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Client: Anchor QEA

Project: 010128-01.01 JFOS Phase 2

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Diane Sherman
Signature

May-09-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

May 10, 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.: UR93

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 UR93

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

Chain of Custody Documentation

ARI Job ID: UR93

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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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 Streeter	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:

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.

UR53 : 000003

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: U017	Turn-around Requested: Standard	Page: 2 of 3	
ARI Client Company: Anchor QEA	Phone: 206 903 3385	Date: 3/27/12	Ice Present? X
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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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'-08.5'	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'-13.5'	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	Relinquished by:	Received by:	Relinquished by:	Received by:
Lab Split or Retain Excess PCB Volume for future lab composit.	(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 1645	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.

UR93 : 00004

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 0017	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		

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Sample ID	Date	Time	Matrix	No. Containers	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-19-19.5'	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.

UR93 : 00005

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor

COC No(s): _____ (NA)

Assigned ARI Job No: U017

Project Name: JFOS 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#: 90941619

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: _____

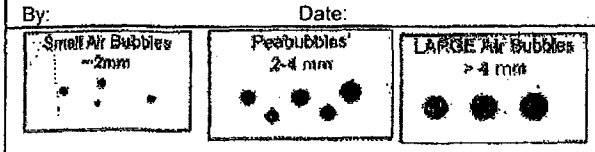
Samples Logged by: TS Date: 3-27-12 Time: 1730

*** 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:

By: Date:



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

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested: Standard	Page: 5 of 9	
ARI Client Company: Anchor QEA	Phone: 206-903-3385	Date: 3/28/12	Ice Present?
Client Contact: Nathan Soccorsy		No. of Coolers:	Cooler Temps:
Client Project Name: JFOS Phase 2			
Client Project #: 010128-01-01	Samplers: Nathan Soccorsy & Kelkee Christensen		

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Analytical Chemists and Consultants
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Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	VOC	PCB	Archive						Notes/Comments
JF-DGP3-SO-15'	3/28/12	14:13	SO	3	X								take TS from DGP3-15-16.5
JF-DGP3-SO-00'-02'	3/28/12	14:22	SO	1		X							
JF-DGP3-SO-02'-03'	3/28/12	14:24	SO	1		X							
JF-DGP3-SO-05'-07'	3/28/12	14:26	SO	1		X							
JF-DGP3-SO-07'-07.5'	3/28/12	14:28	SO	1		X							
JF-DGP3-SO-10'-12'	3/28/12	14:33	SO	1		X							
JF-DGP3-SO-15'-16.5'	3/28/12	14:36	SO	2		X	X						
JF-DGP3-SO-20'-21'	3/28/12	14:41	SO	1		X							
JF-DGP3-SO-25'-27'	3/28/12	14:42	SO	1		X							
JF-DGP3-SO-27'-29'	3/28/12	14:48	SO	1		X							

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
	(Signature)	(Signature)	(Signature)	(Signature)
	Printed Name: Nathan Soccorsy	Printed Name: A. Volgardsen	Printed Name:	Printed Name:
	Company: AQ	Company: ARI	Company:	Company:
	Date & Time: 3/28/12 5:45	Date & Time: 3/28/12 1745	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.

URS3 : 0005 7

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested: Standard	Page: 6 of 9	
ARI Client Company: Anchor QEA	Phone: 206 903 3385	Date: 3/28/12	Ice Present?
Client Contact: Nathan Soccorsy		No. of Coolers:	Cooler Temps:
Client Project Name: JFOS Phase 2			
Client Project #: 010128-01.01	Samplers: Nathan Soccorsy & Kellee Christensen		

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Analytical Chemists and Consultants
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Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	PCBs								Notes/Comments
JF-DGP3-SO-27'-29'-D	3/28/12	14:50	SO	1	X								
JF-DGP3-SO-30'-33'	3/28/12	14:54	SO	1	X								

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Nathan Soccorsy	Printed Name: A. Volgardsen	Printed Name:	Printed Name:
	Company: AQ	Company: ARI	Company:	Company:
	Date & Time: 3/28/12 5:45	Date & Time: 3/28/12 1745	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.

UC93 00008

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: U031	Turn-around Requested: Standard	Page: 7 of 9	
ARI Client Company: Anchor QEA	Phone: 206 903 3385	Date: 3/28/12	Ice Present?
Client Contact: Nathan Soccorsy		No. of Coolers:	Cooler Temps:
Client Project Name: JFOS Phase 2			
Client Project #: 010128-01.01	Samplers: Nathan Soccorsy & Kellie 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	VOCs	PCB							Notes/Comments
JF-DGP4-SO-17-~~17.5~~	3/28/12	15:48	SO	3	X								take TS from JF-DGP4-17-17.5
JF-DGP4-SO-26	3/28/12	15:51	SO	3	X								take TS from JF-DGP4-25-27
JF-DGP4-SO-21	3/28/12	15:55	SO	3	X								Take TS from JF-DGP4-20-22
JF-DGP4-SO-00'-02'	3/28/12	15:59	SO	1		X							
JF-DGP4-SO-~~3~~02-03	3/28/12	16:01	SO	1		X							
JF-DGP4-SO-31	3/28/12	16:03	SO	3	X								take TS from JF-DGP4-30-32
JF-DGP4-SO-33	3/28/12	16:07	SO	3	X								take TS from JF-DGP4-32-34
JF-DGP4-SO-05-07	3/28/12	16:12	SO	1		X							~~take TS from~~
JF-DGP4-SO-07-08.75	3/28/12	16:18	SO	1		X							
JF-DGP4-SO-10-12	3/28/12	16:21	SO	1		X							

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
	(Signature)	(Signature)	(Signature)	(Signature)
	Printed Name: Nathan Soccorsy	Printed Name: A. Volgardsen	Printed Name:	Printed Name:
	Company: ARQ	Company: ARI	Company:	Company:
	Date & Time: 3/28/12 5:45	Date & Time: 3/28/12 1745	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.*

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UR99 : 00009

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor

Project Name: JFO2 Phase 2

COC No(s): _____ (NA)

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

Assigned ARI Job No: U031

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) 5.9 2.2 1.7 5.6

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

Temp Gun ID#: 20941619

Cooler Accepted by: AV Date: 3/28/12 Time: 1745 / 1800

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: 3-29-12 Time: 750

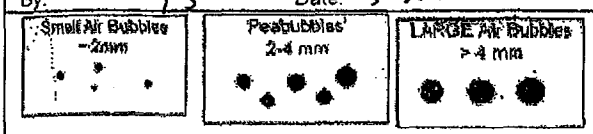
*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
JF-DGP3-SO-30'-32'	JF-DGP3-SO-30'-33'		
JF-DGP4-SO-17'-17.5'	JF-DGP4-SO-17' ← VOG		
JF-DGP3-SO-15'-16.5'	JF-DGP3-SO-15' ← VOG		

Additional Notes, Discrepancies, & Resolutions:

Foot markers (') added to all sample IDs for consistency
DW 3/30/12

By: TS Date: 3-29-12



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

Subject: JFOS PCB Analysis Triggers
From: Nathan Soccorsy <nsoccorsy@anchorqea.com>
Date: 4/26/2012 9:06 AM
To: Cheronne Oreiro <cheronneo@arilabs.com>
CC: Sue Dunnihoo <sue@arilabs.com>, Cindy Fields <cfields@anchorqea.com>

Cheronne –
Please trigger the samples below for PCB analysis. I would also like to randomly select one interval from the triggers below for a homogenization duplicate. Do not hesitate to contact me with questions.

	A	B	C	D	E	
1	Station	Sample ID	Date	SDG		Tot
3	B-DGS1	B-DGS1-SO-02'-02.5'	3/27/2012	UO17	trigger	
5	B-DGS1	B-DGS1-SO-07'-07.5'	3/27/2012	UO17	trigger	
8	B-DGS1	B-DGS1-SO-17'-19'	3/27/2012	UO17	trigger	
19	JF-DGS1	JF-DGS1-SO-05'-07'	3/27/2012	UO17	trigger	
20	JF-DGS1	JF-DGS1-SO-10'-12'	3/27/2012	UO17	trigger	
21	JF-DGS1	JF-DGS1-SO-15'-17'	3/27/2012	UO17	trigger	
22	JF-DGS1	JF-DGS1-SO-17'-19'	3/27/2012	UO17	trigger	
24	JF-DGS1	JF-DGS1-SO-20'-22'	3/27/2012	UO17	trigger	
25	JF-DGS1	JF-DGS1-SO-25'-27'	3/27/2012	UO17	trigger	
26	JF-DGS1	JF-DGS1-SO-30'-32'	3/27/2012	UO17	trigger	
36	JF-DGS2	JF-DGS2-SO-05'-07'	3/28/2012	UO30	trigger	
38	JF-DGS2	JF-DGS2-SO-10'-12'	3/28/2012	UO30	trigger	
39	JF-DGS2	JF-DGS2-SO-15'-17'	3/28/2012	UO30	trigger	
42	JF-DGS2	JF-DGS2-SO-20'-22'	3/28/2012	UO30	trigger	
45	JF-DGS3	JF-DGS3-SO-05'-07'	3/28/2012	UO30	trigger	
47	JF-DGS3	JF-DGS3-SO-10'-12'	3/28/2012	UO30	trigger	
50	JF-DGS3	JF-DGS3-SO-15'-17'	3/28/2012	UO30	trigger	
54	JF-DGS3	JF-DGS3-SO-20'-22'	3/28/2012	UO30	trigger	
56	JF-DGS3	JF-DGS3-SO-24'-24.8'	3/28/2012	UO30	trigger	
57	JF-DGS3	JF-DGS3-SO-30'-32'	3/28/2012	UO30	trigger	

Thanks,

Nathan Soccorsy
ANCHOR QEA, LLC
nsoccorsy@anchorqea.com
720 Olive Way, Suite 1900
Seattle, Washington 98101
D 206.903.3385
T 206.287.9130
F 206.287.9131
C 480.272.2805
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www.anchorqea.com
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UR93 : 0001 5/10/2012 12:53 PM

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: UR93

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: Anchor QEA
Project: JFOS Phase 2, 010128-01.01
Matrix: Soil
ARI Job No.: UR93

Sample receipt

On April 26, 2012, twenty soil samples were removed from frozen archive and logged under ARI job UR93. The sample was analyzed for PCBs, as requested. For details regarding sample receipt, please 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 for samples stored frozen.

Initial calibrations were within method requirements.

The continuing calibration on 5/5/12 at 16:51 fell outside the 20% control limit low for Aroclor 1260 on the first column, but was within the control limit on the second column. No corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS percent recoveries were within control limits.

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

The undetected results for several analytes were raised and "Y"-flagged due to interference from the matrix.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: UR93
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-DGS1-SO-02'-02.5'	UR93A	12-7469	Soil	03/27/12 12:02	03/27/12 16:45
2.	B-DGS1-SO-07'-07.5'	UR93B	12-7470	Soil	03/27/12 12:23	03/27/12 16:45
3.	B-DGS1-SO-17'-19'	UR93C	12-7471	Soil	03/27/12 13:08	03/27/12 16:45
4.	JF-DGS1-SO-05'-07'	UR93D	12-7472	Soil	03/27/12 15:18	03/27/12 16:45
5.	JF-DGS1-SO-10'-12'	UR93E	12-7473	Soil	03/27/12 15:28	03/27/12 16:45
6.	JF-DGS1-SO-15'-17'	UR93F	12-7474	Soil	03/27/12 15:33	03/27/12 16:45
7.	JF-DGS1-SO-17'-19'	UR93G	12-7475	Soil	03/27/12 15:36	03/27/12 16:45
8.	JF-DGS1-SO-20'-22'	UR93H	12-7476	Soil	03/27/12 15:48	03/27/12 16:45
9.	JF-DGS1-SO-25'-27'	UR93I	12-7477	Soil	03/27/12 15:56	03/27/12 16:45
10.	JF-DGS1-SO-30'-32'	UR93J	12-7478	Soil	03/27/12 16:08	03/27/12 16:45
11.	JF-DGS2-SO-05'-07'	UR93K	12-7479	Soil	03/28/12 10:23	03/28/12 16:45
12.	JF-DGS2-SO-10'-12'	UR93L	12-7480	Soil	03/28/12 10:28	03/28/12 16:45
13.	JF-DGS2-SO-15'-17'	UR93M	12-7481	Soil	03/28/12 10:30	03/28/12 16:45
14.	JF-DGS2-SO-20'-22'	UR93N	12-7482	Soil	03/28/12 10:36	03/28/12 16:45
15.	JF-DGS3-SO-05'-07'	UR93O	12-7483	Soil	03/28/12 11:46	03/28/12 16:45
16.	JF-DGS3-SO-10'-12'	UR93P	12-7484	Soil	03/28/12 11:50	03/28/12 16:45
17.	JF-DGS3-SO-15'-17'	UR93Q	12-7485	Soil	03/28/12 11:57	03/28/12 16:45
18.	JF-DGS3-SO-20'-22'	UR93R	12-7486	Soil	03/28/12 12:09	03/28/12 16:45
19.	JF-DGS3-SO-24'-24.8'	UR93S	12-7487	Soil	03/28/12 12:15	03/28/12 16:45
20.	JF-DGS3-SO-30'-32'	UR93T	12-7488	Soil	03/28/12 12:21	03/28/12 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).

UR93 : 00015

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

UR93 : 00017

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

UR93:00018

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

UR93:00019

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					

UR93 : 00020

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

UR93 : 00021

PCB Analysis
Report and Summary QC Forms

ARI Job ID: UR93

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGS1-SO-02'-02.5'
SAMPLE

Lab Sample ID: UR93A
LIMS ID: 12-7469
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 10:51
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.9 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 4.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	18	< 18 U
53469-21-9	Aroclor 1242	18	< 18 U
12672-29-6	Aroclor 1248	18	< 18 U
11097-69-1	Aroclor 1254	22	< 22 Y
11096-82-5	**Aroclor 1260**	**18**	**59**
11104-28-2	Aroclor 1221	18	< 18 U
11141-16-5	Aroclor 1232	18	< 18 U
37324-23-5	Aroclor 1262	18	< 18 U
11100-14-4	Aroclor 1268	18	< 18 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	72.5%
Tetrachlorometaxylene	76.9%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGS1-SO-07'-07.5'
SAMPLE

Lab Sample ID: UR93B
LIMS ID: 12-7470
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 11:10
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: 5.00
Silica Gel: Yes

Percent Moisture: 14.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	140	< 140 Y
11097-69-1	**Aroclor 1254**	**19**	**730**
11096-82-5	**Aroclor 1260**	**19**	**350**
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U
37324-23-5	Aroclor 1262	19	< 19 U
11100-14-4	Aroclor 1268	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	65.8%
Tetrachlorometaxylene	78.6%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGS1-SO-17'-19'
SAMPLE

Lab Sample ID: UR93C
LIMS ID: 12-7471
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 11:29
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 21.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	75.2%
Tetrachlorometaxylene	85.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: B-DGS1-SO-17'-19'
DUPLICATE

Lab Sample ID: UR93C
LIMS ID: 12-7471
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 11:48
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 21.6%

CAS Number	Analyte	RL	Result	RPD
12674-11-2	Aroclor 1016	3.9	< 3.9 U	NA
53469-21-9	Aroclor 1242	3.9	< 3.9 U	NA
12672-29-6	Aroclor 1248	3.9	< 3.9 U	NA
11097-69-1	Aroclor 1254	3.9	< 3.9 U	NA
11096-82-5	Aroclor 1260	3.9	< 3.9 U	NA
11104-28-2	Aroclor 1221	3.9	< 3.9 U	NA
11141-16-5	Aroclor 1232	3.9	< 3.9 U	NA
37324-23-5	Aroclor 1262	3.9	< 3.9 U	NA
11100-14-4	Aroclor 1268	3.9	< 3.9 U	NA

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	69.2%
Tetrachlorometaxylene	73.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS1-SO-05'-07'
SAMPLE

Lab Sample ID: UR93D
LIMS ID: 12-7472
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 12:07
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.12 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 25.0
Silica Gel: Yes

Percent Moisture: 18.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	240	< 240 U
53469-21-9	Aroclor 1242	240	< 240 U
12672-29-6	Aroclor 1248	1,800	< 1,800 Y
11097-69-1	**Aroclor 1254**	**240**	**9,800**
11096-82-5	Aroclor 1260	980	< 980 Y
11104-28-2	Aroclor 1221	240	< 240 U
11141-16-5	Aroclor 1232	240	< 240 U
37324-23-5	Aroclor 1262	240	< 240 U
11100-14-4	Aroclor 1268	240	< 240 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	87.5%
Tetrachlorometaxylene	89.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS1-SO-10'-12'
SAMPLE

Lab Sample ID: UR93E
LIMS ID: 12-7473
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 12:26
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.3 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 22.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	38	< 38 U
53469-21-9	Aroclor 1242	38	< 38 U
12672-29-6	Aroclor 1248	280	< 280 Y
11097-69-1	**Aroclor 1254**	**38**	**1,300**
11096-82-5	**Aroclor 1260**	**38**	**390**
11104-28-2	Aroclor 1221	38	< 38 U
11141-16-5	Aroclor 1232	38	< 38 U
37324-23-5	Aroclor 1262	38	< 38 U
11100-14-4	Aroclor 1268	38	< 38 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	82.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS1-SO-15'-17'
SAMPLE

Lab Sample ID: UR93F
LIMS ID: 12-7474
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 12:45
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.3 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 20.8%

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	5.6	< 5.6 Y
11097-69-1	**Aroclor 1254**	**3.8**	**29**
11096-82-5	**Aroclor 1260**	**3.8**	**17**
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	70.8%
Tetrachlorometaxylene	77.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS1-SO-17'-19'
SAMPLE

Lab Sample ID: UR93G
LIMS ID: 12-7475
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 13:42
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.3 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 24.4%

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	< 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**	**5.4**

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	81.2%
Tetrachlorometaxylene	84.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS1-SO-20'-22'
SAMPLE

Lab Sample ID: UR93H
LIMS ID: 12-7476
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 14:01
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 21.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	49	< 49 Y
11097-69-1	**Aroclor 1254**	**20**	**260**
11096-82-5	**Aroclor 1260**	**20**	**120**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	93.0%
Tetrachlorometaxylene	89.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS1-SO-25'-27'
SAMPLE

Lab Sample ID: UR93I
LIMS ID: 12-7477
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 14:20
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 21.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	49	< 49 Y
11097-69-1	**Aroclor 1254**	**20**	**250**
11096-82-5	**Aroclor 1260**	**20**	**110**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U
37324-23-5	Aroclor 1262	20	< 20 U
11100-14-4	Aroclor 1268	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	95.2%
Tetrachlorometaxylene	91.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS1-SO-30'-32'
SAMPLE

Lab Sample ID: UR93J
LIMS ID: 12-7478
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 14:39
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: 20.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.2%
Tetrachlorometaxylene	81.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS2-SO-05'-07'
SAMPLE

Lab Sample ID: UR93K
LIMS ID: 12-7479
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/28/12
Date Received: 03/28/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 15:35
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: 15.0%

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**	**7.6**
11100-14-4	Aroclor 1268	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	70.0%
Tetrachlorometaxylene	73.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS2-SO-10'-12'
SAMPLE

Lab Sample ID: UR93L
LIMS ID: 12-7480
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/28/12
Date Received: 03/28/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 15:54
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 21.9%

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	39	< 39 U
11097-69-1	Aroclor 1254	390	< 390 Y
11096-82-5	**Aroclor 1260**	**39**	**1,000**
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	94.0%
Tetrachlorometaxylene	81.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS2-SO-15'-17'
SAMPLE

Lab Sample ID: UR93M
LIMS ID: 12-7481
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/28/12
Date Received: 03/28/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 16:13
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.3 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 20.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	19	< 19 U
11097-69-1	Aroclor 1254	140	< 140 Y
11096-82-5	**Aroclor 1260**	**19**	**320**
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U
37324-23-5	Aroclor 1262	19	< 19 U
11100-14-4	Aroclor 1268	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.8%
Tetrachlorometaxylene	74.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS2-SO-20'-22'
SAMPLE

Lab Sample ID: UR93N
LIMS ID: 12-7482
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/28/12
Date Received: 03/28/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 17:10
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.4 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 24.6%

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	66.0%
Tetrachlorometaxylene	75.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS3-SO-05'-07'
SAMPLE

Lab Sample ID: UR93O
LIMS ID: 12-7483
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/28/12
Date Received: 03/28/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 17:29
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: 7.8%

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	7.7	< 7.7 Y
11096-82-5	**Aroclor 1260**	**3.8**	**8.8**
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	82.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS3-SO-10'-12'
SAMPLE

Lab Sample ID: UR93P
LIMS ID: 12-7484
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/28/12
Date Received: 03/28/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 17:48
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 9.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	< 3.9 U
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	**Aroclor 1254**	**3.9**	**9.9**
11096-82-5	Aroclor 1260	3.9	< 3.9 U
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	**Aroclor 1268**	**3.9**	**28**

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	95.8%
Tetrachlorometaxylene	68.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS3-SO-15'-17'
SAMPLE

Lab Sample ID: UR93Q
LIMS ID: 12-7485
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/28/12
Date Received: 03/28/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 18:07
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.7 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 17.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.6	< 3.6 U
53469-21-9	Aroclor 1242	3.6	< 3.6 U
12672-29-6	Aroclor 1248	3.6	< 3.6 U
11097-69-1	Aroclor 1254	18	< 18 Y
11096-82-5	**Aroclor 1260**	**3.6**	**60**
11104-28-2	Aroclor 1221	3.6	< 3.6 U
11141-16-5	Aroclor 1232	3.6	< 3.6 U
37324-23-5	Aroclor 1262	3.6	< 3.6 U
11100-14-4	Aroclor 1268	3.6	< 3.6 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	83.8%
Tetrachlorometaxylene	71.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS3-SO-20'-22'
SAMPLE

Lab Sample ID: UR93R
LIMS ID: 12-7486
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/28/12
Date Received: 03/28/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 18:26
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: 22.7%

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	5.6	< 5.6 Y
11097-69-1	**Aroclor 1254**	**3.7**	**18**
11096-82-5	**Aroclor 1260**	**3.7**	**32**
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	71.5%
Tetrachlorometaxylene	71.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS3-SO-24'-24.8'
SAMPLE

Lab Sample ID: UR93S
LIMS ID: 12-7487
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/28/12
Date Received: 03/28/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 18:45
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: 18.3%

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	74.8%
Tetrachlorometaxylene	74.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS3-SO-30'-32'
SAMPLE

Lab Sample ID: UR93T
LIMS ID: 12-7488
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/28/12
Date Received: 03/28/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 19:04
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.8 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 17.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.6	< 3.6 U
53469-21-9	Aroclor 1242	3.6	< 3.6 U
12672-29-6	Aroclor 1248	36	< 36 Y
11097-69-1	Aroclor 1254	36	< 36 Y
11096-82-5	Aroclor 1260	4.5	< 4.5 Y
11104-28-2	Aroclor 1221	3.6	< 3.6 U
11141-16-5	Aroclor 1232	3.6	< 3.6 U
37324-23-5	Aroclor 1262	3.6	< 3.6 U
11100-14-4	Aroclor 1268	3.6	< 3.6 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	71.8%
Tetrachlorometaxylene	75.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
B-DGS1-SO-02'-02.5'	72.5%	24-127	76.9%	34-109	0
B-DGS1-SO-07'-07.5'	65.8%	24-127	78.6%	34-109	0
MB-050112	83.0%	48-123	80.0%	43-107	0
LCS-050112	76.8%	48-123	71.0%	43-107	0
B-DGS1-SO-17'-19'	75.2%	24-127	85.5%	34-109	0
B-DGS1-SO-17'-19' DUP	69.2%	24-127	73.2%	34-109	0
JF-DGS1-SO-05'-07'	87.5%	24-127	89.4%	34-109	0
JF-DGS1-SO-10'-12'	88.5%	24-127	82.2%	34-109	0
JF-DGS1-SO-15'-17'	70.8%	24-127	77.5%	34-109	0
JF-DGS1-SO-17'-19'	81.2%	24-127	84.2%	34-109	0
JF-DGS1-SO-20'-22'	93.0%	24-127	89.5%	34-109	0
JF-DGS1-SO-25'-27'	95.2%	24-127	91.5%	34-109	0
JF-DGS1-SO-30'-32'	80.2%	24-127	81.2%	34-109	0
JF-DGS1-SO-30'-32' MS	77.5%	24-127	82.8%	34-109	0
JF-DGS1-SO-30'-32' MSD	71.8%	24-127	75.8%	34-109	0
JF-DGS2-SO-05'-07'	70.0%	24-127	73.5%	34-109	0
JF-DGS2-SO-10'-12'	94.0%	24-127	81.0%	34-109	0
JF-DGS2-SO-15'-17'	78.8%	24-127	74.4%	34-109	0
JF-DGS2-SO-20'-22'	66.0%	24-127	75.2%	34-109	0
JF-DGS3-SO-05'-07'	84.2%	24-127	82.0%	34-109	0
JF-DGS3-SO-10'-12'	95.8%	24-127	68.2%	34-109	0
JF-DGS3-SO-15'-17'	83.8%	24-127	71.2%	34-109	0
JF-DGS3-SO-20'-22'	71.5%	24-127	71.2%	34-109	0
JF-DGS3-SO-24'-24.8'	74.8%	24-127	74.0%	34-109	0
JF-DGS3-SO-30'-32'	71.8%	24-127	75.5%	34-109	0

Microwave (MARS) Control Limits PCBSMM
Prep Method: SW3546
Log Number Range: 12-7469 to 12-7488

FORM-II SW8082

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS1-SO-30'-32'
MS/MSD

Lab Sample ID: UR93J
LIMS ID: 12-7478
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted MS/MSD: 05/01/12

Date Analyzed MS: 05/05/12 14:57
MSD: 05/05/12 15:17
Instrument/Analyst MS: ECD5/JGR
MSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 13.4 g-dry-wt
MSD: 12.8 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: 20.2%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 3.9 U	79.0	94.2	83.9%	74.9	98.5	76.0%	5.3%
Aroclor 1260	< 3.9 U	67.2	94.2	71.3%	76.0	98.5	77.2%	12.3%

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

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS1-SO-30'-32'
MATRIX SPIKE

Lab Sample ID: UR93J
LIMS ID: 12-7478
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 14:57
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 13.4 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 20.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.7	---
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	---
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	77.5%
Tetrachlorometaxylene	82.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: JF-DGS1-SO-30'-32'
MATRIX SPIKE DUP

Lab Sample ID: UR93J
LIMS ID: 12-7478
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: 03/27/12
Date Received: 03/27/12

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 15:17
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 20.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	3.9	---
53469-21-9	Aroclor 1242	3.9	< 3.9 U
12672-29-6	Aroclor 1248	3.9	< 3.9 U
11097-69-1	Aroclor 1254	3.9	< 3.9 U
11096-82-5	Aroclor 1260	3.9	---
11104-28-2	Aroclor 1221	3.9	< 3.9 U
11141-16-5	Aroclor 1232	3.9	< 3.9 U
37324-23-5	Aroclor 1262	3.9	< 3.9 U
11100-14-4	Aroclor 1268	3.9	< 3.9 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	71.8%
Tetrachlorometaxylene	75.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: LCS-050112
LAB CONTROL

Lab Sample ID: LCS-050112
LIMS ID: 12-7471
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 10:32
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

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

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	70.2	101	69.5%
Aroclor 1260	96.8	101	95.8%

PCB Surrogate Recovery

Decachlorobiphenyl	76.8%
Tetrachlorometaxylene	71.0%

Results reported in µg/kg (ppb)

FORM III

PCB METHOD BLANK SUMMARY

BLANK NO.

UR93MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA

ARI Job No.: UR93

Project: JFOS PHASE 2

Lab Sample ID: UR93MBS1

Lab File ID: 0505A005

Date Extracted: 05/01/12

Matrix: SOLID

Date Analyzed: 05/05/12

Instrument ID: ECD5

Time Analyzed: 1012

GC Columns: ZB5/ZB35

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	UR93LCSS1	UR93LCSS1	05/05/12
02	B-DGS1-SO-02'-02.5'	UR93A	05/05/12
03	B-DGS1-SO-07'-07.5'	UR93B	05/05/12
04	B-DGS1-SO-17'-19'	UR93C	05/05/12
05	B-DGS1-SO-17'-1 DUP	UR93CDUP	05/05/12
06	JF-DGS1-SO-05'-07'	UR93D	05/05/12
07	JF-DGS1-SO-10'-12'	UR93E	05/05/12
08	JF-DGS1-SO-15'-17'	UR93F	05/05/12
09	JF-DGS1-SO-17'-19'	UR93G	05/05/12
10	JF-DGS1-SO-20'-22'	UR93H	05/05/12
11	JF-DGS1-SO-25'-27'	UR93I	05/05/12
12	JF-DGS1-SO-30'-32'	UR93J	05/05/12
13	JF-DGS1-SO-30'- MS	UR93JMS	05/05/12
14	JF-DGS1-SO-30'- MSD	UR93JMSD	05/05/12
15	JF-DGS2-SO-05'-07'	UR93K	05/05/12
16	JF-DGS2-SO-10'-12'	UR93L	05/05/12
17	JF-DGS2-SO-15'-17'	UR93M	05/05/12
18	JF-DGS2-SO-20'-22'	UR93N	05/05/12
19	JF-DGS3-SO-05'-07'	UR93O	05/05/12
20	JF-DGS3-SO-10'-12'	UR93P	05/05/12
21	JF-DGS3-SO-15'-17'	UR93Q	05/05/12
22	JF-DGS3-SO-20'-22'	UR93R	05/05/12
23	JF-DGS3-SO-24'-24.8	UR93S	05/05/12
24	JF-DGS3-SO-30'-32'	UR93T	05/05/12

ALL RUNS ARE DUAL COLUMN

FORM IV PCB

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: MB-050112
METHOD BLANK

Lab Sample ID: MB-050112
LIMS ID: 12-7471
Matrix: Soil
Data Release Authorized:
Reported: 05/07/12

QC Report No: UR93-Anchor QEA
Project: JFOS Phase 2
010128-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/01/12
Date Analyzed: 05/05/12 10:12
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	83.0%
Tetrachlorometaxylene	80.0%

FORM I

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC — Client: ANCHOR QEA INC

ARI Job No.: UR93 — Project: JFOS PHASE 2

GC Column: ZB5 — Instrument ID: ECD5

Calibration Date: 04/09/12

SURROGATES

RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX 4.51- 4.71	1.3825	1.3481	1.3639	1.2904	1.2332	1.1831	1.3002	6.1
DCB 12.89-13.09	1.5960	1.4221	1.3243	1.2891	1.1287	1.0798	1.3067	14.6

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.14- 6.34	0.0411	0.0367	0.0353	0.0321	0.0294	0.0271	0.0336	15.2
2	6.54- 6.74	0.1316	0.1187	0.1147	0.1026	0.0941	0.0867	0.1081	15.5
3	6.69- 6.89	0.0536	0.0490	0.0468	0.0419	0.0384	0.0354	0.0442	15.5
4	6.80- 7.00	0.0379	0.0342	0.0328	0.0297	0.0275	0.0255	0.0313	14.7

AROCLOR AVERAGE %RSD = 15.2

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	0.0521	0.0488	0.0465	0.0424	0.0391	0.0359	0.0441	13.9
2	10.72-10.92	0.1296	0.1187	0.1119	0.1063	0.0954	0.0905	0.1087	13.4
3	11.12-11.32	0.0692	0.0645	0.0616	0.0576	0.0526	0.0489	0.0591	12.8
4	11.24-11.44	0.0310	0.0290	0.0270	0.0264	0.0226	0.0211	0.0262	14.3
5	11.31-11.51	0.0367	0.0345	0.0323	0.0319	0.0276	0.0259	0.0315	13.0

AROCLOR AVERAGE %RSD = 13.5

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA INC

ARI Job No.: UR93

Project: JFOS PHASE 2

GC Column: ZB35

Instrument ID: ECD5

Calibration Date: 04/09/12

SURROGATES

RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX 4.50- 4.70	1.1109	1.1196	1.1522	1.1045	1.0646	0.9997	1.0919	4.9
DCB 13.27-13.47	1.3445	1.2486	1.1773	1.2292	1.0438	1.0098	1.1755	10.9

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	6.24- 6.44	0.0497	0.0457	0.0446	0.0394	0.0361	0.0321	0.0413	15.9
2	6.87- 7.07	0.0997	0.0933	0.0933	0.0840	0.0788	0.0719	0.0868	12.0
3	7.25- 7.45	0.0249	0.0236	0.0239	0.0219	0.0211	0.0197	0.0225	8.7
4	7.36- 7.56	0.0281	0.0266	0.0262	0.0238	0.0224	0.0207	0.0246	11.5

AROCLOR AVERAGE %RSD = 12.0

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	10.32-10.52	0.0504	0.0469	0.0449	0.0427	0.0392	0.0366	0.0434	11.6
2	10.77-10.97	0.0693	0.0593	0.0560	0.0516	0.0483	0.0451	0.0549	15.8
3	11.04-11.24	0.1227	0.1143	0.1101	0.1073	0.0988	0.0939	0.1078	9.7
4	11.57-11.77	0.0364	0.0336	0.0325	0.0322	0.0288	0.0272	0.0318	10.4

AROCLOR AVERAGE %RSD = 11.9

FORM VI PCB-1

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC — Client: ANCHOR QEA INC

ARI Job No.: UR93 — Project: JFOS PHASE 2

GC Column: ZB5 — Instrument ID: ECD5

Calibration Date: 04/09/12

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	4.890	4.79- 4.99	0.00379
2	5.160	5.06- 5.26	0.00947
3	5.265	5.17- 5.37	0.03099

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.244	6.14- 6.34	0.01380
2	6.643	6.54- 6.74	0.04453
3	6.792	6.69- 6.89	0.01826
4	7.986	7.89- 8.09	0.01676

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.240	6.14- 6.34	0.02459
2	6.641	6.54- 6.74	0.07917
3	6.789	6.69- 6.89	0.03219
4	7.983	7.88- 8.08	0.02854

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.636	6.54- 6.74	0.05195
2	7.436	7.34- 7.54	0.04008
3	7.982	7.88- 8.08	0.04896
4	8.272	8.17- 8.37	0.04878

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC — Client: ANCHOR QEA INC

ARI Job No.: UR93 — Project: JFOS PHASE 2

GC Column: ZB5 — Instrument ID: ECD5

Calibration Date: 04/09/12

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.356	8.26- 8.46	0.07633
2	8.727	8.63- 8.83	0.04964
3	8.863	8.76- 8.96	0.09077
4	9.213	9.11- 9.31	0.09159
5	9.574	9.47- 9.67	0.06179

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.134	10.03-10.23	0.06553
2	10.451	10.35-10.55	0.04844
3	10.825	10.72-10.92	0.12812
4	11.341	11.24-11.44	0.04681
5	11.415	11.31-11.51	0.05271

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.342	11.24-11.44	0.13349
2	11.413	11.31-11.51	0.13148
3	11.800	11.70-11.90	0.11418
4	12.591	12.49-12.69	0.35133

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 04/09/12

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.295	5.20- 5.40	0.01235
2	5.542	5.44- 5.64	0.00724
3	5.654	5.55- 5.75	0.02243
4	5.722	5.62- 5.82	0.00403

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.348	6.25- 6.45	0.01859
2	6.974	6.87- 7.07	0.03636
3	7.183	7.08- 7.28	0.01245
4	8.328	8.23- 8.43	0.01289

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.343	6.24- 6.44	0.03078
2	6.974	6.87- 7.07	0.06556
3	7.179	7.08- 7.28	0.02630
4	8.325	8.23- 8.43	0.02183

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.968	6.87- 7.07	0.04201
2	7.870	7.77- 7.97	0.03241
3	8.322	8.22- 8.42	0.03768
4	8.744	8.64- 8.84	0.04151

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 04/09/12

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.461	8.36- 8.56	0.03159
2	8.635	8.53- 8.73	0.04004
3	9.157	9.06- 9.26	0.03095
4	9.307	9.21- 9.41	0.06609
5	10.089	9.99-10.19	0.03986

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.425	10.33-10.53	0.06603
2	10.877	10.78-10.98	0.05643
3	11.149	11.05-11.25	0.12776
4	11.671	11.57-11.77	0.05119
5	12.470	12.37-12.57	0.04919

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.672	11.57-11.77	0.13508
2	11.739	11.64-11.84	0.12738
3	12.136	12.04-12.24	0.10978
4	12.958	12.86-13.06	0.33219

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA INC

ARI Job No.: UR93

Project: JFOS PHASE 2

GC Column: ZB5

Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1660

Time Analyzed :0934

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.24	6.14	6.34	243.4	250.0	-2.6
Aroclor-1016-2	6.64	6.54	6.74	259.0	250.0	3.6
Aroclor-1016-3	6.79	6.69	6.89	254.9	250.0	1.9
Aroclor-1016-4	6.90	6.80	7.00	244.0	250.0	-2.4

AVERAGE %D = 2.6

Date Analyzed :05/05/12

Lab Standard ID: AR1660

Time Analyzed :0934

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	209.4	250.0	-16.2
Aroclor-1260-2	10.82	10.72	10.92	218.0	250.0	-12.8
Aroclor-1260-3	11.22	11.12	11.32	213.6	250.0	-14.6
Aroclor-1260-4	11.34	11.24	11.44	194.2	250.0	-22.3
Aroclor-1260-5	11.41	11.31	11.51	194.5	250.0	-22.2

AVERAGE %D = 17.6

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :0934

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.34	6.24	6.44	247.9	250.0	-0.8
Aroclor-1016-2	6.97	6.87	7.07	197.7	250.0	-20.9
Aroclor-1016-3	7.35	7.25	7.45	246.9	250.0	-1.2
Aroclor-1016-4	7.46	7.36	7.56	242.9	250.0	-2.8

AVERAGE %D = 6.4

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :0934

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.42	10.32	10.52	304.1	250.0	21.6
Aroclor-1260-2	10.87	10.77	10.97	297.3	250.0	18.9
Aroclor-1260-3	11.14	11.04	11.24	285.6	250.0	14.2
Aroclor-1260-4	11.67	11.57	11.77	241.5	250.0	-3.4

AVERAGE %D = 14.5

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC
Client: ANCHOR QEA INC

ARI Job No.: UR93
Project: JFOS PHASE 2

GC Column: ZB5
Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1242
Time Analyzed :0953

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.24	6.14	6.34	249.4	250.0	-0.2
Aroclor-1242-2	6.64	6.54	6.74	264.4	250.0	5.8
Aroclor-1242-3	6.79	6.69	6.89	264.1	250.0	5.6
Aroclor-1242-4	7.98	7.88	8.08	258.8	250.0	3.5

AVERAGE %D = 3.8

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA INC

ARI Job No.: UR93

Project: JFOS PHASE 2

GC Column: ZB35

Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1242

Time Analyzed :0953

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.34	6.24	6.44	262.3	250.0	4.9
Aroclor-1242-2	6.97	6.87	7.07	202.7	250.0	-18.9
Aroclor-1242-3	7.18	7.08	7.28	260.1	250.0	4.0
Aroclor-1242-4	8.32	8.23	8.43	278.2	250.0	11.3

AVERAGE %D = 9.8

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1254 Time Analyzed :1304

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	228.8	250.0	-8.5
Aroclor-1254-2	8.73	8.63	8.83	217.8	250.0	-12.9
Aroclor-1254-3	8.86	8.76	8.96	243.8	250.0	-2.5
Aroclor-1254-4	9.21	9.11	9.31	282.8	250.0	13.1
Aroclor-1254-5	9.57	9.47	9.67	270.0	250.0	8.0

AVERAGE %D = 9.0

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA INC

ARI Job No.: UR93

Project: JFOS PHASE 2

GC Column: ZB35

Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1254

Time Analyzed :1304

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.46	8.36	8.56	286.2	250.0	14.5
Aroclor-1254-2	8.63	8.53	8.73	301.8	250.0	20.7
Aroclor-1254-3	9.16	9.06	9.26	283.2	250.0	13.3
Aroclor-1254-4	9.31	9.21	9.41	270.2	250.0	8.1
Aroclor-1254-5	10.09	9.99	10.19	294.8	250.0	17.9

AVERAGE %D = 14.9

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :1323

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.24	6.14	6.34	243.1	250.0	-2.7
Aroclor-1016-2	6.64	6.54	6.74	264.3	250.0	5.7
Aroclor-1016-3	6.79	6.69	6.89	259.9	250.0	4.0
Aroclor-1016-4	6.90	6.80	7.00	256.0	250.0	2.4

AVERAGE %D = 3.7

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :1323

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	234.3	250.0	-6.3
Aroclor-1260-2	10.82	10.72	10.92	223.0	250.0	-10.8
Aroclor-1260-3	11.22	11.12	11.32	217.1	250.0	-13.2
Aroclor-1260-4	11.34	11.24	11.44	202.2	250.0	-19.1
Aroclor-1260-5	11.41	11.31	11.51	201.1	250.0	-19.6

AVERAGE %D = 13.8

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :1323

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.34	6.24	6.44	257.1	250.0	2.8
Aroclor-1016-2	6.97	6.87	7.07	215.7	250.0	-13.7
Aroclor-1016-3	7.35	7.25	7.45	268.1	250.0	7.2
Aroclor-1016-4	7.46	7.36	7.56	263.7	250.0	5.5

AVERAGE %D = 7.3

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :1323

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.42	10.32	10.52	292.9	250.0	17.2
Aroclor-1260-2	10.87	10.77	10.97	259.8	250.0	3.9
Aroclor-1260-3	11.14	11.04	11.24	266.4	250.0	6.6
Aroclor-1260-4	11.66	11.57	11.77	275.7	250.0	10.3

AVERAGE %D = 9.5

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA INC

ARI Job No.: UR93

Project: JFOS PHASE 2

GC Column: ZB5

Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1248

Time Analyzed :1633

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.64	6.54	6.74	237.2	250.0	-5.1
Aroclor-1248-2	7.44	7.34	7.54	207.9	250.0	-16.8
Aroclor-1248-3	7.98	7.88	8.08	218.7	250.0	-12.5
Aroclor-1248-4	8.27	8.17	8.37	214.9	250.0	-14.0

AVERAGE %D = 12.1

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1248 Time Analyzed :1633

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.97	6.87	7.07	207.4	250.0	-17.0
Aroclor-1248-2	7.87	7.77	7.97	224.1	250.0	-10.4
Aroclor-1248-3	8.32	8.22	8.42	225.9	250.0	-9.6
Aroclor-1248-4	8.74	8.64	8.84	211.9	250.0	-15.2

AVERAGE %D = 13.1

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :1651

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.24	6.14	6.34	238.7	250.0	-4.5
Aroclor-1016-2	6.64	6.54	6.74	260.0	250.0	4.0
Aroclor-1016-3	6.79	6.69	6.89	253.9	250.0	1.6
Aroclor-1016-4	6.90	6.80	7.00	249.4	250.0	-0.2

AVERAGE %D = 2.6

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :1651

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	205.9	250.0	-17.6	
Aroclor-1260-2	10.82	10.72	10.92	211.4	250.0	-15.4	
Aroclor-1260-3	11.22	11.12	11.32	207.5	250.0	-17.0	
Aroclor-1260-4	11.34	11.24	11.44	186.9	250.0	-25.2	<-
Aroclor-1260-5	11.41	11.31	11.51	182.9	250.0	-26.8	<-

AVERAGE %D = 20.4

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :1651

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.34	6.24	6.44	256.0	250.0	2.4
Aroclor-1016-2	6.97	6.87	7.07	212.5	250.0	-15.0
Aroclor-1016-3	7.35	7.25	7.45	253.5	250.0	1.4
Aroclor-1016-4	7.46	7.36	7.56	245.6	250.0	-1.8

AVERAGE %D = 5.1

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :1651

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.42	10.32	10.52	223.1	250.0	-10.8
Aroclor-1260-2	10.87	10.77	10.97	240.9	250.0	-3.6
Aroclor-1260-3	11.14	11.04	11.24	264.9	250.0	6.0
Aroclor-1260-4	11.66	11.57	11.77	239.1	250.0	-4.4

AVERAGE %D = 6.2

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1242 Time Analyzed :1923

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.24	6.14	6.34	233.4	250.0	-6.6
Aroclor-1242-2	6.64	6.54	6.74	256.4	250.0	2.6
Aroclor-1242-3	6.79	6.69	6.89	248.5	250.0	-0.6
Aroclor-1242-4	7.98	7.88	8.08	191.3	250.0	-23.5

AVERAGE %D = 8.3

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA INC

ARI Job No.: UR93

Project: JFOS PHASE 2

GC Column: ZB35

Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1242

Time Analyzed :1923

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.34	6.24	6.44	261.9	250.0	4.8
Aroclor-1242-2	6.97	6.87	7.07	210.5	250.0	-15.8
Aroclor-1242-3	7.18	7.08	7.28	219.1	250.0	-12.4
Aroclor-1242-4	8.33	8.23	8.43	213.3	250.0	-14.7

AVERAGE %D = 11.9

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA INC

ARI Job No.: UR93

Project: JFOS PHASE 2

GC Column: ZB5

Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1660

Time Analyzed :1942

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.24	6.14	6.34	227.4	250.0	-9.0
Aroclor-1016-2	6.64	6.54	6.74	256.2	250.0	2.5
Aroclor-1016-3	6.79	6.69	6.89	246.6	250.0	-1.4
Aroclor-1016-4	6.90	6.80	7.00	247.3	250.0	-1.1

AVERAGE %D = 3.5

Date Analyzed :05/05/12

Lab Standard ID: AR1660

Time Analyzed :1942

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	214.2	250.0	-14.3	
Aroclor-1260-2	10.82	10.72	10.92	215.2	250.0	-13.9	
Aroclor-1260-3	11.22	11.12	11.32	204.5	250.0	-18.2	
Aroclor-1260-4	11.34	11.24	11.44	183.9	250.0	-26.4	<-
Aroclor-1260-5	11.41	11.31	11.51	185.8	250.0	-25.7	<-

AVERAGE %D = 19.7

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 04/09/12

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :1942

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.34	6.24	6.44	249.4	250.0	-0.2
Aroclor-1016-2	6.97	6.87	7.07	213.7	250.0	-14.5
Aroclor-1016-3	7.35	7.25	7.45	244.9	250.0	-2.0
Aroclor-1016-4	7.46	7.36	7.56	246.8	250.0	-1.3

AVERAGE %D = 4.5

Date Analyzed :05/05/12

Lab Standard ID: AR1660 Time Analyzed :1942

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.42	10.32	10.52	246.3	250.0	-1.5
Aroclor-1260-2	10.87	10.77	10.97	221.0	250.0	-11.6
Aroclor-1260-3	11.14	11.04	11.24	225.2	250.0	-9.9
Aroclor-1260-4	11.67	11.57	11.77	218.8	250.0	-12.5

AVERAGE %D = 8.9

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

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

Init. Calib. Date: 04/09/12

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

	IS1 AREA	RT	IS2 AREA	RT
ICAL MIDPT	140291259	2.416	198372884	13.360
UPPER LIMIT	280582518	2.516	396745768	13.460
LOWER LIMIT	70145630	2.316	99186442	13.260

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	04/09/12	1345	138811759	2.415	194618552	13.359
02		0.25 PPM AR1	04/09/12	1404	140291259	2.416	198372884	13.360
03		0.02 PPM AR1	04/09/12	1423	145043804	2.417	203498136	13.359
04		0.05 PPM AR1	04/09/12	1442	149928717	2.417	208896879	13.360
05		1 PPM AR1660	04/09/12	1501	131280448	2.415	195234615	13.359
06		0.1 PPM AR16	04/09/12	1520	142898092	2.417	201967045	13.359
07		0.5 PPM AR16	04/09/12	1538	138203230	2.416	197900509	13.359
08		AR1242	04/09/12	1557	145410338	2.415	206137340	13.359
09		AR1248	04/09/12	1617	148461301	2.416	209304672	13.360
10		AR1254	04/09/12	1635	145698158	2.417	205529508	13.360
11		AR2162	04/09/12	1654	146299990	2.417	206466186	13.360
12		AR3268	04/09/12	1713	147003379	2.416	207827810	13.358
13	ZZZZZ	ZZZZZ	04/09/12	1733	148393118	2.415	209434075	13.359
14	ZZZZZ	ZZZZZ	04/09/12	1751	150992004	2.416	211822620	13.358
15	ZZZZZ	ZZZZZ	04/09/12	1810	146530415	2.417	206232813	13.358
16	ZZZZZ	ZZZZZ	04/09/12	1829	144073232	2.417	203974864	13.359
17	ZZZZZ	ZZZZZ	04/09/12	1848	146899354	2.415	206305286	13.359
18	ZZZZZ	ZZZZZ	04/09/12	1907	151629467	2.417	213500029	13.358
19	ZZZZZ	ZZZZZ	05/05/12	0856	145017187	2.390	163088809	13.359
20	ZZZZZ	ZZZZZ	05/05/12	0915	135546850	2.409	154987971	13.356
21		AR1660	05/05/12	0934	118084407	2.408	150193247	13.355
22		AR1242	05/05/12	0953	134244926	2.407	159540948	13.354
23	UR93MBS1	UR93MBS1	05/05/12	1012	152475956	2.408	173490959	13.354
24	UR93LCSS1	UR93LCSS1	05/05/12	1032	139685606	2.409	164817617	13.355
25	B-DGS1-SO-02	UR93A	05/05/12	1051	134772669	2.408	159604816	13.355
26	B-DGS1-SO-07	UR93B	05/05/12	1110	142440577	2.408	172226184	13.354
27	B-DGS1-SO-17	UR93C	05/05/12	1129	140823568	2.407	167085157	13.354
28	B-DGS1-SO-17	UR93CDUP	05/05/12	1148	144721371	2.407	179409654	13.353
29	JF-DGS1-SO-0	UR93D	05/05/12	1207	154848187	2.407	197137821	13.353
30	JF-DGS1-SO-1	UR93E	05/05/12	1226	157488809	2.406	189913322	13.353
31	JF-DGS1-SO-1	UR93F	05/05/12	1245	132345400	2.406	173660863	13.353
32		AR1254	05/05/12	1304	147260616	2.406	194768955	13.353

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

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA INC

ARI Job No.: UR93 Project: JFOS PHASE 2

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

Init. Calib. Date: 04/09/12

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

	IS1 AREA	RT	IS2 AREA	RT
ICAL MIDPT	140291259	2.416	198372884	13.360
UPPER LIMIT	280582518	2.516	396745768	13.460
LOWER LIMIT	70145630	2.316	99186442	13.260

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
33		AR1660	05/05/12	1323	125015021	2.407	187846226	13.352
34	JF-DGS1-SO-1	UR93G	05/05/12	1342	141121405	2.405	192452297	13.353
35	JF-DGS1-SO-2	UR93H	05/05/12	1401	147709186	2.406	205118690	13.353
36	JF-DGS1-SO-2	UR93I	05/05/12	1420	132887116	2.405	180295621	13.352
37	JF-DGS1-SO-3	UR93J	05/05/12	1439	136076739	2.405	195073835	13.352
38	JF-DGS1-SO-3	UR93JMS	05/05/12	1457	134985191	2.406	210081519	13.352
39	JF-DGS1-SO-3	UR93JMSD	05/05/12	1517	144668334	2.406	209772490	13.352
40	JF-DGS2-SO-0	UR93K	05/05/12	1535	131745052	2.408	166204423	13.361
41	JF-DGS2-SO-1	UR93L	05/05/12	1554	130736881	2.407	150197496	13.353
42	JF-DGS2-SO-1	UR93M	05/05/12	1613	140816992	2.407	167633680	13.354
43		AR1248	05/05/12	1633	144064991	2.406	178292134	13.353
44		AR1660	05/05/12	1651	126700961	2.406	174963066	13.353
45	JF-DGS2-SO-2	UR93N	05/05/12	1710	145684834	2.406	183130256	13.354
46	JF-DGS3-SO-0	UR93O	05/05/12	1729	125200230	2.412	139301540	13.364
47	JF-DGS3-SO-1	UR93P	05/05/12	1748	127485669	2.413	123649634	13.367
48	JF-DGS3-SO-1	UR93Q	05/05/12	1807	134013143	2.412	127696165	13.360
49	JF-DGS3-SO-2	UR93R	05/05/12	1826	132473430	2.410	125340906	13.356
50	JF-DGS3-SO-2	UR93S	05/05/12	1845	145687638	2.410	138513382	13.356
51	JF-DGS3-SO-3	UR93T	05/05/12	1904	143033941	2.410	148358570	13.356
52		AR1242	05/05/12	1923	143178157	2.410	152948295	13.356
53		AR1660	05/05/12	1942	126745506	2.410	147462340	13.355
54	ZZZZZ	ZZZZZ	05/05/12	2001	143813950	2.409	161209749	13.355
55	ZZZZZ	ZZZZZ	05/05/12	2020	126337669	2.409	152791255	13.355

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 INC

ARI Job No.: UR93 Project: JFOS PHASE 2

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

Init. Calib. Date: 04/09/12

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

	IS1 AREA	RT	IS2 AREA	RT
ICAL MIDPT	102590725	2.900	81487087	14.241
UPPER LIMIT	205181450	3.000	162974174	14.341
LOWER LIMIT	51295362	2.800	40743544	14.141

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	04/09/12	1345	103100220	2.899	80038669	14.241
02		0.25 PPM AR1	04/09/12	1404	102590725	2.900	81487087	14.241
03		0.02 PPM AR1	04/09/12	1423	105585540	2.900	83644448	14.241
04		0.05 PPM AR1	04/09/12	1442	108107485	2.901	86041935	14.241
05		1 PPM AR1660	04/09/12	1501	98245543	2.898	81628823	14.242
06		0.1 PPM AR16	04/09/12	1520	101381951	2.900	83536278	14.241
07		0.5 PPM AR16	04/09/12	1538	100324091	2.899	82130036	14.241
08		AR1242	04/09/12	1557	103100908	2.899	85191381	14.241
09		AR1248	04/09/12	1617	105734120	2.899	86502439	14.242
10		AR1254	04/09/12	1635	103297978	2.900	85015730	14.241
11		AR2162	04/09/12	1654	101335194	2.900	85400660	14.241
12		AR3268	04/09/12	1713	102791664	2.899	86296538	14.241
13	ZZZZZ	ZZZZZ	04/09/12	1733	106029663	2.898	86559412	14.241
14	ZZZZZ	ZZZZZ	04/09/12	1751	106481318	2.900	87952225	14.241
15	ZZZZZ	ZZZZZ	04/09/12	1810	103470567	2.900	85909573	14.241
16	ZZZZZ	ZZZZZ	04/09/12	1829	102344724	2.900	84705746	14.241
17	ZZZZZ	ZZZZZ	04/09/12	1848	102109740	2.898	86020581	14.240
18	ZZZZZ	ZZZZZ	04/09/12	1907	105404354	2.901	89302935	14.241
19	ZZZZZ	ZZZZZ	05/05/12	0856	128470254	2.864	61772373	14.235
20	ZZZZZ	ZZZZZ	05/05/12	0915	112951227	2.890	59419886	14.235
21		AR1660	05/05/12	0934	103452724	2.888	56516256	14.234
22		AR1242	05/05/12	0953	110918353	2.888	62856725	14.234
23	UR93MBS1	UR93MBS1	05/05/12	1012	112800980	2.888	66248620	14.235
24	UR93LCSS1	UR93LCSS1	05/05/12	1032	105519209	2.885	61245392	14.234
25	B-DGS1-SO-02	UR93A	05/05/12	1051	100527597	2.888	68626039	14.234
26	B-DGS1-SO-07	UR93B	05/05/12	1110	106278314	2.888	84511724	14.233
27	B-DGS1-SO-17	UR93C	05/05/12	1129	100139059	2.887	69100921	14.233
28	B-DGS1-SO-17	UR93CDUP	05/05/12	1148	103304142	2.887	70783889	14.233
29	JF-DGS1-SO-0	UR93D	05/05/12	1207	111783594	2.888	77966722	14.233
30	JF-DGS1-SO-1	UR93E	05/05/12	1226	106286033	2.887	75198544	14.233
31	JF-DGS1-SO-1	UR93F	05/05/12	1245	96059423	2.886	84848447	14.233
32		AR1254	05/05/12	1304	108926474	2.887	104844359	14.232

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 INC

ARI Job No.: UR93 Project: JFOS PHASE 2

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

Init. Calib. Date: 04/09/12

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

	IS1 AREA	RT	IS2 AREA	RT
ICAL MIDPT	102590725	2.900	81487087	14.241
UPPER LIMIT	205181450	3.000	162974174	14.341
LOWER LIMIT	51295362	2.800	40743544	14.141

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
33		AR1660	05/05/12	1323	99532651	2.888	72976810	14.231
34	JF-DGS1-SO-1	UR93G	05/05/12	1342	98059859	2.886	76638044	14.233
35	JF-DGS1-SO-2	UR93H	05/05/12	1401	105140397	2.886	78545924	14.232
36	JF-DGS1-SO-2	UR93I	05/05/12	1420	94375716	2.886	71568758	14.231
37	JF-DGS1-SO-3	UR93J	05/05/12	1439	96113217	2.887	76348899	14.232
38	JF-DGS1-SO-3	UR93JMS	05/05/12	1457	94101079	2.887	80335614	14.232
39	JF-DGS1-SO-3	UR93JMSD	05/05/12	1517	99519097	2.887	86356947	14.233
40	JF-DGS2-SO-0	UR93K	05/05/12	1535	88786104	2.889	77627613	14.238
41	JF-DGS2-SO-1	UR93L	05/05/12	1554	92246381	2.888	61326376	14.232
42	JF-DGS2-SO-1	UR93M	05/05/12	1613	93984354	2.888	69480952	14.234
43		AR1248	05/05/12	1633	109534901	2.887	69298681	14.232
44		AR1660	05/05/12	1651	100868318	2.888	66925902	14.233
45	JF-DGS2-SO-2	UR93N	05/05/12	1710	99253508	2.887	73424886	14.232
46	JF-DGS3-SO-0	UR93O	05/05/12	1729	87154281	2.892	65960008	14.240
47	JF-DGS3-SO-1	UR93P	05/05/12	1748	86503383	2.892	58096436	14.242
48	JF-DGS3-SO-1	UR93Q	05/05/12	1807	92009029	2.892	56077362	14.237
49	JF-DGS3-SO-2	UR93R	05/05/12	1826	89419572	2.891	50191899	14.235
50	JF-DGS3-SO-2	UR93S	05/05/12	1845	102017537	2.890	53063596	14.234
51	JF-DGS3-SO-3	UR93T	05/05/12	1904	114863385	2.891	56844955	14.235
52		AR1242	05/05/12	1923	108231274	2.890	56693600	14.234
53		AR1660	05/05/12	1942	100613435	2.890	54787183	14.236
54	ZZZZZ	ZZZZZ	05/05/12	2001	110124143	2.889	60033325	14.234
55	ZZZZZ	ZZZZZ	05/05/12	2020	100815428	2.889	57532629	14.233

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

* Indicates value outside QC Limits

Total Solids

ARI Job ID: UR93

Extractions Total Solids-extts
Data By: Yen Luu
Created: 4/26/12

Worklist: 5648
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.	UR93A 12-7469 B-DGS1-SO-02'-02.5'	1.14	12.31	11.86	96.0	NR
2.	UR93B 12-7470 B-DGS1-SO-07'-07.5'	1.13	11.45	9.95	85.5	NR
3.	UR93C 12-7471 B-DGS1-SO-17'-19'	1.15	12.08	9.72	78.4	NR
4.	UR93D 12-7472 JF-DGS1-SO-05'-07'	1.16	12.46	10.38	81.6	NR
5.	UR93E 12-7473 JF-DGS1-SO-10'-12'	1.14	11.42	9.11	77.5	NR
6.	UR93F 12-7474 JF-DGS1-SO-15'-17'	1.12	11.17	9.08	79.2	NR
7.	UR93G 12-7475 JF-DGS1-SO-17'-19'	1.11	11.61	9.05	75.6	NR
8.	UR93H 12-7476 JF-DGS1-SO-20'-22'	1.15	11.44	9.28	79.0	NR
9.	UR93I 12-7477 JF-DGS1-SO-25'-27'	1.15	12.44	10.04	78.7	NR
10.	UR93J 12-7478 JF-DGS1-SO-30'-32'	1.15	11.97	9.78	79.8	NR
11.	UR93K 12-7479 JF-DGS2-SO-05'-07'	1.15	11.68	10.10	85.0	NR
12.	UR93L 12-7480 JF-DGS2-SO-10'-12'	1.15	11.27	9.05	78.1	NR
13.	UR93M 12-7481 JF-DGS2-SO-15'-17'	1.13	13.07	10.64	79.6	NR

Extractions Total Solids-extts
Data By: Yen Luu
Created: 4/26/12

Worklist: 5648
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
14.	UR93N 12-7482 JF-DGS2-SO-20'-22'	1.13	12.51	9.71	75.4	NR
15.	UR93O 12-7483 JF-DGS3-SO-05'-07'	1.12	11.25	10.46	92.2	NR
16.	UR93P 12-7484 JF-DGS3-SO-10'-12'	1.14	11.41	10.45	90.7	NR
17.	UR93Q 12-7485 JF-DGS3-SO-15'-17'	1.15	11.24	9.47	82.5	NR
18.	UR93R 12-7486 JF-DGS3-SO-20'-22'	1.11	11.94	9.48	77.3	NR
19.	UR93S 12-7487 JF-DGS3-SO-24'-24.8'	1.15	12.34	10.29	81.7	NR
20.	UR93T 12-7488 JF-DGS3-SO-30'-32'	1.11	11.82	9.97	82.7	NR

Extractions Total Solids-extts
Data By: Yen Luu
Created: 4/26/12

Worklist: 5648
Analyst: YL
Comments:

Oven ID: 015

Balance ID: B14642614

Samples In: Date: 4/26/12 Time: 21:00 Temp: 104 Analyst: YL

Samples Out: Date: 04/27/12 Time: 09:10 Temp: 109° Analyst: RR

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	UR93A 12-7469 B-DGS1-SO-02'-02.5'	1.14	12.31	11.86		NR
2.	UR93B 12-7470 B-DGS1-SO-07'-07.5'	1.13	11.45	9.95		NR
3.	UR93C 12-7471 B-DGS1-SO-17'-19'	1.15	12.08	9.72		NR
4.	UR93D 12-7472 JF-DGS1-SO-05'-07'	1.16	12.46	10.38		NR
5.	UR93E 12-7473 JF-DGS1-SO-10'-12'	1.14	11.42	9.11		NR
6.	UR93F 12-7474 JF-DGS1-SO-15'-17'	1.12	11.17	9.08		NR
7.	UR93G 12-7475 JF-DGS1-SO-17'-19'	1.11	11.61	9.05		NR
8.	UR93H 12-7476 JF-DGS1-SO-20'-22'	1.15	11.44	9.28		NR
9.	UR93I 12-7477 JF-DGS1-SO-25'-27'	1.15	12.44	10.04		NR
10.	UR93J 12-7478 JF-DGS1-SO-30'-32'	1.15	11.97	9.78		NR
11.	UR93K 12-7479 JF-DGS2-SO-05'-07'	1.15	11.68	10.10		NR
12.	UR93L 12-7480 JF-DGS2-SO-10'-12'	1.15	11.27	9.85		NR
13.	UR93M 12-7481 JF-DGS2-SO-15'-17'	1.13	13.07	10.64		NR

Extractions Total Solids-extts
Data By: Yen Luu
Created: 4/26/12

Worklist: 5648
Analyst: YL
Comments:

Oven ID: 015

Balance ID: B14642614

Samples In: Date: 4/26/12 Time: 21:00 Temp: 100 Analyst: YL

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
14.	UR93N 12-7482 JF-DGS2-SO-20'-22'	1.13	12.51	9.71		NR
15.	UR93O 12-7483 JF-DGS3-SO-05'-07'	1.12	11.25	10.46		NR
16.	UR93P 12-7484 JF-DGS3-SO-10'-12'	1.14	11.41	10.45		NR
17.	UR93Q 12-7485 JF-DGS3-SO-15'-17'	1.15	11.24	9.47		NR
18.	UR93R 12-7486 JF-DGS3-SO-20'-22'	1.11	11.94	9.48		NR
19.	UR93S 12-7487 JF-DGS3-SO-24'-24.8'	1.15	12.34	10.29		NR
20.	UR93T 12-7488 JF-DGS3-SO-30'-32'	1.11	11.82	9.97		NR

PCB Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UR93

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) UR93

Batch set up by: SH

High Sulfur Content

Bottle #	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
	MBS UR93	Date 5/1/12	12.5g		2.5mL	2.5mL	1mL	2.5mL	1mL			10g Actual Weight
	SBS											
	~~SBSDup~~											
#1	UR93 ~~QLS~~ A	checked	14.45									see Notes
#1	B		15.14									
#1	C		16.27									
#1	Cdup		16.17									
#1	D		6.27									see Notes
#1	E		17.21									
#1	F		16.82									
#1	G		17.65									
#1	H		16.05									
#1	I		16.07									
#1	J		16.30									
#1	Jms		16.76									
#1	Jmsd		16.03									
#1	K		15.32									
#1	L		16.44									
#1	M		16.97									
#1	N		17.71									
#1	O		14.15									
#1	P		14.14									
#1	Q		16.63									
#1	R		17.44									
#1	S		16.17									
#1	T		16.68	YYL								
Analyst/Date		SR 5/1/12		05/01/12	CSZ 5/3/12	5/4/12	CSZ 5/4/12	CSZ 5/3/12	CSZ 5/4/12			

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	N (1914-2)	50µL	5/28/12	SR	TH
Spike	1 (1964-2)	63µL	4/03/13	SR	TH
~~QLS Spike~~	~~5~~	~~125/62.5/25µL~~			

Extraction Time: 19:17 Balance ID: B13529 8002

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. Freeze

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: UR93 Client ID: Anchor QEA

Parameter: PSDD A PCB (4 ppb) Client Project: JFOS Phase 2

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= A, B, C, D, E, F, G, H, I, J, K, L, M O, P, R, S, T.	YL 4/26/12
☐ Standing Water Decanted (Not shared)=	-/-
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☒ Rocks (%+size)? <2% small Rocks A, 20% small B, D, K. 30% small L, 40% m small, P, 10% small R,	YL 4/26/12
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
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 D volume reduced based on pre-screen.	SC 4/30/12
UR93 A = (possible double Surrogate – training in progress)	IH 5/1/12

3056F

Revision 008
11/02/11

PCB Raw Data
Initial Calibration

ARI Job ID: UR93

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

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: 04/09/12 Analysis Start: 04/09/12

Endrin/DDT Breakdown <15%? YES / NO / NA
Method Blank In Control? YES / NO
ICal Meets RF & %RSD Criteria? YES / NO
LCS/LCSD Recovery In Control? YES / NO
CCal Meets RF & %RSD Criteria? YES / NO
Surrogate Recovery In Control? YES / NO
Manual Integrations for ICal? YES / NO
Manual Integrations for Samples? YES / NO
Internal Standard Meets Criteria? YES / NO / NA
Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 04/11/12

Reviewer: _____ **Date:** 4/11/12

Report Date : 11-Apr-2012 10:17

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120409.B/PCB1.m
Batch File: /chem2/ecd5.i/20120409.B/ical-1.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0409B006	0409B007	0409B008	0409B009	0409B010	0409B011
INJ.DATE:	09-APR-2012	09-APR-2012	09-APR-2012	09-APR-2012	09-APR-2012	09-APR-2012
INJ.TIME:	14:04	14:23	14:42	15:01	15:20	15:38

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	2.416	2.417	2.417	2.415	2.417	2.416	2.418	2.318-2.518	2.416	0.001
$ 1 Tetrachloro-m-xylene	4.611	4.610	4.611	4.612	4.611	4.611	4.610	4.510-4.710	4.611	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.890	4.790-4.990	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.244	6.144-6.344	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.244	6.144-6.344	+++++	+++++
7 Aroclor-1016	6.244	6.244	6.244	6.245	6.244	6.244	6.244	6.144-6.344	6.244	0.000
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	6.641	6.541-6.741	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.359	8.259-8.459	+++++	+++++
9 Aroclor-1260	10.451	10.451	10.450	10.452	10.450	10.450	10.450	10.350-10.550	10.451	0.001
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.134	10.034-10.234	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.342	11.242-11.442	+++++	+++++
$ 13 Decachlorobiphenyl	12.996	12.996	12.997	12.998	12.996	12.997	12.997	12.897-13.097	12.997	0.001
* 12 IS-HBBP	13.360	13.359	13.360	13.359	13.359	13.359	13.359	13.259-13.459	13.359	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.326	8.276-8.376	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	8.875	8.825-8.925	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.379	9.329-9.429	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.757	8.657-8.857	+++++	+++++

Reviewer 1 _____ Date: 04/11/12
Reviewer 2 _____ Date: 4/11/12

UP3 00087

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120409.B/PCB1.m
Batch File: /chem2/ecd5.i/20120409.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	+++++	+++++	+++++	+++++	+++++	+++++	9.330	9.230-9.430	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.843	9.743-9.943	+++++	+++++

UR93 : 00008

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120409.B/PCB2.m
Batch File: /chem2/ecd5.i/20120409.B/ical-2.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0409B006	0409B007	0409B008	0409B009	0409B010	0409B011
INJ.DATE:	09-APR-2012	09-APR-2012	09-APR-2012	09-APR-2012	09-APR-2012	09-APR-2012
INJ.TIME:	14:04	14:23	14:42	15:01	15:20	15:38

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB	2.900	2.900	2.901	2.898	2.900	2.899	2.900	2.800-3.000	2.900	0.001
$ 2 Tetrachloro-m-xylene	4.610	4.609	4.610	4.609	4.609	4.610	4.609	4.509-4.709	4.610	0.000
1 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	5.295	5.195-5.395	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.348	6.248-6.448	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.348	6.248-6.448	+++++	+++++
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	6.970	6.870-7.070	+++++	+++++
7 Aroclor-1016	6.348	6.348	6.348	6.348	6.348	6.348	6.348	6.248-6.448	6.348	0.000
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.468	8.368-8.568	+++++	+++++
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.425	10.325-10.525	+++++	+++++
9 Aroclor-1260	10.426	10.426	10.425	10.426	10.425	10.427	10.427	10.327-10.527	10.426	0.001
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.672	11.572-11.772	+++++	+++++
$ 13 Decachlorobiphenyl	13.371	13.371	13.372	13.372	13.371	13.371	13.371	13.271-13.471	13.371	0.001
* 12 IS-HBBP	14.241	14.241	14.241	14.242	14.241	14.241	14.240	14.140-14.340	14.241	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.730	8.680-8.780	+++++	+++++
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.415	9.365-9.465	+++++	+++++
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.116	9.016-9.216	+++++	+++++
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.876	9.776-9.976	+++++	+++++

Reviewer 1 _____ Date: 04/11/12
Reviewer 2 _____ Date: 4/11/12

URS 00089

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120409.B/PCB2.m
Batch File: /chem2/ecd5.i/20120409.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	+++++	+++++	+++++	+++++	+++++	+++++	10.316	10.216-10.416	+++++	+++++

UR03 : 00000

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120409.B/ical-2.b

ARI Job No.: IB Method: PCB2.m Instrument: ecd5.i Date: 09-APR-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1345	0409B005.d	IB		1	NO MANUAL INTEGRATION
1404	0409B006.d	0.25 PPM	AR1660	1	NO MANUAL INTEGRATION
1423	0409B007.d	0.02 PPM	AR1660	1	NO MANUAL INTEGRATION
1442	0409B008.d	0.05 PPM	AR1660	1	NO MANUAL INTEGRATION
1501	0409B009.d	1 PPM	AR1660	1	NO MANUAL INTEGRATION
1520	0409B010.d	0.1 PPM	AR1660	1	NO MANUAL INTEGRATION
1538	0409B011.d	0.5 PPM	AR1660	1	NO MANUAL INTEGRATION
1557	0409B012.d	AR1242		1	NO MANUAL INTEGRATION
1617	0409B013.d	AR1248		1	NO MANUAL INTEGRATION
1635	0409B014.d	AR1254		1	NO MANUAL INTEGRATION
1654	0409B015.d	AR2162		1	NO MANUAL INTEGRATION
1713	0409B016.d	AR3268		1	NO MANUAL INTEGRATION
1733	0409B017.d	AR1660	ICV	1	NO MANUAL INTEGRATION
1751	0409B018.d	AR1242	ICV	1	NO MANUAL INTEGRATION
1810	0409B019.d	AR1248	ICV	1	NO MANUAL INTEGRATION
1829	0409B020.d	AR1254	ICV	1	NO MANUAL INTEGRATION
1848	0409B021.d	AR2162	ICV	1	NO MANUAL INTEGRATION
1907	0409B022.d	AR3268	ICV	1	NO MANUAL INTEGRATION
1926	0409B023.d	DDT		1	NO MANUAL INTEGRATION
1945	0409B024.d	DDT	BD	1	NO MANUAL INTEGRATION
1345	0409B005.d	IB		1	NO MANUAL INTEGRATION

000811

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120409.B/ical-2.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1404	0409B006.d	0.25 PPM	AR1660	1	NO MANUAL INTEGRATION
1423	0409B007.d	0.02 PPM	AR1660	1	NO MANUAL INTEGRATION
1442	0409B008.d	0.05 PPM	AR1660	1	NO MANUAL INTEGRATION
1501	0409B009.d	1 PPM	AR1660	1	NO MANUAL INTEGRATION
1520	0409B010.d	0.1 PPM	AR1660	1	NO MANUAL INTEGRATION
1538	0409B011.d	0.5 PPM	AR1660	1	NO MANUAL INTEGRATION
1557	0409B012.d	AR1242		1	NO MANUAL INTEGRATION
1617	0409B013.d	AR1248		1	NO MANUAL INTEGRATION
1635	0409B014.d	AR1254		1	NO MANUAL INTEGRATION
1654	0409B015.d	AR2162		1	NO MANUAL INTEGRATION
1713	0409B016.d	AR3268		1	NO MANUAL INTEGRATION
1733	0409B017.d	AR1660	ICV	1	NO MANUAL INTEGRATION
1751	0409B018.d	AR1242	ICV	1	NO MANUAL INTEGRATION
1810	0409B019.d	AR1248	ICV	1	NO MANUAL INTEGRATION
1829	0409B020.d	AR1254	ICV	1	NO MANUAL INTEGRATION
1848	0409B021.d	AR2162	ICV	1	NO MANUAL INTEGRATION
1907	0409B022.d	AR3268	ICV	1	NO MANUAL INTEGRATION
1926	0409B023.d	DDT		1	NO MANUAL INTEGRATION
1945	0409B024.d	DDT	BD	1	NO MANUAL INTEGRATION

UH53.00092

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB1.m
Cal Date : 11-Apr-2012 08:57 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20120409.B/ical-1.b/0409B007.d
Level 2: /chem2/ecd5.i/20120409.B/ical-1.b/0409B008.d
Level 3: /chem2/ecd5.i/20120409.B/ical-1.b/0409B010.d
Level 4: /chem2/ecd5.i/20120409.B/ical-1.b/0409B006.d
Level 5: /chem2/ecd5.i/20120409.B/ical-1.b/0409B011.d
Level 6: /chem2/ecd5.i/20120409.B/ical-1.b/0409B009.d
Level 7: /chem2/ecd5.i/20120409.B/ical-1.b/0409B016.d
Level 8: /chem2/ecd5.i/20120409.B/ddt-1.b/0409B023.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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00379	+++++					0.00379	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00947	+++++					0.00947	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03099	+++++					0.03099	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02459	+++++					0.02459	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.07917	+++++					0.07917	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03219	+++++					0.03219	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB1.m
Cal Date : 11-Apr-2012 08:57 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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02854	+++++					0.02854	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01380	+++++					0.01380	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04453	+++++					0.04453	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01826	+++++					0.01826	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01676	+++++					0.01676	0.000
7 Aroclor-1016(1)	0.04113	0.03671	0.03531	0.03208	0.02936	0.02713		
	+++++	+++++					0.03362	15.249
(2)	0.13164	0.11868	0.11469	0.10255	0.09406	0.08672		
	+++++	+++++					0.10806	15.456
(3)	0.05357	0.04903	0.04679	0.04191	0.03835	0.03540		
	+++++	+++++					0.04418	15.510
(4)	0.03793	0.03421	0.03282	0.02974	0.02754	0.02548		
	+++++	+++++					0.03129	14.654

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB1.m
Cal Date : 11-Apr-2012 08:57 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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05195	+++++					0.05195	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04008	+++++					0.04008	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04896	+++++					0.04896	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04878	+++++					0.04878	0.000
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.07633	+++++					0.07633	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04964	+++++					0.04964	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.09077	+++++					0.09077	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.09159	+++++					0.09159	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06179	+++++					0.06179	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB1.m
Cal Date : 11-Apr-2012 08:57 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)	0.05210	0.04881	0.04650	0.04239	0.03910	0.03587		
	++++++	++++++					0.04413	13.873
(2)	0.12956	0.11874	0.11186	0.10628	0.09538	0.09045		
	++++++	++++++					0.10871	13.407
(3)	0.06915	0.06450	0.06162	0.05763	0.05264	0.04893		
	++++++	++++++					0.05908	12.754
(4)	0.03103	0.02901	0.02696	0.02637	0.02262	0.02112		
	++++++	++++++					0.02619	14.324
(5)	0.03673	0.03450	0.03233	0.03189	0.02762	0.02586		
	++++++	++++++					0.03149	13.027
10 Aroclor-1262(1)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.06553	++++++					0.06553	0.000
(2)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.04844	++++++					0.04844	0.000
(3)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.12812	++++++					0.12812	0.000
(4)	++++++	++++++	++++++	++++++	++++++	++++++		
	0.04681	++++++					0.04681	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB1.m
Cal Date : 11-Apr-2012 08:57 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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05271	+++++					0.05271	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.13349	+++++					0.13349	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.13148	+++++					0.13148	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.11418	+++++					0.11418	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.35133	+++++					0.35133	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	891					891	0.000
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	782					782	0.000
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	986					986	0.000
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1383					1383	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB1.m
Cal Date : 11-Apr-2012 08:57 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	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1094					1094	0.000
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1225					1225	0.000
$ 1 Tetrachloro-m-xylene	1.38249	1.34812	1.36386	1.29041	1.23318	1.18308		
	+++++	+++++					1.30019	6.097
$ 13 Decachlorobiphenyl	1.59604	1.42212	1.32430	1.28906	1.12868	1.07982		
	+++++	+++++					1.30667	14.554

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB2.m
Cal Date : 10-Apr-2012 16:00 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20120409.B/ical-2.b/0409B007.d
Level 2: /chem2/ecd5.i/20120409.B/ical-2.b/0409B008.d
Level 3: /chem2/ecd5.i/20120409.B/ical-2.b/0409B010.d
Level 4: /chem2/ecd5.i/20120409.B/ical-2.b/0409B006.d
Level 5: /chem2/ecd5.i/20120409.B/ical-2.b/0409B011.d
Level 6: /chem2/ecd5.i/20120409.B/ical-2.b/0409B009.d
Level 7: /chem2/ecd5.i/20120409.B/ical-2.b/0409B016.d
Level 8: /chem2/ecd5.i/20120409.B/ddt-2.b/0409B023.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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01235	+++++					0.01235	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00724	+++++					0.00724	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02243	+++++					0.02243	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00403	+++++					0.00403	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01859	+++++					0.01859	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03636	+++++					0.03636	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB2.m
Cal Date : 10-Apr-2012 16:00 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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01245	+++++					0.01245	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01289	+++++					0.01289	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03078	+++++					0.03078	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06556	+++++					0.06556	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02630	+++++					0.02630	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02183	+++++					0.02183	0.000
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04201	+++++					0.04201	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03241	+++++					0.03241	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03768	+++++					0.03768	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB2.m
Cal Date : 10-Apr-2012 16:00 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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04151	+++++					0.04151	0.000
7 Aroclor-1016(1)	0.04973	0.04574	0.04459	0.03945	0.03613	0.03209		
	+++++	+++++					0.04129	15.945
(2)	0.09967	0.09327	0.09332	0.08395	0.07885	0.07189		
	+++++	+++++					0.08683	12.009
(3)	0.02495	0.02358	0.02386	0.02188	0.02106	0.01969		
	+++++	+++++					0.02250	8.738
(4)	0.02815	0.02656	0.02620	0.02379	0.02239	0.02070		
	+++++	+++++					0.02463	11.451
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03159	+++++					0.03159	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04004	+++++					0.04004	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03095	+++++					0.03095	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06609	+++++					0.06609	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB2.m
Cal Date : 10-Apr-2012 16:00 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)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03986	+++++					0.03986	0.000
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06603	+++++					0.06603	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05643	+++++					0.05643	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.12776	+++++					0.12776	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05119	+++++					0.05119	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04919	+++++					0.04919	0.000
9 Aroclor-1260(1)	0.05038	0.04686	0.04492	0.04270	0.03920	0.03657		
	+++++	+++++					0.04344	11.635
(2)	0.06928	0.05929	0.05599	0.05161	0.04827	0.04515		
	+++++	+++++					0.05493	15.809
(3)	0.12274	0.11429	0.11014	0.10728	0.09875	0.09389		
	+++++	+++++					0.10785	9.693

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB2.m
Cal Date : 10-Apr-2012 16:00 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)	0.03640	0.03364	0.03248	0.03217	0.02879	0.02723		
	+++++	+++++					0.03178	10.444
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.13508	+++++					0.13508	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.12738	+++++					0.12738	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.10978	+++++					0.10978	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.33219	+++++					0.33219	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	602					602	0.000
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	515					515	0.000
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	946					946	0.000
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	697					697	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-APR-2012 14:04
End Cal Date : 09-APR-2012 19:26
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120409.B/PCB2.m
Cal Date : 10-Apr-2012 16:00 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	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	799					799	0.000
$ 2 Tetrachloro-m-xylene	1.11086	1.11956	1.15215	1.10446	1.06462	0.99968		
	+++++	+++++					1.09189	4.874
$ 13 Decachlorobiphenyl	1.34452	1.24862	1.17725	1.22916	1.04379	1.00984		
	+++++	+++++					1.17553	10.867

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B005.d
Data file 2: 20120409.B/ical-2.b/0409B005.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 09-APR-2012 13:45
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.612	0.001	80371452	4.609	0.000	53569005	35.6	38.1	6.6	Tetrachloro-m-xylene
12.998	0.001	117571537	13.371	0.000	48289696	37.0	41.1	10.4	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	89.1	95.2
Decachlorobiphenyl	92.5	102.6

pm 4/11/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	138811759	-1.1
Hexabromobiphenyl	198372884	194618552	-1.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	103100220	0.5
Hexabromobiphenyl	81487087	80038669	-1.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.249	0.005	99311	1.7	1	---			0.0
Aroclor-1016	2	6.623	-0.021	59775	0.3	2	7.007	0.032	51202	0.5
Aroclor-1016	3	6.808	0.015	23861	0.3	3	7.364	0.005	23473	0.8
Aroclor-1016	4	6.904	0.000	144869	2.7	4	7.464	-0.001	27626	0.9
Total Col1Ave (4 peaks):				1.3		Total Col2Ave (3 peaks):			0.7	RPD = 55*
Corrected Ave (3 peaks):				0.8		Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.892	0.002	5718577	869.4	1	5.329	0.034	4936119	310.2
Aroclor-1221	2	5.146	-0.014	1756788	106.9	2	---			0.0
Aroclor-1221	3	5.368	0.103	104758	1.9	3	5.659	0.005	275308	9.5
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				326.1		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	6.249	0.005	99311	4.1	1	---			0.0
Aroclor-1232	2	6.623	-0.020	59775	0.8	2	7.007	0.033	51202	1.1
Aroclor-1232	3	6.808	0.016	23861	0.8	3	7.115	-0.068	47401	3.0
Aroclor-1232	4	7.992	0.007	17996	0.6	4	8.320	-0.008	73086	4.4
Total Col1Ave (4 peaks):				1.6		Total Col2Ave (3 peaks):			2.8	RPD = 57*
Corrected Ave (3 peaks):				0.7		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	6.249	0.005	99311	2.3	1	---			0.0
Aroclor-1242	2	6.623	-0.021	59775	0.4	2	7.007	0.033	51202	0.6
Aroclor-1242	3	6.808	0.016	23861	0.4	3	7.115	-0.068	47401	1.4
Aroclor-1242	4	7.992	0.007	17996	0.4	4	8.320	-0.009	73086	2.6
Total Col1Ave (4 peaks):				0.9		Total Col2Ave (3 peaks):			1.5	RPD = 53*
Corrected Ave (3 peaks):				0.4		Corrected Ave: < 3 Peaks				
Aroclor-1248	1	6.623	-0.018	59775	0.7	1	7.007	0.038	51202	0.9
Aroclor-1248	2	7.440	0.000	139111	2.0	2	7.878	0.002	11905	0.3
Aroclor-1248	3	7.992	0.007	17996	0.2	3	8.320	-0.008	73086	1.5
Aroclor-1248	4	8.283	0.006	200984	2.4	4	8.701	-0.049	154100	2.9
Total Col1Ave (4 peaks):				1.3		Total Col2Ave (4 peaks):			1.4	RPD = 7
Corrected Ave (3 peaks):				1.0		Corrected Ave (3 peaks):			0.9	RPD = 5
Aroclor-1254	1	8.361	0.002	142254	1.1	1	8.474	0.006	25652	0.6
Aroclor-1254	2	8.743	0.013	19677	0.2	2	8.639	-0.003	25840	0.5
Aroclor-1254	3	8.868	0.001	40041	0.3	3	9.168	0.004	12744	0.3
Aroclor-1254	4	9.198	-0.018	177668	1.1	4	9.357	0.042	63926	0.8
Aroclor-1254	5	9.628	0.050	10831	0.1	5	10.107	0.010	29182	0.6
Total Col1Ave (5 peaks):				0.6		Total Col2Ave (5 peaks):			0.6	RPD = 0
Corrected Ave (4 peaks):				0.4		Corrected Ave (4 peaks):			0.5	RPD = 20
Aroclor-1260	1	10.449	-0.001	129253	1.2	1	10.428	0.001	48660	1.1
Aroclor-1260	2	10.826	0.001	330458	1.2	2	10.925	0.049	370039	6.7
Aroclor-1260	3	11.227	0.002	186593	1.3	3	11.149	0.000	132167	1.2
Aroclor-1260	4	11.337	-0.003	99066	1.6	4	11.673	0.003	71053	2.2
Aroclor-1260	5	11.413	-0.001	99330	1.3	NS	---			----
Total Col1Ave (5 peaks):				1.3		Total Col2Ave (4 peaks):			2.8	RPD = 73*
Corrected Ave (4 peaks):				1.3		Corrected Ave (3 peaks):			1.5	RPD = 19
Aroclor-1262	1	10.135	0.001	155689	1.0	1	10.428	0.002	48660	0.7
Aroclor-1262	2	10.449	-0.001	129253	1.1	2	10.925	0.048	370039	6.6
Aroclor-1262	3	10.826	0.001	330458	1.1	3	11.149	0.001	132167	1.0
Aroclor-1262	4	11.337	-0.004	99066	0.9	4	11.673	0.002	71053	1.4
Aroclor-1262	5	11.413	-0.002	99330	0.8	5	12.510	0.041	193694	3.9
Total Col1Ave (5 peaks):				1.0		Total Col2Ave (5 peaks):			2.7	RPD = 96*
Corrected Ave (4 peaks):				0.9		Corrected Ave (4 peaks):			1.8	RPD = 63*
Aroclor-1268	1	11.337	-0.005	99066	0.3	1	11.673	0.001	71053	0.5
Aroclor-1268	2	11.413	0.000	99330	0.3	2	11.729	-0.009	70686	0.6
Aroclor-1268	3	11.804	0.004	103611	0.4	3	12.151	0.014	42999	0.4

Aroclor-1268	4	12.581	-0.010	162054	0.2	4	12.958	0.001	48096	0.1

Total Col1Ave (4 peaks): 0.3 Total Col2Ave (4 peaks): 0.4 RPD = 31

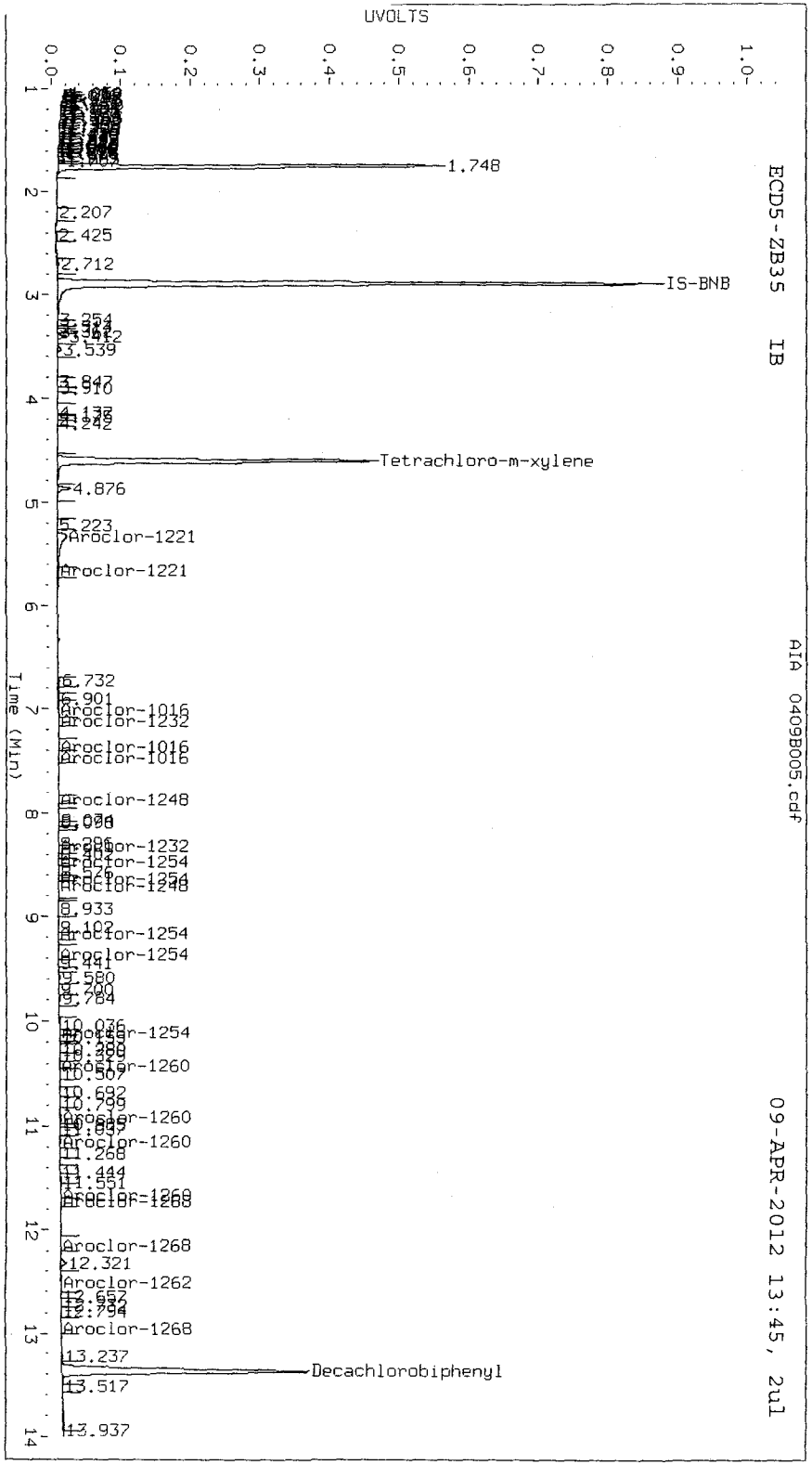
Corrected Ave (3 peaks): 0.3 Corrected Ave (3 peaks): 0.4 RPD = 28

Total PCB Area Col1 (4.710 - 12.897) = 22421381 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 10720880 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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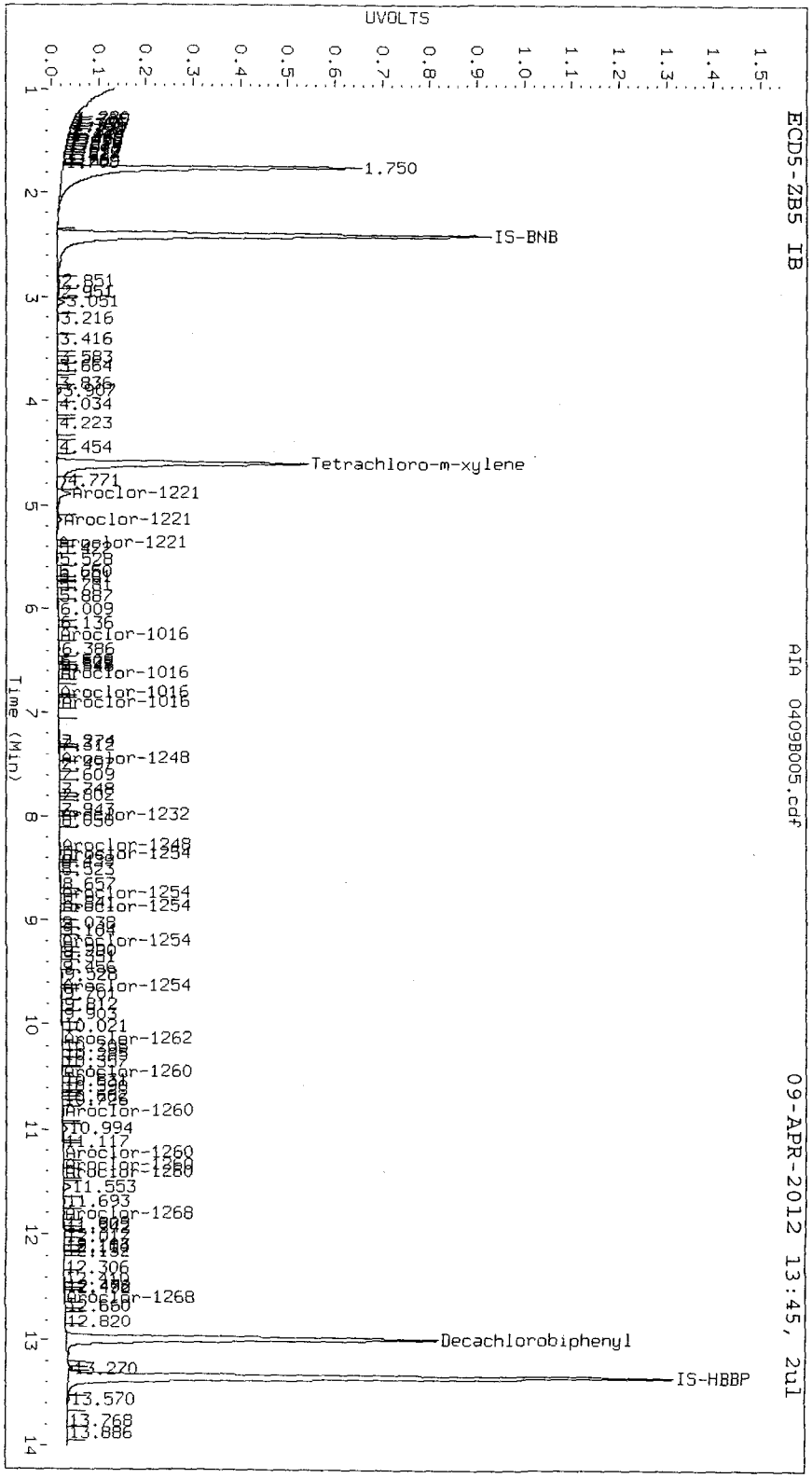
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
Time (Min)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Aroclor-1232
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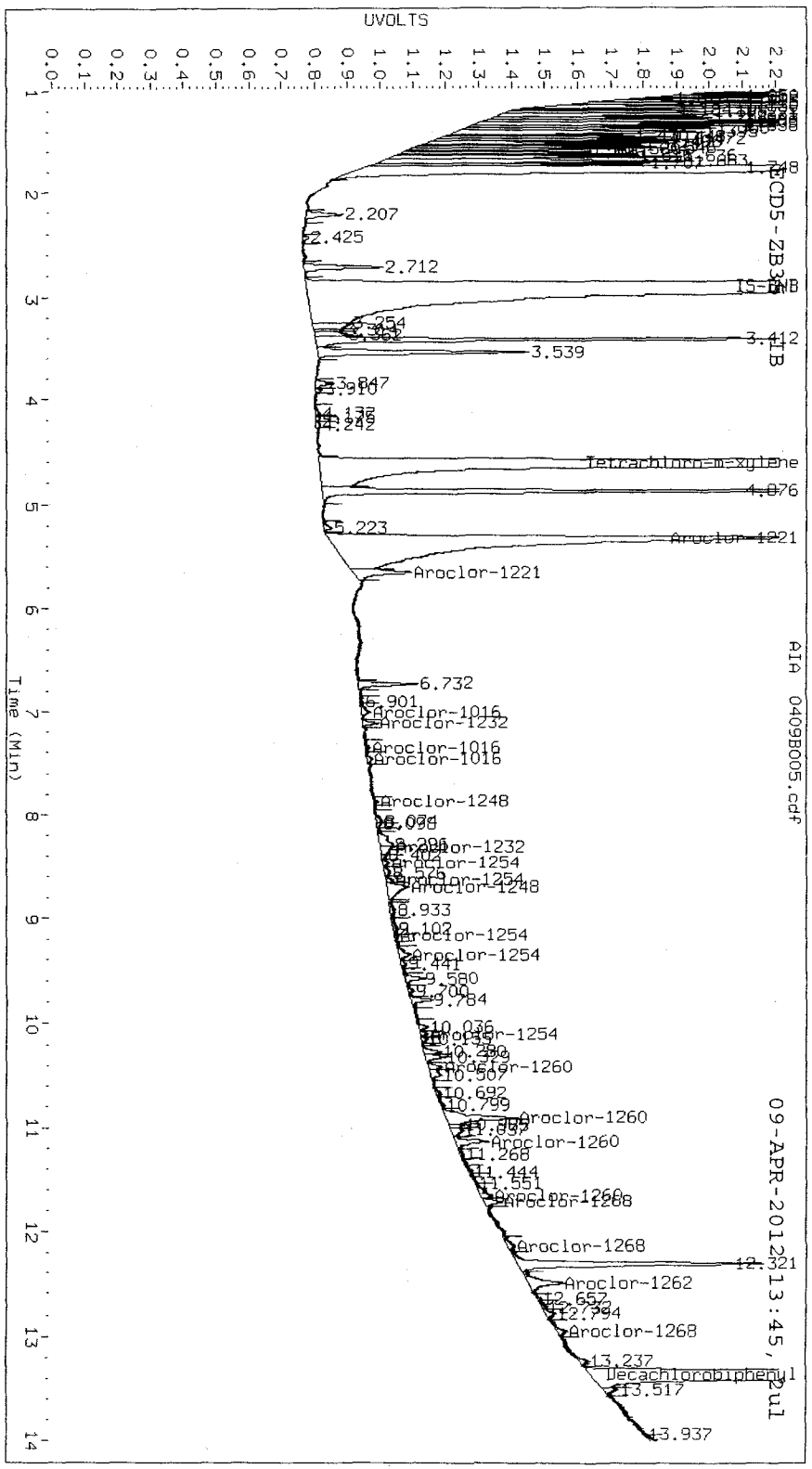
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
Time (Min)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Time (Min)
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Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
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Aroclor-1248
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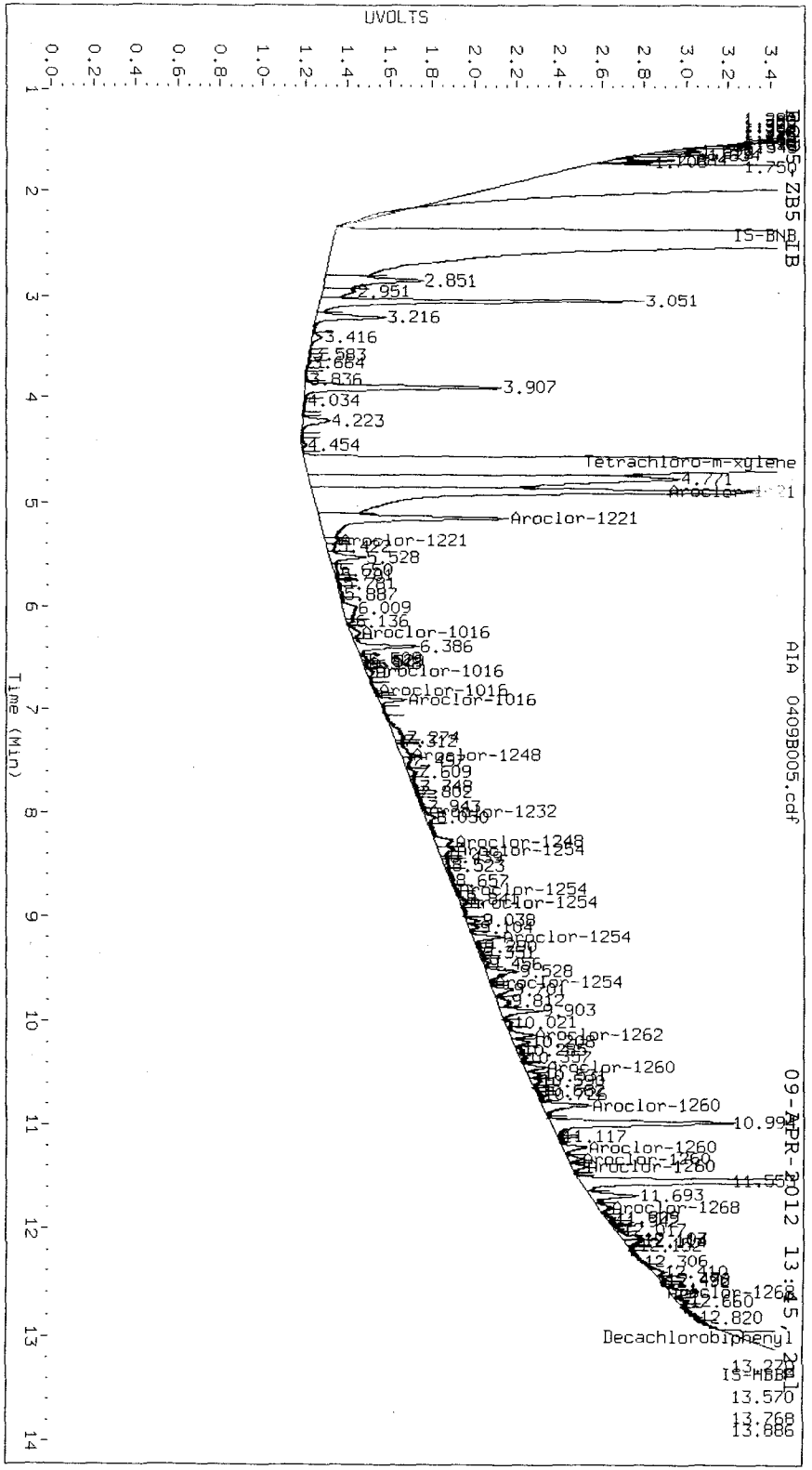
Aroclor-1262
Aroclor-1268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ECD5-ZB5
AIA 0409B005.cdf
09-APR-2012 13:45, Pul
Time (Min)
IS-BNB
IS-HBB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

UR93:00108

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B006.d
Data file 2: 20120409.B/ical-2.b/0409B006.d
Method: /chem2/ecd5.i/20120409.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: 09-APR-2012 14:04
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	45258318	4.610	0.000	28326886	19.8	20.2	1.9	Tetrachloro-m-xylene
12.996	-0.001	63928575	13.371	0.000	25040185	19.7	20.9	5.8	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.6	50.6
Decachlorobiphenyl	49.3	52.3

04/11/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	140291259	0.0
Hexabromobiphenyl	198372884	198372884	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	102590725	0.0
Hexabromobiphenyl	81487087	81487087	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

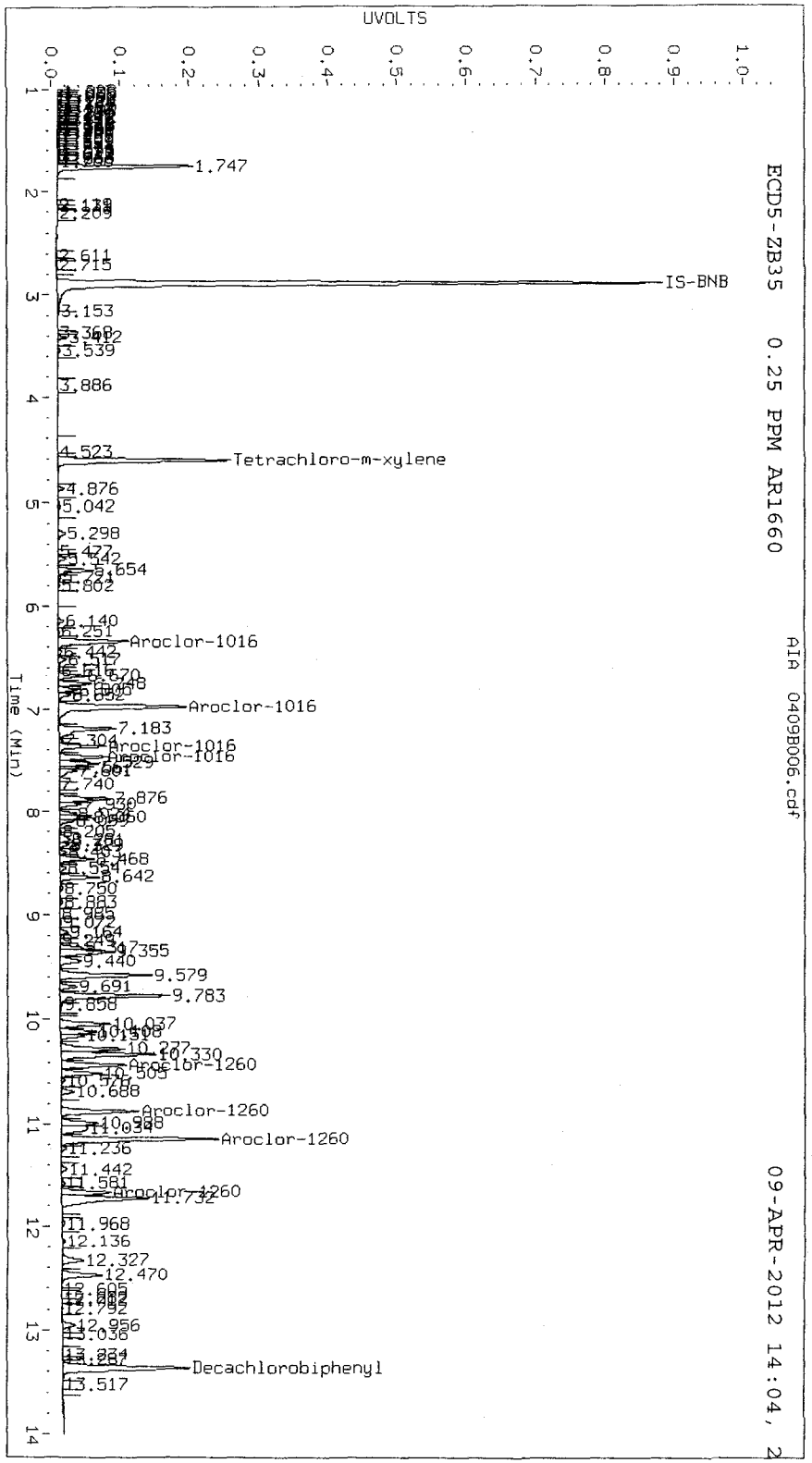
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.244	0.000	14066240	238.6	1	6.348	0.000	12646646	238.9
Aroclor-1016	2	6.644	0.000	44959325	237.3	2	6.975	0.000	26915162	241.7
Aroclor-1016	3	6.793	0.000	18373602	237.2	3	7.357	-0.001	7014997	243.1
Aroclor-1016	4	6.903	0.000	13039944	237.7	4	7.464	-0.001	7627707	241.5
Total Col1Ave (4 peaks):				237.7		Total Col2Ave (4 peaks):			241.3	RPD = 2
Corrected Ave (3 peaks):				237.4		Corrected Ave (3 peaks):			240.7	RPD = 1
Aroclor-1260	1	10.451	0.001	26276685	240.1	1	10.426	-0.001	10874516	245.8
Aroclor-1260	2	10.825	0.000	65885909	244.4	2	10.877	0.000	13142144	234.9
Aroclor-1260	3	11.225	0.001	35728137	243.9	3	11.150	0.000	27318506	248.7
Aroclor-1260	4	11.341	0.001	16345782	251.7	4	11.671	0.001	8192589	253.1
Aroclor-1260	5	11.415	0.000	19768633	253.2	NS	---			----
Total Col1Ave (5 peaks):				246.7		Total Col2Ave (4 peaks):			245.6	RPD = 0
Corrected Ave (4 peaks):				245.0		Corrected Ave (3 peaks):			243.1	RPD = 1

