	3	8.337	0.000	4971676	136.4
Aroclor-1248	4	8.284	0.000	11135986	147.9	4	8.759	0.001	5632932	143.1
Total Col1Ave (4 peaks):				201.0		Total Col2Ave (4 peaks):			206.7	RPD = 3
Corrected Ave (3 peaks):				142.6		Corrected Ave (3 peaks):			151.3	RPD = 6
Aroclor-1254	1	8.367	-0.001	5713646	50.9	1	8.476	-0.001	1519761	50.3
Aroclor-1254	2	8.740	0.000	3600919	50.1	2	8.649	0.000	1653681	43.1
Aroclor-1254	3	8.876	0.000	6085842	44.9	3	9.172	0.000	1485446	50.4
Aroclor-1254	4	9.227	0.002	5131546	34.7	4	9.321	0.000	2604642	41.3
Aroclor-1254	5	9.590	0.004	4319568	44.4	5	10.101	-0.003	1633671	43.0
Total Col1Ave (5 peaks):				45.0		Total Col2Ave (5 peaks):			45.6	RPD = 1
Corrected Ave (4 peaks):				43.5		Corrected Ave (4 peaks):			44.4	RPD = 2
Aroclor-1260	1	10.458	-0.001	136749	1.5	1	10.434	0.000	33001	1.0
Aroclor-1260	2	10.833	-0.001	393984	1.7	2	10.879	-0.007	345300	8.4
Aroclor-1260	3	11.234	0.000	303144	2.5	3	11.156	-0.001	164001	2.0
Aroclor-1260	4	11.346	-0.004	83990	1.7	4	11.677	-0.003	53305	2.3
Aroclor-1260	5	11.424	0.000	46667	0.8	NS	---			----
Total Col1Ave (5 peaks):				1.6		Total Col2Ave (4 peaks):			3.4	RPD = 70*
Corrected Ave (4 peaks):				1.4		Corrected Ave (3 peaks):			1.7	RPD = 20
Aroclor-1262	1	10.139	-0.002	140994	1.0	1	10.434	0.000	33001	0.6
Aroclor-1262	2	10.458	0.000	136749	1.3	2	10.879	-0.006	345300	7.7
Aroclor-1262	3	10.833	0.000	393984	1.4	3	11.156	-0.001	164001	1.6
Aroclor-1262	4	11.346	-0.003	83990	0.8	4	11.677	-0.002	53305	1.3
Aroclor-1262	5	11.424	0.001	46667	0.4	5	12.520	0.042	907763	22.2
Total Col1Ave (5 peaks):				1.0		Total Col2Ave (5 peaks):			6.7	RPD = 149*
Corrected Ave (4 peaks):				0.9		Corrected Ave (4 peaks):			2.8	RPD = 105*
Aroclor-1268	1	11.346	-0.004	83990	0.3	1	11.677	-0.003	53305	0.5
Aroclor-1268	2	11.424	0.003	46667	0.2	2	11.738	-0.008	101927	1.1

Aroclor-1268	3	11.808	-0.001	102968	0.4	3	12.146	0.002	62170	0.7
Aroclor-1268	4	12.583	-0.016	1761016	2.3	4	12.966	0.001	77876	0.3

Total Col1Ave (4 peaks): 0.8 Total Col2Ave (4 peaks): 0.7 RPD = 19

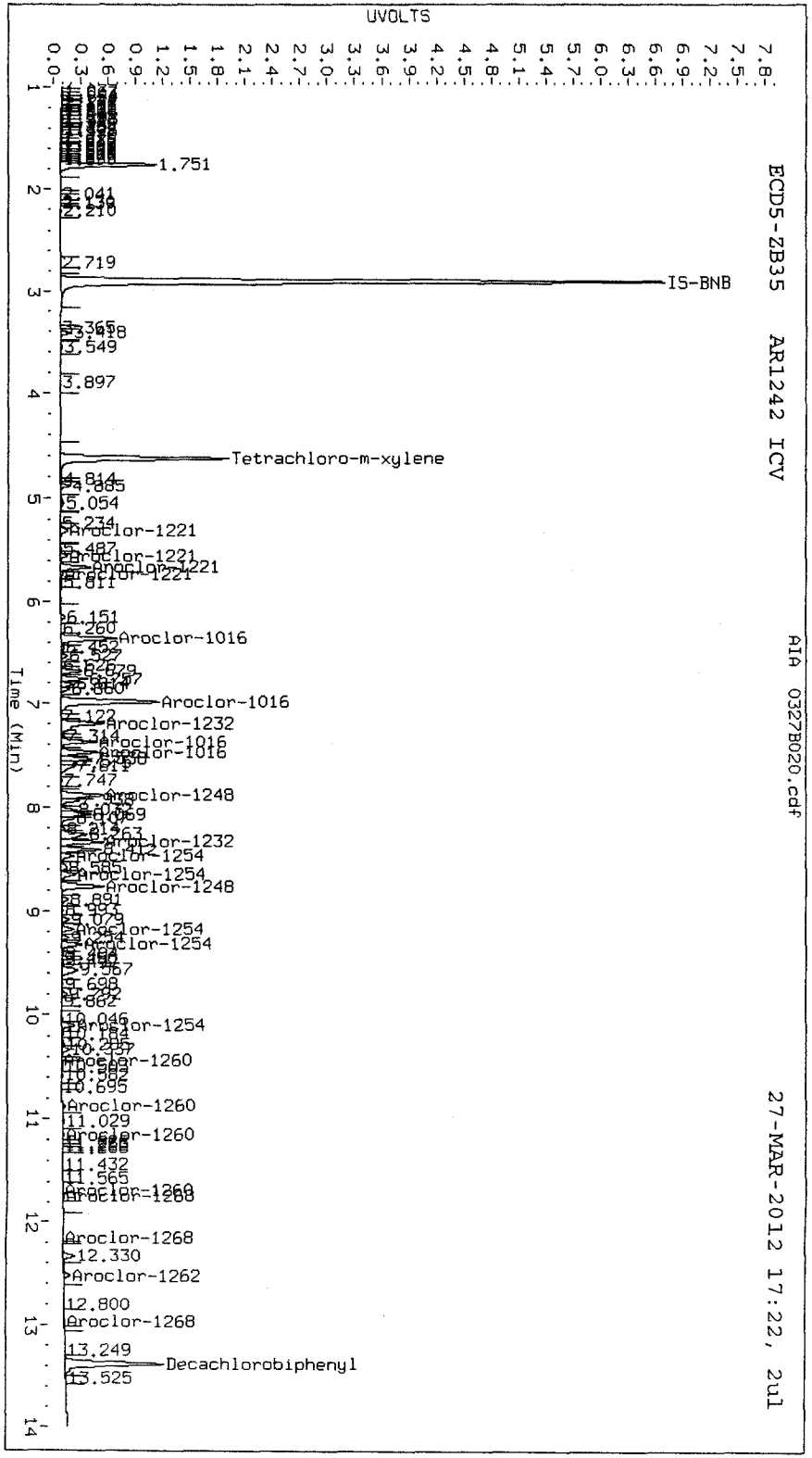
Corrected Ave (3 peaks): 0.3 Corrected Ave (3 peaks): 0.5 RPD = 56*

Total PCB Area Col1 (4.721 - 12.905) = 245404367 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 117270290 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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27-MAR-2012 17:22, 2ul
Time (Min)
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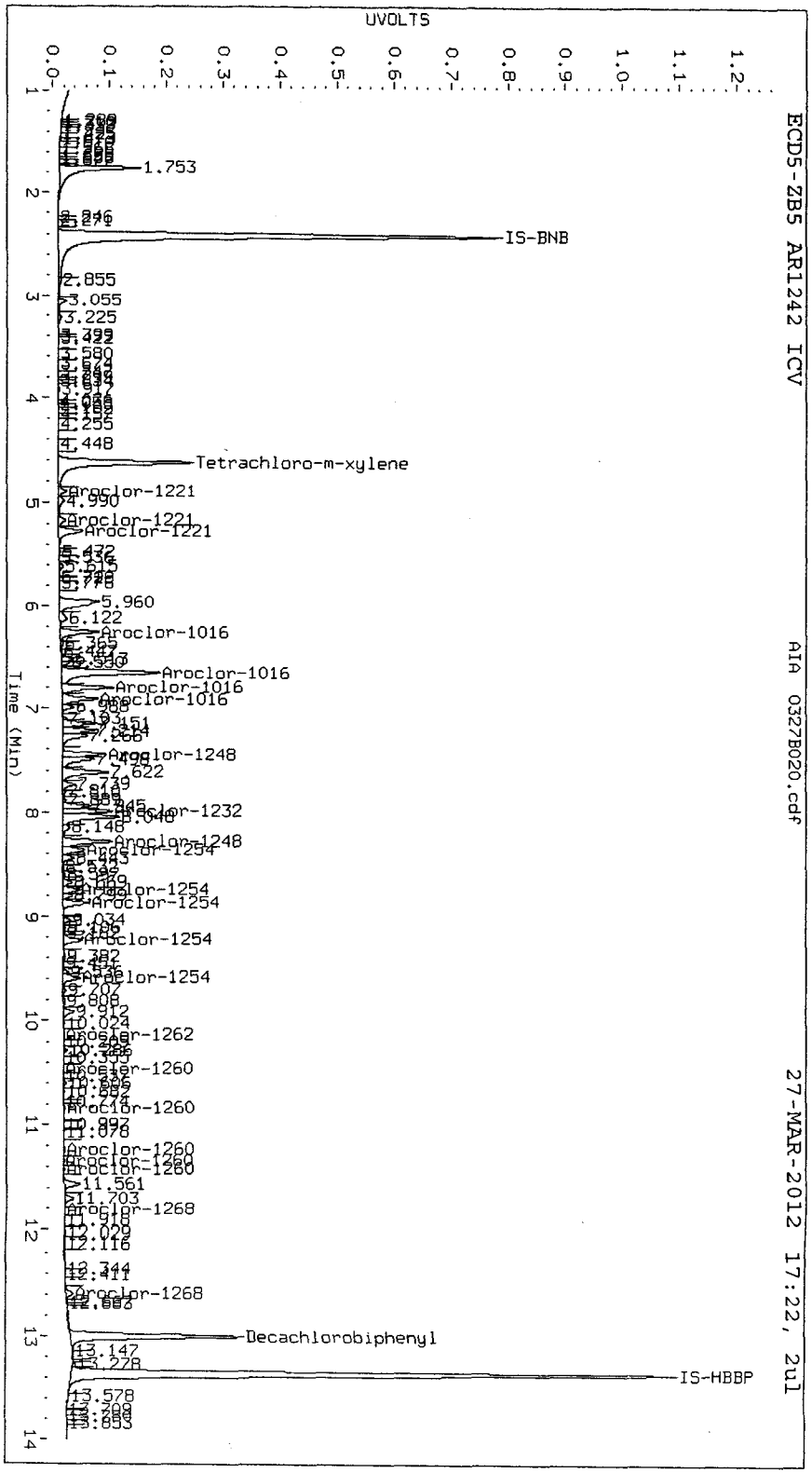
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
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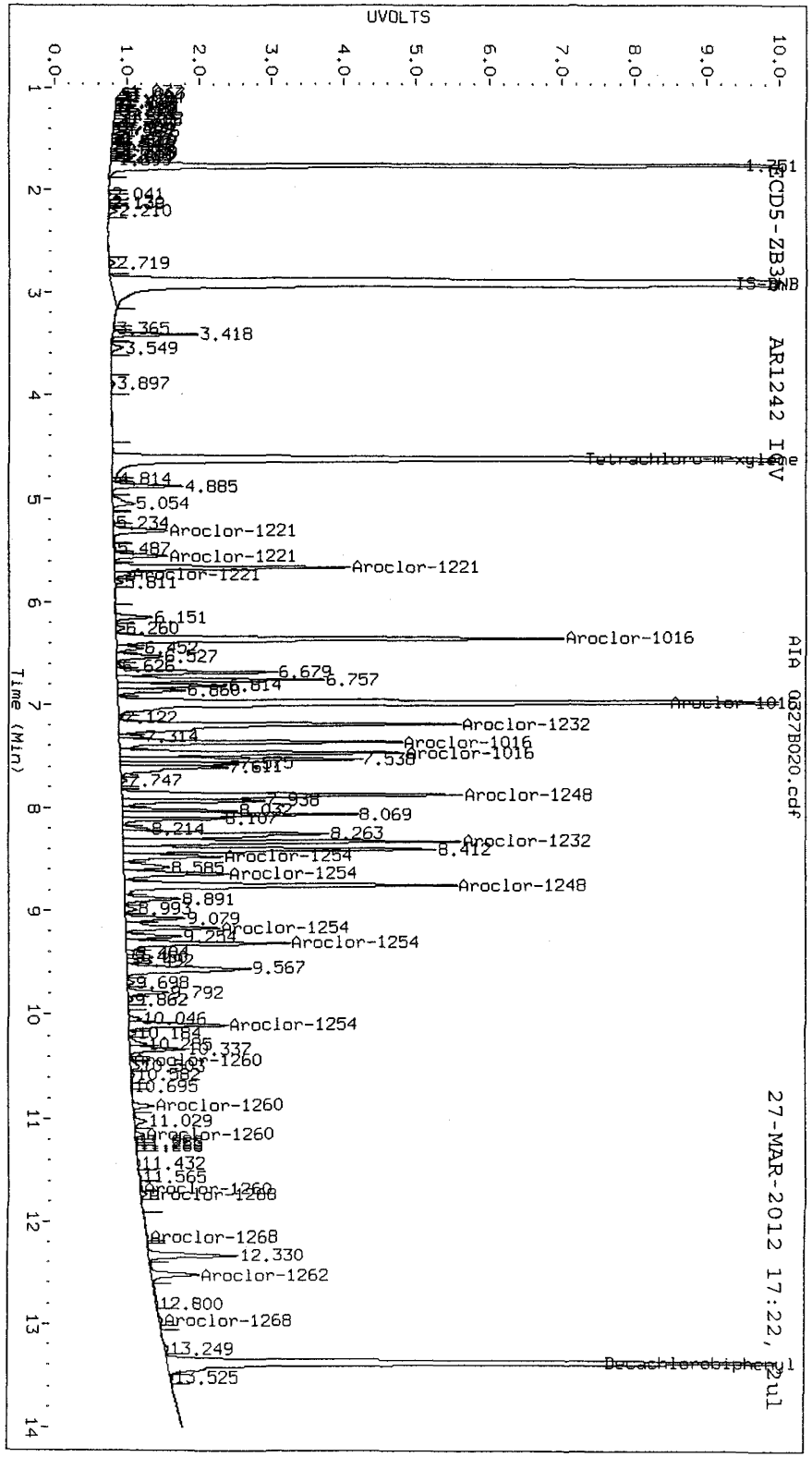
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Tetrachloro-m-xylene
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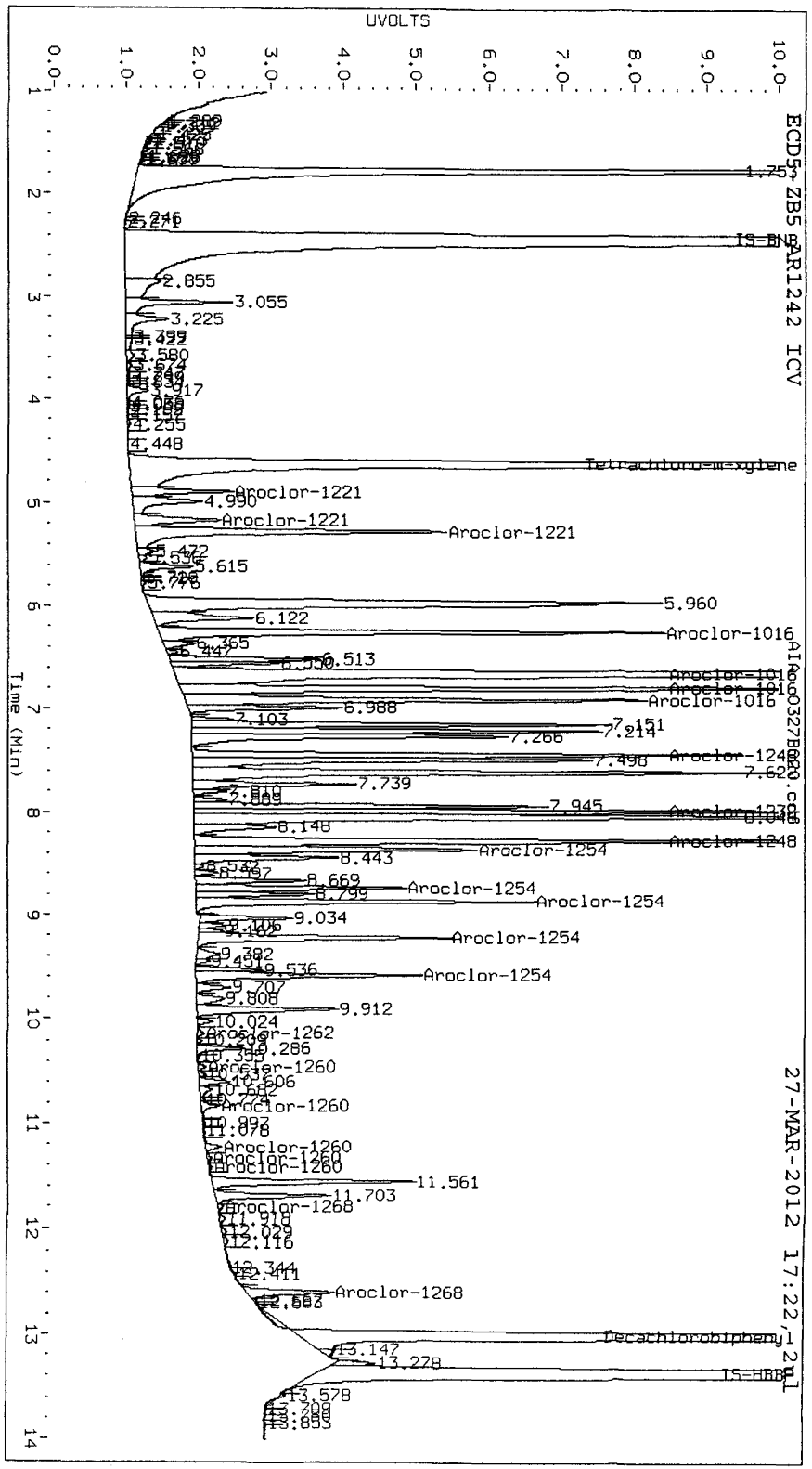
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS=HRB

L017:001165

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B021.d
Data file 2: 20120327.B/ical-2.b/0327B021.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 ICV
Client ID:
Injection Date: 27-MAR-2012 17:41
Ical Date: 27-MAR-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
4.621	0.000	40296431	4.619	-0.001	22950372	20.8	20.0	4.0	Tetrachloro-m-xylene
13.005	-0.001	45806443	13.379	-0.001	15717338	20.0	19.8	1.3	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	52.0	49.9
Decachlorobiphenyl	50.0	49.4

JL 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	133736565	6.7
Hexabromobiphenyl	146489015	156295082	6.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	81367674	11.1
Hexabromobiphenyl	55066880	59832601	8.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.253	-0.001	4674776	96.8	1	6.356	-0.002	4169755	96.0
Aroclor-1016	2	6.651	-0.003	20601972	125.7	2	6.980	-0.005	10389663	120.4
Aroclor-1016	3	6.803	0.001	7236028	112.3	3	7.366	-0.001	2291017	104.3
Aroclor-1016	4	6.911	-0.001	5142102	111.4	4	7.472	-0.002	6937772	289.7
Total Col1Ave (4 peaks):				111.5		Total Col2Ave (4 peaks):			152.6	RPD = 31
Corrected Ave (3 peaks):				106.8		Corrected Ave (3 peaks):			106.9	RPD = 0
Aroclor-1221	1	4.899	0.001	2114398	267.8	1	5.320	0.016	437121	33.7
Aroclor-1221	2	5.162	-0.009	890501	57.9	2	5.551	0.000	182072	23.8
Aroclor-1221	3	5.275	0.000	1818507	35.6	3	5.664	0.001	840677	36.3
Aroclor-1221	NS	---			----	4	5.727	-0.004	45920	11.0
Total Col1Ave (3 peaks):				120.5		Total Col2Ave (4 peaks):			26.2	RPD = 129*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			22.8	
Aroclor-1232	1	6.253	-0.001	4674776	230.1	1	6.356	-0.002	4169755	226.2
Aroclor-1232	2	6.651	-0.003	20601972	305.8	2	6.980	-0.004	10389663	302.6
Aroclor-1232	3	6.803	0.001	7236028	269.1	3	7.191	-0.001	2616922	221.3
Aroclor-1232	4	7.993	0.000	17943986	720.5	4	8.336	-0.001	8593952	686.6
Total Col1Ave (4 peaks):				381.4		Total Col2Ave (4 peaks):			359.2	RPD = 6
Corrected Ave (3 peaks):				268.3		Corrected Ave (3 peaks):			250.0	RPD = 7
Aroclor-1242	1	6.253	-0.001	4674776	123.3	1	6.356	-0.002	4169755	129.0
Aroclor-1242	2	6.651	-0.003	20601972	162.0	2	6.980	-0.004	10389663	157.6
Aroclor-1242	3	6.803	0.002	7236028	144.7	3	7.191	-0.001	2616922	99.0
Aroclor-1242	4	7.993	0.000	17943986	406.8	4	8.336	-0.001	8593952	389.6
Total Col1Ave (4 peaks):				209.2		Total Col2Ave (4 peaks):			193.8	RPD = 8
Corrected Ave (3 peaks):				143.4		Corrected Ave (3 peaks):			128.5	RPD = 11
Aroclor-1248	1	6.651	0.001	20601972	258.2	1	6.980	-0.001	10389663	252.2
Aroclor-1248	2	7.449	0.000	14420946	244.1	2	7.884	-0.001	7663829	239.2
Aroclor-1248	3	7.993	0.000	17943986	238.3	3	8.336	-0.001	8593952	234.3
Aroclor-1248	4	8.284	0.000	17578691	235.0	4	8.758	0.000	9108007	229.9
Total Col1Ave (4 peaks):				243.9		Total Col2Ave (4 peaks):			238.9	RPD = 2
Corrected Ave (3 peaks):				239.1		Corrected Ave (3 peaks):			234.5	RPD = 2
Aroclor-1254	1	8.366	-0.002	11198450	100.4	1	8.476	-0.001	2864946	94.1
Aroclor-1254	2	8.739	0.000	7172132	100.5	2	8.649	0.000	3026349	78.4
Aroclor-1254	3	8.876	0.000	11828448	87.8	3	9.171	0.000	2971069	100.1
Aroclor-1254	4	9.228	0.003	8930308	60.9	4	9.321	0.000	4963362	78.2
Aroclor-1254	5	9.591	0.005	8641893	89.3	5	10.100	-0.004	3297703	86.3
Total Col1Ave (5 peaks):				87.8		Total Col2Ave (5 peaks):			87.4	RPD = 0
Corrected Ave (4 peaks):				84.6		Corrected Ave (4 peaks):			84.3	RPD = 0
Aroclor-1260	1	10.458	-0.002	337535	3.7	1	10.435	0.000	163317	4.8
Aroclor-1260	2	10.832	-0.002	896976	4.0	2	10.880	-0.005	434474	10.7
Aroclor-1260	3	11.233	-0.001	344320	2.9	3	11.157	-0.001	330438	4.0
Aroclor-1260	4	11.348	-0.002	311697	6.3	4	11.678	-0.001	139745	6.0
Aroclor-1260	5	11.422	-0.002	308415	5.2	NS	---			----
Total Col1Ave (5 peaks):				4.4		Total Col2Ave (4 peaks):			6.4	RPD = 36
Corrected Ave (4 peaks):				3.9		Corrected Ave (3 peaks):			4.9	RPD = 23
Aroclor-1262	1	10.141	-0.001	473886	3.4	1	10.435	0.000	163317	3.1
Aroclor-1262	2	10.458	0.000	337535	3.2	2	10.880	-0.005	434474	9.8
Aroclor-1262	3	10.832	-0.001	896976	3.1	3	11.157	0.000	330438	3.3
Aroclor-1262	4	11.348	-0.001	311697	3.2	4	11.678	0.000	139745	3.6
Aroclor-1262	5	11.422	-0.001	308415	2.8	5	12.520	0.042	920980	22.7
Total Col1Ave (5 peaks):				3.1		Total Col2Ave (5 peaks):			8.5	RPD = 92*
Corrected Ave (4 peaks):				3.1		Corrected Ave (4 peaks):			4.9	RPD = 47*
Aroclor-1268	1	11.348	-0.003	311697	1.1	1	11.678	-0.001	139745	1.3
Aroclor-1268	2	11.422	0.001	308415	1.1	2	11.740	-0.006	199866	2.1

Aroclor-1268 3	11.817	0.009	198985	0.8	3	12.151	0.007	51305	0.6
Aroclor-1268 4	12.583	-0.016	1705214	2.2	4	12.969	0.004	86313	0.3

Total Col1Ave (4 peaks): 1.3 Total Col2Ave (4 peaks): 1.1 RPD = 18

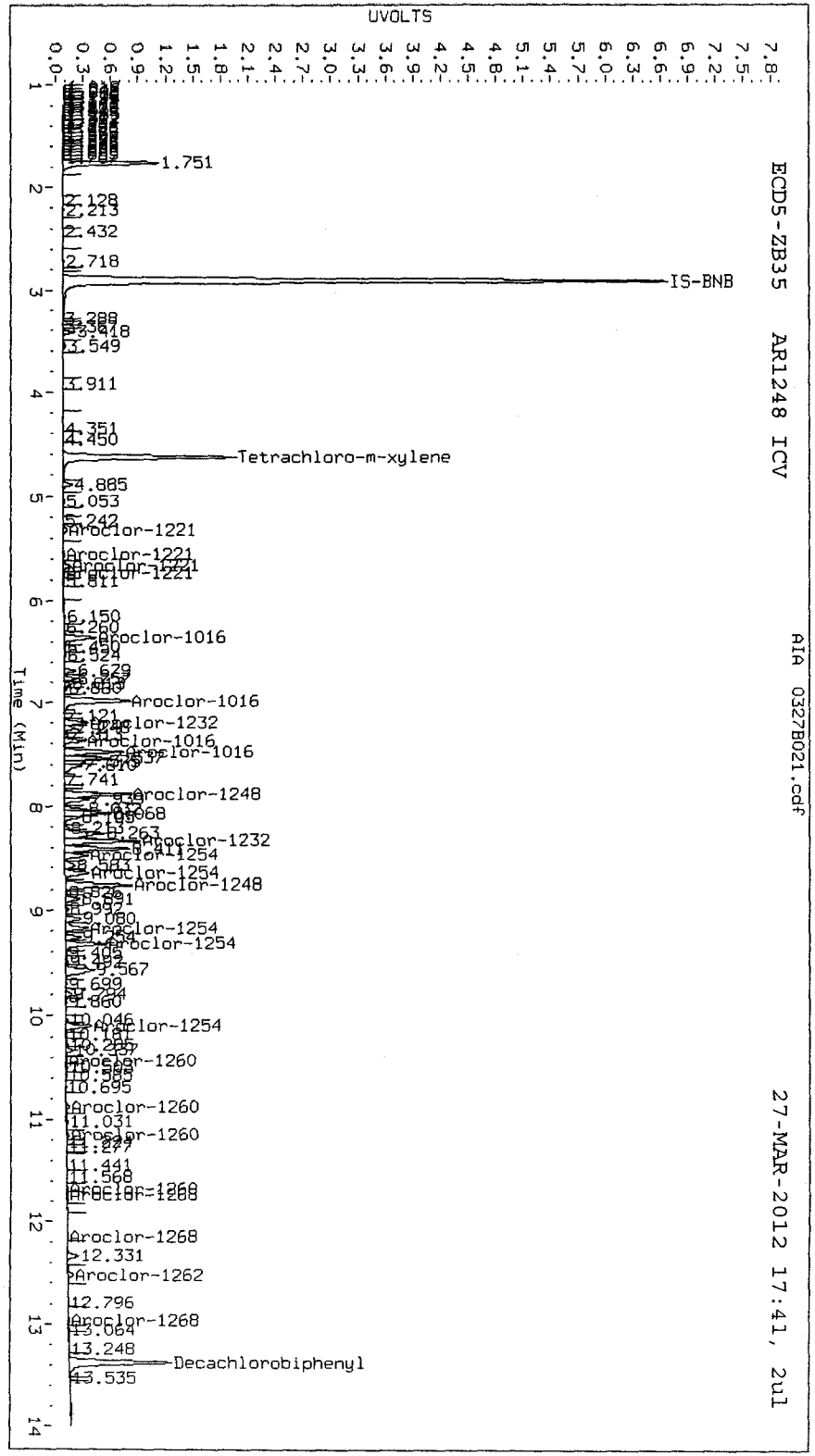
Corrected Ave (3 peaks): 1.0 Corrected Ave (3 peaks): 0.8 RPD = 26

Total PCB Area Col1 (4.721 - 12.905) = 294217822 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 133320699 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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27-MAR-2012 17:41, 2ul
UVOLTS
Time (Min)
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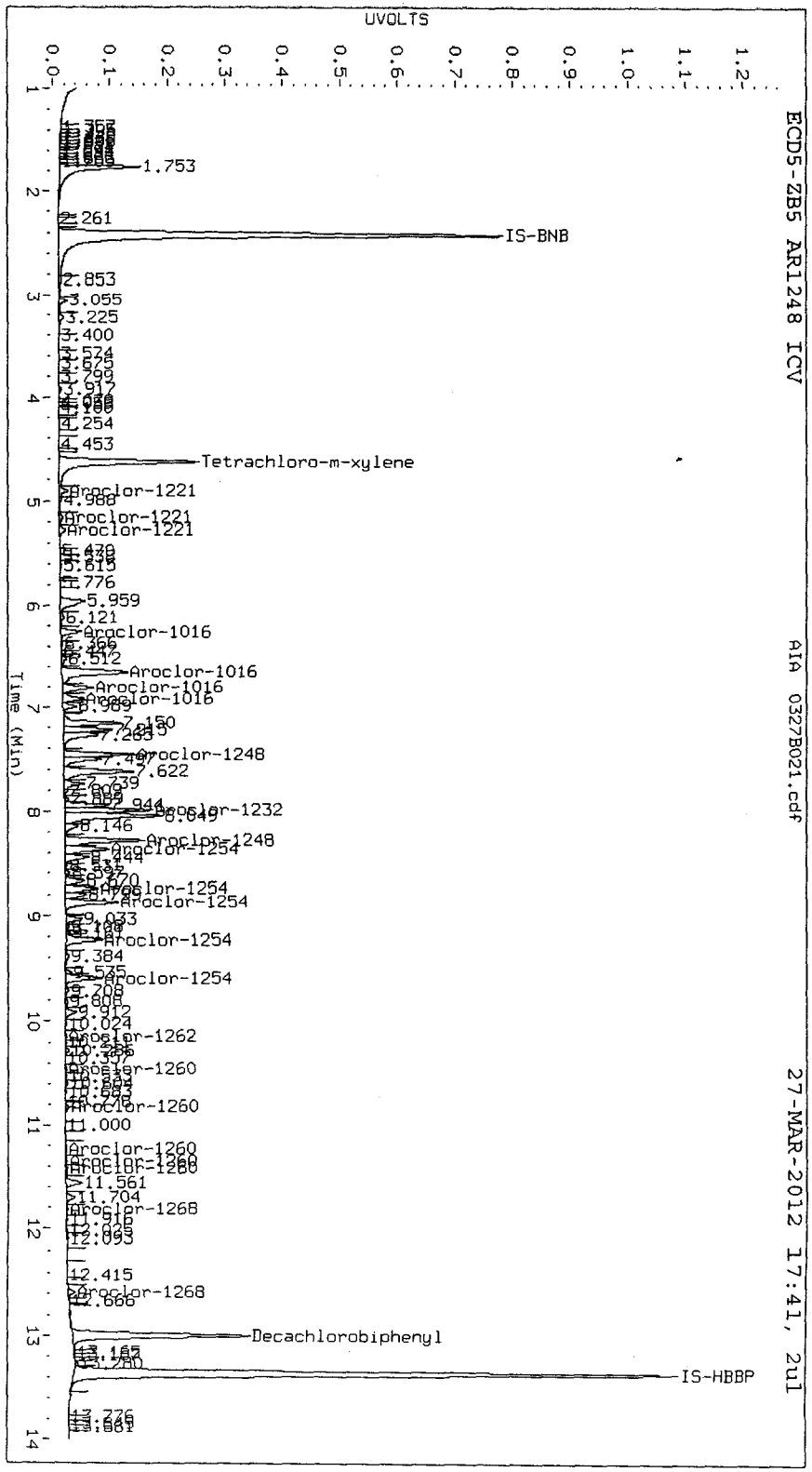
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl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UVOLTS
Time (Min)
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IS-BNB
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Aroclor-1016
Aroclor-1248
Aroclor-1232
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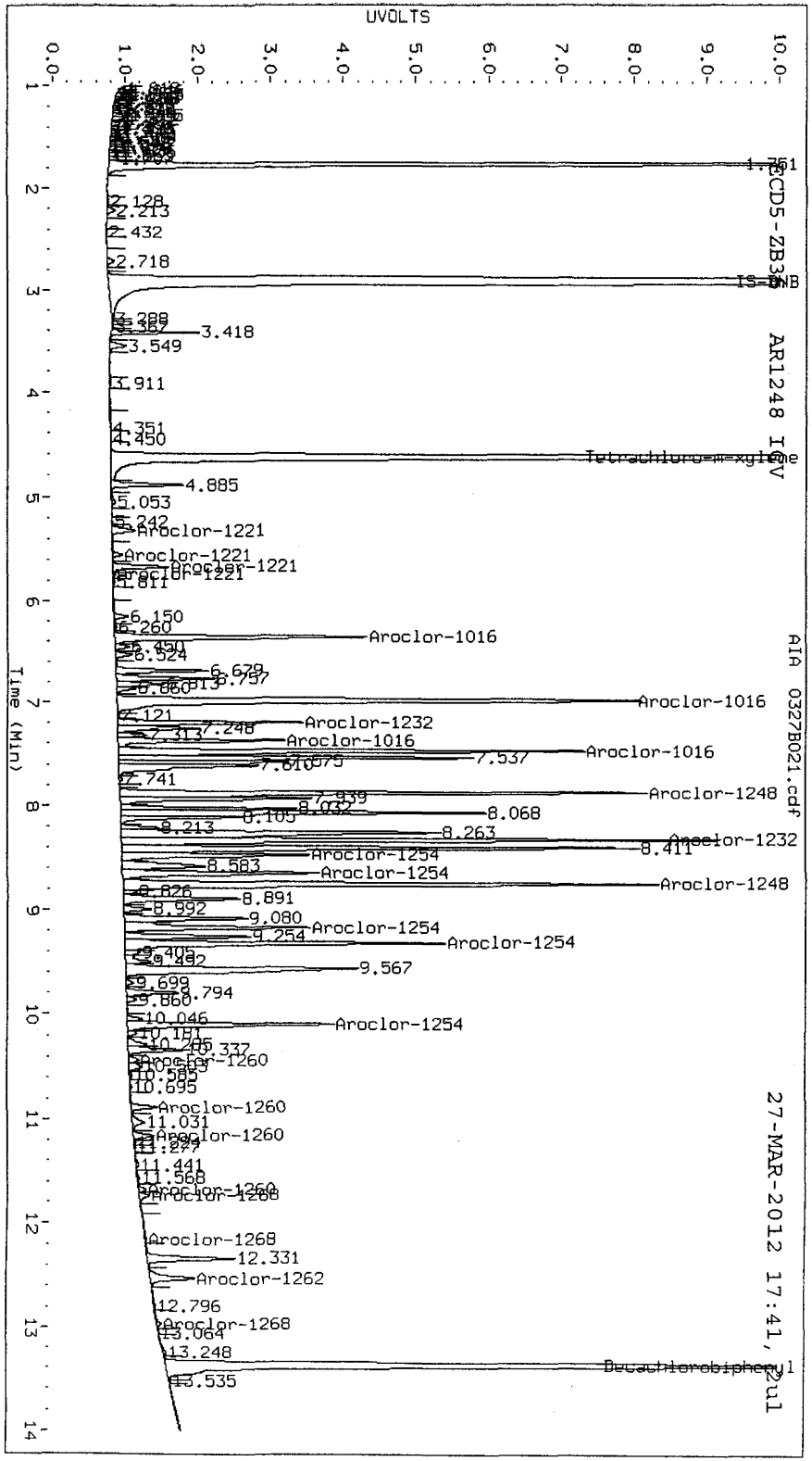
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl
IS-HBBP

U017 : 001 78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AR1248 ICV
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2ul
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
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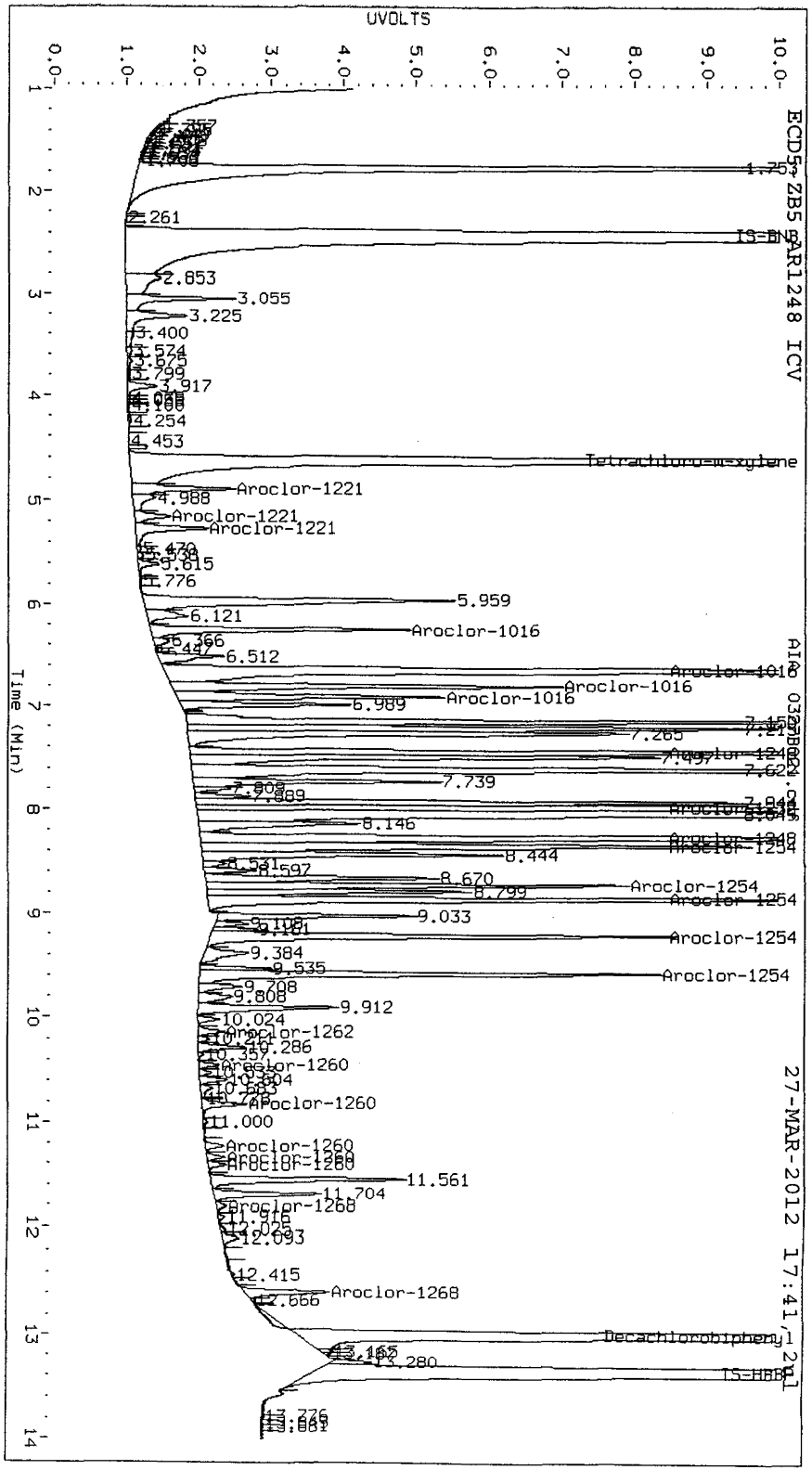
Aroclor-1260
Aroclor-1262
Aroclor-1268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Aroclor-1260
Aroclor-1262
Aroclor-1268

U017 : 061 71

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B022.d
Data file 2: 20120327.B/ical-2.b/0327B022.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 ICV
Client ID:
Injection Date: 27-MAR-2012 18:00
Ical Date: 27-MAR-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
4.621	0.001	41117606	4.621	0.001	23385504	20.6	19.8	3.9	Tetrachloro-m-xylene
13.004	-0.001	47226981	13.379	-0.001	16129504	19.8	19.5	1.7	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	51.4	49.5
Decachlorobiphenyl	49.6	48.7

JL 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	137865693	10.0
Hexabromobiphenyl	146489015	162584924	11.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	83687352	14.3
Hexabromobiphenyl	55066880	62227353	13.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.254	0.000	162609	3.3	1	6.358	0.000	179052	4.0
Aroclor-1016	2	6.645	-0.008	799853	4.7	2	6.976	-0.009	406024	4.6
Aroclor-1016	3	6.809	0.006	416439	6.3	3	7.367	0.000	72792	3.2
Aroclor-1016	4	6.913	0.001	359994	7.6	4	7.471	-0.003	4822832	195.8
Total Col1Ave (4 peaks):				5.5	Total Col2Ave (4 peaks):				51.9	RPD = 162*
Corrected Ave (3 peaks):				4.8	Corrected Ave (3 peaks):				3.9	RPD = 19
Aroclor-1221	1	4.899	0.000	2918424	358.6	1	5.325	0.021	314108	23.6
Aroclor-1221	2	5.158	-0.013	709858	44.8	2	5.559	0.007	19401	2.5
Aroclor-1221	3	5.276	0.000	245359	4.7	3	5.668	0.004	115064	4.8
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				136.0	Total Col2Ave (3 peaks):				10.3	RPD = 172*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	6.254	0.000	162609	7.8	1	6.358	0.000	179052	9.4
Aroclor-1232	2	6.645	-0.008	799853	11.5	2	6.976	-0.008	406024	11.5
Aroclor-1232	3	6.809	0.007	416439	15.0	3	7.193	0.001	80926	6.7
Aroclor-1232	4	7.994	0.001	9384727	365.6	4	8.337	0.000	4614429	358.4
Total Col1Ave (4 peaks):				100.0	Total Col2Ave (4 peaks):				96.5	RPD = 4
Corrected Ave (3 peaks):				11.4	Corrected Ave (3 peaks):				9.2	RPD = 22
Aroclor-1242	1	6.254	0.000	162609	4.2	1	6.358	0.000	179052	5.4
Aroclor-1242	2	6.645	-0.009	799853	6.1	2	6.976	-0.008	406024	6.0
Aroclor-1242	3	6.809	0.007	416439	8.1	3	7.193	0.000	80926	3.0
Aroclor-1242	4	7.994	0.001	9384727	206.4	4	8.337	-0.001	4614429	203.4
Total Col1Ave (4 peaks):				56.2	Total Col2Ave (4 peaks):				54.4	RPD = 3
Corrected Ave (3 peaks):				6.1	Corrected Ave (3 peaks):				4.8	RPD = 24
Aroclor-1248	1	6.645	-0.004	799853	9.7	1	6.976	-0.005	406024	9.6
Aroclor-1248	2	7.448	0.000	7531352	123.6	2	7.886	0.001	3065223	93.0
Aroclor-1248	3	7.994	0.001	9384727	120.9	3	8.337	0.000	4614429	122.3
Aroclor-1248	4	8.289	0.005	6492134	84.2	4	8.743	-0.016	5305024	130.2
Total Col1Ave (4 peaks):				84.6	Total Col2Ave (4 peaks):				88.8	RPD = 5
Corrected Ave (3 peaks):				71.6	Corrected Ave (3 peaks):				75.0	RPD = 5
Aroclor-1254	1	8.367	-0.001	29909996	260.1	1	8.477	0.001	8007009	255.8
Aroclor-1254	2	8.739	0.000	19349636	263.1	2	8.650	0.001	10131366	255.2
Aroclor-1254	3	8.876	0.000	35812034	258.0	3	9.172	0.000	7785394	255.1
Aroclor-1254	4	9.225	0.000	39500031	261.1	4	9.322	0.001	16416618	251.6
Aroclor-1254	5	9.587	0.000	25631339	256.9	5	10.105	0.001	9881971	251.5
Total Col1Ave (5 peaks):				259.8	Total Col2Ave (5 peaks):				253.9	RPD = 2
Corrected Ave (4 peaks):				259.0	Corrected Ave (4 peaks):				253.4	RPD = 2
Aroclor-1260	1	10.459	-0.001	2118627	22.4	1	10.434	-0.001	606352	17.3
Aroclor-1260	2	10.832	-0.002	5135700	22.1	2	10.879	-0.006	4382850	103.4
Aroclor-1260	3	11.232	-0.002	5102086	40.6	3	11.156	-0.001	2385432	27.8
Aroclor-1260	4	11.349	-0.001	282978	5.5	4	11.678	-0.001	346965	14.2
Aroclor-1260	5	11.422	-0.002	251922	4.1	NS	---			----
Total Col1Ave (5 peaks):				18.9	Total Col2Ave (4 peaks):				40.7	RPD = 73*
Corrected Ave (4 peaks):				13.5	Corrected Ave (3 peaks):				19.8	RPD = 38
Aroclor-1262	1	10.139	-0.003	1888896	12.9	1	10.434	0.000	606352	11.2
Aroclor-1262	2	10.459	0.001	2118627	19.4	2	10.879	-0.006	4382850	95.0
Aroclor-1262	3	10.832	-0.001	5135700	17.3	3	11.156	0.000	2385432	22.7
Aroclor-1262	4	11.349	-0.001	282978	2.8	4	11.678	0.000	346965	8.5
Aroclor-1262	5	11.422	-0.001	251922	2.2	5	12.521	0.042	1052078	24.9
Total Col1Ave (5 peaks):				10.9	Total Col2Ave (5 peaks):				32.5	RPD = 99*
Corrected Ave (4 peaks):				8.8	Corrected Ave (4 peaks):				16.8	RPD = 63*
Aroclor-1268	1	11.349	-0.002	282978	0.9	1	11.678	-0.001	346965	3.2
Aroclor-1268	2	11.422	0.001	251922	0.8	2	11.737	-0.008	1611792	16.2

Aroclor-1268 3	11.820	0.012	193852	0.8	3	12.154	0.010	30800	0.4
Aroclor-1268 4	12.581	-0.018	1907271	2.4	4	12.966	0.001	70422	0.3

Total Col1Ave (4 peaks): 1.2 Total Col2Ave (4 peaks): 5.0 RPD = 120*

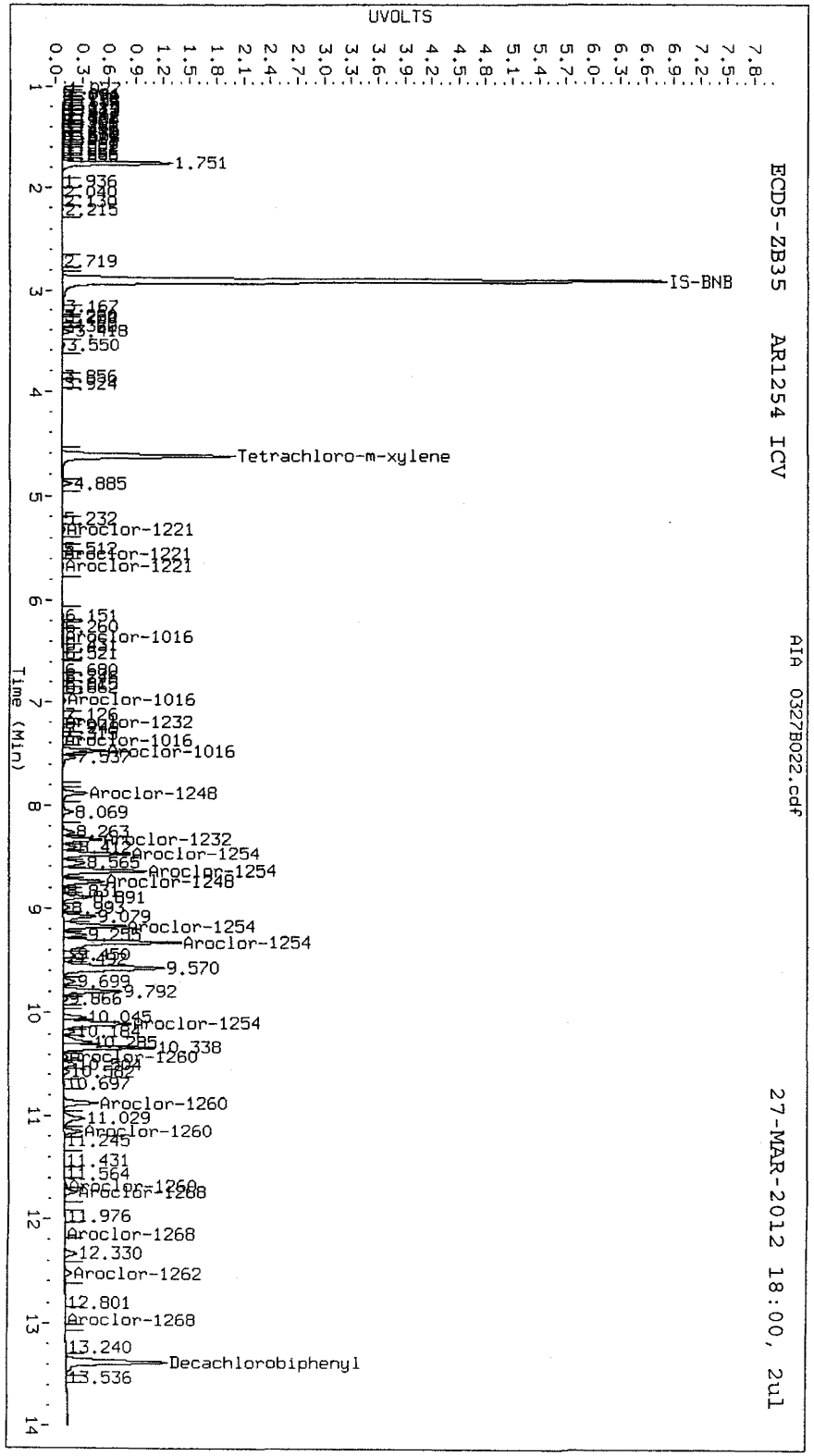
Corrected Ave (3 peaks): 0.9 Corrected Ave (3 peaks): 1.3 RPD = 39

Total PCB Area Col1 (4.721 - 12.905) = 392970373 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 162842063 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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27-MAR-2012 18:00, 2ul
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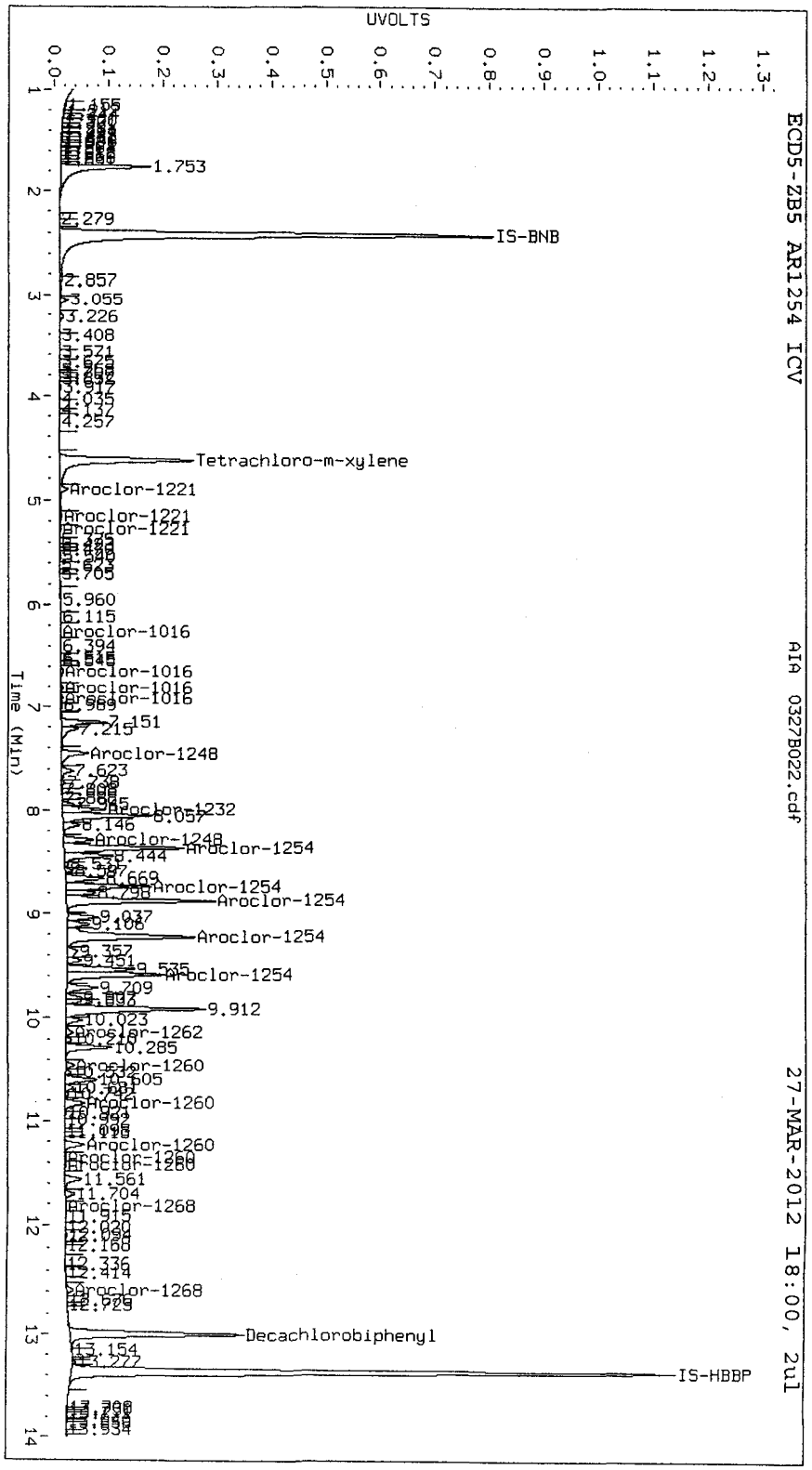
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl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IS-BNB
Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1248
Aroclor-1232
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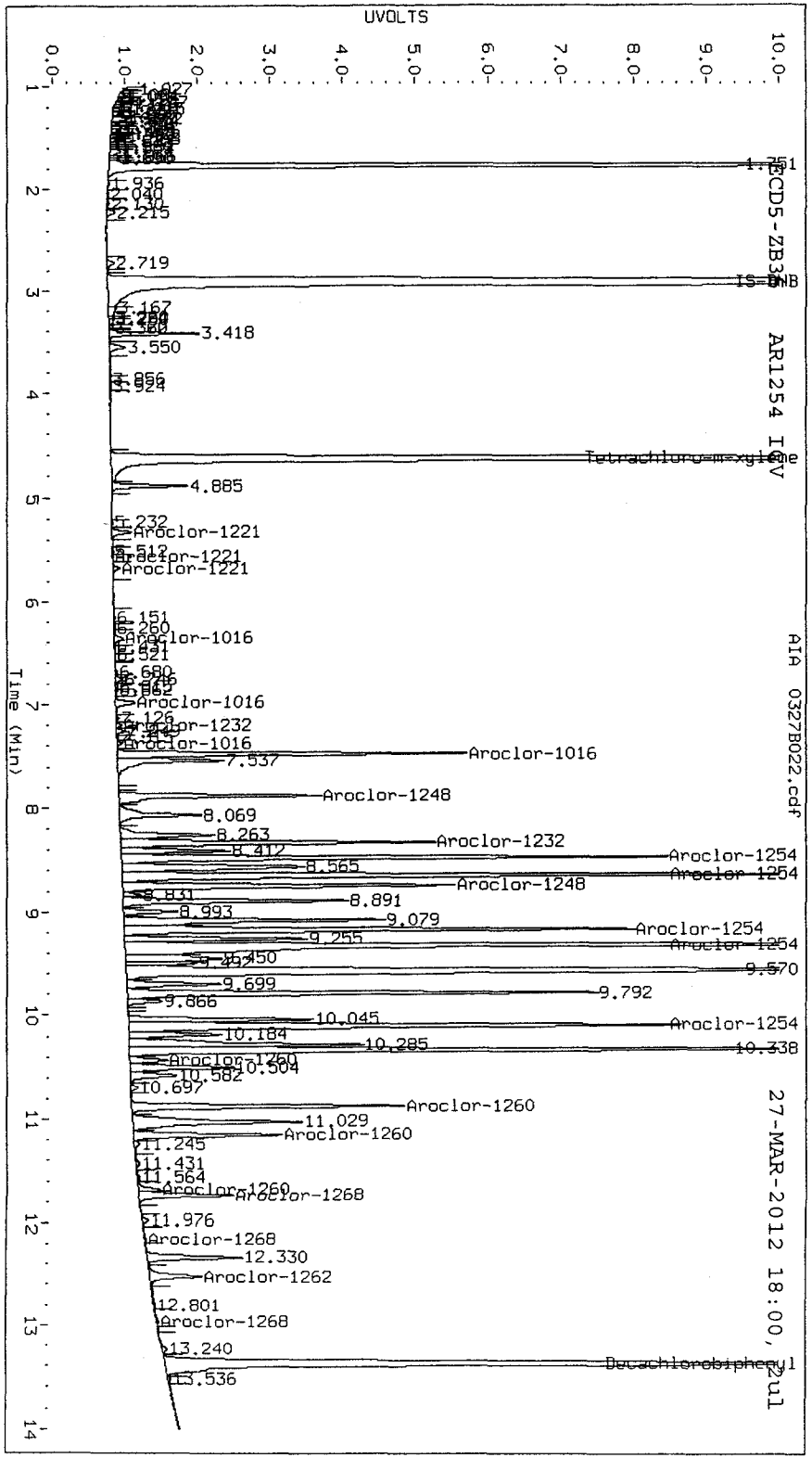
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

U017:001175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Tetrachloro-m-xylene
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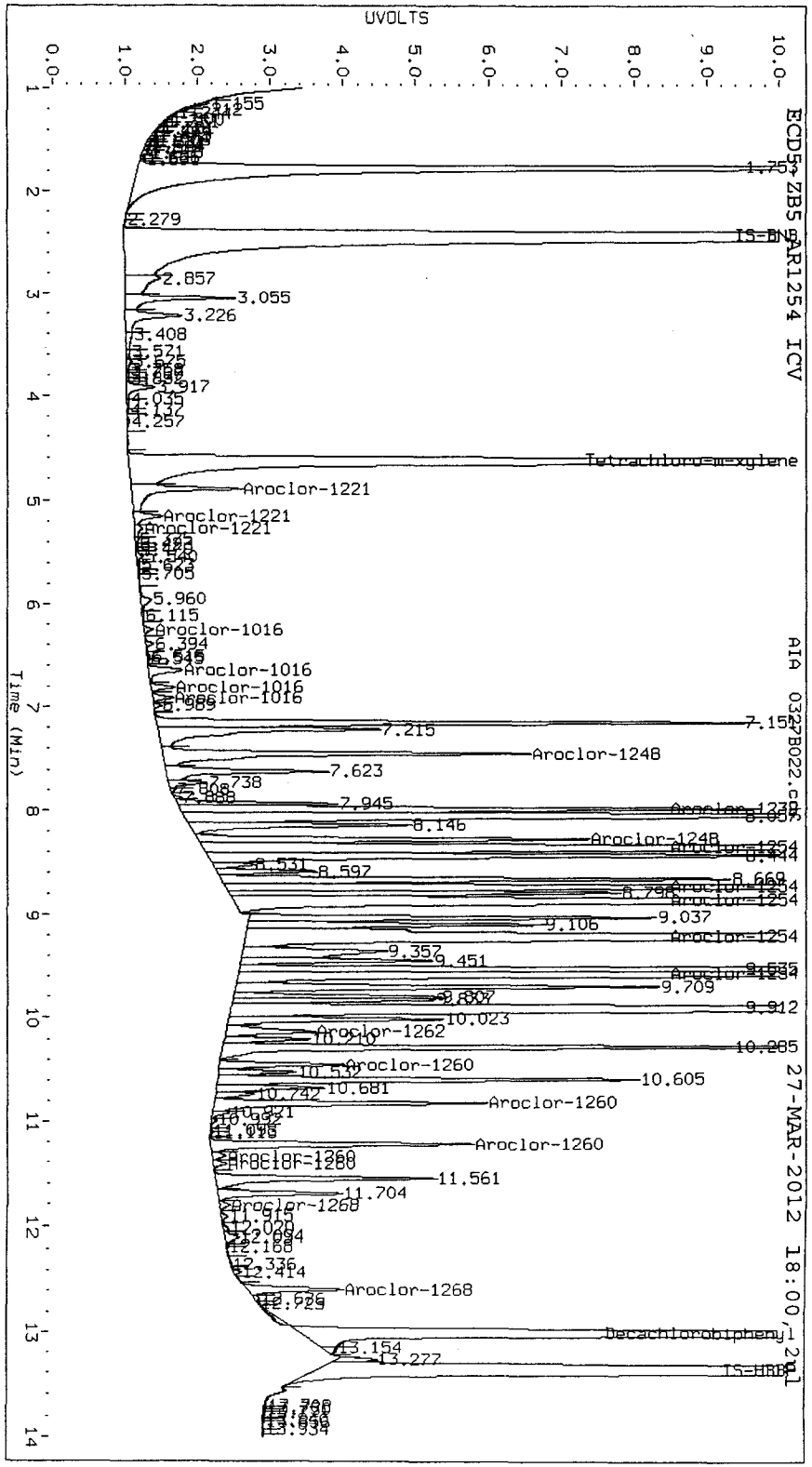
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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AR1254 ICV
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27-MAR-2012 18:00, 2ul
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B023.d
Data file 2: 20120327.B/ical-2.b/0327B023.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 ICV
Client ID:
Injection Date: 27-MAR-2012 18:19
Ical Date: 27-MAR-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
4.620	0.000	42344429	4.620	-0.001	23606568	21.5	20.4	5.4	Tetrachloro-m-xylene
13.004	-0.001	47456249	13.379	-0.001	16134396	20.4	19.9	2.3	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	53.8	51.0
Decachlorobiphenyl	50.9	49.7

pc 03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	135674361	8.2
Hexabromobiphenyl	146489015	159208386	8.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	81994698	12.0
Hexabromobiphenyl	55066880	61008027	10.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.253	-0.001	1180790	24.1	1	6.370	0.012	1839587	42.0
Aroclor-1016	2	6.653	0.000	3239736	19.5	2	6.985	0.000	1599431	18.4
Aroclor-1016	3	6.801	-0.001	1451534	22.2	3	7.366	-0.001	429517	19.4
Aroclor-1016	4	6.912	0.000	1046773	22.4	4	7.472	-0.002	375149	15.5
Total Col1Ave (4 peaks):				22.0		Total Col2Ave (4 peaks):			23.8	RPD = 8
Corrected Ave (3 peaks):				21.3		Corrected Ave (3 peaks):			17.8	RPD = 18
Aroclor-1221	1	4.898	0.000	2001818	250.0	1	5.305	0.001	3409073	261.0
Aroclor-1221	2	5.171	0.000	4130956	264.8	2	5.552	0.001	2015604	260.9
Aroclor-1221	3	5.276	0.000	13615985	263.0	3	5.665	0.001	6064374	260.0
Aroclor-1221	NS	---			----	4	5.732	0.001	1087244	259.1
Total Col1Ave (3 peaks):				259.2		Total Col2Ave (4 peaks):			260.3	RPD = 0
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			260.0	
Aroclor-1232	1	6.253	-0.001	1180790	57.3	1	6.370	0.012	1839587	99.0
Aroclor-1232	2	6.653	0.000	3239736	47.4	2	6.985	0.001	1599431	46.2
Aroclor-1232	3	6.801	-0.001	1451534	53.2	3	7.192	0.000	709955	59.6
Aroclor-1232	4	7.994	0.000	712271	28.2	4	8.337	0.000	488572	38.7
Total Col1Ave (4 peaks):				46.5		Total Col2Ave (4 peaks):			60.9	RPD = 27
Corrected Ave (3 peaks):				42.9		Corrected Ave (3 peaks):			48.2	RPD = 12
Aroclor-1242	1	6.253	-0.001	1180790	30.7	1	6.370	0.011	1839587	56.5
Aroclor-1242	2	6.653	0.000	3239736	25.1	2	6.985	0.001	1599431	24.1
Aroclor-1242	3	6.801	-0.001	1451534	28.6	3	7.192	0.000	709955	26.7
Aroclor-1242	4	7.994	0.001	712271	15.9	4	8.337	-0.001	488572	22.0
Total Col1Ave (4 peaks):				25.1		Total Col2Ave (4 peaks):			32.3	RPD = 25
Corrected Ave (3 peaks):				23.2		Corrected Ave (3 peaks):			24.2	RPD = 4
Aroclor-1248	1	6.653	0.004	3239736	40.0	1	6.985	0.004	1599431	38.5
Aroclor-1248	2	7.448	0.000	790743	13.2	2	7.886	0.001	524444	16.2
Aroclor-1248	3	7.994	0.000	712271	9.3	3	8.337	0.000	488572	13.2
Aroclor-1248	4	8.287	0.003	1054924	13.9	4	8.754	-0.005	583014	14.6
Total Col1Ave (4 peaks):				19.1		Total Col2Ave (4 peaks):			20.6	RPD = 8
Corrected Ave (3 peaks):				12.1		Corrected Ave (3 peaks):			14.7	RPD = 19
Aroclor-1254	1	8.369	0.001	4736421	41.9	1	8.476	-0.001	1639997	53.5
Aroclor-1254	2	8.739	0.000	857591	11.8	2	8.649	0.000	1897524	48.8
Aroclor-1254	3	8.842	-0.034	6253263	45.8	3	9.171	0.000	392797	13.1
Aroclor-1254	4	9.205	-0.020	23100276	155.2	4	9.362	0.041	7578963	118.6
Aroclor-1254	5	9.534	-0.053	30351699	309.2	5	10.116	0.012	1792319	46.5
Total Col1Ave (5 peaks):				112.8		Total Col2Ave (5 peaks):			56.1	RPD = 67*
Corrected Ave (4 peaks):				63.7		Corrected Ave (4 peaks):			40.5	RPD = 45*
Aroclor-1260	1	10.459	-0.001	31632968	341.0	1	10.434	-0.001	13391293	388.9
Aroclor-1260	2	10.832	-0.002	69465140	304.8	2	10.885	0.000	13316484	320.3
Aroclor-1260	3	11.233	-0.001	23742734	193.0	3	11.156	-0.001	24355861	290.0
Aroclor-1260	4	11.349	-0.001	30863547	611.4	4	11.679	-0.001	11859299	495.6
Aroclor-1260	5	11.422	-0.002	32924173	542.6	NS	---			----
Total Col1Ave (5 peaks):				398.6		Total Col2Ave (4 peaks):			373.7	RPD = 6
Corrected Ave (4 peaks):				345.4		Corrected Ave (3 peaks):			333.1	RPD = 4
Aroclor-1262	1	10.142	0.000	36698729	255.5	1	10.434	-0.001	13391293	252.6
Aroclor-1262	2	10.459	0.000	31632968	296.1	2	10.885	0.000	13316484	294.5
Aroclor-1262	3	10.832	-0.001	69465140	239.2	3	11.156	0.000	24355861	236.6
Aroclor-1262	4	11.349	0.000	30863547	308.1	4	11.679	0.000	11859299	295.8
Aroclor-1262	5	11.422	-0.001	32924173	288.6	5	12.478	0.000	10421037	252.1
Total Col1Ave (5 peaks):				277.5		Total Col2Ave (5 peaks):			266.3	RPD = 4
Corrected Ave (4 peaks):				269.9		Corrected Ave (4 peaks):			258.9	RPD = 4
Aroclor-1268	1	11.349	-0.002	30863547	105.7	1	11.679	-0.001	11859299	111.6
Aroclor-1268	2	11.422	0.001	32924173	113.0	2	11.741	-0.005	17065903	175.1

Aroclor-1268	3	11.823	0.014	13198021	54.0	3	12.143	0.000	856107	10.0
Aroclor-1268	4	12.596	-0.003	12270967	15.8	4	12.964	-0.001	3608556	14.0

Total Col1Ave (4 peaks): 72.1 Total Col2Ave (4 peaks): 77.7 RPD = 7

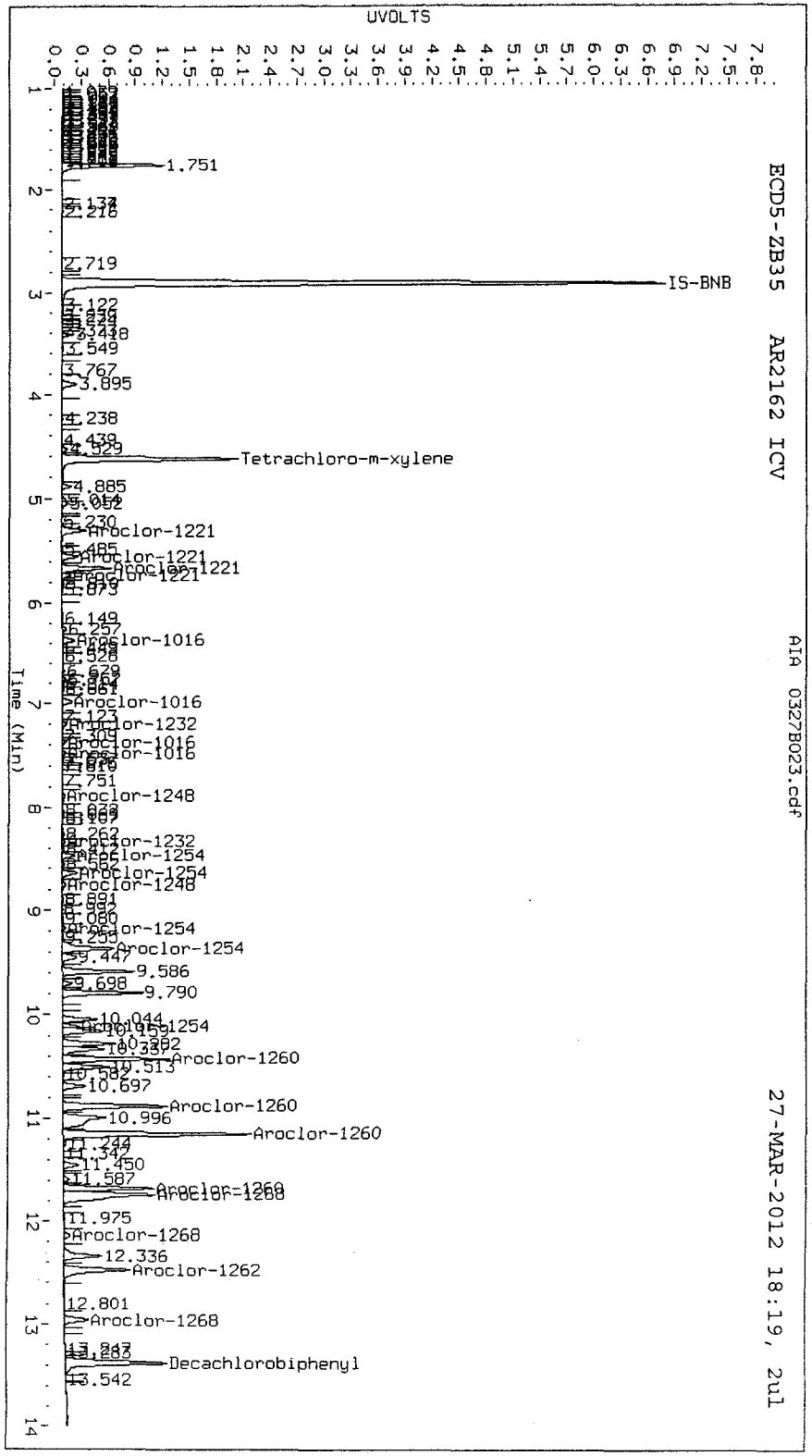
Corrected Ave (3 peaks): 58.5 Corrected Ave (3 peaks): 45.2 RPD = 26

Total PCB Area Col1 (4.721 - 12.905) = 559030743 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 206922568 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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27-MAR-2012 18:19, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
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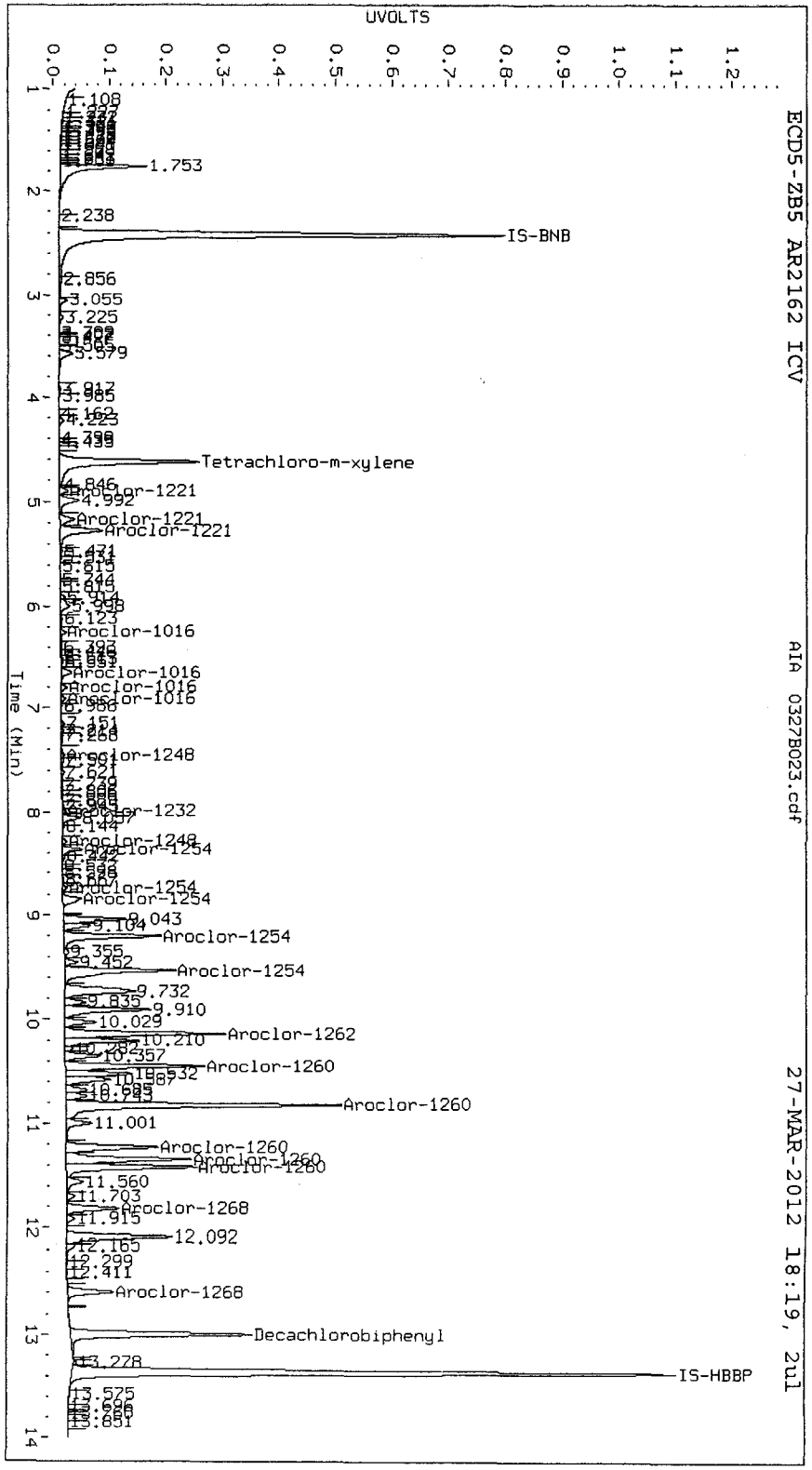
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Time (Min)
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Tetrachloro-m-xylene
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Aroclor-1221
Aroclor-1016
Aroclor-1248
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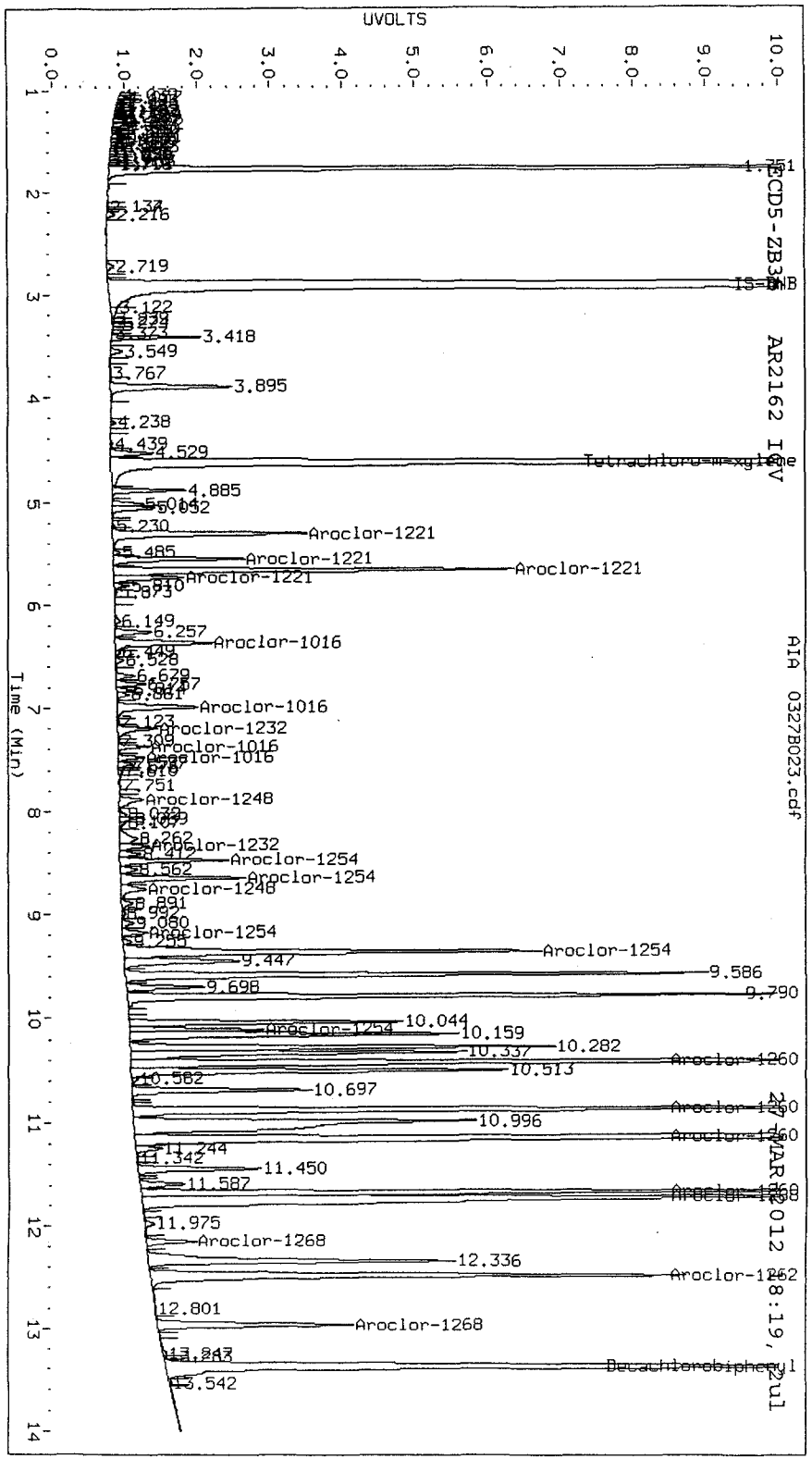
Aroclor-1262
Aroclor-1268

U017 : 001 60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Decachlorobiphenyl
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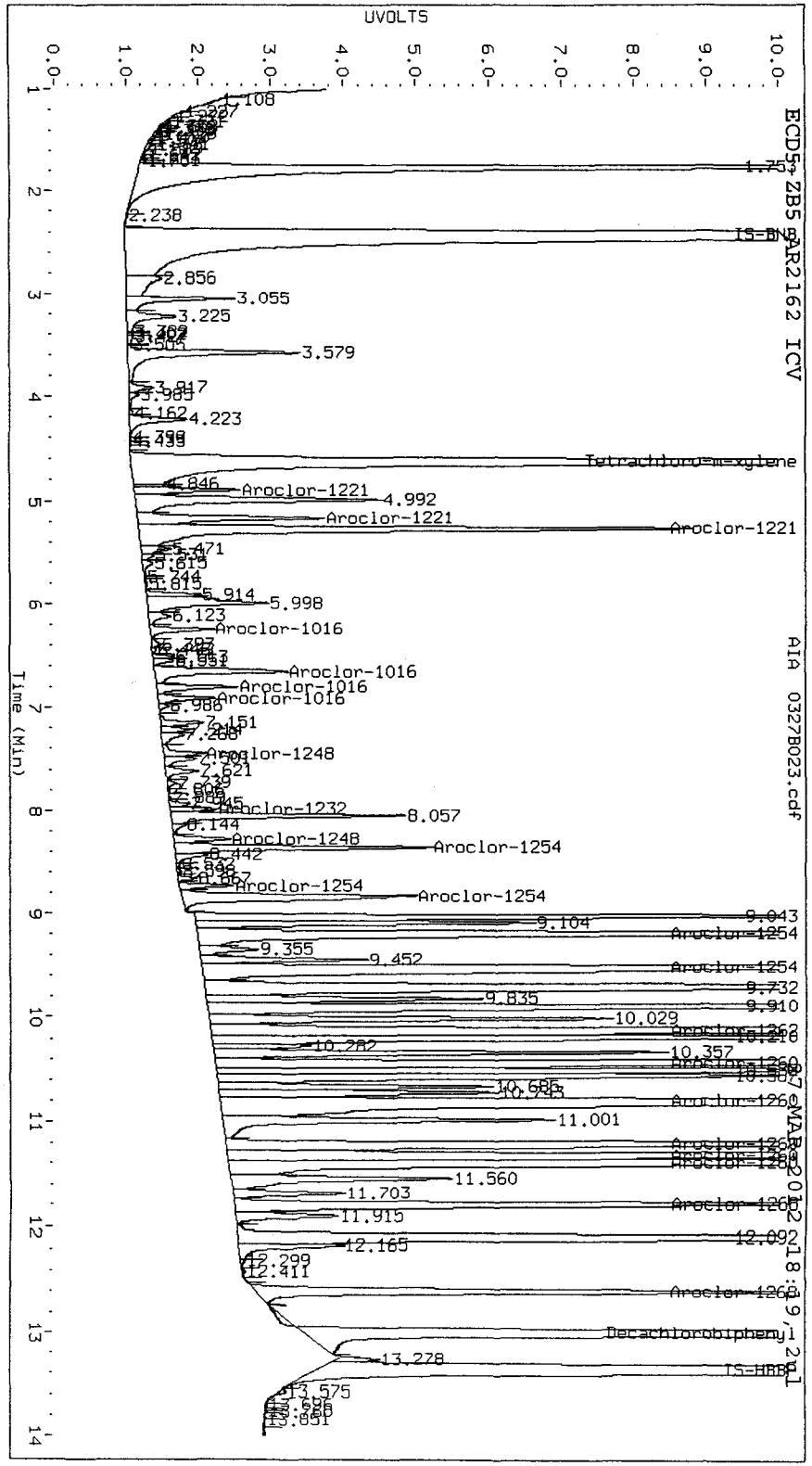
MAR 2012 18:19,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IS-HRB
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9.104
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Decachlorobiphenyl
13.278
IS-HRB
13.575
2ul
MAR 2012 18:19,

L017.00181

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/ical-1.b/0327B024.d
Data file 2: 20120327.B/ical-2.b/0327B024.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 ICV
Client ID:
Injection Date: 27-MAR-2012 18:38
Ical Date: 27-MAR-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
4.621	0.000	42036390	4.620	-0.001	23513982	21.2	19.9	6.2	Tetrachloro-m-xylene
13.005	0.000	76573037	13.379	-0.001	25519961	32.7	31.2	4.6	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	53.0	49.8
Decachlorobiphenyl	81.7	78.1

pe03/28/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	136675922	9.0
Hexabromobiphenyl	146489015	159959474	9.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	83546712	14.1
Hexabromobiphenyl	55066880	61473028	11.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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-1016	1	6.253	-0.001	5784055	117.2	1	6.358	0.000	5184671	116.2
Aroclor-1016	2	6.652	-0.001	18884909	112.7	2	6.982	-0.002	9445794	106.6
Aroclor-1016	3	6.801	-0.001	7564568	114.8	3	7.366	-0.001	2527981	112.0
Aroclor-1016	4	6.912	0.000	5555419	117.8	4	7.473	-0.001	2387892	97.1
Total Col1Ave (4 peaks):				115.6		Total Col2Ave (4 peaks):			108.0	RPD = 7
Corrected Ave (3 peaks):				114.9		Corrected Ave (3 peaks):			105.2	RPD = 9
Aroclor-1221	1	4.898	0.000	1948861	241.6	1	5.305	0.001	2145005	161.2
Aroclor-1221	2	5.170	-0.001	2943955	187.3	2	5.551	0.000	1345975	171.0
Aroclor-1221	3	5.275	-0.001	10503941	201.4	3	5.664	0.000	4877651	205.2
Aroclor-1221	NS	---			----	4	5.732	0.000	633759	148.2
Total Col1Ave (3 peaks):				210.1		Total Col2Ave (4 peaks):			171.4	RPD = 20
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			160.1	
Aroclor-1232	1	6.253	-0.001	5784055	278.6	1	6.358	0.000	5184671	274.0
Aroclor-1232	2	6.652	-0.001	18884909	274.3	2	6.982	-0.002	9445794	267.9
Aroclor-1232	3	6.801	0.000	7564568	275.3	3	7.192	0.000	3877962	319.4
Aroclor-1232	4	7.993	0.000	5852672	230.0	4	8.336	0.000	2894391	225.2
Total Col1Ave (4 peaks):				264.5		Total Col2Ave (4 peaks):			271.6	RPD = 3
Corrected Ave (3 peaks):				259.9		Corrected Ave (3 peaks):			255.7	RPD = 2
Aroclor-1242	1	6.253	-0.001	5784055	149.3	1	6.358	0.000	5184671	156.3
Aroclor-1242	2	6.652	-0.001	18884909	145.3	2	6.982	-0.001	9445794	139.5
Aroclor-1242	3	6.801	0.000	7564568	148.1	3	7.192	-0.001	3877962	142.9
Aroclor-1242	4	7.993	0.000	5852672	129.8	4	8.336	-0.001	2894391	127.8
Total Col1Ave (4 peaks):				143.1		Total Col2Ave (4 peaks):			141.6	RPD = 1
Corrected Ave (3 peaks):				141.1		Corrected Ave (3 peaks):			136.7	RPD = 3
Aroclor-1248	1	6.652	0.003	18884909	231.6	1	6.982	0.002	9445794	223.3
Aroclor-1248	2	7.448	0.000	5126386	84.9	2	7.885	0.000	3285355	99.9
Aroclor-1248	3	7.993	0.000	5852672	76.0	3	8.336	0.000	2894391	76.9
Aroclor-1248	4	8.284	0.000	6479669	84.8	4	8.759	0.001	3152840	77.5
Total Col1Ave (4 peaks):				119.3		Total Col2Ave (4 peaks):			119.4	RPD = 0
Corrected Ave (3 peaks):				81.9		Corrected Ave (3 peaks):			84.7	RPD = 3
Aroclor-1254	1	8.366	-0.002	2393660	21.0	1	8.476	-0.001	635581	20.3
Aroclor-1254	2	8.739	0.000	1304398	17.9	2	8.649	0.000	665375	16.8
Aroclor-1254	3	8.876	0.000	2354767	17.1	3	9.171	-0.001	577779	19.0
Aroclor-1254	4	9.226	0.000	1918010	12.8	4	9.320	-0.002	1196509	18.4
Aroclor-1254	5	9.590	0.003	1513440	15.3	5	10.100	-0.005	531912	13.6
Total Col1Ave (5 peaks):				16.8		Total Col2Ave (5 peaks):			17.6	RPD = 5
Corrected Ave (4 peaks):				15.8		Corrected Ave (4 peaks):			16.9	RPD = 7
Aroclor-1260	1	10.458	-0.002	2088489	22.4	1	10.433	-0.001	7085148	204.2
Aroclor-1260	2	10.832	-0.002	13934639	60.9	2	10.886	0.000	7871729	187.9
Aroclor-1260	3	11.235	0.001	429418	3.5	3	11.155	-0.002	4667084	55.2
Aroclor-1260	4	11.350	0.000	78517995	1548.1	4	11.680	0.000	28392855	1177.7
Aroclor-1260	5	11.421	-0.002	85728676	1406.3	NS	---			----
Total Col1Ave (5 peaks):				608.2		Total Col2Ave (4 peaks):			406.2	RPD = 40
Corrected Ave (4 peaks):				373.3		Corrected Ave (3 peaks):			149.1	RPD = 86*
Aroclor-1262	1	10.141	-0.001	19392833	134.4	1	10.433	-0.001	7085148	132.7
Aroclor-1262	2	10.458	-0.001	2088489	19.5	2	10.886	0.001	7871729	172.8
Aroclor-1262	3	10.832	-0.001	13934639	47.8	3	11.155	-0.001	4667084	45.0
Aroclor-1262	4	11.350	0.001	78517995	780.1	4	11.680	0.001	28392855	702.9
Aroclor-1262	5	11.421	-0.001	85728676	747.9	5	12.477	-0.001	11327703	271.9
Total Col1Ave (5 peaks):				345.9		Total Col2Ave (5 peaks):			265.0	RPD = 26
Corrected Ave (4 peaks):				237.4		Corrected Ave (4 peaks):			155.6	RPD = 42*
Aroclor-1268	1	11.350	-0.001	78517995	267.6	1	11.680	0.000	28392855	265.2
Aroclor-1268	2	11.421	0.000	85728676	292.7	2	11.745	-0.001	28790320	293.1

Aroclor-1268	3	11.807	-0.001	58901919	240.0	3	12.144	0.000	20318527	236.2
Aroclor-1268	4	12.598	-0.001	174091400	223.0	4	12.965	0.000	57910701	222.8

Total Col1Ave (4 peaks): 255.8 Total Col2Ave (4 peaks): 254.4 RPD = 1

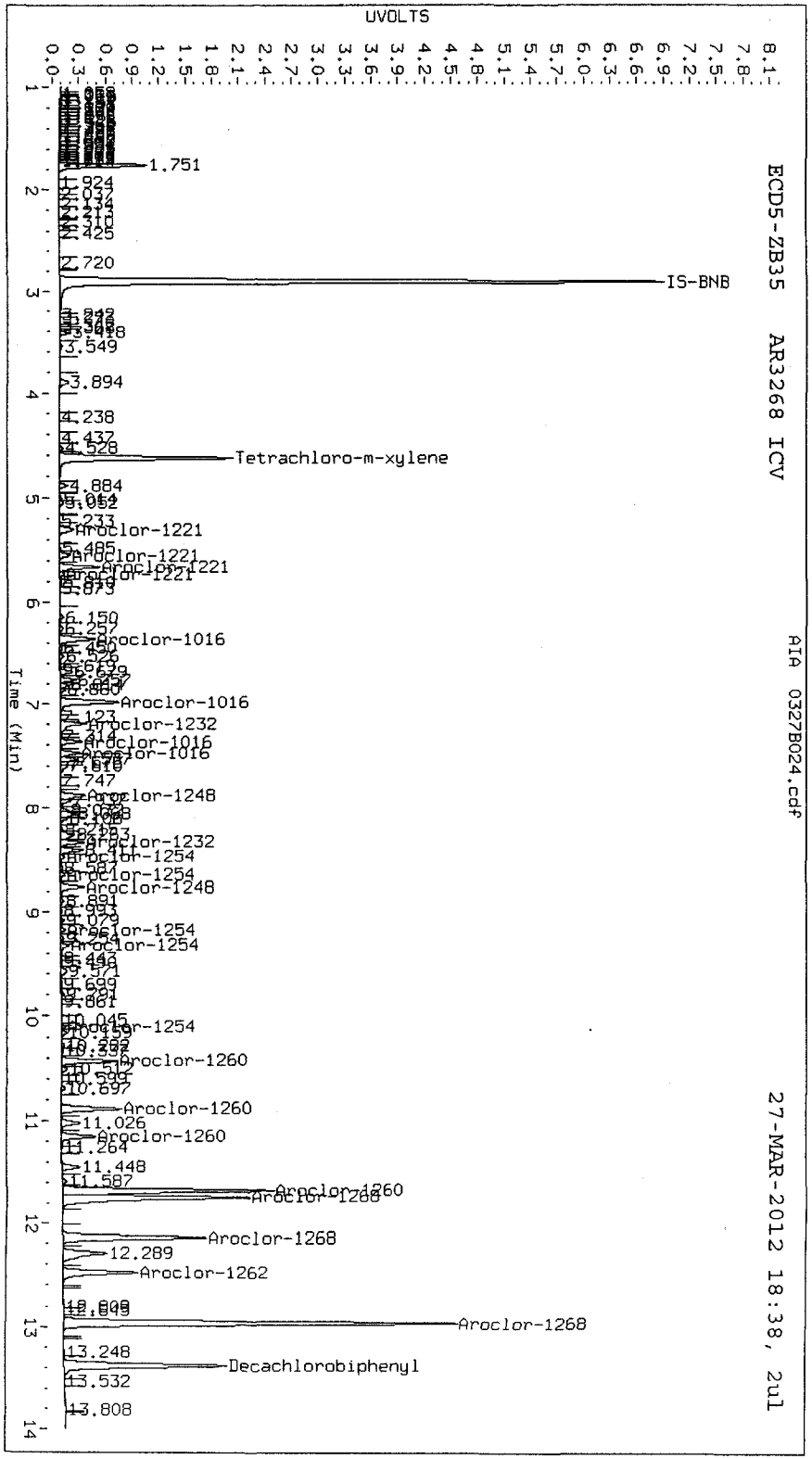
Corrected Ave (3 peaks): 243.5 Corrected Ave (3 peaks): 241.4 RPD = 1

Total PCB Area Col1 (4.721 - 12.905) = 684707704 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.720 - 13.280) = 254186992 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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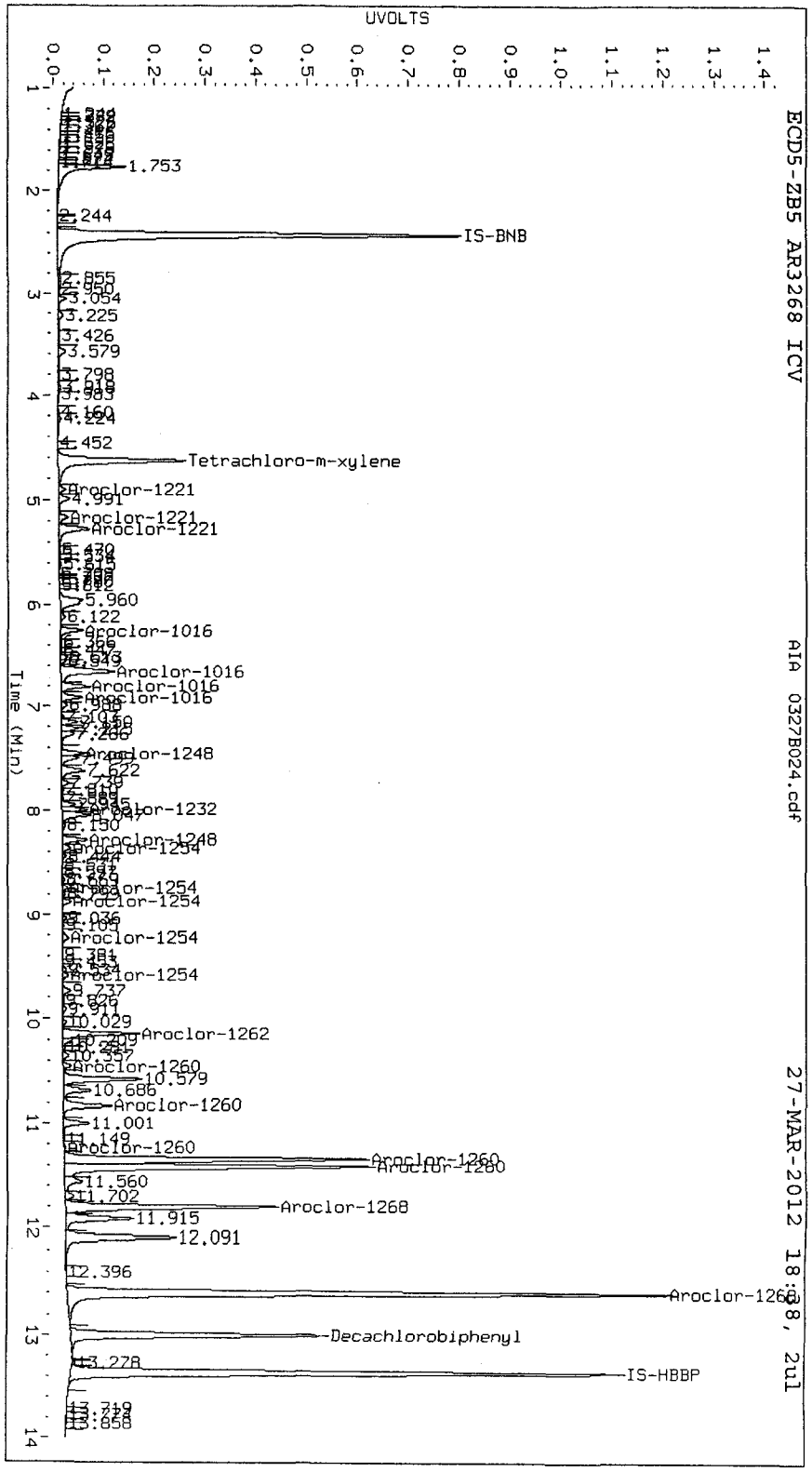
27-MAR-2012 18:38, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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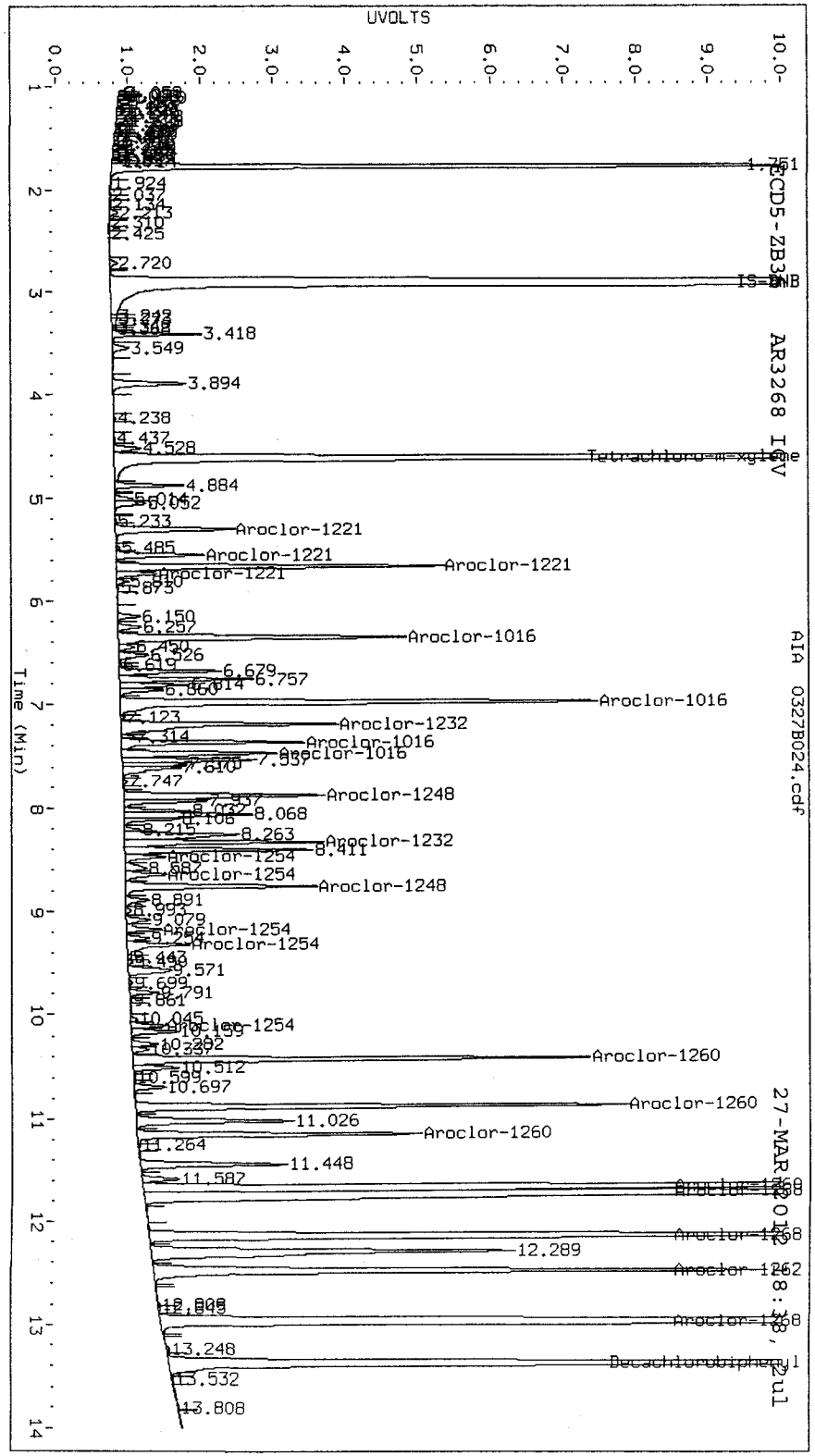
27-MAR-2012 18:38, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Time (Min)
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3.894
4.238
4.437
4.528
Tetrachloro-m-xylene
4.884
5.233
Aroclor-1221
5.485
Aroclor-1221
Aroclor-1221
6.150
6.257
Aroclor-1016
6.679
6.757
6.860
Aroclor-1016
7.123
Aroclor-1232
7.314
Aroclor-1016
7.747
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9.699
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10.045
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10.697
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Decachlorobiphenyl
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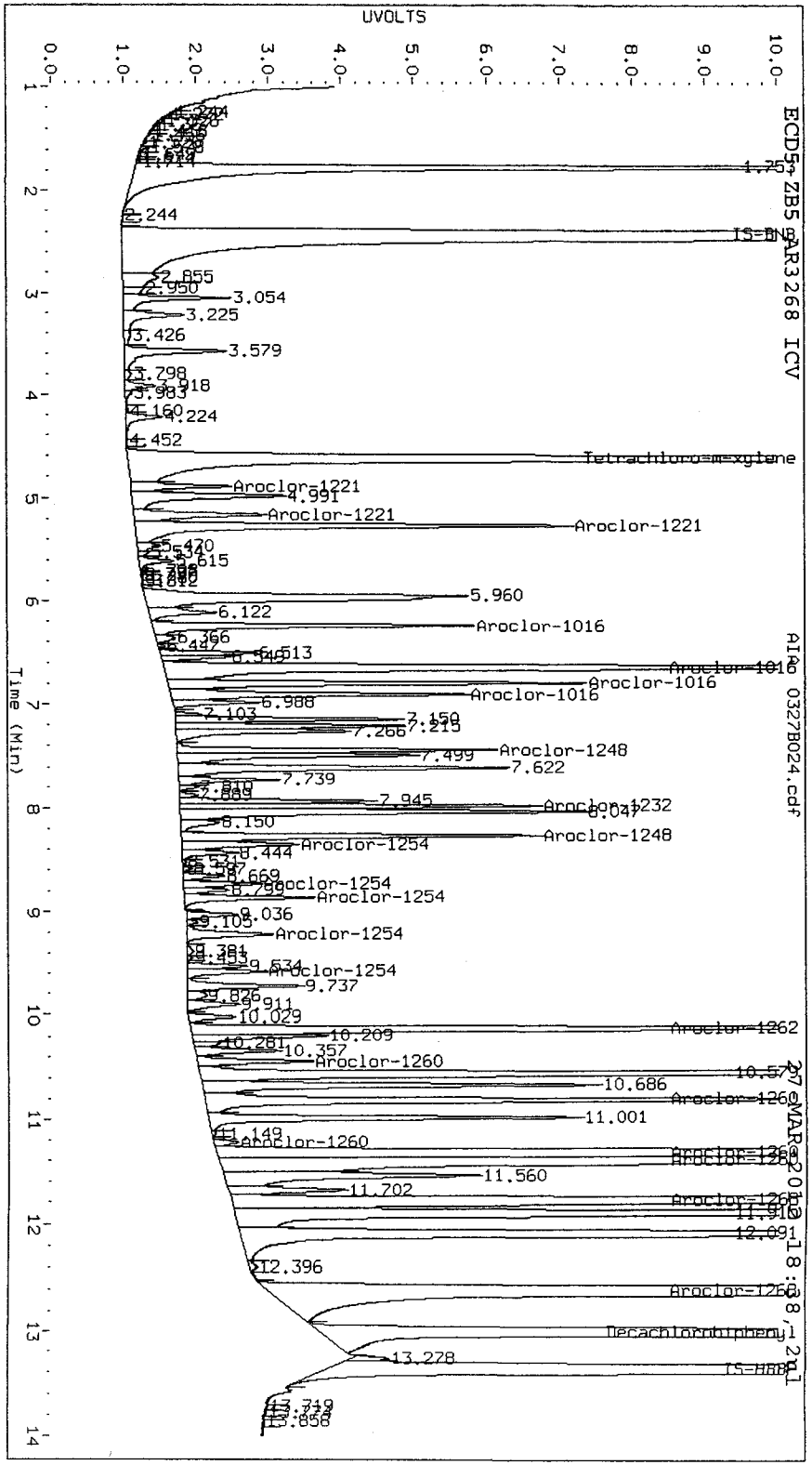
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27-MAR-2018:08, 2ul
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3.798
3.918
3.983
4.160
4.224
4.452
Tetrachloro-m-xylene
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4.991
Aroclor-1221
Aroclor-1221
5.960
6.122
Aroclor-1016
6.366
6.513
Aroclor-1016
Aroclor-1016
6.988
7.103
7.150
7.215
7.266
Aroclor-1248
7.499
7.622
7.739
7.945
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8.047
8.150
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8.444
8.669
Aroclor-1254
Aroclor-1254
9.036
9.105
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9.534
9.737
10.029
10.209
10.281
10.357
Aroclor-1260
10.686
11.001
Aroclor-1260
11.560
11.702
12.396
Decachlorobiphenyl
13.278
IS-HRBL

U017 : 001186

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120327.B/ddt-1.b/0327B025.d ARI ID: 0.1 PPM DDT

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
8.335	0.000	148057682	8.739	0.000	62575656	0.100	0.100	0.0	2,4-DDE
8.885	0.000	129786715	9.422	0.000	52923174	0.100	0.100	0.0	2,4-DDD
9.388	0.000	146444883	9.885	0.000	136584622	0.100	0.200#	66.7*	2,4-DDT
8.766	0.000	228091137	9.124	0.000	97047743	0.100	0.100	0.0	4,4-DDE
9.339	0.000	183288936	9.885	0.000	136584622	0.100	0.200#	66.7*	4,4-DDD
9.851	0.000	170546147	10.322	0.000	68307493	0.100	0.100	0.0	4,4-DDT

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

03/28/12

7E

8082 DDT BREAKDOWN VERIFICATION SUMMARY

Lab ID: DDT BD

Analysis Date: 27-MAR-2012 19:16 Init. Calib. Date: 27-MAR-2012

GC Column: ZB5 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	8.766	1632819
4,4-DDD	9.341	16406867
4,4-DDT	9.851	183776500

Col 1: 4,4-DDT Percent Breakdown = 8.9 %

GC Column: ZB35 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	9.124	552284
4,4-DDD/2,4-DDT	9.892	6030416
4,4-DDT	10.324	76839401

Col 2: 4,4-DDT Percent Breakdown = 7.9 %

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

pl 03/28/12

PCB Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UO17

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: U017 Client ID: JFOS phase 2

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: 03/27/12 Analysis Start: 04/04/12

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): went w/ best fit, y-flag for 48 is for AR1016→1248 range. 54 inflates 48 quants. spike in ms/msd inflates 54 quants diluted sample A due to screen ran mb @ 1X and 5X as per Brian Bebe reporting 1X only for mb, mb clean to 20 ppb filter point for both 1X and 5X 04/05/12

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 04/05/12

Reviewer: _____ **Date:** 4/5/12

Analytical Resources Inc.: Organics Instrument Log

ECD-5 Serial No.: US00034118

Date: 04/04/12 Analysis: PCB's Analyst: JL

Column 1 Serial No.: 196396 Column Type: ZB5

Column 2 Serial No.: 182759 Column Type: ZB35

GC Method: PCB2 ICal Date: 03/27/12 Injection Volume: 2µl

IS	Ical/Ccal	ICV
1878-3	1920-3,4	1923-1,2,3,4,5
	1921-1,2,3,4	1928-2

Document All Maintenance Tasks In StarLIMS

	Inject Date/Time	Filename	DF	LabID
1	04-APR-2012 10:03	0404B001.d	1	RINSE
2	04-APR-2012 10:22	0404B002.d	1	IB
3	04-APR-2012 10:41	0404B003.d	1	AR1660
4	04-APR-2012 11:00	0404B004.d	1	AR1242
5	04-APR-2012 11:19	0404B005.d	1	UO18MBS1
6	04-APR-2012 11:38	0404B006.d	1	UO18LCSS1
7	04-APR-2012 11:57	0404B007.d	1	UO18LCSDS1
8	04-APR-2012 12:16	0404B008.d	1	UO18QLS
9	04-APR-2012 12:35	0404B009.d	5	UO18MBS1
10	04-APR-2012 12:54	0404B010.d	5	UO18A
11	04-APR-2012 13:13	0404B011.d	5	UO18B
12	04-APR-2012 13:32	0404B012.d	5	UO18BMS
13	04-APR-2012 13:51	0404B013.d	5	UO18BMSD
14	04-APR-2012 14:10	0404B014.d	5	UO18C
15	04-APR-2012 14:29	0404B015.d	5	UO18D
16	04-APR-2012 14:48	0404B016.d	5	UO18E
17	04-APR-2012 15:07	0404B017.d	5	UO18F
18	04-APR-2012 15:26	0404B018.d	10	UO18G
19	04-APR-2012 15:45	0404B019.d	1	AR1660
20	04-APR-2012 16:04	0404B020.d	1	AR1248
21	04-APR-2012 16:23	0404B021.d	100	UO18G
22	04-APR-2012 16:42	0404B022.d	1	AR1660
23	04-APR-2012 17:01	0404B023.d	1	AR1254
24	04-APR-2012 17:20	0404B024.d	1	DDT BD
25	04-APR-2012 17:39	0404B025.d	1	DDT
26	04-APR-2012 17:58	0404B026.d	1	UO17MBS1
27	04-APR-2012 18:17	0404B027.d	1	UO17LCSS1
28	04-APR-2012 18:36	0404B028.d	1	UO17LCSDS1
29	04-APR-2012 18:55	0404B029.d	1	UO17QLS
30	04-APR-2012 19:14	0404B030.d	5	UO17MBS1
31	04-APR-2012 19:33	0404B031.d	10	UO17A
32	04-APR-2012 19:52	0404B032.d	1	UO17B
33	04-APR-2012 20:11	0404B033.d	1	UO17BMS
34	04-APR-2012 20:30	0404B034.d	1	UO17BMSD
35	04-APR-2012 20:49	0404B035.d	1	UO17C
36	04-APR-2012 21:08	0404B036.d	1	UO17D
37	04-APR-2012 21:26	0404B037.d	1	UO17E
38	04-APR-2012 21:45	0404B038.d	1	UO17F
39	04-APR-2012 22:04	0404B039.d	1	UO17G
40	04-APR-2012 22:23	0404B040.d	1	AR1660
41	04-APR-2012 22:42	0404B041.d	1	AR1242
42	04-APR-2012 23:01	0404B042.d	20	UO32A
43	04-APR-2012 23:20	0404B043.d	10	UO32B
44	04-APR-2012 23:39	0404B044.d	10	UO32C
45	04-APR-2012 23:58	0404B045.d	10	UO32D
46	05-APR-2012 00:17	0404B046.d	10	UO32E
47	05-APR-2012 00:36	0404B047.d	10	UO32F
48	05-APR-2012 00:55	0404B048.d	10	UO32G
49	05-APR-2012 01:14	0404B049.d	10	UO32H
50	05-APR-2012 01:33	0404B050.d	10	UO32I
51	05-APR-2012 01:52	0404B051.d	10	UO32J
52	05-APR-2012 02:11	0404B052.d	1	AR1660
53	05-APR-2012 02:29	0404B053.d	1	AR1248
54	05-APR-2012 02:49	0404B054.d	1	AR1660
55	05-APR-2012 03:07	0404B055.d	1	AR1248

Every line must contain information or be lined out.

Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

JL 04/05/12

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B022.d
Data file 2: 20120327.B/0404-2.b/0404B022.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 04-APR-2012 16:42
Ical Date: 27-MAR-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
4.618	0.001	34518280	4.616	-0.001	21273295	22.2	20.7	6.8	Tetrachloro-m-xylene
13.000	0.000	34730225	13.375	-0.001	12544350	20.2	20.5	1.3	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	55.4	51.8
Decachlorobiphenyl	50.5	51.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	107358027	-14.4
Hexabromobiphenyl	146489015	117331527	-19.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	72735102	-0.6
Hexabromobiphenyl	55066880	46091671	-16.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-2012
<- Indicates standard response outside Limits (-50 to +100%)

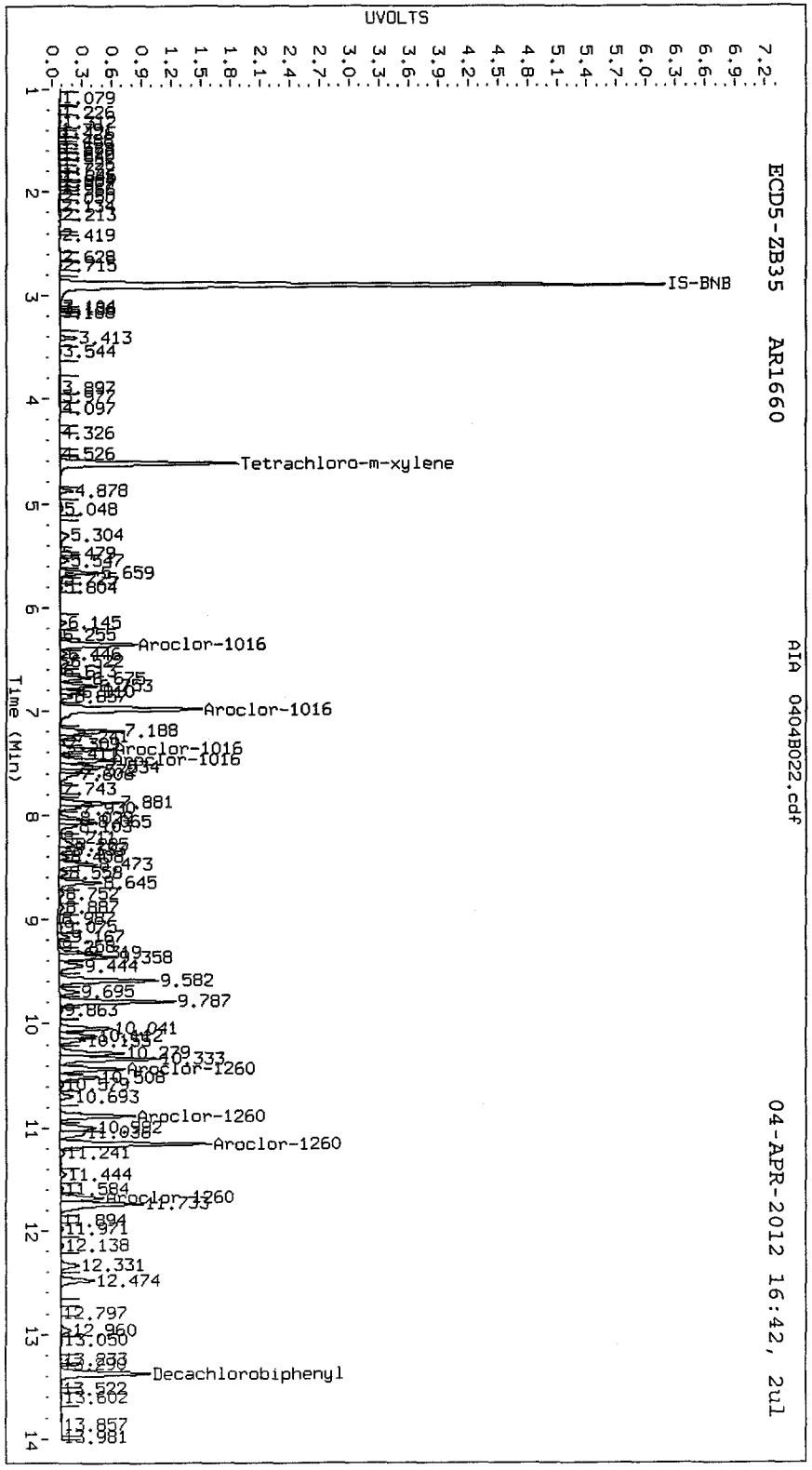
JK04/05/12

Aroclor	Peak#	RT (ZB5 Col)	Shift	Area	Amount	Peak#	RT (ZB35 Col)	Shift	Area	Amount
Aroclor-1016	1	6.250	0.000	10898242	281.1	1	6.353	-0.001	9912242	255.3
Aroclor-1016	2	6.650	0.000	37373394	284.0	2	6.979	-0.001	20956598	271.6
Aroclor-1016	3	6.798	0.000	14534698	280.9	3	7.362	0.000	5157503	262.5
Aroclor-1016	4	6.909	0.000	10460655	282.3	4	7.470	0.000	5734717	267.9
Total Col1Ave (4 peaks):				282.1		Total Col2Ave (4 peaks):			264.3	RPD = 6
Corrected Ave (3 peaks):				281.4		Corrected Ave (3 peaks):			261.9	RPD = 7
Aroclor-1260	1	10.454	0.000	18333237	268.2	1	10.430	0.000	7460669	286.8
Aroclor-1260	2	10.829	0.001	44304347	263.8	2	10.880	-0.001	8797023	280.1
Aroclor-1260	3	11.228	-0.001	23702582	261.4	3	11.152	0.000	17875485	281.7
Aroclor-1260	4	11.345	0.000	9761075	262.4	4	11.674	-0.001	5107249	282.5
Aroclor-1260	5	11.419	0.000	11919400	266.6	NS	---			----
Total Col1Ave (5 peaks):				264.5		Total Col2Ave (4 peaks):			282.8	RPD = 7
Corrected Ave (4 peaks):				263.5		Corrected Ave (3 peaks):			281.4	RPD = 7

Total PCB Area Col1 (4.716 - 12.900) = 577368786 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 270609530 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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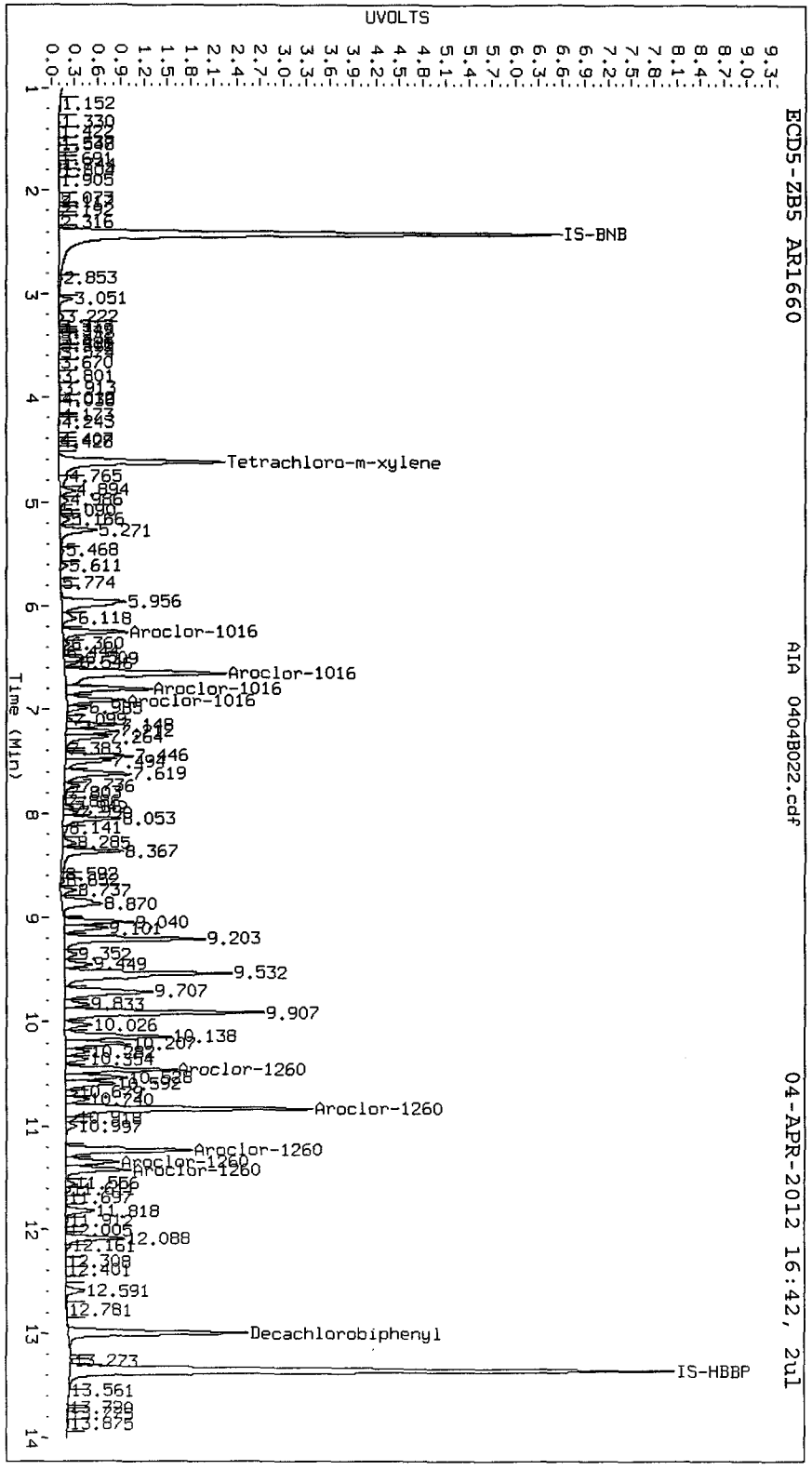
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl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Time (Min)
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Tetrachloro-m-xylene
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Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

10017 001 91

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B023.d
Data file 2: 20120327.B/0404-2.b/0404B023.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 04-APR-2012 17:01
Ical Date: 27-MAR-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
4.618	0.002	39466590	4.616	-0.001	23239630	22.2	20.0	10.8	Tetrachloro-m-xylene
13.000	0.000	37496106	13.374	-0.002	13297800	20.1	20.0	0.5	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	55.6	49.9
Decachlorobiphenyl	50.2	49.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	122359209	-2.4
Hexabromobiphenyl	146489015	127580948	-12.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	82382645	12.5
Hexabromobiphenyl	55066880	50067056	-9.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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-1254	1	8.365	0.000	27291447	267.4	1	8.473	0.000	8294444	269.2
Aroclor-1254	2	8.736	0.000	16343260	250.3	2	8.646	0.000	10807636	276.6
Aroclor-1254	3	8.871	0.000	31880234	258.8	3	9.168	0.000	7724962	257.2
Aroclor-1254	4	9.222	0.000	33549603	249.9	4	9.318	0.000	17126652	266.7
Aroclor-1254	5	9.583	0.000	21764275	245.8	5	10.101	0.000	10050653	259.8

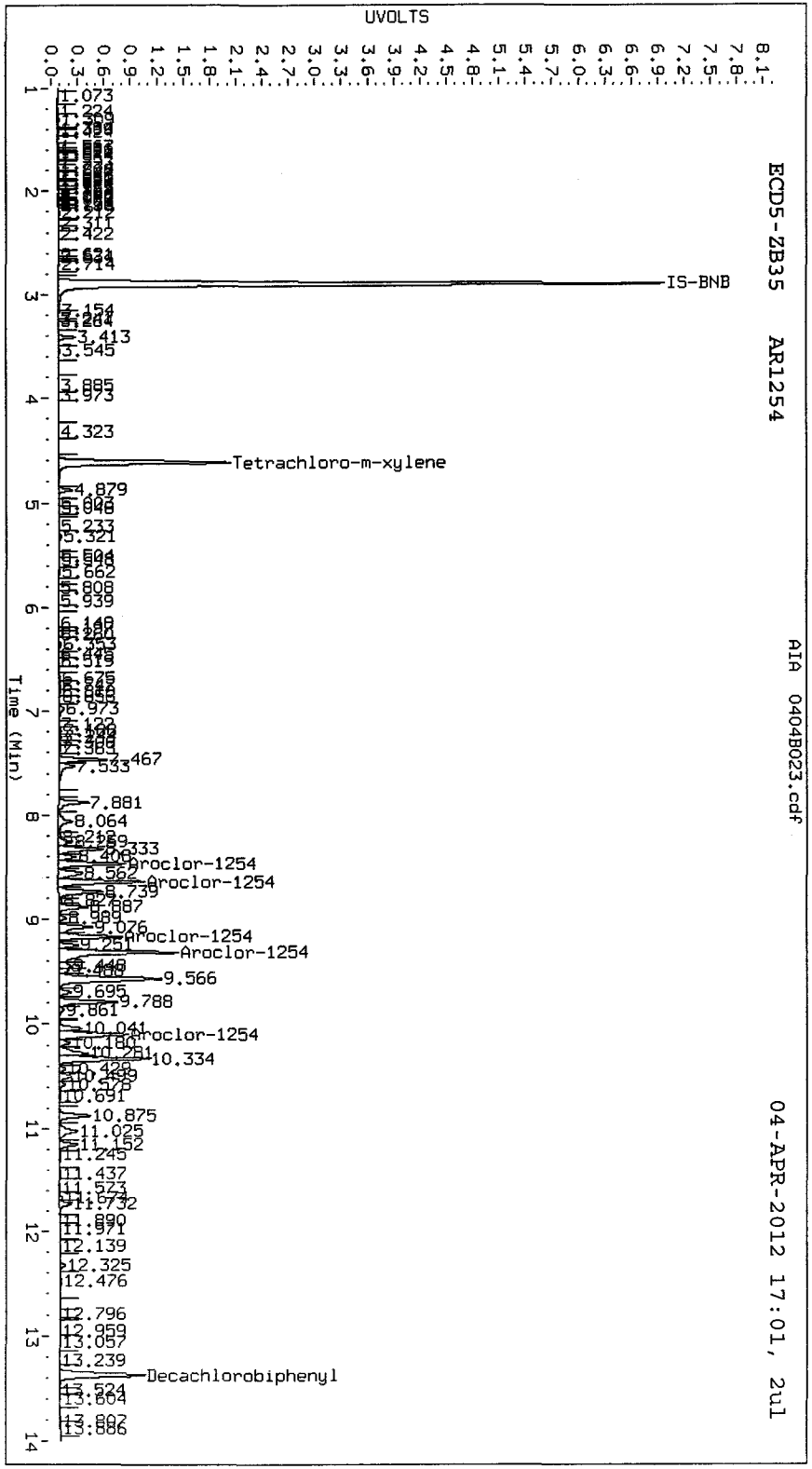
Total Col1Ave (5 peaks): 254.5 Total Col2Ave (5 peaks): 265.9 RPD = 4

Corrected Ave (4 peaks): 251.2 Corrected Ave (4 peaks): 263.2 RPD = 5

Total PCB Area Col1 (4.716 - 12.900) = 349109245 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 173429625 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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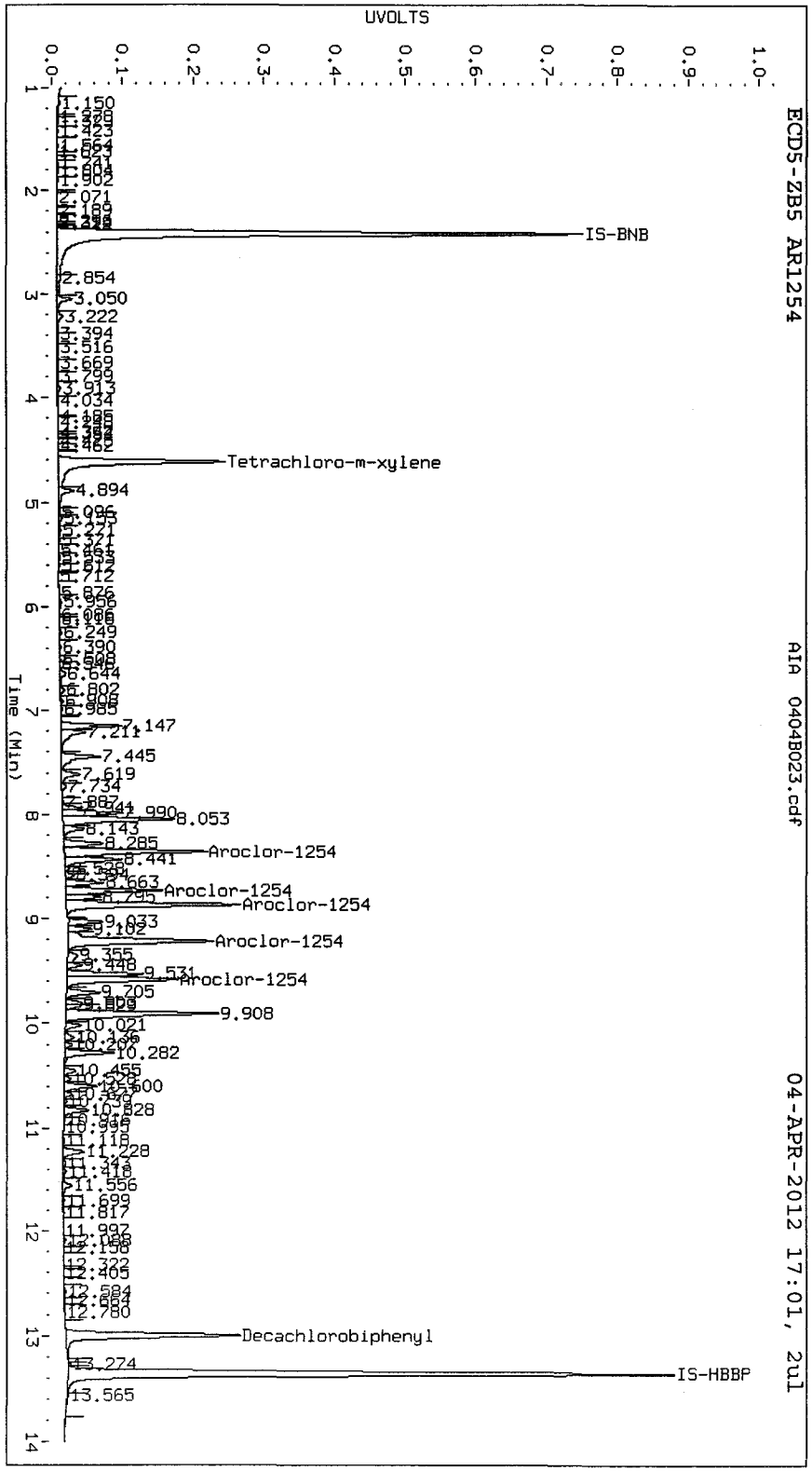
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl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04-APR-2012 17:01, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B026.d
Data file 2: 20120327.B/0404-2.b/0404B026.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017MBS1
Client ID: U017MBS1
Injection Date: 04-APR-2012 17:58
Ical Date: 27-MAR-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
4.618	0.002	63711284	4.615	-0.002	38075609	32.1	29.1	9.6	Tetrachloro-m-xylene
13.002	0.002	81026742	13.376	0.001	29261020	35.8	36.0	0.6	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	80.1	72.8
Decachlorobiphenyl	89.4	90.0

JK 04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	137100870	9.4
Hexabromobiphenyl	146489015	154670107	5.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	92598817	26.5
Hexabromobiphenyl	55066880	61131545	11.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.251	0.001	89002	1.8	1	6.350	-0.004	56713	1.1
Aroclor-1016	2	6.649	-0.001	147310	0.9	2	6.970	-0.010	80422	0.8
Aroclor-1016	3	6.710	-0.089	14783	0.2	3	7.373	0.011	45032	1.8
Aroclor-1016	4	6.906	-0.003	546096	11.5	4	7.468	-0.002	21257	0.8
Total Col1Ave (4 peaks):				3.6		Total Col2Ave (4 peaks):			1.1	RPD = 104*
Corrected Ave (3 peaks):				1.0		Corrected Ave (3 peaks):			0.9	RPD = 5
Aroclor-1221	1	4.894	-0.005	6698122	827.6	1	5.319	0.014	529518	35.9
Aroclor-1221	2	5.152	-0.019	1494245	94.8	2	5.569	0.018	94384	10.8
Aroclor-1221	3	5.236	-0.040	520350	9.9	3	5.667	0.004	156696	5.9
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				310.8		Total Col2Ave (3 peaks):			17.6	RPD = 179*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.251	-0.003	89002	4.3	1	6.350	-0.008	56713	2.7
Aroclor-1232	2	6.649	-0.004	147310	2.1	2	6.970	-0.014	80422	2.1
Aroclor-1232	3	6.710	-0.092	14783	0.5	3	7.186	-0.006	14330	1.1
Aroclor-1232	4	7.988	-0.005	84748	3.3	4	8.333	-0.004	73953	5.2
Total Col1Ave (4 peaks):				2.6		Total Col2Ave (4 peaks):			2.8	RPD = 7
Corrected Ave (3 peaks):				2.0		Corrected Ave (3 peaks):			1.9	RPD = 3
Aroclor-1242	1	6.251	-0.001	89002	2.3	1	6.350	-0.005	56713	1.5
Aroclor-1242	2	6.649	-0.003	147310	1.1	2	6.970	-0.011	80422	1.1
Aroclor-1242	3	6.710	-0.090	14783	0.3	3	7.186	-0.004	14330	0.5
Aroclor-1242	4	7.988	-0.004	84748	1.9	4	8.333	-0.001	73953	2.9
Total Col1Ave (4 peaks):				1.4		Total Col2Ave (4 peaks):			1.5	RPD = 8
Corrected Ave (3 peaks):				1.1		Corrected Ave (3 peaks):			1.0	RPD = 6
Aroclor-1248	1	6.649	0.002	147310	1.8	1	6.970	-0.005	80422	1.7
Aroclor-1248	2	7.424	-0.022	255932	4.2	2	7.908	0.027	721261	19.8
Aroclor-1248	3	7.988	-0.002	84748	1.1	3	8.333	0.000	73953	1.8
Aroclor-1248	4	8.258	-0.022	616271	8.0	4	8.695	-0.059	247854	5.5
Total Col1Ave (4 peaks):				3.8		Total Col2Ave (4 peaks):			7.2	RPD = 62*
Corrected Ave (3 peaks):				2.4		Corrected Ave (3 peaks):			3.0	RPD = 23
Aroclor-1254	1	8.363	-0.001	191102	1.7	1	8.475	0.002	21609	0.6
Aroclor-1254	2	8.754	0.018	159561	2.2	2	8.646	0.000	26585	0.6
Aroclor-1254	3	8.924	0.052	407607	3.0	3	9.187	0.019	292257	8.7
Aroclor-1254	4	9.133	-0.089	3266297	21.7	4	9.318	0.001	130919	1.8
Aroclor-1254	5	9.583	0.001	688020	6.9	5	10.098	-0.003	158038	3.6
Total Col1Ave (5 peaks):				7.1		Total Col2Ave (5 peaks):			3.1	RPD = 79*
Corrected Ave (4 peaks):				3.4		Corrected Ave (4 peaks):			1.7	RPD = 69*
Aroclor-1260	1	10.448	-0.007	1001652	11.1	1	10.468	0.038	131746	3.8
Aroclor-1260	2	10.867	0.039	2993308	13.5	2	10.875	-0.006	33906	0.8
Aroclor-1260	3	11.231	0.002	1266860	10.6	3	11.165	0.012	67424	0.8
Aroclor-1260	4	11.328	-0.017	1175657	24.0	4	11.624	-0.050	125491	5.2
Aroclor-1260	5	11.428	0.010	572239	9.7	NS	---			----
Total Col1Ave (5 peaks):				13.8		Total Col2Ave (4 peaks):			2.7	RPD = 135*
Corrected Ave (4 peaks):				11.2		Corrected Ave (3 peaks):			1.8	RPD = 144*
Aroclor-1262	1	10.142	0.000	1772527	12.7	1	10.468	0.034	131746	2.5
Aroclor-1262	2	10.448	-0.010	1001652	9.7	2	10.875	-0.010	33906	0.7
Aroclor-1262	3	10.867	0.035	2993308	10.6	3	11.165	0.008	67424	0.7
Aroclor-1262	4	11.328	-0.021	1175657	12.1	4	11.624	-0.054	125491	3.1
Aroclor-1262	5	11.428	0.006	572239	5.2	5	12.516	0.038	679511	16.4
Total Col1Ave (5 peaks):				10.0		Total Col2Ave (5 peaks):			4.7	RPD = 73*
Corrected Ave (4 peaks):				9.4		Corrected Ave (4 peaks):			1.8	RPD = 137*
Aroclor-1268	1	11.328	-0.023	1175657	4.1	1	11.624	-0.055	125491	1.2
Aroclor-1268	2	11.428	0.007	572239	2.0	2	---			0.0

Aroclor-1268	3	11.808	0.000	1088900	4.6	3	12.131	-0.013	301166	3.5
Aroclor-1268	4	12.588	-0.012	142896	0.2	4	12.977	0.012	194528	0.8

Total Col1Ave (4 peaks): 2.7 Total Col2Ave (3 peaks): 1.8 RPD = 40*

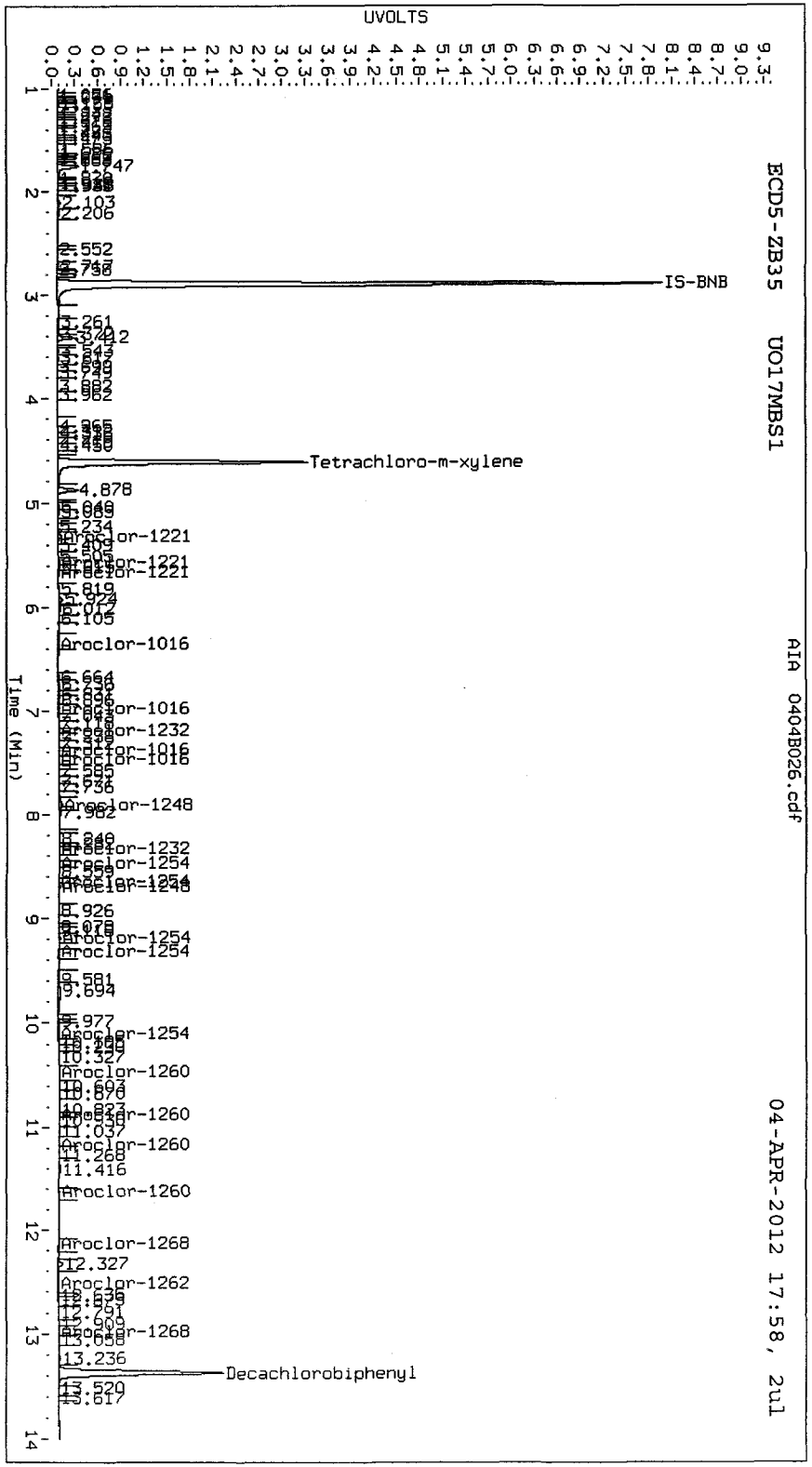
Corrected Ave (3 peaks): 2.1 Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.716 - 12.900) = 54278511 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 14778585 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
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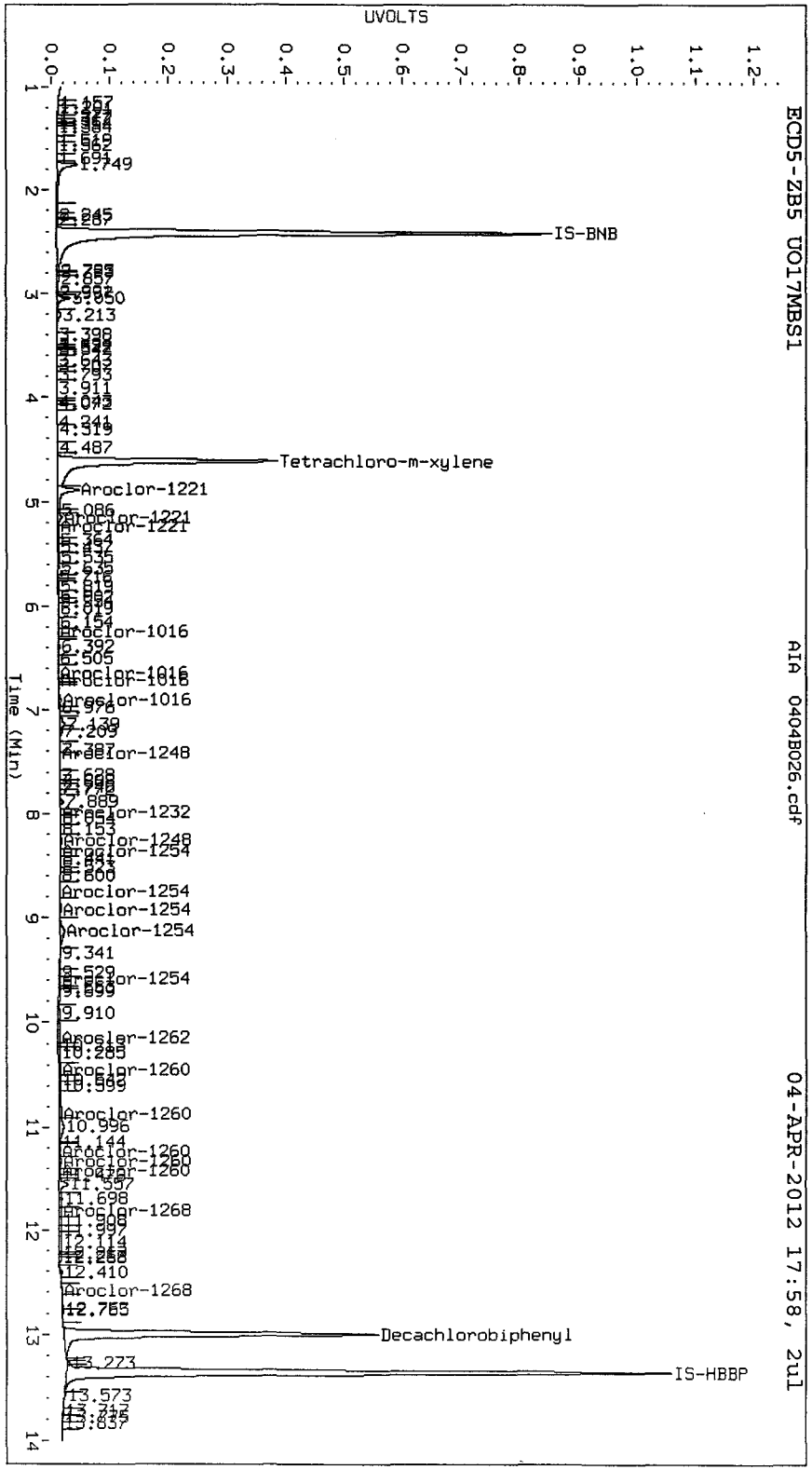
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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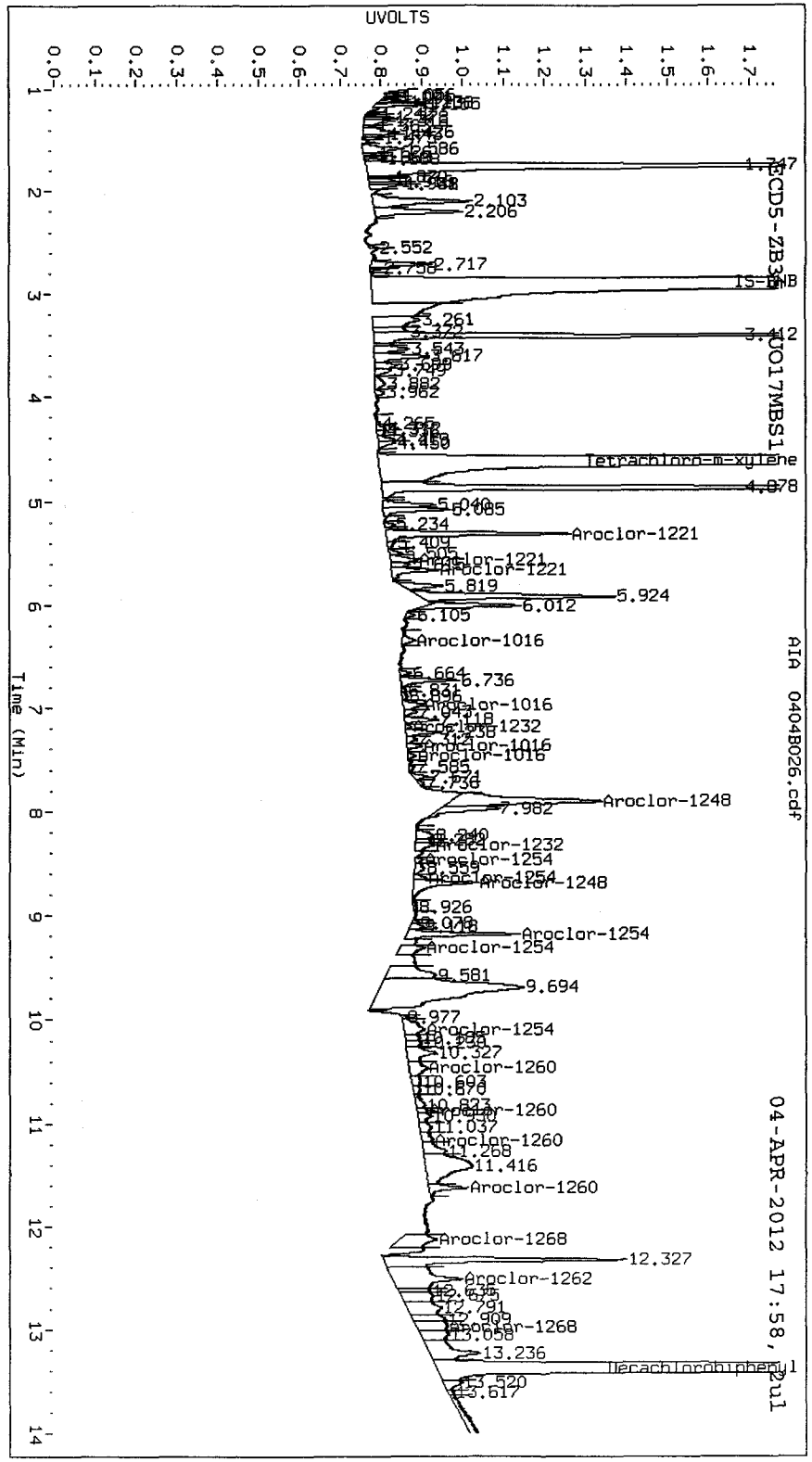
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

UO17:002287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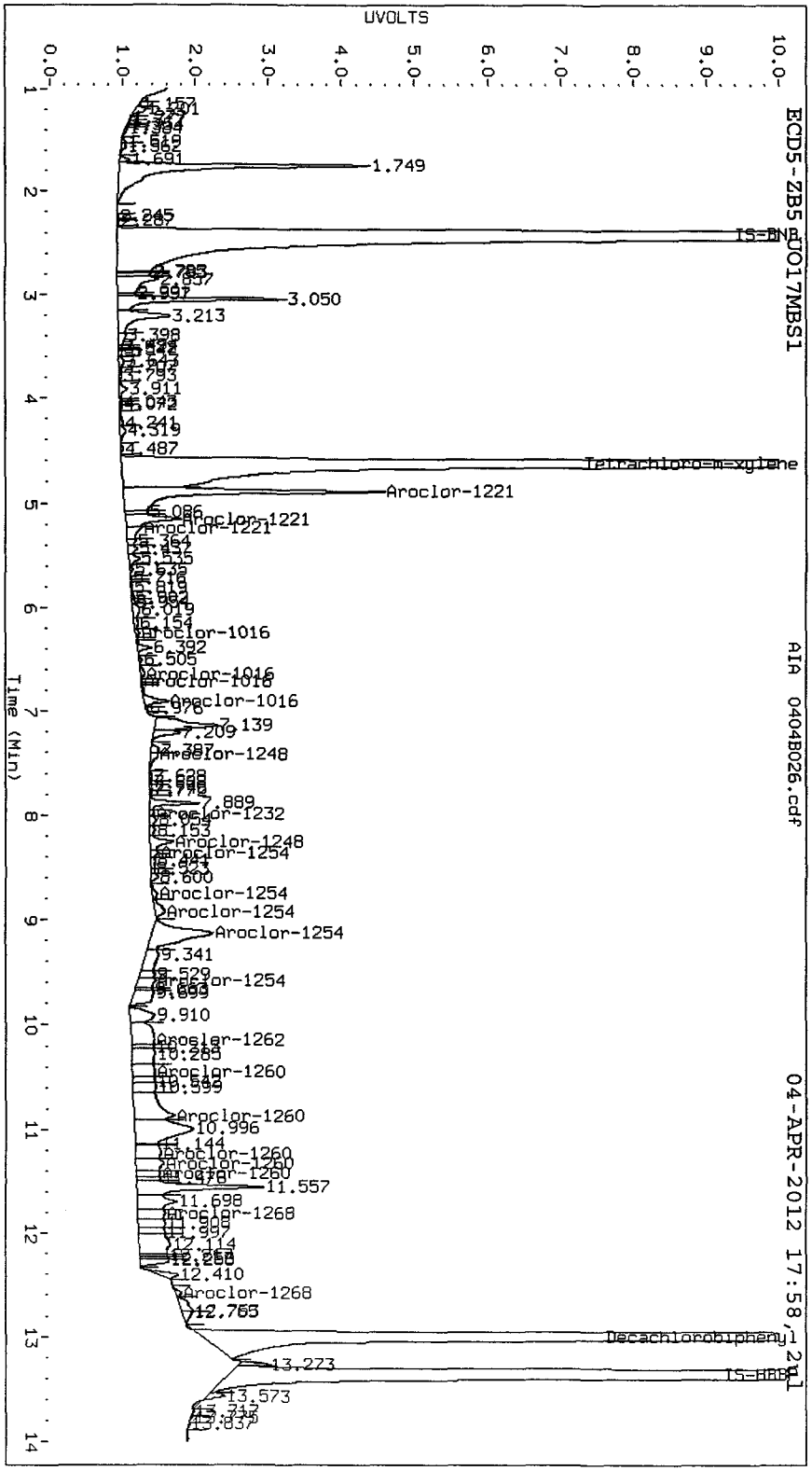
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
Time (Min)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Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
Time (Min)

UO17:00202

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B027.d
Data file 2: 20120327.B/0404-2.b/0404B027.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017LCSS1
Client ID: U017LCSS1
Injection Date: 04-APR-2012 18:17
Ical Date: 27-MAR-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
4.619	0.002	68858520	4.618	0.000	40741440	34.1	30.2	11.9	Tetrachloro-m-xylene
13.000	0.000	83636404	13.376	0.000	30217423	35.3	35.4	0.1	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	85.1	75.6
Decachlorobiphenyl	88.3	88.4

04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	139470724	11.3
Hexabromobiphenyl	146489015	161748038	10.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	95387787	30.3
Hexabromobiphenyl	55066880	64295466	16.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.250	0.000	21865668	434.1	1	6.354	0.000	19339097	379.7
Aroclor-1016	2	6.651	0.001	75866306	443.8	2	6.981	0.001	43598480	430.9
Aroclor-1016	3	6.799	0.000	29777464	443.0	3	7.363	0.001	11064011	429.5
Aroclor-1016	4	6.909	0.000	22123454	459.6	4	7.470	0.001	12147500	432.6
Total Col1Ave (4 peaks):				445.1		Total Col2Ave (4 peaks):			418.2	RPD = 6
Corrected Ave (3 peaks):				440.3		Corrected Ave (3 peaks):			413.4	RPD = 6
Aroclor-1221	1	4.895	-0.004	5284542	641.9	1	5.304	0.000	2225808	146.5
Aroclor-1221	2	5.166	-0.005	4300969	268.2	2	5.548	-0.003	1950845	217.1
Aroclor-1221	3	5.271	-0.004	16039594	301.4	3	5.661	-0.003	8219117	302.9
Aroclor-1221	NS	---			----	4	5.727	-0.005	514851	105.5
Total Col1Ave (3 peaks):				403.8		Total Col2Ave (4 peaks):			193.0	RPD = 71*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			156.3	
Aroclor-1232	1	6.250	-0.003	21865668	1031.9	1	6.354	-0.004	19339097	895.0
Aroclor-1232	2	6.651	-0.002	75866306	1079.9	2	6.981	-0.003	43598480	1083.1
Aroclor-1232	3	6.799	-0.003	29777464	1061.9	3	7.189	-0.003	14678944	1058.9
Aroclor-1232	4	7.991	-0.003	4295414	165.4	4	8.333	-0.004	2487112	169.5
Total Col1Ave (4 peaks):				834.8		Total Col2Ave (4 peaks):			801.6	RPD = 4
Corrected Ave (3 peaks):				753.1		Corrected Ave (3 peaks):			707.8	RPD = 6
Aroclor-1242	1	6.250	-0.002	21865668	553.0	1	6.354	-0.001	19339097	510.5
Aroclor-1242	2	6.651	-0.001	75866306	572.2	2	6.981	0.001	43598480	564.0
Aroclor-1242	3	6.799	-0.001	29777464	571.2	3	7.189	0.000	14678944	473.8
Aroclor-1242	4	7.991	-0.001	4295414	93.4	4	8.333	-0.001	2487112	96.2
Total Col1Ave (4 peaks):				447.4		Total Col2Ave (4 peaks):			411.1	RPD = 8
Corrected Ave (3 peaks):				405.8		Corrected Ave (3 peaks):			360.1	RPD = 12
Aroclor-1248	1	6.651	0.004	75866306	911.6	1	6.981	0.006	43598480	902.8
Aroclor-1248	2	7.446	0.001	21609056	350.7	2	7.882	0.001	14218305	378.5
Aroclor-1248	3	7.991	0.001	4295414	54.7	3	8.333	0.000	2487112	57.8
Aroclor-1248	4	8.286	0.005	4412370	56.6	4	8.754	0.000	956072	20.6
Total Col1Ave (4 peaks):				343.4		Total Col2Ave (4 peaks):			339.9	RPD = 1
Corrected Ave (3 peaks):				154.0		Corrected Ave (3 peaks):			152.3	RPD = 1
Aroclor-1254	1	8.366	0.002	24327325	209.1	1	8.473	0.000	8680932	243.3
Aroclor-1254	2	8.735	-0.001	4874329	65.5	2	8.646	0.000	10159079	224.5
Aroclor-1254	3	8.870	-0.001	22831227	162.6	3	9.169	0.001	2441834	70.2
Aroclor-1254	4	9.203	-0.019	58744366	383.9	4	9.320	0.002	4797765	64.5
Aroclor-1254	5	9.531	-0.051	84797128	840.3	5	10.112	0.011	9862413	220.2
Total Col1Ave (5 peaks):				332.3		Total Col2Ave (5 peaks):			164.6	RPD = 68*
Corrected Ave (4 peaks):				205.3		Corrected Ave (4 peaks):			144.9	RPD = 35
Aroclor-1260	1	10.455	0.000	43229214	458.7	1	10.430	-0.001	18013796	496.4
Aroclor-1260	2	10.830	0.002	107170290	462.9	2	10.881	0.000	22342728	509.9
Aroclor-1260	3	11.228	-0.001	58233381	465.9	3	11.153	0.001	45749980	516.9
Aroclor-1260	4	11.345	0.000	24380226	475.4	4	11.674	0.000	12691807	503.3
Aroclor-1260	5	11.419	0.000	30160651	489.3	NS	---			----
Total Col1Ave (5 peaks):				470.4		Total Col2Ave (4 peaks):			506.7	RPD = 7
Corrected Ave (4 peaks):				465.7		Corrected Ave (3 peaks):			503.2	RPD = 8
Aroclor-1262	1	10.138	-0.003	43228630	296.3	1	10.430	-0.005	18013796	322.5
Aroclor-1262	2	10.455	-0.003	43229214	398.3	2	10.881	-0.004	22342728	468.9
Aroclor-1262	3	10.830	-0.003	107170290	363.2	3	11.153	-0.003	45749980	421.6
Aroclor-1262	4	11.345	-0.005	24380226	239.5	4	11.674	-0.005	12691807	300.4
Aroclor-1262	5	11.419	-0.004	30160651	260.2	5	12.474	-0.004	10936080	251.0
Total Col1Ave (5 peaks):				311.5		Total Col2Ave (5 peaks):			352.9	RPD = 12
Corrected Ave (4 peaks):				289.8		Corrected Ave (4 peaks):			323.9	RPD = 11
Aroclor-1268	1	11.345	-0.006	24380226	82.2	1	11.674	-0.005	12691807	113.4
Aroclor-1268	2	11.419	-0.002	30160651	101.9	2	11.734	-0.011	29930842	291.4

Aroclor-1268	3	11.819	0.010	14296939	57.6	3	12.139	-0.004	799067	8.9
Aroclor-1268	4	12.592	-0.007	10231081	13.0	4	12.961	-0.004	3307590	12.2

Total Col1Ave (4 peaks): 63.6 Total Col2Ave (4 peaks): 106.4 RPD = 50*

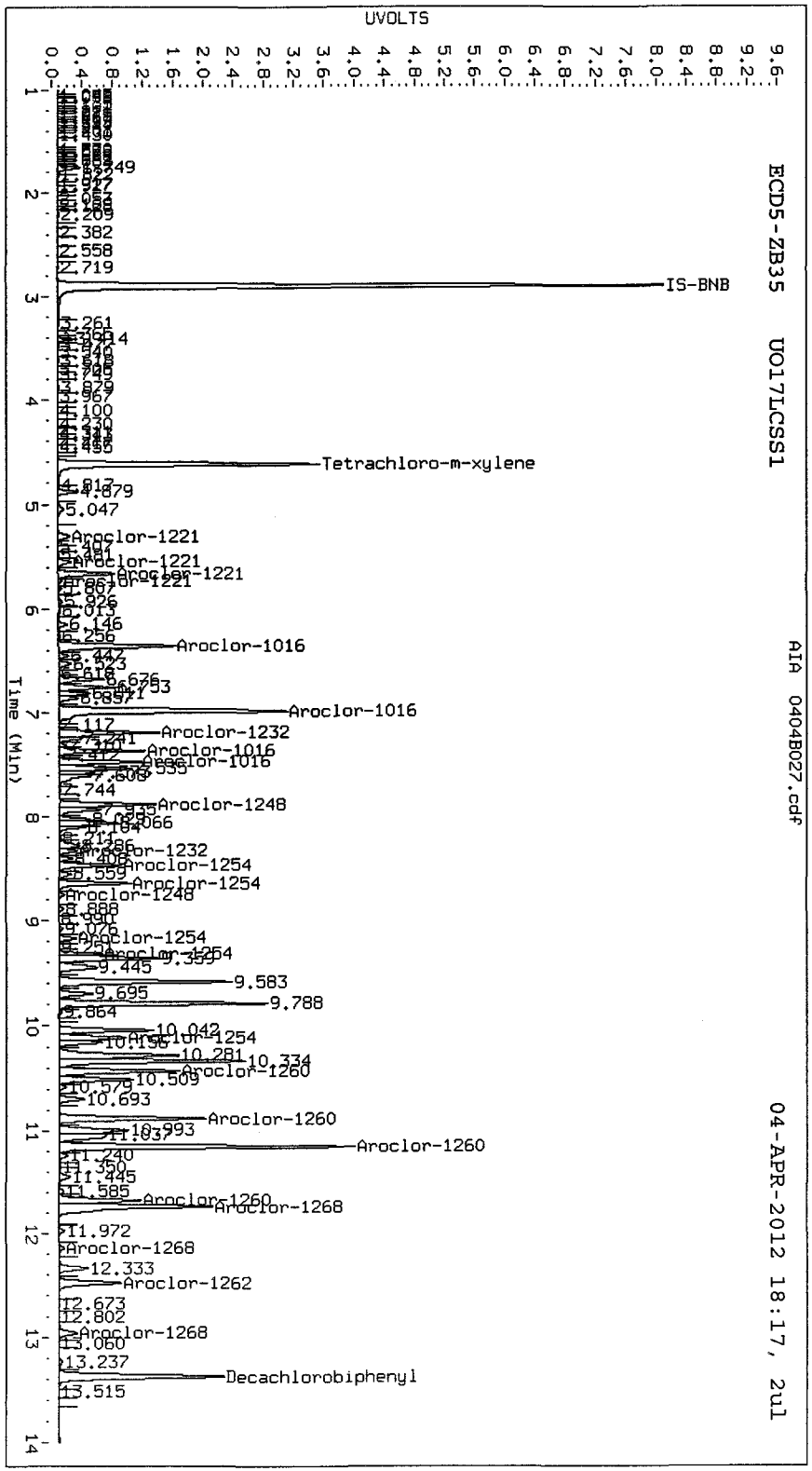
Corrected Ave (3 peaks): 50.9 Corrected Ave (3 peaks): 44.8 RPD = 13

Total PCB Area Col1 (4.716 - 12.900) = 1307809262 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 597165447 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Aroclor-1260
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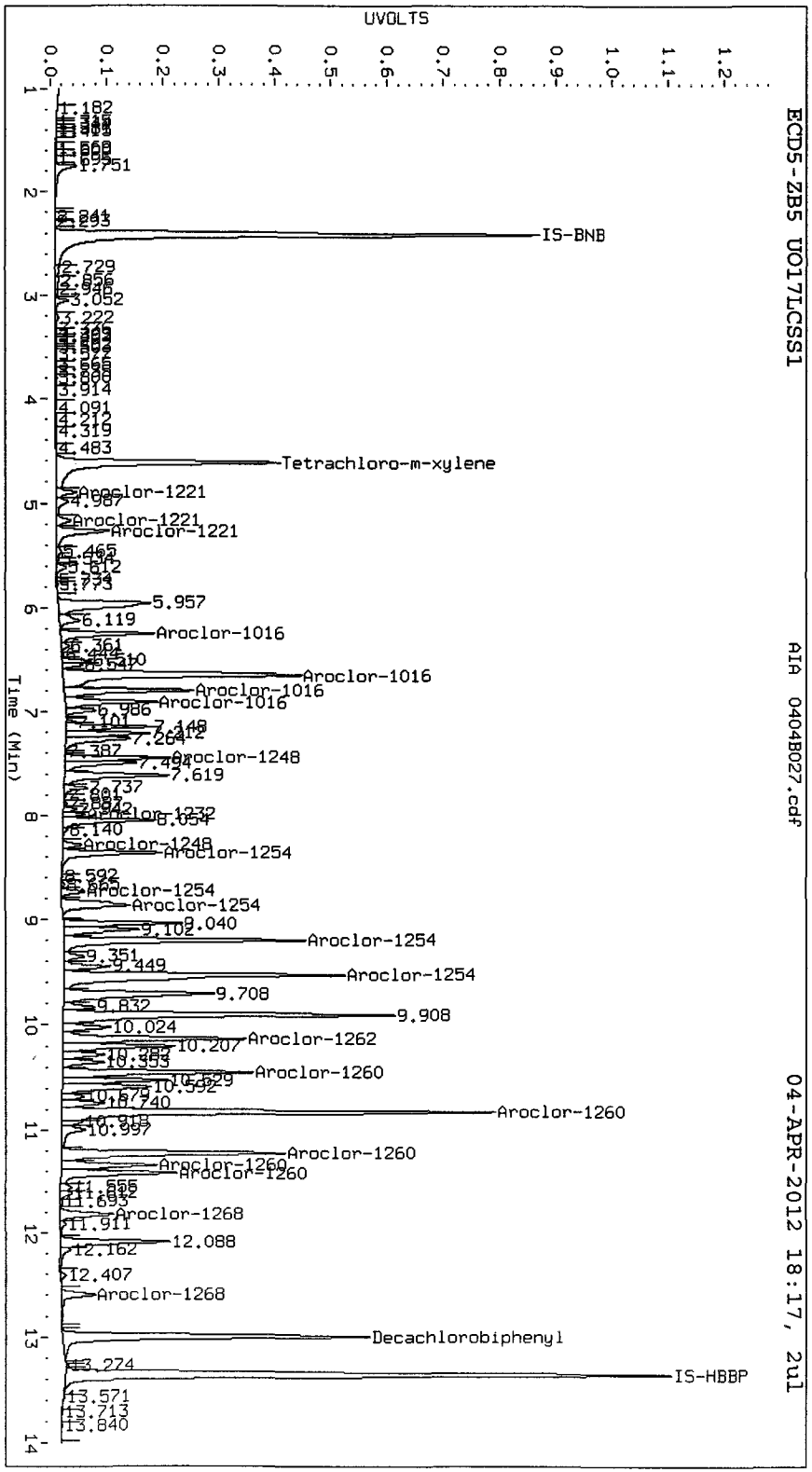
Aroclor-1268
Decachlorobiphenyl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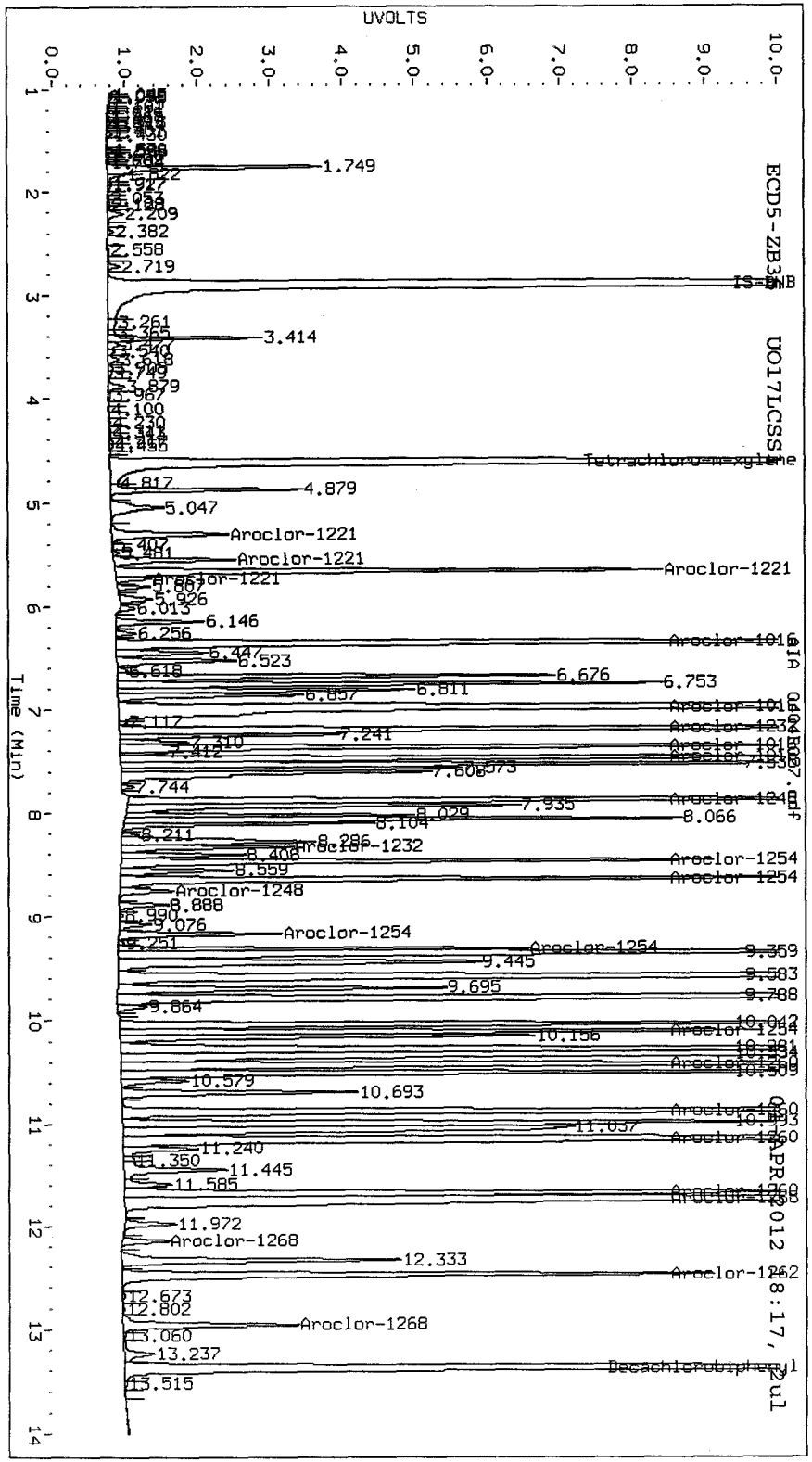
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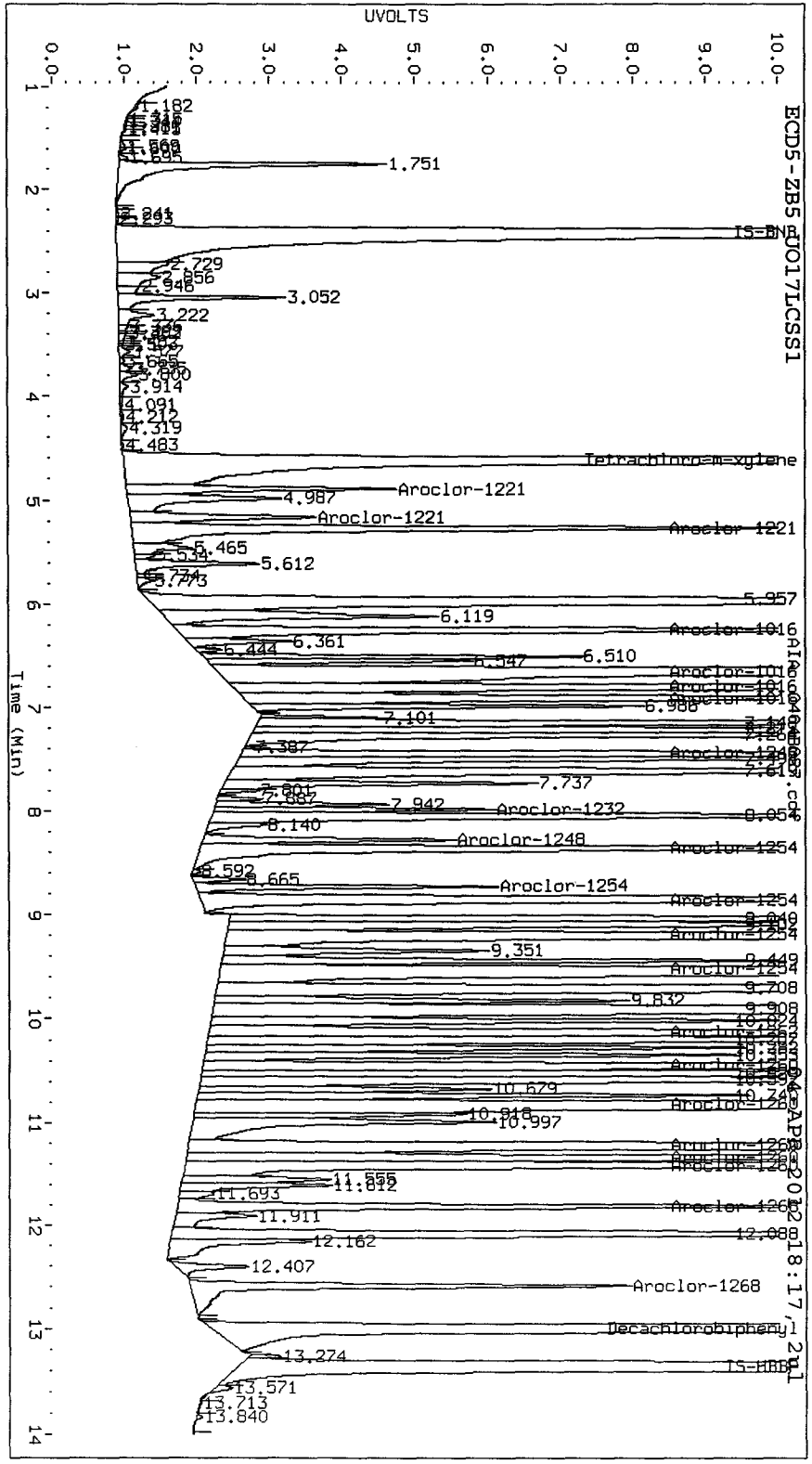
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APR 2012 18:17,

UO17:00207

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B028.d
Data file 2: 20120327.B/0404-2.b/0404B028.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017LCSDS1
Client ID: U017LCSDS1
Injection Date: 04-APR-2012 18:36
Ical Date: 27-MAR-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
4.620	0.003	66449924	4.618	0.001	39605652	33.3	30.3	9.4	Tetrachloro-m-xylene
13.001	0.001	80625181	13.376	0.000	28956319	35.1	35.0	0.1	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	83.2	75.8
Decachlorobiphenyl	87.7	87.6

04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	137709540	9.8
Hexabromobiphenyl	146489015	156912368	7.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	92548678	26.4
Hexabromobiphenyl	55066880	62155476	12.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.251	0.000	21666788	435.6	1	6.355	0.001	19227083	389.1
Aroclor-1016	2	6.651	0.001	75382118	446.6	2	6.982	0.002	43448595	442.6
Aroclor-1016	3	6.799	0.000	29551960	445.3	3	7.364	0.001	11031235	441.3
Aroclor-1016	4	6.909	0.000	21926907	461.3	4	7.470	0.001	12109321	444.5
Total Col1Ave (4 peaks):				447.2		Total Col2Ave (4 peaks):			429.4	RPD = 4
Corrected Ave (3 peaks):				442.5		Corrected Ave (3 peaks):			424.4	RPD = 4
Aroclor-1221	1	4.895	-0.003	5314427	653.8	1	5.305	0.001	2195159	148.9
Aroclor-1221	2	5.167	-0.004	4232743	267.3	2	5.549	-0.003	1776469	203.7
Aroclor-1221	3	5.272	-0.003	15974676	304.0	3	5.661	-0.003	8103710	307.8
Aroclor-1221	NS	---			----	4	5.728	-0.004	508254	107.3
Total Col1Ave (3 peaks):				408.3		Total Col2Ave (4 peaks):			191.9	RPD = 72*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			153.3	
Aroclor-1232	1	6.251	-0.003	21666788	1035.6	1	6.355	-0.004	19227083	917.1
Aroclor-1232	2	6.651	-0.002	75382118	1086.7	2	6.982	-0.002	43448595	1112.4
Aroclor-1232	3	6.799	-0.003	29551960	1067.3	3	7.189	-0.003	14559322	1082.5
Aroclor-1232	4	7.991	-0.003	4270798	166.5	4	8.333	-0.004	2480467	174.2
Total Col1Ave (4 peaks):				839.1		Total Col2Ave (4 peaks):			821.6	RPD = 2
Corrected Ave (3 peaks):				756.5		Corrected Ave (3 peaks):			724.6	RPD = 4
Aroclor-1242	1	6.251	-0.001	21666788	554.9	1	6.355	-0.001	19227083	523.1
Aroclor-1242	2	6.651	-0.001	75382118	575.8	2	6.982	0.001	43448595	579.3
Aroclor-1242	3	6.799	-0.001	29551960	574.1	3	7.189	0.000	14559322	484.3
Aroclor-1242	4	7.991	-0.001	4270798	94.0	4	8.333	-0.001	2480467	98.9
Total Col1Ave (4 peaks):				449.7		Total Col2Ave (4 peaks):			421.4	RPD = 6
Corrected Ave (3 peaks):				407.7		Corrected Ave (3 peaks):			368.8	RPD = 10
Aroclor-1248	1	6.651	0.004	75382118	917.4	1	6.982	0.007	43448595	927.3
Aroclor-1248	2	7.447	0.001	21481798	353.1	2	7.882	0.001	14101901	386.9
Aroclor-1248	3	7.991	0.001	4270798	55.1	3	8.333	0.000	2480467	59.5
Aroclor-1248	4	8.286	0.006	4358846	56.6	4	8.754	-0.001	939174	20.8
Total Col1Ave (4 peaks):				345.5		Total Col2Ave (4 peaks):			348.6	RPD = 1
Corrected Ave (3 peaks):				154.9		Corrected Ave (3 peaks):			155.7	RPD = 1
Aroclor-1254	1	8.367	0.002	24054978	209.5	1	8.473	0.000	8615693	248.9
Aroclor-1254	2	8.736	0.000	4820877	65.6	2	8.646	0.000	10111132	230.3
Aroclor-1254	3	8.870	-0.001	22710055	163.8	3	9.168	0.000	2425886	71.9
Aroclor-1254	4	9.204	-0.018	58551907	387.5	4	9.320	0.002	4801829	66.6
Aroclor-1254	5	9.532	-0.051	84348488	846.5	5	10.112	0.011	9770343	224.8
Total Col1Ave (5 peaks):				334.6		Total Col2Ave (5 peaks):			168.5	RPD = 66*
Corrected Ave (4 peaks):				206.6		Corrected Ave (4 peaks):			148.4	RPD = 33
Aroclor-1260	1	10.456	0.001	42747844	467.6	1	10.431	0.000	17753044	506.1
Aroclor-1260	2	10.830	0.002	104818305	466.7	2	10.881	0.000	22014916	519.7
Aroclor-1260	3	11.229	0.000	57041770	470.4	3	11.153	0.001	45104785	527.2
Aroclor-1260	4	11.346	0.001	23898798	480.4	4	11.675	0.000	12371908	507.5
Aroclor-1260	5	11.419	0.001	29564407	494.4	NS	---			----
Total Col1Ave (5 peaks):				475.9		Total Col2Ave (4 peaks):			515.1	RPD = 8
Corrected Ave (4 peaks):				471.3		Corrected Ave (3 peaks):			511.1	RPD = 8
Aroclor-1262	1	10.139	-0.003	42883209	302.9	1	10.431	-0.004	17753044	328.8
Aroclor-1262	2	10.456	-0.002	42747844	406.0	2	10.881	-0.005	22014916	477.9
Aroclor-1262	3	10.830	-0.003	104818305	366.2	3	11.153	-0.004	45104785	430.0
Aroclor-1262	4	11.346	-0.004	23898798	242.0	4	11.675	-0.004	12371908	302.9
Aroclor-1262	5	11.419	-0.003	29564407	262.9	5	12.474	-0.004	10717300	254.4
Total Col1Ave (5 peaks):				316.0		Total Col2Ave (5 peaks):			358.8	RPD = 13
Corrected Ave (4 peaks):				293.5		Corrected Ave (4 peaks):			329.0	RPD = 11
Aroclor-1268	1	11.346	-0.005	23898798	83.0	1	11.675	-0.005	12371908	114.3
Aroclor-1268	2	11.419	-0.002	29564407	102.9	2	11.735	-0.011	29680145	298.9

Aroclor-1268	3	11.820	0.011	13934051	57.9	3	12.139	-0.004	802979	9.2
Aroclor-1268	4	12.593	-0.006	9301323	12.1	4	12.960	-0.005	3121715	11.9

Total Col1Ave (4 peaks): 64.0 Total Col2Ave (4 peaks): 108.6 RPD = 52*

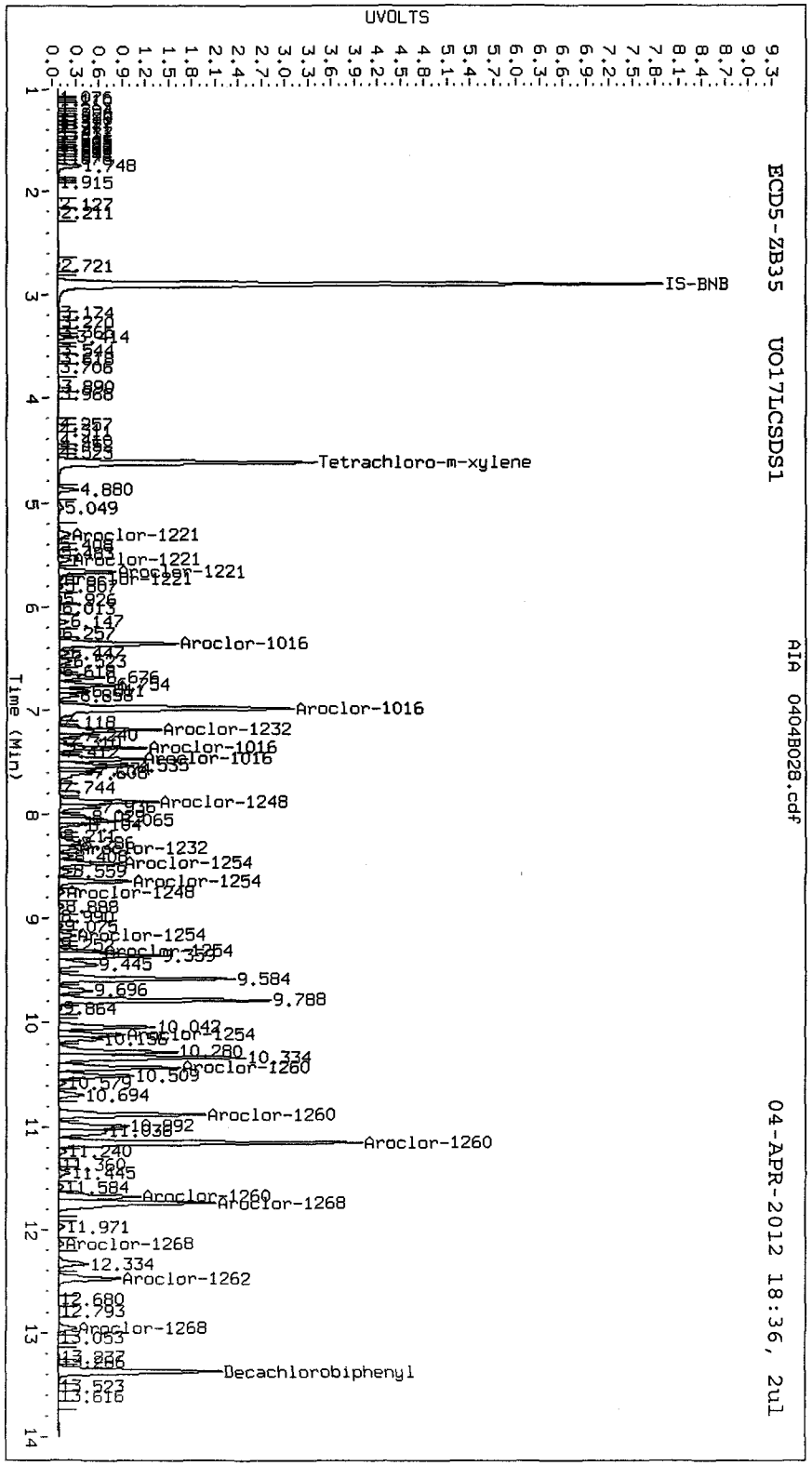
Corrected Ave (3 peaks): 51.0 Corrected Ave (3 peaks): 45.1 RPD = 12

Total PCB Area Col1 (4.716 - 12.900) = 1292003758 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 589469013 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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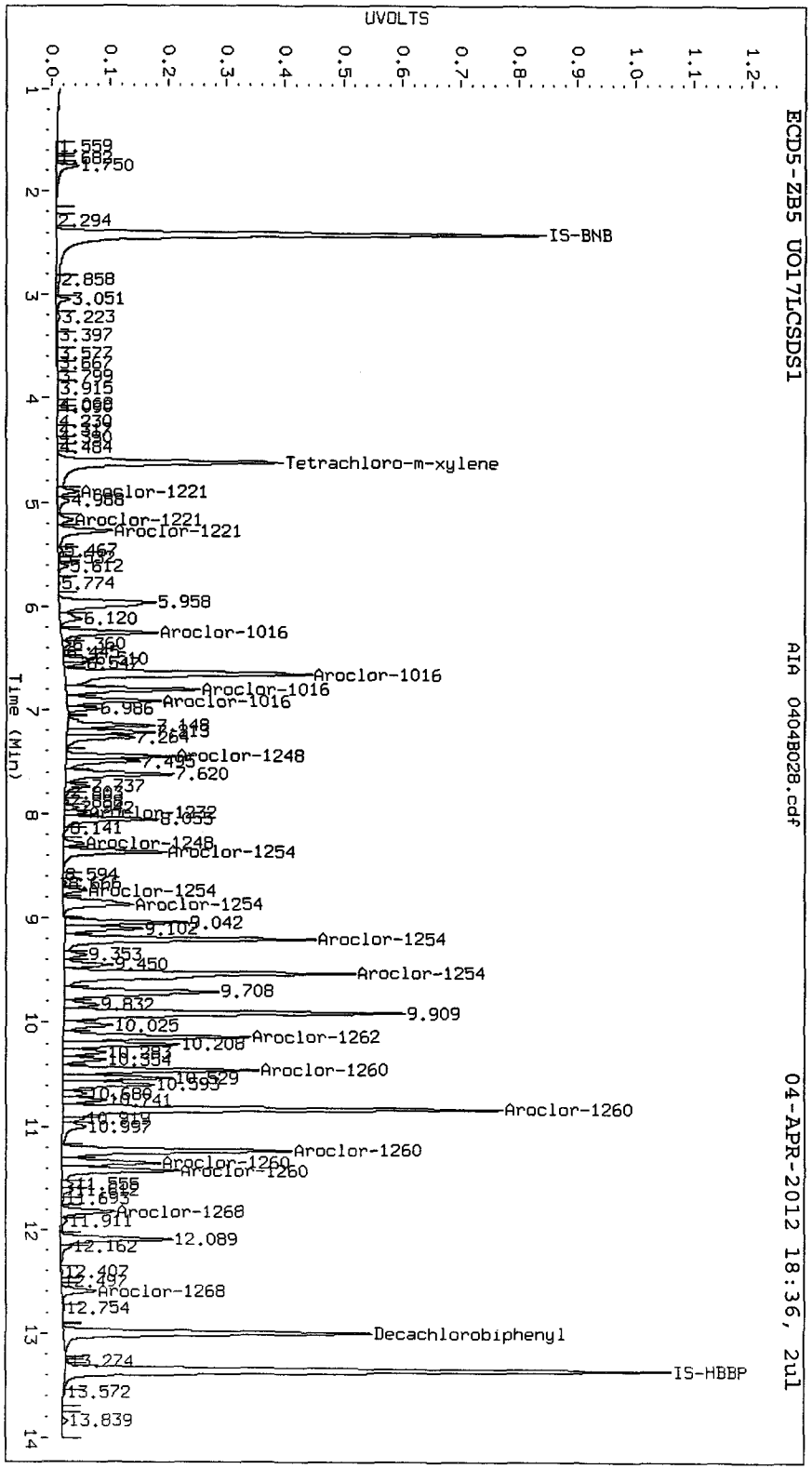
Decachlorobiphenyl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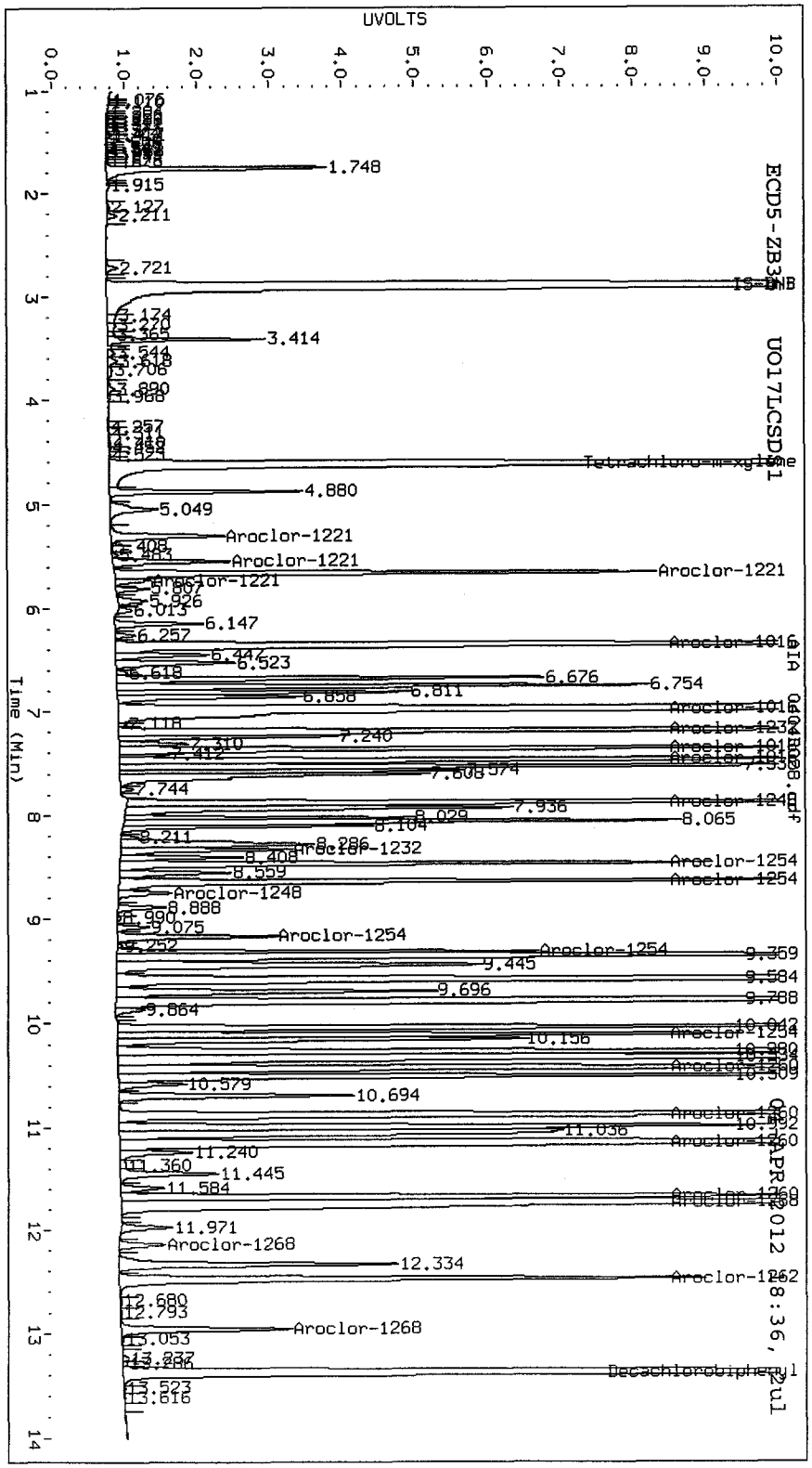
IS-HBBP

UO17:00211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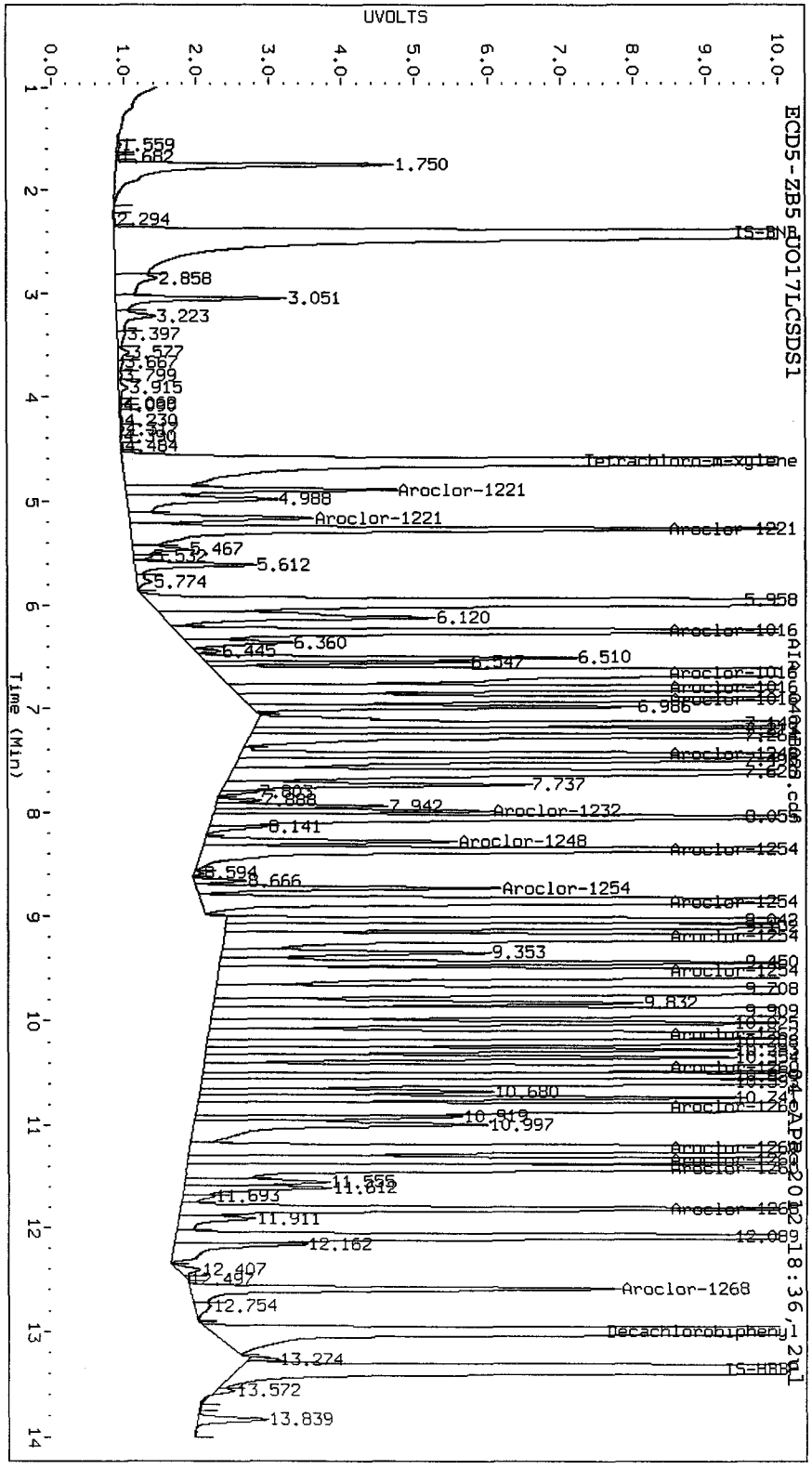
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UO17.002112

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B031.d
Data file 2: 20120327.B/0404-2.b/0404B031.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017A
Client ID: B-DGP1-SO-00'-02'
Injection Date: 04-APR-2012 19:33
Ical Date: 27-MAR-2012
Matrix: SOIL
Dilution Factor: 10.000

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
4.619	0.002	9276149	4.617	-0.001	5298818	4.7	4.0	15.4	Tetrachloro-m-xylene
13.000	0.000	11929015	13.375	-0.001	4368649	5.2	5.2	1.1	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	117.7	100.9
Decachlorobiphenyl	129.3	130.8

A 04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	135868238	8.4
Hexabromobiphenyl	146489015	157497293	7.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	92978562	27.0
Hexabromobiphenyl	55066880	62822028	14.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.248	-0.002	209361	4.3	1	6.365	0.011	232210	4.7
Aroclor-1016	2	6.654	0.004	954171	5.7	2	6.984	0.004	445373	4.5
Aroclor-1016	3	6.803	0.005	306166	4.7	3	7.363	0.001	110972	4.4
Aroclor-1016	4	6.908	-0.001	727229	15.5	4	7.468	-0.002	1443480	52.7
Total Col1Ave (4 peaks):				7.5		Total Col2Ave (4 peaks):			16.6	RPD = 75*
Corrected Ave (3 peaks):				4.9		Corrected Ave (3 peaks):			4.5	RPD = 7
Aroclor-1221	1	4.922	0.023	1572771	196.1	1	5.312	0.007	571603	38.6
Aroclor-1221	2	5.156	-0.016	185170	11.9	2	5.573	0.022	993312	113.4
Aroclor-1221	3	5.272	-0.003	249194	4.8	3	5.683	0.019	5500961	208.0
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				70.9		Total Col2Ave (3 peaks):			120.0	RPD = 51*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.248	-0.005	209361	10.1	1	6.365	0.007	232210	11.0
Aroclor-1232	2	6.654	0.000	954171	13.9	2	6.984	0.000	445373	11.4
Aroclor-1232	3	6.803	0.001	306166	11.2	3	7.188	-0.004	118993	8.8
Aroclor-1232	4	7.991	-0.003	2485685	98.2	4	8.333	-0.003	1443944	101.0
Total Col1Ave (4 peaks):				33.4		Total Col2Ave (4 peaks):			33.0	RPD = 1
Corrected Ave (3 peaks):				11.8		Corrected Ave (3 peaks):			10.4	RPD = 12
Aroclor-1242	1	6.248	-0.004	209361	5.4	1	6.365	0.010	232210	6.3
Aroclor-1242	2	6.654	0.002	954171	7.4	2	6.984	0.003	445373	5.9
Aroclor-1242	3	6.803	0.003	306166	6.0	3	7.188	-0.002	118993	3.9
Aroclor-1242	4	7.991	-0.001	2485685	55.5	4	8.333	-0.001	1443944	57.3
Total Col1Ave (4 peaks):				18.6		Total Col2Ave (4 peaks):			18.4	RPD = 1
Corrected Ave (3 peaks):				6.3		Corrected Ave (3 peaks):			5.4	RPD = 15
Aroclor-1248	1	6.654	0.007	954171	11.8	1	6.984	0.008	445373	9.5
Aroclor-1248	2	7.446	0.000	1680467	28.0	2	7.881	0.000	905167	24.7
Aroclor-1248	3	7.991	0.001	2485685	32.5	3	8.333	0.000	1443944	34.5
Aroclor-1248	4	8.286	0.006	3576919	47.1	4	8.739	-0.015	3394902	75.0
Total Col1Ave (4 peaks):				29.8		Total Col2Ave (4 peaks):			35.9	RPD = 18
Corrected Ave (3 peaks):				24.1		Corrected Ave (3 peaks):			22.9	RPD = 5
Aroclor-1254	1	8.365	0.000	16678919	147.2	1	8.473	0.000	6014839	173.0
Aroclor-1254	2	8.737	0.001	9479379	130.8	2	8.646	0.000	6235651	141.4
Aroclor-1254	3	8.872	0.001	26858039	196.3	3	9.167	-0.001	3765927	111.1
Aroclor-1254	4	9.207	-0.015	37137387	249.1	4	9.318	0.000	10275911	141.8
Aroclor-1254	5	9.576	-0.006	19718530	200.6	5	10.107	0.006	8612627	197.3
Total Col1Ave (5 peaks):				184.8		Total Col2Ave (5 peaks):			152.9	RPD = 19
Corrected Ave (4 peaks):				168.7		Corrected Ave (4 peaks):			141.8	RPD = 17
Aroclor-1260	1	10.455	0.001	15053923	164.1	1	10.429	-0.001	6857416	193.4
Aroclor-1260	2	10.829	0.001	40136974	178.0	2	10.878	-0.002	10437361	243.8
Aroclor-1260	3	11.228	-0.001	19872341	163.3	3	11.152	-0.001	16945060	196.0
Aroclor-1260	4	11.345	0.000	10675604	213.8	4	11.674	-0.001	5229858	212.3
Aroclor-1260	5	11.419	0.000	12436924	207.2	NS	---			----
Total Col1Ave (5 peaks):				185.3		Total Col2Ave (4 peaks):			211.4	RPD = 13
Corrected Ave (4 peaks):				178.1		Corrected Ave (3 peaks):			200.5	RPD = 12
Aroclor-1262	1	10.138	-0.003	16580614	116.7	1	10.429	-0.005	6857416	125.6
Aroclor-1262	2	10.455	-0.003	15053923	142.5	2	10.878	-0.007	10437361	224.2
Aroclor-1262	3	10.829	-0.004	40136974	139.7	3	11.152	-0.005	16945060	159.8
Aroclor-1262	4	11.345	-0.004	10675604	107.7	4	11.674	-0.005	5229858	126.7
Aroclor-1262	5	11.419	-0.004	12436924	110.2	5	12.474	-0.004	4490940	105.5
Total Col1Ave (5 peaks):				123.4		Total Col2Ave (5 peaks):			148.4	RPD = 18
Corrected Ave (4 peaks):				118.6		Corrected Ave (4 peaks):			129.4	RPD = 9
Aroclor-1268	1	11.345	-0.006	10675604	37.0	1	11.674	-0.006	5229858	47.8
Aroclor-1268	2	11.419	-0.002	12436924	43.1	2	11.734	-0.012	11966303	119.2

Aroclor-1268	3	11.818	0.009	5429640	22.5	3	12.138	-0.005	528866	6.0
Aroclor-1268	4	12.592	-0.007	5504766	7.2	4	12.960	-0.005	1794460	6.8

Total Col1Ave (4 peaks): 27.4 Total Col2Ave (4 peaks): 45.0 RPD = 48*

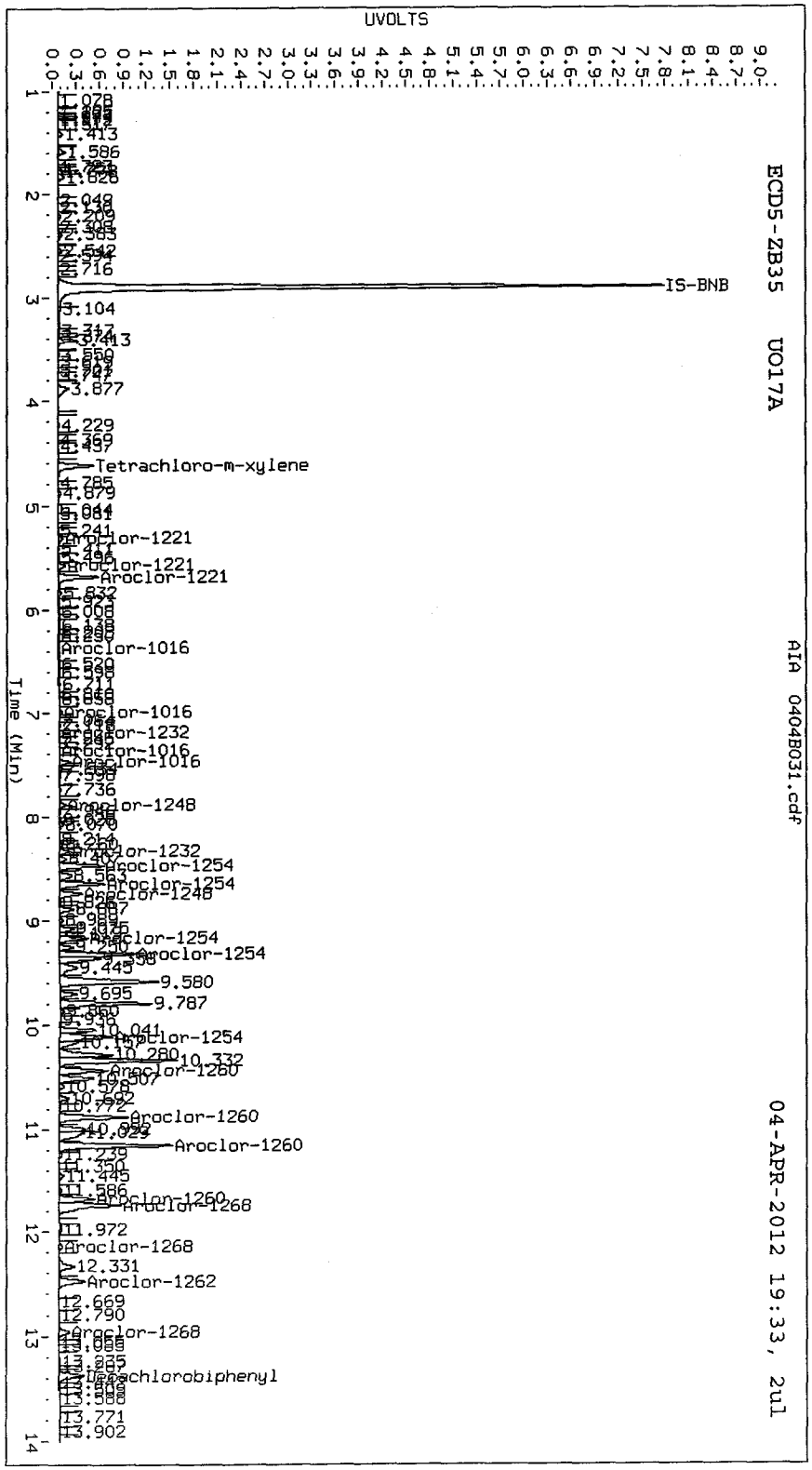
Corrected Ave (3 peaks): 22.2 Corrected Ave (3 peaks): 20.2 RPD = 9

Total PCB Area Col1 (4.716 - 12.900) = 504830720 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 221437697 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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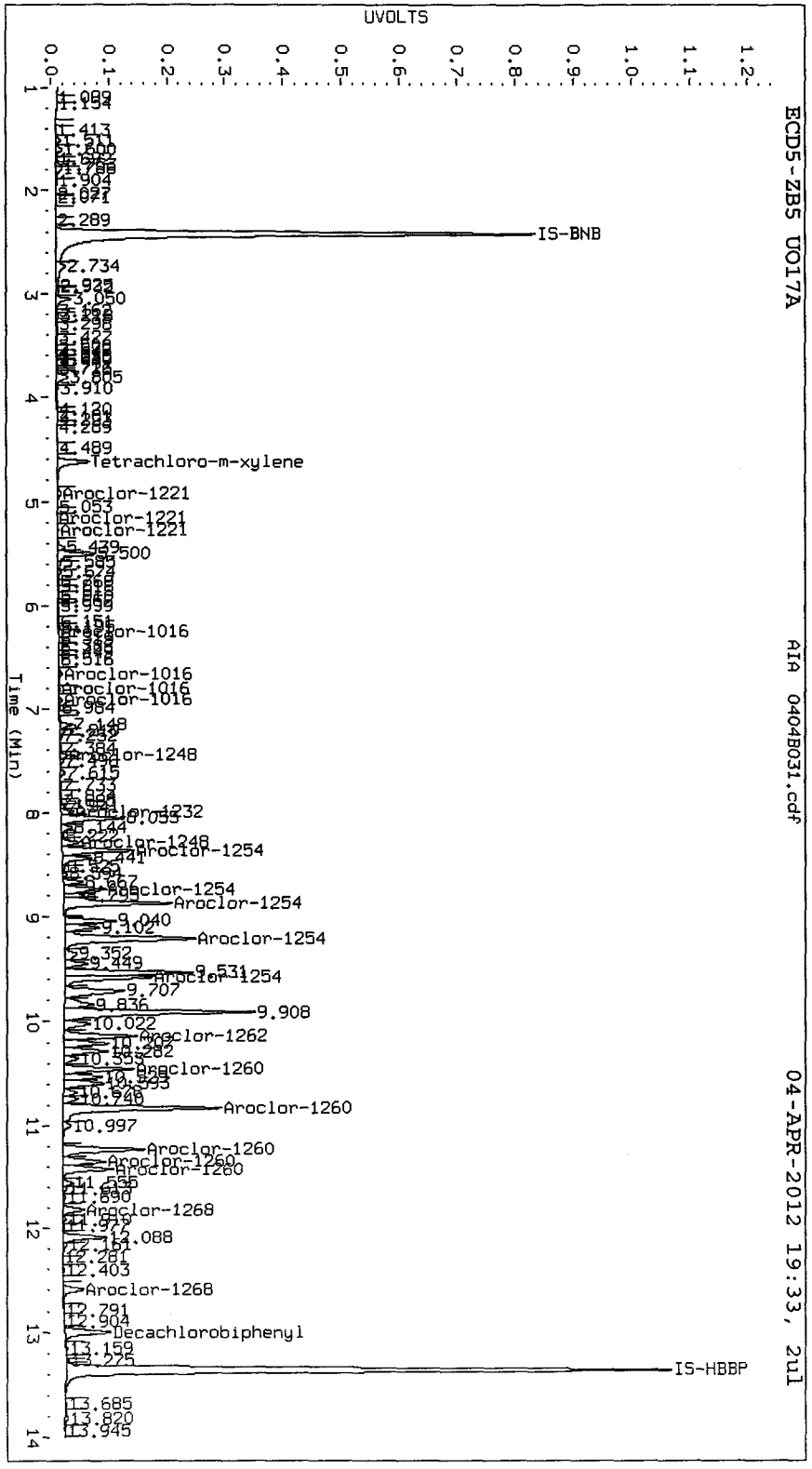
Aroclor-1262
Decachlorobiphenyl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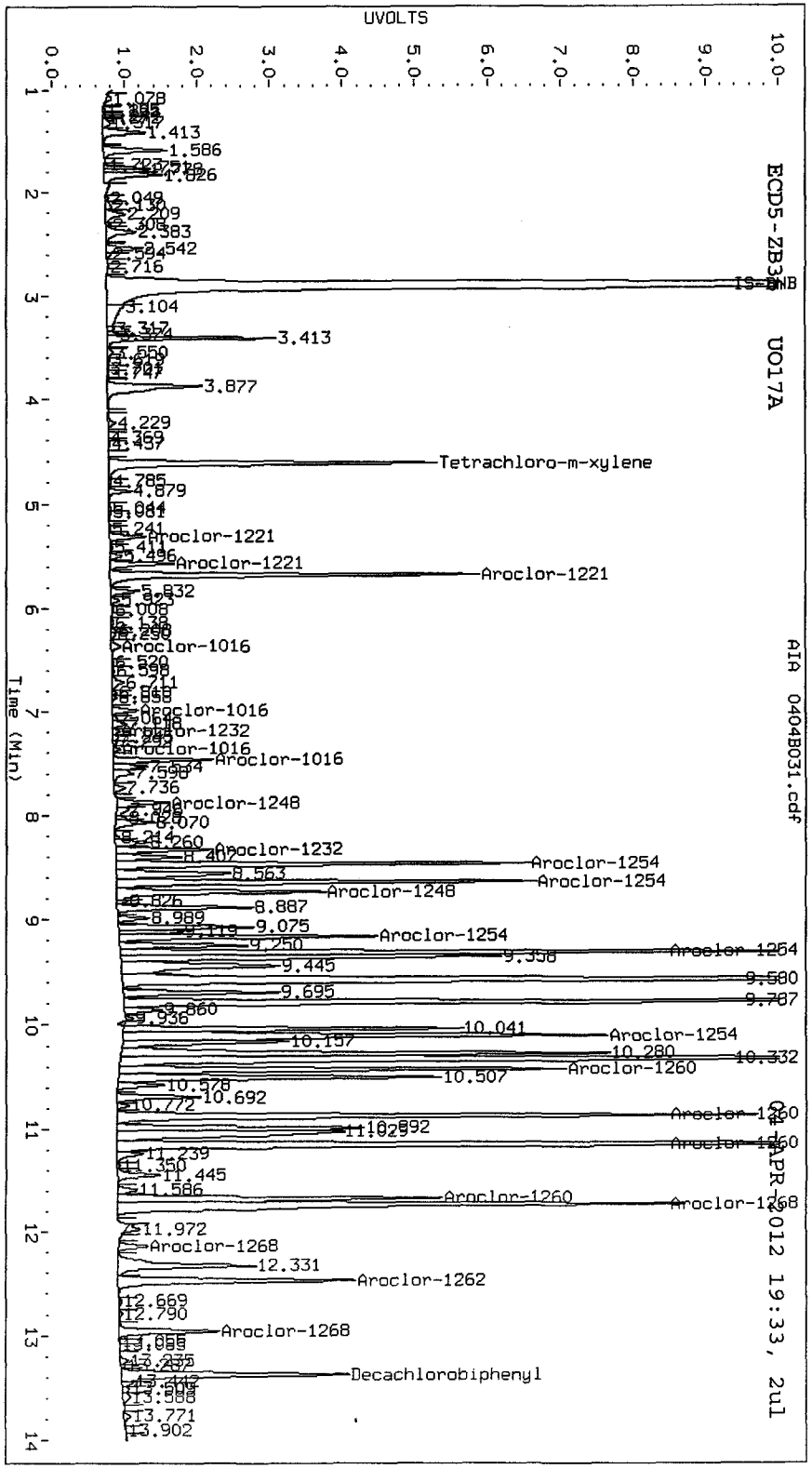
IS-HBBP

U017.09215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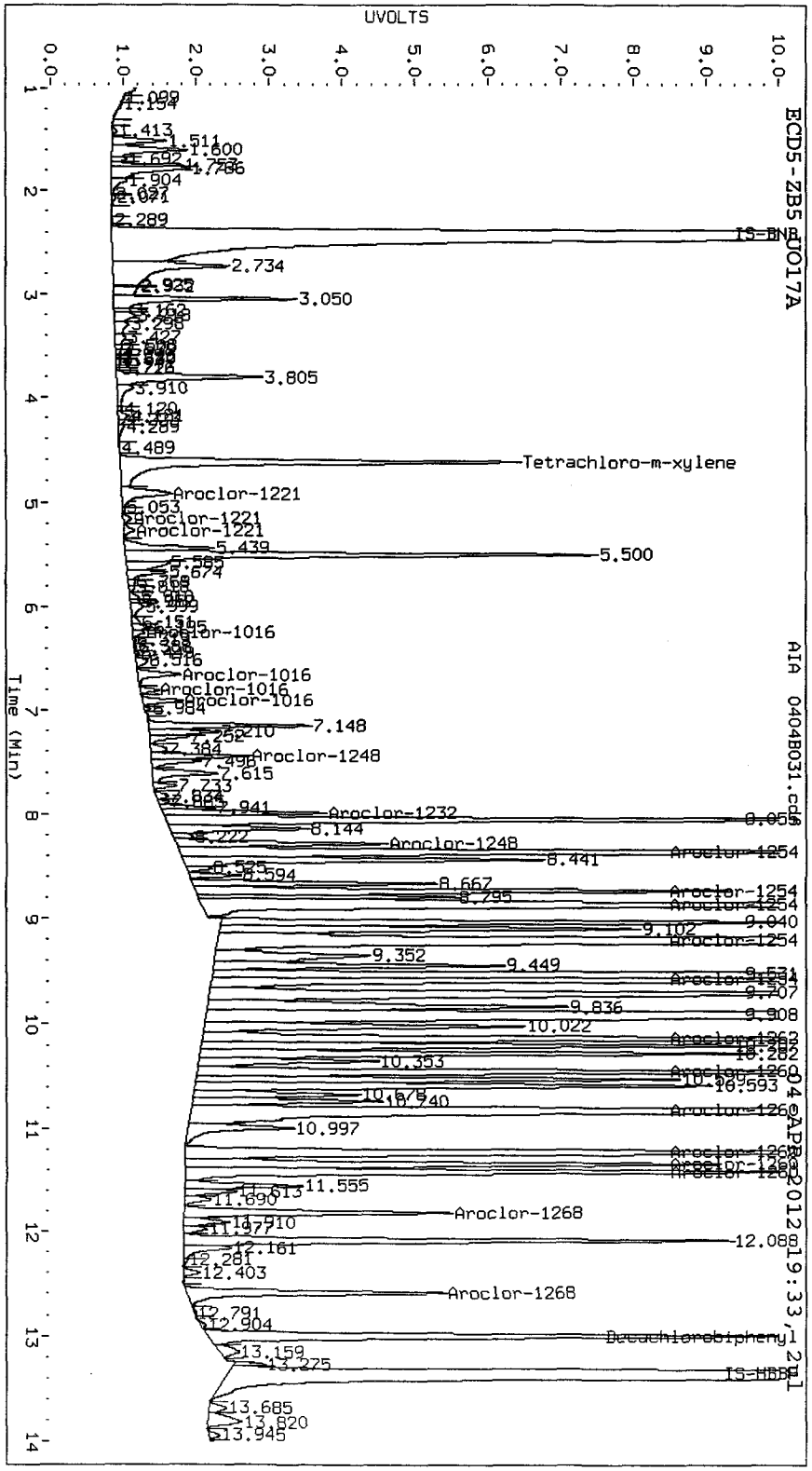
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB

UO17:00217

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B032.d
Data file 2: 20120327.B/0404-2.b/0404B032.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017B
Client ID: B-DGP1-SO-02'-03'
Injection Date: 04-APR-2012 19:52
Ical Date: 27-MAR-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
4.620	0.003	58309806	4.619	0.001	39473778	29.6	29.9	1.0	Tetrachloro-m-xylene
13.000	0.001	79702021	13.375	0.000	29020615	33.2	32.5	2.1	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	73.9	74.7
Decachlorobiphenyl	82.9	81.3

R 04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	136000860	8.5
Hexabromobiphenyl	146489015	164083209	12.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	93548930	27.8
Hexabromobiphenyl	55066880	67170584	22.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.196	-0.054	1933074	39.4	1	6.341	-0.013	159048	3.2
Aroclor-1016	2	6.628	-0.022	330848	2.0	2	6.982	0.002	119675	1.2
Aroclor-1016	3	6.807	0.009	77042	1.2	3	7.360	-0.003	47580	1.9
Aroclor-1016	4	6.901	-0.008	1052533	22.4	4	7.469	-0.001	248285	9.0
Total Col1Ave (4 peaks):				16.2		Total Col2Ave (4 peaks):			3.8	RPD = 124*
Corrected Ave (3 peaks):				8.5		Corrected Ave (3 peaks):			2.1	RPD = 121*
Aroclor-1221	1	4.900	0.001	8685956	1082.0	1	5.315	0.010	2588133	173.7
Aroclor-1221	2	5.156	-0.015	1876423	120.0	2	5.573	0.022	1185231	134.5
Aroclor-1221	3	5.242	-0.034	1189442	22.9	3	5.683	0.019	1173037	44.1
Aroclor-1221	NS	---			----	4	5.726	-0.005	964749	201.5
Total Col1Ave (3 peaks):				408.3		Total Col2Ave (4 peaks):			138.4	RPD = 99*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			117.4	
Aroclor-1232	1	6.196	-0.058	1933074	93.6	1	6.341	-0.017	159048	7.5
Aroclor-1232	2	6.628	-0.025	330848	4.8	2	6.982	-0.002	119675	3.0
Aroclor-1232	3	6.807	0.005	77042	2.8	3	7.191	-0.001	57924	4.3
Aroclor-1232	4	7.992	-0.002	264836	10.5	4	8.333	-0.003	153420	10.7
Total Col1Ave (4 peaks):				27.9		Total Col2Ave (4 peaks):			6.4	RPD = 126*
Corrected Ave (3 peaks):				6.0		Corrected Ave (3 peaks):			4.9	RPD = 20
Aroclor-1242	1	6.196	-0.056	1933074	50.1	1	6.341	-0.014	159048	4.3
Aroclor-1242	2	6.628	-0.024	330848	2.6	2	6.982	0.001	119675	1.6
Aroclor-1242	3	6.807	0.007	77042	1.5	3	7.191	0.001	57924	1.9
Aroclor-1242	4	7.992	-0.001	264836	5.9	4	8.333	-0.001	153420	6.0
Total Col1Ave (4 peaks):				15.0		Total Col2Ave (4 peaks):			3.5	RPD = 125*
Corrected Ave (3 peaks):				3.3		Corrected Ave (3 peaks):			2.6	RPD = 25
Aroclor-1248	1	6.628	-0.019	330848	4.1	1	6.982	0.006	119675	2.5
Aroclor-1248	2	7.442	-0.004	596278	9.9	2	7.899	0.018	657507	17.8
Aroclor-1248	3	7.992	0.001	264836	3.5	3	8.333	0.000	153420	3.6
Aroclor-1248	4	8.286	0.005	1109529	14.6	4	8.738	-0.016	627824	13.8
Total Col1Ave (4 peaks):				8.0		Total Col2Ave (4 peaks):			9.4	RPD = 16
Corrected Ave (3 peaks):				5.8		Corrected Ave (3 peaks):			6.7	RPD = 13
Aroclor-1254	1	8.364	0.000	3177320	28.0	1	8.473	0.000	1551637	44.4
Aroclor-1254	2	8.737	0.001	1440092	19.8	2	8.646	0.000	1159292	26.1
Aroclor-1254	3	8.872	0.000	5885267	43.0	3	9.184	0.016	1177460	34.5
Aroclor-1254	4	9.204	-0.017	7779922	52.1	4	9.318	0.000	1824369	25.0
Aroclor-1254	5	9.573	-0.010	3149579	32.0	5	10.109	0.008	1393981	31.7
Total Col1Ave (5 peaks):				35.0		Total Col2Ave (5 peaks):			32.3	RPD = 8
Corrected Ave (4 peaks):				30.7		Corrected Ave (4 peaks):			29.3	RPD = 5
Aroclor-1260	1	10.454	-0.001	2908366	30.4	1	10.430	0.000	1448293	38.2
Aroclor-1260	2	10.828	0.000	8040029	34.2	2	10.879	-0.002	1912376	41.8
Aroclor-1260	3	11.228	-0.001	3577933	28.2	3	11.152	0.000	3437124	37.2
Aroclor-1260	4	11.345	0.000	2267802	43.6	4	11.673	-0.001	1187980	45.1
Aroclor-1260	5	11.418	0.000	2488128	39.8	NS	---			----
Total Col1Ave (5 peaks):				35.3		Total Col2Ave (4 peaks):			40.6	RPD = 14
Corrected Ave (4 peaks):				33.2		Corrected Ave (3 peaks):			39.1	RPD = 16
Aroclor-1262	1	10.137	-0.005	3585640	24.2	1	10.430	-0.004	1448293	24.8
Aroclor-1262	2	10.454	-0.004	2908366	26.4	2	10.879	-0.006	1912376	38.4
Aroclor-1262	3	10.828	-0.005	8040029	26.9	3	11.152	-0.004	3437124	30.3
Aroclor-1262	4	11.345	-0.004	2267802	22.0	4	11.673	-0.005	1187980	26.9
Aroclor-1262	5	11.418	-0.005	2488128	21.2	5	12.473	-0.005	1062399	23.3
Total Col1Ave (5 peaks):				24.1		Total Col2Ave (5 peaks):			28.8	RPD = 18
Corrected Ave (4 peaks):				23.4		Corrected Ave (4 peaks):			26.3	RPD = 12
Aroclor-1268	1	11.345	-0.006	2267802	7.5	1	11.673	-0.006	1187980	10.2
Aroclor-1268	2	11.418	-0.003	2488128	8.3	2	11.734	-0.012	2290055	21.3

Aroclor-1268	3	11.815	0.007	1432108	5.7	3	12.138	-0.006	176625	1.9
Aroclor-1268	4	12.592	-0.008	1454688	1.8	4	12.960	-0.005	728399	2.6

Total Col1Ave (4 peaks): 5.8 Total Col2Ave (4 peaks): 9.0 RPD = 43*

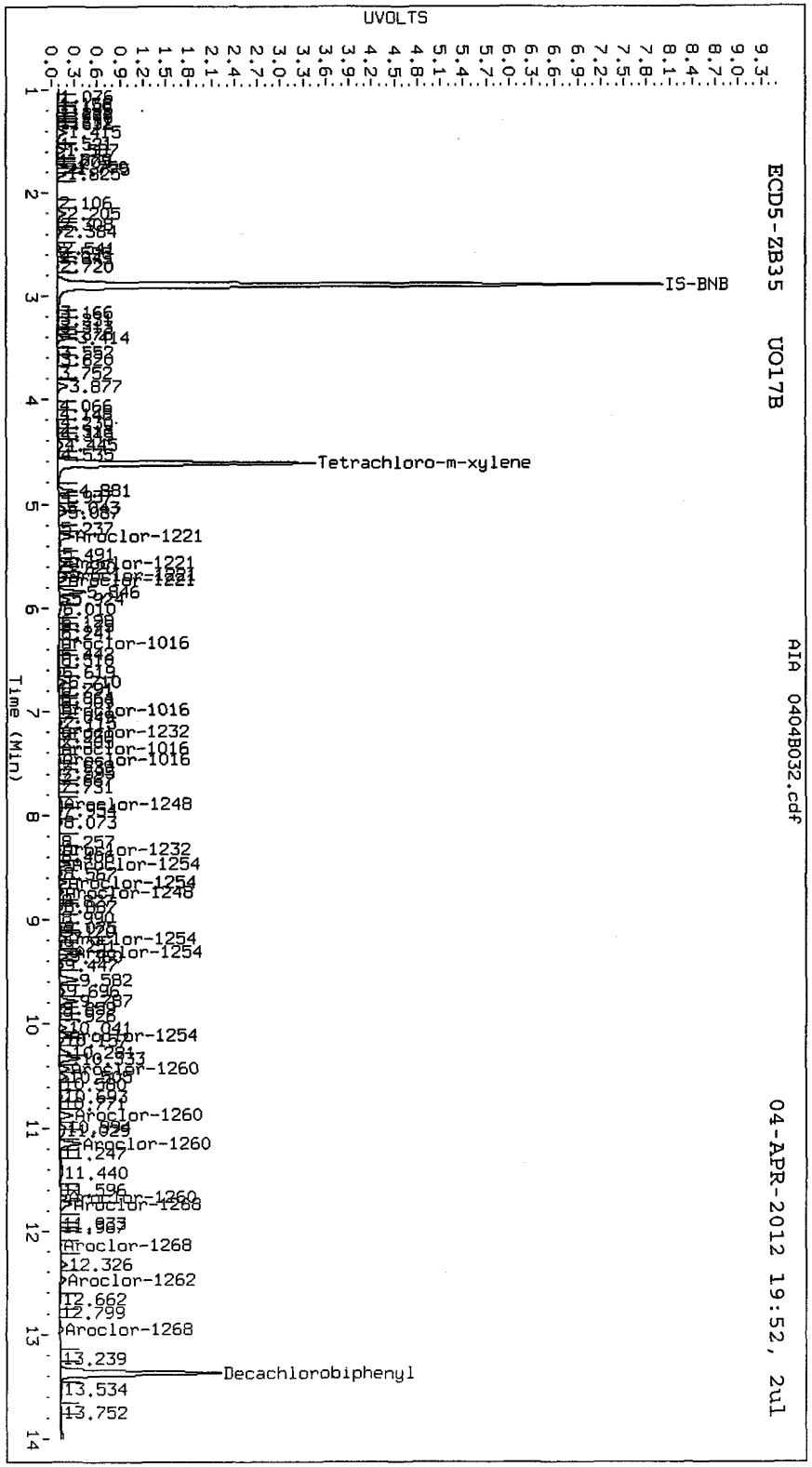
Corrected Ave (3 peaks): 5.0 Corrected Ave (3 peaks): 4.9 RPD = 3

Total PCB Area Col1 (4.716 - 12.900) = 155512816 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 66059945 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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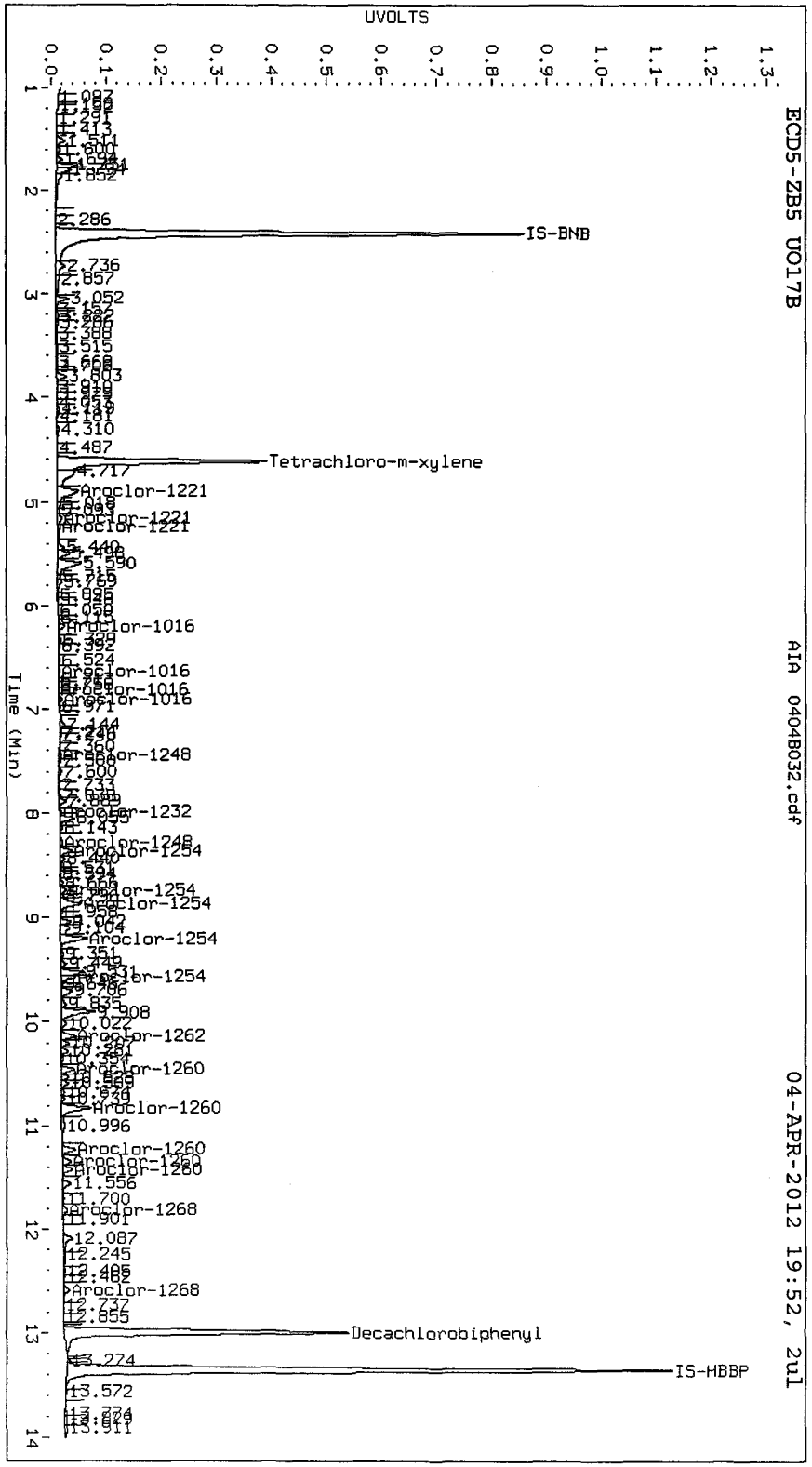
Aroclor-1262
Decachlorobiphenyl
Time (Min)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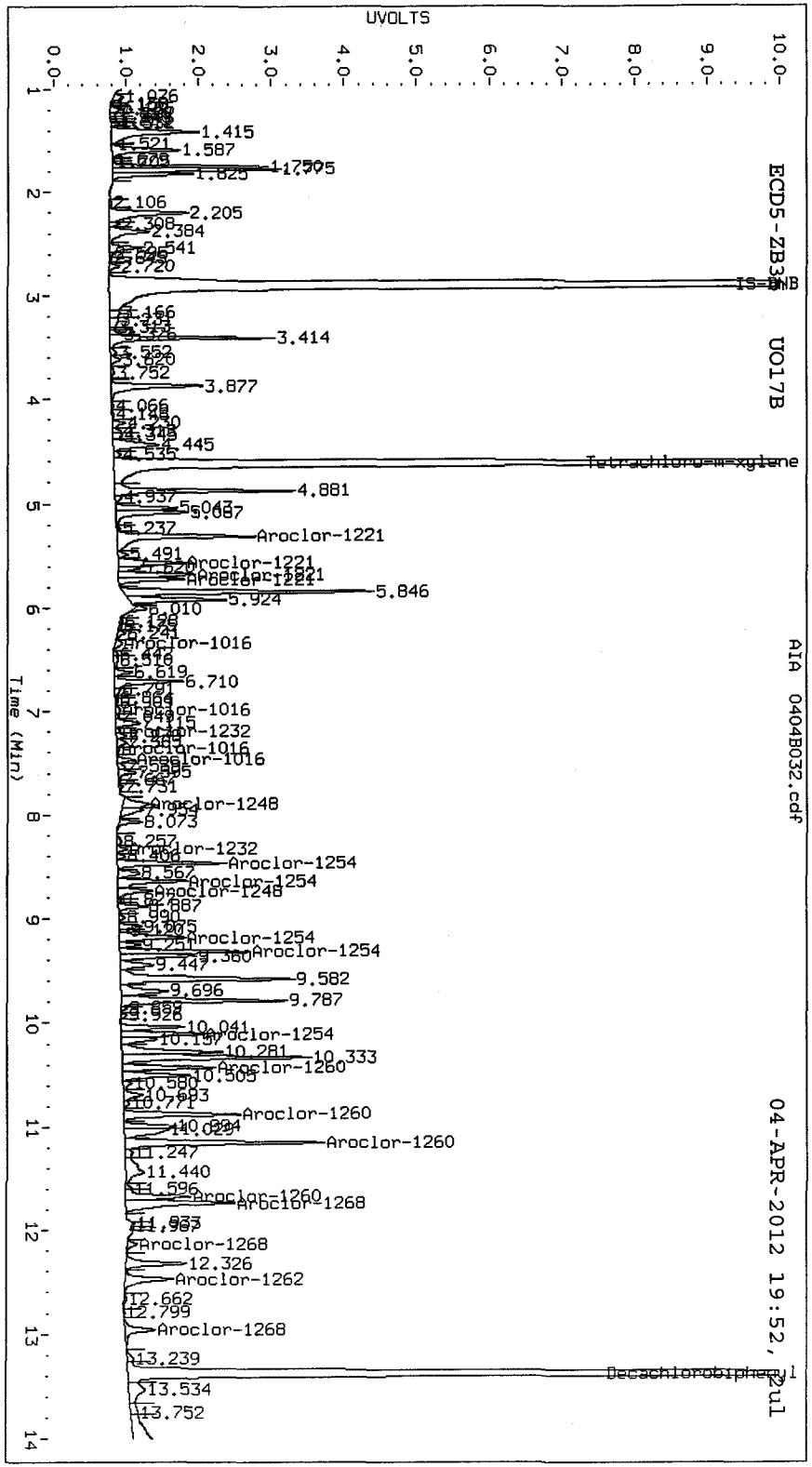
Time (Min)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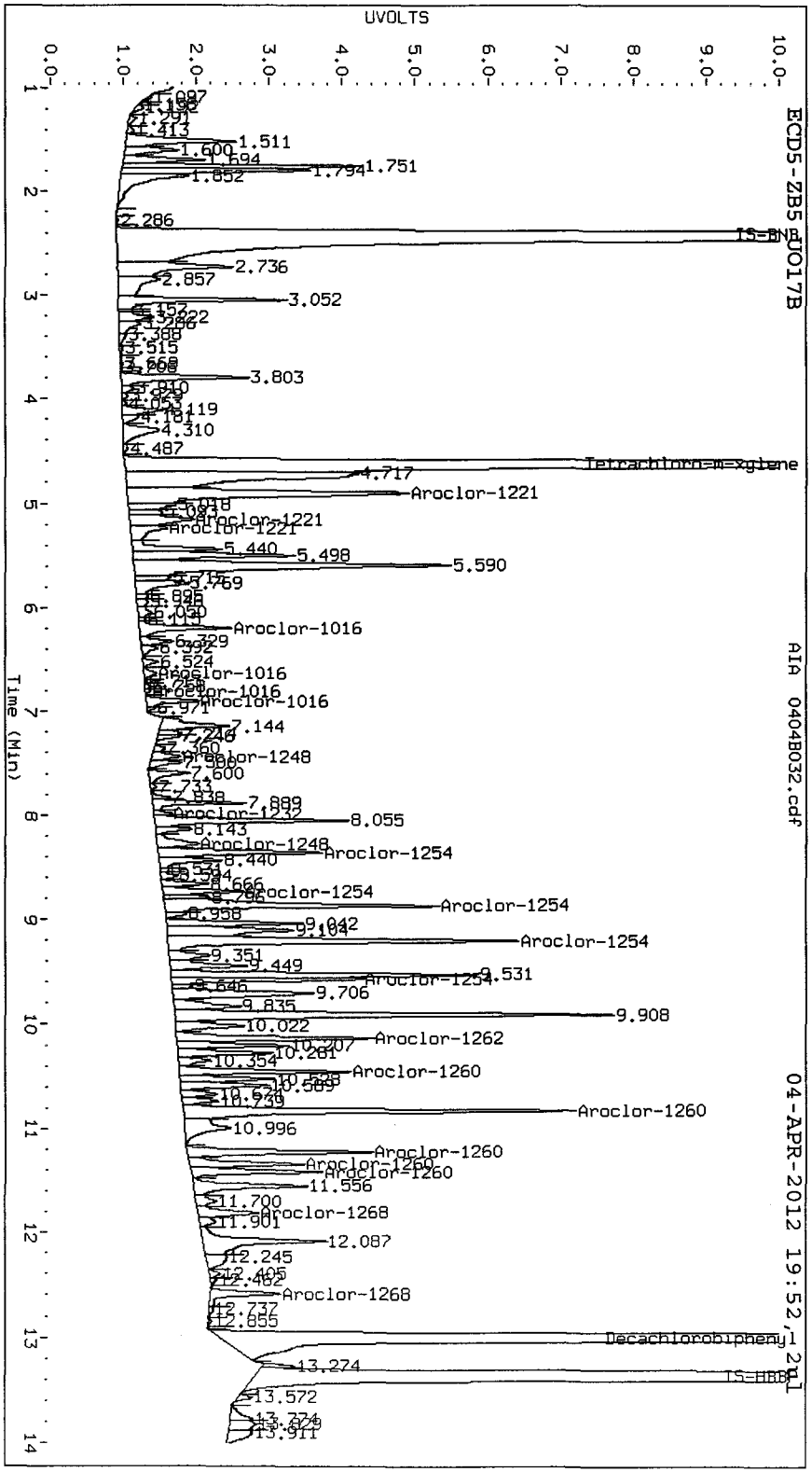
Decachlorobiphenyl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Decachlorobiphenyl
IS=HBB

U0172222

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20120327.B/0404-2.b/0404B033.d
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Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017BMS
Client ID: B-DGP1-SO-02'-0 MS
Injection Date: 04-APR-2012 20:11
Ical Date: 27-MAR-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
4.619	0.003	70190390	4.618	0.000	40866778	34.7	30.1	14.1	Tetrachloro-m-xylene
13.001	0.001	83084086	13.375	0.000	29603225	33.7	32.9	2.3	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	86.7	75.3
Decachlorobiphenyl	84.1	82.2

04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	139648362	11.4
Hexabromobiphenyl	146489015	168621359	15.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	96086619	31.3
Hexabromobiphenyl	55066880	67718419	23.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.251	0.001	21988290	435.9	1	6.354	0.000	19143337	373.2
Aroclor-1016	2	6.651	0.001	74826260	437.2	2	6.982	0.002	42482664	416.8
Aroclor-1016	3	6.799	0.001	29055791	431.7	3	7.363	0.001	10796930	416.0
Aroclor-1016	4	6.909	0.001	21694574	450.1	4	7.470	0.000	12013343	424.8
Total Col1Ave (4 peaks):				438.7		Total Col2Ave (4 peaks):			407.7	RPD = 7
Corrected Ave (3 peaks):				434.9		Corrected Ave (3 peaks):			402.0	RPD = 8
Aroclor-1221	1	4.898	0.000	7241293	878.4	1	5.309	0.005	3603535	235.4
Aroclor-1221	2	5.168	-0.003	4382055	272.9	2	5.551	-0.001	2813297	310.8
Aroclor-1221	3	5.272	-0.003	15657931	293.8	3	5.661	-0.003	9047450	331.0
Aroclor-1221	NS	---			----	4	5.726	-0.005	1369253	278.5
Total Col1Ave (3 peaks):				481.7		Total Col2Ave (4 peaks):			288.9	RPD = 50*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			274.9	
Aroclor-1232	1	6.251	-0.002	21988290	1036.4	1	6.354	-0.004	19143337	879.5
Aroclor-1232	2	6.651	-0.002	74826260	1063.8	2	6.982	-0.002	42482664	1047.7
Aroclor-1232	3	6.799	-0.003	29055791	1034.8	3	7.189	-0.003	14463095	1035.7
Aroclor-1232	4	7.991	-0.003	4166901	160.2	4	8.333	-0.004	2492673	168.6
Total Col1Ave (4 peaks):				823.8		Total Col2Ave (4 peaks):			782.9	RPD = 5
Corrected Ave (3 peaks):				743.8		Corrected Ave (3 peaks):			694.6	RPD = 7
Aroclor-1242	1	6.251	-0.001	21988290	555.3	1	6.354	-0.001	19143337	501.6
Aroclor-1242	2	6.651	-0.001	74826260	563.6	2	6.982	0.002	42482664	545.6
Aroclor-1242	3	6.799	-0.001	29055791	556.6	3	7.189	0.000	14463095	463.4
Aroclor-1242	4	7.991	-0.001	4166901	90.5	4	8.333	-0.001	2492673	95.7
Total Col1Ave (4 peaks):				441.5		Total Col2Ave (4 peaks):			401.6	RPD = 9
Corrected Ave (3 peaks):				400.8		Corrected Ave (3 peaks):			353.6	RPD = 13
Aroclor-1248	1	6.651	0.004	74826260	898.0	1	6.982	0.007	42482664	873.3
Aroclor-1248	2	7.447	0.001	21012710	340.6	2	7.882	0.001	13994183	369.8
Aroclor-1248	3	7.991	0.001	4166901	53.0	3	8.333	0.000	2492673	57.6
Aroclor-1248	4	8.286	0.005	4400024	56.3	4	8.748	-0.006	1413220	30.2
Total Col1Ave (4 peaks):				337.0		Total Col2Ave (4 peaks):			332.7	RPD = 1
Corrected Ave (3 peaks):				150.0		Corrected Ave (3 peaks):			152.5	RPD = 2
Aroclor-1254	1	8.367	0.002	24098711	206.9	1	8.474	0.001	9574512	266.4
Aroclor-1254	2	8.736	0.001	5917511	79.4	2	8.646	0.000	10574870	232.0
Aroclor-1254	3	8.871	-0.001	27186086	193.3	3	9.169	0.001	3087347	88.1
Aroclor-1254	4	9.204	-0.018	63680079	415.6	4	9.319	0.002	6475123	86.4
Aroclor-1254	5	9.532	-0.051	91722842	907.8	5	10.111	0.011	10735579	237.9
Total Col1Ave (5 peaks):				360.6		Total Col2Ave (5 peaks):			182.2	RPD = 66*
Corrected Ave (4 peaks):				223.8		Corrected Ave (4 peaks):			161.1	RPD = 33
Aroclor-1260	1	10.456	0.001	45260087	460.7	1	10.430	0.000	18694537	489.1
Aroclor-1260	2	10.829	0.001	111242787	460.9	2	10.880	0.000	23391639	506.9
Aroclor-1260	3	11.229	0.000	59865268	459.4	3	11.153	0.000	47777444	512.6
Aroclor-1260	4	11.346	0.001	25898772	484.4	4	11.675	0.000	13645754	513.8
Aroclor-1260	5	11.419	0.001	31797583	494.8	NS	---			----
Total Col1Ave (5 peaks):				472.1		Total Col2Ave (4 peaks):			505.6	RPD = 7
Corrected Ave (4 peaks):				466.4		Corrected Ave (3 peaks):			502.9	RPD = 8
Aroclor-1262	1	10.139	-0.003	45836810	301.3	1	10.430	-0.004	18694537	317.7
Aroclor-1262	2	10.456	-0.002	45260087	400.1	2	10.880	-0.005	23391639	466.1
Aroclor-1262	3	10.829	-0.003	111242787	361.7	3	11.153	-0.004	47777444	418.1
Aroclor-1262	4	11.346	-0.004	25898772	244.1	4	11.675	-0.004	13645754	306.7
Aroclor-1262	5	11.419	-0.003	31797583	263.2	5	12.474	-0.004	11847334	258.2
Total Col1Ave (5 peaks):				314.1		Total Col2Ave (5 peaks):			353.3	RPD = 12
Corrected Ave (4 peaks):				292.6		Corrected Ave (4 peaks):			325.2	RPD = 11
Aroclor-1268	1	11.346	-0.005	25898772	83.7	1	11.675	-0.005	13645754	115.7
Aroclor-1268	2	11.419	-0.002	31797583	103.0	2	11.734	-0.012	32712524	302.4

Aroclor-1268	3	11.820	0.011	15238355	58.9	3	12.139	-0.005	980535	10.3
Aroclor-1268	4	12.593	-0.007	10579881	12.9	4	12.960	-0.005	3620105	12.6

Total Col1Ave (4 peaks): 64.6 Total Col2Ave (4 peaks): 110.3 RPD = 52*

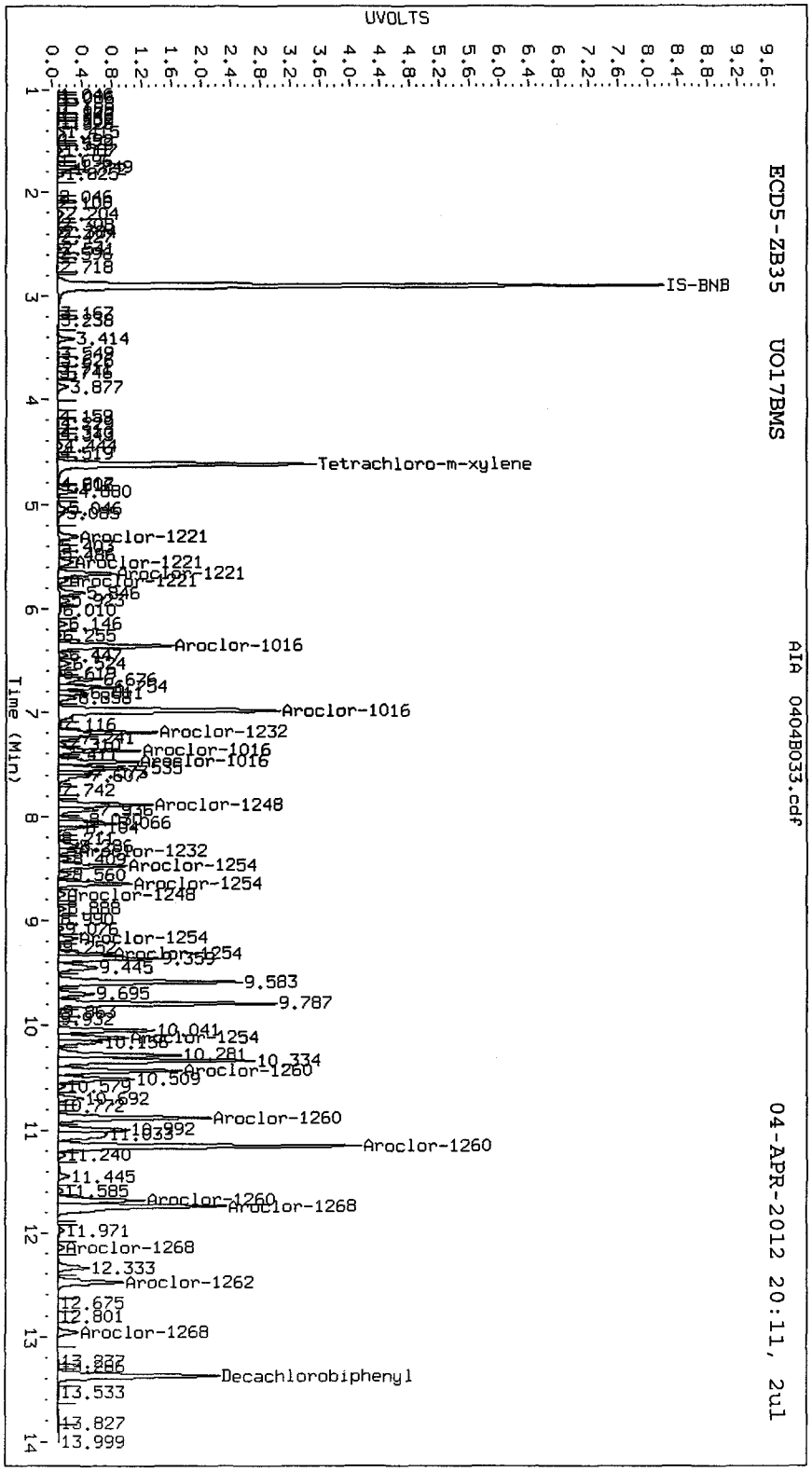
Corrected Ave (3 peaks): 51.8 Corrected Ave (3 peaks): 46.2 RPD = 11

Total PCB Area Col1 (4.716 - 12.900) = 1376736274 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 629558983 Col2 Total PCB = 0.9 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
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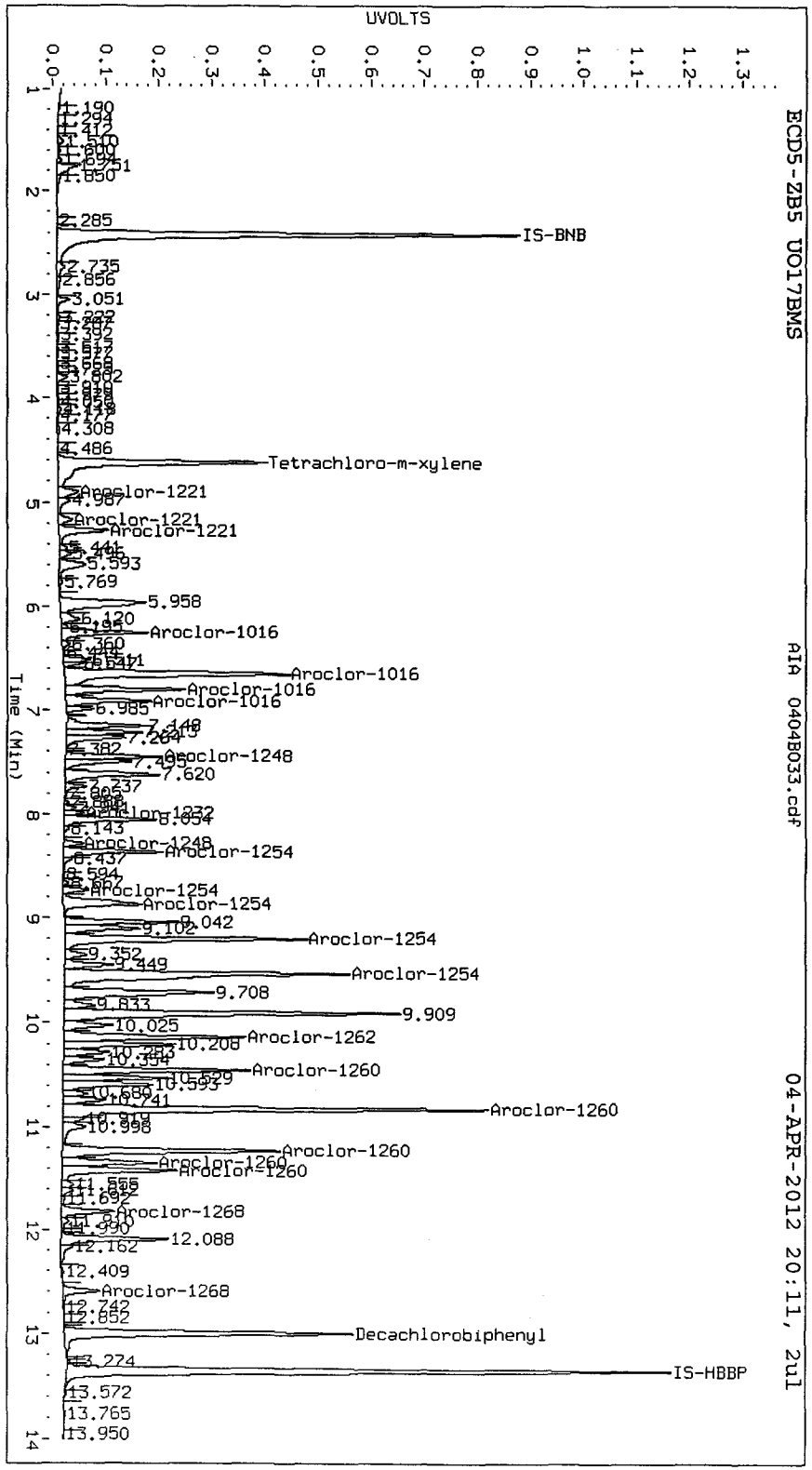
Aroclor-1262
Decachlorobiphenyl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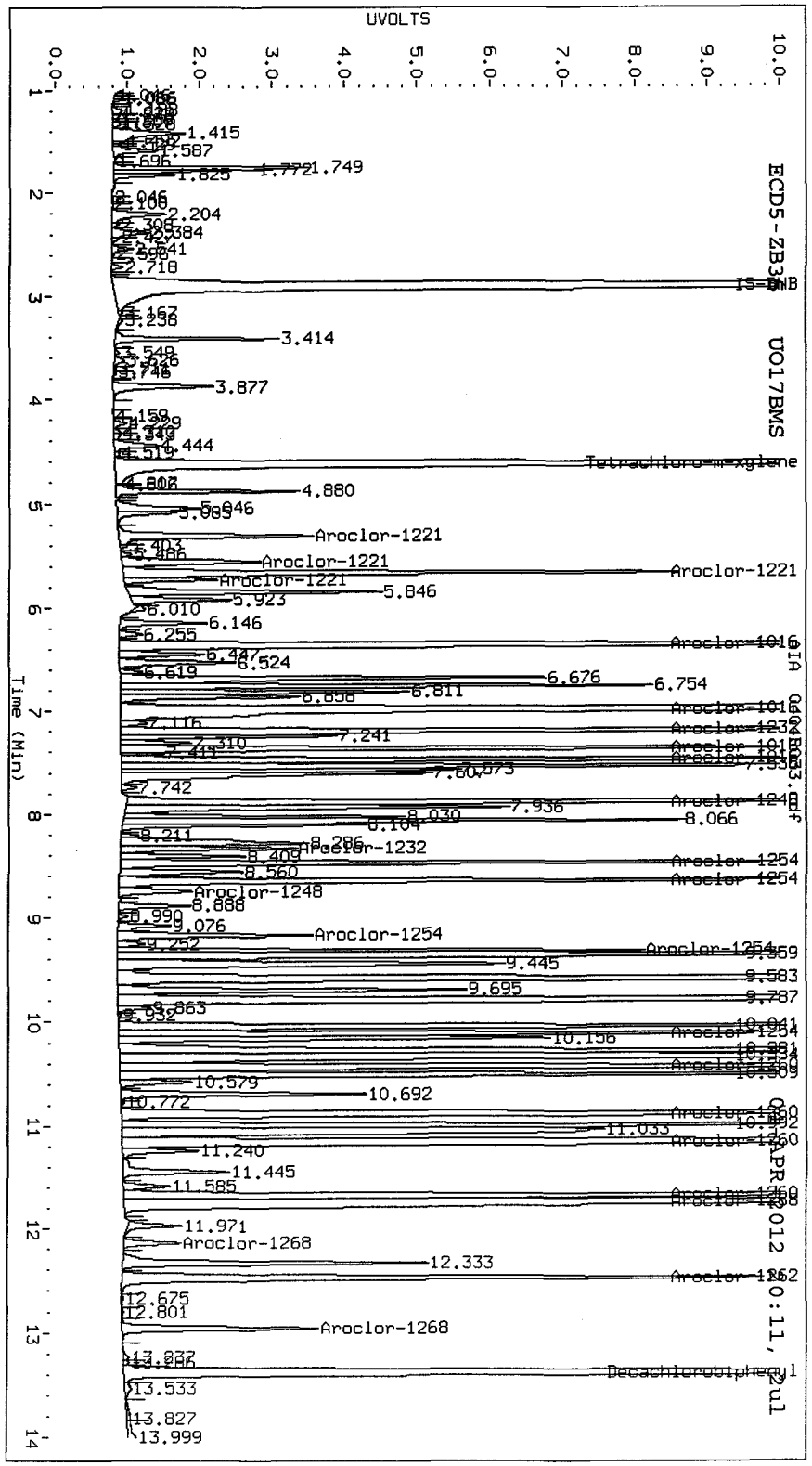
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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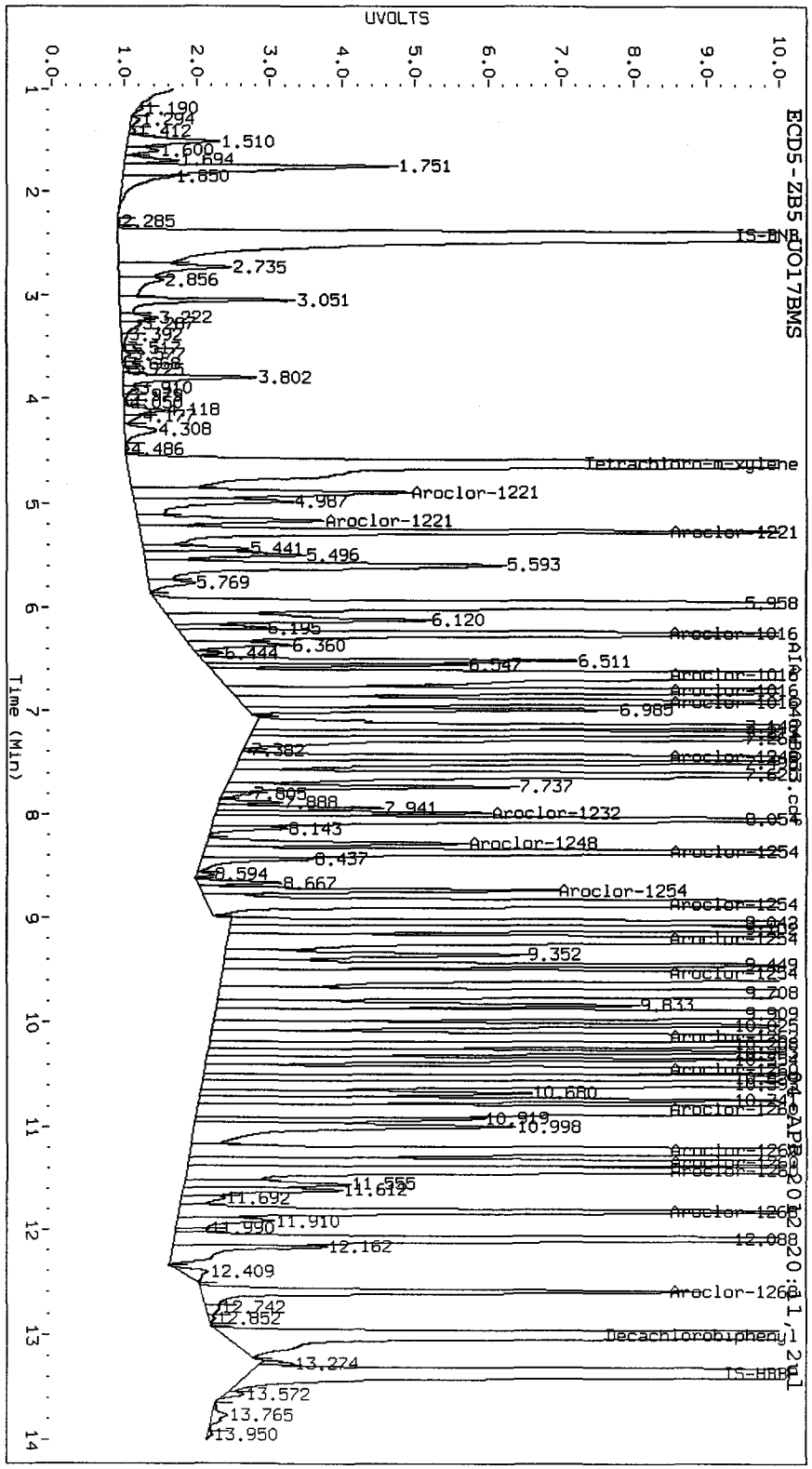
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Tetrachloro-m-xylene
Decachlorobiphenyl
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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
IS=BNB
2ul

UO17:08227

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B034.d
Data file 2: 20120327.B/0404-2.b/0404B034.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017BMSD
Client ID: B-DGP1-SO-02'-0 MSD
Injection Date: 04-APR-2012 20:30
Ical Date: 27-MAR-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
4.619	0.003	72844855	4.616	-0.001	42803473	36.6	31.9	13.6	Tetrachloro-m-xylene
13.000	0.000	86781852	13.374	-0.001	31196941	35.4	34.7	2.1	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	91.6	79.9
Decachlorobiphenyl	88.6	86.8

04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	137190891	9.4
Hexabromobiphenyl	146489015	167319206	14.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	94865964	29.6
Hexabromobiphenyl	55066880	67625177	22.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.251	0.001	22970089	463.6	1	6.353	-0.001	20039437	395.7
Aroclor-1016	2	6.651	0.001	77834321	462.9	2	6.981	0.001	43899241	436.3
Aroclor-1016	3	6.799	0.001	30107990	455.4	3	7.363	0.000	11801373	460.6
Aroclor-1016	4	6.909	0.001	22339764	471.8	4	7.470	0.000	12715069	455.3
Total Col1Ave (4 peaks):					463.4	Total Col2Ave (4 peaks):				437.0 RPD = 6
Corrected Ave (3 peaks):					460.6	Corrected Ave (3 peaks):				429.1 RPD = 7
Aroclor-1221	1	4.899	0.000	7437972	918.5	1	5.307	0.003	3814950	252.5
Aroclor-1221	2	5.168	-0.003	4460018	282.7	2	5.555	0.004	3531955	395.2
Aroclor-1221	3	5.272	-0.004	16116035	307.8	3	5.660	-0.004	9629663	356.8
Aroclor-1221	NS	---			----	4	5.725	-0.006	1541153	317.5
Total Col1Ave (3 peaks):					503.0	Total Col2Ave (4 peaks):				330.5 RPD = 41*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				308.9
Aroclor-1232	1	6.251	-0.003	22970089	1102.1	1	6.353	-0.005	20039437	932.5
Aroclor-1232	2	6.651	-0.002	77834321	1126.3	2	6.981	-0.003	43899241	1096.5
Aroclor-1232	3	6.799	-0.003	30107990	1091.5	3	7.188	-0.004	15179049	1101.0
Aroclor-1232	4	7.990	-0.003	4368473	171.0	4	8.332	-0.005	2620082	179.5
Total Col1Ave (4 peaks):					872.7	Total Col2Ave (4 peaks):				827.4 RPD = 5
Corrected Ave (3 peaks):					788.2	Corrected Ave (3 peaks):				736.2 RPD = 7
Aroclor-1242	1	6.251	-0.001	22970089	590.5	1	6.353	-0.002	20039437	531.9
Aroclor-1242	2	6.651	-0.001	77834321	596.8	2	6.981	0.001	43899241	571.1
Aroclor-1242	3	6.799	-0.001	30107990	587.1	3	7.188	-0.001	15179049	492.6
Aroclor-1242	4	7.990	-0.002	4368473	96.5	4	8.332	-0.002	2620082	101.9
Total Col1Ave (4 peaks):					467.7	Total Col2Ave (4 peaks):				424.4 RPD = 10
Corrected Ave (3 peaks):					424.7	Corrected Ave (3 peaks):				375.5 RPD = 12
Aroclor-1248	1	6.651	0.004	77834321	950.8	1	6.981	0.006	43899241	914.1
Aroclor-1248	2	7.446	0.001	21805486	359.7	2	7.881	0.000	14768472	395.3
Aroclor-1248	3	7.990	0.000	4368473	56.5	3	8.332	-0.001	2620082	61.3
Aroclor-1248	4	8.286	0.005	4495904	58.6	4	8.748	-0.007	1499175	32.5
Total Col1Ave (4 peaks):					356.4	Total Col2Ave (4 peaks):				350.8 RPD = 2
Corrected Ave (3 peaks):					158.3	Corrected Ave (3 peaks):				163.0 RPD = 3
Aroclor-1254	1	8.367	0.002	24774771	216.5	1	8.473	0.000	10033895	282.8
Aroclor-1254	2	8.736	0.000	6174852	84.4	2	8.645	-0.001	11183665	248.5
Aroclor-1254	3	8.870	-0.001	28456589	206.0	3	9.169	0.001	3678940	106.4
Aroclor-1254	4	9.203	-0.018	66159299	439.5	4	9.318	0.000	6711432	90.7
Aroclor-1254	5	9.531	-0.051	95365693	960.7	5	10.110	0.010	11357544	254.9
Total Col1Ave (5 peaks):					381.4	Total Col2Ave (5 peaks):				196.7 RPD = 64*
Corrected Ave (4 peaks):					236.6	Corrected Ave (4 peaks):				175.1 RPD = 30
Aroclor-1260	1	10.455	0.001	46811146	480.2	1	10.430	-0.001	19609842	513.8
Aroclor-1260	2	10.829	0.001	115269486	481.3	2	10.880	-0.001	24502413	531.7
Aroclor-1260	3	11.229	0.000	61789699	477.9	3	11.153	0.000	50446122	541.9
Aroclor-1260	4	11.345	0.000	26585225	501.1	4	11.674	-0.001	14262434	537.8
Aroclor-1260	5	11.419	0.000	32306761	506.6	NS	---			----
Total Col1Ave (5 peaks):					489.4	Total Col2Ave (4 peaks):				531.3 RPD = 8
Corrected Ave (4 peaks):					485.1	Corrected Ave (3 peaks):				527.7 RPD = 8
Aroclor-1262	1	10.138	-0.004	48117561	318.8	1	10.430	-0.005	19609842	333.8
Aroclor-1262	2	10.455	-0.003	46811146	417.0	2	10.880	-0.006	24502413	488.9
Aroclor-1262	3	10.829	-0.004	115269486	377.7	3	11.153	-0.004	50446122	442.0
Aroclor-1262	4	11.345	-0.004	26585225	252.5	4	11.674	-0.005	14262434	321.0
Aroclor-1262	5	11.419	-0.004	32306761	269.4	5	12.473	-0.005	12506912	272.9
Total Col1Ave (5 peaks):					327.1	Total Col2Ave (5 peaks):				371.7 RPD = 13
Corrected Ave (4 peaks):					304.6	Corrected Ave (4 peaks):				342.4 RPD = 12
Aroclor-1268	1	11.345	-0.006	26585225	86.6	1	11.674	-0.006	14262434	121.1
Aroclor-1268	2	11.419	-0.002	32306761	105.5	2	11.734	-0.012	34263731	317.1

Aroclor-1268	3	11.818	0.010	14953983	58.2	3	12.139	-0.005	1021960	10.8
Aroclor-1268	4	12.592	-0.007	10903856	13.4	4	12.959	-0.006	3786933	13.2

Total Col1Ave (4 peaks): 65.9 Total Col2Ave (4 peaks): 115.6 RPD = 55*

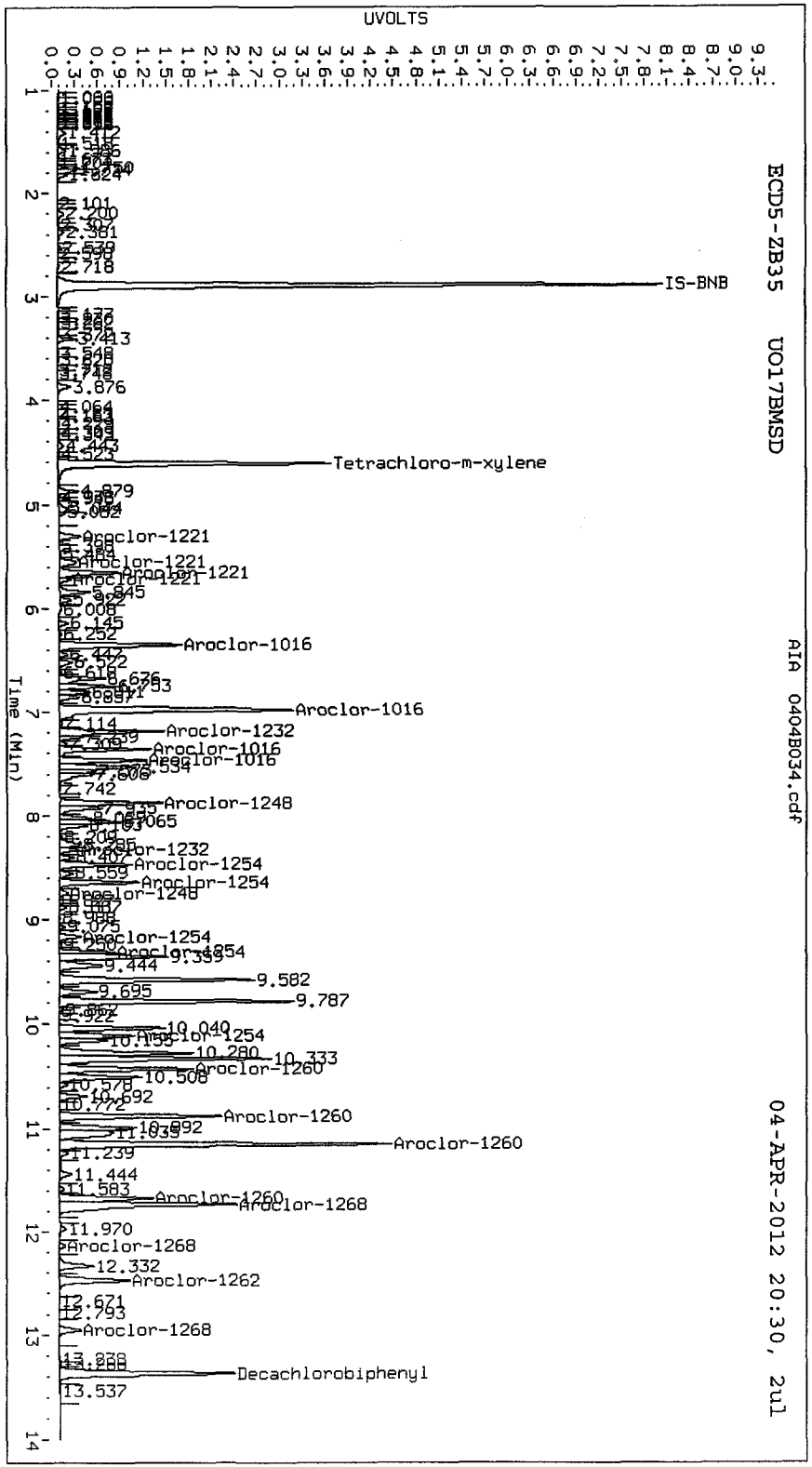
Corrected Ave (3 peaks): 52.7 Corrected Ave (3 peaks): 48.4 RPD = 9

Total PCB Area Col1 (4.716 - 12.900) = 1424648601 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 661251639 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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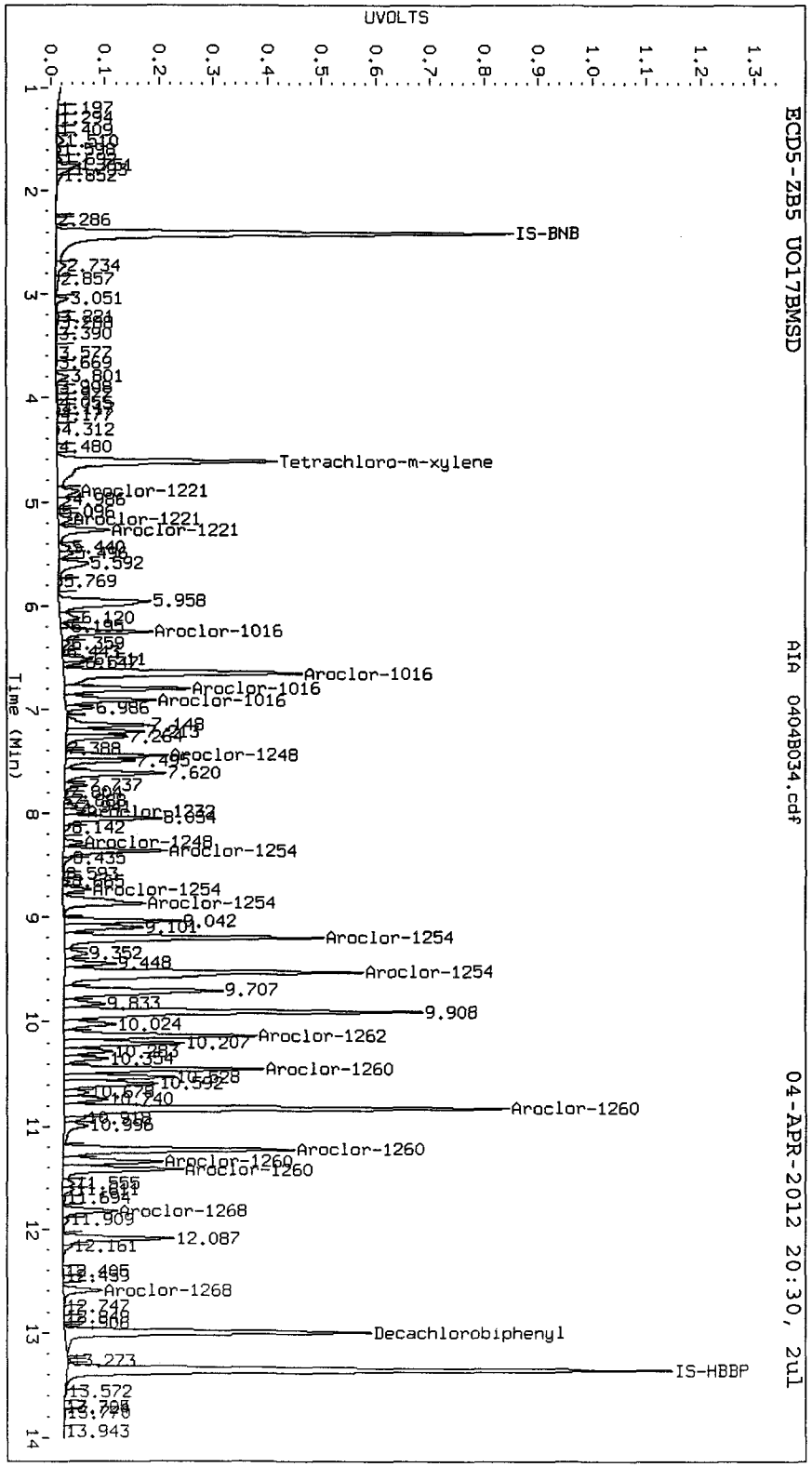
Aroclor-1268
Decachlorobiphenyl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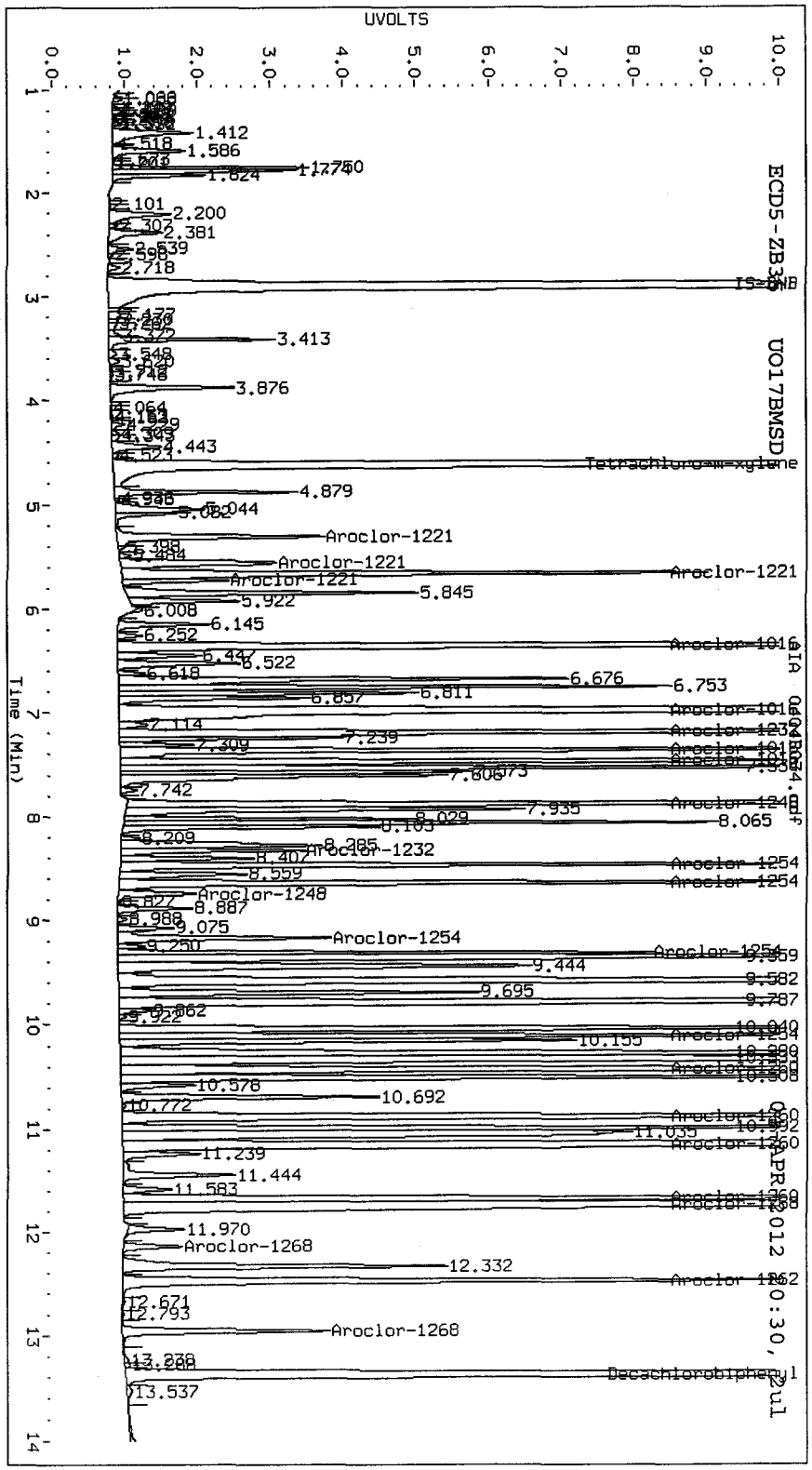
Decachlorobiphenyl
IS-HBBP

UO17:00231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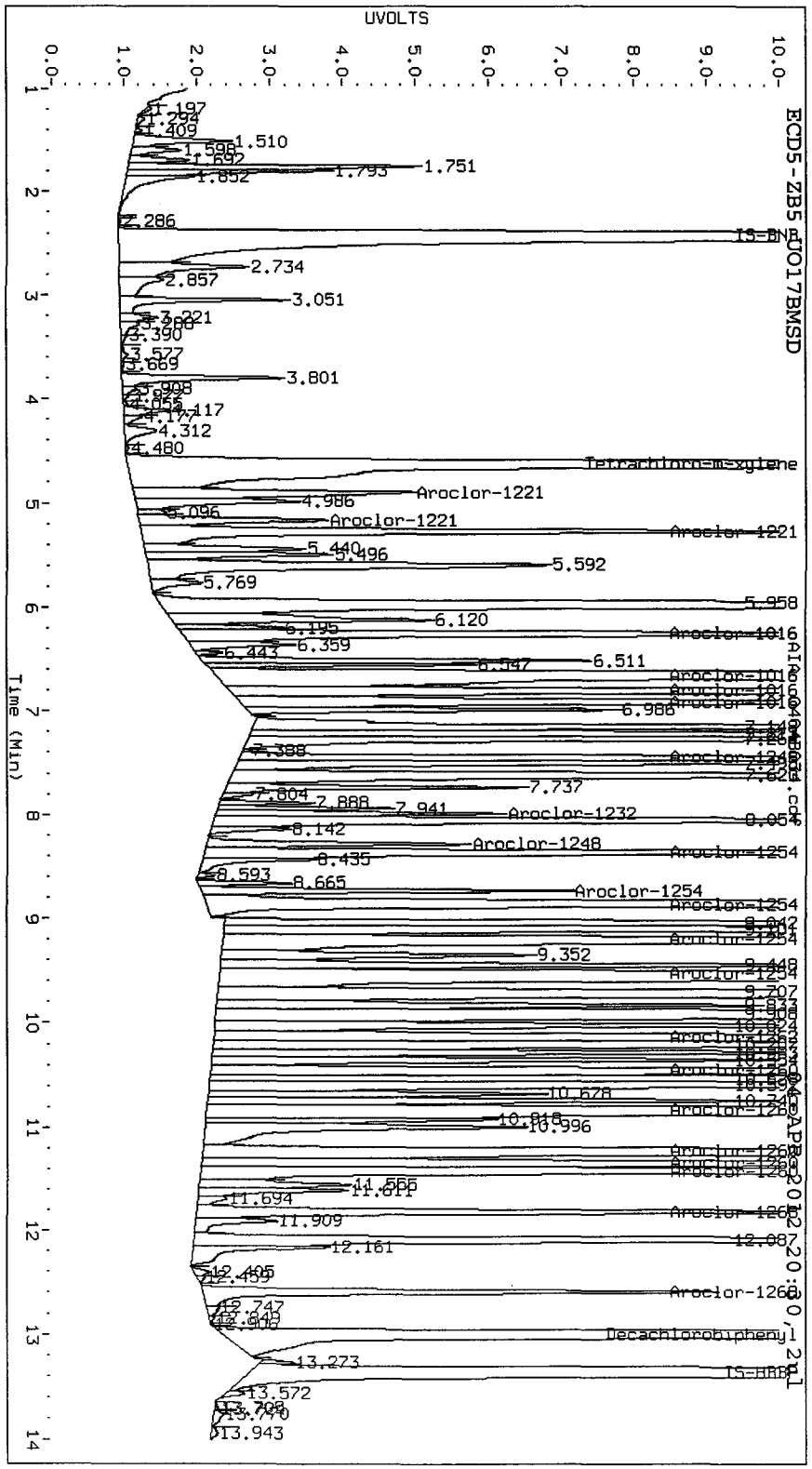
Aroclor-1268
Decachlorobiphenyl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Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl

10017:08232

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B035.d
Data file 2: 20120327.B/0404-2.b/0404B035.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017C
Client ID: B-DGP1-SO-05'-07'
Injection Date: 04-APR-2012 20:49
Ical Date: 27-MAR-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
4.619	0.003	70395222	4.617	0.000	42334154	36.4	32.6	11.0	Tetrachloro-m-xylene
13.002	0.002	84431071	13.375	0.000	30338696	35.1	34.4	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	91.0	81.5
Decachlorobiphenyl	87.8	86.0

JL 04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	133460093	6.5
Hexabromobiphenyl	146489015	164261898	12.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	91949716	25.6
Hexabromobiphenyl	55066880	66329019	20.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.242	-0.008	321301	6.7	1	6.338	-0.016	130709	2.7
Aroclor-1016	2	6.650	0.000	147291	0.9	2	6.970	-0.010	165069	1.7
Aroclor-1016	3	6.796	-0.002	86073	1.3	3	7.366	0.004	39646	1.6
Aroclor-1016	4	6.905	-0.004	325524	7.1	4	7.470	0.000	62033	2.3
Total Col1Ave (4 peaks):				4.0	Total Col2Ave (4 peaks):				2.1	RPD = 64*
Corrected Ave (3 peaks):				3.0	Corrected Ave (3 peaks):				1.9	RPD = 46*
Aroclor-1221	1	4.922	0.023	15269677	1938.3	1	5.312	0.007	5833199	398.3
Aroclor-1221	2	5.156	-0.015	2037586	132.8	2	5.572	0.021	294447	34.0
Aroclor-1221	3	5.239	-0.037	933032	18.3	3	5.683	0.019	5276867	201.7
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				696.4	Total Col2Ave (3 peaks):				211.3	RPD = 107*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	6.242	-0.012	321301	15.8	1	6.338	-0.020	130709	6.3
Aroclor-1232	2	6.650	-0.003	147291	2.2	2	6.970	-0.014	165069	4.3
Aroclor-1232	3	6.796	-0.005	86073	3.2	3	7.193	0.001	27782	2.1
Aroclor-1232	4	7.991	-0.003	107584	4.3	4	8.333	-0.004	88677	6.3
Total Col1Ave (4 peaks):				6.4	Total Col2Ave (4 peaks):				4.7	RPD = 30
Corrected Ave (3 peaks):				3.2	Corrected Ave (3 peaks):				4.2	RPD = 26
Aroclor-1242	1	6.242	-0.010	321301	8.5	1	6.338	-0.017	130709	3.6
Aroclor-1242	2	6.650	-0.002	147291	1.2	2	6.970	-0.011	165069	2.2
Aroclor-1242	3	6.796	-0.004	86073	1.7	3	7.193	0.004	27782	0.9
Aroclor-1242	4	7.991	-0.001	107584	2.4	4	8.333	-0.002	88677	3.6
Total Col1Ave (4 peaks):				3.5	Total Col2Ave (4 peaks):				2.6	RPD = 29
Corrected Ave (3 peaks):				1.8	Corrected Ave (3 peaks):				2.2	RPD = 23
Aroclor-1248	1	6.650	0.003	147291	1.8	1	6.970	-0.006	165069	3.5
Aroclor-1248	2	7.431	-0.015	857086	14.5	2	7.907	0.026	735057	20.3
Aroclor-1248	3	7.991	0.001	107584	1.4	3	8.333	-0.001	88677	2.1
Aroclor-1248	4	8.258	-0.023	419205	5.6	4	8.739	-0.015	114229	2.6
Total Col1Ave (4 peaks):				5.9	Total Col2Ave (4 peaks):				7.1	RPD = 20
Corrected Ave (3 peaks):				3.0	Corrected Ave (3 peaks):				2.7	RPD = 8
Aroclor-1254	1	8.365	0.000	375057	3.4	1	8.474	0.001	120476	3.5
Aroclor-1254	2	8.738	0.003	196305	2.8	2	8.646	0.000	106418	2.4
Aroclor-1254	3	8.872	0.001	844052	6.3	3	9.188	0.020	353972	10.6
Aroclor-1254	4	9.206	-0.015	1572666	10.7	4	9.318	0.000	143767	2.0
Aroclor-1254	5	9.577	-0.006	367504	3.8	5	10.107	0.006	139986	3.2
Total Col1Ave (5 peaks):				5.4	Total Col2Ave (5 peaks):				4.3	RPD = 21
Corrected Ave (4 peaks):				4.1	Corrected Ave (4 peaks):				2.8	RPD = 37
Aroclor-1260	1	10.456	0.001	269972	2.8	1	10.427	-0.004	156694	4.2
Aroclor-1260	2	10.829	0.001	1261082	5.4	2	10.878	-0.002	166881	3.7
Aroclor-1260	3	11.228	-0.001	412241	3.2	3	11.154	0.001	287493	3.1
Aroclor-1260	4	11.331	-0.014	479965	9.2	4	11.674	0.000	91434	3.5
Aroclor-1260	5	11.418	0.000	285064	4.6	NS	---			----
Total Col1Ave (5 peaks):				5.0	Total Col2Ave (4 peaks):				3.6	RPD = 32
Corrected Ave (4 peaks):				4.0	Corrected Ave (3 peaks):				3.5	RPD = 15
Aroclor-1262	1	10.137	-0.005	348604	2.4	1	10.427	-0.008	156694	2.7
Aroclor-1262	2	10.456	-0.002	269972	2.4	2	10.878	-0.007	166881	3.4
Aroclor-1262	3	10.829	-0.003	1261082	4.2	3	11.154	-0.003	287493	2.6
Aroclor-1262	4	11.331	-0.018	479965	4.6	4	11.674	-0.004	91434	2.1
Aroclor-1262	5	11.418	-0.004	285064	2.4	5	12.479	0.000	83340	1.9
Total Col1Ave (5 peaks):				3.2	Total Col2Ave (5 peaks):				2.5	RPD = 24
Corrected Ave (4 peaks):				2.9	Corrected Ave (4 peaks):				2.3	RPD = 21
Aroclor-1268	1	11.331	-0.020	479965	1.6	1	11.674	-0.005	91434	0.8
Aroclor-1268	2	11.418	-0.002	285064	0.9	2	11.735	-0.010	199438	1.9

Aroclor-1268 3	11.816	0.008	228615	0.9	3	12.136	-0.008	75073	0.8
Aroclor-1268 4	12.590	-0.009	230835	0.3	4	12.960	-0.005	91893	0.3

Total Col1Ave (4 peaks): 0.9 Total Col2Ave (4 peaks): 1.0 RPD = 2

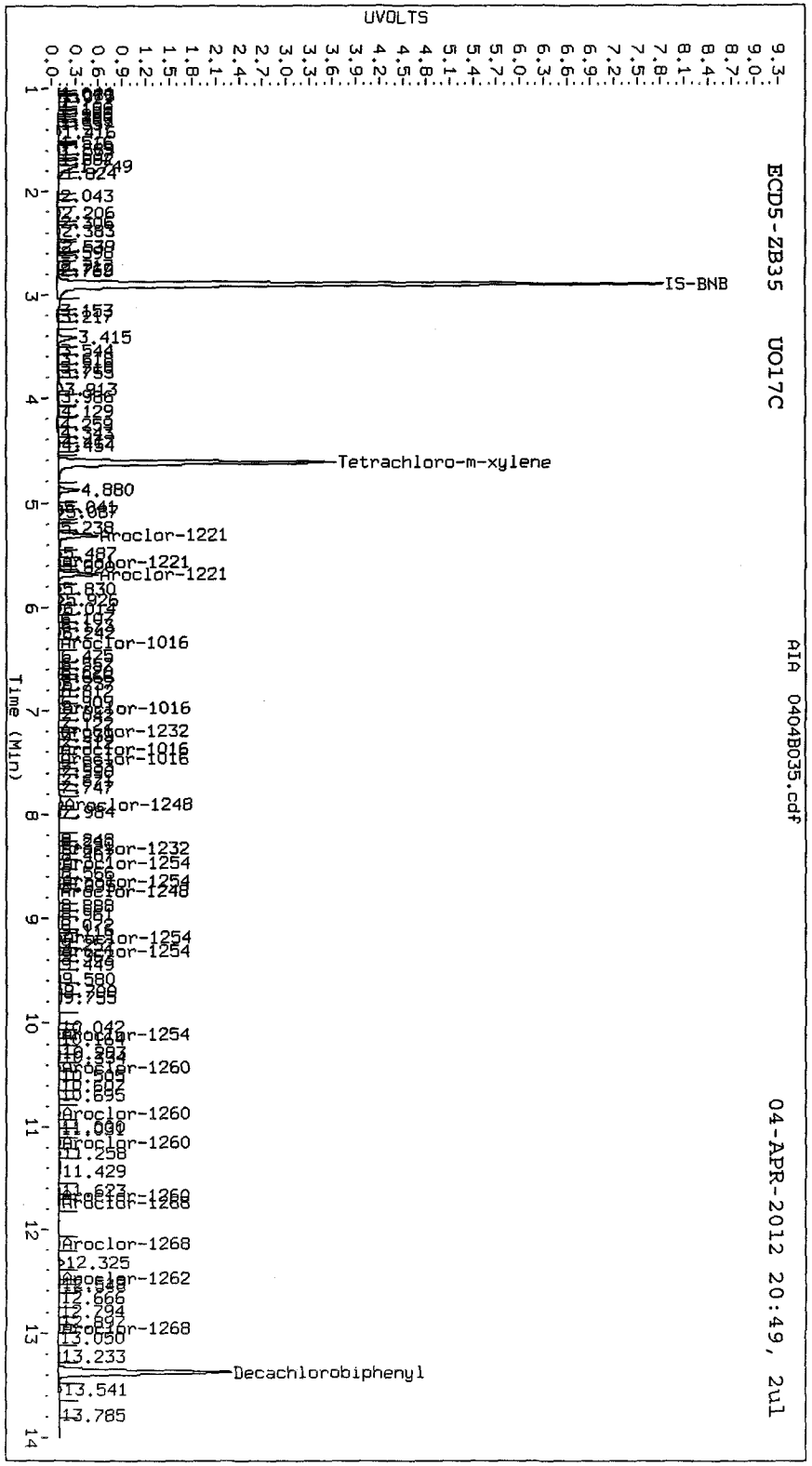
Corrected Ave (3 peaks): 0.7 Corrected Ave (3 peaks): 0.6 RPD = 11