Total PCB Area Col1 (4.710 - 12.897) = 782736863 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 361265147 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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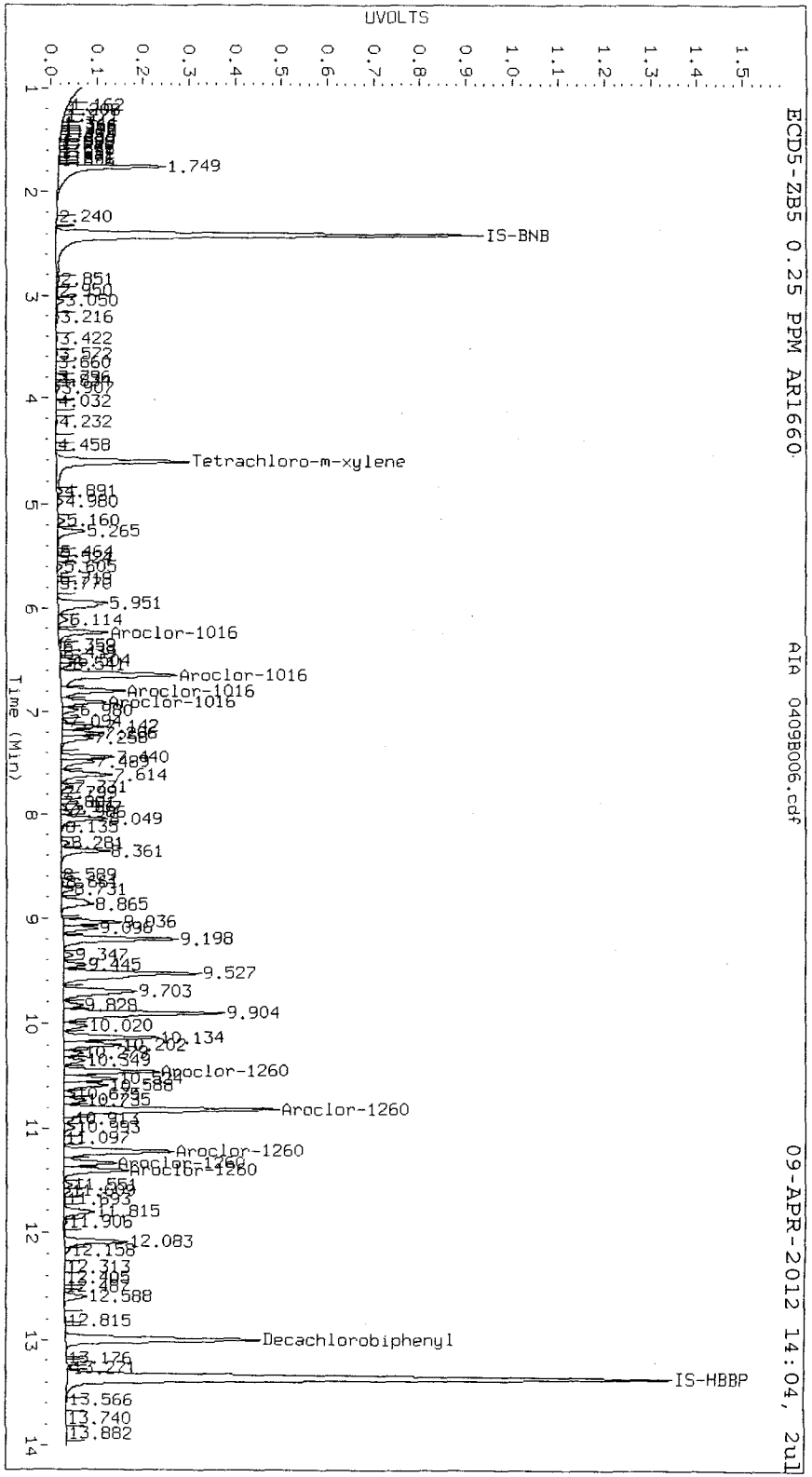
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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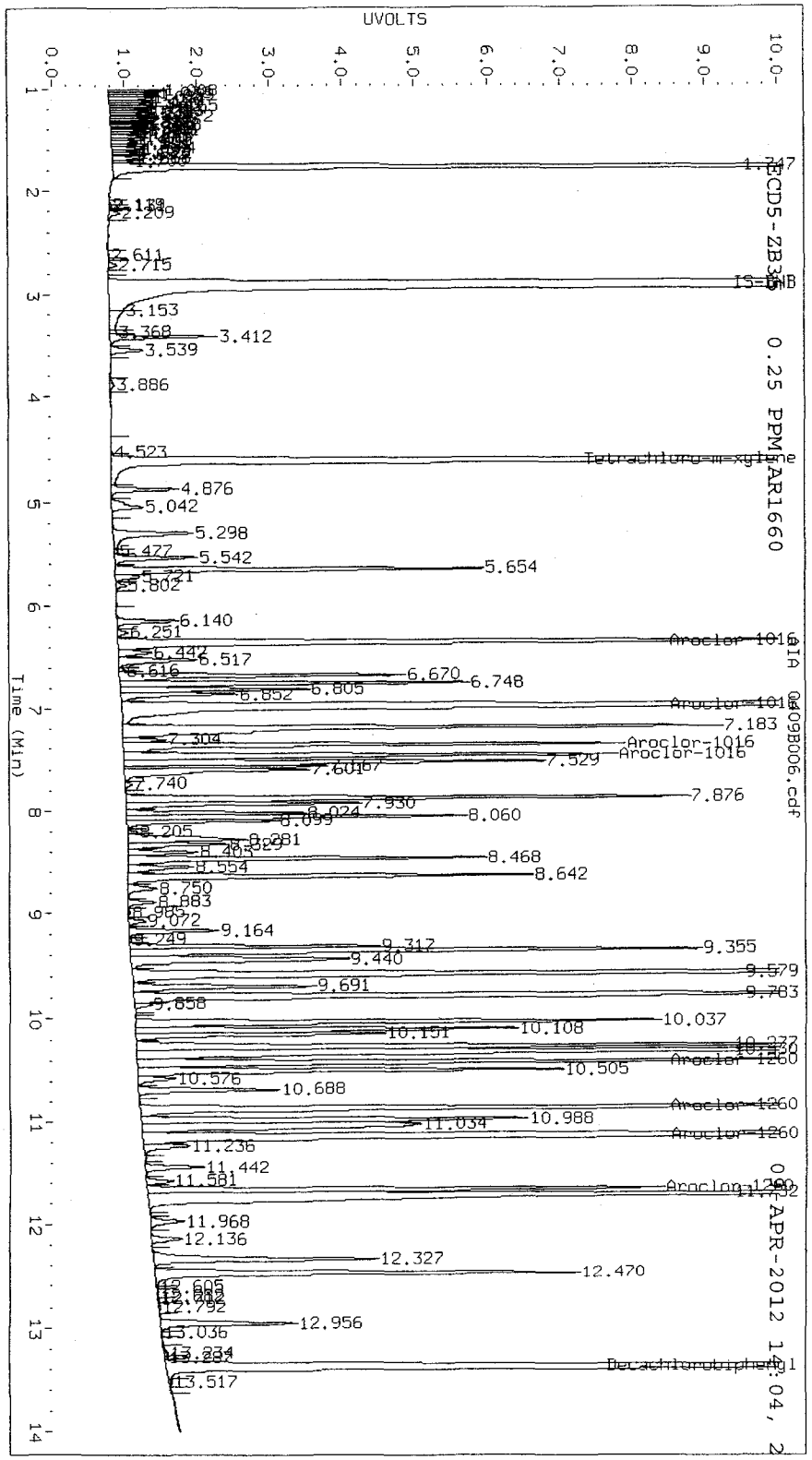
Decachlorobiphenyl
IS-HBBP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6.670
6.748
6.805
6.852
Aroclor-1016
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7.601
7.740
7.876
7.930
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8.883
9.072
9.164
9.249
9.312
9.355
9.440
9.579
9.691
9.783
9.858
10.037
10.108
10.151
10.505
Aroclor-1260
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Aroclor-1260
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Aroclor-1260
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11.968
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12.956
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13.517
Decachlorobiphenyl
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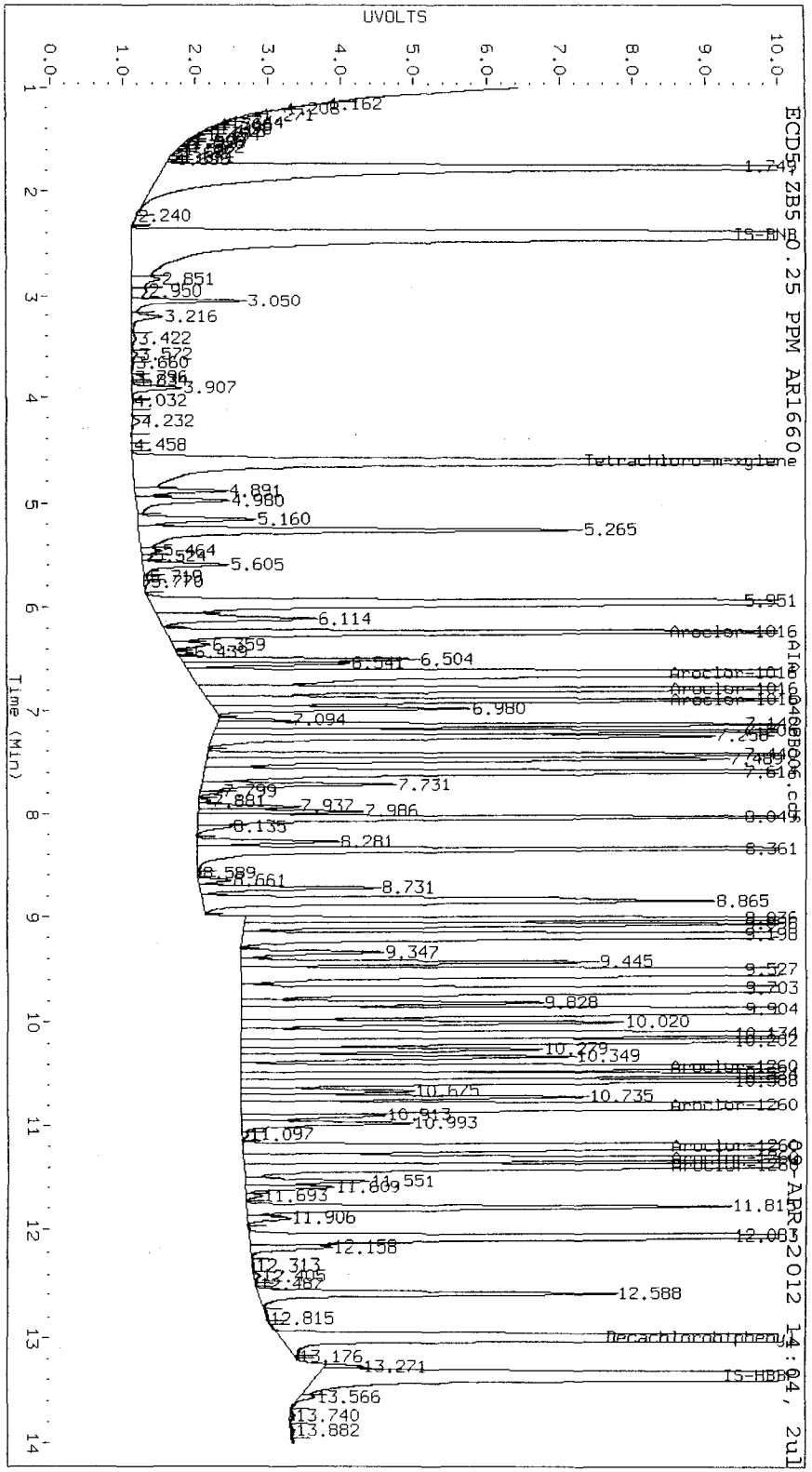
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3.422
3.907
4.032
4.232
4.458
Tetrachloro-m-xylene
4.891
4.980
5.160
5.265
5.605
5.951
6.114
Aroclor-1016
6.504
6.980
7.094
7.731
7.937
7.986
8.135
8.281
8.361
8.589
8.661
8.731
8.865
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9.445
9.527
9.703
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9.904
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01-APR-2012 14:04, 2ul

JR53:001115

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B007.d
Data file 2: 20120409.B/ical-2.b/0409B007.d
Method: /chem2/ecd5.i/20120409.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: 09-APR-2012 14:23
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	0.000	4010432	4.609	0.000	2345807	1.7	1.6	4.4	Tetrachloro-m-xylene
12.996	-0.001	6495827	13.371	-0.001	2249241	2.0	1.8	6.6	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	4.3	4.1
Decachlorobiphenyl	4.9	4.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	145043804	3.4
Hexabromobiphenyl	198372884	203498136	2.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	105585540	2.9
Hexabromobiphenyl	81487087	83644448	2.6

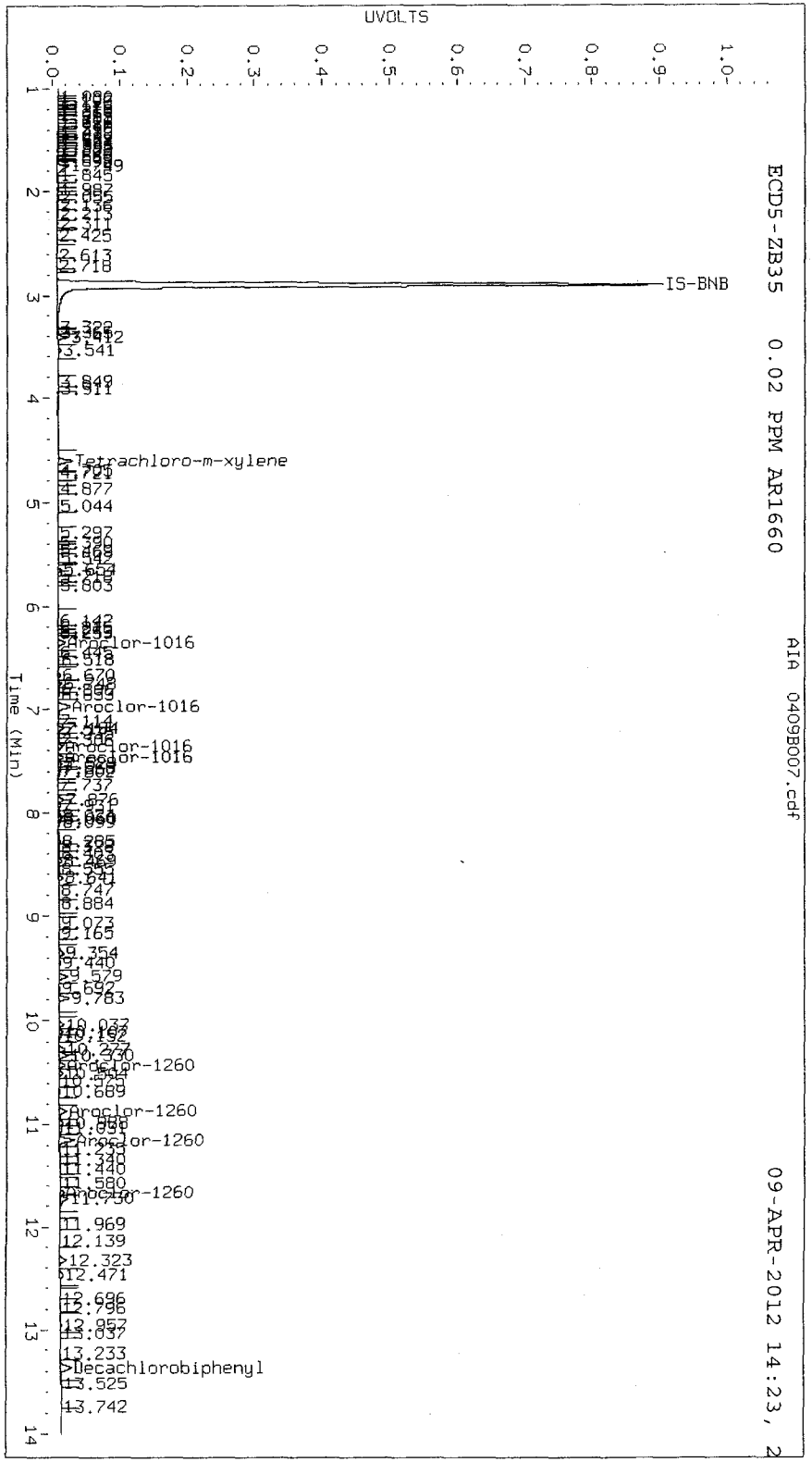
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.244	0.000	1491452	24.5	1	6.348	0.000	1312787	24.1
Aroclor-1016	2	6.644	0.000	4773306	24.4	2	6.974	-0.001	2631032	23.0
Aroclor-1016	3	6.794	0.001	1942606	24.3	3	7.358	0.000	658527	22.2
Aroclor-1016	4	6.904	0.001	1375250	24.2	4	7.465	0.000	743015	22.9
Total Col1Ave (4 peaks):				24.3		Total Col2Ave (4 peaks):			23.0	RPD = 6
Corrected Ave (3 peaks):				24.3		Corrected Ave (3 peaks):			22.7	RPD = 7
Aroclor-1260	1	10.451	0.000	2650398	23.6	1	10.426	0.000	1053500	23.2
Aroclor-1260	2	10.825	0.000	6591271	23.8	2	10.876	-0.001	1448699	25.2
Aroclor-1260	3	11.225	0.000	3517999	23.4	3	11.149	0.000	2566534	22.8
Aroclor-1260	4	11.341	0.000	1578431	23.7	4	11.670	0.000	761158	22.9
Aroclor-1260	5	11.415	0.001	1868467	23.3	NS	---			----
Total Col1Ave (5 peaks):				23.6		Total Col2Ave (4 peaks):			23.5	RPD = 0
Corrected Ave (4 peaks):				23.5		Corrected Ave (3 peaks):			23.0	RPD = 2

Total PCB Area Col1 (4.710 - 12.897) = 83604312 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 36526339 Col2 Total PCB = 0.0 ppm*

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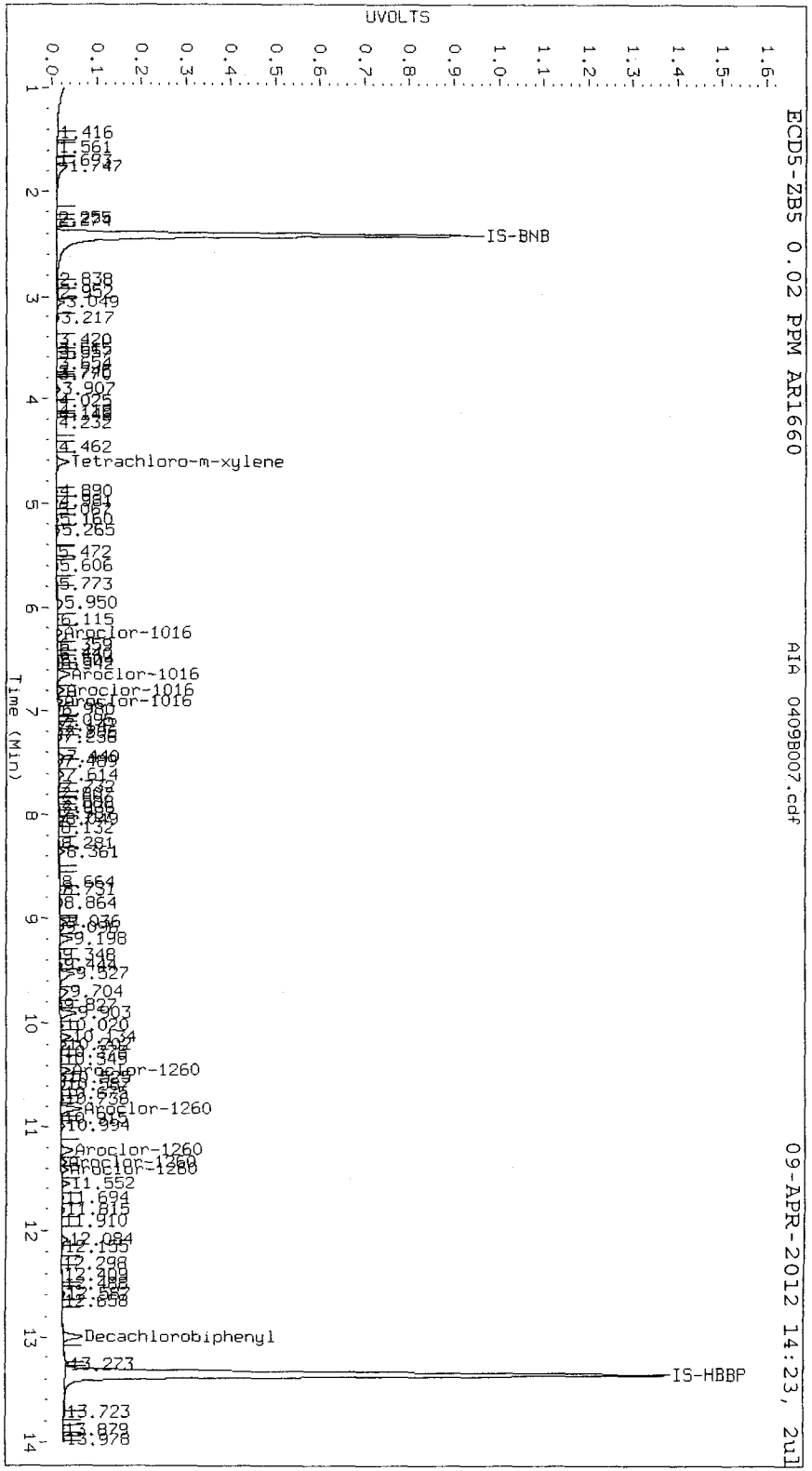
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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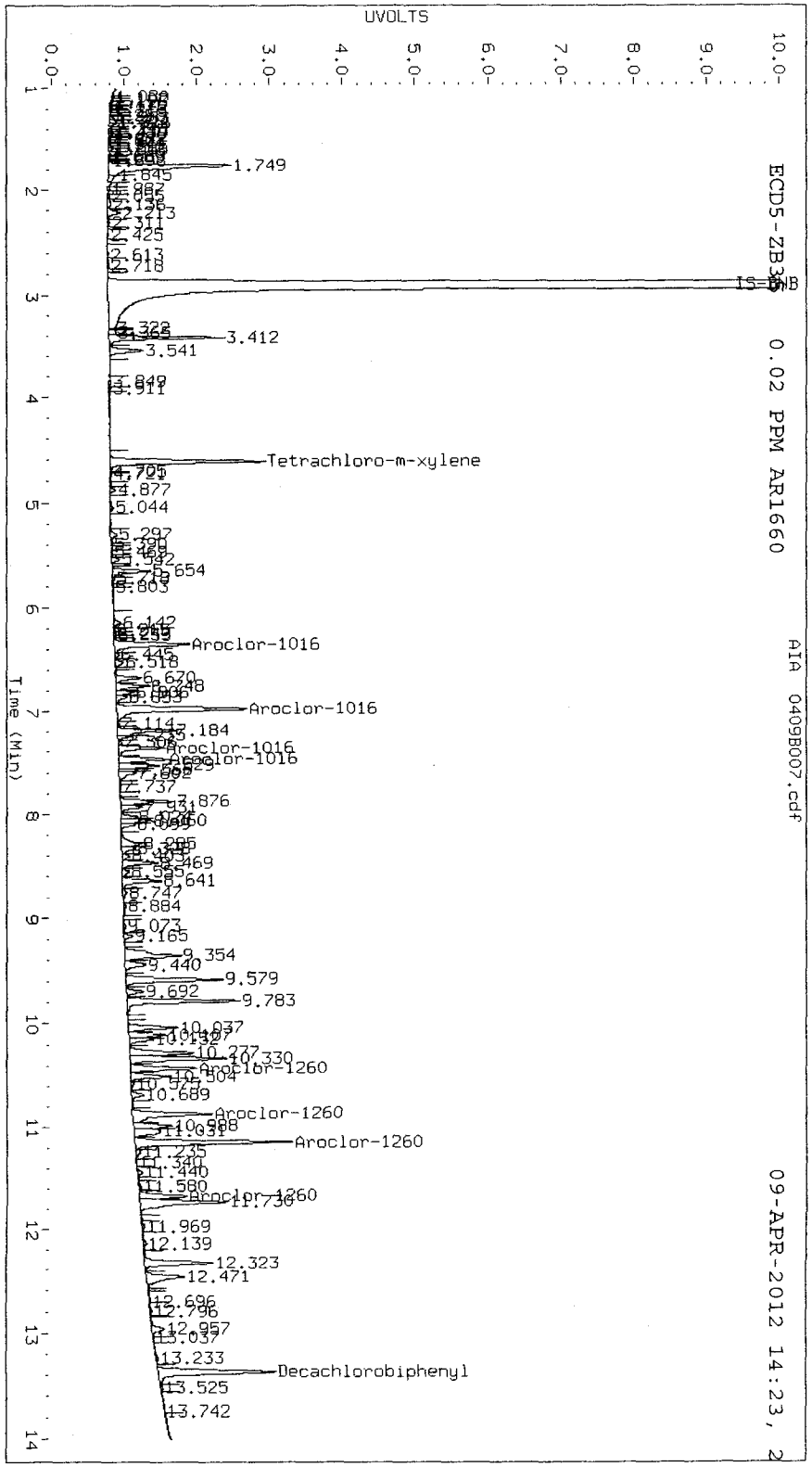
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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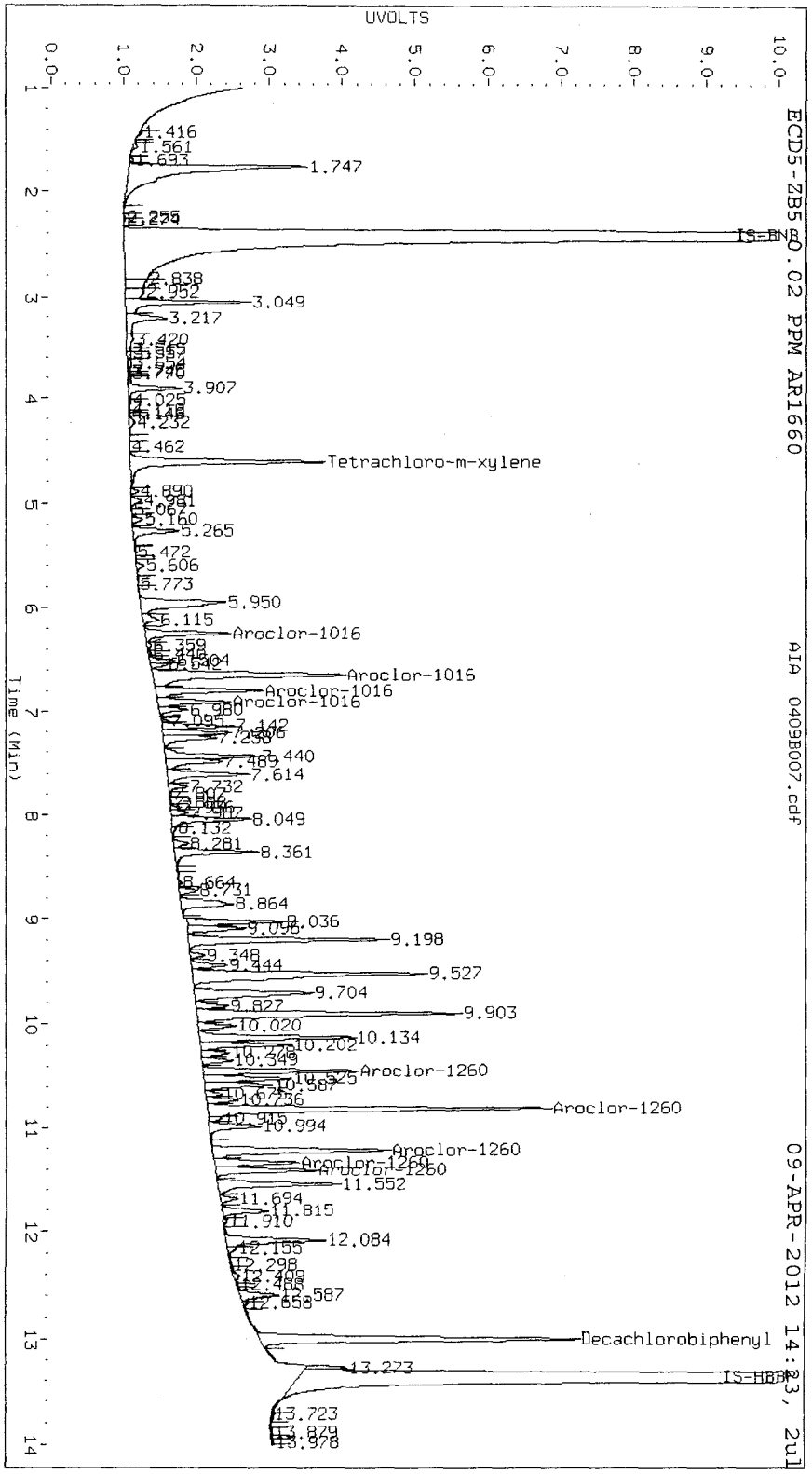
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
Time (Min)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Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB
Time (Min)

UR33:00119

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B008.d
Data file 2: 20120409.B/ical-2.b/0409B008.d
Method: /chem2/ecd5.i/20120409.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: 09-APR-2012 14:42
Ical Date: 09-APR-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
4.611	0.001	10106104	4.610	0.001	6051634	4.1	4.1	1.1	Tetrachloro-m-xylene
12.997	0.000	14853868	13.372	0.000	5371671	4.4	4.2	2.4	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	10.4	10.3
Decachlorobiphenyl	10.9	10.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	149928717	6.9
Hexabromobiphenyl	198372884	208896879	5.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	108107485	5.4
Hexabromobiphenyl	81487087	86041935	5.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

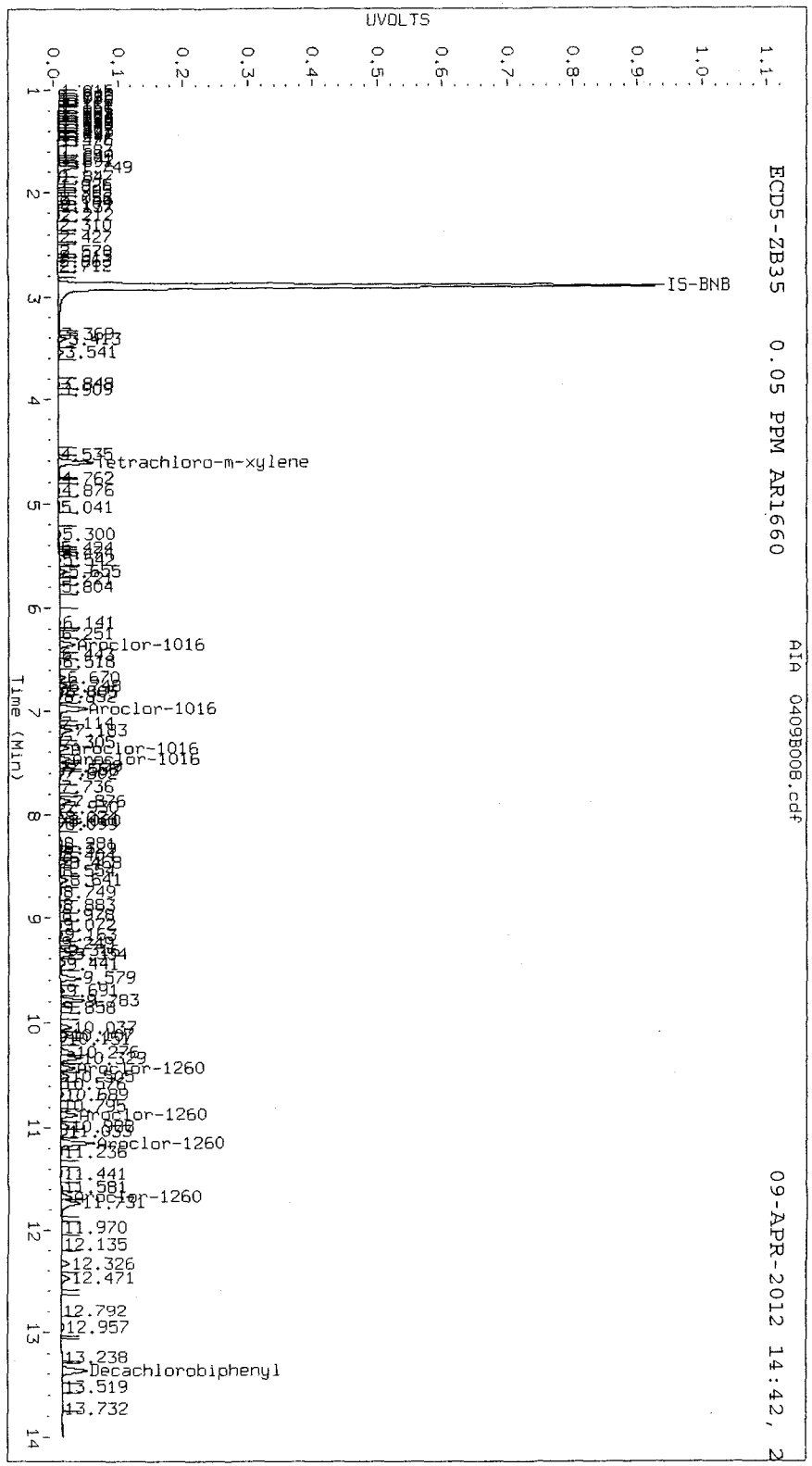
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.244	0.001	3440117	54.6	1	6.348	0.000	3090690	55.4
Aroclor-1016	2	6.645	0.001	11121313	54.9	2	6.976	0.001	6302116	53.7
Aroclor-1016	3	6.793	0.001	4594626	55.5	3	7.359	0.000	1593279	52.4
Aroclor-1016	4	6.903	0.000	3205524	54.7	4	7.465	0.000	1794858	53.9
Total Col1Ave (4 peaks):				54.9		Total Col2Ave (4 peaks):			53.9	RPD = 2
Corrected Ave (3 peaks):				54.7		Corrected Ave (3 peaks):			53.3	RPD = 3
Aroclor-1260	1	10.450	0.000	6372155	55.3	1	10.425	-0.001	2520139	53.9
Aroclor-1260	2	10.824	0.000	15503150	54.6	2	10.877	0.000	3188572	54.0
Aroclor-1260	3	11.225	0.000	8421138	54.6	3	11.149	0.000	6146009	53.0
Aroclor-1260	4	11.341	0.001	3787134	55.4	4	11.671	0.001	1808975	52.9
Aroclor-1260	5	11.414	0.000	4504636	54.8	NS	---			----
Total Col1Ave (5 peaks):				54.9		Total Col2Ave (4 peaks):			53.5	RPD = 3
Corrected Ave (4 peaks):				54.8		Corrected Ave (3 peaks):			53.3	RPD = 3

Total PCB Area Col1 (4.710 - 12.897) = 192215923 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 84617279 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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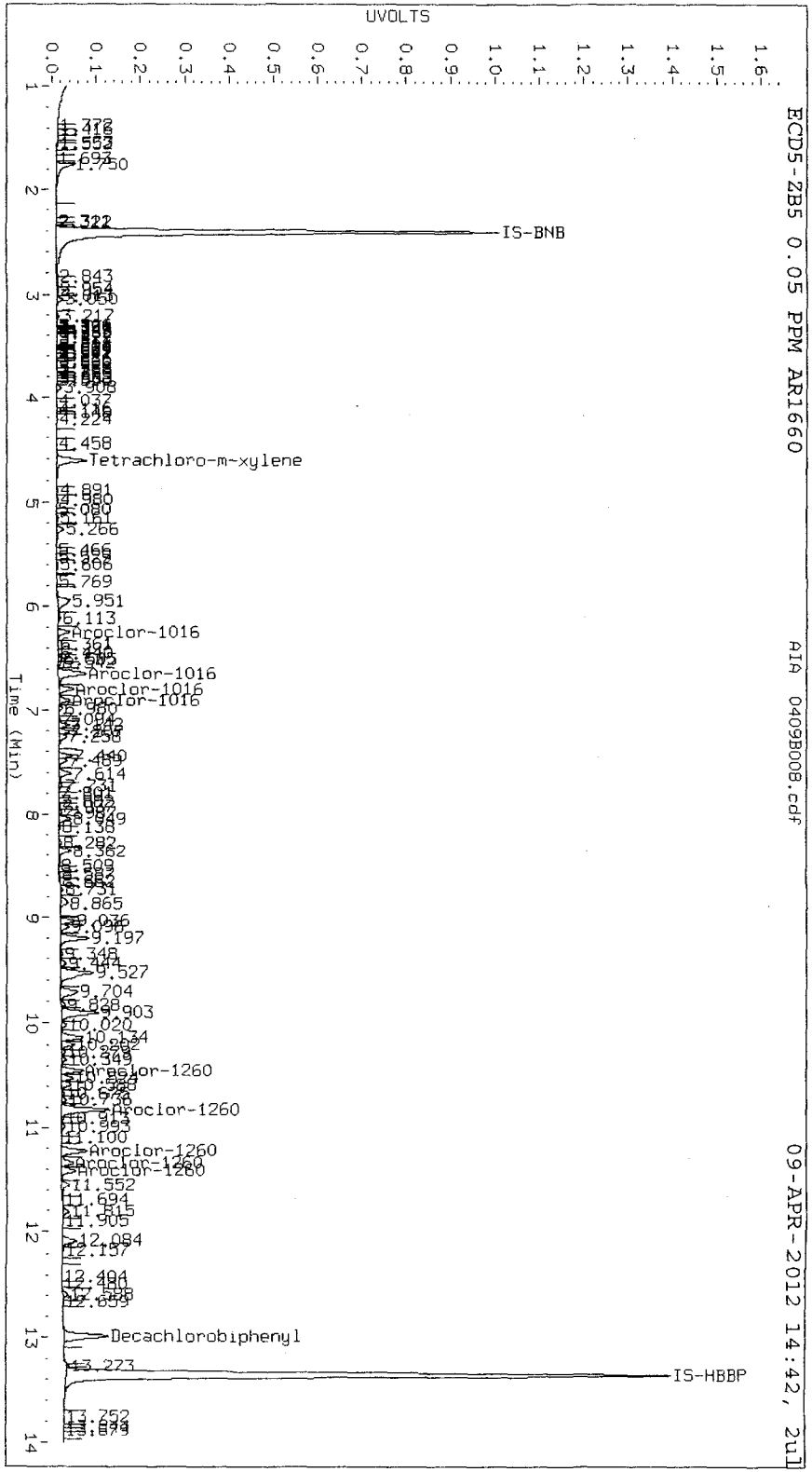
Aroclor-1260
Decachlorobiphenyl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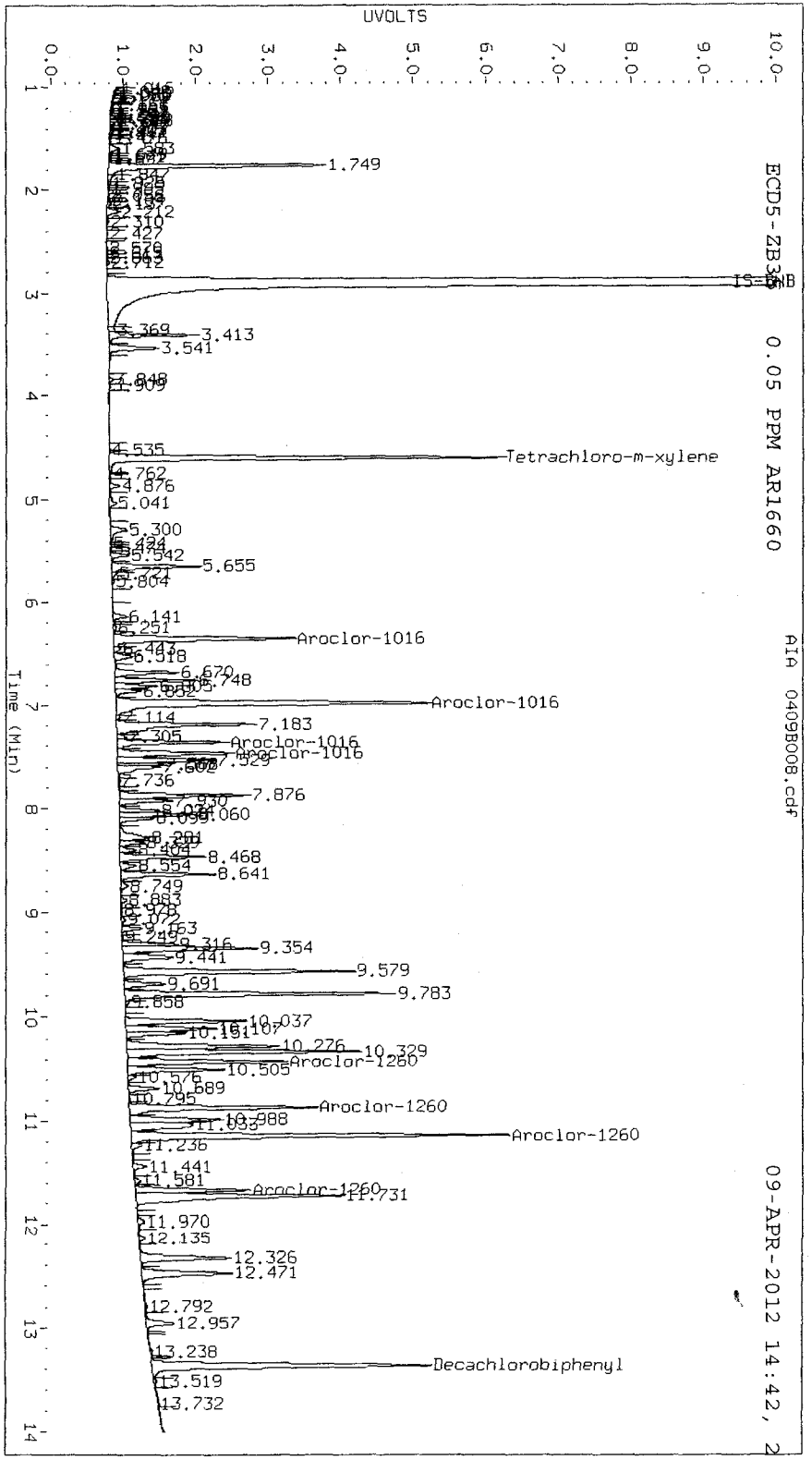
Decachlorobiphenyl
IS-HBBP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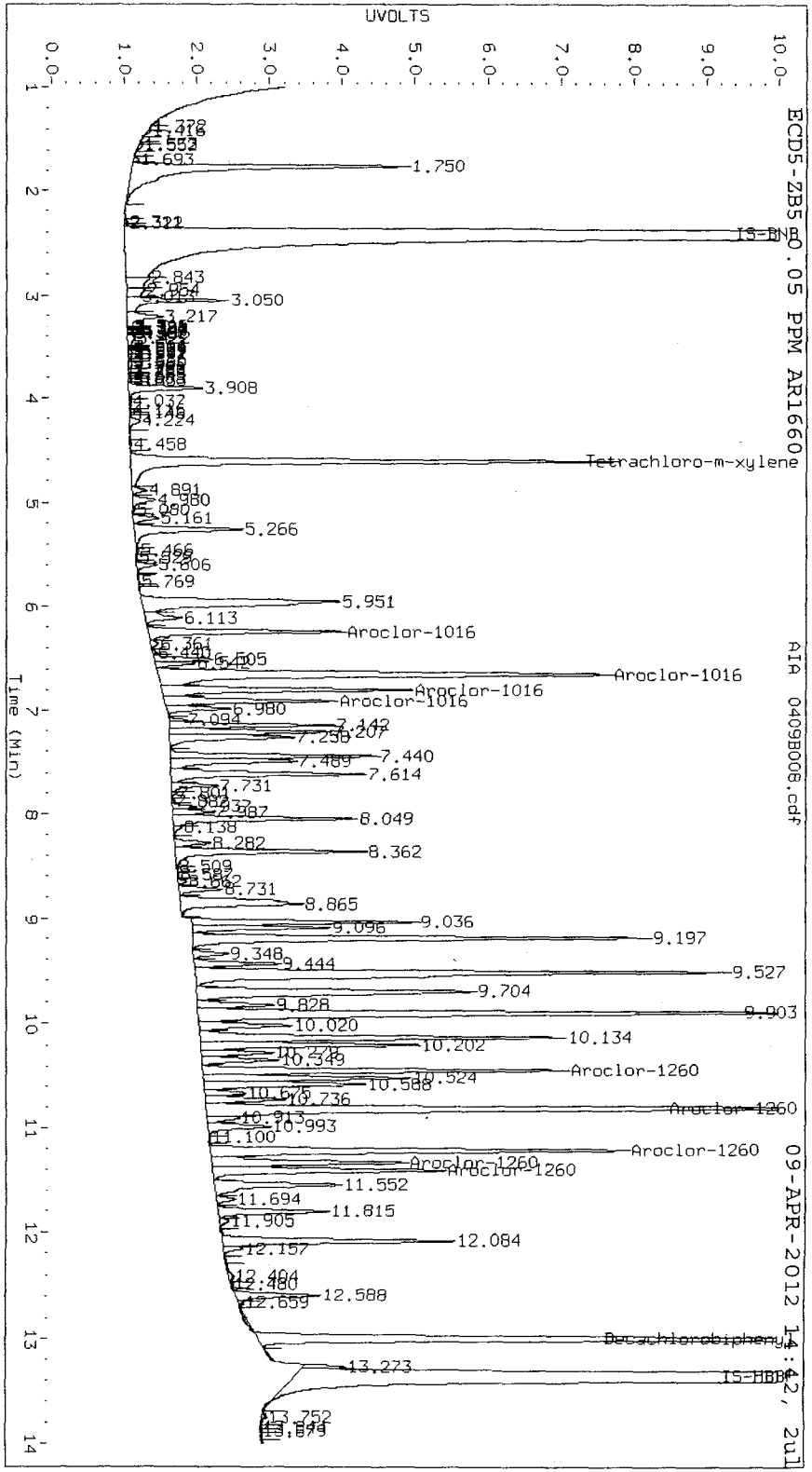
Decachlorobiphenyl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IS-BB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB

UR93:00121

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B009.d
Data file 2: 20120409.B/ical-2.b/0409B009.d
Method: /chem2/ecd5.i/20120409.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: 09-APR-2012 15:01
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.612	0.001	155315856	4.609	0.000	98213871	72.8	73.2	0.6	Tetrachloro-m-xylene
12.998	0.001	210817881	13.372	0.001	82432066	66.1	68.7	3.9	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	182.0	183.1
Decachlorobiphenyl	165.3	171.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	131280448	-6.4
Hexabromobiphenyl	198372884	195234615	-1.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	98245543	-4.2
Hexabromobiphenyl	81487087	81628823	0.2

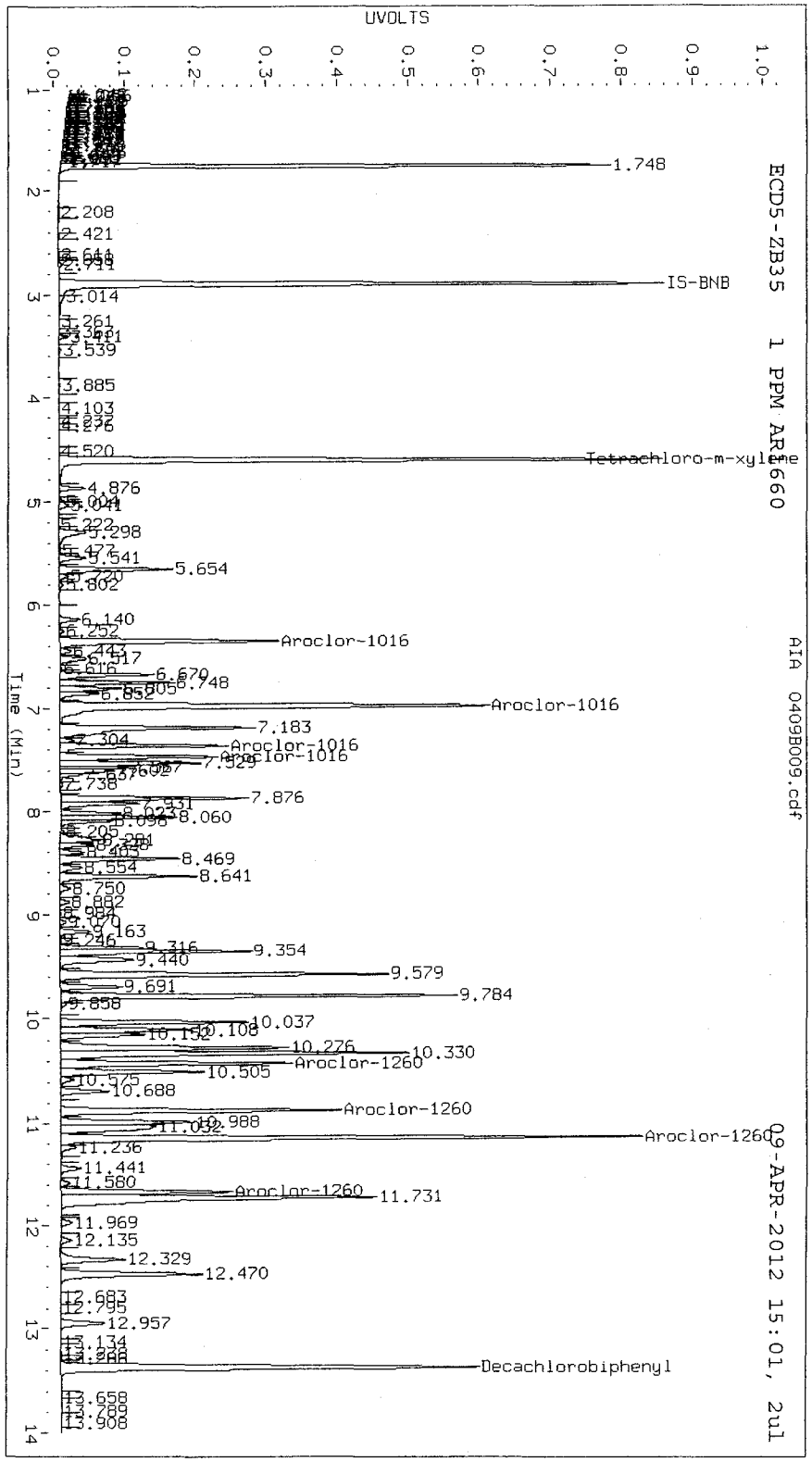
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.245	0.001	44520522	806.9	1	6.348	0.000	39403766	777.1
Aroclor-1016	2	6.645	0.000	142301402	802.5	2	6.975	0.000	88289964	828.0
Aroclor-1016	3	6.793	0.000	58099732	801.4	3	7.358	0.000	24182606	875.0
Aroclor-1016	4	6.903	0.000	41818367	814.5	4	7.465	0.000	25418705	840.3
Total Col1Ave (4 peaks):				806.3		Total Col2Ave (4 peaks):			830.1	RPD = 3
Corrected Ave (3 peaks):				803.6		Corrected Ave (3 peaks):			815.1	RPD = 1
Aroclor-1260	1	10.452	0.001	87549811	813.0	1	10.426	-0.001	37319484	842.0
Aroclor-1260	2	10.826	0.002	220740174	832.0	2	10.877	0.001	46068877	821.9
Aroclor-1260	3	11.226	0.001	119399588	828.1	3	11.149	0.000	95797045	870.5
Aroclor-1260	4	11.341	0.001	51550482	806.7	4	11.671	0.001	27782361	856.7
Aroclor-1260	5	11.415	0.001	63099608	821.2	NS	---			----
Total Col1Ave (5 peaks):				820.2		Total Col2Ave (4 peaks):			847.8	RPD = 3
Corrected Ave (4 peaks):				817.2		Corrected Ave (3 peaks):			840.2	RPD = 3

Total PCB Area Col1 (4.710 - 12.897) = 2547096659 Col1 Total PCB = 1.7 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 1235820757 Col2 Total PCB = 1.8 ppm*

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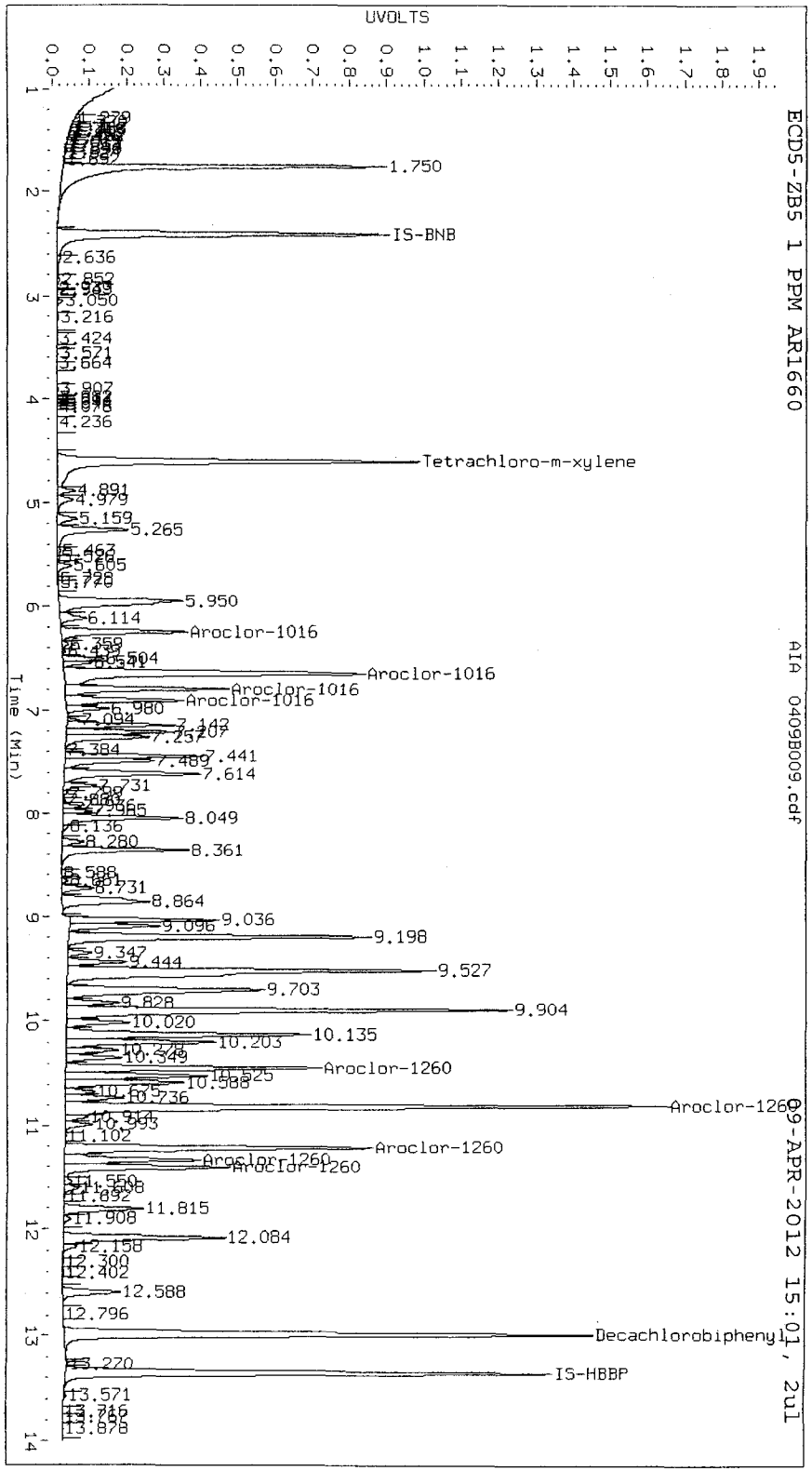
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl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Aroclor-1016
Aroclor-1016
Aroclor-1260
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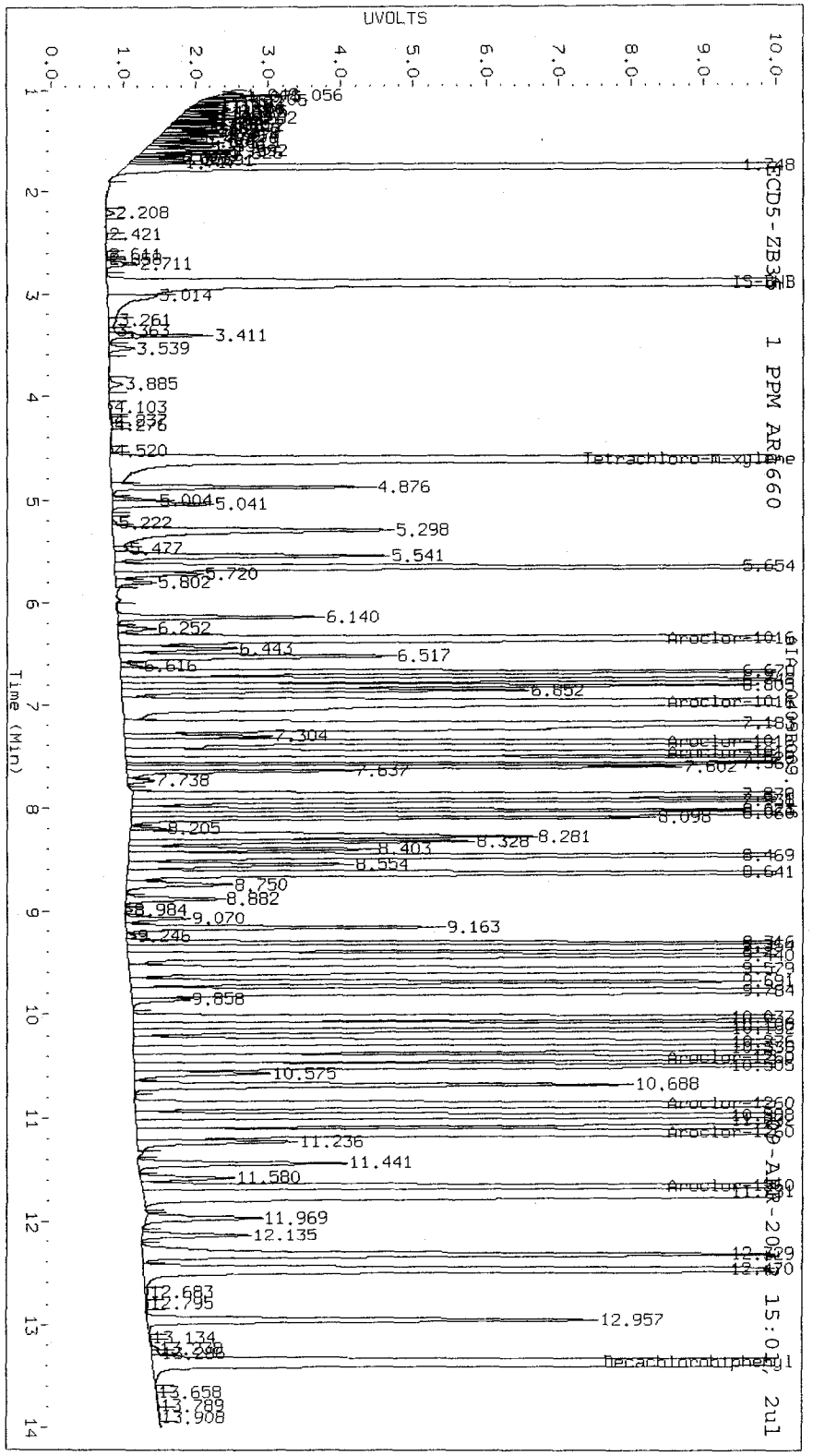
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

UR93:001128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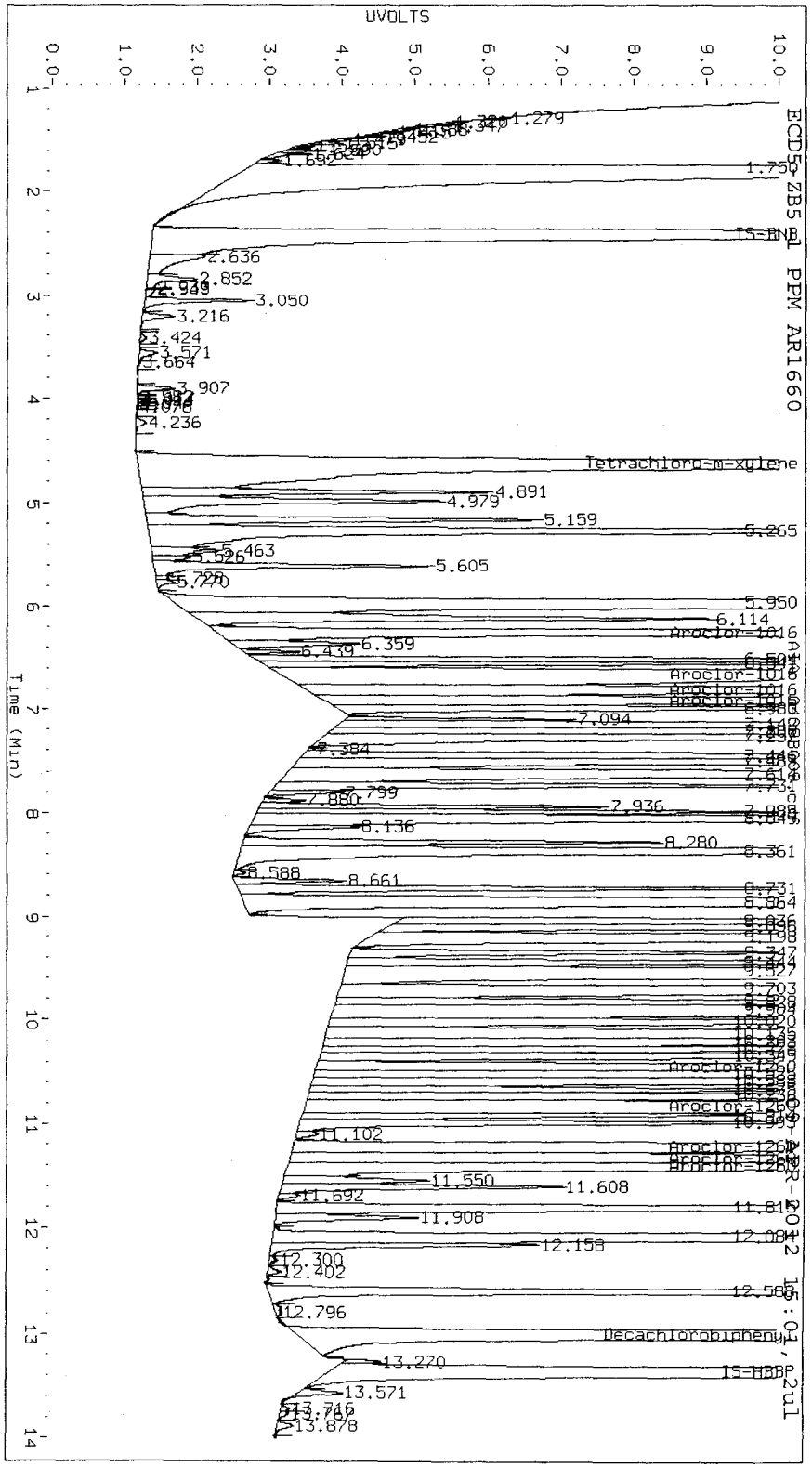
Decachlorobiphenyl
2ul
15:01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Time (Min)
ECD5-ZB5
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Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
2ul
15:01

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B010.d
Data file 2: 20120409.B/ical-2.b/0409B010.d
Method: /chem2/ecd5.i/20120409.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: 09-APR-2012 15:20
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.000	19489287	4.609	0.000	11680740	8.4	8.4	0.6	Tetrachloro-m-xylene
12.996	-0.001	26746596	13.371	-0.001	9834329	8.1	8.0	1.2	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	21.0	21.1
Decachlorobiphenyl	20.3	20.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	142898092	1.9
Hexabromobiphenyl	198372884	201967045	1.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	101381951	-1.2
Hexabromobiphenyl	81487087	83536278	2.5

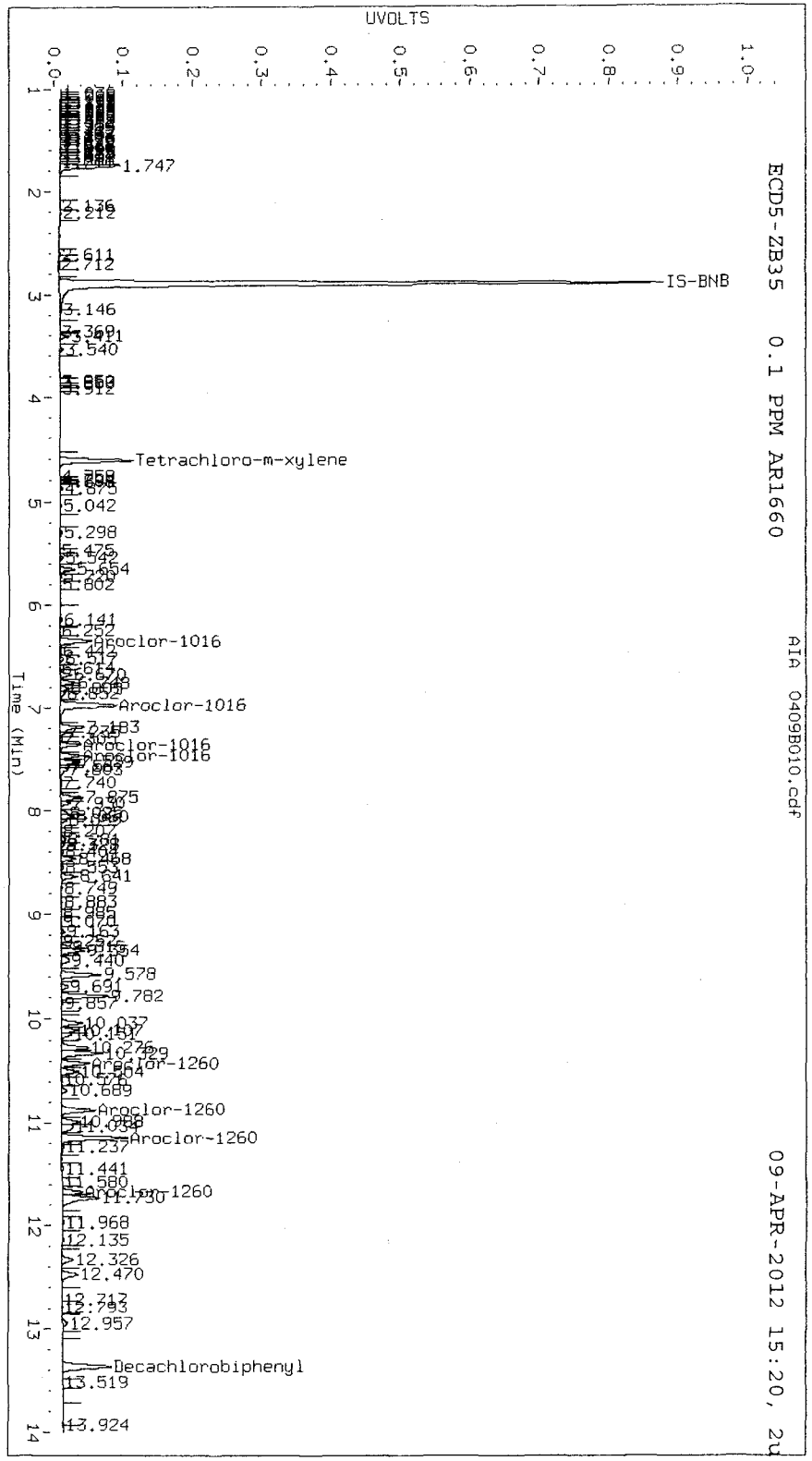
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.244	0.000	6306480	105.0	1	6.348	-0.001	5650281	108.0
Aroclor-1016	2	6.644	0.000	20486612	106.1	2	6.974	-0.001	11825702	107.5
Aroclor-1016	3	6.792	0.000	8358285	105.9	3	7.358	0.000	3023539	106.0
Aroclor-1016	4	6.903	0.000	5862525	104.9	4	7.465	0.000	3320519	106.4
Total Col1Ave (4 peaks):				105.5		Total Col2Ave (4 peaks):			107.0	RPD = 1
Corrected Ave (3 peaks):				105.3		Corrected Ave (3 peaks):			106.6	RPD = 1
Aroclor-1260	1	10.450	-0.001	11739405	105.4	1	10.425	-0.002	4690228	103.4
Aroclor-1260	2	10.823	-0.001	28239833	102.9	2	10.876	0.000	5846373	101.9
Aroclor-1260	3	11.225	0.000	15556001	104.3	3	11.149	-0.001	11500650	102.1
Aroclor-1260	4	11.340	0.000	6806956	103.0	4	11.671	0.001	3391104	102.2
Aroclor-1260	5	11.414	0.000	8163065	102.7	NS	---			----
Total Col1Ave (5 peaks):				103.6		Total Col2Ave (4 peaks):			102.4	RPD = 1
Corrected Ave (4 peaks):				103.2		Corrected Ave (3 peaks):			102.1	RPD = 1

Total PCB Area Col1 (4.710 - 12.897) = 349180435 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 157147956 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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09-APR-2012 15:20, 2u
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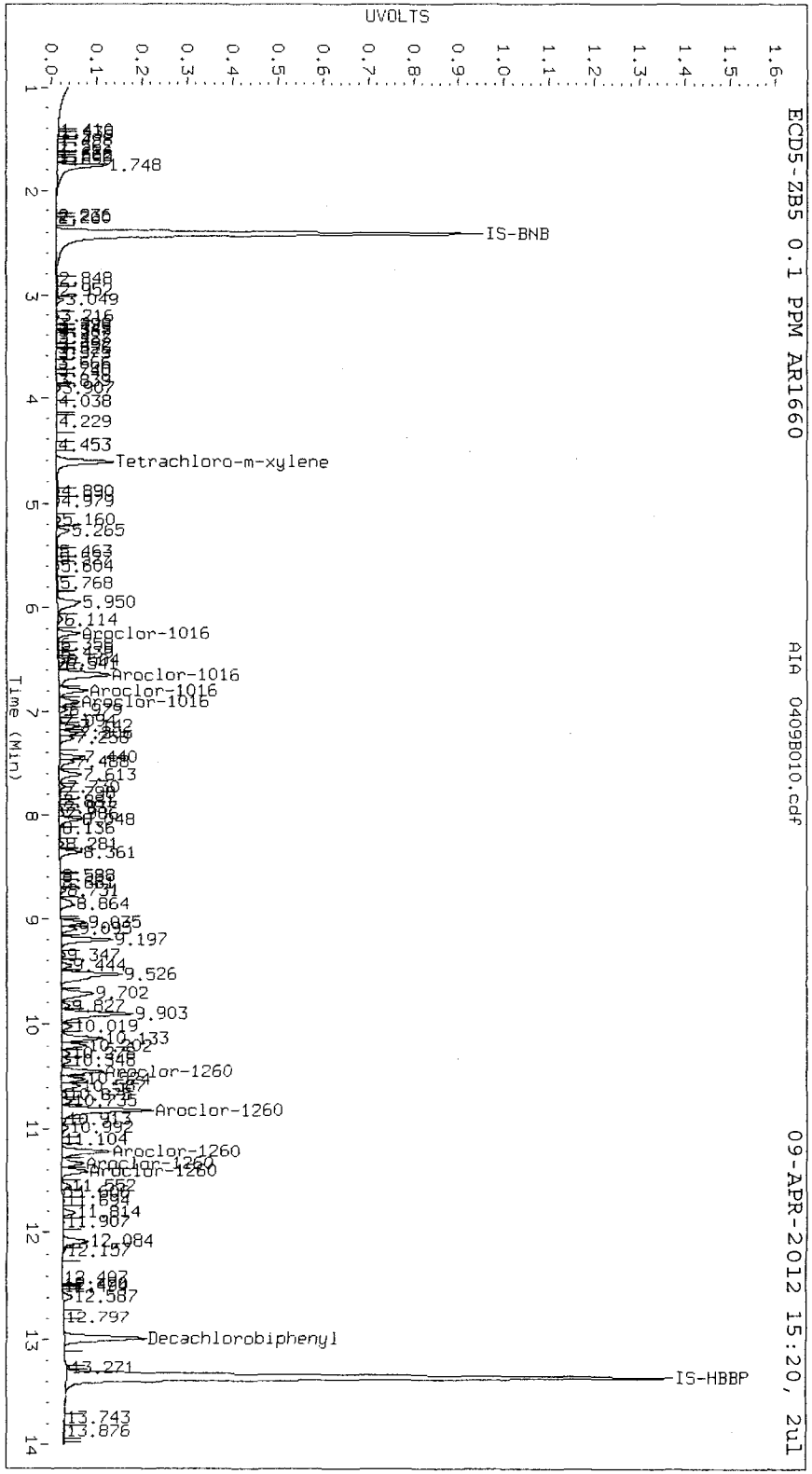
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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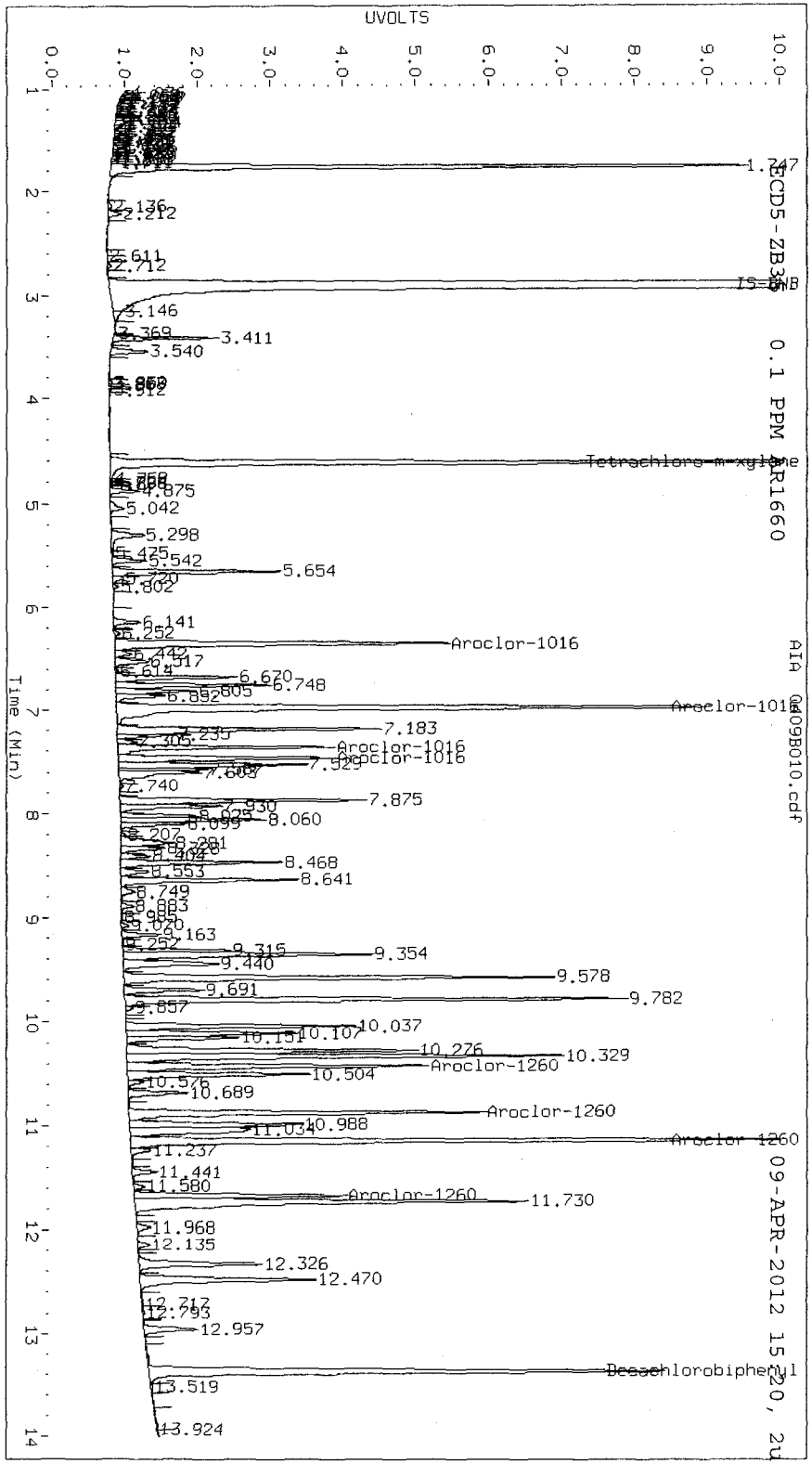
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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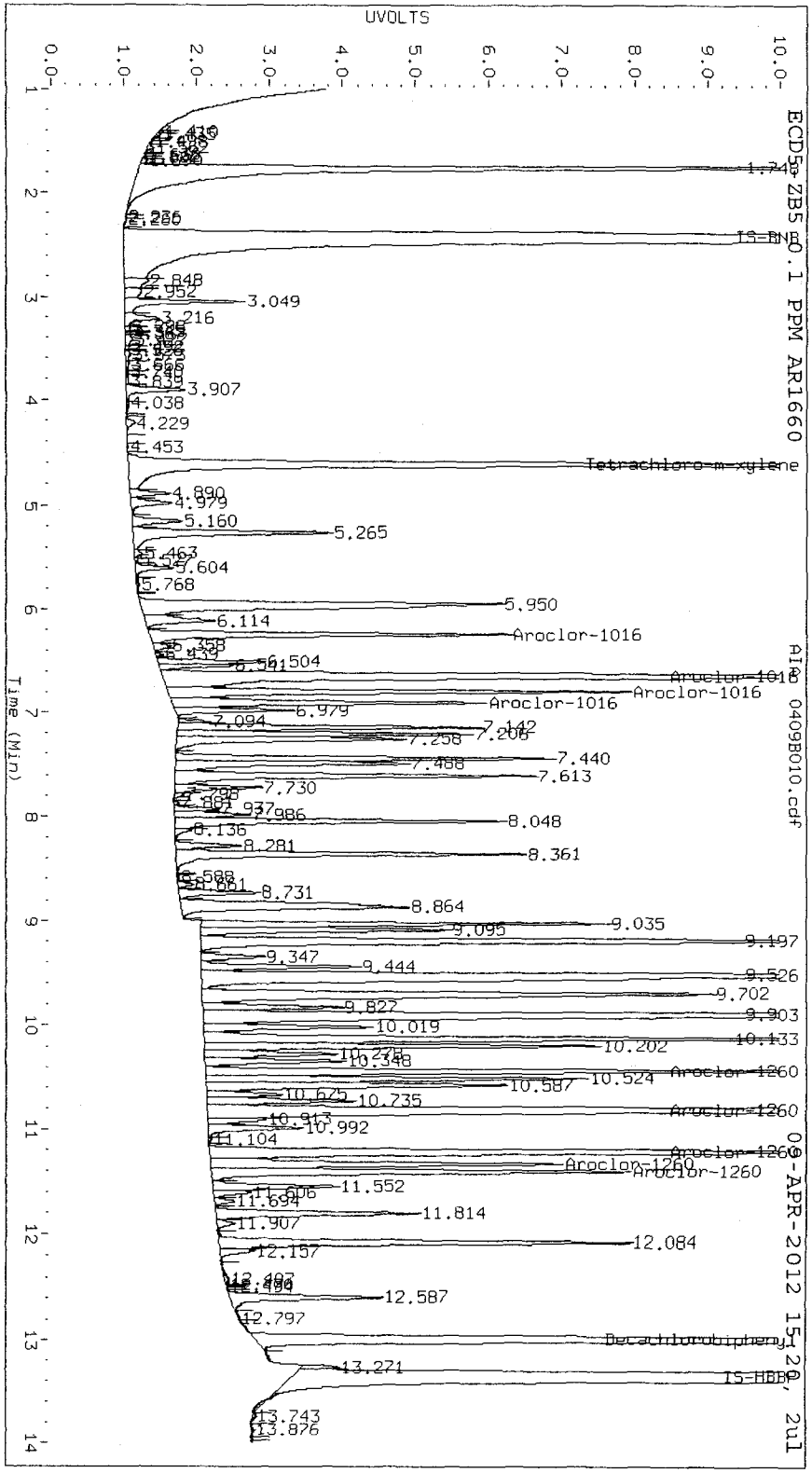
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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0.1 PPM AR1660
AIA 0409B010.cdf
09-APR-2012 15:20, 2ul
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB

URS3:68131

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B011.d
Data file 2: 20120409.B/ical-2.b/0409B011.d
Method: /chem2/ecd5.i/20120409.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: 09-APR-2012 15:38
Ical Date: 09-APR-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
4.611	0.001	85214774	4.610	0.000	53403649	37.9	39.0	2.8	Tetrachloro-m-xylene
12.997	0.000	111683052	13.371	0.000	42863166	34.6	35.5	2.8	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	94.8	97.5
Decachlorobiphenyl	86.4	88.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	138203230	-1.5
Hexabromobiphenyl	198372884	197900509	-0.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	100324091	-2.2
Hexabromobiphenyl	81487087	82130036	0.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

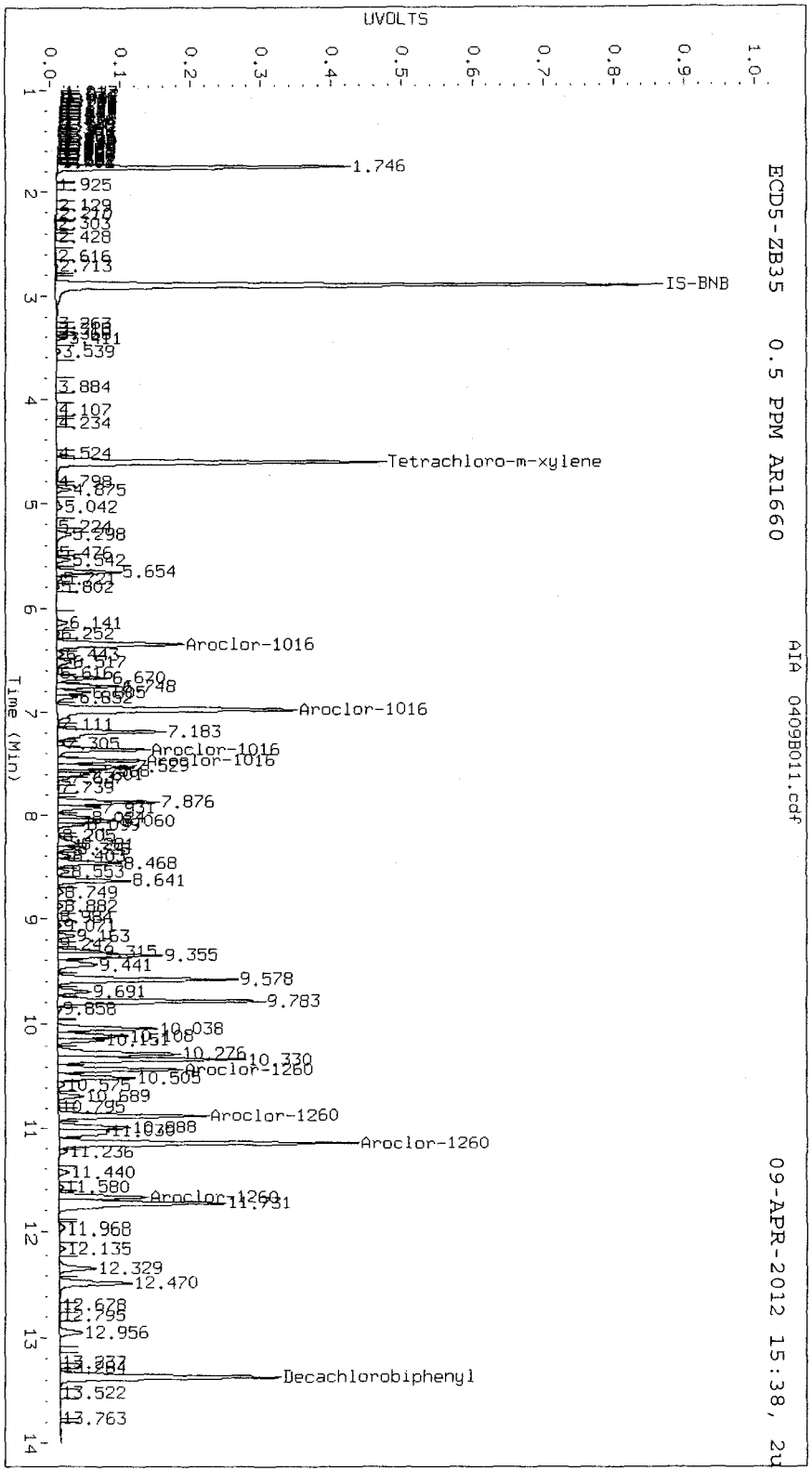
	ZB5 Col					ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.244	0.000	25362543	436.7	1	6.348	0.000	22655418	437.6
Aroclor-1016	2	6.644	0.000	81248866	435.2	2	6.975	0.000	49439213	454.1
Aroclor-1016	3	6.792	0.000	33126528	434.1	3	7.358	0.000	13207906	468.0
Aroclor-1016	4	6.903	0.000	23785236	440.1	4	7.465	0.000	14037721	454.4
Total Col1Ave (4 peaks):				436.5		Total Col2Ave (4 peaks):			453.5	RPD = 4
Corrected Ave (3 peaks):				435.3		Corrected Ave (3 peaks):			448.7	RPD = 3
Aroclor-1260	1	10.450	0.000	48367731	443.1	1	10.427	0.000	20120890	451.2
Aroclor-1260	2	10.824	0.000	117978233	438.7	2	10.877	0.000	24778878	439.4
Aroclor-1260	3	11.224	0.000	65111433	445.5	3	11.149	0.000	50690026	457.8
Aroclor-1260	4	11.340	0.000	27982902	432.0	4	11.670	0.000	14778442	452.9
Aroclor-1260	5	11.414	0.000	34156960	438.5	NS	---			----
Total Col1Ave (5 peaks):				439.6		Total Col2Ave (4 peaks):			450.3	RPD = 2
Corrected Ave (4 peaks):				438.1		Corrected Ave (3 peaks):			447.8	RPD = 2

Total PCB Area Col1 (4.710 - 12.897) = 1413724023 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 672395602 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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AIA 0409B011.cdf
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Time (Min)
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IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1016
Aroclor-1016
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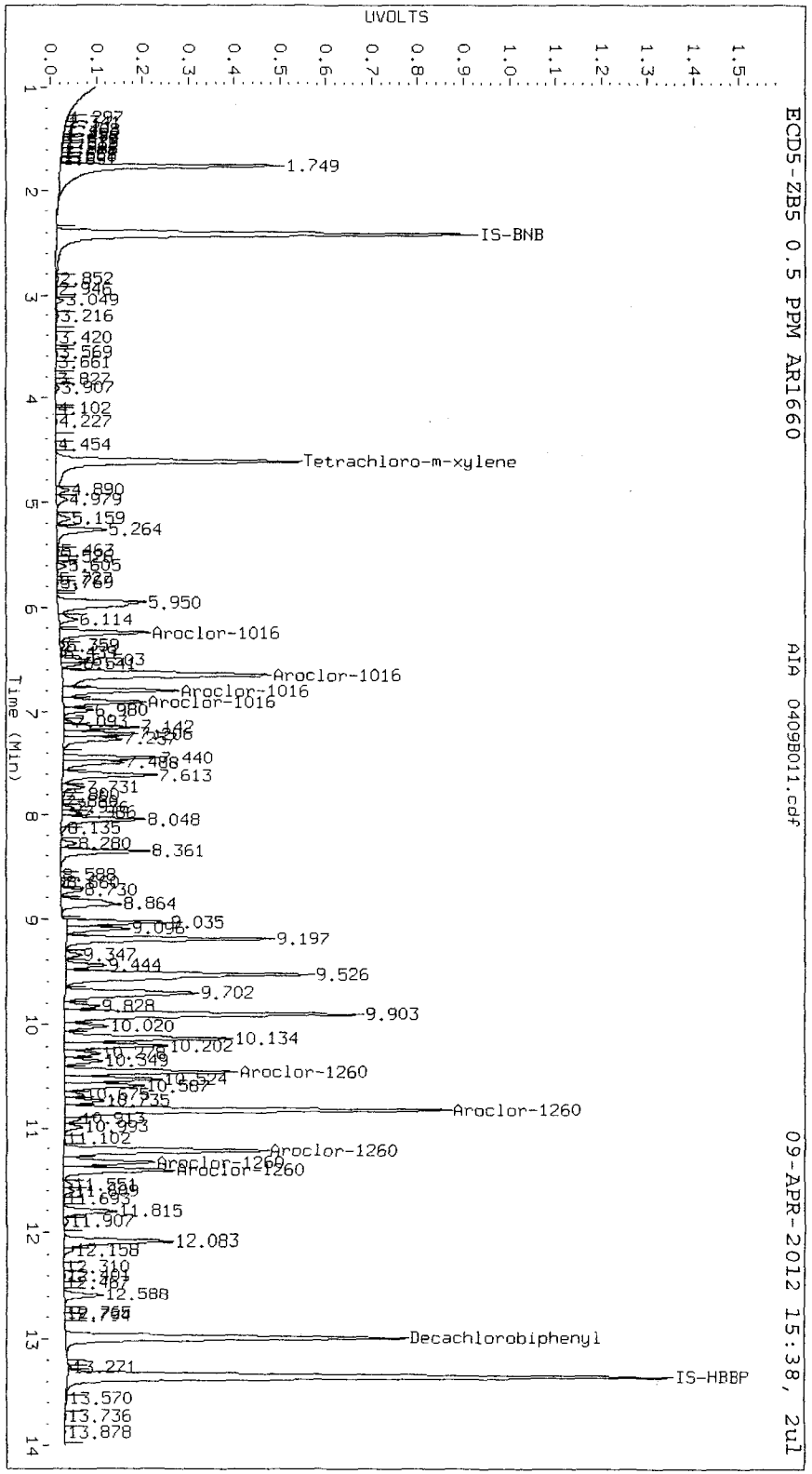
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl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AIA 0409B011.cdf
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Time (Min)
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Aroclor-1016
Aroclor-1016
Aroclor-1260
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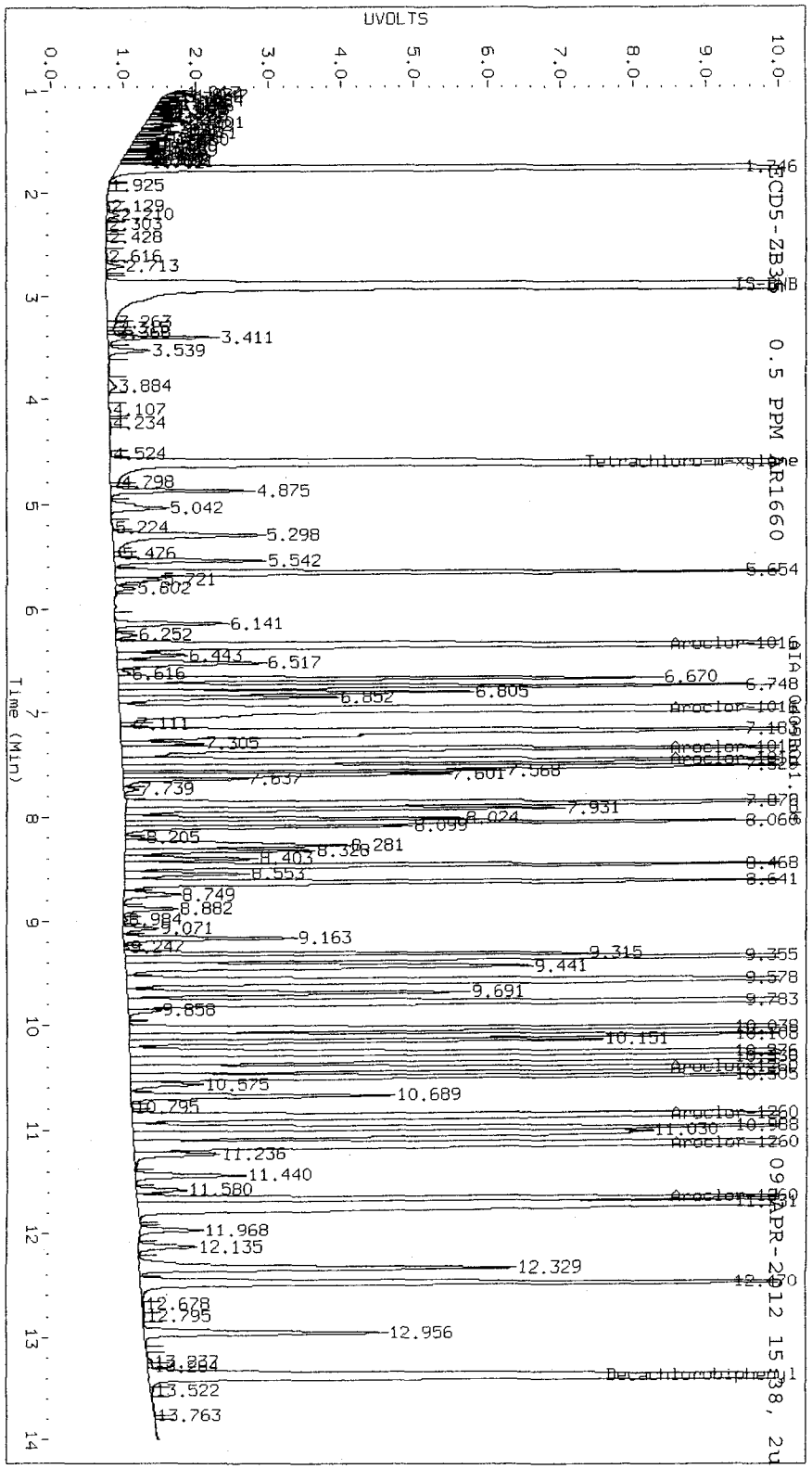
Decachlorobiphenyl
IS-HBBP

UT63:56:30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Aroclor-1016
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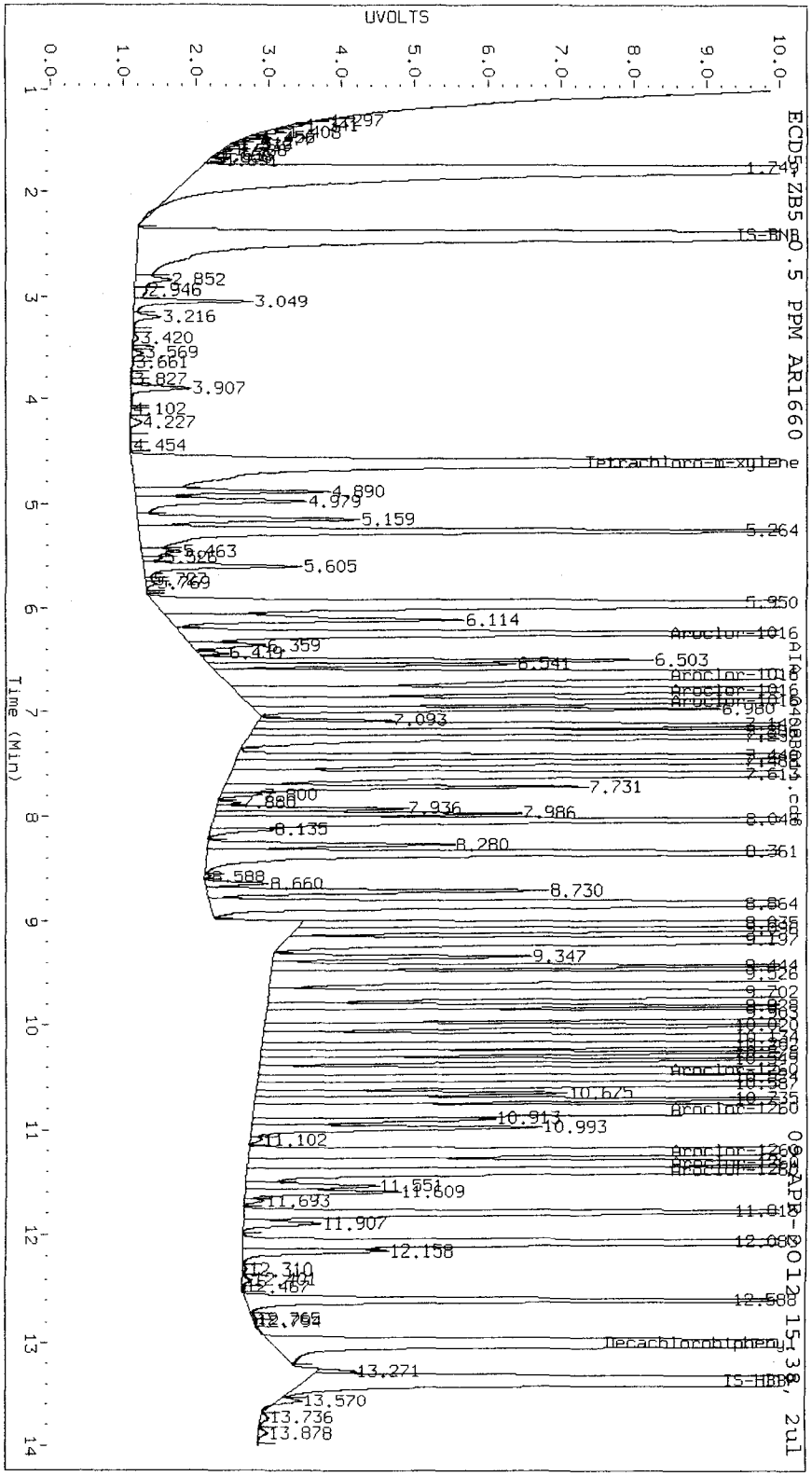
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Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260
IS-BNB
IS-HBB
09-APR-2012 15:38, 2ul

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B012.d
Data file 2: 20120409.B/ical-2.b/0409B012.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 09-APR-2012 15:57
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	-0.001	45353064	4.608	-0.001	28294225	19.2	20.1	4.7	Tetrachloro-m-xylene
12.996	-0.001	59330816	13.371	-0.001	22319505	17.6	17.8	1.2	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.0	50.3
Decachlorobiphenyl	44.1	44.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	145410338	3.6
Hexabromobiphenyl	198372884	206137340	3.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	103100908	0.5
Hexabromobiphenyl	81487087	85191381	4.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.244	0.000	11172349	250.0	1	6.348	0.000	9917508	250.0
Aroclor-1242	2	6.644	0.000	35973953	250.0	2	6.975	0.000	21123159	250.0
Aroclor-1242	3	6.792	0.000	14626395	250.0	3	7.183	0.000	8474105	250.0
Aroclor-1242	4	7.985	0.000	12969775	250.0	4	8.329	0.000	7034072	250.0

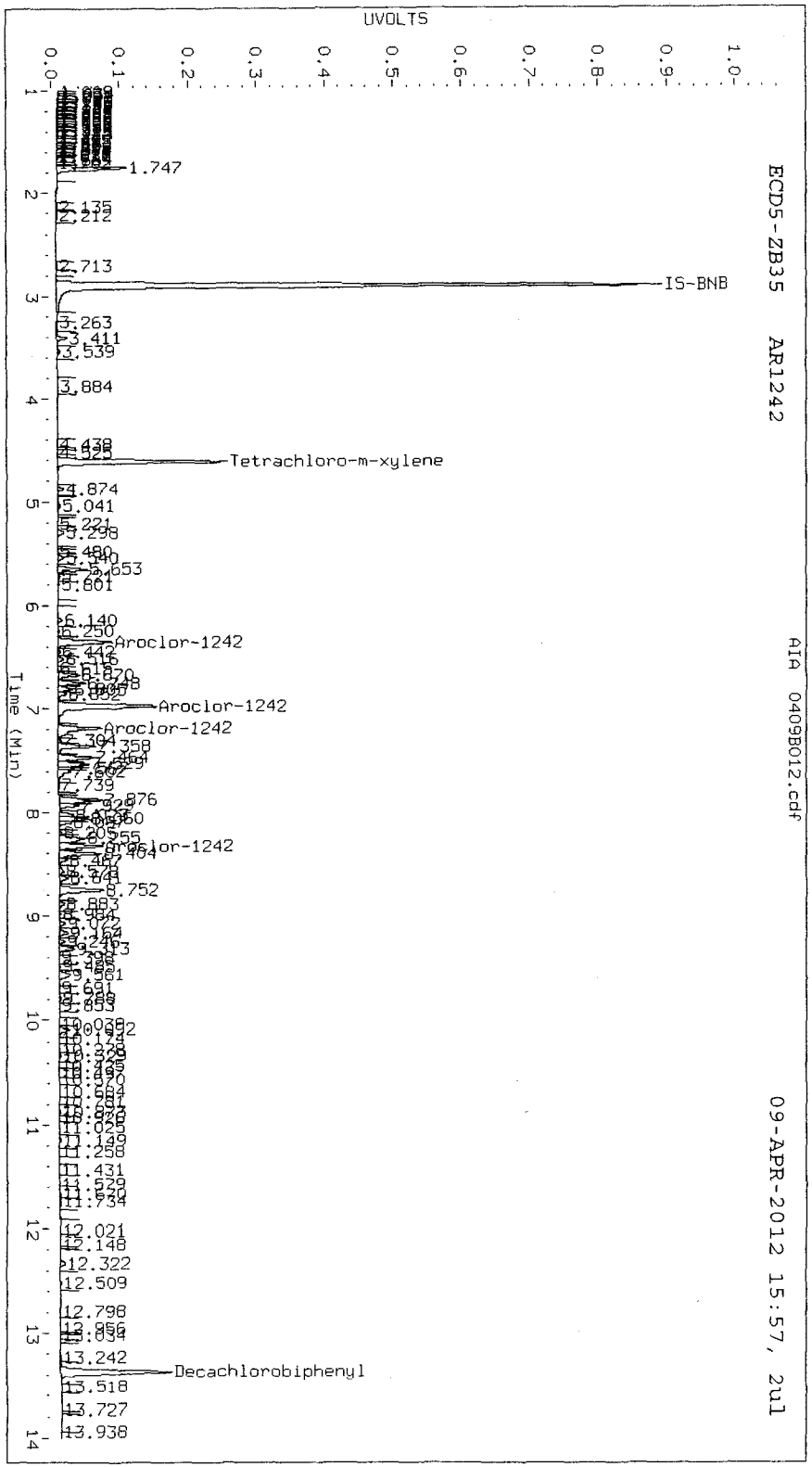
Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

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

Total PCB Area Col1 (4.710 - 12.897) = 277655425 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 147727411 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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09-APR-2012 15:57, 2ul
Time (Min)
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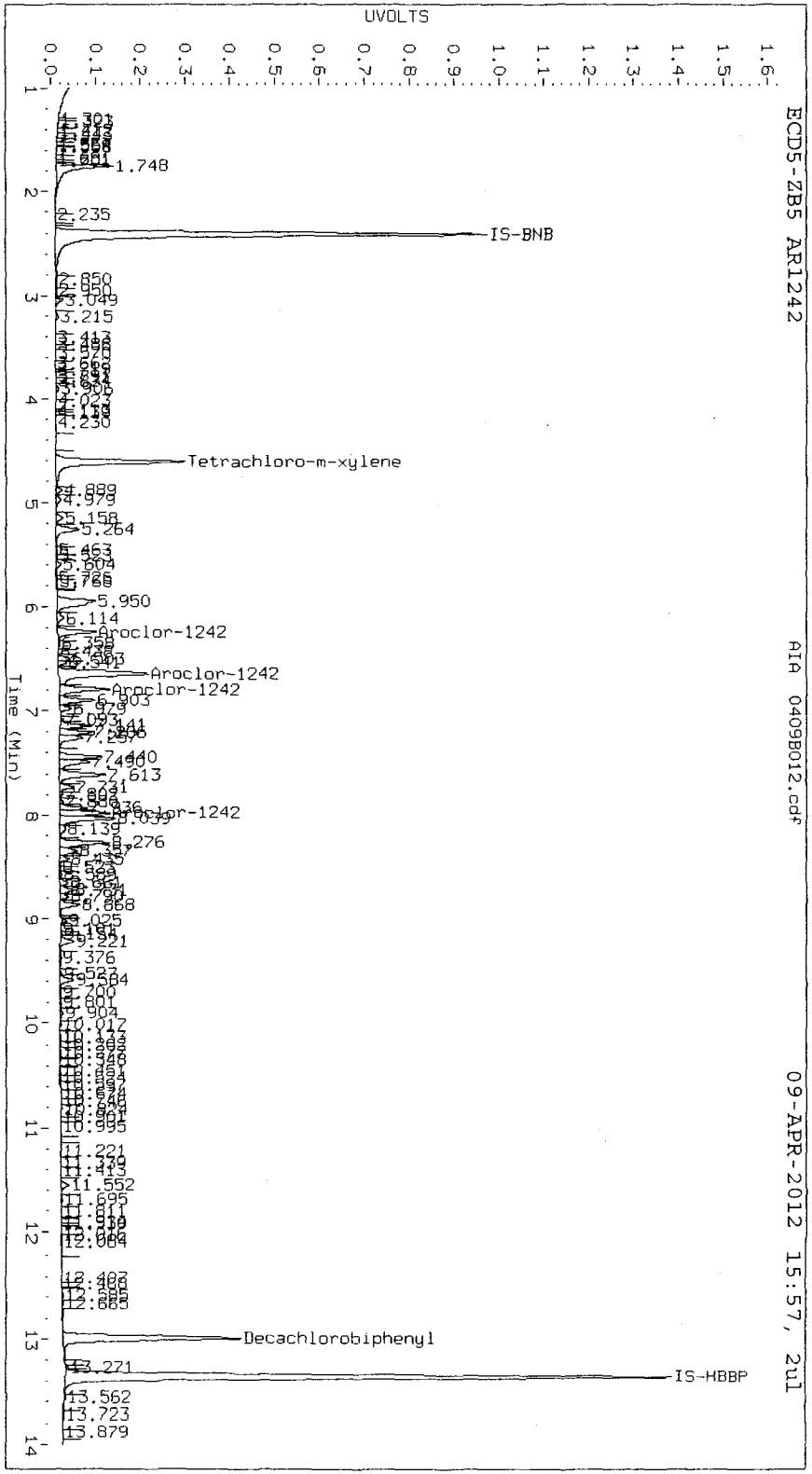
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl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Aroclor-1242
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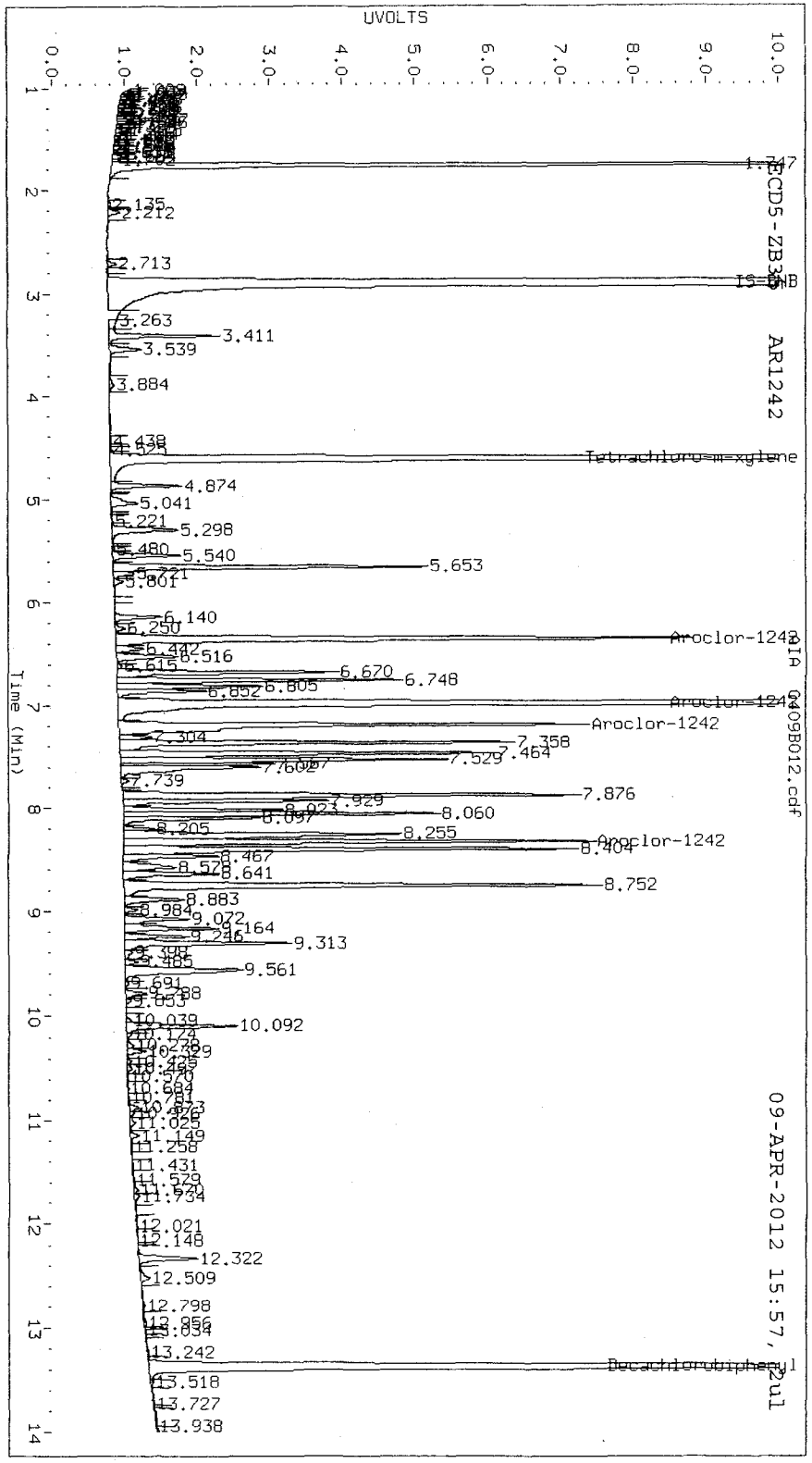
Aroclor-1242
Decachlorobiphenyl
IS-HBBP

URS3:00112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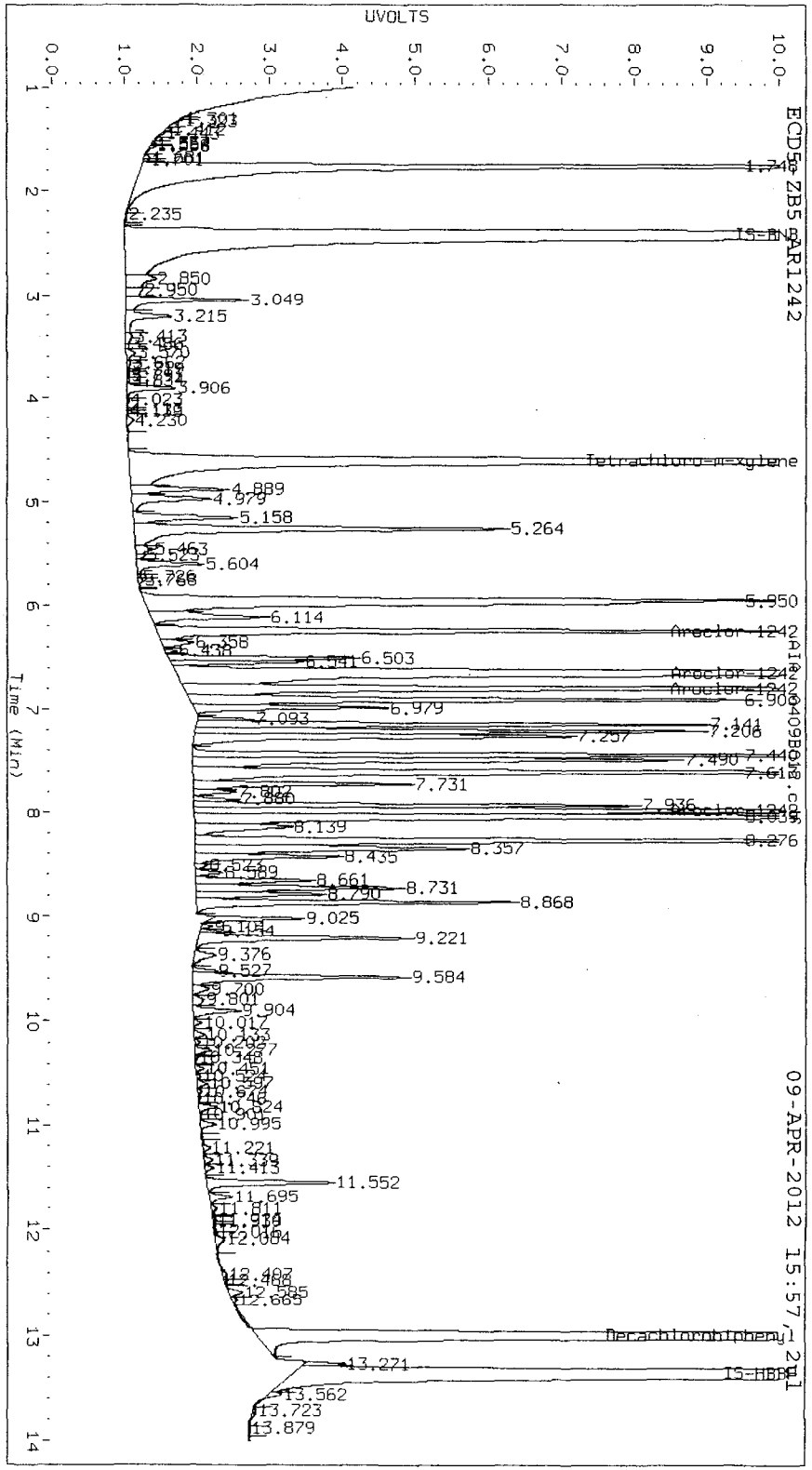
Decachlorobiphenyl
IS-HB
Time (Min)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Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HB
Time (Min)

U1593:00113

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B013.d
Data file 2: 20120409.B/ical-2.b/0409B013.d
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Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 09-APR-2012 16:17
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	0.000	46223833	4.608	-0.001	29157886	19.2	20.2	5.3	Tetrachloro-m-xylene
12.997	0.000	60603081	13.372	0.000	22904899	17.7	18.0	1.6	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	47.9	50.5
Decachlorobiphenyl	44.3	45.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	148461301	5.8
Hexabromobiphenyl	198372884	209304672	5.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	105734120	3.1
Hexabromobiphenyl	81487087	86502439	6.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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-1248	1	6.641	0.000	24102774	250.0	1	6.970	0.000	13881615	250.0
Aroclor-1248	2	7.440	0.000	18595360	250.0	2	7.876	0.000	10710442	250.0
Aroclor-1248	3	7.985	0.000	22712857	250.0	3	8.328	0.000	12449496	250.0
Aroclor-1248	4	8.277	0.000	22632376	250.0	4	8.750	0.000	13717340	250.0

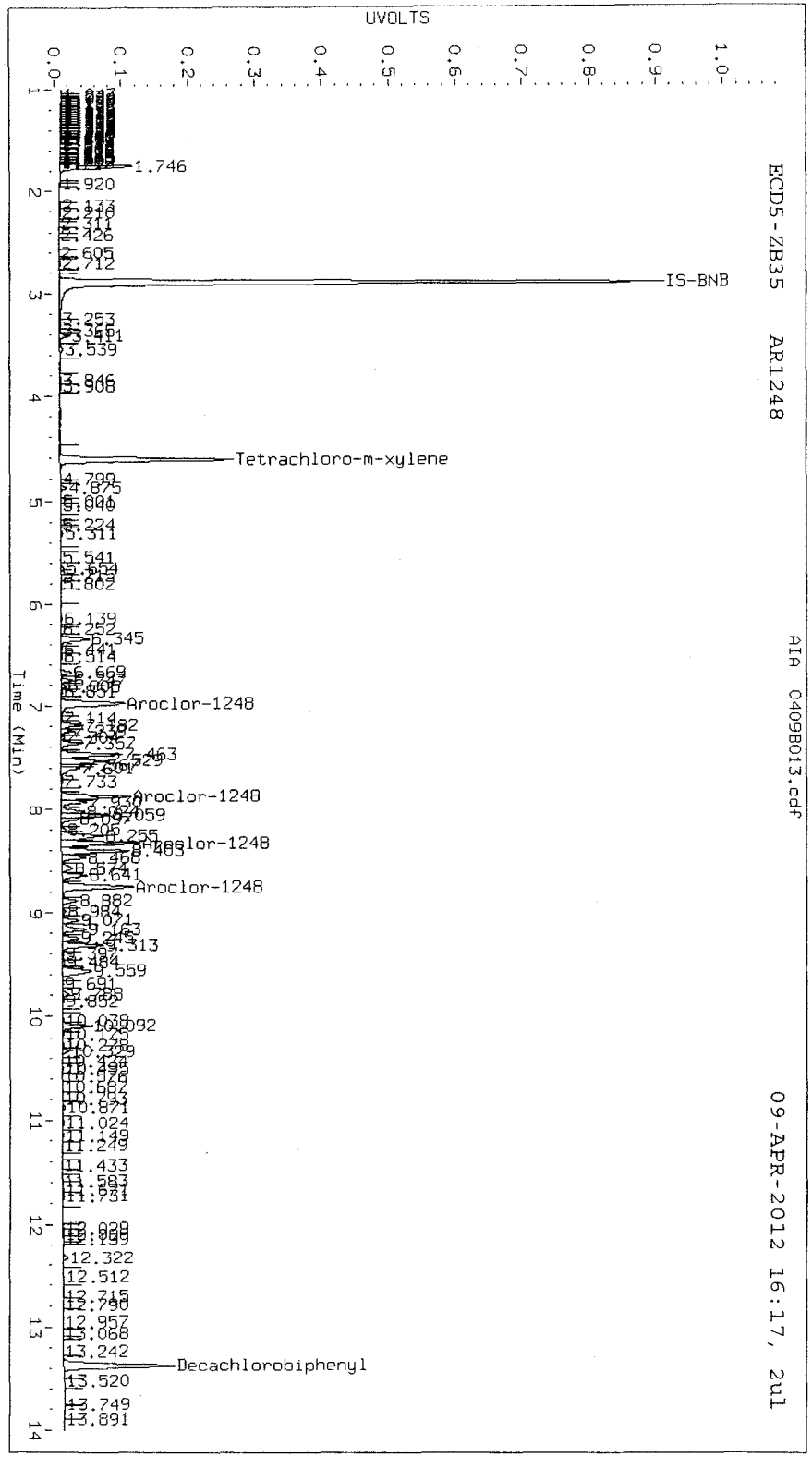
Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

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

Total PCB Area Col1 (4.710 - 12.897) = 360150737 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 183272315 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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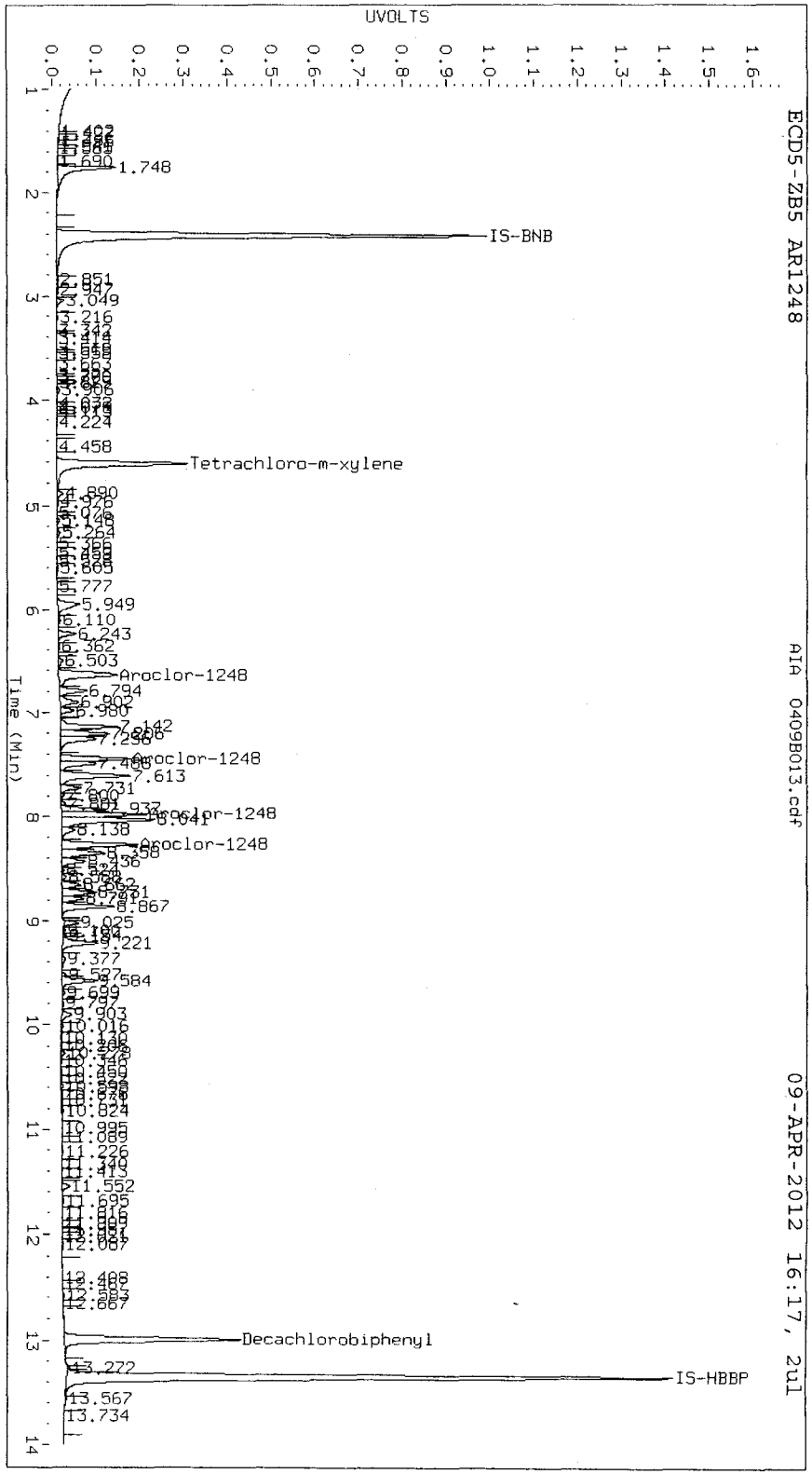
AIA 0409B013.cdf
09-APR-2012 16:17, 2ul
Time (Min)
1.746
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl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AIA 0409B013.cdf
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Time (Min)
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IS-BNB
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Aroclor-1248
Aroclor-1248
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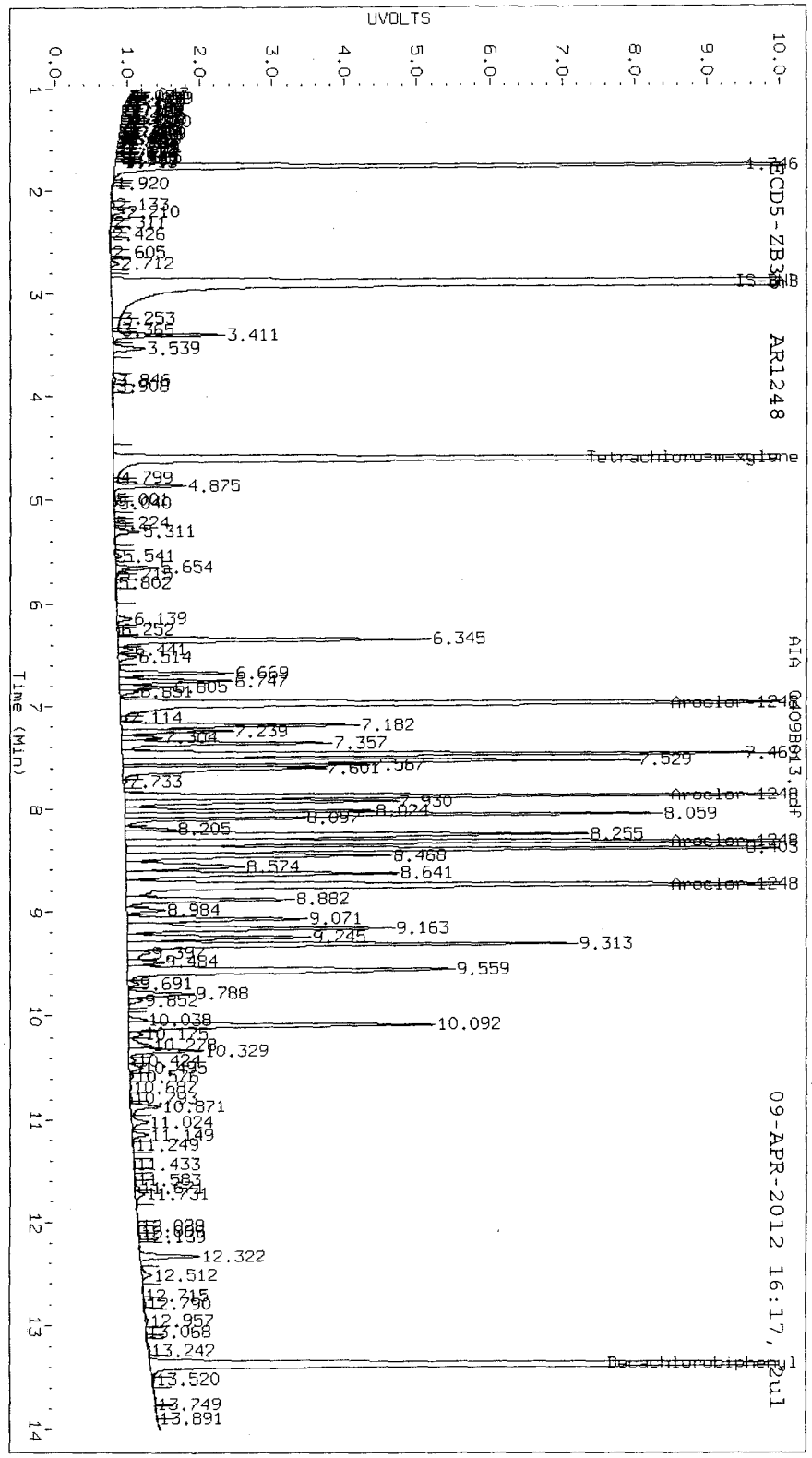
Decachlorobiphenyl
IS-HBBP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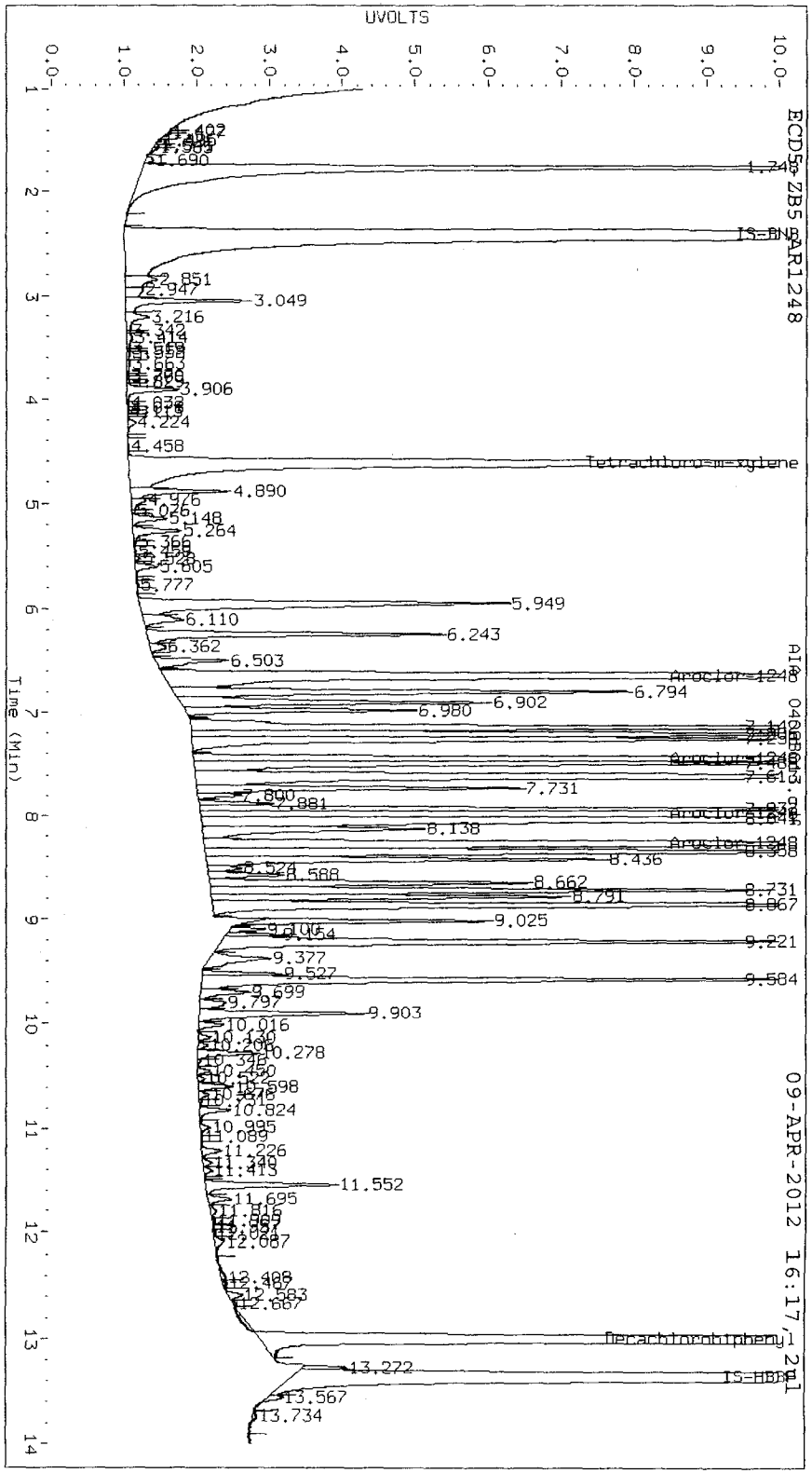
AR1248
AIA 0409B013.cdf
09-APR-2012 16:17, 2ul
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS=HBB
Time (Min)


UVOLTS
ECD5-ZB5
AR1248
AIA 0409B013.cdf
09-APR-2012 16:17, 2ul
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS=HBB
Time (Min)

URS8:00117

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B014.d
Data file 2: 20120409.B/ical-2.b/0409B014.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 09-APR-2012 16:35
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	45235826	4.609	0.000	28457101	19.1	20.2	5.5	Tetrachloro-m-xylene
12.998	0.001	59044279	13.371	0.000	22187640	17.6	17.8	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	47.8	50.5
Decachlorobiphenyl	44.0	44.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	145698158	3.9
Hexabromobiphenyl	198372884	205529508	3.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	103297978	0.7
Hexabromobiphenyl	81487087	85015730	4.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	8.359	0.000	34752596	250.0	1	8.468	0.000	10196776	250.0
Aroclor-1254	2	8.731	0.000	22602077	250.0	2	8.642	0.000	12923710	250.0
Aroclor-1254	3	8.867	0.000	41327950	250.0	3	9.164	0.000	9989425	250.0
Aroclor-1254	4	9.216	0.000	41703699	250.0	4	9.314	0.000	21335470	250.0
Aroclor-1254	5	9.578	0.000	28133418	250.0	5	10.097	0.000	12868093	250.0

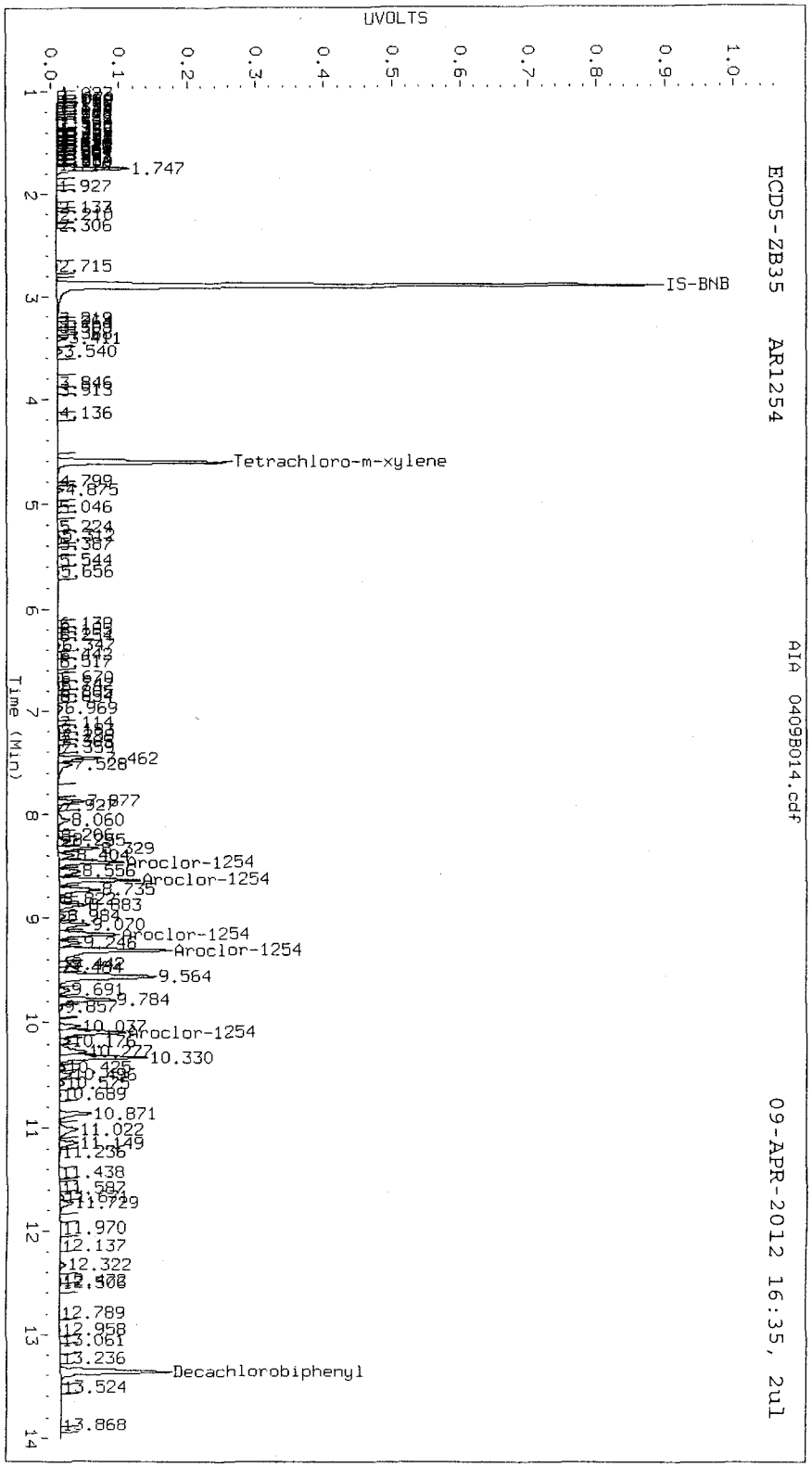
Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

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

Total PCB Area Col1 (4.710 - 12.897) = 447226332 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 210917649 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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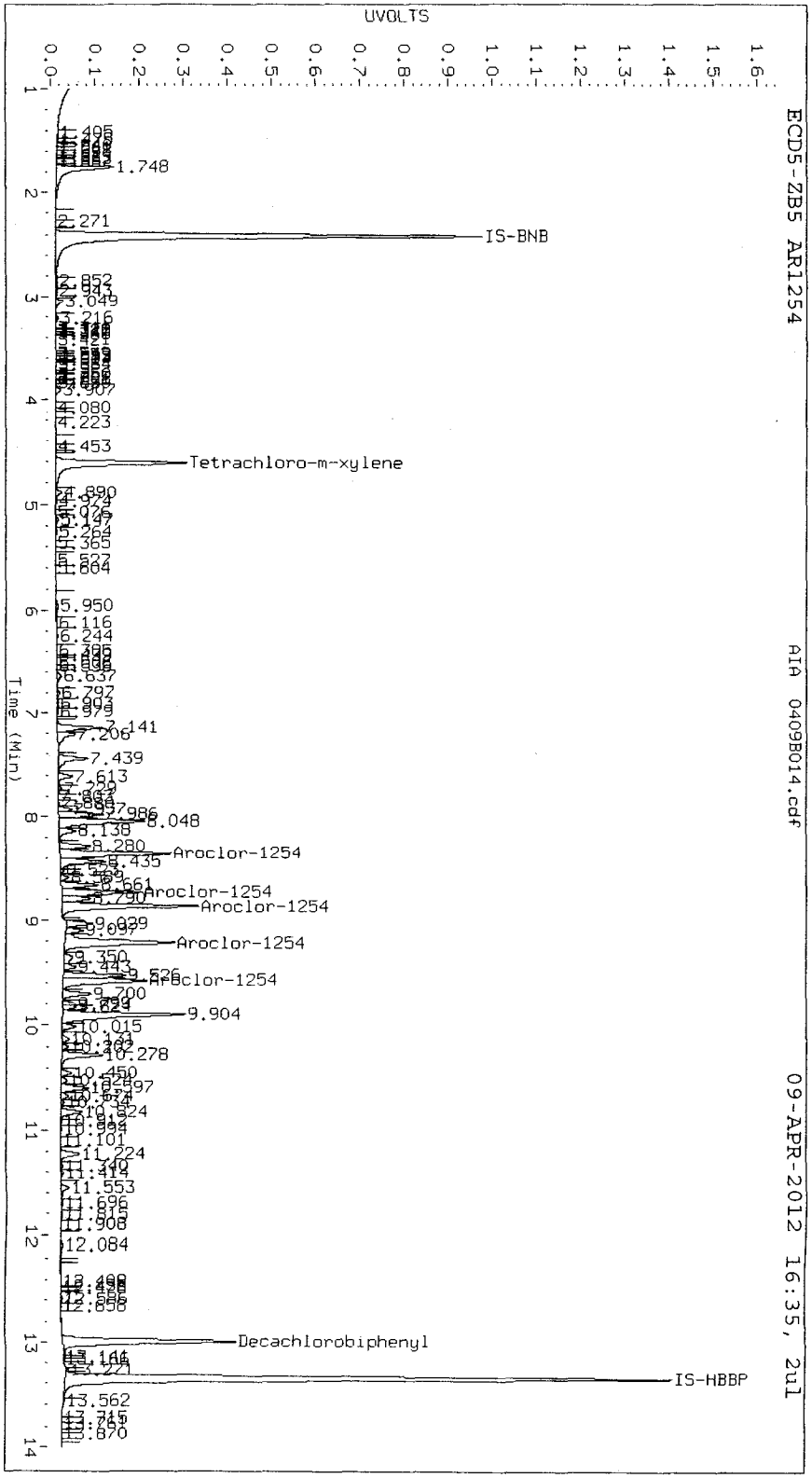
AIA 0409B014.cdf
09-APR-2012 16:35, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl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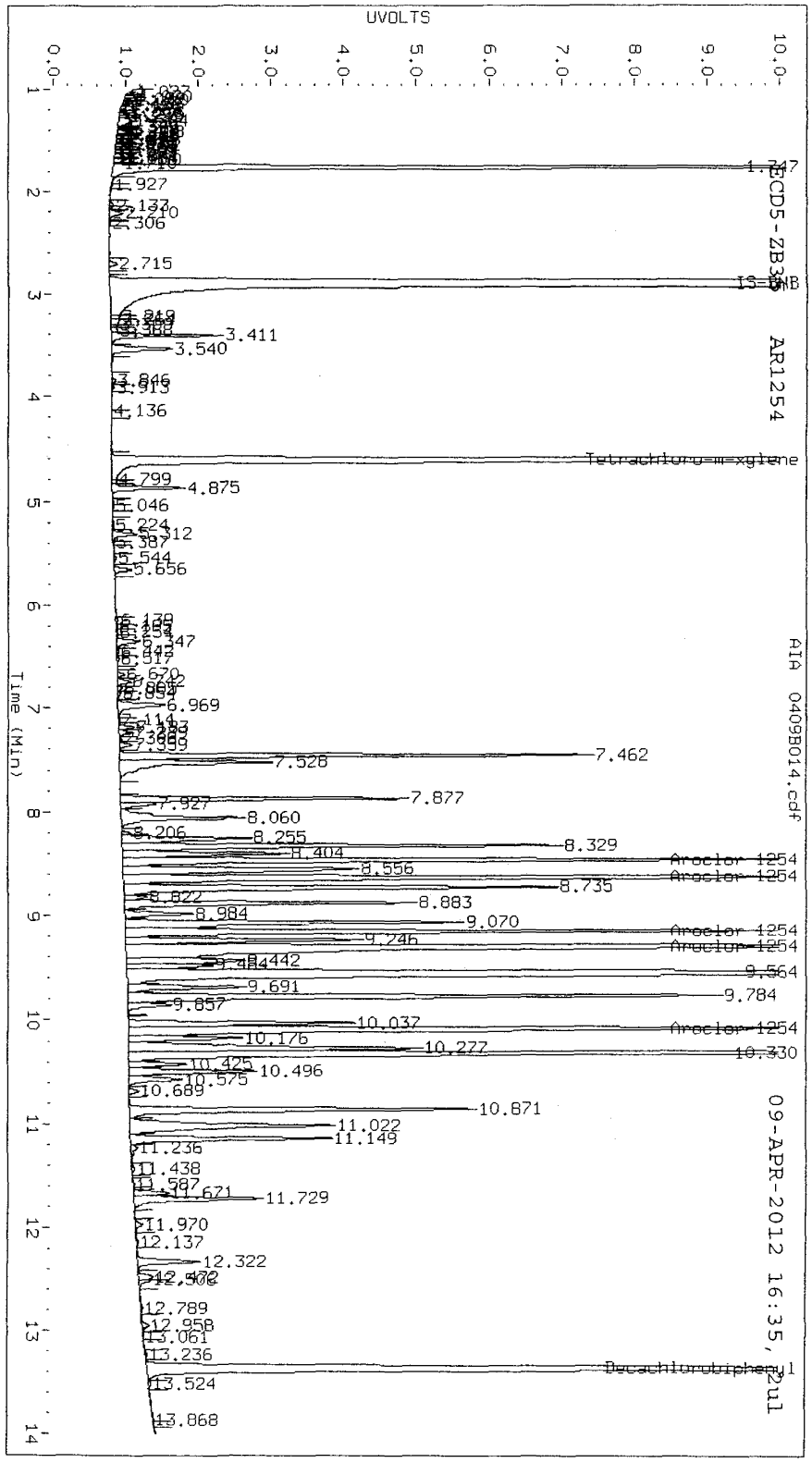
AIA 0409B014.cdf
09-APR-2012 16:35, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP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AR1254
AIA 0409B014.cdf
09-APR-2012 16:35, 2ul
Tetrachloro-m-xylene
IS=HB
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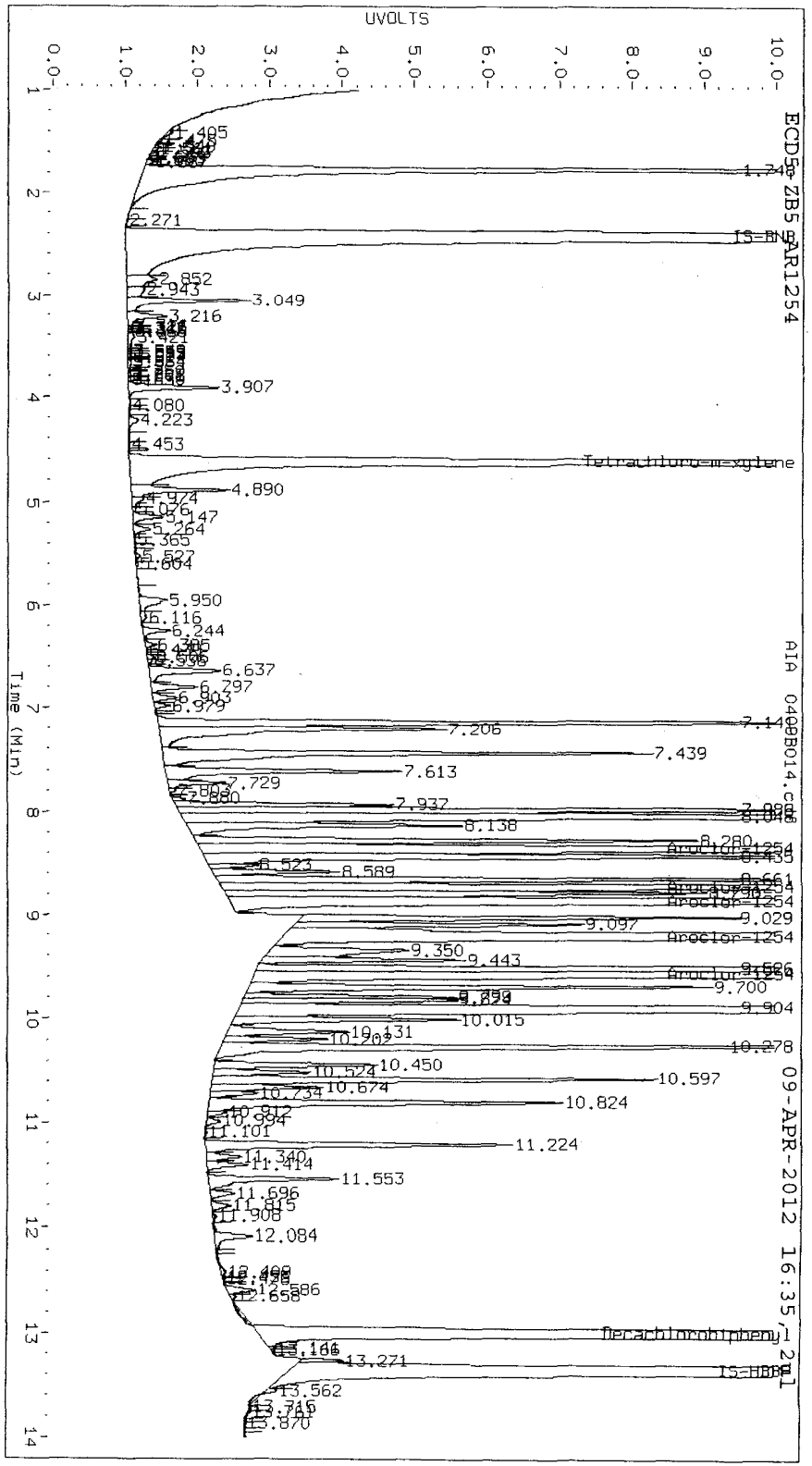
Decachlorobiphenyl
Time (Min)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AR1254
AIA 0408B014.cdf
09-APR-2012 16:35, 2ul
Tetrachloro-m-xylene
IS=HB
Aroclor-1254
Decachlorobiphenyl
Time (Min)

UR98:00151

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B015.d
Data file 2: 20120409.B/ical-2.b/0409B015.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162
Client ID:
Injection Date: 09-APR-2012 16:54
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	46301066	4.610	0.000	28582051	19.5	20.7	5.9	Tetrachloro-m-xylene
12.997	0.000	58137228	13.372	0.000	21698879	17.2	17.3	0.3	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.7	51.7
Decachlorobiphenyl	43.1	43.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	146299990	4.3
Hexabromobiphenyl	198372884	206466186	4.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	101335194	-1.2
Hexabromobiphenyl	81487087	85400660	4.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

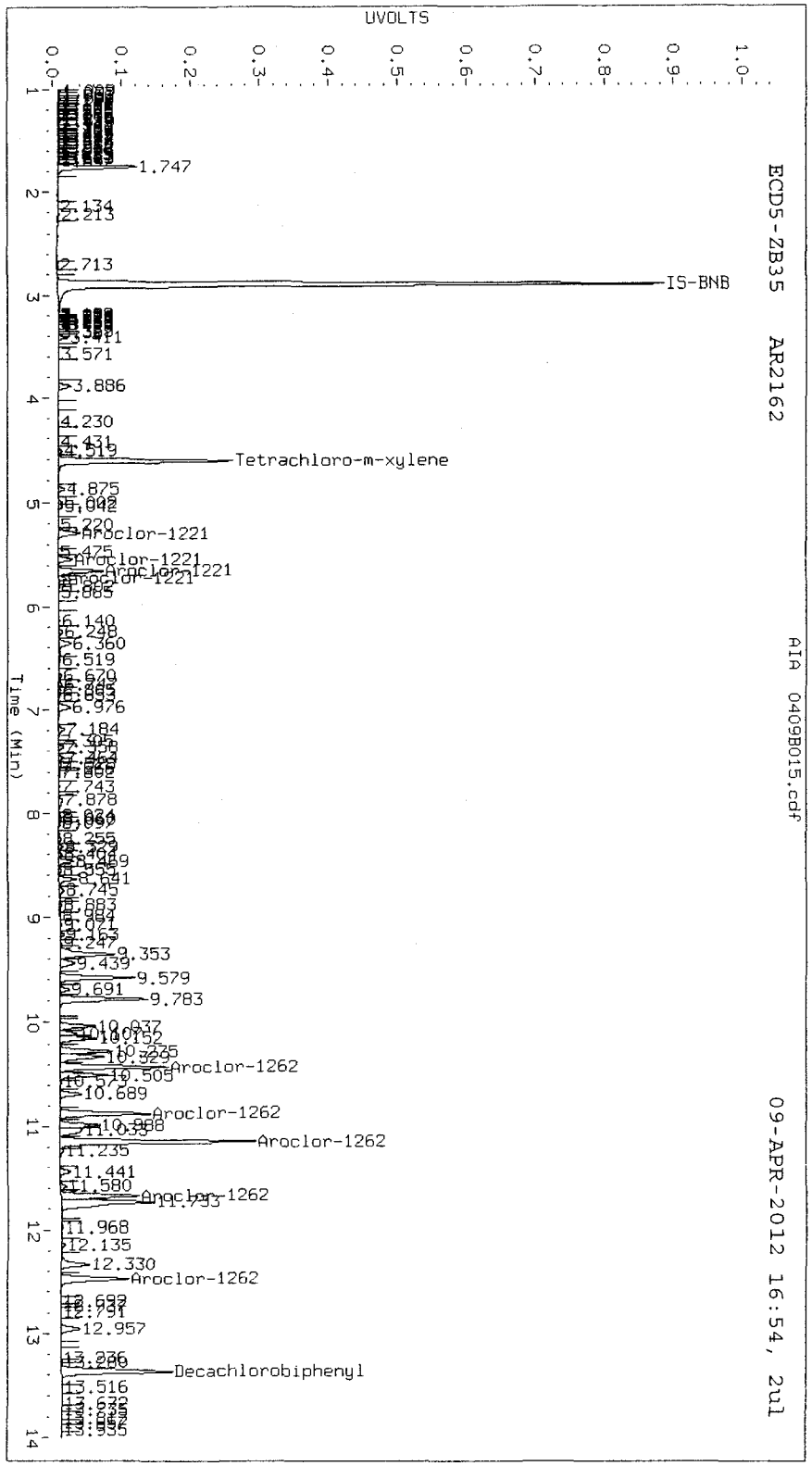
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1221	1	4.890	0.000	1733083	250.0	1	5.295	0.000	3910365	250.0
Aroclor-1221	2	5.160	0.000	4328308	250.0	2	5.542	0.000	2291410	250.0
Aroclor-1221	3	5.265	0.000	14169137	250.0	3	5.654	0.000	7103935	250.0
Aroclor-1221	NS	---			----	4	5.722	0.000	1275869	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	10.134	0.000	42282712	250.0	1	10.425	0.000	17621986	250.0
Aroclor-1262	2	10.451	0.000	31255734	250.0	2	10.877	0.000	15058570	250.0
Aroclor-1262	3	10.825	0.000	82664643	250.0	3	11.149	0.000	34095646	250.0
Aroclor-1262	4	11.341	0.000	30205007	250.0	4	11.671	0.000	13661174	250.0
Aroclor-1262	5	11.415	0.000	34009592	250.0	5	12.470	0.000	13128959	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				

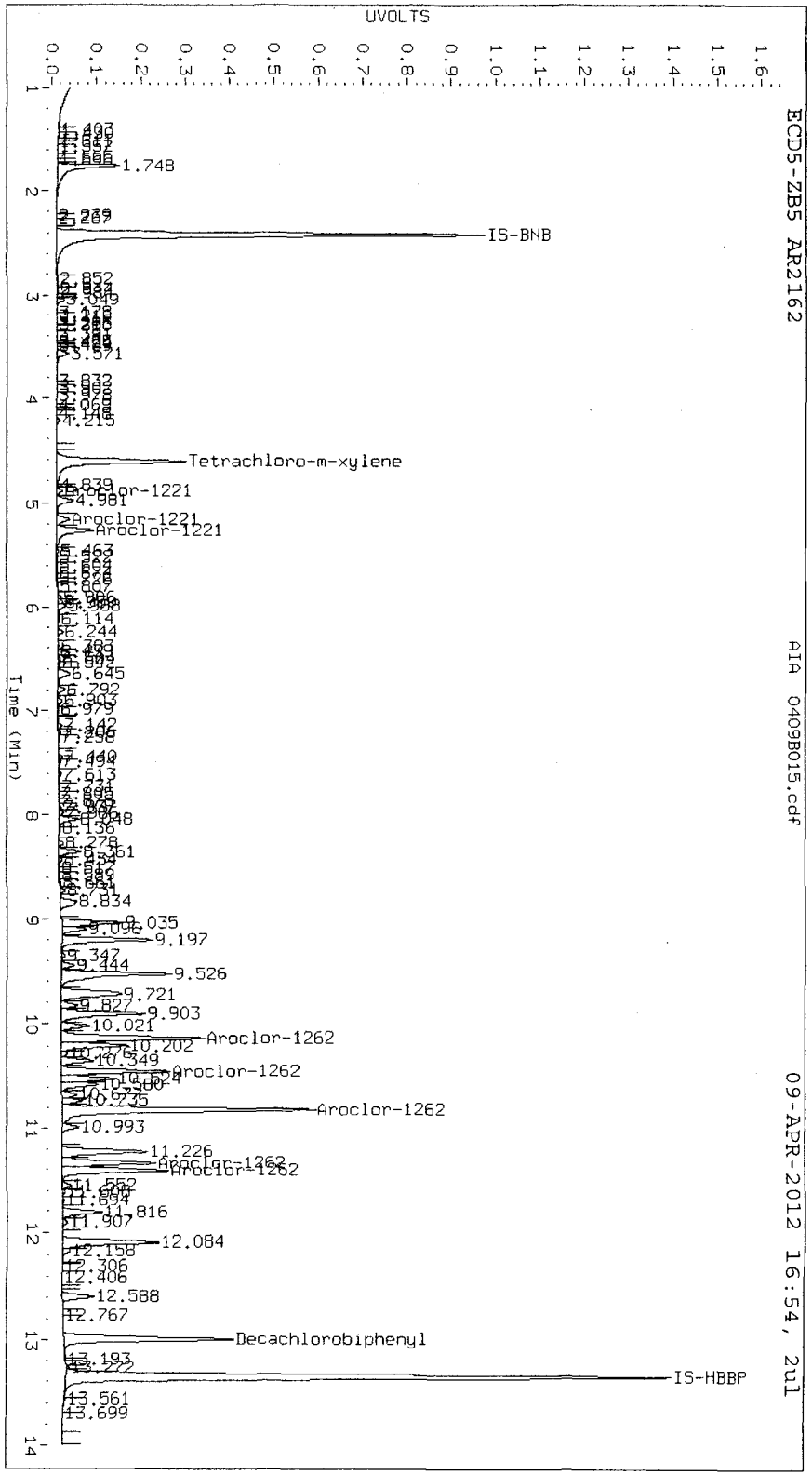
Total PCB Area Col1 (4.710 - 12.897) = 619295725 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 264298463 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


UVOLTS
ECD5-ZB35 AR2162
AIA 0409B015.cdf
09-APR-2012 16:54, 2ul
Time (Min)
1.747
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl


UVOLTS
ECD5-ZB5 AR2162
AIA 0409B015.cdf
09-APR-2012 16:54, 2ul
Time (Min)
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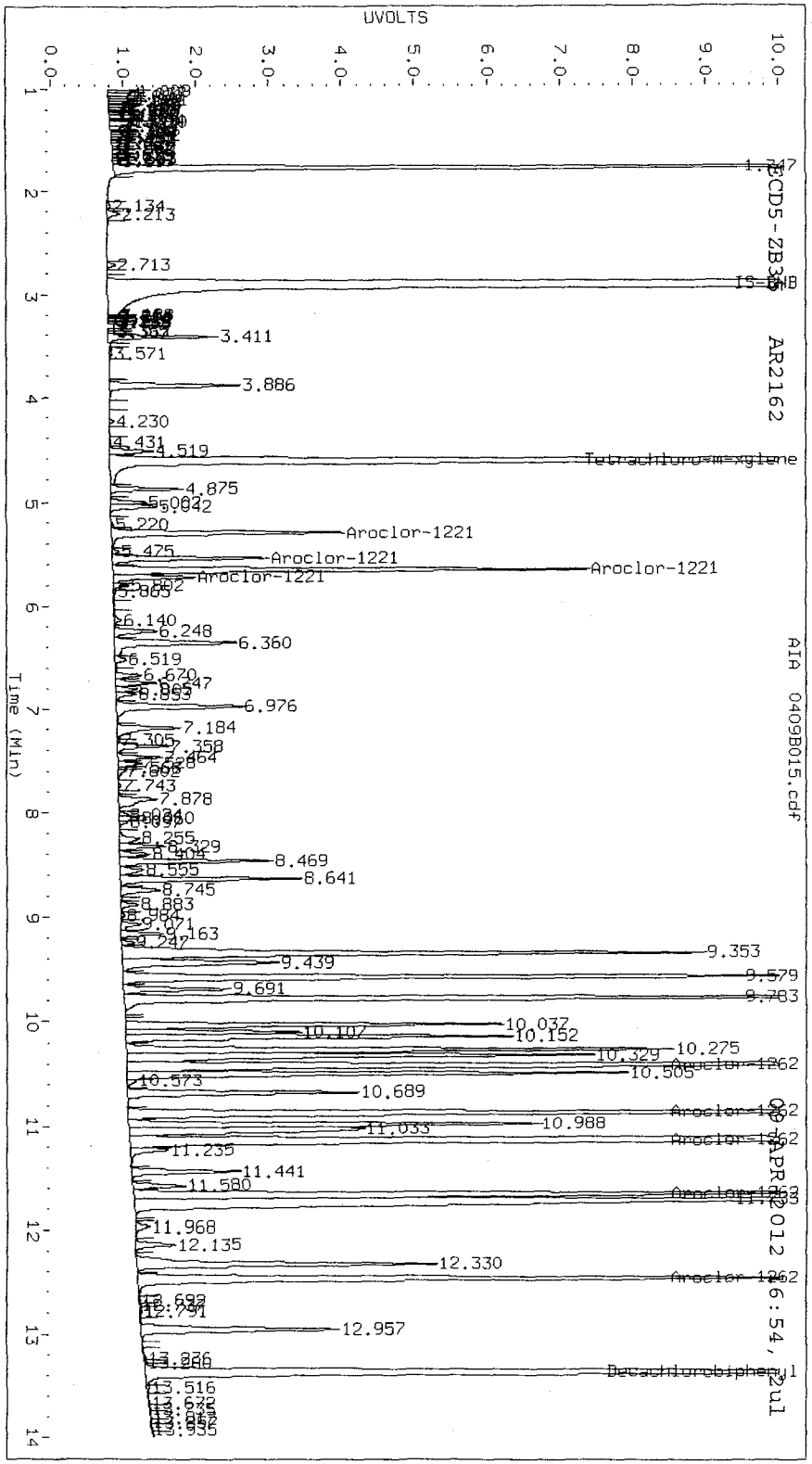
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP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Time (Min)
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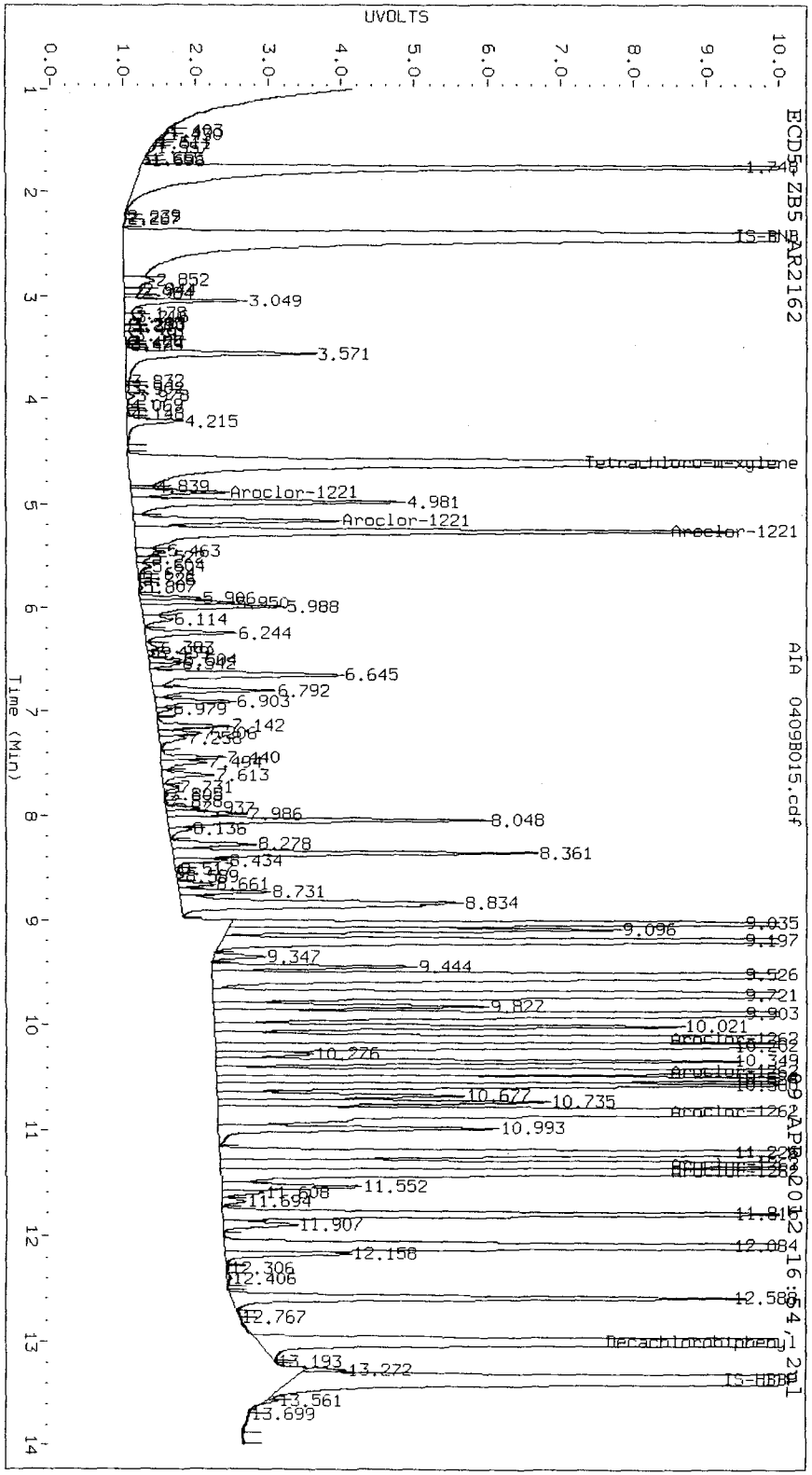
AR2162
AIA 0409B015.cdf
APR 2012 16:54, 2ul
IS-HBB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl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Time (Min)
ECD5-ZB5
AR2162
AIA 0409B015.cdf
APR 2012 16:54, 2ul
IS-HBB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl

UR93:06156

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B016.d
Data file 2: 20120409.B/ical-2.b/0409B016.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 09-APR-2012 17:13
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	0.000	46573586	4.609	0.000	29031234	19.5	20.7	6.0	Tetrachloro-m-xylene
12.997	0.000	101895324	13.371	0.000	38669107	30.0	30.5	1.6	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	48.7	51.7
Decachlorobiphenyl	75.0	76.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	147003379	4.8
Hexabromobiphenyl	198372884	207827810	4.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	102791664	0.2
Hexabromobiphenyl	81487087	86296538	5.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

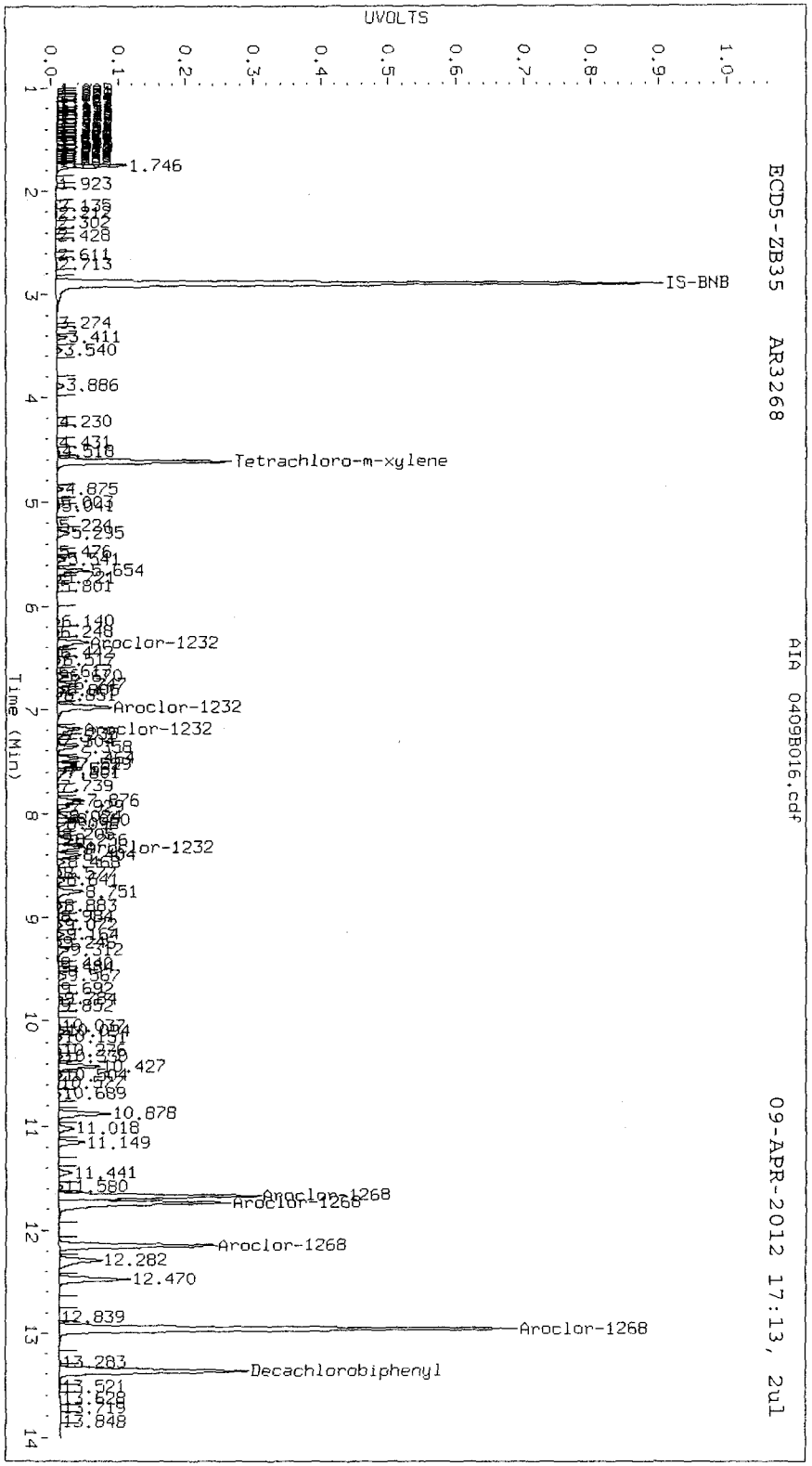
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1232	1	6.244	0.000	6338573	250.0	1	6.348	0.000	5972337	250.0
Aroclor-1232	2	6.643	0.000	20456877	250.0	2	6.974	0.000	11681024	250.0
Aroclor-1232	3	6.792	0.000	8389758	250.0	3	7.183	0.000	3997953	250.0
Aroclor-1232	4	7.986	0.000	7698121	250.0	4	8.328	0.000	4139281	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	11.342	0.000	86697432	250.0	1	11.672	0.000	36428715	250.0
Aroclor-1268	2	11.413	0.000	85394400	250.0	2	11.739	0.000	34351429	250.0
Aroclor-1268	3	11.800	0.000	74157624	250.0	3	12.136	0.000	29605509	250.0
Aroclor-1268	4	12.591	0.000	228176036	250.0	4	12.958	0.000	89582694	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 (4.710 - 12.897) = 789128739 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 335861620 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

UR93:00159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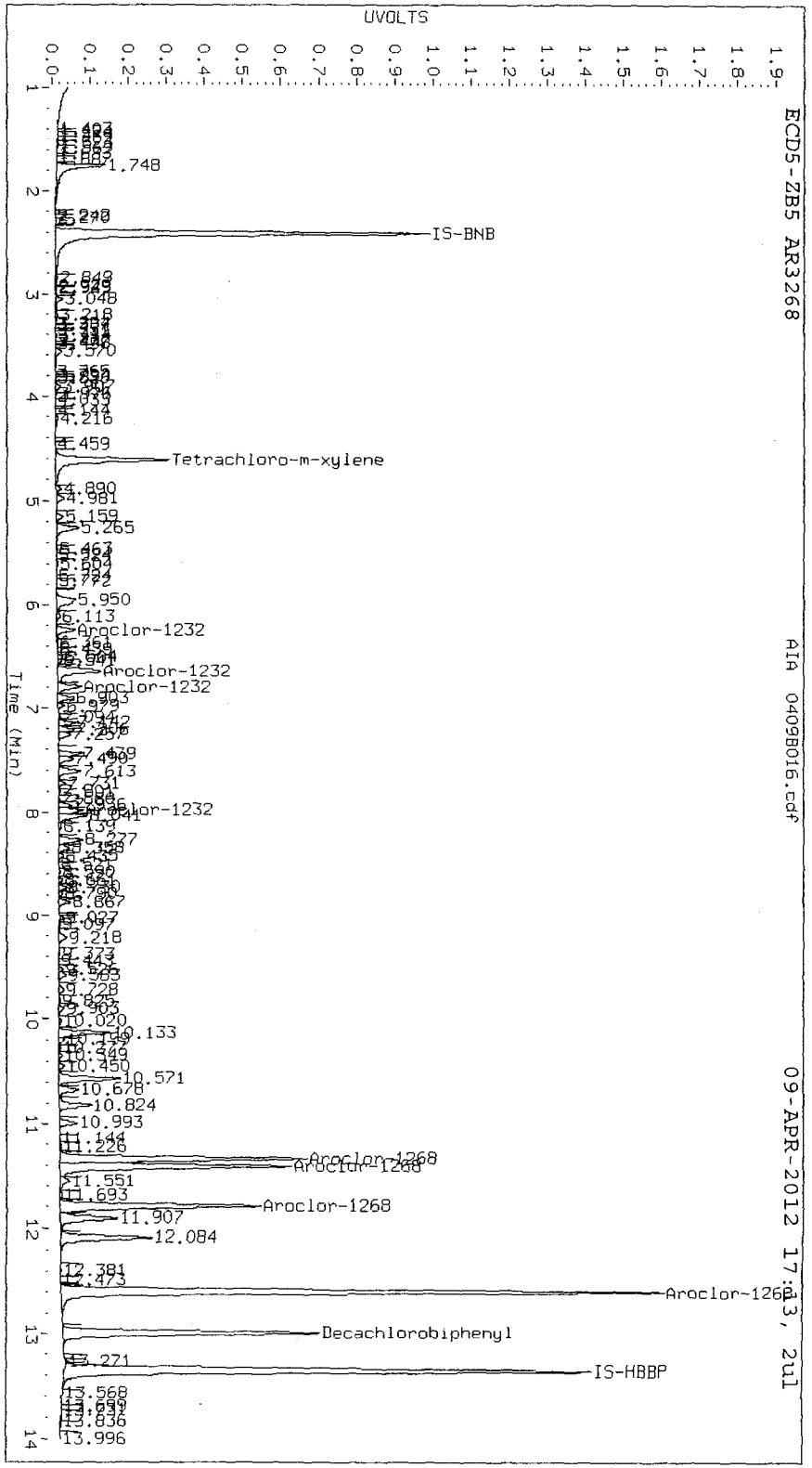
AIA 0409B016.cdf
09-APR-2012 17:13, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl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AIA 0409B016.cdf
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Time (Min)
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Tetrachloro-m-xylene
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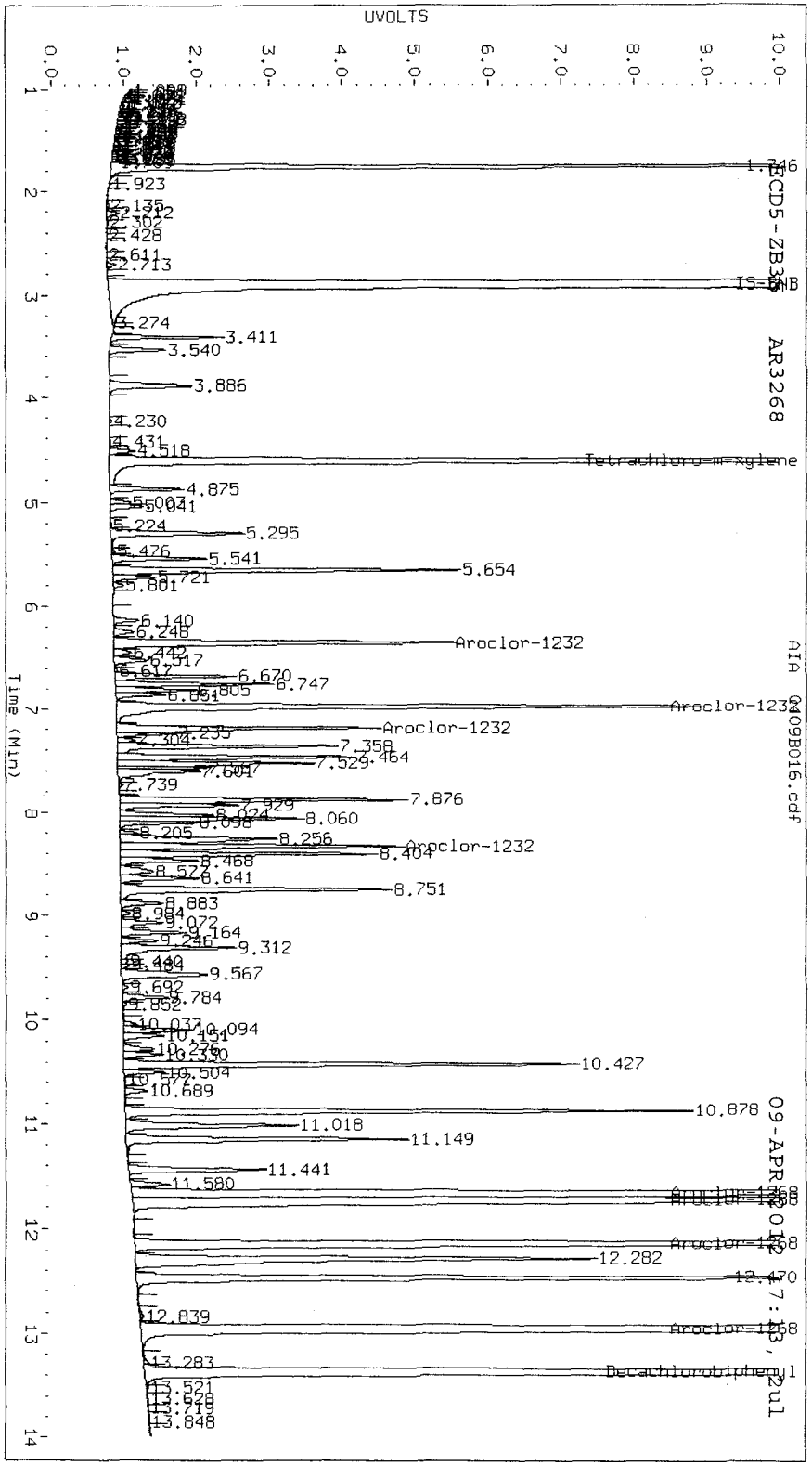
Decachlorobiphenyl
IS-HBBP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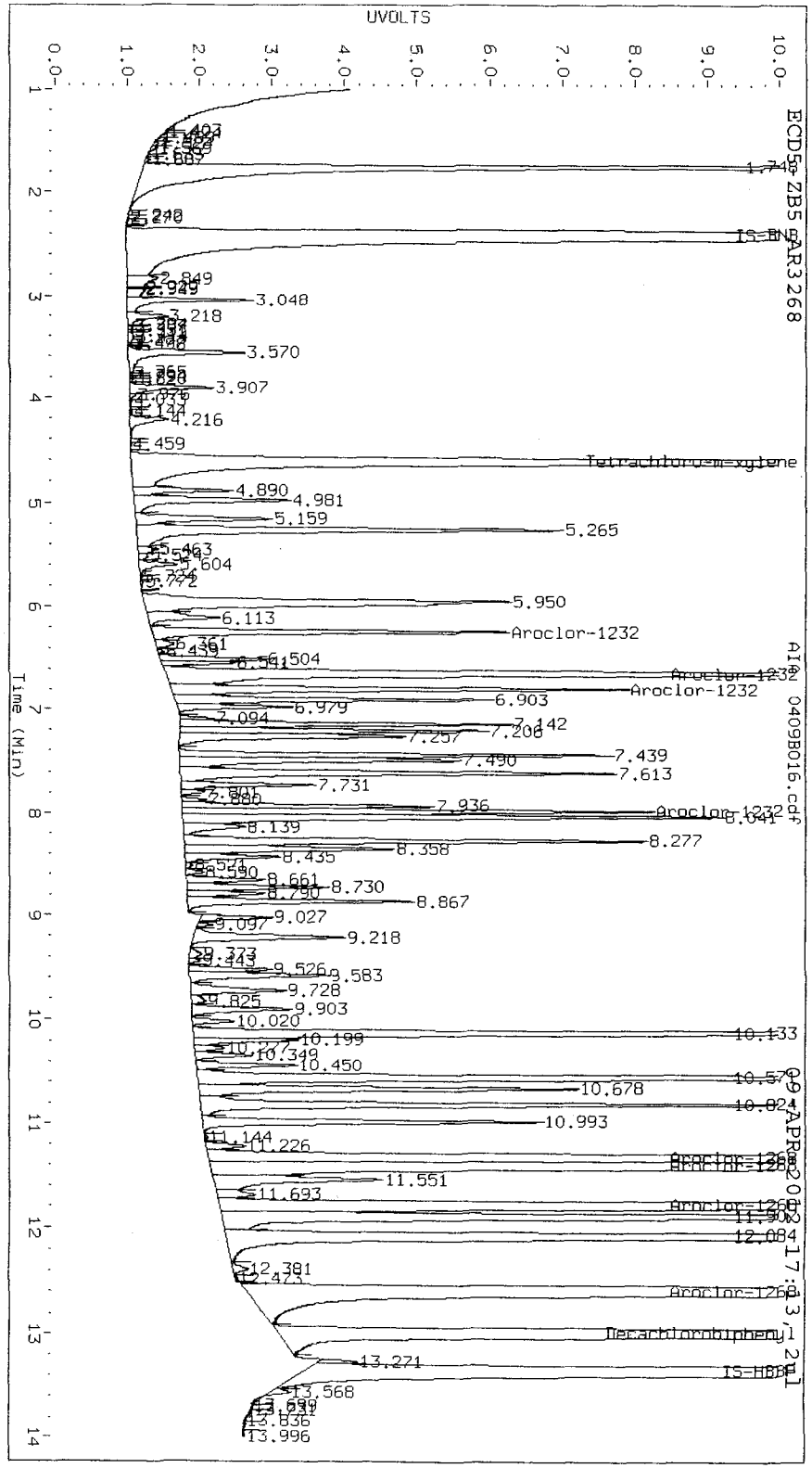
AIA
0409B016.cdf
09-APR
17:13,
2ul
IS-HBB
Tetrachloro-m-xylene
Aroclor-1232
Decachlorobiphenyl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AIA
0409B016.cdf
09-APR
17:13,
2ul
IS-HBB
Tetrachloro-m-xylene
Aroclor-1232
Decachlorobiphenyl

UR93:00161

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B017.d
Data file 2: 20120409.B/ical-2.b/0409B017.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 ICV
Client ID:
Injection Date: 09-APR-2012 17:33
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	0.000	46559375	4.608	-0.001	28834109	19.3	19.9	3.2	Tetrachloro-m-xylene
12.996	-0.001	57072566	13.371	-0.001	21205900	16.7	16.7	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	48.3	49.8
Decachlorobiphenyl	41.7	41.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	148393118	5.8
Hexabromobiphenyl	198372884	209434075	5.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	106029663	3.4
Hexabromobiphenyl	81487087	86559412	6.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.244	0.000	13841501	221.9	1	6.348	-0.001	12332780	225.4
Aroclor-1016	2	6.644	0.000	44589323	222.5	2	6.974	-0.001	26018334	226.1
Aroclor-1016	3	6.793	0.000	18168790	221.7	3	7.357	-0.001	6743207	226.1
Aroclor-1016	4	6.903	-0.001	13022801	224.4	4	7.464	0.000	7216814	221.1
Total Col1Ave (4 peaks):				222.6		Total Col2Ave (4 peaks):			224.7	RPD = 1
Corrected Ave (3 peaks):				222.0		Corrected Ave (3 peaks):			224.2	RPD = 1
Aroclor-1221	1	4.890	0.001	1718394	244.4	1	5.296	0.001	1456134	89.0
Aroclor-1221	2	5.159	-0.001	2562174	145.9	2	5.541	-0.001	1228360	128.1
Aroclor-1221	3	5.264	-0.001	10507656	182.8	3	5.653	-0.001	5641540	189.7
Aroclor-1221	NS	---			----	4	5.720	-0.003	408579	76.5
Total Col1Ave (3 peaks):				191.0		Total Col2Ave (4 peaks):			120.8	RPD = 45*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			97.9	
Aroclor-1232	1	6.244	0.000	13841501	540.8	1	6.348	0.000	12332780	500.5
Aroclor-1232	2	6.644	0.001	44589323	539.8	2	6.974	0.000	26018334	539.8
Aroclor-1232	3	6.793	0.000	18168790	536.3	3	7.183	0.000	10428895	632.2
Aroclor-1232	4	7.986	0.000	2953558	95.0	4	8.328	0.000	1613879	94.5
Total Col1Ave (4 peaks):				428.0		Total Col2Ave (4 peaks):			441.8	RPD = 3
Corrected Ave (3 peaks):				390.4		Corrected Ave (3 peaks):			378.3	RPD = 3
Aroclor-1242	1	6.244	0.000	13841501	303.5	1	6.348	0.000	12332780	302.3
Aroclor-1242	2	6.644	0.000	44589323	303.6	2	6.974	-0.001	26018334	299.4
Aroclor-1242	3	6.793	0.000	18168790	304.3	3	7.183	0.000	10428895	299.2
Aroclor-1242	4	7.986	0.001	2953558	55.8	4	8.328	0.000	1613879	55.8
Total Col1Ave (4 peaks):				241.8		Total Col2Ave (4 peaks):			239.2	RPD = 1
Corrected Ave (3 peaks):				221.0		Corrected Ave (3 peaks):			218.1	RPD = 1
Aroclor-1248	1	6.644	0.003	44589323	462.7	1	6.974	0.004	26018334	467.3
Aroclor-1248	2	7.440	0.000	13335901	179.4	2	7.876	0.000	8314170	193.5
Aroclor-1248	3	7.986	0.001	2953558	32.5	3	8.328	0.000	1613879	32.3
Aroclor-1248	4	8.281	0.004	1711954	18.9	4	8.750	-0.001	418572	7.6
Total Col1Ave (4 peaks):				173.4		Total Col2Ave (4 peaks):			175.2	RPD = 1
Corrected Ave (3 peaks):				76.9		Corrected Ave (3 peaks):			77.8	RPD = 1
Aroclor-1254	1	8.361	0.002	11181597	79.0	1	8.468	0.000	4399943	105.1
Aroclor-1254	2	8.731	0.000	1577387	17.1	2	8.641	-0.001	4532685	85.4
Aroclor-1254	3	8.862	-0.005	5666912	33.7	3	9.163	0.000	714738	17.4
Aroclor-1254	4	9.198	-0.019	31626258	186.1	4	9.354	0.040	11313701	129.2
Aroclor-1254	5	9.526	-0.052	47566477	415.0	5	10.107	0.010	4815542	91.1
Total Col1Ave (5 peaks):				146.2		Total Col2Ave (5 peaks):			85.6	RPD = 52*
Corrected Ave (4 peaks):				79.0		Corrected Ave (4 peaks):			74.8	RPD = 5
Aroclor-1260	1	10.450	0.000	29668026	256.8	1	10.426	-0.001	12304469	261.8
Aroclor-1260	2	10.825	0.001	70674573	248.3	2	10.877	0.000	14073258	236.8
Aroclor-1260	3	11.224	0.000	36386919	235.3	3	11.149	0.000	29611081	253.8
Aroclor-1260	4	11.341	0.001	17305177	252.4	4	11.671	0.001	8824878	256.6
Aroclor-1260	5	11.414	0.000	21393510	259.5	NS	---			----
Total Col1Ave (5 peaks):				250.5		Total Col2Ave (4 peaks):			252.2	RPD = 1
Corrected Ave (4 peaks):				248.2		Corrected Ave (3 peaks):			249.1	RPD = 0
Aroclor-1262	1	10.134	0.000	30327887	176.8	1	10.426	0.000	12304469	172.2
Aroclor-1262	2	10.450	0.000	29668026	233.9	2	10.877	-0.001	14073258	230.5
Aroclor-1262	3	10.825	0.001	70674573	210.7	3	11.149	0.001	29611081	214.2
Aroclor-1262	4	11.341	-0.001	17305177	141.2	4	11.671	0.000	8824878	159.3
Aroclor-1262	5	11.414	-0.001	21393510	155.0	5	12.470	0.001	8649077	162.5
Total Col1Ave (5 peaks):				183.5		Total Col2Ave (5 peaks):			187.8	RPD = 2
Corrected Ave (4 peaks):				170.9		Corrected Ave (4 peaks):			177.1	RPD = 4
Aroclor-1268	1	11.341	-0.001	17305177	49.5	1	11.671	-0.001	8824878	60.4
Aroclor-1268	2	11.414	0.001	21393510	62.2	2	11.731	-0.007	20080198	145.7

Aroclor-1268	3	11.816	0.016	9664457	32.3	3	12.136	0.000	274594	2.3
Aroclor-1268	4	12.588	-0.003	5192725	5.6	4	12.957	-0.001	1689297	4.7

Total Col1Ave (4 peaks): 37.4 Total Col2Ave (4 peaks): 53.3 RPD = 35

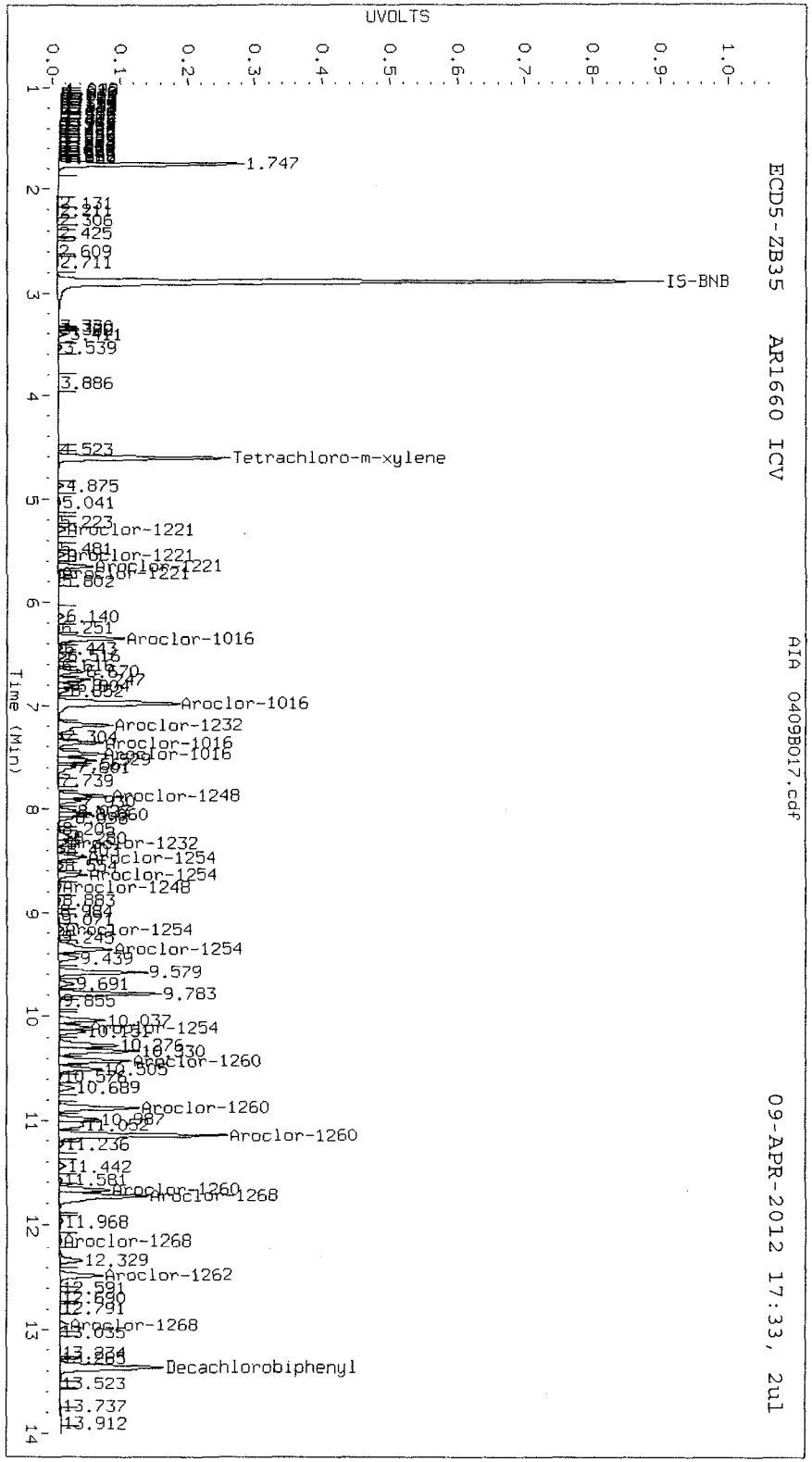
Corrected Ave (3 peaks): 29.2 Corrected Ave (3 peaks): 22.5 RPD = 26

Total PCB Area Col1 (4.710 - 12.897) = 781811026 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 357635888 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Aroclor-1232
Aroclor-1248
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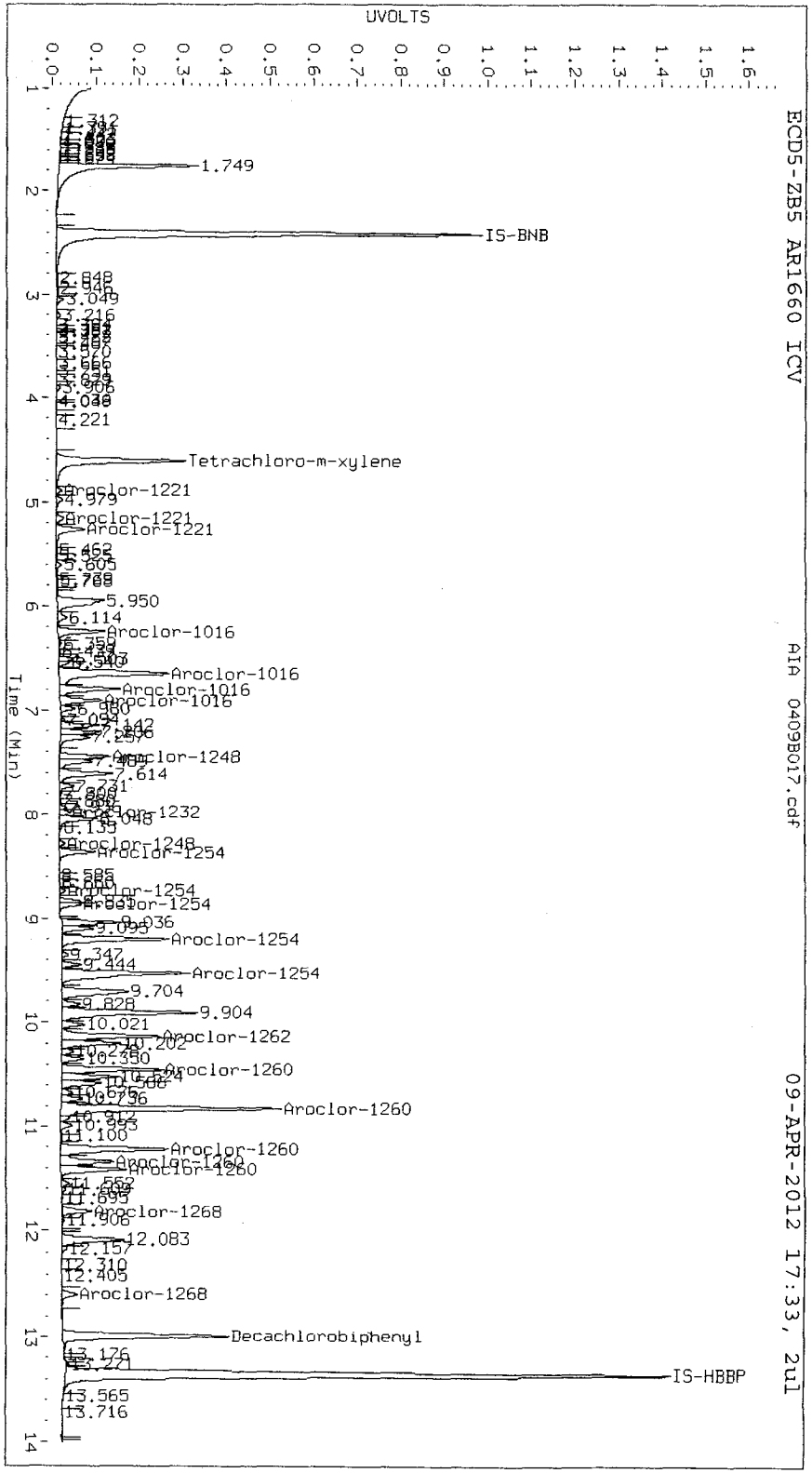
Decachlorobiphenyl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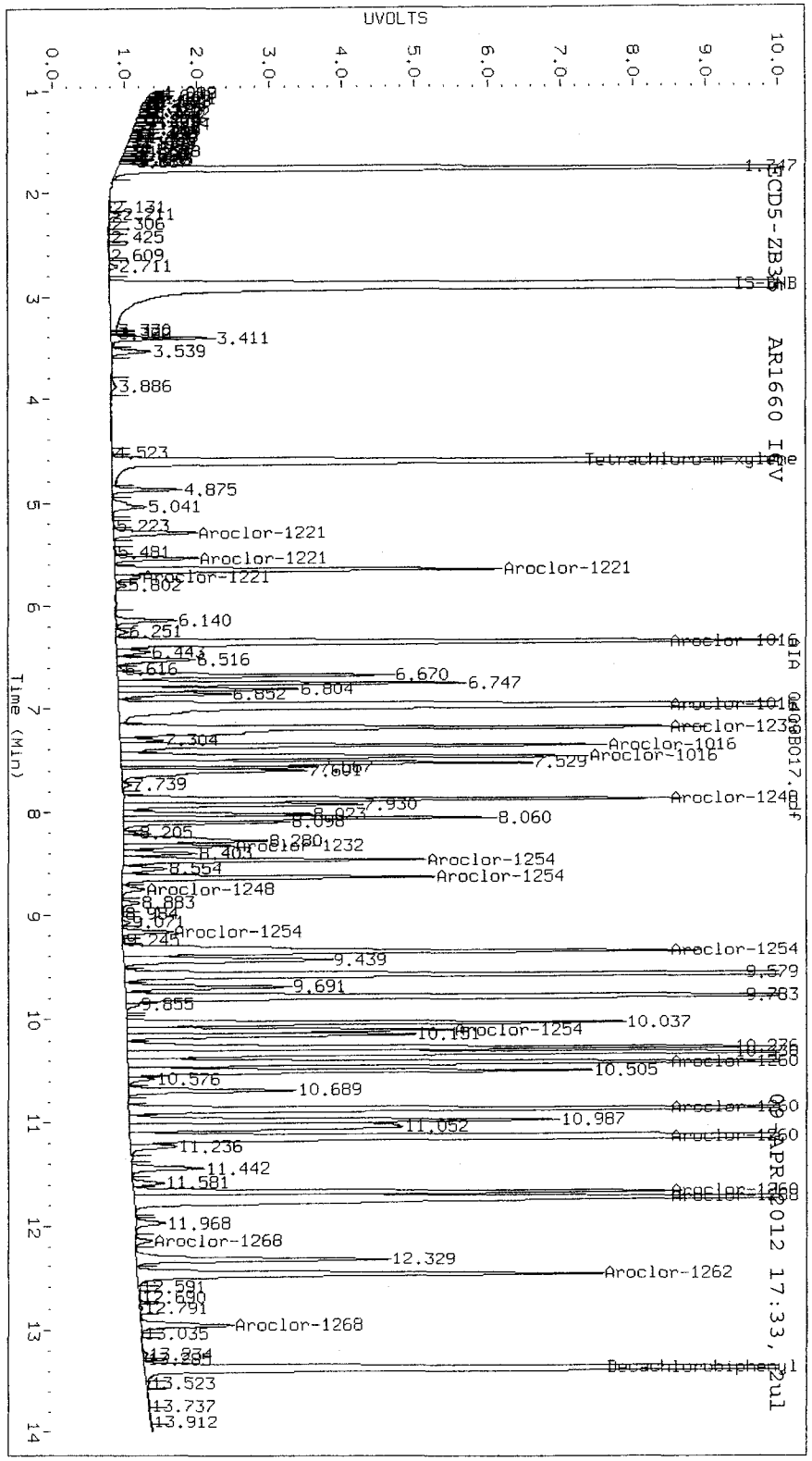
Decachlorobiphenyl
IS-HBBP

UR83:00165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AR1660 ICV
Tetrachloro-m-xylene
Decachlorobiphenyl
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Aroclor-1016
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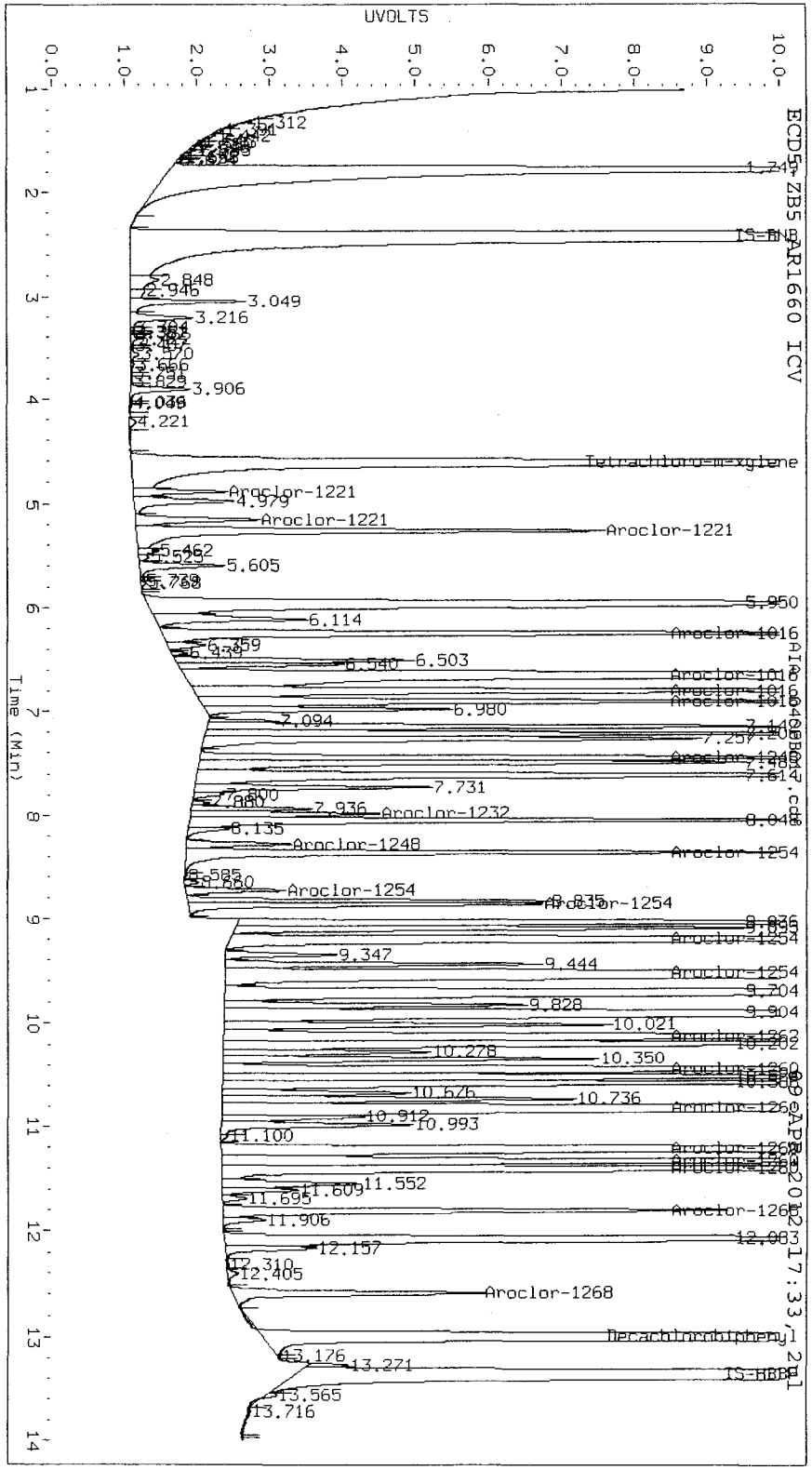
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Time (Min)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AR1660 ICV
Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B018.d
Data file 2: 20120409.B/ical-2.b/0409B018.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 ICV
Client ID:
Injection Date: 09-APR-2012 17:51
Ical Date: 09-APR-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
4.611	0.000	46456196	4.609	0.000	28798309	18.9	19.8	4.6	Tetrachloro-m-xylene
12.996	-0.001	56715053	13.370	-0.002	21138007	16.4	16.4	0.2	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.3	49.5
Decachlorobiphenyl	41.0	40.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	150992004	7.6
Hexabromobiphenyl	198372884	211822620	6.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	106481318	3.8
Hexabromobiphenyl	81487087	87952225	7.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.244	0.000	11212552	176.7	1	6.347	-0.001	10025813	182.4
Aroclor-1016	2	6.644	0.000	36157893	177.3	2	6.974	-0.001	20954143	181.3
Aroclor-1016	3	6.792	0.000	14750448	176.9	3	7.358	0.000	5417289	180.9
Aroclor-1016	4	6.903	0.000	10596060	179.4	4	7.464	0.000	6040450	184.2
Total Col1Ave (4 peaks):				177.6		Total Col2Ave (4 peaks):			182.2	RPD = 3
Corrected Ave (3 peaks):				177.0		Corrected Ave (3 peaks):			181.5	RPD = 3
Aroclor-1221	1	4.890	0.000	1829170	255.7	1	5.297	0.002	1216772	74.0
Aroclor-1221	2	5.159	-0.001	2144635	120.0	2	5.541	-0.001	967701	100.5
Aroclor-1221	3	5.264	-0.001	8407343	143.7	3	5.654	-0.001	4526786	151.6
Aroclor-1221	NS	---			----	4	5.720	-0.002	324491	60.5
Total Col1Ave (3 peaks):				173.1		Total Col2Ave (4 peaks):			96.7	RPD = 57*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			78.3	
Aroclor-1232	1	6.244	0.000	11212552	430.6	1	6.347	0.000	10025813	405.1
Aroclor-1232	2	6.644	0.001	36157893	430.2	2	6.974	0.000	20954143	432.9
Aroclor-1232	3	6.792	0.000	14750448	427.9	3	7.183	0.000	8407620	507.5
Aroclor-1232	4	7.985	0.000	12615069	398.9	4	8.328	0.000	6708115	391.1
Total Col1Ave (4 peaks):				421.9		Total Col2Ave (4 peaks):			434.2	RPD = 3
Corrected Ave (3 peaks):				419.0		Corrected Ave (3 peaks):			409.7	RPD = 2
Aroclor-1242	1	6.244	0.000	11212552	241.6	1	6.347	0.000	10025813	244.7
Aroclor-1242	2	6.644	0.000	36157893	242.0	2	6.974	-0.001	20954143	240.1
Aroclor-1242	3	6.792	0.000	14750448	242.8	3	7.183	0.000	8407620	240.2
Aroclor-1242	4	7.985	0.000	12615069	234.2	4	8.328	0.000	6708115	230.8
Total Col1Ave (4 peaks):				240.1		Total Col2Ave (4 peaks):			239.0	RPD = 0
Corrected Ave (3 peaks):				239.3		Corrected Ave (3 peaks):			237.0	RPD = 1
Aroclor-1248	1	6.644	0.003	36157893	368.8	1	6.974	0.005	20954143	374.7
Aroclor-1248	2	7.440	0.000	11142415	147.3	2	7.876	0.000	7329047	169.9
Aroclor-1248	3	7.985	0.000	12615069	136.5	3	8.328	0.000	6708115	133.8
Aroclor-1248	4	8.276	0.000	13718018	149.0	4	8.751	0.000	7708297	139.5
Total Col1Ave (4 peaks):				200.4		Total Col2Ave (4 peaks):			204.5	RPD = 2
Corrected Ave (3 peaks):				144.3		Corrected Ave (3 peaks):			147.7	RPD = 2
Aroclor-1254	1	8.358	-0.001	7624485	52.9	1	8.468	0.000	2110607	50.2
Aroclor-1254	2	8.731	0.000	4711067	50.3	2	8.641	-0.001	2183676	41.0
Aroclor-1254	3	8.867	0.001	7685472	44.9	3	9.163	-0.001	2042987	49.6
Aroclor-1254	4	9.220	0.004	6143293	35.5	4	9.313	-0.002	3534171	40.2
Aroclor-1254	5	9.583	0.005	5338736	45.8	5	10.093	-0.004	2237127	42.2
Total Col1Ave (5 peaks):				45.9		Total Col2Ave (5 peaks):			44.6	RPD = 3
Corrected Ave (4 peaks):				44.1		Corrected Ave (4 peaks):			43.2	RPD = 2
Aroclor-1260	1	10.449	-0.001	188421	1.6	1	10.424	-0.003	65595	1.4
Aroclor-1260	2	10.823	-0.001	473903	1.6	2	10.871	-0.006	471836	7.8
Aroclor-1260	3	11.225	0.000	421098	2.7	3	11.148	-0.001	244083	2.1
Aroclor-1260	4	11.337	-0.003	110351	1.6	4	11.669	-0.001	103125	3.0
Aroclor-1260	5	11.415	0.001	86285	1.0	NS	---			----
Total Col1Ave (5 peaks):				1.7		Total Col2Ave (4 peaks):			3.5	RPD = 70*
Corrected Ave (4 peaks):				1.5		Corrected Ave (3 peaks):			2.1	RPD = 36
Aroclor-1262	1	10.130	-0.004	153949	0.9	1	10.424	-0.002	65595	0.9
Aroclor-1262	2	10.449	-0.001	188421	1.5	2	10.871	-0.007	471836	7.6
Aroclor-1262	3	10.823	-0.002	473903	1.4	3	11.148	0.000	244083	1.7
Aroclor-1262	4	11.337	-0.005	110351	0.9	4	11.669	-0.001	103125	1.8
Aroclor-1262	5	11.415	0.000	86285	0.6	5	12.512	0.043	266928	4.9
Total Col1Ave (5 peaks):				1.1		Total Col2Ave (5 peaks):			3.4	RPD = 106*
Corrected Ave (4 peaks):				0.9		Corrected Ave (4 peaks):			2.4	RPD = 85*
Aroclor-1268	1	11.337	-0.005	110351	0.3	1	11.669	-0.003	103125	0.7
Aroclor-1268	2	11.415	0.002	86285	0.2	2	11.729	-0.010	160690	1.1

Aroclor-1268	3	11.804	0.004	137709	0.5	3	12.140	0.004	55533	0.5
Aroclor-1268	4	12.581	-0.010	416284	0.4	4	12.958	0.001	73426	0.2

Total Col1Ave (4 peaks): 0.4 Total Col2Ave (4 peaks): 0.6 RPD = 52*

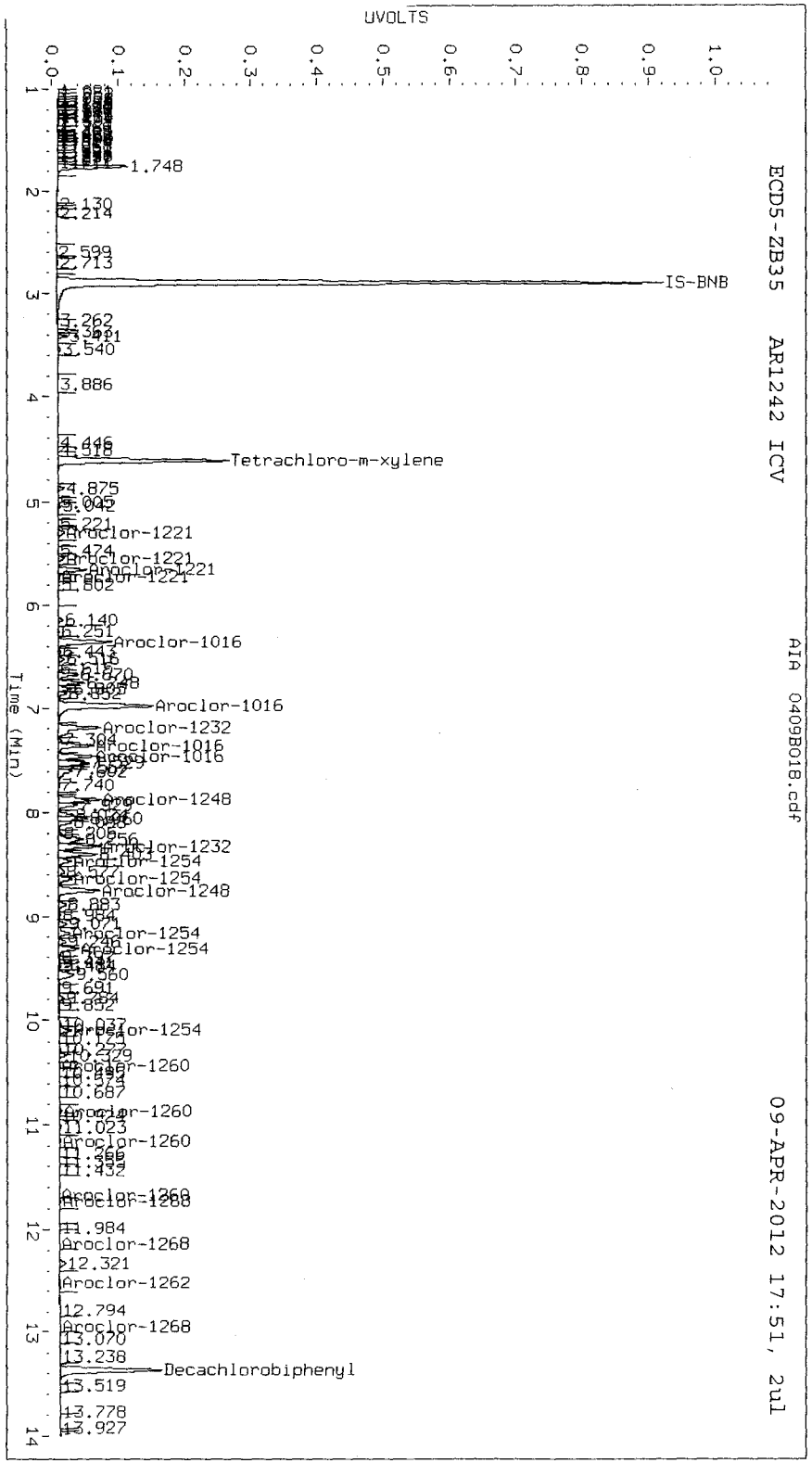
Corrected Ave (3 peaks): 0.3 Corrected Ave (3 peaks): 0.5 RPD = 29