Total PCB Area Col1 (4.716 - 12.900) = 60835081 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 27493451 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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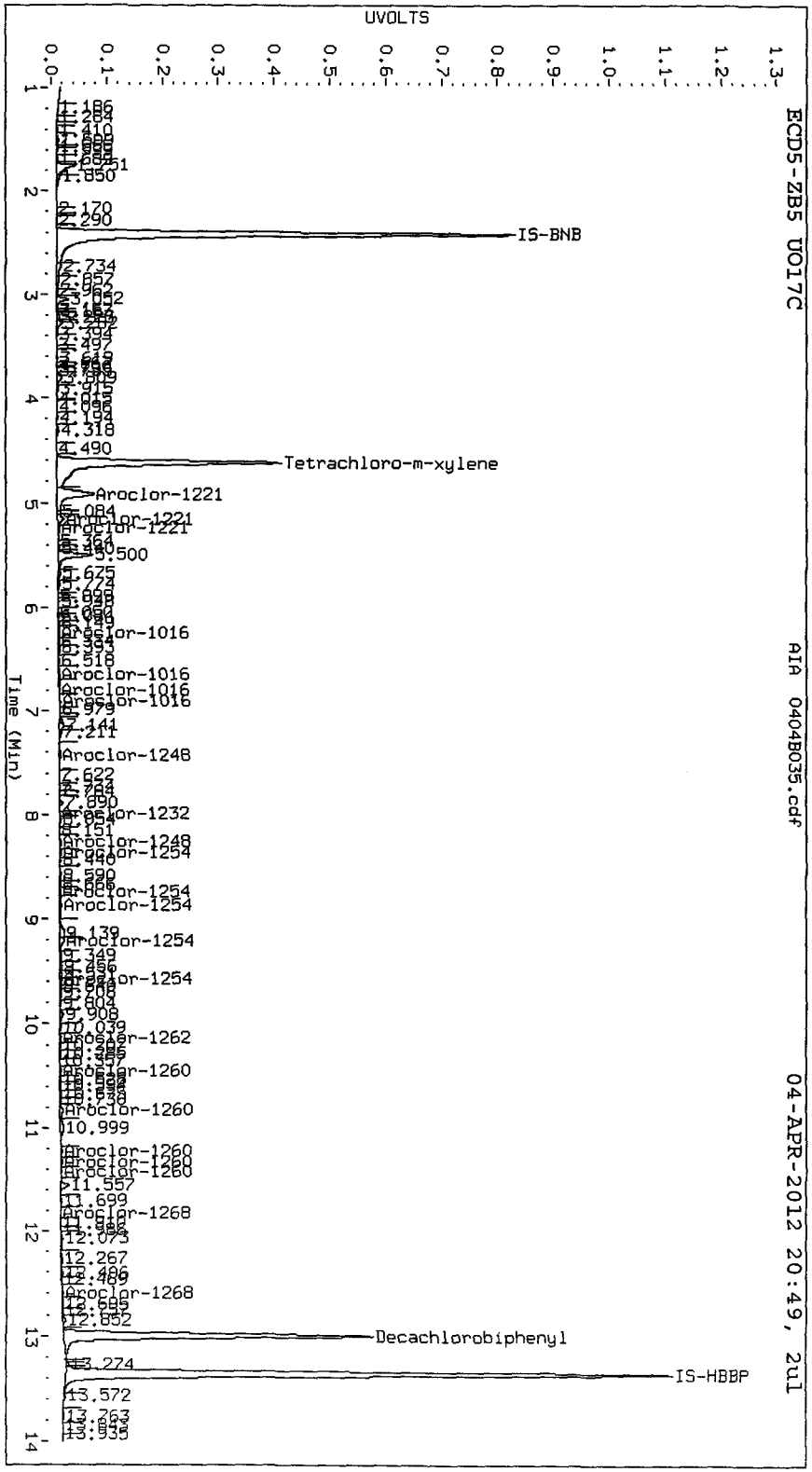
Decachlorobiphenyl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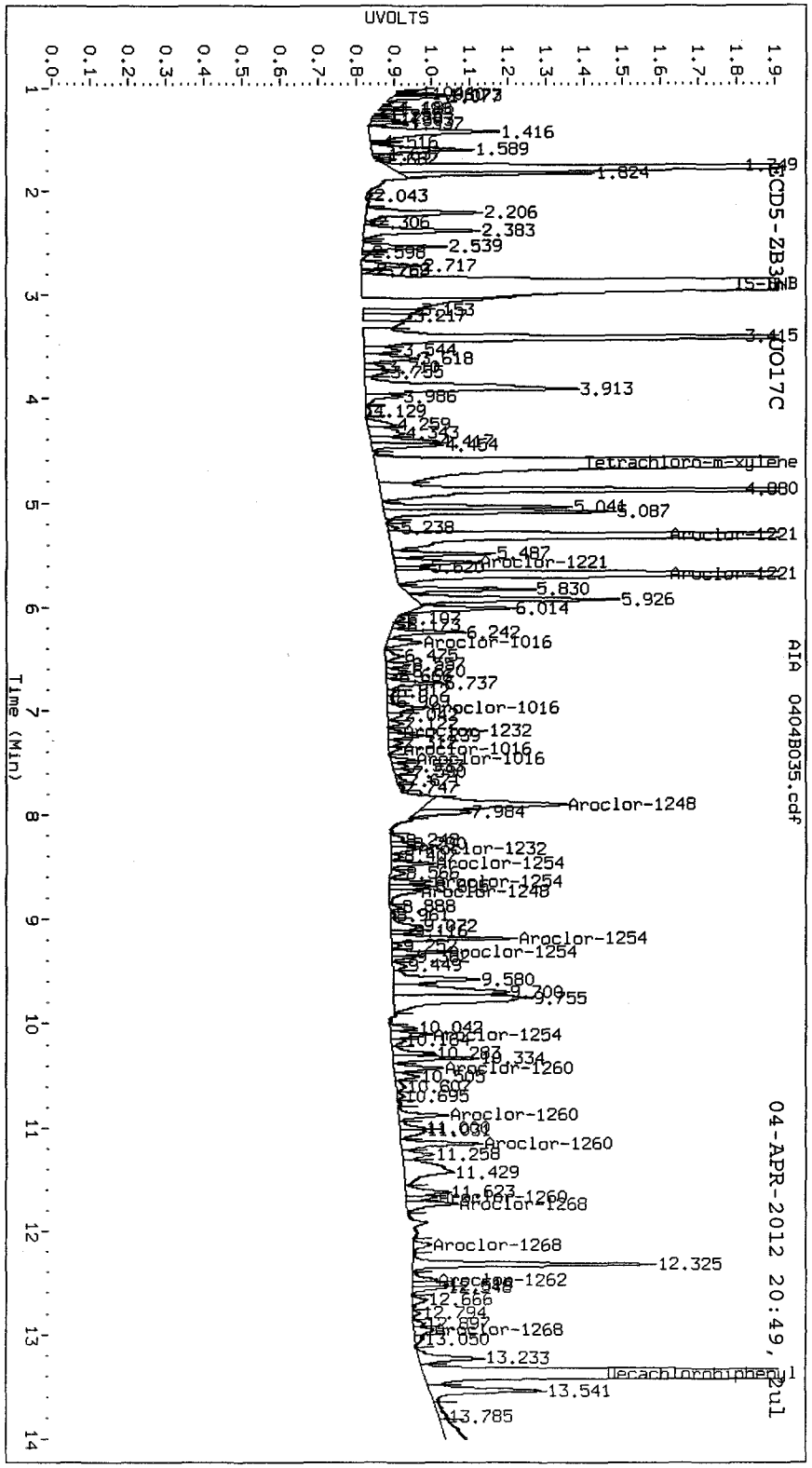
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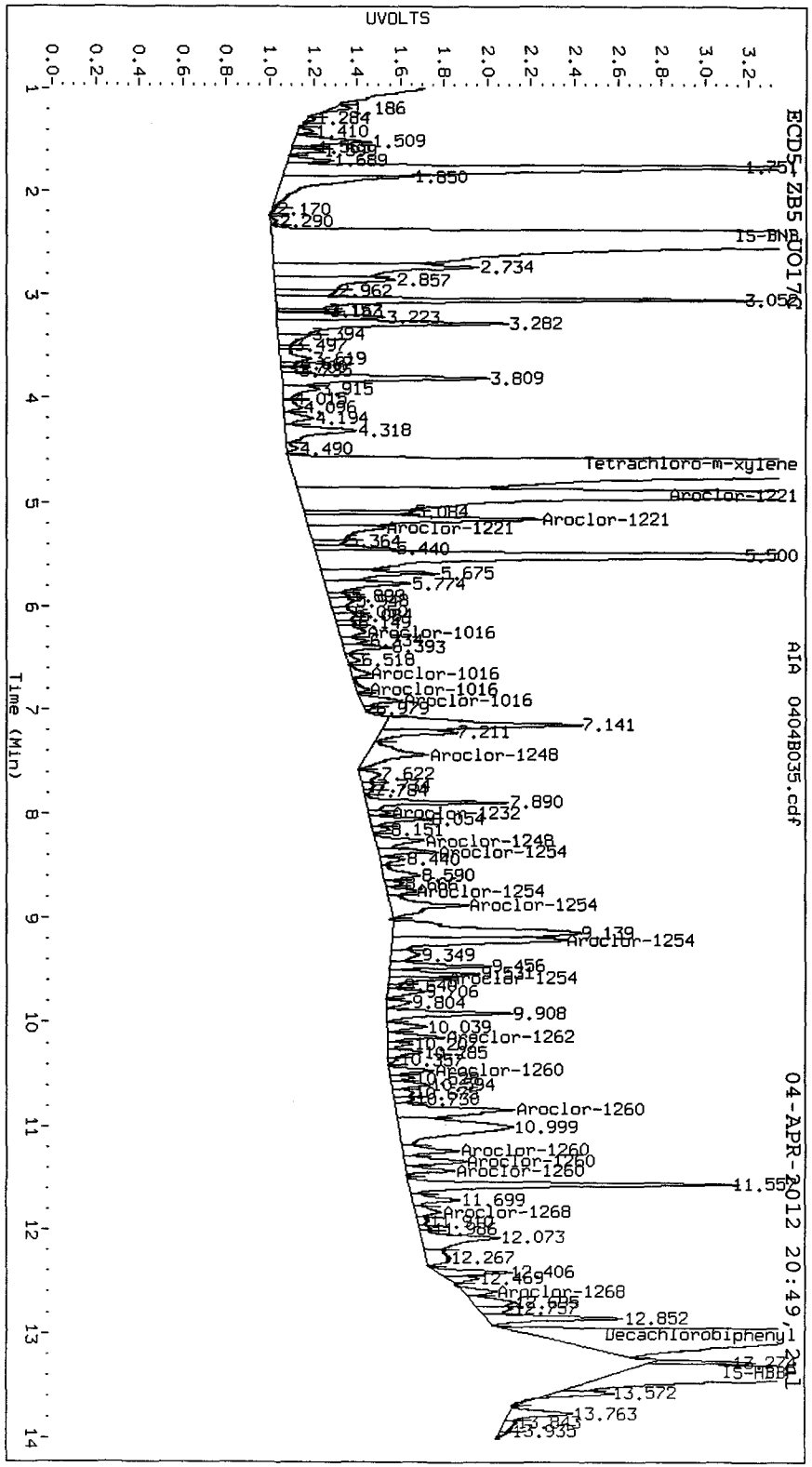
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10017 : 00237

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20120327.B/0404-2.b/0404B036.d
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Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017D
Client ID: B-DGP1-SO-07'-08.0'
Injection Date: 04-APR-2012 21:08
Ical Date: 27-MAR-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
4.620	0.004	69599883	4.618	0.001	42326641	34.8	31.4	10.4	Tetrachloro-m-xylene
13.001	0.001	85484434	13.376	0.001	30619038	34.2	33.5	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	87.1	78.5
Decachlorobiphenyl	85.5	83.8

04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	137819367	9.9
Hexabromobiphenyl	146489015	170725934	16.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	95482508	30.4
Hexabromobiphenyl	55066880	68745284	24.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.224	-0.026	375564	7.5	1	6.337	-0.017	58639	1.2
Aroclor-1016	2	6.645	-0.005	58831	0.3	2	6.968	-0.012	156814	1.5
Aroclor-1016	3	6.816	0.017	35424	0.5	3	7.359	-0.003	25161	1.0
Aroclor-1016	4	6.907	-0.001	310846	6.5	4	7.467	-0.003	37487	1.3
Total Col1Ave (4 peaks):					3.7	Total Col2Ave (4 peaks):				1.3 RPD = 100*
Corrected Ave (3 peaks):					2.5	Corrected Ave (3 peaks):				1.2 RPD = 73*
Aroclor-1221	1	4.897	-0.002	8132652	999.7	1	5.317	0.013	1405161	92.4
Aroclor-1221	2	5.154	-0.017	1509181	95.2	2	5.573	0.022	248584	27.6
Aroclor-1221	3	5.236	-0.040	554199	10.5	3	5.683	0.020	2577193	94.9
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):					368.5	Total Col2Ave (3 peaks):				71.6 RPD = 135*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.224	-0.029	375564	17.9	1	6.337	-0.021	58639	2.7
Aroclor-1232	2	6.645	-0.008	58831	0.8	2	6.968	-0.016	156814	3.9
Aroclor-1232	3	6.816	0.014	35424	1.3	3	7.243	0.051	123921	8.9
Aroclor-1232	4	7.994	0.000	124358	4.8	4	8.333	-0.004	86347	5.9
Total Col1Ave (4 peaks):					6.2	Total Col2Ave (4 peaks):				5.4 RPD = 15
Corrected Ave (3 peaks):					2.3	Corrected Ave (3 peaks):				4.2 RPD = 57*
Aroclor-1242	1	6.224	-0.027	375564	9.6	1	6.337	-0.018	58639	1.5
Aroclor-1242	2	6.645	-0.007	58831	0.4	2	6.968	-0.013	156814	2.0
Aroclor-1242	3	6.816	0.016	35424	0.7	3	7.243	0.053	123921	4.0
Aroclor-1242	4	7.994	0.002	124358	2.7	4	8.333	-0.001	86347	3.3
Total Col1Ave (4 peaks):					3.4	Total Col2Ave (4 peaks):				2.7 RPD = 21
Corrected Ave (3 peaks):					1.3	Corrected Ave (3 peaks):				2.3 RPD = 56*
Aroclor-1248	1	6.645	-0.002	58831	0.7	1	6.968	-0.008	156814	3.2
Aroclor-1248	2	7.428	-0.017	827310	13.6	2	7.907	0.026	730063	19.4
Aroclor-1248	3	7.994	0.004	124358	1.6	3	8.333	0.000	86347	2.0
Aroclor-1248	4	8.259	-0.022	1796871	23.3	4	8.695	-0.059	985770	21.2
Total Col1Ave (4 peaks):					9.8	Total Col2Ave (4 peaks):				11.5 RPD = 16
Corrected Ave (3 peaks):					5.3	Corrected Ave (3 peaks):				8.2 RPD = 43*
Aroclor-1254	1	8.365	0.000	350476	3.0	1	8.474	0.001	61266	1.7
Aroclor-1254	2	8.754	0.018	197801	2.7	2	8.648	0.002	67550	1.5
Aroclor-1254	3	8.874	0.003	356786	2.6	3	9.188	0.020	484386	13.9
Aroclor-1254	4	9.136	-0.085	3624176	24.0	4	9.316	-0.001	109219	1.5
Aroclor-1254	5	9.582	-0.001	432443	4.3	5	10.102	0.001	93140	2.1
Total Col1Ave (5 peaks):					7.3	Total Col2Ave (5 peaks):				4.1 RPD = 56*
Corrected Ave (4 peaks):					3.2	Corrected Ave (4 peaks):				1.7 RPD = 61*
Aroclor-1260	1	10.455	0.000	524324	5.3	1	10.431	0.001	45311	1.2
Aroclor-1260	2	10.831	0.003	1033429	4.2	2	10.880	-0.001	118718	2.5
Aroclor-1260	3	11.227	-0.002	649749	4.9	3	11.153	0.001	120334	1.3
Aroclor-1260	4	11.328	-0.017	543107	10.0	4	11.671	-0.004	27992	1.0
Aroclor-1260	5	11.421	0.002	897608	13.8	NS	---			----
Total Col1Ave (5 peaks):					7.7	Total Col2Ave (4 peaks):				1.5 RPD = 134*
Corrected Ave (4 peaks):					6.1	Corrected Ave (3 peaks):				1.2 RPD = 136*
Aroclor-1262	1	10.138	-0.004	588127	3.8	1	10.431	-0.003	45311	0.8
Aroclor-1262	2	10.455	-0.003	524324	4.6	2	10.880	-0.005	118718	2.3
Aroclor-1262	3	10.831	-0.002	1033429	3.3	3	11.153	-0.004	120334	1.0
Aroclor-1262	4	11.328	-0.021	543107	5.1	4	11.671	-0.008	27992	0.6
Aroclor-1262	5	11.421	-0.002	897608	7.3	5	12.516	0.038	226331	4.9
Total Col1Ave (5 peaks):					4.8	Total Col2Ave (5 peaks):				1.9 RPD = 86*
Corrected Ave (4 peaks):					4.2	Corrected Ave (4 peaks):				1.2 RPD = 112*
Aroclor-1268	1	11.328	-0.022	543107	1.7	1	11.671	-0.009	27992	0.2
Aroclor-1268	2	11.421	0.000	897608	2.9	2	11.737	-0.009	89126	0.8

Aroclor-1268 3	11.810	0.002	560172	2.1	3	12.130	-0.013	30861	0.3
Aroclor-1268 4	12.599	0.000	246857	0.3	4	12.968	0.003	65068	0.2

Total Col1Ave (4 peaks): 1.8 Total Col2Ave (4 peaks): 0.4 RPD = 126*

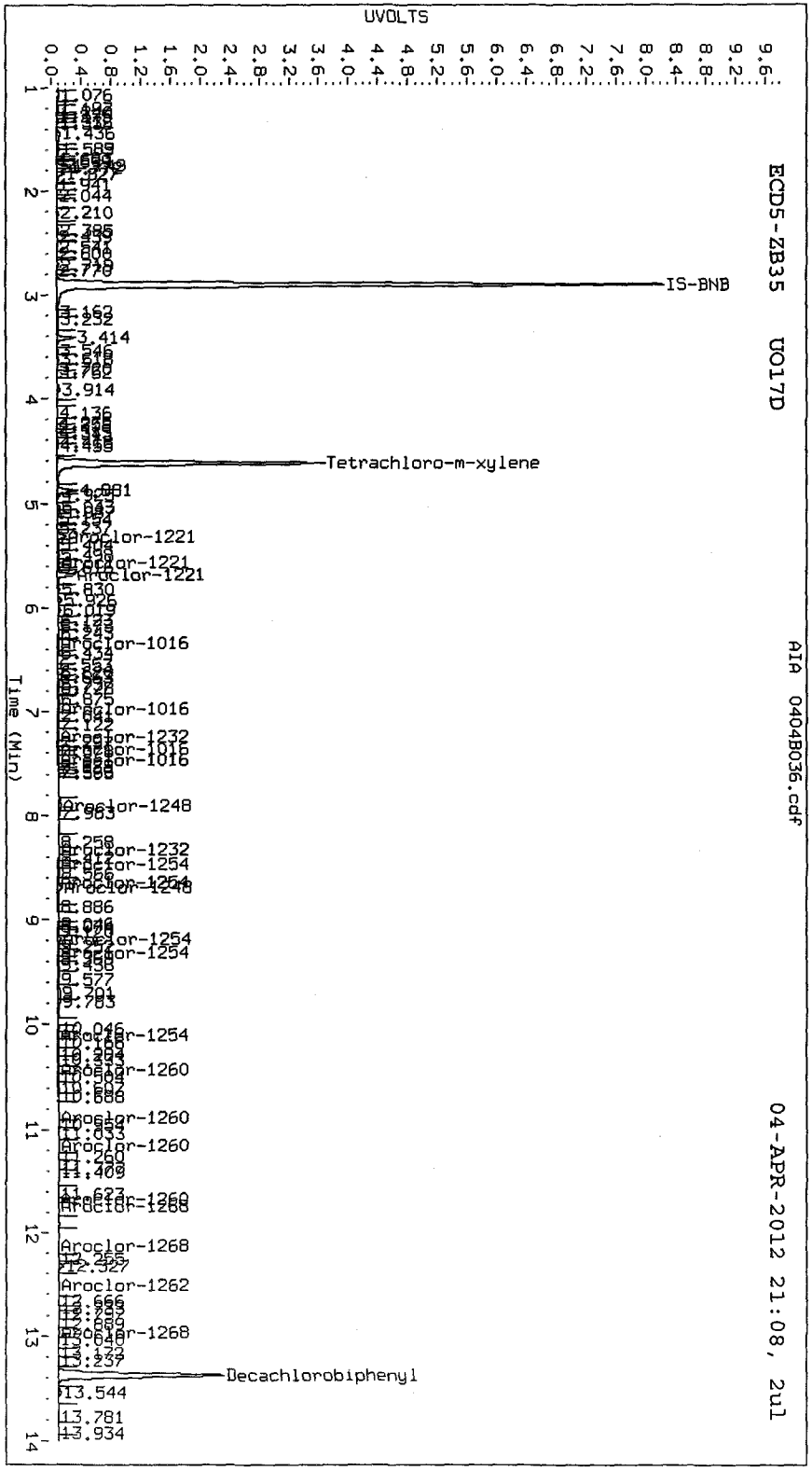
Corrected Ave (3 peaks): 1.4 Corrected Ave (3 peaks): 0.3 RPD = 137*

Total PCB Area Col1 (4.716 - 12.900) = 54436893 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 18815212 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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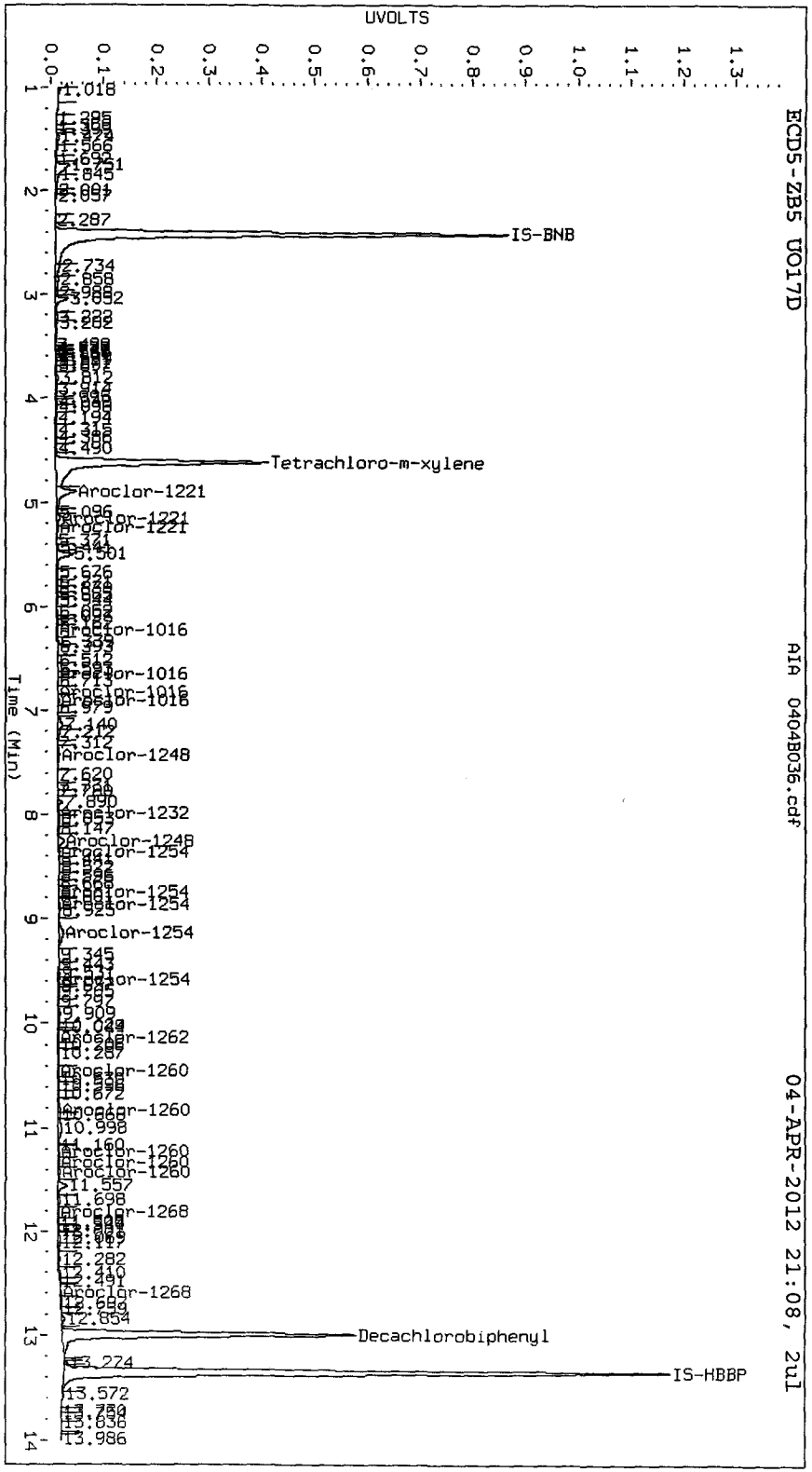
Decachlorobiphenyl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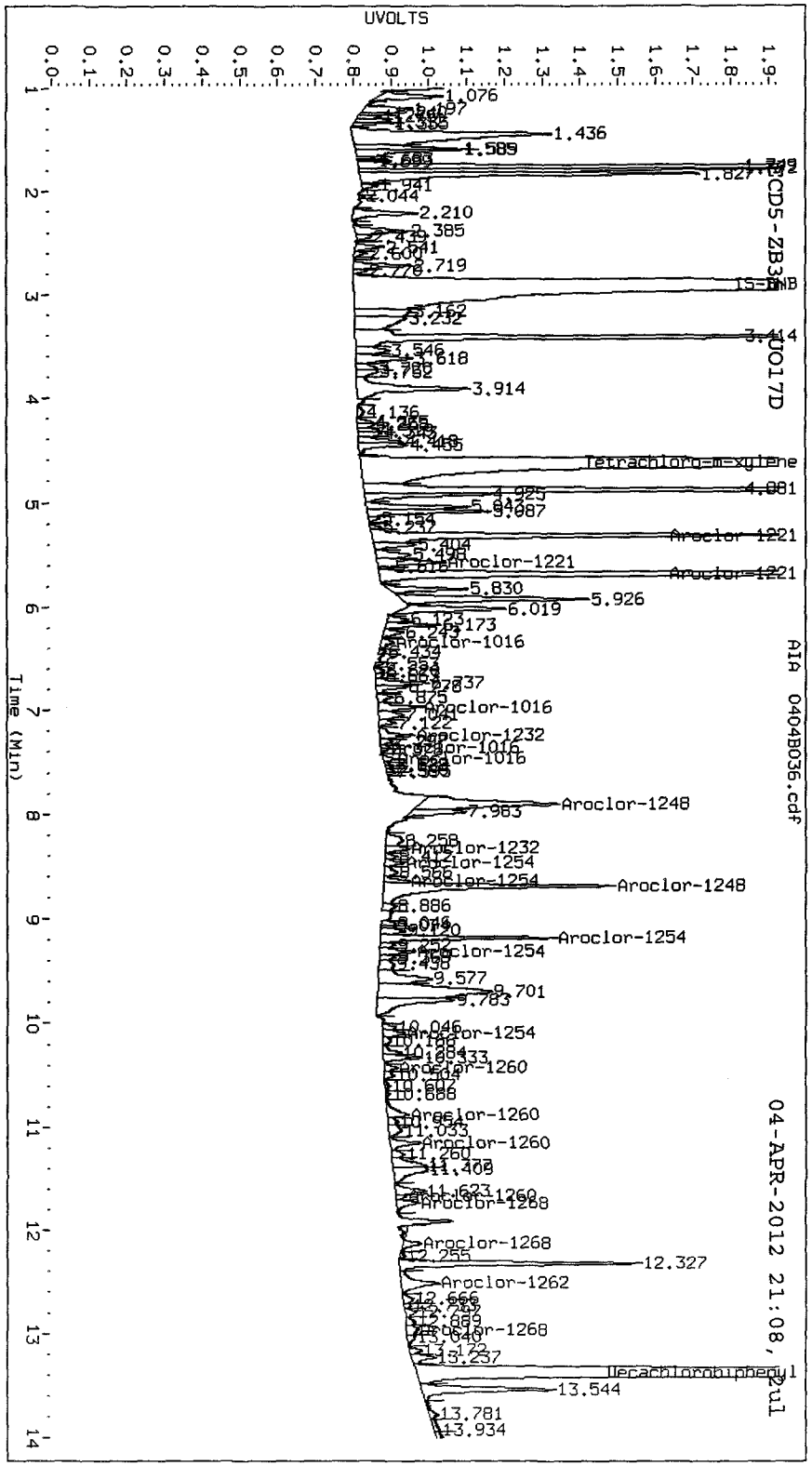
UO17.00212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Time (Min)
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Decachlorobiphenyl
IS-HNB
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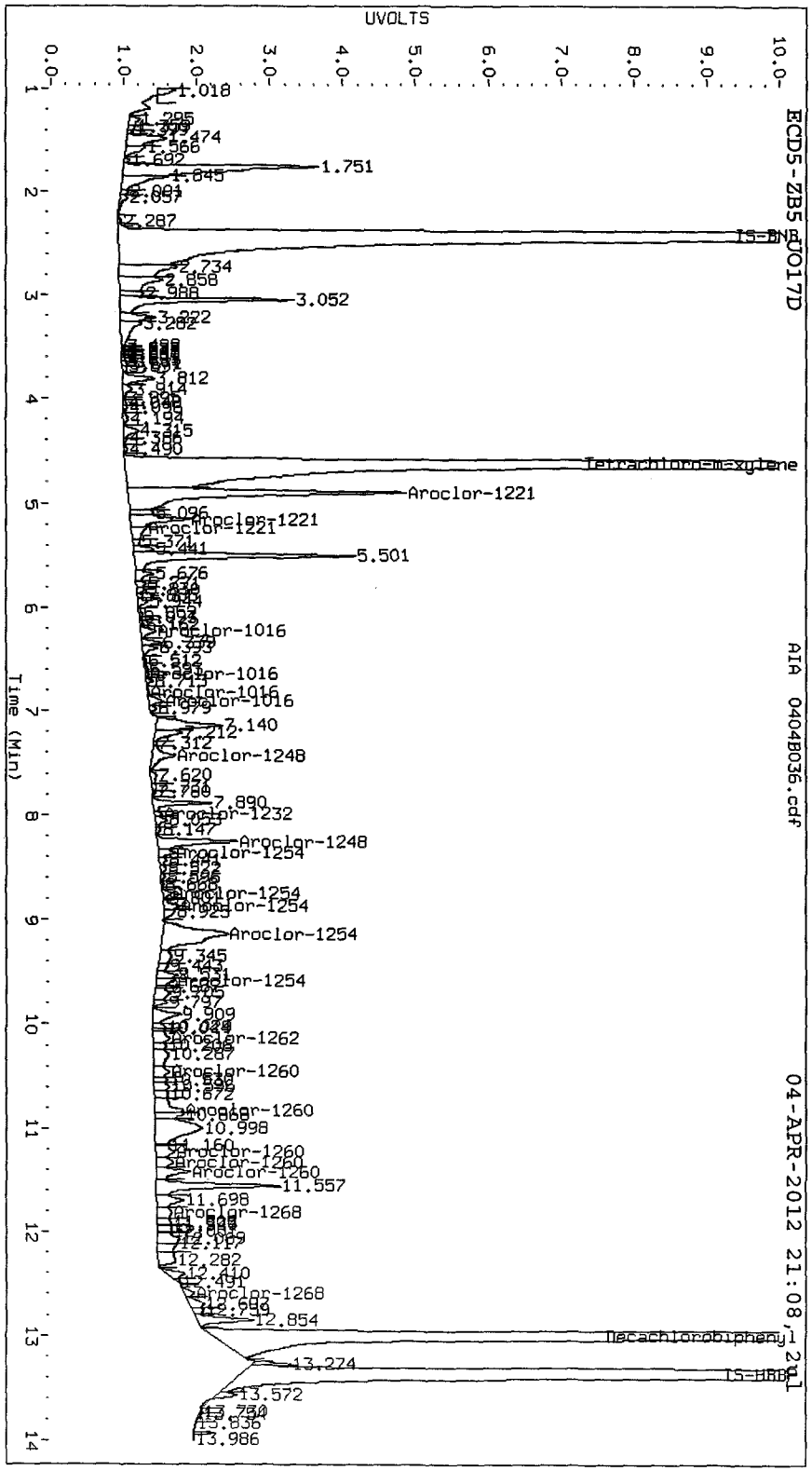
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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Decachlorobiphenyl
IS-HNB
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

UO17:00212

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B037.d
Data file 2: 20120327.B/0404-2.b/0404B037.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017E
Client ID: B-DGP1-SO-10'-12'
Injection Date: 04-APR-2012 21:26
Ical Date: 27-MAR-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
4.620	0.003	62685354	4.618	0.001	42916928	31.6	31.6	0.0	Tetrachloro-m-xylene
13.001	0.001	83705095	13.375	0.000	30497328	33.5	33.1	1.1	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	79.1	79.0
Decachlorobiphenyl	83.8	82.8

04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	136736705	9.1
Hexabromobiphenyl	146489015	170627976	16.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	96112528	31.3
Hexabromobiphenyl	55066880	69255368	25.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.216	-0.034	468035	9.5	1	6.336	-0.018	39341	0.8
Aroclor-1016	2	6.646	-0.004	78386	0.5	2	6.969	-0.011	92957	0.9
Aroclor-1016	3	6.762	-0.036	111580	1.7	3	7.369	0.007	40601	1.6
Aroclor-1016	4	6.906	-0.003	414753	8.8	4	7.470	0.000	122648	4.3
Total Col1Ave (4 peaks):				5.1		Total Col2Ave (4 peaks):			1.9	RPD = 92*
Corrected Ave (3 peaks):				3.6		Corrected Ave (3 peaks):			1.1	RPD = 109*
Aroclor-1221	1	4.896	-0.002	7006046	868.0	1	5.320	0.015	1114838	72.8
Aroclor-1221	2	5.157	-0.014	1928192	122.6	2	5.549	-0.002	503991	55.7
Aroclor-1221	3	5.243	-0.033	1310017	25.1	3	5.683	0.020	1907334	69.8
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				338.6		Total Col2Ave (3 peaks):			66.1	RPD = 135*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.216	-0.037	468035	22.5	1	6.336	-0.022	39341	1.8
Aroclor-1232	2	6.646	-0.007	78386	1.1	2	6.969	-0.015	92957	2.3
Aroclor-1232	3	6.762	-0.039	111580	4.1	3	7.239	0.047	156411	11.2
Aroclor-1232	4	7.992	-0.001	230704	9.1	4	8.335	-0.002	134311	9.1
Total Col1Ave (4 peaks):				9.2		Total Col2Ave (4 peaks):			6.1	RPD = 41*
Corrected Ave (3 peaks):				4.8		Corrected Ave (3 peaks):			4.4	RPD = 8
Aroclor-1242	1	6.216	-0.036	468035	12.1	1	6.336	-0.019	39341	1.0
Aroclor-1242	2	6.646	-0.006	78386	0.6	2	6.969	-0.011	92957	1.2
Aroclor-1242	3	6.762	-0.038	111580	2.2	3	7.239	0.049	156411	5.0
Aroclor-1242	4	7.992	0.000	230704	5.1	4	8.335	0.000	134311	5.2
Total Col1Ave (4 peaks):				5.0		Total Col2Ave (4 peaks):			3.1	RPD = 47*
Corrected Ave (3 peaks):				2.6		Corrected Ave (3 peaks):			2.4	RPD = 9
Aroclor-1248	1	6.646	-0.001	78386	1.0	1	6.969	-0.006	92957	1.9
Aroclor-1248	2	7.439	-0.006	405439	6.7	2	7.808	0.027	812952	21.5
Aroclor-1248	3	7.992	0.002	230704	3.0	3	8.335	0.001	134311	3.1
Aroclor-1248	4	8.259	-0.021	1288693	16.8	4	8.738	-0.017	293476	6.3
Total Col1Ave (4 peaks):				6.9		Total Col2Ave (4 peaks):			8.2	RPD = 17
Corrected Ave (3 peaks):				3.6		Corrected Ave (3 peaks):			3.8	RPD = 6
Aroclor-1254	1	8.366	0.001	1366698	12.0	1	8.475	0.002	493076	13.7
Aroclor-1254	2	8.738	0.003	558362	7.7	2	8.647	0.001	427305	9.4
Aroclor-1254	3	8.872	0.001	2584576	18.8	3	9.186	0.018	520254	14.8
Aroclor-1254	4	9.205	-0.016	4105321	27.4	4	9.319	0.001	776418	10.4
Aroclor-1254	5	9.575	-0.008	1617319	16.3	5	10.109	0.008	673274	14.9
Total Col1Ave (5 peaks):				16.4		Total Col2Ave (5 peaks):			12.6	RPD = 26
Corrected Ave (4 peaks):				13.7		Corrected Ave (4 peaks):			12.1	RPD = 13
Aroclor-1260	1	10.455	0.000	1645339	16.6	1	10.430	0.000	664502	17.0
Aroclor-1260	2	10.829	0.001	4645672	19.0	2	10.880	-0.001	969263	20.5
Aroclor-1260	3	11.229	0.000	2423237	18.4	3	11.153	0.000	1647624	17.3
Aroclor-1260	4	11.345	0.000	1497129	27.7	4	11.675	0.001	521908	19.2
Aroclor-1260	5	11.418	0.000	1860590	28.6	NS	---			----
Total Col1Ave (5 peaks):				22.0		Total Col2Ave (4 peaks):			18.5	RPD = 17
Corrected Ave (4 peaks):				20.4		Corrected Ave (3 peaks):			17.8	RPD = 13
Aroclor-1262	1	10.138	-0.004	1830608	11.9	1	10.430	-0.004	664502	11.0
Aroclor-1262	2	10.455	-0.003	1645339	14.4	2	10.880	-0.005	969263	18.9
Aroclor-1262	3	10.829	-0.004	4645672	14.9	3	11.153	-0.004	1647624	14.1
Aroclor-1262	4	11.345	-0.004	1497129	13.9	4	11.675	-0.003	521908	11.5
Aroclor-1262	5	11.418	-0.004	1860590	15.2	5	12.474	-0.004	571613	12.2
Total Col1Ave (5 peaks):				14.1		Total Col2Ave (5 peaks):			13.5	RPD = 4
Corrected Ave (4 peaks):				13.8		Corrected Ave (4 peaks):			12.2	RPD = 12
Aroclor-1268	1	11.345	-0.006	1497129	4.8	1	11.675	-0.004	521908	4.3
Aroclor-1268	2	11.418	-0.002	1860590	6.0	2	11.735	-0.010	1199966	10.8

Aroclor-1268	3	11.818	0.010	1075160	4.1	3	12.137	-0.006	85178	0.9
Aroclor-1268	4	12.592	-0.008	542737	0.7	4	12.961	-0.004	219026	0.7

Total Col1Ave (4 peaks): 3.9 Total Col2Ave (4 peaks): 4.2 RPD = 8

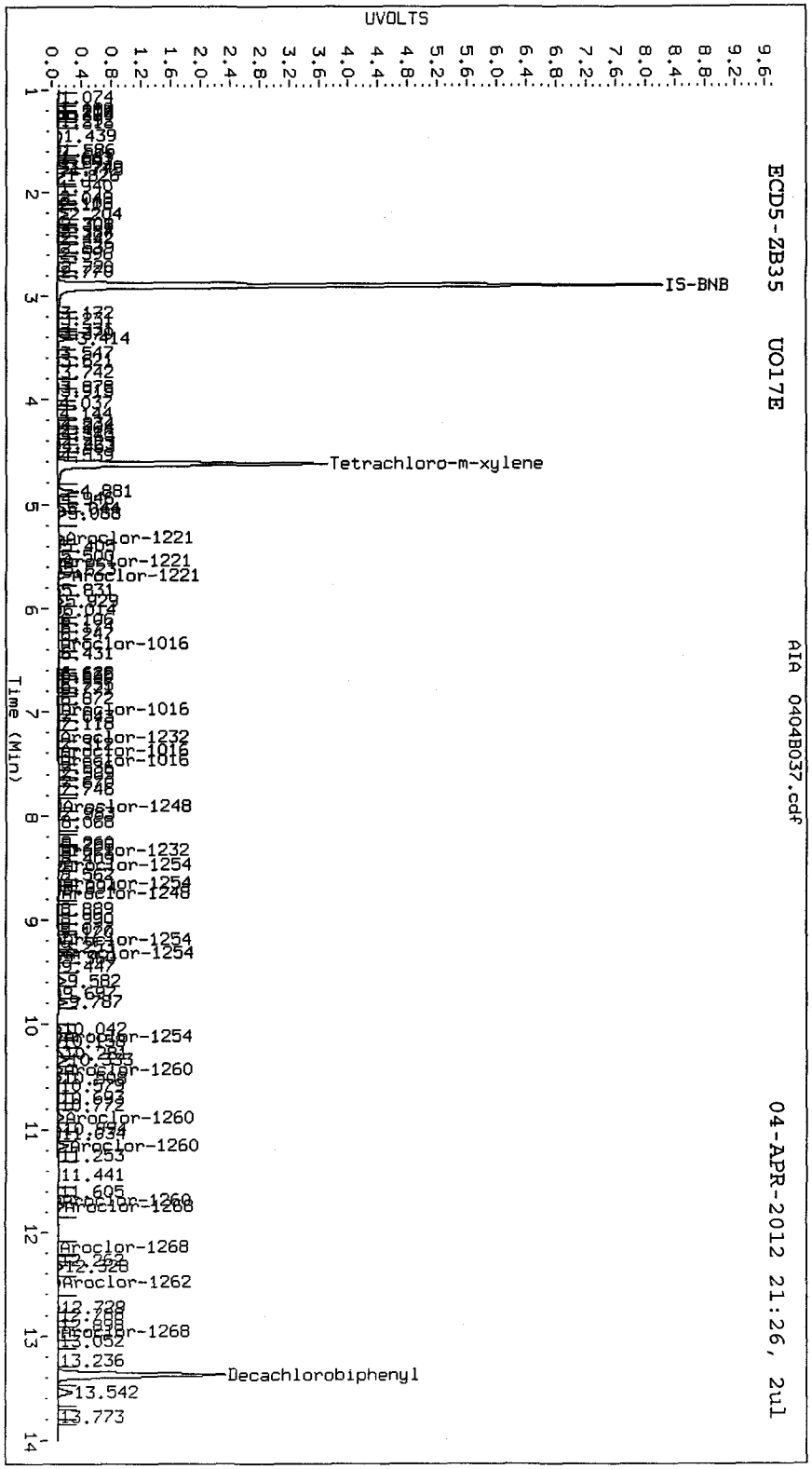
Corrected Ave (3 peaks): 3.2 Corrected Ave (3 peaks): 2.0 RPD = 46*

Total PCB Area Col1 (4.716 - 12.900) = 91584109 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 34837214 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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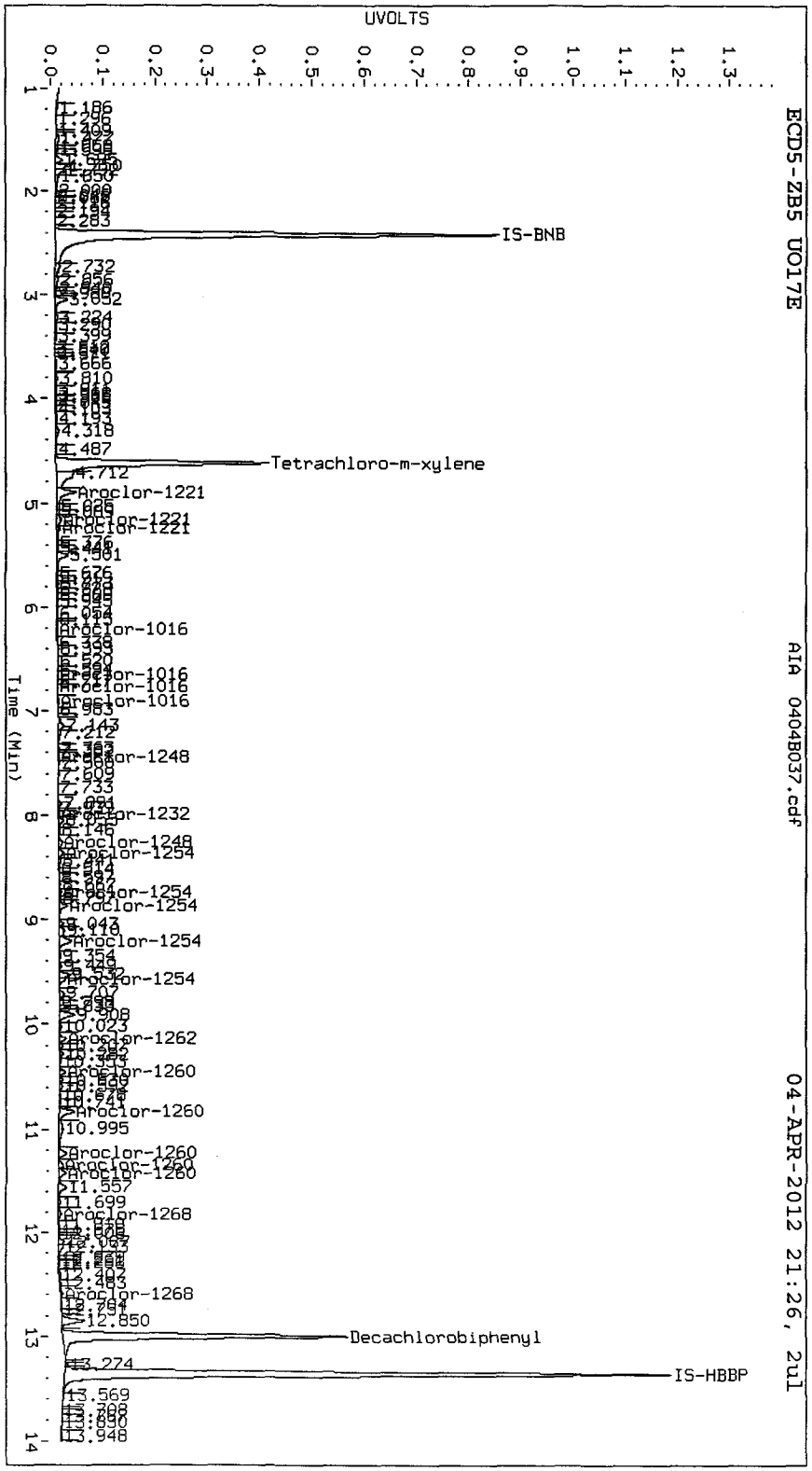
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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Tetrachloro-m-xylene
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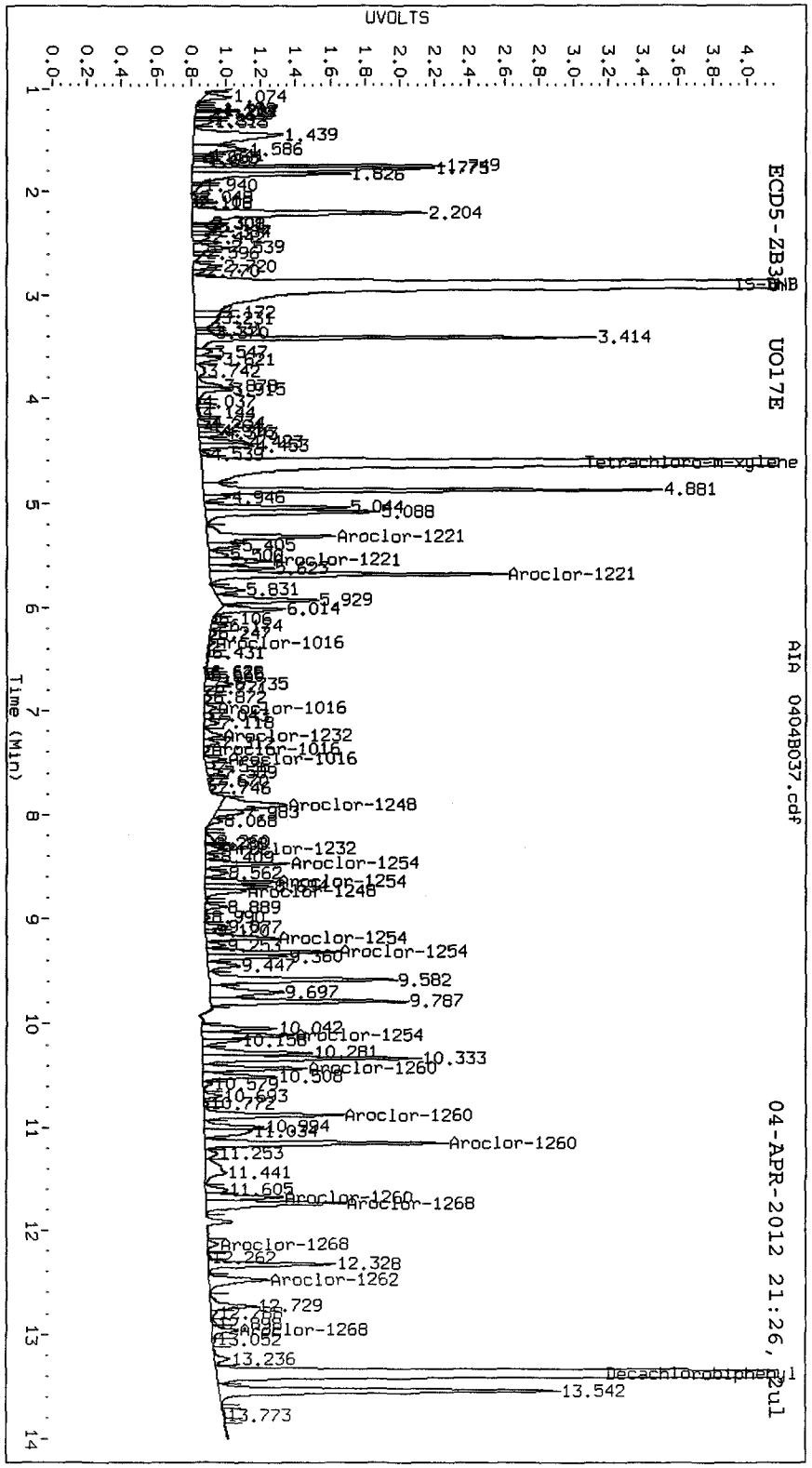
IS-HBBP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Aroclor-1221
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Aroclor-1248
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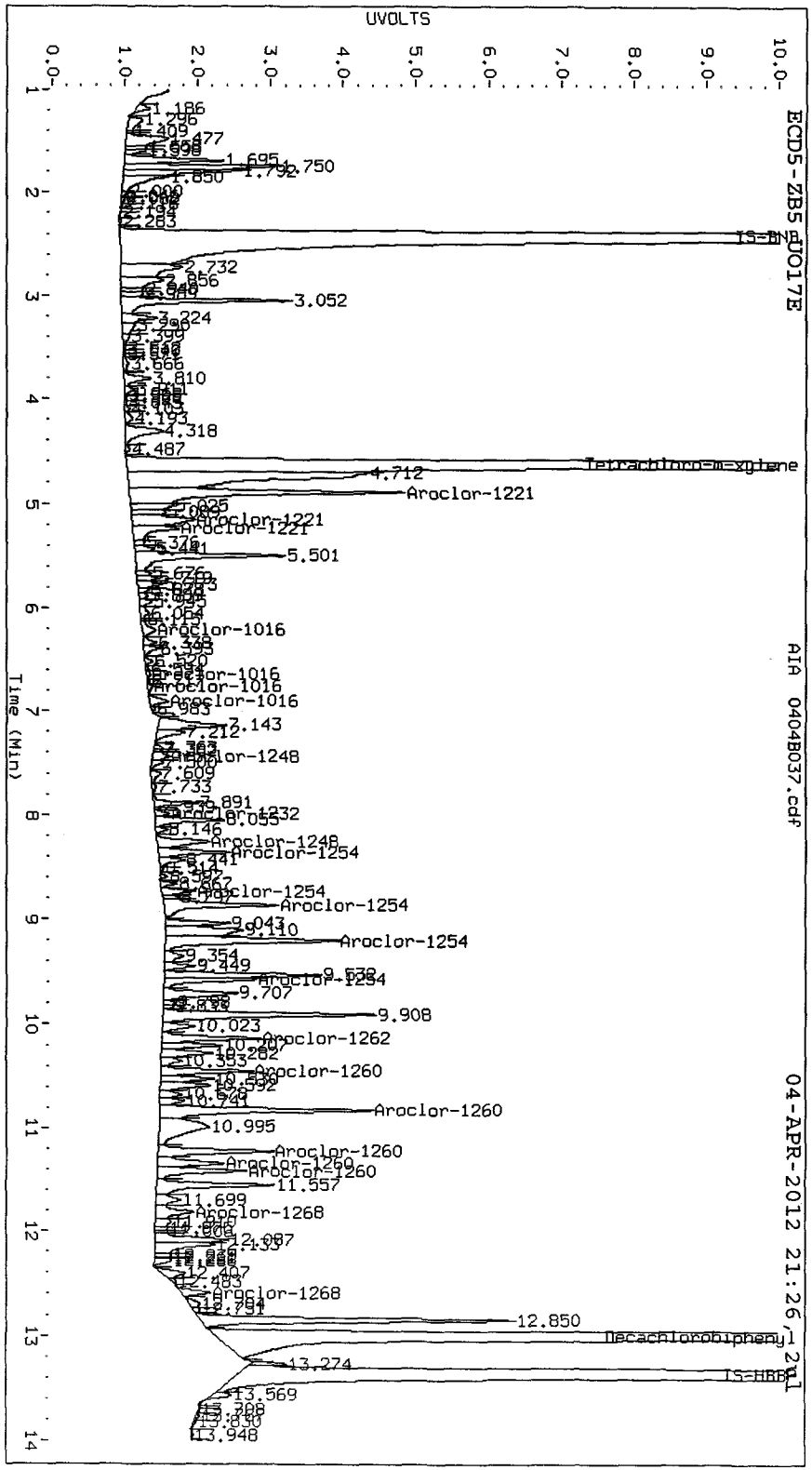
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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IS=DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS=HBB

UO17:082217

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B038.d
Data file 2: 20120327.B/0404-2.b/0404B038.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017F
Client ID: B-DGP1-SO-12'-13.33
Injection Date: 04-APR-2012 21:45
Ical Date: 27-MAR-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
4.620	0.003	67109958	4.617	-0.001	41856954	32.6	30.1	8.2	Tetrachloro-m-xylene
13.002	0.002	83502664	13.375	0.000	30337922	32.8	32.6	0.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

JL 04/05/12

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	81.6	75.2
Decachlorobiphenyl	81.9	81.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	141868777	13.2
Hexabromobiphenyl	146489015	174123685	18.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	98583508	34.7
Hexabromobiphenyl	55066880	70039483	27.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.223	-0.027	347443	6.8	1	6.394	0.040	42290	0.8
Aroclor-1016	2	6.647	-0.003	40289	0.2	2	6.969	-0.011	101263	1.0
Aroclor-1016	3	6.819	0.021	78826	1.2	3	7.377	0.014	33877	1.3
Aroclor-1016	4	6.909	0.001	480735	9.8	4	7.470	0.000	98030	3.4
Total Col1Ave (4 peaks):				4.5		Total Col2Ave (4 peaks):			1.6	RPD = 95*
Corrected Ave (3 peaks):				2.7		Corrected Ave (3 peaks):			1.0	RPD = 91*
Aroclor-1221	1	4.896	-0.003	7054651	842.4	1	5.320	0.015	642967	40.9
Aroclor-1221	2	5.155	-0.016	1713183	105.0	2	5.573	0.022	861645	92.8
Aroclor-1221	3	5.293	0.017	431899	8.0	3	5.681	0.017	597457	21.3
Aroclor-1221	NS	---			----	4	5.732	0.001	54827	10.9
Total Col1Ave (3 peaks):				318.5		Total Col2Ave (4 peaks):			41.5	RPD = 154*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			24.4	
Aroclor-1232	1	6.223	-0.030	347443	16.1	1	6.394	0.036	42290	1.9
Aroclor-1232	2	6.647	-0.006	40289	0.6	2	6.969	-0.015	101263	2.4
Aroclor-1232	3	6.819	0.018	78826	2.8	3	7.239	0.047	146323	10.2
Aroclor-1232	4	7.993	-0.001	265711	10.1	4	8.335	-0.002	144682	9.5
Total Col1Ave (4 peaks):				7.4		Total Col2Ave (4 peaks):			6.0	RPD = 20
Corrected Ave (3 peaks):				4.5		Corrected Ave (3 peaks):			4.6	RPD = 4
Aroclor-1242	1	6.223	-0.029	347443	8.6	1	6.394	0.039	42290	1.1
Aroclor-1242	2	6.647	-0.005	40289	0.3	2	6.969	-0.012	101263	1.3
Aroclor-1242	3	6.819	0.019	78826	1.5	3	7.239	0.050	146323	4.6
Aroclor-1242	4	7.993	0.001	265711	5.7	4	8.335	0.000	144682	5.4
Total Col1Ave (4 peaks):				4.0		Total Col2Ave (4 peaks):			3.1	RPD = 27
Corrected Ave (3 peaks):				2.5		Corrected Ave (3 peaks):			2.3	RPD = 8
Aroclor-1248	1	6.647	0.000	40289	0.5	1	6.969	-0.007	101263	2.0
Aroclor-1248	2	7.436	-0.010	925353	14.8	2	7.905	0.024	766093	19.7
Aroclor-1248	3	7.993	0.003	265711	3.3	3	8.335	0.001	144682	3.3
Aroclor-1248	4	8.277	-0.003	450997	5.7	4	8.743	-0.011	217527	4.5
Total Col1Ave (4 peaks):				6.1		Total Col2Ave (4 peaks):			7.4	RPD = 20
Corrected Ave (3 peaks):				3.2		Corrected Ave (3 peaks):			3.3	RPD = 3
Aroclor-1254	1	8.367	0.002	620727	5.2	1	8.473	0.000	165234	4.5
Aroclor-1254	2	8.738	0.002	311867	4.1	2	8.648	0.002	202487	4.3
Aroclor-1254	3	8.873	0.002	1016293	7.1	3	9.189	0.021	1365211	38.0
Aroclor-1254	4	9.218	-0.003	1573675	10.1	4	9.319	0.001	295307	3.8
Aroclor-1254	5	9.584	0.002	1081210	10.5	5	10.101	0.001	258008	5.6
Total Col1Ave (5 peaks):				7.4		Total Col2Ave (5 peaks):			11.2	RPD = 41*
Corrected Ave (4 peaks):				6.6		Corrected Ave (4 peaks):			4.6	RPD = 37
Aroclor-1260	1	10.458	0.003	807363	8.0	1	10.430	0.000	54201	1.4
Aroclor-1260	2	10.832	0.004	1252641	5.0	2	10.877	-0.004	172952	3.6
Aroclor-1260	3	11.227	-0.002	862413	6.4	3	11.154	0.001	137219	1.4
Aroclor-1260	4	11.325	-0.020	699416	12.7	4	11.736	0.061	73844	2.7
Aroclor-1260	5	11.420	0.002	1625903	24.5	NS	---			----
Total Col1Ave (5 peaks):				11.3		Total Col2Ave (4 peaks):			2.3	RPD = 133*
Corrected Ave (4 peaks):				8.0		Corrected Ave (3 peaks):			1.8	RPD = 126*
Aroclor-1262	1	10.133	-0.009	810918	5.2	1	10.430	-0.004	54201	0.9
Aroclor-1262	2	10.458	-0.001	807363	6.9	2	10.877	-0.008	172952	3.3
Aroclor-1262	3	10.832	-0.001	1252641	3.9	3	11.154	-0.003	137219	1.2
Aroclor-1262	4	11.325	-0.024	699416	6.4	4	11.736	0.057	73844	1.6
Aroclor-1262	5	11.420	-0.002	1625903	13.0	5	12.514	0.036	328899	6.9
Total Col1Ave (5 peaks):				7.1		Total Col2Ave (5 peaks):			2.8	RPD = 87*
Corrected Ave (4 peaks):				5.6		Corrected Ave (4 peaks):			1.7	RPD = 105*
Aroclor-1268	1	11.325	-0.026	699416	2.2	1	11.736	0.056	73844	0.6
Aroclor-1268	2	11.420	-0.001	1625903	5.1	2	---			0.0

Aroclor-1268	3	11.812	0.004	709746	2.7	3	12.135	-0.009	83484	0.9
Aroclor-1268	4	12.589	-0.010	48528	0.1	4	12.970	0.005	100198	0.3

Total Col1Ave (4 peaks): 2.5 Total Col2Ave (3 peaks): 0.6 RPD = 123*

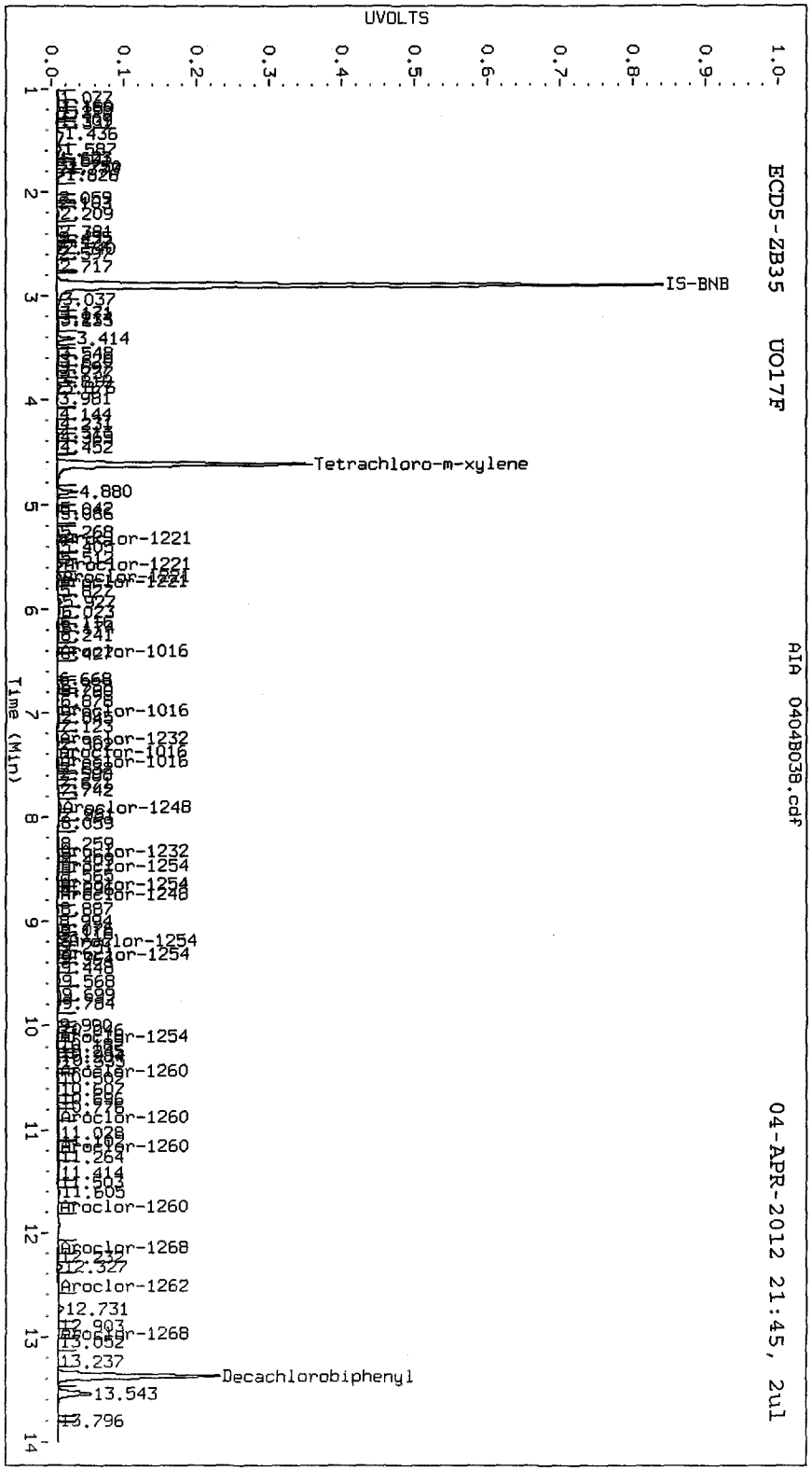
Corrected Ave (3 peaks): 1.6 Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.716 - 12.900) = 76746304 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 20103180 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1232
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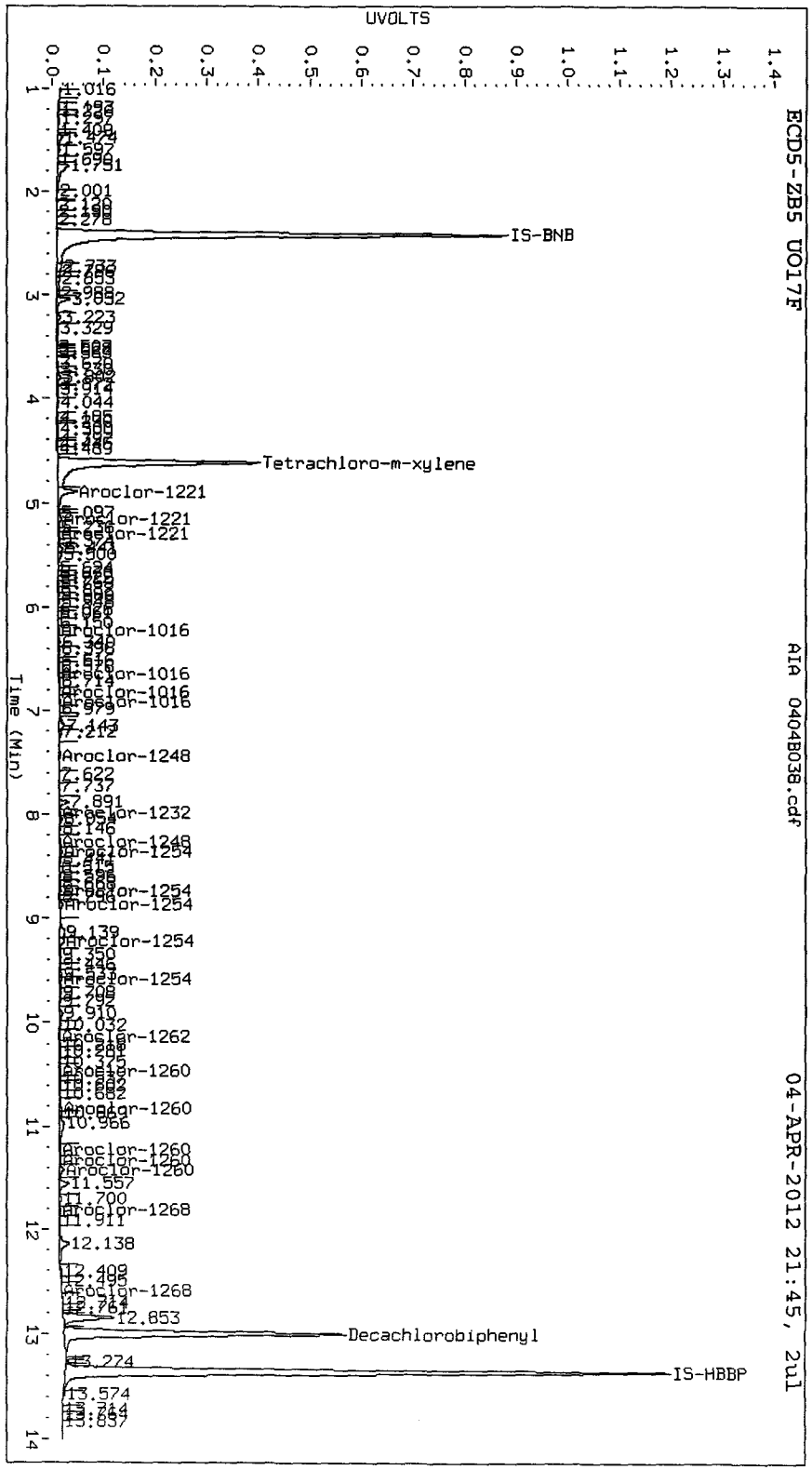
Aroclor-1262
Decachlorobiphenyl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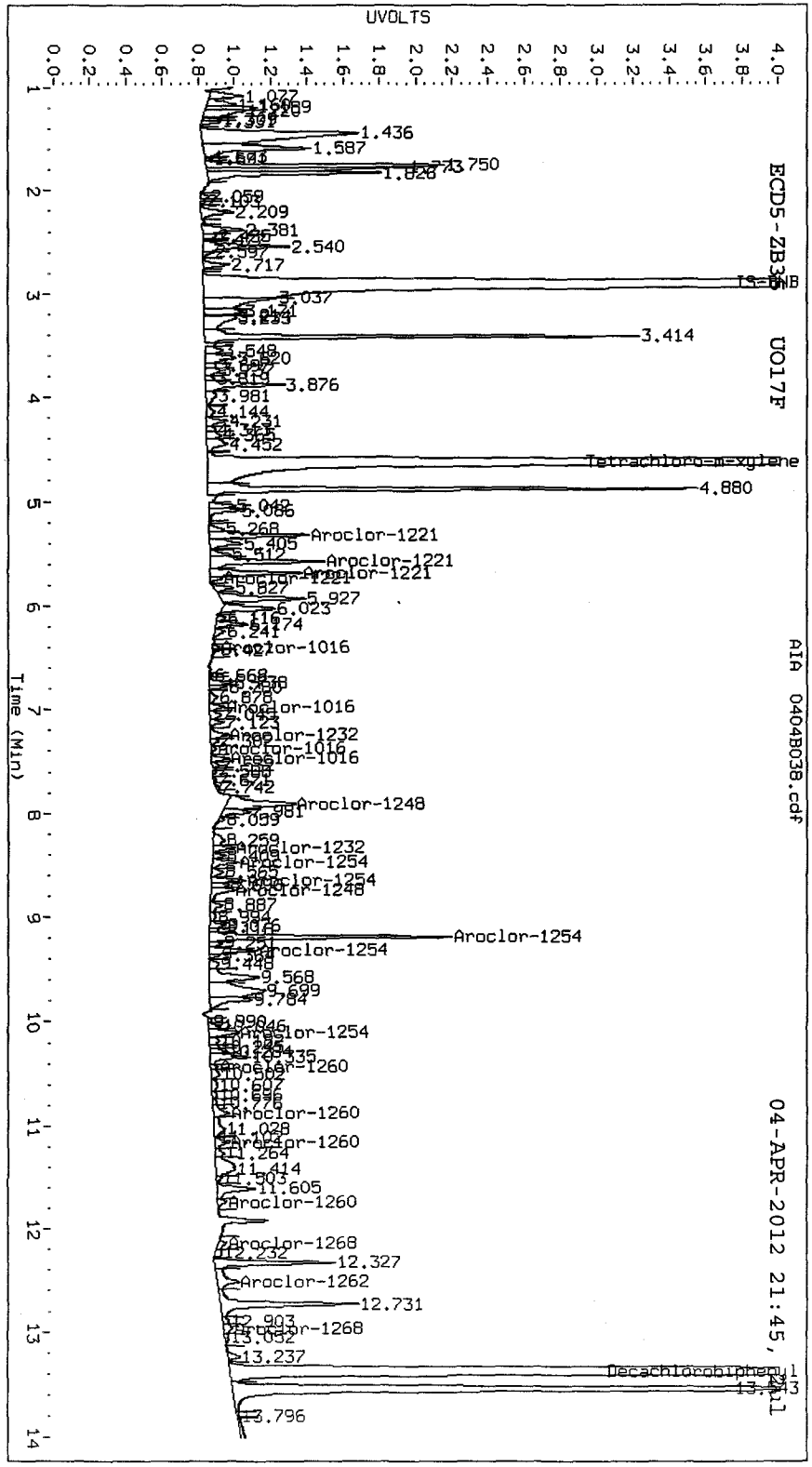
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Decachlorobiphenyl
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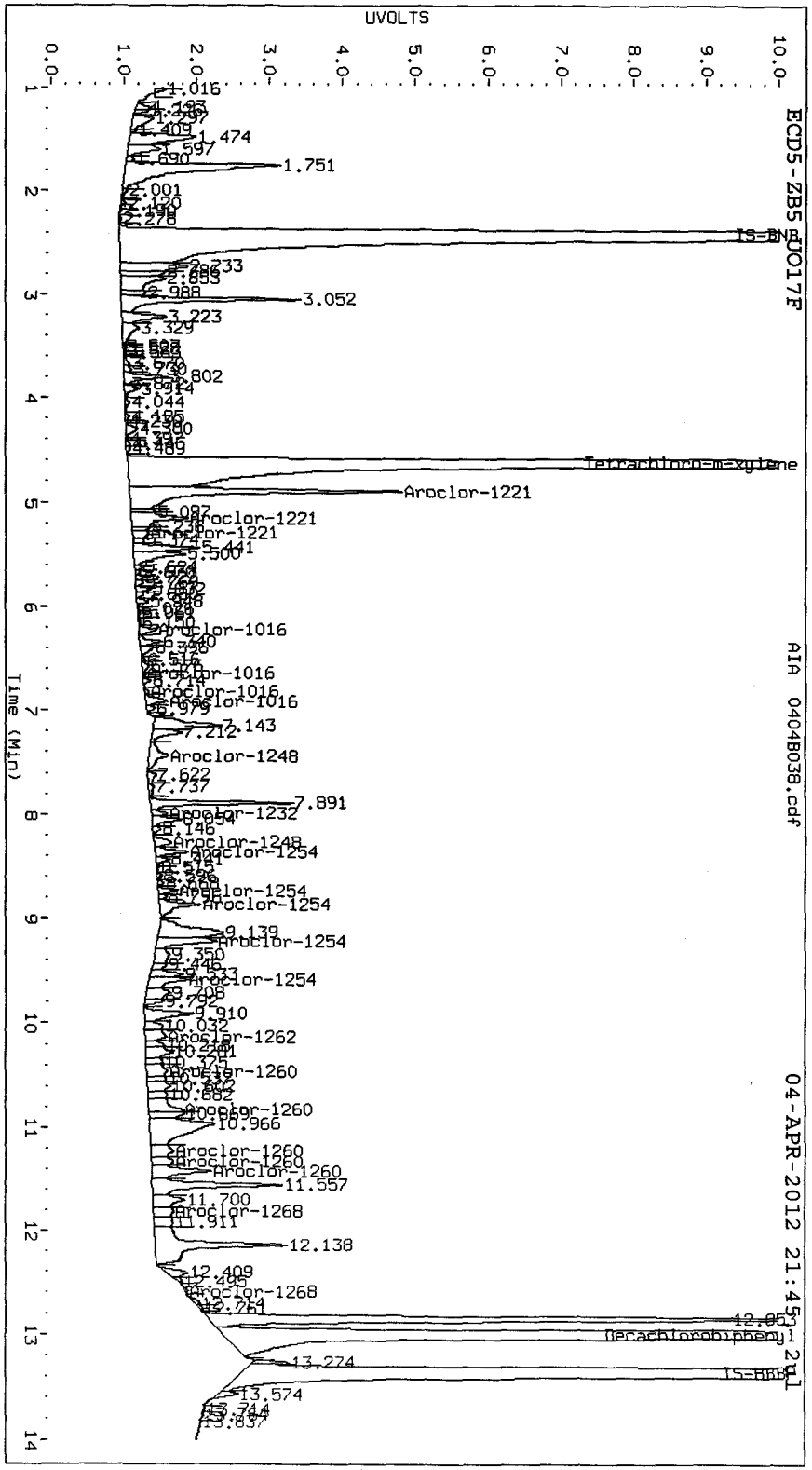
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

UO17:00252

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B039.d
Data file 2: 20120327.B/0404-2.b/0404B039.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: U017G
Client ID: B-DGP1-SO-15'-17'
Injection Date: 04-APR-2012 22:04
Ical Date: 27-MAR-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
4.620	0.003	69422337	4.618	0.000	41682099	35.5	31.6	11.7	Tetrachloro-m-xylene
13.002	0.002	84122792	13.376	0.000	30576276	34.1	33.8	0.8	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	88.7	78.9
Decachlorobiphenyl	85.2	84.6

JA 04/05/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	134936861	7.6
Hexabromobiphenyl	146489015	168586961	15.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	93538044	27.8
Hexabromobiphenyl	55066880	68001750	23.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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	6.220	-0.030	391695	8.0	1	6.342	-0.012	23646	0.5
Aroclor-1016	2	6.656	0.006	33742	0.2	2	6.969	-0.011	76471	0.8
Aroclor-1016	3	6.815	0.017	57353	0.9	3	7.312	-0.051	119877	4.7
Aroclor-1016	4	6.910	0.002	420110	9.0	4	7.472	0.002	60576	2.2
Total Col1Ave (4 peaks):				4.5		Total Col2Ave (4 peaks):			2.0	RPD = 76*
Corrected Ave (3 peaks):				3.0		Corrected Ave (3 peaks):			1.1	RPD = 90*
Aroclor-1221	1	4.896	-0.003	6460141	811.0	1	5.322	0.017	882722	59.2
Aroclor-1221	2	5.156	-0.015	1976517	127.4	2	5.548	-0.003	436356	49.5
Aroclor-1221	3	5.297	0.021	524594	10.2	3	5.673	0.009	349519	13.1
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				316.2		Total Col2Ave (3 peaks):			40.6	RPD = 154*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.220	-0.033	391695	19.1	1	6.342	-0.016	23646	1.1
Aroclor-1232	2	6.656	0.003	33742	0.5	2	6.969	-0.015	76471	1.9
Aroclor-1232	3	6.815	0.013	57353	2.1	3	7.238	0.046	196514	14.5
Aroclor-1232	4	7.996	0.002	157524	6.3	4	8.335	-0.002	113424	7.9
Total Col1Ave (4 peaks):				7.0		Total Col2Ave (4 peaks):			6.3	RPD = 10
Corrected Ave (3 peaks):				3.0		Corrected Ave (3 peaks):			3.6	RPD = 21
Aroclor-1242	1	6.220	-0.032	391695	10.2	1	6.342	-0.013	23646	0.6
Aroclor-1242	2	6.656	0.004	33742	0.3	2	6.969	-0.012	76471	1.0
Aroclor-1242	3	6.815	0.015	57353	1.1	3	7.238	0.049	196514	6.5
Aroclor-1242	4	7.996	0.004	157524	3.5	4	8.335	0.000	113424	4.5
Total Col1Ave (4 peaks):				3.8		Total Col2Ave (4 peaks):			3.1	RPD = 19
Corrected Ave (3 peaks):				1.6		Corrected Ave (3 peaks):			2.0	RPD = 21
Aroclor-1248	1	6.656	0.009	33742	0.4	1	6.969	-0.007	76471	1.6
Aroclor-1248	2	7.431	-0.014	409426	6.9	2	7.909	0.028	616996	16.7
Aroclor-1248	3	7.996	0.006	157524	2.1	3	8.335	0.001	113424	2.7
Aroclor-1248	4	8.262	-0.018	562005	7.4	4	8.737	-0.017	115752	2.5
Total Col1Ave (4 peaks):				4.2		Total Col2Ave (4 peaks):			5.9	RPD = 34
Corrected Ave (3 peaks):				3.1		Corrected Ave (3 peaks):			2.3	RPD = 31
Aroclor-1254	1	8.366	0.001	489215	4.3	1	8.474	0.001	120487	3.4
Aroclor-1254	2	8.741	0.005	234127	3.3	2	8.646	0.000	120132	2.7
Aroclor-1254	3	8.873	0.001	667077	4.9	3	9.188	0.020	542534	15.9
Aroclor-1254	4	9.207	-0.015	1614237	10.9	4	9.319	0.001	335051	4.6
Aroclor-1254	5	9.580	-0.003	1122278	11.5	5	10.103	0.002	217132	4.9
Total Col1Ave (5 peaks):				7.0		Total Col2Ave (5 peaks):			6.3	RPD = 10
Corrected Ave (4 peaks):				5.9		Corrected Ave (4 peaks):			3.9	RPD = 39
Aroclor-1260	1	10.453	-0.002	1024467	10.4	1	10.431	0.000	133977	3.5
Aroclor-1260	2	10.829	0.001	2347671	9.7	2	10.878	-0.003	222671	4.8
Aroclor-1260	3	11.229	0.000	1743835	13.4	3	11.153	0.000	257155	2.7
Aroclor-1260	4	11.333	-0.012	1270523	23.8	4	11.674	0.000	84882	3.2
Aroclor-1260	5	11.420	0.001	1152316	17.9	NS	---			----
Total Col1Ave (5 peaks):				15.0		Total Col2Ave (4 peaks):			3.6	RPD = 124*
Corrected Ave (4 peaks):				12.9		Corrected Ave (3 peaks):			3.1	RPD = 122*
Aroclor-1262	1	10.131	-0.010	1151475	7.6	1	10.431	-0.004	133977	2.3
Aroclor-1262	2	10.453	-0.005	1024467	9.1	2	10.878	-0.007	222671	4.4
Aroclor-1262	3	10.829	-0.003	2347671	7.6	3	11.153	-0.004	257155	2.2
Aroclor-1262	4	11.333	-0.016	1270523	12.0	4	11.674	-0.004	84882	1.9
Aroclor-1262	5	11.420	-0.003	1152316	9.5	5	12.512	0.034	718357	15.6
Total Col1Ave (5 peaks):				9.2		Total Col2Ave (5 peaks):			5.3	RPD = 54*
Corrected Ave (4 peaks):				8.5		Corrected Ave (4 peaks):			2.7	RPD = 103*
Aroclor-1268	1	11.333	-0.018	1270523	4.1	1	11.674	-0.005	84882	0.7
Aroclor-1268	2	11.420	-0.001	1152316	3.7	2	11.734	-0.012	258221	2.4

Aroclor-1268	3	11.816	0.007	1090160	4.2	3	12.132	-0.011	324256	3.4
Aroclor-1268	4	12.597	-0.002	87495	0.1	4	12.969	0.004	229128	0.8

Total Col1Ave (4 peaks): 3.0 Total Col2Ave (4 peaks): 1.8 RPD = 50*

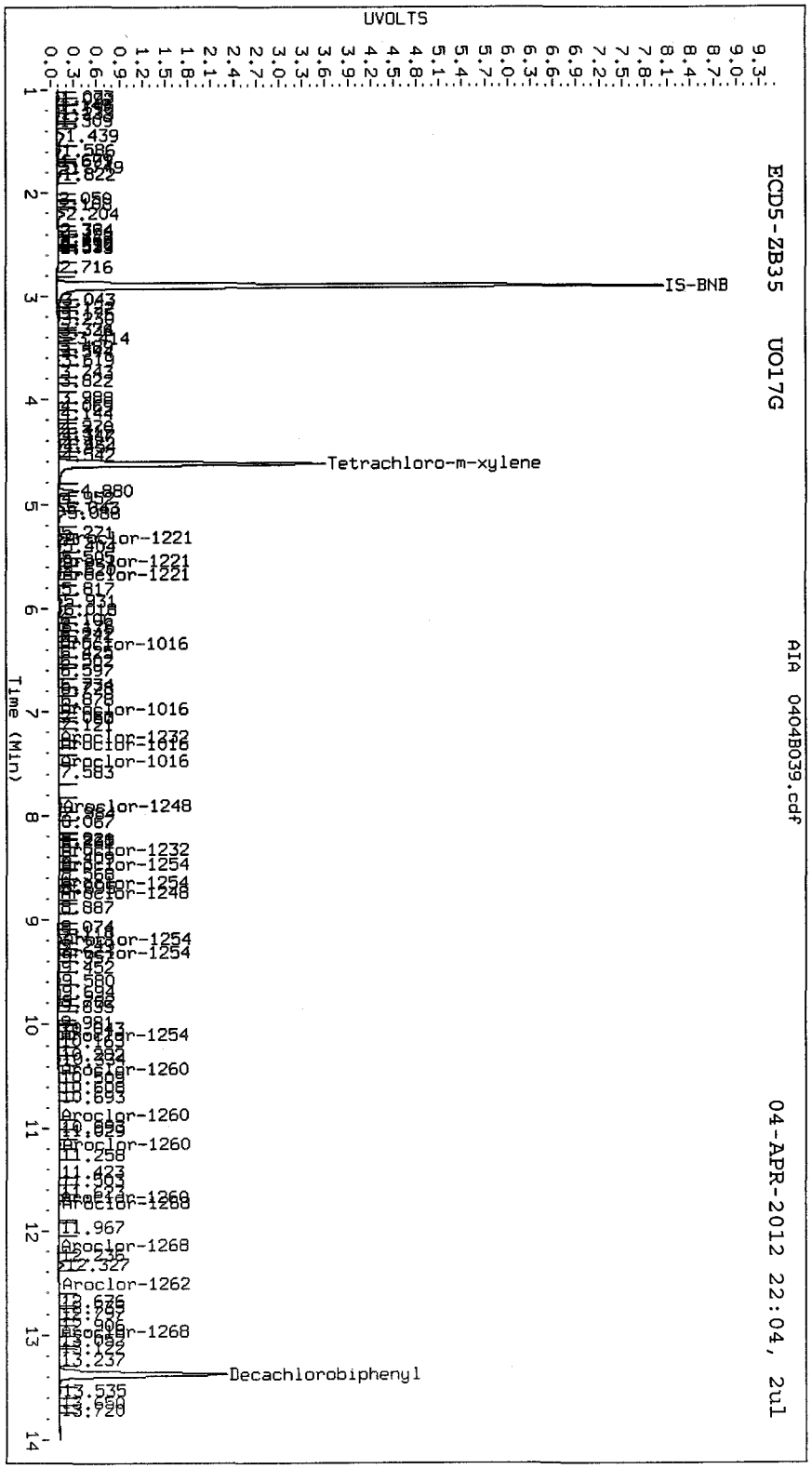
Corrected Ave (3 peaks): 2.6 Corrected Ave (3 peaks): 1.3 RPD = 69*

Total PCB Area Col1 (4.716 - 12.900) = 65291616 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 22334796 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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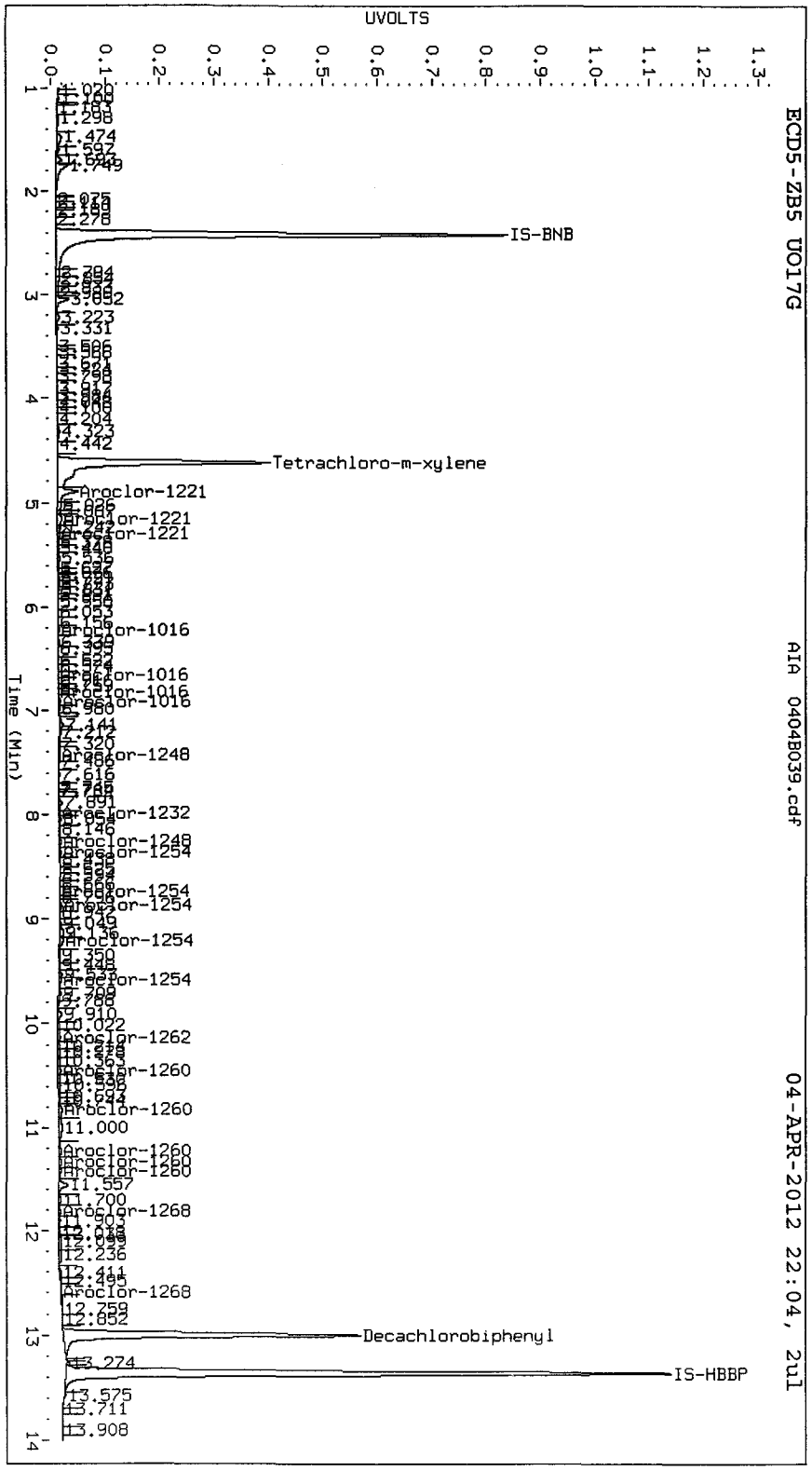
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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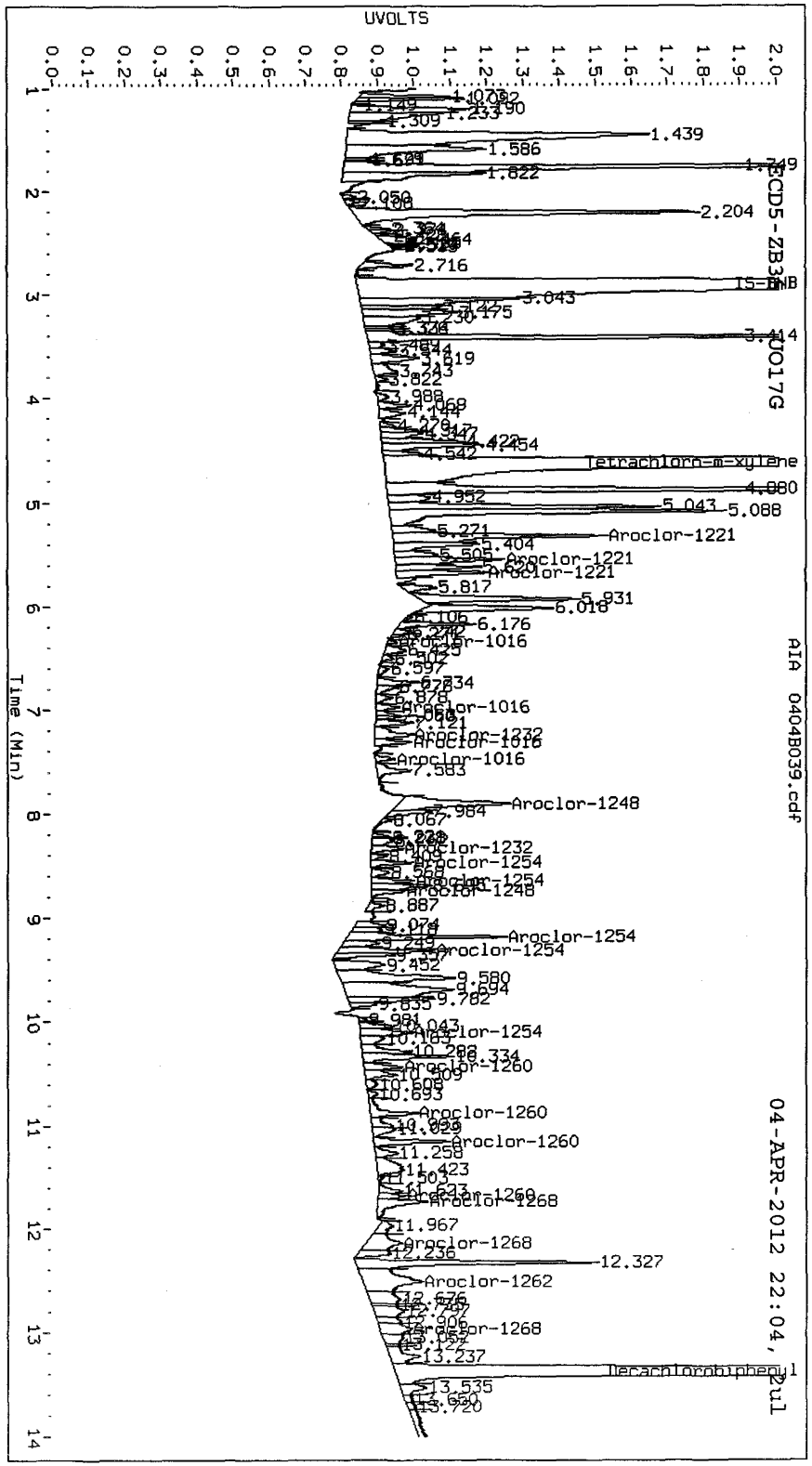
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP

UO17:00256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5.043
5.088
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Aroclor-1016
Aroclor-1248
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Aroclor-1268
Aroclor-1262
Decachlorobiphenyl
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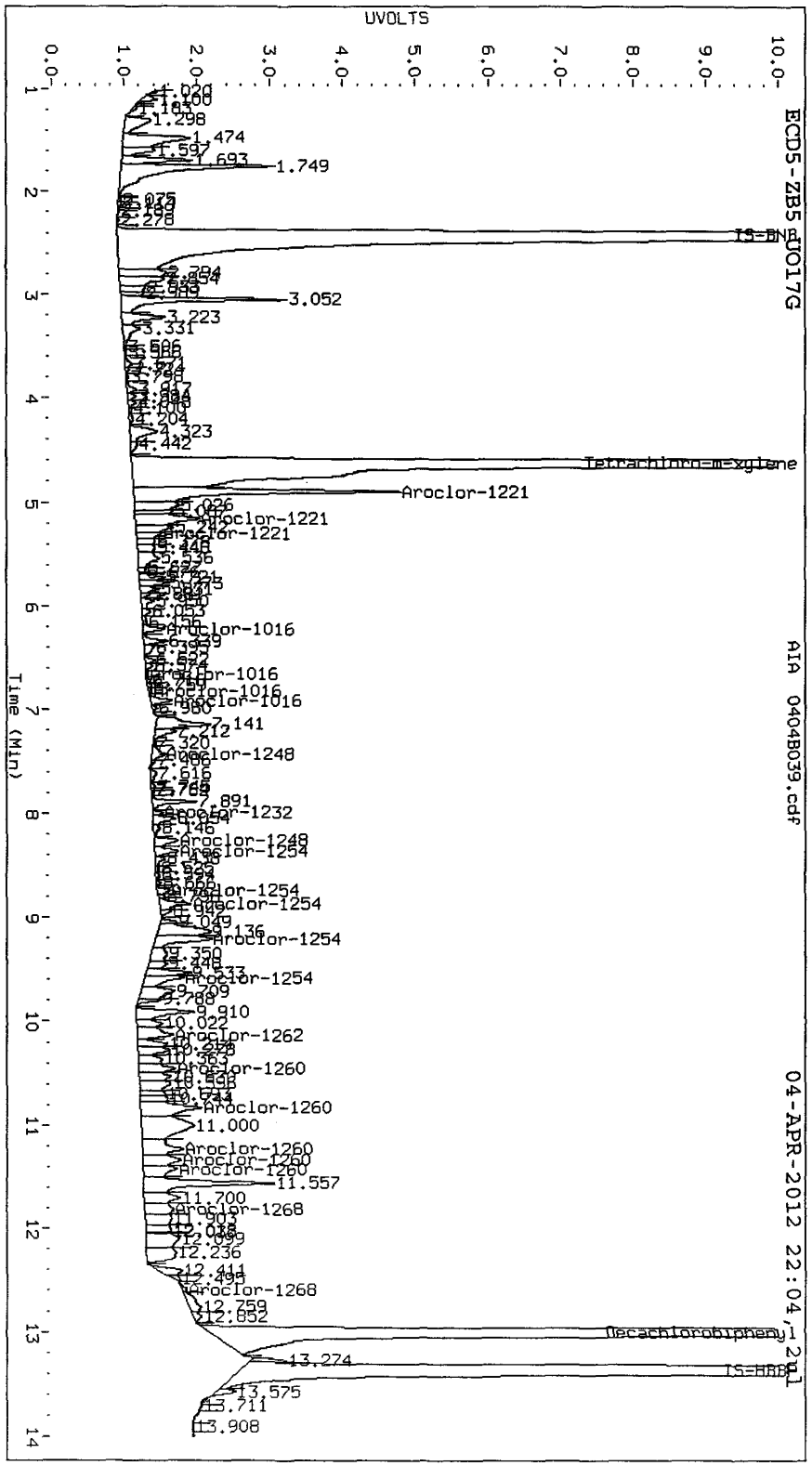
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Aroclor-1248
Aroclor-1232
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Aroclor-1262
Aroclor-1260
Aroclor-1268
11.000
11.557
Decachlorobiphenyl
13.274
IS-HRB

UO17:00257

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B040.d
Data file 2: 20120327.B/0404-2.b/0404B040.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 04-APR-2012 22:23
Ical Date: 27-MAR-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
4.619	0.003	31349761	4.617	0.000	19708645	22.5	20.6	8.8	Tetrachloro-m-xylene
13.001	0.001	37455639	13.375	0.000	13339719	21.0	20.6	1.7	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	56.2	51.5
Decachlorobiphenyl	52.4	51.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	96156068	-23.3
Hexabromobiphenyl	146489015	122043351	-16.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	67764440	-7.4
Hexabromobiphenyl	55066880	48671863	-11.6

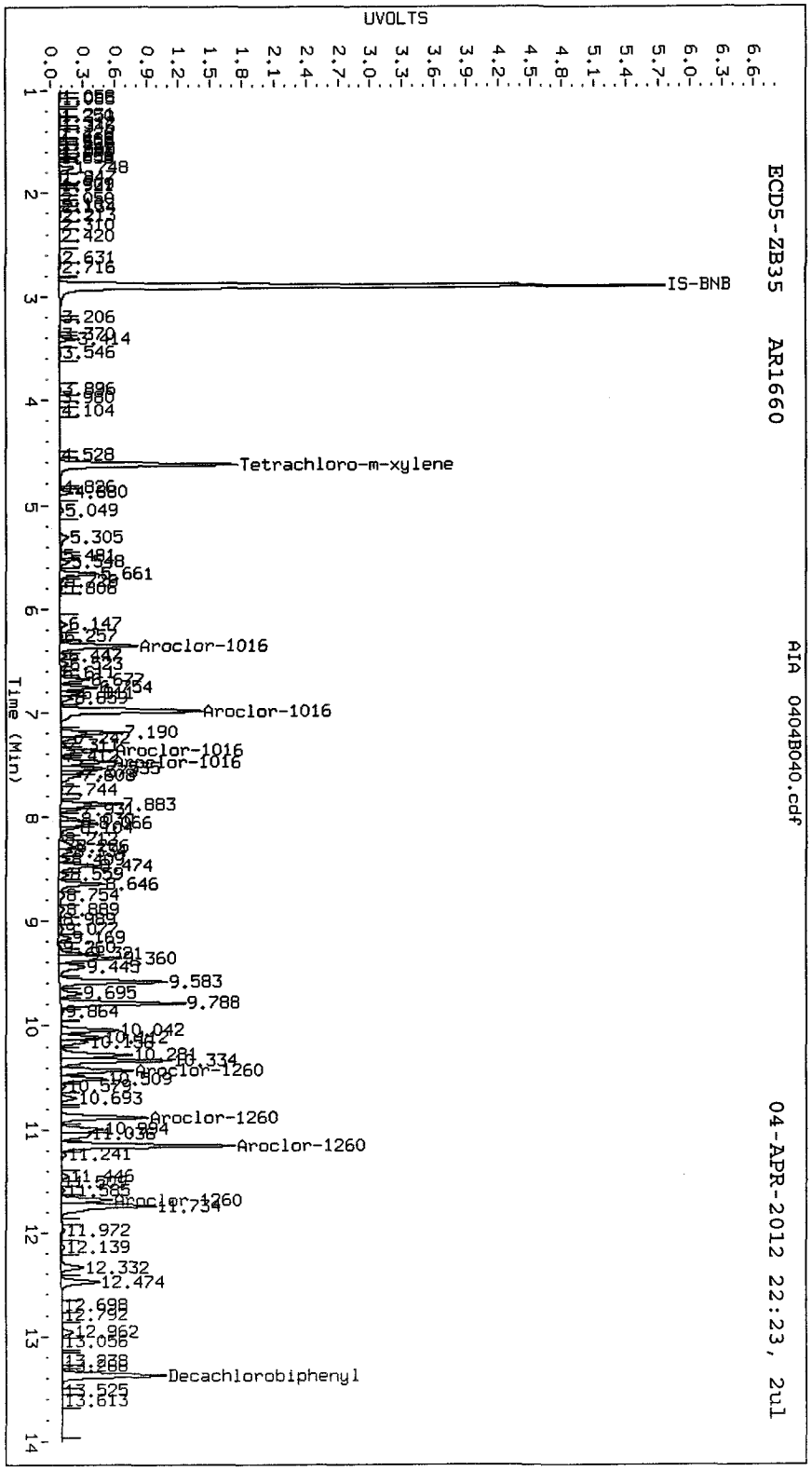
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.251	0.001	9988175	287.6	1	6.354	0.000	9172299	253.5
Aroclor-1016	2	6.651	0.001	33975124	288.3	2	6.981	0.001	19359216	269.3
Aroclor-1016	3	6.800	0.001	13253539	286.0	3	7.364	0.002	4797783	262.1
Aroclor-1016	4	6.910	0.002	9548459	287.7	4	7.471	0.001	5392179	270.3
Total Col1Ave (4 peaks):				287.4		Total Col2Ave (4 peaks):			263.8	RPD = 9
Corrected Ave (3 peaks):				287.1		Corrected Ave (3 peaks):			261.7	RPD = 9
Aroclor-1260	1	10.456	0.001	19119892	268.9	1	10.431	0.000	7798315	283.9
Aroclor-1260	2	10.830	0.002	45211432	258.8	2	10.882	0.001	9488776	286.1
Aroclor-1260	3	11.230	0.001	24446131	259.2	3	11.154	0.002	19056438	284.4
Aroclor-1260	4	11.346	0.001	10318752	266.7	4	11.676	0.001	5584465	292.6
Aroclor-1260	5	11.419	0.001	12465274	268.0	NS	---			----
Total Col1Ave (5 peaks):				264.3		Total Col2Ave (4 peaks):			286.7	RPD = 8
Corrected Ave (4 peaks):				263.2		Corrected Ave (3 peaks):			284.8	RPD = 8

Total PCB Area Col1 (4.716 - 12.900) = 586002614 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 270902201 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical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Time (Min)
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Tetrachloro-m-xylene
Aroclor-1016
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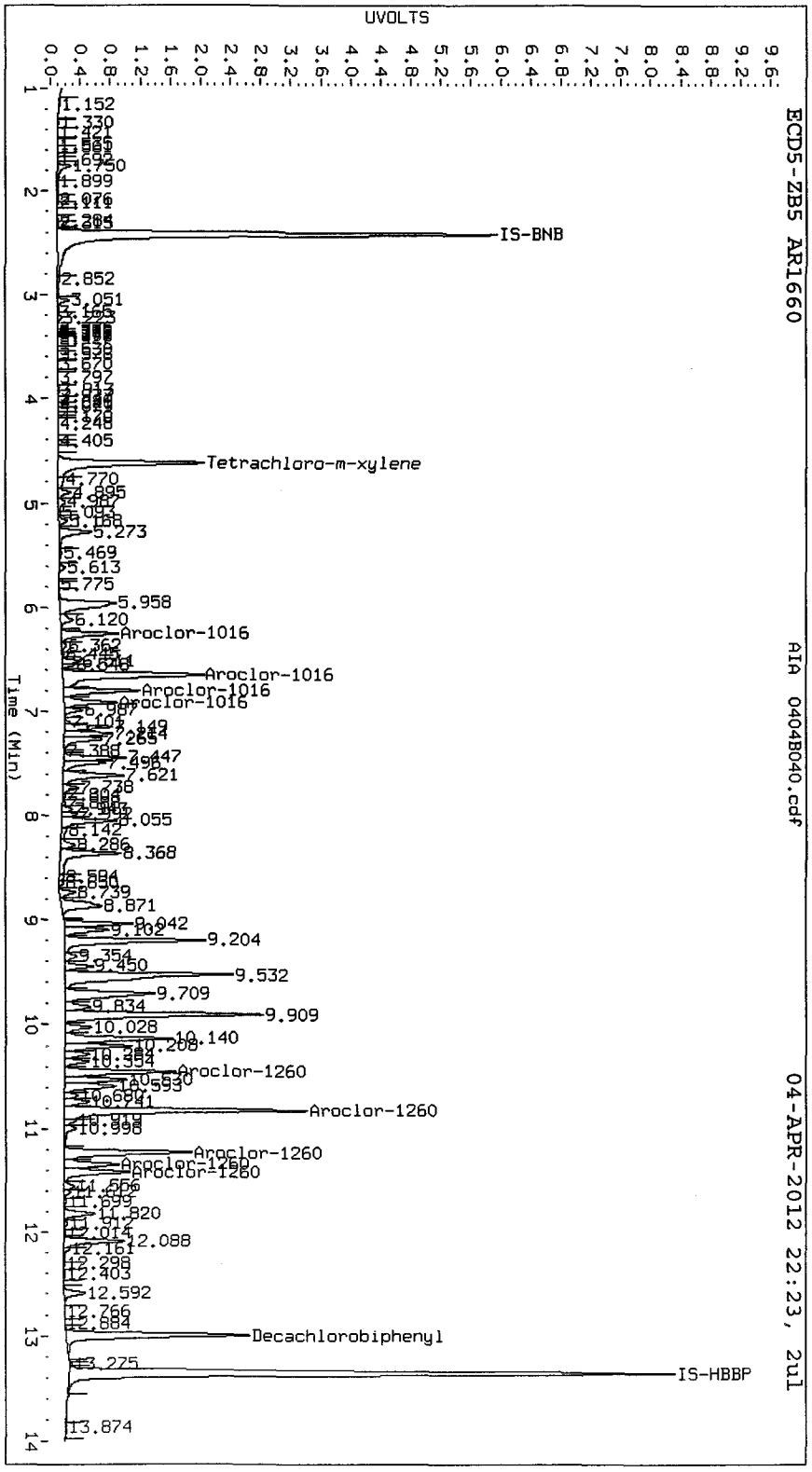
Aroclor-1260
Decachlorobiphenyl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Aroclor-1260
Aroclor-1260
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Aroclor-1260
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120327.B/0404-1.b/0404B041.d
Data file 2: 20120327.B/0404-2.b/0404B041.d
Method: /chem2/ecd5.i/20120327.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 04-APR-2012 22:42
Ical Date: 27-MAR-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
4.620	0.003	39538098	4.618	0.000	24114830	23.7	21.0	12.0	Tetrachloro-m-xylene
13.000	0.000	42531719	13.375	0.000	15599780	20.4	20.6	1.0	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	59.3	52.5
Decachlorobiphenyl	51.1	51.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	125364794	115008869	-8.3
Hexabromobiphenyl	146489015	142202169	-2.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	73208642	81239432	11.0
Hexabromobiphenyl	55066880	56854272	3.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 27-MAR-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-1242	1	6.252	0.000	9512641	291.7	1	6.355	0.000	8630490	267.5
Aroclor-1242	2	6.652	0.000	32075743	293.4	2	6.981	0.000	18242659	277.1
Aroclor-1242	3	6.800	0.000	12568140	292.3	3	7.189	0.000	6142342	232.8
Aroclor-1242	4	7.992	0.000	11514819	303.5	4	8.334	0.000	6279015	285.1

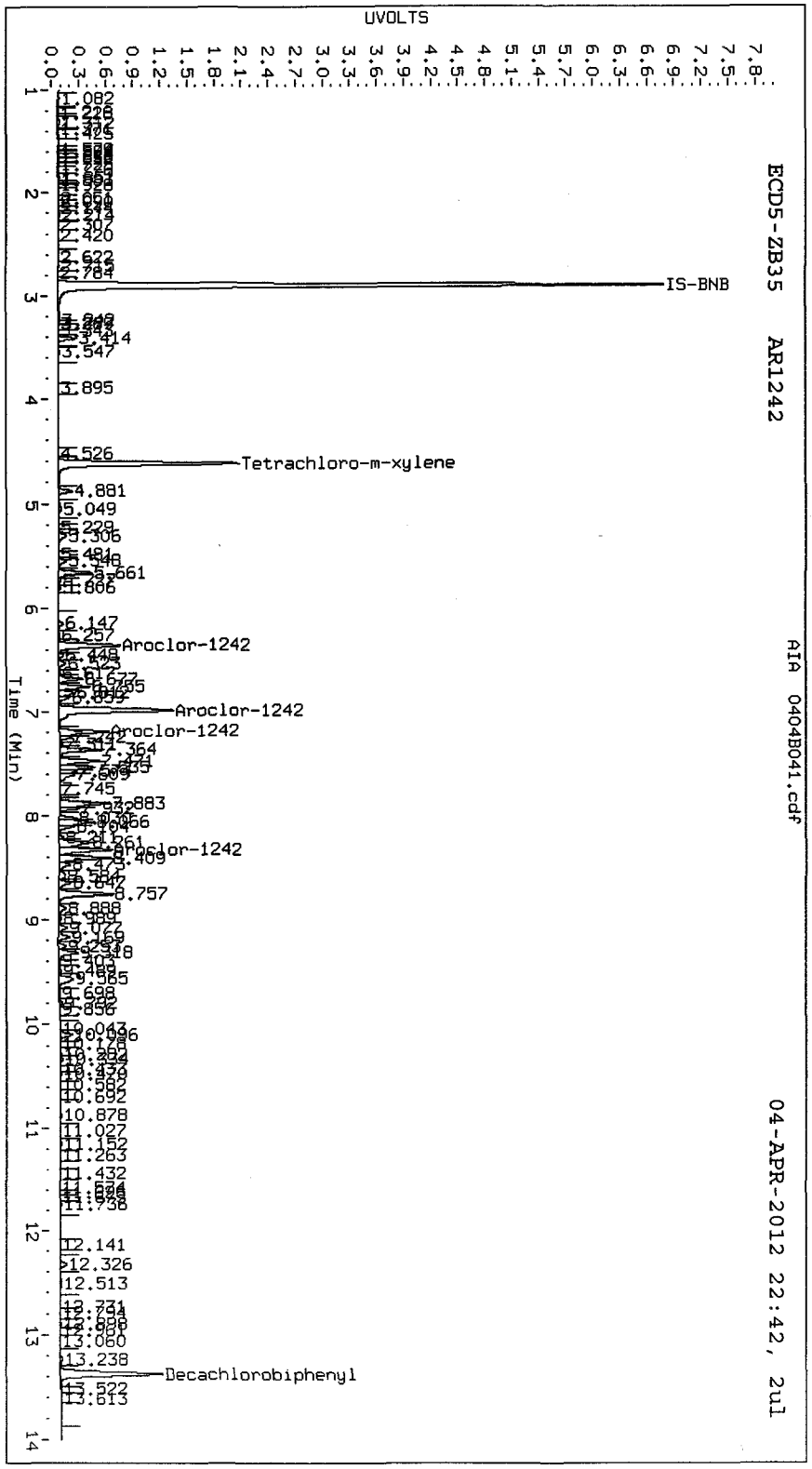
Total Col1Ave (4 peaks): 295.2 Total Col2Ave (4 peaks): 265.6 RPD = 11

Corrected Ave (3 peaks): 292.5 Corrected Ave (3 peaks): 259.1 RPD = 12

Total PCB Area Col1 (4.716 - 12.900) = 262439798 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.718 - 13.275) = 135051422 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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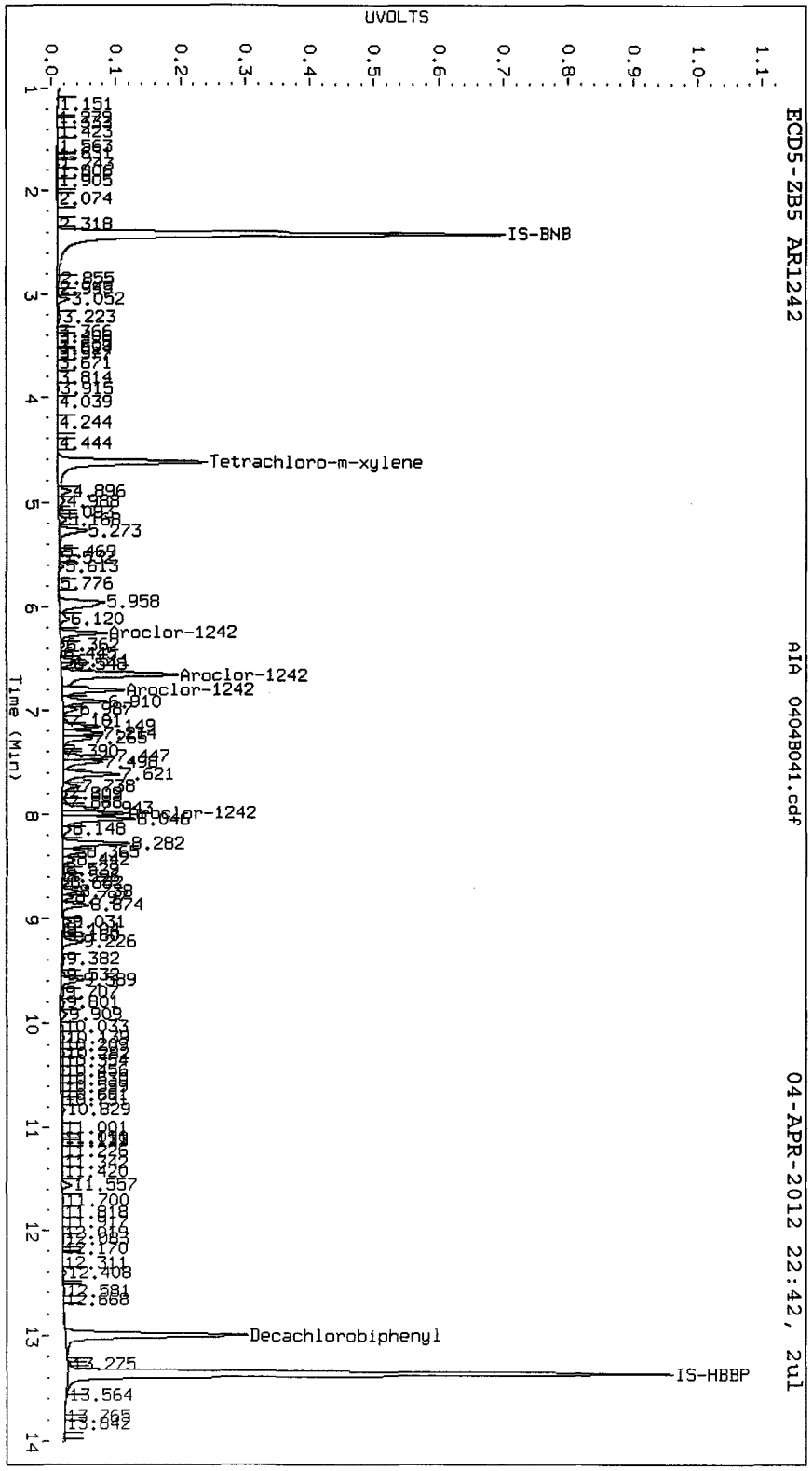
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: UO17

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: MJ

Date: 04.02.12

Final Volume 50

Final Volume (Hg): 50

Sample ID U017 ASPK, 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		
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2904-3		
	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	SWC	ICP	2000	0.1	2834-6
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.

U017.00295

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Start time: 0855

Analyst: MJ Date: 04.02.12

Matrix: Soil Block ID: #2 Block Temp: 90°C Thermometer: MP12

ARI Sample ID	Btl #	pH<2	Prep Code: SW C Initial Wt (g) ~~Vol (mL)~~	Prep Code: SW C Final Vol (mL)	Prep Code: SW N Initial Wt (g) ~~Vol (mL)~~	Prep Code: SW N Final Vol (mL)	Comments
U017 A	2	—	1.046	50.0	1.026	50.0	
U017 ADUP	2	—	1.049	50.0	1.024	50.0	
U017 ASPK	2	—	1.047	50.0	1.029	50.0	
U017 MB1	—	—	—	50.0	—	50.0	BATCH
U017 MB1SPK	—	—	—	50.0	—	50.0	
U032 D	1	—	1.023	50.0	1.028	50.0	

04.02.12 MJ

Chemical/Reagent ID:

HNO_3: MP2269/I7310 HCl: I7305 H_2O_2: I70607 Tube Lot #: 111173

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Matrix: Soil
Analyst: MJ
Date: 04.02.12
Bath Temp: 92°C
Start Time: 0915
End Time: 0945

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
U017 A	2	—	0.278	50.0	04.08 1	Y	
U017 ADUP	2	—	0.280	50.0	1	Y	
U017 ASPK	2	—	0.281	50.0	1	Y	BATCH
U017 MB1	—	—	—	50.0	1	Y	
U017 MB1SPK	—	—	—	50.0	1	Y	
U032 D	1	—	0.238	50.0	04.09 1	Y	

04.02.12 MJ

Chemical/Reagent ID:

HNO_3: I7370
H_2SO_4: I7154
HCl: —
5% $K_2S_2O_8$: MP2252
5% $KMnO_4$: MP2253
Digest Tube Lot: 1108215

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: UO17

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 3.19.12 Analysis Date: 4.4.12 Analyst: BLW

LR Date: 3.19.12 Page: 1 of 4

All corrections made by analyst unless otherwise noted. BLW 4.4.12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		Std 0			2925-12
		2			2926-8
		3			-9
		4			-10
		5			-11
		ICV			2925-3
		ICB			Mo high
		CRI			
		ICSA			
		ICSAB			
		CCV1			
		CCB1			
		U017 MB1	SWC	2	
		U057 B	TWC		
		C			
		D			
	✓	U032 D	SWC	2	Fe high rerun
		U017 Adup			post RPD Ag Cd Cr Pb Sb Zn
		A			
		Asph			post POR ~~Ag Ba~~ Pb Sb Fe high
2		~~222222~~ ~~A post~~			
		MBlsph			
		CCV2			
		CCB2			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 4.4.12 Analyst: RLW

LR Date: — Page: 2 of 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		U057 MB1	TWC		
		U023 cdup	DMN	✓	
		C			
		Csph		✓	0.08 ml ICP sph
		U057 E	TWC		
		F			
		Adup		✓	
		A			
		Asph		✓	
		MB1sph		✓	
		CCV3			
		CCB3			
		U041 MB	TWC		
	✓	U023 MB1			CV out
		MB2	DMN		
		D			
	✓	B	TWC		CV out
		Adup		✓	
		A			
		Asph		✓	NaSTL
	✓	MB1sph		✓	CV out
		MB2sph	DMN	✓	0.08 ml ICP sph
		CCV4			Mn NaSTL low
		CCB4			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 4.4.12 Analyst: PBW

LR Date: — Page: 3 of 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		std 2			
		↓ 3			
		CCV5			
		CCB5			
		U045 F	WMN		
		G			
		H			
		I			
		U032 D	Sex	5	
		U017 Adup			Ag Cd Cr Pb Sb Zn poor RPD
		A			CAF
		Asph			Ag Ba Ni Pb Sb poor %R
		Apost			0.016 Sb 1000 0.08ml ICPsph Ag Ba Ni Pb Sb
		U045 MBsph	WMN		"
		CCV6			
		CCB6			end package
		U045 MB	WMN		
		U028 MB			
		B			
		C			
		D			
		Adup			
		A			
		Asph			0.08ml ICPsph

AHS12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA **Analysis Date:** 4.4.12

ICP 2	Analyst BW 4.5	Peer AJ 4-5	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	✓	✓	
Matrix Spikes	✓	✓	U091 U017
Matrix Duplicates	✓	✓	↓
Method Blanks	✓	✓	U091
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	✓	✓	U091 U017

==========

Analysis Begun

Start Time: 4/4/2012 10:26:41 AM **Plasma On Time: 4/4/2012 9:29:51 AM**
Logged In Analyst: metals **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C8121202Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\CRISETb.sif
Batch ID:
Results Data Set: I2120404
Results Library: C:\pe\metals\Results\Results.mdb

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Method Loaded
Method Name: 7300bcESI2FAST **Method Last Saved: 3/19/2012 10:25:21 AM**
IEC File: IEC031612.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	Yes
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 **Autosampler Location: 1**
Sample ID: Calib Blank 1 **Date Collected: 4/4/2012 10:26:43 AM**
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2603403.4	15790.73	0.61%	100.0	%
ScR 361.383	405772.4	2344.36	0.58%	100.0	%
Ag 328.068†	-589.8	40.59	6.88%	[0.00]	mg/L
Al 308.215†	148.2	6.09	4.11%	[0.00]	mg/L
As 188.979†	-1.6	0.58	36.10%	[0.00]	mg/L
B 249.677†	-0.5	4.39	801.65%	[0.00]	mg/L

Ba 233.527†	7.3	2.69	36.90%	[0.00]	mg/L
Be 313.042†	1256.6	26.46	2.11%	[0.00]	mg/L
Ca 317.933†	413.4	10.87	2.63%	[0.00]	mg/L
Cd 228.802†	292.9	2.15	0.73%	[0.00]	mg/L
Co 228.616†	-57.0	4.89	8.57%	[0.00]	mg/L
Cr 267.716†	-60.0	11.00	18.34%	[0.00]	mg/L
Cu 324.752†	383.6	22.42	5.84%	[0.00]	mg/L
Fe 273.955†	-17.0	1.05	6.16%	[0.00]	mg/L
K 766.490†	-409.7	14.23	3.47%	[0.00]	mg/L
Mg 279.077†	110.0	8.43	7.66%	[0.00]	mg/L
Mn 257.610†	-42.6	2.60	6.11%	[0.00]	mg/L
Mo 202.031†	106.9	1.70	1.59%	[0.00]	mg/L
Na 589.592†	-526.3	34.30	6.52%	[0.00]	mg/L
Na 330.237†	-26.1	7.02	26.92%	[0.00]	mg/L
Ni 231.604†	-6.9	3.80	54.66%	[0.00]	mg/L
Pb 220.353†	138.0	5.01	3.63%	[0.00]	mg/L
Sb 206.836†	274.2	1.86	0.68%	[0.00]	mg/L
Se 196.026†	-146.2	5.00	3.42%	[0.00]	mg/L
Si 288.158†	70.9	19.42	27.39%	[0.00]	mg/L
Sn 189.927†	-45.4	5.02	11.06%	[0.00]	mg/L
Sr 421.552†	-535.0	9.84	1.84%	[0.00]	mg/L
Ti 334.903†	-107.4	5.89	5.48%	[0.00]	mg/L
Tl 190.801†	0.9	6.34	681.61%	[0.00]	mg/L
V 292.402†	407.0	17.01	4.18%	[0.00]	mg/L
Zn 206.200†	-55.7	1.60	2.88%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 4/4/2012 10:30:55 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2616543.2	6500.28	0.25%	100.5	%
ScR 361.383	407413.4	1256.76	0.31%	100.4	%
Ba 233.527†	92250.4	228.78	0.25%	[10]	mg/L
Cd 228.802†	348726.4	1419.48	0.41%	[10]	mg/L
Co 228.616†	432026.1	1547.34	0.36%	[10]	mg/L
Cr 267.716†	94668.0	97.80	0.10%	[10]	mg/L
Cu 324.752†	2415367.5	5938.88	0.25%	[10]	mg/L
Mn 257.610†	601503.9	1974.32	0.33%	[10]	mg/L
V 292.402†	1962875.7	11954.16	0.61%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 4/4/2012 10:32:40 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2593429.8	646.46	0.02%	99.62	%
ScR 361.383	399352.2	2944.58	0.74%	98.42	%
Ag 328.068†	285635.9	1116.57	0.39%	[1.0]	mg/L
As 188.979†	26742.3	71.45	0.27%	[10]	mg/L
B 249.677†	70275.8	746.06	1.06%	[10]	mg/L
Be 313.042†	3730642.7	12184.06	0.33%	[5.0]	mg/L
Na 589.592†	644090.3	1013.12	0.16%	[50]	mg/L
Ni 231.604†	51118.8	391.25	0.77%	[10]	mg/L
Pb 220.353†	132291.5	457.86	0.35%	[10]	mg/L
Se 196.026†	20390.2	39.41	0.19%	[10]	mg/L
Sr 421.552†	4407818.0	16771.23	0.38%	[5]	mg/L
Tl 190.801†	28827.7	58.45	0.20%	[10]	mg/L
Zn 206.200†	31792.7	330.16	1.04%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 4/4/2012 10:34:55 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2596990.6	1366.65	0.05%	99.75	%
ScR 361.383	413628.9	1923.48	0.47%	101.9	%
Mo 202.031†	252713.2	760.53	0.30%	[10]	mg/L
Sb 206.836†	43075.5	181.59	0.42%	[10]	mg/L
Si 288.158†	23327.3	531.48	2.28%	[10]	mg/L
Sn 189.927†	80908.2	621.86	0.77%	[10]	mg/L
Ti 334.903†	305909.1	3143.19	1.03%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 4/4/2012 10:37:07 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2460047.7	14864.66	0.60%	94.49	%
ScR 361.383	413170.2	1932.79	0.47%	101.8	%
Al 308.215†	50322.1	568.04	1.13%	[30]	mg/L
Ca 317.933†	349969.2	118.70	0.03%	[30]	mg/L
Fe 273.955†	148306.7	781.67	0.53%	[100]	mg/L
K 766.490†	241220.4	1491.96	0.62%	[100]	mg/L
Mg 279.077†	40524.2	562.85	1.39%	[30]	mg/L
Na 330.237†	3179.5	49.10	1.54%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	285600	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1677	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	2674	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7028	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	9225	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	746100	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	11670	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	34870	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	43200	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	9467	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	241500	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1483	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2412	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1351	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	60150	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	25270	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	12880	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	31.80	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	5112	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	13230	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	4308	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	2039	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2333	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	8091	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	881600	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	30590	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2883	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	196300	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	3179	0.00000	1.000000	

Analysis Begun

Start Time: 4/4/2012 10:42:46 AM
Logged In Analyst: metals
Spectrometer Model: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 4/4/2012 9:29:51 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0404.sif
Batch ID:
Results Data Set: I2120404
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: CV
Dilution: 1X

Autosampler Location: 7
Date Collected: 4/4/2012 10:42:47 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 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	2595957.0	99.71	%	0.266				0.27%
ScR 361.383	412620.1	101.7	%	0.40				0.39%
Ag 328.068†	285690.0	1.000	mg/L	0.0084	1.000	mg/L	0.0084	0.84%
Al 308.215†	3385.4	1.989	mg/L	0.0267	1.989	mg/L	0.0267	1.34%
As 188.979†	5383.2	2.018	mg/L	0.0035	2.018	mg/L	0.0035	0.18%
B 249.677†	6893.7	0.9790	mg/L	0.01074	0.9790	mg/L	0.01074	1.10%
Ba 233.527†	9056.9	0.9814	mg/L	0.00776	0.9814	mg/L	0.00776	0.79%
Be 313.042†	716770.0	0.9600	mg/L	0.00570	0.9600	mg/L	0.00570	0.59%
Ca 317.933†	23999.7	2.057	mg/L	0.0141	2.057	mg/L	0.0141	0.69%
Cd 228.802†	35458.6	1.010	mg/L	0.0024	1.010	mg/L	0.0024	0.23%
Co 228.616†	42326.3	0.9780	mg/L	0.00139	0.9780	mg/L	0.00139	0.14%
Cr 267.716†	9435.9	0.9963	mg/L	0.00915	0.9963	mg/L	0.00915	0.92%
Cu 324.752†	237902.7	0.9849	mg/L	0.00160	0.9849	mg/L	0.00160	0.16%
Fe 273.955†	3032.0	2.040	mg/L	0.0208	2.040	mg/L	0.0208	1.02%
K 766.490†	49783.1	20.64	mg/L	0.056	20.64	mg/L	0.056	0.27%
Mg 279.077†	2725.2	2.023	mg/L	0.0171	2.023	mg/L	0.0171	0.85%
Mn 257.610†	58643.3	0.9757	mg/L	0.00986	0.9757	mg/L	0.00986	1.01%
Mo 202.031†	25625.7	1.014	mg/L	0.0030	1.014	mg/L	0.0030	0.29%
Na 589.592†	630429.5	48.94	mg/L	0.135	48.94	mg/L	0.135	0.28%
Na 330.237†	1642.3	51.69	mg/L	0.297	51.69	mg/L	0.297	0.57%
Ni 231.604†	4974.0	0.9750	mg/L	0.00819	0.9750	mg/L	0.00819	0.84%
Pb 220.353†	27304.2	2.065	mg/L	0.0047	2.065	mg/L	0.0047	0.23%
Sb 206.836†	8835.9	2.051	mg/L	0.0055	2.051	mg/L	0.0055	0.27%
Se 196.026†	4102.5	2.011	mg/L	0.0038	2.011	mg/L	0.0038	0.19%
Si 288.158†	4682.0	2.011	mg/L	0.0418	2.011	mg/L	0.0418	2.08%
Sn 189.927†	8263.2	1.023	mg/L	0.0029	1.023	mg/L	0.0029	0.28%
Sr 421.552†	869994.1	0.9869	mg/L	0.00489	0.9869	mg/L	0.00489	0.50%
Ti 334.903†	29853.3	0.9743	mg/L	0.00478	0.9743	mg/L	0.00478	0.49%
Tl 190.801†	5818.7	2.017	mg/L	0.0093	2.017	mg/L	0.0093	0.46%
V 292.402†	193558.0	0.9904	mg/L	0.00359	0.9904	mg/L	0.00359	0.36%
Zn 206.200†	3204.4	1.009	mg/L	0.0113	1.009	mg/L	0.0113	1.12%

Sequence No.: 2
Sample ID: CB

Dilution: 1X

Autosampler Location: 1
Date Collected: 4/4/2012 10:45:48 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 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	2642195.4	101.5	%	0.73				0.72%
ScR 361.383	416655.4	102.7	%	0.75				0.73%
Ag 328.068†	70.5	0.00025	mg/L	0.000172	0.00025	mg/L	0.000172	69.77%
Al 308.215†	-4.8	-0.00293	mg/L	0.003942	-0.00293	mg/L	0.003942	134.70%
As 188.979†	1.7	0.00063	mg/L	0.000915	0.00063	mg/L	0.000915	145.99%
B 249.677†	14.9	0.00213	mg/L	0.000577	0.00213	mg/L	0.000577	27.14%
Ba 233.527†	0.4	0.00004	mg/L	0.000128	0.00004	mg/L	0.000128	298.66%
Be 313.042†	29.9	0.00004	mg/L	0.000009	0.00004	mg/L	0.000009	21.57%
Ca 317.933†	-6.6	-0.00056	mg/L	0.001303	-0.00056	mg/L	0.001303	230.91%
Cd 228.802†	4.5	0.00013	mg/L	0.000206	0.00013	mg/L	0.000206	162.04%
Co 228.616†	-6.6	-0.00015	mg/L	0.000116	-0.00015	mg/L	0.000116	76.19%
Cr 267.716†	12.3	0.00130	mg/L	0.000401	0.00130	mg/L	0.000401	30.78%
Cu 324.752†	59.2	0.00024	mg/L	0.000043	0.00024	mg/L	0.000043	17.84%
Fe 273.955†	-0.5	-0.00037	mg/L	0.001034	-0.00037	mg/L	0.001034	283.04%
K 766.490†	52.0	0.02155	mg/L	0.004091	0.02155	mg/L	0.004091	18.98%
Mg 279.077†	-3.2	-0.00237	mg/L	0.001757	-0.00237	mg/L	0.001757	74.28%
Mn 257.610†	5.2	0.00009	mg/L	0.000071	0.00009	mg/L	0.000071	83.00%
Mo 202.031†	127.7	0.00505	mg/L	0.001027	0.00505	mg/L	0.001027	20.33%
Na 589.592†	128.2	0.00995	mg/L	0.004604	0.00995	mg/L	0.004604	46.27%
Na 330.237†	-10.7	-0.3367	mg/L	0.32536	-0.3367	mg/L	0.32536	96.62%
Ni 231.604†	0.3	0.00006	mg/L	0.000621	0.00006	mg/L	0.000621	986.24%
Pb 220.353†	-13.4	-0.00101	mg/L	0.000884	-0.00101	mg/L	0.000884	87.67%
Sb 206.836†	29.3	0.00680	mg/L	0.001504	0.00680	mg/L	0.001504	22.11%
Se 196.026†	8.7	0.00426	mg/L	0.002502	0.00426	mg/L	0.002502	58.78%
Si 288.158†	2.9	0.00123	mg/L	0.003706	0.00123	mg/L	0.003706	300.53%
Sn 189.927†	6.5	0.00081	mg/L	0.000503	0.00081	mg/L	0.000503	61.90%
Sr 421.552†	79.7	0.00009	mg/L	0.000039	0.00009	mg/L	0.000039	43.35%
Ti 334.903†	24.2	0.00078	mg/L	0.000517	0.00078	mg/L	0.000517	65.86%
Tl 190.801†	0.2	0.00009	mg/L	0.001788	0.00009	mg/L	0.001788	>999.9%
V 292.402†	38.0	0.00020	mg/L	0.000052	0.00020	mg/L	0.000052	25.78%
Zn 206.200†	4.6	0.00145	mg/L	0.000824	0.00145	mg/L	0.000824	56.95%

Sequence No.: 3
Sample ID: CRI

Autosampler Location: 301
Date Collected: 4/4/2012 10:50:01 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2685720.5	103.2	%	0.98				0.95%
ScR 361.383	423015.0	104.2	%	0.86				0.82%
Ag 328.068†	843.3	0.00295	mg/L	0.000035	0.00295	mg/L	0.000035	1.19%
Al 308.215†	81.2	0.04830	mg/L	0.007313	0.04830	mg/L	0.007313	15.14%
As 188.979†	132.2	0.04944	mg/L	0.001951	0.04944	mg/L	0.001951	3.95%
B 249.677†	145.6	0.02071	mg/L	0.000677	0.02071	mg/L	0.000677	3.27%
Ba 233.527†	28.6	0.00310	mg/L	0.000538	0.00310	mg/L	0.000538	17.39%
Be 313.042†	667.7	0.00089	mg/L	0.000015	0.00089	mg/L	0.000015	1.68%
Ca 317.933†	570.0	0.04886	mg/L	0.001098	0.04886	mg/L	0.001098	2.25%
Cd 228.802†	74.5	0.00197	mg/L	0.000033	0.00197	mg/L	0.000033	1.67%
Co 228.616†	118.0	0.00272	mg/L	0.000071	0.00272	mg/L	0.000071	2.62%
Cr 267.716†	53.8	0.00568	mg/L	0.000236	0.00568	mg/L	0.000236	4.16%
Cu 324.752†	528.0	0.00219	mg/L	0.000084	0.00219	mg/L	0.000084	3.86%
Fe 273.955†	75.3	0.05075	mg/L	0.002400	0.05075	mg/L	0.002400	4.73%
K 766.490†	1194.8	0.4953	mg/L	0.01528	0.4953	mg/L	0.01528	3.08%
Mg 279.077†	60.8	0.04502	mg/L	0.003906	0.04502	mg/L	0.003906	8.68%
Mn 257.610†	64.9	0.00109	mg/L	0.000049	0.00109	mg/L	0.000049	4.49%
Mo 202.031†	131.0	0.00518	mg/L	0.000040	0.00518	mg/L	0.000040	0.77%
Na 589.592†	6003.3	0.4660	mg/L	0.00705	0.4660	mg/L	0.00705	1.51%
Na 330.237†	16.2	0.5091	mg/L	0.21209	0.5091	mg/L	0.21209	41.66%
Ni 231.604†	51.2	0.01007	mg/L	0.000877	0.01007	mg/L	0.000877	8.71%
Pb 220.353†	245.9	0.01860	mg/L	0.001017	0.01860	mg/L	0.001017	5.47%
Sb 206.836†	203.4	0.04721	mg/L	0.000981	0.04721	mg/L	0.000981	2.08%
Se 196.026†	105.4	0.05170	mg/L	0.002721	0.05170	mg/L	0.002721	5.26%
Si 288.158†	117.7	0.05048	mg/L	0.003293	0.05048	mg/L	0.003293	6.52%
Sn 189.927†	76.4	0.00948	mg/L	0.000347	0.00948	mg/L	0.000347	3.66%
Sr 421.552†	912.1	0.00103	mg/L	0.000027	0.00103	mg/L	0.000027	2.61%
Ti 334.903†	164.1	0.00535	mg/L	0.000580	0.00535	mg/L	0.000580	10.84%
Tl 190.801†	136.4	0.04733	mg/L	0.000192	0.04733	mg/L	0.000192	0.41%
V 292.402†	563.6	0.00289	mg/L	0.000142	0.00289	mg/L	0.000142	4.90%
Zn 206.200†	35.6	0.01120	mg/L	0.000575	0.01120	mg/L	0.000575	5.14%

Sequence No.: 4
Sample ID: ICSA

Dilution: 1X

Autosampler Location: 302
Date Collected: 4/4/2012 10:54:14 AM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2586457.5	99.35	%	1.096				1.10%
ScR 361.383	416165.0	102.6	%	1.07				1.05%
Ag 328.068†	-153.3	-0.00121	mg/L	0.000085	-0.00121	mg/L	0.000085	7.04%
Al 308.215†	334328.4	199.3	mg/L	1.51	199.3	mg/L	1.51	0.76%
As 188.979†	22.7	-0.00727	mg/L	0.002886	-0.00727	mg/L	0.002886	39.70%
B 249.677†	-8.7	-0.00124	mg/L	0.002274	-0.00124	mg/L	0.002274	183.76%
Ba 233.527†	102.6	0.00110	mg/L	0.000313	0.00110	mg/L	0.000313	28.44%
Be 313.042†	33.2	0.00003	mg/L	0.000017	0.00003	mg/L	0.000017	64.35%
Ca 317.933†	1181060.4	101.2	mg/L	0.25	101.2	mg/L	0.25	0.25%
Cd 228.802†	72.9	0.00020	mg/L	0.000182	0.00020	mg/L	0.000182	90.65%
Co 228.616†	99.6	0.00230	mg/L	0.000040	0.00230	mg/L	0.000040	1.72%
Cr 267.716†	-18.1	0.00084	mg/L	0.000590	0.00084	mg/L	0.000590	69.89%
Cu 324.752†	-3447.5	-0.00064	mg/L	0.000210	-0.00064	mg/L	0.000210	32.73%
Fe 273.955†	291131.0	196.3	mg/L	1.13	196.3	mg/L	1.13	0.57%
K 766.490†	44.2	0.01833	mg/L	0.006757	0.01833	mg/L	0.006757	36.86%
Mg 279.077†	133318.4	98.58	mg/L	0.426	98.58	mg/L	0.426	0.43%
Mn 257.610†	63.4	0.00018	mg/L	0.000139	0.00018	mg/L	0.000139	76.25%
Mo 202.031†	165.9	0.00485	mg/L	0.000468	0.00485	mg/L	0.000468	9.65%
Na 589.592†	320.5	0.02488	mg/L	0.000988	0.02488	mg/L	0.000988	3.97%
Na 330.237†	26.3	0.1697	mg/L	0.14878	0.1697	mg/L	0.14878	87.70%
Ni 231.604†	-3.9	-0.00067	mg/L	0.000917	-0.00067	mg/L	0.000917	137.03%
Pb 220.353†	-299.8	-0.00789	mg/L	0.000086	-0.00789	mg/L	0.000086	1.10%
Sb 206.836†	395.5	0.00401	mg/L	0.004218	0.00401	mg/L	0.004218	105.15%
Se 196.026†	-60.3	-0.00707	mg/L	0.003597	-0.00707	mg/L	0.003597	50.87%
Si 288.158†	-48.0	-0.02059	mg/L	0.001345	-0.02059	mg/L	0.001345	6.53%
Sn 189.927†	-110.7	-0.01066	mg/L	0.000817	-0.01066	mg/L	0.000817	7.66%
Sr 421.552†	8704.0	0.00987	mg/L cont.	0.000136	0.00987	mg/L	0.000136	1.37%
Ti 334.903†	107.8	-0.00001	mg/L	0.000124	-0.00001	mg/L	0.000124	>999.9%
Tl 190.801†	-36.8	0.01306	mg/L	0.001124	0.01306	mg/L	0.001124	8.61%
V 292.402†	5283.6	0.00320	mg/L	0.000291	0.00320	mg/L	0.000291	9.07%
Zn 206.200†	-28.0	-0.00152	mg/L	0.000998	-0.00152	mg/L	0.000998	65.60%

Sequence No.: 5
Sample ID: ICSAB

Dilution: 1X

Autosampler Location: 303
Date Collected: 4/4/2012 10:58:28 AM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2596071.9	99.72	%	0.221				0.22%
ScR 361.383	419107.7	103.3	%	0.56				0.54%
Ag 328.068†	297155.0	1.040	mg/L	0.0038	1.040	mg/L	0.0038	0.37%
Al 308.215†	333948.7	199.1	mg/L	1.59	199.1	mg/L	1.59	0.80%
As 188.979†	2678.0	0.9855	mg/L	0.00279	0.9855	mg/L	0.00279	0.28%
B 249.677†	16.6	-0.00036	mg/L	0.000692	-0.00036	mg/L	0.000692	189.58%
Ba 233.527†	9016.5	0.9670	mg/L	0.00361	0.9670	mg/L	0.00361	0.37%
Be 313.042†	712327.7	0.9540	mg/L	0.00831	0.9540	mg/L	0.00831	0.87%
Ca 317.933†	1180969.9	101.2	mg/L	0.77	101.2	mg/L	0.77	0.76%
Cd 228.802†	35756.9	1.021	mg/L	0.0023	1.021	mg/L	0.0023	0.23%
Co 228.616†	40463.7	0.9362	mg/L	0.00116	0.9362	mg/L	0.00116	0.12%
Cr 267.716†	9373.5	0.9926	mg/L	0.00524	0.9926	mg/L	0.00524	0.53%
Cu 324.752†	245464.0	1.030	mg/L	0.0043	1.030	mg/L	0.0043	0.42%
Fe 273.955†	291411.2	196.5	mg/L	1.64	196.5	mg/L	1.64	0.84%
K 766.490†	16.4	0.00681	mg/L	0.005084	0.00681	mg/L	0.005084	74.66%
Mg 279.077†	133349.1	98.61	mg/L	0.675	98.61	mg/L	0.675	0.68%
Mn 257.610†	55125.2	0.9160	mg/L	0.00815	0.9160	mg/L	0.00815	0.89%
Mo 202.031†	160.8	0.00464	mg/L	0.000075	0.00464	mg/L	0.000075	1.62%
Na 589.592†	270.1	0.02097	mg/L	0.004625	0.02097	mg/L	0.004625	22.06%
Na 330.237†	32.9	0.1757	mg/L	0.33518	0.1757	mg/L	0.33518	190.76%
Ni 231.604†	4700.6	0.9205	mg/L	0.00202	0.9205	mg/L	0.00202	0.22%
Pb 220.353†	12638.5	0.9708	mg/L	0.00200	0.9708	mg/L	0.00200	0.21%
Sb 206.836†	4369.4	0.9185	mg/L	0.00486	0.9185	mg/L	0.00486	0.53%
Se 196.026†	1949.9	0.9780	mg/L	0.00423	0.9780	mg/L	0.00423	0.43%
Si 288.158†	-50.3	-0.01775	mg/L	0.001203	-0.01775	mg/L	0.001203	6.78%
Sn 189.927†	-120.9	-0.01123	mg/L	0.000617	-0.01123	mg/L	0.000617	5.49%
Sr 421.552†	8645.6	0.00981	mg/L	0.000031	0.00981	mg/L	0.000031	0.31%
Ti 334.903†	116.4	0.00005	mg/L	0.000463	0.00005	mg/L	0.000463	932.62%
Tl 190.801†	2669.6	0.9474	mg/L	0.00147	0.9474	mg/L	0.00147	0.16%
V 292.402†	197904.9	0.9889	mg/L	0.00240	0.9889	mg/L	0.00240	0.24%
Zn 206.200†	2907.3	0.9224	mg/L	0.00544	0.9224	mg/L	0.00544	0.59%

Sequence No.: 6
Sample ID: CV

Autosampler Location: 7
Date Collected: 4/4/2012 11:02:28 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 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	2650371.7	101.8	%	1.22				1.20%
ScR 361.383	418974.0	103.3	%	0.38				0.37%
Ag 328.068†	287460.0	1.006	mg/L	0.0126	1.006	mg/L	0.0126	1.26%
Al 308.215†	3407.5	2.002	mg/L	0.0049	2.002	mg/L	0.0049	0.24%
As 188.979†	5239.4	1.964	mg/L	0.0246	1.964	mg/L	0.0246	1.25%
B 249.677†	6781.8	0.9631	mg/L	0.00494	0.9631	mg/L	0.00494	0.51%
Ba 233.527†	8845.2	0.9584	mg/L	0.00217	0.9584	mg/L	0.00217	0.23%
Be 313.042†	700603.7	0.9383	mg/L	0.00610	0.9383	mg/L	0.00610	0.65%
Ca 317.933†	23939.0	2.052	mg/L	0.0076	2.052	mg/L	0.0076	0.37%
Cd 228.802†	35285.4	1.006	mg/L	0.0170	1.006	mg/L	0.0170	1.69%
Co 228.616†	41840.5	0.9668	mg/L	0.01610	0.9668	mg/L	0.01610	1.67%
Cr 267.716†	9302.5	0.9822	mg/L	0.00326	0.9822	mg/L	0.00326	0.33%
Cu 324.752†	240606.0	0.9961	mg/L	0.01860	0.9961	mg/L	0.01860	1.87%
Fe 273.955†	3006.7	2.023	mg/L	0.0078	2.023	mg/L	0.0078	0.38%
K 766.490†	49012.3	20.32	mg/L	0.095	20.32	mg/L	0.095	0.47%
Mg 279.077†	2699.0	2.003	mg/L	0.0301	2.003	mg/L	0.0301	1.50%
Mn 257.610†	57041.7	0.9490	mg/L	0.00195	0.9490	mg/L	0.00195	0.21%
Mo 202.031†	24930.7	0.9865	mg/L	0.01254	0.9865	mg/L	0.01254	1.27%
Na 589.592†	610315.8	47.38	mg/L	0.559	47.38	mg/L	0.559	1.18%
Na 330.237†	1641.9	51.67	mg/L	0.074	51.67	mg/L	0.074	0.14%
Ni 231.604†	4816.3	0.9441	mg/L	0.00362	0.9441	mg/L	0.00362	0.38%
Pb 220.353†	26603.3	2.012	mg/L	0.0247	2.012	mg/L	0.0247	1.23%
Sb 206.836†	8672.9	2.013	mg/L	0.0280	2.013	mg/L	0.0280	1.39%
Se 196.026†	3984.9	1.954	mg/L	0.0161	1.954	mg/L	0.0161	0.82%
Si 288.158†	4544.1	1.952	mg/L	0.0162	1.952	mg/L	0.0162	0.83%
Sn 189.927†	8026.9	0.9941	mg/L	0.01170	0.9941	mg/L	0.01170	1.18%
Sr 421.552†	851786.4	0.9662	mg/L	0.00466	0.9662	mg/L	0.00466	0.48%
Ti 334.903†	29223.9	0.9537	mg/L	0.00470	0.9537	mg/L	0.00470	0.49%
Tl 190.801†	5641.1	1.956	mg/L	0.0263	1.956	mg/L	0.0263	1.35%
V 292.402†	193883.7	0.9920	mg/L	0.01579	0.9920	mg/L	0.01579	1.59%
Zn 206.200†	3162.1	0.9952	mg/L	0.00553	0.9952	mg/L	0.00553	0.56%

Sequence No.: 7
Sample ID: CB

Dilution: 1X

Autosampler Location: 1
Date Collected: 4/4/2012 11:05:43 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 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	2692146.8	103.4	%	0.67				0.64%
ScR 361.383	426681.3	105.2	%	0.39				0.37%
Ag 328.068†	13.1	0.00005	mg/L	0.000153	0.00005	mg/L	0.000153	339.77%
Al 308.215†	7.8	0.00458	mg/L	0.001728	0.00458	mg/L	0.001728	37.70%
As 188.979†	1.5	0.00054	mg/L	0.000332	0.00054	mg/L	0.000332	61.76%
B 249.677†	10.0	0.00143	mg/L	0.000737	0.00143	mg/L	0.000737	51.54%
Ba 233.527†	-1.2	-0.00013	mg/L	0.000270	-0.00013	mg/L	0.000270	214.41%
Be 313.042†	23.0	0.00003	mg/L	0.000021	0.00003	mg/L	0.000021	69.25%
Ca 317.933†	18.2	0.00156	mg/L	0.001149	0.00156	mg/L	0.001149	73.55%
Cd 228.802†	3.4	0.00010	mg/L	0.000078	0.00010	mg/L	0.000078	80.85%
Co 228.616†	-6.4	-0.00015	mg/L	0.000092	-0.00015	mg/L	0.000092	62.25%
Cr 267.716†	5.6	0.00059	mg/L	0.000487	0.00059	mg/L	0.000487	82.21%
Cu 324.752†	58.4	0.00024	mg/L	0.000020	0.00024	mg/L	0.000020	8.46%
Fe 273.955†	9.9	0.00666	mg/L	0.002766	0.00666	mg/L	0.002766	41.51%
K 766.490†	45.9	0.01901	mg/L	0.019338	0.01901	mg/L	0.019338	101.71%
Mg 279.077†	2.2	0.00166	mg/L	0.005785	0.00166	mg/L	0.005785	349.08%
Mn 257.610†	7.6	0.00012	mg/L	0.000010	0.00012	mg/L	0.000010	8.15%
Mo 202.031†	112.4	0.00445	mg/L	0.000951	0.00445	mg/L	0.000951	21.37%
Na 589.592†	144.5	0.01122	mg/L	0.001873	0.01122	mg/L	0.001873	16.69%
Na 330.237†	2.1	0.06515	mg/L	0.238189	0.06515	mg/L	0.238189	365.60%
Ni 231.604†	0.6	0.00013	mg/L	0.000054	0.00013	mg/L	0.000054	42.79%
Pb 220.353†	-27.3	-0.00206	mg/L	0.000905	-0.00206	mg/L	0.000905	43.93%
Sb 206.836†	37.1	0.00860	mg/L	0.002591	0.00860	mg/L	0.002591	30.12%
Se 196.026†	9.2	0.00451	mg/L	0.001318	0.00451	mg/L	0.001318	29.21%
Si 288.158†	-6.7	-0.00287	mg/L	0.000750	-0.00287	mg/L	0.000750	26.11%
Sn 189.927†	8.8	0.00109	mg/L	0.000649	0.00109	mg/L	0.000649	59.58%
Sr 421.552†	83.8	0.00010	mg/L	0.000023	0.00010	mg/L	0.000023	24.27%
Ti 334.903†	4.0	0.00012	mg/L	0.000222	0.00012	mg/L	0.000222	179.75%
Tl 190.801†	3.3	0.00117	mg/L	0.000745	0.00117	mg/L	0.000745	63.61%
V 292.402†	18.8	0.00010	mg/L	0.000020	0.00010	mg/L	0.000020	20.24%
Zn 206.200†	2.2	0.00070	mg/L	0.000765	0.00070	mg/L	0.000765	108.55%

Sequence No.: 8
Sample ID: U017 MB1 SWC

Dilution: 2X

Autosampler Location: 304
Date Collected: 4/4/2012 11:09:56 AM
Data Type: Original

Nebulizer Parameters: U017 MB1 SWC

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 L/min

Mean Data: U017 MB1 SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2698853.9	103.7	%	1.86				1.80%
ScR 361.383	424297.9	104.6	%	1.14				1.09%
Ag 328.068†	51.9	0.00018	mg/L	0.000152	0.00036	mg/L	0.000304	83.60%
Al 308.215†	7.7	0.00457	mg/L	0.000532	0.00915	mg/L	0.001065	11.64%
As 188.979†	1.0	0.00038	mg/L	0.001724	0.00075	mg/L	0.003447	457.92%
B 249.677†	7.8	0.00111	mg/L	0.000599	0.00222	mg/L	0.001198	53.89%
Ba 233.527†	1.4	0.00015	mg/L	0.000314	0.00030	mg/L	0.000628	212.80%
Be 313.042†	-21.3	-0.00003	mg/L	0.000018	-0.00006	mg/L	0.000035	62.02%
Ca 317.933†	127.6	0.01094	mg/L	0.000948	0.02188	mg/L	0.001895	8.66%
Cd 228.802†	3.0	0.00009	mg/L	0.000187	0.00017	mg/L	0.000375	219.68%
Co 228.616†	-5.0	-0.00012	mg/L	0.000159	-0.00023	mg/L	0.000318	135.83%
Cr 267.716†	7.0	0.00074	mg/L	0.000868	0.00149	mg/L	0.001737	116.88%
Cu 324.752†	77.4	0.00032	mg/L	0.000055	0.00064	mg/L	0.000111	17.23%
Fe 273.955†	7.4	0.00500	mg/L	0.001568	0.01000	mg/L	0.003136	31.35%
K 766.490†	40.2	0.01667	mg/L	0.014822	0.03335	mg/L	0.029645	88.90%
Mg 279.077†	-0.6	-0.00047	mg/L	0.000977	-0.00093	mg/L	0.001954	209.67%
Mn 257.610†	6.4	0.00011	mg/L	0.000032	0.00021	mg/L	0.000064	30.02%
Mo 202.031†	2.1	0.00008	mg/L	0.000200	0.00017	mg/L	0.000399	235.26%
Na 589.592†	143.3	0.01113	mg/L	0.001587	0.02225	mg/L	0.003173	14.26%
Na 330.237†	-1.7	-0.05321	mg/L	0.163708	-0.1064	mg/L	0.32742	307.64%
Ni 231.604†	-0.2	-0.00005	mg/L	0.000980	-0.00010	mg/L	0.001959	>999.9%
Pb 220.353†	-22.9	-0.00173	mg/L	0.000272	-0.00346	mg/L	0.000544	15.72%
Sb 206.836†	-6.7	-0.00156	mg/L	0.002328	-0.00312	mg/L	0.004657	149.46%
Se 196.026†	8.0	0.00394	mg/L	0.000848	0.00788	mg/L	0.001696	21.51%
Si 288.158†	-0.5	-0.00021	mg/L	0.001398	-0.00043	mg/L	0.002797	656.83%
Sn 189.927†	2.8	0.00034	mg/L	0.000765	0.00068	mg/L	0.001531	225.50%
Sr 421.552†	61.3	0.00007	mg/L	0.000022	0.00014	mg/L	0.000043	31.23%
Ti 334.903†	21.5	0.00070	mg/L	0.000656	0.00141	mg/L	0.001313	93.29%
Tl 190.801†	-2.0	-0.00069	mg/L	0.000482	-0.00137	mg/L	0.000965	70.20%
V 292.402†	-4.6	-0.00002	mg/L	0.000010	-0.00004	mg/L	0.000021	48.94%
Zn 206.200†	7.1	0.00224	mg/L	0.000513	0.00448	mg/L	0.001026	22.89%

Sequence No.: 9
Sample ID: U057 B TWC

Autosampler Location: 305
Date Collected: 4/4/2012 11:14:09 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U057 B TWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U057 B TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2681608.8	103.0	%	0.43				0.42%
ScR 361.383	431930.7	106.4	%	1.19				1.12%
Ag 328.068†	65.1	0.00021	mg/L	0.000043	0.00021	mg/L	0.000043	20.65%
Al 308.215†	694.5	0.4140	mg/L	0.01039	0.4140	mg/L	0.01039	2.51%
As 188.979†	2.9	0.00119	mg/L	0.000795	0.00119	mg/L	0.000795	66.59%
B 249.677†	47.7	0.00678	mg/L	0.000240	0.00678	mg/L	0.000240	3.54%
Ba 233.527†	45.4	0.00487	mg/L	0.000164	0.00487	mg/L	0.000164	3.36%
Be 313.042†	-37.2	-0.00005	mg/L	0.000003	-0.00005	mg/L	0.000003	6.09%
Ca 317.933†	27596.2	2.366	mg/L	0.0195	2.366	mg/L	0.0195	0.83%
Cd 228.802†	12.4	0.00034	mg/L	0.000068	0.00034	mg/L	0.000068	19.92%
Co 228.616†	6.9	0.00013	mg/L	0.000061	0.00013	mg/L	0.000061	48.16%
Cr 267.716†	17.0	0.00177	mg/L	0.000353	0.00177	mg/L	0.000353	20.00%
Cu 324.752†	1207.3	0.00507	mg/L	0.000042	0.00507	mg/L	0.000042	0.83%
Fe 273.955†	1532.8	1.033	mg/L	0.0105	1.033	mg/L	0.0105	1.01%
K 766.490†	2781.8	1.153	mg/L	0.0111	1.153	mg/L	0.0111	0.96%
Mg 279.077†	505.8	0.3738	mg/L	0.00226	0.3738	mg/L	0.00226	0.61%
Mn 257.610†	1285.3	0.02137	mg/L	0.000187	0.02137	mg/L	0.000187	0.88%
Mo 202.031†	19.3	0.00072	mg/L	0.000251	0.00072	mg/L	0.000251	34.76%
Na 589.592†	7753.9	0.6019	mg/L	0.00348	0.6019	mg/L	0.00348	0.58%
Na 330.237†	18.1	0.5545	mg/L	0.28853	0.5545	mg/L	0.28853	52.04%
Ni 231.604†	7.1	0.00139	mg/L	0.000471	0.00139	mg/L	0.000471	33.95%
Pb 220.353†	27.7	0.00208	mg/L	0.000785	0.00208	mg/L	0.000785	37.76%
Sb 206.836†	-7.8	-0.00206	mg/L	0.002052	-0.00206	mg/L	0.002052	99.66%
Se 196.026†	5.6	0.00285	mg/L	0.002521	0.00285	mg/L	0.002521	88.35%
Si 288.158†	3428.7	1.470	mg/L	0.0215	1.470	mg/L	0.0215	1.47%
Sn 189.927†	-0.6	0.00000	mg/L	0.000254	0.00000	mg/L	0.000254	>999.9%
Sr 421.552†	9940.7	0.01128	mg/L	0.000099	0.01128	mg/L	0.000099	0.88%
Ti 334.903†	601.8	0.01959	mg/L	0.000060	0.01959	mg/L	0.000060	0.31%
Tl 190.801†	-5.1	-0.00163	mg/L	0.000644	-0.00163	mg/L	0.000644	39.42%
V 292.402†	393.1	0.00188	mg/L	0.000116	0.00188	mg/L	0.000116	6.19%
Zn 206.200†	89.9	0.02827	mg/L	0.000765	0.02827	mg/L	0.000765	2.71%

Sequence No.: 10
Sample ID: U057 C TWC

Autosampler Location: 306
Date Collected: 4/4/2012 11:18:21 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U057 C TWC

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 L/min

Mean Data: U057 C TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2700721.1	103.7	%	0.41				0.39%
ScR 361.383	431215.4	106.3	%	0.58				0.55%
Ag 328.068†	53.0	0.00014	mg/L	0.000108	0.00014	mg/L	0.000108	77.05%
Al 308.215†	355.3	0.2118	mg/L	0.00592	0.2118	mg/L	0.00592	2.79%
As 188.979†	2.5	0.00092	mg/L	0.000824	0.00092	mg/L	0.000824	89.08%
B 249.677†	183.4	0.02610	mg/L	0.000196	0.02610	mg/L	0.000196	0.75%
Ba 233.527†	51.6	0.00556	mg/L	0.000347	0.00556	mg/L	0.000347	6.25%
Be 313.042†	-43.0	-0.00006	mg/L	0.000030	-0.00006	mg/L	0.000030	50.22%
Ca 317.933†	65036.1	5.575	mg/L	0.0232	5.575	mg/L	0.0232	0.42%
Cd 228.802†	9.3	0.00026	mg/L	0.000042	0.00026	mg/L	0.000042	16.30%
Co 228.616†	3.6	0.00007	mg/L	0.000143	0.00007	mg/L	0.000143	199.82%
Cr 267.716†	17.5	0.00171	mg/L	0.000287	0.00171	mg/L	0.000287	16.74%
Cu 324.752†	946.8	0.00396	mg/L	0.000058	0.00396	mg/L	0.000058	1.47%
Fe 273.955†	959.0	0.6466	mg/L	0.00772	0.6466	mg/L	0.00772	1.19%
K 766.490†	1958.1	0.8117	mg/L	0.01200	0.8117	mg/L	0.01200	1.48%
Mg 279.077†	1116.6	0.8262	mg/L	0.00940	0.8262	mg/L	0.00940	1.14%
Mn 257.610†	2258.3	0.03754	mg/L	0.000349	0.03754	mg/L	0.000349	0.93%
Mo 202.031†	17.6	0.00060	mg/L	0.000166	0.00060	mg/L	0.000166	27.55%
Na 589.592†	19277.2	1.496	mg/L	0.0101	1.496	mg/L	0.0101	0.67%
Na 330.237†	45.4	1.382	mg/L	0.0932	1.382	mg/L	0.0932	6.74%
Ni 231.604†	3.7	0.00072	mg/L	0.000805	0.00072	mg/L	0.000805	111.45%
Pb 220.353†	-0.8	-0.00007	mg/L	0.000255	-0.00007	mg/L	0.000255	347.39%
Sb 206.836†	-10.9	-0.00270	mg/L	0.000435	-0.00270	mg/L	0.000435	16.12%
Se 196.026†	5.6	0.00278	mg/L	0.001472	0.00278	mg/L	0.001472	52.95%
Si 288.158†	4875.2	2.090	mg/L	0.0583	2.090	mg/L	0.0583	2.79%
Sn 189.927†	-5.4	-0.00050	mg/L	0.000203	-0.00050	mg/L	0.000203	40.80%
Sr 421.552†	20702.5	0.02348	mg/L	0.000206	0.02348	mg/L	0.000206	0.88%
Ti 334.903†	179.8	0.00568	mg/L	0.000952	0.00568	mg/L	0.000952	16.76%
Tl 190.801†	2.3	0.00087	mg/L	0.000639	0.00087	mg/L	0.000639	73.73%
V 292.402†	318.1	0.00155	mg/L	0.000089	0.00155	mg/L	0.000089	5.74%
Zn 206.200†	147.4	0.04631	mg/L	0.000512	0.04631	mg/L	0.000512	1.11%

Sequence No.: 11
Sample ID: U057 D TWC

Autosampler Location: 307
Date Collected: 4/4/2012 11:22:33 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U057 D TWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U057 D TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2697672.5	103.6	%	0.29				0.28%
ScR 361.383	433738.2	106.9	%	0.29				0.27%
Ag 328.068†	70.2	0.00016	mg/L	0.000069	0.00016	mg/L	0.000069	44.24%
Al 308.215†	831.9	0.4958	mg/L	0.00346	0.4958	mg/L	0.00346	0.70%
As 188.979†	3.9	0.00147	mg/L	0.000530	0.00147	mg/L	0.000530	36.03%
B 249.677†	348.7	0.04962	mg/L	0.000220	0.04962	mg/L	0.000220	0.44%
Ba 233.527†	94.2	0.00979	mg/L	0.000292	0.00979	mg/L	0.000292	2.98%
Be 313.042†	-44.9	-0.00006	mg/L	0.000017	-0.00006	mg/L	0.000017	26.74%
Ca 317.933†	86096.8	7.380	mg/L	0.0319	7.380	mg/L	0.0319	0.43%
Cd 228.802†	20.7	0.00051	mg/L	0.000043	0.00051	mg/L	0.000043	8.44%
Co 228.616†	8.6	0.00016	mg/L	0.000207	0.00016	mg/L	0.000207	127.21%
Cr 267.716†	16.9	0.00185	mg/L	0.000188	0.00185	mg/L	0.000188	10.13%
Cu 324.752†	856.5	0.00411	mg/L	0.000015	0.00411	mg/L	0.000015	0.37%
Fe 273.955†	12105.5	8.162	mg/L	0.0228	8.162	mg/L	0.0228	0.28%
K 766.490†	5090.7	2.110	mg/L	0.0076	2.110	mg/L	0.0076	0.36%
Mg 279.077†	4375.0	3.234	mg/L	0.0224	3.234	mg/L	0.0224	0.69%
Mn 257.610†	11844.9	0.1969	mg/L	0.00119	0.1969	mg/L	0.00119	0.60%
Mo 202.031†	28.7	0.00101	mg/L	0.000079	0.00101	mg/L	0.000079	7.77%
Na 589.592†	122007.2	9.471	mg/L	0.1214	9.471	mg/L	0.1214	1.28%
Na 330.237†	339.4	10.63	mg/L	0.364	10.63	mg/L	0.364	3.42%
Ni 231.604†	5.8	0.00113	mg/L	0.000553	0.00113	mg/L	0.000553	48.73%
Pb 220.353†	-9.3	-0.00118	mg/L	0.000395	-0.00118	mg/L	0.000395	33.58%
Sb 206.836†	-0.5	-0.00125	mg/L	0.001794	-0.00125	mg/L	0.001794	143.72%
Se 196.026†	9.8	0.00556	mg/L	0.002581	0.00556	mg/L	0.002581	46.39%
Si 288.158†	12426.1	5.327	mg/L	0.2754	5.327	mg/L	0.2754	5.17%
Sn 189.927†	-5.6	-0.00046	mg/L	0.000810	-0.00046	mg/L	0.000810	174.73%
Sr 421.552†	32975.7	0.03741	mg/L	0.000112	0.03741	mg/L	0.000112	0.30%
Ti 334.903†	604.7	0.01951	mg/L	0.000569	0.01951	mg/L	0.000569	2.92%
Tl 190.801†	-3.4	-0.00012	mg/L	0.001300	-0.00012	mg/L	0.001300	>999.9%
V 292.402†	951.9	0.00389	mg/L	0.000101	0.00389	mg/L	0.000101	2.60%
Zn 206.200†	102.2	0.03206	mg/L	0.000754	0.03206	mg/L	0.000754	2.35%

Sequence No.: 12
Sample ID: U032 D SWC

Autosampler Location: 308
Date Collected: 4/4/2012 11:26:45 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: U032 D SWC

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 L/min

rerun

Mean Data: U032 D SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2678810.2	102.9	%	0.35				0.34%
ScR 361.383	427061.9	105.2	%	0.99				0.94%
Ag 328.068†	1458.4	0.00507	mg/L	0.000160	0.01014	mg/L	0.000319	3.15%
Al 308.215†	156947.3	93.53	mg/L	0.351	187.1	mg/L	0.70	0.38%
As 188.979†	-69.3	0.05496	mg/L	0.003999	0.1099	mg/L	0.00800	7.28%
B 249.677†	411.5	0.05831	mg/L	0.001594	0.1166	mg/L	0.00319	2.73%
Ba 233.527†	2780.2	0.2825	mg/L	0.00302	0.5649	mg/L	0.00603	1.07%
Be 313.042†	948.2	0.00055	mg/L	0.000030	0.00111	mg/L	0.000061	5.49%
Ca 317.933†	568319.1	48.72	mg/L	0.191	97.43	mg/L	0.383	0.39%
Cd 228.802†	1335.7	0.03508	mg/L	0.000447	0.07016	mg/L	0.000893	1.27%
Co 228.616†	4210.0	0.07582	mg/L	0.000134	0.1516	mg/L	0.00027	0.18%
Cr 267.716†	4903.7	0.5307	mg/L	0.00580	1.061	mg/L	0.0116	1.09%
Cu 324.752†	170478.1	0.7281	mg/L	0.00631	1.456	mg/L	0.0126	0.87%
Fe 273.955†	539937.9	364.1	mg/L	1.85	728.1	mg/L	3.70	0.51%
K 766.490†	13749.5	5.700	mg/L	0.0465	11.40	mg/L	0.093	0.82%
Mg 279.077†	66003.8	48.65	mg/L	0.141	97.30	mg/L	0.282	0.29%
Mn 257.610†	121884.1	2.029	mg/L	0.0100	4.057	mg/L	0.0199	0.49%
Mo 202.031†	1112.5	0.04319	mg/L	0.000147	0.08639	mg/L	0.000294	0.34%
Na 589.592†	144863.0	11.25	mg/L	0.034	22.49	mg/L	0.068	0.30%
Na 330.237†	385.0	12.08	mg/L	0.156	24.16	mg/L	0.311	1.29%
Ni 231.604†	1206.7	0.2362	mg/L	0.00225	0.4723	mg/L	0.00450	0.95%
Pb 220.353†	45827.0	3.453	mg/L	0.0022	6.906	mg/L	0.0044	0.06%
Sb 206.836†	514.5	0.06293	mg/L	0.001287	0.1259	mg/L	0.00257	2.05%
Se 196.026†	-93.5	-0.00590	mg/L	0.002288	-0.01180	mg/L	0.004577	38.80%
Si 288.158†	2305.8	0.9886	mg/L	0.01011	1.977	mg/L	0.0202	1.02%
Sn 189.927†	196.5	0.03225	mg/L	0.000627	0.06450	mg/L	0.001255	1.95%
Sr 421.552†	308940.2	0.3504	mg/L	0.00105	0.7009	mg/L	0.00210	0.30%
Ti 334.903†	390835.6	12.77	mg/L	0.042	25.55	mg/L	0.085	0.33%
Tl 190.801†	-100.9	0.00394	mg/L	0.004328	0.00788	mg/L	0.008655	109.91%
V 292.402†	166375.4	0.7982	mg/L	0.00466	1.596	mg/L	0.0093	0.58%
Zn 206.200†	46628.3	14.67	mg/L	0.077	29.34	mg/L	0.154	0.52%

Sequence No.: 13
Sample ID: U017 ADUP SWC

Autosampler Location: 309
Date Collected: 4/4/2012 11:30:44 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: U017 ADUP SWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U017 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2656195.7	102.0	%	0.69				0.67%
ScR 361.383	426730.3	105.2	%	0.76				0.73%
Ag 328.068†	57048.6	0.1989	mg/L	0.00064	0.3978	mg/L	0.00127	0.32%
Al 308.215†	284717.2	169.7	mg/L	0.54	339.4	mg/L	1.08	0.32%
As 188.979†	79.5	0.07185	mg/L	0.003717	0.1437	mg/L	0.00743	5.17%
B 249.677†	1139.2	0.1619	mg/L	0.00153	0.3238	mg/L	0.00305	0.94%
Ba 233.527†	23489.7	2.536	mg/L	0.0178	5.072	mg/L	0.0356	0.70%
Be 313.042†	1426.9	0.00150	mg/L	0.000023	0.00300	mg/L	0.000046	1.54%
Ca 317.933†	950022.5	81.44	mg/L	0.389	162.9	mg/L	0.78	0.48%
Cd 228.802†	5733.7	0.1628	mg/L	0.00049	0.3255	mg/L	0.00098	0.30%
Co 228.616†	4628.4	0.09309	mg/L	0.000265	0.1862	mg/L	0.00053	0.28%
Cr 267.716†	6269.9	0.6673	mg/L	0.00306	1.335	mg/L	0.0061	0.46%
Cu 324.752†	836355.3	3.475	mg/L	0.0076	6.949	mg/L	0.0153	0.22%
Fe 273.955†	296828.4	200.1	mg/L	0.77	400.3	mg/L	1.55	0.39%
K 766.490†	18915.2	7.841	mg/L	0.0589	15.68	mg/L	0.118	0.75%
Mg 279.077†	62550.9	46.19	mg/L	0.119	92.38	mg/L	0.238	0.26%
Mn 257.610†	204311.5	3.397	mg/L	0.0140	6.794	mg/L	0.0281	0.41%
Mo 202.031†	2897.9	0.1133	mg/L	0.00061	0.2266	mg/L	0.00122	0.54%
Na 589.592†	80030.0	6.213	mg/L	0.0276	12.43	mg/L	0.055	0.44%
Na 330.237†	193.4	6.429	mg/L	0.2675	12.86	mg/L	0.535	4.16%
Ni 231.604†	2783.1	0.5446	mg/L	0.00615	1.089	mg/L	0.0123	1.13%
Pb 220.353†	28581.7	2.168	mg/L	0.0133	4.336	mg/L	0.0267	0.62%
Sb 206.836†	551.9	0.05756	mg/L	0.001504	0.1151	mg/L	0.00301	2.61%
Se 196.026†	-55.6	-0.00740	mg/L	0.001473	-0.01481	mg/L	0.002947	19.90%
Si 288.158†	5029.0	2.156	mg/L	0.0115	4.313	mg/L	0.0229	0.53%
Sn 189.927†	1162.7	0.1502	mg/L	0.00133	0.3004	mg/L	0.00266	0.89%
Sr 421.552†	356473.5	0.4044	mg/L	0.00150	0.8087	mg/L	0.00300	0.37%
Ti 334.903†	243889.8	7.969	mg/L	0.0321	15.94	mg/L	0.064	0.40%
Tl 190.801†	-24.4	0.01242	mg/L	0.003635	0.02484	mg/L	0.007270	29.26%
V 292.402†	93873.7	0.4525	mg/L	0.00164	0.9051	mg/L	0.00328	0.36%
Zn 206.200†	18901.8	5.952	mg/L	0.0318	11.90	mg/L	0.064	0.53%

Sequence No.: 14
Sample ID: U017 A SWC

Autosampler Location: 310
Date Collected: 4/4/2012 11:34:00 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: U017 A SWC

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 L/min

Mean Data: U017 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2660823.5	102.2	%	0.47				0.46%
ScR 361.383	433163.3	106.8	%	0.35				0.33%
Ag 328.068†	85214.6	0.2975	mg/L	0.00056	0.5950	mg/L	0.00111	0.19%
Al 308.215†	291784.5	173.9	mg/L	1.60	347.9	mg/L	3.19	0.92%
As 188.979†	80.8	0.06776	mg/L	0.002271	0.1355	mg/L	0.00454	3.35%
B 249.677†	1657.4	0.2356	mg/L	0.00074	0.4713	mg/L	0.00148	0.31%
Ba 233.527†	27621.2	2.983	mg/L	0.0141	5.967	mg/L	0.0283	0.47%
Be 313.042†	1461.8	0.00155	mg/L	0.000022	0.00310	mg/L	0.000045	1.45%
Ca 317.933†	903512.3	77.45	mg/L	0.093	154.9	mg/L	0.19	0.12%
Cd 228.802†	8716.7	0.2482	mg/L	0.00168	0.4964	mg/L	0.00336	0.68%
Co 228.616†	5194.9	0.1071	mg/L	0.00064	0.2142	mg/L	0.00128	0.60%
Cr 267.716†	7739.6	0.8230	mg/L	0.00246	1.646	mg/L	0.0049	0.30%
Cu 324.752†	949336.9	3.943	mg/L	0.0088	7.886	mg/L	0.0177	0.22%
Fe 273.955†	307147.3	207.1	mg/L	1.85	414.2	mg/L	3.70	0.89%
K 766.490†	27413.9	11.36	mg/L	0.060	22.73	mg/L	0.121	0.53%
Mg 279.077†	60850.3	44.93	mg/L	0.171	89.86	mg/L	0.342	0.38%
Mn 257.610†	208116.1	3.461	mg/L	0.0200	6.922	mg/L	0.0400	0.58%
Mo 202.031†	3979.2	0.1561	mg/L	0.00087	0.3123	mg/L	0.00173	0.56%
Na 589.592†	88421.9	6.864	mg/L	0.0563	13.73	mg/L	0.113	0.82%
Na 330.237†	244.2	7.401	mg/L	0.0869	14.80	mg/L	0.174	1.17%
Ni 231.604†	2523.0	0.4938	mg/L	0.00279	0.9875	mg/L	0.00559	0.57%
Pb 220.353†	52728.0	3.993	mg/L	0.0035	7.986	mg/L	0.0070	0.09%
Sb 206.836†	940.8	0.1448	mg/L	0.00234	0.2896	mg/L	0.00469	1.62%
Se 196.026†	-61.0	-0.00929	mg/L	0.002211	-0.01858	mg/L	0.004421	23.80%
Si 288.158†	3472.1	1.489	mg/L	0.0124	2.979	mg/L	0.0248	0.83%
Sn 189.927†	3157.3	0.3965	mg/L	0.00359	0.7929	mg/L	0.00717	0.90%
Sr 421.552†	336488.0	0.3817	mg/L	0.00237	0.7634	mg/L	0.00473	0.62%
Ti 334.903†	225795.4	7.378	mg/L	0.0416	14.76	mg/L	0.083	0.56%
Tl 190.801†	-29.5	0.01182	mg/L	0.002887	0.02364	mg/L	0.005775	24.43%
V 292.402†	95016.4	0.4586	mg/L	0.00166	0.9172	mg/L	0.00332	0.36%
Zn 206.200†	26086.3	8.213	mg/L	0.0335	16.43	mg/L	0.067	0.41%

Sequence No.: 15
Sample ID: U017 ASPK SWC

Autosampler Location: 311
Date Collected: 4/4/2012 11:37:59 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: U017 ASPK SWC

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U017 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2668355.3	102.5	%	0.56				0.55%
ScR 361.383	429607.4	105.9	%	0.26				0.25%
Ag 328.068†	293096.3	1.025	mg/L	0.0065	2.050	mg/L	0.0131	0.64%
Al 308.215†	262605.0	156.5	mg/L	1.05	313.1	mg/L	2.10	0.67%
As 188.979†	5369.2	2.041	mg/L	0.0242	4.083	mg/L	0.0483	1.18%
B 249.677†	1241.2	0.1750	mg/L	0.00485	0.3499	mg/L	0.00971	2.77%
Ba 233.527†	430837.5	46.69	mg/L	0.209	93.38	mg/L	0.419	0.45%
Be 313.042†	354944.1	0.4750	mg/L	0.00243	0.9501	mg/L	0.00486	0.51%
Ca 317.933†	996735.3	85.44	mg/L	0.140	170.9	mg/L	0.28	0.16%
Cd 228.802†	24317.8	0.6885	mg/L	0.00556	1.377	mg/L	0.0111	0.81%
Co 228.616†	26193.3	0.5849	mg/L	0.00409	1.170	mg/L	0.0082	0.70%
Cr 267.716†	12076.1	1.283	mg/L	0.0113	2.567	mg/L	0.0226	0.88%
Cu 324.752†	1451307.0	6.026	mg/L	0.0178	12.05	mg/L	0.036	0.30%
Fe 273.955†	400844.1	270.3	mg/L	2.17	540.6	mg/L	4.34	0.80%
K 766.490†	44077.1	18.27	mg/L	0.064	36.55	mg/L	0.128	0.35%
Mg 279.077†	71030.2	52.43	mg/L	0.198	104.9	mg/L	0.40	0.38%
Mn 257.610†	237839.0	3.956	mg/L	0.0153	7.911	mg/L	0.0307	0.39%
Mo 202.031†	3416.2	0.1337	mg/L	0.00058	0.2675	mg/L	0.00116	0.43%
Na 589.592†	199432.7	15.48	mg/L	0.080	30.96	mg/L	0.161	0.52%
Na 330.237†	548.8	16.83	mg/L	0.535	33.67	mg/L	1.071	3.18%
Ni 231.604†	5511.1	1.079	mg/L	0.0102	2.158	mg/L	0.0205	0.95%
Pb 220.353†	57103.6	4.315	mg/L	0.0322	8.631	mg/L	0.0643	0.75%
Sb 206.836†	4502.1	0.9642	mg/L	0.00957	1.928	mg/L	0.0191	0.99%
Se 196.026†	3877.9	1.929	mg/L	0.0251	3.859	mg/L	0.0503	1.30%
Si 288.158†	3130.0	1.344	mg/L	0.0203	2.689	mg/L	0.0406	1.51%
Sn 189.927†	2692.6	0.3395	mg/L	0.00179	0.6790	mg/L	0.00359	0.53%
Sr 421.552†	847210.9	0.9610	mg/L	0.00410	1.922	mg/L	0.0082	0.43%
Ti 334.903†	203885.6	6.661	mg/L	0.0277	13.32	mg/L	0.055	0.42%
Tl 190.801†	5283.9	1.861	mg/L	0.0145	3.723	mg/L	0.0289	0.78%
V 292.402†	178539.3	0.8789	mg/L	0.00899	1.758	mg/L	0.0180	1.02%
Zn 206.200†	24646.4	7.759	mg/L	0.0743	15.52	mg/L	0.149	0.96%

Sequence No.: 16
Sample ID: U017 APOST SWC
Dilution: 2X

222222
4.4

Autosampler Location: 312
Date Collected: 4/4/2012 11:40:17 AM
Data Type: Original

Nebulizer Parameters: U017 APOST SWC

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U017 APOST SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2670645.0	102.6	%	0.68				0.66%
ScR 361.383	429839.1	105.9	%	0.79				0.74%
Ag 328.068†	217861.3	0.7618	mg/L	0.00465	1.524	mg/L	0.0093	0.61%
Al 308.215†	292003.7	174.1	mg/L	0.56	348.1	mg/L	1.12	0.32%
As 188.979†	5444.9	2.073	mg/L	0.0138	4.146	mg/L	0.0275	0.66%
B 249.677†	1651.7	0.2334	mg/L	0.00149	0.4668	mg/L	0.00297	0.64%
Ba 233.527†	45957.1	4.971	mg/L	0.0492	9.942	mg/L	0.0984	0.99%
Be 313.042†	354898.9	0.4749	mg/L	0.00194	0.9499	mg/L	0.00387	0.41%
Ca 317.933†	1022847.8	87.68	mg/L	0.460	175.4	mg/L	0.92	0.52%
Cd 228.802†	27109.6	0.7690	mg/L	0.00508	1.538	mg/L	0.0102	0.66%
Co 228.616†	26110.0	0.5908	mg/L	0.00363	1.182	mg/L	0.0073	0.61%
Cr 267.716†	12399.6	1.314	mg/L	0.0141	2.629	mg/L	0.0282	1.07%
Cu 324.752†	1057645.1	4.391	mg/L	0.0105	8.783	mg/L	0.0210	0.24%
Fe 273.955†	305992.4	206.3	mg/L	0.45	412.6	mg/L	0.89	0.22%
K 766.490†	53047.3	21.99	mg/L	0.040	43.98	mg/L	0.080	0.18%
Mg 279.077†	74102.9	54.74	mg/L	0.086	109.5	mg/L	0.17	0.16%
Mn 257.610†	234027.7	3.892	mg/L	0.0148	7.785	mg/L	0.0295	0.38%
Mo 202.031†	3885.9	0.1523	mg/L	0.00126	0.3046	mg/L	0.00252	0.83%
Na 589.592†	210047.9	16.31	mg/L	0.132	32.61	mg/L	0.264	0.81%
Na 330.237†	580.8	17.83	mg/L	0.333	35.65	mg/L	0.666	1.87%
Ni 231.604†	4912.4	0.9631	mg/L	0.01122	1.926	mg/L	0.0224	1.17%
Pb 220.353†	76722.9	5.807	mg/L	0.0147	11.61	mg/L	0.029	0.25%
Sb 206.836†	9594.9	2.150	mg/L	0.0172	4.300	mg/L	0.0343	0.80%
Se 196.026†	4044.1	2.004	mg/L	0.0171	4.007	mg/L	0.0343	0.86%
Si 288.158†	4084.7	1.754	mg/L	0.0236	3.508	mg/L	0.0472	1.34%
Sn 189.927†	3054.8	0.3856	mg/L	0.00050	0.7711	mg/L	0.00100	0.13%
Sr 421.552†	770741.5	0.8743	mg/L	0.00239	1.749	mg/L	0.0048	0.27%
Ti 334.903†	225389.4	7.364	mg/L	0.0247	14.73	mg/L	0.049	0.34%
Tl 190.801†	5388.7	1.889	mg/L	0.0179	3.778	mg/L	0.0358	0.95%
V 292.402†	186716.2	0.9280	mg/L	0.00210	1.856	mg/L	0.0042	0.23%
Zn 206.200†	27425.4	8.634	mg/L	0.0821	17.27	mg/L	0.164	0.95%

Sequence No.: 17
Sample ID: U017 MB1SPK SWC

Autosampler Location: 313
Date Collected: 4/4/2012 11:42:35 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: U017 MB1SPK SWC

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U017 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2727799.0	104.8	%	0.62				0.59%
ScR 361.383	438631.6	108.1	%	1.05				0.97%
Ag 328.068†	149718.5	0.5241	mg/L	0.00739	1.048	mg/L	0.0148	1.41%
Al 308.215†	3532.8	2.096	mg/L	0.0235	4.192	mg/L	0.0470	1.12%
As 188.979†	5502.1	2.057	mg/L	0.0139	4.114	mg/L	0.0278	0.68%
B 249.677†	13.4	0.00043	mg/L	0.000487	0.00086	mg/L	0.000973	112.83%
Ba 233.527†	18365.5	1.991	mg/L	0.0162	3.981	mg/L	0.0324	0.81%
Be 313.042†	364063.5	0.4876	mg/L	0.00199	0.9752	mg/L	0.00399	0.41%
Ca 317.933†	121730.9	10.43	mg/L	0.045	20.87	mg/L	0.091	0.44%
Cd 228.802†	18427.6	0.5216	mg/L	0.00636	1.043	mg/L	0.0127	1.22%
Co 228.616†	21909.6	0.5066	mg/L	0.00694	1.013	mg/L	0.0139	1.37%
Cr 267.716†	4843.2	0.5109	mg/L	0.00350	1.022	mg/L	0.0070	0.68%
Cu 324.752†	125250.0	0.5188	mg/L	0.00586	1.038	mg/L	0.0117	1.13%
Fe 273.955†	3196.4	2.153	mg/L	0.0255	4.306	mg/L	0.0511	1.19%
K 766.490†	24743.1	10.26	mg/L	0.052	20.51	mg/L	0.104	0.51%
Mg 279.077†	14267.9	10.56	mg/L	0.084	21.13	mg/L	0.169	0.80%
Mn 257.610†	28932.1	0.4816	mg/L	0.00391	0.9633	mg/L	0.00783	0.81%
Mo 202.031†	57.3	0.00209	mg/L	0.000364	0.00418	mg/L	0.000728	17.42%
Na 589.592†	121797.7	9.455	mg/L	0.0539	18.91	mg/L	0.108	0.57%
Na 330.237†	342.7	10.60	mg/L	0.089	21.21	mg/L	0.178	0.84%
Ni 231.604†	2406.4	0.4727	mg/L	0.00427	0.9454	mg/L	0.00855	0.90%
Pb 220.353†	26962.3	2.039	mg/L	0.0251	4.077	mg/L	0.0502	1.23%
Sb 206.836†	8819.2	2.042	mg/L	0.0136	4.085	mg/L	0.0271	0.66%
Se 196.026†	4162.3	2.041	mg/L	0.0113	4.082	mg/L	0.0226	0.55%
Si 288.158†	-7.2	-0.00111	mg/L	0.004942	-0.00222	mg/L	0.009884	444.89%
Sn 189.927†	-18.9	-0.00050	mg/L	0.000336	-0.00101	mg/L	0.000672	66.74%
Sr 421.552†	431980.4	0.4900	mg/L	0.00131	0.9800	mg/L	0.00263	0.27%
Ti 334.903†	190.7	0.00575	mg/L	0.001070	0.01151	mg/L	0.002141	18.61%
Tl 190.801†	5892.1	2.042	mg/L	0.0084	4.083	mg/L	0.0168	0.41%
V 292.402†	101438.4	0.5188	mg/L	0.00406	1.038	mg/L	0.0081	0.78%
Zn 206.200†	1572.0	0.4950	mg/L	0.00298	0.9900	mg/L	0.00596	0.60%

Sequence No.: 18
Sample ID: CV 2
Dilution: 1X

Autosampler Location: 7
Date Collected: 4/4/2012 11:46:32 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 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	2704928.6	103.9	%	0.87				0.84%
ScR 361.383	426764.6	105.2	%	0.24				0.23%
Ag 328.068†	284753.8	0.9969	mg/L	0.01039	0.9969	mg/L	0.01039	1.04%
Al 308.215†	3383.2	1.988	mg/L	0.0175	1.988	mg/L	0.0175	0.88%
As 188.979†	5228.5	1.960	mg/L	0.0162	1.960	mg/L	0.0162	0.82%
B 249.677†	6829.2	0.9698	mg/L	0.00625	0.9698	mg/L	0.00625	0.64%
Ba 233.527†	8913.8	0.9658	mg/L	0.00898	0.9658	mg/L	0.00898	0.93%
Be 313.042†	700871.4	0.9387	mg/L	0.00241	0.9387	mg/L	0.00241	0.26%
Ca 317.933†	24265.4	2.080	mg/L	0.0132	2.080	mg/L	0.0132	0.63%
Cd 228.802†	35682.3	1.017	mg/L	0.0173	1.017	mg/L	0.0173	1.70%
Co 228.616†	42395.7	0.9796	mg/L	0.01434	0.9796	mg/L	0.01434	1.46%
Cr 267.716†	9418.1	0.9944	mg/L	0.00561	0.9944	mg/L	0.00561	0.56%
Cu 324.752†	242602.3	1.004	mg/L	0.0122	1.004	mg/L	0.0122	1.22%
Fe 273.955†	3041.6	2.046	mg/L	0.0238	2.046	mg/L	0.0238	1.16%
K 766.490†	48940.5	20.29	mg/L	0.033	20.29	mg/L	0.033	0.16%
Mg 279.077†	2716.6	2.016	mg/L	0.0096	2.016	mg/L	0.0096	0.48%
Mn 257.610†	57158.2	0.9509	mg/L	0.00787	0.9509	mg/L	0.00787	0.83%
Mo 202.031†	24825.5	0.9823	mg/L	0.00904	0.9823	mg/L	0.00904	0.92%
Na 589.592†	599669.7	46.55	mg/L	0.081	46.55	mg/L	0.081	0.17%
Na 330.237†	1657.2	52.15	mg/L	0.183	52.15	mg/L	0.183	0.35%
Ni 231.604†	4875.9	0.9558	mg/L	0.00940	0.9558	mg/L	0.00940	0.98%
Pb 220.353†	26541.0	2.007	mg/L	0.0175	2.007	mg/L	0.0175	0.87%
Sb 206.836†	8728.8	2.026	mg/L	0.0167	2.026	mg/L	0.0167	0.82%
Se 196.026†	3970.4	1.947	mg/L	0.0135	1.947	mg/L	0.0135	0.69%
Si 288.158†	4597.2	1.975	mg/L	0.0151	1.975	mg/L	0.0151	0.77%
Sn 189.927†	7991.4	0.9898	mg/L	0.00976	0.9898	mg/L	0.00976	0.99%
Sr 421.552†	849822.4	0.9640	mg/L	0.00154	0.9640	mg/L	0.00154	0.16%
Ti 334.903†	29238.1	0.9542	mg/L	0.00110	0.9542	mg/L	0.00110	0.12%
Tl 190.801†	5614.1	1.946	mg/L	0.0158	1.946	mg/L	0.0158	0.81%
V 292.402†	196106.9	1.003	mg/L	0.0094	1.003	mg/L	0.0094	0.94%
Zn 206.200†	3212.4	1.011	mg/L	0.0102	1.011	mg/L	0.0102	1.01%

Sequence No.: 19
Sample ID: CB 2
Dilution: 1X

Autosampler Location: 1
Date Collected: 4/4/2012 11:49:48 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	208.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2743029.9	105.4	%	0.39				0.37%
ScR 361.383	434254.4	107.0	%	0.81				0.76%
Ag 328.068†	73.6	0.00026	mg/L	0.000024	0.00026	mg/L	0.000024	9.51%
Al 308.215†	15.8	0.00939	mg/L	0.000862	0.00939	mg/L	0.000862	9.19%
As 188.979†	5.9	0.00220	mg/L	0.000921	0.00220	mg/L	0.000921	41.91%
B 249.677†	11.2	0.00159	mg/L	0.000240	0.00159	mg/L	0.000240	15.06%
Ba 233.527†	6.3	0.00068	mg/L	0.000265	0.00068	mg/L	0.000265	39.17%
Be 313.042†	6.9	0.00001	mg/L	0.000034	0.00001	mg/L	0.000034	376.07%
Ca 317.933†	28.8	0.00247	mg/L	0.000609	0.00247	mg/L	0.000609	24.66%
Cd 228.802†	0.1	0.00000	mg/L	0.000039	0.00000	mg/L	0.000039	784.21%
Co 228.616†	1.1	0.00003	mg/L	0.000119	0.00003	mg/L	0.000119	469.39%
Cr 267.716†	8.8	0.00093	mg/L	0.000741	0.00093	mg/L	0.000741	79.68%
Cu 324.752†	132.7	0.00055	mg/L	0.000036	0.00055	mg/L	0.000036	6.62%
Fe 273.955†	18.3	0.01234	mg/L	0.001068	0.01234	mg/L	0.001068	8.66%
K 766.490†	59.0	0.02445	mg/L	0.004785	0.02445	mg/L	0.004785	19.57%
Mg 279.077†	-3.6	-0.00265	mg/L	0.001426	-0.00265	mg/L	0.001426	53.89%
Mn 257.610†	17.7	0.00029	mg/L	0.000051	0.00029	mg/L	0.000051	17.30%
Mo 202.031†	107.6	0.00426	mg/L	0.000987	0.00426	mg/L	0.000987	23.19%
Na 589.592†	157.2	0.01221	mg/L	0.001871	0.01221	mg/L	0.001871	15.33%
Na 330.237†	-0.5	-0.01506	mg/L	0.284165	-0.01506	mg/L	0.284165	>999.9%
Ni 231.604†	2.8	0.00056	mg/L	0.001176	0.00056	mg/L	0.001176	208.28%
Pb 220.353†	-11.4	-0.00086	mg/L	0.000743	-0.00086	mg/L	0.000743	86.21%
Sb 206.836†	54.6	0.01266	mg/L	0.003716	0.01266	mg/L	0.003716	29.34%
Se 196.026†	11.1	0.00547	mg/L	0.000271	0.00547	mg/L	0.000271	4.95%
Si 288.158†	2.7	0.00115	mg/L	0.002107	0.00115	mg/L	0.002107	183.52%
Sn 189.927†	10.4	0.00129	mg/L	0.000545	0.00129	mg/L	0.000545	42.17%
Sr 421.552†	105.2	0.00012	mg/L	0.000006	0.00012	mg/L	0.000006	4.77%
Ti 334.903†	35.2	0.00114	mg/L	0.000387	0.00114	mg/L	0.000387	33.78%
Tl 190.801†	0.7	0.00027	mg/L	0.001394	0.00027	mg/L	0.001394	524.35%
V 292.402†	9.8	0.00006	mg/L	0.000053	0.00006	mg/L	0.000053	96.81%
Zn 206.200†	8.2	0.00256	mg/L	0.000175	0.00256	mg/L	0.000175	6.83%

Sequence No.: 20
Sample ID: U057 MB1 TWC

Dilution: 1X

Autosampler Location: 314
Date Collected: 4/4/2012 11:54:01 AM
Data Type: Original

Nebulizer Parameters: U057 MB1 TWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U057 MB1 TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2754473.6	105.8	%	0.46				0.43%
ScR 361.383	439677.3	108.4	%	0.50				0.47%
Ag 328.068†	35.8	0.00012	mg/L	0.000211	0.00012	mg/L	0.000211	169.31%
Al 308.215†	13.3	0.00792	mg/L	0.007048	0.00792	mg/L	0.007048	89.00%
As 188.979†	-0.8	-0.00030	mg/L	0.000972	-0.00030	mg/L	0.000972	328.82%
B 249.677†	13.6	0.00194	mg/L	0.000963	0.00194	mg/L	0.000963	49.58%
Ba 233.527†	11.3	0.00122	mg/L	0.000305	0.00122	mg/L	0.000305	25.03%
Be 313.042†	-49.4	-0.00007	mg/L	0.000023	-0.00007	mg/L	0.000023	34.82%
Ca 317.933†	156.9	0.01345	mg/L	0.001129	0.01345	mg/L	0.001129	8.39%
Cd 228.802†	0.5	0.00002	mg/L	0.000232	0.00002	mg/L	0.000232	>999.9%
Co 228.616†	-0.5	-0.00001	mg/L	0.000039	-0.00001	mg/L	0.000039	323.30%
Cr 267.716†	5.6	0.00059	mg/L	0.000934	0.00059	mg/L	0.000934	159.18%
Cu 324.752†	105.1	0.00044	mg/L	0.000130	0.00044	mg/L	0.000130	29.90%
Fe 273.955†	18.5	0.01245	mg/L	0.000706	0.01245	mg/L	0.000706	5.67%
K 766.490†	27.9	0.01157	mg/L	0.012757	0.01157	mg/L	0.012757	110.23%
Mg 279.077†	-5.7	-0.00420	mg/L	0.002699	-0.00420	mg/L	0.002699	64.18%
Mn 257.610†	58.4	0.00097	mg/L	0.000040	0.00097	mg/L	0.000040	4.14%
Mo 202.031†	2.6	0.00010	mg/L	0.000060	0.00010	mg/L	0.000060	59.33%
Na 589.592†	164.8	0.01279	mg/L	0.001321	0.01279	mg/L	0.001321	10.32%
Na 330.237†	-1.9	-0.05871	mg/L	0.265128	-0.05871	mg/L	0.265128	451.59%
Ni 231.604†	-3.1	-0.00061	mg/L	0.000105	-0.00061	mg/L	0.000105	17.26%
Pb 220.353†	-17.3	-0.00131	mg/L	0.000680	-0.00131	mg/L	0.000680	52.10%
Sb 206.836†	-4.6	-0.00107	mg/L	0.000766	-0.00107	mg/L	0.000766	71.35%
Se 196.026†	13.6	0.00669	mg/L	0.001190	0.00669	mg/L	0.001190	17.79%
Si 288.158†	4.0	0.00170	mg/L	0.005240	0.00170	mg/L	0.005240	308.99%
Sn 189.927†	5.0	0.00062	mg/L	0.000383	0.00062	mg/L	0.000383	62.12%
Sr 421.552†	123.5	0.00014	mg/L	0.000028	0.00014	mg/L	0.000028	20.06%
Ti 334.903†	25.4	0.00083	mg/L	0.000498	0.00083	mg/L	0.000498	59.97%
Tl 190.801†	-0.7	-0.00023	mg/L	0.000656	-0.00023	mg/L	0.000656	288.93%
V 292.402†	11.0	0.00006	mg/L	0.000073	0.00006	mg/L	0.000073	128.56%
Zn 206.200†	8.7	0.00273	mg/L	0.000423	0.00273	mg/L	0.000423	15.50%

Sequence No.: 21
Sample ID: U023 CDUP DMN

Autosampler Location: 315
Date Collected: 4/4/2012 11:58:15 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 CDUP DMN

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U023 CDUP DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2606367.7	100.1	%	0.27				0.27%
ScR 361.383	435352.2	107.3	%	0.44				0.41%
Ag 328.068†	-46.6	-0.00024	mg/L	0.000196	-0.00024	mg/L	0.000196	82.29%
Al 308.215†	6.8	0.00389	mg/L	0.004028	0.00389	mg/L	0.004028	103.51%
As 188.979†	12.5	0.00466	mg/L	0.001332	0.00466	mg/L	0.001332	28.59%
B 249.677†	202224.6	28.78	mg/L	0.025	28.78	mg/L	0.025	0.09%
Ba 233.527†	259.0	0.02807	mg/L	0.000415	0.02807	mg/L	0.000415	1.48%
Be 313.042†	-22.5	-0.00003	mg/L	0.000013	-0.00003	mg/L	0.000013	40.21%
Ca 317.933†	127333.5	10.92	mg/L	0.030	10.92	mg/L	0.030	0.27%
Cd 228.802†	18.4	0.00051	mg/L	0.000131	0.00051	mg/L	0.000131	25.69%
Co 228.616†	0.0	0.00000	mg/L	0.000027	0.00000	mg/L	0.000027	774.27%
Cr 267.716†	9.2	0.00071	mg/L	0.000402	0.00071	mg/L	0.000402	56.72%
Cu 324.752†	14490.4	0.05999	mg/L	0.000232	0.05999	mg/L	0.000232	0.39%
Fe 273.955†	7.9	0.00532	mg/L	0.000928	0.00532	mg/L	0.000928	17.44%
K 766.490†	5442.9	2.256	mg/L	0.0218	2.256	mg/L	0.0218	0.97%
Mg 279.077†	482.3	0.3571	mg/L	0.00927	0.3571	mg/L	0.00927	2.60%
Mn 257.610†	37.9	0.00063	mg/L	0.000071	0.00063	mg/L	0.000071	11.38%
Mo 202.031†	321.1	0.01252	mg/L	0.000111	0.01252	mg/L	0.000111	0.89%
Na 589.592†	5897199.6	457.8	mg/L	5.06	457.8	mg/L	5.06	1.11%
Na 330.237†	16398.4	515.7	mg/L	2.70	515.7	mg/L	2.70	0.52%
Ni 231.604†	-1.3	-0.00026	mg/L	0.001100	-0.00026	mg/L	0.001100	430.59%
Pb 220.353†	-9.1	-0.00076	mg/L	0.000739	-0.00076	mg/L	0.000739	97.92%
Sb 206.836†	11.8	0.00274	mg/L	0.000633	0.00274	mg/L	0.000633	23.13%
Se 196.026†	15.1	0.00740	mg/L	0.001883	0.00740	mg/L	0.001883	25.44%
Si 288.158†	14046.6	6.022	mg/L	0.0443	6.022	mg/L	0.0443	0.74%
Sn 189.927†	-4.9	-0.00029	mg/L	0.000581	-0.00029	mg/L	0.000581	200.83%
Sr 421.552†	52194.0	0.05921	mg/L	0.000375	0.05921	mg/L	0.000375	0.63%
Ti 334.903†	21.4	0.00030	mg/L	0.000480	0.00030	mg/L	0.000480	158.92%
Tl 190.801†	8.1	0.00287	mg/L	0.001973	0.00287	mg/L	0.001973	68.69%
V 292.402†	339.8	0.00174	mg/L	0.000012	0.00174	mg/L	0.000012	0.68%
Zn 206.200†	6.9	0.00201	mg/L	0.000160	0.00201	mg/L	0.000160	7.93%

Sequence No.: 22
Sample ID: U023 C DMN

Autosampler Location: 316
Date Collected: 4/4/2012 12:02:49 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 C DMN