Total PCB Area Col1 (4.710 - 12.897) = 296671480 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 154697270 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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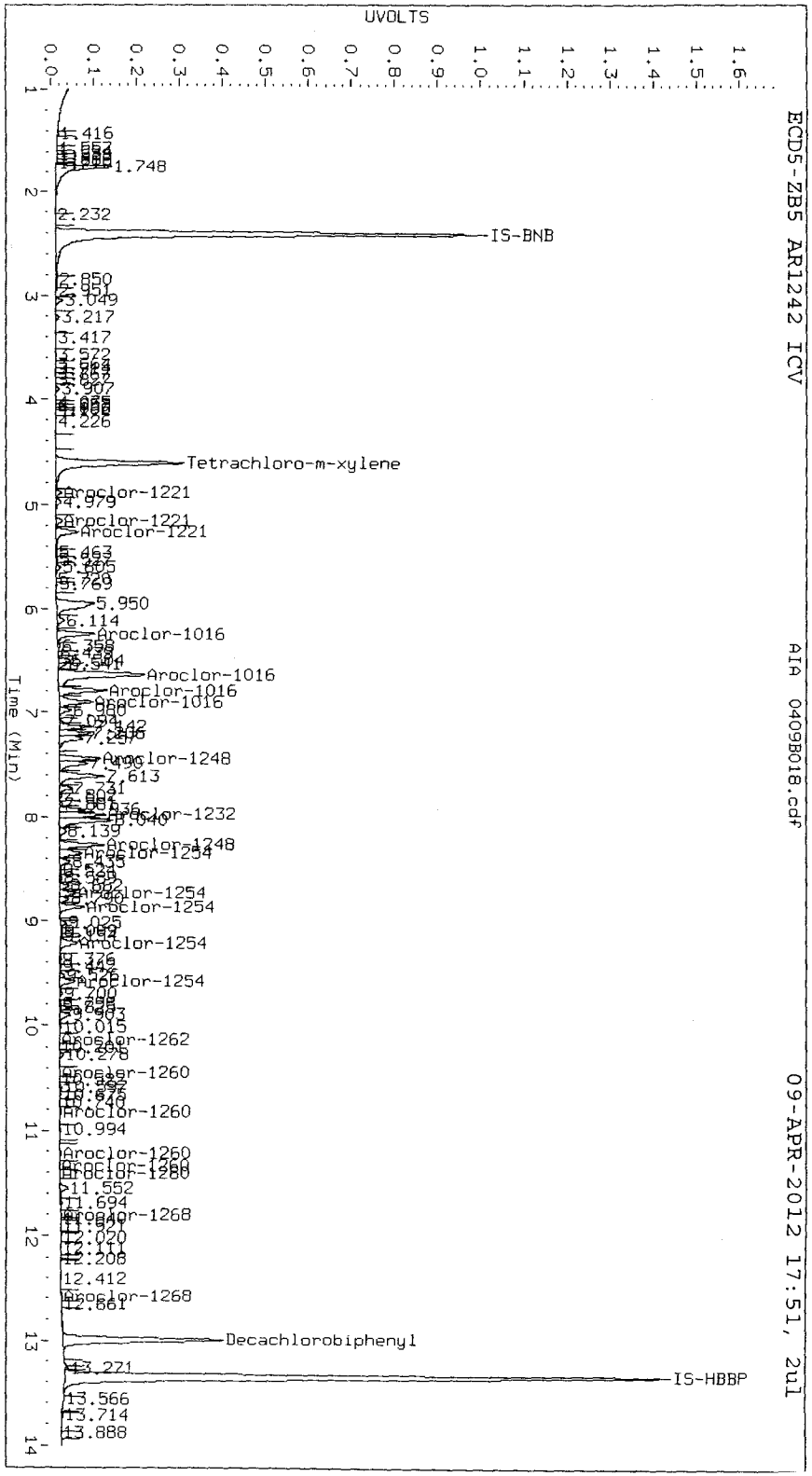
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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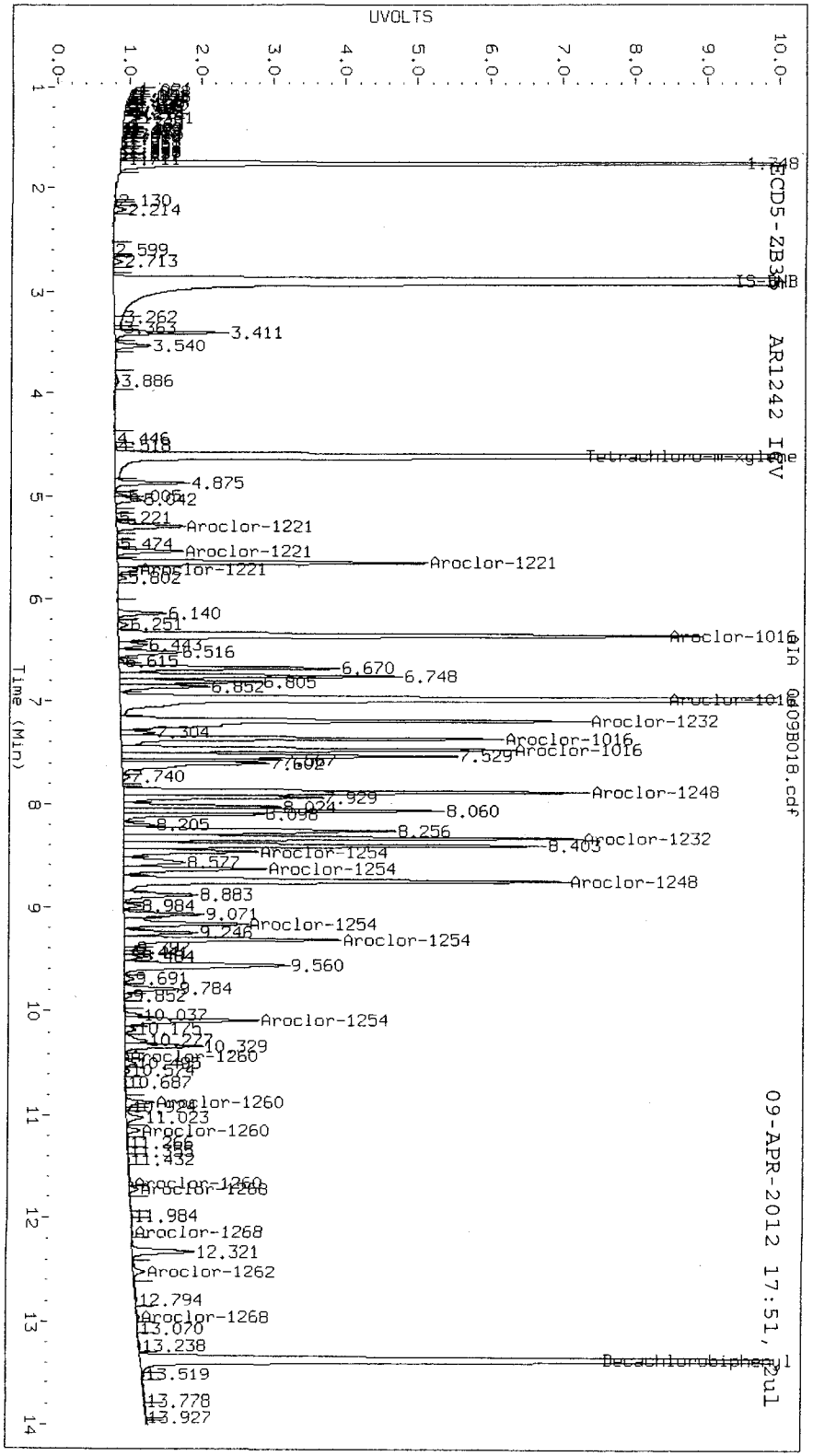
IS-HBBP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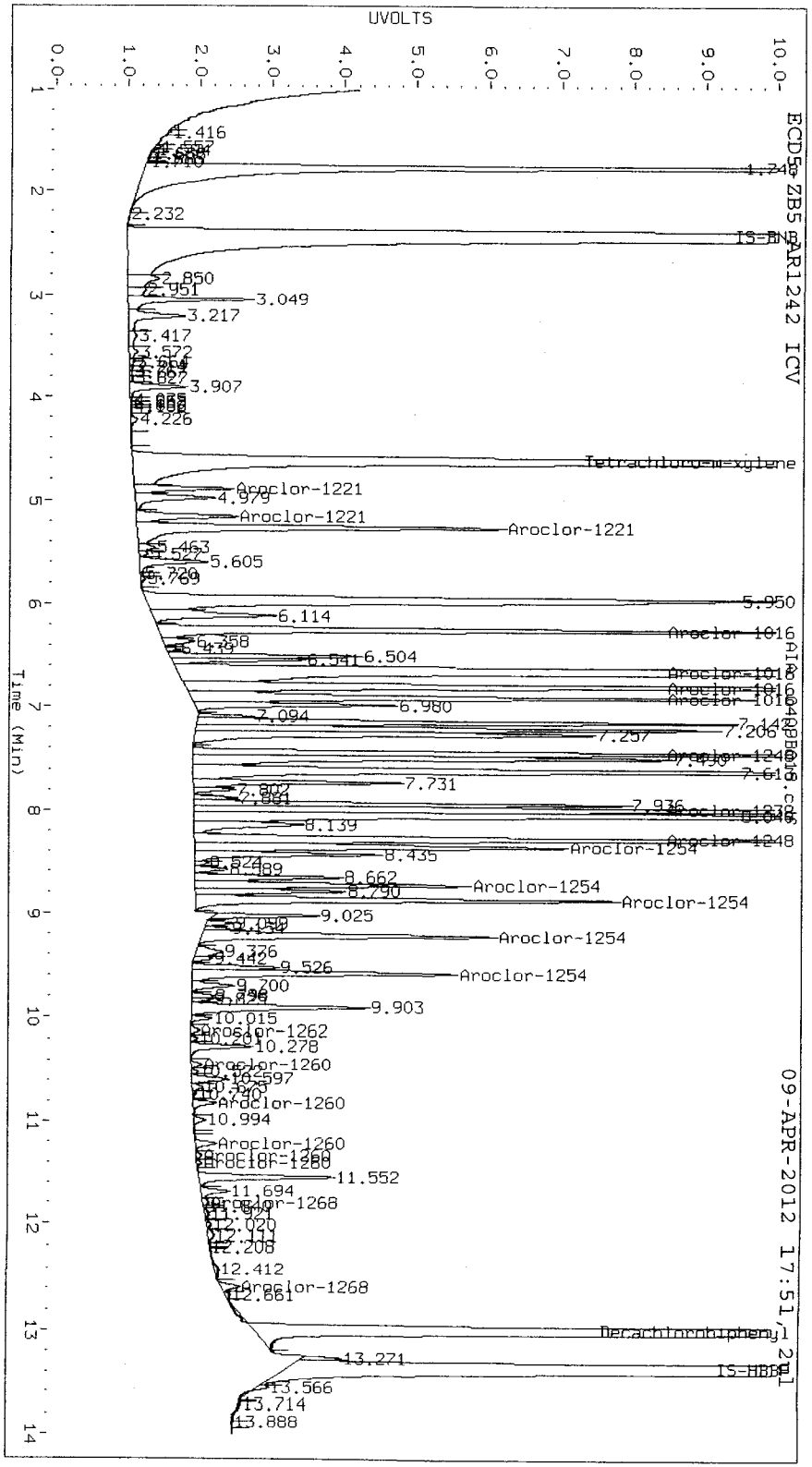
Aroclor-1268
Decachlorobiphenyl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Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B019.d
Data file 2: 20120409.B/ical-2.b/0409B019.d
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Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 ICV
Client ID:
Injection Date: 09-APR-2012 18:10
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	45961262	4.610	0.000	28824828	19.3	20.4	5.6	Tetrachloro-m-xylene
12.996	-0.001	56258788	13.372	0.001	21105903	16.7	16.7	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	48.2	51.0
Decachlorobiphenyl	41.8	41.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	146530415	4.4
Hexabromobiphenyl	198372884	206232813	4.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	103470567	0.9
Hexabromobiphenyl	81487087	85909573	5.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.244	0.000	5752835	93.4	1	6.346	-0.002	5353036	100.2
Aroclor-1016	2	6.641	-0.003	24468777	123.6	2	6.971	-0.004	14002493	124.7
Aroclor-1016	3	6.794	0.002	8946249	110.6	3	7.358	0.000	3043307	104.6
Aroclor-1016	4	6.902	-0.001	6269998	109.4	4	7.464	-0.001	9329732	292.8
Total Col1Ave (4 peaks):				109.3		Total Col2Ave (4 peaks):			155.6	RPD = 35
Corrected Ave (3 peaks):				104.5		Corrected Ave (3 peaks):			109.8	RPD = 5
Aroclor-1221	1	4.890	0.000	1767669	254.6	1	5.310	0.015	490148	30.7
Aroclor-1221	2	5.151	-0.010	825648	47.6	2	5.541	-0.001	175750	18.8
Aroclor-1221	3	5.264	-0.001	1814437	32.0	3	5.654	0.000	1049124	36.2
Aroclor-1221	NS	---			----	4	5.720	-0.002	52230	10.0
Total Col1Ave (3 peaks):				111.4		Total Col2Ave (4 peaks):			23.9	RPD = 129*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			19.8	
Aroclor-1232	1	6.244	0.000	5752835	227.6	1	6.346	-0.001	5353036	222.6
Aroclor-1232	2	6.641	-0.002	24468777	300.0	2	6.971	-0.003	14002493	297.7
Aroclor-1232	3	6.794	0.002	8946249	267.4	3	7.183	0.000	3462870	215.1
Aroclor-1232	4	7.985	0.000	21655648	705.5	4	8.328	0.000	11498932	689.9
Total Col1Ave (4 peaks):				375.2		Total Col2Ave (4 peaks):			356.3	RPD = 5
Corrected Ave (3 peaks):				265.0		Corrected Ave (3 peaks):			245.1	RPD = 8
Aroclor-1242	1	6.244	0.000	5752835	127.7	1	6.346	-0.001	5353036	134.5
Aroclor-1242	2	6.641	-0.003	24468777	168.7	2	6.971	-0.004	14002493	165.1
Aroclor-1242	3	6.794	0.002	8946249	151.7	3	7.183	0.000	3462870	101.8
Aroclor-1242	4	7.985	0.000	21655648	414.2	4	8.328	0.000	11498932	407.2
Total Col1Ave (4 peaks):				215.6		Total Col2Ave (4 peaks):			202.2	RPD = 6
Corrected Ave (3 peaks):				149.4		Corrected Ave (3 peaks):			133.8	RPD = 11
Aroclor-1248	1	6.641	0.000	24468777	257.1	1	6.971	0.001	14002493	257.7
Aroclor-1248	2	7.440	0.000	17687508	240.9	2	7.876	0.000	10113942	241.2
Aroclor-1248	3	7.985	0.000	21655648	241.5	3	8.328	0.000	11498932	236.0
Aroclor-1248	4	8.276	-0.001	20954404	234.5	4	8.749	-0.001	12502676	232.8
Total Col1Ave (4 peaks):				243.5		Total Col2Ave (4 peaks):			241.9	RPD = 1
Corrected Ave (3 peaks):				239.0		Corrected Ave (3 peaks):			236.7	RPD = 1
Aroclor-1254	1	8.358	-0.002	14228386	101.8	1	8.467	-0.001	3966035	97.1
Aroclor-1254	2	8.730	0.000	9093042	100.0	2	8.641	-0.001	4022114	77.7
Aroclor-1254	3	8.867	0.000	14520979	87.3	3	9.162	-0.001	4003750	100.0
Aroclor-1254	4	9.220	0.004	10511308	62.7	4	9.312	-0.002	6680473	78.1
Aroclor-1254	5	9.583	0.005	10269384	90.7	5	10.092	-0.005	4447692	86.3
Total Col1Ave (5 peaks):				88.5		Total Col2Ave (5 peaks):			87.8	RPD = 1
Corrected Ave (4 peaks):				85.2		Corrected Ave (4 peaks):			84.8	RPD = 0
Aroclor-1260	1	10.450	-0.001	440743	3.9	1	10.425	-0.002	223635	4.8
Aroclor-1260	2	10.824	-0.001	1083326	3.9	2	10.873	-0.004	590654	10.0
Aroclor-1260	3	11.224	0.000	463308	3.0	3	11.148	-0.002	467593	4.0
Aroclor-1260	4	11.340	0.000	433307	6.4	4	11.670	0.000	230436	6.8
Aroclor-1260	5	11.413	-0.001	433912	5.3	NS	---			----
Total Col1Ave (5 peaks):				4.5		Total Col2Ave (4 peaks):			6.4	RPD = 35
Corrected Ave (4 peaks):				4.0		Corrected Ave (3 peaks):			5.2	RPD = 25
Aroclor-1262	1	10.132	-0.002	557035	3.3	1	10.425	0.000	223635	3.2
Aroclor-1262	2	10.450	-0.001	440743	3.5	2	10.873	-0.005	590654	9.7
Aroclor-1262	3	10.824	-0.001	1083326	3.3	3	11.148	-0.001	467593	3.4
Aroclor-1262	4	11.340	-0.002	433307	3.6	4	11.670	0.000	230436	4.2
Aroclor-1262	5	11.413	-0.002	433912	3.2	5	12.510	0.041	386068	7.3
Total Col1Ave (5 peaks):				3.4		Total Col2Ave (5 peaks):			5.6	RPD = 49*
Corrected Ave (4 peaks):				3.3		Corrected Ave (4 peaks):			4.5	RPD = 30
Aroclor-1268	1	11.340	-0.002	433307	1.3	1	11.670	-0.002	230436	1.6
Aroclor-1268	2	11.413	0.000	433912	1.3	2	11.732	-0.007	298655	2.2

Aroclor-1268	3	11.814	0.014	293752	1.0	3	12.136	0.000	58434	0.5
Aroclor-1268	4	12.582	-0.009	486139	0.5	4	12.958	0.000	107940	0.3

Total Col1Ave (4 peaks): 1.0 Total Col2Ave (4 peaks): 1.1 RPD = 11

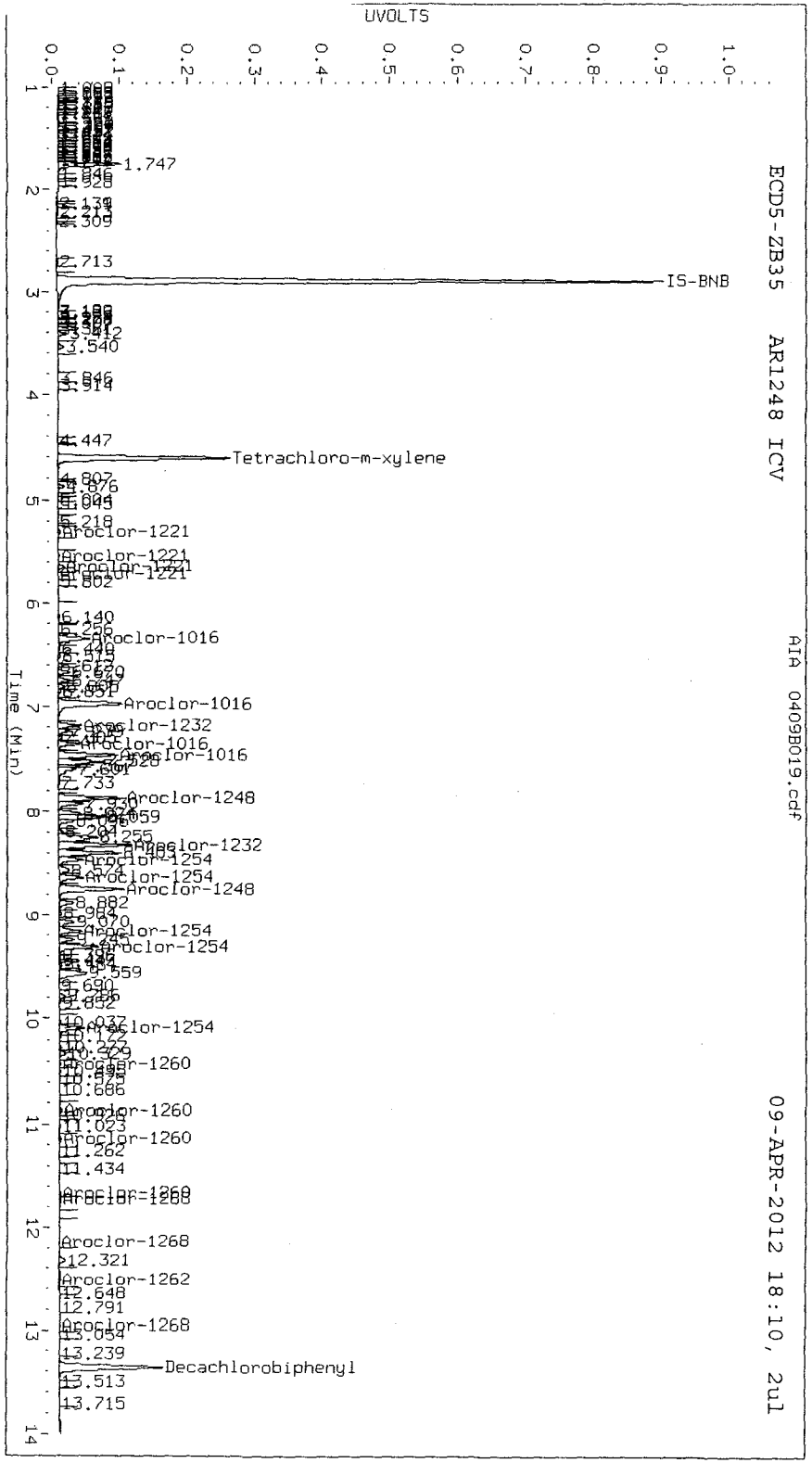
Corrected Ave (3 peaks): 0.9 Corrected Ave (3 peaks): 0.8 RPD = 16

Total PCB Area Col1 (4.710 - 12.897) = 349982196 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 175599399 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

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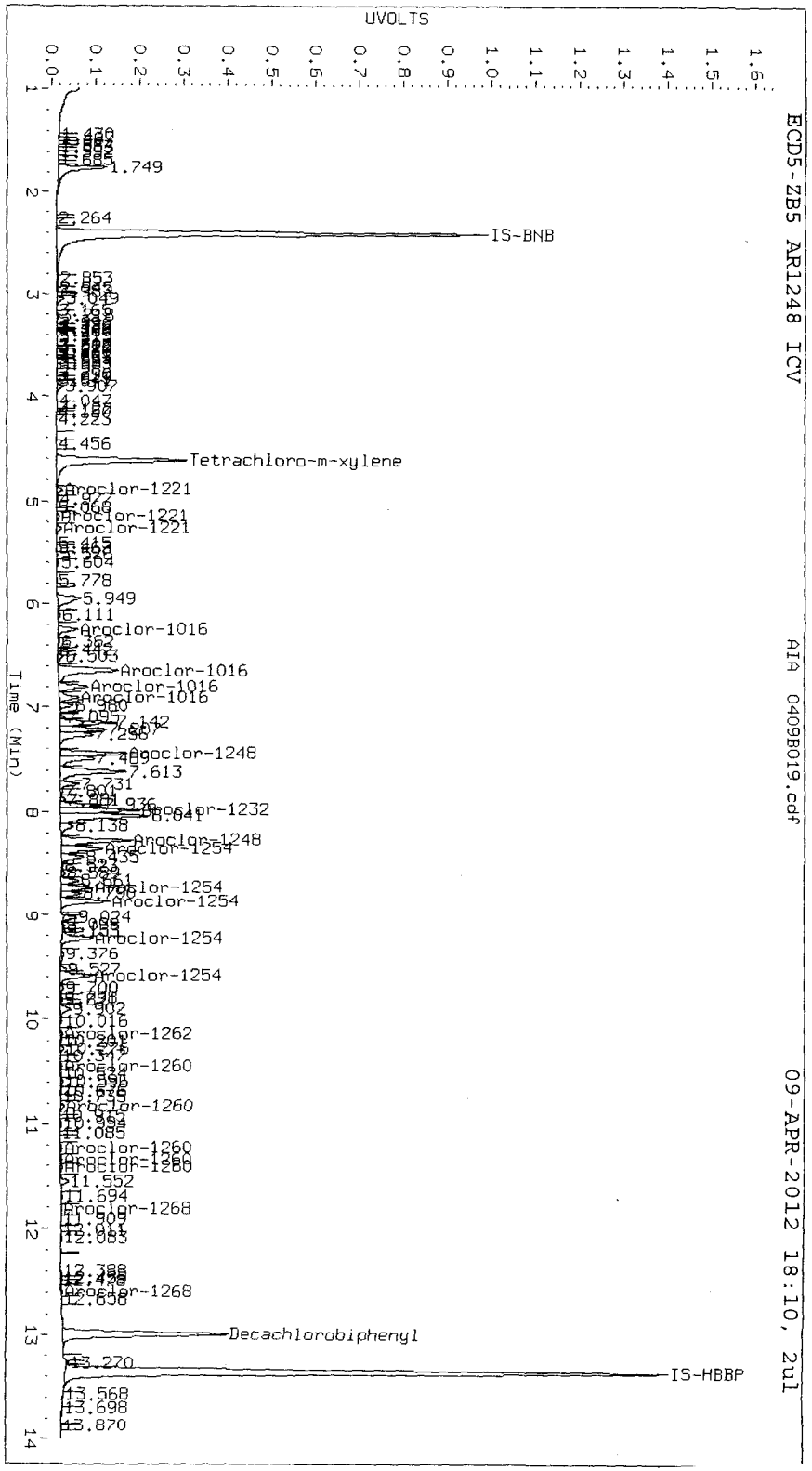
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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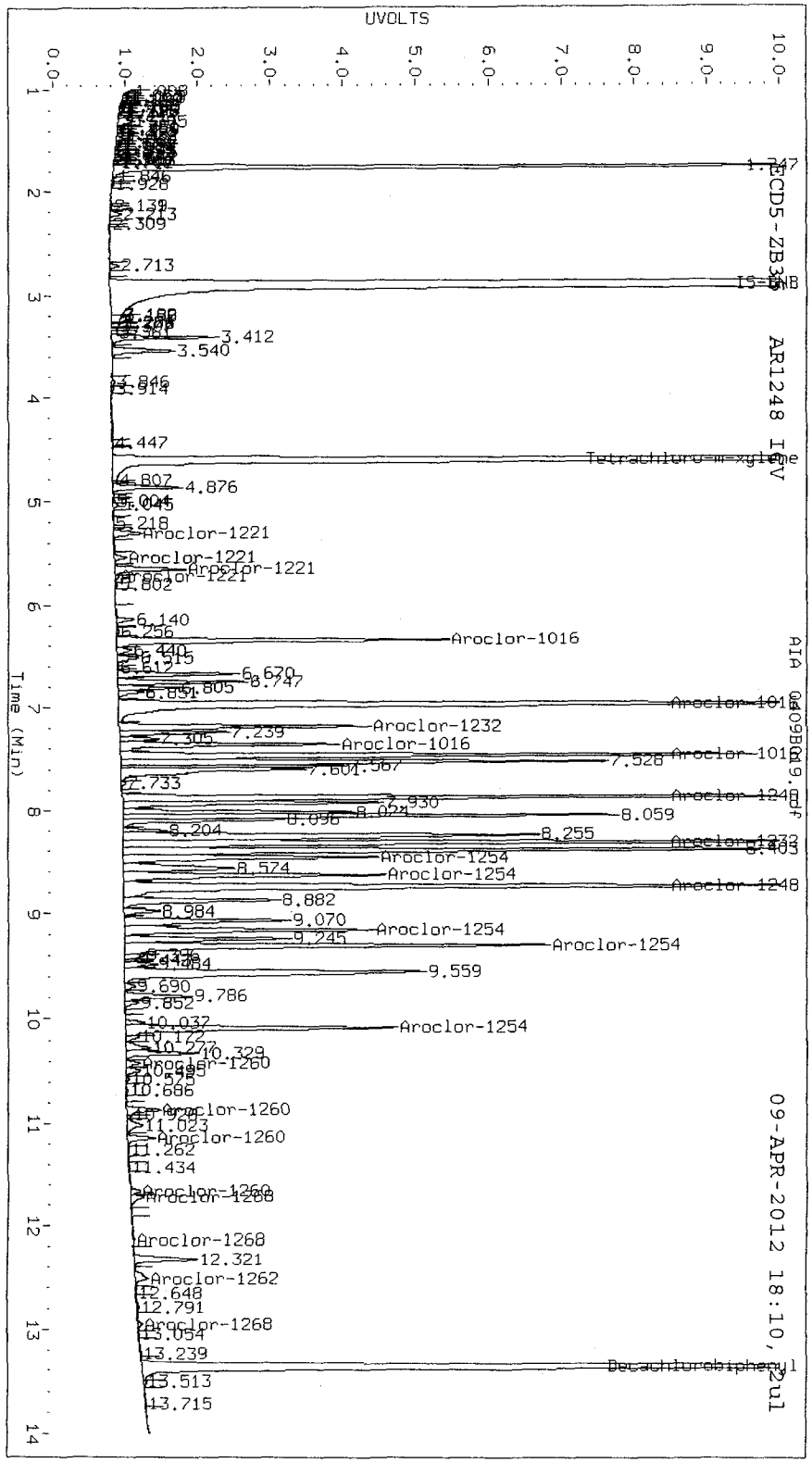
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP

UR93:00175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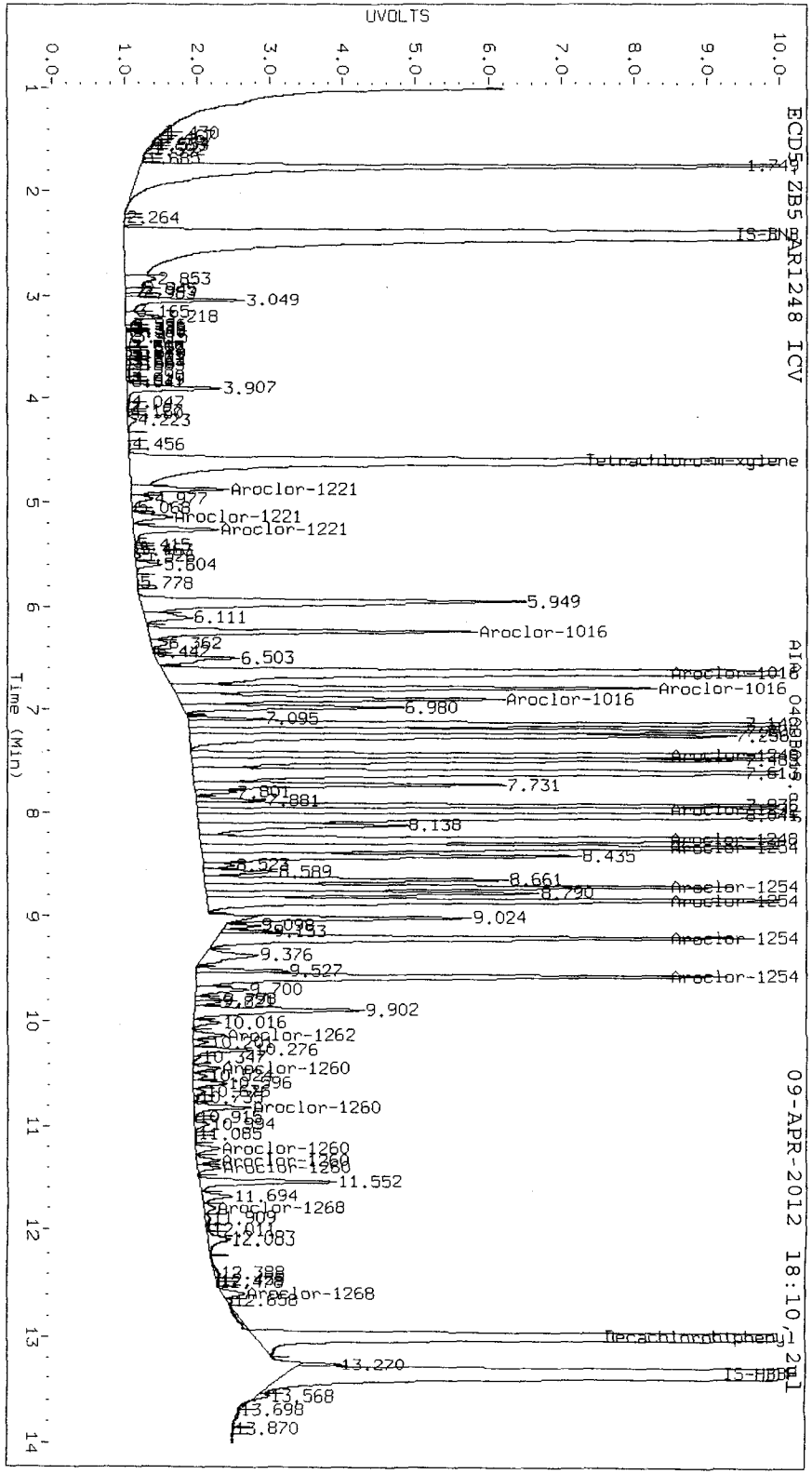
Aroclor-1016
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBL

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B020.d
Data file 2: 20120409.B/ical-2.b/0409B020.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 ICV
Client ID:
Injection Date: 09-APR-2012 18:29
Ical Date: 09-APR-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
4.611	0.000	52358155	4.610	0.001	33125264	22.4	23.7	5.9	Tetrachloro-m-xylene
12.996	-0.001	64710331	13.371	0.000	24059586	19.4	19.3	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	55.9	59.3
Decachlorobiphenyl	48.6	48.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	144073232	2.7
Hexabromobiphenyl	198372884	203974864	2.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	102344724	-0.2
Hexabromobiphenyl	81487087	84705746	3.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.244	0.000	302301	5.0	1	6.347	-0.002	310050	5.9
Aroclor-1016	2	6.635	-0.009	1133978	5.8	2	6.966	-0.009	581000	5.2
Aroclor-1016	3	6.799	0.006	604644	7.6	3	7.359	0.000	90225	3.1
Aroclor-1016	4	6.902	-0.001	299202	5.3	4	7.463	-0.002	7214555	228.9
Total Col1Ave (4 peaks):				5.9		Total Col2Ave (4 peaks):			60.8	RPD = 164*
Corrected Ave (3 peaks):				5.4		Corrected Ave (3 peaks):			4.7	RPD = 12
Aroclor-1221	1	4.890	0.000	2188077	320.5	1	5.313	0.018	423309	26.8
Aroclor-1221	2	5.146	-0.014	694783	40.8	2	5.544	0.002	24190	2.6
Aroclor-1221	3	5.263	-0.002	156571	2.8	3	5.657	0.003	186209	6.5
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				121.4		Total Col2Ave (3 peaks):			12.0	RPD = 164*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.244	0.000	302301	12.2	1	6.347	-0.001	310050	13.0
Aroclor-1232	2	6.635	-0.009	1133978	14.1	2	6.966	-0.008	581000	12.5
Aroclor-1232	3	6.799	0.006	604644	18.4	3	7.183	0.000	110064	6.9
Aroclor-1232	4	7.985	0.000	12677387	420.1	4	8.328	0.000	6757562	409.9
Total Col1Ave (4 peaks):				116.2		Total Col2Ave (4 peaks):			110.6	RPD = 5
Corrected Ave (3 peaks):				14.9		Corrected Ave (3 peaks):			10.8	RPD = 32
Aroclor-1242	1	6.244	0.000	302301	6.8	1	6.347	-0.001	310050	7.9
Aroclor-1242	2	6.635	-0.009	1133978	8.0	2	6.966	-0.009	581000	6.9
Aroclor-1242	3	6.799	0.006	604644	10.4	3	7.183	0.000	110064	3.3
Aroclor-1242	4	7.985	0.000	12677387	246.6	4	8.328	0.000	6757562	241.9
Total Col1Ave (4 peaks):				68.0		Total Col2Ave (4 peaks):			65.0	RPD = 4
Corrected Ave (3 peaks):				8.4		Corrected Ave (3 peaks):			6.0	RPD = 33
Aroclor-1248	1	6.635	-0.006	1133978	12.1	1	6.966	-0.004	581000	10.8
Aroclor-1248	2	7.439	-0.001	10136240	140.4	2	7.876	0.000	4199391	101.3
Aroclor-1248	3	7.985	0.000	12677387	143.8	3	8.328	0.000	6757562	140.2
Aroclor-1248	4	8.281	0.004	9110136	103.7	4	8.734	-0.016	7968248	150.0
Total Col1Ave (4 peaks):				100.0		Total Col2Ave (4 peaks):			100.6	RPD = 1
Corrected Ave (3 peaks):				85.4		Corrected Ave (3 peaks):			84.1	RPD = 2
Aroclor-1254	1	8.359	0.000	40795875	296.8	1	8.468	0.000	11955287	295.8
Aroclor-1254	2	8.731	0.000	26694469	298.6	2	8.641	-0.001	15302210	298.8
Aroclor-1254	3	8.866	0.000	48130470	294.4	3	9.163	-0.001	11808966	298.3
Aroclor-1254	4	9.216	-0.001	49097827	297.6	4	9.313	-0.001	24815474	293.5
Aroclor-1254	5	9.578	0.000	32970128	296.3	5	10.097	0.000	15037544	294.9
Total Col1Ave (5 peaks):				296.7		Total Col2Ave (5 peaks):			296.3	RPD = 0
Corrected Ave (4 peaks):				296.3		Corrected Ave (4 peaks):			295.6	RPD = 0
Aroclor-1260	1	10.450	0.000	3038424	27.0	1	10.425	-0.002	965676	21.0
Aroclor-1260	2	10.823	-0.001	7047721	25.4	2	10.871	-0.006	6667410	114.6
Aroclor-1260	3	11.224	-0.001	6967488	46.3	3	11.148	-0.001	3655275	32.0
Aroclor-1260	4	11.337	-0.003	333346	5.0	4	11.671	0.001	515489	15.3
Aroclor-1260	5	11.413	-0.001	353095	4.4	NS	---			----
Total Col1Ave (5 peaks):				21.6		Total Col2Ave (4 peaks):			45.7	RPD = 72*
Corrected Ave (4 peaks):				15.5		Corrected Ave (3 peaks):			22.8	RPD = 38
Aroclor-1262	1	10.131	-0.003	2326905	13.9	1	10.425	-0.001	965676	13.8
Aroclor-1262	2	10.450	-0.001	3038424	24.6	2	10.871	-0.006	6667410	111.6
Aroclor-1262	3	10.823	-0.001	7047721	21.6	3	11.148	0.000	3655275	27.0
Aroclor-1262	4	11.337	-0.004	333346	2.8	4	11.671	0.000	515489	9.5
Aroclor-1262	5	11.413	-0.001	353095	2.6	5	12.510	0.040	384944	7.4
Total Col1Ave (5 peaks):				13.1		Total Col2Ave (5 peaks):			33.9	RPD = 88*
Corrected Ave (4 peaks):				10.2		Corrected Ave (4 peaks):			14.4	RPD = 34
Aroclor-1268	1	11.337	-0.004	333346	1.0	1	11.671	-0.001	515489	3.6
Aroclor-1268	2	11.413	0.000	353095	1.1	2	11.728	-0.011	2510148	18.6

Aroclor-1268	3	11.817	0.017	275350	0.9	3	12.137	0.001	26351	0.2
Aroclor-1268	4	12.579	-0.012	367915	0.4	4	12.957	-0.001	50827	0.1

Total Col1Ave (4 peaks): 0.8 Total Col2Ave (4 peaks): 5.6 RPD = 148*

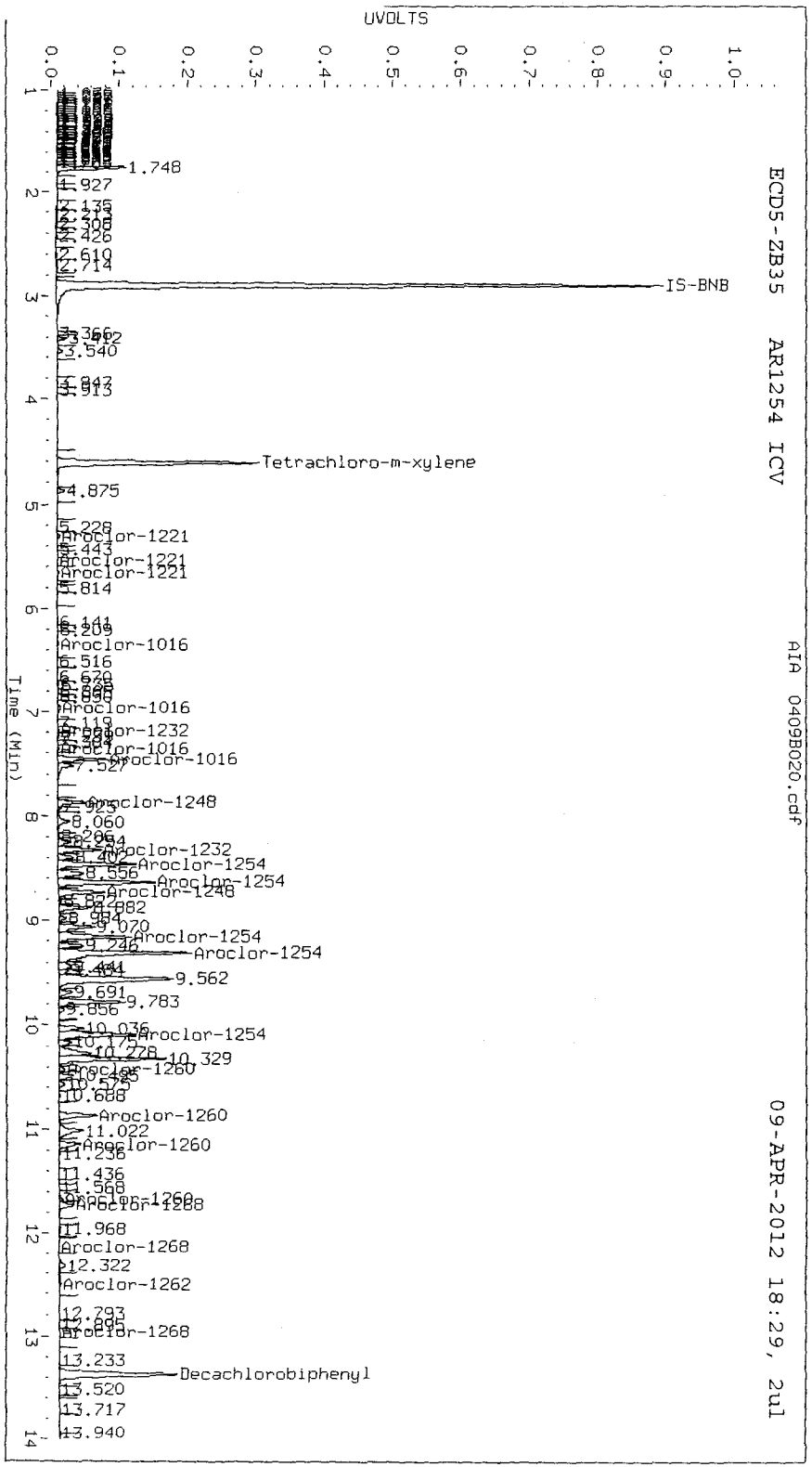
Corrected Ave (3 peaks): 0.8 Corrected Ave (3 peaks): 1.3 RPD = 52*

Total PCB Area Col1 (4.710 - 12.897) = 511303338 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 241931398 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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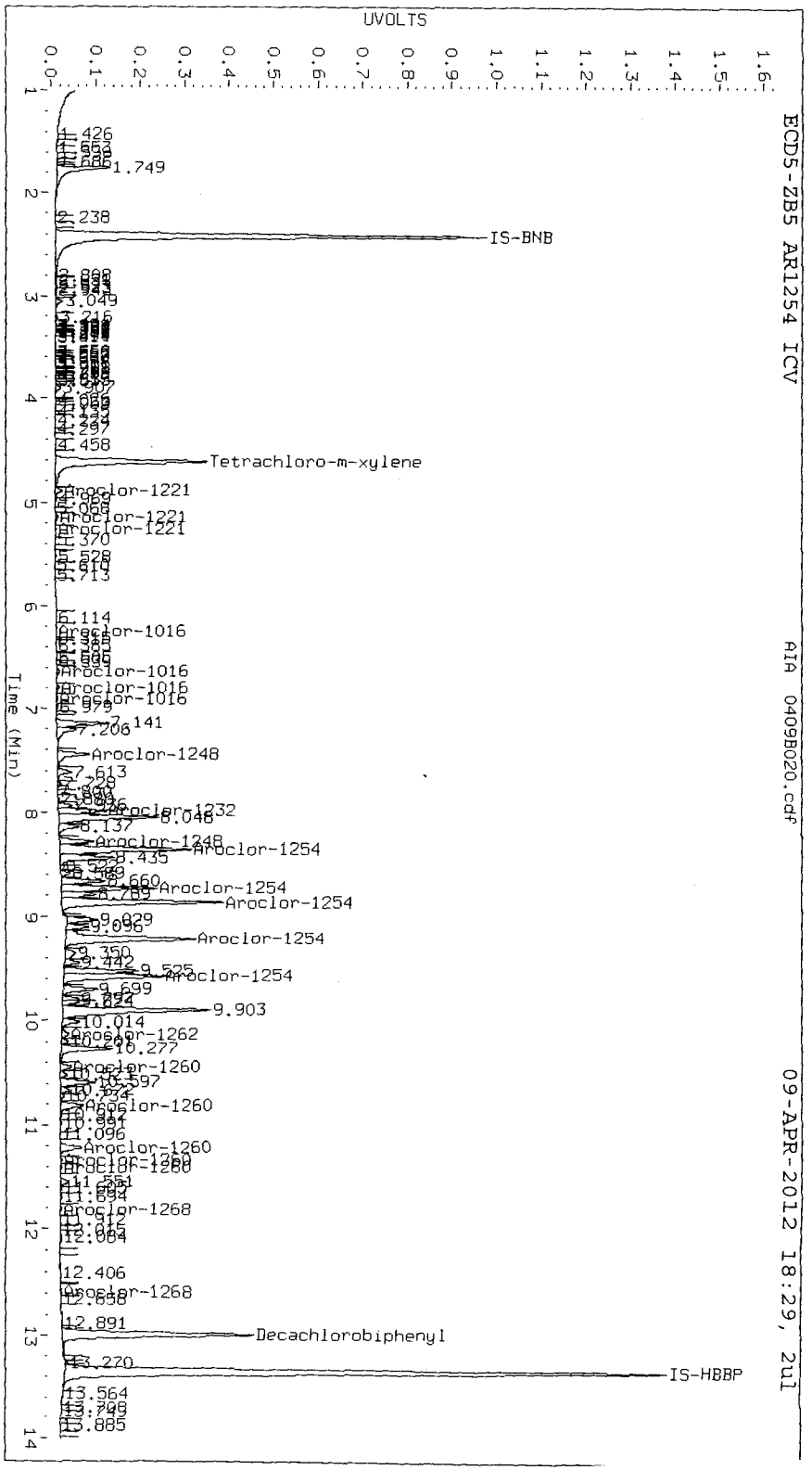
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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Tetrachloro-m-xylene
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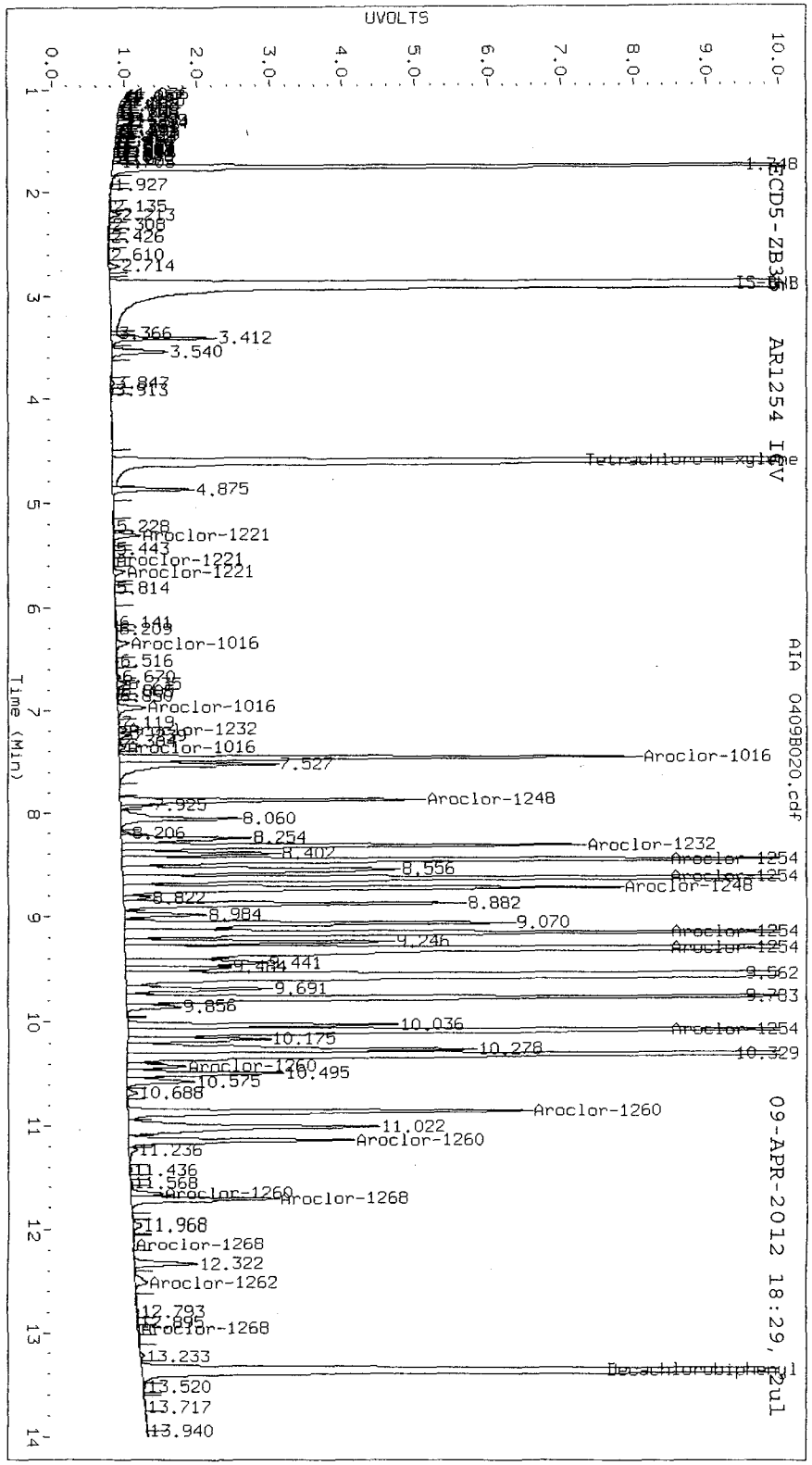
URS3:00180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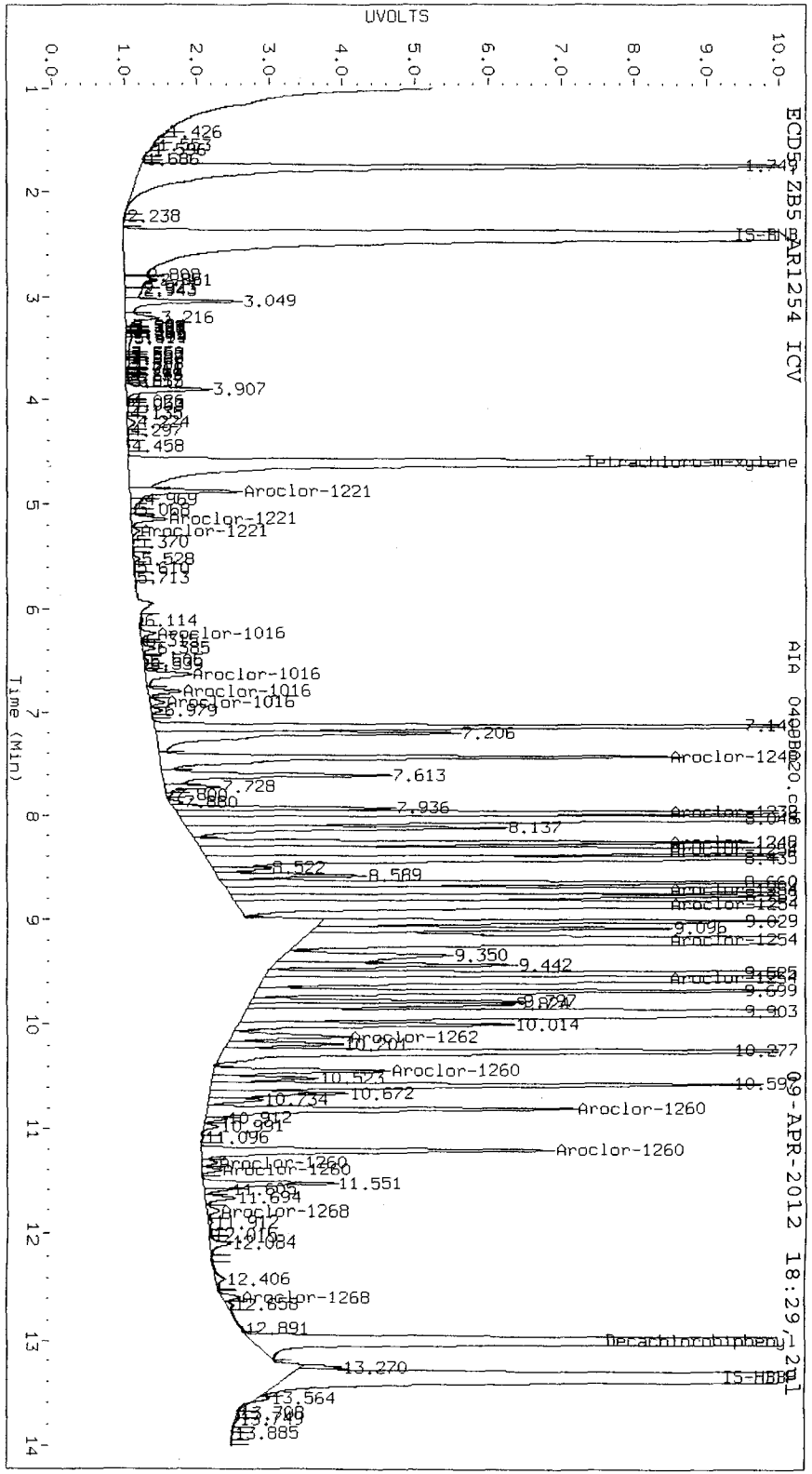
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1260
Aroclor-1262
Aroclor-1268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IS-HBBB
Aroclor-1221
Aroclor-1016
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Aroclor-1254
Aroclor-1260
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Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B021.d
Data file 2: 20120409.B/ical-2.b/0409B021.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 ICV
Client ID:
Injection Date: 09-APR-2012 18:48
Ical Date: 09-APR-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
4.609	-0.001	46359383	4.608	-0.002	28541184	19.4	20.5	5.3	Tetrachloro-m-xylene
12.996	-0.001	55499460	13.371	0.000	20693600	16.5	16.4	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	48.5	51.2
Decachlorobiphenyl	41.2	40.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	146899354	4.7
Hexabromobiphenyl	198372884	206305286	4.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	102109740	-0.5
Hexabromobiphenyl	81487087	86020581	5.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.243	-0.001	1462598	23.7	1	6.361	0.012	2343163	44.5
Aroclor-1016	2	6.644	0.000	3820308	19.3	2	6.975	0.000	2013507	18.2
Aroclor-1016	3	6.791	-0.001	1747429	21.5	3	7.357	-0.001	534261	18.6
Aroclor-1016	4	6.902	-0.001	1132661	19.7	4	7.463	-0.002	475010	15.1
Total Col1Ave (4 peaks):				21.1		Total Col2Ave (4 peaks):			24.1	RPD = 13
Corrected Ave (3 peaks):				20.2		Corrected Ave (3 peaks):			17.3	RPD = 15
Aroclor-1221	1	4.890	0.000	1712347	246.0	1	5.294	-0.001	4011705	254.5
Aroclor-1221	2	5.160	0.000	4438287	255.3	2	5.540	-0.002	2352107	254.7
Aroclor-1221	3	5.265	0.000	14675814	257.9	3	5.653	-0.001	7249255	253.2
Aroclor-1221	NS	---			----	4	5.721	-0.001	1313531	255.4
Total Col1Ave (3 peaks):				253.1		Total Col2Ave (4 peaks):			254.5	RPD = 1
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			254.1	
Aroclor-1232	1	6.243	0.000	1462598	57.7	1	6.361	0.013	2343163	98.7
Aroclor-1232	2	6.644	0.001	3820308	46.7	2	6.975	0.000	2013507	43.4
Aroclor-1232	3	6.791	-0.001	1747429	52.1	3	7.183	0.000	887665	55.9
Aroclor-1232	4	7.985	0.000	864996	28.1	4	8.329	0.000	483495	29.4
Total Col1Ave (4 peaks):				46.2		Total Col2Ave (4 peaks):			56.8	RPD = 21
Corrected Ave (3 peaks):				42.3		Corrected Ave (3 peaks):			42.9	RPD = 1
Aroclor-1242	1	6.243	0.000	1462598	32.4	1	6.361	0.013	2343163	59.6
Aroclor-1242	2	6.644	0.001	3820308	26.3	2	6.975	0.000	2013507	24.1
Aroclor-1242	3	6.791	-0.001	1747429	29.6	3	7.183	0.000	887665	26.4
Aroclor-1242	4	7.985	0.000	864996	16.5	4	8.329	0.000	483495	17.4
Total Col1Ave (4 peaks):				26.2		Total Col2Ave (4 peaks):			31.9	RPD = 20
Corrected Ave (3 peaks):				24.1		Corrected Ave (3 peaks):			22.6	RPD = 6
Aroclor-1248	1	6.644	0.004	3820308	40.0	1	6.975	0.005	2013507	37.5
Aroclor-1248	2	7.439	-0.001	831000	11.3	2	7.877	0.001	621841	15.0
Aroclor-1248	3	7.985	0.000	864996	9.6	3	8.329	0.000	483495	10.1
Aroclor-1248	4	8.279	0.003	1114743	12.4	4	8.745	-0.005	561190	10.6
Total Col1Ave (4 peaks):				18.4		Total Col2Ave (4 peaks):			18.3	RPD = 0
Corrected Ave (3 peaks):				11.1		Corrected Ave (3 peaks):			11.9	RPD = 7
Aroclor-1254	1	8.360	0.001	5668289	40.4	1	8.468	0.000	2000223	49.6
Aroclor-1254	2	8.730	-0.001	1056820	11.6	2	8.640	-0.002	2303703	45.1
Aroclor-1254	3	8.833	-0.034	7623081	45.7	3	9.163	-0.001	474589	12.0
Aroclor-1254	4	9.197	-0.019	25288935	150.4	4	9.353	0.038	9750380	115.6
Aroclor-1254	5	9.526	-0.053	34354050	302.8	5	10.107	0.010	2377782	46.7
Total Col1Ave (5 peaks):				110.2		Total Col2Ave (5 peaks):			53.8	RPD = 69*
Corrected Ave (4 peaks):				62.0		Corrected Ave (4 peaks):			38.4	RPD = 47*
Aroclor-1260	1	10.450	-0.001	35984893	316.2	1	10.425	-0.002	17422547	373.0
Aroclor-1260	2	10.824	0.000	76939835	274.4	2	10.876	0.000	17427800	295.1
Aroclor-1260	3	11.225	0.000	26966084	177.0	3	11.148	-0.001	31673912	273.1
Aroclor-1260	4	11.341	0.001	35411579	524.4	4	11.670	0.000	15693130	459.2
Aroclor-1260	5	11.414	-0.001	37118724	457.1	NS	---			----
Total Col1Ave (5 peaks):				349.8		Total Col2Ave (4 peaks):			350.1	RPD = 0
Corrected Ave (4 peaks):				306.2		Corrected Ave (3 peaks):			313.7	RPD = 2
Aroclor-1262	1	10.133	0.000	42049244	248.8	1	10.425	-0.001	17422547	245.4
Aroclor-1262	2	10.450	-0.001	35984893	288.1	2	10.876	-0.001	17427800	287.2
Aroclor-1262	3	10.824	0.000	76939835	232.9	3	11.148	0.000	31673912	230.6
Aroclor-1262	4	11.341	-0.001	35411579	293.3	4	11.670	-0.001	15693130	285.1
Aroclor-1262	5	11.414	-0.001	37118724	273.1	5	12.470	0.001	12917496	244.2
Total Col1Ave (5 peaks):				267.2		Total Col2Ave (5 peaks):			258.5	RPD = 3
Corrected Ave (4 peaks):				260.7		Corrected Ave (4 peaks):			251.3	RPD = 4
Aroclor-1268	1	11.341	-0.001	35411579	102.9	1	11.670	-0.002	15693130	108.0
Aroclor-1268	2	11.414	0.001	37118724	109.5	2	11.732	-0.007	22773679	166.3

Aroclor-1268	3	11.814	0.014	15425560	52.4	3	12.135	-0.001	1104054	9.4
Aroclor-1268	4	12.588	-0.003	13430304	14.8	4	12.955	-0.002	4771110	13.4

Total Col1Ave (4 peaks): 69.9 Total Col2Ave (4 peaks): 74.3 RPD = 6

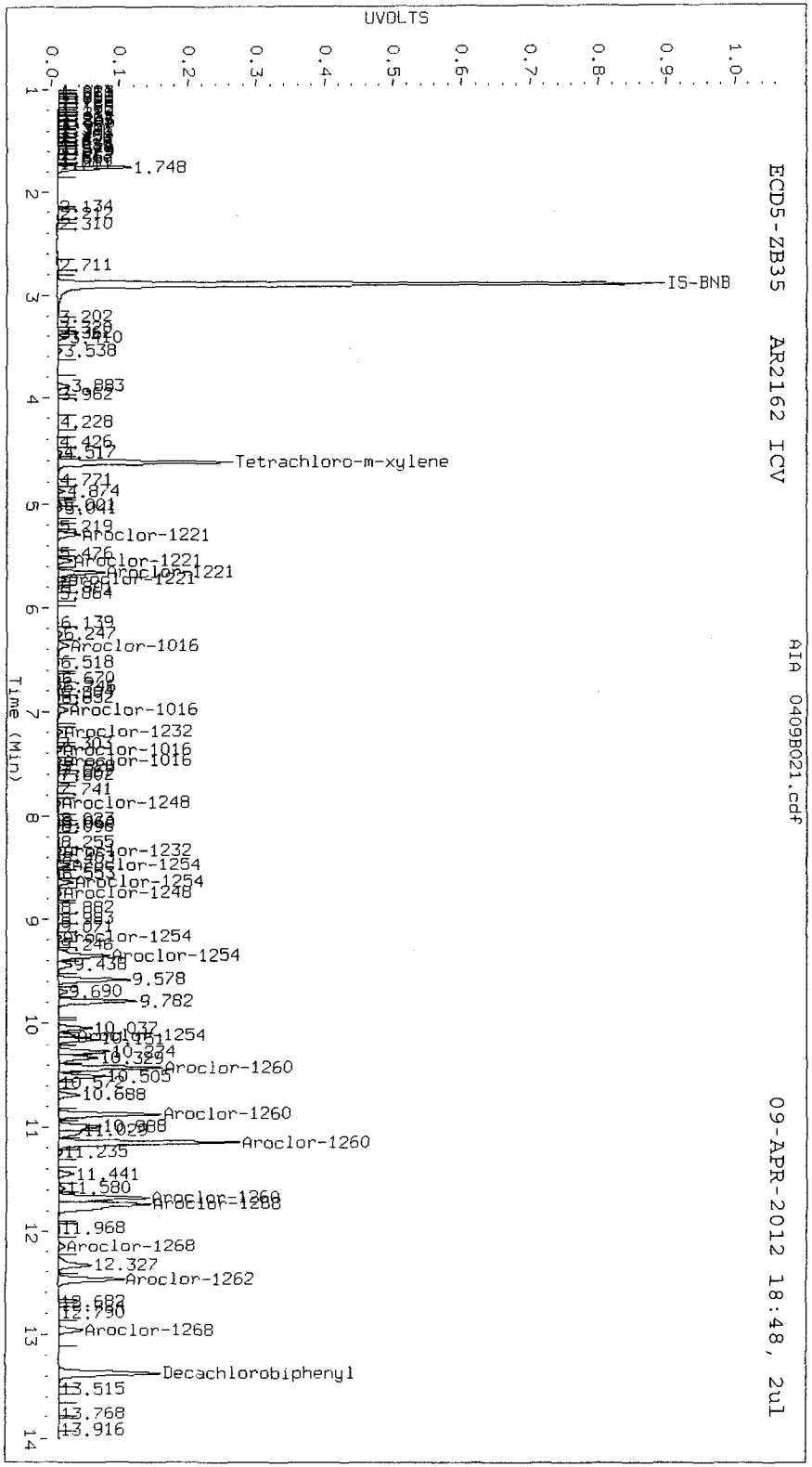
Corrected Ave (3 peaks): 56.7 Corrected Ave (3 peaks): 43.6 RPD = 26

Total PCB Area Col1 (4.710 - 12.897) = 623209838 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 264583517 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Tetrachloro-m-xylene
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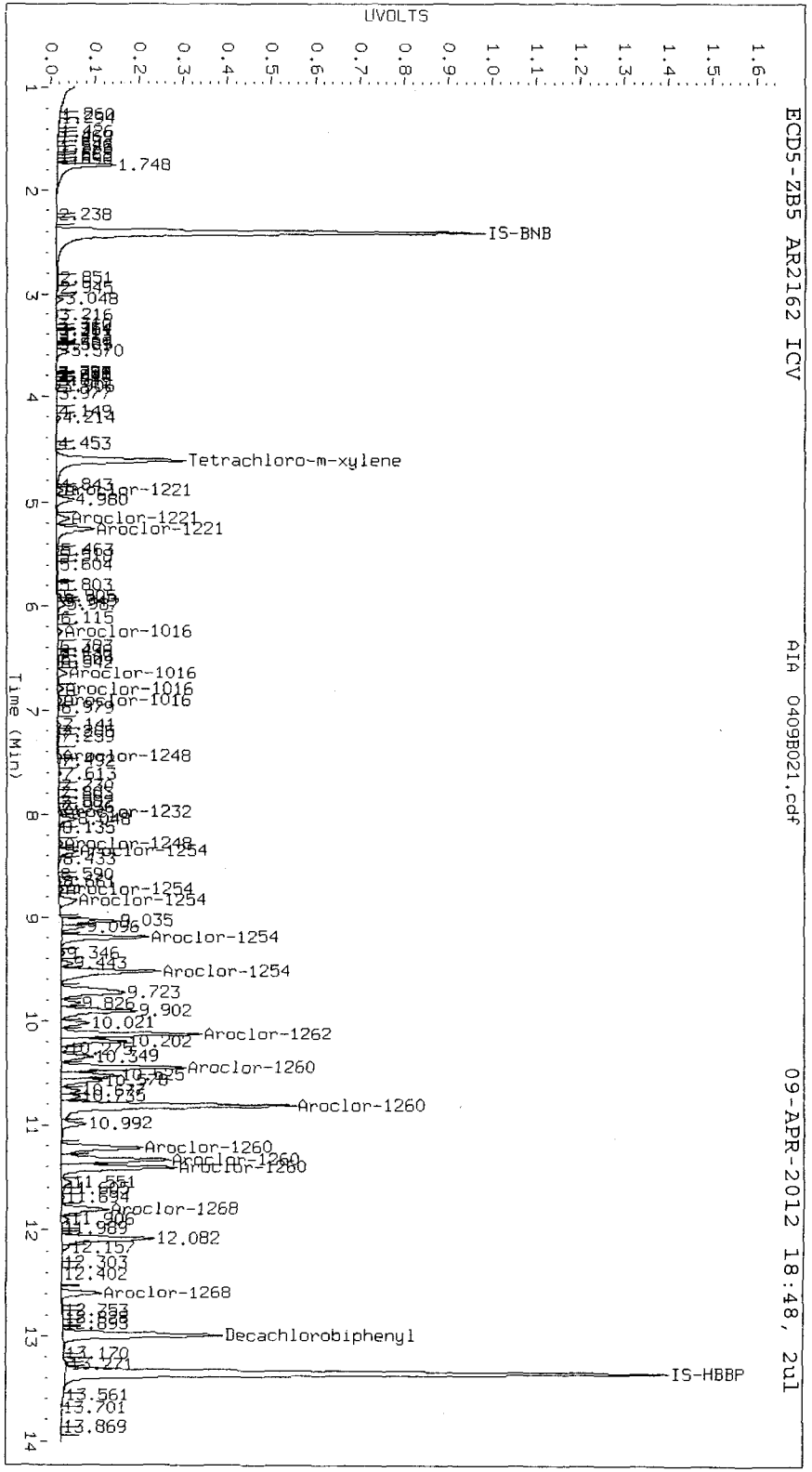
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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Aroclor-1016
Aroclor-1248
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Aroclor-1262
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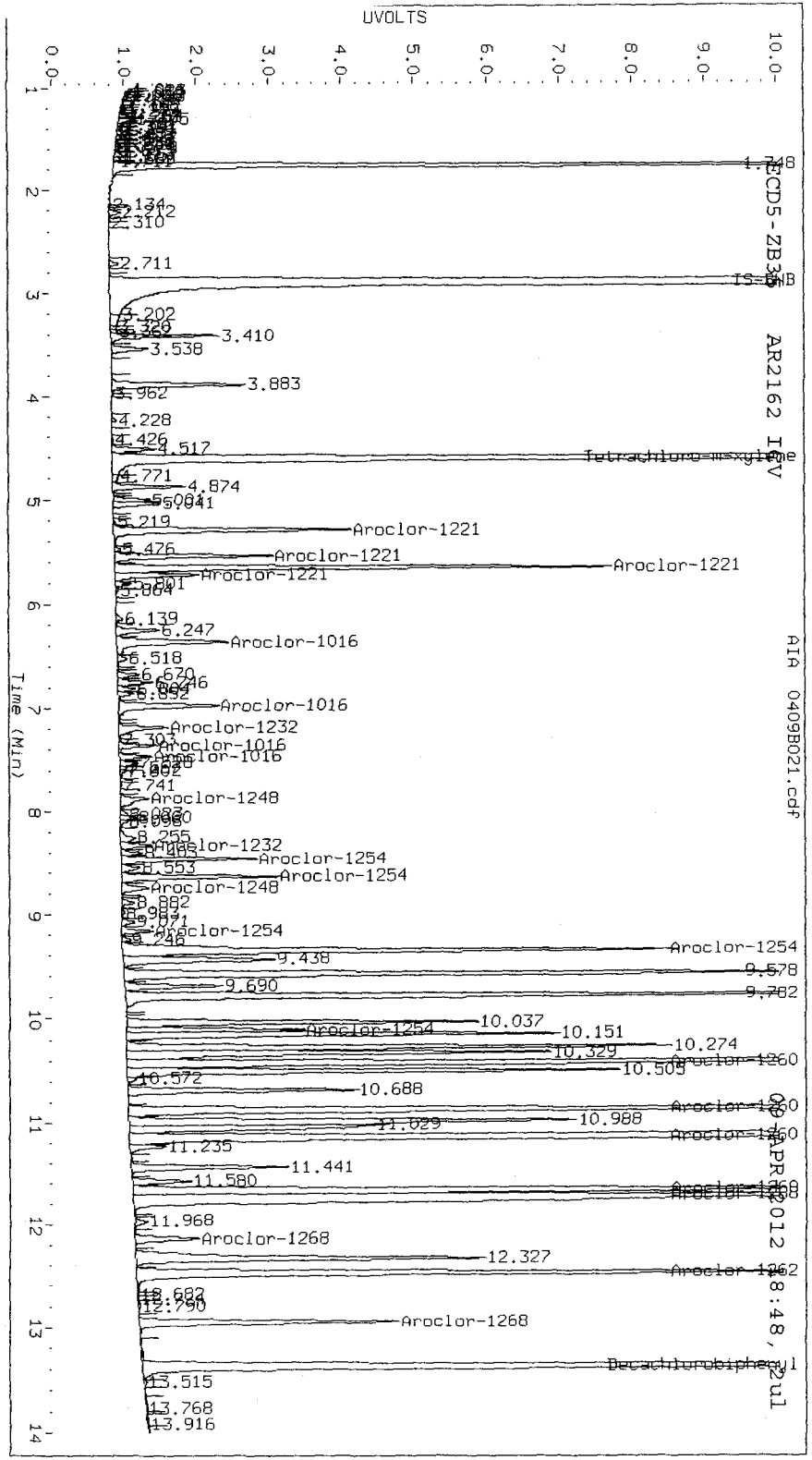
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Aroclor-1016
Aroclor-1232
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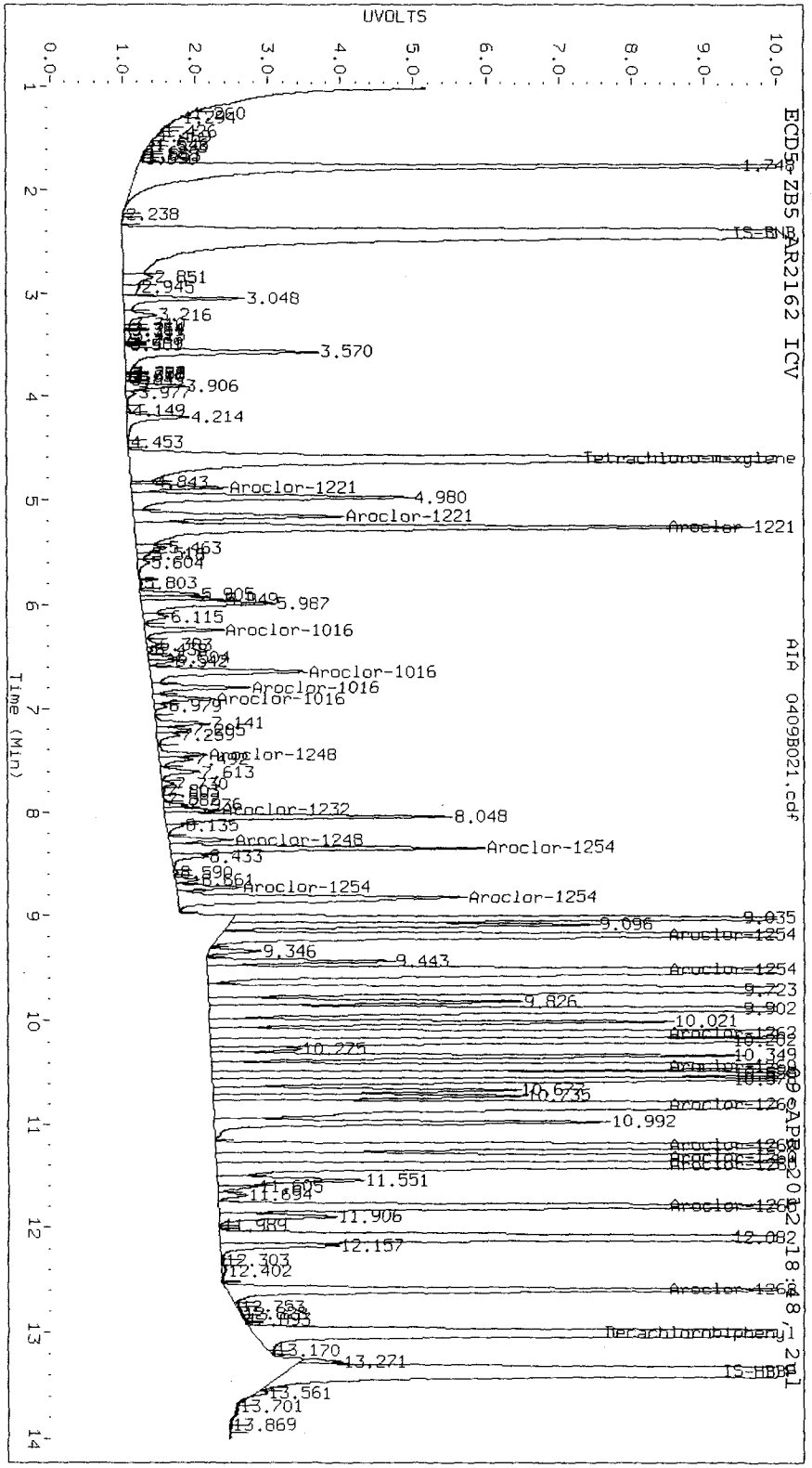
Decachlorobiphenyl
IS-HBB
9 APR 2012 18:48, 2ul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AR2162 ICV
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Time (Min)
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Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB
9 APR 2012 18:48, 2ul

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/ical-1.b/0409B022.d
Data file 2: 20120409.B/ical-2.b/0409B022.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 ICV
Client ID:
Injection Date: 09-APR-2012 19:07
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.001	47267353	4.610	0.001	29357303	19.2	20.4	6.2	Tetrachloro-m-xylene
12.997	0.000	89508907	13.372	0.001	33858307	25.7	25.8	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	48.0	51.0
Decachlorobiphenyl	64.2	64.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	151629467	8.1
Hexabromobiphenyl	198372884	213500029	7.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	105404354	2.7
Hexabromobiphenyl	81487087	89302935	9.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.244	0.000	6987505	109.7	1	6.349	0.000	6618548	121.7
Aroclor-1016	2	6.644	0.000	22277263	108.8	2	6.974	-0.001	12634442	110.4
Aroclor-1016	3	6.792	0.000	9151390	109.3	3	7.358	0.000	3342263	112.7
Aroclor-1016	4	6.903	0.000	6568628	110.8	4	7.465	0.000	3188019	98.2
Total Col1Ave (4 peaks):				109.6		Total Col2Ave (4 peaks):			110.8	RPD = 1
Corrected Ave (3 peaks):				109.2		Corrected Ave (3 peaks):			107.1	RPD = 2
Aroclor-1221	1	4.890	0.001	1724284	240.0	1	5.296	0.001	2563566	157.6
Aroclor-1221	2	5.160	0.000	3201946	178.4	2	5.542	0.000	1588406	166.6
Aroclor-1221	3	5.265	0.000	11635644	198.1	3	5.655	0.001	6024896	203.8
Aroclor-1221	NS	---			----	4	5.722	0.000	754483	142.1
Total Col1Ave (3 peaks):				205.5		Total Col2Ave (4 peaks):			167.5	RPD = 20
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			155.4	
Aroclor-1232	1	6.244	0.000	6987505	267.2	1	6.349	0.001	6618548	270.2
Aroclor-1232	2	6.644	0.001	22277263	263.9	2	6.974	0.000	12634442	263.7
Aroclor-1232	3	6.792	0.000	9151390	264.4	3	7.183	0.000	5083135	310.0
Aroclor-1232	4	7.986	0.000	7094309	223.4	4	8.329	0.000	3756670	221.3
Total Col1Ave (4 peaks):				254.7		Total Col2Ave (4 peaks):			266.3	RPD = 4
Corrected Ave (3 peaks):				250.6		Corrected Ave (3 peaks):			251.7	RPD = 0
Aroclor-1242	1	6.244	0.000	6987505	149.9	1	6.349	0.001	6618548	163.2
Aroclor-1242	2	6.644	0.001	22277263	148.5	2	6.974	0.000	12634442	146.3
Aroclor-1242	3	6.792	0.000	9151390	150.0	3	7.183	0.000	5083135	146.7
Aroclor-1242	4	7.986	0.000	7094309	131.1	4	8.329	0.000	3756670	130.6
Total Col1Ave (4 peaks):				144.9		Total Col2Ave (4 peaks):			146.7	RPD = 1
Corrected Ave (3 peaks):				143.2		Corrected Ave (3 peaks):			141.2	RPD = 1
Aroclor-1248	1	6.644	0.003	22277263	226.2	1	6.974	0.005	12634442	228.3
Aroclor-1248	2	7.440	0.000	6375732	83.9	2	7.876	0.000	4199537	98.3
Aroclor-1248	3	7.986	0.000	7094309	76.5	3	8.329	0.000	3756670	75.7
Aroclor-1248	4	8.276	0.000	7804049	84.4	4	8.751	0.001	4113338	75.2
Total Col1Ave (4 peaks):				117.8		Total Col2Ave (4 peaks):			119.4	RPD = 1
Corrected Ave (3 peaks):				81.6		Corrected Ave (3 peaks):			83.1	RPD = 2
Aroclor-1254	1	8.358	-0.002	3068500	21.2	1	8.467	-0.001	824121	19.8
Aroclor-1254	2	8.731	0.000	1690440	18.0	2	8.641	-0.001	797061	15.1
Aroclor-1254	3	8.868	0.001	2909223	16.9	3	9.163	-0.001	717222	17.6
Aroclor-1254	4	9.218	0.002	2240985	12.9	4	9.312	-0.002	1497670	17.2
Aroclor-1254	5	9.583	0.004	1761416	15.0	5	10.093	-0.004	696637	13.3
Total Col1Ave (5 peaks):				16.8		Total Col2Ave (5 peaks):			16.6	RPD = 1
Corrected Ave (4 peaks):				15.7		Corrected Ave (4 peaks):			15.8	RPD = 1
Aroclor-1260	1	10.450	-0.001	2471021	21.0	1	10.426	0.000	9516192	196.2
Aroclor-1260	2	10.824	0.000	16363007	56.4	2	10.878	0.002	10771135	175.7
Aroclor-1260	3	11.227	0.003	549392	3.5	3	11.149	0.000	6320090	52.5
Aroclor-1260	4	11.342	0.002	91266995	1306.0	4	11.672	0.002	38605375	1088.1
Aroclor-1260	5	11.413	-0.001	97654779	1162.1	NS	---			----
Total Col1Ave (5 peaks):				509.8		Total Col2Ave (4 peaks):			378.1	RPD = 30
Corrected Ave (4 peaks):				310.7		Corrected Ave (3 peaks):			141.5	RPD = 75*
Aroclor-1262	1	10.133	0.000	23372614	133.6	1	10.426	0.001	9516192	129.1
Aroclor-1262	2	10.450	-0.001	2471021	19.1	2	10.878	0.001	10771135	171.0
Aroclor-1262	3	10.824	0.000	16363007	47.9	3	11.149	0.000	6320090	44.3
Aroclor-1262	4	11.342	0.000	91266995	730.5	4	11.672	0.002	38605375	675.6
Aroclor-1262	5	11.413	-0.002	97654779	694.2	5	12.470	0.000	14598709	265.8
Total Col1Ave (5 peaks):				325.1		Total Col2Ave (5 peaks):			257.2	RPD = 23
Corrected Ave (4 peaks):				223.7		Corrected Ave (4 peaks):			152.6	RPD = 38
Aroclor-1268	1	11.342	0.000	91266995	256.2	1	11.672	0.000	38605375	256.0
Aroclor-1268	2	11.413	0.000	97654779	278.3	2	11.738	0.000	39707129	279.2

Aroclor-1268	3	11.800	0.000	69315337	227.5	3	12.136	0.000	27577054	225.0
Aroclor-1268	4	12.590	-0.001	197944175	211.1	4	12.958	0.000	77357271	208.6

Total Col1Ave (4 peaks): 243.3 Total Col2Ave (4 peaks): 242.2 RPD = 0

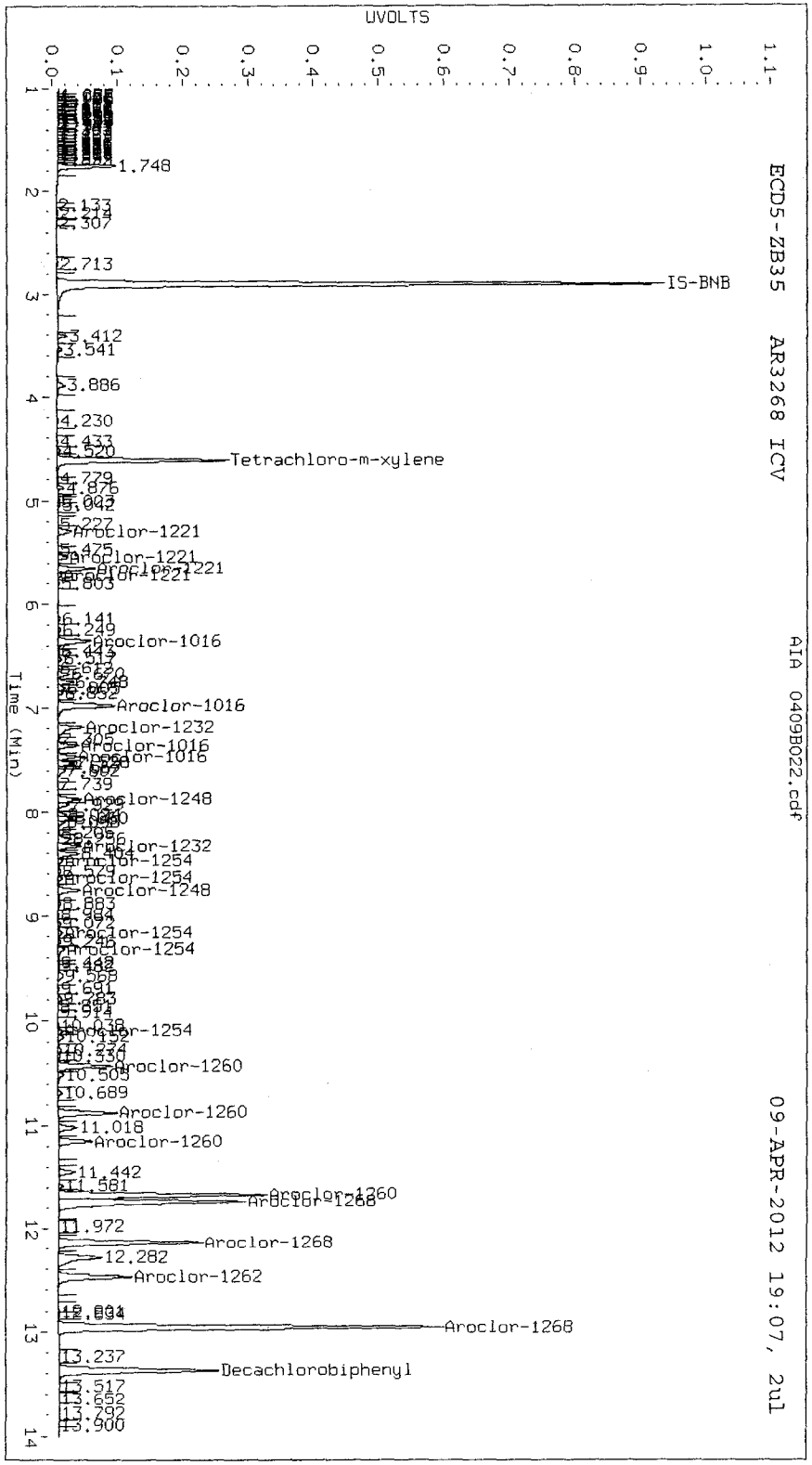
Corrected Ave (3 peaks): 231.6 Corrected Ave (3 peaks): 229.9 RPD = 1

Total PCB Area Col1 (4.710 - 12.897) = 790714416 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.709 - 13.271) = 337046759 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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IS-BNB
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Aroclor-1016
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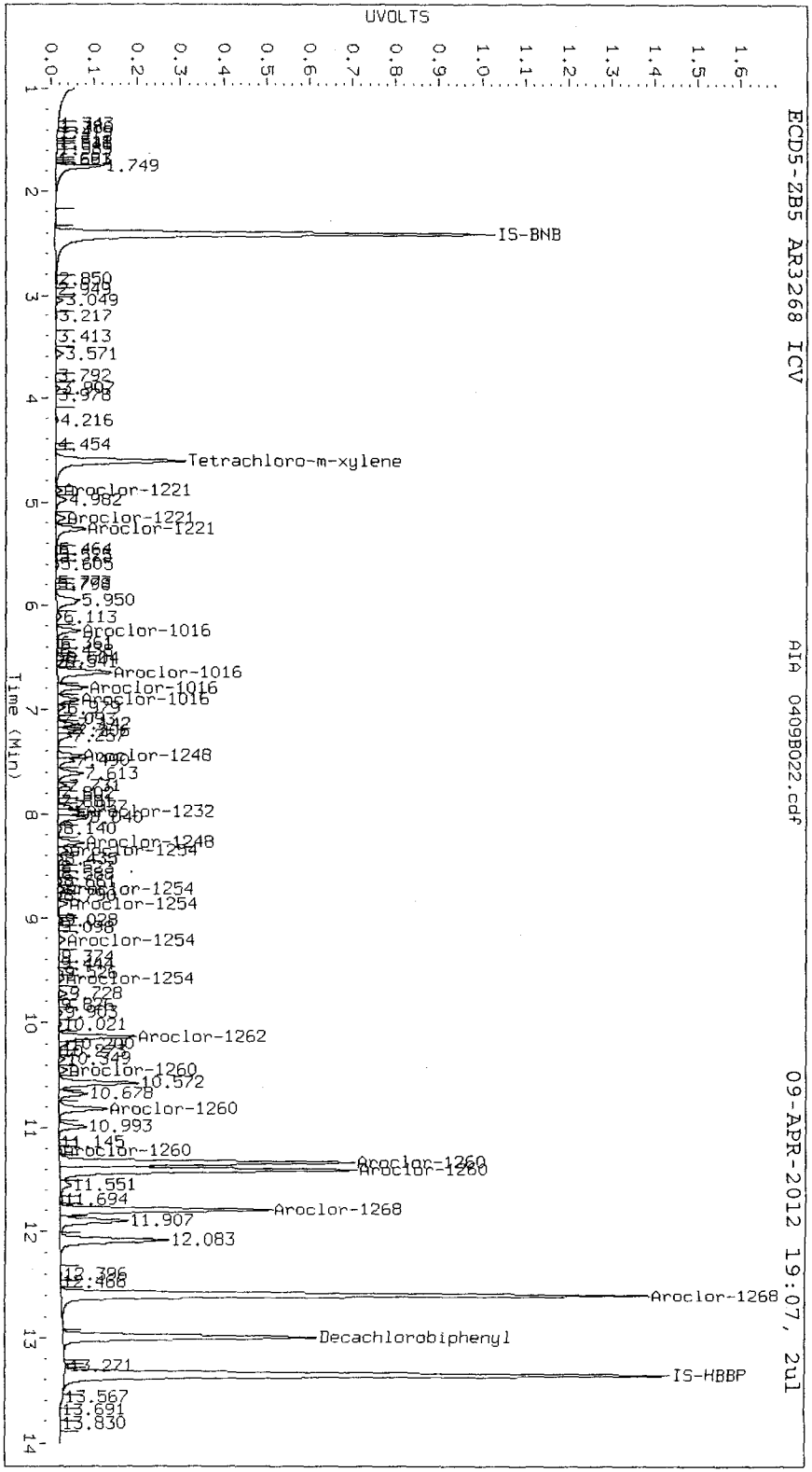
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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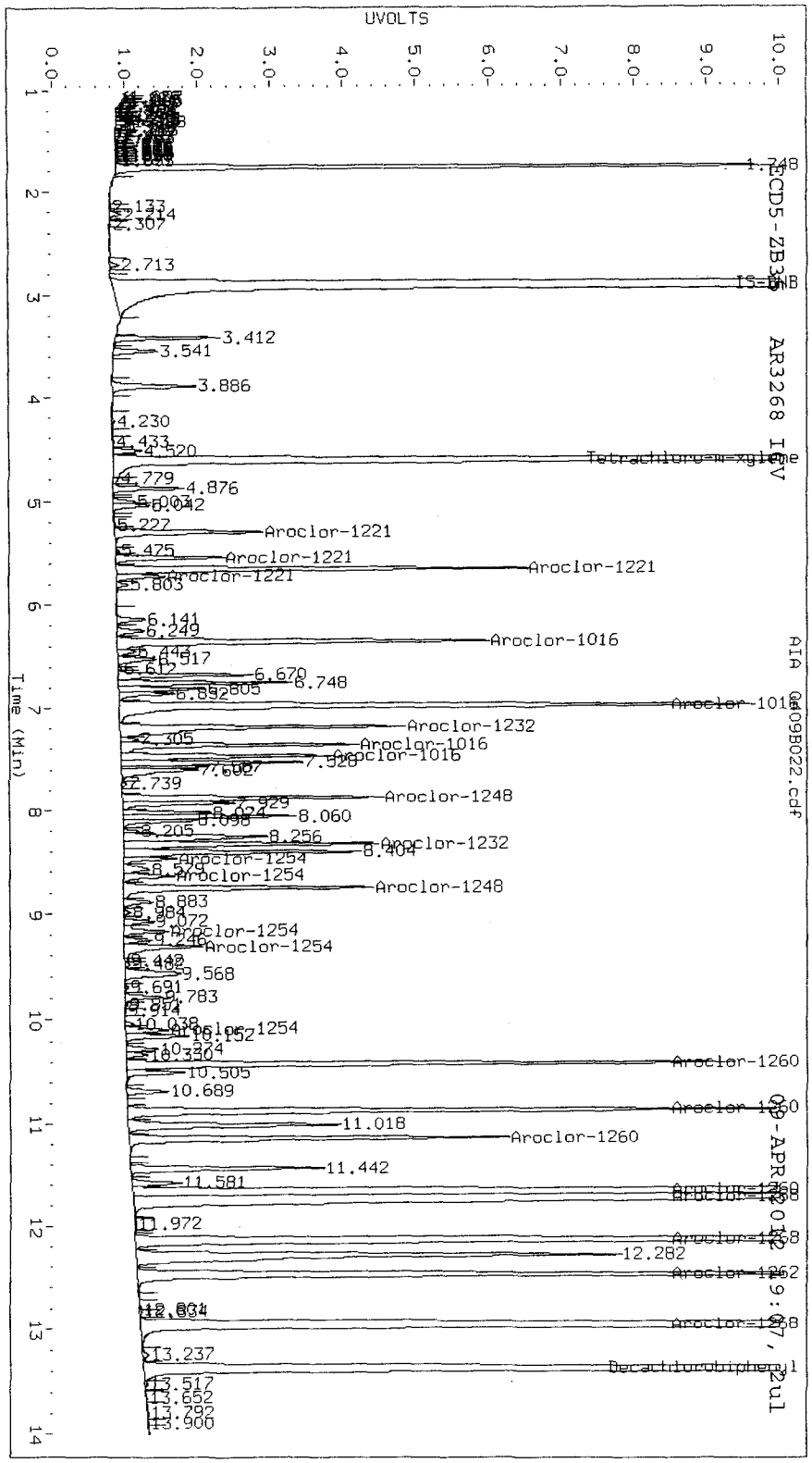
Decachlorobiphenyl
IS-HBBP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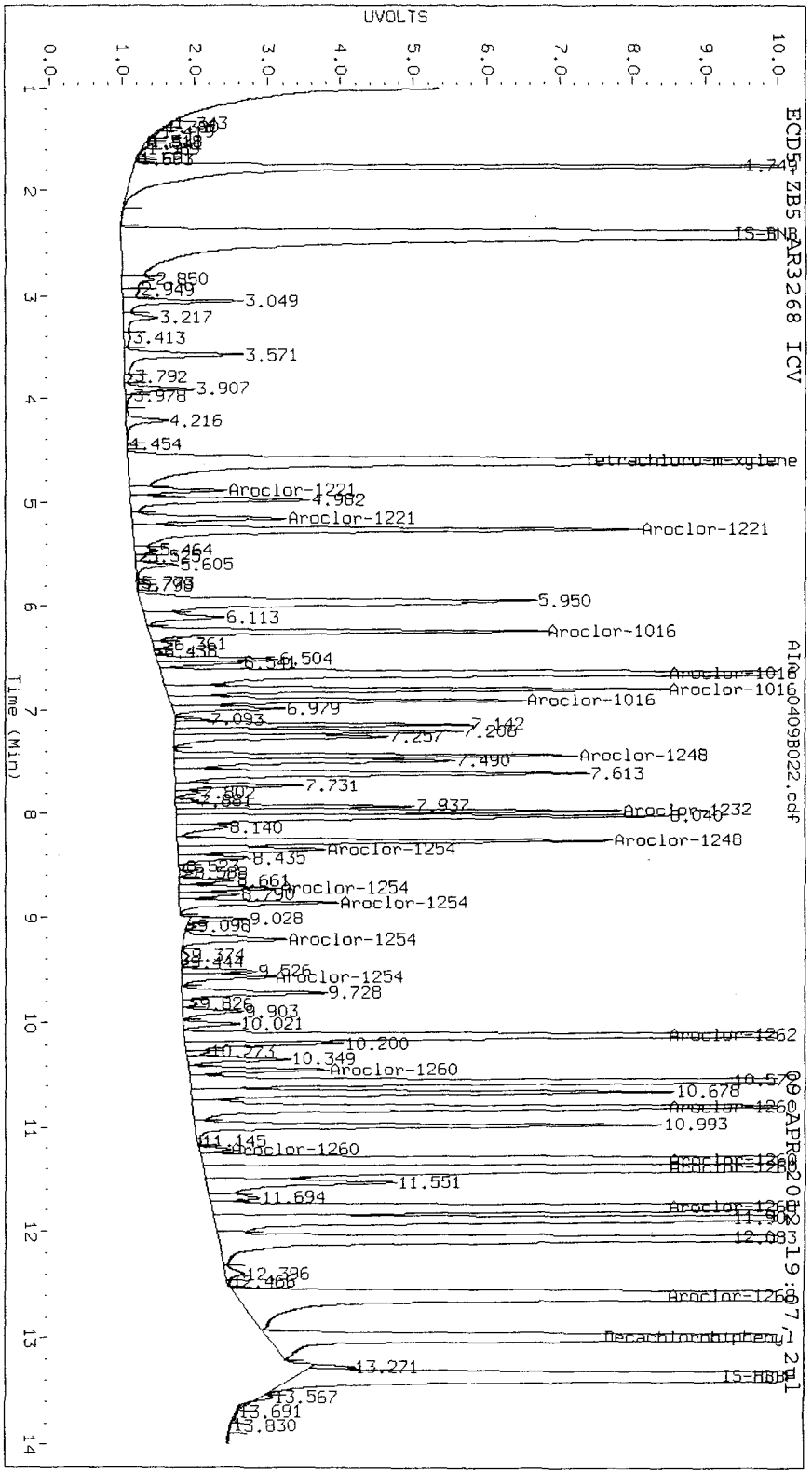
Decachlorobiphenyl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Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
IS=HBB

UR63:00151

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120409.B/ddt-1.b/0409B023.d ARI ID: 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
8.326	0.000	164367208	8.730	0.000	78238254	0.100	0.100	0.0	2,4-DDE
8.875	0.000	144275827	9.415	0.000	66936653	0.100	0.100	0.0	2,4-DDD
9.379	0.000	181909178	9.876	0.000	181053840	0.100	0.200#	66.7*	2,4-DDT
8.757	0.000	254975826	9.116	0.000	122919772	0.100	0.100	0.0	4,4-DDE
9.330	0.000	201738595	9.876	0.000	181053840	0.100	0.200#	66.7*	4,4-DDD
9.843	0.000	225891094	10.316	0.000	103804818	0.100	0.100	0.0	4,4-DDT

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

7E

8082 DDT BREAKDOWN VERIFICATION SUMMARY

Lab ID: DDT BD

Analysis Date: 09-APR-2012 19:45 Init. Calib. Date: 09-APR-2012

GC Column: ZB5 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	8.759	1836614
4,4-DDD	9.341	7098977
4,4-DDT	9.843	247929964

Col 1: 4,4-DDT Percent Breakdown = 3.5 %

GC Column: ZB35 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	9.119	612645
4,4-DDD/2,4-DDT	9.887	2202554
4,4-DDT	10.316	116445819

Col 2: 4,4-DDT Percent Breakdown = 2.4 %

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

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

ARI Job ID: UR93

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: UR93 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: 04/09/12 Analysis Start: 05/04/12

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 Secondary	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): samples ran 2x's, 1st run closing ccals failed HBBP failed low ~3% AR1242 ccal fails low ~0.6%, AR1254 ccal failed high ~0.5% 2nd run closing AR1260 low ~0.5% on column1 can drop low peak to bring w/in qc column2 is w/in qc. reporting 2nd run 05/07/12

went w/ best w/ regaurds to 48 y-flag, y-flag is for AR1016→1248 range. 54 inflates 48 quants went w/ best fit w/ regaurds to go AR1260 could be a mix of 60/62 for samples O and Q 05/07

Additional Details on Reverse: Yes / No

Analyst: [signature] **Date:** 05/07/12

Reviewer: [signature] **Date:** 5/7/12

See Ext Green sheet!