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U023 C DMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2630419.3	101.0	%	0.58				0.57%
ScR 361.383	430881.1	106.2	%	0.47				0.44%
Ag 328.068†	-77.2	-0.00034	mg/L	0.000125	-0.00034	mg/L	0.000125	36.30%
Al 308.215†	14.9	0.00874	mg/L	0.001370	0.00874	mg/L	0.001370	15.67%
As 188.979†	9.6	0.00357	mg/L	0.001885	0.00357	mg/L	0.001885	52.84%
B 249.677†	203144.4	28.91	mg/L	0.125	28.91	mg/L	0.125	0.43%
Ba 233.527†	262.6	0.02847	mg/L	0.000295	0.02847	mg/L	0.000295	1.04%
Be 313.042†	-32.1	-0.00004	mg/L	0.000019	-0.00004	mg/L	0.000019	43.72%
Ca 317.933†	127073.7	10.89	mg/L	0.083	10.89	mg/L	0.083	0.77%
Cd 228.802†	11.6	0.00032	mg/L	0.000108	0.00032	mg/L	0.000108	33.87%
Co 228.616†	6.4	0.00014	mg/L	0.000193	0.00014	mg/L	0.000193	133.94%
Cr 267.716†	7.1	0.00048	mg/L	0.000853	0.00048	mg/L	0.000853	176.84%
Cu 324.752†	14039.8	0.05812	mg/L	0.000506	0.05812	mg/L	0.000506	0.87%
Fe 273.955†	5.0	0.00339	mg/L	0.000280	0.00339	mg/L	0.000280	8.26%
K 766.490†	5461.4	2.264	mg/L	0.0221	2.264	mg/L	0.0221	0.98%
Mg 279.077†	488.7	0.3618	mg/L	0.00885	0.3618	mg/L	0.00885	2.45%
Mn 257.610†	36.5	0.00060	mg/L	0.000091	0.00060	mg/L	0.000091	15.09%
Mo 202.031†	328.3	0.01281	mg/L	0.000266	0.01281	mg/L	0.000266	2.08%
Na 589.592†	5898526.5	457.9	mg/L	6.94	457.9	mg/L	6.94	1.52%
Na 330.237†	16438.1	516.9	mg/L	2.99	516.9	mg/L	2.99	0.58%
Ni 231.604†	0.8	0.00016	mg/L	0.000720	0.00016	mg/L	0.000720	459.83%
Pb 220.353†	-17.7	-0.00141	mg/L	0.000209	-0.00141	mg/L	0.000209	14.86%
Sb 206.836†	3.8	0.00086	mg/L	0.000852	0.00086	mg/L	0.000852	98.50%
Se 196.026†	23.3	0.01144	mg/L	0.001218	0.01144	mg/L	0.001218	10.65%
Si 288.158†	14086.5	6.039	mg/L	0.0443	6.039	mg/L	0.0443	0.73%
Sn 189.927†	-6.4	-0.00047	mg/L	0.000070	-0.00047	mg/L	0.000070	14.77%
Sr 421.552†	52604.8	0.05967	mg/L	0.000325	0.05967	mg/L	0.000325	0.54%
Ti 334.903†	6.2	-0.00019	mg/L	0.000248	-0.00019	mg/L	0.000248	128.62%
Tl 190.801†	7.2	0.00255	mg/L	0.000361	0.00255	mg/L	0.000361	14.16%
V 292.402†	338.7	0.00174	mg/L	0.000215	0.00174	mg/L	0.000215	12.39%
Zn 206.200†	4.1	0.00115	mg/L	0.000048	0.00115	mg/L	0.000048	4.19%

Sequence No.: 23
Sample ID: U023 CSPK DMN

Autosampler Location: 317
Date Collected: 4/4/2012 12:07:23 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 CSPK DMN

Analyte	Back Pressure	Flow
All	211.0 kPa	0.75 L/min

Mean Data: U023 CSPK DMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2643403.9	101.5	%	0.39				0.39%
ScR 361.383	440295.1	108.5	%	0.84				0.77%
Ag 328.068†	145939.3	0.5108	mg/L	0.00170	0.5108	mg/L	0.00170	0.33%
Al 308.215†	3434.5	2.037	mg/L	0.0194	2.037	mg/L	0.0194	0.95%
As 188.979†	5849.3	2.187	mg/L	0.0125	2.187	mg/L	0.0125	0.57%
B 249.677†	198934.4	28.31	mg/L	0.117	28.31	mg/L	0.117	0.41%
Ba 233.527†	18358.1	1.990	mg/L	0.0191	1.990	mg/L	0.0191	0.96%
Be 313.042†	347387.5	0.4652	mg/L	0.00305	0.4652	mg/L	0.00305	0.66%
Ca 317.933†	245458.3	21.04	mg/L	0.064	21.04	mg/L	0.064	0.30%
Cd 228.802†	18949.4	0.5361	mg/L	0.00172	0.5361	mg/L	0.00172	0.32%
Co 228.616†	21102.7	0.4880	mg/L	0.00237	0.4880	mg/L	0.00237	0.49%
Cr 267.716†	4666.6	0.4920	mg/L	0.00557	0.4920	mg/L	0.00557	1.13%
Cu 324.752†	138637.4	0.5742	mg/L	0.00181	0.5742	mg/L	0.00181	0.32%
Fe 273.955†	2947.8	1.985	mg/L	0.0214	1.985	mg/L	0.0214	1.08%
K 766.490†	30081.1	12.47	mg/L	0.115	12.47	mg/L	0.115	0.92%
Mg 279.077†	14334.8	10.61	mg/L	0.089	10.61	mg/L	0.089	0.84%
Mn 257.610†	28440.6	0.4735	mg/L	0.00442	0.4735	mg/L	0.00442	0.93%
Mo 202.031†	335.9	0.01293	mg/L	0.000330	0.01293	mg/L	0.000330	2.55%
Na 589.592†	5875476.7	456.1	mg/L	7.40	456.1	mg/L	7.40	1.62%
Na 330.237†	16465.9	517.6	mg/L	4.78	517.6	mg/L	4.78	0.92%
Ni 231.604†	2394.0	0.4683	mg/L	0.00522	0.4683	mg/L	0.00522	1.11%
Pb 220.353†	26791.5	2.026	mg/L	0.0064	2.026	mg/L	0.0064	0.32%
Sb 206.836†	28.0	0.00160	mg/L	0.000413	0.00160	mg/L	0.000413	25.83%
Se 196.026†	4534.6	2.224	mg/L	0.0089	2.224	mg/L	0.0089	0.40%
Si 288.158†	13976.0	5.993	mg/L	0.0588	5.993	mg/L	0.0588	0.98%
Sn 189.927†	-14.6	-0.00112	mg/L	0.000405	-0.00112	mg/L	0.000405	36.25%
Sr 421.552†	476949.7	0.5410	mg/L	0.00413	0.5410	mg/L	0.00413	0.76%
Ti 334.903†	33.4	0.00023	mg/L	0.000032	0.00023	mg/L	0.000032	13.63%
Tl 190.801†	5564.9	1.928	mg/L	0.0106	1.928	mg/L	0.0106	0.55%
V 292.402†	100006.2	0.5114	mg/L	0.00335	0.5114	mg/L	0.00335	0.65%
Zn 206.200†	1571.0	0.4945	mg/L	0.00258	0.4945	mg/L	0.00258	0.52%

Sequence No.: 24
Sample ID: U057 E TWC

Autosampler Location: 318
Date Collected: 4/4/2012 12:11:43 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U057 E TWC

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U057 E TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2720729.0	104.5	%	0.78				0.75%
ScR 361.383	435421.6	107.3	%	0.81				0.75%
Ag 328.068†	371.6	0.00124	mg/L	0.000469	0.00124	mg/L	0.000469	37.68%
Al 308.215†	301.6	0.1798	mg/L	0.00217	0.1798	mg/L	0.00217	1.21%
As 188.979†	5.9	0.00218	mg/L	0.001065	0.00218	mg/L	0.001065	48.91%
B 249.677†	919.0	0.1308	mg/L	0.01270	0.1308	mg/L	0.01270	9.71%
Ba 233.527†	49.5	0.00518	mg/L	0.000336	0.00518	mg/L	0.000336	6.49%
Be 313.042†	-37.1	-0.00005	mg/L	0.000038	-0.00005	mg/L	0.000038	74.30%
Ca 317.933†	56886.4	4.876	mg/L	0.0088	4.876	mg/L	0.0088	0.18%
Cd 228.802†	7.2	0.00017	mg/L	0.000058	0.00017	mg/L	0.000058	34.70%
Co 228.616†	-1.1	-0.00004	mg/L	0.000135	-0.00004	mg/L	0.000135	367.89%
Cr 267.716†	11.9	0.00123	mg/L	0.000179	0.00123	mg/L	0.000179	14.58%
Cu 324.752†	818.5	0.00364	mg/L	0.000185	0.00364	mg/L	0.000185	5.09%
Fe 273.955†	5438.4	3.667	mg/L	0.0186	3.667	mg/L	0.0186	0.51%
K 766.490†	6080.1	2.521	mg/L	0.0164	2.521	mg/L	0.0164	0.65%
Mg 279.077†	2861.9	2.116	mg/L	0.0110	2.116	mg/L	0.0110	0.52%
Mn 257.610†	7321.5	0.1217	mg/L	0.00061	0.1217	mg/L	0.00061	0.50%
Mo 202.031†	36.1	0.00134	mg/L	0.000171	0.00134	mg/L	0.000171	12.75%
Na 589.592†	74575.0	5.789	mg/L	0.0251	5.789	mg/L	0.0251	0.43%
Na 330.237†	208.9	6.539	mg/L	0.4614	6.539	mg/L	0.4614	7.06%
Ni 231.604†	5.8	0.00114	mg/L	0.000891	0.00114	mg/L	0.000891	78.01%
Pb 220.353†	-19.1	-0.00166	mg/L	0.000764	-0.00166	mg/L	0.000764	45.93%
Sb 206.836†	-3.3	-0.00127	mg/L	0.001371	-0.00127	mg/L	0.001371	108.06%
Se 196.026†	9.7	0.00506	mg/L	0.002518	0.00506	mg/L	0.002518	49.76%
Si 288.158†	9912.8	4.249	mg/L	0.0172	4.249	mg/L	0.0172	0.40%
Sn 189.927†	-7.7	-0.00081	mg/L	0.001111	-0.00081	mg/L	0.001111	137.41%
Sr 421.552†	24004.4	0.02723	mg/L	0.000143	0.02723	mg/L	0.000143	0.52%
Ti 334.903†	203.4	0.00648	mg/L	0.000594	0.00648	mg/L	0.000594	9.17%
Tl 190.801†	-3.2	-0.00062	mg/L	0.000389	-0.00062	mg/L	0.000389	63.14%
V 292.402†	443.0	0.00184	mg/L	0.000168	0.00184	mg/L	0.000168	9.15%
Zn 206.200†	34.1	0.01068	mg/L	0.000240	0.01068	mg/L	0.000240	2.25%

Sequence No.: 25
Sample ID: U057 F TWC

Autosampler Location: 319
Date Collected: 4/4/2012 12:15:55 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U057 F TWC

Analyte	Back Pressure	Flow
All	211.0 kPa	0.75 L/min

Mean Data: U057 F TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2732835.7	105.0	%	0.34				0.33%
ScR 361.383	437388.2	107.8	%	0.63				0.58%
Ag 328.068†	68.6	0.00022	mg/L	0.000147	0.00022	mg/L	0.000147	68.08%
Al 308.215†	156.5	0.09330	mg/L	0.001244	0.09330	mg/L	0.001244	1.33%
As 188.979†	-2.2	-0.00080	mg/L	0.001190	-0.00080	mg/L	0.001190	148.43%
B 249.677†	390.3	0.05553	mg/L	0.002634	0.05553	mg/L	0.002634	4.74%
Ba 233.527†	29.9	0.00323	mg/L	0.000568	0.00323	mg/L	0.000568	17.57%
Be 313.042†	-66.8	-0.00009	mg/L	0.000023	-0.00009	mg/L	0.000023	25.12%
Ca 317.933†	38581.7	3.307	mg/L	0.0517	3.307	mg/L	0.0517	1.56%
Cd 228.802†	4.2	0.00012	mg/L	0.000101	0.00012	mg/L	0.000101	82.16%
Co 228.616†	0.1	0.00000	mg/L	0.000106	0.00000	mg/L	0.000106	>999.9%
Cr 267.716†	13.9	0.00138	mg/L	0.000201	0.00138	mg/L	0.000201	14.55%
Cu 324.752†	711.5	0.00295	mg/L	0.000068	0.00295	mg/L	0.000068	2.31%
Fe 273.955†	257.2	0.1734	mg/L	0.00080	0.1734	mg/L	0.00080	0.46%
K 766.490†	1422.4	0.5897	mg/L	0.01280	0.5897	mg/L	0.01280	2.17%
Mg 279.077†	689.3	0.5102	mg/L	0.00662	0.5102	mg/L	0.00662	1.30%
Mn 257.610†	518.2	0.00861	mg/L	0.000093	0.00861	mg/L	0.000093	1.08%
Mo 202.031†	9.1	0.00031	mg/L	0.000193	0.00031	mg/L	0.000193	63.20%
Na 589.592†	15318.3	1.189	mg/L	0.0110	1.189	mg/L	0.0110	0.93%
Na 330.237†	36.8	1.129	mg/L	0.5203	1.129	mg/L	0.5203	46.09%
Ni 231.604†	1.1	0.00022	mg/L	0.000547	0.00022	mg/L	0.000547	248.58%
Pb 220.353†	-11.7	-0.00088	mg/L	0.000407	-0.00088	mg/L	0.000407	46.18%
Sb 206.836†	-9.4	-0.00225	mg/L	0.000433	-0.00225	mg/L	0.000433	19.28%
Se 196.026†	10.4	0.00512	mg/L	0.002292	0.00512	mg/L	0.002292	44.72%
Si 288.158†	3135.3	1.344	mg/L	0.0144	1.344	mg/L	0.0144	1.07%
Sn 189.927†	-1.3	-0.00007	mg/L	0.000438	-0.00007	mg/L	0.000438	634.64%
Sr 421.552†	15486.5	0.01757	mg/L	0.000137	0.01757	mg/L	0.000137	0.78%
Ti 334.903†	103.2	0.00326	mg/L	0.000661	0.00326	mg/L	0.000661	20.27%
Tl 190.801†	-1.9	-0.00064	mg/L	0.000820	-0.00064	mg/L	0.000820	128.07%
V 292.402†	107.3	0.00053	mg/L	0.000054	0.00053	mg/L	0.000054	10.10%
Zn 206.200†	91.9	0.02887	mg/L	0.001245	0.02887	mg/L	0.001245	4.31%

Sequence No.: 26
Sample ID: U057 ADUP TWC

Autosampler Location: 320
Date Collected: 4/4/2012 12:20:07 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U057 ADUP TWC

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U057 ADUP TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2717069.5	104.4	%	0.09				0.08%
ScR 361.383	435281.5	107.3	%	0.29				0.27%
Ag 328.068†	58.1	0.00015	mg/L	0.000055	0.00015	mg/L	0.000055	36.30%
Al 308.215†	1734.6	1.034	mg/L	0.0035	1.034	mg/L	0.0035	0.34%
As 188.979†	5.3	0.00220	mg/L	0.000666	0.00220	mg/L	0.000666	30.23%
B 249.677†	299.4	0.04260	mg/L	0.001087	0.04260	mg/L	0.001087	2.55%
Ba 233.527†	169.7	0.01779	mg/L	0.000625	0.01779	mg/L	0.000625	3.52%
Be 313.042†	3.8	0.00000	mg/L	0.000010	0.00000	mg/L	0.000010	330.24%
Ca 317.933†	63558.9	5.448	mg/L	0.0108	5.448	mg/L	0.0108	0.20%
Cd 228.802†	30.4	0.00075	mg/L	0.000009	0.00075	mg/L	0.000009	1.15%
Co 228.616†	22.5	0.00044	mg/L	0.000121	0.00044	mg/L	0.000121	27.47%
Cr 267.716†	61.1	0.00682	mg/L	0.000390	0.00682	mg/L	0.000390	5.71%
Cu 324.752†	2860.0	0.01267	mg/L	0.000190	0.01267	mg/L	0.000190	1.50%
Fe 273.955†	17590.1	11.86	mg/L	0.089	11.86	mg/L	0.089	0.75%
K 766.490†	2627.3	1.089	mg/L	0.0086	1.089	mg/L	0.0086	0.79%
Mg 279.077†	1278.4	0.9395	mg/L	0.00863	0.9395	mg/L	0.00863	0.92%
Mn 257.610†	5272.5	0.08772	mg/L	0.000329	0.08772	mg/L	0.000329	0.37%
Mo 202.031†	27.4	0.00099	mg/L	0.000165	0.00099	mg/L	0.000165	16.62%
Na 589.592†	24757.8	1.922	mg/L	0.0068	1.922	mg/L	0.0068	0.36%
Na 330.237†	68.0	2.099	mg/L	0.0983	2.099	mg/L	0.0983	4.68%
Ni 231.604†	15.0	0.00293	mg/L	0.000160	0.00293	mg/L	0.000160	5.44%
Pb 220.353†	117.2	0.00822	mg/L	0.000757	0.00822	mg/L	0.000757	9.21%
Sb 206.836†	3.4	-0.00094	mg/L	0.000618	-0.00094	mg/L	0.000618	65.49%
Se 196.026†	7.8	0.00510	mg/L	0.003316	0.00510	mg/L	0.003316	65.01%
Si 288.158†	7926.2	3.398	mg/L	0.0394	3.398	mg/L	0.0394	1.16%
Sn 189.927†	-1.7	-0.00003	mg/L	0.000175	-0.00003	mg/L	0.000175	666.35%
Sr 421.552†	21330.2	0.02420	mg/L	0.000099	0.02420	mg/L	0.000099	0.41%
Ti 334.903†	1414.4	0.04604	mg/L	0.000152	0.04604	mg/L	0.000152	0.33%
Tl 190.801†	-5.6	-0.00041	mg/L	0.001802	-0.00041	mg/L	0.001802	438.39%
V 292.402†	2234.6	0.00997	mg/L	0.000170	0.00997	mg/L	0.000170	1.70%
Zn 206.200†	272.4	0.08566	mg/L	0.000979	0.08566	mg/L	0.000979	1.14%

Sequence No.: 27
Sample ID: U057 A TWC

Autosampler Location: 321
Date Collected: 4/4/2012 12:24:04 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U057 A TWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U057 A TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2711992.5	104.2	%	1.12				1.07%
ScR 361.383	435872.3	107.4	%	0.46				0.43%
Ag 328.068†	20.6	0.00002	mg/L	0.000071	0.00002	mg/L	0.000071	329.47%
Al 308.215†	1804.8	1.076	mg/L	0.0038	1.076	mg/L	0.0038	0.36%
As 188.979†	3.6	0.00160	mg/L	0.000216	0.00160	mg/L	0.000216	13.52%
B 249.677†	248.5	0.03535	mg/L	0.000929	0.03535	mg/L	0.000929	2.63%
Ba 233.527†	161.4	0.01688	mg/L	0.000296	0.01688	mg/L	0.000296	1.75%
Be 313.042†	8.8	0.00000	mg/L	0.000017	0.00000	mg/L	0.000017	470.95%
Ca 317.933†	63719.9	5.462	mg/L	0.0178	5.462	mg/L	0.0178	0.33%
Cd 228.802†	29.2	0.00072	mg/L	0.000234	0.00072	mg/L	0.000234	32.45%
Co 228.616†	30.8	0.00063	mg/L	0.000091	0.00063	mg/L	0.000091	14.50%
Cr 267.716†	68.0	0.00754	mg/L	0.000122	0.00754	mg/L	0.000122	1.62%
Cu 324.752†	2837.6	0.01258	mg/L	0.000169	0.01258	mg/L	0.000169	1.34%
Fe 273.955†	17588.9	11.86	mg/L	0.067	11.86	mg/L	0.067	0.57%
K 766.490†	2593.1	1.075	mg/L	0.0062	1.075	mg/L	0.0062	0.57%
Mg 279.077†	1286.4	0.9454	mg/L	0.00482	0.9454	mg/L	0.00482	0.51%
Mn 257.610†	5269.8	0.08767	mg/L	0.000559	0.08767	mg/L	0.000559	0.64%
Mo 202.031†	35.8	0.00132	mg/L	0.000275	0.00132	mg/L	0.000275	20.79%
Na 589.592†	24668.1	1.915	mg/L	0.0116	1.915	mg/L	0.0116	0.61%
Na 330.237†	69.2	2.137	mg/L	0.2954	2.137	mg/L	0.2954	13.82%
Ni 231.604†	14.7	0.00288	mg/L	0.000503	0.00288	mg/L	0.000503	17.47%
Pb 220.353†	117.3	0.00823	mg/L	0.000644	0.00823	mg/L	0.000644	7.83%
Sb 206.836†	5.5	-0.00048	mg/L	0.001602	-0.00048	mg/L	0.001602	333.25%
Se 196.026†	6.4	0.00444	mg/L	0.003859	0.00444	mg/L	0.003859	86.89%
Si 288.158†	8030.9	3.443	mg/L	0.0617	3.443	mg/L	0.0617	1.79%
Sn 189.927†	-4.4	-0.00036	mg/L	0.000302	-0.00036	mg/L	0.000302	83.60%
Sr 421.552†	21498.1	0.02439	mg/L	0.000188	0.02439	mg/L	0.000188	0.77%
Ti 334.903†	1504.8	0.04900	mg/L	0.000177	0.04900	mg/L	0.000177	0.36%
Tl 190.801†	-3.5	0.00029	mg/L	0.001240	0.00029	mg/L	0.001240	421.66%
V 292.402†	2234.0	0.00996	mg/L	0.000064	0.00996	mg/L	0.000064	0.64%
Zn 206.200†	270.1	0.08492	mg/L	0.001117	0.08492	mg/L	0.001117	1.31%

Sequence No.: 28
Sample ID: U057 ASPK TWC

Autosampler Location: 322
Date Collected: 4/4/2012 12:28:01 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U057 ASPK TWC

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U057 ASPK TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2713534.6	104.2	%	1.32				1.27%
ScR 361.383	426608.0	105.1	%	0.72				0.69%
Ag 328.068†	151694.1	0.5310	mg/L	0.00515	0.5310	mg/L	0.00515	0.97%
Al 308.215†	5140.7	3.054	mg/L	0.0277	3.054	mg/L	0.0277	0.91%
As 188.979†	5530.7	2.068	mg/L	0.0168	2.068	mg/L	0.0168	0.81%
B 249.677†	210.2	0.02842	mg/L	0.000415	0.02842	mg/L	0.000415	1.46%
Ba 233.527†	18930.8	2.051	mg/L	0.0167	2.051	mg/L	0.0167	0.81%
Be 313.042†	369333.1	0.4946	mg/L	0.00325	0.4946	mg/L	0.00325	0.66%
Ca 317.933†	186341.3	15.97	mg/L	0.033	15.97	mg/L	0.033	0.21%
Cd 228.802†	18643.4	0.5277	mg/L	0.00612	0.5277	mg/L	0.00612	1.16%
Co 228.616†	22095.8	0.5108	mg/L	0.00450	0.5108	mg/L	0.00450	0.88%
Cr 267.716†	4998.0	0.5276	mg/L	0.00470	0.5276	mg/L	0.00470	0.89%
Cu 324.752†	129035.4	0.5353	mg/L	0.00585	0.5353	mg/L	0.00585	1.09%
Fe 273.955†	21417.9	14.44	mg/L	0.126	14.44	mg/L	0.126	0.87%
K 766.490†	27908.9	11.57	mg/L	0.023	11.57	mg/L	0.023	0.20%
Mg 279.077†	15892.5	11.76	mg/L	0.094	11.76	mg/L	0.094	0.80%
Mn 257.610†	33495.6	0.5576	mg/L	0.00336	0.5576	mg/L	0.00336	0.60%
Mo 202.031†	62.2	0.00219	mg/L	0.000137	0.00219	mg/L	0.000137	6.24%
Na 589.592†	148732.6	11.55	mg/L	0.038	11.55	mg/L	0.038	0.33%
Na 330.237†	423.8	13.11	mg/L	0.103	13.11	mg/L	0.103	0.78%
Ni 231.604†	2498.6	0.4888	mg/L	0.00423	0.4888	mg/L	0.00423	0.87%
Pb 220.353†	27176.8	2.054	mg/L	0.0179	2.054	mg/L	0.0179	0.87%
Sb 206.836†	24.9	-0.00118	mg/L	0.001757	-0.00118	mg/L	0.001757	149.21%
Se 196.026†	4179.5	2.051	mg/L	0.0138	2.051	mg/L	0.0138	0.67%
Si 288.158†	7789.6	3.341	mg/L	0.0099	3.341	mg/L	0.0099	0.30%
Sn 189.927†	-10.1	-0.00069	mg/L	0.000608	-0.00069	mg/L	0.000608	88.57%
Sr 421.552†	466547.5	0.5292	mg/L	0.00324	0.5292	mg/L	0.00324	0.61%
Ti 334.903†	1496.9	0.04826	mg/L	0.000511	0.04826	mg/L	0.000511	1.06%
Tl 190.801†	5892.5	2.043	mg/L	0.0174	2.043	mg/L	0.0174	0.85%
V 292.402†	104245.8	0.5316	mg/L	0.00563	0.5316	mg/L	0.00563	1.06%
Zn 206.200†	1849.5	0.5822	mg/L	0.00536	0.5822	mg/L	0.00536	0.92%

Sequence No.: 29
Sample ID: U057 MB1SPK TWC

Dilution: 1X

Autosampler Location: 323
Date Collected: 4/4/2012 12:31:59 PM
Data Type: Original

Nebulizer Parameters: U057 MB1SPK TWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U057 MB1SPK TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2701119.3	103.8	%	0.49				0.47%
ScR 361.383	433772.4	106.9	%	0.58				0.54%
Ag 328.068†	150371.9	0.5264	mg/L	0.00319	0.5264	mg/L	0.00319	0.61%
Al 308.215†	3501.0	2.077	mg/L	0.0168	2.077	mg/L	0.0168	0.81%
As 188.979†	5482.1	2.050	mg/L	0.0064	2.050	mg/L	0.0064	0.31%
B 249.677†	95.9	0.01218	mg/L	0.000631	0.01218	mg/L	0.000631	5.18%
Ba 233.527†	18439.5	1.999	mg/L	0.0152	1.999	mg/L	0.0152	0.76%
Be 313.042†	367110.5	0.4917	mg/L	0.00324	0.4917	mg/L	0.00324	0.66%
Ca 317.933†	121519.9	10.42	mg/L	0.052	10.42	mg/L	0.052	0.49%
Cd 228.802†	18478.2	0.5231	mg/L	0.00413	0.5231	mg/L	0.00413	0.79%
Co 228.616†	21870.9	0.5057	mg/L	0.00462	0.5057	mg/L	0.00462	0.91%
Cr 267.716†	4887.8	0.5156	mg/L	0.00298	0.5156	mg/L	0.00298	0.58%
Cu 324.752†	125155.6	0.5184	mg/L	0.00416	0.5184	mg/L	0.00416	0.80%
Fe 273.955†	3095.7	2.085	mg/L	0.0153	2.085	mg/L	0.0153	0.74%
K 766.490†	25003.7	10.37	mg/L	0.021	10.37	mg/L	0.021	0.20%
Mg 279.077†	14387.8	10.65	mg/L	0.071	10.65	mg/L	0.071	0.67%
Mn 257.610†	29122.8	0.4848	mg/L	0.00389	0.4848	mg/L	0.00389	0.80%
Mo 202.031†	34.2	0.00118	mg/L	0.000103	0.00118	mg/L	0.000103	8.80%
Na 589.592†	123873.2	9.616	mg/L	0.0708	9.616	mg/L	0.0708	0.74%
Na 330.237†	345.4	10.69	mg/L	0.140	10.69	mg/L	0.140	1.31%
Ni 231.604†	2444.2	0.4781	mg/L	0.00287	0.4781	mg/L	0.00287	0.60%
Pb 220.353†	26946.8	2.037	mg/L	0.0099	2.037	mg/L	0.0099	0.48%
Sb 206.836†	11.6	-0.00243	mg/L	0.000365	-0.00243	mg/L	0.000365	14.97%
Se 196.026†	4155.4	2.038	mg/L	0.0184	2.038	mg/L	0.0184	0.90%
Si 288.158†	70.8	0.03233	mg/L	0.014798	0.03233	mg/L	0.014798	45.77%
Sn 189.927†	-9.7	-0.00082	mg/L	0.000537	-0.00082	mg/L	0.000537	65.31%
Sr 421.552†	435974.0	0.4945	mg/L	0.00226	0.4945	mg/L	0.00226	0.46%
Ti 334.903†	16.5	0.00006	mg/L	0.000205	0.00006	mg/L	0.000205	345.24%
Tl 190.801†	5876.9	2.036	mg/L	0.0093	2.036	mg/L	0.0093	0.46%
V 292.402†	101876.7	0.5210	mg/L	0.00335	0.5210	mg/L	0.00335	0.64%
Zn 206.200†	1571.7	0.4949	mg/L	0.00351	0.4949	mg/L	0.00351	0.71%

Sequence No.: 30
Sample ID: CV 3
Dilution: 1X

Autosampler Location: 7
Date Collected: 4/4/2012 12:35:56 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 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	2725893.1	104.7	%	0.89				0.85%
ScR 361.383	430642.4	106.1	%	0.58				0.54%
Ag 328.068†	280823.0	0.9831	mg/L	0.00848	0.9831	mg/L	0.00848	0.86%
Al 308.215†	3302.3	1.940	mg/L	0.0093	1.940	mg/L	0.0093	0.48%
As 188.979†	5170.0	1.938	mg/L	0.0176	1.938	mg/L	0.0176	0.91%
B 249.677†	6802.8	0.9661	mg/L	0.00814	0.9661	mg/L	0.00814	0.84%
Ba 233.527†	8701.6	0.9428	mg/L	0.00133	0.9428	mg/L	0.00133	0.14%
Be 313.042†	685356.1	0.9179	mg/L	0.00393	0.9179	mg/L	0.00393	0.43%
Ca 317.933†	23772.6	2.038	mg/L	0.0119	2.038	mg/L	0.0119	0.58%
Cd 228.802†	34734.1	0.9898	mg/L	0.01135	0.9898	mg/L	0.01135	1.15%
Co 228.616†	41263.3	0.9534	mg/L	0.01035	0.9534	mg/L	0.01035	1.09%
Cr 267.716†	9242.7	0.9759	mg/L	0.00601	0.9759	mg/L	0.00601	0.62%
Cu 324.752†	238982.1	0.9893	mg/L	0.01251	0.9893	mg/L	0.01251	1.26%
Fe 273.955†	2940.8	1.978	mg/L	0.0063	1.978	mg/L	0.0063	0.32%
K 766.490†	48270.5	20.01	mg/L	0.096	20.01	mg/L	0.096	0.48%
Mg 279.077†	2664.2	1.977	mg/L	0.0181	1.977	mg/L	0.0181	0.92%
Mn 257.610†	56024.0	0.9321	mg/L	0.00041	0.9321	mg/L	0.00041	0.04%
Mo 202.031†	24520.2	0.9702	mg/L	0.00719	0.9702	mg/L	0.00719	0.74%
Na 589.592†	593392.9	46.06	mg/L	0.103	46.06	mg/L	0.103	0.22%
Na 330.237†	1621.5	51.03	mg/L	0.103	51.03	mg/L	0.103	0.20%
Ni 231.604†	4752.2	0.9315	mg/L	0.00367	0.9315	mg/L	0.00367	0.39%
Pb 220.353†	26178.3	1.980	mg/L	0.0173	1.980	mg/L	0.0173	0.87%
Sb 206.836†	8537.2	1.981	mg/L	0.0147	1.981	mg/L	0.0147	0.74%
Se 196.026†	3918.8	1.921	mg/L	0.0147	1.921	mg/L	0.0147	0.77%
Si 288.158†	4520.1	1.941	mg/L	0.0236	1.941	mg/L	0.0236	1.21%
Sn 189.927†	7865.9	0.9742	mg/L	0.00860	0.9742	mg/L	0.00860	0.88%
Sr 421.552†	836611.3	0.9490	mg/L	0.00216	0.9490	mg/L	0.00216	0.23%
Ti 334.903†	28689.6	0.9363	mg/L	0.00159	0.9363	mg/L	0.00159	0.17%
Tl 190.801†	5543.2	1.922	mg/L	0.0139	1.922	mg/L	0.0139	0.72%
V 292.402†	192762.8	0.9863	mg/L	0.01211	0.9863	mg/L	0.01211	1.23%
Zn 206.200†	3126.5	0.9840	mg/L	0.00891	0.9840	mg/L	0.00891	0.91%

Sequence No.: 31
Sample ID: CB 3
Dilution: 1X

Autosampler Location: 1
Date Collected: 4/4/2012 12:39:11 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 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	2739866.3	105.2	%	0.39				0.37%
ScR 361.383	435484.2	107.3	%	1.06				0.99%
Ag 328.068†	41.5	0.00014	mg/L	0.000079	0.00014	mg/L	0.000079	54.78%
Al 308.215†	3.5	0.00208	mg/L	0.005542	0.00208	mg/L	0.005542	266.39%
As 188.979†	3.6	0.00136	mg/L	0.000898	0.00136	mg/L	0.000898	66.14%
B 249.677†	63.3	0.00901	mg/L	0.000542	0.00901	mg/L	0.000542	6.01%
Ba 233.527†	2.0	0.00022	mg/L	0.000469	0.00022	mg/L	0.000469	216.89%
Be 313.042†	-8.0	-0.00001	mg/L	0.000026	-0.00001	mg/L	0.000026	241.24%
Ca 317.933†	-13.7	-0.00117	mg/L	0.001053	-0.00117	mg/L	0.001053	89.72%
Cd 228.802†	4.6	0.00013	mg/L	0.000080	0.00013	mg/L	0.000080	62.81%
Co 228.616†	-10.9	-0.00025	mg/L	0.000054	-0.00025	mg/L	0.000054	21.60%
Cr 267.716†	15.3	0.00162	mg/L	0.000491	0.00162	mg/L	0.000491	30.31%
Cu 324.752†	98.2	0.00041	mg/L	0.000074	0.00041	mg/L	0.000074	18.12%
Fe 273.955†	3.7	0.00249	mg/L	0.002016	0.00249	mg/L	0.002016	80.93%
K 766.490†	29.4	0.01220	mg/L	0.006571	0.01220	mg/L	0.006571	53.87%
Mg 279.077†	-5.4	-0.00396	mg/L	0.002401	-0.00396	mg/L	0.002401	60.57%
Mn 257.610†	6.8	0.00011	mg/L	0.000046	0.00011	mg/L	0.000046	40.69%
Mo 202.031†	106.2	0.00420	mg/L	0.000930	0.00420	mg/L	0.000930	22.12%
Na 589.592†	383.4	0.02976	mg/L	0.002366	0.02976	mg/L	0.002366	7.95%
Na 330.237†	-5.8	-0.1826	mg/L	0.36630	-0.1826	mg/L	0.36630	200.62%
Ni 231.604†	-1.6	-0.00031	mg/L	0.000582	-0.00031	mg/L	0.000582	188.67%
Pb 220.353†	-27.1	-0.00205	mg/L	0.000379	-0.00205	mg/L	0.000379	18.52%
Sb 206.836†	27.9	0.00648	mg/L	0.003058	0.00648	mg/L	0.003058	47.20%
Se 196.026†	16.3	0.00799	mg/L	0.000215	0.00799	mg/L	0.000215	2.69%
Si 288.158†	22.8	0.00976	mg/L	0.009170	0.00976	mg/L	0.009170	93.99%
Sn 189.927†	10.9	0.00136	mg/L	0.000234	0.00136	mg/L	0.000234	17.25%
Sr 421.552†	106.7	0.00012	mg/L	0.000031	0.00012	mg/L	0.000031	25.93%
Ti 334.903†	23.6	0.00077	mg/L	0.000066	0.00077	mg/L	0.000066	8.56%
Tl 190.801†	2.3	0.00083	mg/L	0.001181	0.00083	mg/L	0.001181	142.15%
V 292.402†	-18.2	-0.00008	mg/L	0.000094	-0.00008	mg/L	0.000094	113.55%
Zn 206.200†	5.1	0.00161	mg/L	0.001075	0.00161	mg/L	0.001075	66.95%

Sequence No.: 32
Sample ID: U041 MB TWC

Dilution: 1X

Autosampler Location: 324
Date Collected: 4/4/2012 12:43:24 PM
Data Type: Original

Nebulizer Parameters: U041 MB TWC

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U041 MB TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2777383.0	106.7	%	1.12				1.05%
ScR 361.383	442107.9	109.0	%	0.41				0.37%
Ag 328.068†	75.0	0.00026	mg/L	0.000100	0.00026	mg/L	0.000100	37.96%
Al 308.215†	3.5	0.00206	mg/L	0.004085	0.00206	mg/L	0.004085	198.39%
As 188.979†	0.5	0.00018	mg/L	0.001881	0.00018	mg/L	0.001881	>999.9%
B 249.677†	53.1	0.00755	mg/L	0.000259	0.00755	mg/L	0.000259	3.42%
Ba 233.527†	4.7	0.00051	mg/L	0.000149	0.00051	mg/L	0.000149	29.19%
Be 313.042†	-54.8	-0.00007	mg/L	0.000005	-0.00007	mg/L	0.000005	7.32%
Ca 317.933†	148.3	0.01271	mg/L	0.000649	0.01271	mg/L	0.000649	5.11%
Cd 228.802†	1.8	0.00005	mg/L	0.000166	0.00005	mg/L	0.000166	329.19%
Co 228.616†	-6.3	-0.00015	mg/L	0.000046	-0.00015	mg/L	0.000046	31.19%
Cr 267.716†	7.7	0.00081	mg/L	0.000769	0.00081	mg/L	0.000769	94.94%
Cu 324.752†	92.8	0.00038	mg/L	0.000023	0.00038	mg/L	0.000023	5.88%
Fe 273.955†	6.6	0.00445	mg/L	0.001259	0.00445	mg/L	0.001259	28.31%
K 766.490†	60.8	0.02520	mg/L	0.011992	0.02520	mg/L	0.011992	47.59%
Mg 279.077†	-10.1	-0.00751	mg/L	0.003272	-0.00751	mg/L	0.003272	43.57%
Mn 257.610†	12.7	0.00021	mg/L	0.000100	0.00021	mg/L	0.000100	47.47%
Mo 202.031†	-1.4	-0.00006	mg/L	0.000168	-0.00006	mg/L	0.000168	295.90%
Na 589.592†	310.2	0.02408	mg/L	0.000953	0.02408	mg/L	0.000953	3.96%
Na 330.237†	7.3	0.2285	mg/L	0.53282	0.2285	mg/L	0.53282	233.19%
Ni 231.604†	1.0	0.00018	mg/L	0.001125	0.00018	mg/L	0.001125	611.40%
Pb 220.353†	-30.9	-0.00233	mg/L	0.000343	-0.00233	mg/L	0.000343	14.72%
Sb 206.836†	-18.1	-0.00420	mg/L	0.002472	-0.00420	mg/L	0.002472	58.85%
Se 196.026†	8.5	0.00415	mg/L	0.001578	0.00415	mg/L	0.001578	37.98%
Si 288.158†	18.4	0.00791	mg/L	0.005455	0.00791	mg/L	0.005455	68.98%
Sn 189.927†	5.2	0.00064	mg/L	0.000228	0.00064	mg/L	0.000228	35.77%
Sr 421.552†	131.2	0.00015	mg/L	0.000021	0.00015	mg/L	0.000021	14.21%
Ti 334.903†	4.0	0.00013	mg/L	0.000619	0.00013	mg/L	0.000619	473.04%
Tl 190.801†	-0.8	-0.00029	mg/L	0.000419	-0.00029	mg/L	0.000419	144.35%
V 292.402†	14.5	0.00008	mg/L	0.000095	0.00008	mg/L	0.000095	124.66%
Zn 206.200†	7.7	0.00243	mg/L	0.000846	0.00243	mg/L	0.000846	34.89%

Sequence No.: 33
Sample ID: U023 MB1 TWC

Dilution: 1X

Autosampler Location: 325
Date Collected: 4/4/2012 12:47:37 PM
Data Type: Original

Nebulizer Parameters: U023 MB1 TWC

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

rerun

Mean Data: U023 MB1 TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2749511.2	105.6	%	0.67				0.64%
ScR 361.383	435169.9	107.2	%	1.20				1.12%
Ag 328.068†	60.5	0.00021	mg/L	0.000071	0.00021	mg/L	0.000071	33.40%
Al 308.215†	1.0	0.00059	mg/L	0.004230	0.00059	mg/L	0.004230	713.86%
As 188.979†	-1.2	-0.00046	mg/L	0.001259	-0.00046	mg/L	0.001259	275.88%
B 249.677†	45.8	0.00651	mg/L	0.001325	0.00651	mg/L	0.001325	20.34%
Ba 233.527†	2.3	0.00025	mg/L	0.000108	0.00025	mg/L	0.000108	42.56%
Be 313.042†	-35.0	-0.00005	mg/L	0.000014	-0.00005	mg/L	0.000014	29.24%
Ca 317.933†	162.8	0.01396	mg/L	0.000324	0.01396	mg/L	0.000324	2.32%
Cd 228.802†	-0.0	0.00000	mg/L	0.000141	0.00000	mg/L	0.000141	>999.9%
Co 228.616†	-7.2	-0.00017	mg/L	0.000085	-0.00017	mg/L	0.000085	50.95%
Cr 267.716†	6.4	0.00068	mg/L	0.000816	0.00068	mg/L	0.000816	120.82%
Cu 324.752†	98.9	0.00041	mg/L	0.000029	0.00041	mg/L	0.000029	6.97%
Fe 273.955†	2.7	0.00185	mg/L	0.000895	0.00185	mg/L	0.000895	48.33%
K 766.490†	63.9	0.02648	mg/L	0.013204	0.02648	mg/L	0.013204	49.87%
Mg 279.077†	-1.6	-0.00116	mg/L	0.001895	-0.00116	mg/L	0.001895	162.69%
Mn 257.610†	8.2	0.00014	mg/L	0.000043	0.00014	mg/L	0.000043	31.98%
Mo 202.031†	-7.0	-0.00028	mg/L	0.000174	-0.00028	mg/L	0.000174	62.30%
Na 589.592†	312.0	0.02422	mg/L	0.002387	0.02422	mg/L	0.002387	9.86%
Na 330.237†	-3.2	-0.1013	mg/L	0.40719	-0.1013	mg/L	0.40719	401.89%
Ni 231.604†	-2.9	-0.00057	mg/L	0.000841	-0.00057	mg/L	0.000841	148.19%
Pb 220.353†	-29.2	-0.00221	mg/L	0.000629	-0.00221	mg/L	0.000629	28.47%
Sb 206.836†	-15.3	-0.00356	mg/L	0.000297	-0.00356	mg/L	0.000297	8.34%
Se 196.026†	6.7	0.00330	mg/L	0.001981	0.00330	mg/L	0.001981	60.03%
Si 288.158†	16.1	0.00692	mg/L	0.004001	0.00692	mg/L	0.004001	57.85%
Sn 189.927†	4.9	0.00060	mg/L	0.000582	0.00060	mg/L	0.000582	96.36%
Sr 421.552†	75.0	0.00009	mg/L	0.000014	0.00009	mg/L	0.000014	15.97%
Ti 334.903†	4.8	0.00016	mg/L	0.001133	0.00016	mg/L	0.001133	720.50%
Tl 190.801†	0.1	0.00003	mg/L	0.001016	0.00003	mg/L	0.001016	>999.9%
V 292.402†	-2.0	-0.00001	mg/L	0.000103	-0.00001	mg/L	0.000103	>999.9%
Zn 206.200†	14.0	0.00441	mg/L	0.000306	0.00441	mg/L	0.000306	6.94%

Sequence No.: 34
Sample ID: U023 MB2 DMN

Autosampler Location: 326
Date Collected: 4/4/2012 12:51:49 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 MB2 DMN

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U023 MB2 DMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2779448.7	106.8	%	0.03				0.03%
ScR 361.383	443434.9	109.3	%	0.52				0.47%
Ag 328.068†	23.3	0.00008	mg/L	0.000092	0.00008	mg/L	0.000092	113.15%
Al 308.215†	18.7	0.01112	mg/L	0.003972	0.01112	mg/L	0.003972	35.72%
As 188.979†	-0.6	-0.00022	mg/L	0.000461	-0.00022	mg/L	0.000461	210.58%
B 249.677†	54.1	0.00770	mg/L	0.000600	0.00770	mg/L	0.000600	7.79%
Ba 233.527†	3.0	0.00033	mg/L	0.000108	0.00033	mg/L	0.000108	32.74%
Be 313.042†	-50.0	-0.00007	mg/L	0.000012	-0.00007	mg/L	0.000012	18.41%
Ca 317.933†	355.0	0.03043	mg/L	0.000638	0.03043	mg/L	0.000638	2.10%
Cd 228.802†	3.1	0.00009	mg/L	0.000112	0.00009	mg/L	0.000112	123.66%
Co 228.616†	-1.1	-0.00003	mg/L	0.000120	-0.00003	mg/L	0.000120	473.80%
Cr 267.716†	6.7	0.00071	mg/L	0.000384	0.00071	mg/L	0.000384	54.13%
Cu 324.752†	63.4	0.00026	mg/L	0.000039	0.00026	mg/L	0.000039	14.76%
Fe 273.955†	0.2	0.00011	mg/L	0.001121	0.00011	mg/L	0.001121	>999.9%
K 766.490†	69.4	0.02875	mg/L	0.010867	0.02875	mg/L	0.010867	37.79%
Mg 279.077†	-3.2	-0.00234	mg/L	0.004054	-0.00234	mg/L	0.004054	173.59%
Mn 257.610†	51.4	0.00085	mg/L	0.000074	0.00085	mg/L	0.000074	8.62%
Mo 202.031†	-9.9	-0.00039	mg/L	0.000067	-0.00039	mg/L	0.000067	17.23%
Na 589.592†	790.8	0.06139	mg/L	0.001388	0.06139	mg/L	0.001388	2.26%
Na 330.237†	-2.9	-0.09178	mg/L	0.196213	-0.09178	mg/L	0.196213	213.78%
Ni 231.604†	2.2	0.00043	mg/L	0.000035	0.00043	mg/L	0.000035	8.23%
Pb 220.353†	-26.4	-0.00200	mg/L	0.000759	-0.00200	mg/L	0.000759	38.03%
Sb 206.836†	-29.7	-0.00691	mg/L	0.000748	-0.00691	mg/L	0.000748	10.82%
Se 196.026†	16.2	0.00796	mg/L	0.002087	0.00796	mg/L	0.002087	26.23%
Si 288.158†	-27.0	-0.01158	mg/L	0.002550	-0.01158	mg/L	0.002550	22.02%
Sn 189.927†	4.9	0.00060	mg/L	0.000052	0.00060	mg/L	0.000052	8.67%
Sr 421.552†	196.3	0.00022	mg/L	0.000012	0.00022	mg/L	0.000012	5.21%
Ti 334.903†	8.9	0.00029	mg/L	0.000379	0.00029	mg/L	0.000379	130.48%
Tl 190.801†	0.5	0.00016	mg/L	0.001081	0.00016	mg/L	0.001081	660.56%
V 292.402†	30.3	0.00016	mg/L	0.000137	0.00016	mg/L	0.000137	86.92%
Zn 206.200†	10.1	0.00319	mg/L	0.001116	0.00319	mg/L	0.001116	35.00%

Sequence No.: 35
Sample ID: U023 D DMN

Autosampler Location: 327
Date Collected: 4/4/2012 12:56:01 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 D DMN

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U023 D DMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2779372.9	106.8	%	0.87				0.82%
ScR 361.383	443893.5	109.4	%	0.79				0.72%
Ag 328.068†	30.5	0.00001	mg/L	0.000128	0.00001	mg/L	0.000128	>999.9%
Al 308.215†	1.1	0.00060	mg/L	0.002387	0.00060	mg/L	0.002387	400.94%
As 188.979†	4.2	0.00143	mg/L	0.000675	0.00143	mg/L	0.000675	47.34%
B 249.677†	90.6	0.01289	mg/L	0.000692	0.01289	mg/L	0.000692	5.37%
Ba 233.527†	67.4	0.00731	mg/L	0.000173	0.00731	mg/L	0.000173	2.37%
Be 313.042†	-51.9	-0.00007	mg/L	0.000024	-0.00007	mg/L	0.000024	34.14%
Ca 317.933†	169421.0	14.52	mg/L	0.169	14.52	mg/L	0.169	1.16%
Cd 228.802†	6.6	0.00019	mg/L	0.000148	0.00019	mg/L	0.000148	79.69%
Co 228.616†	1.6	0.00003	mg/L	0.000108	0.00003	mg/L	0.000108	310.24%
Cr 267.716†	17.0	0.00121	mg/L	0.000367	0.00121	mg/L	0.000367	30.46%
Cu 324.752†	4511.1	0.01865	mg/L	0.000208	0.01865	mg/L	0.000208	1.12%
Fe 273.955†	2.5	0.00165	mg/L	0.000807	0.00165	mg/L	0.000807	49.06%
K 766.490†	4913.2	2.037	mg/L	0.0182	2.037	mg/L	0.0182	0.89%
Mg 279.077†	9109.0	6.743	mg/L	0.0528	6.743	mg/L	0.0528	0.78%
Mn 257.610†	92.3	0.00149	mg/L	0.000071	0.00149	mg/L	0.000071	4.76%
Mo 202.031†	35.5	0.00116	mg/L	0.000118	0.00116	mg/L	0.000118	10.16%
Na 589.592†	80764.3	6.270	mg/L	0.1450	6.270	mg/L	0.1450	2.31%
Na 330.237†	217.6	6.746	mg/L	0.2846	6.746	mg/L	0.2846	4.22%
Ni 231.604†	6.2	0.00120	mg/L	0.000228	0.00120	mg/L	0.000228	19.02%
Pb 220.353†	-36.3	-0.00277	mg/L	0.000128	-0.00277	mg/L	0.000128	4.61%
Sb 206.836†	-21.4	-0.00500	mg/L	0.000792	-0.00500	mg/L	0.000792	15.85%
Se 196.026†	18.1	0.00887	mg/L	0.000762	0.00887	mg/L	0.000762	8.60%
Si 288.158†	38650.0	16.57	mg/L	0.116	16.57	mg/L	0.116	0.70%
Sn 189.927†	-20.2	-0.00207	mg/L	0.000270	-0.00207	mg/L	0.000270	12.99%
Sr 421.552†	56062.5	0.06359	mg/L	0.001102	0.06359	mg/L	0.001102	1.73%
Ti 334.903†	12.9	-0.00009	mg/L	0.000224	-0.00009	mg/L	0.000224	259.67%
Tl 190.801†	5.0	0.00174	mg/L	0.000614	0.00174	mg/L	0.000614	35.39%
V 292.402†	434.6	0.00222	mg/L	0.000119	0.00222	mg/L	0.000119	5.37%
Zn 206.200†	40.4	0.01251	mg/L	0.000626	0.01251	mg/L	0.000626	5.01%

Sequence No.: 36
Sample ID: U023 B TWC

Autosampler Location: 328
Date Collected: 4/4/2012 1:00:13 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 B TWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

rerun

Mean Data: U023 B TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2724623.1	104.7	%	0.47				0.45%
ScR 361.383	437908.4	107.9	%	0.55				0.51%
Ag 328.068†	66.5	0.00013	mg/L	0.000116	0.00013	mg/L	0.000116	86.92%
Al 308.215†	4.5	0.00263	mg/L	0.001106	0.00263	mg/L	0.001106	42.09%
As 188.979†	-0.1	-0.00019	mg/L	0.000409	-0.00019	mg/L	0.000409	220.77%
B 249.677†	92.9	0.01323	mg/L	0.000880	0.01323	mg/L	0.000880	6.66%
Ba 233.527†	74.7	0.00809	mg/L	0.000123	0.00809	mg/L	0.000123	1.52%
Be 313.042†	-50.2	-0.00007	mg/L	0.000007	-0.00007	mg/L	0.000007	10.15%
Ca 317.933†	172689.8	14.80	mg/L	0.011	14.80	mg/L	0.011	0.08%
Cd 228.802†	11.2	0.00032	mg/L	0.000114	0.00032	mg/L	0.000114	35.14%
Co 228.616†	0.4	0.00001	mg/L	0.000102	0.00001	mg/L	0.000102	>999.9%
Cr 267.716†	17.3	0.00123	mg/L	0.000433	0.00123	mg/L	0.000433	35.25%
Cu 324.752†	13242.3	0.05480	mg/L	0.000204	0.05480	mg/L	0.000204	0.37%
Fe 273.955†	47.8	0.03219	mg/L	0.001132	0.03219	mg/L	0.001132	3.52%
K 766.490†	5050.9	2.094	mg/L	0.0205	2.094	mg/L	0.0205	0.98%
Mg 279.077†	9209.2	6.818	mg/L	0.0261	6.818	mg/L	0.0261	0.38%
Mn 257.610†	134.6	0.00220	mg/L	0.000037	0.00220	mg/L	0.000037	1.69%
Mo 202.031†	45.5	0.00155	mg/L	0.000143	0.00155	mg/L	0.000143	9.26%
Na 589.592†	81185.5	6.302	mg/L	0.0297	6.302	mg/L	0.0297	0.47%
Na 330.237†	221.7	6.869	mg/L	0.3124	6.869	mg/L	0.3124	4.55%
Ni 231.604†	18.0	0.00353	mg/L	0.000595	0.00353	mg/L	0.000595	16.89%
Pb 220.353†	67.0	0.00500	mg/L	0.001172	0.00500	mg/L	0.001172	23.46%
Sb 206.836†	-10.2	-0.00239	mg/L	0.000371	-0.00239	mg/L	0.000371	15.49%
Se 196.026†	15.8	0.00773	mg/L	0.001666	0.00773	mg/L	0.001666	21.54%
Si 288.158†	32536.5	13.95	mg/L	0.085	13.95	mg/L	0.085	0.61%
Sn 189.927†	-18.9	-0.00191	mg/L	0.000570	-0.00191	mg/L	0.000570	29.87%
Sr 421.552†	57377.5	0.06509	mg/L	0.000152	0.06509	mg/L	0.000152	0.23%
Ti 334.903†	19.2	0.00011	mg/L	0.000538	0.00011	mg/L	0.000538	489.12%
Tl 190.801†	0.6	0.00021	mg/L	0.000375	0.00021	mg/L	0.000375	182.81%
V 292.402†	445.7	0.00228	mg/L	0.000017	0.00228	mg/L	0.000017	0.75%
Zn 206.200†	110.4	0.03452	mg/L	0.000448	0.03452	mg/L	0.000448	1.30%

Sequence No.: 37
Sample ID: U023 ADUP TWC

Autosampler Location: 329
Date Collected: 4/4/2012 1:04:25 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 ADUP TWC

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U023 ADUP TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2575503.0	98.93	%	0.153				0.15%
ScR 361.383	430148.6	106.0	%	0.20				0.19%
Ag 328.068†	-35.2	-0.00020	mg/L	0.000078	-0.00020	mg/L	0.000078	39.49%
Al 308.215†	9.5	0.00553	mg/L	0.003544	0.00553	mg/L	0.003544	64.07%
As 188.979†	6.3	0.00235	mg/L	0.000196	0.00235	mg/L	0.000196	8.35%
B 249.677†	200822.3	28.58	mg/L	0.112	28.58	mg/L	0.112	0.39%
Ba 233.527†	263.6	0.02857	mg/L	0.000454	0.02857	mg/L	0.000454	1.59%
Be 313.042†	-38.2	-0.00005	mg/L	0.000020	-0.00005	mg/L	0.000020	37.55%
Ca 317.933†	128327.4	11.00	mg/L	0.023	11.00	mg/L	0.023	0.21%
Cd 228.802†	15.8	0.00044	mg/L	0.000102	0.00044	mg/L	0.000102	23.05%
Co 228.616†	-2.9	-0.00007	mg/L	0.000037	-0.00007	mg/L	0.000037	52.03%
Cr 267.716†	10.5	0.00084	mg/L	0.000739	0.00084	mg/L	0.000739	87.53%
Cu 324.752†	19767.6	0.08184	mg/L	0.000447	0.08184	mg/L	0.000447	0.55%
Fe 273.955†	6.1	0.00412	mg/L	0.001053	0.00412	mg/L	0.001053	25.53%
K 766.490†	5453.4	2.261	mg/L	0.0039	2.261	mg/L	0.0039	0.17%
Mg 279.077†	489.0	0.3620	mg/L	0.00215	0.3620	mg/L	0.00215	0.59%
Mn 257.610†	32.5	0.00054	mg/L	0.000038	0.00054	mg/L	0.000038	7.15%
Mo 202.031†	342.6	0.01337	mg/L	0.000246	0.01337	mg/L	0.000246	1.84%
Na 589.592†	5774575.7	448.3	mg/L	1.69	448.3	mg/L	1.69	0.38%
Na 330.237†	16434.5	516.8	mg/L	1.30	516.8	mg/L	1.30	0.25%
Ni 231.604†	2.9	0.00056	mg/L	0.000915	0.00056	mg/L	0.000915	162.80%
Pb 220.353†	-23.2	-0.00185	mg/L	0.001114	-0.00185	mg/L	0.001114	60.29%
Sb 206.836†	11.8	0.00273	mg/L	0.000317	0.00273	mg/L	0.000317	11.60%
Se 196.026†	9.1	0.00446	mg/L	0.006321	0.00446	mg/L	0.006321	141.58%
Si 288.158†	13366.2	5.730	mg/L	0.0731	5.730	mg/L	0.0731	1.28%
Sn 189.927†	-5.7	-0.00038	mg/L	0.000864	-0.00038	mg/L	0.000864	225.19%
Sr 421.552†	52730.2	0.05981	mg/L	0.000070	0.05981	mg/L	0.000070	0.12%
Ti 334.903†	29.6	0.00056	mg/L	0.000196	0.00056	mg/L	0.000196	34.66%
Tl 190.801†	10.5	0.00368	mg/L	0.000434	0.00368	mg/L	0.000434	11.79%
V 292.402†	347.3	0.00178	mg/L	0.000119	0.00178	mg/L	0.000119	6.69%
Zn 206.200†	24.1	0.00744	mg/L	0.000430	0.00744	mg/L	0.000430	5.79%

Sequence No.: 38
Sample ID: U023 A TWC

Autosampler Location: 330
Date Collected: 4/4/2012 1:08:59 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 A TWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U023 A TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2586034.8	99.33	%	0.534				0.54%
ScR 361.383	434684.1	107.1	%	0.65				0.61%
Ag 328.068†	-36.0	-0.00020	mg/L	0.000262	-0.00020	mg/L	0.000262	129.15%
Al 308.215†	10.0	0.00582	mg/L	0.001325	0.00582	mg/L	0.001325	22.75%
As 188.979†	7.3	0.00272	mg/L	0.000528	0.00272	mg/L	0.000528	19.44%
B 249.677†	202855.3	28.87	mg/L	0.060	28.87	mg/L	0.060	0.21%
Ba 233.527†	262.5	0.02845	mg/L	0.000691	0.02845	mg/L	0.000691	2.43%
Be 313.042†	-50.4	-0.00007	mg/L	0.000041	-0.00007	mg/L	0.000041	60.15%
Ca 317.933†	130446.4	11.18	mg/L	0.040	11.18	mg/L	0.040	0.36%
Cd 228.802†	16.5	0.00046	mg/L	0.000050	0.00046	mg/L	0.000050	10.82%
Co 228.616†	-5.9	-0.00014	mg/L	0.000072	-0.00014	mg/L	0.000072	51.43%
Cr 267.716†	8.6	0.00064	mg/L	0.000164	0.00064	mg/L	0.000164	25.66%
Cu 324.752†	19870.3	0.08226	mg/L	0.000092	0.08226	mg/L	0.000092	0.11%
Fe 273.955†	8.8	0.00595	mg/L	0.000577	0.00595	mg/L	0.000577	9.70%
K 766.490†	5523.7	2.290	mg/L	0.0277	2.290	mg/L	0.0277	1.21%
Mg 279.077†	487.0	0.3606	mg/L	0.00546	0.3606	mg/L	0.00546	1.51%
Mn 257.610†	40.2	0.00067	mg/L	0.000059	0.00067	mg/L	0.000059	8.85%
Mo 202.031†	341.3	0.01331	mg/L	0.000219	0.01331	mg/L	0.000219	1.65%
Na 589.592†	5771664.7	448.0	mg/L	1.07	448.0	mg/L	1.07	0.24%
Na 330.237†	16494.8	518.7	mg/L	3.18	518.7	mg/L	3.18	0.61%
Ni 231.604†	2.7	0.00052	mg/L	0.000210	0.00052	mg/L	0.000210	39.99%
Pb 220.353†	-23.2	-0.00185	mg/L	0.000181	-0.00185	mg/L	0.000181	9.77%
Sb 206.836†	13.5	0.00313	mg/L	0.001462	0.00313	mg/L	0.001462	46.78%
Se 196.026†	14.3	0.00704	mg/L	0.001735	0.00704	mg/L	0.001735	24.65%
Si 288.158†	13272.7	5.690	mg/L	0.0658	5.690	mg/L	0.0658	1.16%
Sn 189.927†	-3.0	-0.00004	mg/L	0.000525	-0.00004	mg/L	0.000525	>999.9%
Sr 421.552†	53015.2	0.06014	mg/L	0.000241	0.06014	mg/L	0.000241	0.40%
Ti 334.903†	15.9	0.00011	mg/L	0.000259	0.00011	mg/L	0.000259	232.89%
Tl 190.801†	2.4	0.00088	mg/L	0.001329	0.00088	mg/L	0.001329	151.23%
V 292.402†	357.9	0.00184	mg/L	0.000125	0.00184	mg/L	0.000125	6.82%
Zn 206.200†	25.3	0.00780	mg/L	0.000999	0.00780	mg/L	0.000999	12.80%

Sequence No.: 39
Sample ID: U023 ASPK TWC

Autosampler Location: 331
Date Collected: 4/4/2012 1:13:33 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 ASPK TWC

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U023 ASPK TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2587080.8	99.37	%	0.518				0.52%
ScR 361.383	428816.4	105.7	%	1.07				1.01%
Ag 328.068†	148702.5	0.5205	mg/L	0.00256	0.5205	mg/L	0.00256	0.49%
Al 308.215†	3404.7	2.020	mg/L	0.0157	2.020	mg/L	0.0157	0.77%
As 188.979†	5601.9	2.094	mg/L	0.0134	2.094	mg/L	0.0134	0.64%
B 249.677†	202474.5	28.81	mg/L	0.097	28.81	mg/L	0.097	0.34%
Ba 233.527†	18041.4	1.955	mg/L	0.0139	1.955	mg/L	0.0139	0.71%
Be 313.042†	348110.8	0.4662	mg/L	0.00325	0.4662	mg/L	0.00325	0.70%
Ca 317.933†	249548.8	21.39	mg/L	0.074	21.39	mg/L	0.074	0.35%
Cd 228.802†	18755.1	0.5309	mg/L	0.00124	0.5309	mg/L	0.00124	0.23%
Co 228.616†	21105.6	0.4880	mg/L	0.00160	0.4880	mg/L	0.00160	0.33%
Cr 267.716†	4704.3	0.4960	mg/L	0.00396	0.4960	mg/L	0.00396	0.80%
Cu 324.752†	146321.4	0.6060	mg/L	0.00312	0.6060	mg/L	0.00312	0.52%
Fe 273.955†	2969.8	2.000	mg/L	0.0141	2.000	mg/L	0.0141	0.70%
K 766.490†	29898.2	12.39	mg/L	0.055	12.39	mg/L	0.055	0.45%
Mg 279.077†	14266.4	10.56	mg/L	0.101	10.56	mg/L	0.101	0.96%
Mn 257.610†	27773.0	0.4623	mg/L	0.00272	0.4623	mg/L	0.00272	0.59%
Mo 202.031†	369.5	0.01426	mg/L	0.000173	0.01426	mg/L	0.000173	1.21%
Na 589.592†	5944764.6	461.5	mg/L	7.58	461.5	mg/L	7.58	1.64%
Na 330.237†	17040.0	535.7	mg/L	4.57	535.7	mg/L	4.57	0.85%
Ni 231.604†	2315.8	0.4530	mg/L	0.00317	0.4530	mg/L	0.00317	0.70%
Pb 220.353†	25745.5	1.947	mg/L	0.0101	1.947	mg/L	0.0101	0.52%
Sb 206.836†	35.9	0.00340	mg/L	0.001327	0.00340	mg/L	0.001327	39.09%
Se 196.026†	4198.3	2.059	mg/L	0.0113	2.059	mg/L	0.0113	0.55%
Si 288.158†	13762.4	5.902	mg/L	0.0748	5.902	mg/L	0.0748	1.27%
Sn 189.927†	-18.4	-0.00157	mg/L	0.000117	-0.00157	mg/L	0.000117	7.45%
Sr 421.552†	476925.7	0.5410	mg/L	0.00226	0.5410	mg/L	0.00226	0.42%
Ti 334.903†	28.1	0.00004	mg/L	0.000285	0.00004	mg/L	0.000285	658.10%
Tl 190.801†	5388.0	1.867	mg/L	0.0117	1.867	mg/L	0.0117	0.63%
V 292.402†	100086.6	0.5119	mg/L	0.00356	0.5119	mg/L	0.00356	0.70%
Zn 206.200†	1569.6	0.4941	mg/L	0.00345	0.4941	mg/L	0.00345	0.70%

Sequence No.: 40
Sample ID: U023 MB1SPK TWC

Autosampler Location: 332
Date Collected: 4/4/2012 1:17:53 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 MB1SPK TWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U023 MB1SPK TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2728509.0	104.8	%	0.95				0.91%
ScR 361.383	437137.1	107.7	%	1.40				1.30%
Ag 328.068†	145803.1	0.5104	mg/L	0.00423	0.5104	mg/L	0.00423	0.83%
Al 308.215†	3416.8	2.027	mg/L	0.0325	2.027	mg/L	0.0325	1.61%
As 188.979†	5370.8	2.008	mg/L	0.0198	2.008	mg/L	0.0198	0.99%
B 249.677†	616.1	0.08622	mg/L	0.012127	0.08622	mg/L	0.012127	14.07%
Ba 233.527†	17938.4	1.944	mg/L	0.0303	1.944	mg/L	0.0303	1.56%
Be 313.042†	352583.6	0.4722	mg/L	0.00340	0.4722	mg/L	0.00340	0.72%
Ca 317.933†	118250.0	10.14	mg/L	0.022	10.14	mg/L	0.022	0.21%
Cd 228.802†	18127.5	0.5132	mg/L	0.00266	0.5132	mg/L	0.00266	0.52%
Co 228.616†	21512.7	0.4975	mg/L	0.00272	0.4975	mg/L	0.00272	0.55%
Cr 267.716†	4789.6	0.5053	mg/L	0.00834	0.5053	mg/L	0.00834	1.65%
Cu 324.752†	123249.3	0.5105	mg/L	0.00284	0.5105	mg/L	0.00284	0.56%
Fe 273.955†	3016.4	2.032	mg/L	0.0314	2.032	mg/L	0.0314	1.55%
K 766.490†	24590.1	10.19	mg/L	0.039	10.19	mg/L	0.039	0.38%
Mg 279.077†	14072.9	10.42	mg/L	0.160	10.42	mg/L	0.160	1.53%
Mn 257.610†	28237.8	0.4701	mg/L	0.00736	0.4701	mg/L	0.00736	1.57%
Mo 202.031†	36.5	0.00127	mg/L	0.000035	0.00127	mg/L	0.000035	2.76%
Na 589.592†	120048.4	9.319	mg/L	0.0922	9.319	mg/L	0.0922	0.99%
Na 330.237†	342.4	10.60	mg/L	0.132	10.60	mg/L	0.132	1.25%
Ni 231.604†	2366.4	0.4629	mg/L	0.00642	0.4629	mg/L	0.00642	1.39%
Pb 220.353†	26397.5	1.996	mg/L	0.0163	1.996	mg/L	0.0163	0.82%
Sb 206.836†	10.9	-0.00248	mg/L	0.001479	-0.00248	mg/L	0.001479	59.55%
Se 196.026†	4053.9	1.988	mg/L	0.0241	1.988	mg/L	0.0241	1.21%
Si 288.158†	82.4	0.03727	mg/L	0.013782	0.03727	mg/L	0.013782	36.98%
Sn 189.927†	-13.2	-0.00127	mg/L	0.000678	-0.00127	mg/L	0.000678	53.50%
Sr 421.552†	425518.8	0.4827	mg/L	0.00300	0.4827	mg/L	0.00300	0.62%
Ti 334.903†	16.9	0.00008	mg/L	0.000346	0.00008	mg/L	0.000346	411.35%
Tl 190.801†	5734.1	1.987	mg/L	0.0220	1.987	mg/L	0.0220	1.11%
V 292.402†	100414.7	0.5135	mg/L	0.00334	0.5135	mg/L	0.00334	0.65%
Zn 206.200†	1542.3	0.4856	mg/L	0.00736	0.4856	mg/L	0.00736	1.52%

Sequence No.: 41
Sample ID: U023 MB2SPK DMN

Autosampler Location: 333
Date Collected: 4/4/2012 1:21:51 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U023 MB2SPK DMN

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U023 MB2SPK DMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2837064.6	109.0	%	0.43				0.39%
ScR 361.383	445060.2	109.7	%	0.64				0.58%
Ag 328.068†	142845.3	0.5000	mg/L	0.00205	0.5000	mg/L	0.00205	0.41%
Al 308.215†	3504.0	2.079	mg/L	0.0155	2.079	mg/L	0.0155	0.75%
As 188.979†	5534.7	2.069	mg/L	0.0059	2.069	mg/L	0.0059	0.28%
B 249.677†	270.8	0.03707	mg/L	0.001694	0.03707	mg/L	0.001694	4.57%
Ba 233.527†	18219.2	1.975	mg/L	0.0115	1.975	mg/L	0.0115	0.58%
Be 313.042†	350577.7	0.4695	mg/L	0.00393	0.4695	mg/L	0.00393	0.84%
Ca 317.933†	119336.8	10.23	mg/L	0.058	10.23	mg/L	0.058	0.57%
Cd 228.802†	19163.5	0.5427	mg/L	0.00287	0.5427	mg/L	0.00287	0.53%
Co 228.616†	21833.4	0.5049	mg/L	0.00209	0.5049	mg/L	0.00209	0.41%
Cr 267.716†	4735.6	0.4996	mg/L	0.00448	0.4996	mg/L	0.00448	0.90%
Cu 324.752†	122271.0	0.5064	mg/L	0.00322	0.5064	mg/L	0.00322	0.64%
Fe 273.955†	2996.3	2.018	mg/L	0.0107	2.018	mg/L	0.0107	0.53%
K 766.490†	25060.0	10.39	mg/L	0.160	10.39	mg/L	0.160	1.54%
Mg 279.077†	14227.5	10.53	mg/L	0.078	10.53	mg/L	0.078	0.74%
Mn 257.610†	28805.9	0.4795	mg/L	0.00249	0.4795	mg/L	0.00249	0.52%
Mo 202.031†	27.9	0.00093	mg/L	0.000143	0.00093	mg/L	0.000143	15.39%
Na 589.592†	121537.4	9.435	mg/L	0.1649	9.435	mg/L	0.1649	1.75%
Na 330.237†	341.4	10.56	mg/L	0.074	10.56	mg/L	0.074	0.70%
Ni 231.604†	2442.9	0.4779	mg/L	0.00324	0.4779	mg/L	0.00324	0.68%
Pb 220.353†	27177.2	2.055	mg/L	0.0073	2.055	mg/L	0.0073	0.36%
Sb 206.836†	-8.9	-0.00706	mg/L	0.000829	-0.00706	mg/L	0.000829	11.74%
Se 196.026†	4486.0	2.200	mg/L	0.0022	2.200	mg/L	0.0022	0.10%
Si 288.158†	-27.9	-0.00993	mg/L	0.001924	-0.00993	mg/L	0.001924	19.38%
Sn 189.927†	-14.8	-0.00147	mg/L	0.000510	-0.00147	mg/L	0.000510	34.75%
Sr 421.552†	427560.4	0.4850	mg/L	0.00399	0.4850	mg/L	0.00399	0.82%
Ti 334.903†	22.2	0.00026	mg/L	0.000277	0.00026	mg/L	0.000277	107.76%
Tl 190.801†	5856.2	2.029	mg/L	0.0067	2.029	mg/L	0.0067	0.33%
V 292.402†	99468.0	0.5087	mg/L	0.00226	0.5087	mg/L	0.00226	0.44%
Zn 206.200†	1583.5	0.4986	mg/L	0.00283	0.4986	mg/L	0.00283	0.57%

Sequence No.: 42
Sample ID: CV 4
Dilution: 1X

Autosampler Location: 7
Date Collected: 4/4/2012 1:25:49 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 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	2750939.8	105.7	%	0.58				0.55%
ScR 361.383	436705.2	107.6	%	1.24				1.15%
Ag 328.068†	278546.5	0.9751	mg/L	0.00313	0.9751	mg/L	0.00313	0.32%
Al 308.215†	3361.6	1.975	mg/L	0.0187	1.975	mg/L	0.0187	0.95%
As 188.979†	5153.1	1.932	mg/L	0.0096	1.932	mg/L	0.0096	0.50%
B 249.677†	7024.9	0.9976	mg/L	0.00989	0.9976	mg/L	0.00989	0.99%
Ba 233.527†	8767.0	0.9499	mg/L	0.00997	0.9499	mg/L	0.00997	1.05%
Be 313.042†	683805.5	0.9158	mg/L	0.00999	0.9158	mg/L	0.00999	1.09%
Ca 317.933†	22930.1	1.966	mg/L	0.0057	1.966	mg/L	0.0057	0.29%
Cd 228.802†	35353.1	1.008	mg/L	0.0103	1.008	mg/L	0.0103	1.02%
Co 228.616†	41921.8	0.9687	mg/L	0.00796	0.9687	mg/L	0.00796	0.82%
Cr 267.716†	9390.4	0.9915	mg/L	0.00889	0.9915	mg/L	0.00889	0.90%
Cu 324.752†	240888.5	0.9972	mg/L	0.01090	0.9972	mg/L	0.01090	1.09%
Fe 273.955†	2982.9	2.007	mg/L	0.0188	2.007	mg/L	0.0188	0.94%
K 766.490†	48103.0	19.94	mg/L	0.167	19.94	mg/L	0.167	0.84%
Mg 279.077†	2686.7	1.994	mg/L	0.0259	1.994	mg/L	0.0259	1.30%
Mn 257.610†	53637.5	0.8924	mg/L	0.01074	0.8924	mg/L	0.01074	1.20%
Mo 202.031†	24331.0	0.9628	mg/L	0.00410	0.9628	mg/L	0.00410	0.43%
Na 589.592†	574928.6	44.63	mg/L	0.488	44.63	mg/L	0.488	1.09%
Na 330.237†	1649.4	51.90	mg/L	0.694	51.90	mg/L	0.694	1.34%
Ni 231.604†	4794.0	0.9397	mg/L	0.01249	0.9397	mg/L	0.01249	1.33%
Pb 220.353†	26034.1	1.969	mg/L	0.0088	1.969	mg/L	0.0088	0.44%
Sb 206.836†	8475.9	1.967	mg/L	0.0061	1.967	mg/L	0.0061	0.31%
Se 196.026†	3892.8	1.909	mg/L	0.0092	1.909	mg/L	0.0092	0.48%
Si 288.158†	4648.6	1.997	mg/L	0.0554	1.997	mg/L	0.0554	2.77%
Sn 189.927†	7804.4	0.9666	mg/L	0.00443	0.9666	mg/L	0.00443	0.46%
Sr 421.552†	830315.9	0.9419	mg/L	0.00873	0.9419	mg/L	0.00873	0.93%
Ti 334.903†	28520.2	0.9307	mg/L	0.00822	0.9307	mg/L	0.00822	0.88%
Tl 190.801†	5491.5	1.904	mg/L	0.0107	1.904	mg/L	0.0107	0.56%
V 292.402†	193285.4	0.9890	mg/L	0.00856	0.9890	mg/L	0.00856	0.87%
Zn 206.200†	3172.2	0.9984	mg/L	0.00904	0.9984	mg/L	0.00904	0.91%

Sequence No.: 43
Sample ID: CB 4
Dilution: 1X

Autosampler Location: 1
Date Collected: 4/4/2012 1:29:50 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 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	2787806.3	107.1	%	0.35				0.33%
ScR 361.383	443981.0	109.4	%	0.62				0.56%
Ag 328.068†	82.3	0.00029	mg/L	0.000009	0.00029	mg/L	0.000009	3.24%
Al 308.215†	3.7	0.00220	mg/L	0.002777	0.00220	mg/L	0.002777	126.49%
As 188.979†	1.7	0.00065	mg/L	0.001236	0.00065	mg/L	0.001236	190.19%
B 249.677†	157.4	0.02240	mg/L	0.001060	0.02240	mg/L	0.001060	4.73%
Ba 233.527†	-0.0	0.00000	mg/L	0.000493	0.00000	mg/L	0.000493	>999.9%
Be 313.042†	-2.1	0.00000	mg/L	0.000013	0.00000	mg/L	0.000013	473.29%
Ca 317.933†	-15.5	-0.00133	mg/L	0.000493	-0.00133	mg/L	0.000493	37.15%
Cd 228.802†	5.3	0.00015	mg/L	0.000057	0.00015	mg/L	0.000057	38.09%
Co 228.616†	-3.4	-0.00008	mg/L	0.000047	-0.00008	mg/L	0.000047	60.58%
Cr 267.716†	13.2	0.00139	mg/L	0.000122	0.00139	mg/L	0.000122	8.74%
Cu 324.752†	104.9	0.00043	mg/L	0.000053	0.00043	mg/L	0.000053	12.26%
Fe 273.955†	0.6	0.00037	mg/L	0.001059	0.00037	mg/L	0.001059	284.58%
K 766.490†	60.5	0.02509	mg/L	0.005838	0.02509	mg/L	0.005838	23.26%
Mg 279.077†	-5.0	-0.00368	mg/L	0.003996	-0.00368	mg/L	0.003996	108.47%
Mn 257.610†	10.0	0.00017	mg/L	0.000054	0.00017	mg/L	0.000054	32.81%
Mo 202.031†	106.6	0.00422	mg/L	0.000877	0.00422	mg/L	0.000877	20.78%
Na 589.592†	776.3	0.06026	mg/L	0.004431	0.06026	mg/L	0.004431	7.35%
Na 330.237†	-2.1	-0.06667	mg/L	0.179489	-0.06667	mg/L	0.179489	269.23%
Ni 231.604†	-0.7	-0.00013	mg/L	0.000751	-0.00013	mg/L	0.000751	580.00%
Pb 220.353†	-28.6	-0.00216	mg/L	0.000353	-0.00216	mg/L	0.000353	16.37%
Sb 206.836†	26.7	0.00619	mg/L	0.002720	0.00619	mg/L	0.002720	43.96%
Se 196.026†	13.5	0.00661	mg/L	0.001385	0.00661	mg/L	0.001385	20.96%
Si 288.158†	17.9	0.00768	mg/L	0.006386	0.00768	mg/L	0.006386	83.13%
Sn 189.927†	8.2	0.00102	mg/L	0.000549	0.00102	mg/L	0.000549	53.66%
Sr 421.552†	124.6	0.00014	mg/L	0.000043	0.00014	mg/L	0.000043	30.46%
Ti 334.903†	26.2	0.00085	mg/L	0.000225	0.00085	mg/L	0.000225	26.47%
Tl 190.801†	-1.3	-0.00044	mg/L	0.002014	-0.00044	mg/L	0.002014	455.51%
V 292.402†	8.2	0.00005	mg/L	0.000055	0.00005	mg/L	0.000055	109.80%
Zn 206.200†	5.0	0.00158	mg/L	0.000990	0.00158	mg/L	0.000990	62.75%

Analysis Begun

Start Time: 4/4/2012 1:35:26 PM
Plasma On Time: 4/4/2012 9:29:51 AM
Logged In Analyst: metals
Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C8121202Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0404A.sif
Batch ID:
Results Data Set: I2120404
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: STD2
Date Collected: 4/4/2012 1:35:27 PM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2799663.8	32643.25	1.17%	107.5	%
ScR 361.383	444130.7	2370.43	0.53%	109.5	%
Ba 233.527†	86996.9	215.61	0.25%	[10]	mg/L
Cd 228.802†	343489.1	545.31	0.16%	[10]	mg/L
Co 228.616†	426411.8	122.34	0.03%	[10]	mg/L
Cr 267.716†	92574.2	55.02	0.06%	[10]	mg/L
Cu 324.752†	2414310.8	5552.62	0.23%	[10]	mg/L
Mn 257.610†	559120.5	1585.58	0.28%	[10]	mg/L
V 292.402†	1939552.0	17049.91	0.88%	[10]	mg/L

Sequence No.: 2
Sample ID: STD3

Date Collected: 4/4/2012 1:36:54 PM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2763546.2	20587.42	0.74%	106.2	%
ScR 361.383	438608.2	2239.39	0.51%	108.1	%
Ag 328.068†	269065.0	1169.70	0.43%	[1.0]	mg/L
As 188.979†	25778.5	111.47	0.43%	[10]	mg/L
B 249.677†	67696.3	437.21	0.65%	[10]	mg/L
Be 313.042†	3457773.8	2804.94	0.08%	[5.0]	mg/L
Na 589.592†	564705.1	4386.18	0.78%	[50]	mg/L
Ni 231.604†	47366.8	97.45	0.21%	[10]	mg/L
Pb 220.353†	127517.8	720.58	0.57%	[10]	mg/L
Se 196.026†	19408.8	27.75	0.14%	[10]	mg/L
Sr 421.552†	4111341.2	2577.74	0.06%	[5]	mg/L
Tl 190.801†	27349.2	62.81	0.23%	[10]	mg/L
Zn 206.200†	30657.4	221.18	0.72%	[10]	mg/L

Analysis Begun

Start Time: 4/4/2012 1:39:03 PM
Logged In Analyst: metals
Spectrometer Model: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 4/4/2012 9:29:51 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0404A.sif
Batch ID:
Results Data Set: I2120404
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: CV 5

Autosampler Location: 7
Date Collected: 4/4/2012 1:39:04 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 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	2750112.4	105.6	%	0.23				0.21%
ScR 361.383	437926.1	107.9	%	1.06				0.98%
Ag 328.068†	278745.1	1.036	mg/L	0.0013	1.036	mg/L	0.0013	0.13%
Al 308.215†	3353.1	1.970	mg/L	0.0260	1.970	mg/L	0.0260	1.32%
As 188.979†	5148.0	2.002	mg/L	0.0096	2.002	mg/L	0.0096	0.48%
B 249.677†	6914.8	1.019	mg/L	0.0184	1.019	mg/L	0.0184	1.80%
Ba 233.527†	8704.0	1.000	mg/L	0.0155	1.000	mg/L	0.0155	1.55%
Be 313.042†	683886.6	0.9882	mg/L	0.00091	0.9882	mg/L	0.00091	0.09%
Ca 317.933†	23980.3	2.056	mg/L	0.0381	2.056	mg/L	0.0381	1.85%
Cd 228.802†	34972.9	1.012	mg/L	0.0078	1.012	mg/L	0.0078	0.77%
Co 228.616†	41713.7	0.9765	mg/L	0.00390	0.9765	mg/L	0.00390	0.40%
Cr 267.716†	9284.5	1.002	mg/L	0.0178	1.002	mg/L	0.0178	1.77%
Cu 324.752†	239886.4	0.9935	mg/L	0.00077	0.9935	mg/L	0.00077	0.08%
Fe 273.955†	2962.5	1.993	mg/L	0.0383	1.993	mg/L	0.0383	1.92%
K 766.490†	48190.2	19.98	mg/L	0.011	19.98	mg/L	0.011	0.06%
Mg 279.077†	2659.2	1.974	mg/L	0.0360	1.974	mg/L	0.0360	1.82%
Mn 257.610†	55653.7	0.9961	mg/L	0.01675	0.9961	mg/L	0.01675	1.68%
Mo 202.031†	24344.6	0.9633	mg/L	0.00312	0.9633	mg/L	0.00312	0.32%
Na 589.592†	573540.5	50.78	mg/L	0.251	50.78	mg/L	0.251	0.49%
Na 330.237†	1631.0	51.31	mg/L	1.257	51.31	mg/L	1.257	2.45%
Ni 231.604†	4770.4	1.009	mg/L	0.0176	1.009	mg/L	0.0176	1.74%
Pb 220.353†	26027.8	2.042	mg/L	0.0058	2.042	mg/L	0.0058	0.28%
Sb 206.836†	8494.8	1.971	mg/L	0.0094	1.971	mg/L	0.0094	0.48%
Se 196.026†	3893.0	2.005	mg/L	0.0075	2.005	mg/L	0.0075	0.37%
Si 288.158†	4509.2	1.937	mg/L	0.0257	1.937	mg/L	0.0257	1.33%
Sn 189.927†	7807.9	0.9670	mg/L	0.00296	0.9670	mg/L	0.00296	0.31%
Sr 421.552†	831400.1	1.011	mg/L	0.0018	1.011	mg/L	0.0018	0.18%
Ti 334.903†	28541.5	0.9314	mg/L	0.00126	0.9314	mg/L	0.00126	0.14%
Tl 190.801†	5487.9	2.005	mg/L	0.0061	2.005	mg/L	0.0061	0.30%
V 292.402†	192789.1	0.9983	mg/L	0.00615	0.9983	mg/L	0.00615	0.62%
Zn 206.200†	3167.3	1.034	mg/L	0.0163	1.034	mg/L	0.0163	1.58%

Sequence No.: 2
Sample ID: CB 5

Dilution: 1X

Autosampler Location: 1
Date Collected: 4/4/2012 1:42:19 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2764412.9	106.2	%	0.88				0.83%
ScR 361.383	442663.9	109.1	%	1.01				0.92%
Ag 328.068†	51.2	0.00019	mg/L	0.000130	0.00019	mg/L	0.000130	68.49%
Al 308.215†	-3.6	-0.00220	mg/L	0.001316	-0.00220	mg/L	0.001316	59.90%
As 188.979†	0.6	0.00022	mg/L	0.000287	0.00022	mg/L	0.000287	129.24%
B 249.677†	113.1	0.01671	mg/L	0.001254	0.01671	mg/L	0.001254	7.51%
Ba 233.527†	-0.5	-0.00006	mg/L	0.000677	-0.00006	mg/L	0.000677	>999.9%
Be 313.042†	16.0	0.00002	mg/L	0.000008	0.00002	mg/L	0.000008	33.94%
Ca 317.933†	-33.5	-0.00287	mg/L	0.000928	-0.00287	mg/L	0.000928	32.29%
Cd 228.802†	7.7	0.00022	mg/L	0.000145	0.00022	mg/L	0.000145	64.61%
Co 228.616†	-10.7	-0.00025	mg/L	0.000080	-0.00025	mg/L	0.000080	31.85%
Cr 267.716†	11.3	0.00122	mg/L	0.000185	0.00122	mg/L	0.000185	15.21%
Cu 324.752†	101.8	0.00042	mg/L	0.000022	0.00042	mg/L	0.000022	5.20%
Fe 273.955†	1.3	0.00089	mg/L	0.001216	0.00089	mg/L	0.001216	137.33%
K 766.490†	68.7	0.02848	mg/L	0.012472	0.02848	mg/L	0.012472	43.79%
Mg 279.077†	-5.9	-0.00436	mg/L	0.001498	-0.00436	mg/L	0.001498	34.36%
Mn 257.610†	8.5	0.00015	mg/L	0.000083	0.00015	mg/L	0.000083	55.33%
Mo 202.031†	102.1	0.00404	mg/L	0.000957	0.00404	mg/L	0.000957	23.68%
Na 589.592†	545.9	0.04834	mg/L	0.004351	0.04834	mg/L	0.004351	9.00%
Na 330.237†	-0.6	-0.01790	mg/L	0.307442	-0.01790	mg/L	0.307442	>999.9%
Ni 231.604†	1.5	0.00032	mg/L	0.000688	0.00032	mg/L	0.000688	216.67%
Pb 220.353†	-31.9	-0.00250	mg/L	0.000268	-0.00250	mg/L	0.000268	10.74%
Sb 206.836†	26.2	0.00608	mg/L	0.001265	0.00608	mg/L	0.001265	20.81%
Se 196.026†	5.3	0.00274	mg/L	0.001602	0.00274	mg/L	0.001602	58.54%
Si 288.158†	-0.7	-0.00030	mg/L	0.007549	-0.00030	mg/L	0.007549	>999.9%
Sn 189.927†	10.4	0.00129	mg/L	0.000218	0.00129	mg/L	0.000218	16.84%
Sr 421.552†	154.8	0.00019	mg/L	0.000019	0.00019	mg/L	0.000019	10.16%
Ti 334.903†	32.5	0.00106	mg/L	0.000262	0.00106	mg/L	0.000262	24.83%
Tl 190.801†	1.9	0.00071	mg/L	0.000630	0.00071	mg/L	0.000630	88.66%
V 292.402†	24.8	0.00014	mg/L	0.000165	0.00014	mg/L	0.000165	122.06%
Zn 206.200†	7.2	0.00234	mg/L	0.000859	0.00234	mg/L	0.000859	36.66%

Sequence No.: 3
Sample ID: U045 F WMN

Autosampler Location: 334
Date Collected: 4/4/2012 1:46:32 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U045 F WMN

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U045 F WMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2804021.6	107.7	%	0.32				0.30%
ScR 361.383	454689.2	112.1	%	0.69				0.62%
Ag 328.068†	53.0	0.00004	mg/L	0.000101	0.00004	mg/L	0.000101	277.81%
Al 308.215†	-1.7	-0.00158	mg/L	0.004076	-0.00158	mg/L	0.004076	257.25%
As 188.979†	5.5	0.00196	mg/L	0.001503	0.00196	mg/L	0.001503	76.73%
B 249.677†	131.2	0.01938	mg/L	0.000420	0.01938	mg/L	0.000420	2.17%
Ba 233.527†	28.0	0.00321	mg/L	0.000084	0.00321	mg/L	0.000084	2.63%
Be 313.042†	-25.4	-0.00006	mg/L	0.000022	-0.00006	mg/L	0.000022	39.38%
Ca 317.933†	289873.6	24.85	mg/L	0.142	24.85	mg/L	0.142	0.57%
Cd 228.802†	10.2	0.00029	mg/L	0.000073	0.00029	mg/L	0.000073	25.06%
Co 228.616†	8.5	0.00020	mg/L	0.000049	0.00020	mg/L	0.000049	24.64%
Cr 267.716†	41.0	0.00360	mg/L	0.000632	0.00360	mg/L	0.000632	17.56%
Cu 324.752†	222.8	0.00089	mg/L	0.000111	0.00089	mg/L	0.000111	12.48%
Fe 273.955†	-1.0	-0.00080	mg/L	0.000892	-0.00080	mg/L	0.000892	111.64%
K 766.490†	5716.4	2.370	mg/L	0.0332	2.370	mg/L	0.0332	1.40%
Mg 279.077†	9223.2	6.828	mg/L	0.0706	6.828	mg/L	0.0706	1.03%
Mn 257.610†	23.4	0.00038	mg/L	0.000080	0.00038	mg/L	0.000080	21.23%
Mo 202.031†	88.8	0.00309	mg/L	0.000036	0.00309	mg/L	0.000036	1.15%
Na 589.592†	206854.6	18.32	mg/L	0.215	18.32	mg/L	0.215	1.17%
Na 330.237†	590.4	18.41	mg/L	0.298	18.41	mg/L	0.298	1.62%
Ni 231.604†	2.8	0.00060	mg/L	0.000506	0.00060	mg/L	0.000506	84.53%
Pb 220.353†	-52.1	-0.00407	mg/L	0.000375	-0.00407	mg/L	0.000375	9.21%
Sb 206.836†	-9.0	-0.00210	mg/L	0.000816	-0.00210	mg/L	0.000816	38.81%
Se 196.026†	27.0	0.01390	mg/L	0.001762	0.01390	mg/L	0.001762	12.68%
Si 288.158†	45055.9	19.31	mg/L	0.196	19.31	mg/L	0.196	1.02%
Sn 189.927†	-28.9	-0.00285	mg/L	0.000742	-0.00285	mg/L	0.000742	26.02%
Sr 421.552†	86290.7	0.1049	mg/L	0.00092	0.1049	mg/L	0.00092	0.88%
Ti 334.903†	25.3	-0.00004	mg/L	0.000513	-0.00004	mg/L	0.000513	>999.9%
Tl 190.801†	5.9	0.00214	mg/L	0.002017	0.00214	mg/L	0.002017	94.40%
V 292.402†	5352.8	0.02762	mg/L	0.000460	0.02762	mg/L	0.000460	1.66%
Zn 206.200†	-2.6	-0.00116	mg/L	0.000529	-0.00116	mg/L	0.000529	45.48%

Sequence No.: 4
Sample ID: U045 G WMN

Autosampler Location: 335
Date Collected: 4/4/2012 1:50:46 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U045 G WMN

Analyte	Back Pressure	Flow
All	209.0 kPa	0.75 L/min

Mean Data: U045 G WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2793172.0	107.3	%	0.39				0.37%
ScR 361.383	445249.1	109.7	%	0.51				0.46%
Ag 328.068†	56.2	0.00009	mg/L	0.000049	0.00009	mg/L	0.000049	55.19%
Al 308.215†	-4.5	-0.00331	mg/L	0.003003	-0.00331	mg/L	0.003003	90.73%
As 188.979†	5.5	0.00192	mg/L	0.000259	0.00192	mg/L	0.000259	13.48%
B 249.677†	126.0	0.01861	mg/L	0.000935	0.01861	mg/L	0.000935	5.02%
Ba 233.527†	28.8	0.00330	mg/L	0.000327	0.00330	mg/L	0.000327	9.93%
Be 313.042†	-30.1	-0.00006	mg/L	0.000007	-0.00006	mg/L	0.000007	11.48%
Ca 317.933†	220545.7	18.91	mg/L	0.099	18.91	mg/L	0.099	0.52%
Cd 228.802†	10.1	0.00030	mg/L	0.000096	0.00030	mg/L	0.000096	32.14%
Co 228.616†	4.8	0.00011	mg/L	0.000193	0.00011	mg/L	0.000193	176.26%
Cr 267.716†	79.2	0.00777	mg/L	0.000030	0.00777	mg/L	0.000030	0.39%
Cu 324.752†	200.0	0.00079	mg/L	0.000031	0.00079	mg/L	0.000031	3.94%
Fe 273.955†	11.7	0.00773	mg/L	0.001148	0.00773	mg/L	0.001148	14.86%
K 766.490†	7002.9	2.903	mg/L	0.0209	2.903	mg/L	0.0209	0.72%
Mg 279.077†	12216.3	9.044	mg/L	0.0157	9.044	mg/L	0.0157	0.17%
Mn 257.610†	102.5	0.00178	mg/L	0.000056	0.00178	mg/L	0.000056	3.17%
Mo 202.031†	72.5	0.00255	mg/L	0.000069	0.00255	mg/L	0.000069	2.70%
Na 589.592†	217632.0	19.27	mg/L	0.089	19.27	mg/L	0.089	0.46%
Na 330.237†	618.4	19.33	mg/L	0.241	19.33	mg/L	0.241	1.25%
Ni 231.604†	79.3	0.01674	mg/L	0.000563	0.01674	mg/L	0.000563	3.36%
Pb 220.353†	-54.8	-0.00428	mg/L	0.000618	-0.00428	mg/L	0.000618	14.44%
Sb 206.836†	-13.3	-0.00313	mg/L	0.001409	-0.00313	mg/L	0.001409	45.06%
Se 196.026†	26.5	0.01367	mg/L	0.003431	0.01367	mg/L	0.003431	25.09%
Si 288.158†	36861.6	15.80	mg/L	0.042	15.80	mg/L	0.042	0.26%
Sn 189.927†	-20.2	-0.00194	mg/L	0.000339	-0.00194	mg/L	0.000339	17.45%
Sr 421.552†	122904.1	0.1495	mg/L	0.00071	0.1495	mg/L	0.00071	0.48%
Ti 334.903†	21.8	0.00005	mg/L	0.000274	0.00005	mg/L	0.000274	566.30%
Tl 190.801†	4.6	0.00165	mg/L	0.001133	0.00165	mg/L	0.001133	68.74%
V 292.402†	5969.7	0.03082	mg/L	0.000145	0.03082	mg/L	0.000145	0.47%
Zn 206.200†	-3.1	-0.00126	mg/L	0.000863	-0.00126	mg/L	0.000863	68.39%

Sequence No.: 5
Sample ID: U045 H WMN

Autosampler Location: 336
Date Collected: 4/4/2012 1:54:58 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U045 H WMN

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U045 H WMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2782810.8	106.9	%	0.39				0.37%
ScR 361.383	444876.2	109.6	%	0.53				0.49%
Ag 328.068†	43.8	0.00003	mg/L	0.000070	0.00003	mg/L	0.000070	202.34%
Al 308.215†	1.2	0.00070	mg/L	0.004088	0.00070	mg/L	0.004088	581.60%
As 188.979†	4.5	0.00158	mg/L	0.001023	0.00158	mg/L	0.001023	64.58%
B 249.677†	144.6	0.02137	mg/L	0.000219	0.02137	mg/L	0.000219	1.02%
Ba 233.527†	282.0	0.03241	mg/L	0.000141	0.03241	mg/L	0.000141	0.44%
Be 313.042†	-44.4	-0.00006	mg/L	0.000029	-0.00006	mg/L	0.000029	44.57%
Ca 317.933†	209813.4	17.99	mg/L	0.131	17.99	mg/L	0.131	0.73%
Cd 228.802†	6.0	0.00017	mg/L	0.000161	0.00017	mg/L	0.000161	95.33%
Co 228.616†	5.5	0.00012	mg/L	0.000036	0.00012	mg/L	0.000036	29.85%
Cr 267.716†	12.3	0.00067	mg/L	0.000688	0.00067	mg/L	0.000688	102.41%
Cu 324.752†	135.8	0.00053	mg/L	0.000057	0.00053	mg/L	0.000057	10.71%
Fe 273.955†	29.5	0.01987	mg/L	0.000209	0.01987	mg/L	0.000209	1.05%
K 766.490†	15831.9	6.563	mg/L	0.0227	6.563	mg/L	0.0227	0.35%
Mg 279.077†	8764.8	6.489	mg/L	0.0193	6.489	mg/L	0.0193	0.30%
Mn 257.610†	1894.6	0.03384	mg/L	0.000079	0.03384	mg/L	0.000079	0.23%
Mo 202.031†	71.0	0.00250	mg/L	0.000273	0.00250	mg/L	0.000273	10.90%
Na 589.592†	306844.4	27.17	mg/L	0.332	27.17	mg/L	0.332	1.22%
Na 330.237†	867.7	27.17	mg/L	0.495	27.17	mg/L	0.495	1.82%
Ni 231.604†	5.3	0.00112	mg/L	0.000151	0.00112	mg/L	0.000151	13.50%
Pb 220.353†	-54.6	-0.00428	mg/L	0.000975	-0.00428	mg/L	0.000975	22.78%
Sb 206.836†	-18.5	-0.00432	mg/L	0.000914	-0.00432	mg/L	0.000914	21.18%
Se 196.026†	24.9	0.01280	mg/L	0.001683	0.01280	mg/L	0.001683	13.15%
Si 288.158†	32739.6	14.03	mg/L	0.065	14.03	mg/L	0.065	0.47%
Sn 189.927†	-20.3	-0.00199	mg/L	0.000259	-0.00199	mg/L	0.000259	12.98%
Sr 421.552†	65502.4	0.07966	mg/L	0.000575	0.07966	mg/L	0.000575	0.72%
Ti 334.903†	13.8	-0.00018	mg/L	0.000881	-0.00018	mg/L	0.000881	492.72%
Tl 190.801†	3.9	0.00144	mg/L	0.001119	0.00144	mg/L	0.001119	77.92%
V 292.402†	37.2	0.00020	mg/L	0.000130	0.00020	mg/L	0.000130	64.25%
Zn 206.200†	0.9	0.00007	mg/L	0.000860	0.00007	mg/L	0.000860	>999.9%

Sequence No.: 6
Sample ID: U045 I WMN

Autosampler Location: 337
Date Collected: 4/4/2012 1:59:10 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U045 I WMN

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U045 I WMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2805801.0	107.8	%	0.45				0.42%
ScR 361.383	445693.6	109.8	%	1.06				0.96%
Ag 328.068†	75.7	0.00021	mg/L	0.000050	0.00021	mg/L	0.000050	23.66%
Al 308.215†	3.6	0.00162	mg/L	0.004718	0.00162	mg/L	0.004718	291.60%
As 188.979†	3.9	0.00145	mg/L	0.000132	0.00145	mg/L	0.000132	9.06%
B 249.677†	112.3	0.01658	mg/L	0.000212	0.01658	mg/L	0.000212	1.28%
Ba 233.527†	66.1	0.00758	mg/L	0.000402	0.00758	mg/L	0.000402	5.30%
Be 313.042†	-43.1	-0.00008	mg/L	0.000051	-0.00008	mg/L	0.000051	63.85%
Ca 317.933†	131306.9	11.26	mg/L	0.041	11.26	mg/L	0.041	0.37%
Cd 228.802†	1.7	0.00005	mg/L	0.000095	0.00005	mg/L	0.000095	210.56%
Co 228.616†	6.7	0.00015	mg/L	0.000139	0.00015	mg/L	0.000139	90.29%
Cr 267.716†	33.1	0.00324	mg/L	0.000419	0.00324	mg/L	0.000419	12.91%
Cu 324.752†	295.9	0.00122	mg/L	0.000022	0.00122	mg/L	0.000022	1.81%
Fe 273.955†	0.1	-0.00010	mg/L	0.002270	-0.00010	mg/L	0.002270	>999.9%
K 766.490†	5928.8	2.458	mg/L	0.0133	2.458	mg/L	0.0133	0.54%
Mg 279.077†	2529.4	1.873	mg/L	0.0248	1.873	mg/L	0.0248	1.32%
Mn 257.610†	39.0	0.00069	mg/L	0.000067	0.00069	mg/L	0.000067	9.79%
Mo 202.031†	39.9	0.00139	mg/L	0.000131	0.00139	mg/L	0.000131	9.47%
Na 589.592†	327988.7	29.04	mg/L	0.267	29.04	mg/L	0.267	0.92%
Na 330.237†	915.4	28.72	mg/L	0.694	28.72	mg/L	0.694	2.42%
Ni 231.604†	8.3	0.00174	mg/L	0.000559	0.00174	mg/L	0.000559	32.08%
Pb 220.353†	-40.1	-0.00314	mg/L	0.000739	-0.00314	mg/L	0.000739	23.55%
Sb 206.836†	-23.9	-0.00554	mg/L	0.000749	-0.00554	mg/L	0.000749	13.51%
Se 196.026†	19.1	0.00986	mg/L	0.004163	0.00986	mg/L	0.004163	42.23%
Si 288.158†	20828.7	8.929	mg/L	0.0492	8.929	mg/L	0.0492	0.55%
Sn 189.927†	-15.6	-0.00160	mg/L	0.000426	-0.00160	mg/L	0.000426	26.60%
Sr 421.552†	82296.2	0.1001	mg/L	0.00056	0.1001	mg/L	0.00056	0.56%
Ti 334.903†	28.2	0.00053	mg/L	0.000551	0.00053	mg/L	0.000551	104.50%
Tl 190.801†	6.7	0.00240	mg/L	0.002754	0.00240	mg/L	0.002754	114.99%
V 292.402†	5175.9	0.02670	mg/L	0.000133	0.02670	mg/L	0.000133	0.50%
Zn 206.200†	3.7	0.00105	mg/L	0.000242	0.00105	mg/L	0.000242	23.12%

Sequence No.: 7
Sample ID: U032 D SWC

Autosampler Location: 338
Date Collected: 4/4/2012 2:03:22 PM
Data Type: Original

Dilution: 5X

Nebulizer Parameters: U032 D SWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U032 D SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2741888.6	105.3	%	0.42				0.40%
ScR 361.383	447585.3	110.3	%	0.40				0.36%
Ag 328.068†	654.8	0.00241	mg/L	0.000032	0.01203	mg/L	0.000160	1.33%
Al 308.215†	61504.7	36.65	mg/L	0.123	183.3	mg/L	0.62	0.34%
As 188.979†	-34.3	0.01867	mg/L	0.001114	0.09337	mg/L	0.005570	5.97%
B 249.677†	207.0	0.03047	mg/L	0.001113	0.1524	mg/L	0.00557	3.65%
Ba 233.527†	1100.0	0.1189	mg/L	0.00054	0.5945	mg/L	0.00271	0.46%
Be 313.042†	356.4	0.00022	mg/L	0.000006	0.00112	mg/L	0.000028	2.48%
Ca 317.933†	230158.0	19.73	mg/L	0.031	98.65	mg/L	0.156	0.16%
Cd 228.802†	548.9	0.01471	mg/L	0.000086	0.07354	mg/L	0.000430	0.58%
Co 228.616†	1760.2	0.03273	mg/L	0.000306	0.1636	mg/L	0.00153	0.93%
Cr 267.716†	1980.9	0.2190	mg/L	0.00160	1.095	mg/L	0.0080	0.73%
Cu 324.752†	68074.0	0.2909	mg/L	0.00247	1.454	mg/L	0.0123	0.85%
Fe 273.955†	215270.2	145.2	mg/L	0.31	725.8	mg/L	1.53	0.21%
K 766.490†	5472.7	2.269	mg/L	0.0138	11.34	mg/L	0.069	0.61%
Mg 279.077†	26315.9	19.40	mg/L	0.051	96.99	mg/L	0.254	0.26%
Mn 257.610†	47956.0	0.8587	mg/L	0.00158	4.293	mg/L	0.0079	0.18%
Mo 202.031†	462.1	0.01795	mg/L	0.000412	0.08975	mg/L	0.002059	2.29%
Na 589.592†	55344.7	4.900	mg/L	0.0332	24.50	mg/L	0.166	0.68%
Na 330.237†	158.3	4.885	mg/L	0.0905	24.43	mg/L	0.453	1.85%
Ni 231.604†	483.0	0.1020	mg/L	0.00003	0.5101	mg/L	0.00013	0.02%
Pb 220.353†	18689.6	1.461	mg/L	0.0125	7.306	mg/L	0.0627	0.86%
Sb 206.836†	201.4	0.02429	mg/L	0.000508	0.1214	mg/L	0.00254	2.09%
Se 196.026†	-30.2	0.00031	mg/L	0.003127	0.00153	mg/L	0.015635	>999.9%
Si 288.158†	1239.1	0.5312	mg/L	0.00765	2.656	mg/L	0.0382	1.44%
Sn 189.927†	73.2	0.01221	mg/L	0.000164	0.06106	mg/L	0.000822	1.35%
Sr 421.552†	121236.9	0.1474	mg/L	0.00014	0.7372	mg/L	0.00070	0.09%
Ti 334.903†	154470.7	5.049	mg/L	0.0073	25.24	mg/L	0.036	0.14%
Tl 190.801†	-31.1	0.00416	mg/L	0.007677	0.02079	mg/L	0.038386	184.67%
V 292.402†	67426.4	0.3280	mg/L	0.00283	1.640	mg/L	0.0142	0.86%
Zn 206.200†	18907.0	6.169	mg/L	0.0205	30.84	mg/L	0.102	0.33%

Sequence No.: 8
Sample ID: U017 ADUP SWC

Autosampler Location: 339
Date Collected: 4/4/2012 2:07:19 PM
Data Type: Original

Dilution: 5X

Nebulizer Parameters: U017 ADUP SWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U017 ADUP SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2739737.5	105.2	%	1.14				1.08%
ScR 361.383	439079.4	108.2	%	0.98				0.91%
Ag 328.068†	23090.1	0.08545	mg/L	0.000983	0.4273	mg/L	0.00492	1.15%
Al 308.215†	114954.5	68.52	mg/L	0.368	342.6	mg/L	1.84	0.54%
As 188.979†	27.1	0.02761	mg/L	0.001987	0.1381	mg/L	0.00994	7.20%
B 249.677†	504.8	0.07448	mg/L	0.000966	0.3724	mg/L	0.00483	1.30%
Ba 233.527†	9508.7	1.089	mg/L	0.0097	5.444	mg/L	0.0487	0.90%
Be 313.042†	541.6	0.00061	mg/L	0.000033	0.00306	mg/L	0.000164	5.35%
Ca 317.933†	388720.6	33.32	mg/L	0.047	166.6	mg/L	0.23	0.14%
Cd 228.802†	2341.1	0.06749	mg/L	0.000853	0.3375	mg/L	0.00426	1.26%
Co 228.616†	1950.8	0.04003	mg/L	0.000672	0.2001	mg/L	0.00336	1.68%
Cr 267.716†	2579.7	0.2807	mg/L	0.00177	1.403	mg/L	0.0088	0.63%
Cu 324.752†	336721.6	1.400	mg/L	0.0022	6.998	mg/L	0.0111	0.16%
Fe 273.955†	121321.8	81.80	mg/L	0.421	409.0	mg/L	2.10	0.51%
K 766.490†	7759.9	3.217	mg/L	0.0094	16.08	mg/L	0.047	0.29%
Mg 279.077†	26787.5	19.78	mg/L	0.199	98.92	mg/L	0.994	1.00%
Mn 257.610†	82730.5	1.480	mg/L	0.0053	7.399	mg/L	0.0267	0.36%
Mo 202.031†	1206.9	0.04719	mg/L	0.000621	0.2360	mg/L	0.00311	1.32%
Na 589.592†	31649.0	2.802	mg/L	0.0199	14.01	mg/L	0.099	0.71%
Na 330.237†	82.4	2.706	mg/L	0.1137	13.53	mg/L	0.569	4.20%
Ni 231.604†	1137.6	0.2402	mg/L	0.00248	1.201	mg/L	0.0124	1.03%
Pb 220.353†	11559.0	0.9094	mg/L	0.00797	4.547	mg/L	0.0398	0.88%
Sb 206.836†	213.9	0.02098	mg/L	0.000973	0.1049	mg/L	0.00486	4.64%
Se 196.026†	-17.7	-0.00108	mg/L	0.002875	-0.00539	mg/L	0.014376	266.79%
Si 288.158†	2271.6	0.9741	mg/L	0.01136	4.870	mg/L	0.0568	1.17%
Sn 189.927†	466.3	0.06028	mg/L	0.000996	0.3014	mg/L	0.00498	1.65%
Sr 421.552†	142959.5	0.1739	mg/L	0.00080	0.8693	mg/L	0.00399	0.46%
Ti 334.903†	99101.5	3.238	mg/L	0.0128	16.19	mg/L	0.064	0.40%
Tl 190.801†	-4.7	0.00681	mg/L	0.001272	0.03404	mg/L	0.006358	18.68%
V 292.402†	38618.5	0.1887	mg/L	0.00199	0.9433	mg/L	0.00995	1.05%
Zn 206.200†	7761.5	2.535	mg/L	0.0256	12.67	mg/L	0.128	1.01%

Sequence No.: 9
Sample ID: U017 A SWC

Autosampler Location: 340
Date Collected: 4/4/2012 2:11:17 PM
Data Type: Original

Dilution: 5X

Nebulizer Parameters: U017 A SWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U017 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2706468.3	104.0	%	0.94				0.90%
ScR 361.383	443560.0	109.3	%	0.61				0.56%
Ag 328.068†	34843.3	0.1291	mg/L	0.00159	0.6456	mg/L	0.00794	1.23%
Al 308.215†	118417.8	70.59	mg/L	0.357	352.9	mg/L	1.79	0.51%
As 188.979†	27.8	0.02641	mg/L	0.002370	0.1321	mg/L	0.01185	8.97%
B 249.677†	708.0	0.1045	mg/L	0.00081	0.5225	mg/L	0.00404	0.77%
Ba 233.527†	11250.1	1.289	mg/L	0.0094	6.444	mg/L	0.0472	0.73%
Be 313.042†	548.1	0.00062	mg/L	0.000013	0.00310	mg/L	0.000063	2.05%
Ca 317.933†	372938.6	31.97	mg/L	0.122	159.8	mg/L	0.61	0.38%
Cd 228.802†	3598.8	0.1041	mg/L	0.00117	0.5203	mg/L	0.00585	1.12%
Co 228.616†	2217.8	0.04656	mg/L	0.000601	0.2328	mg/L	0.00301	1.29%
Cr 267.716†	3162.4	0.3438	mg/L	0.00299	1.719	mg/L	0.0150	0.87%
Cu 324.752†	382128.6	1.588	mg/L	0.0055	7.940	mg/L	0.0276	0.35%
Fe 273.955†	126492.3	85.29	mg/L	0.445	426.5	mg/L	2.22	0.52%
K 766.490†	11205.9	4.646	mg/L	0.0165	23.23	mg/L	0.082	0.35%
Mg 279.077†	26110.4	19.28	mg/L	0.136	96.40	mg/L	0.678	0.70%
Mn 257.610†	84698.8	1.515	mg/L	0.0046	7.577	mg/L	0.0228	0.30%
Mo 202.031†	1667.7	0.06545	mg/L	0.001001	0.3272	mg/L	0.00500	1.53%
Na 589.592†	35079.2	3.106	mg/L	0.0143	15.53	mg/L	0.071	0.46%
Na 330.237†	104.1	3.136	mg/L	0.1047	15.68	mg/L	0.523	3.34%
Ni 231.604†	1030.4	0.2176	mg/L	0.00089	1.088	mg/L	0.0045	0.41%
Pb 220.353†	22207.4	1.744	mg/L	0.0144	8.722	mg/L	0.0719	0.82%
Sb 206.836†	380.7	0.05841	mg/L	0.001790	0.2920	mg/L	0.00895	3.06%
Se 196.026†	-23.9	-0.00392	mg/L	0.003788	-0.01958	mg/L	0.018938	96.72%
Si 288.158†	2050.0	0.8792	mg/L	0.00568	4.396	mg/L	0.0284	0.65%
Sn 189.927†	1312.2	0.1648	mg/L	0.00159	0.8238	mg/L	0.00797	0.97%
Sr 421.552†	136530.2	0.1660	mg/L	0.00038	0.8302	mg/L	0.00188	0.23%
Ti 334.903†	93579.0	3.058	mg/L	0.0082	15.29	mg/L	0.041	0.27%
Tl 190.801†	-5.6	0.00699	mg/L	0.001605	0.03497	mg/L	0.008025	22.95%
V 292.402†	39823.2	0.1949	mg/L	0.00127	0.9743	mg/L	0.00636	0.65%
Zn 206.200†	10736.9	3.505	mg/L	0.0253	17.53	mg/L	0.126	0.72%

Sequence No.: 10
Sample ID: U017 ASPK SWC

Autosampler Location: 341
Date Collected: 4/4/2012 2:15:15 PM
Data Type: Original

Dilution: 5X

Nebulizer Parameters: U017 ASPK SWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U017 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2720138.8	104.5	%	0.46				0.44%
ScR 361.383	442703.4	109.1	%	0.30				0.27%
Ag 328.068†	121226.7	0.4501	mg/L	0.00363	2.251	mg/L	0.0181	0.81%
Al 308.215†	106645.4	63.57	mg/L	0.230	317.8	mg/L	1.15	0.36%
As 188.979†	2197.3	0.8661	mg/L	0.00457	4.330	mg/L	0.0228	0.53%
B 249.677†	537.7	0.07873	mg/L	0.001467	0.3937	mg/L	0.00733	1.86%
Ba 233.527†	176183.9	20.25	mg/L	0.065	101.2	mg/L	0.32	0.32%
Be 313.042†	144804.8	0.2091	mg/L	0.00055	1.045	mg/L	0.0027	0.26%
Ca 317.933†	409082.6	35.07	mg/L	0.130	175.3	mg/L	0.65	0.37%
Cd 228.802†	9941.6	0.2857	mg/L	0.00120	1.429	mg/L	0.0060	0.42%
Co 228.616†	11000.2	0.2490	mg/L	0.00075	1.245	mg/L	0.0038	0.30%
Cr 267.716†	4940.5	0.5369	mg/L	0.00626	2.684	mg/L	0.0313	1.17%
Cu 324.752†	582045.0	2.418	mg/L	0.0028	12.09	mg/L	0.014	0.12%
Fe 273.955†	165123.8	111.3	mg/L	0.42	556.7	mg/L	2.11	0.38%
K 766.490†	17461.5	7.239	mg/L	0.0134	36.19	mg/L	0.067	0.19%
Mg 279.077†	28918.1	21.34	mg/L	0.053	106.7	mg/L	0.26	0.25%
Mn 257.610†	96750.6	1.731	mg/L	0.0056	8.656	mg/L	0.0280	0.32%
Mo 202.031†	1454.4	0.05695	mg/L	0.000333	0.2848	mg/L	0.00167	0.59%
Na 589.592†	78323.8	6.935	mg/L	0.0079	34.67	mg/L	0.039	0.11%
Na 330.237†	227.9	6.962	mg/L	0.0681	34.81	mg/L	0.341	0.98%
Ni 231.604†	2244.5	0.4743	mg/L	0.00237	2.371	mg/L	0.0119	0.50%
Pb 220.353†	23887.0	1.873	mg/L	0.0079	9.364	mg/L	0.0394	0.42%
Sb 206.836†	1825.1	0.3905	mg/L	0.00332	1.953	mg/L	0.0166	0.85%
Se 196.026†	1585.7	0.8282	mg/L	0.00349	4.141	mg/L	0.0174	0.42%
Si 288.158†	1441.0	0.6188	mg/L	0.00979	3.094	mg/L	0.0489	1.58%
Sn 189.927†	1109.8	0.1399	mg/L	0.00027	0.6995	mg/L	0.00133	0.19%
Sr 421.552†	340143.9	0.4137	mg/L	0.00068	2.068	mg/L	0.0034	0.16%
Ti 334.903†	83110.6	2.715	mg/L	0.0062	13.58	mg/L	0.031	0.23%
Tl 190.801†	2247.1	0.8333	mg/L	0.00549	4.167	mg/L	0.0274	0.66%
V 292.402†	74832.4	0.3733	mg/L	0.00210	1.866	mg/L	0.0105	0.56%
Zn 206.200†	10102.2	3.298	mg/L	0.0270	16.49	mg/L	0.135	0.82%

Sequence No.: 11
Sample ID: U017 APOST SWC

Autosampler Location: 342
Date Collected: 4/4/2012 2:19:14 PM
Data Type: Original

Dilution: 5X

Nebulizer Parameters: U017 APOST SWC

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U017 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2699316.2	103.7	%	0.67				0.65%
ScR 361.383	439172.1	108.2	%	0.44				0.40%
Ag 328.068†	175585.9	0.6522	mg/L	0.00675	3.261	mg/L	0.0337	1.03%
Al 308.215†	118630.8	70.70	mg/L	0.395	353.5	mg/L	1.98	0.56%
As 188.979†	5508.3	2.152	mg/L	0.0143	10.76	mg/L	0.072	0.67%
B 249.677†	706.1	0.1027	mg/L	0.00206	0.5136	mg/L	0.01030	2.01%
Ba 233.527†	29541.3	3.391	mg/L	0.0145	16.96	mg/L	0.073	0.43%
Be 313.042†	359997.1	0.5200	mg/L	0.00336	2.600	mg/L	0.0168	0.65%
Ca 317.933†	490195.4	42.02	mg/L	0.178	210.1	mg/L	0.89	0.42%
Cd 228.802†	22403.6	0.6445	mg/L	0.00506	3.223	mg/L	0.0253	0.79%
Co 228.616†	24037.2	0.5578	mg/L	0.00423	2.789	mg/L	0.0211	0.76%
Cr 267.716†	7829.1	0.8472	mg/L	0.00465	4.236	mg/L	0.0233	0.55%
Cu 324.752†	495000.7	2.056	mg/L	0.0027	10.28	mg/L	0.014	0.13%
Fe 273.955†	125995.4	84.95	mg/L	0.466	424.8	mg/L	2.33	0.55%
K 766.490†	35883.0	14.88	mg/L	0.042	74.38	mg/L	0.212	0.28%
Mg 279.077†	39823.9	29.43	mg/L	0.159	147.2	mg/L	0.79	0.54%
Mn 257.610†	111408.8	1.994	mg/L	0.0107	9.968	mg/L	0.0537	0.54%
Mo 202.031†	1628.5	0.06372	mg/L	0.000289	0.3186	mg/L	0.00145	0.45%
Na 589.592†	154257.5	13.66	mg/L	0.082	68.29	mg/L	0.409	0.60%
Na 330.237†	438.6	13.49	mg/L	0.350	67.44	mg/L	1.751	2.60%
Ni 231.604†	3432.6	0.7267	mg/L	0.00112	3.634	mg/L	0.0056	0.15%
Pb 220.353†	48232.4	3.786	mg/L	0.0399	18.93	mg/L	0.200	1.05%
Sb 206.836†	9166.0	2.094	mg/L	0.0196	10.47	mg/L	0.098	0.94%
Se 196.026†	4158.4	2.150	mg/L	0.0162	10.75	mg/L	0.081	0.76%
Si 288.158†	2113.7	0.9085	mg/L	0.00967	4.543	mg/L	0.0483	1.06%
Sn 189.927†	1245.4	0.1583	mg/L	0.00089	0.7915	mg/L	0.00446	0.56%
Sr 421.552†	567437.4	0.6901	mg/L	0.00357	3.450	mg/L	0.0178	0.52%
Ti 334.903†	92187.5	3.012	mg/L	0.0141	15.06	mg/L	0.070	0.47%
Tl 190.801†	5677.6	2.082	mg/L	0.0142	10.41	mg/L	0.071	0.68%
V 292.402†	138931.4	0.7081	mg/L	0.00480	3.541	mg/L	0.0240	0.68%
Zn 206.200†	12031.5	3.928	mg/L	0.0206	19.64	mg/L	0.103	0.52%

Sequence No.: 12
Sample ID: U045 MBSPK WMN

Autosampler Location: 343
Date Collected: 4/4/2012 2:22:29 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: U045 MBSPK WMN

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 L/min

Mean Data: U045 MBSPK WMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2789629.3	107.2	%	0.43				0.40%
ScR 361.383	446279.5	110.0	%	0.17				0.16%
Ag 328.068†	143735.1	0.5341	mg/L	0.00195	0.5341	mg/L	0.00195	0.37%
Al 308.215†	3503.7	2.079	mg/L	0.0268	2.079	mg/L	0.0268	1.29%
As 188.979†	5643.0	2.189	mg/L	0.0029	2.189	mg/L	0.0029	0.13%
B 249.677†	37.5	0.00405	mg/L	0.000341	0.00405	mg/L	0.000341	8.41%
Ba 233.527†	18457.9	2.121	mg/L	0.0124	2.121	mg/L	0.0124	0.59%
Be 313.042†	356113.0	0.5146	mg/L	0.00326	0.5146	mg/L	0.00326	0.63%
Ca 317.933†	120795.0	10.35	mg/L	0.025	10.35	mg/L	0.025	0.25%
Cd 228.802†	19062.8	0.5477	mg/L	0.00362	0.5477	mg/L	0.00362	0.66%
Co 228.616†	21893.1	0.5129	mg/L	0.00200	0.5129	mg/L	0.00200	0.39%
Cr 267.716†	4776.7	0.5153	mg/L	0.00272	0.5153	mg/L	0.00272	0.53%
Cu 324.752†	121263.7	0.5025	mg/L	0.00194	0.5025	mg/L	0.00194	0.39%
Fe 273.955†	3079.1	2.074	mg/L	0.0110	2.074	mg/L	0.0110	0.53%
K 766.490†	25337.3	10.50	mg/L	0.114	10.50	mg/L	0.114	1.08%
Mg 279.077†	14368.7	10.64	mg/L	0.065	10.64	mg/L	0.065	0.61%
Mn 257.610†	29167.2	0.5223	mg/L	0.00295	0.5223	mg/L	0.00295	0.56%
Mo 202.031†	35.8	0.00124	mg/L	0.000150	0.00124	mg/L	0.000150	12.10%
Na 589.592†	120246.2	10.65	mg/L	0.157	10.65	mg/L	0.157	1.47%
Na 330.237†	334.7	10.35	mg/L	0.083	10.35	mg/L	0.083	0.80%
Ni 231.604†	2466.4	0.5223	mg/L	0.00310	0.5223	mg/L	0.00310	0.59%
Pb 220.353†	27541.9	2.160	mg/L	0.0091	2.160	mg/L	0.0091	0.42%
Sb 206.836†	7253.6	1.679	mg/L	0.0608	1.679	mg/L	0.0608	3.62%
Se 196.026†	4529.1	2.333	mg/L	0.0018	2.333	mg/L	0.0018	0.08%
Si 288.158†	-41.6	-0.01576	mg/L	0.002414	-0.01576	mg/L	0.002414	15.32%
Sn 189.927†	-19.5	-0.00083	mg/L	0.000257	-0.00083	mg/L	0.000257	30.86%
Sr 421.552†	431238.8	0.5245	mg/L	0.00447	0.5245	mg/L	0.00447	0.85%
Ti 334.903†	66.3	0.00169	mg/L	0.000219	0.00169	mg/L	0.000219	12.91%
Tl 190.801†	5975.4	2.183	mg/L	0.0028	2.183	mg/L	0.0028	0.13%
V 292.402†	100178.2	0.5185	mg/L	0.00182	0.5185	mg/L	0.00182	0.35%
Zn 206.200†	1599.7	0.5224	mg/L	0.00117	0.5224	mg/L	0.00117	0.22%

Sequence No.: 13
Sample ID: CV 6
Dilution: 1X

Autosampler Location: 7
Date Collected: 4/4/2012 2:26:27 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 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	2702059.5	103.8	%	0.69				0.66%
ScR 361.383	430971.7	106.2	%	0.38				0.35%
Ag 328.068†	282424.9	1.050	mg/L	0.0097	1.050	mg/L	0.0097	0.92%
Al 308.215†	3343.7	1.964	mg/L	0.0051	1.964	mg/L	0.0051	0.26%
As 188.979†	5219.9	2.030	mg/L	0.0177	2.030	mg/L	0.0177	0.87%
B 249.677†	6816.0	1.005	mg/L	0.0052	1.005	mg/L	0.0052	0.52%
Ba 233.527†	8797.6	1.011	mg/L	0.0020	1.011	mg/L	0.0020	0.20%
Be 313.042†	690516.5	0.9978	mg/L	0.00500	0.9978	mg/L	0.00500	0.50%
Ca 317.933†	24204.8	2.075	mg/L	0.0068	2.075	mg/L	0.0068	0.33%
Cd 228.802†	35365.4	1.023	mg/L	0.0154	1.023	mg/L	0.0154	1.51%
Co 228.616†	42000.8	0.9833	mg/L	0.01293	0.9833	mg/L	0.01293	1.32%
Cr 267.716†	9380.0	1.013	mg/L	0.0031	1.013	mg/L	0.0031	0.31%
Cu 324.752†	242832.9	1.006	mg/L	0.0113	1.006	mg/L	0.0113	1.13%
Fe 273.955†	2986.8	2.009	mg/L	0.0101	2.009	mg/L	0.0101	0.50%
K 766.490†	48501.7	20.11	mg/L	0.112	20.11	mg/L	0.112	0.56%
Mg 279.077†	2686.5	1.994	mg/L	0.0137	1.994	mg/L	0.0137	0.69%
Mn 257.610†	56386.4	1.009	mg/L	0.0055	1.009	mg/L	0.0055	0.55%
Mo 202.031†	24705.7	0.9776	mg/L	0.00810	0.9776	mg/L	0.00810	0.83%
Na 589.592†	582655.3	51.59	mg/L	0.326	51.59	mg/L	0.326	0.63%
Na 330.237†	1626.4	51.17	mg/L	0.338	51.17	mg/L	0.338	0.66%
Ni 231.604†	4801.0	1.016	mg/L	0.0037	1.016	mg/L	0.0037	0.37%
Pb 220.353†	26372.1	2.069	mg/L	0.0167	2.069	mg/L	0.0167	0.81%
Sb 206.836†	8819.3	2.046	mg/L	0.0071	2.046	mg/L	0.0071	0.35%
Se 196.026†	3944.0	2.031	mg/L	0.0214	2.031	mg/L	0.0214	1.05%
Si 288.158†	4552.6	1.955	mg/L	0.0143	1.955	mg/L	0.0143	0.73%
Sn 189.927†	7929.5	0.9821	mg/L	0.00804	0.9821	mg/L	0.00804	0.82%
Sr 421.552†	838457.4	1.020	mg/L	0.0047	1.020	mg/L	0.0047	0.46%
Ti 334.903†	28850.3	0.9415	mg/L	0.00258	0.9415	mg/L	0.00258	0.27%
Tl 190.801†	5564.5	2.033	mg/L	0.0181	2.033	mg/L	0.0181	0.89%
V 292.402†	195686.5	1.013	mg/L	0.0092	1.013	mg/L	0.0092	0.91%
Zn 206.200†	3180.0	1.038	mg/L	0.0012	1.038	mg/L	0.0012	0.11%

Sequence No.: 14
Sample ID: CB 6
Dilution: 1X

Autosampler Location: 1
Date Collected: 4/4/2012 2:29:43 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	210.0 kPa	0.75 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	2770416.9	106.4	%	1.15				1.08%
ScR 361.383	436410.1	107.6	%	0.53				0.49%
Ag 328.068†	55.6	0.00021	mg/L	0.000101	0.00021	mg/L	0.000101	49.17%
Al 308.215†	7.3	0.00434	mg/L	0.006053	0.00434	mg/L	0.006053	139.41%
As 188.979†	1.9	0.00074	mg/L	0.000652	0.00074	mg/L	0.000652	88.21%
B 249.677†	40.3	0.00596	mg/L	0.000310	0.00596	mg/L	0.000310	5.20%
Ba 233.527†	1.4	0.00016	mg/L	0.000030	0.00016	mg/L	0.000030	18.84%
Be 313.042†	-13.1	-0.00002	mg/L	0.000021	-0.00002	mg/L	0.000021	109.34%
Ca 317.933†	-25.1	-0.00215	mg/L	0.000639	-0.00215	mg/L	0.000639	29.70%
Cd 228.802†	1.8	0.00005	mg/L	0.000171	0.00005	mg/L	0.000171	333.95%
Co 228.616†	-3.0	-0.00007	mg/L	0.000100	-0.00007	mg/L	0.000100	139.54%
Cr 267.716†	8.5	0.00092	mg/L	0.000439	0.00092	mg/L	0.000439	47.88%
Cu 324.752†	97.9	0.00040	mg/L	0.000114	0.00040	mg/L	0.000114	28.15%
Fe 273.955†	1.4	0.00092	mg/L	0.000557	0.00092	mg/L	0.000557	60.64%
K 766.490†	51.1	0.02120	mg/L	0.003041	0.02120	mg/L	0.003041	14.34%
Mg 279.077†	0.1	0.00009	mg/L	0.002365	0.00009	mg/L	0.002365	>999.9%
Mn 257.610†	9.2	0.00016	mg/L	0.000084	0.00016	mg/L	0.000084	51.04%
Mo 202.031†	103.7	0.00410	mg/L	0.000937	0.00410	mg/L	0.000937	22.83%
Na 589.592†	318.2	0.02817	mg/L	0.002748	0.02817	mg/L	0.002748	9.75%
Na 330.237†	1.4	0.04246	mg/L	0.199809	0.04246	mg/L	0.199809	470.63%
Ni 231.604†	4.2	0.00090	mg/L	0.000843	0.00090	mg/L	0.000843	93.73%
Pb 220.353†	-24.6	-0.00192	mg/L	0.000928	-0.00192	mg/L	0.000928	48.28%
Sb 206.836†	64.2	0.01489	mg/L	0.003077	0.01489	mg/L	0.003077	20.66%
Se 196.026†	12.7	0.00655	mg/L	0.001068	0.00655	mg/L	0.001068	16.29%
Si 288.158†	2.3	0.00100	mg/L	0.005599	0.00100	mg/L	0.005599	560.69%
Sn 189.927†	8.5	0.00106	mg/L	0.000287	0.00106	mg/L	0.000287	27.05%
Sr 421.552†	53.3	0.00006	mg/L	0.000045	0.00006	mg/L	0.000045	69.85%
Ti 334.903†	32.4	0.00105	mg/L	0.000229	0.00105	mg/L	0.000229	21.76%
Tl 190.801†	0.4	0.00015	mg/L	0.001104	0.00015	mg/L	0.001104	728.61%
V 292.402†	4.6	0.00003	mg/L	0.000061	0.00003	mg/L	0.000061	201.02%
Zn 206.200†	4.9	0.00160	mg/L	0.000531	0.00160	mg/L	0.000531	33.11%

end package

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4-5-12 **Analyst:** M **Page:** 1 **of** ~~1~~ 6

All corrections made by analyst unless otherwise noted. M 4-6-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2927-1
		1			2921-7
		2			2925-7
		3			↓ -8
		4			2927-2
		↓ 5			2925-10
		Rinse Sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			
		B1			
		B2			
		CCV2			
		CCB2			
		LR200			
		LR300			
		B3			
		LD28 MB	REN	2	
		LPD2 MB	↓	↓	
		↓ MBspk2	↓	↓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4-5-12 **Analyst:** M **Page:** 2 **of** 6

All corrections made by analyst unless otherwise noted. M 4-5-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		U028 ~~UPD2~~ MBspk	REN	2	
		U034 B	REN	100	Zn
		UPD2 A	↓	2	
		↓ B	↓	↓	
		CCV3			
		CCB3			
		U026 MB1	REN	2	
		U035 MB1	↓	↓	
		↓ MB1spk			
		U026 MB1spk			
		GDup			
26		G			
		↓ Gspk			
		U028 ADup			
		A			
		↓ Aspk	↓	↓	
		CCV4			
		CCB4			
		U017 MB1	SWN	20	
		↓ MB1spk	↓	↓	
		U034 ADup	REN	2	
		↓ A	↓	↓	
		↓ Aspk	↓	↓	
		U017 ADup	SWN	20	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4-5-12 **Analyst:** SY **Page:** 3 **of** 4

All corrections made by analyst unless otherwise noted. AM 4-5-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		U017 A	SWN	20	
		A spk			
		U032 D			
		U076 C			
		CCV5			Th u. high
		CCB5			
		U071 MB1	SWN	20	
		MB1 spk			
		FD up			
		F			
		F spk			
		Q			
		W			
		G			
		K			
		U076 G			
		CCV6			
		CCB6			
		U075 MB1	REN	2	
		~~MB1 spk~~ MB2			
		MB1 spl			
		MB2 spl			
		AD up			
		A			

Cont'd next Log

AM 4-6-12

U017:00340

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 4-5-12

Nelson MZ	Analyst MHe	Peer BW 4/6	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	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	W057
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	✓	✓	CAF W057

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, April 05, 2012 08:39:35
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.500
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	6142.7	6142.663	24.623	0.4	Standard
	Mg	24.0	58819.0	58818.999	559.207	1.0	Standard
	In	114.9	109508.0	109507.984	765.405	0.7	Standard
	Pb	208.0	43798.6	43798.602	314.249	0.7	Standard
	U	238.1	77801.3	77801.312	593.532	0.8	Standard
⌈	CeO	155.9	2346.3	0.023	0.001	2.8	Standard
|>	Ce	139.9	103671.1	103671.096	665.742	0.6	Standard
⌊	Ce++	70.0	1417.0	0.014	0.000	2.9	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
1.06	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.98	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.00	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B

U017:00342

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 4/5/2012 8:27:15 AM
End Time: 4/5/2012 8:42:09 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5321.63
Obtained Intensity (Mg 23.985): 50100.97
Obtained Intensity (In 114.904): 97257.80
Obtained Intensity (U 238.05): 69571.83
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=1483.47 / 89306.54)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=1008.93 / 89306.54)

Torch Alignment - [Passed]

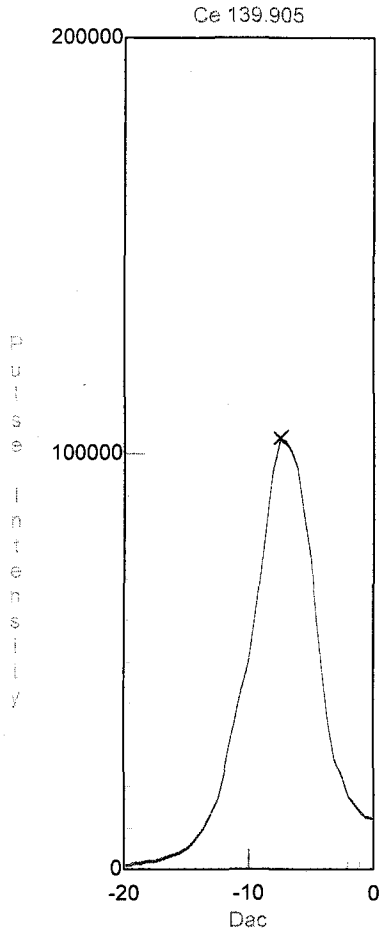
Vertical	Horizontal	Intensity
1.51 mm	-0.84 mm	116067.71

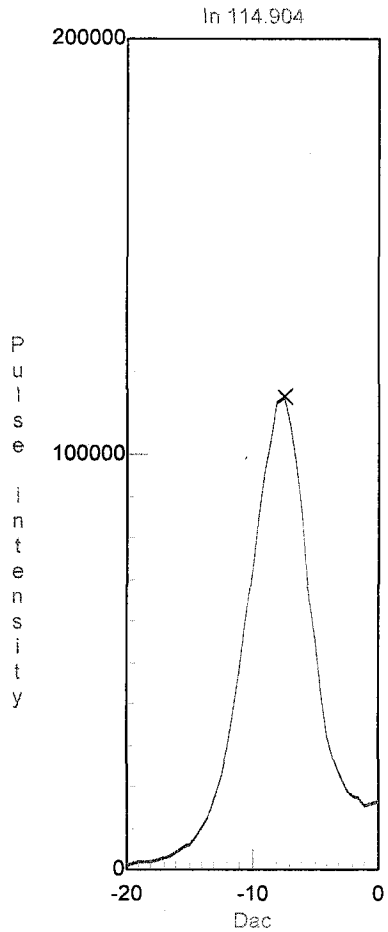
Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.693)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.701)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.710)

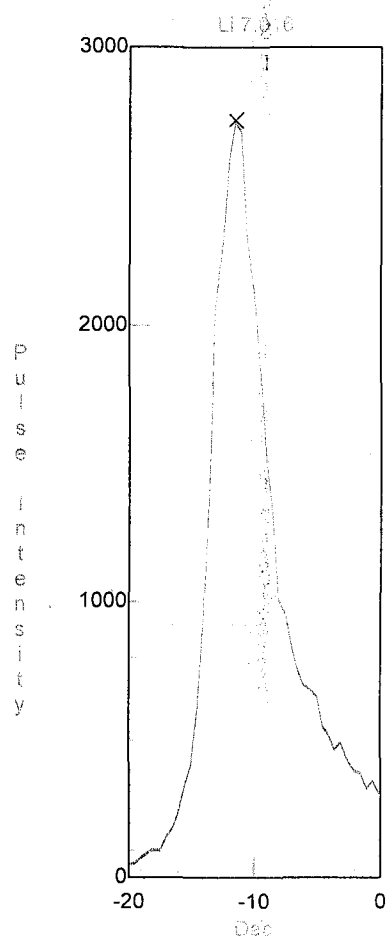
AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.990; Intercept = -11.71

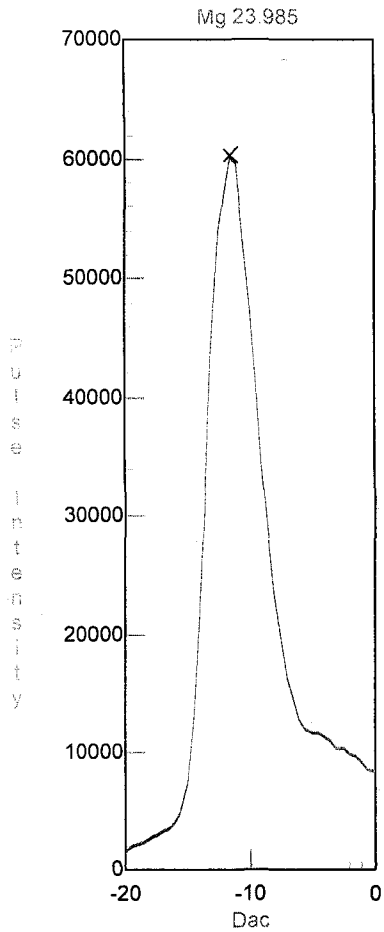
Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 6142.66
Obtained Intensity (Mg 23.985): 58819.00
Obtained Intensity (In 114.904): 109507.98
Obtained Intensity (U 238.05): 77801.31
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=2346.26 / 103671.10)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.014 (=1416.99 / 103671.10)

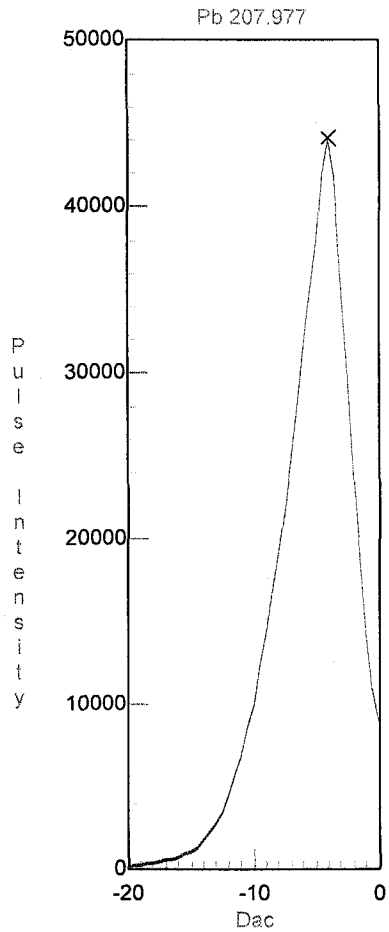
U017:00343

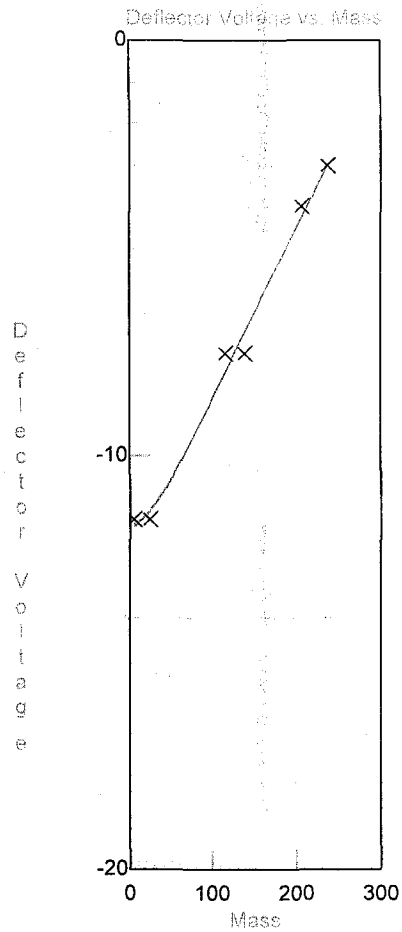

Ce 139.905
200000
100000
0
-20
-10
0
Dac
Pulse Intensity


In 114.904
200000
100000
0
-20
-10
0
Dac
Pulse Intensity


3000
2000
1000
0
-20
-10
0
Pulse Intensity


Mg 23.985
70000
60000
50000
40000
30000
20000
10000
0
-20
-10
0
Dac
Pulse Intensity


Pb 207.977
50000
40000
30000
20000
10000
0
-20
-10
0
Dac
Pulse Intensity


0
-10
-20
0
100
200
300
Mass
Deflector Voltage

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 09:18:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\030612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1389899	1
	Be	9		ug/L				6	24
	C	13		ug/L				128325	1
	Cl	37		ug/L				5185507	2
>	Sc	45		ug/L				1499666	3
	V-1	51		ug/L				10358	3
	V	51		ug/L				252	5
	Cr	52		ug/L				30790	2
	Cr	53		ug/L				247	4
	Mn	55		ug/L				516	8
	Co	59		ug/L				49	20
>	Ge	72		ug/L				704849	1
	Ni	60		ug/L				21	17
	Ni	62		ug/L				89	9
	Cu	63		ug/L				84	13
	Cu	65		ug/L				30	12
	Zn	66		ug/L				130	8
	Zn	67		ug/L				19	26
	Zn	68		ug/L				181	17
	As-1	75		ug/L				-71	31
	As	75		ug/L				10853	0
	Se	82		ug/L				2	41
	Se-1	78		ug/L				11078	0
	Mo	98		ug/L				31	17
	Y	89		ug/L				479152	2
	Kr	83		ug/L				73	3
>	In	115		ug/L				1226321	1
	Ag	107		ug/L				32	17
	Cd	111		ug/L				89	8
	Cd	114		ug/L				33	20
	Sb	121		ug/L				33	35
	Sb	123		ug/L				21	16
	Ba	135		ug/L				16	6
	Ba	137		ug/L				25	9
>	Tb	159		ug/L				1340188	1
	Tl	205		ug/L				11	35
	Pb	208		ug/L				94	3
	Bi	209		ug/L				2936367	0
	Th	232		ug/L				105	10
	U	238		ug/L				3	88

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 09:22:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\030612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1402886	1
	Be	9	0.200	ug/L	0.004	1	6	843	1
	C	13		ug/L			128325	136738	2
	Cl	37		ug/L			5185507	5139548	2
>	Sc	45		ug/L			1499666	1503778	0
	V-1	51	0.200	ug/L	0.019	9	10358	16551	3
	V	51	0.200	ug/L	0.005	2	252	6081	2
	Cr	52	0.500	ug/L	0.024	4	30790	44212	1
	Cr	53	0.500	ug/L	0.030	5	247	1647	5
	Mn	55	0.500	ug/L	0.003	0	516	17087	0
	Co	59	0.200	ug/L	0.006	2	49	4668	2
>	Ge	72		ug/L			704849	725336	3
	Ni	60	0.500	ug/L	0.017	3	21	2512	2
	Ni	62	0.500	ug/L	0.054	10	89	425	5
	Cu	63	0.500	ug/L	0.020	4	84	5810	2
	Cu	65	0.500	ug/L	0.040	7	30	2623	5
	Zn	66	4.000	ug/L	0.192	4	130	11893	1
	Zn	67	4.000	ug/L	0.147	3	19	1785	4
	Zn	68	4.000	ug/L	0.114	2	181	8258	0
	As-1	75	0.200	ug/L	0.018	9	-71	406	12
	As	75		ug/L			10853	11385	0
	Se	82	0.500	ug/L	0.055	11	2	145	7
	Se-1	78		ug/L			11078	11485	0
	Mo	98	0.200	ug/L	0.010	4	31	1169	1
	Y	89		ug/L			479152	494635	1
	Kr	83		ug/L			73	69	3
>	In	115		ug/L			1226321	1238904	0
	Ag	107	0.200	ug/L	0.003	1	32	2483	1
	Cd	111	0.100	ug/L	0.005	5	89	723	4
	Cd	114	0.100	ug/L	0.001	1	33	1634	0
	Sb	121	0.200	ug/L	0.007	3	33	3675	3
	Sb	123	0.200	ug/L	0.005	2	21	2770	1
	Ba	135	0.500	ug/L	0.013	2	16	2817	3
	Ba	137	0.500	ug/L	0.006	1	25	4735	1
>	Tb	159		ug/L			1340188	1362308	0
	Tl	205	0.200	ug/L	0.002	0	11	8771	0
	Pb	208	0.100	ug/L	0.002	1	94	6160	1
	Bi	209		ug/L			2936367	2973208	0
	Th	232	0.200	ug/L	0.005	2	105	9302	2
	U	238	0.200	ug/L	0.002	1	3	11203	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 09:26:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\030612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1370386	2
	Be	9	10.000	ug/L	0.333	3	6	42670	0
	C	13		ug/L			128325	134254	1
	Cl	37		ug/L			5185507	5217316	3
>	Sc	45		ug/L			1499666	1527025	0
	V-1	51	10.000	ug/L	0.194	1	10358	297335	0
	V	51	10.000	ug/L	0.179	1	252	287131	0
	Cr	52	9.997	ug/L	0.222	2	30790	269400	0
	Cr	53	9.999	ug/L	0.174	1	247	27178	0
	Mn	55	9.999	ug/L	0.252	2	516	328177	1
	Co	59	10.000	ug/L	0.056	0	49	229946	1
>	Ge	72		ug/L			704849	729335	1
	Ni	60	10.000	ug/L	0.128	1	21	50317	0
	Ni	62	10.001	ug/L	0.286	2	89	7122	2
	Cu	63	9.999	ug/L	0.051	0	84	110867	0
	Cu	65	9.999	ug/L	0.115	1	30	49879	0
	Zn	66	9.988	ug/L	0.256	2	130	29464	2
	Zn	67	10.122	ug/L	0.139	1	19	4881	0
	Zn	68	10.045	ug/L	0.253	2	181	21174	1
	As-1	75	10.000	ug/L	0.044	0	-71	23634	0
	As	75	10.000	ug/L	0.074	0	10853	34537	1
	Se	82	9.999	ug/L	0.194	1	2	2746	0
	Se-1	78	10.000	ug/L	0.220	2	11078	18012	1
	Mo	98	10.000	ug/L	0.170	1	31	61492	1
	Y	89		ug/L			479152	483229	1
	Kr	83		ug/L			73	68	3
>	In	115		ug/L			1226321	1253547	1
	Ag	107	10.000	ug/L	0.152	1	32	123127	2
	Cd	111	10.000	ug/L	0.329	3	89	61646	2
	Cd	114	10.000	ug/L	0.124	1	33	152675	0
	Sb	121	10.000	ug/L	0.129	1	33	195140	0
	Sb	123	10.000	ug/L	0.145	1	21	147469	0
	Ba	135	9.998	ug/L	0.241	2	16	52074	1
	Ba	137	9.998	ug/L	0.188	1	25	88946	0
>	Tb	159		ug/L			1340188	1371922	0
	Tl	205	10.000	ug/L	0.080	0	11	436723	0
	Pb	208	10.000	ug/L	0.081	0	94	574613	0
	Bi	209		ug/L			2936367	2979705	1
	Th	232	10.000	ug/L	0.393	3	105	504117	3
	U	238	10.000	ug/L	0.089	0	3	559864	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 09:30:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\030612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1409641	0
	Be	9	19.865	ug/L	0.399	2	6	84955	2
	C	13		ug/L			128325	131450	1
	Cl	37		ug/L			5185507	5286662	2
>	Sc	45		ug/L			1499666	1538323	0
	V-1	51	19.917	ug/L	0.139	0	10358	576722	1
	V	51	19.932	ug/L	0.168	0	252	568671	1
	Cr	52	19.887	ug/L	0.232	1	30790	498257	1
	Cr	53	19.940	ug/L	0.414	2	247	53728	2
	Mn	55	19.958	ug/L	0.070	0	516	654046	0
	Co	59	19.912	ug/L	0.313	1	49	453255	1
>	Ge	72		ug/L			704849	725735	1
	Ni	60	19.882	ug/L	0.187	0	21	97233	1
	Ni	62	19.954	ug/L	0.407	2	89	13919	0
	Cu	63	19.969	ug/L	0.305	1	84	218866	1
	Cu	65	19.875	ug/L	0.554	2	30	96207	1
	Zn	66	19.986	ug/L	0.618	3	130	58375	1
	Zn	67	20.126	ug/L	0.696	3	19	9851	2
	Zn	68	19.880	ug/L	0.636	3	181	40668	1
	As-1	75	20.021	ug/L	0.323	1	-71	47359	1
	As	75	20.049	ug/L	0.300	1	10853	58132	1
	Se	82	19.987	ug/L	0.752	3	2	5444	2
	Se-1	78	20.093	ug/L	0.637	3	11078	24745	0
	Mo	98	20.022	ug/L	0.313	1	31	123013	0
	Y	89		ug/L			479152	490736	2
	Kr	83		ug/L			73	72	0
>	In	115		ug/L			1226321	1258067	1
	Ag	107	20.039	ug/L	0.522	2	32	249575	3
	Cd	111	19.970	ug/L	0.124	0	89	122737	0
	Cd	114	19.934	ug/L	0.075	0	33	301479	1
	Sb	121	19.999	ug/L	0.191	0	33	391579	0
	Sb	123	19.959	ug/L	0.204	1	21	292997	0
	Ba	135	20.022	ug/L	0.323	1	16	105123	1
	Ba	137	20.085	ug/L	0.268	1	25	182425	0
>	Tb	159		ug/L			1340188	1386215	1
	Tl	205	19.976	ug/L	0.309	1	11	877257	0
	Pb	208	19.994	ug/L	0.181	0	94	1159328	0
	Bi	209		ug/L			2936367	3018760	0
	Th	232	20.038	ug/L	0.189	0	105	1028342	0
	U	238	19.976	ug/L	0.173	0	3	1124571	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 09:35:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\030612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1374529	1
	Be	9	49.797	ug/L	0.905	1	6	203459	0
	C	13		ug/L			128325	123862	2
	Cl	37		ug/L			5185507	5401803	1
>	Sc	45		ug/L			1499666	1491754	0
	V-1	51	50.127	ug/L	1.671	3	10358	1409461	2
	V	51	50.129	ug/L	1.203	2	252	1404450	1
	Cr	52	50.106	ug/L	0.603	1	30790	1182854	0
	Cr	53	50.113	ug/L	1.447	2	247	132060	3
	Mn	55	49.960	ug/L	0.681	1	516	1580472	0
	Co	59	50.073	ug/L	1.247	2	49	1113128	1
>	Ge	72		ug/L			704849	702021	1
	Ni	60	49.984	ug/L	1.265	2	21	236017	1
	Ni	62	50.051	ug/L	1.005	2	89	33813	0
	Cu	63	49.918	ug/L	0.355	0	84	524845	1
	Cu	65	50.141	ug/L	0.648	1	30	238141	1
	Zn	66	49.868	ug/L	0.850	1	130	138957	0
	Zn	67	49.961	ug/L	0.466	0	19	23541	0
	Zn	68	49.868	ug/L	1.314	2	181	97175	1
	As-1	75	50.099	ug/L	0.292	0	-71	115897	0
	As	75	50.094	ug/L	0.354	0	10853	125380	0
	Se	82	50.106	ug/L	0.206	0	2	13344	1
	Se-1	78	50.102	ug/L	0.879	1	11078	43546	1
	Mo	98	50.050	ug/L	0.887	1	31	298950	2
	Y	89		ug/L			479152	485654	1
	Kr	83		ug/L			73	80	7
>	In	115		ug/L			1226321	1222131	0
	Ag	107	49.736	ug/L	1.699	3	32	586049	3
	Cd	111	49.876	ug/L	0.122	0	89	294023	0
	Cd	114	50.086	ug/L	0.558	1	33	742188	1
	Sb	121	49.991	ug/L	0.844	1	33	950040	1
	Sb	123	50.055	ug/L	1.112	2	21	717792	2
	Ba	135	50.130	ug/L	0.545	1	16	259041	0
	Ba	137	50.101	ug/L	0.692	1	25	446516	0
>	Tb	159		ug/L			1340188	1355955	0
	Tl	205	50.158	ug/L	0.442	0	11	2189506	1
	Pb	208	49.981	ug/L	0.107	0	94	2829483	0
	Bi	209		ug/L			2936367	2913379	1
	Th	232	50.378	ug/L	0.631	1	105	2628200	1
	U	238	50.179	ug/L	0.267	0	3	2813736	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 09:40:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\030612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1342615	1
	Be	9	100.116	ug/L	1.644	1	6	401112	1
	C	13		ug/L			128325	131215	1
	Cl	37		ug/L			5185507	5473245	3
>	Sc	45		ug/L			1499666	1481325	0
	V-1	51	100.860	ug/L	0.848	0	10358	2888853	1
	V	51	100.784	ug/L	1.381	1	252	2879231	1
	Cr	52	100.242	ug/L	1.169	1	30790	2338079	0
	Cr	53	99.979	ug/L	3.281	3	247	261125	2
	Mn	55	100.130	ug/L	1.652	1	516	3158863	1
	Co	59	100.324	ug/L	1.893	1	49	2239072	1
>	Ge	72		ug/L			704849	688070	0
	Ni	60	99.866	ug/L	1.330	1	21	460182	1
	Ni	62	99.840	ug/L	0.793	0	89	65685	1
	Cu	63	100.051	ug/L	2.403	2	84	1032637	2
	Cu	65	99.357	ug/L	0.592	0	30	452802	0
	Zn	66	99.525	ug/L	0.803	0	130	267524	1
	Zn	67	99.244	ug/L	2.386	2	19	44692	1
	Zn	68	99.571	ug/L	0.314	0	181	187374	0
	As-1	75	100.001	ug/L	1.544	1	-71	226828	1
	As	75	100.086	ug/L	1.332	1	10853	235608	1
	Se	82	99.473	ug/L	1.175	1	2	25513	0
	Se-1	78	99.772	ug/L	1.060	1	11078	73793	0
	Mo	98	100.364	ug/L	1.664	1	31	594726	1
	Y	89		ug/L			479152	474234	1
	Kr	83		ug/L			73	97	2
>	In	115		ug/L			1226321	1189971	1
	Ag	107	100.226	ug/L	2.044	2	32	1158550	1
	Cd	111	100.092	ug/L	1.227	1	89	576161	0
	Cd	114	99.781	ug/L	1.276	1	33	1429036	0
	Sb	121	100.290	ug/L	1.392	1	33	1873631	0
	Sb	123	100.511	ug/L	0.703	0	21	1427660	0
	Ba	135	100.724	ug/L	2.916	2	16	519202	1
	Ba	137	100.441	ug/L	1.949	1	25	884528	1
>	Tb	159		ug/L			1340188	1359891	1
	Tl	205	99.529	ug/L	0.928	0	11	4289475	0
	Pb	208	99.495	ug/L	1.145	1	94	5554830	0
	Bi	209		ug/L			2936367	2815795	0
	Th	232	99.771	ug/L	2.040	2	105	5179908	1
	U	238	99.547	ug/L	1.397	1	3	5514614	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 09:45:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\030612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1355574	1
	Be	9	0.002	ug/L	0.000	20	6	15	13
	C	13		ug/L			128325	124505	1
	Cl	37		ug/L			5185507	5481041	2
>	Sc	45		ug/L			1499666	1468292	1
	V-1	51	0.014	ug/L	0.008	55	10358	10545	2
	V	51	0.002	ug/L	0.001	31	252	295	3
	Cr	52	0.047	ug/L	0.025	52	30790	31224	2
	Cr	53	0.003	ug/L	0.006	204	247	250	7
	Mn	55	0.000	ug/L	0.000	87	516	515	0
	Co	59	0.001	ug/L	0.000	50	49	69	15
>	Ge	72		ug/L			704849	700951	1
	Ni	60	-0.001	ug/L	0.000	67	21	18	11
	Ni	62	0.028	ug/L	0.020	71	89	107	12
	Cu	63	0.003	ug/L	0.002	56	84	112	15
	Cu	65	0.002	ug/L	0.001	42	30	39	11
	Zn	66	-0.016	ug/L	0.004	22	130	86	10
	Zn	67	-0.011	ug/L	0.014	128	19	14	45
	Zn	68	-0.015	ug/L	0.005	30	181	151	5
	As-1	75	0.004	ug/L	0.013	345	-71	-62	46
	As	75	0.006	ug/L	0.061	1000	10853	10806	0
	Se	82	-0.004	ug/L	0.036	808	2	1	666
	Se-1	78	0.002	ug/L	0.242	13610	11078	11017	0
	Mo	98	0.027	ug/L	0.009	31	31	194	26
	Y	89		ug/L			479152	478187	0
	Kr	83		ug/L			73	72	4
>	In	115		ug/L			1226321	1214326	0
	Ag	107	0.002	ug/L	0.001	46	32	58	21
	Cd	111	0.006	ug/L	0.002	35	89	124	11
	Cd	114	0.001	ug/L	0.002	140	33	50	49
	Sb	121	0.056	ug/L	0.014	24	33	1099	24
	Sb	123	0.054	ug/L	0.014	26	21	802	26
	Ba	135	0.001	ug/L	0.000	19	16	20	5
	Ba	137	0.001	ug/L	0.001	50	25	35	14
>	Tb	159		ug/L			1340188	1314341	1
	Tl	205	0.004	ug/L	0.001	22	11	184	20
	Pb	208	0.001	ug/L	0.000	34	94	170	15
	Bi	209		ug/L			2936367	2923629	0
	Th	232	0.136	ug/L	0.027	19	105	6920	20
	U	238	0.004	ug/L	0.001	19	3	206	20

Sample Information

Sample Date/Time: Thursday, April 05, 2012 09:40:18
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\default.tun
Conditions File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V-1	51	**0.9999**	0.019	0.20	10	20	50	100
V	51	**0.9999**	0.019	0.20	10	20	50	100
Cr	52	**1.0000**	0.016	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.021	0.50	10	20	50	100
Co	59	**1.0000**	0.015	0.20	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.007	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.015	0.50	10	20	50	100
Cu	65	**0.9999**	0.007	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**1.0000**	0.003	4.00	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
As	75	**1.0000**	0.003		10	20	50	100
Se	82	**1.0000**	0.000	0.50	10	20	50	100
Se-1	78	**1.0000**	0.001		10	20	50	100
Mo	98	**1.0000**	0.009	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.010	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.016	0.20	10	20	50	100
Sb	123	**1.0000**	0.012	0.20	10	20	50	100
Ba	135	**0.9999**	0.004	0.50	10	20	50	100
Ba	137	**1.0000**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.032	0.20	10	20	50	100
Pb	208	**1.0000**	0.041	0.10	10	20	50	100
Bi	209							
Th	232	**1.0000**	0.038	0.20	10	20	50	100
U	238	**1.0000**	0.041	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 09:51:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1369374	1
	Be	9	51.068	ug/L	1.260	2	6	208670	1
	C	13		ug/L			128325	125883	2
	Cl	37		ug/L			5185507	5687841	1
>	Sc	45		ug/L			1499666	1520744	0
	V-1	51	48.053	ug/L	0.392	0	10358	1418498	1
	V	51	48.145	ug/L	0.260	0	252	1412228	0
	Cr	52	49.456	ug/L	0.431	0	30790	1200124	1
	Cr	53	49.775	ug/L	0.515	1	247	133608	1
	Mn	55	49.045	ug/L	1.070	2	516	1588775	2
	Co	59	48.767	ug/L	0.599	1	49	1117438	1
>	Ge	72		ug/L			704849	710209	0
	Ni	60	51.053	ug/L	0.321	0	21	242839	0
	Ni	62	49.825	ug/L	0.447	0	89	33880	1
	Cu	63	49.205	ug/L	0.251	0	84	524265	1
	Cu	65	50.164	ug/L	1.090	2	30	235967	1
	Zn	66	49.690	ug/L	1.176	2	130	137914	1
	Zn	67	48.670	ug/L	1.239	2	19	22638	3
	Zn	68	49.415	ug/L	0.461	0	181	96072	0
	As-1	75	48.337	ug/L	0.586	1	-71	113126	0
	As	75	48.142	ug/L	0.402	0	10853	122650	0
	Se	82	76.379	ug/L	1.866	2	2	20220	1
	Se-1	78	76.560	ug/L	0.925	1	11078	61045	0
	Mo	98	46.504	ug/L	0.375	0	31	284467	0
	Y	89		ug/L			479152	484332	0
	Kr	83		ug/L			73	79	2
>	In	115		ug/L			1226321	1226632	0
	Ag	107	49.985	ug/L	1.240	2	32	595610	1
	Cd	111	49.087	ug/L	0.419	0	89	291326	0
	Cd	114	48.263	ug/L	0.586	1	33	712543	0
	Sb	121	45.905	ug/L	0.343	0	33	884111	0
	Sb	123	45.874	ug/L	0.593	1	21	671666	0
	Ba	135	48.946	ug/L	0.393	0	16	260134	0
	Ba	137	48.835	ug/L	0.225	0	25	443358	0
>	Tb	159		ug/L			1340188	1362413	1
	Tl	205	50.001	ug/L	0.878	1	11	2158760	0
	Pb	208	49.507	ug/L	0.546	1	94	2769146	0
	Bi	209		ug/L			2936367	2916904	0
	Th	232	51.029	ug/L	1.197	2	105	2654020	1
	U	238	50.926	ug/L	0.934	1	3	2826253	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 09:55:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1353804	1
	Be	9	0.010	ug/L	0.014	132	6	48	116
	C	13		ug/L			128325	120603	1
	Cl	37		ug/L			5185507	5300607	1
>	Sc	45		ug/L			1499666	1468405	1
	V-1	51	0.006	ug/L	0.007	112	10358	10320	0
	V	51	0.007	ug/L	0.011	149	252	450	66
	Cr	52	0.014	ug/L	0.007	49	30790	30466	1
	Cr	53	0.017	ug/L	0.010	58	247	286	7
	Mn	55	0.006	ug/L	0.009	163	516	678	40
	Co	59	0.004	ug/L	0.007	156	49	145	103
>	Ge	72		ug/L			704849	700341	0
	Ni	60	0.002	ug/L	0.007	300	21	32	103
	Ni	62	0.034	ug/L	0.015	43	89	111	9
	Cu	63	0.005	ug/L	0.006	127	84	133	47
	Cu	65	0.004	ug/L	0.006	162	30	46	57
	Zn	66	-0.007	ug/L	0.004	53	130	111	9
	Zn	67	-0.003	ug/L	0.002	70	19	18	5
	Zn	68	-0.007	ug/L	0.005	66	181	166	4
	As-1	75	-0.004	ug/L	0.007	164	-71	-80	19
	As	75	-0.033	ug/L	0.021	64	10853	10707	0
	Se	82	-0.005	ug/L	0.019	396	2	1	345
	Se-1	78	-0.113	ug/L	0.075	67	11078	10935	0
	Mo	98	0.017	ug/L	0.006	32	31	134	24
	Y	89		ug/L			479152	470928	0
	Kr	83		ug/L			73	71	8
>	In	115		ug/L			1226321	1211116	0
	Ag	107	0.002	ug/L	0.001	49	32	50	18
	Cd	111	0.004	ug/L	0.002	45	89	111	9
	Cd	114	0.001	ug/L	0.001	67	33	53	26
	Sb	121	0.012	ug/L	0.002	18	33	258	16
	Sb	123	0.012	ug/L	0.002	14	21	193	12
	Ba	135	0.001	ug/L	0.003	372	16	20	87
	Ba	137	0.002	ug/L	0.003	141	25	47	66
>	Tb	159		ug/L			1340188	1305186	0
	Tl	205	0.007	ug/L	0.007	98	11	281	94
	Pb	208	0.004	ug/L	0.006	137	94	325	98
	Bi	209		ug/L			2936367	2922232	0
	Th	232	0.112	ug/L	0.031	27	105	5695	26
	U	238	0.010	ug/L	0.014	136	3	536	135

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:00:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1377291	2
	Be	9	49.304	ug/L	1.336	2	6	202606	1
	C	13		ug/L			128325	125036	2
	Cl	37		ug/L			5185507	5671869	1
>	Sc	45		ug/L			1499666	1523397	2
	V-1	51	47.528	ug/L	0.368	0	10358	1405361	1
	V	51	47.307	ug/L	0.551	1	252	1389765	1
	Cr	52	48.318	ug/L	0.689	1	30790	1175009	1
	Cr	53	47.541	ug/L	1.223	2	247	127788	0
	Mn	55	48.539	ug/L	1.808	3	516	1574102	1
	Co	59	48.002	ug/L	0.441	0	49	1101648	1
>	Ge	72		ug/L			704849	696353	0
	Ni	60	50.811	ug/L	0.417	0	21	236977	1
	Ni	62	50.169	ug/L	0.407	0	89	33447	0
	Cu	63	49.683	ug/L	0.198	0	84	519011	0
	Cu	65	51.139	ug/L	0.242	0	30	235879	0
	Zn	66	50.603	ug/L	0.162	0	130	137714	0
	Zn	67	50.945	ug/L	1.213	2	19	23230	2
	Zn	68	51.074	ug/L	1.093	2	181	97353	1
	As-1	75	50.050	ug/L	0.521	1	-71	114856	0
	As	75	50.300	ug/L	0.637	1	10853	125167	0
	Se	82	50.774	ug/L	0.483	0	2	13181	1
	Se-1	78	51.680	ug/L	0.390	0	11078	43961	0
	Mo	98	49.652	ug/L	0.184	0	31	297800	0
	Y	89		ug/L			479152	485112	0
	Kr	83		ug/L			73	82	9
>	In	115		ug/L			1226321	1214543	1
	Ag	107	50.093	ug/L	0.863	1	32	591005	0
	Cd	111	50.318	ug/L	0.528	1	89	295684	1
	Cd	114	50.069	ug/L	0.486	0	33	731907	0
	Sb	121	49.805	ug/L	0.245	0	33	949752	0
	Sb	123	49.273	ug/L	0.651	1	21	714275	0
	Ba	135	48.813	ug/L	0.189	0	16	256888	1
	Ba	137	49.133	ug/L	0.203	0	25	441669	0
>	Tb	159		ug/L			1340188	1356783	2
	Tl	205	50.812	ug/L	1.171	2	11	2184137	0
	Pb	208	49.969	ug/L	1.220	2	94	2782492	0
	Bi	209		ug/L			2936367	2917345	0
	Th	232	50.776	ug/L	1.743	3	105	2629010	1
	U	238	50.814	ug/L	1.172	2	3	2807587	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:04:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1329712	2
	Be	9	0.003	ug/L	0.001	26	6	17	17
	C	13		ug/L			128325	123263	2
	Cl	37		ug/L			5185507	5269438	1
>	Sc	45		ug/L			1499666	1458765	1
	V-1	51	0.010	ug/L	0.006	64	10358	10345	1
	V	51	0.002	ug/L	0.001	38	252	288	5
	Cr	52	0.034	ug/L	0.032	95	30790	30716	2
	Cr	53	0.005	ug/L	0.009	163	247	254	9
	Mn	55	0.000	ug/L	0.001	130	516	516	2
	Co	59	0.001	ug/L	0.001	97	49	64	26
>	Ge	72		ug/L			704849	690345	1
	Ni	60	-0.001	ug/L	0.000	54	21	16	12
	Ni	62	0.020	ug/L	0.025	128	89	100	15
	Cu	63	0.001	ug/L	0.002	188	84	93	22
	Cu	65	0.000	ug/L	0.001	277	30	31	17
	Zn	66	-0.015	ug/L	0.007	44	130	88	18
	Zn	67	-0.006	ug/L	0.008	131	19	16	23
	Zn	68	-0.008	ug/L	0.007	82	181	162	7
	As-1	75	0.007	ug/L	0.005	65	-71	-53	18
	As	75	0.033	ug/L	0.094	281	10853	10703	0
	Se	82	0.008	ug/L	0.013	156	2	4	70
	Se-1	78	0.078	ug/L	0.355	456	11078	10898	0
	Mo	98	0.023	ug/L	0.008	33	31	168	28
	Y	89		ug/L			479152	469325	1
	Kr	83		ug/L			73	65	3
>	In	115		ug/L			1226321	1205449	1
	Ag	107	0.004	ug/L	0.004	103	32	75	59
	Cd	111	0.008	ug/L	0.007	83	89	134	28
	Cd	114	0.002	ug/L	0.003	109	33	65	54
	Sb	121	0.040	ug/L	0.011	26	33	792	26
	Sb	123	0.041	ug/L	0.012	28	21	617	28
	Ba	135	0.001	ug/L	0.001	100	16	23	31
	Ba	137	0.001	ug/L	0.001	189	25	31	37
>	Tb	159		ug/L			1340188	1304885	1
	Tl	205	0.004	ug/L	0.001	41	11	157	38
	Pb	208	0.001	ug/L	0.001	94	94	157	38
	Bi	209		ug/L			2936367	2948763	0
	Th	232	0.124	ug/L	0.027	21	105	6294	22
	U	238	0.003	ug/L	0.001	43	3	159	43

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:08:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1337030	0
	Be	9	0.204	ug/L	0.009	4	6	820	3
	C	13		ug/L			128325	130627	2
	Cl	37		ug/L			5185507	5232227	2
>	Sc	45		ug/L			1499666	1463807	2
	V-1	51	0.214	ug/L	0.012	5	10358	16147	0
	V	51	0.202	ug/L	0.009	4	252	5949	3
	Cr	52	0.567	ug/L	0.032	5	30790	42938	1
	Cr	53	0.523	ug/L	0.024	4	247	1590	3
	Mn	55	0.516	ug/L	0.016	3	516	16568	1
	Co	59	0.204	ug/L	0.008	3	49	4552	0
>	Ge	72		ug/L			704849	703658	1
	Ni	60	0.520	ug/L	0.016	3	21	2469	1
	Ni	62	0.499	ug/L	0.041	8	89	424	4
	Cu	63	0.530	ug/L	0.022	4	84	5670	2
	Cu	65	0.523	ug/L	0.017	3	30	2467	1
	Zn	66	4.058	ug/L	0.122	3	130	11274	1
	Zn	67	3.612	ug/L	0.125	3	19	1682	2
	Zn	68	4.020	ug/L	0.089	2	181	7907	0
	As-1	75	0.196	ug/L	0.021	10	-71	383	13
	As	75	0.153	ug/L	0.048	31	10853	11185	0
	Se	82	0.493	ug/L	0.021	4	2	131	2
	Se-1	78	0.324	ug/L	0.237	73	11078	11267	0
	Mo	98	0.192	ug/L	0.001	0	31	1194	1
	Y	89		ug/L			479152	468783	1
	Kr	83		ug/L			73	66	0
>	In	115		ug/L			1226321	1214554	0
	Ag	107	0.200	ug/L	0.008	4	32	2395	3
	Cd	111	0.110	ug/L	0.002	1	89	736	0
	Cd	114	0.103	ug/L	0.001	1	33	1532	2
	Sb	121	0.199	ug/L	0.004	2	33	3823	2
	Sb	123	0.201	ug/L	0.004	2	21	2928	2
	Ba	135	0.501	ug/L	0.008	1	16	2651	2
	Ba	137	0.487	ug/L	0.005	0	25	4402	0
>	Tb	159		ug/L			1340188	1311431	1
	Tl	205	0.207	ug/L	0.002	1	11	8626	1
	Pb	208	0.112	ug/L	0.002	1	94	6097	3
	Bi	209		ug/L			2936367	2939918	0
	Th	232	0.244	ug/L	0.004	1	105	12318	3
	U	238	0.208	ug/L	0.003	1	3	11136	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:13:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1354109	0
	Be	9	0.002	ug/L	0.001	68	6	14	38
	C	13		ug/L			128325	216439	5
	Cl	37		ug/L			5185507	14786910	4
>	Sc	45		ug/L			1499666	1461498	1
	V-1	51	0.106	ug/L	0.017	16	10358	13092	4
	V	51	0.573	ug/L	0.043	7	252	16394	7
	Cr	52	0.918	ug/L	0.022	2	30790	50846	0
	Cr	53	2.548	ug/L	0.110	4	247	6801	4
	Mn	55	0.108	ug/L	0.004	3	516	3851	2
	Co	59	0.026	ug/L	0.002	8	49	615	9
>	Ge	72		ug/L			704849	670141	0
	Ni	60	0.410	ug/L	0.015	3	21	1860	4
	Ni	62	2.723	ug/L	0.060	2	89	1827	1
	Cu	63	1.026	ug/L	0.004	0	84	10392	0
	Cu	65	0.362	ug/L	0.008	2	30	1636	1
	Zn	66	0.797	ug/L	0.030	3	130	2208	2
	Zn	67	6.701	ug/L	0.080	1	19	2956	0
	Zn	68	0.207	ug/L	0.014	6	181	551	4
	As-1	75	-0.011	ug/L	0.035	319	-71	-91	83
	As	75	0.173	ug/L	0.027	15	10853	10698	1
	Se	82	-0.265	ug/L	0.023	8	2	-63	9
	Se-1	78	0.775	ug/L	0.102	13	11078	11010	1
	Mo	98	403.455	ug/L	3.563	0	31	2328416	0
	Y	89		ug/L			479152	467479	1
	Kr	83		ug/L			73	165	3
>	In	115		ug/L			1226321	1193841	0
	Ag	107	0.025	ug/L	0.001	5	32	323	4
	Cd	111	0.117	ug/L	0.008	6	89	765	5
	Cd	114	0.197	ug/L	0.002	0	33	2868	0
	Sb	121	0.056	ug/L	0.001	2	33	1077	1
	Sb	123	0.054	ug/L	0.003	5	21	794	4
	Ba	135	0.045	ug/L	0.002	4	16	250	3
	Ba	137	0.038	ug/L	0.001	3	25	356	3
>	Tb	159		ug/L			1340188	1349147	0
	Tl	205	0.005	ug/L	0.002	44	11	207	41
	Pb	208	0.039	ug/L	0.002	4	94	2244	3
	Bi	209		ug/L			2936367	2711980	1
	Th	232	0.263	ug/L	0.104	39	105	13624	38
	U	238	0.002	ug/L	0.000	21	3	101	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:17:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1394368	1
	Be	9	0.002	ug/L	0.000	16	6	13	8
	C	13		ug/L			128325	229544	2
	Cl	37		ug/L			5185507	15149967	1
>	Sc	45		ug/L			1499666	1503339	0
	V-1	51	0.032	ug/L	0.077	238	10358	11306	19
	V	51	0.598	ug/L	0.023	3	252	17595	4
	Cr	52	20.600	ug/L	0.212	1	30790	512131	0
	Cr	53	22.516	ug/L	0.147	0	247	59882	0
	Mn	55	19.611	ug/L	0.232	1	516	628257	0
	Co	59	18.984	ug/L	0.196	1	49	430053	1
>	Ge	72		ug/L			704849	687019	0
	Ni	60	19.095	ug/L	0.152	0	21	87878	1
	Ni	62	21.452	ug/L	0.216	1	89	14160	1
	Cu	63	20.222	ug/L	0.390	1	84	208482	2
	Cu	65	19.805	ug/L	0.320	1	30	90146	1
	Zn	66	19.233	ug/L	0.356	1	130	51722	2
	Zn	67	22.646	ug/L	0.724	3	19	10197	2
	Zn	68	18.104	ug/L	0.087	0	181	34160	0
	As-1	75	18.885	ug/L	0.138	0	-71	42713	0
	As	75	19.105	ug/L	0.161	0	10853	53464	0
	Se	82	-0.254	ug/L	0.040	15	2	-62	16
	Se-1	78	0.296	ug/L	0.062	21	11078	10984	0
	Mo	98	400.352	ug/L	5.753	1	31	2368842	1
	Y	89		ug/L			479152	477946	0
	Kr	83		ug/L			73	169	8
>	In	115		ug/L			1226321	1235707	0
	Ag	107	19.846	ug/L	0.567	2	32	238290	3
	Cd	111	19.141	ug/L	0.150	0	89	114494	0
	Cd	114	19.035	ug/L	0.156	0	33	283142	0
	Sb	121	0.061	ug/L	0.003	5	33	1215	4
	Sb	123	0.060	ug/L	0.003	4	21	904	5
	Ba	135	0.041	ug/L	0.002	5	16	236	5
	Ba	137	0.036	ug/L	0.003	6	25	357	6
>	Tb	159		ug/L			1340188	1392907	0
	Tl	205	0.003	ug/L	0.001	21	11	137	19
	Pb	208	0.039	ug/L	0.002	4	94	2315	4
	Bi	209		ug/L			2936367	2760399	0
	Th	232	0.094	ug/L	0.017	18	105	5132	17
	U	238	0.002	ug/L	0.000	4	3	103	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:22:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1391911	1
	Be	9	0.000	ug/L	0.001	177	6	8	37
	C	13		ug/L			128325	139252	1
	Cl	37		ug/L			5185507	5556550	1
>	Sc	45		ug/L			1499666	1460499	0
	V-1	51	0.003	ug/L	0.010	283	10358	10184	2
	V	51	0.050	ug/L	0.008	16	252	1663	13
	Cr	52	0.029	ug/L	0.026	90	30790	30643	2
	Cr	53	0.193	ug/L	0.022	11	247	737	7
	Mn	55	0.019	ug/L	0.001	5	516	1094	2
	Co	59	0.001	ug/L	0.000	43	49	71	14
>	Ge	72		ug/L			704849	698349	1
	Ni	60	0.028	ug/L	0.004	15	21	152	13
	Ni	62	0.048	ug/L	0.015	31	89	120	9
	Cu	63	0.029	ug/L	0.002	7	84	388	4
	Cu	65	0.029	ug/L	0.002	8	30	164	5
	Zn	66	0.537	ug/L	0.029	5	130	1595	5
	Zn	67	0.468	ug/L	0.030	6	19	233	4
	Zn	68	0.504	ug/L	0.035	6	181	1142	5
	As-1	75	0.002	ug/L	0.007	307	-71	-65	24
	As	75	0.001	ug/L	0.073	7621	10853	10754	1
	Se	82	-0.005	ug/L	0.025	508	2	1	490
	Se-1	78	-0.031	ug/L	0.273	866	11078	10955	1
	Mo	98	0.100	ug/L	0.030	30	31	630	28
	Y	89		ug/L			479152	470811	1
	Kr	83		ug/L			73	66	1
>	In	115		ug/L			1226321	1253897	0
	Ag	107	0.001	ug/L	0.001	100	32	40	18
	Cd	111	0.006	ug/L	0.001	22	89	126	5
	Cd	114	0.002	ug/L	0.001	41	33	57	16
	Sb	121	0.004	ug/L	0.001	14	33	109	10
	Sb	123	0.005	ug/L	0.001	18	21	93	13
	Ba	135	0.026	ug/L	0.005	17	16	156	15
	Ba	137	0.026	ug/L	0.003	12	25	264	11
>	Tb	159		ug/L			1340188	1364885	0
	Tl	205	0.001	ug/L	0.000	27	11	36	18
	Pb	208	0.010	ug/L	0.001	7	94	648	6
	Bi	209		ug/L			2936367	2970531	0
	Th	232	0.005	ug/L	0.001	11	105	375	8
	U	238	0.000	ug/L	0.000	36	3	21	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:28:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1347271	1
	Be	9	-0.000	ug/L	0.001	252	6	5	39
	C	13		ug/L			128325	137203	1
	Cl	37		ug/L			5185507	5294839	1
>	Sc	45		ug/L			1499666	1457577	1
	V-1	51	0.008	ug/L	0.014	176	10358	10288	4
	V	51	0.028	ug/L	0.003	11	252	1032	7
	Cr	52	0.023	ug/L	0.044	188	30790	30453	3
	Cr	53	0.094	ug/L	0.018	19	247	481	8
	Mn	55	0.034	ug/L	0.000	0	516	1557	1
	Co	59	0.001	ug/L	0.000	12	49	72	3
>	Ge	72		ug/L			704849	673542	1
	Ni	60	0.032	ug/L	0.006	19	21	164	16
	Ni	62	0.029	ug/L	0.015	51	89	104	10
	Cu	63	0.031	ug/L	0.002	7	84	390	6
	Cu	65	0.033	ug/L	0.001	1	30	174	2
	Zn	66	1.950	ug/L	0.077	3	130	5251	2
	Zn	67	1.752	ug/L	0.044	2	19	790	1
	Zn	68	1.859	ug/L	0.014	0	181	3595	0
	As-1	75	-0.007	ug/L	0.003	44	-71	-84	7
	As	75	0.131	ug/L	0.121	91	10853	10658	1
	Se	82	-0.017	ug/L	0.027	164	2	-1	431
	Se-1	78	0.471	ug/L	0.412	87	11078	10876	1
	Mo	98	0.029	ug/L	0.004	14	31	197	11
	Y	89		ug/L			479152	471518	1
	Kr	83		ug/L			73	68	6
>	In	115		ug/L			1226321	1234066	0
	Ag	107	-0.000	ug/L	0.000	48	32	28	8
	Cd	111	0.004	ug/L	0.001	13	89	111	3
	Cd	114	0.001	ug/L	0.001	105	33	44	25
	Sb	121	0.004	ug/L	0.000	11	33	107	8
	Sb	123	0.004	ug/L	0.000	11	21	82	7
	Ba	135	0.020	ug/L	0.002	8	16	123	6
	Ba	137	0.021	ug/L	0.000	1	25	216	1
>	Tb	159		ug/L			1340188	1344106	2
	Tl	205	0.001	ug/L	0.000	6	11	51	3
	Pb	208	0.015	ug/L	0.000	2	94	904	2
	Bi	209		ug/L			2936367	2972802	0
	Th	232	0.003	ug/L	0.000	14	105	270	6
	U	238	0.000	ug/L	0.000	3	3	16	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:32:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1391333	2
	Be	9	51.197	ug/L	1.987	3	6	212475	1
	C	13		ug/L			128325	130805	1
	Cl	37		ug/L			5185507	5684195	0
>	Sc	45		ug/L			1499666	1496278	3
	V-1	51	48.013	ug/L	1.161	2	10358	1393904	1
	V	51	48.207	ug/L	1.211	2	252	1390564	0
	Cr	52	48.501	ug/L	1.515	3	30790	1158080	2
	Cr	53	49.180	ug/L	1.743	3	247	129795	0
	Mn	55	49.655	ug/L	1.802	3	516	1581598	2
	Co	59	49.194	ug/L	1.364	2	49	1108446	0
>	Ge	72		ug/L			704849	694970	2
	Ni	60	49.668	ug/L	0.130	0	21	231184	2
	Ni	62	49.189	ug/L	1.473	2	89	32717	0
	Cu	63	50.094	ug/L	0.716	1	84	522202	1
	Cu	65	51.161	ug/L	1.212	2	30	235463	1
	Zn	66	50.194	ug/L	0.802	1	130	136302	0
	Zn	67	50.806	ug/L	1.180	2	19	23115	1
	Zn	68	51.790	ug/L	0.897	1	181	98502	0
	As-1	75	49.980	ug/L	1.137	2	-71	114434	0
	As	75	49.834	ug/L	1.211	2	10853	123825	0
	Se	82	50.873	ug/L	1.066	2	2	13177	0
	Se-1	78	50.401	ug/L	1.425	2	11078	43047	0
	Mo	98	50.204	ug/L	1.850	3	31	300362	1
	Y	89		ug/L			479152	474118	0
	Kr	83		ug/L			73	87	6
>	In	115		ug/L			1226321	1238082	1
	Ag	107	51.463	ug/L	0.441	0	32	618989	0
	Cd	111	49.820	ug/L	0.752	1	89	298410	0
	Cd	114	49.822	ug/L	1.037	2	33	742329	0
	Sb	121	49.799	ug/L	0.745	1	33	967977	0
	Sb	123	49.732	ug/L	0.106	0	21	734984	1
	Ba	135	49.105	ug/L	0.944	1	16	263382	0
	Ba	137	49.008	ug/L	0.943	1	25	449022	0
>	Tb	159		ug/L			1340188	1380815	1
	Tl	205	50.118	ug/L	0.916	1	11	2192996	0
	Pb	208	49.511	ug/L	0.965	1	94	2806505	0
	Bi	209		ug/L			2936367	2910317	2
	Th	232	49.561	ug/L	0.728	1	105	2612699	0
	U	238	49.965	ug/L	1.057	2	3	2810187	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:36:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1328011	1
	Be	9	0.005	ug/L	0.006	110	6	27	84
	C	13		ug/L			128325	128873	0
	Cl	37		ug/L			5185507	5535788	2
>	Sc	45		ug/L			1499666	1425634	1
	V-1	51	0.002	ug/L	0.011	636	10358	9892	3
	V	51	0.015	ug/L	0.004	25	252	648	15
	Cr	52	-0.001	ug/L	0.039	3462	30790	29245	3
	Cr	53	0.045	ug/L	0.010	21	247	348	6
	Mn	55	0.002	ug/L	0.004	192	516	546	18
	Co	59	0.001	ug/L	0.003	182	49	77	71
>	Ge	72		ug/L			704849	672471	2
	Ni	60	0.001	ug/L	0.003	296	21	24	52
	Ni	62	-0.011	ug/L	0.005	44	89	78	5
	Cu	63	0.002	ug/L	0.002	153	84	96	25
	Cu	65	0.002	ug/L	0.003	212	30	35	42
	Zn	66	-0.008	ug/L	0.005	61	130	104	13
	Zn	67	0.005	ug/L	0.007	130	19	21	12
	Zn	68	-0.013	ug/L	0.009	70	181	149	11
	As-1	75	0.008	ug/L	0.009	102	-71	-49	37
	As	75	0.080	ug/L	0.058	71	10853	10530	1
	Se	82	0.024	ug/L	0.026	107	2	8	75
	Se-1	78	0.262	ug/L	0.219	83	11078	10730	1
	Mo	98	0.032	ug/L	0.021	65	31	214	56
	Y	89		ug/L			479152	462284	2
	Kr	83		ug/L			73	65	3
>	In	115		ug/L			1226321	1208040	1
	Ag	107	0.003	ug/L	0.004	130	32	67	67
	Cd	111	0.007	ug/L	0.004	62	89	127	18
	Cd	114	0.003	ug/L	0.003	94	33	75	52
	Sb	121	0.038	ug/L	0.013	35	33	748	32
	Sb	123	0.037	ug/L	0.012	32	21	558	30
	Ba	135	0.001	ug/L	0.001	61	16	23	18
	Ba	137	0.001	ug/L	0.002	159	25	34	41
>	Tb	159		ug/L			1340188	1293913	1
	Tl	205	0.003	ug/L	0.001	43	11	121	39
	Pb	208	0.002	ug/L	0.003	139	94	198	75
	Bi	209		ug/L			2936367	2920905	0
	Th	232	0.074	ug/L	0.015	20	105	3735	18
	U	238	0.005	ug/L	0.005	102	3	260	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:45:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1320643	2
	Be	9	197.874	ug/L	5.911	2	6	779486	0
	C	13		ug/L			128325	131270	0
	Cl	37		ug/L			5185507	5590278	3
>	Sc	45		ug/L			1499666	1385229	1
	V-1	51	204.290	ug/L	1.199	0	10358	5462050	1
	V	51	204.438	ug/L	1.796	0	252	5461860	2
	Cr	52	203.569	ug/L	3.342	1	30790	4410514	0
	Cr	53	204.090	ug/L	1.556	0	247	498327	1
	Mn	55	201.535	ug/L	5.644	2	516	5943813	1
	Co	59	201.076	ug/L	2.908	1	49	4196205	0
>	Ge	72		ug/L			704849	642052	1
	Ni	60	200.136	ug/L	2.213	1	21	860476	0
	Ni	62	198.551	ug/L	1.779	0	89	121819	2
	Cu	63	197.053	ug/L	3.644	1	84	1897687	1
	Cu	65	199.113	ug/L	5.734	2	30	846511	1
	Zn	66	197.618	ug/L	1.331	0	130	495566	2
	Zn	67	191.414	ug/L	3.584	1	19	80423	1
	Zn	68	196.200	ug/L	3.038	1	181	344323	0
	As-1	75	200.932	ug/L	0.978	0	-71	425335	0
	As	75	200.346	ug/L	0.586	0	10853	430176	1
	Se	82	199.338	ug/L	3.846	1	2	47700	0
	Se-1	78	197.402	ug/L	2.219	1	11078	126358	0
	Mo	98	205.493	ug/L	1.957	0	31	1136209	0
	Y	89		ug/L			479152	449555	1
	Kr	83		ug/L			73	153	2
>	In	115		ug/L			1226321	1168615	1
	Ag	107	201.351	ug/L	4.349	2	32	2285807	1
	Cd	111	195.775	ug/L	2.104	1	89	1106633	0
	Cd	114	198.924	ug/L	4.917	2	33	2797431	1
	Sb	121	195.608	ug/L	2.404	1	33	3588753	0
	Sb	123	196.530	ug/L	2.108	1	21	2741241	0
	Ba	135	200.845	ug/L	1.439	0	16	1016866	0
	Ba	137	204.642	ug/L	2.721	1	25	1769787	0
>	Tb	159		ug/L			1340188	1350353	0
	Tl	205	194.463	ug/L	1.522	0	11	8322739	0
	Pb	208	196.597	ug/L	1.512	0	94	10899930	0
	Bi	209		ug/L			2936367	2725353	0
	Th	232	195.545	ug/L	2.549	1	105	10081931	1
	U	238	194.456	ug/L	1.472	0	3	10697696	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:50:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1279270	1
	Be	9	293.141	ug/L	2.923	0	6	1119101	1
	C	13		ug/L			128325	129085	1
	Cl	37		ug/L			5185507	5571625	1
>	Sc	45		ug/L			1499666	1374725	1
	V-1	51	301.656	ug/L	9.438	3	10358	7997118	1
	V	51	301.448	ug/L	9.363	3	252	7989630	1
	Cr	52	298.667	ug/L	3.805	1	30790	6408615	0
	Cr	53	297.948	ug/L	3.759	1	247	721778	1
	Mn	55	298.757	ug/L	4.757	1	516	8744837	1
	Co	59	299.340	ug/L	4.518	1	49	6199197	0
>	Ge	72		ug/L			704849	614332	0
	Ni	60	299.462	ug/L	5.871	1	21	1232076	2
	Ni	62	301.594	ug/L	1.356	0	89	176996	0
	Cu	63	302.608	ug/L	7.113	2	84	2788354	1
	Cu	65	299.833	ug/L	5.590	1	30	1219946	1
	Zn	66	287.291	ug/L	11.846	4	130	689161	3
	Zn	67	283.105	ug/L	0.618	0	19	113810	0
	Zn	68	293.573	ug/L	4.271	1	181	492935	1
	As-1	75	300.536	ug/L	3.535	1	-71	608751	0
	As	75	302.455	ug/L	2.897	0	10853	616554	0
	Se	82	290.653	ug/L	3.953	1	2	66557	1
	Se-1	78	297.624	ug/L	3.854	1	11078	177395	0
	Mo	98	309.371	ug/L	3.049	0	31	1636781	0
	Y	89		ug/L			479152	433928	1
	Kr	83		ug/L			73	229	4
>	In	115		ug/L			1226321	1135831	0
	Ag	107	300.967	ug/L	5.201	1	32	3321117	1
	Cd	111	287.884	ug/L	3.406	1	89	1581752	1
	Cd	114	290.050	ug/L	2.472	0	33	3965298	0
	Sb	121	290.293	ug/L	2.058	0	33	5176999	0
	Sb	123	286.397	ug/L	1.273	0	21	3883018	0
	Ba	135	304.256	ug/L	3.429	1	16	1497306	1
	Ba	137	316.038	ug/L	1.138	0	25	2656775	0
>	Tb	159		ug/L			1340188	1313793	1
	Tl	205	290.839	ug/L	4.706	1	11	12108729	0
	Pb	208	295.852	ug/L	3.735	1	94	15956751	0
	Bi	209		ug/L			2936367	2581136	0
	Th	232	296.689	ug/L	4.173	1	105	14880657	0
	U	238	292.429	ug/L	6.392	2	3	15648574	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 10:56:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1307250	3
	Be	9	0.016	ug/L	0.018	111	6	68	101
	C	13		ug/L			128325	132437	0
	Cl	37		ug/L			5185507	5418728	0
>	Sc	45		ug/L			1499666	1394641	1
	V-1	51	0.034	ug/L	0.031	91	10358	10537	8
	V	51	0.027	ug/L	0.036	133	252	965	101
	Cr	52	0.064	ug/L	0.030	45	30790	30031	2
	Cr	53	0.041	ug/L	0.047	113	247	332	35
	Mn	55	0.038	ug/L	0.035	93	516	1616	66
	Co	59	0.025	ug/L	0.038	154	49	566	141
>	Ge	72		ug/L			704849	670167	1
	Ni	60	0.048	ug/L	0.031	64	21	235	60
	Ni	62	0.251	ug/L	0.091	36	89	245	22
	Cu	63	0.054	ug/L	0.020	37	84	622	33
	Cu	65	0.044	ug/L	0.022	50	30	226	45
	Zn	66	0.443	ug/L	0.019	4	130	1284	4
	Zn	67	0.401	ug/L	0.026	6	19	194	6
	Zn	68	0.456	ug/L	0.017	3	181	1008	4
	As-1	75	0.008	ug/L	0.018	225	-71	-50	76
	As	75	0.061	ug/L	0.076	125	10853	10450	0
	Se	82	-0.001	ug/L	0.029	2876	2	2	322
	Se-1	78	0.161	ug/L	0.324	200	11078	10630	0
	Mo	98	0.065	ug/L	0.018	28	31	402	25
	Y	89		ug/L			479152	453988	0
	Kr	83		ug/L			73	63	2
>	In	115		ug/L			1226321	1188391	1
	Ag	107	0.006	ug/L	0.002	36	32	102	23
	Cd	111	0.010	ug/L	0.003	33	89	142	12
	Cd	114	0.004	ug/L	0.002	51	33	86	30
	Sb	121	0.074	ug/L	0.016	20	33	1413	20
	Sb	123	0.071	ug/L	0.014	19	21	1032	19
	Ba	135	0.019	ug/L	0.002	9	16	112	7
	Ba	137	0.018	ug/L	0.001	2	25	187	3
>	Tb	159		ug/L			1340188	1282303	1
	Tl	205	0.025	ug/L	0.004	17	11	1023	17
	Pb	208	0.012	ug/L	0.002	13	94	734	10
	Bi	209		ug/L			2936367	2893505	1
	Th	232	0.172	ug/L	0.024	13	105	8524	14
	U	238	0.010	ug/L	0.004	41	3	540	40