Form 4060F Version 007 6/18/10

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A003.d
Data file 2: 20120409.B/0505-2.b/0505A003.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 05-MAY-2012 09:34
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.606	-0.003	38658307	4.601	-0.004	29017726	20.1	20.6	2.0	Tetrachloro-m-xylene
12.993	-0.001	35549020	13.365	0.000	13993554	14.5	16.9	15.1	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.4	51.4
Decachlorobiphenyl	36.2	42.1

A 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	118084407	-15.8
Hexabromobiphenyl	198372884	150193247	-24.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	103452724	0.8
Hexabromobiphenyl	81487087	56516256	-30.6

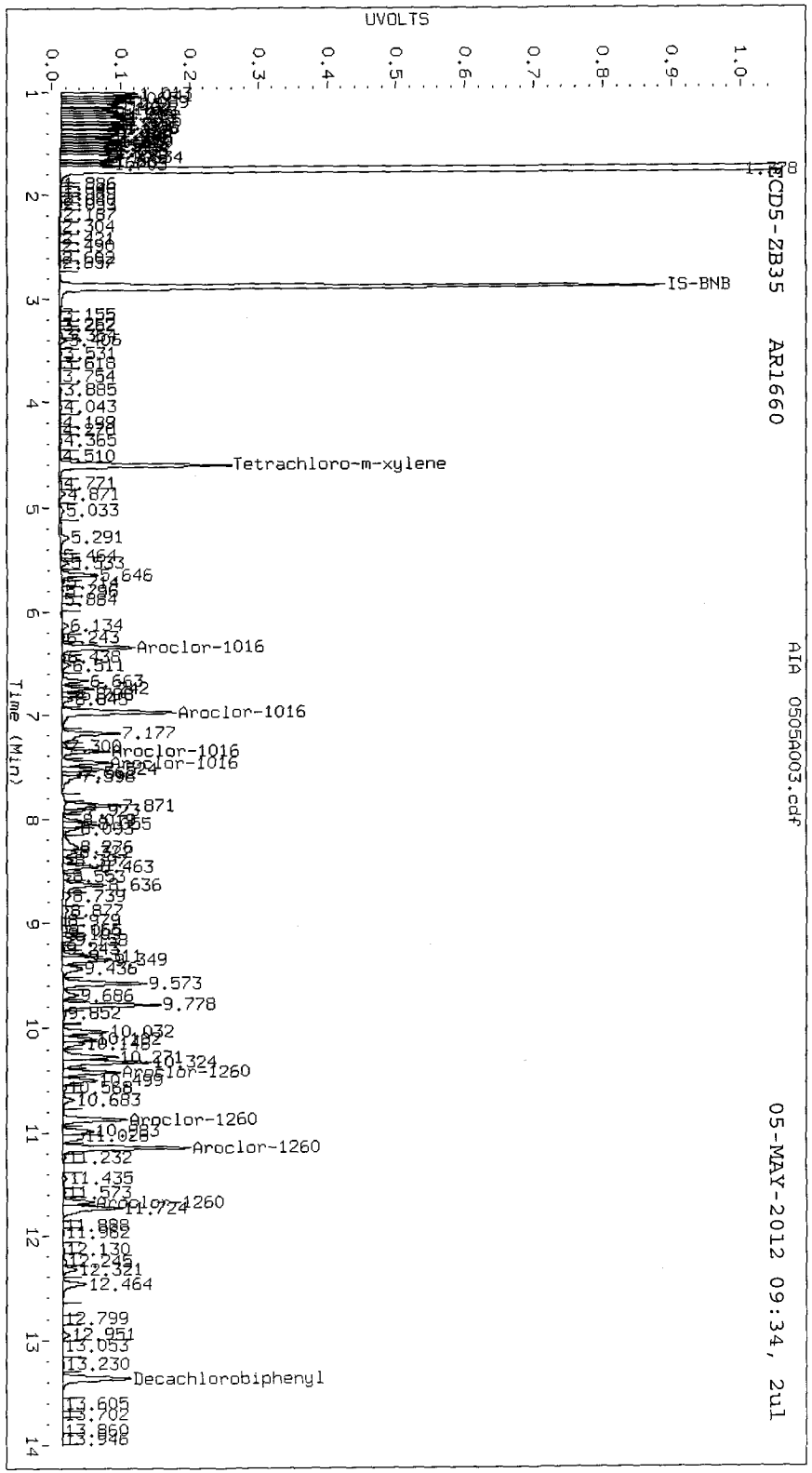
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.241	-0.001	12079583	243.4	1	6.341	-0.002	13234174	247.9
Aroclor-1016	2	6.641	-0.002	41305199	259.0	2	6.972	-0.002	22192714	197.7
Aroclor-1016	3	6.789	-0.002	16618846	254.9	3	7.352	-0.001	7185970	246.9
Aroclor-1016	4	6.900	-0.001	11267767	244.0	4	7.460	-0.002	7738651	242.9
Total Col1Ave (4 peaks):				250.3		Total Col2Ave (4 peaks):			233.9	RPD = 7
Corrected Ave (3 peaks):				247.4		Corrected Ave (3 peaks):			229.2	RPD = 8
Aroclor-1260	1	10.448	-0.001	17350444	209.4	1	10.421	-0.001	9332652	304.1
Aroclor-1260	2	10.822	-0.001	44496403	218.0	2	10.871	-0.001	11536707	297.3
Aroclor-1260	3	11.222	0.000	23692086	213.6	3	11.143	-0.001	21759615	285.6
Aroclor-1260	4	11.338	0.000	9544765	194.2	4	11.665	0.000	5422042	241.5
Aroclor-1260	5	11.412	0.000	11498320	194.5	NS	---			----
Total Col1Ave (5 peaks):				205.9		Total Col2Ave (4 peaks):			282.1	RPD = 31
Corrected Ave (4 peaks):				202.9		Corrected Ave (3 peaks):			274.8	RPD = 30

Total PCB Area Col1 (4.709 - 12.894) = 584453466 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 348700309 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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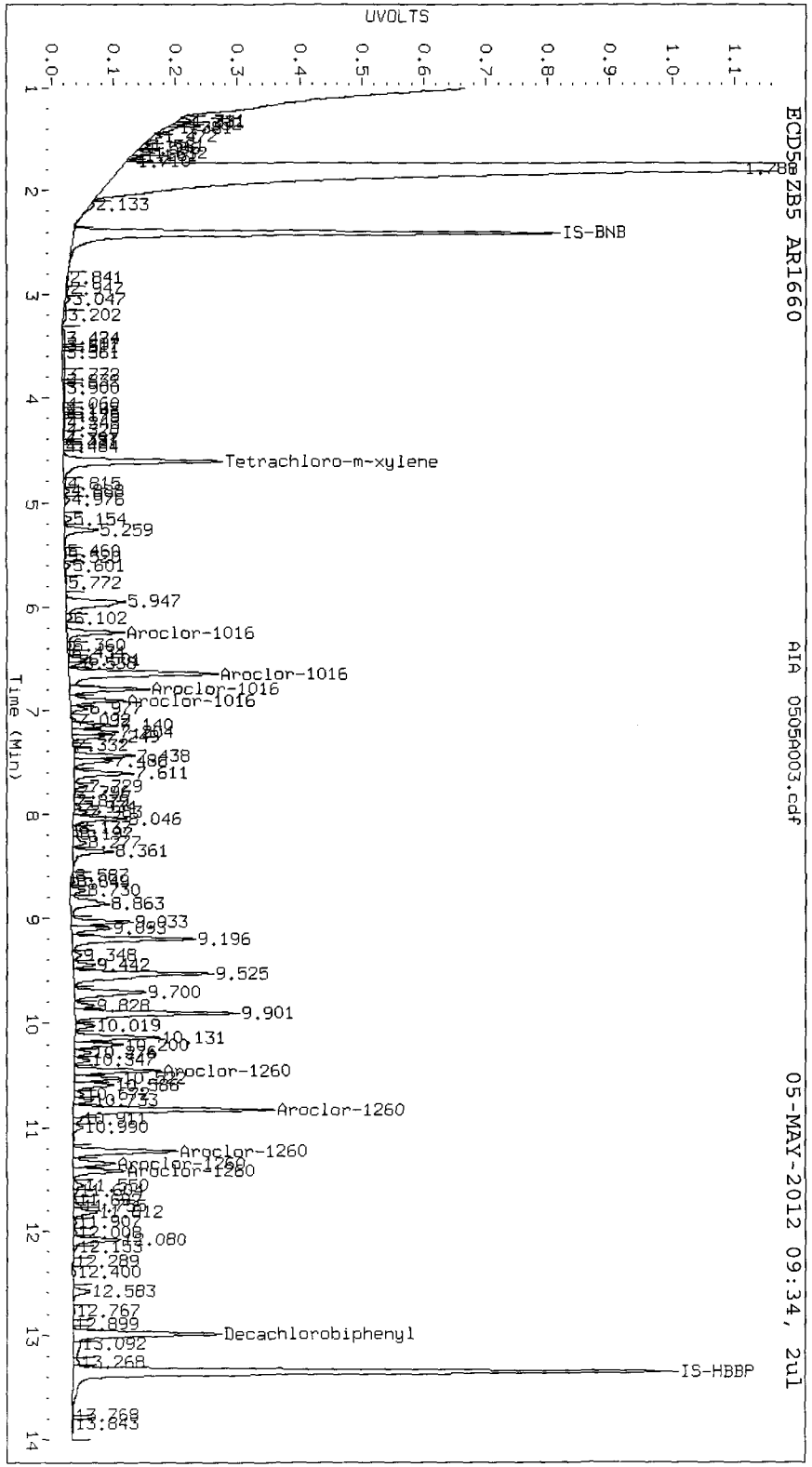
05-MAY-2012 09:34, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
Time (Min)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IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)

URS3:001198

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A004.d
Data file 2: 20120409.B/0505-2.b/0505A004.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 05-MAY-2012 09:53
Ical Date: 09-APR-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
4.605	-0.004	41532373	4.600	-0.005	29937331	19.0	19.8	3.8	Tetrachloro-m-xylene
12.993	-0.001	38273567	13.365	0.000	15271490	14.7	16.5	11.8	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	47.6	49.4
Decachlorobiphenyl	36.7	41.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	134244926	-4.3
Hexabromobiphenyl	198372884	159540948	-19.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	110918353	8.1
Hexabromobiphenyl	81487087	62856725	-22.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.240	-0.002	10291075	249.4	1	6.340	-0.003	11196238	262.3
Aroclor-1242	2	6.641	-0.002	35128307	264.4	2	6.971	-0.003	18428484	202.7
Aroclor-1242	3	6.789	-0.002	14267112	264.1	3	7.177	-0.002	9486097	260.1
Aroclor-1242	4	7.983	-0.001	12395069	258.8	4	8.323	-0.002	8420726	278.2

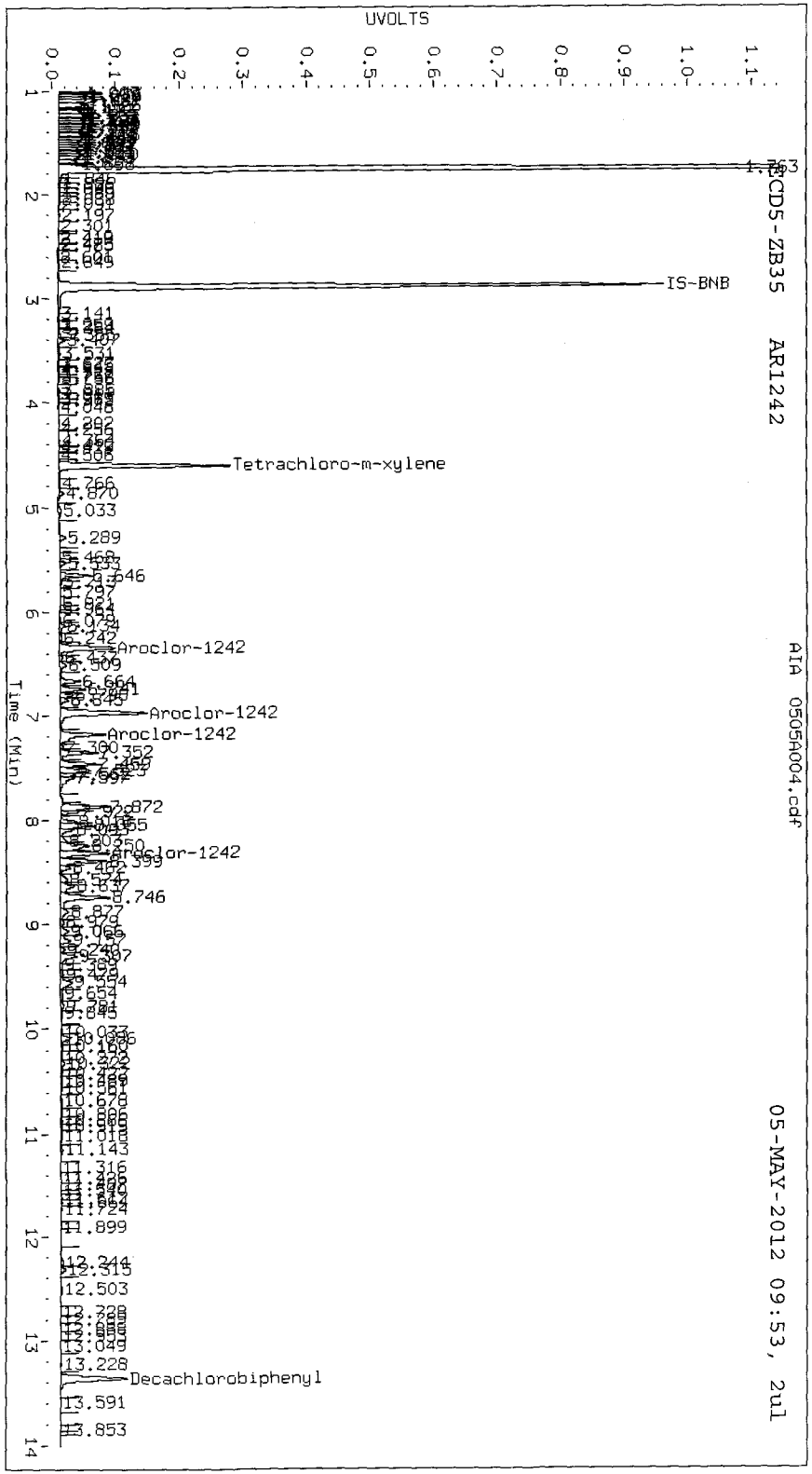
Total Col1Ave (4 peaks): 259.2 Total Col2Ave (4 peaks): 250.8 RPD = 3

Corrected Ave (3 peaks): 257.5 Corrected Ave (3 peaks): 241.7 RPD = 6

Total PCB Area Col1 (4.709 - 12.894) = 283879234 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 187228569 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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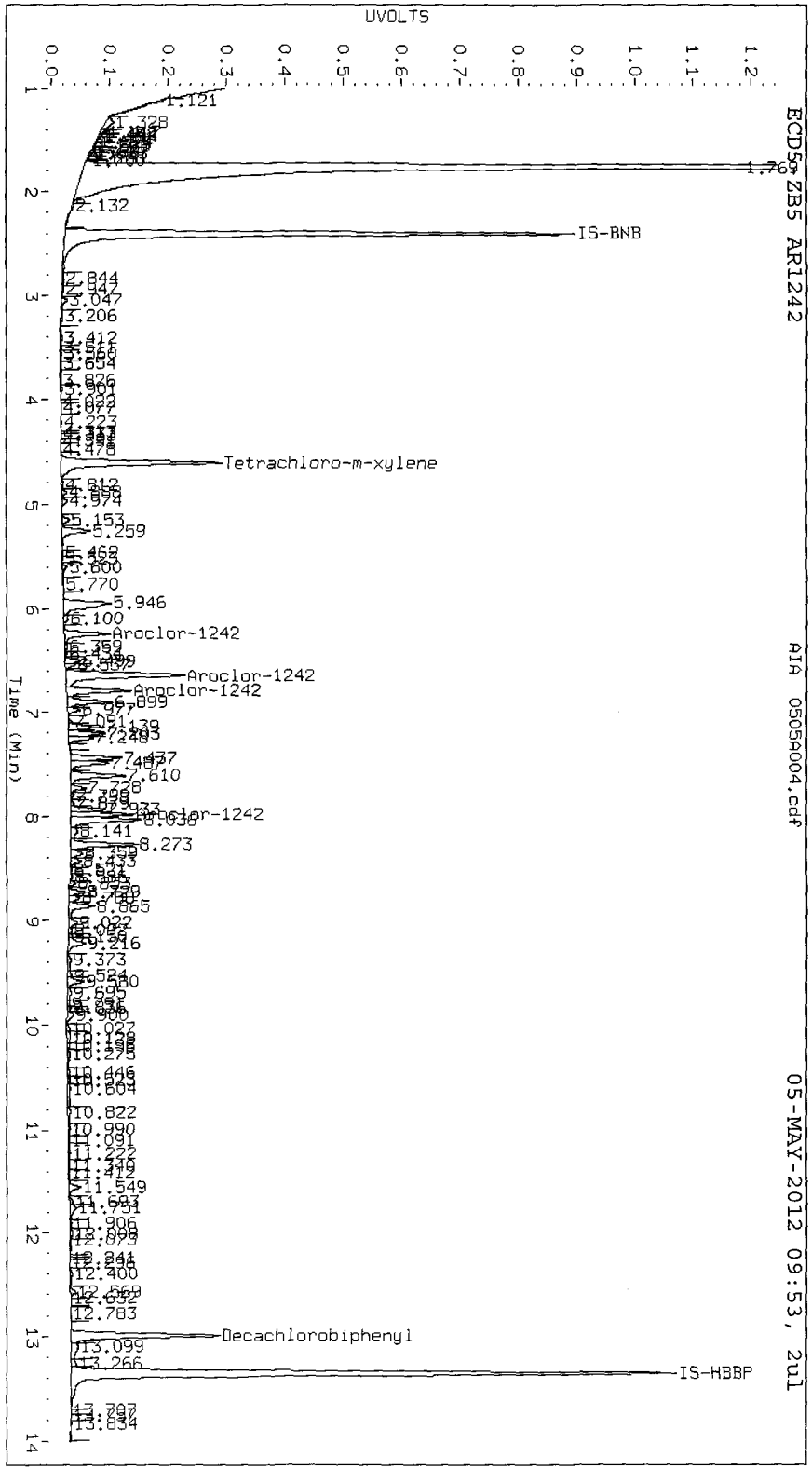
05-MAY-2012 09:53, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
Time (Min)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AIA 0505A004.cdf
05-MAY-2012 09:53, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A005.d
Data file 2: 20120409.B/0505-2.b/0505A005.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93MBS1
Client ID:
Injection Date: 05-MAY-2012 10:12
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.606	-0.003	74315540	4.601	-0.004	49192280	30.0	32.0	6.3	Tetrachloro-m-xylene
12.993	-0.001	82353407	13.366	0.000	32339076	29.1	33.2	13.4	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	75.0	79.9
Decachlorobiphenyl	72.7	83.1

A 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	152475956	8.7
Hexabromobiphenyl	198372884	173490959	-12.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	112800980	10.0
Hexabromobiphenyl	81487087	66248620	-18.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.243	0.001	206667	3.2	1	6.345	0.002	34241	0.6
Aroclor-1016	2	6.639	-0.004	186733	0.9	2	6.979	0.005	137820	1.1
Aroclor-1016	3	6.781	-0.010	129658	1.5	3	7.360	0.007	42071	1.3
Aroclor-1016	4	6.899	-0.002	561836	9.4	4	7.456	-0.006	56715	1.6
Total Col1Ave (4 peaks):				3.8		Total Col2Ave (4 peaks):			1.2	RPD = 105*
Corrected Ave (3 peaks):				1.9		Corrected Ave (3 peaks):			1.0	RPD = 60*
Aroclor-1221	1	4.888	-0.002	3788275	524.3	1	5.305	0.010	737850	42.4
Aroclor-1221	2	5.139	-0.021	1481363	82.1	2	5.557	0.015	119446	11.7
Aroclor-1221	3	---			0.0	3	5.655	0.001	191531	6.1
Aroclor-1221	NS	---			----	4	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave:			20.0	
Aroclor-1232	1	6.243	0.000	206667	7.9	1	6.345	-0.003	34241	1.3
Aroclor-1232	2	6.639	-0.005	186733	2.2	2	6.979	0.005	137820	2.7
Aroclor-1232	3	6.781	-0.011	129658	3.7	3	7.177	-0.006	35355	2.0
Aroclor-1232	4	7.990	0.004	95865	3.0	4	8.302	-0.026	957527	52.7
Total Col1Ave (4 peaks):				4.2		Total Col2Ave (4 peaks):			14.7	RPD = 111*
Corrected Ave (3 peaks):				3.0		Corrected Ave (3 peaks):			2.0	RPD = 39
Aroclor-1242	1	6.243	0.001	206667	4.4	1	6.345	0.002	34241	0.8
Aroclor-1242	2	6.639	-0.004	186733	1.2	2	6.979	0.005	137820	1.5
Aroclor-1242	3	6.781	-0.010	129658	2.1	3	7.177	-0.002	35355	1.0
Aroclor-1242	4	7.990	0.006	95865	1.8	4	8.302	-0.023	957527	31.1
Total Col1Ave (4 peaks):				2.4		Total Col2Ave (4 peaks):			8.6	RPD = 113*
Corrected Ave (3 peaks):				1.7		Corrected Ave (3 peaks):			1.1	RPD = 45*
Aroclor-1248	1	6.639	0.003	186733	1.9	1	6.979	0.011	137820	2.3
Aroclor-1248	2	7.433	-0.004	315031	4.1	2	7.875	0.005	187225	4.1
Aroclor-1248	3	7.990	0.008	95865	1.0	3	8.302	-0.020	957527	18.0
Aroclor-1248	4	8.249	-0.024	2555770	27.5	4	8.683	-0.061	2212423	37.8
Total Col1Ave (4 peaks):				8.6		Total Col2Ave (4 peaks):			15.6	RPD = 57*
Corrected Ave (3 peaks):				2.3		Corrected Ave (3 peaks):			8.1	RPD = 111*
Aroclor-1254	1	8.355	0.000	529252	3.6	1	8.461	0.000	382185	8.6
Aroclor-1254	2	8.730	0.002	330371	3.5	2	8.641	0.006	798001	14.1
Aroclor-1254	3	8.866	0.003	1325623	7.7	3	9.174	0.017	746834	17.1
Aroclor-1254	4	9.214	0.001	1519457	8.7	4	9.308	0.001	888011	9.5
Aroclor-1254	5	9.573	-0.001	866599	7.4	5	10.090	0.001	183583	3.3
Total Col1Ave (5 peaks):				6.2		Total Col2Ave (5 peaks):			10.5	RPD = 52*
Corrected Ave (4 peaks):				5.5		Corrected Ave (4 peaks):			8.9	RPD = 46*
Aroclor-1260	1	10.458	0.009	204174	2.1	1	10.459	0.037	319053	8.9
Aroclor-1260	2	10.859	0.036	572826	2.4	2	10.862	-0.010	190692	4.2
Aroclor-1260	3	11.214	-0.008	164776	1.3	3	11.147	0.002	188002	2.1
Aroclor-1260	4	11.331	-0.008	171263	3.0	4	11.616	-0.050	323083	12.3
Aroclor-1260	5	11.404	-0.009	108904	1.6	NS	---			----
Total Col1Ave (5 peaks):				2.1		Total Col2Ave (4 peaks):			6.9	RPD = 107*
Corrected Ave (4 peaks):				1.9		Corrected Ave (3 peaks):			5.1	RPD = 92*
Aroclor-1262	1	10.120	-0.014	321835	2.3	1	10.459	0.033	319053	5.8
Aroclor-1262	2	10.458	0.007	204174	1.9	2	10.862	-0.015	190692	4.1
Aroclor-1262	3	10.859	0.034	572826	2.1	3	11.147	-0.002	188002	1.8
Aroclor-1262	4	11.331	-0.011	171263	1.7	4	11.616	-0.055	323083	7.6
Aroclor-1262	5	11.404	-0.011	108904	1.0	5	12.427	-0.043	80948	2.0
Total Col1Ave (5 peaks):				1.8		Total Col2Ave (5 peaks):			4.3	RPD = 82*
Corrected Ave (4 peaks):				1.7		Corrected Ave (4 peaks):			3.4	RPD = 69*
Aroclor-1268	1	11.331	-0.011	171263	0.6	1	11.616	-0.056	323083	2.9
Aroclor-1268	2	11.404	-0.009	108904	0.4	2	11.731	-0.007	134720	1.3
Aroclor-1268	3	11.753	-0.047	3104724	12.5	3	12.123	-0.013	21164	0.2

Aroclor-1268	4	12.570	-0.021	537691	0.7	4	12.953	-0.005	91218	0.3

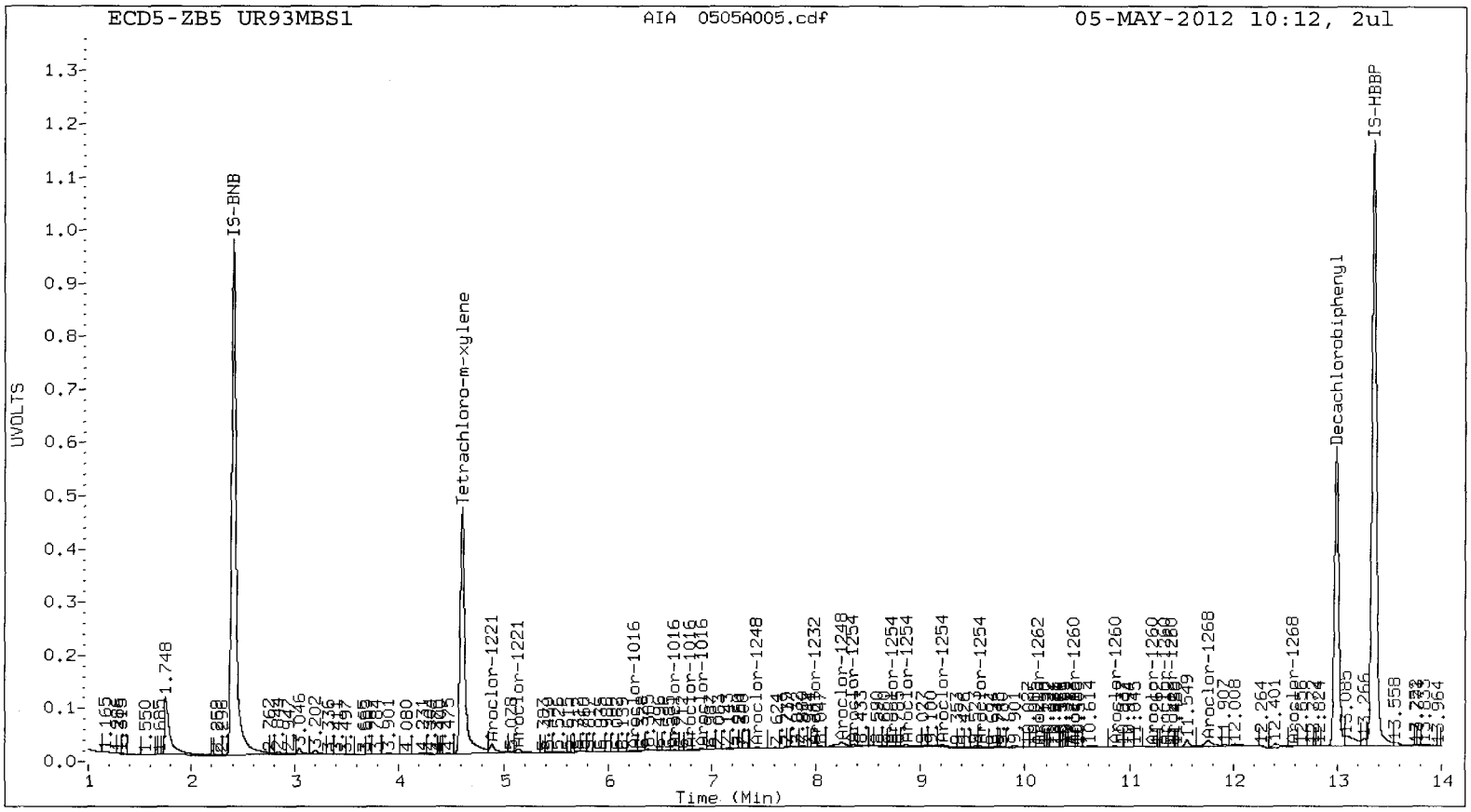
Total Col1Ave (4 peaks): 3.6 Total Col2Ave (4 peaks): 1.2 RPD = 100*
Corrected Ave (3 peaks): 0.6 Corrected Ave (3 peaks): 0.6 RPD = 9

Total PCB Area Col1 (4.709 - 12.894) = 37991624 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 23045585 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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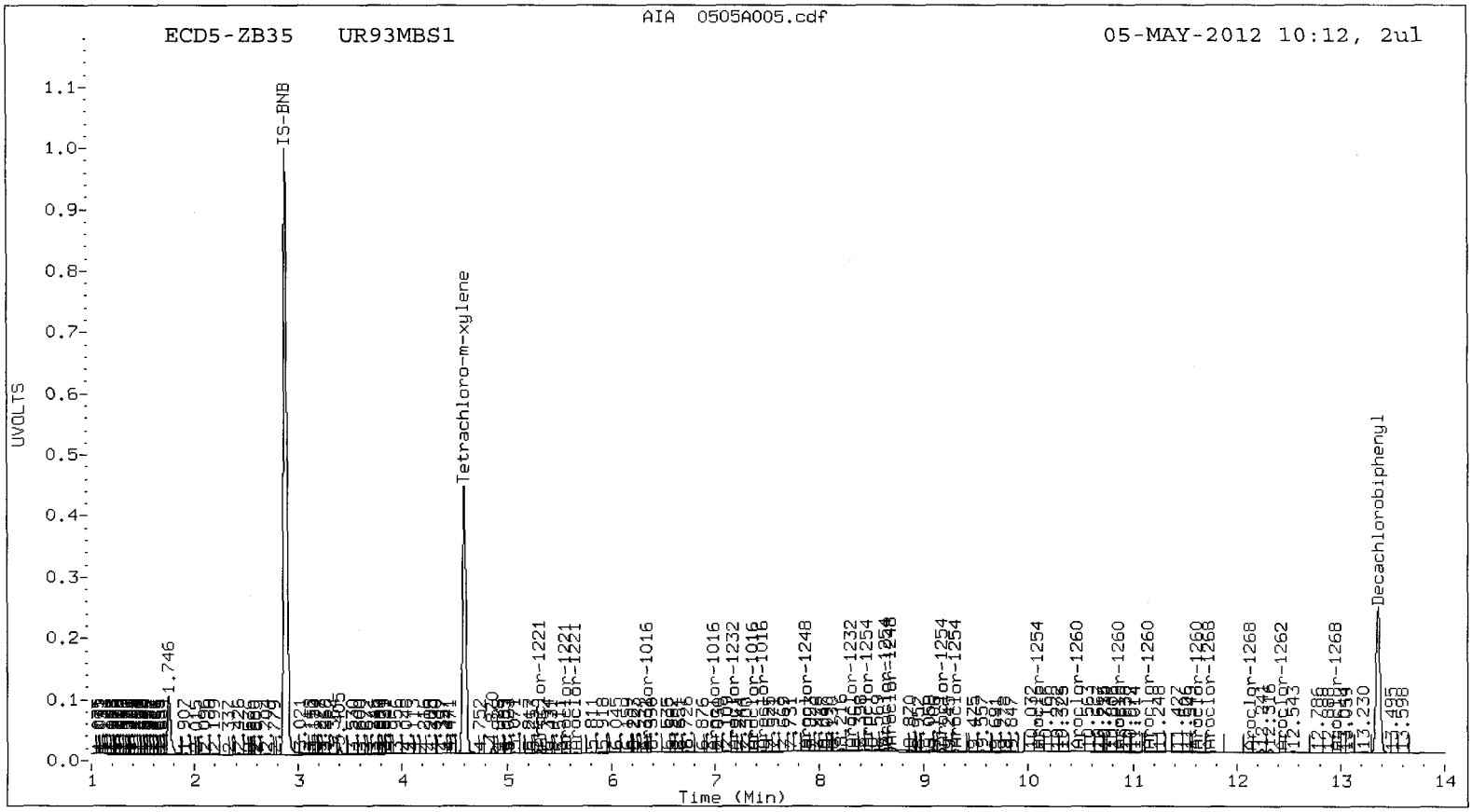
Decachlorobiphenyl
IS-HBBP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Time (Min)
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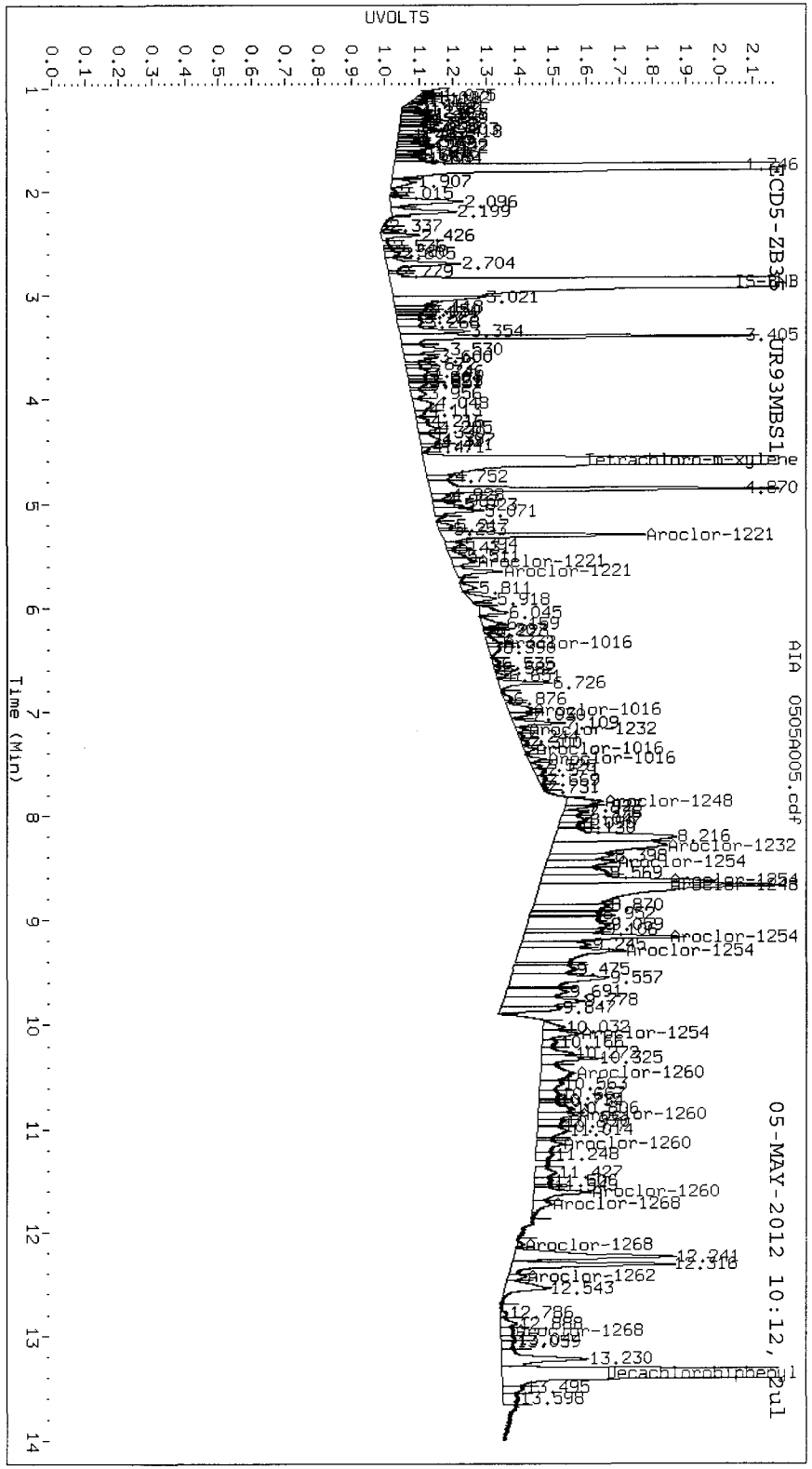
Tetrachloro-m-xylene
Decachlorobiphenyl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Time (Min)
IS-BNB
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Aroclor-1221
Aroclor-1016
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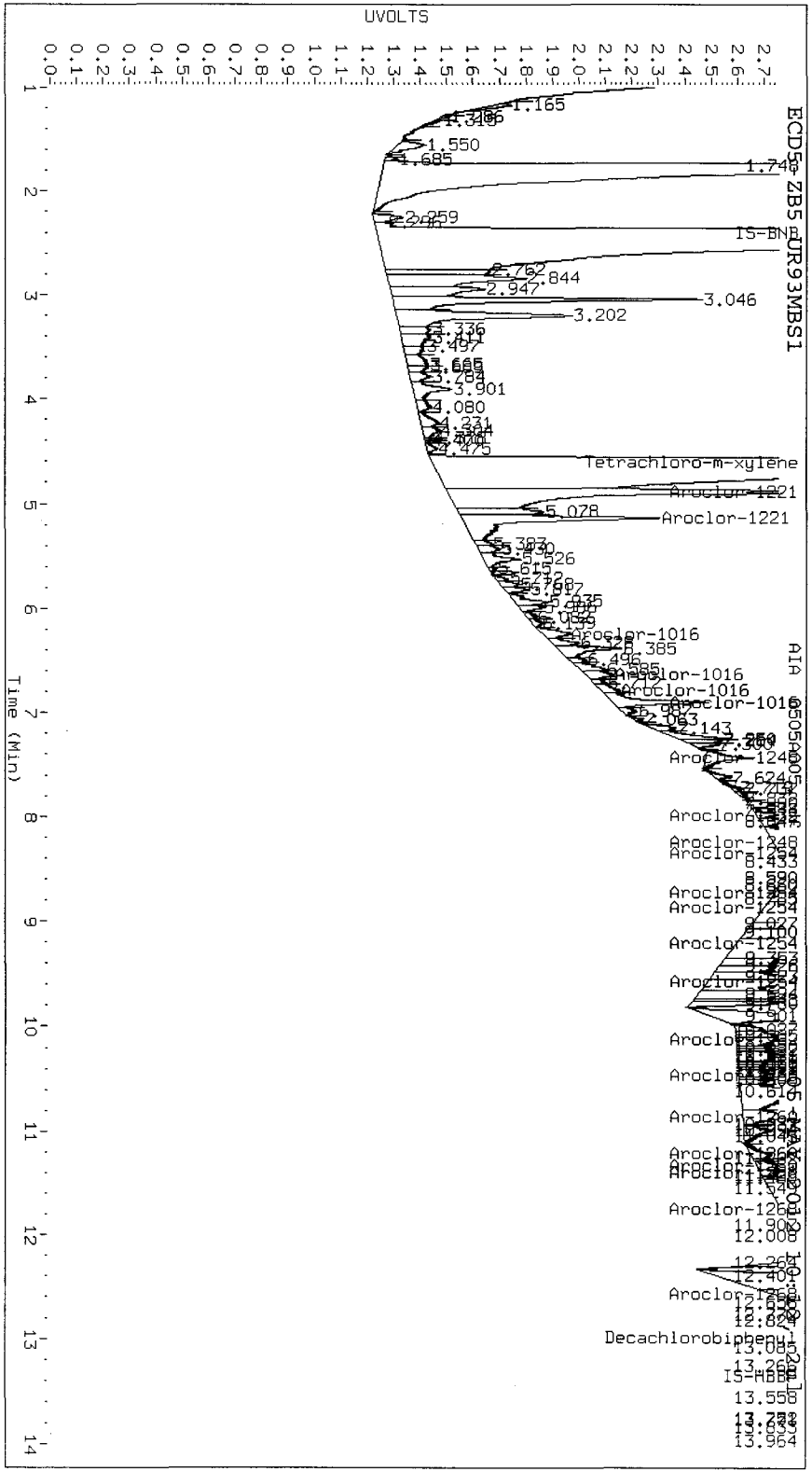
Aroclor-1262
Decachlorobiphenyl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UR93MBS1
AIA 0505A005.cdf
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl

UR93:00266

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A006.d
Data file 2: 20120409.B/0505-2.b/0505A006.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93LCSS1
Client ID:
Injection Date: 05-MAY-2012 10:32
Ical Date: 09-APR-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
4.607	-0.002	59867225	4.598	-0.006	40939167	26.4	28.4	7.5	Tetrachloro-m-xylene
12.994	0.000	70099108	13.366	0.000	27667431	26.0	30.7	16.6	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	65.9	71.1
Decachlorobiphenyl	65.1	76.9

05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	139685606	-0.4
Hexabromobiphenyl	198372884	164817617	-16.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	105519209	2.9
Hexabromobiphenyl	81487087	61245392	-24.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.241	-0.001	18823233	320.6	1	6.339	-0.004	18796721	345.2
Aroclor-1016	2	6.642	0.000	63689793	337.6	2	6.969	-0.005	38653639	337.5
Aroclor-1016	3	6.790	-0.001	25839634	335.0	3	7.351	-0.003	10666136	359.3
Aroclor-1016	4	6.900	-0.001	18366992	336.2	4	7.458	-0.004	11762297	362.0
Total Col1Ave (4 peaks):					332.4	Total Col2Ave (4 peaks):				351.0 RPD = 5
Corrected Ave (3 peaks):					330.6	Corrected Ave (3 peaks):				347.3 RPD = 5
Aroclor-1221	1	4.888	-0.001	2202409	332.7	1	5.287	-0.008	2207378	135.5
Aroclor-1221	2	5.154	-0.006	3088172	186.8	2	5.531	-0.011	2066653	216.5
Aroclor-1221	3	5.260	-0.006	12713352	234.9	3	5.644	-0.010	7857482	265.6
Aroclor-1221	NS	---			----	4	5.711	-0.011	527485	99.3
Total Col1Ave (3 peaks):					251.5	Total Col2Ave (4 peaks):				179.2 RPD = 34
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				150.4
Aroclor-1232	1	6.241	-0.002	18823233	781.3	1	6.339	-0.008	18796721	766.5
Aroclor-1232	2	6.642	-0.001	63689793	819.1	2	6.969	-0.005	38653639	805.9
Aroclor-1232	3	6.790	-0.002	25839634	810.3	3	7.176	-0.007	16577803	1009.8
Aroclor-1232	4	7.984	-0.002	3585761	122.5	4	8.322	-0.007	2415467	142.1
Total Col1Ave (4 peaks):					633.3	Total Col2Ave (4 peaks):				681.1 RPD = 7
Corrected Ave (3 peaks):					571.4	Corrected Ave (3 peaks):				571.5 RPD = 0
Aroclor-1242	1	6.241	-0.001	18823233	438.5	1	6.339	-0.004	18796721	463.0
Aroclor-1242	2	6.642	0.000	63689793	460.7	2	6.969	-0.005	38653639	447.0
Aroclor-1242	3	6.790	-0.001	25839634	459.8	3	7.176	-0.003	16577803	477.9
Aroclor-1242	4	7.984	-0.001	3585761	72.0	4	8.322	-0.004	2415467	83.9
Total Col1Ave (4 peaks):					357.7	Total Col2Ave (4 peaks):				367.9 RPD = 3
Corrected Ave (3 peaks):					323.4	Corrected Ave (3 peaks):				331.3 RPD = 2
Aroclor-1248	1	6.642	0.007	63689793	702.1	1	6.969	0.001	38653639	697.5
Aroclor-1248	2	7.439	0.002	18632923	266.2	2	7.870	-0.001	13697713	320.4
Aroclor-1248	3	7.984	0.002	3585761	41.9	3	8.322	-0.001	2415467	48.6
Aroclor-1248	4	8.279	0.007	4111352	48.3	4	8.742	-0.002	1366536	25.0
Total Col1Ave (4 peaks):					264.6	Total Col2Ave (4 peaks):				272.9 RPD = 3
Corrected Ave (3 peaks):					118.8	Corrected Ave (3 peaks):				131.3 RPD = 10
Aroclor-1254	1	8.361	0.005	18666900	140.1	1	8.462	0.001	8424269	202.2
Aroclor-1254	2	8.729	0.002	4261500	49.2	2	8.635	0.000	10713218	202.9
Aroclor-1254	3	8.863	0.000	19970417	126.0	3	9.158	0.001	2504997	61.4
Aroclor-1254	4	9.197	-0.016	49288813	308.2	4	9.309	0.002	5002951	57.4
Aroclor-1254	5	9.525	-0.049	66791738	619.1	5	10.102	0.013	8974871	170.7
Total Col1Ave (5 peaks):					248.5	Total Col2Ave (5 peaks):				138.9 RPD = 57*
Corrected Ave (4 peaks):					155.9	Corrected Ave (4 peaks):				122.9 RPD = 24
Aroclor-1260	1	10.449	0.000	32545356	358.0	1	10.421	-0.001	16260339	488.9
Aroclor-1260	2	10.822	0.000	80656738	360.1	2	10.872	-0.001	20577401	489.3
Aroclor-1260	3	11.223	0.001	41827727	343.7	3	11.144	-0.001	40512859	490.7
Aroclor-1260	4	11.339	0.000	17037787	315.8	4	11.666	0.000	11359282	466.8
Aroclor-1260	5	11.413	0.000	21086828	325.1	NS	---			----
Total Col1Ave (5 peaks):					340.5	Total Col2Ave (4 peaks):				483.9 RPD = 35
Corrected Ave (4 peaks):					335.6	Corrected Ave (3 peaks):				481.7 RPD = 36
Aroclor-1262	1	10.132	-0.001	31155535	230.8	1	10.421	-0.005	16260339	321.7
Aroclor-1262	2	10.449	-0.002	32545356	326.1	2	10.872	-0.006	20577401	476.4
Aroclor-1262	3	10.822	-0.002	80656738	305.6	3	11.144	-0.005	40512859	414.2
Aroclor-1262	4	11.339	-0.002	17037787	176.7	4	11.666	-0.005	11359282	289.9
Aroclor-1262	5	11.413	-0.002	21086828	194.2	5	12.464	-0.006	8436711	224.0
Total Col1Ave (5 peaks):					246.6	Total Col2Ave (5 peaks):				345.2 RPD = 33
Corrected Ave (4 peaks):					226.8	Corrected Ave (4 peaks):				312.4 RPD = 32
Aroclor-1268	1	11.339	-0.003	17037787	62.0	1	11.666	-0.006	11359282	109.8
Aroclor-1268	2	11.413	0.000	21086828	77.8	2	11.725	-0.014	26275428	269.4

Aroclor-1268	3	11.813	0.013	11933225	50.7	3	12.129	-0.007	623968	7.4
Aroclor-1268	4	12.586	-0.005	6499498	9.0	4	12.951	-0.006	2283832	9.0

Total Col1Ave (4 peaks): 49.9 Total Col2Ave (4 peaks): 98.9 RPD = 66*

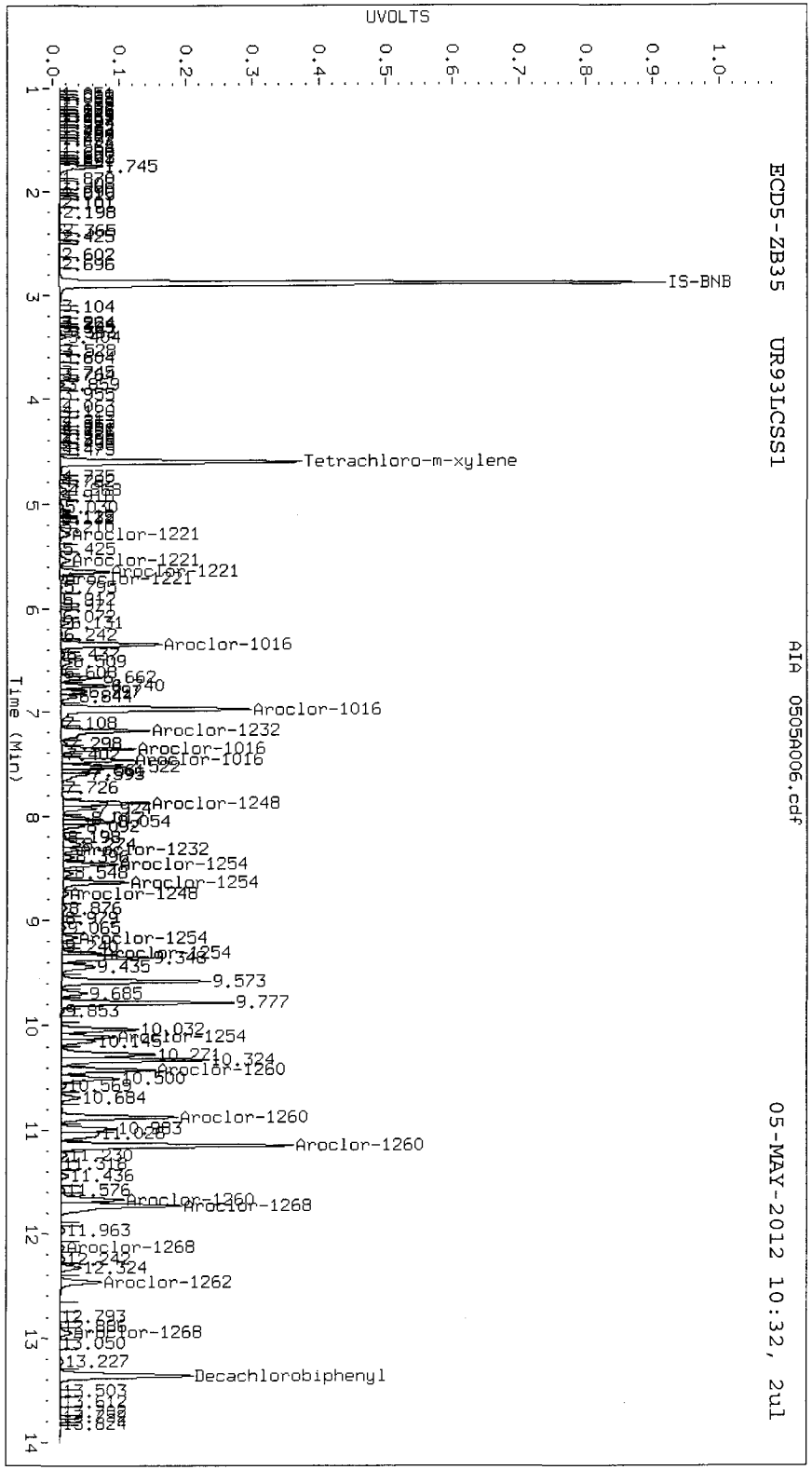
Corrected Ave (3 peaks): 40.6 Corrected Ave (3 peaks): 42.1 RPD = 4

Total PCB Area Col1 (4.709 - 12.894) = 1000672304 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 550117749 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Aroclor-1262
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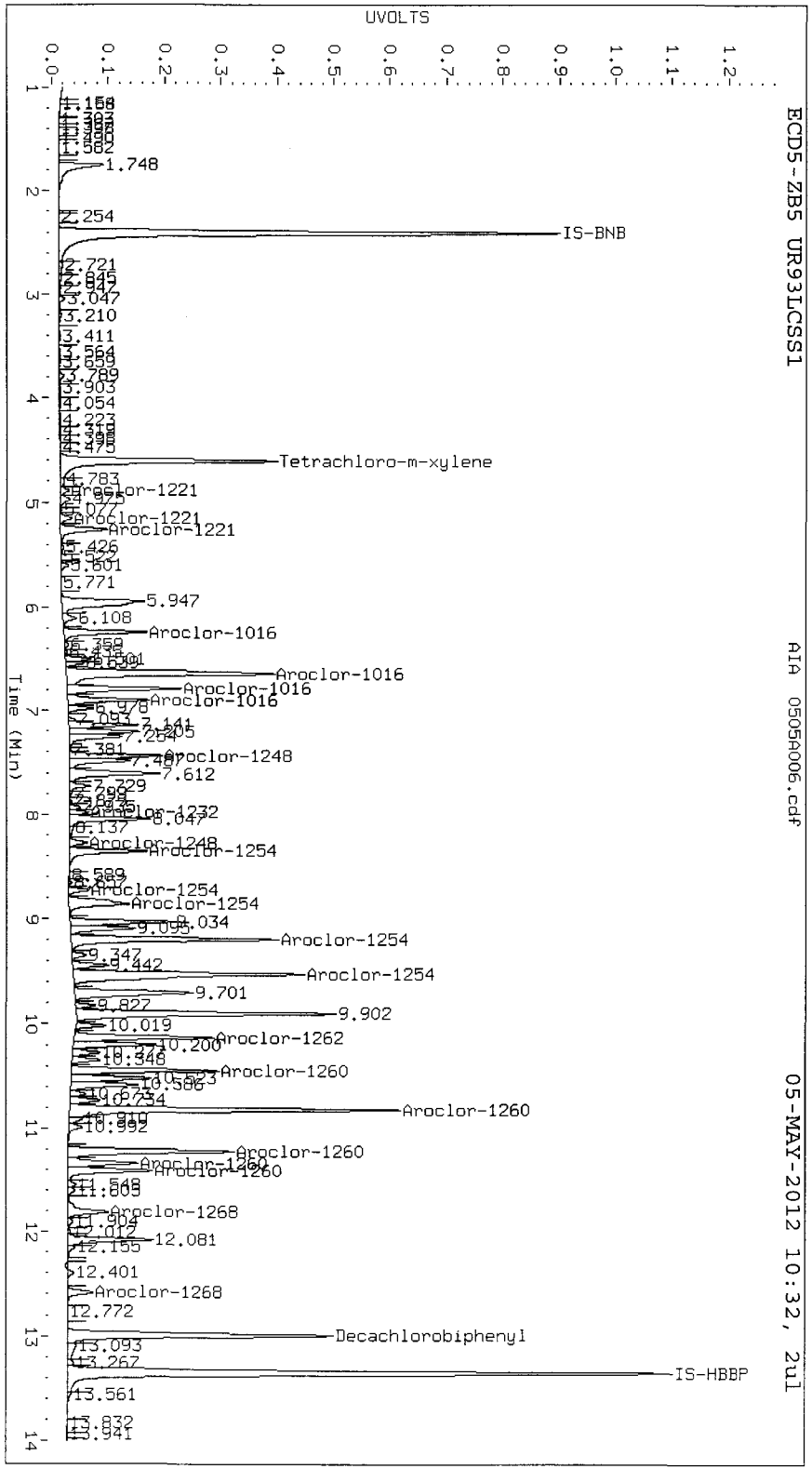
Decachlorobiphenyl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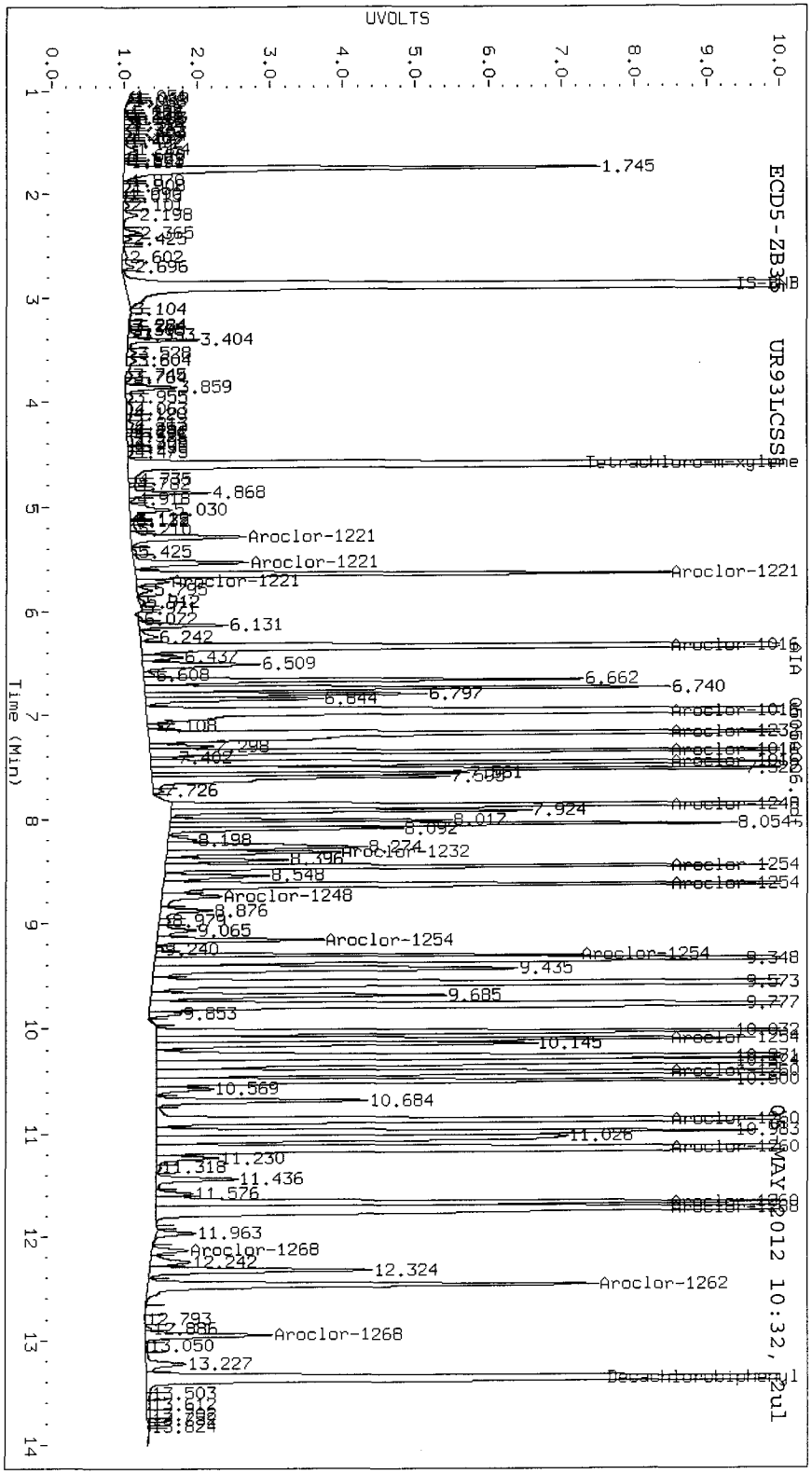
IS-HBBP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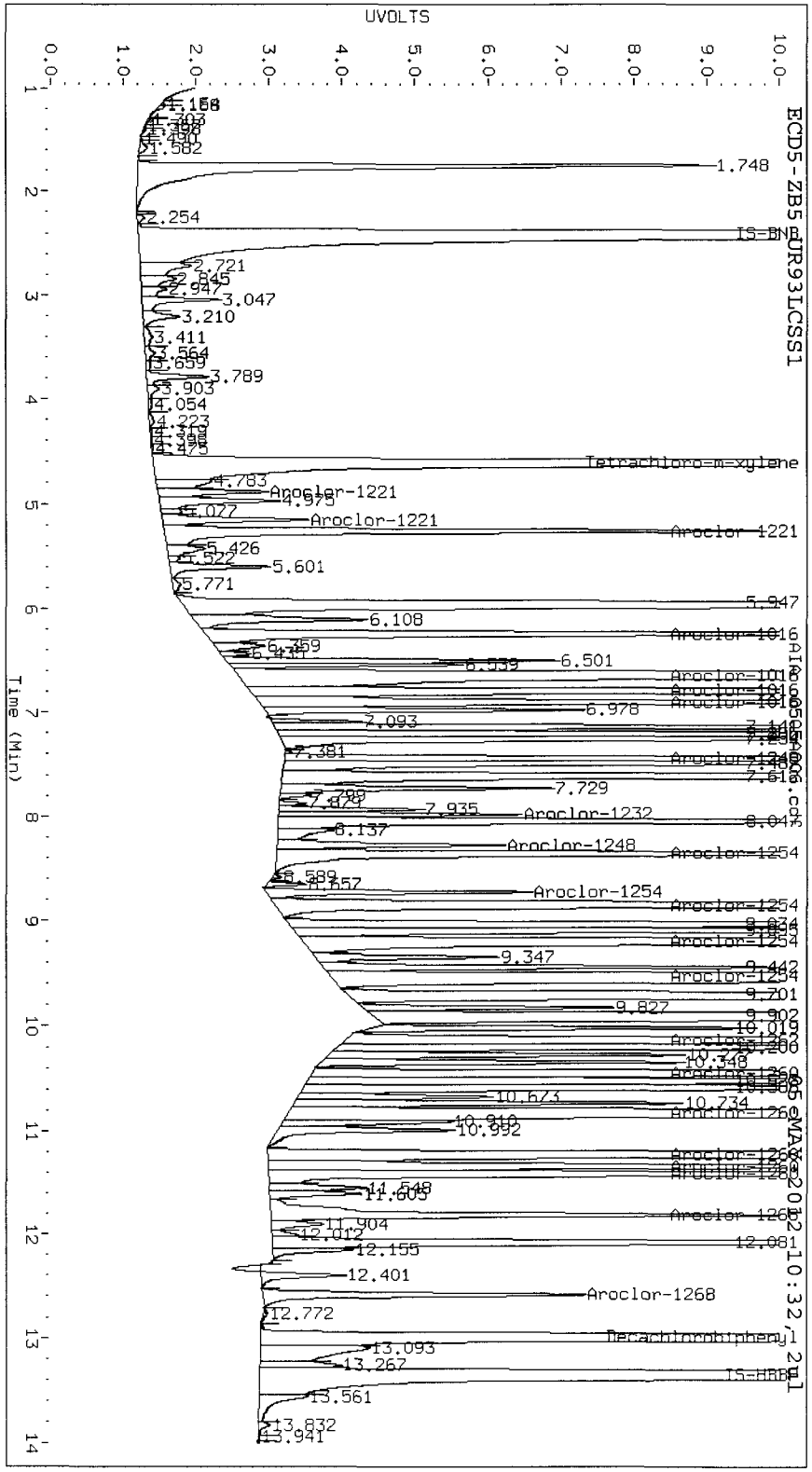
MAY 2012 10:32, 2ul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Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-BN
IS-HBB
Time (Min)
MAY 2012 10:32, 2ul

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A007.d
Data file 2: 20120409.B/0505-2.b/0505A007.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93A
Client ID:
Injection Date: 05-MAY-2012 10:51
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 5.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.605	-0.004	25699816	4.600	-0.005	16838028	11.7	12.3	4.5	Tetrachloro-m-xylene
12.993	-0.001	30226186	13.365	0.000	11390377	11.6	11.3	2.6	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

JK05/07/12

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	146.7	153.4
Decachlorobiphenyl	144.9	141.2

Double surr added

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	134772669	-3.9
Hexabromobiphenyl	198372884	159604816	-19.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	100527597	-2.0
Hexabromobiphenyl	81487087	68626039	-15.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.241	-0.002	302403	5.3	1	6.340	-0.003	318584	6.1
Aroclor-1016	2	6.640	-0.003	1026245	5.6	2	6.967	-0.006	632235	5.8
Aroclor-1016	3	6.789	-0.002	502991	6.8	3	7.351	-0.002	146519	5.2
Aroclor-1016	4	6.900	-0.002	364984	6.9	4	7.458	-0.004	265128	8.6
Total Col1Ave (4 peaks):				6.2		Total Col2Ave (4 peaks):			6.4	RPD = 4
Corrected Ave (3 peaks):				5.9		Corrected Ave (3 peaks):			5.7	RPD = 4
Aroclor-1221	1	4.887	-0.003	1085882	170.0	1	5.303	0.008	258264	16.6
Aroclor-1221	2	5.140	-0.020	295229	18.5	2	5.567	0.025	75942	8.4
Aroclor-1221	3	5.259	-0.007	92728	1.8	3	5.653	-0.001	168128	6.0
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				63.4		Total Col2Ave (3 peaks):			10.3	RPD = 144*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.241	-0.003	302403	13.0	1	6.340	-0.008	318584	13.6
Aroclor-1232	2	6.640	-0.004	1026245	13.7	2	6.967	-0.007	632235	13.8
Aroclor-1232	3	6.789	-0.004	502991	16.3	3	7.176	-0.007	203343	13.0
Aroclor-1232	4	7.982	-0.003	454193	16.1	4	8.322	-0.007	996836	61.6
Total Col1Ave (4 peaks):				14.8		Total Col2Ave (4 peaks):			25.5	RPD = 53*
Corrected Ave (3 peaks):				14.3		Corrected Ave (3 peaks):			13.5	RPD = 6
Aroclor-1242	1	6.241	-0.002	302403	7.3	1	6.340	-0.003	318584	8.2
Aroclor-1242	2	6.640	-0.003	1026245	7.7	2	6.967	-0.007	632235	7.7
Aroclor-1242	3	6.789	-0.002	502991	9.3	3	7.176	-0.003	203343	6.2
Aroclor-1242	4	7.982	-0.002	454193	9.4	4	8.322	-0.004	996836	36.3
Total Col1Ave (4 peaks):				8.4		Total Col2Ave (4 peaks):			14.6	RPD = 54*
Corrected Ave (3 peaks):				8.1		Corrected Ave (3 peaks):			7.4	RPD = 10
Aroclor-1248	1	6.640	0.004	1026245	11.7	1	6.967	-0.001	632235	12.0
Aroclor-1248	2	7.435	-0.001	555839	8.2	2	7.871	0.001	672926	16.5
Aroclor-1248	3	7.982	0.000	454193	5.5	3	8.322	-0.001	996836	21.1
Aroclor-1248	4	8.265	-0.007	2900340	35.3	4	8.738	-0.006	1642327	31.5
Total Col1Ave (4 peaks):				15.2		Total Col2Ave (4 peaks):			20.3	RPD = 29
Corrected Ave (3 peaks):				8.5		Corrected Ave (3 peaks):			16.5	RPD = 64*
Aroclor-1254	1	8.358	0.002	1925697	15.0	1	8.462	0.001	1083574	27.3
Aroclor-1254	2	8.730	0.002	1222254	14.6	2	8.636	0.002	1398161	27.8
Aroclor-1254	3	8.864	0.001	4887766	32.0	3	9.158	0.002	739256	19.0
Aroclor-1254	4	9.196	-0.016	7401699	48.0	4	9.308	0.001	1109574	13.4
Aroclor-1254	5	9.523	-0.051	9282066	89.2	5	10.097	0.008	1113435	22.2
Total Col1Ave (5 peaks):				30.7		Total Col2Ave (5 peaks):			21.9	RPD = 58*
Corrected Ave (4 peaks):				27.4		Corrected Ave (4 peaks):			20.5	RPD = 29
Aroclor-1260	1	10.448	-0.001	4291129	48.7	1	10.421	-0.001	2238111	60.1
Aroclor-1260	2	10.821	-0.002	12426500	57.3	2	10.871	-0.002	2836612	60.2
Aroclor-1260	3	11.223	0.000	5176199	43.9	3	11.143	-0.002	5884294	63.6
Aroclor-1260	4	11.338	-0.001	3233714	61.9	4	11.665	-0.001	2085232	76.5
Aroclor-1260	5	11.412	-0.001	4786227	76.2	NS	---			----
Total Col1Ave (5 peaks):				57.6		Total Col2Ave (4 peaks):			65.1	RPD = 12
Corrected Ave (4 peaks):				53.0		Corrected Ave (3 peaks):			61.3	RPD = 15
Aroclor-1262	1	10.131	-0.003	5138277	39.3	1	10.421	-0.005	2238111	39.5
Aroclor-1262	2	10.448	-0.003	4291129	44.4	2	10.871	-0.007	2836612	58.6
Aroclor-1262	3	10.821	-0.004	12426500	48.6	3	11.143	-0.006	5884294	53.7
Aroclor-1262	4	11.338	-0.003	3233714	34.6	4	11.665	-0.006	2085232	47.5
Aroclor-1262	5	11.412	-0.003	4786227	45.5	5	12.464	-0.005	2178159	51.6
Total Col1Ave (5 peaks):				42.5		Total Col2Ave (5 peaks):			50.2	RPD = 17
Corrected Ave (4 peaks):				41.0		Corrected Ave (4 peaks):			48.1	RPD = 16
Aroclor-1268	1	11.338	-0.004	3233714	12.1	1	11.665	-0.007	2085232	18.0
Aroclor-1268	2	11.412	-0.001	4786227	18.2	2	11.725	-0.014	4283288	39.2

Aroclor-1268	3	11.811	0.011	2352211	10.3	3	12.129	-0.007	163525	1.7
Aroclor-1268	4	12.584	-0.007	2102876	3.0	4	12.951	-0.007	600395	2.1

Total Col1Ave (4 peaks): 10.9 Total Col2Ave (4 peaks): 15.3 RPD = 33

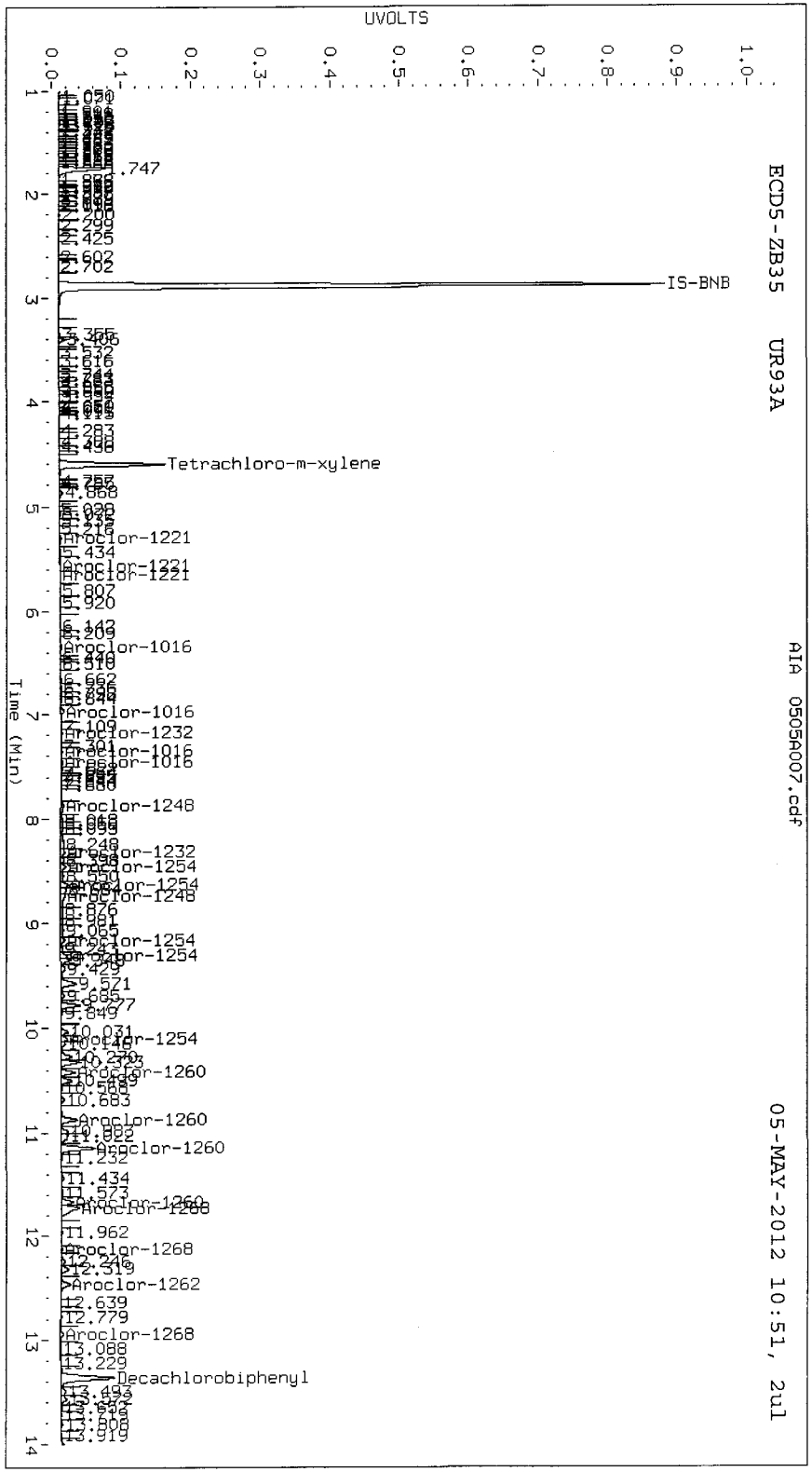
Corrected Ave (3 peaks): 8.5 Corrected Ave (3 peaks): 7.3 RPD = 15

Total PCB Area Col1 (4.709 - 12.894) = 127376811 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 67298226 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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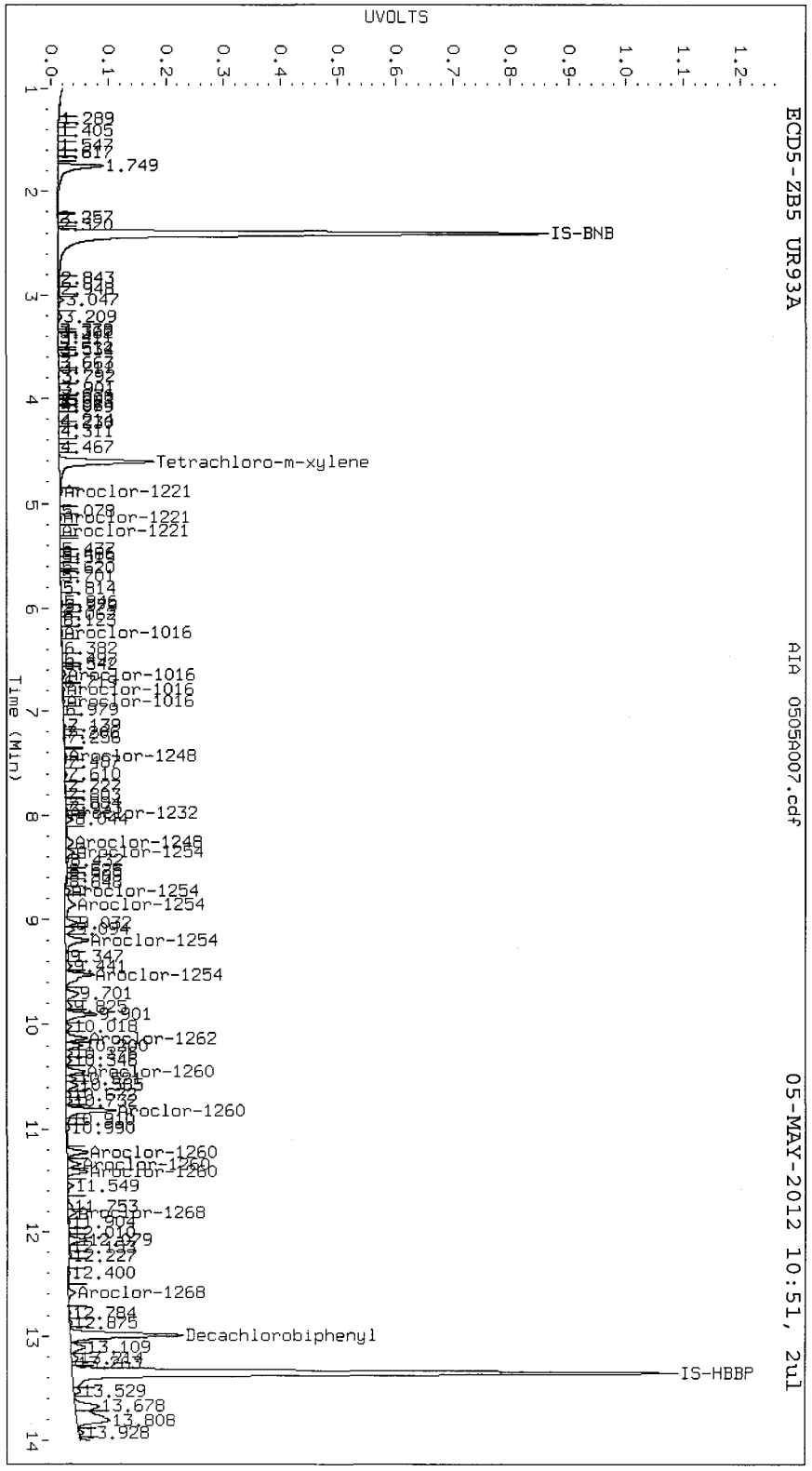
Decachlorobiphenyl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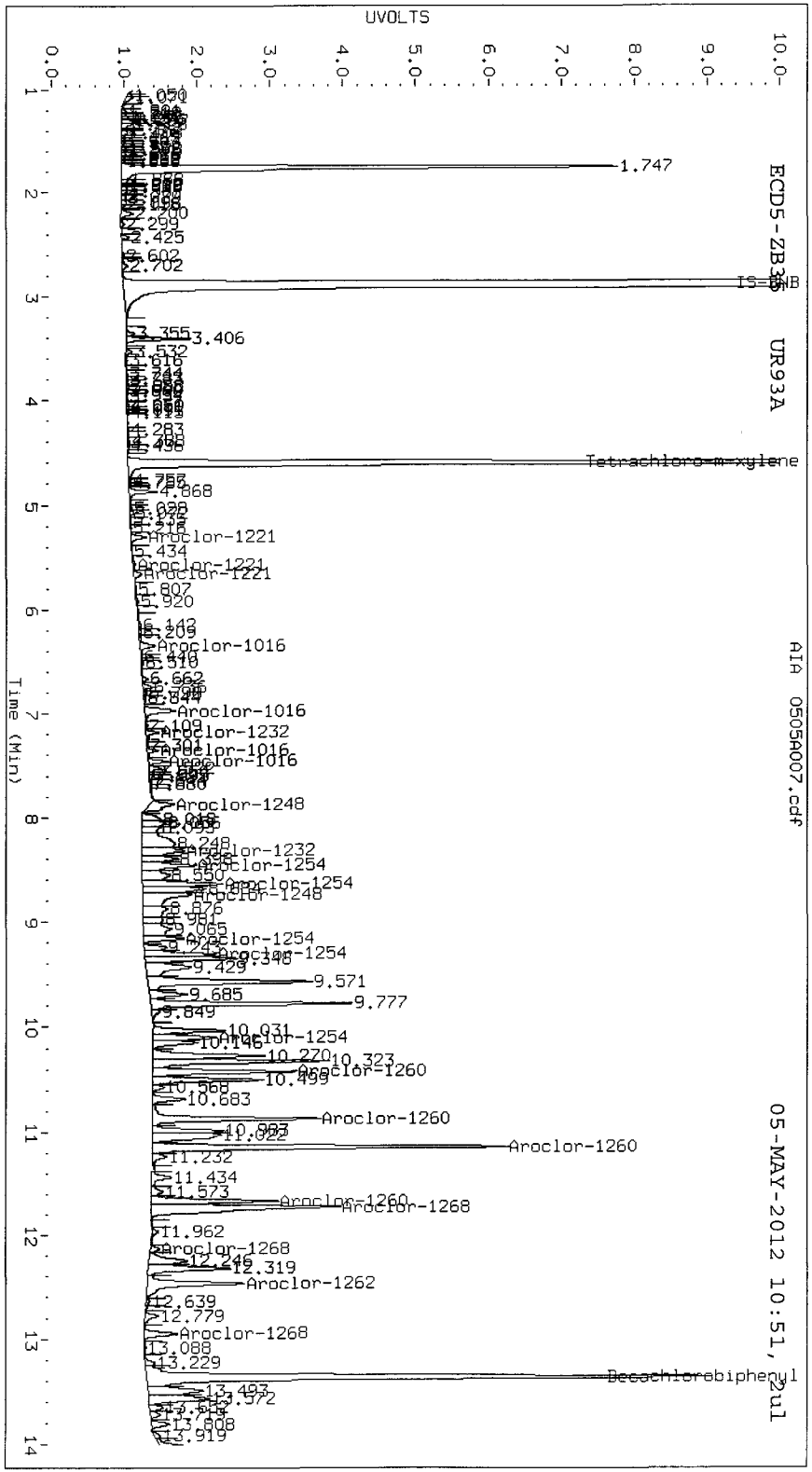
IS-HBBP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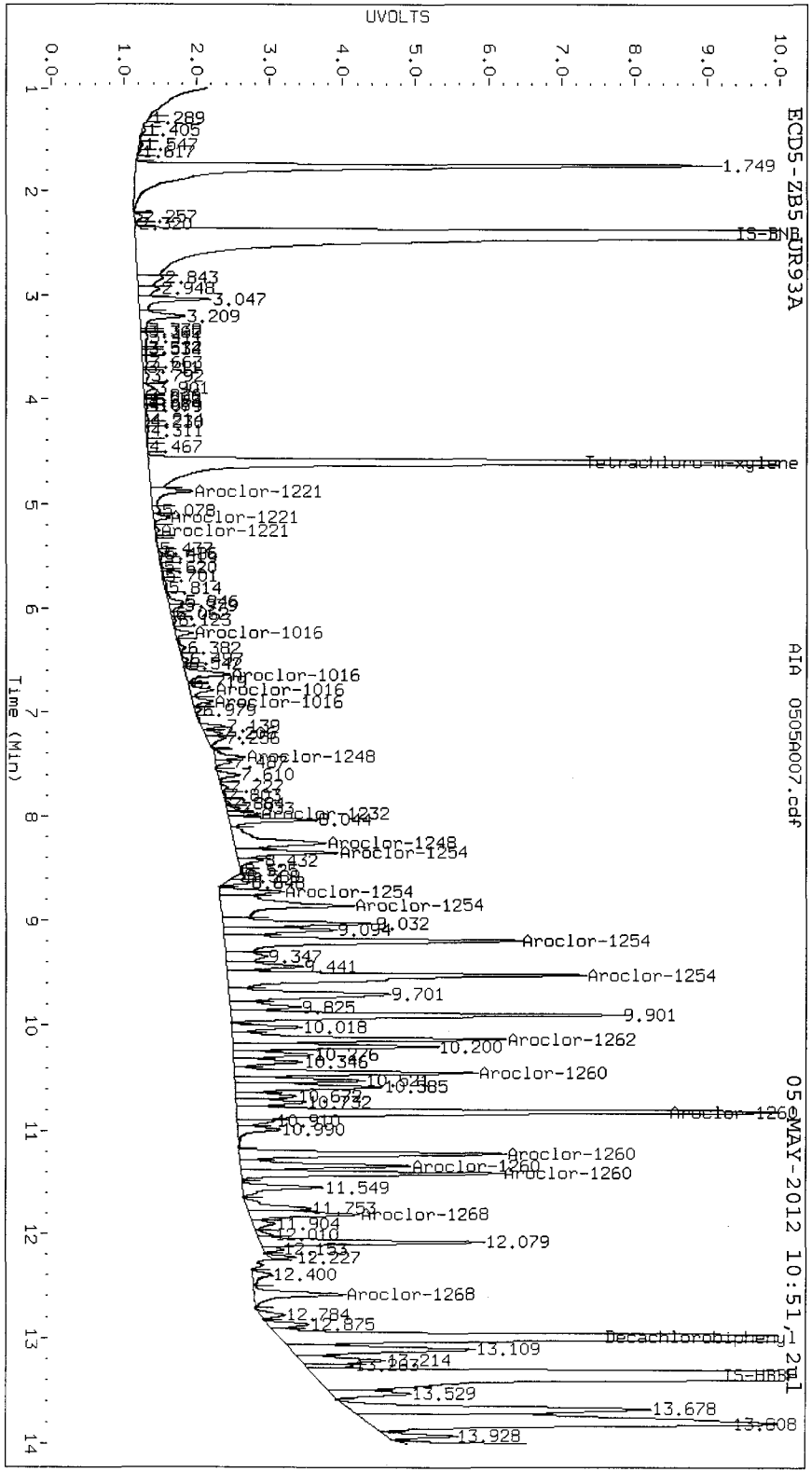
Time (Min)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Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB
Time (Min)

UR93:00216

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A008.d
Data file 2: 20120409.B/0505-2.b/0505A008.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93B
Client ID:
Injection Date: 05-MAY-2012 11:10
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 5.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.004	13350735	4.599	-0.005	9120432	5.8	6.3	8.6	Tetrachloro-m-xylene
12.991	-0.003	14795459	13.363	-0.003	5369237	5.3	4.3	19.5	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	72.1	78.6
Decachlorobiphenyl	65.7	54.0

05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	142440577	1.5
Hexabromobiphenyl	198372884	172226184	-13.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	106278314	3.6
Hexabromobiphenyl	81487087	84511724	3.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.233	-0.009	600847	10.0	1	6.339	-0.004	675415	12.3
Aroclor-1016	2	6.639	-0.003	3056757	15.9	2	6.970	-0.004	1975200	17.1
Aroclor-1016	3	6.799	0.008	1296700	16.5	3	7.349	-0.005	526354	17.6
Aroclor-1016	4	6.890	-0.012	1818184	32.6	4	7.456	-0.005	18984638	580.2
Total Col1Ave (4 peaks):					18.8	Total Col2Ave (4 peaks):				156.8 RPD = 157*
Corrected Ave (3 peaks):					14.1	Corrected Ave (3 peaks):				15.7 RPD = 10
Aroclor-1221	1	4.902	0.012	1241444	183.9	1	5.297	0.002	503565	30.7
Aroclor-1221	2	5.136	-0.025	164454	9.8	2	5.557	0.015	593764	61.8
Aroclor-1221	3	5.249	-0.017	138932	2.5	3	5.667	0.013	2964006	99.5
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):					65.4	Total Col2Ave (3 peaks):				64.0 RPD = 2
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.233	-0.011	600847	24.5	1	6.339	-0.009	675415	27.3
Aroclor-1232	2	6.639	-0.004	3056757	38.6	2	6.970	-0.004	1975200	40.9
Aroclor-1232	3	6.799	0.006	1296700	39.9	3	7.181	-0.002	304877	18.4
Aroclor-1232	4	7.981	-0.005	12568554	421.2	4	8.322	-0.006	8678477	507.0
Total Col1Ave (4 peaks):					131.0	Total Col2Ave (4 peaks):				148.4 RPD = 12
Corrected Ave (3 peaks):					34.3	Corrected Ave (3 peaks):				28.9 RPD = 17
Aroclor-1242	1	6.233	-0.009	600847	13.7	1	6.339	-0.004	675415	16.5
Aroclor-1242	2	6.639	-0.003	3056757	21.7	2	6.970	-0.004	1975200	22.7
Aroclor-1242	3	6.799	0.008	1296700	22.6	3	7.181	0.002	304877	8.7
Aroclor-1242	4	7.981	-0.003	12568554	247.3	4	8.322	-0.003	8678477	299.2
Total Col1Ave (4 peaks):					76.3	Total Col2Ave (4 peaks):				86.8 RPD = 13
Corrected Ave (3 peaks):					19.3	Corrected Ave (3 peaks):				16.0 RPD = 19
Aroclor-1248	1	6.639	0.004	3056757	33.0	1	6.970	0.002	1975200	35.4
Aroclor-1248	2	7.436	0.000	15211972	213.2	2	7.870	0.000	9326915	216.6
Aroclor-1248	3	7.981	-0.001	12568554	144.2	3	8.322	0.000	8678477	173.4
Aroclor-1248	4	8.278	0.006	18906793	217.7	4	8.729	-0.015	20927137	379.4
Total Col1Ave (4 peaks):					152.0	Total Col2Ave (4 peaks):				201.2 RPD = 28
Corrected Ave (3 peaks):					130.1	Corrected Ave (3 peaks):				141.8 RPD = 9
Aroclor-1254	1	8.357	0.001	91667302	674.5	1	8.462	0.001	40886729	974.3
Aroclor-1254	2	8.728	0.001	53312580	603.2	2	8.635	0.001	42645720	801.8
Aroclor-1254	3	8.864	0.001	115974808	717.6	3	9.157	0.001	29404433	715.3
Aroclor-1254	4	9.205	-0.008	122733411	752.6	4	9.308	0.001	59087914	673.0
Aroclor-1254	5	9.569	-0.006	61743455	561.2	5	10.096	0.006	33673817	635.9
Total Col1Ave (5 peaks):					661.8	Total Col2Ave (5 peaks):				760.0 RPD = 14
Corrected Ave (4 peaks):					639.1	Corrected Ave (4 peaks):				706.5 RPD = 10
Aroclor-1260	1	10.447	-0.002	26916071	283.3	1	10.419	-0.002	14494756	315.9
Aroclor-1260	2	10.821	-0.002	74351393	317.7	2	10.867	-0.005	28808480	496.4
Aroclor-1260	3	11.220	-0.002	41433993	325.8	3	11.143	-0.002	40726010	357.5
Aroclor-1260	4	11.337	-0.002	13766773	244.2	4	11.664	-0.002	9237761	275.1
Aroclor-1260	5	11.412	-0.001	17475850	257.8	NS	---			----
Total Col1Ave (5 peaks):					285.8	Total Col2Ave (4 peaks):				361.2 RPD = 23
Corrected Ave (4 peaks):					275.8	Corrected Ave (3 peaks):				316.2 RPD = 14
Aroclor-1262	1	10.130	-0.004	25740636	182.5	1	10.419	-0.006	14494756	207.8
Aroclor-1262	2	10.447	-0.003	26916071	258.1	2	10.867	-0.010	28808480	483.3
Aroclor-1262	3	10.821	-0.004	74351393	269.6	3	11.143	-0.006	40726010	301.8
Aroclor-1262	4	11.337	-0.004	13766773	136.6	4	11.664	-0.007	9237761	170.8
Aroclor-1262	5	11.412	-0.003	17475850	154.0	5	12.463	-0.007	10093556	194.2
Total Col1Ave (5 peaks):					200.1	Total Col2Ave (5 peaks):				271.6 RPD = 30
Corrected Ave (4 peaks):					182.8	Corrected Ave (4 peaks):				218.7 RPD = 18
Aroclor-1268	1	11.337	-0.005	13766773	47.9	1	11.664	-0.008	9237761	64.7
Aroclor-1268	2	11.412	-0.001	17475850	61.7	2	11.723	-0.015	25760597	191.4

Aroclor-1268	3	11.811	0.011	11572539	47.1	3	12.132	-0.004	528354	4.6
Aroclor-1268	4	12.581	-0.010	6114490	8.1	4	12.949	-0.009	4201202	12.0

Total Col1Ave (4 peaks): 41.2 Total Col2Ave (4 peaks): 68.2 RPD = 49*

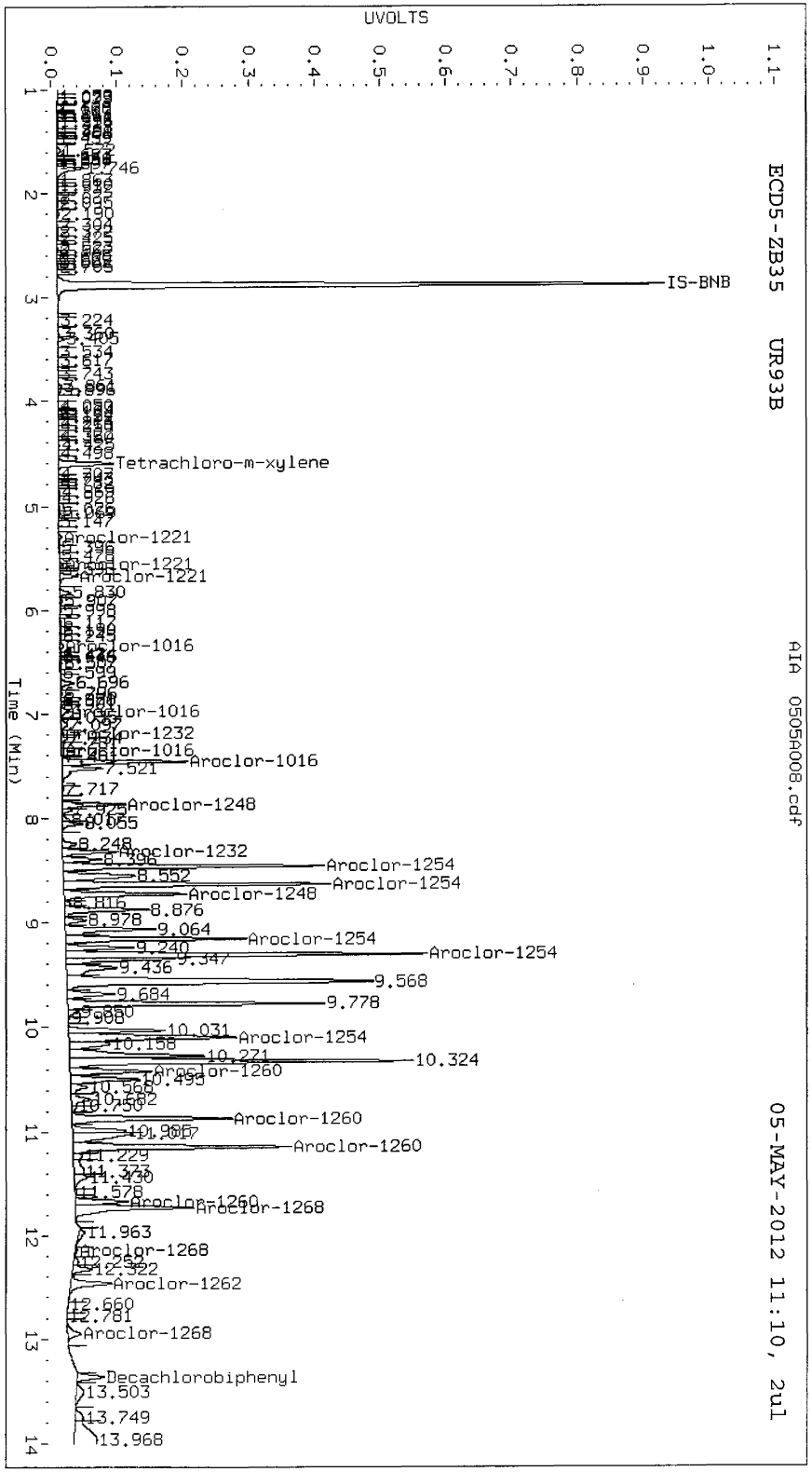
Corrected Ave (3 peaks): 34.4 Corrected Ave (3 peaks): 27.1 RPD = 24

Total PCB Area Col1 (4.709 - 12.894) = 1452058609 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 834578488 Col2 Total PCB = 1.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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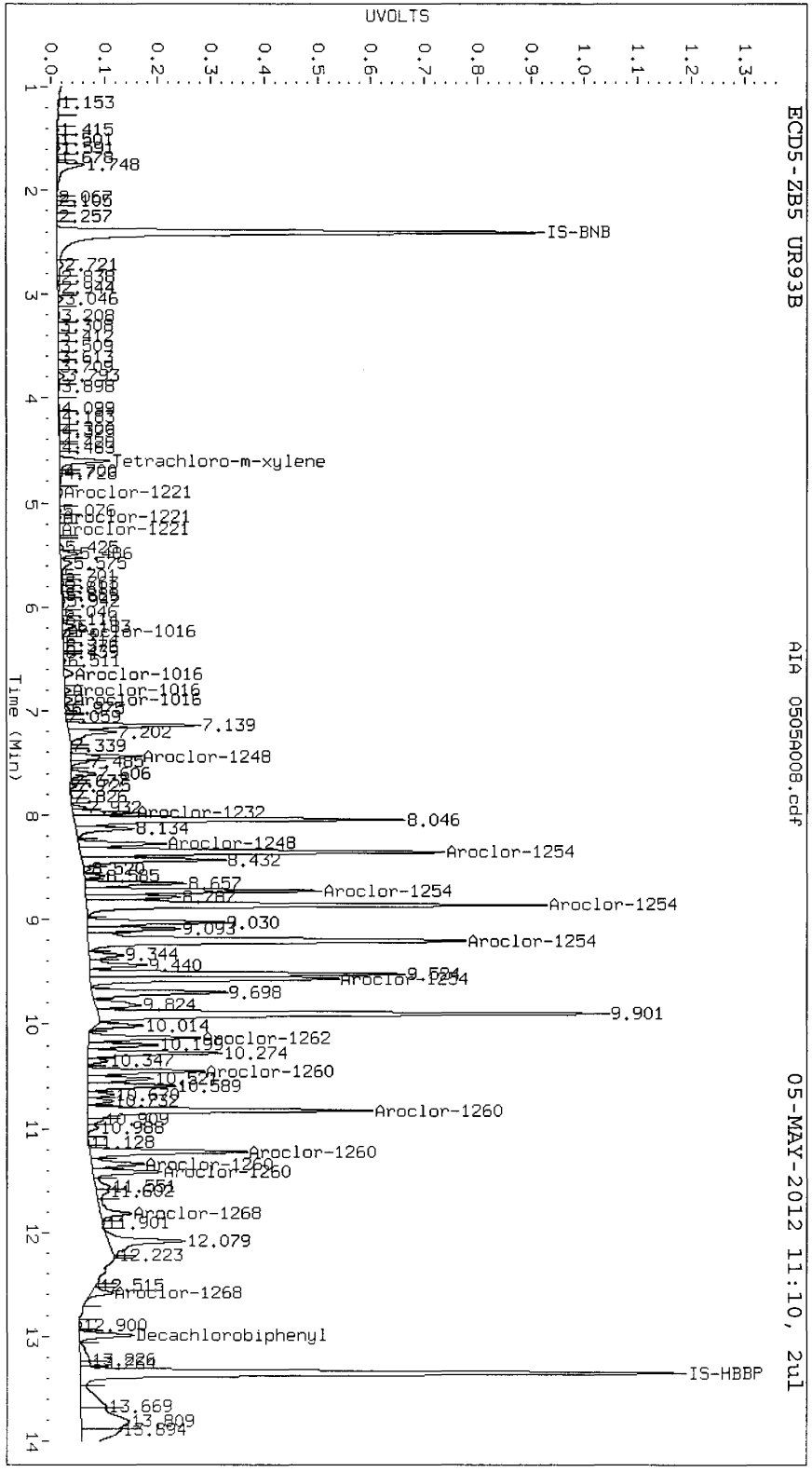
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl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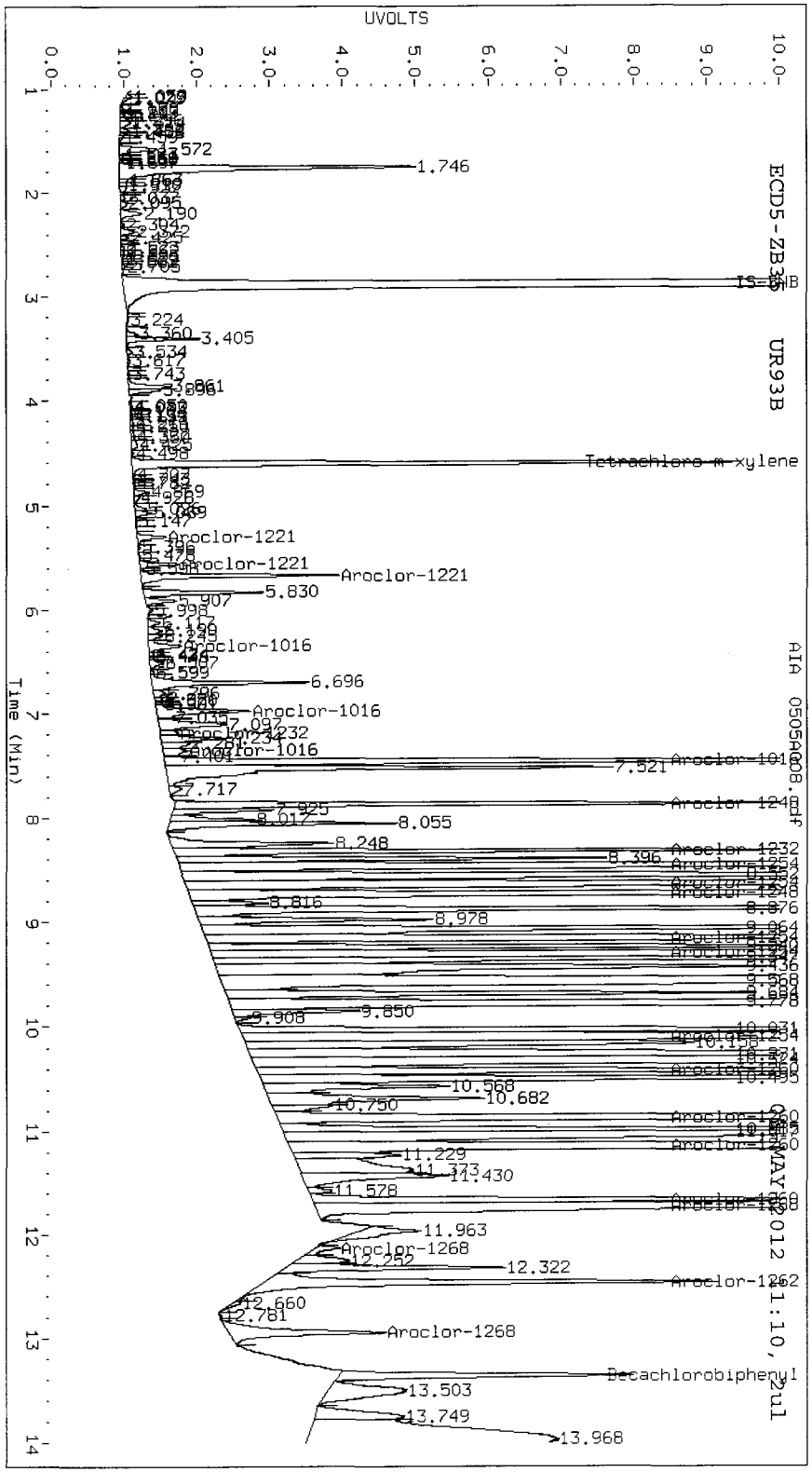
IS-HBBP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Aroclor-1262
Aroclor-1268
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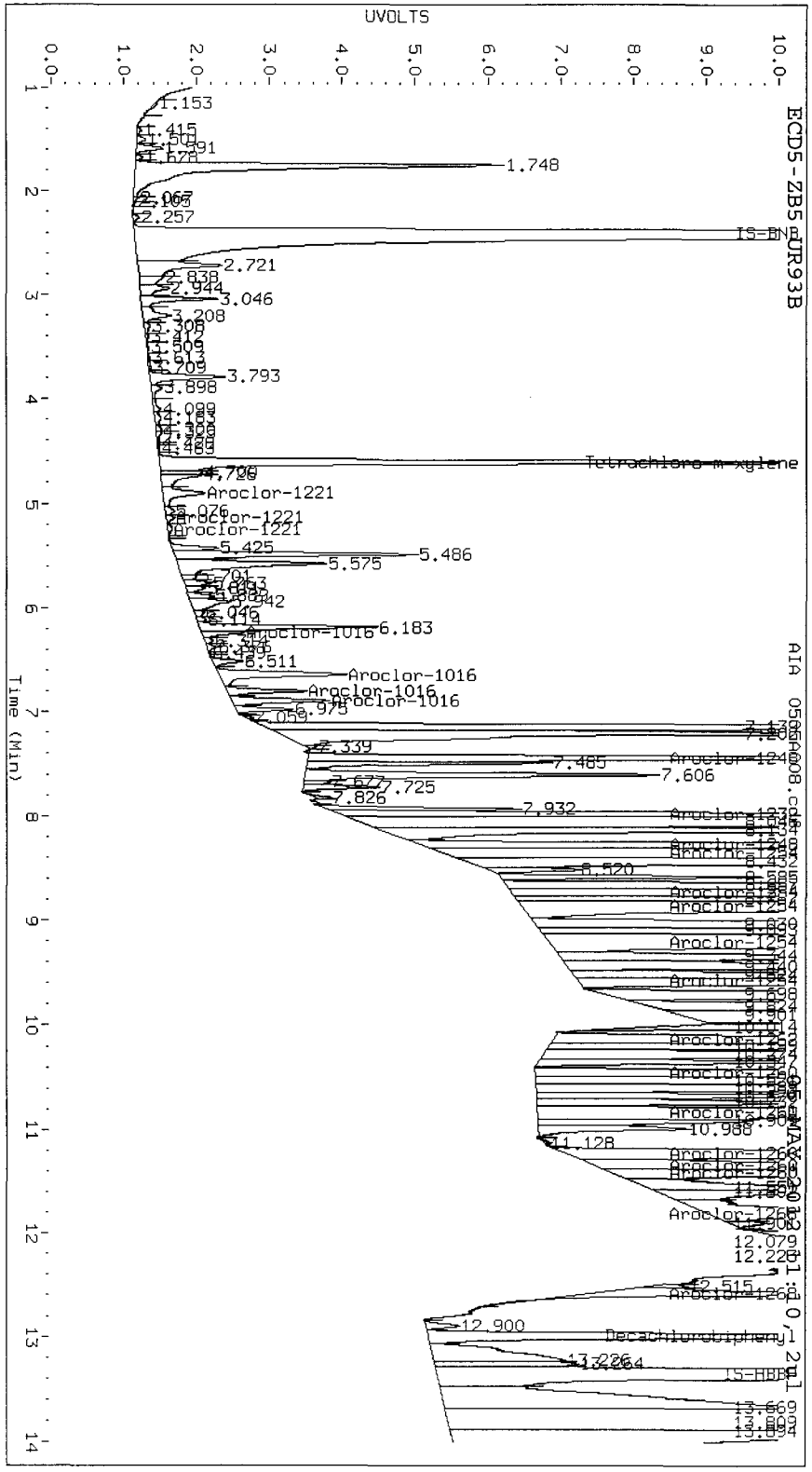
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Aroclor-1268
Decachlorobiphenyl
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7.932
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11.128
12.900

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A009.d
Data file 2: 20120409.B/0505-2.b/0505A009.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93C
Client ID:
Injection Date: 05-MAY-2012 11:29
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.005	69788367	4.599	-0.005	46738103	30.5	34.2	11.5	Tetrachloro-m-xylene
12.992	-0.002	77690702	13.364	-0.001	30533113	28.5	30.1	5.5	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

A 05/07/12

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	76.2	85.5
Decachlorobiphenyl	71.2	75.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	140823568	0.4
Hexabromobiphenyl	198372884	167085157	-15.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	100139059	-2.4
Hexabromobiphenyl	81487087	69100921	-15.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.210	-0.033	567363	9.6	1	6.380	0.037	166951	3.2
Aroclor-1016	2	6.643	0.001	69703	0.4	2	7.000	0.026	567437	5.2
Aroclor-1016	3	6.702	-0.089	138964	1.8	3	7.360	0.007	322737	11.5
Aroclor-1016	4	6.898	-0.003	460490	8.4	4	7.456	-0.005	443653	14.4
Total Col1Ave (4 peaks):				5.0		Total Col2Ave (4 peaks):			8.6	RPD = 52*
Corrected Ave (3 peaks):				3.5		Corrected Ave (3 peaks):			6.6	RPD = 62*
Aroclor-1221	1	4.886	-0.004	4013155	601.4	1	5.303	0.008	867548	56.1
Aroclor-1221	2	5.137	-0.023	1105133	66.3	2	5.530	-0.012	162903	18.0
Aroclor-1221	3	5.270	0.005	165479	3.0	3	5.664	0.010	433987	15.5
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				223.6		Total Col2Ave (3 peaks):			29.9	RPD = 153*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.210	-0.034	567363	23.4	1	6.380	0.033	166951	7.2
Aroclor-1232	2	6.643	0.000	69703	0.9	2	7.000	0.026	567437	12.5
Aroclor-1232	3	6.702	-0.091	138964	4.3	3	7.179	-0.004	159837	10.3
Aroclor-1232	4	7.985	-0.001	197780	6.7	4	8.319	-0.010	1375741	85.3
Total Col1Ave (4 peaks):				8.8		Total Col2Ave (4 peaks):			28.8	RPD = 106*
Corrected Ave (3 peaks):				4.0		Corrected Ave (3 peaks):			10.0	RPD = 86*
Aroclor-1242	1	6.210	-0.033	567363	13.1	1	6.380	0.037	166951	4.3
Aroclor-1242	2	6.643	0.001	69703	0.5	2	7.000	0.026	567437	6.9
Aroclor-1242	3	6.702	-0.089	138964	2.5	3	7.179	0.000	159837	4.9
Aroclor-1242	4	7.985	0.001	197780	3.9	4	8.319	-0.007	1375741	50.3
Total Col1Ave (4 peaks):				5.0		Total Col2Ave (4 peaks):			16.6	RPD = 107*
Corrected Ave (3 peaks):				2.3		Corrected Ave (3 peaks):			5.4	RPD = 80*
Aroclor-1248	1	6.643	0.008	69703	0.8	1	7.000	0.032	567437	10.8
Aroclor-1248	2	7.433	-0.003	406273	5.8	2	7.871	0.001	493920	12.2
Aroclor-1248	3	7.985	0.003	197780	2.3	3	8.319	-0.004	1375741	29.2
Aroclor-1248	4	8.248	-0.024	1506690	17.5	4	8.727	-0.017	1830367	35.2
Total Col1Ave (4 peaks):				6.6		Total Col2Ave (4 peaks):			21.8	RPD = 107*
Corrected Ave (3 peaks):				2.9		Corrected Ave (3 peaks):			17.4	RPD = 142*
Aroclor-1254	1	8.357	0.001	606013	4.5	1	8.460	-0.001	903479	22.8
Aroclor-1254	2	8.729	0.002	1289226	14.8	2	8.636	0.001	1233022	24.6
Aroclor-1254	3	8.862	-0.001	2869742	18.0	3	9.171	0.015	2030703	52.4
Aroclor-1254	4	9.211	-0.001	4776110	29.6	4	9.307	0.000	1521766	18.4
Aroclor-1254	5	9.570	-0.004	2440288	22.4	5	10.094	0.005	779630	15.6
Total Col1Ave (5 peaks):				17.9		Total Col2Ave (5 peaks):			26.8	RPD = 40
Corrected Ave (4 peaks):				14.9		Corrected Ave (4 peaks):			20.4	RPD = 31
Aroclor-1260	1	10.443	-0.006	860496	9.3	1	10.409	-0.013	429333	11.4
Aroclor-1260	2	10.856	0.033	3663774	16.1	2	10.866	-0.007	92712	2.0
Aroclor-1260	3	11.222	0.000	538977	4.4	3	11.143	-0.002	2791381	30.0
Aroclor-1260	4	11.317	-0.022	272650	5.0	4	11.620	-0.046	440796	16.1
Aroclor-1260	5	---			0.0	NS	---			----
Total Col1Ave (4 peaks):				8.7		Total Col2Ave (4 peaks):			14.9	RPD = 52*
Corrected Ave (3 peaks):				6.2		Corrected Ave (3 peaks):			9.8	RPD = 45*
Aroclor-1262	1	10.120	-0.014	833297	6.1	1	10.409	-0.016	429333	7.5
Aroclor-1262	2	10.443	-0.008	860496	8.5	2	10.866	-0.012	92712	1.9
Aroclor-1262	3	10.856	0.031	3663774	13.7	3	11.143	-0.005	2791381	25.3
Aroclor-1262	4	11.317	-0.024	272650	2.8	4	11.620	-0.051	440796	10.0
Aroclor-1262	5	---			0.0	5	12.450	-0.020	673383	15.8
Total Col1Ave (4 peaks):				7.8		Total Col2Ave (5 peaks):			12.1	RPD = 44*
Corrected Ave (3 peaks):				5.8		Corrected Ave (4 peaks):			8.8	RPD = 41*
Aroclor-1268	1	11.317	-0.025	272650	1.0	1	11.620	-0.052	440796	3.8
Aroclor-1268	2	---			0.0	2	11.743	0.004	858546	7.8

Aroclor-1268	3	11.753	-0.047	1843751	7.7	3	12.122	-0.014	330201	3.5
Aroclor-1268	4	---			0.0	4	12.947	-0.011	709614	2.5

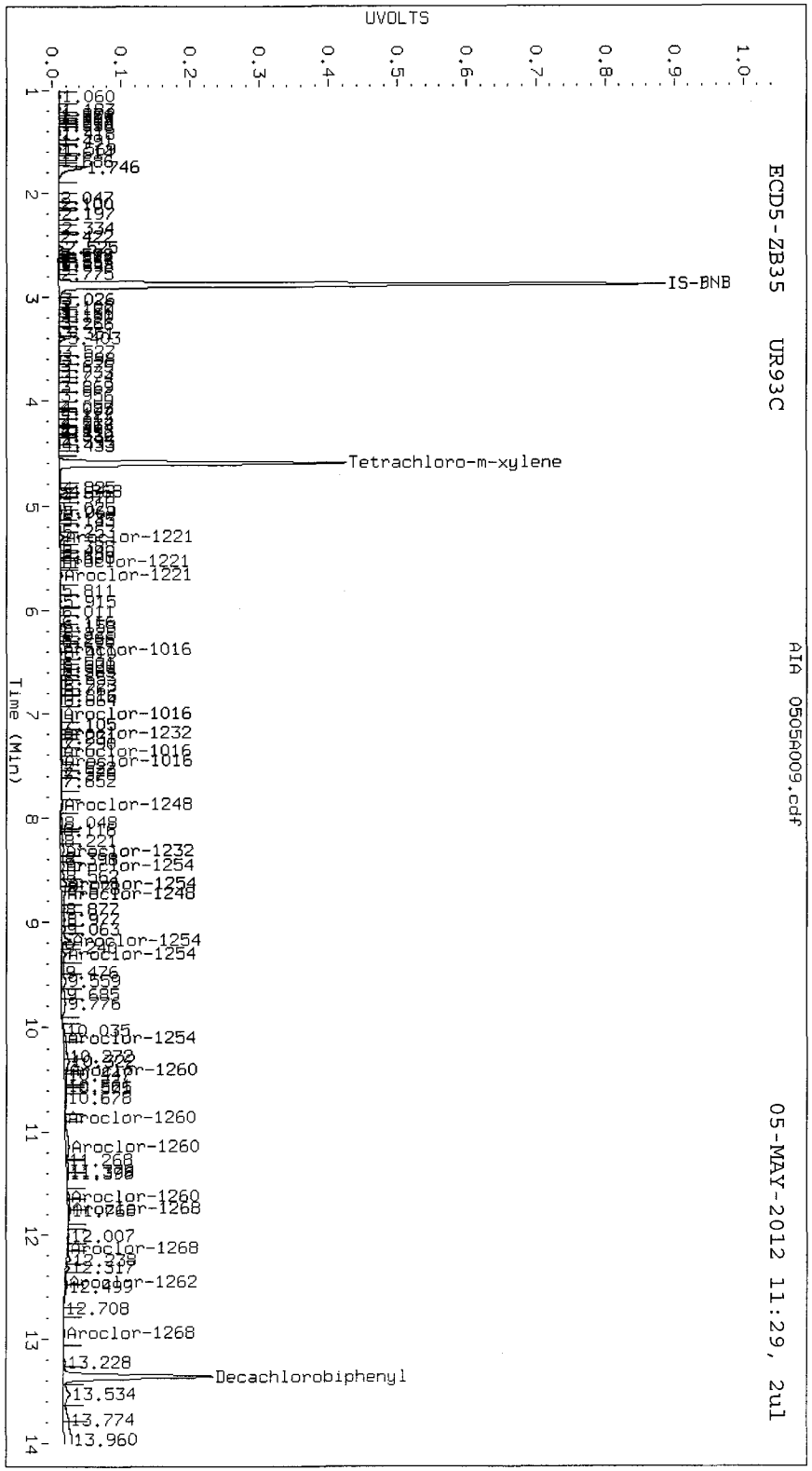
Col1Ave: <3 Quant Peaks Col2Ave: 4.4

Total PCB Area Col1 (4.709 - 12.894) = 73837553 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 53190374 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