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO28 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:01:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1340517	1
	Be	9	0.004	ug/L	0.001	24	6	22	17
	C	13		ug/L			128325	134821	0
	Cl	37		ug/L			5185507	5576591	4
>	Sc	45		ug/L			1499666	1468064	1
	V-1	51	0.027	ug/L	0.006	22	10358	10913	1
	V	51	0.027	ug/L	0.001	5	252	1002	4
	Cr	52	0.077	ug/L	0.031	40	30790	31894	2
	Cr	53	0.074	ug/L	0.011	14	247	434	7
	Mn	55	0.018	ug/L	0.000	0	516	1077	0
	Co	59	0.001	ug/L	0.000	29	49	70	9
>	Ge	72		ug/L			704849	687498	3
	Ni	60	0.007	ug/L	0.002	23	21	51	12
	Ni	62	0.050	ug/L	0.027	52	89	120	13
	Cu	63	0.024	ug/L	0.000	0	84	325	2
	Cu	65	0.020	ug/L	0.001	4	30	120	2
	Zn	66	0.322	ug/L	0.022	6	130	990	3
	Zn	67	0.272	ug/L	0.019	6	19	141	6
	Zn	68	0.340	ug/L	0.040	11	181	813	7
	As-1	75	0.014	ug/L	0.012	84	-71	-37	70
	As	75	0.041	ug/L	0.100	242	10853	10674	0
	Se	82	0.038	ug/L	0.016	42	2	12	31
	Se-1	78	0.102	ug/L	0.401	392	11078	10865	0
	Mo	98	0.046	ug/L	0.019	41	31	302	39
	Y	89		ug/L			479152	475172	0
	Kr	83		ug/L			73	63	4
>	In	115		ug/L			1226321	1222756	2
	Ag	107	0.001	ug/L	0.001	37	32	49	15
	Cd	111	0.006	ug/L	0.000	7	89	126	3
	Cd	114	0.002	ug/L	0.000	24	33	58	12
	Sb	121	0.028	ug/L	0.004	12	33	570	10
	Sb	123	0.028	ug/L	0.002	7	21	430	5
	Ba	135	0.016	ug/L	0.001	3	16	100	2
	Ba	137	0.019	ug/L	0.000	2	25	198	1
>	Tb	159		ug/L			1340188	1305434	2
	Tl	205	0.036	ug/L	0.032	89	11	1470	86
	Pb	208	0.004	ug/L	0.000	2	94	331	3
	Bi	209		ug/L			2936367	2944615	0
	Th	232	0.178	ug/L	0.041	23	105	8956	21
	U	238	0.004	ug/L	0.000	11	3	208	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UP02 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:05:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1350765	0
	Be	9	0.005	ug/L	0.001	21	6	25	16
	C	13		ug/L			128325	134889	0
	Cl	37		ug/L			5185507	5496986	2
>	Sc	45		ug/L			1499666	1485694	1
	V-1	51	0.017	ug/L	0.014	81	10358	10749	2
	V	51	0.010	ug/L	0.000	1	252	544	2
	Cr	52	0.047	ug/L	0.053	113	30790	31578	2
	Cr	53	0.023	ug/L	0.013	55	247	305	10
	Mn	55	0.023	ug/L	0.006	24	516	1226	15
	Co	59	0.007	ug/L	0.006	93	49	202	71
>	Ge	72		ug/L			704849	677194	1
	Ni	60	0.099	ug/L	0.015	15	21	469	13
	Ni	62	0.106	ug/L	0.012	11	89	154	5
	Cu	63	0.164	ug/L	0.010	6	84	1741	4
	Cu	65	0.163	ug/L	0.009	5	30	761	4
	Zn	66	1.331	ug/L	0.026	1	130	3643	0
	Zn	67	1.105	ug/L	0.044	3	19	508	3
	Zn	68	1.286	ug/L	0.035	2	181	2553	1
	As-1	75	0.004	ug/L	0.007	172	-71	-59	28
	As	75	0.102	ug/L	0.064	62	10853	10652	0
	Se	82	0.037	ug/L	0.008	22	2	11	17
	Se-1	78	0.363	ug/L	0.203	55	11078	10869	0
	Mo	98	0.019	ug/L	0.004	21	31	142	16
	Y	89		ug/L			479152	472787	0
	Kr	83		ug/L			73	64	3
>	In	115		ug/L			1226321	1221412	0
	Ag	107	0.002	ug/L	0.000	23	32	51	8
	Cd	111	0.007	ug/L	0.002	30	89	129	9
	Cd	114	0.001	ug/L	0.001	48	33	54	18
	Sb	121	0.017	ug/L	0.002	8	33	366	7
	Sb	123	0.017	ug/L	0.001	6	21	263	6
	Ba	135	0.010	ug/L	0.001	7	16	67	5
	Ba	137	0.009	ug/L	0.001	12	25	103	8
>	Tb	159		ug/L			1340188	1321333	1
	Tl	205	0.004	ug/L	0.000	3	11	158	1
	Pb	208	0.011	ug/L	0.001	7	94	684	5
	Bi	209		ug/L			2936367	2950289	0
	Th	232	0.091	ug/L	0.017	18	105	4672	17
	U	238	0.002	ug/L	0.000	18	3	135	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UP02 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:09:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1361422	2
	Be	9	26.839	ug/L	1.188	4	6	108986	2
	C	13		ug/L			128325	136383	1
	Cl	37		ug/L			5185507	5611896	0
>	Sc	45		ug/L			1499666	1474058	3
	V-1	51	26.083	ug/L	1.542	5	10358	749989	3
	V	51	26.225	ug/L	1.481	5	252	744792	2
	Cr	52	26.429	ug/L	0.986	3	30790	635170	0
	Cr	53	26.923	ug/L	0.781	2	247	70112	1
	Mn	55	27.010	ug/L	0.780	2	516	847715	1
	Co	59	27.413	ug/L	0.853	3	49	608406	1
>	Ge	72		ug/L			704849	687858	0
	Ni	60	27.436	ug/L	0.512	1	21	126395	1
	Ni	62	28.293	ug/L	0.402	1	89	18671	1
	Cu	63	27.891	ug/L	0.662	2	84	287820	1
	Cu	65	27.960	ug/L	0.300	1	30	127409	1
	Zn	66	87.754	ug/L	1.283	1	130	235825	1
	Zn	67	78.078	ug/L	1.622	2	19	35159	2
	Zn	68	84.931	ug/L	0.796	0	181	159811	1
	As-1	75	26.999	ug/L	0.101	0	-71	61171	0
	As	75	26.813	ug/L	0.276	1	10853	70851	0
	Se	82	80.239	ug/L	0.340	0	2	20575	0
	Se-1	78	81.230	ug/L	1.044	1	11078	62070	0
	Mo	98	0.017	ug/L	0.002	12	31	130	9
	Y	89		ug/L			479152	471664	3
	Kr	83		ug/L			73	66	6
>	In	115		ug/L			1226321	1228056	1
	Ag	107	26.697	ug/L	1.085	4	32	318396	2
	Cd	111	26.908	ug/L	0.590	2	89	159886	0
	Cd	114	26.567	ug/L	0.033	0	33	392720	1
	Sb	121	0.014	ug/L	0.000	2	33	307	0
	Sb	123	0.016	ug/L	0.001	3	21	251	3
	Ba	135	26.027	ug/L	0.781	3	16	138455	1
	Ba	137	26.262	ug/L	0.530	2	25	238664	0
>	Tb	159		ug/L			1340188	1326264	1
	Tl	205	27.677	ug/L	0.351	1	11	1163333	0
	Pb	208	28.197	ug/L	0.349	1	94	1535377	0
	Bi	209		ug/L			2936367	2966591	1
	Th	232	27.260	ug/L	0.774	2	105	1380300	2
	U	238	27.780	ug/L	0.106	0	3	1500992	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO28 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:13:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1348129	1
	Be	9	26.563	ug/L	0.456	1	6	106896	2
	C	13		ug/L			128325	136692	2
	Cl	37		ug/L			5185507	5426932	2
>	Sc	45		ug/L			1499666	1468769	2
	V-1	51	25.526	ug/L	0.597	2	10358	732316	1
	V	51	25.663	ug/L	0.728	2	252	726906	1
	Cr	52	26.033	ug/L	0.602	2	30790	624300	2
	Cr	53	26.510	ug/L	0.690	2	247	68815	0
	Mn	55	26.727	ug/L	0.483	1	516	836269	1
	Co	59	26.685	ug/L	0.515	1	49	590432	0
>	Ge	72		ug/L			704849	679434	2
	Ni	60	26.818	ug/L	1.053	3	21	121983	2
	Ni	62	27.727	ug/L	0.728	2	89	18068	0
	Cu	63	27.334	ug/L	0.785	2	84	278540	0
	Cu	65	28.078	ug/L	0.934	3	30	126317	1
	Zn	66	85.513	ug/L	0.746	0	130	227002	2
	Zn	67	75.826	ug/L	0.502	0	19	33723	1
	Zn	68	84.673	ug/L	1.425	1	181	157331	0
	As-1	75	26.570	ug/L	0.391	1	-71	59450	0
	As	75	26.126	ug/L	0.593	2	10853	68443	0
	Se	82	80.717	ug/L	1.070	1	2	20441	0
	Se-1	78	80.808	ug/L	1.823	2	11078	61035	0
	Mo	98	0.016	ug/L	0.004	25	31	123	17
	Y	89		ug/L			479152	469672	2
	Kr	83		ug/L			73	62	5
>	In	115		ug/L			1226321	1222044	1
	Ag	107	26.655	ug/L	0.857	3	32	316425	2
	Cd	111	26.448	ug/L	0.349	1	89	156414	1
	Cd	114	26.129	ug/L	0.356	1	33	384311	0
	Sb	121	0.011	ug/L	0.000	1	33	244	1
	Sb	123	0.011	ug/L	0.001	6	21	182	6
	Ba	135	25.790	ug/L	0.327	1	16	136550	0
	Ba	137	25.642	ug/L	0.477	1	25	231906	0
>	Tb	159		ug/L			1340188	1316347	0
	Tl	205	27.205	ug/L	0.303	1	11	1135012	1
	Pb	208	27.676	ug/L	0.220	0	94	1495886	0
	Bi	209		ug/L			2936367	2936215	1
	Th	232	27.124	ug/L	0.697	2	105	1363316	2
	U	238	27.138	ug/L	0.230	0	3	1455341	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO34 B REN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:17:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1333274	0
	Be	9	0.009	ug/L	0.001	16	6	42	13
	C	13		ug/L			128325	127006	3
	Cl	37		ug/L			5185507	5391028	3
>	Sc	45		ug/L			1499666	1464603	0
	V-1	51	0.559	ug/L	0.044	7	10358	25898	4
	V	51	0.577	ug/L	0.015	2	252	16551	1
	Cr	52	1.398	ug/L	0.083	5	30790	61882	2
	Cr	53	1.458	ug/L	0.033	2	247	4003	2
	Mn	55	10.614	ug/L	0.262	2	516	331484	1
	Co	59	0.265	ug/L	0.003	1	49	5887	0
>	Ge	72		ug/L			704849	686207	1
	Ni	60	1.187	ug/L	0.034	2	21	5472	1
	Ni	62	1.277	ug/L	0.026	1	89	923	0
	Cu	63	2.972	ug/L	0.165	5	84	30652	4
	Cu	65	2.965	ug/L	0.069	2	30	13505	2
	Zn	66	105.123	ug/L	2.593	2	130	281756	2
	Zn	67	92.988	ug/L	1.438	1	19	41763	0
	Zn	68	103.150	ug/L	2.743	2	181	193556	2
	As-1	75	0.184	ug/L	0.011	5	-71	347	8
	As	75	0.125	ug/L	0.070	55	10853	10846	0
	Se	82	0.042	ug/L	0.034	81	2	13	66
	Se-1	78	-0.181	ug/L	0.267	147	11078	10670	0
	Mo	98	0.231	ug/L	0.008	3	31	1396	1
	Y	89		ug/L			479152	469147	1
	Kr	83		ug/L			73	68	6
>	In	115		ug/L			1226321	1209683	1
	Ag	107	0.592	ug/L	0.023	3	32	6987	2
	Cd	111	0.073	ug/L	0.006	7	89	517	7
	Cd	114	0.068	ug/L	0.001	1	33	1027	2
	Sb	121	0.031	ug/L	0.001	1	33	626	3
	Sb	123	0.030	ug/L	0.004	11	21	453	10
	Ba	135	6.468	ug/L	0.161	2	16	33902	0
	Ba	137	6.292	ug/L	0.066	1	25	56355	1
>	Tb	159		ug/L			1340188	1316724	1
	Tl	205	0.006	ug/L	0.005	82	11	264	80
	Pb	208	2.433	ug/L	0.031	1	94	131586	0
	Bi	209		ug/L			2936367	2939308	0
	Th	232	0.157	ug/L	0.032	20	105	7982	18
	U	238	0.013	ug/L	0.002	16	3	702	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UP02 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:21:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1325970	1
	Be	9	0.021	ug/L	0.002	10	6	87	9
	C	13		ug/L			128325	134422	1
	Cl	37		ug/L			5185507	5687011	3
>	Sc	45		ug/L			1499666	1519467	2
	V-1	51	7.562	ug/L	0.184	2	10358	231797	0
	V	51	7.592	ug/L	0.162	2	252	222638	0
	Cr	52	1.497	ug/L	0.076	5	30790	66524	0
	Cr	53	1.620	ug/L	0.030	1	247	4588	2
	Mn	55	9.944	ug/L	0.232	2	516	322146	0
	Co	59	0.336	ug/L	0.006	1	49	7743	1
>	Ge	72		ug/L			704849	690767	0
	Ni	60	1.362	ug/L	0.061	4	21	6320	3
	Ni	62	1.254	ug/L	0.054	4	89	914	3
	Cu	63	2.139	ug/L	0.035	1	84	22242	0
	Cu	65	1.967	ug/L	0.041	2	30	9028	1
	Zn	66	2.481	ug/L	0.053	2	130	6819	1
	Zn	67	2.996	ug/L	0.094	3	19	1373	3
	Zn	68	3.136	ug/L	0.065	2	181	6096	2
	As-1	75	5.237	ug/L	0.068	1	-71	11858	0
	As	75	5.250	ug/L	0.101	1	10853	22485	0
	Se	82	0.210	ug/L	0.030	14	2	56	13
	Se-1	78	0.082	ug/L	0.132	160	11078	10909	0
	Mo	98	1.500	ug/L	0.011	0	31	8956	0
	Y	89		ug/L			479152	485636	1
	Kr	83		ug/L			73	69	1
>	In	115		ug/L			1226321	1208778	1
	Ag	107	0.007	ug/L	0.002	31	32	109	23
	Cd	111	0.018	ug/L	0.002	13	89	195	5
	Cd	114	0.008	ug/L	0.003	40	33	146	32
	Sb	121	3.229	ug/L	0.042	1	33	61319	0
	Sb	123	3.180	ug/L	0.056	1	21	45904	0
	Ba	135	5.393	ug/L	0.113	2	16	28254	0
	Ba	137	5.387	ug/L	0.138	2	25	48208	1
>	Tb	159		ug/L			1340188	1345158	0
	Tl	205	0.009	ug/L	0.001	10	11	384	10
	Pb	208	0.437	ug/L	0.002	0	94	24207	0
	Bi	209		ug/L			2936367	2898397	1
	Th	232	0.257	ug/L	0.044	17	105	13310	17
	U	238	0.283	ug/L	0.005	1	3	15496	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UP02 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:25:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1355929	1
	Be	9	0.003	ug/L	0.000	10	6	17	5
	C	13		ug/L			128325	136964	1
	Cl	37		ug/L			5185507	5524986	2
>	Sc	45		ug/L			1499666	1495110	1
	V-1	51	6.519	ug/L	0.186	2	10358	198054	1
	V	51	6.515	ug/L	0.180	2	252	188035	1
	Cr	52	0.853	ug/L	0.042	4	30790	50511	0
	Cr	53	0.857	ug/L	0.019	2	247	2503	0
	Mn	55	0.677	ug/L	0.024	3	516	22073	1
	Co	59	0.086	ug/L	0.005	5	49	1980	3
>	Ge	72		ug/L			704849	692364	2
	Ni	60	0.424	ug/L	0.008	1	21	1988	4
	Ni	62	0.251	ug/L	0.022	8	89	254	6
	Cu	63	1.125	ug/L	0.015	1	84	11767	2
	Cu	65	0.967	ug/L	0.008	0	30	4463	2
	Zn	66	0.925	ug/L	0.056	6	130	2625	3
	Zn	67	1.155	ug/L	0.054	4	19	542	5
	Zn	68	1.425	ug/L	0.025	1	181	2873	0
	As-1	75	4.872	ug/L	0.125	2	-71	11048	0
	As	75	4.851	ug/L	0.246	5	10853	21626	0
	Se	82	0.213	ug/L	0.034	15	2	57	14
	Se-1	78	-0.036	ug/L	0.445	1245	11078	10855	0
	Mo	98	1.446	ug/L	0.028	1	31	8652	1
	Y	89		ug/L			479152	475005	1
	Kr	83		ug/L			73	66	6
>	In	115		ug/L			1226321	1216978	0
	Ag	107	0.002	ug/L	0.001	55	32	60	25
	Cd	111	0.007	ug/L	0.002	25	89	131	8
	Cd	114	0.003	ug/L	0.001	27	33	71	14
	Sb	121	3.270	ug/L	0.047	1	33	62517	0
	Sb	123	3.233	ug/L	0.073	2	21	46987	1
	Ba	135	1.949	ug/L	0.023	1	16	10290	0
	Ba	137	1.957	ug/L	0.018	0	25	17652	0
>	Tb	159		ug/L			1340188	1346188	0
	Tl	205	0.003	ug/L	0.000	5	11	144	4
	Pb	208	0.033	ug/L	0.001	1	94	1929	2
	Bi	209		ug/L			2936367	2907328	1
	Th	232	0.095	ug/L	0.019	20	105	4986	18
	U	238	0.227	ug/L	0.002	0	3	12465	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:30:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1319903	1
	Be	9	51.079	ug/L	1.026	2	6	201174	0
	C	13		ug/L			128325	125339	1
	Cl	37		ug/L			5185507	5571257	1
>	Sc	45		ug/L			1499666	1446734	1
	V-1	51	48.292	ug/L	0.555	1	10358	1356053	1
	V	51	48.053	ug/L	0.342	0	252	1340849	0
	Cr	52	49.920	ug/L	1.083	2	30790	1152017	1
	Cr	53	49.078	ug/L	0.711	1	247	125315	0
	Mn	55	50.654	ug/L	0.691	1	516	1560870	1
	Co	59	48.723	ug/L	1.324	2	49	1061873	1
>	Ge	72		ug/L			704849	670931	1
	Ni	60	50.445	ug/L	1.555	3	21	226610	1
	Ni	62	49.430	ug/L	0.546	1	89	31749	0
	Cu	63	49.640	ug/L	1.045	2	84	499554	1
	Cu	65	50.157	ug/L	1.437	2	30	222843	1
	Zn	66	51.333	ug/L	0.877	1	130	134579	0
	Zn	67	50.089	ug/L	0.467	0	19	22005	1
	Zn	68	50.753	ug/L	0.939	1	181	93198	0
	As-1	75	50.036	ug/L	1.190	2	-71	110606	0
	As	75	50.135	ug/L	1.338	2	10853	120206	0
	Se	82	50.718	ug/L	1.274	2	2	12683	1
	Se-1	78	51.105	ug/L	1.828	3	11078	41990	1
	Mo	98	49.470	ug/L	2.032	4	31	285750	2
	Y	89		ug/L			479152	458099	1
	Kr	83		ug/L			73	83	4
>	In	115		ug/L			1226321	1213118	0
	Ag	107	50.270	ug/L	0.542	1	32	592466	0
	Cd	111	49.689	ug/L	0.572	1	89	291654	1
	Cd	114	49.274	ug/L	0.664	1	33	719497	1
	Sb	121	49.399	ug/L	0.132	0	33	940930	0
	Sb	123	49.143	ug/L	0.125	0	21	711648	0
	Ba	135	48.398	ug/L	0.493	1	16	254404	1
	Ba	137	48.111	ug/L	0.171	0	25	431980	0
>	Tb	159		ug/L			1340188	1321163	0
	Tl	205	51.508	ug/L	0.270	0	11	2156725	0
	Pb	208	50.823	ug/L	0.486	0	94	2756818	0
	Bi	209		ug/L			2936367	2888323	0
	Th	232	52.122	ug/L	1.010	1	105	2629377	2
	U	238	52.408	ug/L	0.442	0	3	2820733	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:35:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1294226	2
	Be	9	0.005	ug/L	0.001	23	6	25	18
	C	13		ug/L			128325	123863	0
	Cl	37		ug/L			5185507	5565189	2
>	Sc	45		ug/L			1499666	1417276	0
	V-1	51	-0.004	ug/L	0.006	124	10358	9668	2
	V	51	0.003	ug/L	0.001	30	252	319	8
	Cr	52	-0.026	ug/L	0.025	96	30790	28527	2
	Cr	53	-0.000	ug/L	0.006	3753	247	233	6
	Mn	55	0.000	ug/L	0.001	3216	516	489	7
	Co	59	0.001	ug/L	0.001	57	49	71	20
>	Ge	72		ug/L			704849	655410	1
	Ni	60	0.000	ug/L	0.001	132	21	21	9
	Ni	62	-0.013	ug/L	0.006	50	89	75	5
	Cu	63	0.000	ug/L	0.001	258	84	80	6
	Cu	65	0.001	ug/L	0.002	173	30	34	29
	Zn	66	0.122	ug/L	0.009	7	130	432	6
	Zn	67	0.129	ug/L	0.013	10	19	73	7
	Zn	68	0.121	ug/L	0.004	3	181	384	0
	As-1	75	0.011	ug/L	0.003	25	-71	-43	13
	As	75	0.130	ug/L	0.043	32	10853	10369	1
	Se	82	0.043	ug/L	0.038	88	2	12	71
	Se-1	78	0.429	ug/L	0.165	38	11078	10559	1
	Mo	98	0.020	ug/L	0.012	59	31	139	45
	Y	89		ug/L			479152	449432	3
	Kr	83		ug/L			73	58	13
>	In	115		ug/L			1226321	1177151	2
	Ag	107	0.004	ug/L	0.004	122	32	72	68
	Cd	111	0.008	ug/L	0.005	62	89	132	19
	Cd	114	0.003	ug/L	0.004	143	33	73	80
	Sb	121	0.039	ug/L	0.014	34	33	758	30
	Sb	123	0.041	ug/L	0.016	39	21	591	35
	Ba	135	0.001	ug/L	0.003	204	16	22	62
	Ba	137	0.002	ug/L	0.003	153	25	43	65
>	Tb	159		ug/L			1340188	1262714	1
	Tl	205	0.004	ug/L	0.003	79	11	172	72
	Pb	208	0.009	ug/L	0.002	27	94	546	21
	Bi	209		ug/L			2936367	2870526	0
	Th	232	0.097	ug/L	0.018	18	105	4788	16
	U	238	0.003	ug/L	0.002	56	3	180	53

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO26 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:39:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1368513	2
	Be	9	0.005	ug/L	0.001	23	6	27	21
	C	13		ug/L			128325	137181	4
	Cl	37		ug/L			5185507	5721786	1
>	Sc	45		ug/L			1499666	1461572	2
	V-1	51	0.015	ug/L	0.012	84	10358	10505	2
	V	51	0.009	ug/L	0.000	4	252	494	3
	Cr	52	0.031	ug/L	0.037	119	30790	30707	2
	Cr	53	0.010	ug/L	0.009	84	247	268	10
	Mn	55	0.059	ug/L	0.001	1	516	2330	1
	Co	59	0.001	ug/L	0.000	37	49	71	14
>	Ge	72		ug/L			704849	685393	0
	Ni	60	0.006	ug/L	0.000	6	21	48	3
	Ni	62	0.015	ug/L	0.020	131	89	96	12
	Cu	63	0.261	ug/L	0.007	2	84	2768	2
	Cu	65	0.277	ug/L	0.005	1	30	1287	2
	Zn	66	1.851	ug/L	0.030	1	130	5079	1
	Zn	67	1.690	ug/L	0.047	2	19	777	3
	Zn	68	1.797	ug/L	0.019	1	181	3542	1
	As-1	75	0.000	ug/L	0.007	1755	-71	-68	23
	As	75	0.072	ug/L	0.030	41	10853	10714	0
	Se	82	0.017	ug/L	0.012	70	2	7	43
	Se-1	78	0.238	ug/L	0.095	39	11078	10922	0
	Mo	98	0.012	ug/L	0.004	32	31	100	23
	Y	89		ug/L			479152	466934	0
	Kr	83		ug/L			73	62	3
>	In	115		ug/L			1226321	1221508	1
	Ag	107	0.004	ug/L	0.001	19	32	80	11
	Cd	111	0.008	ug/L	0.001	16	89	138	7
	Cd	114	0.001	ug/L	0.000	36	33	48	11
	Sb	121	0.015	ug/L	0.004	24	33	319	21
	Sb	123	0.016	ug/L	0.003	21	21	252	19
	Ba	135	0.017	ug/L	0.000	2	16	104	3
	Ba	137	0.015	ug/L	0.002	14	25	162	10
>	Tb	159		ug/L			1340188	1303916	1
	Tl	205	0.006	ug/L	0.002	28	11	241	25
	Pb	208	0.040	ug/L	0.000	0	94	2213	2
	Bi	209		ug/L			2936367	2928309	1
	Th	232	0.139	ug/L	0.042	29	105	6994	28
	U	238	0.002	ug/L	0.000	7	3	125	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO35 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:43:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1330529	1
	Be	9	0.003	ug/L	0.001	34	6	17	21
	C	13		ug/L			128325	130570	3
	Cl	37		ug/L			5185507	5460469	1
>	Sc	45		ug/L			1499666	1433475	1
	V-1	51	0.011	ug/L	0.010	92	10358	10206	1
	V	51	0.006	ug/L	0.001	18	252	411	6
	Cr	52	0.028	ug/L	0.038	136	30790	30048	1
	Cr	53	0.010	ug/L	0.007	63	247	263	4
	Mn	55	0.012	ug/L	0.001	7	516	852	3
	Co	59	0.001	ug/L	0.000	14	49	74	6
>	Ge	72		ug/L			704849	672043	0
	Ni	60	0.006	ug/L	0.002	28	21	49	16
	Ni	62	0.017	ug/L	0.021	118	89	96	13
	Cu	63	0.024	ug/L	0.000	1	84	325	1
	Cu	65	0.026	ug/L	0.001	5	30	143	4
	Zn	66	3.610	ug/L	0.119	3	130	9595	3
	Zn	67	3.097	ug/L	0.025	0	19	1380	1
	Zn	68	3.517	ug/L	0.104	2	181	6630	3
	As-1	75	0.005	ug/L	0.005	100	-71	-56	20
	As	75	0.042	ug/L	0.049	116	10853	10439	0
	Se	82	-0.019	ug/L	0.015	77	2	-2	166
	Se-1	78	0.093	ug/L	0.193	208	11078	10619	0
	Mo	98	0.004	ug/L	0.001	17	31	55	7
	Y	89		ug/L			479152	454858	1
	Kr	83		ug/L			73	65	2
>	In	115		ug/L			1226321	1191499	0
	Ag	107	0.002	ug/L	0.000	23	32	53	9
	Cd	111	0.007	ug/L	0.002	23	89	128	7
	Cd	114	0.001	ug/L	0.000	45	33	47	14
	Sb	121	0.007	ug/L	0.001	16	33	163	12
	Sb	123	0.007	ug/L	0.000	4	21	121	3
	Ba	135	0.008	ug/L	0.001	14	16	55	9
	Ba	137	0.008	ug/L	0.000	4	25	97	3
>	Tb	159		ug/L			1340188	1312438	1
	Tl	205	0.002	ug/L	0.000	14	11	82	12
	Pb	208	0.078	ug/L	0.001	1	94	4280	1
	Bi	209		ug/L			2936367	2914240	0
	Th	232	0.046	ug/L	0.007	15	105	2401	14
	U	238	0.001	ug/L	0.000	6	3	45	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO35 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:47:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1318081	1
	Be	9	26.808	ug/L	0.526	1	6	105438	0
	C	13		ug/L			128325	132102	0
	Cl	37		ug/L			5185507	5635189	3
>	Sc	45		ug/L			1499666	1432812	1
	V-1	51	25.837	ug/L	0.608	2	10358	723064	1
	V	51	25.791	ug/L	0.569	2	252	712785	1
	Cr	52	26.250	ug/L	0.296	1	30790	613920	1
	Cr	53	26.089	ug/L	0.336	1	247	66086	0
	Mn	55	27.286	ug/L	0.468	1	516	832874	0
	Co	59	26.638	ug/L	0.591	2	49	575065	2
>	Ge	72		ug/L			704849	670732	1
	Ni	60	26.949	ug/L	0.623	2	21	121055	1
	Ni	62	27.610	ug/L	1.020	3	89	17762	2
	Cu	63	27.067	ug/L	0.596	2	84	272340	1
	Cu	65	27.872	ug/L	0.970	3	30	123802	2
	Zn	66	83.398	ug/L	0.507	0	130	218527	1
	Zn	67	75.786	ug/L	2.586	3	19	33266	2
	Zn	68	82.276	ug/L	1.647	2	181	150947	1
	As-1	75	26.227	ug/L	0.476	1	-71	57931	0
	As	75	26.164	ug/L	0.567	2	10853	67656	0
	Se	82	79.448	ug/L	1.334	1	2	19862	0
	Se-1	78	80.891	ug/L	1.800	2	11078	60309	0
	Mo	98	0.011	ug/L	0.003	29	31	92	20
	Y	89		ug/L			479152	462900	0
	Kr	83		ug/L			73	68	2
>	In	115		ug/L			1226321	1209386	0
	Ag	107	26.754	ug/L	0.494	1	32	314396	2
	Cd	111	26.412	ug/L	0.106	0	89	154595	1
	Cd	114	25.763	ug/L	0.168	0	33	375051	1
	Sb	121	0.008	ug/L	0.000	1	33	190	1
	Sb	123	0.009	ug/L	0.000	3	21	145	2
	Ba	135	25.691	ug/L	0.386	1	16	134636	1
	Ba	137	25.395	ug/L	0.115	0	25	227334	0
>	Tb	159		ug/L			1340188	1299088	1
	Tl	205	26.929	ug/L	0.617	2	11	1108510	1
	Pb	208	27.408	ug/L	0.549	2	94	1461617	0
	Bi	209		ug/L			2936367	2944805	1
	Th	232	26.546	ug/L	1.178	4	105	1316384	3
	U	238	27.101	ug/L	0.440	1	3	1434058	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO26 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:51:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1314540	0
	Be	9	26.995	ug/L	0.402	1	6	105909	1
	C	13		ug/L			128325	133829	2
	Cl	37		ug/L			5185507	5543244	2
>	Sc	45		ug/L			1499666	1461920	1
	V-1	51	25.659	ug/L	0.661	2	10358	732635	1
	V	51	25.453	ug/L	0.717	2	252	717611	1
	Cr	52	25.802	ug/L	0.305	1	30790	616205	1
	Cr	53	25.079	ug/L	0.629	2	247	64826	2
	Mn	55	26.805	ug/L	0.762	2	516	834692	1
	Co	59	26.055	ug/L	0.551	2	49	573803	0
>	Ge	72		ug/L			704849	675893	1
	Ni	60	27.256	ug/L	0.390	1	21	123378	1
	Ni	62	27.669	ug/L	0.402	1	89	17940	1
	Cu	63	27.217	ug/L	0.247	0	84	276010	1
	Cu	65	27.591	ug/L	0.527	1	30	123524	1
	Zn	66	81.401	ug/L	1.520	1	130	214923	1
	Zn	67	77.558	ug/L	0.554	0	19	34316	1
	Zn	68	82.093	ug/L	1.661	2	181	151798	3
	As-1	75	26.270	ug/L	0.641	2	-71	58467	0
	As	75	26.237	ug/L	0.751	2	10853	68333	0
	Se	82	78.391	ug/L	2.171	2	2	19746	1
	Se-1	78	79.913	ug/L	2.420	3	11078	60160	0
	Mo	98	0.010	ug/L	0.000	2	31	90	2
	Y	89		ug/L			479152	460996	0
	Kr	83		ug/L			73	70	7
>	In	115		ug/L			1226321	1203048	0
	Ag	107	27.278	ug/L	0.907	3	32	318853	3
	Cd	111	26.017	ug/L	0.686	2	89	151470	2
	Cd	114	26.336	ug/L	0.258	0	33	381362	0
	Sb	121	0.007	ug/L	0.000	5	33	157	3
	Sb	123	0.008	ug/L	0.001	12	21	129	10
	Ba	135	25.885	ug/L	0.180	0	16	134935	0
	Ba	137	25.801	ug/L	0.514	1	25	229743	1
>	Tb	159		ug/L			1340188	1290909	0
	Tl	205	27.351	ug/L	0.218	0	11	1119075	1
	Pb	208	27.961	ug/L	0.189	0	94	1482037	0
	Bi	209		ug/L			2936367	2931479	1
	Th	232	27.105	ug/L	0.427	1	105	1335926	0
	U	238	27.606	ug/L	0.245	0	3	1451760	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO26 GDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:55:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1317410	1
	Be	9	0.046	ug/L	0.004	8	6	185	7
	C	13		ug/L			128325	144193	0
	Cl	37		ug/L			5185507	5956274	1
>	Sc	45		ug/L			1499666	1616399	0
	V-1	51	5.565	ug/L	0.087	1	10358	184461	0
	V	51	5.630	ug/L	0.091	1	252	175741	1
	Cr	52	0.918	ug/L	0.028	3	30790	56253	1
	Cr	53	1.159	ug/L	0.023	1	247	3568	1
	Mn	55	1289.597	ug/L	2.720	0	516	44387057	0
	Co	59	0.486	ug/L	0.012	2	49	11891	1
>	Ge	72		ug/L			704849	643899	1
	Ni	60	1.373	ug/L	0.003	0	21	5940	1
	Ni	62	1.443	ug/L	0.241	16	89	967	14
	Cu	63	2.067	ug/L	0.049	2	84	20036	1
	Cu	65	1.643	ug/L	0.039	2	30	7034	1
	Zn	66	8.272	ug/L	0.209	2	130	20912	1
	Zn	67	15.457	ug/L	0.232	1	19	6529	0
	Zn	68	15.974	ug/L	0.526	3	181	28263	2
	As-1	75	3.246	ug/L	0.017	0	-71	6826	0
	As	75	3.335	ug/L	0.048	1	10853	16930	0
	Se	82	0.380	ug/L	0.029	7	2	93	6
	Se-1	78	0.636	ug/L	0.126	19	11078	10496	0
	Mo	98	0.474	ug/L	0.017	3	31	2656	2
	Y	89		ug/L			479152	489474	0
	Kr	83		ug/L			73	74	2
>	In	115		ug/L			1226321	1165100	1
	Ag	107	0.014	ug/L	0.002	15	32	190	14
	Cd	111	0.050	ug/L	0.002	3	89	364	2
	Cd	114	0.031	ug/L	0.002	7	33	472	6
	Sb	121	0.053	ug/L	0.002	3	33	1010	1
	Sb	123	0.054	ug/L	0.003	6	21	772	6
	Ba	135	148.386	ug/L	3.086	2	16	748920	0
	Ba	137	148.731	ug/L	4.266	2	25	1282233	1
>	Tb	159		ug/L			1340188	1327934	0
	Tl	205	0.006	ug/L	0.002	32	11	260	30
	Pb	208	0.285	ug/L	0.005	1	94	15635	1
	Bi	209		ug/L			2936367	2716357	1
	Th	232	0.480	ug/L	0.241	50	105	24377	48
	U	238	0.023	ug/L	0.002	9	3	1234	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO25 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 11:59:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1319811	1
	Be	9	0.040	ug/L	0.000	0	6	162	1
	C	13		ug/L			128325	144524	1
	Cl	37		ug/L			5185507	6096857	0
>	Sc	45		ug/L			1499666	1595525	1
	V-1	51	5.491	ug/L	0.117	2	10358	179779	0
	V	51	5.538	ug/L	0.122	2	252	170621	1
	Cr	52	0.919	ug/L	0.046	4	30790	55539	1
	Cr	53	1.097	ug/L	0.032	2	247	3347	1
	Mn	55	1291.771	ug/L	8.878	0	516	43884918	1
	Co	59	0.480	ug/L	0.005	1	49	11598	2
>	Ge	72		ug/L			704849	640146	2
	Ni	60	1.295	ug/L	0.028	2	21	5568	0
	Ni	62	1.405	ug/L	0.136	9	89	939	7
	Cu	63	2.005	ug/L	0.046	2	84	19315	0
	Cu	65	1.611	ug/L	0.034	2	30	6853	0
	Zn	66	8.023	ug/L	0.173	2	130	20165	2
	Zn	67	14.804	ug/L	0.332	2	19	6215	0
	Zn	68	15.624	ug/L	0.492	3	181	27477	1
	As-1	75	3.185	ug/L	0.056	1	-71	6656	1
	As	75	3.329	ug/L	0.166	4	10853	16812	0
	Se	82	0.321	ug/L	0.015	4	2	79	5
	Se-1	78	0.765	ug/L	0.408	53	11078	10506	0
	Mo	98	0.463	ug/L	0.015	3	31	2581	0
	Y	89		ug/L			479152	483255	1
	Kr	83		ug/L			73	72	8
>	In	115		ug/L			1226321	1153232	1
	Ag	107	0.010	ug/L	0.001	7	32	144	7
	Cd	111	0.045	ug/L	0.003	6	89	334	5
	Cd	114	0.029	ug/L	0.001	1	33	436	3
	Sb	121	0.052	ug/L	0.001	2	33	979	2
	Sb	123	0.052	ug/L	0.003	5	21	731	4
	Ba	135	145.837	ug/L	1.594	1	16	728605	0
	Ba	137	147.514	ug/L	1.702	1	25	1258924	0
>	Tb	159		ug/L			1340188	1325271	0
	Tl	205	0.004	ug/L	0.000	4	11	160	3
	Pb	208	0.274	ug/L	0.004	1	94	15001	0
	Bi	209		ug/L			2936367	2721387	0
	Th	232	0.166	ug/L	0.024	14	105	8500	14
	U	238	0.020	ug/L	0.001	4	3	1100	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO26 GSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:03:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1310380	0
	Be	9	25.903	ug/L	0.239	0	6	101306	0
	C	13		ug/L			128325	144252	1
	Cl	37		ug/L			5185507	6130598	1
>	Sc	45		ug/L			1499666	1603028	0
	V-1	51	29.564	ug/L	0.279	0	10358	924187	1
	V	51	29.737	ug/L	0.279	0	252	919566	1
	Cr	52	24.922	ug/L	0.483	1	30790	653793	1
	Cr	53	25.542	ug/L	0.217	0	247	72400	0
	Mn	55	1352.113	ug/L	18.313	1	516	46152782	1
	Co	59	24.540	ug/L	0.414	1	49	592737	1
>	Ge	72		ug/L			704849	644412	2
	Ni	60	28.854	ug/L	0.805	2	21	124484	0
	Ni	62	28.603	ug/L	1.002	3	89	17672	1
	Cu	63	29.007	ug/L	1.084	3	84	280306	2
	Cu	65	28.548	ug/L	0.708	2	30	121830	1
	Zn	66	88.329	ug/L	2.387	2	130	222273	0
	Zn	67	88.628	ug/L	0.789	0	19	37389	3
	Zn	68	94.613	ug/L	2.348	2	181	166696	0
	As-1	75	29.850	ug/L	1.077	3	-71	63329	1
	As	75	29.739	ug/L	1.109	3	10853	72503	0
	Se	82	77.106	ug/L	2.740	3	2	18513	1
	Se-1	78	78.238	ug/L	2.755	3	11078	56358	0
	Mo	98	0.498	ug/L	0.026	5	31	2790	3
	Y	89		ug/L			479152	488056	0
	Kr	83		ug/L			73	77	3
>	In	115		ug/L			1226321	1155780	1
	Ag	107	25.495	ug/L	0.657	2	32	286250	1
	Cd	111	25.729	ug/L	0.290	1	89	143913	0
	Cd	114	25.744	ug/L	0.275	1	33	358127	0
	Sb	121	0.060	ug/L	0.001	2	33	1117	1
	Sb	123	0.060	ug/L	0.000	0	21	844	1
	Ba	135	181.611	ug/L	3.645	2	16	909324	1
	Ba	137	185.189	ug/L	3.485	1	25	1583942	0
>	Tb	159		ug/L			1340188	1329768	0
	Tl	205	26.708	ug/L	0.332	1	11	1125609	0
	Pb	208	27.228	ug/L	0.210	0	94	1486610	0
	Bi	209		ug/L			2936367	2698905	0
	Th	232	26.381	ug/L	0.522	1	105	1339437	1
	U	238	27.403	ug/L	0.217	0	3	1484484	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO28 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:07:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1348473	1
	Be	9	0.007	ug/L	0.001	7	6	36	5
	C	13		ug/L			128325	132195	1
	Cl	37		ug/L			5185507	5755391	2
>	Sc	45		ug/L			1499666	1440231	3
	V-1	51	1.086	ug/L	0.050	4	10358	40050	0
	V	51	1.101	ug/L	0.032	2	252	30792	0
	Cr	52	0.811	ug/L	0.101	12	30790	47661	1
	Cr	53	0.863	ug/L	0.043	4	247	2425	1
	Mn	55	17.110	ug/L	0.606	3	516	524828	1
	Co	59	0.655	ug/L	0.036	5	49	14239	2
>	Ge	72		ug/L			704849	617275	1
	Ni	60	1.741	ug/L	0.080	4	21	7214	3
	Ni	62	12.523	ug/L	1.879	15	89	7462	15
	Cu	63	7.706	ug/L	0.154	1	84	71420	2
	Cu	65	0.369	ug/L	0.022	6	30	1536	6
	Zn	66	1.321	ug/L	0.065	4	130	3296	3
	Zn	67	2.862	ug/L	0.045	1	19	1173	2
	Zn	68	3.102	ug/L	0.081	2	181	5389	1
	As-1	75	2.580	ug/L	0.068	2	-71	5188	1
	As	75	2.825	ug/L	0.178	6	10853	15198	1
	Se	82	0.240	ug/L	0.012	4	2	57	4
	Se-1	78	1.069	ug/L	0.384	35	11078	10305	0
	Mo	98	2.183	ug/L	0.051	2	31	11632	2
	Y	89		ug/L			479152	452009	0
	Kr	83		ug/L			73	72	4
>	In	115		ug/L			1226321	1092771	1
	Ag	107	0.005	ug/L	0.002	45	32	77	28
	Cd	111	-0.054	ug/L	0.008	14	89	-203	10
	Cd	114	0.004	ug/L	0.002	48	33	85	31
	Sb	121	0.075	ug/L	0.000	0	33	1314	1
	Sb	123	0.075	ug/L	0.002	2	21	991	1
	Ba	135	32.604	ug/L	0.407	1	16	154363	0
	Ba	137	32.383	ug/L	0.709	2	25	261870	1
>	Tb	159		ug/L			1340188	1251263	0
	Tl	205	0.003	ug/L	0.001	26	11	126	24
	Pb	208	0.016	ug/L	0.000	0	94	896	0
	Bi	209		ug/L			2936367	2438433	0
	Th	232	0.183	ug/L	0.081	44	105	8851	43
	U	238	0.292	ug/L	0.004	1	3	14874	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO28 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:11:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1325646	1
	Be	9	0.005	ug/L	0.001	19	6	26	14
	C	13		ug/L			128325	131833	1
	Cl	37		ug/L			5185507	5551625	5
>	Sc	45		ug/L			1499666	1397225	0
	V-1	51	1.059	ug/L	0.010	0	10358	38167	0
	V	51	1.090	ug/L	0.008	0	252	29607	0
	Cr	52	0.806	ug/L	0.036	4	30790	46195	1
	Cr	53	0.915	ug/L	0.008	0	247	2482	0
	Mn	55	16.356	ug/L	0.514	3	516	487092	3
	Co	59	0.631	ug/L	0.004	0	49	13334	0
>	Ge	72		ug/L			704849	615507	1
	Ni	60	1.656	ug/L	0.033	1	21	6845	0
	Ni	62	3.151	ug/L	0.147	4	89	1930	4
	Cu	63	6.463	ug/L	0.148	2	84	59732	1
	Cu	65	0.305	ug/L	0.006	1	30	1271	0
	Zn	66	1.451	ug/L	0.040	2	130	3599	1
	Zn	67	2.839	ug/L	0.096	3	19	1160	2
	Zn	68	3.179	ug/L	0.104	3	181	5504	3
	As-1	75	2.432	ug/L	0.062	2	-71	4873	1
	As	75	2.683	ug/L	0.084	3	10853	14873	0
	Se	82	0.245	ug/L	0.050	20	2	58	19
	Se-1	78	1.084	ug/L	0.102	9	11078	10286	0
	Mo	98	2.128	ug/L	0.022	1	31	11307	0
	Y	89		ug/L			479152	439177	0
	Kr	83		ug/L			73	68	4
>	In	115		ug/L			1226321	1080964	0
	Ag	107	0.002	ug/L	0.000	8	32	44	2
	Cd	111	-0.068	ug/L	0.009	13	89	-274	16
	Cd	114	0.003	ug/L	0.001	43	33	64	23
	Sb	121	0.072	ug/L	0.002	2	33	1245	3
	Sb	123	0.072	ug/L	0.002	2	21	943	2
	Ba	135	31.195	ug/L	0.230	0	16	146109	0
	Ba	137	31.195	ug/L	0.382	1	25	249580	0
>	Tb	159		ug/L			1340188	1263799	0
	Tl	205	0.002	ug/L	0.001	38	11	84	33
	Pb	208	0.013	ug/L	0.001	7	94	789	6
	Bi	209		ug/L			2936367	2455392	0
	Th	232	0.074	ug/L	0.011	15	105	3688	15
	U	238	0.275	ug/L	0.007	2	3	14136	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO28 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:16:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1326749	1
	Be	9	23.743	ug/L	0.725	3	6	94036	3
	C	13		ug/L			128325	129363	2
	Cl	37		ug/L			5185507	5597284	0
>	Sc	45		ug/L			1499666	1420897	1
	V-1	51	26.402	ug/L	0.777	2	10358	732452	2
	V	51	26.391	ug/L	0.837	3	252	723236	2
	Cr	52	25.821	ug/L	0.801	3	30790	599158	1
	Cr	53	25.782	ug/L	0.713	2	247	64757	1
	Mn	55	41.468	ug/L	0.651	1	516	1254941	0
	Co	59	25.319	ug/L	0.597	2	49	541944	0
>	Ge	72		ug/L			704849	613108	1
	Ni	60	27.737	ug/L	1.037	3	21	113864	2
	Ni	62	28.709	ug/L	0.606	2	89	16882	1
	Cu	63	31.965	ug/L	1.179	3	84	293940	2
	Cu	65	26.446	ug/L	0.090	0	30	107409	1
	Zn	66	75.569	ug/L	2.786	3	130	180967	2
	Zn	67	71.602	ug/L	1.147	1	19	28736	0
	Zn	68	75.571	ug/L	3.058	4	181	126712	2
	As-1	75	29.408	ug/L	0.784	2	-71	59380	1
	As	75	29.266	ug/L	0.744	2	10853	68055	1
	Se	82	75.992	ug/L	1.953	2	2	17365	1
	Se-1	78	76.979	ug/L	1.838	2	11078	52927	0
	Mo	98	2.135	ug/L	0.054	2	31	11299	1
	Y	89		ug/L			479152	433991	2
	Kr	83		ug/L			73	71	4
>	In	115		ug/L			1226321	1073328	1
	Ag	107	24.624	ug/L	0.386	1	32	256764	1
	Cd	111	24.977	ug/L	0.217	0	89	129742	0
	Cd	114	24.498	ug/L	0.611	2	33	316444	1
	Sb	121	0.075	ug/L	0.004	4	33	1290	3
	Sb	123	0.078	ug/L	0.001	1	21	1020	0
	Ba	135	59.458	ug/L	0.733	1	16	276489	0
	Ba	137	59.653	ug/L	1.131	1	25	473819	0
>	Tb	159		ug/L			1340188	1250304	0
	Tl	205	25.460	ug/L	0.280	1	11	1008916	0
	Pb	208	25.749	ug/L	0.223	0	94	1321856	0
	Bi	209		ug/L			2936367	2441417	0
	Th	232	27.031	ug/L	0.152	0	105	1290507	0
	U	238	27.701	ug/L	0.405	1	3	1411043	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:20:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1277721	0
	Be	9	51.304	ug/L	1.215	2	6	195633	1
	C	13		ug/L			128325	120236	2
	Cl	37		ug/L			5185507	5542918	4
>	Sc	45		ug/L			1499666	1368985	2
	V-1	51	50.085	ug/L	1.030	2	10358	1330028	0
	V	51	49.978	ug/L	0.964	1	252	1319243	1
	Cr	52	50.648	ug/L	1.980	3	30790	1105022	1
	Cr	53	50.272	ug/L	1.361	2	247	121418	0
	Mn	55	50.466	ug/L	1.490	2	516	1470976	1
	Co	59	50.168	ug/L	1.170	2	49	1034467	1
>	Ge	72		ug/L			704849	643919	2
	Ni	60	50.202	ug/L	2.342	4	21	216338	2
	Ni	62	51.159	ug/L	2.319	4	89	31513	2
	Cu	63	50.772	ug/L	1.425	2	84	490231	1
	Cu	65	50.671	ug/L	1.505	2	30	216008	0
	Zn	66	51.250	ug/L	1.989	3	130	128887	1
	Zn	67	51.957	ug/L	1.185	2	19	21898	0
	Zn	68	53.296	ug/L	1.359	2	181	93896	1
	As-1	75	51.166	ug/L	1.181	2	-71	108535	0
	As	75	51.208	ug/L	1.622	3	10853	117593	0
	Se	82	51.865	ug/L	1.220	2	2	12445	0
	Se-1	78	52.027	ug/L	2.791	5	11078	40826	1
	Mo	98	50.992	ug/L	1.075	2	31	282698	0
	Y	89		ug/L			479152	445787	0
	Kr	83		ug/L			73	75	9
>	In	115		ug/L			1226321	1158564	1
	Ag	107	51.429	ug/L	1.633	3	32	578732	1
	Cd	111	51.352	ug/L	0.928	1	89	287823	0
	Cd	114	50.178	ug/L	0.808	1	33	699651	0
	Sb	121	50.556	ug/L	0.566	1	33	919582	0
	Sb	123	50.744	ug/L	0.972	1	21	701669	0
	Ba	135	49.435	ug/L	0.695	1	16	248133	0
	Ba	137	49.325	ug/L	0.605	1	25	422942	0
>	Tb	159		ug/L			1340188	1287410	0
	Tl	205	52.540	ug/L	0.529	1	11	2143774	0
	Pb	208	51.334	ug/L	0.318	0	94	2713438	0
	Bi	209		ug/L			2936367	2824537	0
	Th	232	52.931	ug/L	0.483	0	105	2601992	1
	U	238	53.547	ug/L	0.528	0	3	2808378	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:24:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1252656	1
	Be	9	0.004	ug/L	0.002	50	6	20	36
	C	13		ug/L			128325	121227	2
	Cl	37		ug/L			5185507	5519204	4
>	Sc	45		ug/L			1499666	1338130	0
	V-1	51	0.011	ug/L	0.010	88	10358	9528	3
	V	51	0.003	ug/L	0.001	50	252	296	12
	Cr	52	0.038	ug/L	0.028	72	30790	28275	2
	Cr	53	0.009	ug/L	0.003	33	247	242	2
	Mn	55	0.009	ug/L	0.010	112	516	725	41
	Co	59	0.007	ug/L	0.011	153	49	189	118
>	Ge	72		ug/L			704849	629399	2
	Ni	60	0.007	ug/L	0.012	176	21	46	102
	Ni	62	0.306	ug/L	0.030	9	89	263	5
	Cu	63	0.022	ug/L	0.012	54	84	277	37
	Cu	65	0.010	ug/L	0.013	134	30	65	78
	Zn	66	0.133	ug/L	0.022	16	130	441	10
	Zn	67	0.111	ug/L	0.019	16	19	63	11
	Zn	68	0.131	ug/L	0.004	2	181	387	2
	As-1	75	-0.000	ug/L	0.007	2198	-71	-64	18
	As	75	0.254	ug/L	0.100	39	10853	10210	0
	Se	82	0.016	ug/L	0.010	60	2	6	39
	Se-1	78	0.904	ug/L	0.365	40	11078	10411	0
	Mo	98	0.018	ug/L	0.004	23	31	125	16
	Y	89		ug/L			479152	435477	1
	Kr	83		ug/L			73	62	4
>	In	115		ug/L			1226321	1123887	1
	Ag	107	0.002	ug/L	0.000	14	32	54	7
	Cd	111	0.004	ug/L	0.001	13	89	105	2
	Cd	114	0.001	ug/L	0.001	85	33	47	29
	Sb	121	0.041	ug/L	0.011	26	33	748	24
	Sb	123	0.041	ug/L	0.012	28	21	572	26
	Ba	135	0.006	ug/L	0.008	153	16	41	98
	Ba	137	0.005	ug/L	0.006	136	25	60	83
>	Tb	159		ug/L			1340188	1237612	1
	Tl	205	0.005	ug/L	0.004	73	11	215	69
	Pb	208	0.010	ug/L	0.003	32	94	601	28
	Bi	209		ug/L			2936367	2802089	2
	Th	232	0.151	ug/L	0.031	20	105	7216	20
	U	238	0.005	ug/L	0.003	51	3	253	50

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO17 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:30:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1283000	1
	Be	9	0.002	ug/L	0.001	82	6	12	43
	C	13		ug/L			128325	123926	2
	Cl	37		ug/L			5185507	5529462	5
>	Sc	45		ug/L			1499666	1367965	2
	V-1	51	0.019	ug/L	0.016	84	10358	9946	1
	V	51	0.003	ug/L	0.001	37	252	306	8
	Cr	52	0.063	ug/L	0.054	85	30790	29412	1
	Cr	53	0.006	ug/L	0.001	22	247	240	4
	Mn	55	0.019	ug/L	0.002	8	516	1014	3
	Co	59	0.003	ug/L	0.000	8	49	104	2
>	Ge	72		ug/L			704849	649344	1
	Ni	60	0.010	ug/L	0.002	22	21	63	16
	Ni	62	0.194	ug/L	0.044	22	89	202	11
	Cu	63	0.044	ug/L	0.001	2	84	502	1
	Cu	65	0.037	ug/L	0.006	15	30	185	14
	Zn	66	0.196	ug/L	0.031	15	130	617	13
	Zn	67	0.207	ug/L	0.053	25	19	106	22
	Zn	68	0.190	ug/L	0.041	21	181	505	16
	As-1	75	-0.003	ug/L	0.011	321	-71	-73	31
	As	75	0.103	ug/L	0.109	105	10853	10213	0
	Se	82	-0.050	ug/L	0.007	13	2	-9	16
	Se-1	78	0.349	ug/L	0.376	107	11078	10411	0
	Mo	98	0.005	ug/L	0.001	16	31	54	6
	Y	89		ug/L			479152	442125	1
	Kr	83		ug/L			73	73	2
>	In	115		ug/L			1226321	1167524	1
	Ag	107	0.005	ug/L	0.001	28	32	82	16
	Cd	111	0.008	ug/L	0.001	7	89	128	2
	Cd	114	0.001	ug/L	0.001	61	33	47	21
	Sb	121	0.013	ug/L	0.003	21	33	263	18
	Sb	123	0.014	ug/L	0.006	44	21	215	39
	Ba	135	0.008	ug/L	0.005	58	16	56	41
	Ba	137	0.007	ug/L	0.004	50	25	84	35
>	Tb	159		ug/L			1340188	1259062	0
	Tl	205	0.005	ug/L	0.003	49	11	213	47
	Pb	208	0.006	ug/L	0.002	26	94	420	20
	Bi	209		ug/L			2936367	2868216	0
	Th	232	0.084	ug/L	0.011	13	105	4160	13
	U	238	0.002	ug/L	0.002	71	3	123	70

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO17 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:35:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1268734	3
	Be	9	26.929	ug/L	0.282	1	6	101955	2
	C	13		ug/L			128325	123683	2
	Cl	37		ug/L			5185507	5472415	1
>	Sc	45		ug/L			1499666	1376636	1
	V-1	51	26.180	ug/L	0.375	1	10358	703853	1
	V	51	26.137	ug/L	0.377	1	252	694042	1
	Cr	52	27.669	ug/L	0.357	1	30790	620172	1
	Cr	53	27.513	ug/L	0.546	1	247	66942	1
	Mn	55	28.064	ug/L	0.178	0	516	823064	1
	Co	59	27.444	ug/L	0.375	1	49	569340	3
>	Ge	72		ug/L			704849	657744	1
	Ni	60	27.948	ug/L	0.760	2	21	123115	2
	Ni	62	27.460	ug/L	0.239	0	89	17331	2
	Cu	63	27.689	ug/L	0.117	0	84	273255	1
	Cu	65	27.911	ug/L	0.232	0	30	121619	2
	Zn	66	88.721	ug/L	0.959	1	130	227951	0
	Zn	67	77.713	ug/L	2.352	3	19	33451	1
	Zn	68	84.260	ug/L	1.527	1	181	151579	1
	As-1	75	26.716	ug/L	0.924	3	-71	57862	2
	As	75	26.901	ug/L	0.615	2	10853	67928	0
	Se	82	81.224	ug/L	2.118	2	2	19910	1
	Se-1	78	83.589	ug/L	1.543	1	11078	60770	0
	Mo	98	0.010	ug/L	0.002	23	31	83	14
	Y	89		ug/L			479152	436573	2
	Kr	83		ug/L			73	67	7
>	In	115		ug/L			1226321	1159375	2
	Ag	107	26.934	ug/L	0.527	1	32	303322	1
	Cd	111	26.969	ug/L	0.239	0	89	151312	1
	Cd	114	26.660	ug/L	0.351	1	33	371994	1
	Sb	121	0.008	ug/L	0.002	20	33	175	18
	Sb	123	0.009	ug/L	0.001	8	21	137	5
	Ba	135	26.271	ug/L	0.563	2	16	131936	0
	Ba	137	26.490	ug/L	0.716	2	25	227233	0
>	Tb	159		ug/L			1340188	1248509	0
	Tl	205	27.973	ug/L	0.322	1	11	1106894	0
	Pb	208	28.639	ug/L	0.350	1	94	1468139	1
	Bi	209		ug/L			2936367	2883012	0
	Th	232	27.857	ug/L	0.508	1	105	1328027	1
	U	238	28.279	ug/L	0.161	0	3	1438369	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO35 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:39:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1307897	2
	Be	9	**0.005**	ug/L	0.001	16	6	26	10
	C	13		ug/L			128325	132589	1
	Cl	37		ug/L			5185507	5488551	1
>	Sc	45		ug/L			1499666	1407856	2
	V-1	51	**1.372**	ug/L	0.037	2	10358	46938	2
	V	51	**1.378**	ug/L	0.033	2	252	37626	1
	Cr	52	**0.847**	ug/L	0.047	5	30790	47428	2
	Cr	53	**0.867**	ug/L	0.055	6	247	2381	3
	Mn	55	**17.956**	ug/L	0.247	1	516	538720	1
	Co	59	**0.198**	ug/L	0.004	1	49	4248	0
>	Ge	72		ug/L			704849	669992	0
	Ni	60	**0.569**	ug/L	0.011	1	21	2574	1
	Ni	62	**0.609**	ug/L	0.040	6	89	474	5
	Cu	63	**11.314**	ug/L	0.078	0	84	113776	0
	Cu	65	**11.414**	ug/L	0.197	1	30	50674	1
	Zn	66	**132.262**	ug/L	3.358	2	130	346094	2
	Zn	67	**118.991**	ug/L	2.831	2	19	52181	2
	Zn	68	**131.458**	ug/L	1.414	1	181	240822	0
	As-1	75	**0.388**	ug/L	0.007	1	-71	790	1
	As	75	**0.397**	ug/L	0.017	4	10853	11185	0
	Se	82	**0.048**	ug/L	0.046	94	2	14	77
	Se-1	78	**0.053**	ug/L	0.082	153	11078	10563	0
	Mo	98	**0.927**	ug/L	0.013	1	31	5377	0
	Y	89		ug/L			479152	453496	1
	Kr	83		ug/L			73	66	9
>	In	115		ug/L			1226321	1168053	1
	Ag	107	**0.009**	ug/L	0.005	48	32	135	36
	Cd	111	**0.097**	ug/L	0.005	4	89	635	3
	Cd	114	**0.095**	ug/L	0.007	7	33	1362	5
	Sb	121	**0.265**	ug/L	0.004	1	33	4894	2
	Sb	123	**0.262**	ug/L	0.004	1	21	3666	0
	Ba	135	**7.576**	ug/L	0.139	1	16	38351	0
	Ba	137	**7.609**	ug/L	0.072	0	25	65797	0
>	Tb	159		ug/L			1340188	1271111	1
	Tl	205	**0.010**	ug/L	0.002	21	11	396	20
	Pb	208	**4.686**	ug/L	0.042	0	94	244620	1
	Bi	209		ug/L			2936367	2861343	0
	Th	232	**0.325**	ug/L	0.112	34	105	15811	32
	U	238	**0.013**	ug/L	0.002	12	3	664	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO35 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:43:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1304592	1
	Be	9	0.004	ug/L	0.001	34	6	22	24
	C	13		ug/L			128325	130320	3
	Cl	37		ug/L			5185507	5338430	4
>	Sc	45		ug/L			1499666	1424296	1
	V-1	51	1.432	ug/L	0.034	2	10358	49135	2
	V	51	1.453	ug/L	0.026	1	252	40130	1
	Cr	52	1.048	ug/L	0.035	3	30790	52437	2
	Cr	53	1.121	ug/L	0.043	3	247	3045	2
	Mn	55	18.465	ug/L	0.210	1	516	560423	0
	Co	59	0.213	ug/L	0.006	2	49	4606	1
>	Ge	72		ug/L			704849	666568	1
	Ni	60	0.646	ug/L	0.018	2	21	2901	2
	Ni	62	0.733	ug/L	0.036	4	89	551	3
	Cu	63	11.559	ug/L	0.449	3	84	115593	2
	Cu	65	11.779	ug/L	0.158	1	30	52021	0
	Zn	66	134.033	ug/L	2.487	1	130	348897	0
	Zn	67	121.788	ug/L	3.952	3	19	53112	1
	Zn	68	129.643	ug/L	1.830	1	181	236262	1
	As-1	75	0.415	ug/L	0.005	1	-71	845	1
	As	75	0.434	ug/L	0.157	36	10853	11204	1
	Se	82	0.061	ug/L	0.021	34	2	17	31
	Se-1	78	0.094	ug/L	0.536	567	11078	10530	1
	Mo	98	0.939	ug/L	0.005	0	31	5420	1
	Y	89		ug/L			479152	448669	1
	Kr	83		ug/L			73	64	4
>	In	115		ug/L			1226321	1170031	0
	Ag	107	0.006	ug/L	0.000	1	32	102	0
	Cd	111	0.100	ug/L	0.004	4	89	653	3
	Cd	114	0.095	ug/L	0.005	5	33	1374	4
	Sb	121	0.266	ug/L	0.004	1	33	4922	1
	Sb	123	0.263	ug/L	0.002	0	21	3698	0
	Ba	135	7.493	ug/L	0.037	0	16	37997	0
	Ba	137	7.503	ug/L	0.197	2	25	64988	2
>	Tb	159		ug/L			1340188	1277365	1
	Tl	205	0.008	ug/L	0.001	8	11	316	9
	Pb	208	4.950	ug/L	0.070	1	94	259663	0
	Bi	209		ug/L			2936367	2884993	1
	Th	232	0.109	ug/L	0.015	14	105	5427	13
	U	238	0.011	ug/L	0.001	5	3	551	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO35 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:47:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1278785	0
	Be	9	27.328	ug/L	0.847	3	6	104290	2
	C	13		ug/L			128325	131733	0
	Cl	37		ug/L			5185507	5384375	2
>	Sc	45		ug/L			1499666	1439023	1
	V-1	51	27.527	ug/L	1.096	3	10358	772825	2
	V	51	27.661	ug/L	0.989	3	252	767577	2
	Cr	52	27.231	ug/L	0.741	2	30790	638443	1
	Cr	53	27.701	ug/L	0.143	0	247	70465	1
	Mn	55	45.419	ug/L	0.548	1	516	1392063	0
	Co	59	27.451	ug/L	0.291	1	49	595236	2
>	Ge	72		ug/L			704849	669535	2
	Ni	60	27.906	ug/L	0.339	1	21	125126	0
	Ni	62	27.963	ug/L	1.582	5	89	17949	3
	Cu	63	39.104	ug/L	0.850	2	84	392680	0
	Cu	65	39.467	ug/L	0.482	1	30	175007	0
	Zn	66	218.127	ug/L	4.767	2	130	570201	0
	Zn	67	193.911	ug/L	5.482	2	19	84932	0
	Zn	68	211.457	ug/L	8.653	4	181	386816	2
	As-1	75	27.069	ug/L	1.279	4	-71	59657	2
	As	75	26.948	ug/L	1.055	3	10853	69230	1
	Se	82	77.823	ug/L	2.580	3	2	19415	1
	Se-1	78	78.968	ug/L	1.933	2	11078	59016	1
	Mo	98	0.920	ug/L	0.022	2	31	5335	0
	Y	89		ug/L			479152	458643	1
	Kr	83		ug/L			73	65	2
>	In	115		ug/L			1226321	1183336	0
	Ag	107	26.492	ug/L	0.385	1	32	304591	1
	Cd	111	26.265	ug/L	0.209	0	89	150423	0
	Cd	114	26.015	ug/L	0.483	1	33	370557	1
	Sb	121	0.266	ug/L	0.004	1	33	4983	1
	Sb	123	0.260	ug/L	0.004	1	21	3688	1
	Ba	135	33.954	ug/L	0.163	0	16	174097	0
	Ba	137	33.788	ug/L	0.396	1	25	295933	0
>	Tb	159		ug/L			1340188	1292091	1
	Tl	205	27.561	ug/L	0.589	2	11	1128491	0
	Pb	208	32.826	ug/L	0.365	1	94	1741365	0
	Bi	209		ug/L			2936367	2905447	0
	Th	232	24.964	ug/L	0.694	2	105	1231400	1
	U	238	28.144	ug/L	0.685	2	3	1481204	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO17 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:51:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1312704	1
	Be	9	**0.210**	ug/L	0.004	2	6	827	2
	C	13		ug/L			128325	128747	2
	Cl	37		ug/L			5185507	5317886	0
>	Sc	45		ug/L			1499666	1509475	1
	V-1	51	**38.401**	ug/L	1.102	2	10358	1126869	1
	V	51	**38.106**	ug/L	1.288	3	252	1109056	1
	Cr	52	**58.901**	ug/L	1.481	2	30790	1412423	1
	Cr	53	**57.803**	ug/L	1.930	3	247	153907	1
	Mn	55	**968.856**	ug/L	12.568	1	516	31139096	1
	Co	59	**8.049**	ug/L	0.212	2	49	183055	1
>	Ge	72		ug/L			704849	654597	3
	Ni	60	**47.212**	ug/L	2.005	4	21	206792	0
	Ni	62	**48.824**	ug/L	1.877	3	89	30574	0
	Cu	63	**320.248**	ug/L	8.776	2	84	3142561	0
	Cu	65	**318.376**	ug/L	10.578	3	30	1379312	0
	Zn	66	**671.477**	ug/L	32.791	4	130	1714495	1
	Zn	67	**616.590**	ug/L	11.005	1	19	263996	1
	Zn	68	**668.586**	ug/L	25.090	3	181	1195008	0
	As-1	75	**6.558**	ug/L	0.219	3	-71	14078	0
	As	75	**6.650**	ug/L	0.379	5	10853	24285	0
	Se	82	**-0.064**	ug/L	0.075	116	2	-12	139
	Se-1	78	**0.502**	ug/L	0.548	109	11078	10583	0
	Mo	98	**9.822**	ug/L	0.308	3	31	55363	0
	Y	89		ug/L			479152	596158	1
	Kr	83		ug/L			73	175	4
>	In	115		ug/L			1226321	1167268	1
	Ag	107	**18.448**	ug/L	0.211	1	32	209210	0
	Cd	111	**15.468**	ug/L	0.057	0	89	87417	1
	Cd	114	**15.260**	ug/L	0.239	1	33	214401	0
	Sb	121	**0.933**	ug/L	0.006	0	33	17137	1
	Sb	123	**0.938**	ug/L	0.025	2	21	13086	1
	Ba	135	**252.923**	ug/L	4.040	1	16	1278936	0
	Ba	137	**263.649**	ug/L	3.010	1	25	2277544	1
>	Tb	159		ug/L			1340188	1312981	0
	Tl	205	**0.044**	ug/L	0.000	0	11	1859	0
	Pb	208	**288.973**	ug/L	1.145	0	94	15577766	0
	Bi	209		ug/L			2936367	3292151	0
	Th	232	**1.439**	ug/L	0.125	8	105	72192	7
	U	238	**0.292**	ug/L	0.006	2	3	15645	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO17 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:55:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1334963	2
	Be	9	0.235	ug/L	0.045	19	6	941	19
	C	13		ug/L			128325	127480	4
	Cl	37		ug/L			5185507	5207778	1
>	Sc	45		ug/L			1499666	1502245	2
	V-1	51	35.358	ug/L	0.901	2	10358	1033606	2
	V	51	35.404	ug/L	0.750	2	252	1025562	0
	Cr	52	59.470	ug/L	1.553	2	30790	1419054	2
	Cr	53	59.557	ug/L	2.328	3	247	157780	2
	Mn	55	385.038	ug/L	11.792	3	516	12311681	1
	Co	59	9.920	ug/L	0.392	3	49	224430	1
>	Ge	72		ug/L			704849	657210	0
	Ni	60	54.501	ug/L	0.275	0	21	239895	1
	Ni	62	56.935	ug/L	1.542	2	89	35808	1
	Cu	63	330.762	ug/L	2.708	0	84	3260806	1
	Cu	65	320.200	ug/L	5.170	1	30	1393686	1
	Zn	66	648.562	ug/L	5.368	0	130	1664442	1
	Zn	67	594.749	ug/L	19.298	3	19	255718	2
	Zn	68	656.960	ug/L	17.251	2	181	1179750	1
	As-1	75	6.611	ug/L	0.087	1	-71	14260	0
	As	75	6.635	ug/L	0.126	1	10853	24366	0
	Se	82	-0.051	ug/L	0.043	84	2	-9	105
	Se-1	78	0.244	ug/L	0.124	50	11078	10476	0
	Mo	98	9.177	ug/L	0.011	0	31	51971	0
	Y	89		ug/L			479152	597855	1
	Kr	83		ug/L			73	170	2
>	In	115		ug/L			1226321	1160278	1
	Ag	107	16.835	ug/L	0.165	0	32	189786	0
	Cd	111	17.493	ug/L	0.207	1	89	98253	0
	Cd	114	17.537	ug/L	0.205	1	33	244919	1
	Sb	121	0.906	ug/L	0.087	9	33	16555	11
	Sb	123	0.921	ug/L	0.088	9	21	12791	10
	Ba	135	280.532	ug/L	2.486	0	16	1410153	0
	Ba	137	295.753	ug/L	3.969	1	25	2539503	0
>	Tb	159		ug/L			1340188	1319713	1
	Tl	205	0.100	ug/L	0.101	100	11	4213	101
	Pb	208	332.488	ug/L	4.788	1	94	18013868	0
	Bi	209		ug/L			2936367	3175269	2
	Th	232	1.294	ug/L	0.041	3	105	65304	4
	U	238	0.306	ug/L	0.053	17	3	16471	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO17 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 05, 2012 12:59:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1311012	1
	Be	9	27.626	ug/L	0.965	3	6	108073	2
	C	13		ug/L			128325	127191	4
	Cl	37		ug/L			5185507	5401477	1
>	Sc	45		ug/L			1499666	1526260	1
	V-1	51	64.404	ug/L	0.934	1	10358	1904141	0
	V	51	64.360	ug/L	1.422	2	252	1894126	0
	Cr	52	79.155	ug/L	0.573	0	30790	1908780	1
	Cr	53	78.955	ug/L	2.282	2	247	212489	1
	Mn	55	364.643	ug/L	11.095	3	516	11847299	1
	Co	59	34.608	ug/L	0.750	2	49	795696	0
>	Ge	72		ug/L			704849	653127	2
	Ni	60	76.157	ug/L	2.026	2	21	333020	1
	Ni	62	78.578	ug/L	2.605	3	89	49063	1
	Cu	63	275.688	ug/L	7.294	2	84	2699830	1
	Cu	65	267.355	ug/L	6.815	2	30	1156059	0
	Zn	66	669.958	ug/L	5.144	0	130	1708752	2
	Zn	67	605.510	ug/L	18.694	3	19	258652	1
	Zn	68	664.139	ug/L	15.402	2	181	1185212	2
	As-1	75	33.802	ug/L	0.868	2	-71	72706	0
	As	75	33.579	ug/L	0.975	2	10853	81683	0
	Se	82	80.163	ug/L	1.598	1	2	19512	0
	Se-1	78	81.258	ug/L	2.112	2	11078	58936	0
	Mo	98	6.894	ug/L	0.210	3	31	38789	1
	Y	89		ug/L			479152	610511	1
	Kr	83		ug/L			73	171	3
>	In	115		ug/L			1226321	1158559	0
	Ag	107	38.479	ug/L	0.087	0	32	433134	1
	Cd	111	39.470	ug/L	0.901	2	89	221253	1
	Cd	114	39.380	ug/L	0.526	1	33	549135	0
	Sb	121	0.837	ug/L	0.014	1	33	15260	1
	Sb	123	0.826	ug/L	0.005	0	21	11444	1
	Ba	135	252.662	ug/L	2.794	1	16	1268357	1
	Ba	137	267.826	ug/L	3.809	1	25	2296364	0
>	Tb	159		ug/L			1340188	1306506	0
	Tl	205	26.762	ug/L	0.169	0	11	1108220	1
	Pb	208	230.820	ug/L	1.009	0	94	12381680	0
	Bi	209		ug/L			2936367	3168656	0
	Th	232	28.936	ug/L	0.032	0	105	1443527	0
	U	238	28.215	ug/L	0.026	0	3	1501795	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO32 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 05, 2012 13:03:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1362435	1
	Be	9	**0.161**	ug/L	0.001	0	6	661	0
	C	13		ug/L			128325	131513	1
	Cl	37		ug/L			5185507	5409463	3
>	Sc	45		ug/L			1499666	1549777	2
	V-1	51	**72.441**	ug/L	2.255	3	10358	2172718	0
	V	51	**72.702**	ug/L	2.379	3	252	2171987	1
	Cr	52	**46.060**	ug/L	1.174	2	30790	1140806	0
	Cr	53	**47.057**	ug/L	1.424	3	247	128677	0
	Mn	55	**204.716**	ug/L	9.544	4	516	6751269	2
	Co	59	**7.487**	ug/L	0.222	2	49	174811	1
>	Ge	72		ug/L			704849	670480	1
	Ni	60	**25.941**	ug/L	0.151	0	21	116498	1
	Ni	62	**29.749**	ug/L	0.465	1	89	19128	0
	Cu	63	**80.109**	ug/L	1.819	2	84	805701	2
	Cu	65	**80.131**	ug/L	1.884	2	30	355784	1
	Zn	66	**10547.885**	ug/L	236.733	2	130	27609597	1
	Zn	67	**8643.411**	ug/L	198.825	2	19	3791370	1
	Zn	68	**8798.785**	ug/L	186.114	2	181	16116889	1
	As-1	75	**4.601**	ug/L	0.067	1	-71	10104	1
	As	75	**4.476**	ug/L	0.148	3	10853	20127	0
	Se	82	**0.163**	ug/L	0.052	31	2	43	29
	Se-1	78	**-0.049**	ug/L	0.319	651	11078	10507	0
	Mo	98	**2.892**	ug/L	0.057	1	31	16726	1
	Y	89		ug/L			479152	650955	1
	Kr	83		ug/L			73	161	8
>	In	115		ug/L			1226321	1177776	0
	Ag	107	**3.466**	ug/L	0.136	3	32	39682	3
	Cd	111	**7.305**	ug/L	0.064	0	89	41699	0
	Cd	114	**7.190**	ug/L	0.019	0	33	101959	0
	Sb	121	**0.529**	ug/L	0.007	1	33	9811	1
	Sb	123	**0.519**	ug/L	0.005	1	21	7311	1
	Ba	135	**37.031**	ug/L	0.661	1	16	188971	1
	Ba	137	**36.977**	ug/L	0.686	1	25	322314	1
>	Tb	159		ug/L			1340188	1350628	0
	Tl	205	**0.049**	ug/L	0.007	14	11	2102	13
	Pb	208	**319.061**	ug/L	2.845	0	94	17693098	0
	Bi	209		ug/L			2936367	3152147	0
	Th	232	**1.011**	ug/L	0.074	7	105	52247	7
	U	238	**0.333**	ug/L	0.007	2	3	18343	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: UO76 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 05, 2012 13:07:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1329999	0
	Be	9	0.182	ug/L	0.004	2	6	729	2
	C	13		ug/L			128325	176999	3
	Cl	37		ug/L			5185507	5594903	2
>	Sc	45		ug/L			1499666	1536064	1
	V-1	51	40.206	ug/L	0.921	2	10358	1200344	1
	V	51	40.263	ug/L	1.033	2	252	1192744	1
	Cr	52	18.866	ug/L	0.079	0	30790	481928	1
	Cr	53	19.134	ug/L	0.332	1	247	52027	0
	Mn	55	266.409	ug/L	2.036	0	516	8714123	1
	Co	59	6.071	ug/L	0.167	2	49	140537	2
>	Ge	72		ug/L			704849	682257	2
	Ni	60	30.652	ug/L	0.476	1	21	140050	1
	Ni	62	32.920	ug/L	0.877	2	89	21525	1
	Cu	63	22.219	ug/L	0.999	4	84	227323	2
	Cu	65	22.892	ug/L	0.272	1	30	103454	1
	Zn	66	334.185	ug/L	5.598	1	130	890171	0
	Zn	67	302.505	ug/L	1.896	0	19	135043	1
	Zn	68	322.803	ug/L	6.637	2	181	601810	1
	As-1	75	5.362	ug/L	0.093	1	-71	11992	0
	As	75	5.229	ug/L	0.231	4	10853	22154	0
	Se	82	-0.019	ug/L	0.021	110	2	-2	238
	Se-1	78	-0.364	ug/L	0.492	135	11078	10491	1
	Mo	98	0.687	ug/L	0.020	2	31	4064	1
	Y	89		ug/L			479152	623233	1
	Kr	83		ug/L			73	146	5
>	In	115		ug/L			1226321	1177940	0
	Ag	107	0.070	ug/L	0.002	3	32	835	3
	Cd	111	0.240	ug/L	0.008	3	89	1452	3
	Cd	114	0.170	ug/L	0.002	1	33	2444	1
	Sb	121	0.041	ug/L	0.001	3	33	786	3
	Sb	123	0.041	ug/L	0.002	5	21	599	5
	Ba	135	41.051	ug/L	0.663	1	16	209525	1
	Ba	137	40.965	ug/L	0.529	1	25	357169	1
>	Tb	159		ug/L			1340188	1327717	0
	Tl	205	0.063	ug/L	0.001	1	11	2653	2
	Pb	208	6.602	ug/L	0.095	1	94	359965	1
	Bi	209		ug/L			2936367	2847213	1
	Th	232	1.043	ug/L	0.018	1	105	52984	2
	U	238	0.312	ug/L	0.004	1	3	16868	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 13:11:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1292022	0
	Be	9	51.519	ug/L	0.647	1	6	198664	1
	C	13		ug/L			128325	121271	1
	Cl	37		ug/L			5185507	5468170	2
>	Sc	45		ug/L			1499666	1403658	1
	V-1	51	48.545	ug/L	1.465	3	10358	1322185	1
	V	51	48.378	ug/L	1.336	2	252	1309371	1
	Cr	52	49.987	ug/L	1.091	2	30790	1119105	1
	Cr	53	49.395	ug/L	0.722	1	247	122361	0
	Mn	55	50.154	ug/L	1.240	2	516	1499124	0
	Co	59	50.249	ug/L	1.151	2	49	1062552	1
>	Ge	72		ug/L			704849	656605	1
	Ni	60	50.709	ug/L	0.634	1	21	222980	0
	Ni	62	49.959	ug/L	1.244	2	89	31402	1
	Cu	63	49.843	ug/L	0.740	1	84	491017	2
	Cu	65	49.918	ug/L	0.482	0	30	217093	0
	Zn	66	51.578	ug/L	0.567	1	130	132364	2
	Zn	67	51.880	ug/L	1.970	3	19	22311	4
	Zn	68	51.894	ug/L	0.991	1	181	93281	2
	As-1	75	50.418	ug/L	0.327	0	-71	109095	0
	As	75	50.521	ug/L	0.537	1	10853	118494	1
	Se	82	50.767	ug/L	0.766	1	2	12426	1
	Se-1	78	51.140	ug/L	0.550	1	11078	41126	1
	Mo	98	49.577	ug/L	0.761	1	31	280379	1
	Y	89		ug/L			479152	446365	1
	Kr	83		ug/L			73	78	6
>	In	115		ug/L			1226321	1136240	0
	Ag	107	50.088	ug/L	0.875	1	32	552959	2
	Cd	111	51.281	ug/L	0.281	0	89	281923	0
	Cd	114	51.087	ug/L	0.468	0	33	698680	0
	Sb	121	51.333	ug/L	0.495	0	33	915801	1
	Sb	123	50.781	ug/L	0.288	0	21	688746	0
	Ba	135	50.002	ug/L	0.384	0	16	246162	0
	Ba	137	50.441	ug/L	0.290	0	25	424207	0
>	Tb	159		ug/L			1340188	1246717	0
	Tl	205	53.832	ug/L	0.403	0	11	2127048	0
	Pb	208	51.712	ug/L	0.252	0	94	2647046	0
	Bi	209		ug/L			2936367	2787457	0
	Th	232	55.202	ug/L	1.089	1	105	2627782	2
	U	238	55.768	ug/L	0.359	0	3	2832436	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 05, 2012 13:16:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\default.tun
Optimization File: C:\NexION Data\Conditions\default.dac
Calibration File: C:\NexION Data\System\040512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1389899	1229249	1
	Be	9	0.001	ug/L	0.001	109	6	8	36
	C	13		ug/L			128325	119350	3
	Cl	37		ug/L			5185507	5232431	1
>	Sc	45		ug/L			1499666	1349271	2
	V-1	51	0.001	ug/L	0.005	395	10358	9354	2
	V	51	-0.001	ug/L	0.000	22	252	194	1
	Cr	52	0.009	ug/L	0.019	215	30790	27884	2
	Cr	53	-0.001	ug/L	0.002	303	247	221	4
	Mn	55	0.003	ug/L	0.001	25	516	537	0
	Co	59	0.001	ug/L	0.000	46	49	58	8
>	Ge	72		ug/L			704849	642354	0
	Ni	60	-0.000	ug/L	0.001	2895	21	19	16
	Ni	62	0.039	ug/L	0.003	6	89	105	1
	Cu	63	0.005	ug/L	0.001	21	84	122	7
	Cu	65	0.002	ug/L	0.001	37	30	37	10
	Zn	66	0.162	ug/L	0.012	7	130	524	6
	Zn	67	0.140	ug/L	0.013	9	19	76	6
	Zn	68	0.151	ug/L	0.010	6	181	429	4
	As-1	75	0.006	ug/L	0.008	122	-71	-52	30
	As	75	0.130	ug/L	0.017	13	10853	10164	0
	Se	82	0.001	ug/L	0.041	2814	2	2	358
	Se-1	78	0.414	ug/L	0.081	19	11078	10340	0
	Mo	98	0.016	ug/L	0.008	53	31	114	39
	Y	89		ug/L			479152	427790	0
	Kr	83		ug/L			73	60	7
>	In	115		ug/L			1226321	1127472	1
	Ag	107	0.001	ug/L	0.001	61	32	39	14
	Cd	111	0.004	ug/L	0.005	131	89	101	24
	Cd	114	0.001	ug/L	0.000	20	33	40	6
	Sb	121	0.037	ug/L	0.012	33	33	687	30
	Sb	123	0.038	ug/L	0.011	28	21	529	26
	Ba	135	0.001	ug/L	0.001	66	16	19	15
	Ba	137	0.001	ug/L	0.000	43	25	28	7
>	Tb	159		ug/L			1340188	1199319	0
	Tl	205	0.004	ug/L	0.001	17	11	171	16
	Pb	208	0.009	ug/L	0.001	6	94	521	5
	Bi	209		ug/L			2936367	2782241	1
	Th	232	0.112	ug/L	0.027	24	105	5247	24
	U	238	0.002	ug/L	0.001	22	3	120	22

Mercury Analysis Log

Analyst: DM

Date: 4-04-12

Instrument: CETAC

Page: 1 of 4

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
STD	0.0	5mm	1X			
STD	0.1	5mm	1X			
STD	0.5	5mm	1X			
STD	1.0	5mm	1X			
STD	2.0	5mm	1X			
STD	5.0	5mm	1X			
STD	10.0	5mm	1X			
ICV		5mm	1X	8.29	Begin CLP %R=104	✓
ICB		5mm	1X	-0.04		✓
CCV1		5mm	1X	4.18	%R=105	✓
CCB1		5mm	1X	-0.02		✓
CRA		5mm	1X	0.12		✓
U071	MB1	5mm	1X	0.01		✓
U071	MB1SPK	5mm	1X	2.04	%R=102	✓
U071	F	5mm	1X	0.18		
U071	FDUP	5mm	1X	0.16		✓
U071	FSPK	5mm	1X	1.23	%R=105	✓
U071	G	5mm	1X			
U071	K	5mm	1X			
U071	Q	5mm	1X			
U071	W	5mm	1X			
CCV2		5mm	1X	4.25	%R=106	✓
CCB2		5mm	1X	-0.01		✓
U076	C	5mm	1X			
U076	G	5mm	1X			
U086	MB1	5mm	1X	0.00		✓
U086	MB1SPK	5mm	1X	2.03	%R=102	✓
U086	MB1SPD	5mm	1X	2.05	%R=103	✓
U086	A	5mm	1X			
U017	MB1	5mm	1X	-0.00		✓

Chemical/Reagent ID:
10% $SnCl_2$: MP2274

14% $NH_2OH/NaCl$: MP2250

Standard ID:
Standard: 292L-5

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 4.04.12

Page: 2 of 4

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
U017	MB1SPK	SMM	1X	2.12	%R=106	✓
U017	A	SMM	1X	3.98		
U017	ADUP	SMM	1X	4.09	RPD=2.72	✓
CCV3		SMM	1X	4.17		✓
CCB3		SMM	1X	-0.01		✓
U017	ASPK	SMM	1X	5.93	%R=195	X
U032	D	SMM	1X			
CCV4		SMM	1X	4.23	%R=106	✓
CCB4		SMM	1X	-0.00	END CLP	✓
U098	MB	SMM	1X	0.01		✓
U098	MBSPK	SMM	1X	2.09	%R=105	✓
U098	A	SMM	1X	0.05		
U098	ADUP	SMM	1X	0.06	NO RPD: Undetected	✓
U098	ASPK	SMM	1X	1.12	%R=112	✓
U098	B	SMM	1X			
CCV		SMM	1X	4.20	%R=105	✓
CCB		SMM	1X	0.00		✓
U017	A	SMM	1X	3.96		
U017	ADUP	SMM	1X	4.16	RPD=4.92	✓
U017	ASPK	SMM	1X	5.87	%R=191	X
CCV		SMM	1X	4.17	%R=104	✓
CCB		SMM	1X	-0.00		✓
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	8.34	Begin CLP %R=104	✓

AK 4/5/12

Chemical/Reagent ID:
10% $SnCl_2$: MP2274

14% $NH_2OH/NaCl$: MP2250

Standard ID:
Standard: 2926-5 (SMM)
2926-6 (TWM)

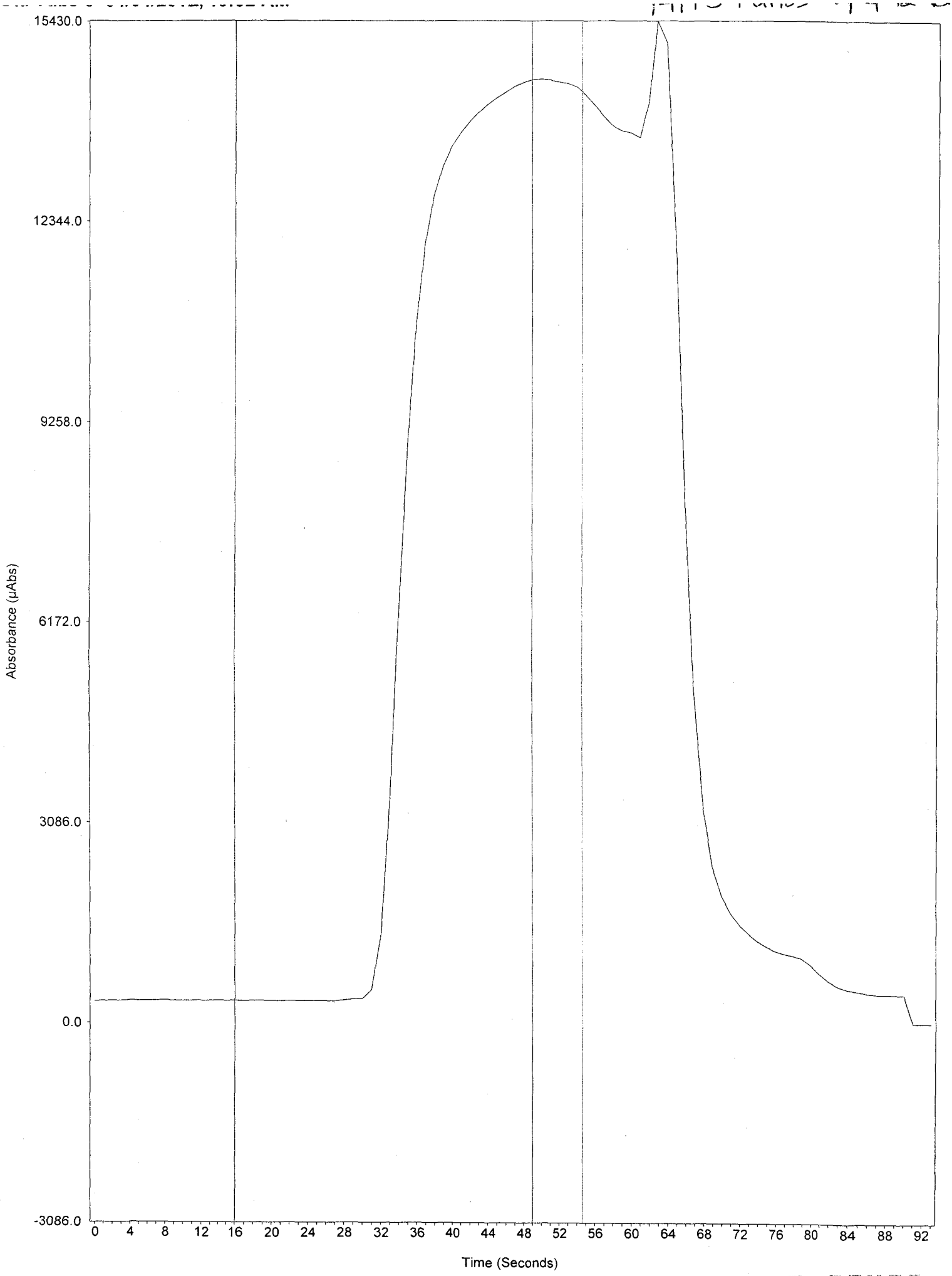
ICV/CCV: 56-18

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 4-04-12

	Analyst 4-4 DM	Peer Ew 4-4	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	✓	✓	U017 ~~AFDK~~ Hi %R
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	✓	✓	See CAF


15430.0
12344.0
9258.0
6172.0
3086.0
0.0
-3086.0
Absorbance (µAbs)
0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92
Time (Seconds)

CETAC Hg Analysis Report - 12040400.DB - Wednesday, April 04, 2012, 1:05:47 PM

Analyst
Date Started Wednesday, April 04, 2012, 10:01:48
Worksheet ARI 10ppb CALIB
Comment

4/4

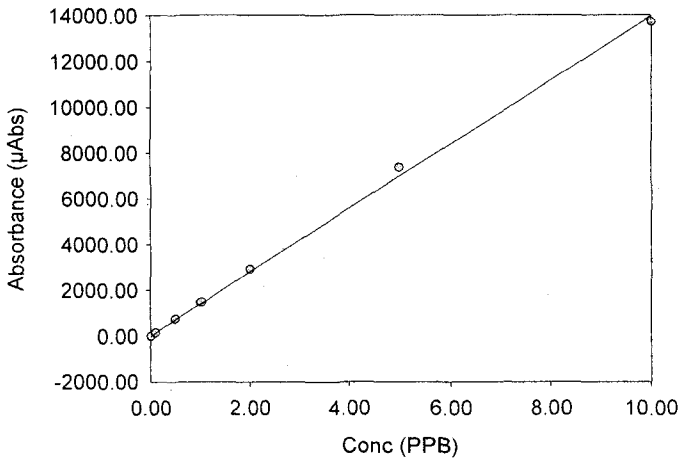
Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	04-Apr-2012, 10:01	10.00	0.32	14200.00	1.00	

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	04-Apr-2012, 10:04	0.00	16.40	-11.20	1.00	
Standard #1	04-Apr-2012, 10:06	0.10	2.11	155.00	1.00	
Standard #2	04-Apr-2012, 10:07	0.50	0.75	733.00	1.00	
Standard #3	04-Apr-2012, 10:09	1.00	0.30	1470.00	1.00	
Standard #4	04-Apr-2012, 10:10	2.00	0.28	2910.00	1.00	
Standard #5	04-Apr-2012, 10:12	5.00	0.17	7380.00	1.00	
Standard #6	04-Apr-2012, 10:14	10.00	0.49	13800.00	1.00	

SMM

Calibration Data



Int.	0.000
Slope	1398.358
Correlation	0.99930

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	04-Apr-2012, 10:17	8.29	0.71	11600.00	1.00	
ICB	04-Apr-2012, 10:19	-0.04	4.81	-53.60	1.00	

Begin CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Apr-2012, 10:20	4.18	0.05	5840.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Apr-2012, 10:22	-0.02	16.70	-25.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	04-Apr-2012, 10:24	0.12	1.44	171.00	1.00	
UO71 MB1 SMM	04-Apr-2012, 10:25	0.01	9.23	7.66	1.00	
UO71 MB1SPK SMM	04-Apr-2012, 10:27	2.04	0.98	2850.00	1.00	
UO71 F SMM	04-Apr-2012, 10:28	0.18	0.92	256.00	1.00	
UO71 FDUP SMM	04-Apr-2012, 10:30	0.16	1.87	219.00	1.00	
UO71 FSPK SMM	04-Apr-2012, 10:32	1.23	0.53	1720.00	1.00	
UO71 G SMM	04-Apr-2012, 10:33	1.64	0.44	2290.00	1.00	
UO71 K SMM	04-Apr-2012, 10:35	0.51	0.42	720.00	1.00	
UO71 Q SMM	04-Apr-2012, 10:36	0.03	5.25	43.10	1.00	
UO71 W SMM	04-Apr-2012, 10:38	0.26	0.60	366.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Apr-2012, 10:40	4.25	0.22	5940.00	1.00	

CETAC Hg Analysis Report - 12040400.DB - Wednesday, April 04, 2012, 1:05:48 PM

Analyst
Date Started Wednesday, April 04, 2012, 10:41:55
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Apr-2012, 10:41	-0.01	42.70	-7.93	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
UO76 C SMM	04-Apr-2012, 10:43	0.04	4.71	55.80	1.00	
UO76 G SMM	04-Apr-2012, 10:45	0.59	0.53	820.00	1.00	
UO86 MB1 SMM	04-Apr-2012, 10:46	0.00	44.40	4.50	1.00	
UO86 MB1SPK SMM	04-Apr-2012, 10:48	2.03	0.26	2830.00	1.00	
UO86 MB1SPD SMM	04-Apr-2012, 10:49	2.05	0.11	2870.00	1.00	
UO86 A SMM	04-Apr-2012, 10:51	0.14	0.85	197.00	1.00	
UO17 MB1 SMM	04-Apr-2012, 10:53	-0.00	162.00	-1.93	1.00	
UO17 MB1SPK SMM	04-Apr-2012, 10:54	2.12	0.78	2970.00	1.00	
UO17 A SMM	04-Apr-2012, 10:56	3.98	0.06	5570.00	1.00	
UO17 ADUP SMM	04-Apr-2012, 10:58	4.09	0.33	5730.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Apr-2012, 10:59	4.17	0.64	5830.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Apr-2012, 11:01	-0.01	8.97	-10.50	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
UO17 ASPK SMM	04-Apr-2012, 11:03	5.93	0.07	8290.00	1.00	- Hi %R
UO32 D SMM	04-Apr-2012, 11:04	1.28	0.06	1790.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Apr-2012, 11:06	4.23	0.55	5920.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Apr-2012, 11:07	-0.00	20.80	-6.71	1.00	END CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
UO98 MB SMM	04-Apr-2012, 11:09	0.01	30.30	7.16	1.00	
UO98 MBSPK SMM	04-Apr-2012, 11:11	2.09	0.26	2920.00	1.00	
UO98 A SMM	04-Apr-2012, 11:12	0.05	5.10	66.30	1.00	
UO98 ADUP SMM	04-Apr-2012, 11:14	0.06	2.30	89.10	1.00	
UO98 ASPK SMM	04-Apr-2012, 11:16	1.12	0.15	1560.00	1.00	
UO98 B SMM	04-Apr-2012, 11:17	0.05	2.86	66.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Apr-2012, 11:19	4.20	0.19	5870.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Apr-2012, 11:20	0.00	550.00	0.43	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
UO17 A SMM	04-Apr-2012, 11:22	3.96	0.24	5530.00	1.00	
UO17 ADUP SMM	04-Apr-2012, 11:24	4.16	0.26	5820.00	1.00	
UO17 ASPK SMM	04-Apr-2012, 11:26	5.87	0.22	8200.00	1.00	- Hi %R

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Apr-2012, 11:27	4.17	0.31	5820.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Apr-2012, 11:29	-0.00	153.00	-2.95	1.00	

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	
Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	49
Integration Time/Replicate:	1.40
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5.00 PPB
Calibration Standard #6 Conc.:	10.00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% .. 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 .. 100,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: MJ
Bath Temp: 90°C
Start Time: 1220
End Time: 1250
Matrix: Soil
Date: 04.03.12

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
U071 F	1	—	0.265	50.0	04.10 1	Y	
U071 FDUP	1	—	0.266	50.0	1	Y	
U071 FSPK	1	—	0.267	50.0	1	Y	
U071 G	1	—	0.245	50.0	1	Y	
U071 K	1	—	0.270	50.0	1	Y	
U071 Q	1	—	0.240	50.0	1	Y	BATCH
U071 W	1	—	0.243	50.0	1	Y	
U071 MB1	—	—	—	50.0	1	Y	
U071 MB1SPK	—	—	—	50.0	1	Y	
U076 C	2	—	0.261	50.0	04.10 1	Y	
U076 G	2	—	0.278	50.0	1	Y	
U086 A	1	—	0.223	50.0	04.13 1	Y	
U086 MB1	—	—	—	50.0	1	Y	
U086 MB1SPK	—	—	—	50.0	1	Y	
U086 MB1SPD	—	—	—	50.0	1	Y	

04.03.12 MJ

Chemical/Reagent ID:

HNO_3: I7370
H_2SO_4: I7184
HCl: —
5% $K_2S_2O_8$: MP2252
5% $KMnO_4$: MP2253
Digest Tube Lot: 1108215

U017: 00407

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM Matrix: soil
Analyst: MJ Date: 04.02.12
Bath Temp: 92°C Start Time: 0915 End Time: 0945

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
U017 A	2	—	0.278	50.0	04.08 1	Y	
U017 ADUP	2	—	0.280	50.0	1	Y	
U017 ASPK	2	—	0.281	50.0	1	Y	BATCH
U017 MB1	—	—	—	50.0	1	Y	
U017 MB1SPK	—	—	—	50.0	1	Y	
U032 D	1	—	0.238	50.0	04.09 1	Y	

04.02.12 MJ

Chemical/Reagent ID:

HNO_3: I7370 H_2SO_4: I7154 HCl: —
5% $K_2S_2O_8$: MP2252 5% $KMnO_4$: MP2253 Digest Tube Lot: 1108215

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: KM
Bath Temp: 95°C
Start Time: 1500
End Time: 1530
Matrix: Soil
Date: 4/03/12

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
U098 A	5	—	0.266	50.0	4/14 1	N	
U098 ADUP	5	—	0.269	50.0	1	N	
U098 ASPK	5	—	0.262	50.0	1	N	
U098 B	5	—	0.280	50.0	1	N	
U098 MB	—	—	—	50.0	1	N	
U098 MBSPK	—	—	—	50.0	1	N	

KM 4/03/12

Chemical/Reagent ID:

HNO_3: I7370
H_2SO_4: I7184
HCl: —
5% $K_2S_2O_8$: MP2252
5% $KMnO_4$: MP2253
Digest Tube Lot: 1108215

Mercury Standard Prep Log

Prep Code: TWM Digested 20.0mL Instrument: CETAC
Analyst: DM Date: 3-26-12
Bath Temp: 95°C Start Time: 0820 End Time: 1020

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	2924-8	0.01	100.0	0.1	1
STD2	2924-8	0.05	100.0	0.5	1
STD3	2924-8	0.10	100.0	1.0	1
STD4	2924-8	0.20	100.0	2.0	1
STD5	2924-8	0.50	100.0	5.0	1
STD6	2924-8	1.00	100.0	10.0	1
CRA	2924-8	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: I7370 H_2SO_4: I7184 HCl: –

5% $K_2S_2O_8$: MP2252 5% $KMnO_4$: MP2253

Prep Code: SMM Instrument: CETAC
Analyst: KM Date: 4/02/12
Bath Temp: 95°C Start Time: 1100 End Time: 1130

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	2926-5	0.01	50.0	0.1	2
STD2	2926-5	0.05	50.0	0.5	2
STD3	2926-5	0.10	50.0	1.0	2
STD4	2926-5	0.20	50.0	2.0	2
STD5	2926-5	0.50	50.0	5.0	2
STD6	2926-5	1.00	50.0	10.0	2
CRA	2926-5	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: I7370 H_2SO_4: I7184 HCl: —

5% $K_2S_2O_8$: MP2252 5% $KMnO_4$: MP2253