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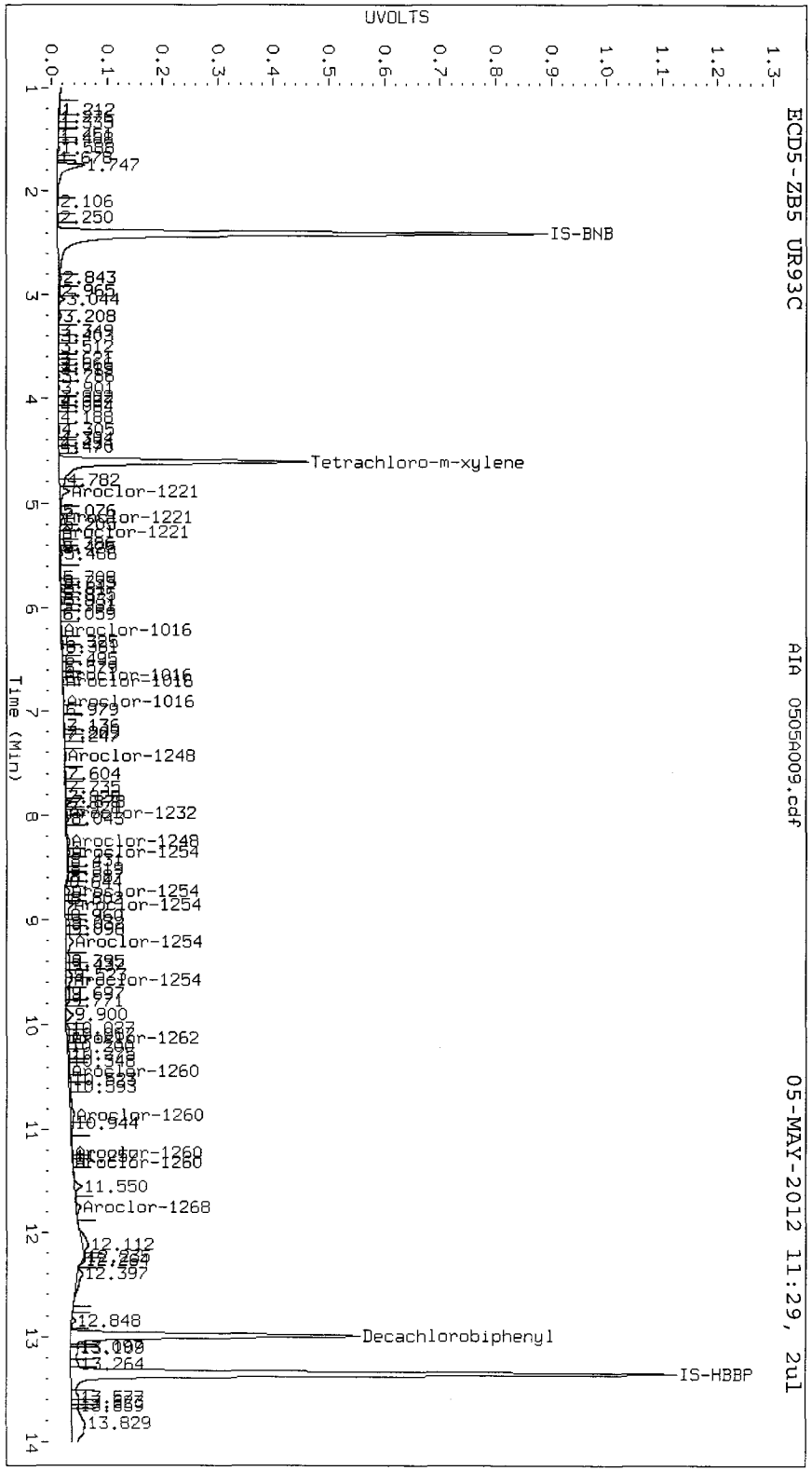
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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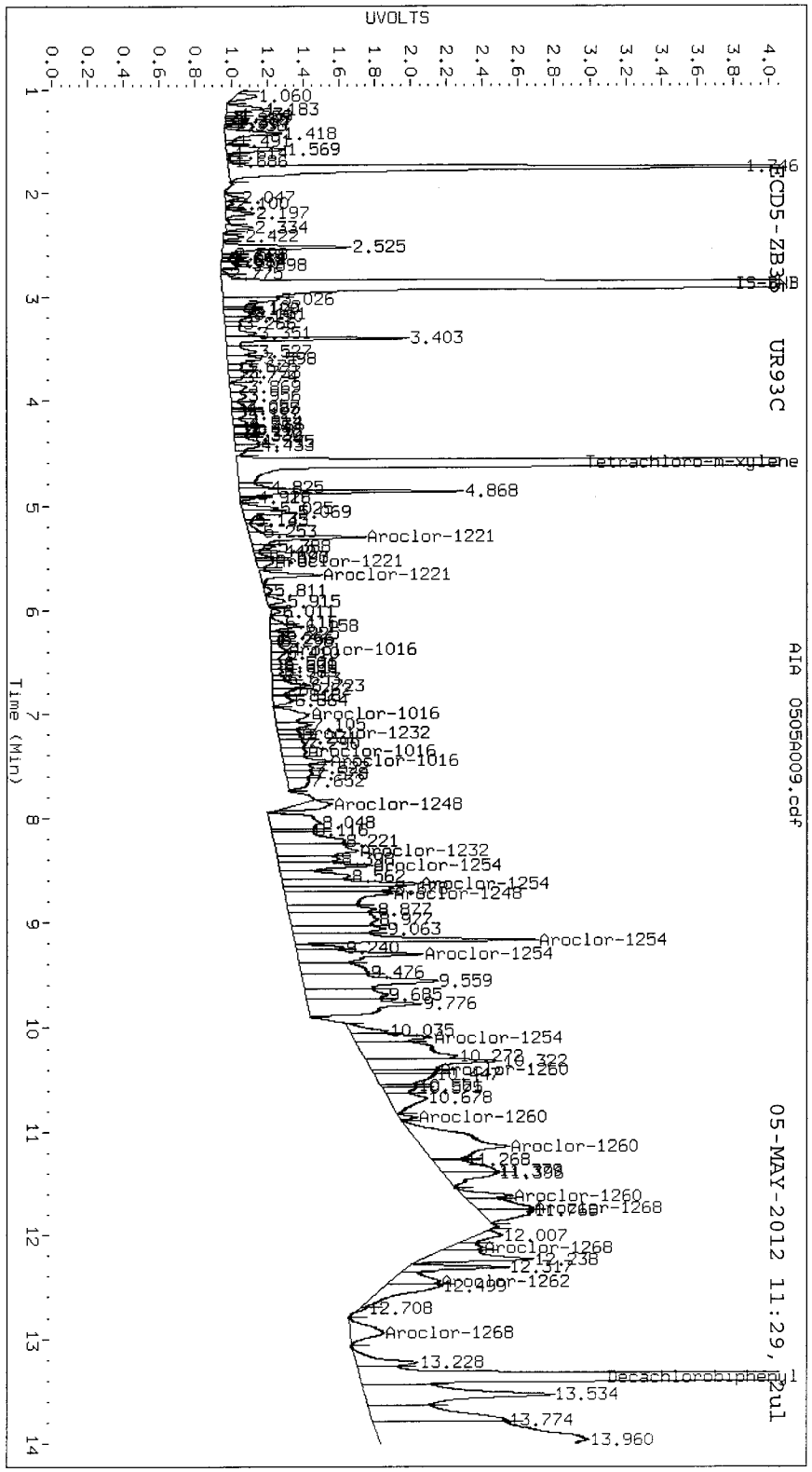
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP

UR93:00225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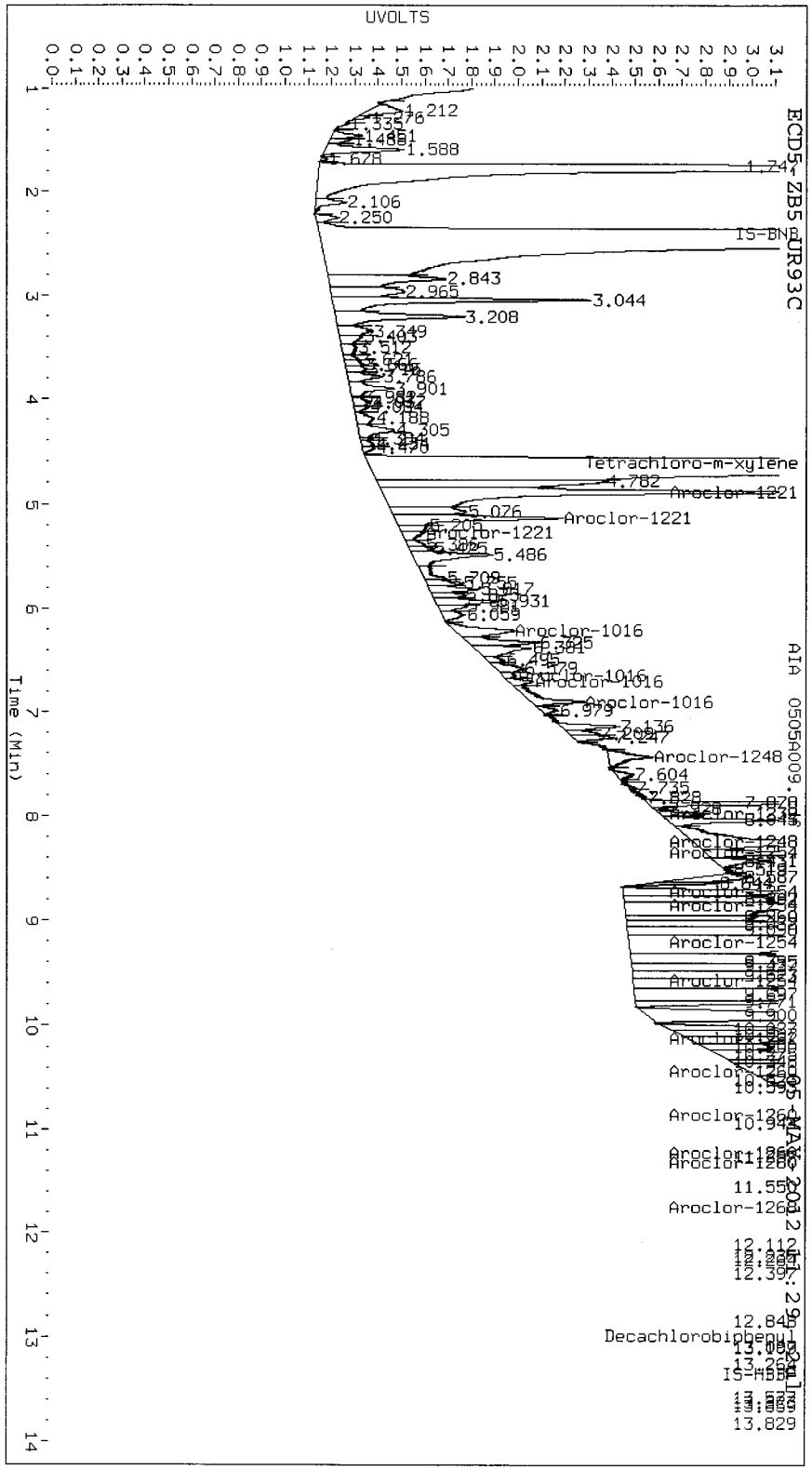
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl
IS-HSB


UVOLTS
ECD5-ZB5
UR93C
AIA 0505A009.
05-MAY-2012
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
IS-HSB

UR93 : 00226

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A010.d
Data file 2: 20120409.B/0505-2.b/0505A010.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93CDUP
Client ID:
Injection Date: 05-MAY-2012 11:48
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.005	64164319	4.600	-0.004	41259590	27.3	29.3	7.0	Tetrachloro-m-xylene
12.991	-0.003	79146623	13.365	-0.001	28767585	27.0	27.7	2.4	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

05/07/12

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	68.2	73.2
Decachlorobiphenyl	67.5	69.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	144721371	3.2
Hexabromobiphenyl	198372884	179409654	-9.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	103304142	0.7
Hexabromobiphenyl	81487087	70783889	-13.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.214	-0.028	413997	6.8	1	6.348	0.004	10008	0.2
Aroclor-1016	2	6.654	0.012	26674	0.1	2	6.958	-0.016	121809	1.1
Aroclor-1016	3	6.703	-0.088	123471	1.5	3	7.363	0.009	162633	5.6
Aroclor-1016	4	6.897	-0.004	321539	5.7	4	7.456	-0.005	275216	8.7
Total Col1Ave (4 peaks):				3.5		Total Col2Ave (4 peaks):			3.9	RPD = 9
Corrected Ave (3 peaks):				2.5		Corrected Ave (3 peaks):			2.3	RPD = 7
Aroclor-1221	1	4.887	-0.003	3381451	493.1	1	5.303	0.008	776977	48.7
Aroclor-1221	2	5.139	-0.021	1393136	81.3	2	5.554	0.012	163115	17.5
Aroclor-1221	3	5.287	0.022	80225	1.4	3	5.664	0.009	351035	12.1
Aroclor-1221	NS	---			----	4	5.723	0.001	16517	3.2
Total Col1Ave (3 peaks):				192.0		Total Col2Ave (4 peaks):			20.4	RPD = 162*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			10.9	
Aroclor-1232	1	6.214	-0.030	413997	16.6	1	6.348	0.000	10008	0.4
Aroclor-1232	2	6.654	0.011	26674	0.3	2	6.958	-0.016	121809	2.6
Aroclor-1232	3	6.703	-0.089	123471	3.7	3	7.238	0.055	199101	12.4
Aroclor-1232	4	7.982	-0.003	122781	4.1	4	8.314	-0.014	858398	51.6
Total Col1Ave (4 peaks):				6.2		Total Col2Ave (4 peaks):			16.7	RPD = 92*
Corrected Ave (3 peaks):				2.7		Corrected Ave (3 peaks):			5.1	RPD = 62*
Aroclor-1242	1	6.214	-0.028	413997	9.3	1	6.348	0.004	10008	0.3
Aroclor-1242	2	6.654	0.012	26674	0.2	2	6.958	-0.016	121809	1.4
Aroclor-1242	3	6.703	-0.087	123471	2.1	3	7.238	0.059	199101	5.9
Aroclor-1242	4	7.982	-0.002	122781	2.4	4	8.314	-0.011	858398	30.4
Total Col1Ave (4 peaks):				3.5		Total Col2Ave (4 peaks):			9.5	RPD = 92*
Corrected Ave (3 peaks):				1.6		Corrected Ave (3 peaks):			2.5	RPD = 47*
Aroclor-1248	1	6.654	0.019	26674	0.3	1	6.958	-0.010	121809	2.2
Aroclor-1248	2	7.429	-0.008	455011	6.3	2	7.872	0.002	285293	6.8
Aroclor-1248	3	7.982	0.000	122781	1.4	3	8.314	-0.008	858398	17.6
Aroclor-1248	4	8.259	-0.013	990951	11.2	4	8.727	-0.017	1079431	20.1
Total Col1Ave (4 peaks):				4.8		Total Col2Ave (4 peaks):			11.7	RPD = 84*
Corrected Ave (3 peaks):				2.6		Corrected Ave (3 peaks):			8.9	RPD = 108*
Aroclor-1254	1	8.358	0.003	556053	4.0	1	8.462	0.001	540676	13.3
Aroclor-1254	2	8.729	0.002	769730	8.6	2	8.637	0.003	1197398	23.2
Aroclor-1254	3	8.864	0.001	2572440	15.7	3	9.173	0.016	1374275	34.4
Aroclor-1254	4	9.212	-0.001	2949807	17.8	4	9.307	0.000	1155452	13.5
Aroclor-1254	5	9.574	0.000	2019057	18.1	5	10.091	0.002	397042	7.7
Total Col1Ave (5 peaks):				12.8		Total Col2Ave (5 peaks):			18.4	RPD = 36
Corrected Ave (4 peaks):				11.5		Corrected Ave (4 peaks):			14.4	RPD = 22
Aroclor-1260	1	10.452	0.003	361287	3.7	1	10.458	0.036	267493	7.0
Aroclor-1260	2	10.860	0.037	1258066	5.2	2	10.865	-0.007	118229	2.4
Aroclor-1260	3	11.219	-0.003	274598	2.1	3	11.142	-0.003	308207	3.2
Aroclor-1260	4	11.316	-0.022	225689	3.8	4	11.665	-0.001	78306	2.8
Aroclor-1260	5	11.414	0.001	143232	2.0	NS	---			----
Total Col1Ave (5 peaks):				3.4		Total Col2Ave (4 peaks):			3.9	RPD = 14
Corrected Ave (4 peaks):				2.9		Corrected Ave (3 peaks):			2.8	RPD = 3
Aroclor-1262	1	10.124	-0.009	1523703	10.4	1	10.458	0.033	267493	4.6
Aroclor-1262	2	10.452	0.001	361287	3.3	2	10.865	-0.012	118229	2.4
Aroclor-1262	3	10.860	0.035	1258066	4.4	3	11.142	-0.007	308207	2.7
Aroclor-1262	4	11.316	-0.025	225689	2.1	4	11.665	-0.006	78306	1.7
Aroclor-1262	5	11.414	-0.001	143232	1.2	5	12.435	-0.035	148437	3.4
Total Col1Ave (5 peaks):				4.3		Total Col2Ave (5 peaks):			3.0	RPD = 37
Corrected Ave (4 peaks):				2.8		Corrected Ave (4 peaks):			2.6	RPD = 8
Aroclor-1268	1	11.316	-0.025	225689	0.8	1	11.665	-0.007	78306	0.7
Aroclor-1268	2	11.414	0.001	143232	0.5	2	11.730	-0.009	503850	4.5

Aroclor-1268	3	11.752	-0.048	1544069	6.0	3	12.120	-0.016	172284	1.8
Aroclor-1268	4	12.566	-0.025	460369	0.6	4	12.883	-0.075	44010	0.1

Total Col1Ave (4 peaks): 2.0 Total Col2Ave (4 peaks): 1.8 RPD = 11

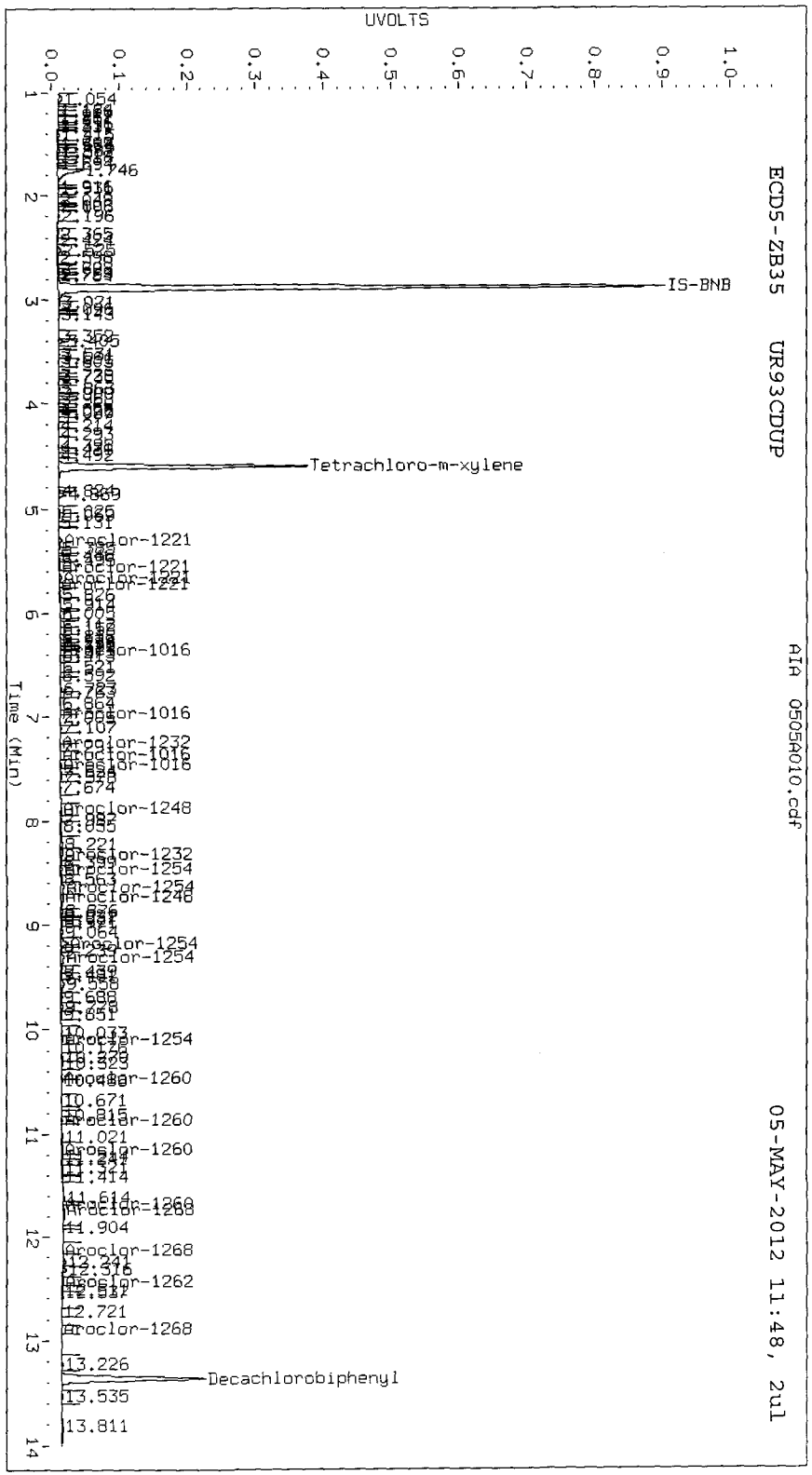
Corrected Ave (3 peaks): 0.6 Corrected Ave (3 peaks): 0.9 RPD = 34

Total PCB Area Col1 (4.709 - 12.894) = 49292783 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 28355849 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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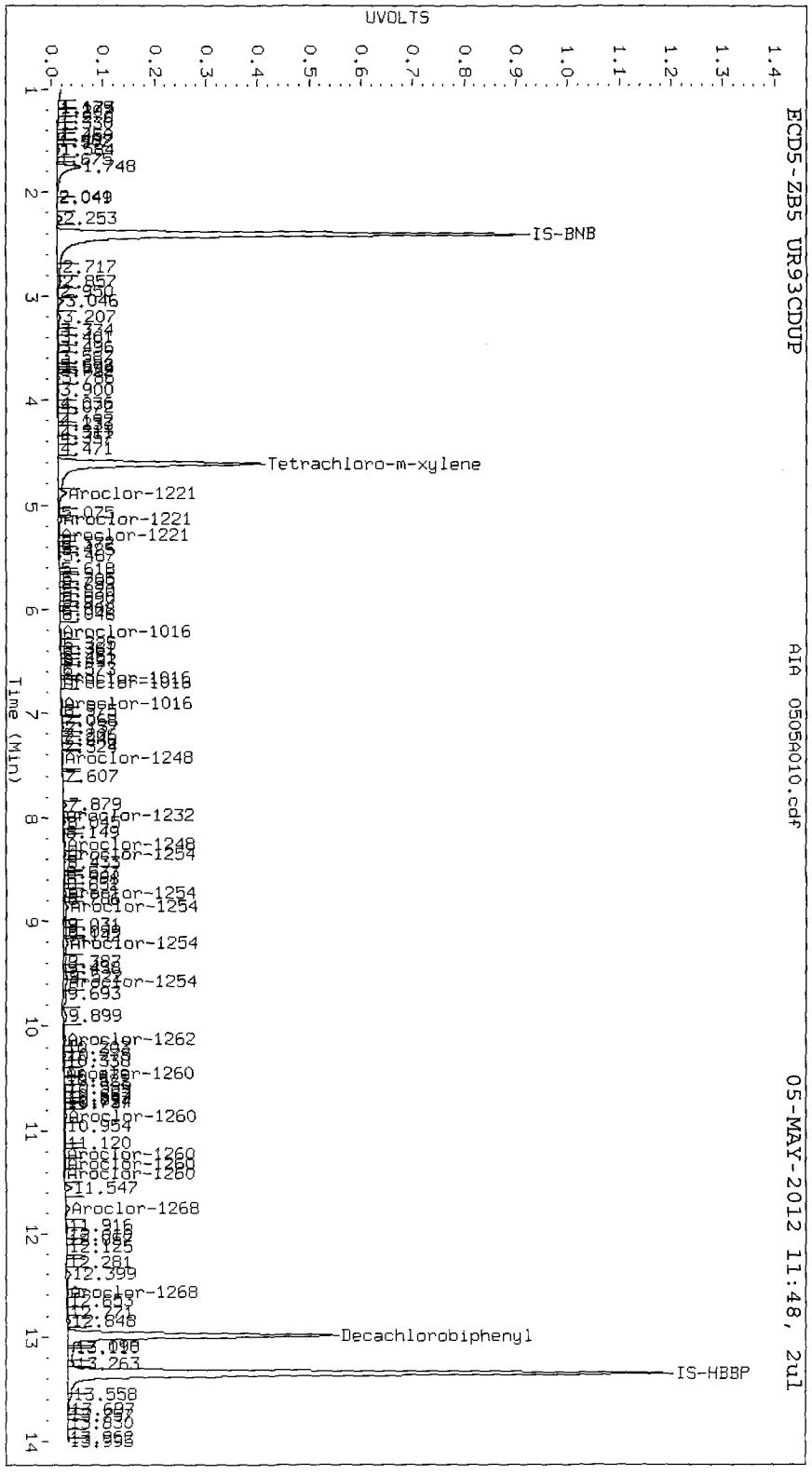
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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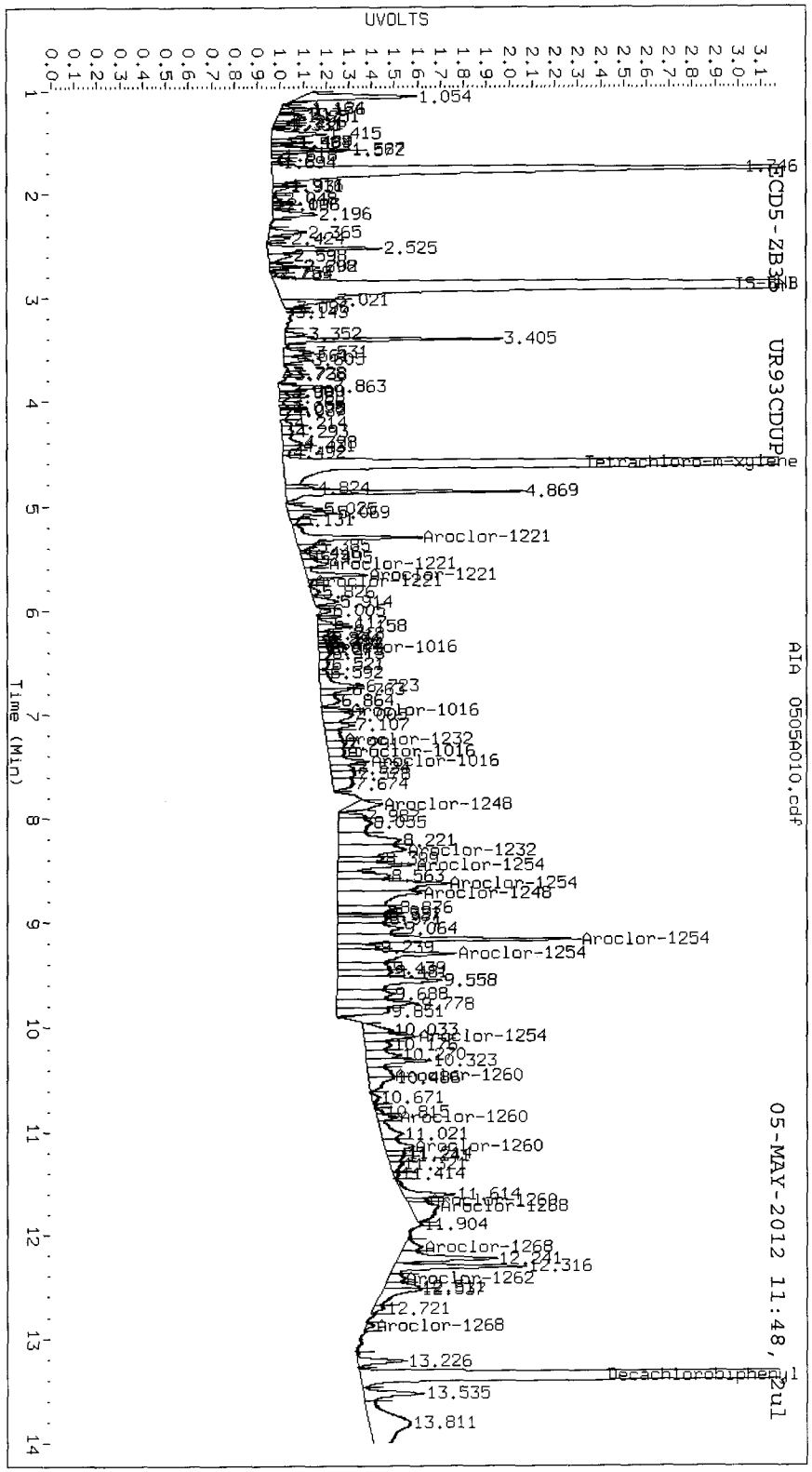
Decachlorobiphenyl
IS-HBBP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Tetrachloro-m-xylene
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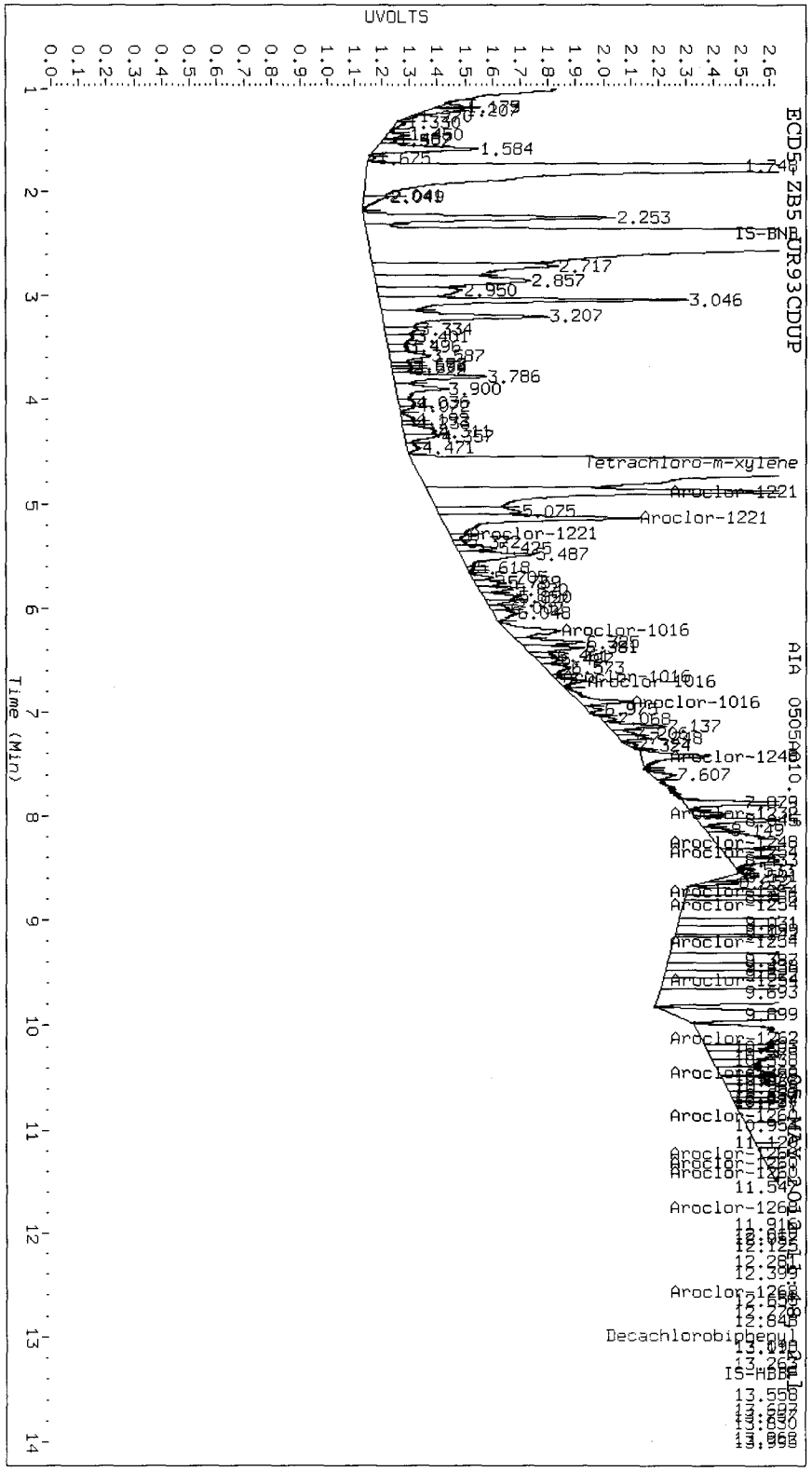
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl
13.226
13.535
13.811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IS-BNB
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3.046
3.207
3.786
3.900
4.471
Tetrachloro-m-xylene
5.075
Aroclor-1221
Aroclor-1016
Aroclor-1248
7.607
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB

UR93:00231

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A011.d
Data file 2: 20120409.B/0505-2.b/0505A011.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93D
Client ID:
Injection Date: 05-MAY-2012 12:07
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 25.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.603	-0.006	3055538	4.599	-0.006	2175801	1.2	1.4	16.1	Tetrachloro-m-xylene
12.991	-0.003	4519346	13.364	-0.001	1436601	1.4	1.3	11.3	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	75.9	89.1
Decachlorobiphenyl	87.7	78.4

g 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	154848187	10.4
Hexabromobiphenyl	198372884	197137821	-0.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	111783594	9.0
Hexabromobiphenyl	81487087	77966722	-4.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.239	-0.004	166923	2.6	1	6.337	-0.006	283316	4.9
Aroclor-1016	2	6.626	-0.016	374595	1.8	2	6.961	-0.013	379226	3.1
Aroclor-1016	3	6.798	0.007	516189	6.0	3	7.349	-0.004	56044	1.8
Aroclor-1016	4	6.897	-0.004	207852	3.4	4	7.455	-0.006	11857093	344.5
Total Col1Ave (4 peaks):					3.5	Total Col2Ave (4 peaks):				88.6 RPD = 185*
Corrected Ave (3 peaks):					2.6	Corrected Ave (3 peaks):				3.3 RPD = 23
Aroclor-1221	1	4.886	-0.003	144462	19.7	1	5.301	0.006	165345	9.6
Aroclor-1221	2	5.133	-0.027	13985	0.8	2	5.553	0.011	84581	8.4
Aroclor-1221	3	---			0.0	3	5.668	0.014	74867	2.4
Aroclor-1221	NS	---			----	4	5.744	0.021	13387	2.4
Col1Ave: <3 Quant Peaks						Col2Ave: 5.7				
Aroclor-1232	1	6.239	-0.005	166923	6.3	1	6.337	-0.011	283316	10.9
Aroclor-1232	2	6.626	-0.017	374595	4.3	2	6.961	-0.013	379226	7.5
Aroclor-1232	3	6.798	0.006	516189	14.6	3	7.232	0.049	360263	20.7
Aroclor-1232	4	7.981	-0.005	23554923	726.2	4	8.321	-0.007	14946145	830.1
Total Col1Ave (4 peaks):					187.9	Total Col2Ave (4 peaks):				217.3 RPD = 15
Corrected Ave (3 peaks):					8.4	Corrected Ave (3 peaks):				13.0 RPD = 43*
Aroclor-1242	1	6.239	-0.004	166923	3.5	1	6.337	-0.006	283316	6.6
Aroclor-1242	2	6.626	-0.016	374595	2.4	2	6.961	-0.013	379226	4.1
Aroclor-1242	3	6.798	0.008	516189	8.3	3	7.232	0.053	360263	9.8
Aroclor-1242	4	7.981	-0.003	23554923	426.4	4	8.321	-0.004	14946145	489.9
Total Col1Ave (4 peaks):					110.1	Total Col2Ave (4 peaks):				127.6 RPD = 15
Corrected Ave (3 peaks):					4.7	Corrected Ave (3 peaks):				6.8 RPD = 36
Aroclor-1248	1	6.626	-0.009	374595	3.7	1	6.961	-0.007	379226	6.5
Aroclor-1248	2	7.435	-0.001	15835699	204.1	2	7.869	-0.001	8248109	182.1
Aroclor-1248	3	7.981	-0.001	23554923	248.6	3	8.321	-0.001	14946145	283.9
Aroclor-1248	4	8.277	0.005	18344040	194.3	4	8.728	-0.016	21456682	369.9
Total Col1Ave (4 peaks):					162.7	Total Col2Ave (4 peaks):				210.6 RPD = 26
Corrected Ave (3 peaks):					134.0	Corrected Ave (3 peaks):				157.5 RPD = 16
Aroclor-1254	1	8.356	0.000	84983160	575.2	1	8.462	0.000	31046961	703.4
Aroclor-1254	2	8.727	0.000	64685863	673.2	2	8.635	0.000	39752196	710.6
Aroclor-1254	3	8.863	0.000	137630610	783.4	3	9.157	0.000	35381447	818.3
Aroclor-1254	4	9.212	0.000	139799972	788.5	4	9.307	0.000	81112198	878.3
Aroclor-1254	5	9.574	0.000	101758843	850.8	5	10.090	0.000	51261062	920.3
Total Col1Ave (5 peaks):					734.2	Total Col2Ave (5 peaks):				806.2 RPD = 9
Corrected Ave (4 peaks):					705.1	Corrected Ave (4 peaks):				777.6 RPD = 10
Aroclor-1260	1	10.447	-0.002	8826797	81.2	1	10.419	-0.003	3750835	88.6
Aroclor-1260	2	10.820	-0.003	22810547	85.1	2	10.864	-0.009	22857339	427.0
Aroclor-1260	3	11.220	-0.003	19679136	135.2	3	11.142	-0.003	13189257	125.5
Aroclor-1260	4	11.336	-0.002	3500945	54.3	4	11.664	-0.002	2453929	79.2
Aroclor-1260	5	11.410	-0.003	3345692	43.1	NS	---			----
Total Col1Ave (5 peaks):					79.8	Total Col2Ave (4 peaks):				160.1 RPD = 77*
Corrected Ave (4 peaks):					65.9	Corrected Ave (3 peaks):				97.8 RPD = 39
Aroclor-1262	1	10.128	-0.005	6657432	41.2	1	10.419	-0.007	3750835	58.3
Aroclor-1262	2	10.447	-0.004	8826797	73.9	2	10.864	-0.014	22857339	415.7
Aroclor-1262	3	10.820	-0.005	22810547	72.2	3	11.142	-0.007	13189257	105.9
Aroclor-1262	4	11.336	-0.005	3500945	30.3	4	11.664	-0.007	2453929	49.2
Aroclor-1262	5	11.410	-0.005	3345692	25.8	5	12.463	-0.007	2856563	59.6
Total Col1Ave (5 peaks):					48.7	Total Col2Ave (5 peaks):				137.7 RPD = 96*
Corrected Ave (4 peaks):					42.4	Corrected Ave (4 peaks):				68.2 RPD = 47*
Aroclor-1268	1	11.336	-0.005	3500945	10.6	1	11.664	-0.008	2453929	18.6
Aroclor-1268	2	11.410	-0.003	3345692	10.3	2	11.722	-0.017	9693244	78.1
Aroclor-1268	3	11.809	0.009	1443483	5.1	3	12.131	-0.005	67059	0.6

Aroclor-1268	4	12.582	-0.009	1167328	1.3	4	12.950	-0.008	365855	1.1

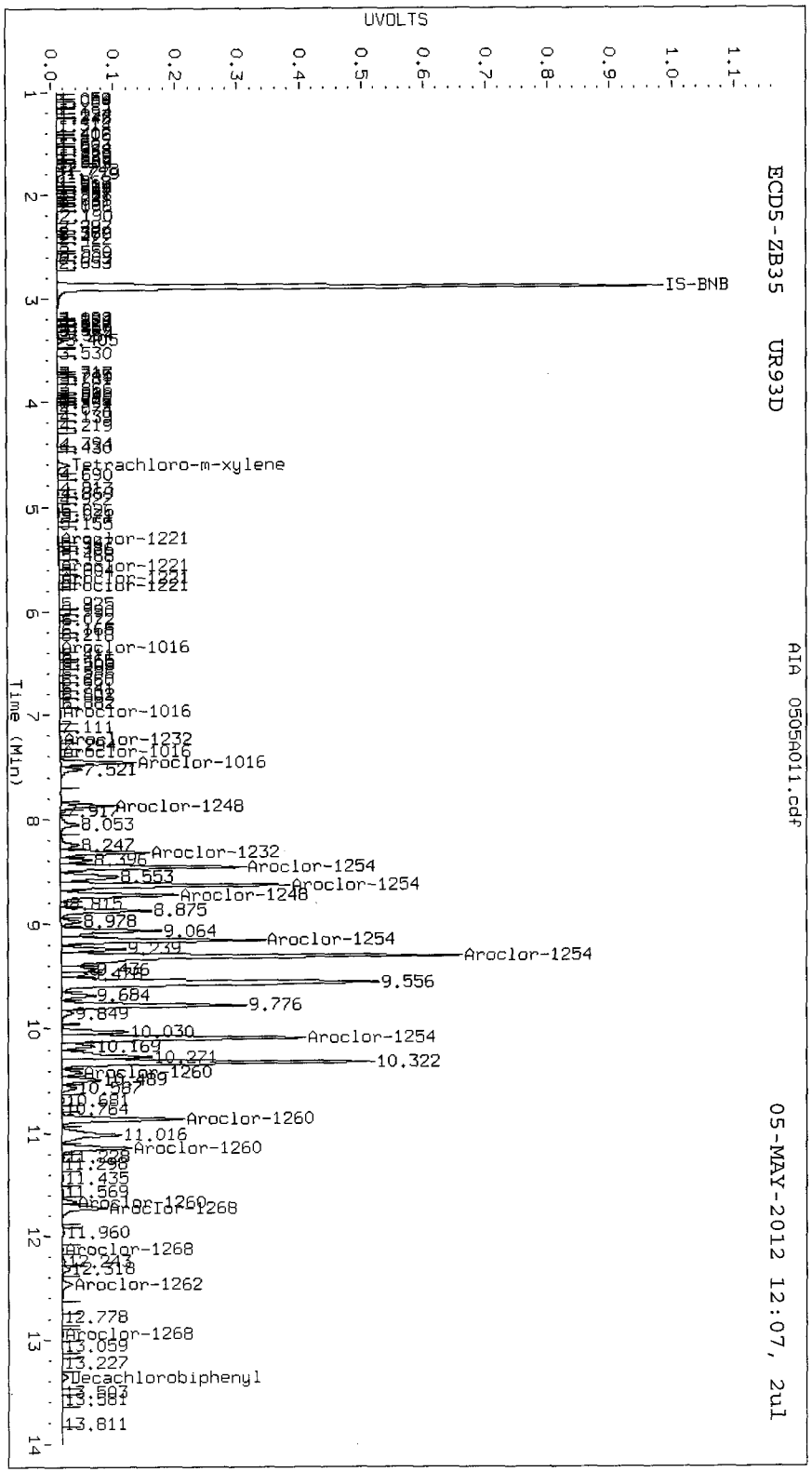
Total Col1Ave (4 peaks): 6.9 Total Col2Ave (4 peaks): 24.6 RPD = 113*
Corrected Ave (3 peaks): 5.6 Corrected Ave (3 peaks): 6.8 RPD = 19

Total PCB Area Col1 (4.709 - 12.894) = 1252557161 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 693796748 Col2 Total PCB = 0.9 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-1016
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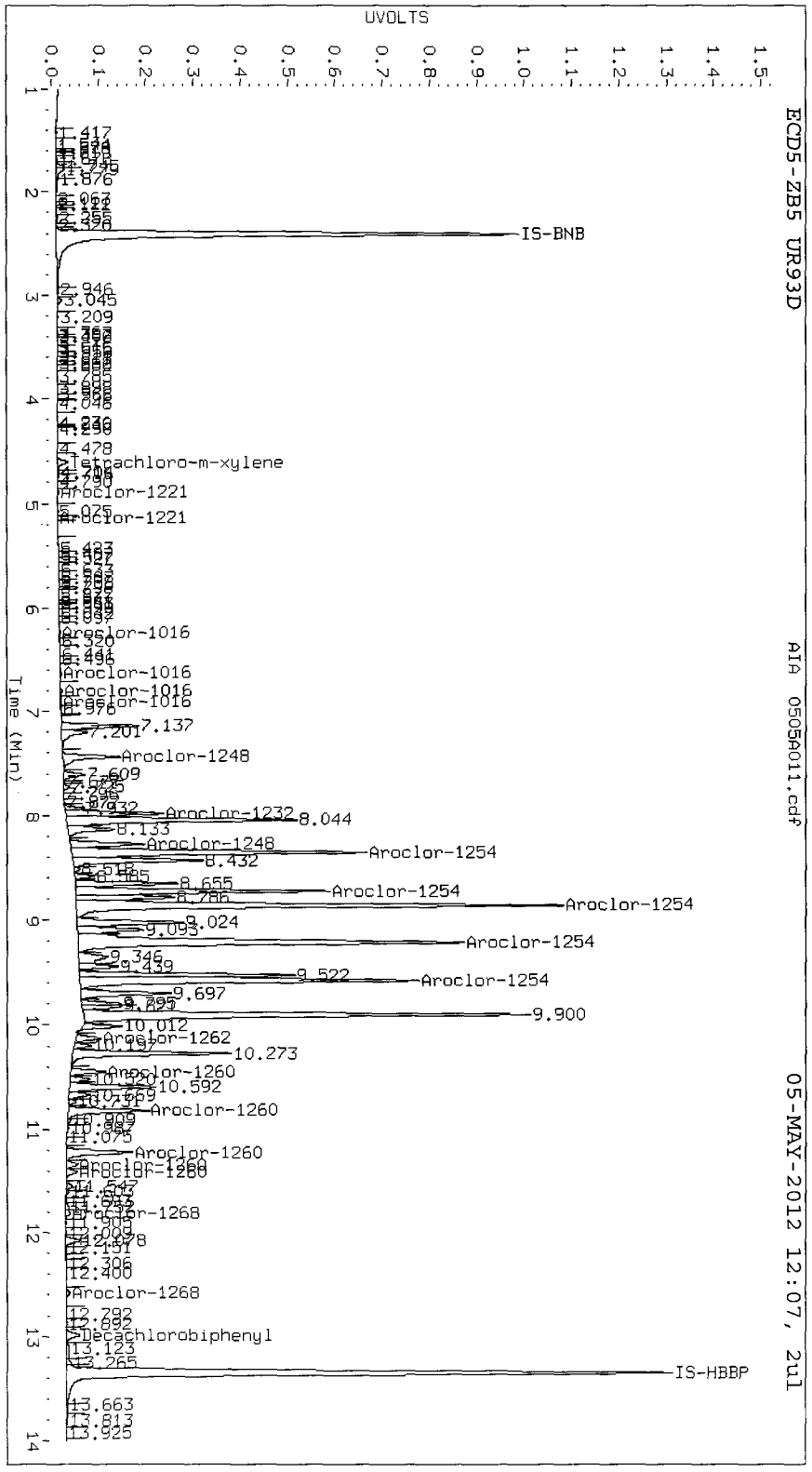
Aroclor-1268
Decachlorobiphenyl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Time (Min)
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Tetrachloro-m-xylene
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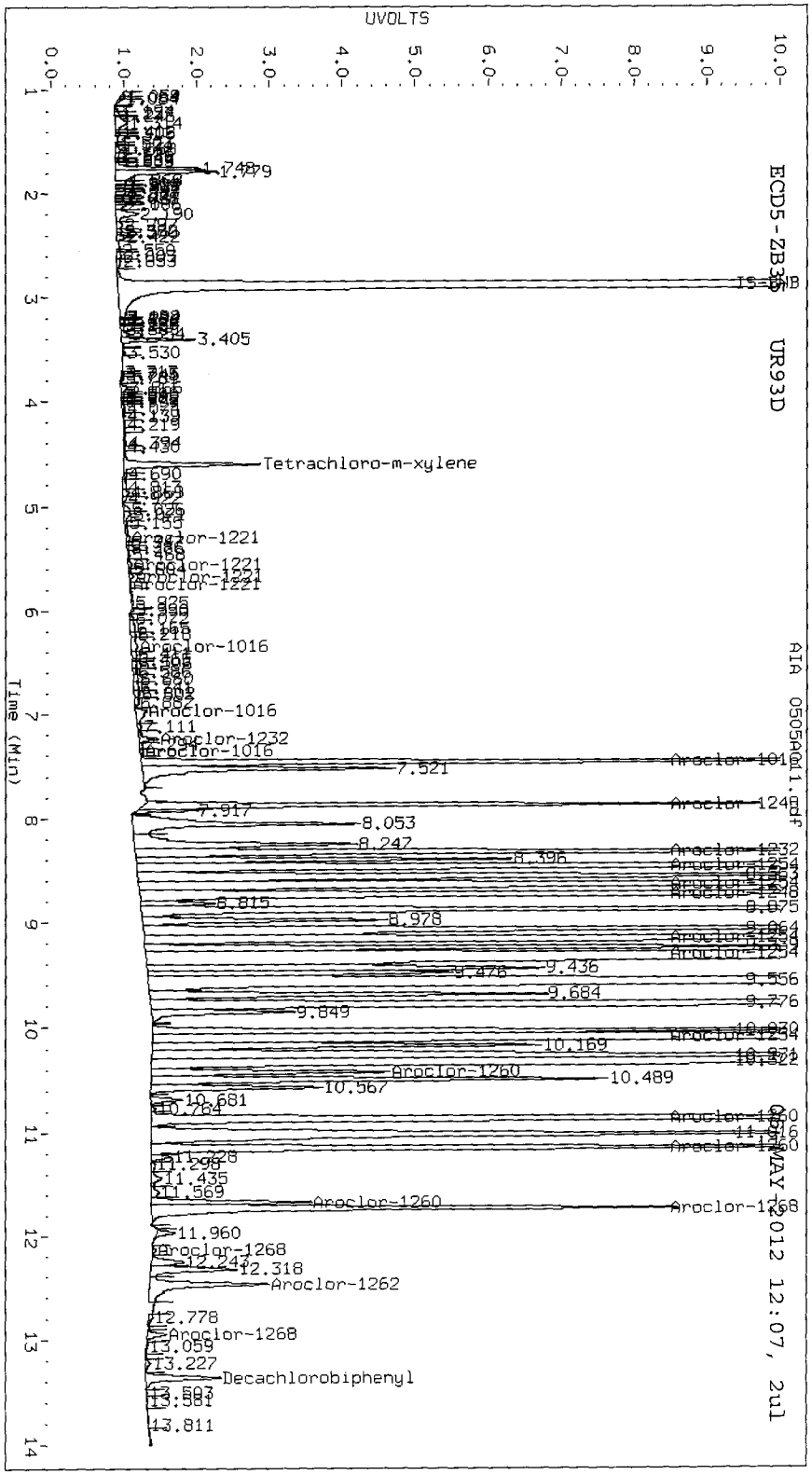
Decachlorobiphenyl
IS-HBBP

UR93:00235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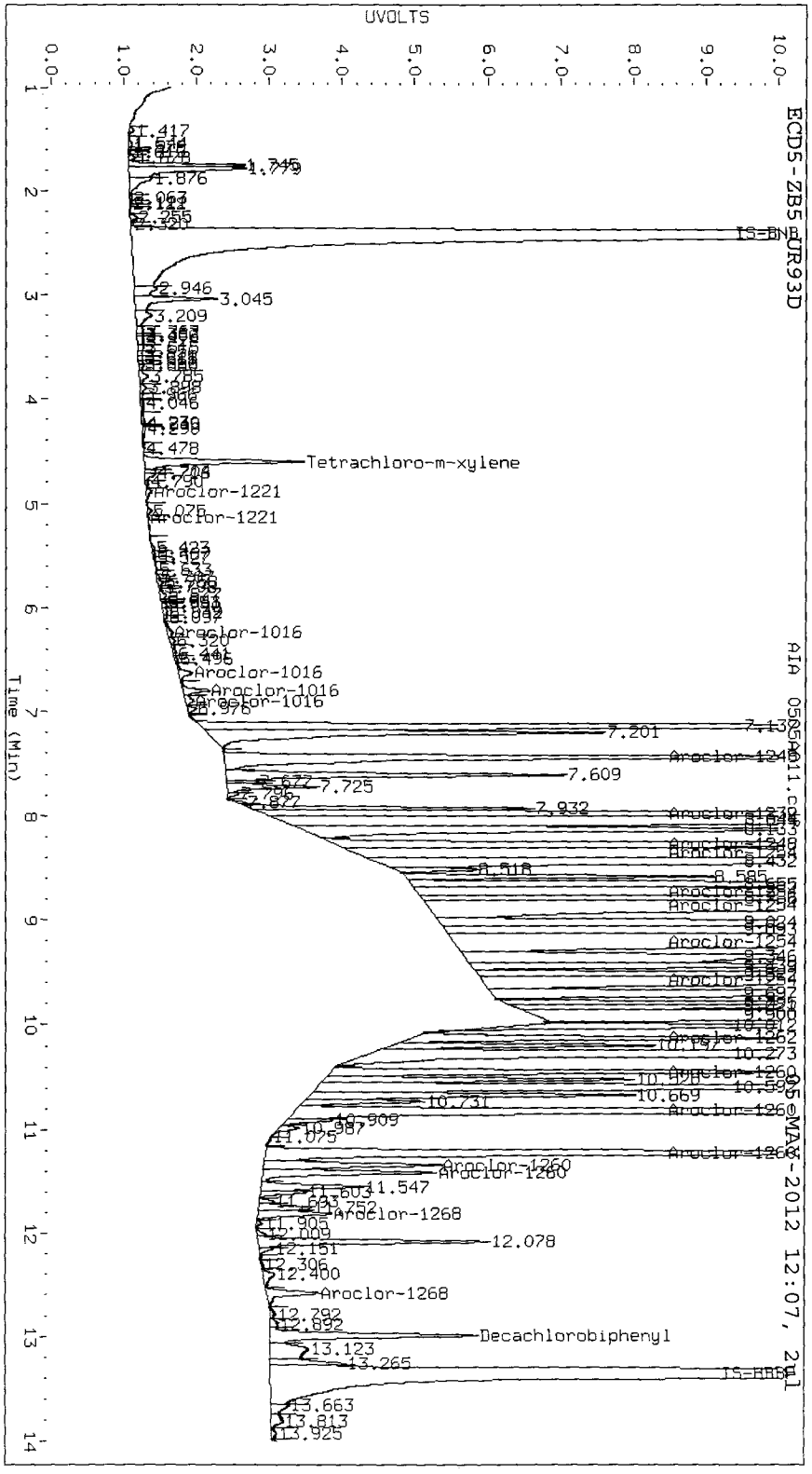
MAY-2012 12:07, 2ul
Time (Min)
IS=BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1260
Aroclor-1268
Aroclor-1262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UR93D
AIA 0505A011.cdf
MAY-2012 12:07, 2ul
Time (Min)
IS=BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1260
Aroclor-1268

UR93 : 00236

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A012.d
Data file 2: 20120409.B/0505-2.b/0505A012.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93E
Client ID:
Injection Date: 05-MAY-2012 12:26
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.602	-0.006	8260778	4.599	-0.006	4777116	3.2	3.3	2.0	Tetrachloro-m-xylene
12.991	-0.003	9803339	13.364	-0.001	3917138	3.2	3.5	11.5	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	80.7	82.3
Decachlorobiphenyl	79.0	88.6

µ 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	157488809	12.3
Hexabromobiphenyl	198372884	189913322	-4.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	106286033	3.6
Hexabromobiphenyl	81487087	75198544	-7.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.232	-0.011	445745	6.7	1	6.336	-0.007	181589	3.3
Aroclor-1016	2	6.633	-0.010	1251806	5.9	2	6.967	-0.007	740345	6.4
Aroclor-1016	3	6.798	0.008	866954	10.0	3	7.350	-0.003	97011	3.2
Aroclor-1016	4	6.895	-0.006	280942	4.6	4	7.456	-0.005	16847630	514.8
Total Col1Ave (4 peaks):					6.8	Total Col2Ave (4 peaks):				131.9 RPD = 180*
Corrected Ave (3 peaks):					5.7	Corrected Ave (3 peaks):				4.3 RPD = 28
Aroclor-1221	1	4.892	0.003	550436	73.8	1	5.297	0.002	159198	9.7
Aroclor-1221	2	5.142	-0.018	124696	6.7	2	5.557	0.015	200042	20.8
Aroclor-1221	3	5.275	0.009	75273	1.2	3	5.667	0.013	1066721	35.8
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):					27.2	Total Col2Ave (3 peaks):				22.1 RPD = 21
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.232	-0.012	445745	16.4	1	6.336	-0.012	181589	7.4
Aroclor-1232	2	6.633	-0.011	1251806	14.3	2	6.967	-0.007	740345	15.3
Aroclor-1232	3	6.798	0.006	866954	24.1	3	7.174	-0.009	60562	3.7
Aroclor-1232	4	7.981	-0.005	17662639	535.4	4	8.322	-0.006	11104047	648.6
Total Col1Ave (4 peaks):					147.6	Total Col2Ave (4 peaks):				168.7 RPD = 13
Corrected Ave (3 peaks):					18.3	Corrected Ave (3 peaks):				8.8 RPD = 70*
Aroclor-1242	1	6.232	-0.011	445745	9.2	1	6.336	-0.007	181589	4.4
Aroclor-1242	2	6.633	-0.010	1251806	8.0	2	6.967	-0.007	740345	8.5
Aroclor-1242	3	6.798	0.008	866954	13.7	3	7.174	-0.005	60562	1.7
Aroclor-1242	4	7.981	-0.004	17662639	314.3	4	8.322	-0.003	11104047	382.8
Total Col1Ave (4 peaks):					86.3	Total Col2Ave (4 peaks):				99.4 RPD = 14
Corrected Ave (3 peaks):					10.3	Corrected Ave (3 peaks):				4.9 RPD = 71*
Aroclor-1248	1	6.633	-0.003	1251806	12.2	1	6.967	-0.001	740345	13.3
Aroclor-1248	2	7.435	-0.002	15773583	199.9	2	7.870	0.000	7960676	184.9
Aroclor-1248	3	7.981	-0.001	17662639	183.3	3	8.322	0.000	11104047	221.8
Aroclor-1248	4	8.277	0.005	16104482	167.7	4	8.728	-0.016	18600553	337.2
Total Col1Ave (4 peaks):					140.8	Total Col2Ave (4 peaks):				189.3 RPD = 29
Corrected Ave (3 peaks):					221.1 150	Corrected Ave (3 peaks):				140.0 150 RPD = 14
Aroclor-1254	1	8.355	0.000	76761113	510.9	1	8.461	0.000	29102370	693.5
Aroclor-1254	2	8.727	-0.001	48964865	501.0	2	8.635	0.000	35941539	675.7
Aroclor-1254	3	8.863	0.000	105948403	592.9	3	9.157	0.000	26453565	643.4
Aroclor-1254	4	9.209	-0.004	112036691	621.3	4	9.307	0.000	65040288	740.7
Aroclor-1254	5	9.572	-0.003	64535075	530.5	5	10.092	0.003	33819917	638.6
Total Col1Ave (5 peaks):					551.3	Total Col2Ave (5 peaks):				678.4 RPD = 21
Corrected Ave (4 peaks):					533.8	Corrected Ave (4 peaks):				662.8 RPD = 22
Aroclor-1260	1	10.445	-0.003	17127373	163.5	1	10.419	-0.002	8390532	205.5
Aroclor-1260	2	10.820	-0.003	45625488	176.8	2	10.866	-0.007	20873932	404.3
Aroclor-1260	3	11.219	-0.003	28950221	206.4	3	11.142	-0.002	22951721	226.4
Aroclor-1260	4	11.336	-0.002	10048242	161.6	4	11.664	-0.002	5876951	196.7
Aroclor-1260	5	11.410	-0.003	12233625	163.7	NS	---			----
Total Col1Ave (5 peaks):					174.4	Total Col2Ave (4 peaks):				258.2 RPD = 39
Corrected Ave (4 peaks):					166.4	Corrected Ave (3 peaks):				209.6 RPD = 23
Aroclor-1262	1	10.128	-0.005	17028495	109.5	1	10.419	-0.006	8390532	135.2
Aroclor-1262	2	10.445	-0.005	17127373	148.9	2	10.866	-0.011	20873932	393.6
Aroclor-1262	3	10.820	-0.005	45625488	150.0	3	11.142	-0.006	22951721	191.1
Aroclor-1262	4	11.336	-0.005	10048242	90.4	4	11.664	-0.007	5876951	122.1
Aroclor-1262	5	11.410	-0.005	12233625	97.8	5	12.464	-0.006	5459746	118.1
Total Col1Ave (5 peaks):					119.3	Total Col2Ave (5 peaks):				192.0 RPD = 47*
Corrected Ave (4 peaks):					111.6	Corrected Ave (4 peaks):				141.6 RPD = 24
Aroclor-1268	1	11.336	-0.006	10048242	31.7	1	11.664	-0.008	5876951	46.3
Aroclor-1268	2	11.410	-0.003	12233625	39.2	2	11.723	-0.016	16374164	136.8

Aroclor-1268	3	11.811	0.011	6009899	22.2	3	12.130	-0.006	327955	3.2
Aroclor-1268	4	12.584	-0.007	5275370	6.3	4	12.949	-0.008	1887411	6.0

Total Col1Ave (4 peaks): 24.8 Total Col2Ave (4 peaks): 48.1 RPD = 64*

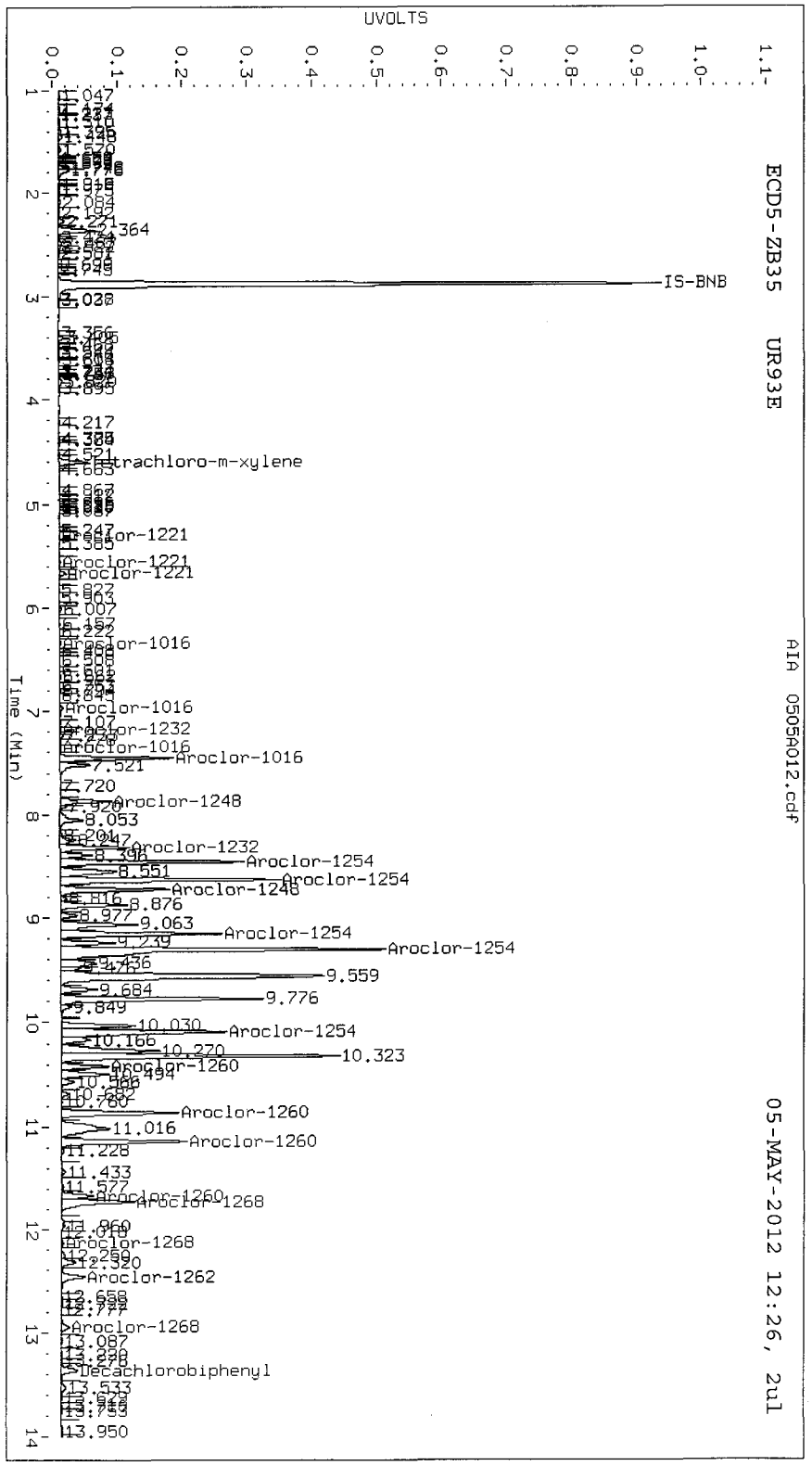
Corrected Ave (3 peaks): 20.1 Corrected Ave (3 peaks): 18.5 RPD = 8

Total PCB Area Col1 (4.709 - 12.894) = 1185085020 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 643070167 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

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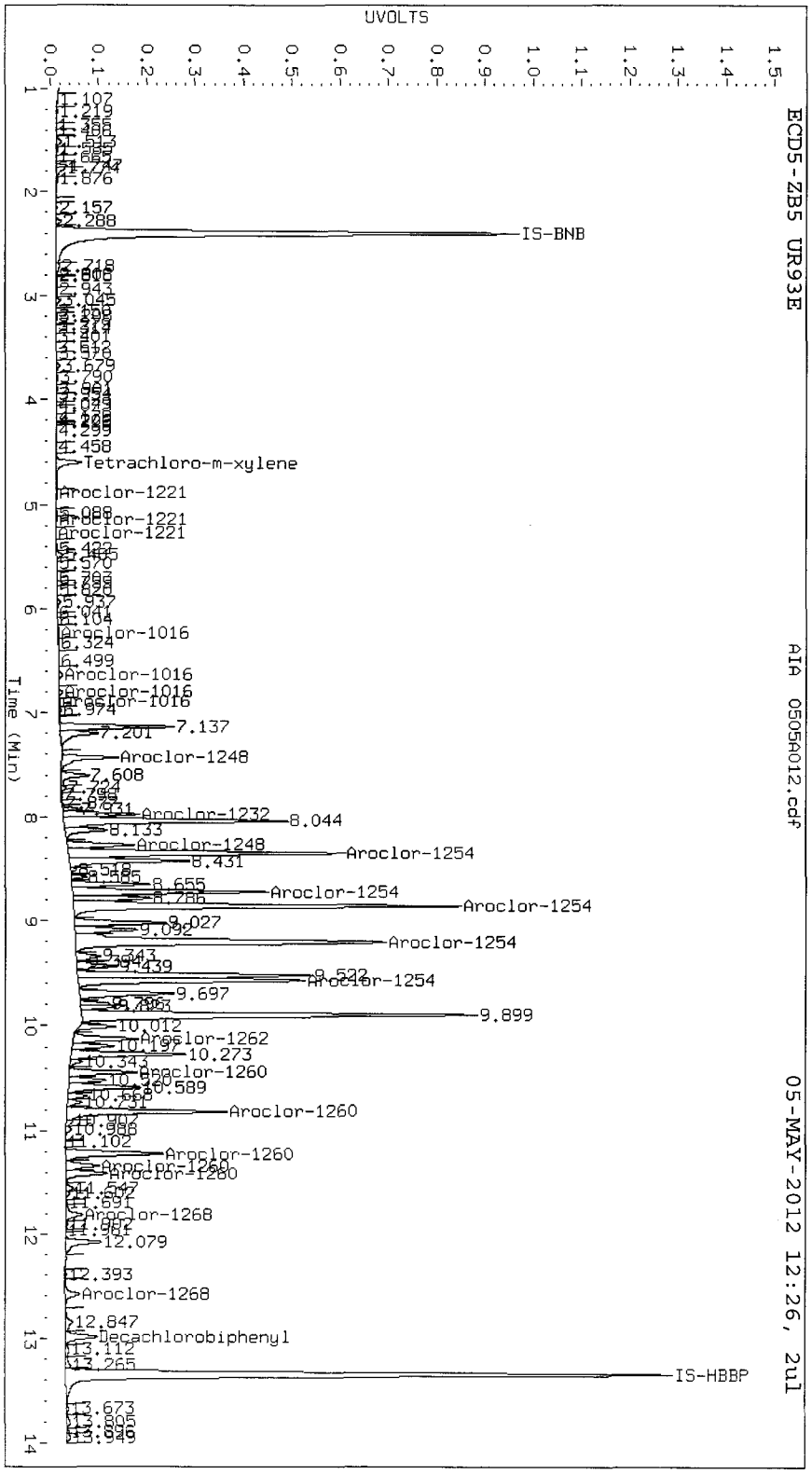
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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Time (Min)
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Tetrachloro-m-xylene
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Aroclor-1016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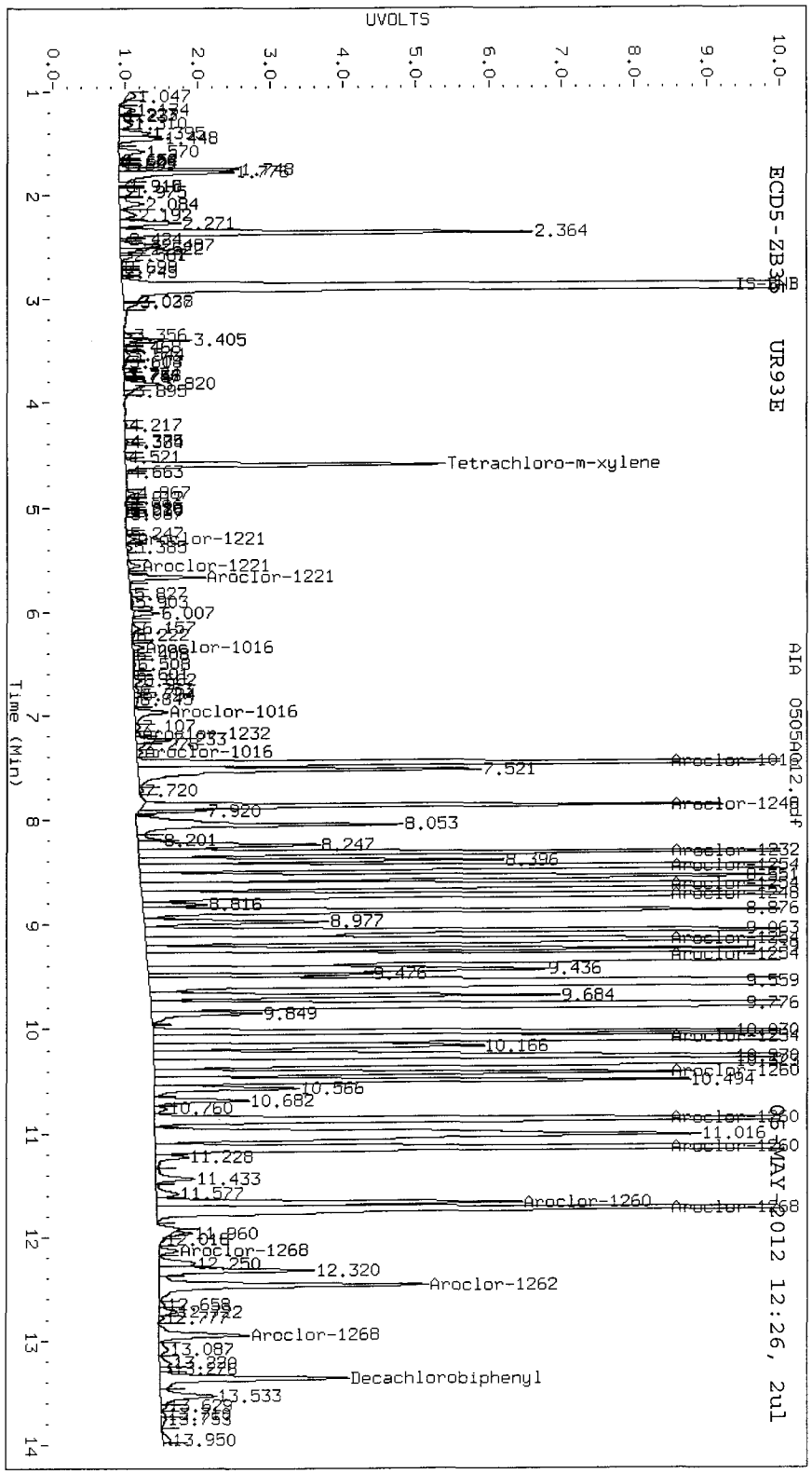
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

UR93:00216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UR93E
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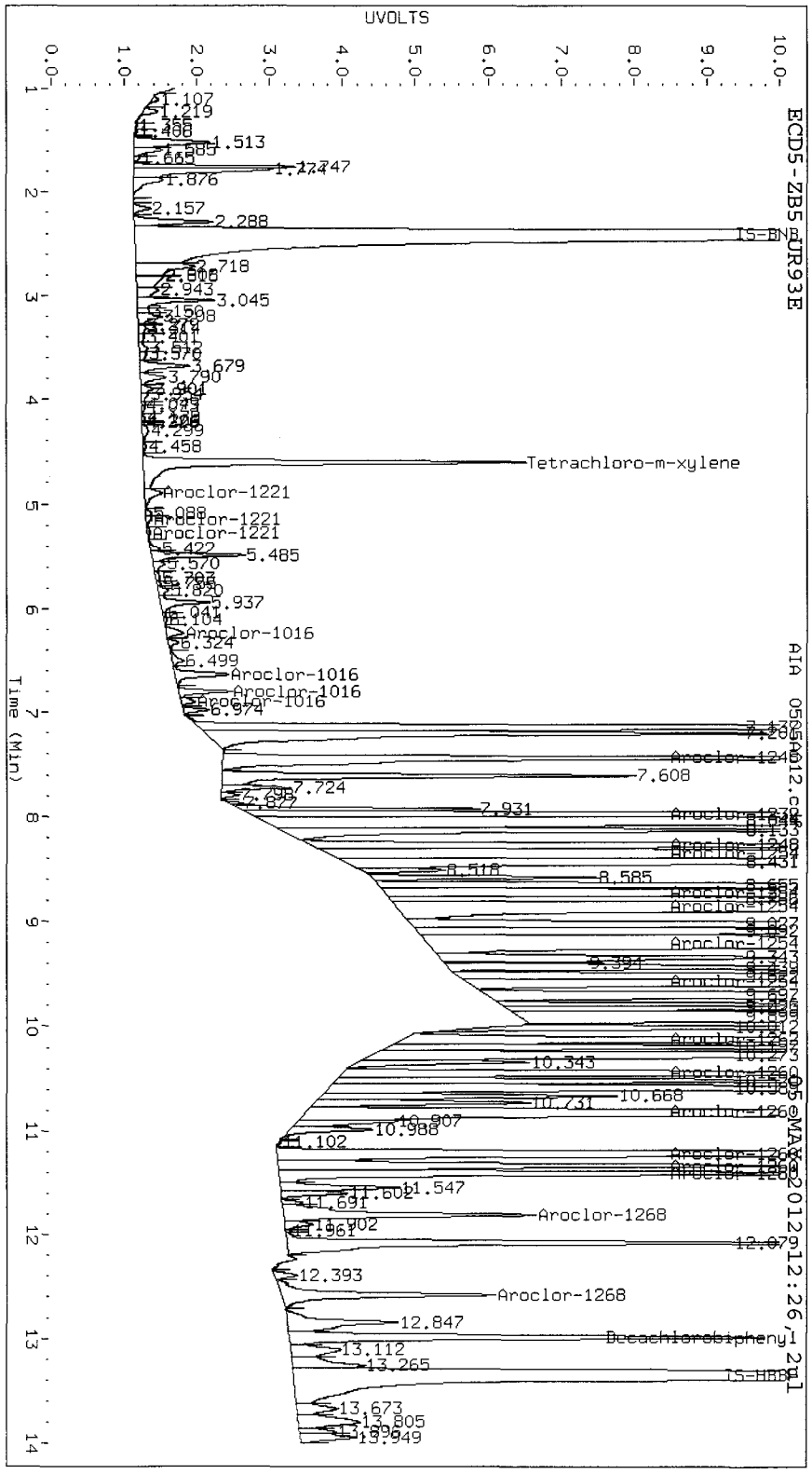
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB

UR93:002111

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A013.d
Data file 2: 20120409.B/0505-2.b/0505A013.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93F
Client ID:
Injection Date: 05-MAY-2012 12:45
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.005	65357162	4.600	-0.005	40615679	30.4	31.0	1.9	Tetrachloro-m-xylene
12.992	-0.002	80387387	13.364	-0.001	31438500	28.3	25.2	11.7	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	76.0	77.4
Decachlorobiphenyl	70.9	63.0

A 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	132345400	-5.7
Hexabromobiphenyl	198372884	173660863	-12.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	96059423	-6.4
Hexabromobiphenyl	81487087	84848447	4.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.210	-0.033	930947	16.7	1	6.403	0.059	283951	5.7
Aroclor-1016	2	6.628	-0.014	309468	1.7	2	6.980	0.007	345874	3.3
Aroclor-1016	3	6.802	0.011	205904	2.8	3	7.291	-0.063	208387	7.7
Aroclor-1016	4	6.899	-0.002	1003930	19.4	4	7.456	-0.006	3204176	108.3
Total Col1Ave (4 peaks):				10.2		Total Col2Ave (4 peaks):			31.3	RPD = 102*
Corrected Ave (3 peaks):				7.1		Corrected Ave (3 peaks):			5.6	RPD = 24
Aroclor-1221	1	4.886	-0.004	3813900	608.2	1	5.305	0.010	864498	58.3
Aroclor-1221	2	5.140	-0.020	886353	56.6	2	5.532	-0.010	398186	45.8
Aroclor-1221	3	5.196	-0.069	1443452	28.2	3	5.666	0.012	905118	33.6
Aroclor-1221	NS	---			----	4	5.736	0.014	71766	14.8
Total Col1Ave (3 peaks):				221.0		Total Col2Ave (4 peaks):			38.1	RPD = 143*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			31.4	
Aroclor-1232	1	6.210	-0.034	930947	40.8	1	6.403	0.055	283951	12.7
Aroclor-1232	2	6.628	-0.015	309468	4.2	2	6.980	0.006	345874	7.9
Aroclor-1232	3	6.802	0.010	205904	6.8	3	7.231	0.048	167019	11.2
Aroclor-1232	4	7.980	-0.006	2750627	99.2	4	8.322	-0.007	1570365	101.5
Total Col1Ave (4 peaks):				37.8		Total Col2Ave (4 peaks):			33.3	RPD = 12
Corrected Ave (3 peaks):				17.3		Corrected Ave (3 peaks):			10.6	RPD = 48*
Aroclor-1242	1	6.210	-0.033	930947	22.9	1	6.403	0.059	283951	7.7
Aroclor-1242	2	6.628	-0.014	309468	2.4	2	6.980	0.006	345874	4.4
Aroclor-1242	3	6.802	0.011	205904	3.9	3	7.231	0.052	167019	5.3
Aroclor-1242	4	7.980	-0.004	2750627	58.3	4	8.322	-0.004	1570365	59.9
Total Col1Ave (4 peaks):				21.8		Total Col2Ave (4 peaks):			19.3	RPD = 12
Corrected Ave (3 peaks):				9.7		Corrected Ave (3 peaks):			5.8	RPD = 51*
Aroclor-1248	1	6.628	-0.007	309468	3.6	1	6.980	0.012	345874	6.9
Aroclor-1248	2	7.435	-0.001	2724345	41.1	2	7.871	0.001	1313019	33.7
Aroclor-1248	3	7.980	-0.002	2750627	34.0	3	8.322	-0.001	1570365	34.7
Aroclor-1248	4	8.278	0.006	3587088	44.4	4	8.727	-0.016	3563529	71.5
Total Col1Ave (4 peaks):				30.8		Total Col2Ave (4 peaks):			36.7	RPD = 18
Corrected Ave (3 peaks):				26.2		Corrected Ave (3 peaks):			25.1	RPD = 4
Aroclor-1254	1	8.356	0.000	17174435	136.0	1	8.461	0.000	6434089	169.6
Aroclor-1254	2	8.726	-0.001	9936691	121.0	2	8.635	0.000	7208792	150.0
Aroclor-1254	3	8.862	-0.001	24009825	159.9	3	9.158	0.001	5626831	151.4
Aroclor-1254	4	9.205	-0.008	25952440	171.3	4	9.306	-0.001	11011355	138.7
Aroclor-1254	5	9.569	-0.005	14162494	138.5	5	10.094	0.005	7358484	153.7
Total Col1Ave (5 peaks):				145.3		Total Col2Ave (5 peaks):			152.7	RPD = 5
Corrected Ave (4 peaks):				138.9		Corrected Ave (4 peaks):			148.5	RPD = 7
Aroclor-1260	1	10.445	-0.004	5666065	59.1	1	10.418	-0.004	3274953	71.1
Aroclor-1260	2	10.819	-0.003	17349211	73.5	2	10.866	-0.007	6280318	107.8
Aroclor-1260	3	11.219	-0.003	9384466	73.2	3	11.141	-0.003	8423240	73.6
Aroclor-1260	4	11.336	-0.002	7011788	123.4	4	11.664	-0.002	3541006	105.0
Aroclor-1260	5	11.409	-0.004	8196454	119.9	NS	---			----
Total Col1Ave (5 peaks):				89.8		Total Col2Ave (4 peaks):			89.4	RPD = 0
Corrected Ave (4 peaks):				81.4		Corrected Ave (3 peaks):			83.3	RPD = 2
Aroclor-1262	1	10.128	-0.005	6660878	46.8	1	10.418	-0.007	3274953	46.8
Aroclor-1262	2	10.445	-0.005	5666065	53.9	2	10.866	-0.011	6280318	104.9
Aroclor-1262	3	10.819	-0.005	17349211	62.4	3	11.141	-0.007	8423240	62.2
Aroclor-1262	4	11.336	-0.005	7011788	69.0	4	11.664	-0.007	3541006	65.2
Aroclor-1262	5	11.409	-0.006	8196454	71.6	5	12.462	-0.007	3147443	60.3
Total Col1Ave (5 peaks):				60.7		Total Col2Ave (5 peaks):			67.9	RPD = 11
Corrected Ave (4 peaks):				58.0		Corrected Ave (4 peaks):			58.6	RPD = 1
Aroclor-1268	1	11.336	-0.005	7011788	24.2	1	11.664	-0.008	3541006	24.7
Aroclor-1268	2	11.409	-0.004	8196454	28.7	2	11.725	-0.014	6975919	51.6

Aroclor-1268	3	11.801	0.001	4921418	19.9	3	12.129	-0.007	880728	7.6
Aroclor-1268	4	12.584	-0.007	10800749	14.2	4	12.950	-0.008	4306577	12.2

Total Col1Ave (4 peaks): 21.7 Total Col2Ave (4 peaks): 24.0 RPD = 10

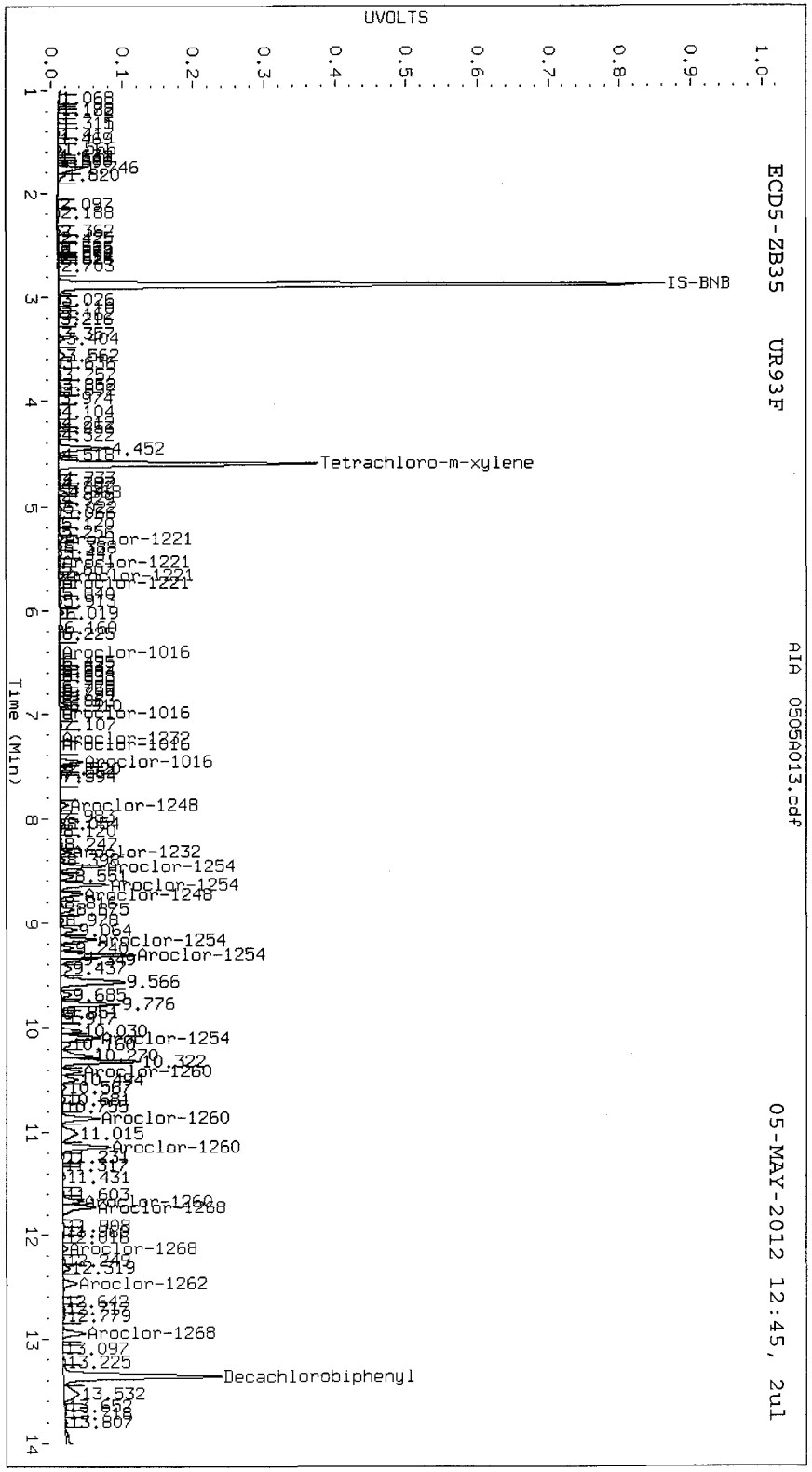
Corrected Ave (3 peaks): 19.4 Corrected Ave (3 peaks): 14.8 RPD = 27

Total PCB Area Col1 (4.709 - 12.894) = 346460724 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 180206032 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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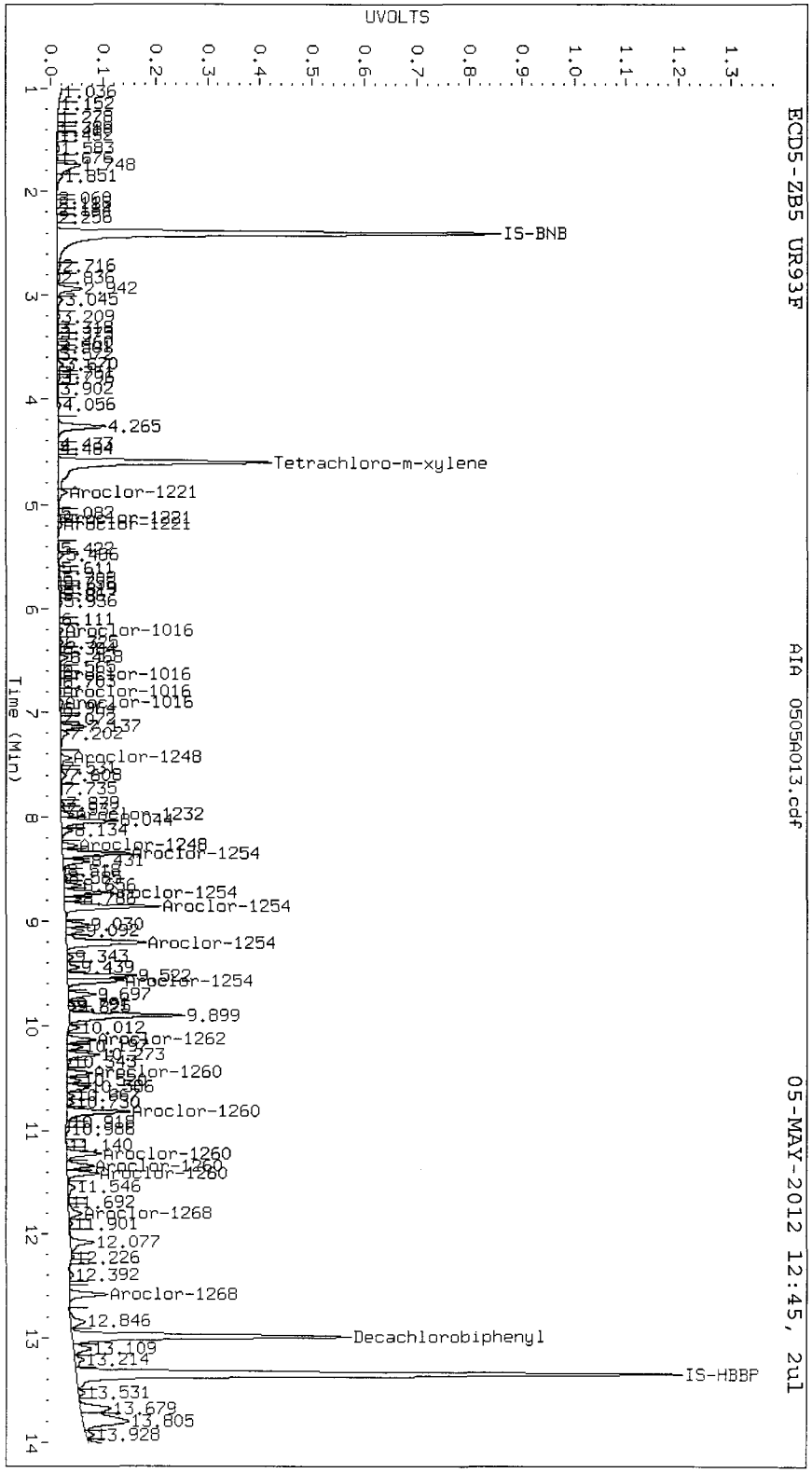
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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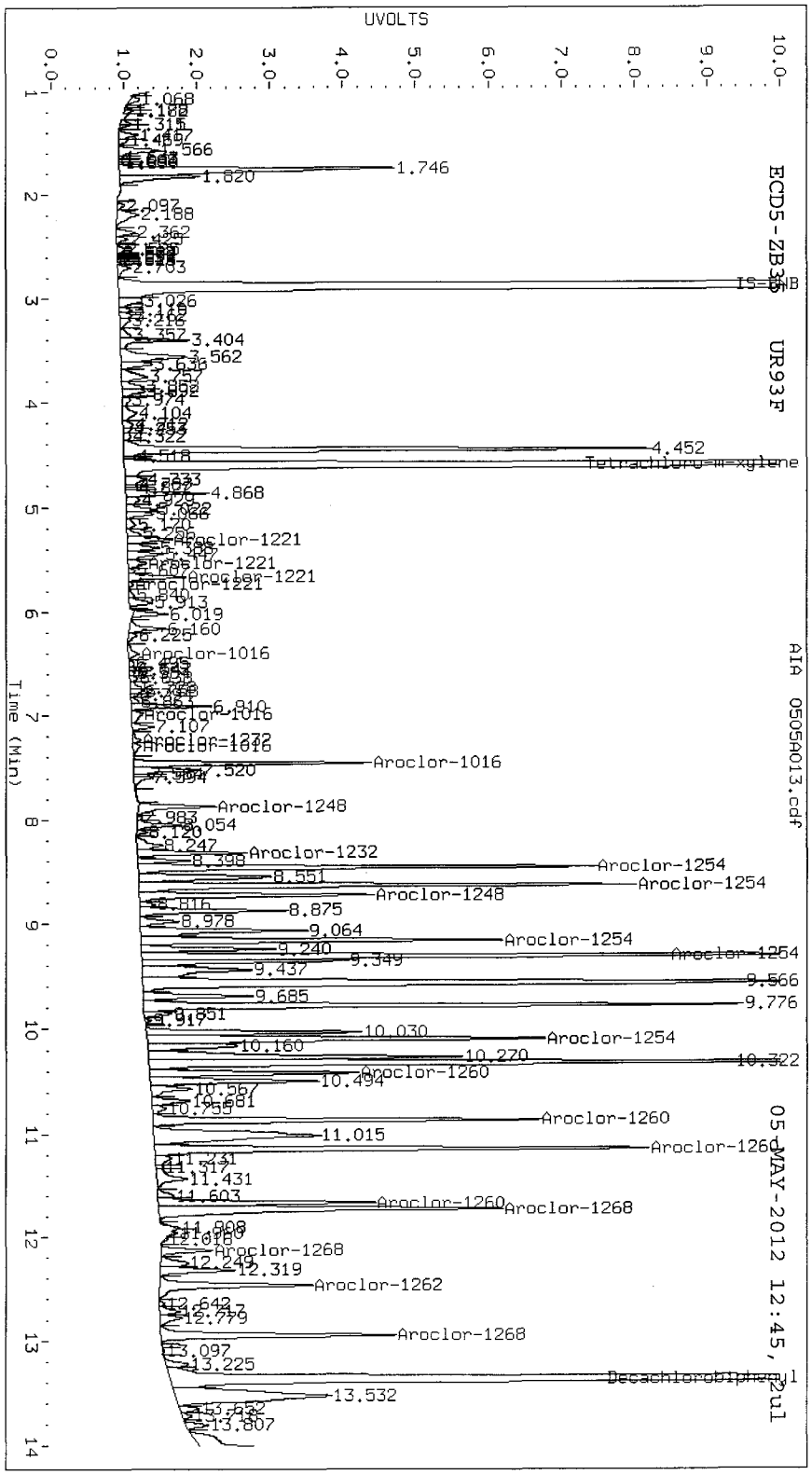
05-MAY-2012 12:45, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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UR93F
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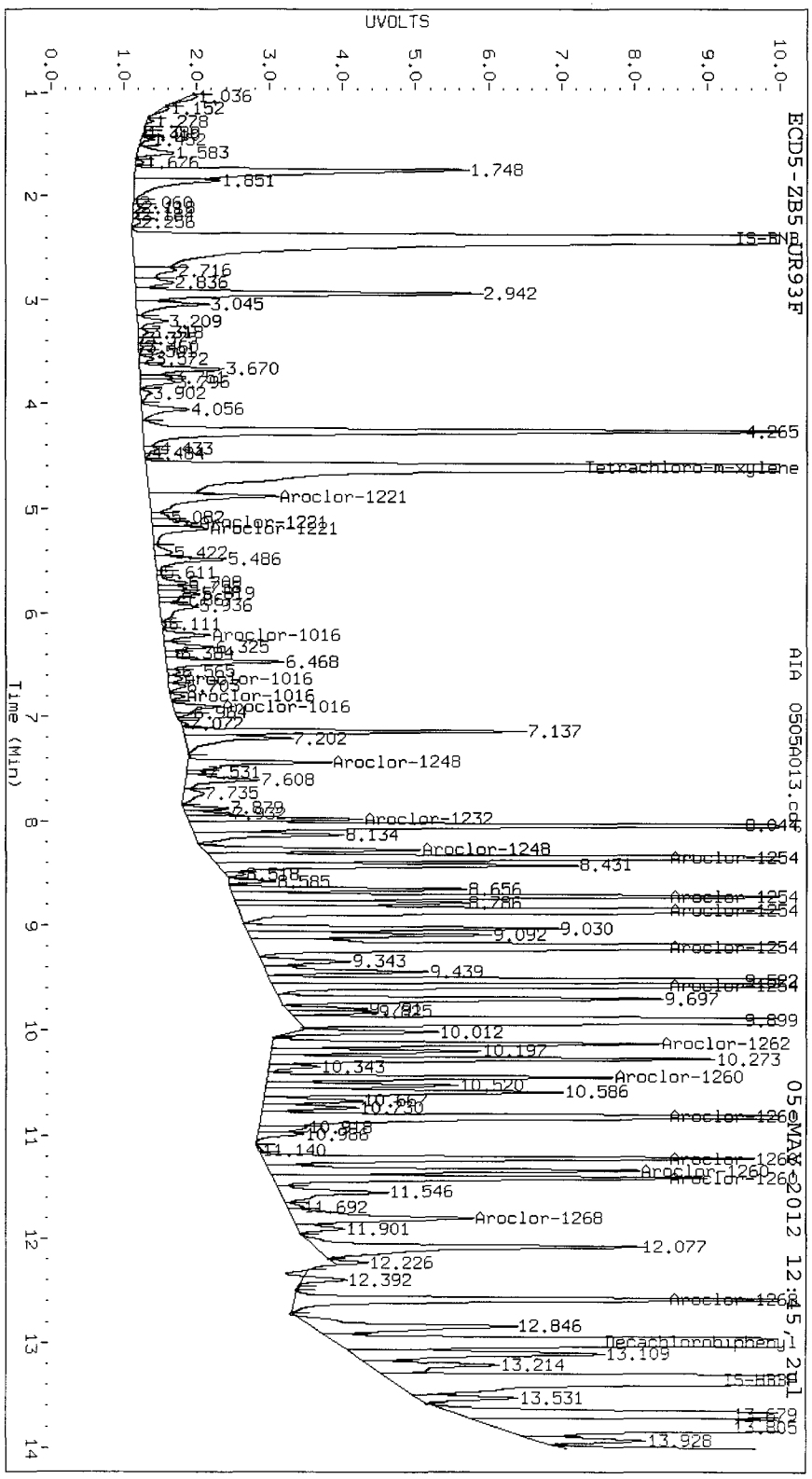
05-MAY-2012 12:45, 2ul
Time (Min)
IS=HB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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Time (Min)
IS=HB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A014.d
Data file 2: 20120409.B/0505-2.b/0505A014.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 05-MAY-2012 13:04
Ical Date: 09-APR-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
4.603	-0.006	46594563	4.599	-0.005	29990663	19.5	20.2	3.6	Tetrachloro-m-xylene
12.991	-0.003	45374790	13.364	-0.002	25639354	14.3	16.6	15.4	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	48.7	50.4
Decachlorobiphenyl	35.7	41.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	147260616	5.0
Hexabromobiphenyl	198372884	194768955	-1.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	108926474	6.2
Hexabromobiphenyl	81487087	104844359	28.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	8.356	0.000	32145339	228.8	1	8.461	0.000	12308385	286.2
Aroclor-1254	2	8.727	0.000	19904065	217.8	2	8.635	0.000	16454255	301.8
Aroclor-1254	3	8.863	0.000	40731161	243.8	3	9.157	0.000	11930771	283.2
Aroclor-1254	4	9.213	0.000	47674970	282.8	4	9.307	0.000	24316304	270.2
Aroclor-1254	5	9.574	0.000	30708328	270.0	5	10.089	0.000	16001660	294.8

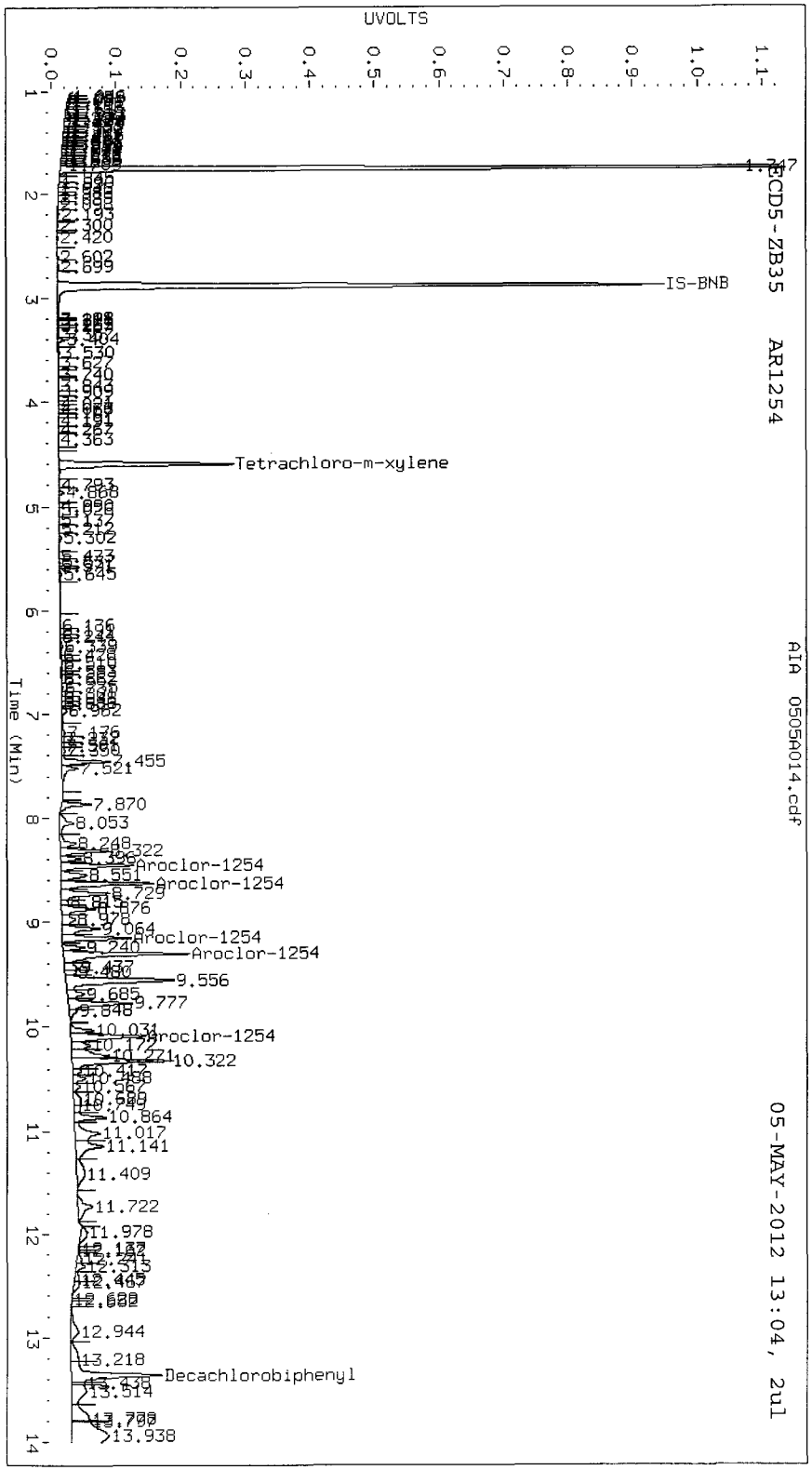
Total Col1Ave (5 peaks): 248.6 Total Col2Ave (5 peaks): 287.2 RPD = 14

Corrected Ave (4 peaks): 240.1 Corrected Ave (4 peaks): 283.6 RPD = 17

Total PCB Area Col1 (4.709 - 12.894) = 508019920 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 332923459 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical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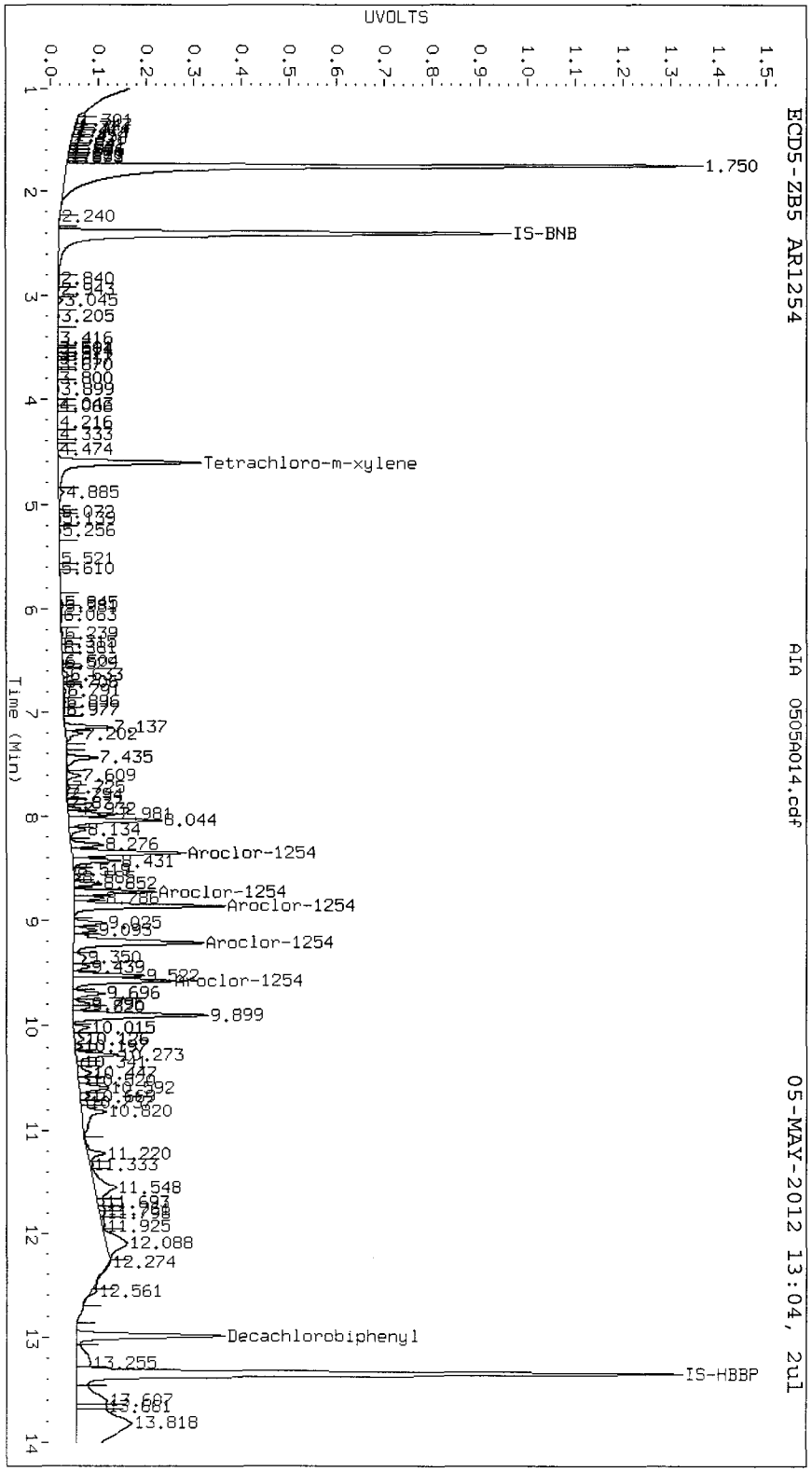
05-MAY-2012 13:04, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
Time (Min)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05-MAY-2012 13:04, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP
Time (Min)

URS3:00219

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A015.d
Data file 2: 20120409.B/0505-2.b/0505A015.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 05-MAY-2012 13:23
Ical Date: 09-APR-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
4.603	-0.006	41855936	4.599	-0.005	28448092	20.6	20.9	1.6	Tetrachloro-m-xylene
12.990	-0.004	47448901	13.363	-0.002	18617629	15.5	17.4	11.6	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.5	52.4
Decachlorobiphenyl	38.7	43.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	125015021	-10.9
Hexabromobiphenyl	198372884	187846226	-5.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	99532651	-3.0
Hexabromobiphenyl	81487087	72976810	-10.4

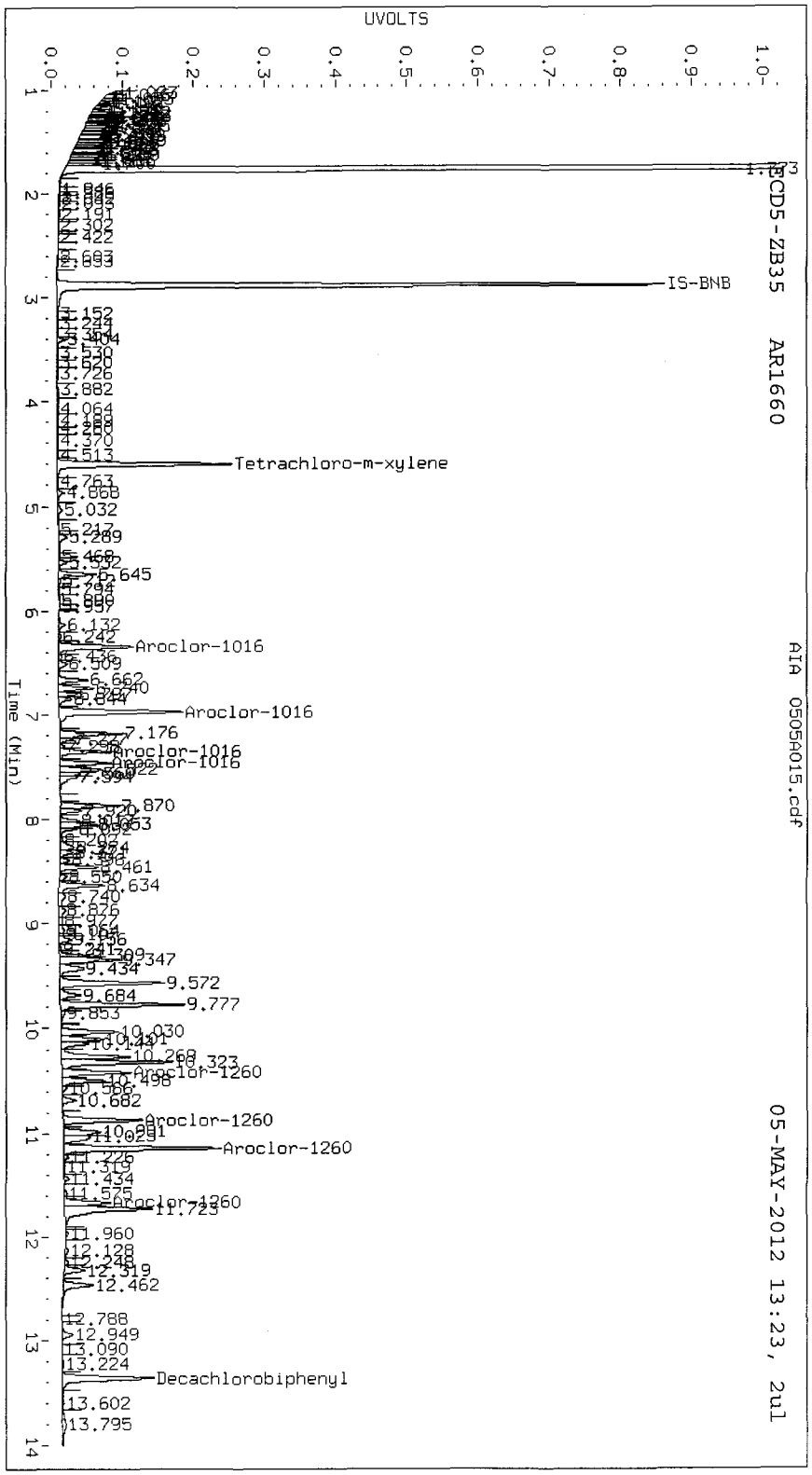
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.238	-0.004	12774133	243.1	1	6.339	-0.004	13207376	257.1
Aroclor-1016	2	6.638	-0.005	44626739	264.3	2	6.970	-0.004	23298485	215.7
Aroclor-1016	3	6.787	-0.004	17943667	259.9	3	7.351	-0.003	7506591	268.1
Aroclor-1016	4	6.897	-0.004	12517218	256.0	4	7.458	-0.004	8081286	263.7
Total Col1Ave (4 peaks):				255.8		Total Col2Ave (4 peaks):			251.1	RPD = 2
Corrected Ave (3 peaks):				253.0		Corrected Ave (3 peaks):			245.5	RPD = 3
Aroclor-1260	1	10.445	-0.004	24273699	234.3	1	10.419	-0.003	11605542	292.9
Aroclor-1260	2	10.820	-0.003	56930099	223.0	2	10.869	-0.003	13016046	259.8
Aroclor-1260	3	11.219	-0.003	30116122	217.1	3	11.142	-0.003	26212244	266.4
Aroclor-1260	4	11.336	-0.003	12430177	202.2	4	11.663	-0.003	7993922	275.7
Aroclor-1260	5	11.409	-0.004	14866053	201.1	NS	---			----
Total Col1Ave (5 peaks):				215.5		Total Col2Ave (4 peaks):			273.7	RPD = 24
Corrected Ave (4 peaks):				210.8		Corrected Ave (3 peaks):			267.3	RPD = 24

Total PCB Area Col1 (4.709 - 12.894) = 736802839 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 394041796 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical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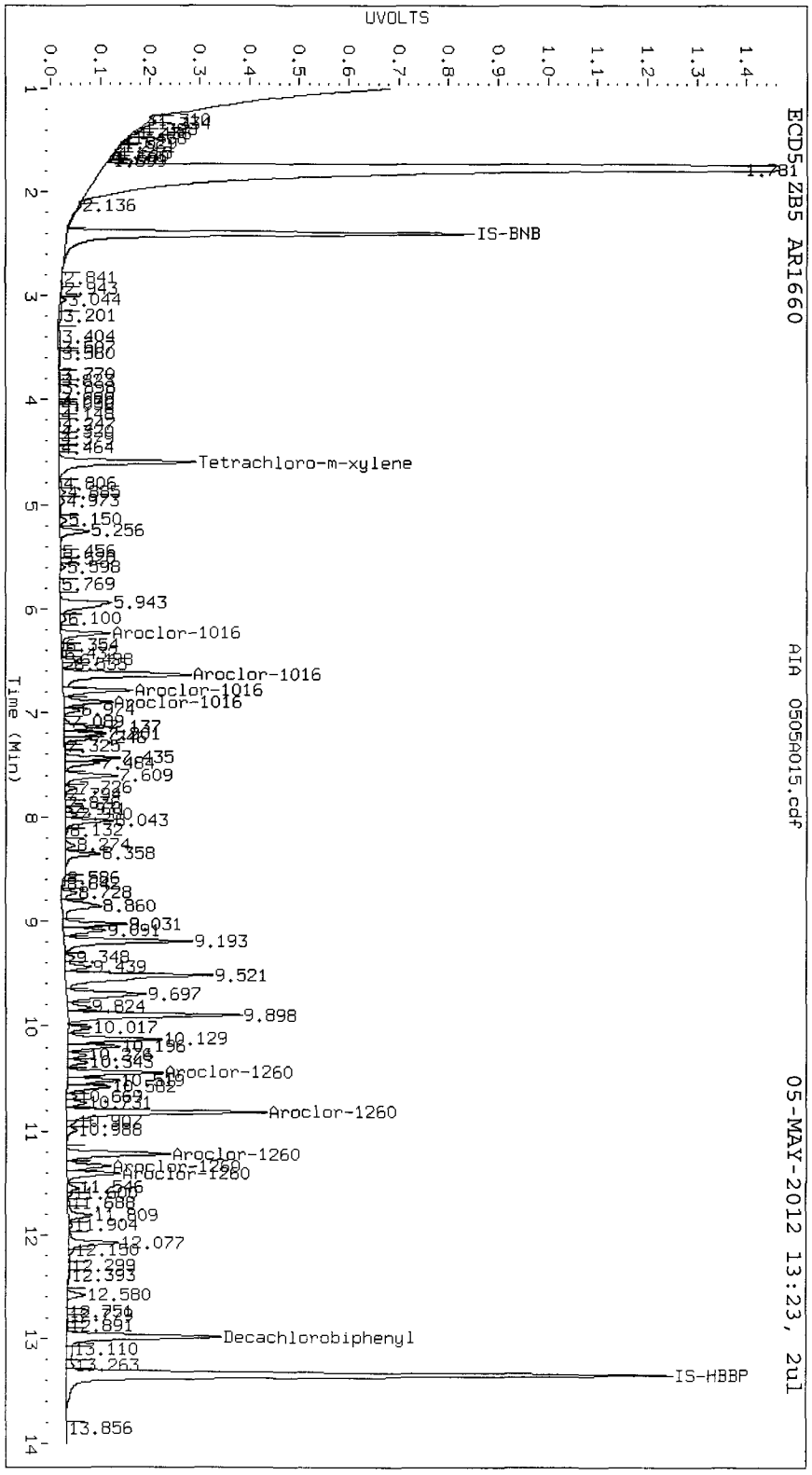
05-MAY-2012 13:23, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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05-MAY-2012 13:23, 2ul
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A016.d
Data file 2: 20120409.B/0505-2.b/0505A016.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93G
Client ID:
Injection Date: 05-MAY-2012 13:42
Ical Date: 09-APR-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
4.603	-0.006	67085605	4.599	-0.005	45143705	29.2	33.7	14.2	Tetrachloro-m-xylene
12.992	-0.002	94241322	13.363	-0.003	36580831	30.0	32.5	8.0	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	73.1	84.3
Decachlorobiphenyl	75.0	81.2

A 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	141121405	0.6
Hexabromobiphenyl	198372884	192452297	-3.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	98059859	-4.4
Hexabromobiphenyl	81487087	76638044	-6.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.207	-0.035	894096	15.1	1	6.321	-0.022	33720	0.7
Aroclor-1016	2	6.636	-0.007	102179	0.5	2	7.010	0.036	112936	1.1
Aroclor-1016	3	6.808	0.017	76170	1.0	3	7.360	0.007	12203	0.4
Aroclor-1016	4	6.900	-0.002	358795	6.5	4	7.456	-0.006	244449	8.1
Total Col1Ave (4 peaks):				5.8		Total Col2Ave (4 peaks):			2.6	RPD = 77*
Corrected Ave (3 peaks):				2.7		Corrected Ave (3 peaks):			0.7	RPD = 115*
Aroclor-1221	1	4.885	-0.005	3964163	592.8	1	5.303	0.008	886355	58.6
Aroclor-1221	2	5.136	-0.024	2007753	120.2	2	5.532	-0.010	434436	49.0
Aroclor-1221	3	5.272	0.007	387143	7.1	3	5.654	0.000	342374	12.5
Aroclor-1221	NS	---			----	4	5.730	0.008	84225	17.1
Total Col1Ave (3 peaks):				240.0		Total Col2Ave (4 peaks):			34.3	RPD = 150*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			26.2	
Aroclor-1232	1	6.207	-0.037	894096	36.7	1	6.321	-0.027	33720	1.5
Aroclor-1232	2	6.636	-0.007	102179	1.3	2	7.010	0.036	112936	2.5
Aroclor-1232	3	6.808	0.016	76170	2.4	3	7.180	-0.003	64923	4.3
Aroclor-1232	4	7.980	-0.005	436353	14.8	4	8.320	-0.009	470419	29.8
Total Col1Ave (4 peaks):				13.8		Total Col2Ave (4 peaks):			9.5	RPD = 37
Corrected Ave (3 peaks):				6.1		Corrected Ave (3 peaks):			2.8	RPD = 76*
Aroclor-1242	1	6.207	-0.036	894096	20.6	1	6.321	-0.022	33720	0.9
Aroclor-1242	2	6.636	-0.006	102179	0.7	2	7.010	0.036	112936	1.4
Aroclor-1242	3	6.808	0.017	76170	1.3	3	7.180	0.001	64923	2.0
Aroclor-1242	4	7.980	-0.004	436353	8.7	4	8.320	-0.006	470419	17.6
Total Col1Ave (4 peaks):				7.8		Total Col2Ave (4 peaks):			5.5	RPD = 36
Corrected Ave (3 peaks):				3.6		Corrected Ave (3 peaks):			1.4	RPD = 85*
Aroclor-1248	1	6.636	0.000	102179	1.1	1	7.010	0.042	112936	2.2
Aroclor-1248	2	7.433	-0.004	225843	3.2	2	7.871	0.001	115343	2.9
Aroclor-1248	3	7.980	-0.002	436353	5.1	3	8.320	-0.003	470419	10.2
Aroclor-1248	4	8.275	0.003	521126	6.1	4	8.728	-0.016	536258	10.5
Total Col1Ave (4 peaks):				3.9		Total Col2Ave (4 peaks):			6.5	RPD = 51*
Corrected Ave (3 peaks):				3.1		Corrected Ave (3 peaks):			5.1	RPD = 48*
Aroclor-1254	1	8.355	-0.001	1141690	8.5	1	8.460	-0.001	493310	12.7
Aroclor-1254	2	8.725	-0.002	648512	7.4	2	8.635	0.001	840388	17.1
Aroclor-1254	3	8.861	-0.002	1381191	8.6	3	9.168	0.012	934451	24.6
Aroclor-1254	4	9.209	-0.004	1801210	11.1	4	9.305	-0.002	677111	8.4
Aroclor-1254	5	9.572	-0.003	1046386	9.6	5	10.090	-0.000	390697	8.0
Total Col1Ave (5 peaks):				9.1		Total Col2Ave (5 peaks):			14.2	RPD = 44*
Corrected Ave (4 peaks):				8.5		Corrected Ave (4 peaks):			11.6	RPD = 30
Aroclor-1260	1	10.445	-0.004	774929	7.3	1	10.419	-0.003	1523152	36.6
Aroclor-1260	2	10.818	-0.005	4175417	16.0	2	10.870	-0.003	1358915	25.8
Aroclor-1260	3	11.221	-0.001	270677	1.9	3	11.141	-0.004	1671064	16.2
Aroclor-1260	4	11.335	-0.003	9980436	158.4	4	11.663	-0.003	4330924	142.2
Aroclor-1260	5	11.407	-0.006	10746140	141.9	NS	---			----
Total Col1Ave (5 peaks):				65.1		Total Col2Ave (4 peaks):			55.2	RPD = 16
Corrected Ave (4 peaks):				41.8		Corrected Ave (3 peaks):			28.2	RPD = 46*
Aroclor-1262	1	10.128	-0.006	3787895	24.0	1	10.419	-0.007	1523152	24.1
Aroclor-1262	2	10.445	-0.006	774929	6.6	2	10.870	-0.008	1358915	25.1
Aroclor-1262	3	10.818	-0.006	4175417	13.5	3	11.141	-0.007	1671064	13.7
Aroclor-1262	4	11.335	-0.006	9980436	88.6	4	11.663	-0.008	4330924	88.3
Aroclor-1262	5	11.407	-0.008	10746140	84.7	5	12.462	-0.008	2643611	56.1
Total Col1Ave (5 peaks):				43.5		Total Col2Ave (5 peaks):			41.5	RPD = 5
Corrected Ave (4 peaks):				32.2		Corrected Ave (4 peaks):			29.7	RPD = 8
Aroclor-1268	1	11.335	-0.006	9980436	31.1	1	11.663	-0.009	4330924	33.5
Aroclor-1268	2	11.407	-0.006	10746140	34.0	2	11.730	-0.009	4547703	37.3

see next page KOS/07/12

report y68 as hit no y-fl KOS/07/

Aroclor-1268 3	11.794	-0.006	6321087	23.0	3	12.127	-0.009	1956726	18.6
Aroclor-1268 4	12.583	-0.008	20120704	23.8	4	12.949	-0.009	8356943	26.3

Total Col1Ave (4 peaks): 28.0 Total Col2Ave (4 peaks): 28.9 RPD = 3

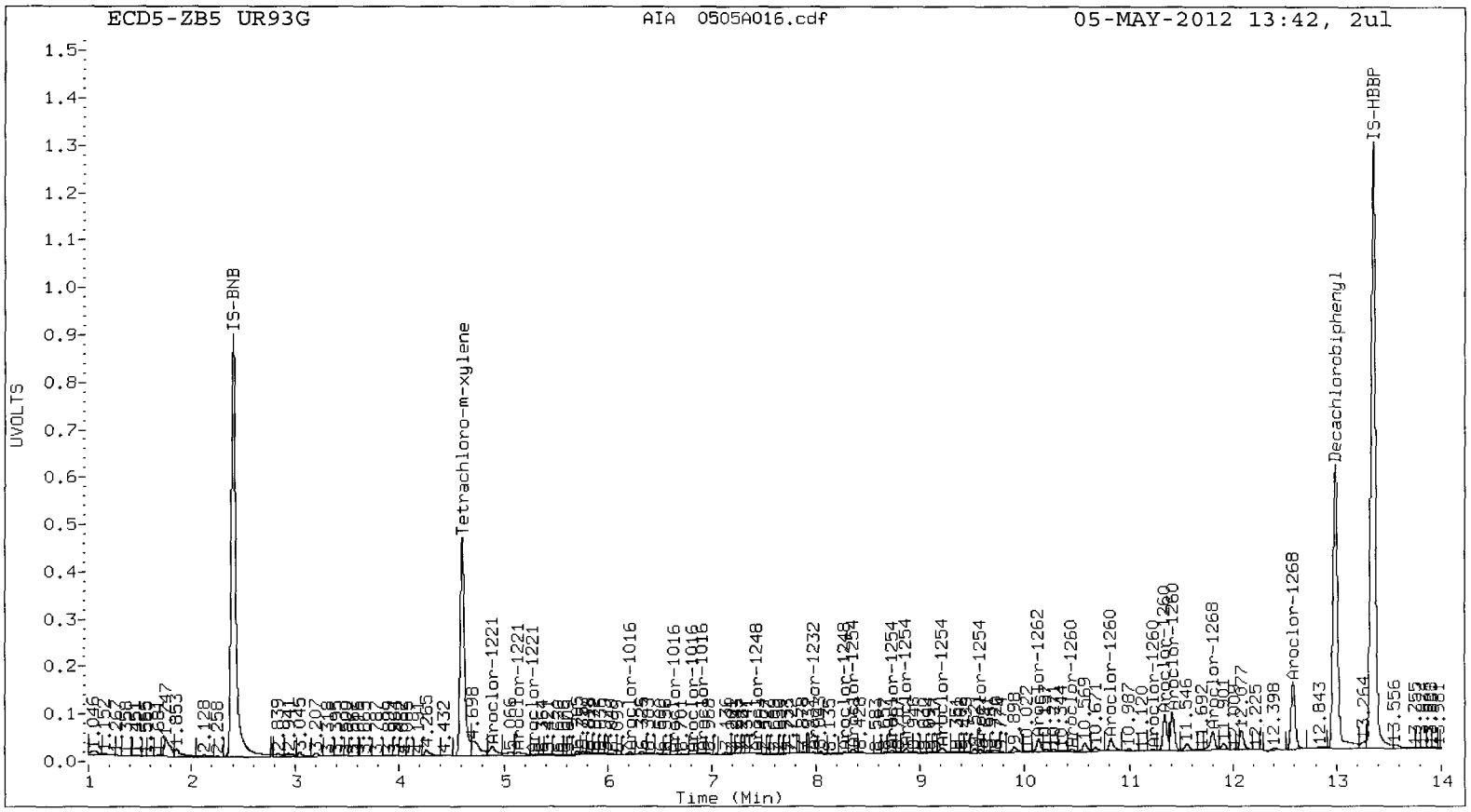
Corrected Ave (3 peaks): 26.0 Corrected Ave (3 peaks): 26.1 RPD = 1

Total PCB Area Col1 (4.709 - 12.894) = 111744182 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 53618829 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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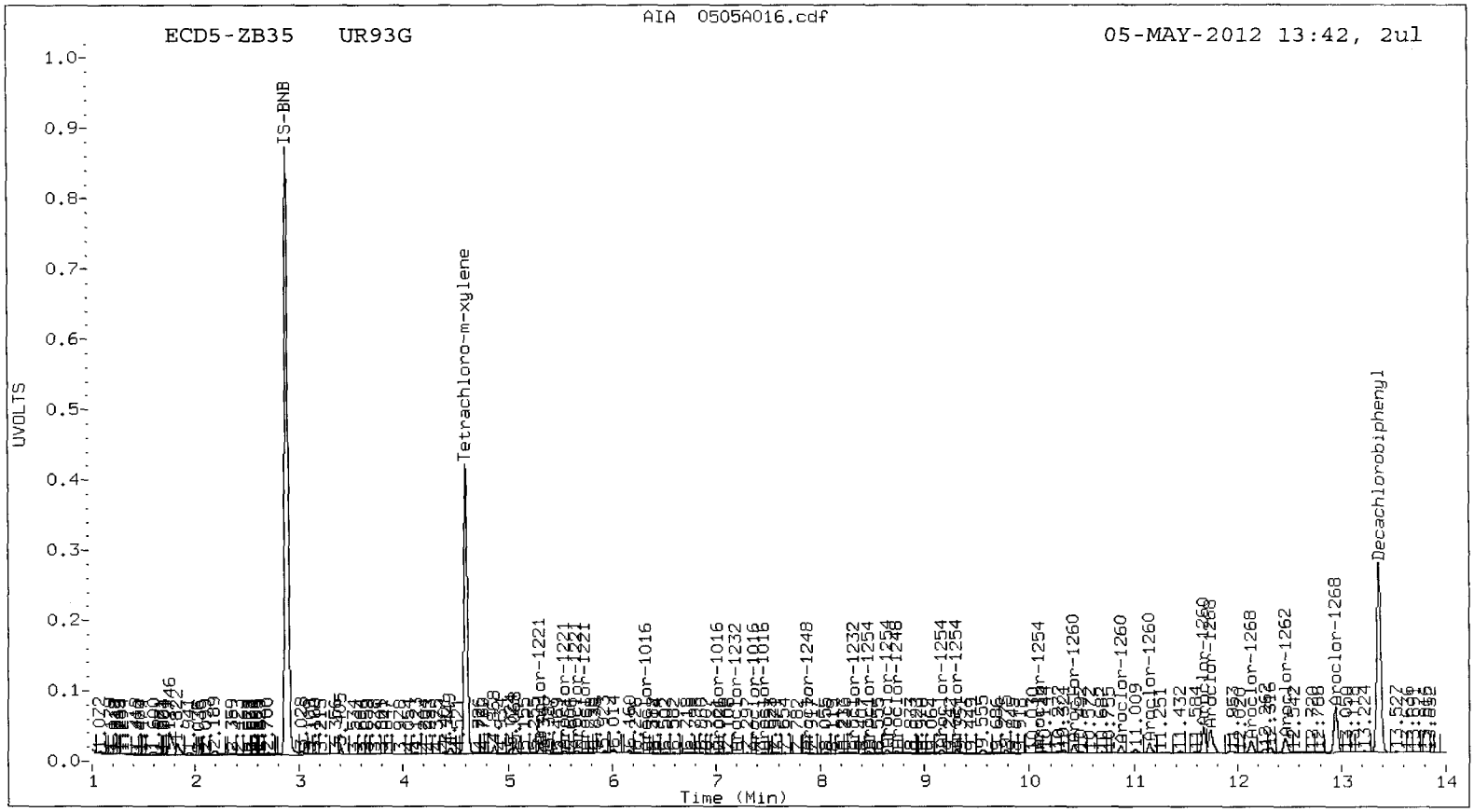
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268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Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
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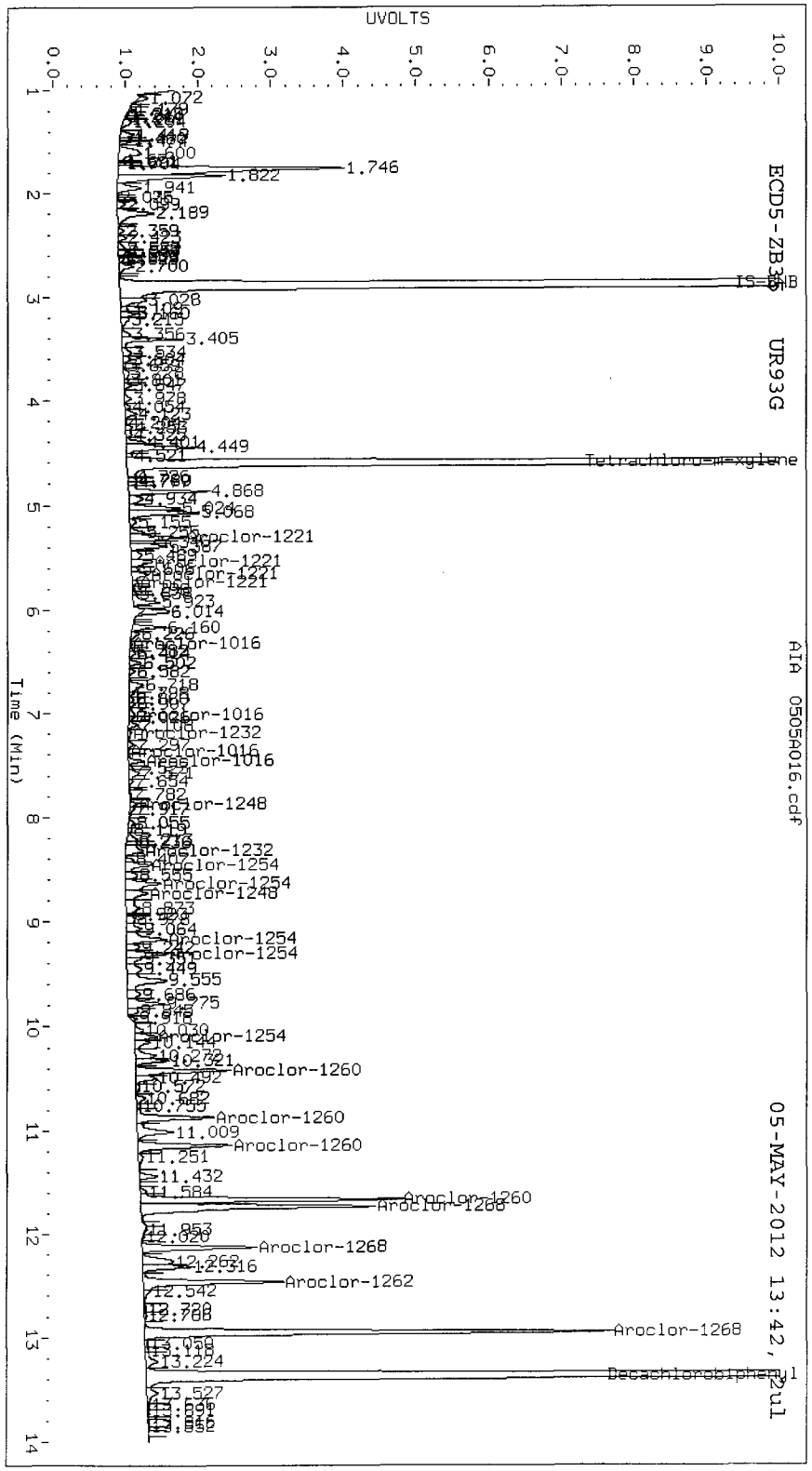
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Tetrachloro-m-xylene
Decachlorobiphenyl
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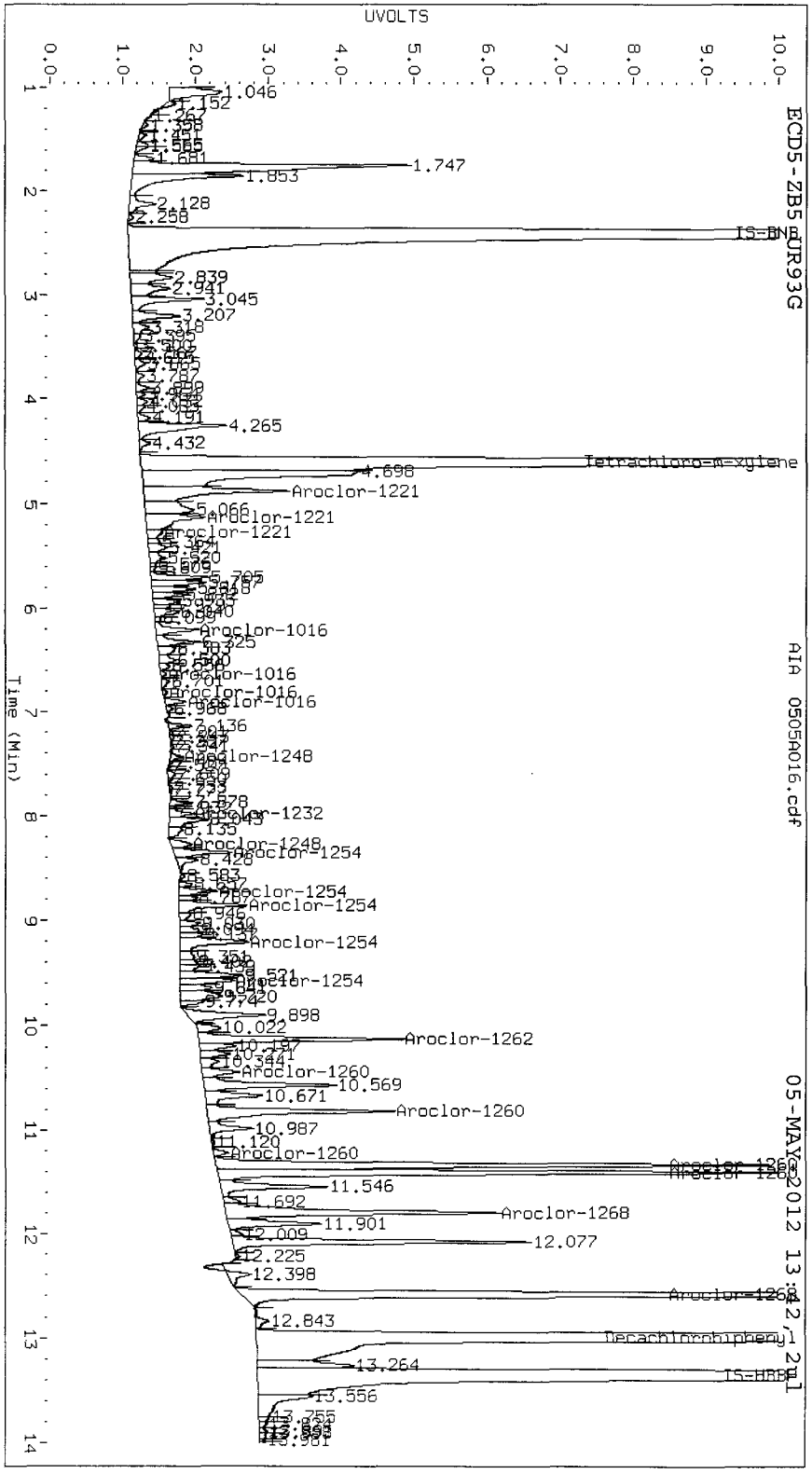
Aroclor-1268
Aroclor-1262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AIA 0505A016.cdf
05-MAY-2012 13:42, 2ul
Time (Min)
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Tetrachloro-m-xylene
Decachlorobiphenyl
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Aroclor-1016
Aroclor-1248
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Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A017.d
Data file 2: 20120409.B/0505-2.b/0505A017.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93H
Client ID:
Injection Date: 05-MAY-2012 14:01
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 5.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.603	-0.006	15697353	4.598	-0.006	10281558	6.5	7.2	9.1	Tetrachloro-m-xylene
12.990	-0.003	21135082	13.363	-0.002	8591387	6.3	7.4	16.5	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	81.7	89.6
Decachlorobiphenyl	78.9	93.0

MO5/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	147709186	5.3
Hexabromobiphenyl	198372884	205118690	3.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	105140397	2.5
Hexabromobiphenyl	81487087	78545924	-3.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.208	-0.035	304583	4.9	1	6.333	-0.010	140527	2.6
Aroclor-1016	2	6.635	-0.008	413426	2.1	2	6.981	0.007	406915	3.6
Aroclor-1016	3	6.799	0.008	334015	4.1	3	7.354	0.000	107651	3.6
Aroclor-1016	4	6.898	-0.003	289621	5.0	4	7.455	-0.006	6506541	201.0
Total Col1Ave (4 peaks):				4.0		Total Col2Ave (4 peaks):			52.7	RPD = 172*
Corrected Ave (3 peaks):				3.7		Corrected Ave (3 peaks):			3.3	RPD = 12
Aroclor-1221	1	4.885	-0.004	894614	127.8	1	5.300	0.005	257331	15.9
Aroclor-1221	2	5.138	-0.022	188863	10.8	2	5.555	0.012	234214	24.6
Aroclor-1221	3	5.272	0.007	20599	0.4	3	5.666	0.012	720665	24.4
Aroclor-1221	NS	---			----	4	5.734	0.011	31922	6.0
Total Col1Ave (3 peaks):				46.3		Total Col2Ave (4 peaks):			17.7	RPD = 89*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			15.4	
Aroclor-1232	1	6.208	-0.036	304583	12.0	1	6.333	-0.014	140527	5.8
Aroclor-1232	2	6.635	-0.009	413426	5.0	2	6.981	0.007	406915	8.5
Aroclor-1232	3	6.799	0.006	334015	9.9	3	7.232	0.049	400564	24.5
Aroclor-1232	4	7.980	-0.008	5082319	164.3	4	8.322	-0.007	3279345	193.6
Total Col1Ave (4 peaks):				47.8		Total Col2Ave (4 peaks):			58.1	RPD = 19
Corrected Ave (3 peaks):				9.0		Corrected Ave (3 peaks):			12.9	RPD = 36
Aroclor-1242	1	6.208	-0.035	304583	6.7	1	6.333	-0.010	140527	3.5
Aroclor-1242	2	6.635	-0.008	413426	2.8	2	6.981	0.007	406915	4.7
Aroclor-1242	3	6.799	0.008	334015	5.6	3	7.232	0.054	400564	11.6
Aroclor-1242	4	7.980	-0.004	5082319	96.4	4	8.322	-0.004	3279345	114.3
Total Col1Ave (4 peaks):				27.9		Total Col2Ave (4 peaks):			33.5	RPD = 18
Corrected Ave (3 peaks):				5.1		Corrected Ave (3 peaks):			6.6	RPD = 26
Aroclor-1248	1	6.635	-0.001	413426	4.3	1	6.981	0.013	406915	7.4
Aroclor-1248	2	7.435	-0.002	5532636	74.8	2	7.870	-0.001	2517088	59.1
Aroclor-1248	3	7.980	-0.002	5082319	56.2	3	8.322	-0.001	3279345	66.2
Aroclor-1248	4	8.277	0.005	6748732	74.9	4	8.727	-0.017	7077685	129.7
Total Col1Ave (4 peaks):				52.6		Total Col2Ave (4 peaks):			65.6	RPD = 22
Corrected Ave (3 peaks):				45.1		Corrected Ave (3 peaks):			44.2	RPD = 2
Aroclor-1254	1	8.355	0.000	32591851	231.3	1	8.461	0.000	12525783	301.7
Aroclor-1254	2	8.726	-0.001	18927374	206.5	2	8.634	0.000	14202279	269.9
Aroclor-1254	3	8.862	-0.001	45296469	270.3	3	9.157	0.000	9902285	243.5
Aroclor-1254	4	9.203	-0.010	48377669	286.1	4	9.307	0.000	21540538	248.0
Aroclor-1254	5	9.568	-0.007	26217595	229.8	5	10.093	0.004	13614384	259.9
Total Col1Ave (5 peaks):				244.8		Total Col2Ave (5 peaks):			264.6	RPD = 8
Corrected Ave (4 peaks):				234.5		Corrected Ave (4 peaks):			255.3	RPD = 9
Aroclor-1260	1	10.445	-0.004	11240811	99.3	1	10.418	-0.003	5304533	124.4
Aroclor-1260	2	10.818	-0.005	29156711	104.6	2	10.866	-0.007	10871553	201.6
Aroclor-1260	3	11.219	-0.003	17170564	113.4	3	11.141	-0.003	13665764	129.1
Aroclor-1260	4	11.336	-0.003	6153893	91.7	4	11.663	-0.003	3519091	112.8
Aroclor-1260	5	11.409	-0.003	7537864	93.4	NS	---			----
Total Col1Ave (5 peaks):				100.5		Total Col2Ave (4 peaks):			141.9	RPD = 34
Corrected Ave (4 peaks):				97.2		Corrected Ave (3 peaks):			132.1	RPD = 23
Aroclor-1262	1	10.128	-0.006	11111587	66.1	1	10.418	-0.007	5304533	81.8
Aroclor-1262	2	10.445	-0.006	11240811	90.5	2	10.866	-0.012	10871553	196.2
Aroclor-1262	3	10.818	-0.006	29156711	88.8	3	11.141	-0.007	13665764	108.9
Aroclor-1262	4	11.336	-0.006	6153893	51.3	4	11.663	-0.007	3519091	70.0
Aroclor-1262	5	11.409	-0.005	7537864	55.8	5	12.462	-0.007	3776790	78.2
Total Col1Ave (5 peaks):				70.5		Total Col2Ave (5 peaks):			107.0	RPD = 41*
Corrected Ave (4 peaks):				65.5		Corrected Ave (4 peaks):			84.7	RPD = 26
Aroclor-1268	1	11.336	-0.006	6153893	18.0	1	11.663	-0.009	3519091	26.5
Aroclor-1268	2	11.409	-0.004	7537864	22.4	2	11.722	-0.016	9527362	76.2

Aroclor-1268	3	11.810	0.010	3750536	12.8	3	12.130	-0.006	226946	2.1
Aroclor-1268	4	12.581	-0.010	3015200	3.3	4	12.949	-0.009	1103734	3.4

Total Col1Ave (4 peaks): 14.1 Total Col2Ave (4 peaks): 27.1 RPD = 63*

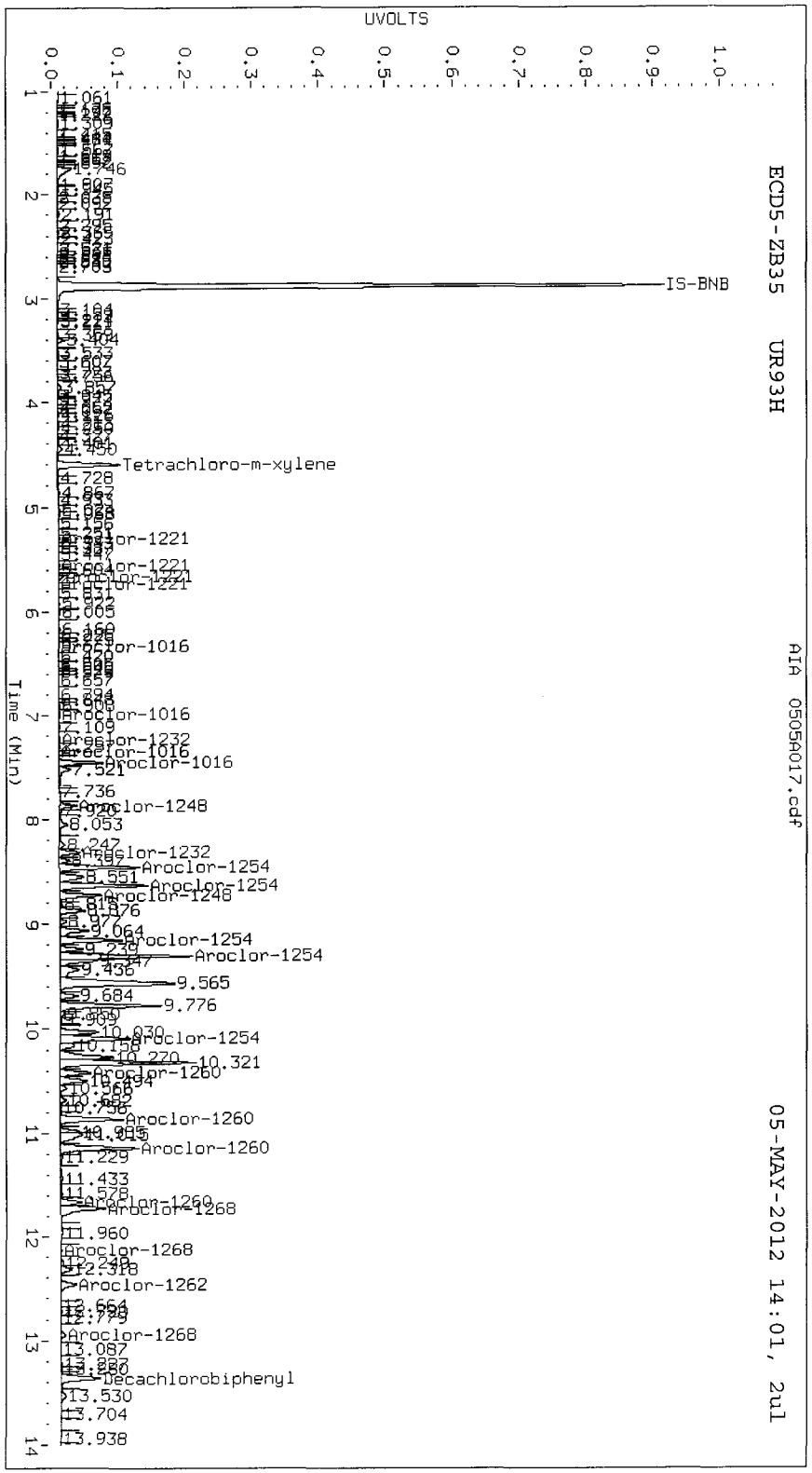
Corrected Ave (3 peaks): 11.4 Corrected Ave (3 peaks): 10.7 RPD = 6

Total PCB Area Col1 (4.709 - 12.894) = 562761827 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 292275931 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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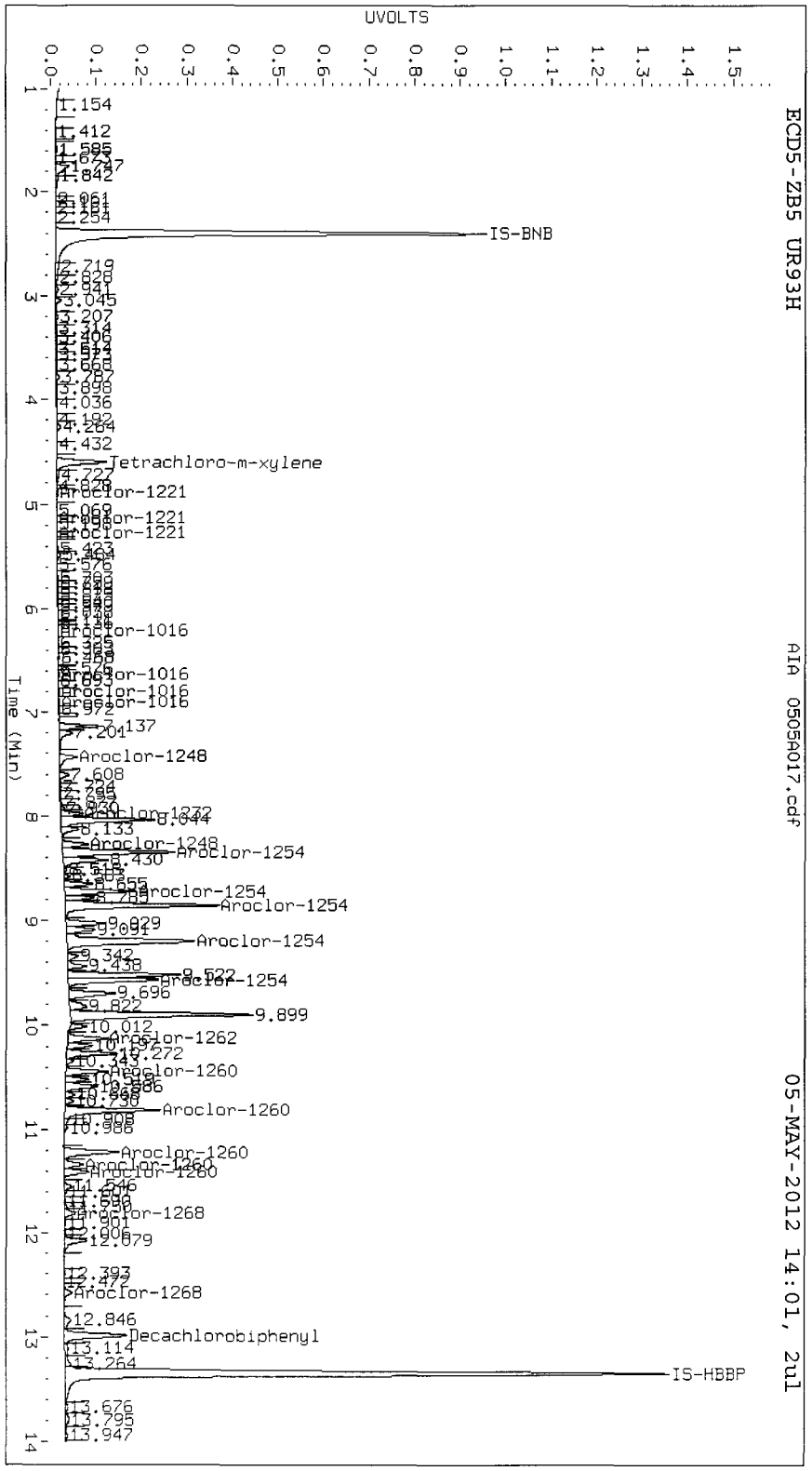
Decachlorobiphenyl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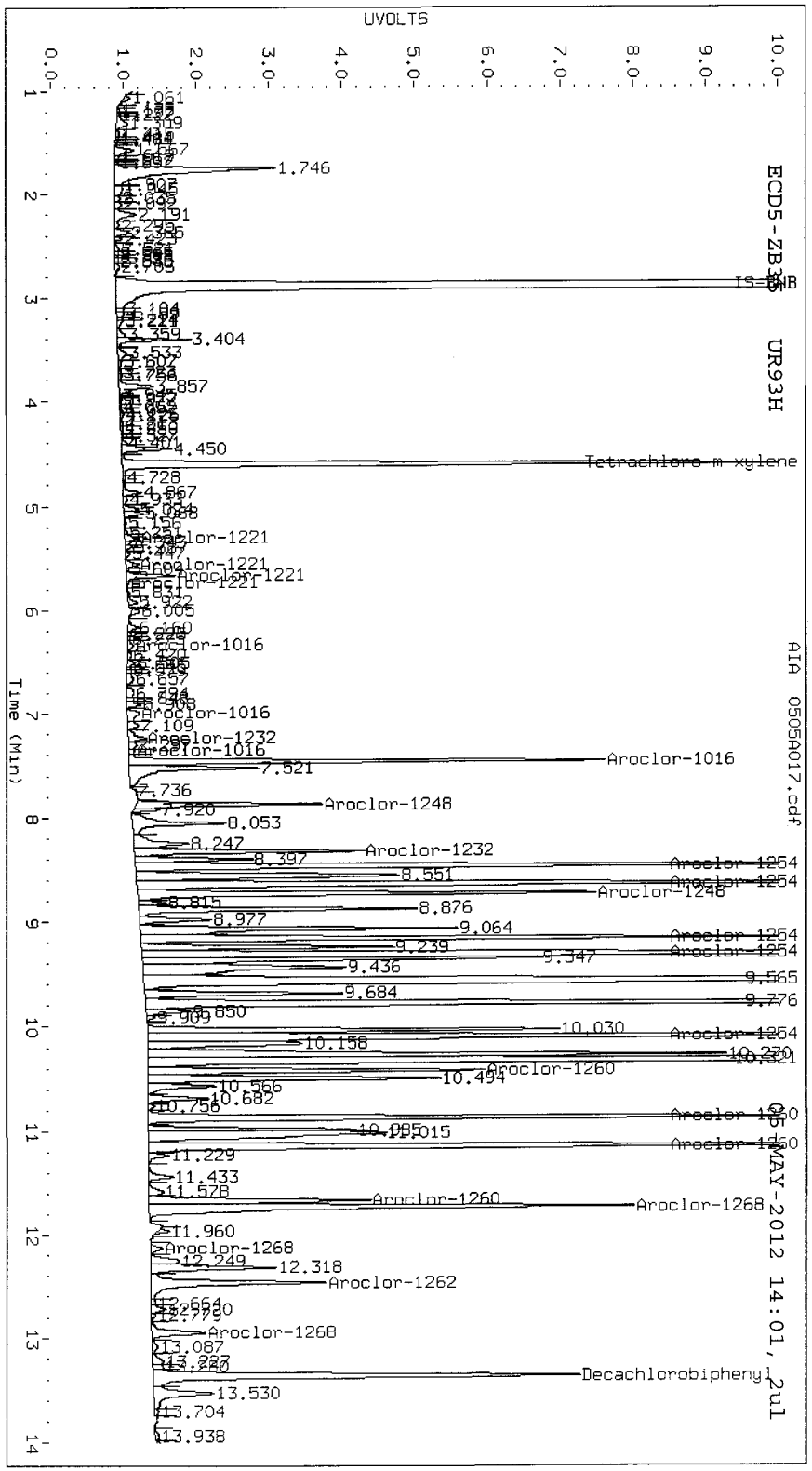
IS-HBBP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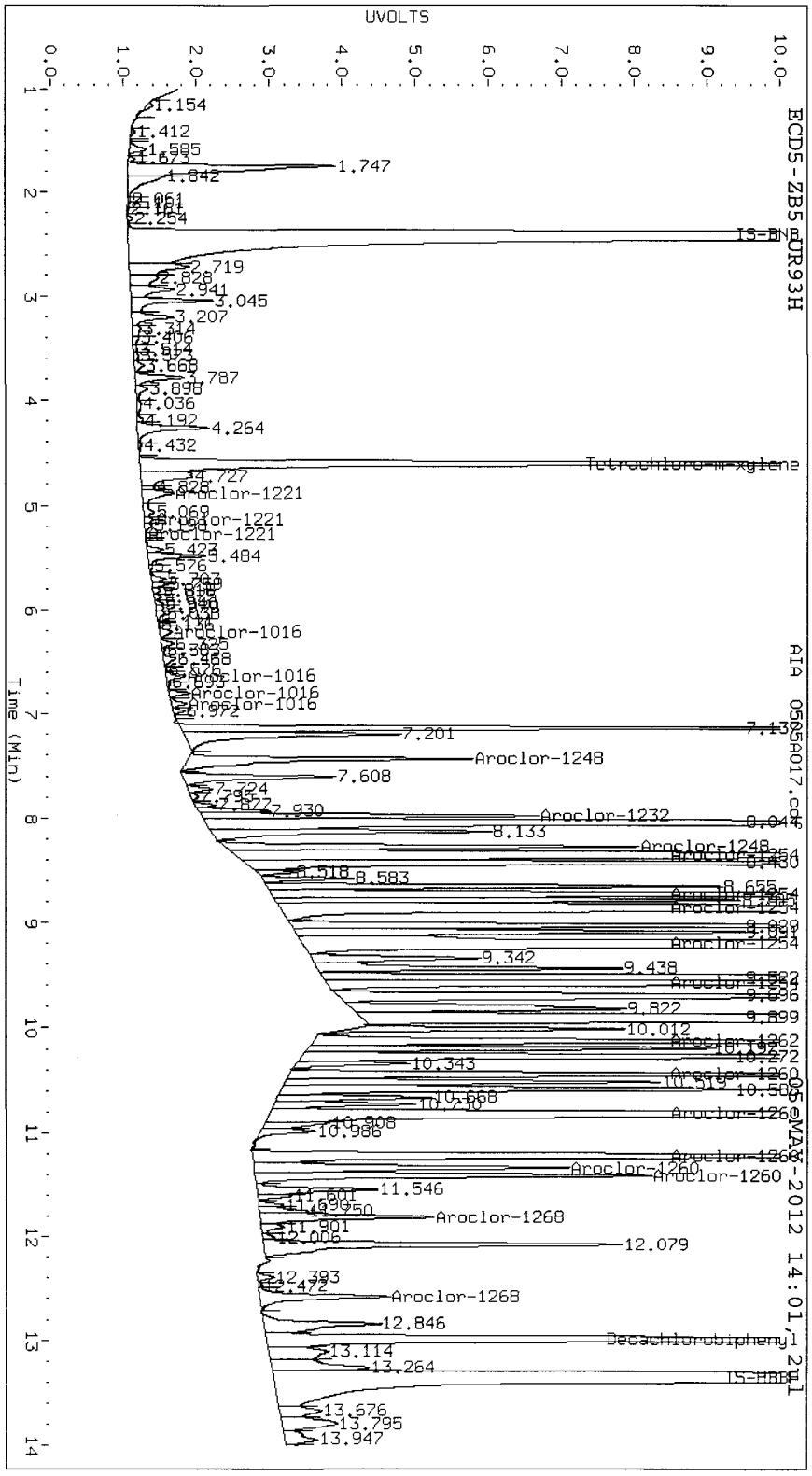
Decachlorobiphenyl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Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20120409.B/0505-2.b/0505A018.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93I
Client ID:
Injection Date: 05-MAY-2012 14:20
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 5.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.602	-0.006	15808809	4.599	-0.006	9260065	7.3	7.2	1.8	Tetrachloro-m-xylene
12.991	-0.003	18385459	13.363	-0.003	8014664	6.2	7.6	19.9	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	91.5	89.9
Decachlorobiphenyl	78.0	95.3

07
05/05/12
05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	132887116	-5.3
Hexabromobiphenyl	198372884	180295621	-9.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	94375716	-8.0
Hexabromobiphenyl	81487087	71568758	-12.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.231	-0.011	251037	4.5	1	6.339	-0.004	93504	1.9
Aroclor-1016	2	6.633	-0.009	378236	2.1	2	6.977	0.003	440652	4.3
Aroclor-1016	3	6.798	0.007	300844	4.1	3	7.379	0.025	174246	6.6
Aroclor-1016	4	6.896	-0.005	729844	14.0	4	7.455	-0.006	5933458	204.2
Total Col1Ave (4 peaks):				6.2		Total Col2Ave (4 peaks):			54.2	RPD = 159*
Corrected Ave (3 peaks):				3.6		Corrected Ave (3 peaks):			4.3	RPD = 18
Aroclor-1221	1	4.886	-0.004	884088	140.4	1	5.303	0.008	256131	17.6
Aroclor-1221	2	5.136	-0.025	157660	10.0	2	5.559	0.017	119441	14.0
Aroclor-1221	3	5.194	-0.071	193551	3.8	3	5.666	0.012	676606	25.6
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				51.4		Total Col2Ave (3 peaks):			19.0	RPD = 92*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.231	-0.013	251037	11.0	1	6.339	-0.008	93504	4.3
Aroclor-1232	2	6.633	-0.010	378236	5.1	2	6.977	0.002	440652	10.3
Aroclor-1232	3	6.798	0.006	300844	9.9	3	7.184	0.001	125493	8.5
Aroclor-1232	4	7.980	-0.005	4342337	156.0	4	8.322	-0.007	2852354	187.6
Total Col1Ave (4 peaks):				45.5		Total Col2Ave (4 peaks):			52.7	RPD = 15
Corrected Ave (3 peaks):				8.7		Corrected Ave (3 peaks):			7.7	RPD = 12
Aroclor-1242	1	6.231	-0.011	251037	6.1	1	6.339	-0.004	93504	2.6
Aroclor-1242	2	6.633	-0.009	378236	2.9	2	6.977	0.002	440652	5.7
Aroclor-1242	3	6.798	0.008	300844	5.6	3	7.184	0.005	125493	4.0
Aroclor-1242	4	7.980	-0.004	4342337	91.6	4	8.322	-0.004	2852354	110.7
Total Col1Ave (4 peaks):				26.6		Total Col2Ave (4 peaks):			30.8	RPD = 15
Corrected Ave (3 peaks):				4.9		Corrected Ave (3 peaks):			4.1	RPD = 17
Aroclor-1248	1	6.633	-0.002	378236	4.4	1	6.977	0.009	440652	8.9
Aroclor-1248	2	7.435	-0.002	5085192	76.4	2	7.869	-0.001	2426068	63.4
Aroclor-1248	3	7.980	-0.002	4342337	53.4	3	8.322	0.000	2852354	64.2
Aroclor-1248	4	8.277	0.005	5491338	67.8	4	8.728	-0.016	6247630	127.6
Total Col1Ave (4 peaks):				50.5		Total Col2Ave (4 peaks):			66.0	RPD = 27
Corrected Ave (3 peaks):				41.8		Corrected Ave (3 peaks):			45.5	RPD = 8
Aroclor-1254	1	8.355	0.000	26520155	209.2	1	8.462	0.000	10518349	282.3
Aroclor-1254	2	8.726	-0.001	15968425	193.7	2	8.634	0.000	11837093	250.6
Aroclor-1254	3	8.862	-0.001	37502958	248.7	3	9.157	0.000	8062308	220.8
Aroclor-1254	4	9.205	-0.007	38030342	250.0	4	9.307	0.000	21795479	279.5
Aroclor-1254	5	9.569	-0.005	20924595	203.9	5	10.092	0.003	10888736	231.5
Total Col1Ave (5 peaks):				221.1		Total Col2Ave (5 peaks):			253.0	RPD = 13
Corrected Ave (4 peaks):				213.9		Corrected Ave (4 peaks):			245.6	RPD = 14
Aroclor-1260	1	10.445	-0.004	8208366	82.5	1	10.419	-0.003	4308590	110.9
Aroclor-1260	2	10.819	-0.004	23776939	97.0	2	10.866	-0.006	8375859	170.4
Aroclor-1260	3	11.219	-0.003	12387630	93.0	3	11.141	-0.003	10779120	111.7
Aroclor-1260	4	11.336	-0.003	6535869	110.8	4	11.664	-0.002	3200844	112.6
Aroclor-1260	5	11.409	-0.004	7285823	102.7	NS	---			----
Total Col1Ave (5 peaks):				97.2		Total Col2Ave (4 peaks):			126.4	RPD = 26
Corrected Ave (4 peaks):				93.8		Corrected Ave (3 peaks):			111.7	RPD = 17
Aroclor-1262	1	10.128	-0.006	8803106	59.6	1	10.419	-0.007	4308590	72.9
Aroclor-1262	2	10.445	-0.005	8208366	75.2	2	10.866	-0.011	8375859	165.9
Aroclor-1262	3	10.819	-0.006	23776939	82.3	3	11.141	-0.007	10779120	94.3
Aroclor-1262	4	11.336	-0.006	6535869	61.9	4	11.664	-0.007	3200844	69.9
Aroclor-1262	5	11.409	-0.006	7285823	61.3	5	12.462	-0.007	3411137	77.5
Total Col1Ave (5 peaks):				68.1		Total Col2Ave (5 peaks):			96.1	RPD = 34
Corrected Ave (4 peaks):				64.5		Corrected Ave (4 peaks):			78.7	RPD = 20
Aroclor-1268	1	11.336	-0.006	6535869	21.7	1	11.664	-0.008	3200844	26.5
Aroclor-1268	2	11.409	-0.004	7285823	24.6	2	11.723	-0.016	7532315	66.1

Aroclor-1268	3	11.807	0.007	4175854	16.2	3	12.129	-0.007	251670	2.6
Aroclor-1268	4	12.581	-0.010	3965372	5.0	4	12.949	-0.008	1692937	5.7

Total Col1Ave (4 peaks): 16.9 Total Col2Ave (4 peaks): 25.2 RPD = 40

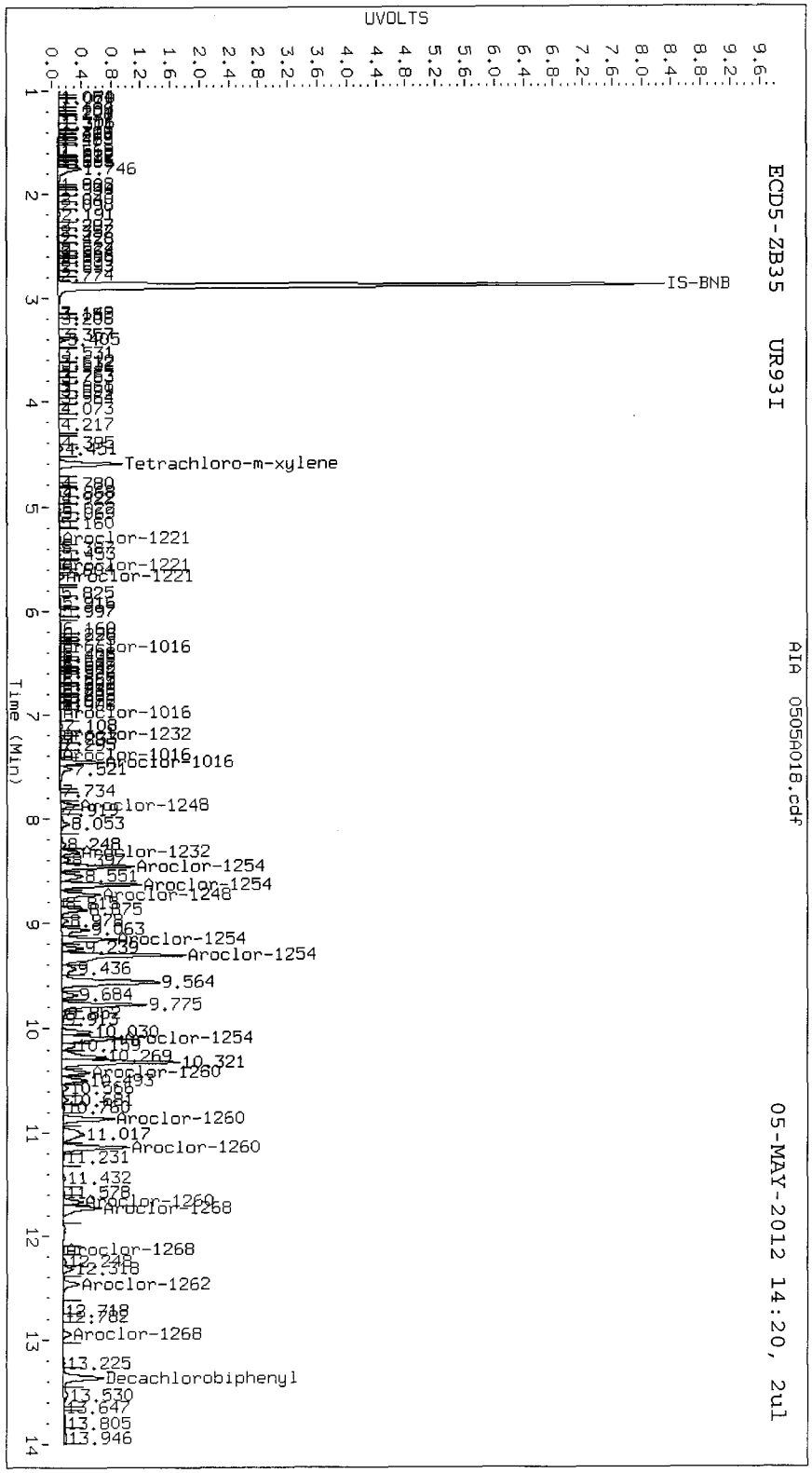
Corrected Ave (3 peaks): 14.3 Corrected Ave (3 peaks): 11.6 RPD = 21

Total PCB Area Col1 (4.709 - 12.894) = 456561143 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 241789633 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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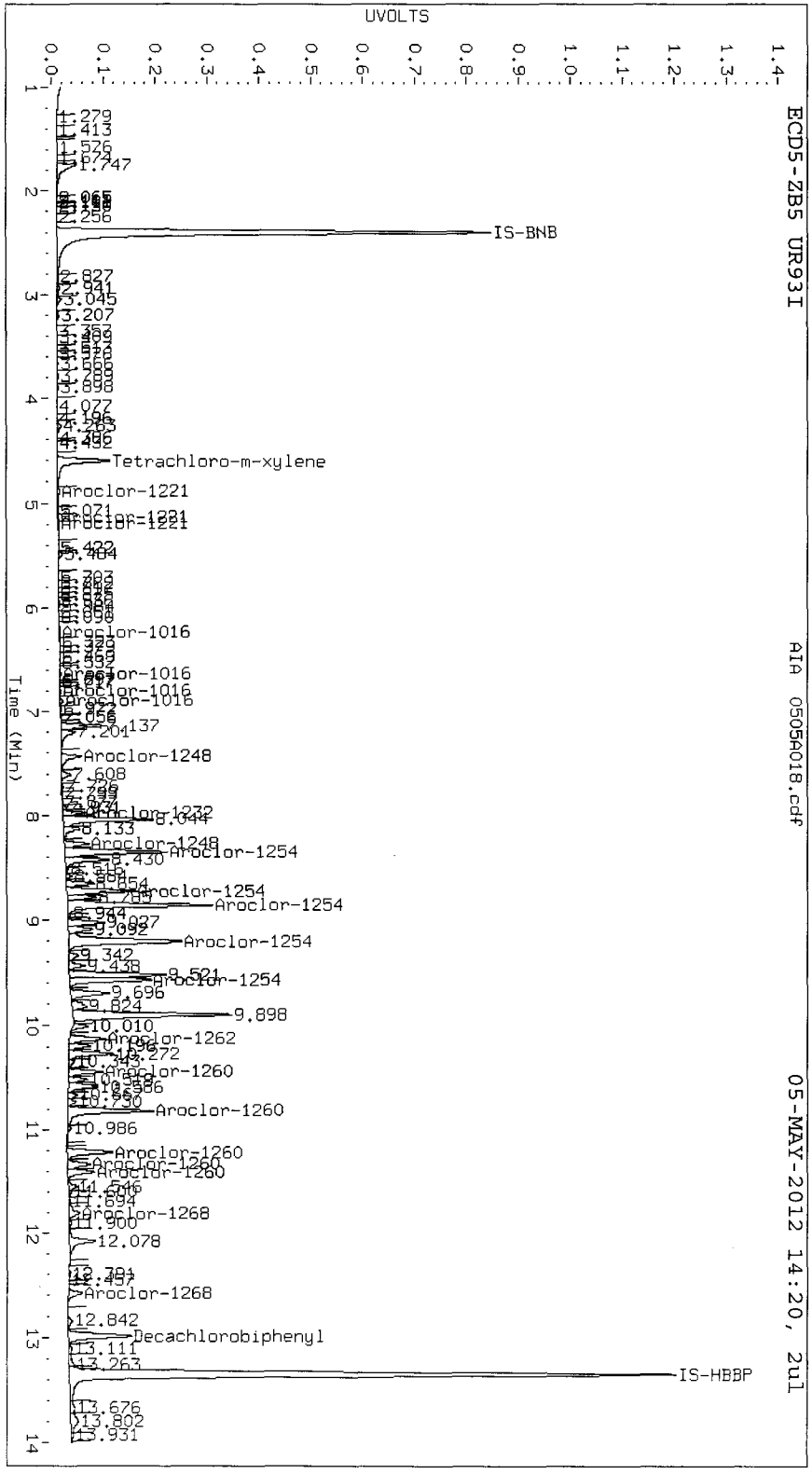
Decachlorobiphenyl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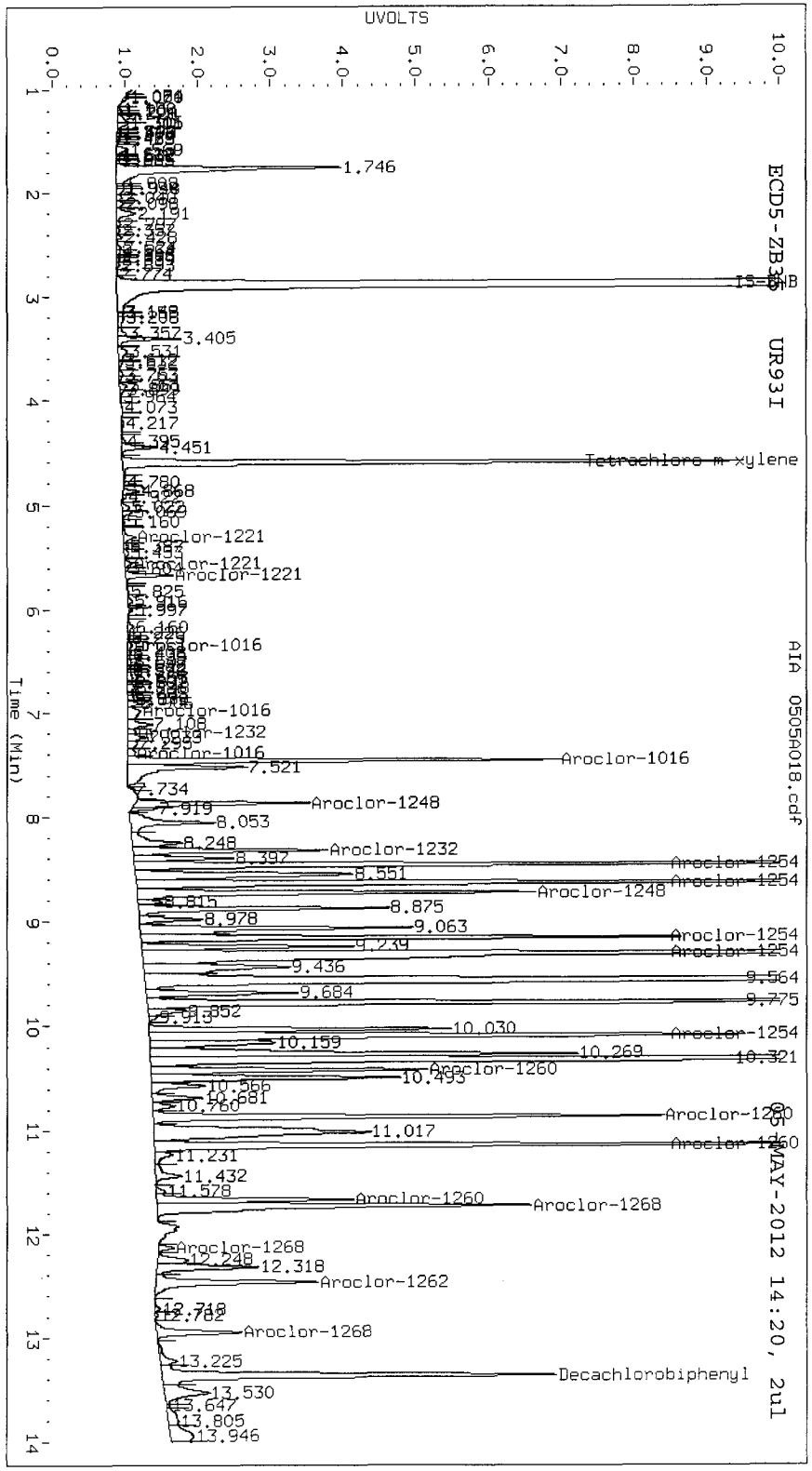
IS-HBBP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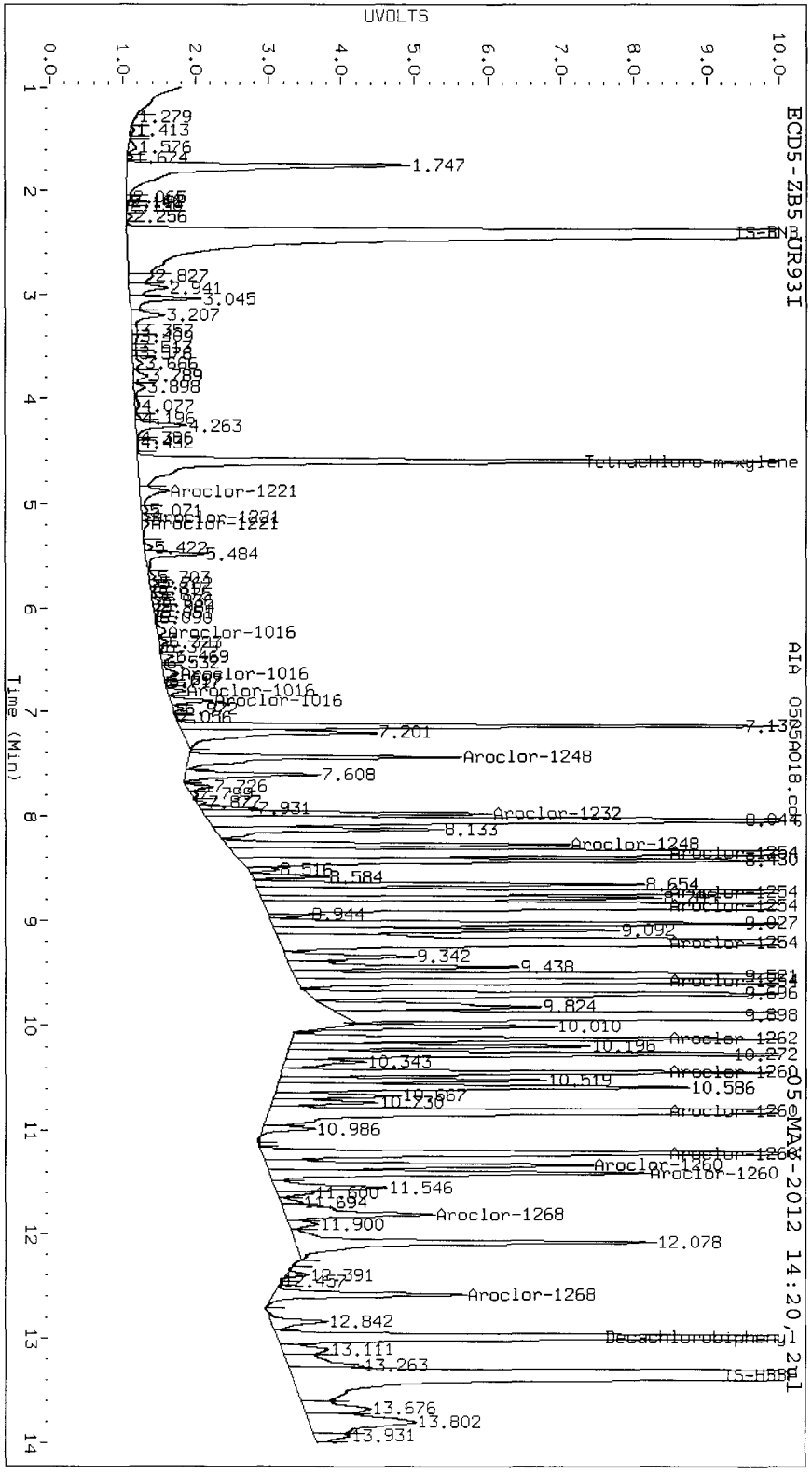
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05-MAY-2012 14:20, 2ul
Time (Min)
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IS-HB
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3.207
4.263
Tetrachloro-m-xylene
Aroclor-1221
5.484
Aroclor-1016
7.201
Aroclor-1248
7.608
Aroclor-1232
8.133
8.584
8.944
9.092
9.342
9.438
9.824
10.010
10.196
10.343
10.519
10.586
10.986
11.546
Aroclor-1268
11.900
12.078
12.391
12.842
13.111
13.263
13.676
13.802
13.931

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A019.d
Data file 2: 20120409.B/0505-2.b/0505A019.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93J
Client ID:
Injection Date: 05-MAY-2012 14:39
Ical Date: 09-APR-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
4.602	-0.007	68473199	4.599	-0.006	42653444	31.0	32.5	4.9	Tetrachloro-m-xylene
12.990	-0.004	91864119	13.362	-0.003	36064204	28.8	32.1	10.9	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	77.4	81.3
Decachlorobiphenyl	72.1	80.4

JL 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	136076739	-3.0
Hexabromobiphenyl	198372884	195073835	-1.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	96113217	-6.3
Hexabromobiphenyl	81487087	76348899	-6.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.210	-0.033	403026	7.0	1	6.326	-0.017	74925	1.5
Aroclor-1016	2	6.630	-0.013	147918	0.8	2	6.953	-0.021	80747	0.8
Aroclor-1016	3	6.741	-0.050	157721	2.1	3	7.351	-0.003	30694	1.1
Aroclor-1016	4	6.898	-0.003	417668	7.8	4	7.454	-0.007	155147	5.2
Total Col1Ave (4 peaks):				4.4		Total Col2Ave (4 peaks):			2.2	RPD = 69*
Corrected Ave (3 peaks):				3.3		Corrected Ave (3 peaks):			1.1	RPD = 98*
Aroclor-1221	1	4.885	-0.005	3724799	577.7	1	5.307	0.012	1624363	109.5
Aroclor-1221	2	5.133	-0.027	1225095	76.1	2	5.556	0.014	723031	83.2
Aroclor-1221	3	5.284	0.018	475244	9.0	3	5.654	0.000	295116	10.9
Aroclor-1221	NS	---			----	4	5.734	0.011	128301	26.5
Total Col1Ave (3 peaks):				220.9		Total Col2Ave (4 peaks):			57.5	RPD = 117*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			40.2	
Aroclor-1232	1	6.210	-0.034	403026	17.2	1	6.326	-0.022	74925	3.4
Aroclor-1232	2	6.630	-0.014	147918	2.0	2	6.953	-0.021	80747	1.8
Aroclor-1232	3	6.741	-0.052	157721	5.1	3	7.183	0.000	116805	7.8
Aroclor-1232	4	7.969	-0.017	129954	4.6	4	8.319	-0.009	454107	29.3
Total Col1Ave (4 peaks):				7.2		Total Col2Ave (4 peaks):			10.6	RPD = 38
Corrected Ave (3 peaks):				3.9		Corrected Ave (3 peaks):			4.3	RPD = 12
Aroclor-1242	1	6.210	-0.033	403026	9.6	1	6.326	-0.017	74925	2.0
Aroclor-1242	2	6.630	-0.013	147918	1.1	2	6.953	-0.021	80747	1.0
Aroclor-1242	3	6.741	-0.050	157721	2.9	3	7.183	0.004	116805	3.7
Aroclor-1242	4	7.969	-0.015	129954	2.7	4	8.319	-0.006	454107	17.3
Total Col1Ave (4 peaks):				4.1		Total Col2Ave (4 peaks):			6.0	RPD = 38
Corrected Ave (3 peaks):				2.2		Corrected Ave (3 peaks):			2.2	RPD = 1
Aroclor-1248	1	6.630	-0.006	147918	1.7	1	6.953	-0.015	80747	1.6
Aroclor-1248	2	7.414	-0.022	318427	4.7	2	7.872	0.002	79400	2.0
Aroclor-1248	3	7.969	-0.013	129954	1.6	3	8.319	-0.003	454107	10.0
Aroclor-1248	4	8.249	-0.023	1014144	12.2	4	8.690	-0.053	1633673	32.8
Total Col1Ave (4 peaks):				5.0		Total Col2Ave (4 peaks):			11.6	RPD = 79*
Corrected Ave (3 peaks):				2.6		Corrected Ave (3 peaks):			4.6	RPD = 53*
Aroclor-1254	1	8.354	-0.002	407357	3.1	1	8.460	-0.001	362150	9.5
Aroclor-1254	2	8.730	0.003	627154	7.4	2	8.634	-0.001	532687	11.1
Aroclor-1254	3	8.862	-0.001	1623325	10.5	3	9.174	0.017	1545721	41.6
Aroclor-1254	4	9.201	-0.011	1772378	11.4	4	9.300	-0.007	553650	7.0
Aroclor-1254	5	9.574	-0.001	2261198	21.5	5	10.087	-0.003	433480	9.1
Total Col1Ave (5 peaks):				10.8		Total Col2Ave (5 peaks):			15.6	RPD = 37
Corrected Ave (4 peaks):				8.1		Corrected Ave (4 peaks):			9.2	RPD = 12
Aroclor-1260	1	10.425	-0.023	2482959	23.1	1	10.448	0.027	284250	6.9
Aroclor-1260	2	10.858	0.035	2882413	10.9	2	10.799	-0.073	182510	3.5
Aroclor-1260	3	11.162	-0.060	883036	6.1	3	11.146	0.001	930779	9.0
Aroclor-1260	4	11.321	-0.018	1059784	16.6	4	11.616	-0.050	304962	10.1
Aroclor-1260	5	---			0.0	NS	---			----
Total Col1Ave (4 peaks):				14.2		Total Col2Ave (4 peaks):			7.4	RPD = 63*
Corrected Ave (3 peaks):				11.2		Corrected Ave (3 peaks):			6.5	RPD = 54*
Aroclor-1262	1	10.099	-0.034	1824555	11.4	1	10.448	0.023	284250	4.5
Aroclor-1262	2	10.425	-0.025	2482959	21.0	2	10.799	-0.078	182510	3.4
Aroclor-1262	3	10.858	0.033	2882413	9.2	3	11.146	-0.003	930779	7.6
Aroclor-1262	4	11.321	-0.021	1059784	9.3	4	11.616	-0.055	304962	6.2
Aroclor-1262	5	---			0.0	5	12.500	0.030	736086	15.7
Total Col1Ave (4 peaks):				12.7		Total Col2Ave (5 peaks):			7.5	RPD = 52*
Corrected Ave (3 peaks):				10.0		Corrected Ave (4 peaks):			5.4	RPD = 59*
Aroclor-1268	1	11.321	-0.021	1059784	3.3	1	11.616	-0.056	304962	2.4
Aroclor-1268	2	---			0.0	2	11.746	0.007	538656	4.4

Aroclor-1268	3	11.835	0.035	132391	0.5	3	12.120	-0.016	59935	0.6
Aroclor-1268	4	---			0.0	4	12.942	-0.016	416982	1.3

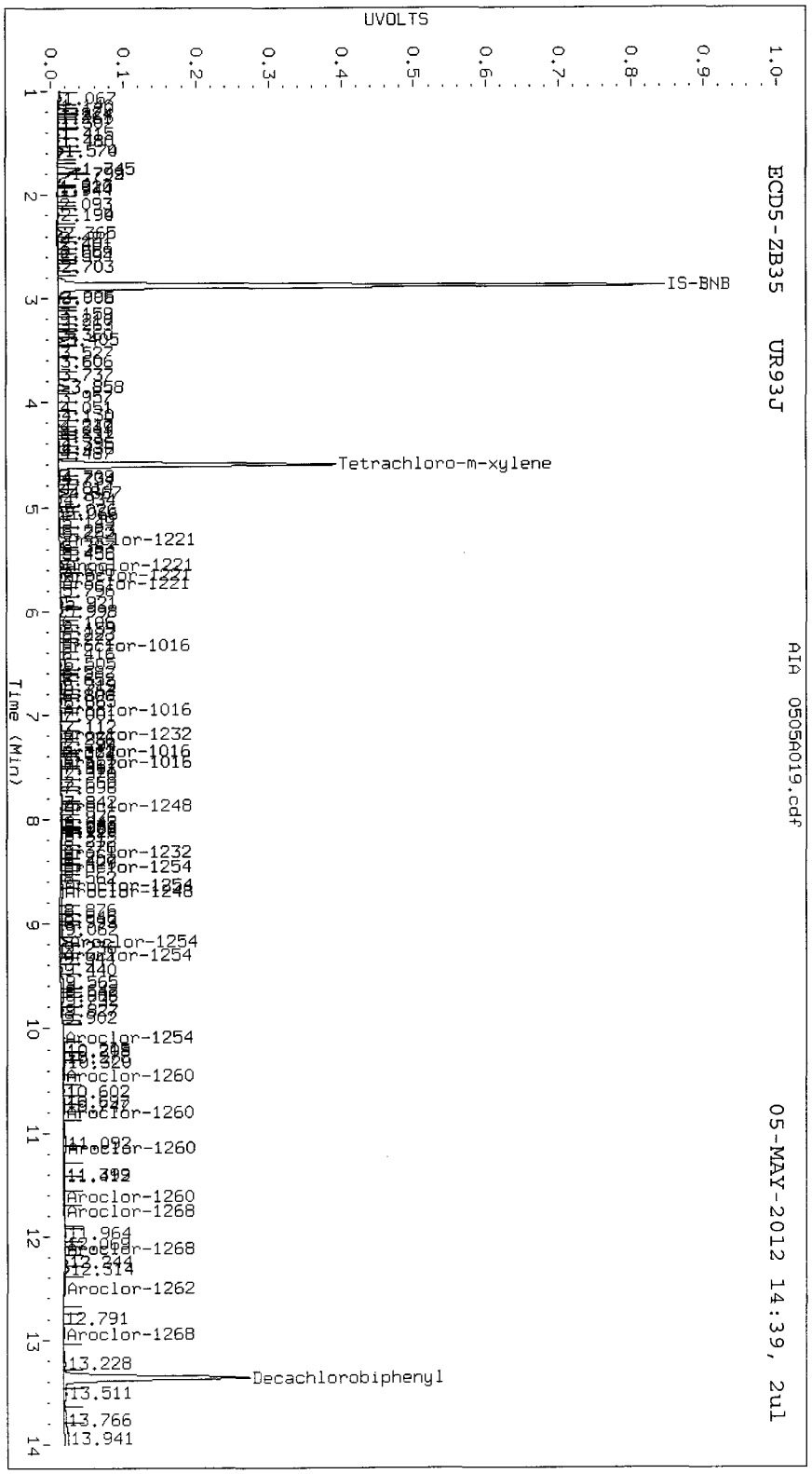
Col1Ave: <3 Quant Peaks Col2Ave: 2.2

Total PCB Area Col1 (4.709 - 12.894) = 65553636 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 35909048 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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05-MAY-2012 14:39, 2ul
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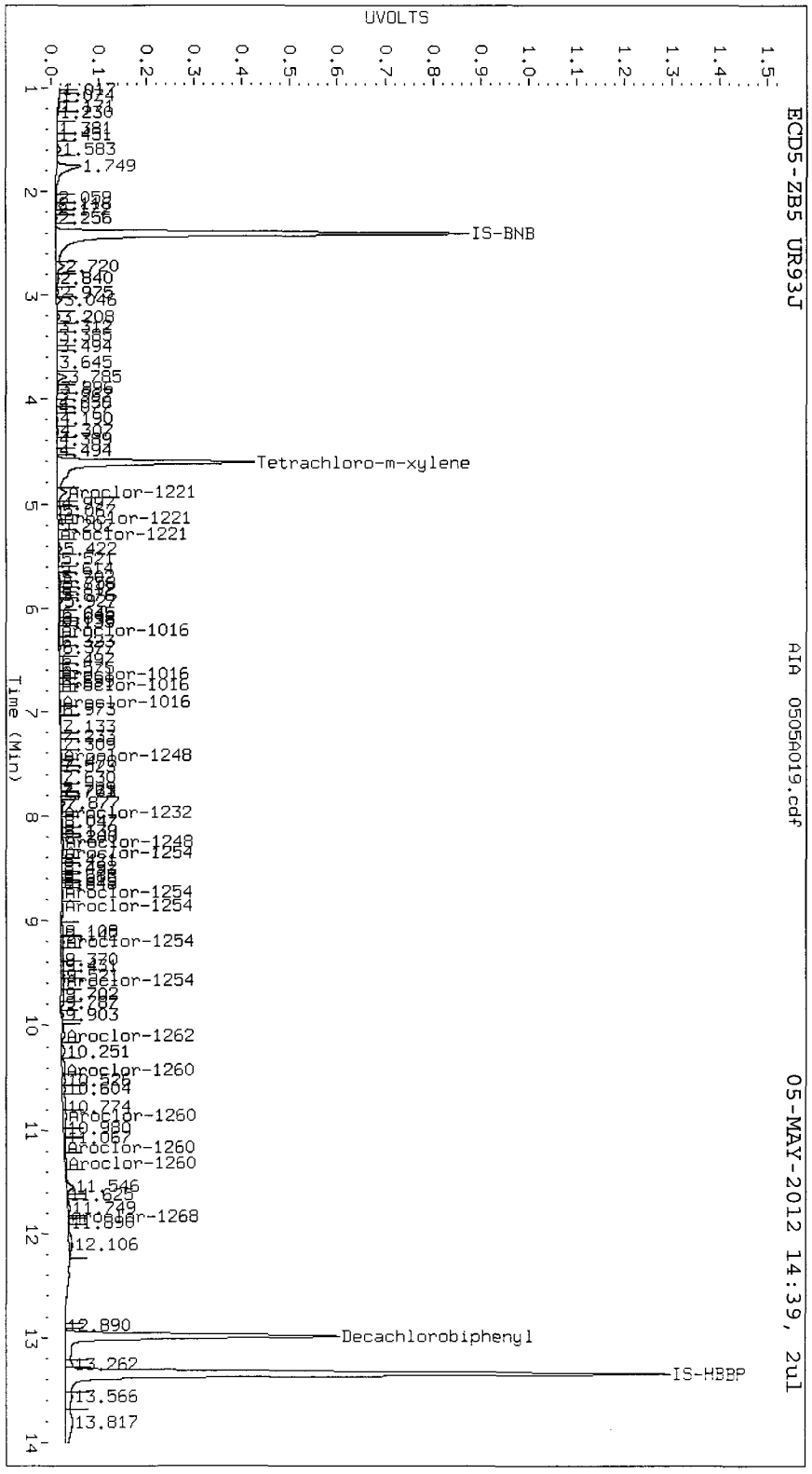
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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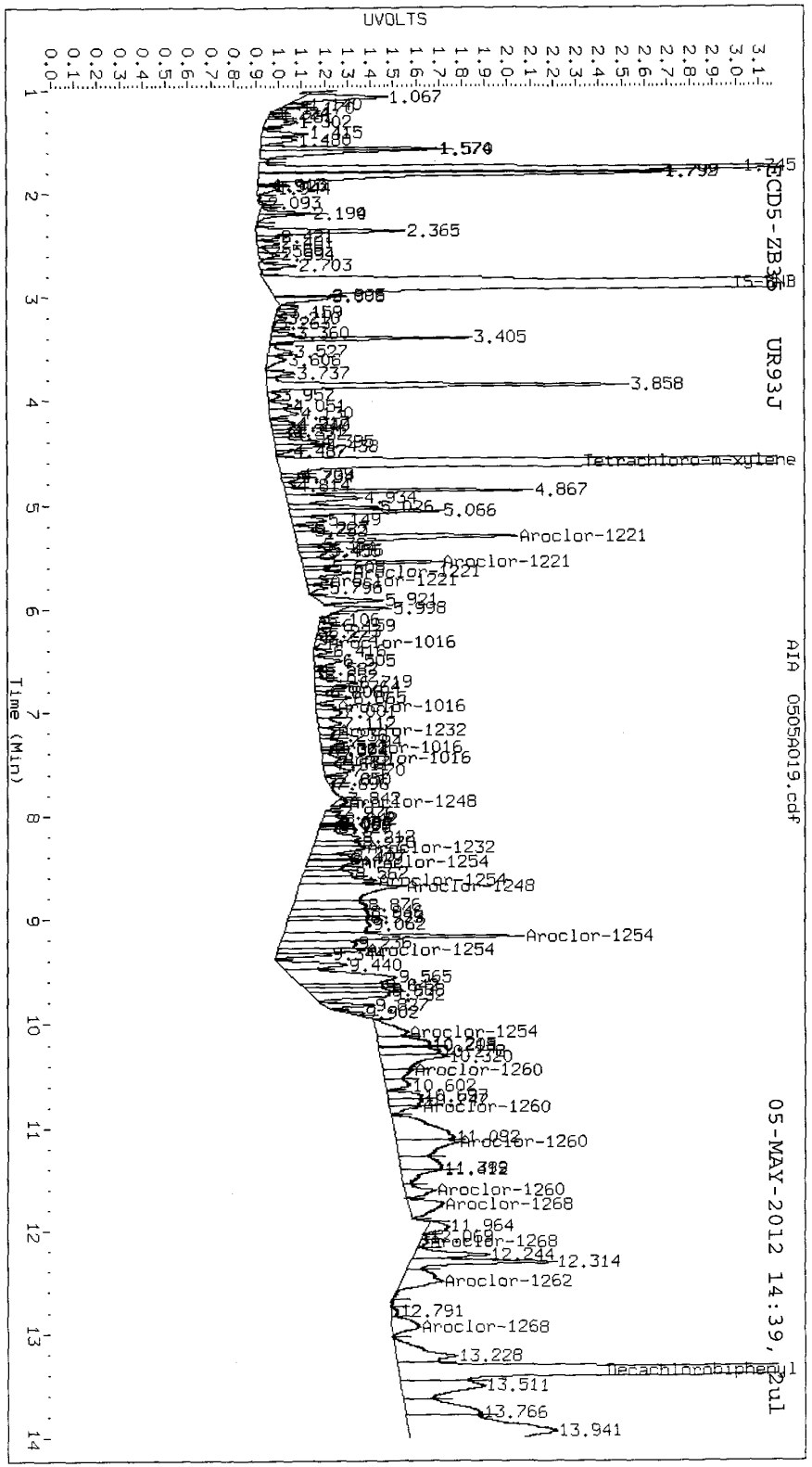
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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ECD5-ZB5 UR93J
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05-MAY-2012 14:39, 2ul
Time (Min)
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2.365
2.703
IS=HRB
3.405
3.737
3.858
Tetrachloro-m-xylene
4.867
5.066
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
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Aroclor-1260
Aroclor-1268
Aroclor-1268
12.244
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12.791
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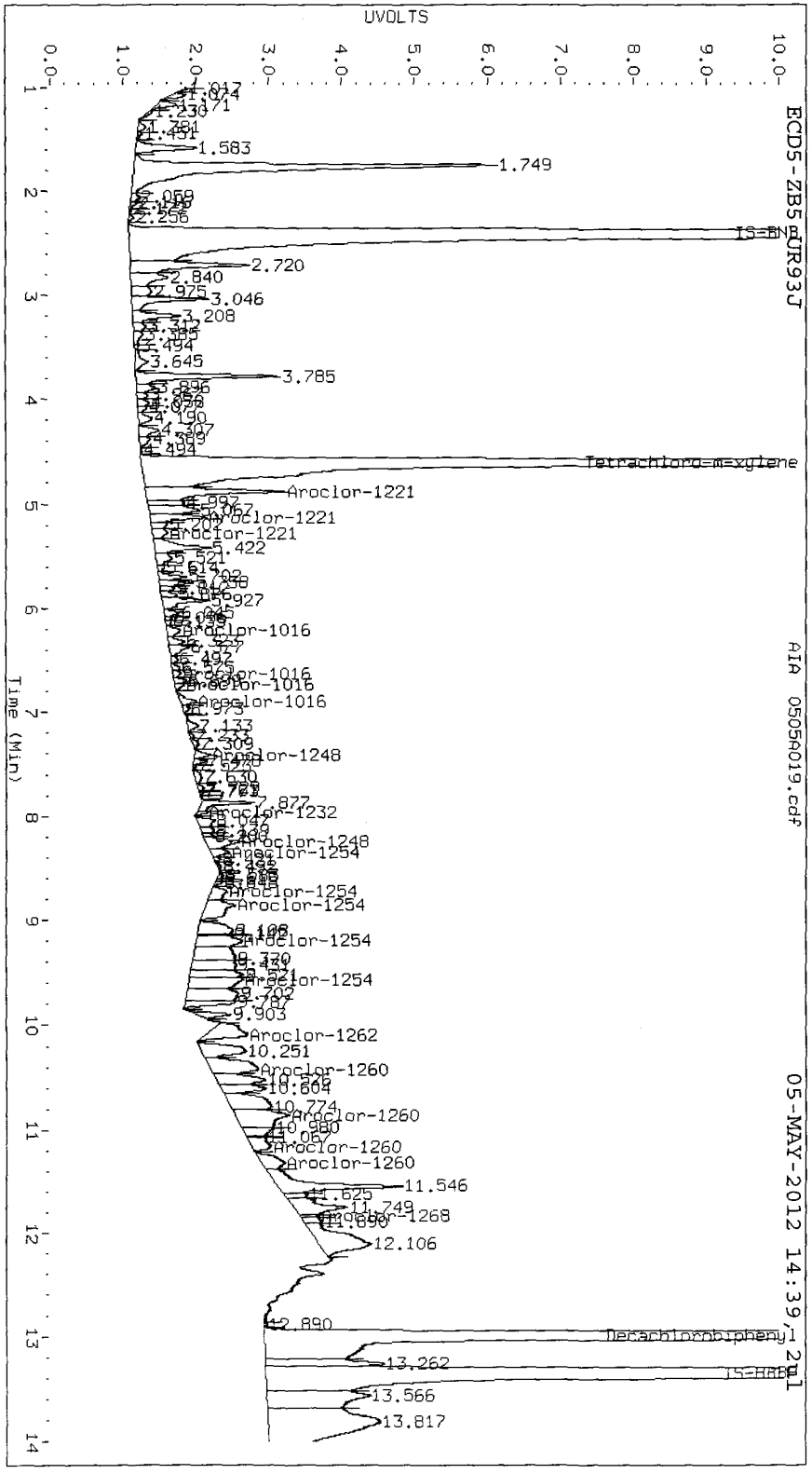
Decachlorobiphenyl
13.511
13.766
13.941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Time (Min)
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IS=HRB
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3.645
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Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1248
Aroclor-1254
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Aroclor-1254
Aroclor-1254
Aroclor-1254
9.903
Aroclor-1262
10.251
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11.546
11.749
Aroclor-1268
12.106
12.890
Decachlorobiphenyl
13.262
IS=HRB
13.566
13.817

UR93:00272

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A020.d
Data file 2: 20120409.B/0505-2.b/0505A020.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93JMS
Client ID:
Injection Date: 05-MAY-2012 14:57
Ical Date: 09-APR-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
4.603	-0.005	64635446	4.600	-0.005	42537697	29.5	33.1	11.7	Tetrachloro-m-xylene
12.991	-0.003	94388824	13.364	-0.002	36576877	27.5	31.0	11.9	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

JK 05/07/12

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	73.7	82.8
Decachlorobiphenyl	68.8	77.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	134985191	-3.8
Hexabromobiphenyl	198372884	210081519	5.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	94101079	-8.3
Hexabromobiphenyl	81487087	80335614	-1.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.237	-0.005	21423127	377.6	1	6.340	-0.003	19854182	408.8
Aroclor-1016	2	6.638	-0.005	72893898	399.8	2	6.968	-0.006	44840850	439.1
Aroclor-1016	3	6.786	-0.005	28487445	382.2	3	7.350	-0.003	11336958	428.3
Aroclor-1016	4	6.897	-0.005	20935525	396.6	4	7.458	-0.003	11961819	412.8
Total Col1Ave (4 peaks):					389.0	Total Col2Ave (4 peaks):				422.3 RPD = 8
Corrected Ave (3 peaks):					385.5	Corrected Ave (3 peaks):				416.6 RPD = 8
Aroclor-1221	1	4.885	-0.005	3373685	527.5	1	5.288	-0.007	3371130	232.1
Aroclor-1221	2	5.146	-0.015	3274105	205.0	2	5.532	-0.010	2638130	310.0
Aroclor-1221	3	5.256	-0.009	12241940	234.1	3	5.644	-0.010	8918153	338.0
Aroclor-1221	NS	---			----	4	5.713	-0.009	819175	172.9
Total Col1Ave (3 peaks):					322.2	Total Col2Ave (4 peaks):				263.2 RPD = 20
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				238.3
Aroclor-1232	1	6.237	-0.007	21423127	920.2	1	6.340	-0.008	19854182	907.8
Aroclor-1232	2	6.638	-0.006	72893898	970.1	2	6.968	-0.006	44840850	1048.3
Aroclor-1232	3	6.786	-0.006	28487445	924.5	3	7.176	-0.007	18313331	1250.9
Aroclor-1232	4	7.978	-0.007	3707416	131.1	4	8.321	-0.007	1858294	122.6
Total Col1Ave (4 peaks):					736.5	Total Col2Ave (4 peaks):				832.4 RPD = 12
Corrected Ave (3 peaks):					658.6	Corrected Ave (3 peaks):				692.9 RPD = 5
Aroclor-1242	1	6.237	-0.005	21423127	516.4	1	6.340	-0.003	19854182	548.3
Aroclor-1242	2	6.638	-0.005	72893898	545.7	2	6.968	-0.006	44840850	581.5
Aroclor-1242	3	6.786	-0.004	28487445	524.5	3	7.176	-0.003	18313331	591.9
Aroclor-1242	4	7.978	-0.006	3707416	77.0	4	8.321	-0.004	1858294	72.4
Total Col1Ave (4 peaks):					415.9	Total Col2Ave (4 peaks):				448.5 RPD = 8
Corrected Ave (3 peaks):					372.6	Corrected Ave (3 peaks):				400.7 RPD = 7
Aroclor-1248	1	6.638	0.002	72893898	831.6	1	6.968	0.000	44840850	907.4
Aroclor-1248	2	7.435	-0.002	20349496	300.9	2	7.870	-0.001	11752031	308.2
Aroclor-1248	3	7.978	-0.004	3707416	44.9	3	8.321	-0.001	1858294	41.9
Aroclor-1248	4	8.276	0.004	3843365	46.7	4	8.741	-0.003	744649	15.2
Total Col1Ave (4 peaks):					306.0	Total Col2Ave (4 peaks):				318.2 RPD = 4
Corrected Ave (3 peaks):					130.8	Corrected Ave (3 peaks):				121.8 RPD = 7
Aroclor-1254	1	8.356	0.000	20333178	157.9	1	8.461	0.000	6622926	178.2
Aroclor-1254	2	8.726	-0.001	3474885	41.5	2	8.635	0.000	7679508	163.1
Aroclor-1254	3	8.860	-0.003	16246082	106.1	3	9.161	0.004	2462853	67.7
Aroclor-1254	4	9.193	-0.019	42407100	274.4	4	9.310	0.003	3339462	43.0
Aroclor-1254	5	9.523	-0.052	62471437	599.2	5	10.101	0.012	8675118	185.0
Total Col1Ave (5 peaks):					235.8	Total Col2Ave (5 peaks):				127.4 RPD = 60*
Corrected Ave (4 peaks):					145.0	Corrected Ave (4 peaks):				113.0 RPD = 25
Aroclor-1260	1	10.445	-0.004	32559207	281.0	1	10.419	-0.003	18455376	423.1
Aroclor-1260	2	10.820	-0.003	68913778	241.4	2	10.870	-0.003	15296820	277.3
Aroclor-1260	3	11.219	-0.003	53385351	344.1	3	11.144	-0.001	34608847	319.6
Aroclor-1260	4	11.336	-0.002	22669367	329.7	4	11.663	-0.003	13312399	417.1
Aroclor-1260	5	11.410	-0.003	27430627	331.7	NS	---			----
Total Col1Ave (5 peaks):					305.6	Total Col2Ave (4 peaks):				359.3 RPD = 16
Corrected Ave (4 peaks):					295.9	Corrected Ave (3 peaks):				338.0 RPD = 13
Aroclor-1262	1	10.129	-0.005	25623643	148.9	1	10.419	-0.007	18455376	278.3
Aroclor-1262	2	10.445	-0.005	32559207	255.9	2	10.870	-0.008	15296820	270.0
Aroclor-1262	3	10.820	-0.004	68913778	204.8	3	11.144	-0.004	34608847	269.8
Aroclor-1262	4	11.336	-0.005	22669367	184.4	4	11.663	-0.008	13312399	259.0
Aroclor-1262	5	11.410	-0.005	27430627	198.2	5	12.462	-0.007	12006449	243.0
Total Col1Ave (5 peaks):					198.4	Total Col2Ave (5 peaks):				264.0 RPD = 28
Corrected Ave (4 peaks):					184.1	Corrected Ave (4 peaks):				260.4 RPD = 34
Aroclor-1268	1	11.336	-0.005	22669367	64.7	1	11.663	-0.009	13312399	98.1
Aroclor-1268	2	11.410	-0.004	27430627	79.4	2	11.724	-0.015	31815049	248.7

Aroclor-1268	3	11.809	0.009	13626366	45.4	3	12.128	-0.008	908648	8.2
Aroclor-1268	4	12.583	-0.008	8361870	9.1	4	12.949	-0.008	3526614	10.6

Total Col1Ave (4 peaks): 49.7 Total Col2Ave (4 peaks): 91.4 RPD = 59*

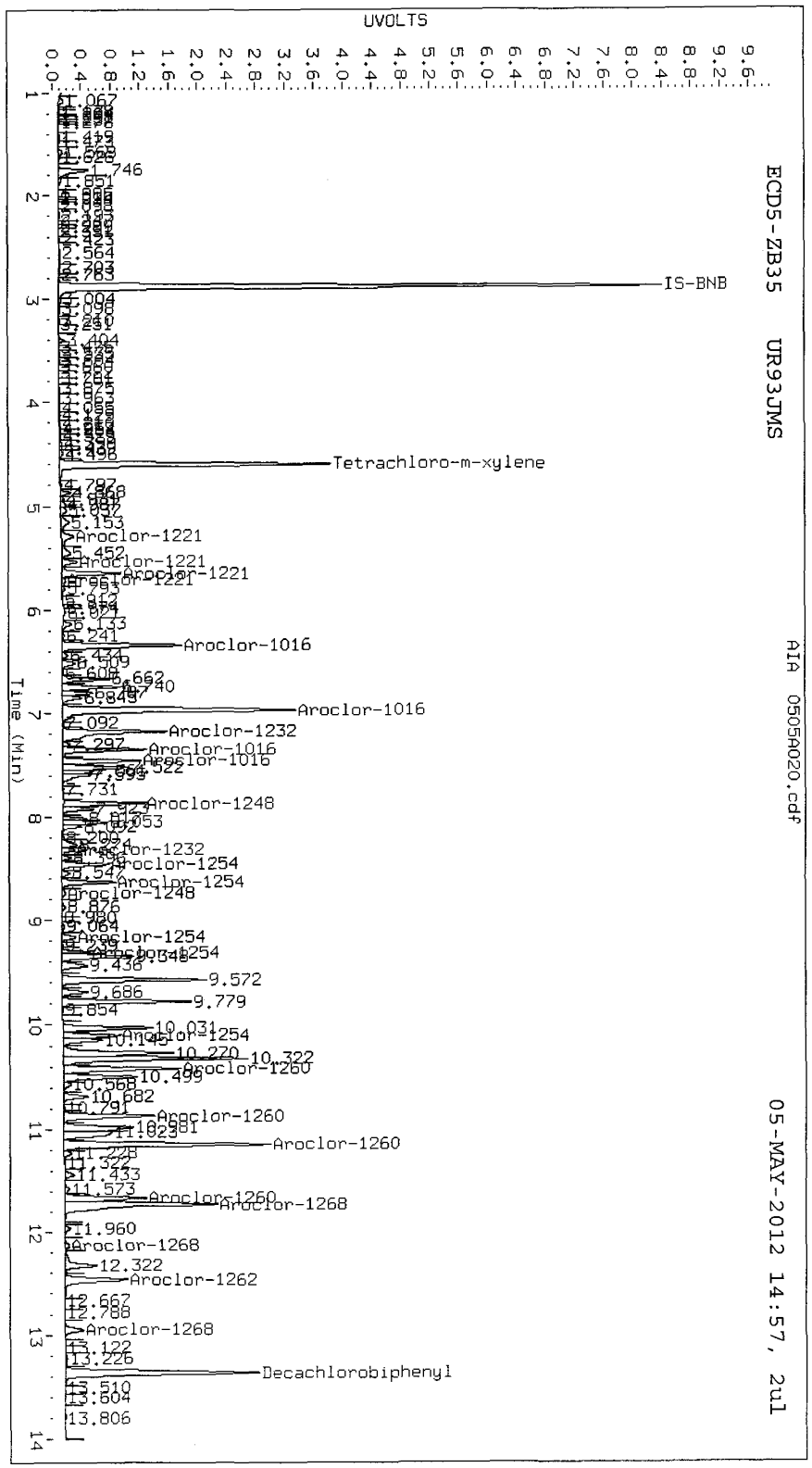
Corrected Ave (3 peaks): 39.7 Corrected Ave (3 peaks): 39.0 RPD = 2

Total PCB Area Col1 (4.709 - 12.894) = 1023433835 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 555282881 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
Tetrachloro-m-xylene
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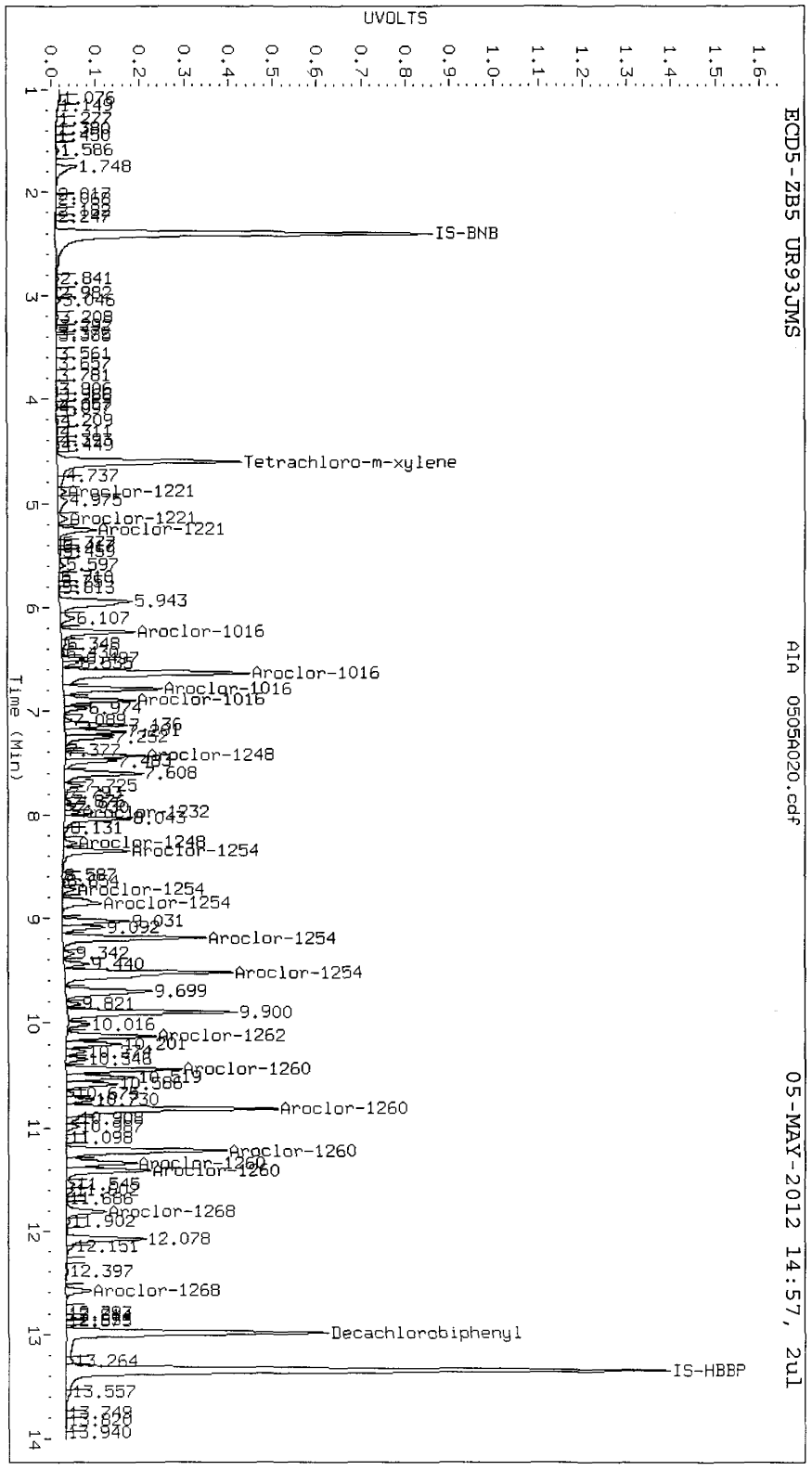
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl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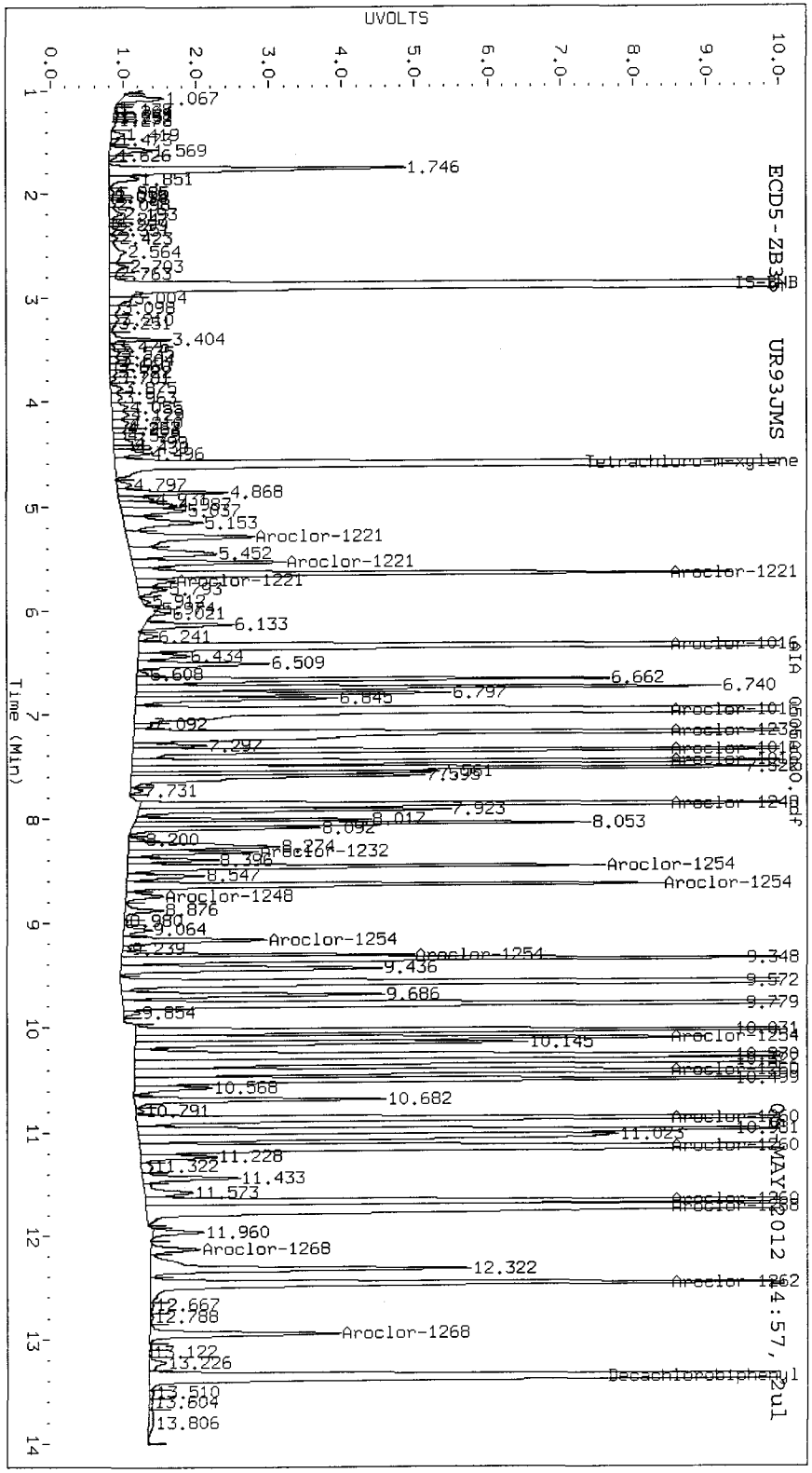
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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UR93JMS
IS-HB
Tetrachloro-m-xylene
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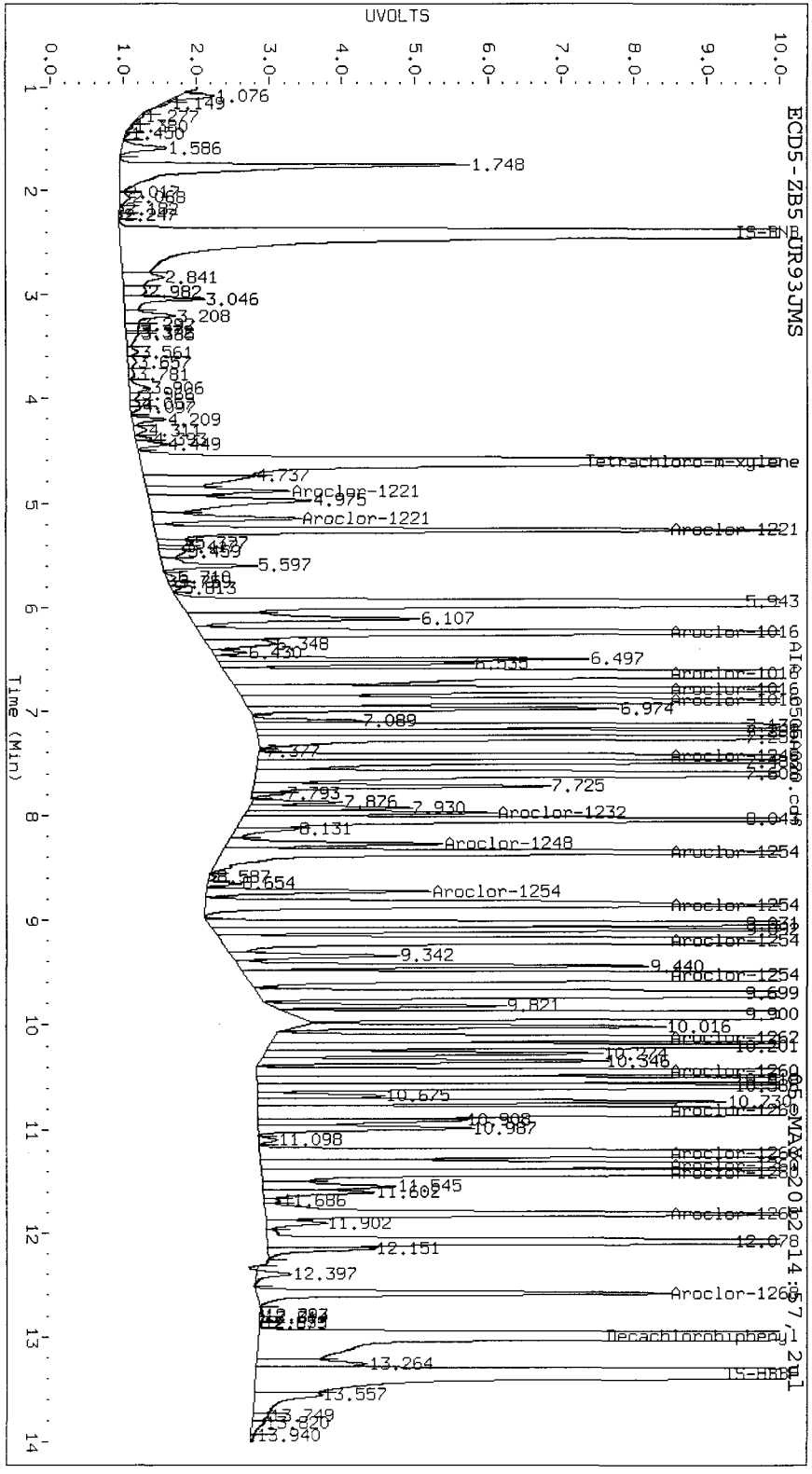
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
MAY 2012
14:57, 2ul


UVOLTS
Time (Min)
ECD5-ZB5
UR93JMS
IS-HB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
MAY 2012
14:57, 2ul

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A021.d
Data file 2: 20120409.B/0505-2.b/0505A021.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93JMSD
Client ID:
Injection Date: 05-MAY-2012 15:17
Ical Date: 09-APR-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
4.603	-0.005	68070380	4.599	-0.006	41141826	29.0	30.3	4.5	Tetrachloro-m-xylene
12.990	-0.004	91080673	13.364	-0.002	36413744	26.6	28.7	7.6	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	72.4	75.7
Decachlorobiphenyl	66.5	71.7

JL 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	144668334	3.1
Hexabromobiphenyl	198372884	209772490	5.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	99519097	-3.0
Hexabromobiphenyl	81487087	86356947	6.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.238	-0.005	20382974	335.3	1	6.339	-0.004	18892041	367.8
Aroclor-1016	2	6.638	-0.004	69848032	357.5	2	6.968	-0.006	41180900	381.3
Aroclor-1016	3	6.787	-0.004	27335547	342.2	3	7.350	-0.004	10702911	382.3
Aroclor-1016	4	6.897	-0.004	19557736	345.7	4	7.458	-0.004	12299947	401.4
Total Col1Ave (4 peaks):				345.1		Total Col2Ave (4 peaks):			383.2	RPD = 10
Corrected Ave (3 peaks):				341.0		Corrected Ave (3 peaks):			377.1	RPD = 10
Aroclor-1221	1	4.886	-0.004	2731939	398.5	1	5.287	-0.008	2560011	166.7
Aroclor-1221	2	5.151	-0.009	3138595	183.3	2	5.531	-0.011	1894173	210.4
Aroclor-1221	3	5.256	-0.009	13841630	247.0	3	5.644	-0.010	8150518	292.1
Aroclor-1221	NS	---			----	4	5.711	-0.012	468942	93.6
Total Col1Ave (3 peaks):				276.3		Total Col2Ave (4 peaks):			190.7	RPD = 37
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			156.9	
Aroclor-1232	1	6.238	-0.006	20382974	816.9	1	6.339	-0.008	18892041	816.8
Aroclor-1232	2	6.638	-0.005	69848032	867.4	2	6.968	-0.007	41180900	910.3
Aroclor-1232	3	6.787	-0.006	27335547	827.7	3	7.176	-0.007	14860986	959.8
Aroclor-1232	4	7.980	-0.006	3596173	118.7	4	8.321	-0.008	2436985	152.0
Total Col1Ave (4 peaks):				657.7		Total Col2Ave (4 peaks):			709.8	RPD = 8
Corrected Ave (3 peaks):				587.8		Corrected Ave (3 peaks):			626.4	RPD = 6
Aroclor-1242	1	6.238	-0.005	20382974	458.4	1	6.339	-0.004	18892041	493.4
Aroclor-1242	2	6.638	-0.004	69848032	487.9	2	6.968	-0.006	41180900	504.9
Aroclor-1242	3	6.787	-0.004	27335547	469.6	3	7.176	-0.003	14860986	454.2
Aroclor-1242	4	7.980	-0.005	3596173	69.7	4	8.321	-0.005	2436985	89.7
Total Col1Ave (4 peaks):				371.4		Total Col2Ave (4 peaks):			385.6	RPD = 4
Corrected Ave (3 peaks):				332.6		Corrected Ave (3 peaks):			345.8	RPD = 4
Aroclor-1248	1	6.638	0.003	69848032	743.5	1	6.968	0.000	41180900	788.0
Aroclor-1248	2	7.435	-0.002	18689253	257.9	2	7.869	-0.001	13862437	343.8
Aroclor-1248	3	7.980	-0.002	3596173	40.6	3	8.321	-0.002	2436985	52.0
Aroclor-1248	4	8.276	0.004	3960675	44.9	4	8.741	-0.003	1055130	20.4
Total Col1Ave (4 peaks):				271.7		Total Col2Ave (4 peaks):			301.0	RPD = 10
Corrected Ave (3 peaks):				114.5		Corrected Ave (3 peaks):			138.7	RPD = 19
Aroclor-1254	1	8.356	0.000	21544884	156.1	1	8.461	-0.001	8616881	219.3
Aroclor-1254	2	8.726	-0.001	4525672	50.4	2	8.634	-0.001	10267226	206.2
Aroclor-1254	3	8.860	-0.003	21801431	132.8	3	9.157	0.001	2839156	73.8
Aroclor-1254	4	9.193	-0.019	53589592	323.5	4	9.305	-0.002	4972463	60.5
Aroclor-1254	5	9.522	-0.053	78476002	702.3	5	10.099	0.010	10503843	211.8
Total Col1Ave (5 peaks):				273.0		Total Col2Ave (5 peaks):			154.3	RPD = 56*
Corrected Ave (4 peaks):				165.7		Corrected Ave (4 peaks):			138.0	RPD = 18
Aroclor-1260	1	10.445	-0.004	39604397	342.3	1	10.419	-0.003	18919541	403.5
Aroclor-1260	2	10.819	-0.003	98969397	347.2	2	10.869	-0.004	22484235	379.2
Aroclor-1260	3	11.219	-0.003	53471311	345.2	3	11.142	-0.003	46089516	395.9
Aroclor-1260	4	11.336	-0.003	22329144	325.2	4	11.663	-0.002	12915977	376.5
Aroclor-1260	5	11.409	-0.004	26555223	321.6	NS	---			----
Total Col1Ave (5 peaks):				336.3		Total Col2Ave (4 peaks):			388.8	RPD = 14
Corrected Ave (4 peaks):				333.6		Corrected Ave (3 peaks):			383.8	RPD = 14
Aroclor-1262	1	10.127	-0.007	35119756	204.4	1	10.419	-0.006	18919541	265.4
Aroclor-1262	2	10.445	-0.006	39604397	311.8	2	10.869	-0.008	22484235	369.1
Aroclor-1262	3	10.819	-0.005	98969397	294.6	3	11.142	-0.006	46089516	334.2
Aroclor-1262	4	11.336	-0.006	22329144	181.9	4	11.663	-0.007	12915977	233.7
Aroclor-1262	5	11.409	-0.006	26555223	192.1	5	12.462	-0.008	12602037	237.3
Total Col1Ave (5 peaks):				237.0		Total Col2Ave (5 peaks):			288.0	RPD = 19
Corrected Ave (4 peaks):				218.2		Corrected Ave (4 peaks):			267.7	RPD = 20
Aroclor-1268	1	11.336	-0.006	22329144	63.8	1	11.663	-0.009	12915977	88.6
Aroclor-1268	2	11.409	-0.004	26555223	77.0	2	11.723	-0.016	31423571	228.5

Aroclor-1268 3	11.809	0.009	12846763	42.9	3	12.127	-0.009	1181117	10.0
Aroclor-1268 4	12.582	-0.009	8272245	9.0	4	12.949	-0.009	3674667	10.2

Total Col1Ave (4 peaks): 48.2 Total Col2Ave (4 peaks): 84.3 RPD = 55*

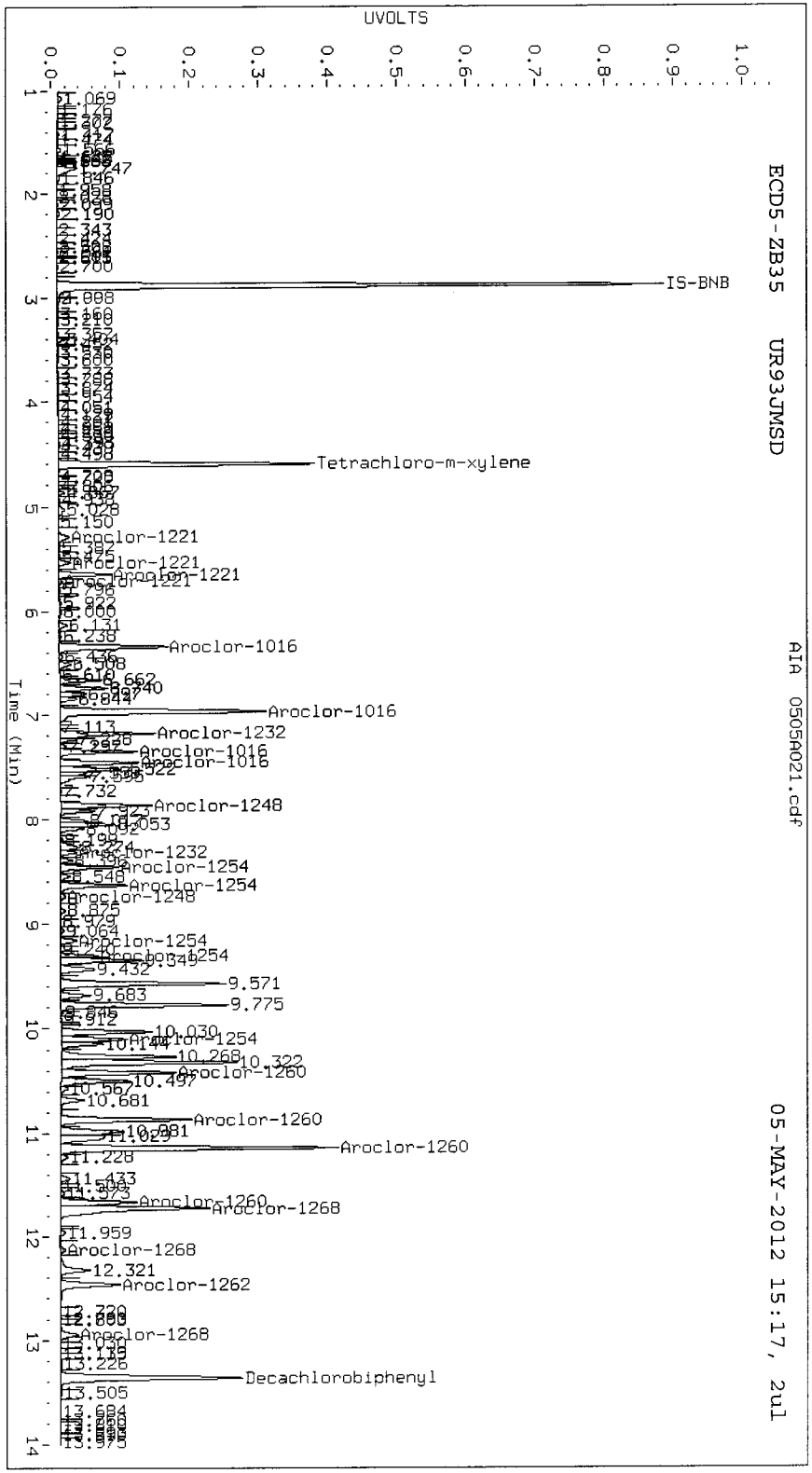
Corrected Ave (3 peaks): 38.6 Corrected Ave (3 peaks): 36.3 RPD = 6

Total PCB Area Col1 (4.709 - 12.894) = 1135671611 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 593008556 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
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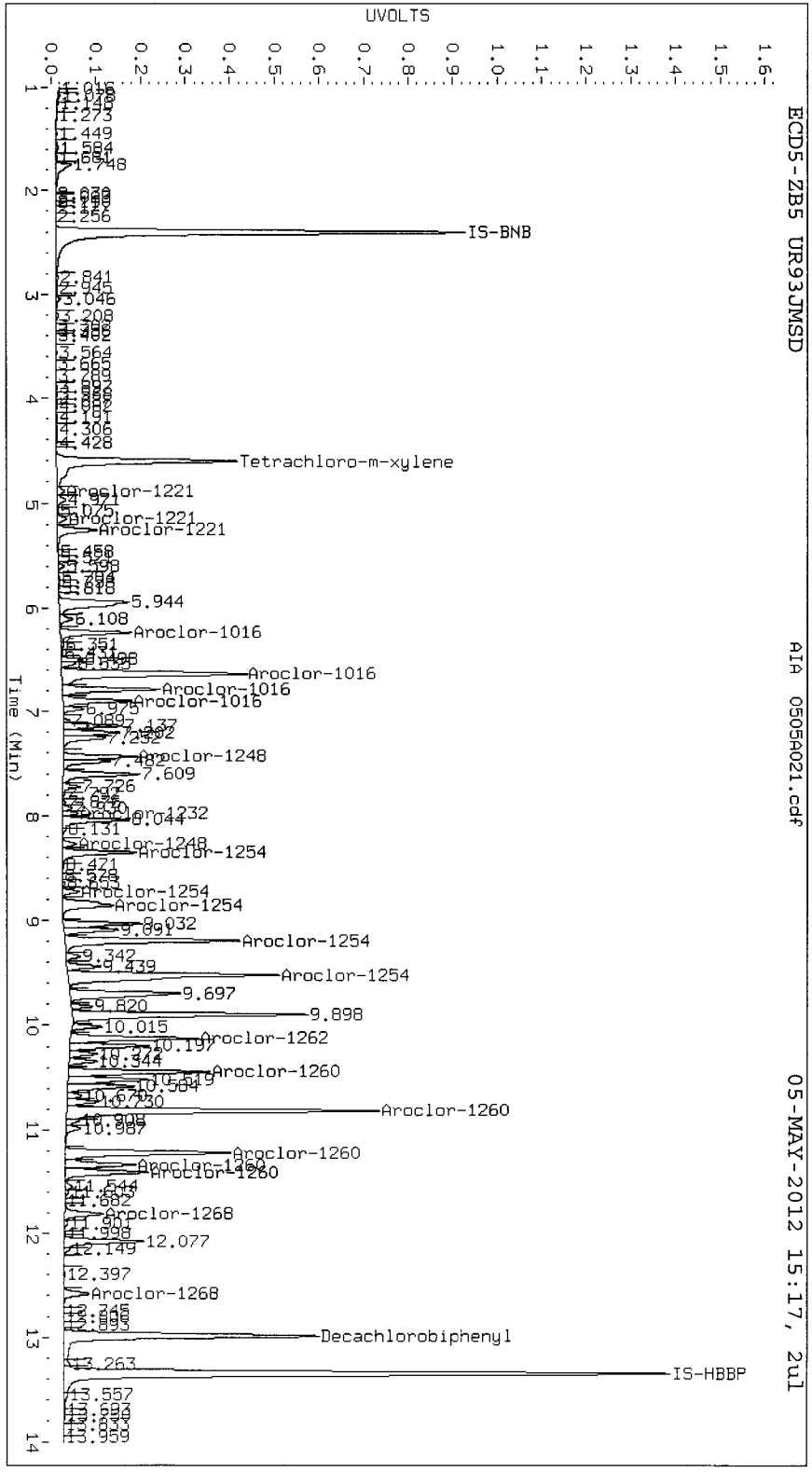
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Time (Min)
IS-BNB
Tetrachloro-m-xylene
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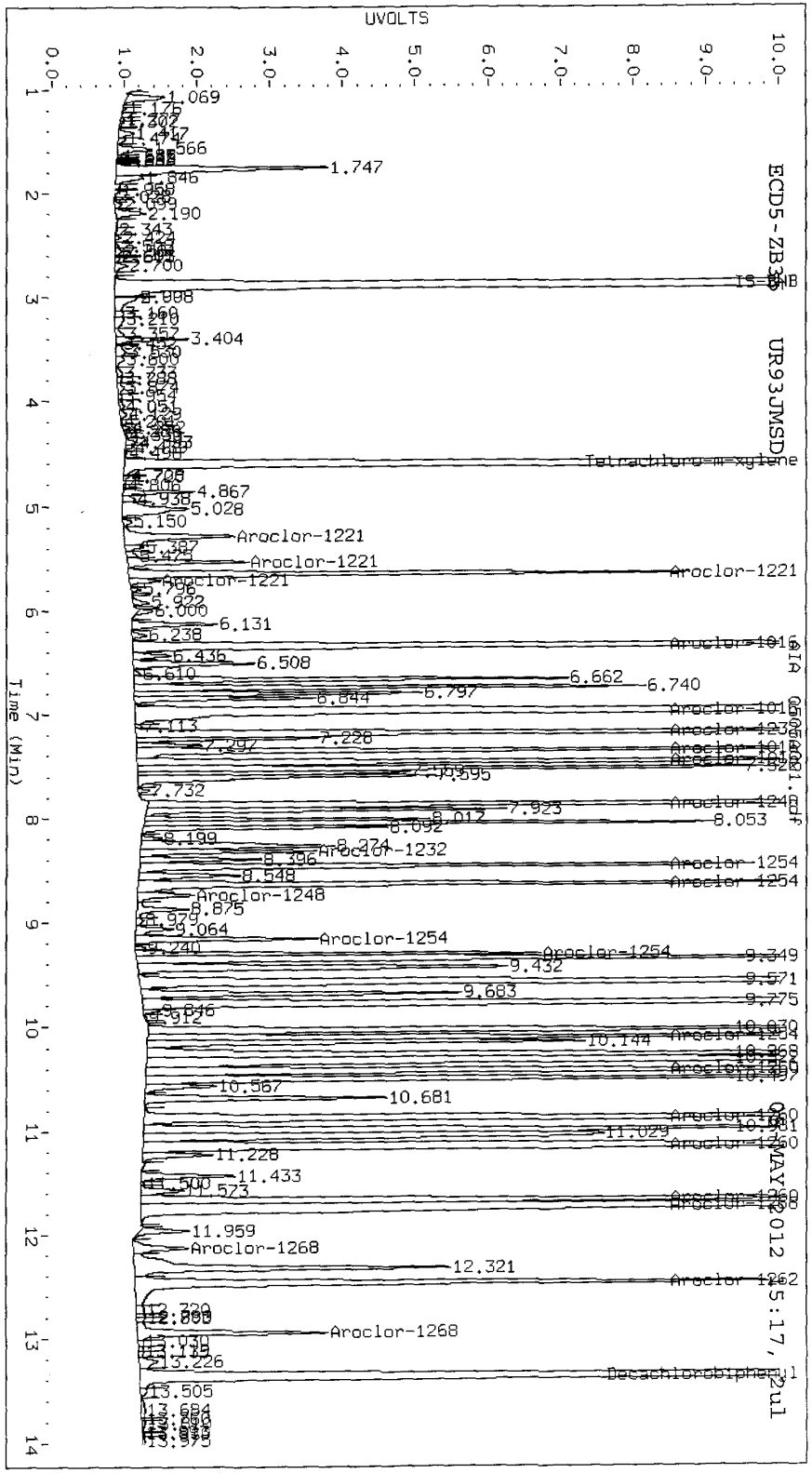
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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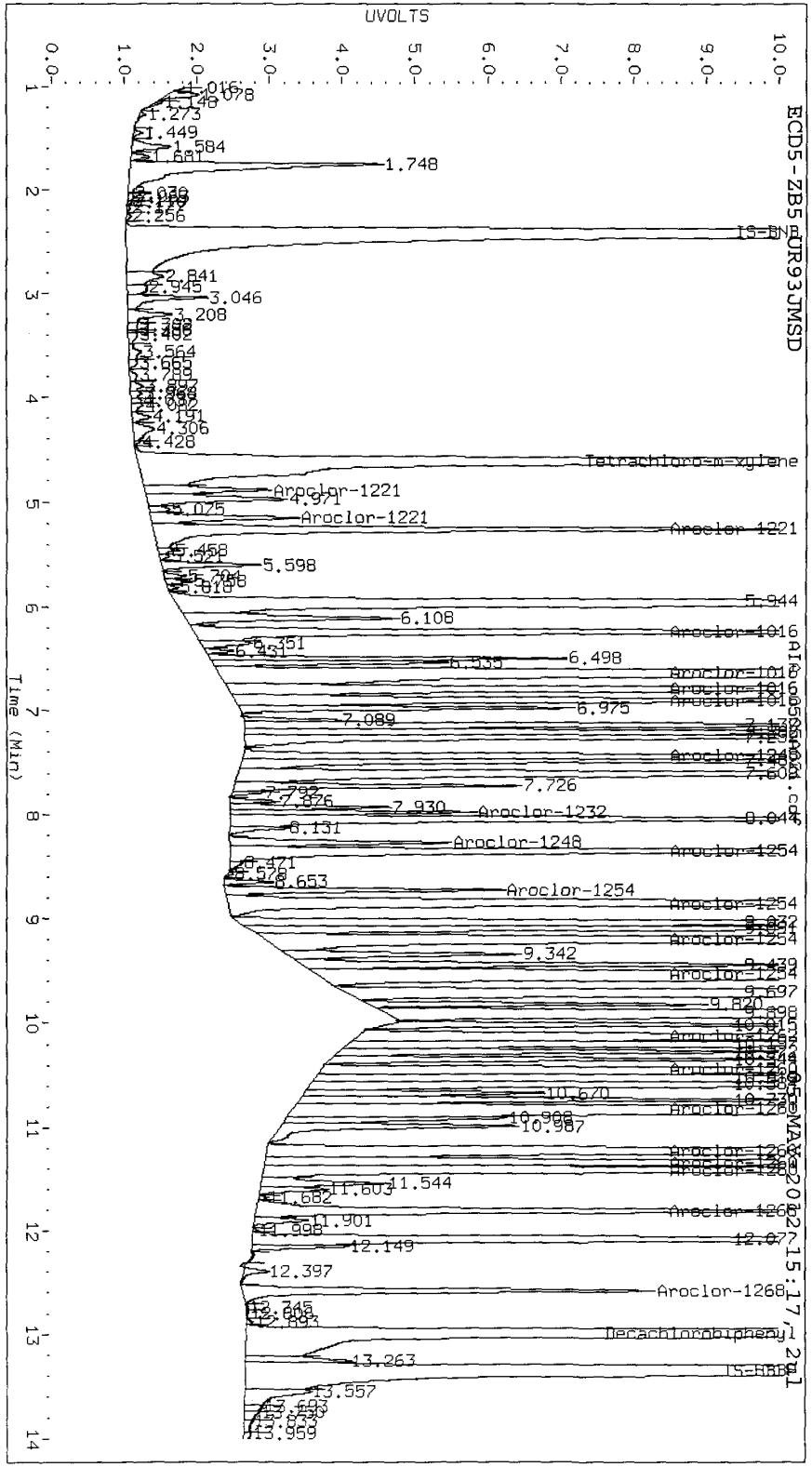
Aroclor-1268
Decachlorobiphenyl
IS-HB
MAY 2012 5:17, 2ul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Aroclor-1221
Aroclor-1016
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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HB
MAY 2012 5:17, 2ul

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A022.d
Data file 2: 20120409.B/0505-2.b/0505A022.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93K
Client ID:
Injection Date: 05-MAY-2012 15:35
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.606	-0.003	60343698	4.602	-0.003	35606438	28.2	29.4	4.2	Tetrachloro-m-xylene
12.996	0.002	76120446	13.369	0.004	29725583	28.0	26.1	7.3	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	70.5	73.5
Decachlorobiphenyl	70.1	65.1

A 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	131745052	-6.1
Hexabromobiphenyl	198372884	166204423	-16.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	88786104	-13.5
Hexabromobiphenyl	81487087	77627613	-4.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.240	-0.003	92868	1.7	1	6.346	0.002	68555	1.5
Aroclor-1016	2	6.639	-0.004	129988	0.7	2	6.940	-0.034	705788	7.3
Aroclor-1016	3	6.702	-0.089	91296	1.3	3	7.358	-0.005	40253	1.6
Aroclor-1016	4	6.898	-0.004	284091	5.5	4	7.458	-0.004	104559	3.8
	Total Col1Ave (4 peaks):			2.3		Total Col2Ave (4 peaks):			3.6	RPD = 43*
	Corrected Ave (3 peaks):			1.2		Corrected Ave (3 peaks):			2.3	RPD = 62*
Aroclor-1221	1	4.887	-0.003	8034293	1287.0	1	5.307	0.012	524949	38.3
Aroclor-1221	2	5.142	-0.018	2676929	171.7	2	5.542	0.000	590720	73.6
Aroclor-1221	3	5.277	0.011	305795	6.0	3	5.662	0.008	1141191	45.8
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):			488.2		Total Col2Ave (3 peaks):			52.6	RPD = 161*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.240	-0.004	92868	4.1	1	6.346	-0.002	68555	3.3
Aroclor-1232	2	6.639	-0.005	129988	1.8	2	6.940	-0.034	705788	17.5
Aroclor-1232	3	6.702	-0.090	91296	3.0	3	7.178	-0.005	44714	3.2
Aroclor-1232	4	7.982	-0.003	129154	4.7	4	8.322	-0.007	146167	10.2
	Total Col1Ave (4 peaks):			3.4		Total Col2Ave (4 peaks):			8.6	RPD = 87*
	Corrected Ave (3 peaks):			3.0		Corrected Ave (3 peaks):			5.6	RPD = 61*
Aroclor-1242	1	6.240	-0.003	92868	2.3	1	6.346	0.002	68555	2.0
Aroclor-1242	2	6.639	-0.004	129988	1.0	2	6.940	-0.034	705788	9.7
Aroclor-1242	3	6.702	-0.089	91296	1.7	3	7.178	0.000	44714	1.5
Aroclor-1242	4	7.982	-0.002	129154	2.7	4	8.322	-0.004	146167	6.0
	Total Col1Ave (4 peaks):			1.9		Total Col2Ave (4 peaks):			4.8	RPD = 85*
	Corrected Ave (3 peaks):			1.7		Corrected Ave (3 peaks):			3.2	RPD = 63*
Aroclor-1248	1	6.639	0.003	129988	1.5	1	6.940	-0.028	705788	15.1
Aroclor-1248	2	7.436	0.000	227230	3.4	2	7.875	0.005	152692	4.2
Aroclor-1248	3	7.982	0.000	129154	1.6	3	8.322	-0.001	146167	3.5
Aroclor-1248	4	8.246	-0.027	2363613	29.4	4	8.784	0.041	204894	4.4
	Total Col1Ave (4 peaks):			9.0		Total Col2Ave (4 peaks):			6.8	RPD = 27
	Corrected Ave (3 peaks):			2.2		Corrected Ave (3 peaks):			4.1	RPD = 60*
Aroclor-1254	1	8.355	-0.001	1371796	10.9	1	8.462	0.001	464911	13.3
Aroclor-1254	2	8.730	0.003	859523	10.5	2	8.638	0.003	377557	8.5
Aroclor-1254	3	8.862	-0.002	2869967	19.2	3	9.174	0.018	1315011	38.3
Aroclor-1254	4	9.196	-0.017	3493452	23.2	4	9.307	0.000	1063294	14.5
Aroclor-1254	5	9.565	-0.009	1417965	13.9	5	10.097	0.008	731010	16.5
	Total Col1Ave (5 peaks):			15.5		Total Col2Ave (5 peaks):			18.2	RPD = 16
	Corrected Ave (4 peaks):			13.6		Corrected Ave (4 peaks):			13.2	RPD = 3
Aroclor-1260	1	10.446	-0.003	2272325	24.8	1	10.420	-0.002	2000003	47.4
Aroclor-1260	2	10.820	-0.003	8761701	38.8	2	10.870	-0.003	1932930	36.3
Aroclor-1260	3	11.220	-0.002	2763733	22.5	3	11.144	-0.001	3419911	32.7
Aroclor-1260	4	11.337	-0.001	5662080	104.1	4	11.666	0.000	2595053	84.1
Aroclor-1260	5	11.410	-0.002	5673276	86.7	NS	---			----
	Total Col1Ave (5 peaks):			55.4		Total Col2Ave (4 peaks):			50.1	RPD = 10
	Corrected Ave (4 peaks):			43.2		Corrected Ave (3 peaks):			38.8	RPD = 11
Aroclor-1262	1	10.129	-0.005	4367158	32.1	1	10.420	-0.005	2000003	31.2
Aroclor-1262	2	10.446	-0.004	2272325	22.6	2	10.870	-0.008	1932930	35.3
Aroclor-1262	3	10.820	-0.005	8761701	32.9	3	11.144	-0.005	3419911	27.6
Aroclor-1262	4	11.337	-0.004	5662080	58.2	4	11.666	-0.005	2595053	52.2
Aroclor-1262	5	11.410	-0.004	5673276	51.8	5	12.467	-0.003	1665147	34.9
	Total Col1Ave (5 peaks):			39.5		Total Col2Ave (5 peaks):			36.2	RPD = 9
	Corrected Ave (4 peaks):			34.8		Corrected Ave (4 peaks):			32.2	RPD = 8
Aroclor-1268	1	11.337	-0.004	5662080	20.4	1	11.666	-0.007	2595053	19.8
Aroclor-1268	2	11.410	-0.003	5673276	20.8	2	11.730	-0.009	3296706	26.7

Aroclor-1268	3	11.801	0.001	3124756	13.2	3	12.130	-0.006	628102	5.9
Aroclor-1268	4	12.588	-0.003	4899559	6.7	4	12.955	-0.003	1922839	6.0

Total Col1Ave (4 peaks): 15.3 Total Col2Ave (4 peaks): 14.6 RPD = 5

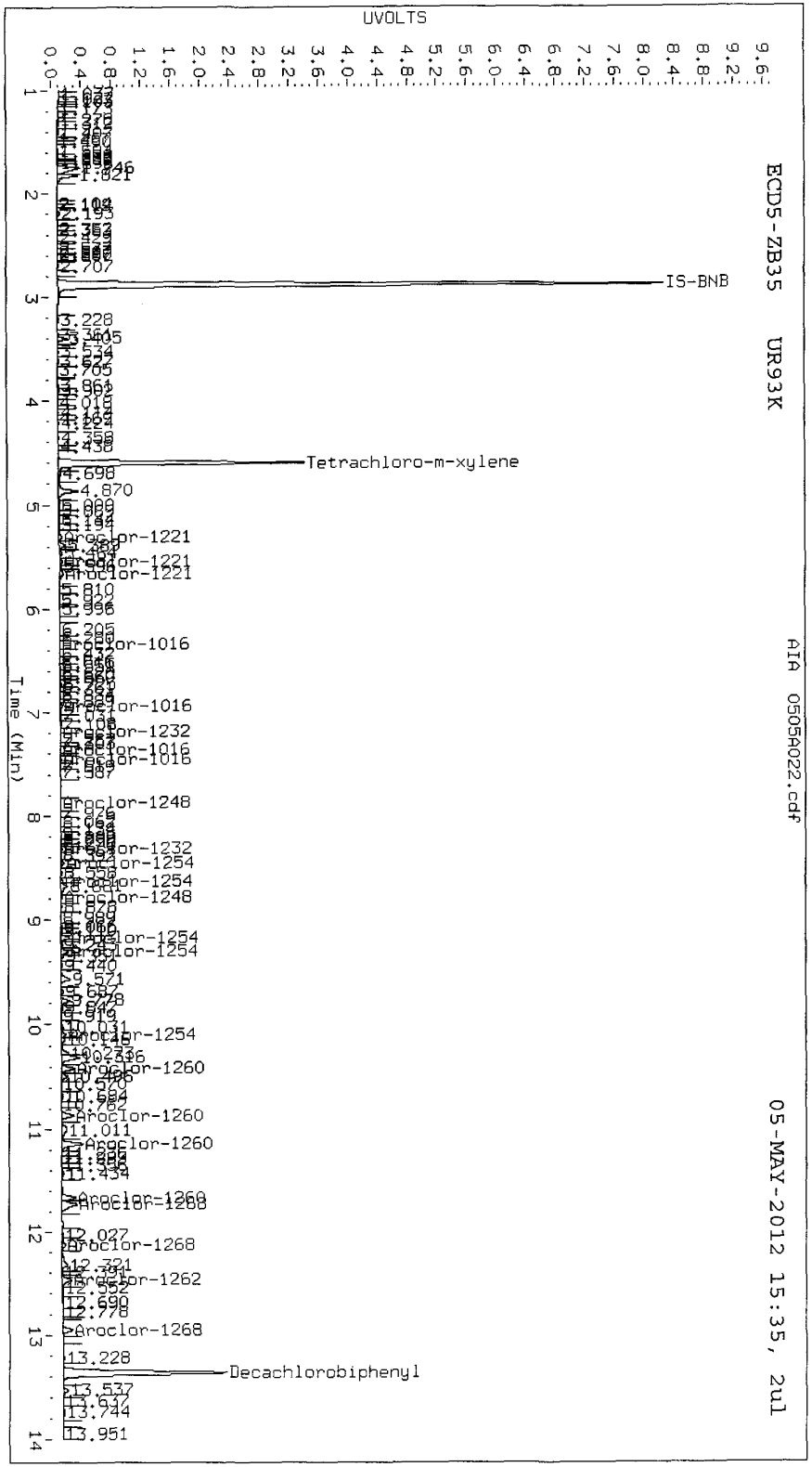
Corrected Ave (3 peaks): 13.4 Corrected Ave (3 peaks): 10.6 RPD = 24

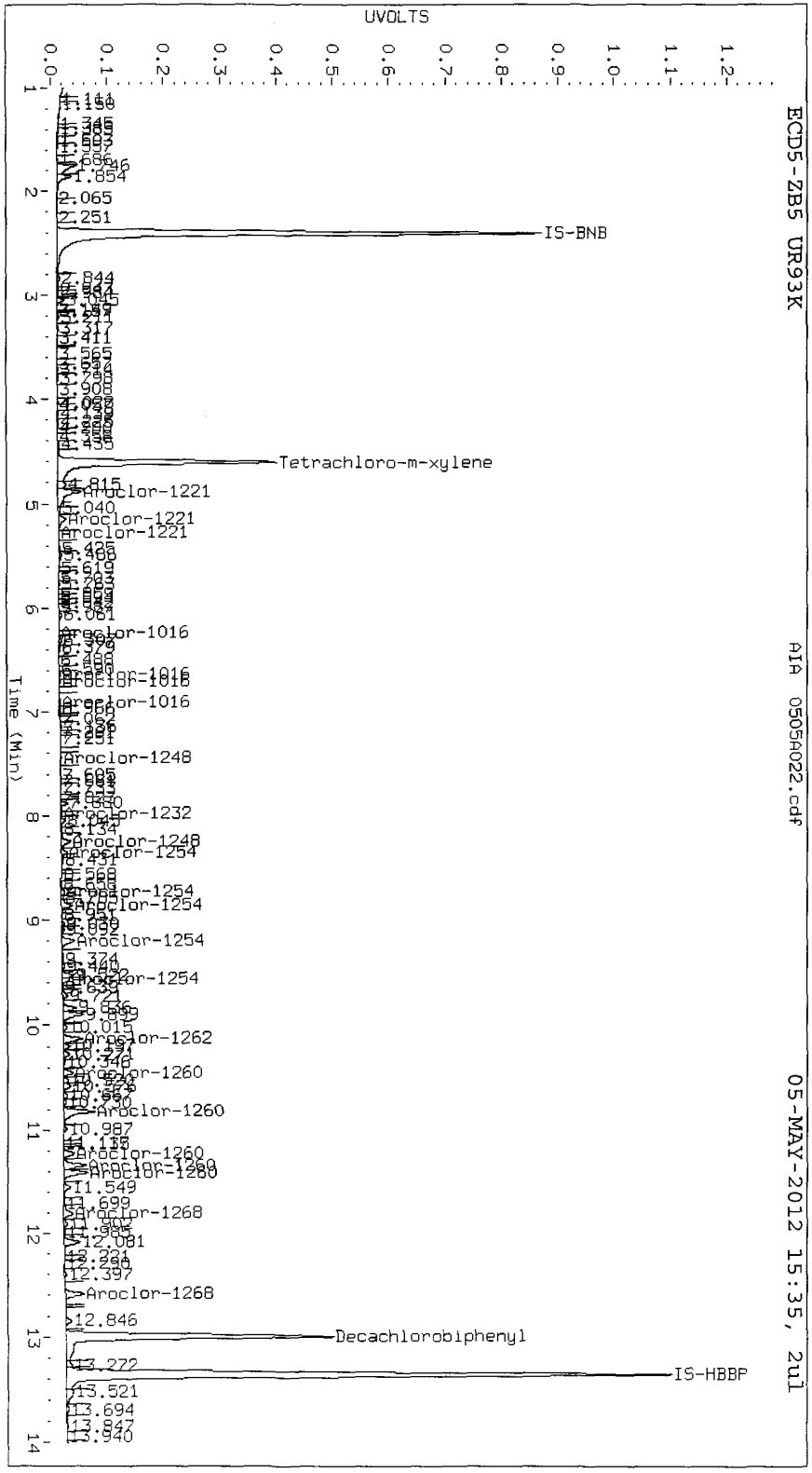
Total PCB Area Col1 (4.709 - 12.894) = 108277263 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 51140006 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB35 UR93K
AIA 0505A022.cdf
05-MAY-2012 15:35, 2ul
UVOLTS
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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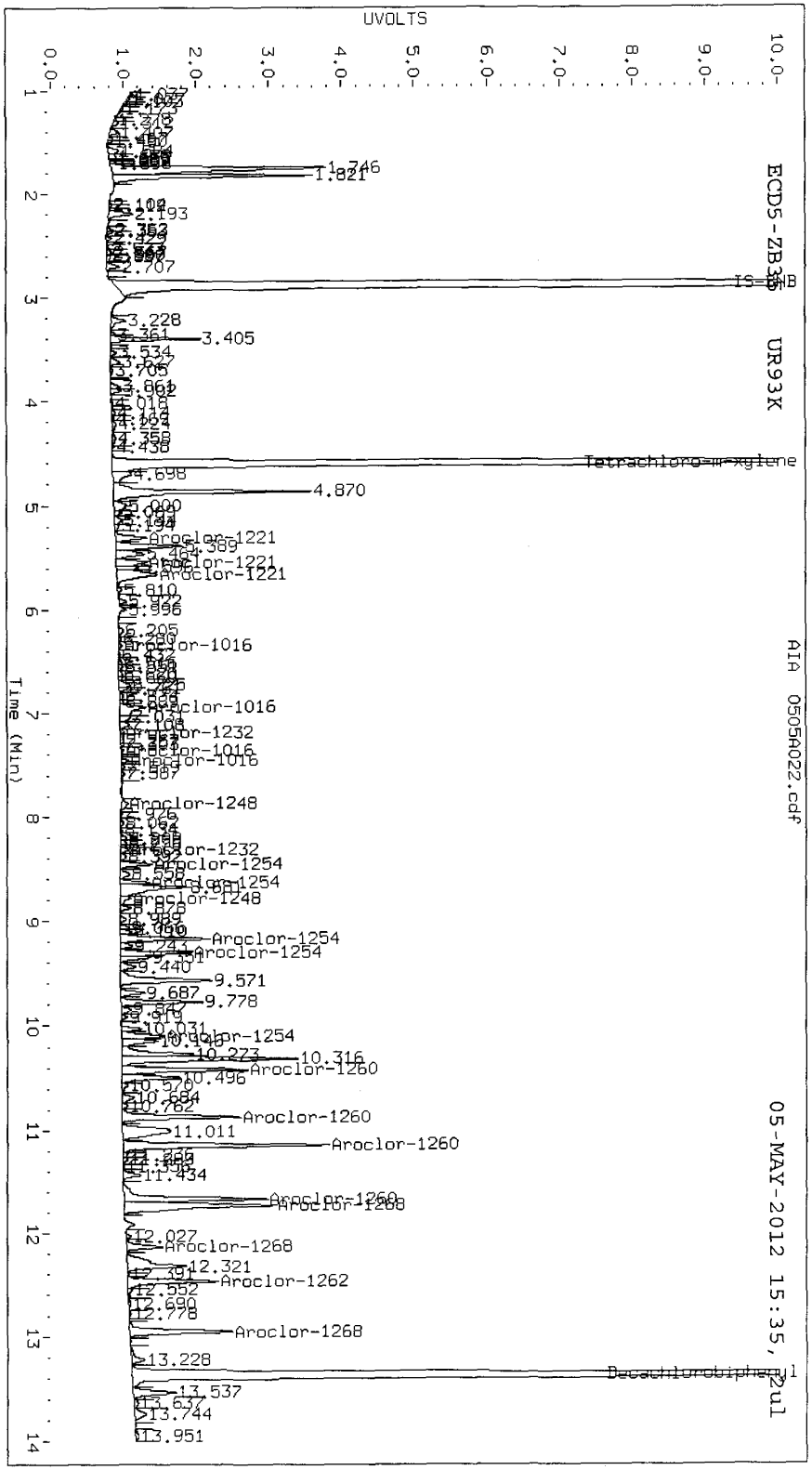
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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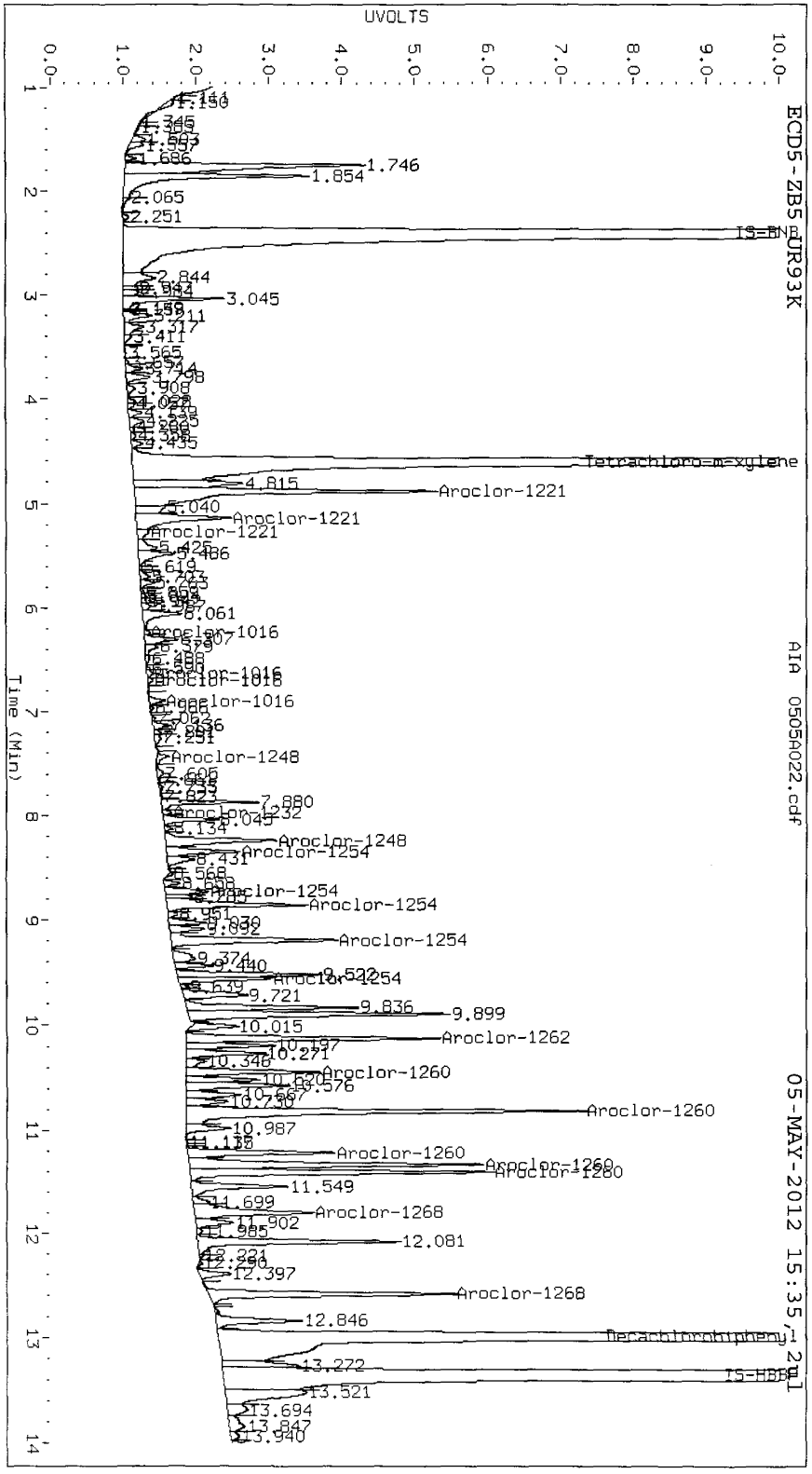
UR93K
AIA 0505A022.cdf
05-MAY-2012 15:35, 1 2ul
Time (Min)
IS=HB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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UR93K
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05-MAY-2012 15:35, 1 2ul
Time (Min)
IS=HB
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: 20120409.B/0505-1.b/0505A023.d
Data file 2: 20120409.B/0505-2.b/0505A023.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93L
Client ID:
Injection Date: 05-MAY-2012 15:54
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 10.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.004	6889691	4.600	-0.004	4034791	3.2	3.2	1.2	Tetrachloro-m-xylene
12.991	-0.003	8585865	13.364	-0.002	3392802	3.5	3.8	7.3	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	81.1	80.1
Decachlorobiphenyl	87.5	94.1

M 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	130736881	-6.8
Hexabromobiphenyl	198372884	150197496	-24.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	92246381	-10.1
Hexabromobiphenyl	81487087	61326376	-24.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.209	-0.034	200186	3.6	1	6.351	0.008	16011	0.3
Aroclor-1016	2	6.620	-0.023	191262	1.1	2	6.969	-0.005	42113	0.4
Aroclor-1016	3	6.800	0.009	109366	1.5	3	7.359	0.005	10046	0.4
Aroclor-1016	4	6.899	-0.003	272422	5.3	4	7.457	-0.005	1024025	36.1
Total Col1Ave (4 peaks):				2.9		Total Col2Ave (4 peaks):			9.3	RPD = 105*
Corrected Ave (3 peaks):				2.1		Corrected Ave (3 peaks):			0.4	RPD = 138*
Aroclor-1221	1	4.887	-0.002	434364	70.1	1	5.299	0.004	94878	6.7
Aroclor-1221	2	5.142	-0.018	68260	4.4	2	5.557	0.014	344955	41.3
Aroclor-1221	3	5.257	-0.008	20472	0.4	3	5.668	0.014	319824	12.4
Aroclor-1221	NS	---			----	4	5.722	-0.001	20839	4.5
Total Col1Ave (3 peaks):				25.0		Total Col2Ave (4 peaks):			16.2	RPD = 43*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			7.8	
Aroclor-1232	1	6.209	-0.035	200186	8.9	1	6.351	0.003	16011	0.7
Aroclor-1232	2	6.620	-0.024	191262	2.6	2	6.969	-0.005	42113	1.0
Aroclor-1232	3	6.800	0.008	109366	3.7	3	7.233	0.050	85781	6.0
Aroclor-1232	4	7.982	-0.004	403187	14.7	4	8.322	-0.006	457478	30.8
Total Col1Ave (4 peaks):				7.5		Total Col2Ave (4 peaks):			9.6	RPD = 25
Corrected Ave (3 peaks):				5.1		Corrected Ave (3 peaks):			2.6	RPD = 65*
Aroclor-1242	1	6.209	-0.034	200186	5.0	1	6.351	0.008	16011	0.5
Aroclor-1242	2	6.620	-0.023	191262	1.5	2	6.969	-0.005	42113	0.6
Aroclor-1242	3	6.800	0.010	109366	2.1	3	7.233	0.054	85781	2.8
Aroclor-1242	4	7.982	-0.002	403187	8.6	4	8.322	-0.003	457478	18.2
Total Col1Ave (4 peaks):				4.3		Total Col2Ave (4 peaks):			5.5	RPD = 25
Corrected Ave (3 peaks):				2.8		Corrected Ave (3 peaks):			1.3	RPD = 76*
Aroclor-1248	1	6.620	-0.016	191262	2.3	1	6.969	0.001	42113	0.9
Aroclor-1248	2	7.436	-0.001	1049909	16.0	2	7.869	-0.001	419357	11.2
Aroclor-1248	3	7.982	0.000	403187	5.0	3	8.322	0.000	457478	10.5
Aroclor-1248	4	8.279	0.006	4141137	51.9	4	8.727	-0.016	3451953	72.1
Total Col1Ave (4 peaks):				18.8		Total Col2Ave (4 peaks):			23.7	RPD = 23
Corrected Ave (3 peaks):				7.8		Corrected Ave (3 peaks):			7.5	RPD = 3
Aroclor-1254	1	8.356	0.000	19299288	154.7	1	8.462	0.001	11907087	326.9
Aroclor-1254	2	8.726	-0.001	5087536	62.7	2	8.635	0.001	8307240	180.0
Aroclor-1254	3	8.862	-0.001	36891910	248.7	3	9.157	0.001	2741450	76.8
Aroclor-1254	4	9.194	-0.018	53850775	359.8	4	9.308	0.001	14294497	187.6
Aroclor-1254	5	9.523	-0.051	79776780	790.0	5	10.101	0.012	12118069	263.6
Total Col1Ave (5 peaks):				323.2		Total Col2Ave (5 peaks):			207.0	RPD = 44*
Corrected Ave (4 peaks):				206.5		Corrected Ave (4 peaks):			177.0	RPD = 15
Aroclor-1260	1	10.446	-0.002	34388184	415.1	1	10.419	-0.002	16002842	480.6
Aroclor-1260	2	10.820	-0.003	99672739	488.3	2	10.870	-0.003	22738657	540.0
Aroclor-1260	3	11.220	-0.002	54023143	487.1	3	11.143	-0.001	45483320	550.2
Aroclor-1260	4	11.336	-0.002	21972526	446.9	4	11.664	-0.002	11922061	489.3
Aroclor-1260	5	11.410	-0.002	28154955	476.3	NS	---			----
Total Col1Ave (5 peaks):				462.7		Total Col2Ave (4 peaks):			515.0	RPD = 11
Corrected Ave (4 peaks):				456.3		Corrected Ave (3 peaks):			503.3	RPD = 10
Aroclor-1262	1	10.130	-0.004	33664864	273.6	1	10.419	-0.006	16002842	316.2
Aroclor-1262	2	10.446	-0.004	34388184	378.1	2	10.870	-0.008	22738657	525.7
Aroclor-1262	3	10.820	-0.004	99672739	414.4	3	11.143	-0.005	45483320	464.4
Aroclor-1262	4	11.336	-0.005	21972526	250.0	4	11.664	-0.007	11922061	303.8
Aroclor-1262	5	11.410	-0.004	28154955	284.5	5	12.463	-0.006	11513379	305.3
Total Col1Ave (5 peaks):				320.1		Total Col2Ave (5 peaks):			383.1	RPD = 18
Corrected Ave (4 peaks):				296.6		Corrected Ave (4 peaks):			347.4	RPD = 16
Aroclor-1268	1	11.336	-0.006	21972526	87.7	1	11.664	-0.008	11922061	115.1
Aroclor-1268	2	11.410	-0.003	28154955	114.1	2	11.724	-0.015	30950382	317.0

Aroclor-1268	3	11.810	0.010	12003835	56.0	3	12.129	-0.007	663982	7.9
Aroclor-1268	4	12.583	-0.007	9403400	14.3	4	12.949	-0.008	3500350	13.7

Total Col1Ave (4 peaks): 68.0 Total Col2Ave (4 peaks): 113.4 RPD = 50*

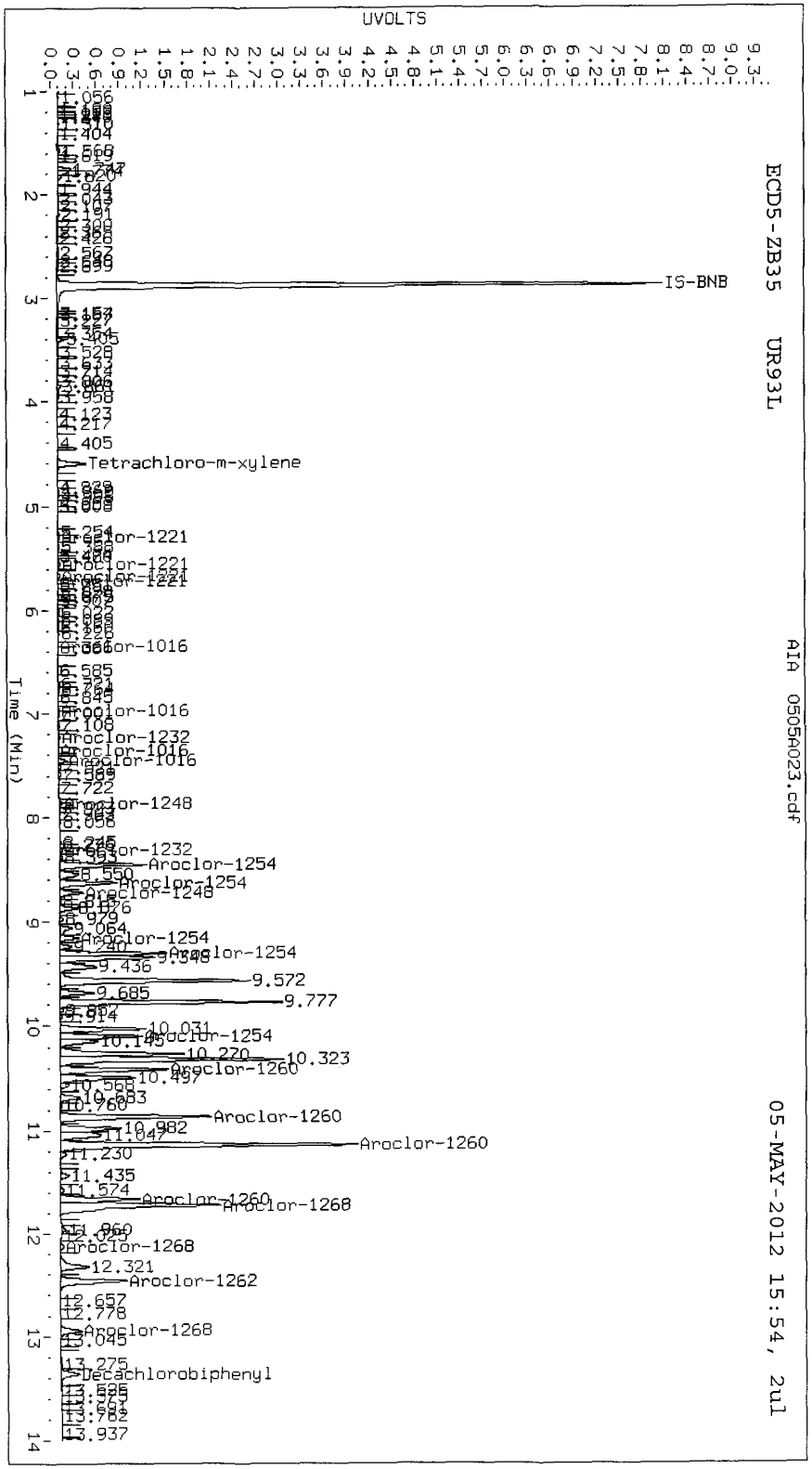
Corrected Ave (3 peaks): 52.6 Corrected Ave (3 peaks): 45.6 RPD = 14

Total PCB Area Col1 (4.709 - 12.894) = 847436772 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 414007487 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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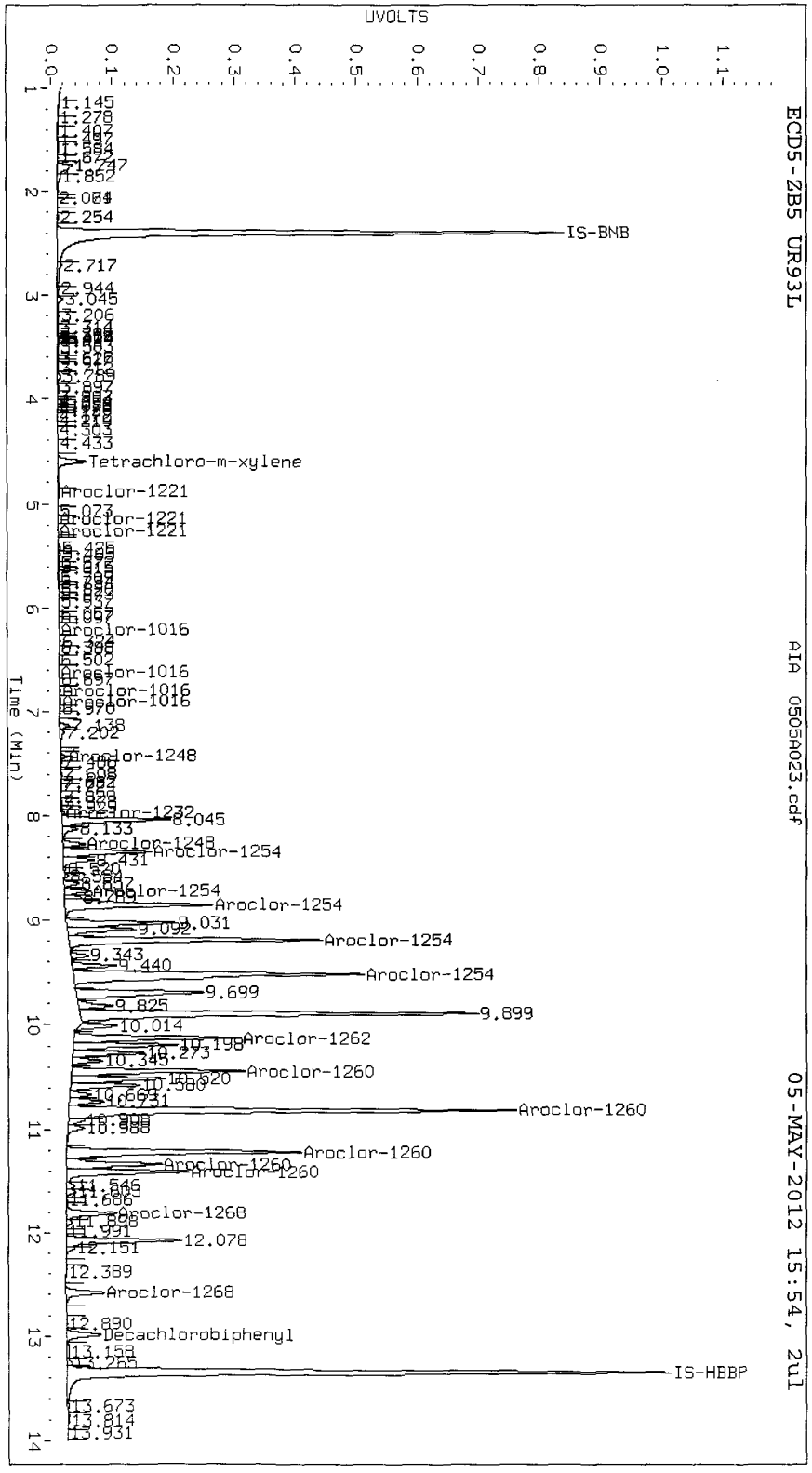
05-MAY-2012 15:54, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
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Aroclor-1016
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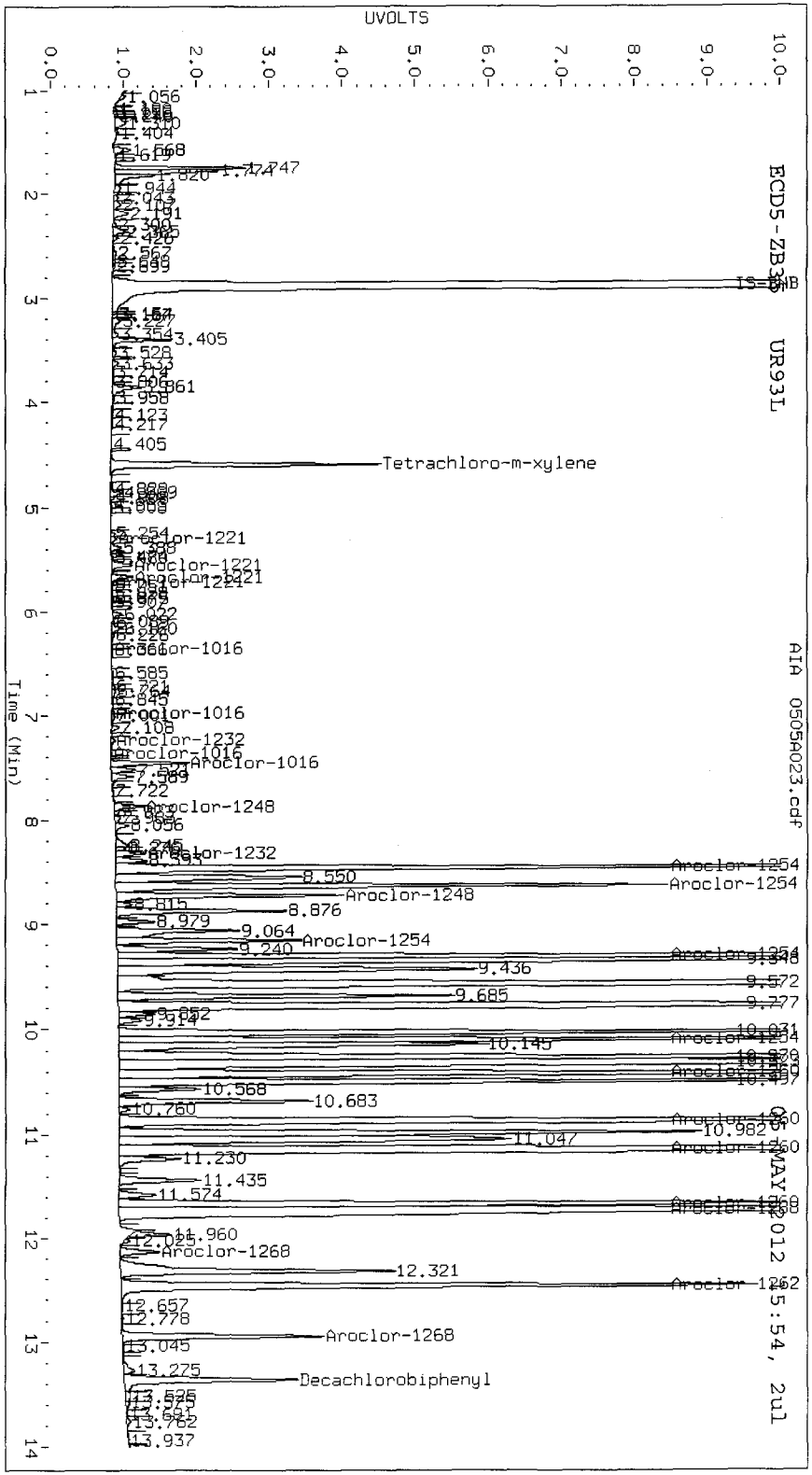
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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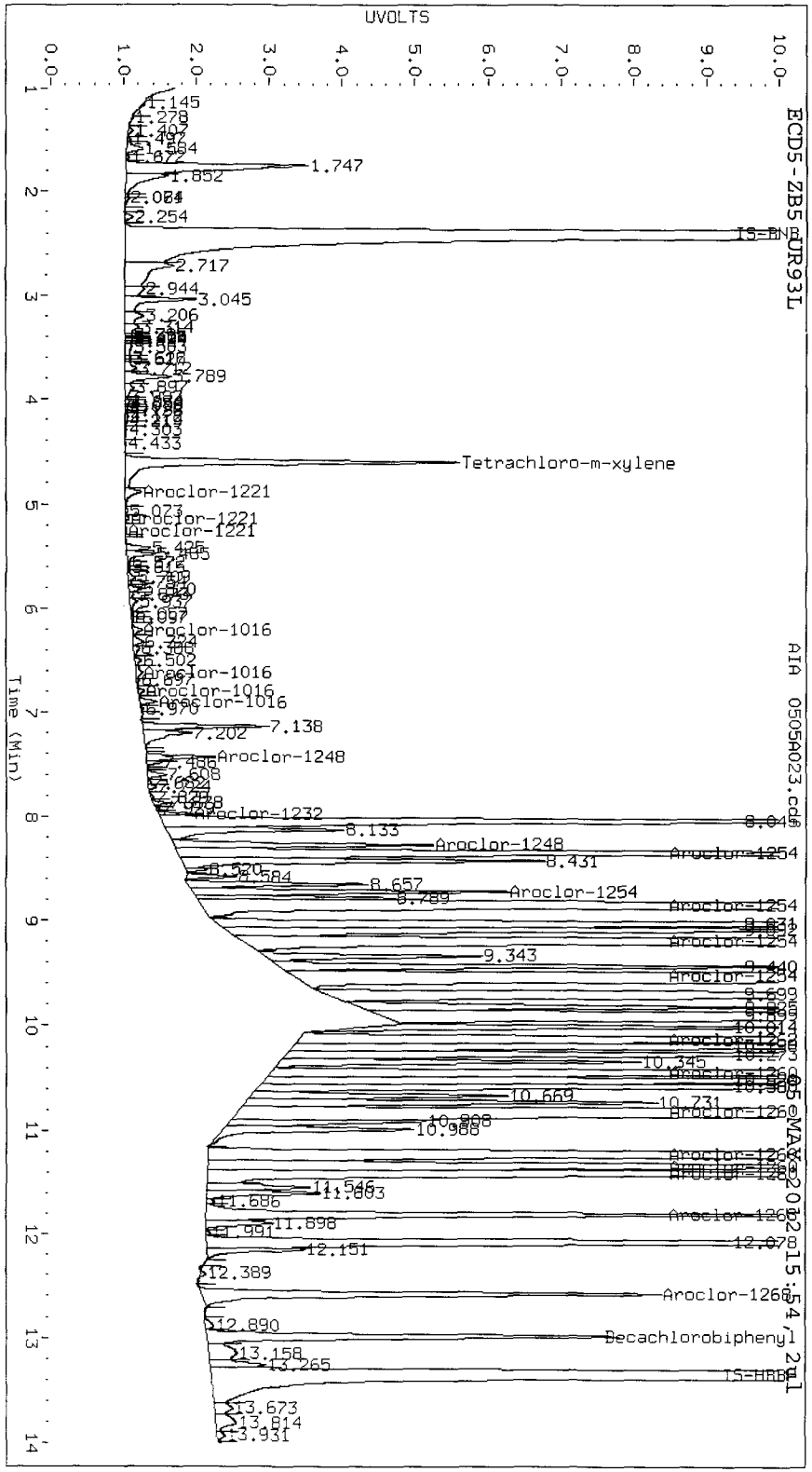
UR93L
AIA 0505A023.cdf
MAY 2012 15:54, 2ul
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Time (Min)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ECD5-ZB5
UR93L
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MAY 2012 15:54, 2ul
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Time (Min)

UR93:00292

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A024.d
Data file 2: 20120409.B/0505-2.b/0505A024.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93M
Client ID:
Injection Date: 05-MAY-2012 16:13
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 5.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.605	-0.003	13456585	4.601	-0.003	7628192	5.9	5.9	1.1	Tetrachloro-m-xylene
12.992	-0.002	16261627	13.366	0.000	6434202	5.9	6.3	5.9	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	73.5	74.3
Decachlorobiphenyl	74.2	78.8

05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	140816992	0.4
Hexabromobiphenyl	198372884	167633680	-15.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	93984354	-8.4
Hexabromobiphenyl	81487087	69480952	-14.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.237	-0.005	99758	1.7	1	---			0.0
Aroclor-1016	2	6.616	-0.026	147273	0.8	2	7.001	0.027	217920	2.1
Aroclor-1016	3	6.805	0.014	42943	0.6	3	7.365	0.011	25327	1.0
Aroclor-1016	4	6.897	-0.004	226206	4.1	4	7.457	-0.004	752106	26.0
Total Col1Ave (4 peaks):				1.8		Total Col2Ave (3 peaks):			9.7	RPD = 138*
Corrected Ave ~~(3 peaks):~~				~~1.0~~		~~Corrected Ave: < 3~~ Peaks				
Aroclor-1221	1	4.887	-0.003	984817	147.6	1	5.302	0.007	150684	10.4
Aroclor-1221	2	5.139	-0.021	175533	10.5	2	5.558	0.016	249346	29.3
Aroclor-1221	3	5.262	-0.003	20300	0.4	3	5.668	0.013	209893	8.0
Aroclor-1221	NS	---			----	4	5.720	-0.003	10648	2.2
Total Col1Ave (3 peaks):				52.8		Total Col2Ave (4 peaks):			12.5	RPD = 124*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			6.9	
Aroclor-1232	1	6.237	-0.007	99758	4.1	1	---			0.0
Aroclor-1232	2	6.616	-0.027	147273	1.9	2	7.001	0.027	217920	5.1
Aroclor-1232	3	6.805	0.013	42943	1.3	3	7.174	-0.009	37449	2.6
Aroclor-1232	4	7.982	-0.004	297167	10.1	4	8.322	-0.006	290835	19.2
Total Col1Ave ~~(4 peaks):~~				4.3		Total Col2Ave (3 peaks):			9.0	RPD = 69*
Corrected Ave (3 peaks):				2.4		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	6.237	-0.005	99758	2.3	1	---			0.0
Aroclor-1242	2	6.616	-0.026	147273	1.1	2	7.001	0.027	217920	2.8
Aroclor-1242	3	6.805	0.014	42943	0.8	3	7.174	-0.005	37449	1.2
Aroclor-1242	4	7.982	-0.002	297167	5.9	4	8.322	-0.003	290835	11.3
Total Col1Ave (4 peaks):				2.5		~~Total Col2Ave (3 peaks):~~			~~5.1~~	RPD = 69*
Corrected ~~Ave (3 peaks):~~				1.4		Corrected Ave: < 3 Peaks				
Aroclor-1248	1	6.616	-0.019	147273	1.6	1	7.001	0.033	217920	4.4
Aroclor-1248	2	7.436	-0.001	815545	11.6	2	7.870	0.000	286060	7.5
Aroclor-1248	3	7.982	0.000	297167	3.4	3	8.322	0.000	290835	6.6
Aroclor-1248	4	8.278	0.006	3011678	35.1	4	8.728	-0.016	2132488	43.7
Total Col1Ave (4 peaks):				12.9		Total Col2Ave (4 peaks):			15.6	RPD = 18
Corrected Ave (3 peaks):				5.5		~~Corrected Ave (3 peaks):~~			~~6.2~~	RPD = 11
Aroclor-1254	1	8.355	-0.001	13792296	102.7	1	8.462	0.001	8576792	231.1
Aroclor-1254	2	8.726	-0.001	3088826	35.3	2	8.636	0.001	5221010	111.0
Aroclor-1254	3	8.862	-0.001	29559378	185.0	3	9.158	0.001	1594948	43.9
Aroclor-1254	4	9.195	-0.018	37985882	235.6	4	9.308	0.001	10622679	136.8
Aroclor-1254	5	9.523	-0.051	57984846	533.1	5	10.102	0.013	9058624	193.4
Total Col1Ave (5 peaks):				218.3		Total Col2Ave (5 peaks):			143.2	RPD = 42*
Corrected Ave (4 peaks):				139.7		Corrected Ave (4 peaks):			121.3	RPD = 14
				150					150	
Aroclor-1260	1	10.446	-0.002	24362539	263.5	1	10.420	-0.001	11850524	314.1
Aroclor-1260	2	10.820	-0.003	74971570	329.1	2	10.870	-0.003	16906626	354.4
Aroclor-1260	3	11.221	-0.001	39044623	315.4	3	11.143	-0.001	34268627	365.9
Aroclor-1260	4	11.337	-0.001	17394550	317.0	4	11.665	-0.001	9285791	336.4
Aroclor-1260	5	11.410	-0.002	21501497	325.9	NS	---			----
Total Col1Ave (5 peaks):				310.2		Total Col2Ave (4 peaks):			342.7	RPD = 10
Corrected Ave (4 peaks):				305.4		Corrected Ave (3 peaks):			335.0	RPD = 9
Aroclor-1262	1	10.130	-0.004	24837980	180.9	1	10.420	-0.005	11850524	206.6
Aroclor-1262	2	10.446	-0.004	24362539	240.0	2	10.870	-0.008	16906626	345.0
Aroclor-1262	3	10.820	-0.004	74971570	279.3	3	11.143	-0.005	34268627	308.8
Aroclor-1262	4	11.337	-0.004	17394550	177.3	4	11.665	-0.005	9285791	208.9
Aroclor-1262	5	11.410	-0.004	21501497	194.7	5	12.464	-0.006	8697661	203.6
Total Col1Ave (5 peaks):				214.4		Total Col2Ave (5 peaks):			254.6	RPD = 17
Corrected Ave (4 peaks):				198.2		Corrected Ave (4 peaks):			232.0	RPD = 16
Aroclor-1268	1	11.337	-0.004	17394550	62.2	1	11.665	-0.007	9285791	79.1
Aroclor-1268	2	11.410	-0.003	21501497	78.0	2	11.725	-0.014	23021694	208.1

Aroclor-1268	3	11.810	0.010	9148342	38.2	3	12.129	-0.007	652753	6.8
Aroclor-1268	4	12.585	-0.006	8468471	11.5	4	12.951	-0.007	3243716	11.2

Total Col1Ave (4 peaks): 47.5 Total Col2Ave (4 peaks): 76.3 RPD = 47*

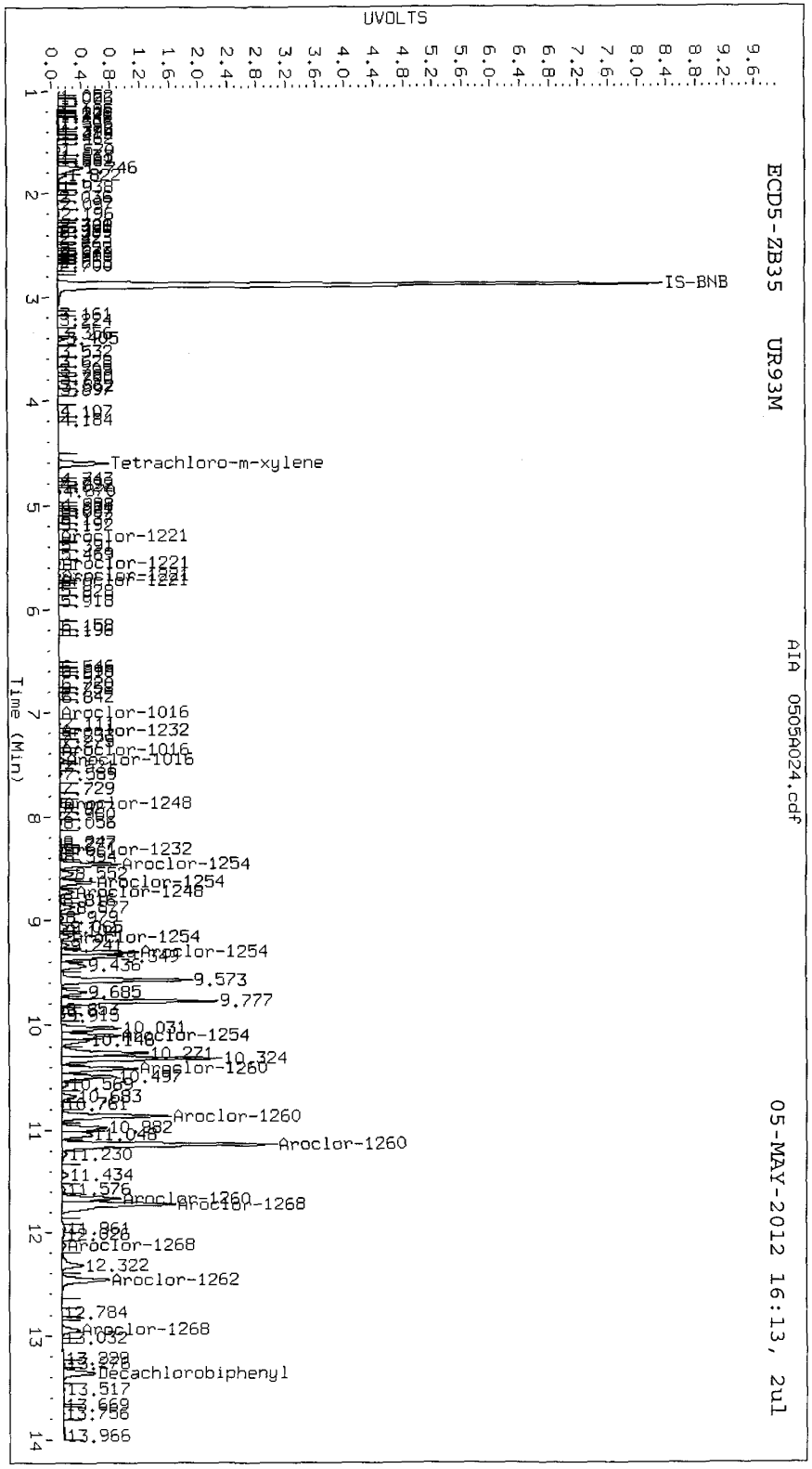
Corrected Ave (3 peaks): 37.3 Corrected Ave (3 peaks): 32.4 RPD = 14

Total PCB Area Col1 (4.709 - 12.894) = 620950604 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 306430134 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

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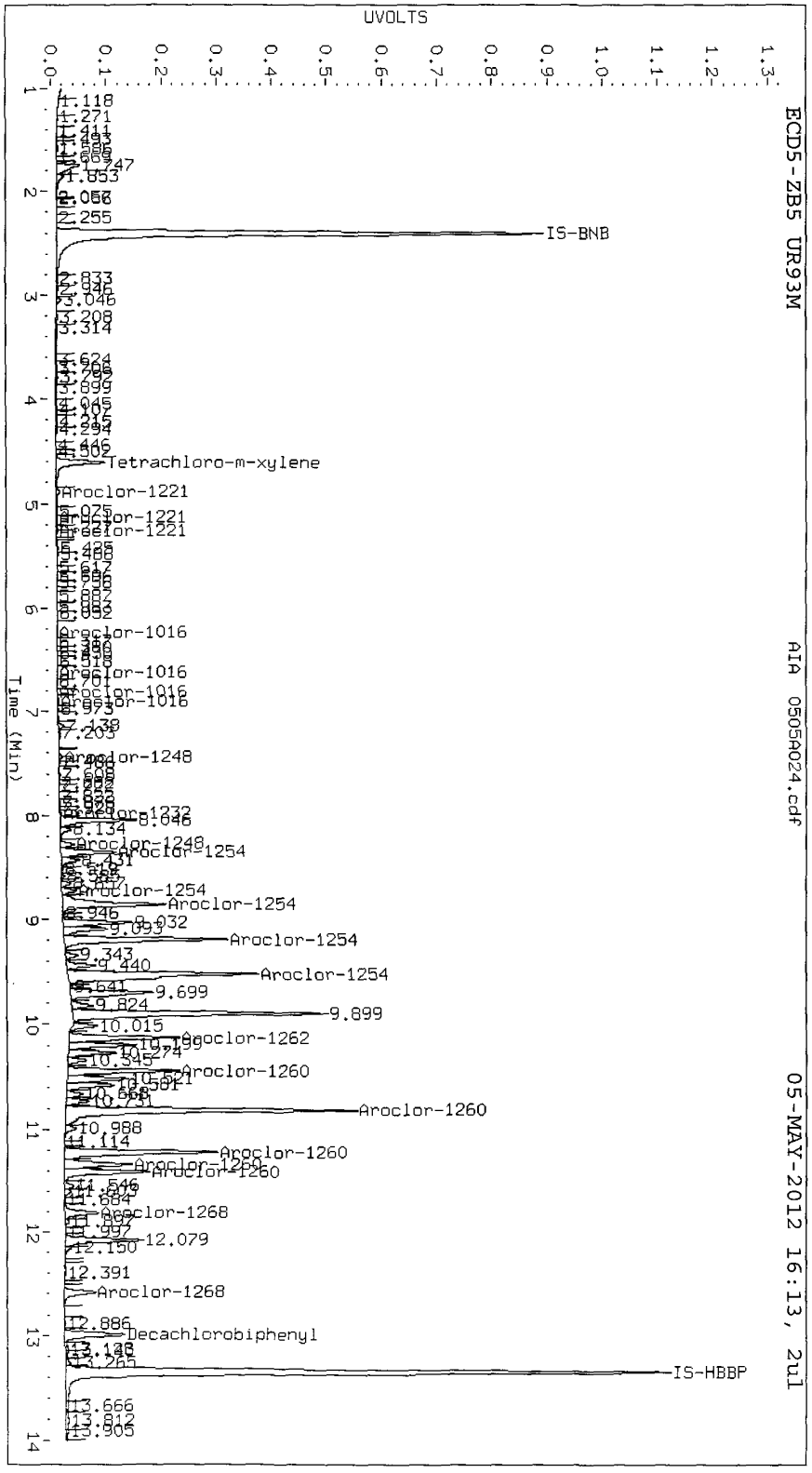
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Tetrachloro-m-xylene
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Aroclor-1016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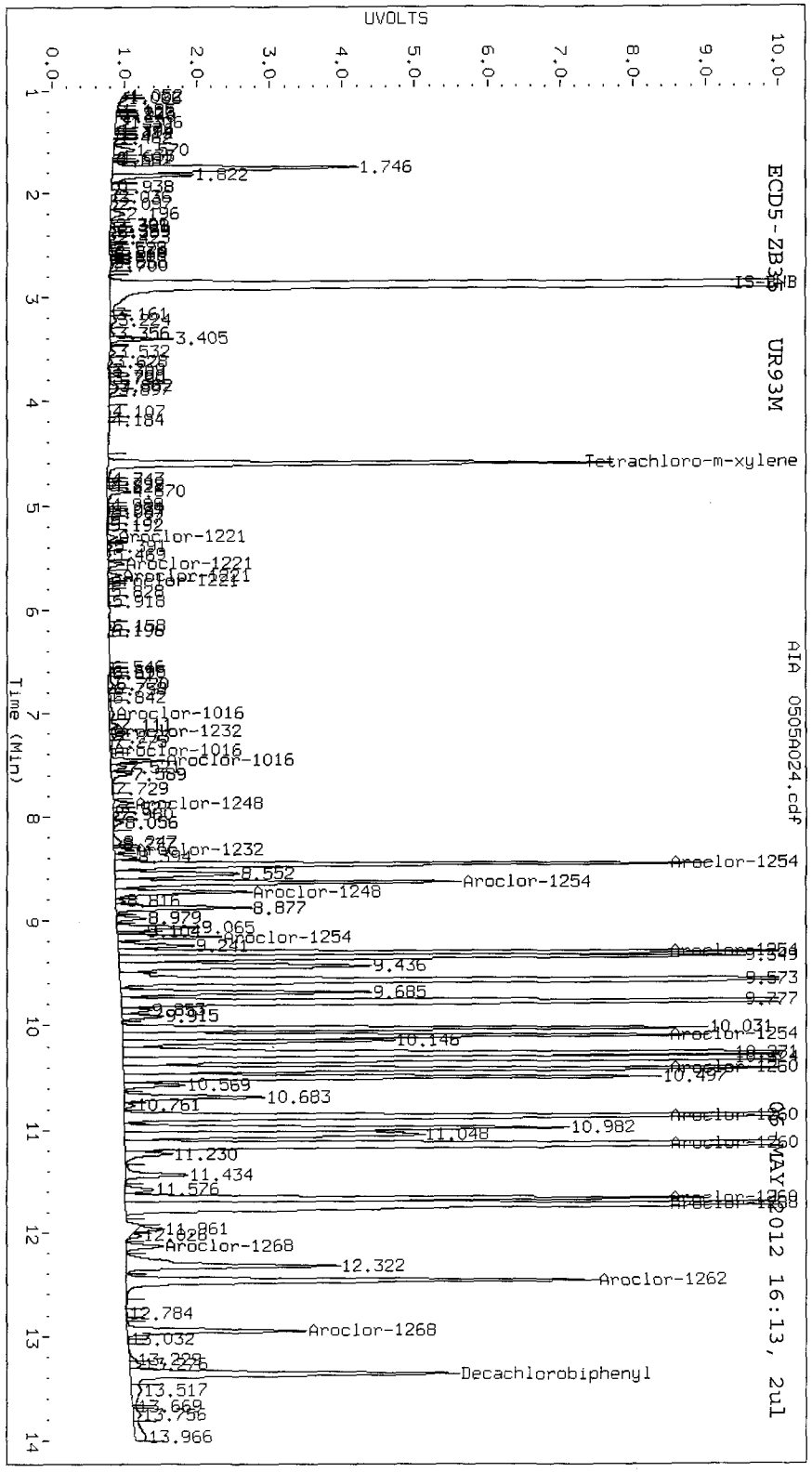
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Time (Min)
IS-BNB
Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1232
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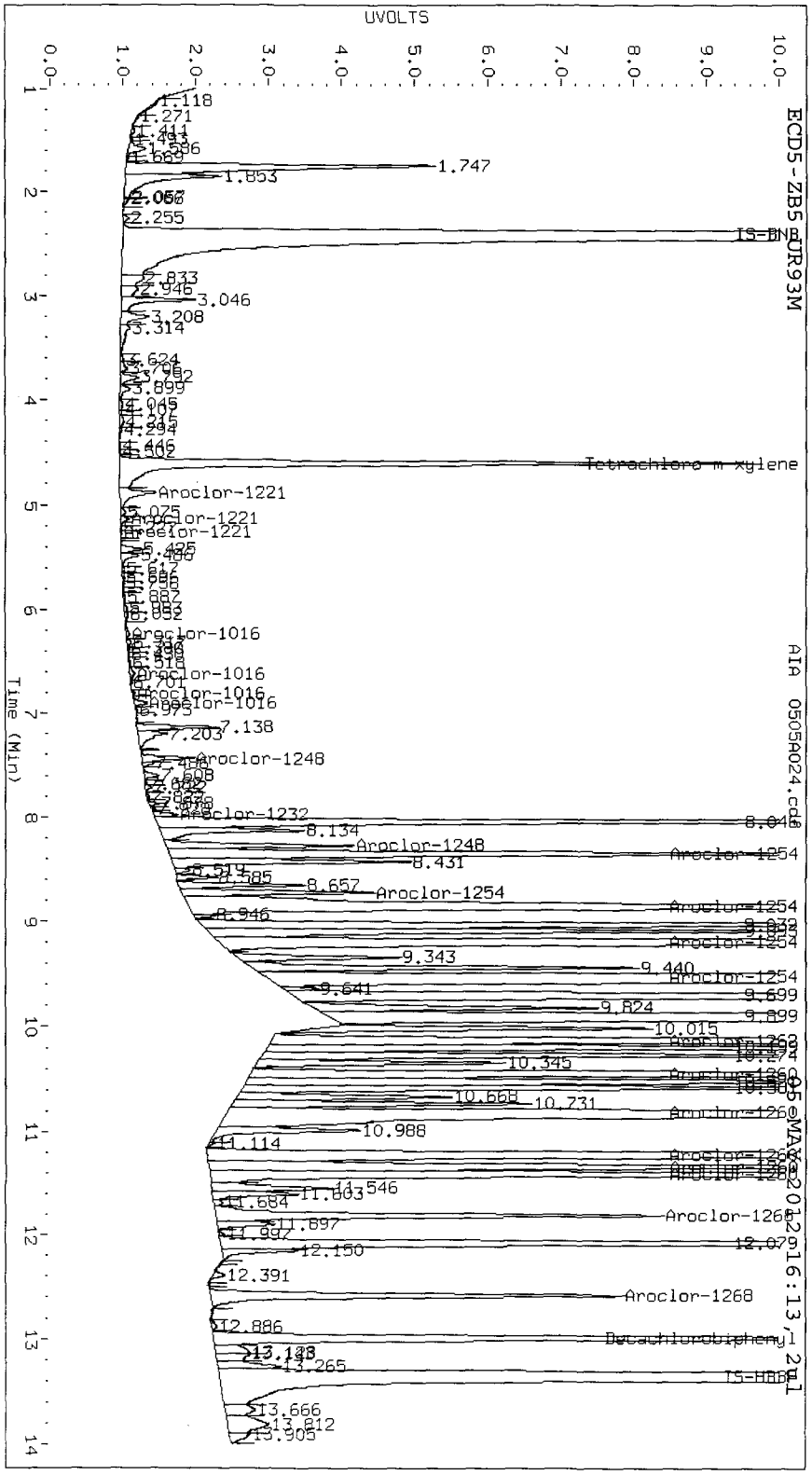
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

UR93:00297

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A025.d
Data file 2: 20120409.B/0505-2.b/0505A025.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 05-MAY-2012 16:33
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.004	44253660	4.600	-0.005	29989137	18.9	20.1	6.0	Tetrachloro-m-xylene
12.992	-0.002	41560010	13.364	-0.002	16410045	14.3	16.1	12.1	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	47.3	50.1
Decachlorobiphenyl	35.7	40.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	144064991	2.7
Hexabromobiphenyl	198372884	178292134	-10.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	109534901	6.8
Hexabromobiphenyl	81487087	69298681	-15.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

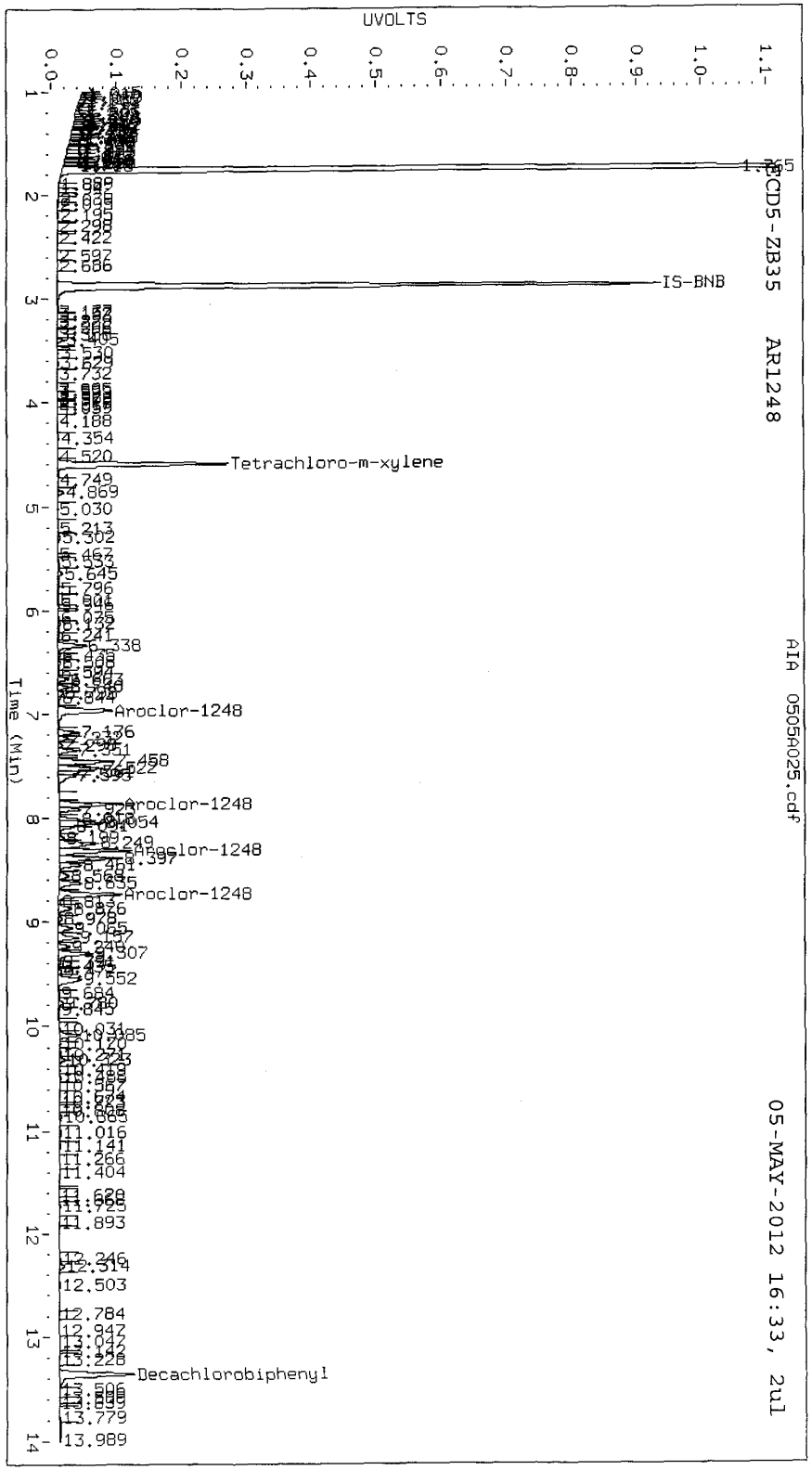
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1248	1	6.636	0.000	22191729	237.2	1	6.968	0.000	11930528	207.4
Aroclor-1248	2	7.436	0.000	15005291	207.9	2	7.870	0.000	9945302	224.1
Aroclor-1248	3	7.982	0.000	19282823	218.7	3	8.322	0.000	11652601	225.9
Aroclor-1248	4	8.272	0.000	18880515	214.9	4	8.744	0.000	12043373	211.9

Total Col1Ave (4 peaks): 219.7 Total Col2Ave (4 peaks): 217.3 RPD = 1
Corrected Ave (3 peaks): 213.8 Corrected Ave (3 peaks): 214.5 RPD = 0

Total PCB Area Col1 (4.709 - 12.894) = 303421680 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 174186102 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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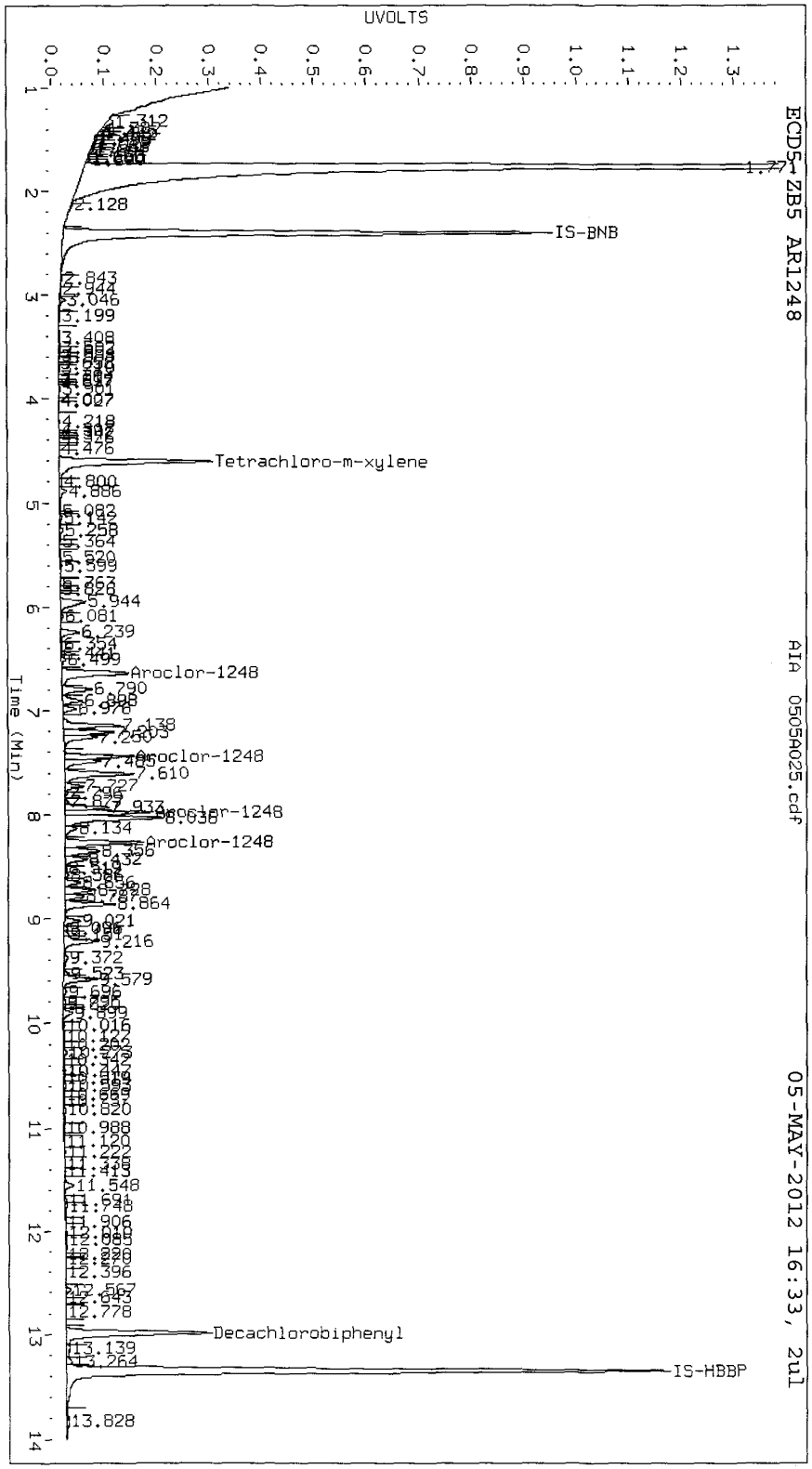
AIA 0505A025.cdf
05-MAY-2012 16:33, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
Time (Min)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05-MAY-2012 16:33, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A026.d
Data file 2: 20120409.B/0505-2.b/0505A026.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 05-MAY-2012 16:51
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.005	42542245	4.600	-0.005	28104628	20.7	20.4	1.2	Tetrachloro-m-xylene
12.992	-0.002	44016965	13.364	-0.002	15591841	15.4	15.9	2.9	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.6	51.0
Decachlorobiphenyl	38.5	39.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	126700961	-9.7
Hexabromobiphenyl	198372884	174963066	-11.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	100868318	-1.7
Hexabromobiphenyl	81487087	66925902	-17.9

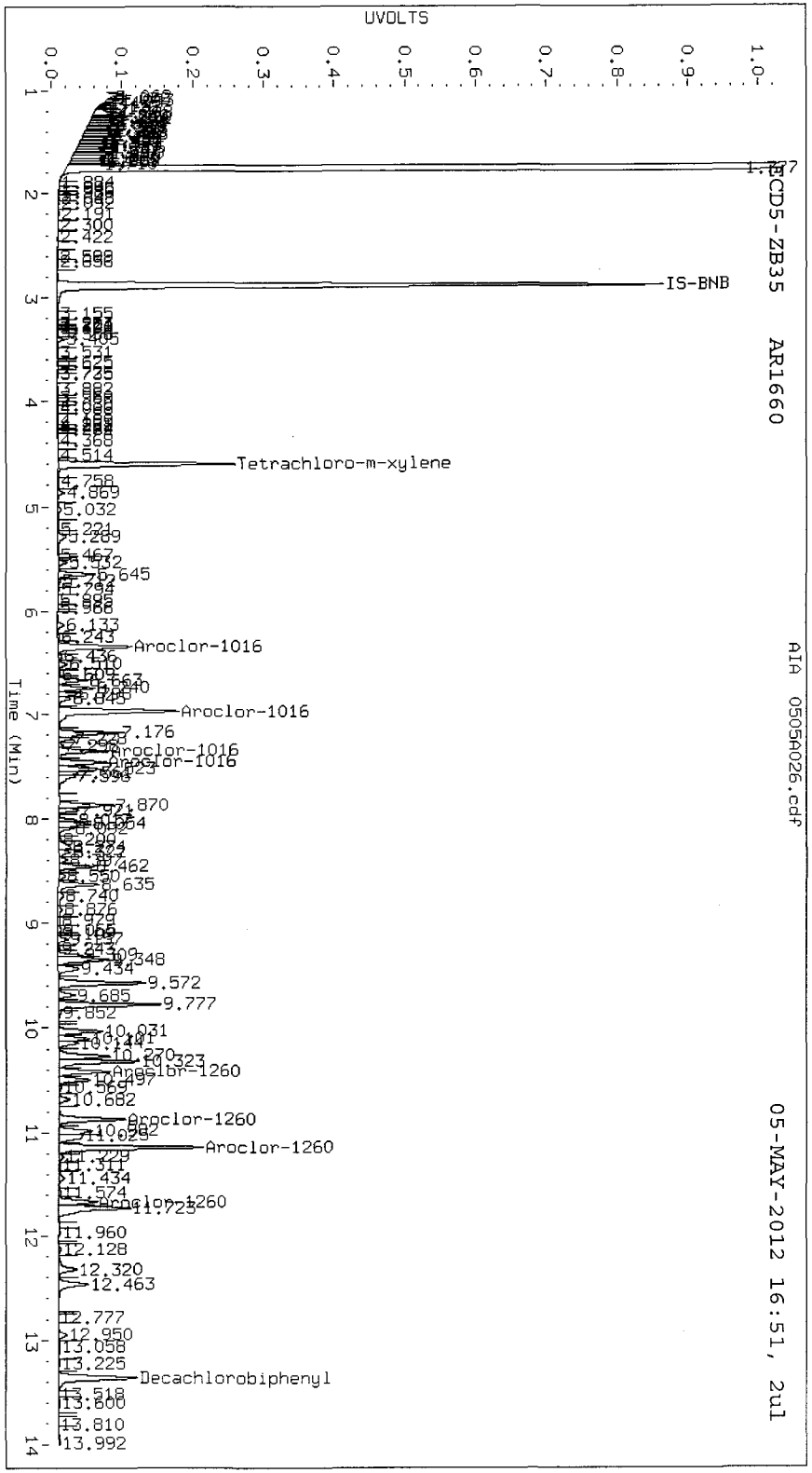
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.239	-0.004	12708723	238.7	1	6.340	-0.003	13324507	256.0
Aroclor-1016	2	6.639	-0.004	44490576	260.0	2	6.971	-0.003	23260115	212.5
Aroclor-1016	3	6.787	-0.003	17764770	253.9	3	7.351	-0.002	7191931	253.5
Aroclor-1016	4	6.898	-0.003	12356539	249.4	4	7.458	-0.003	7628090	245.6
Total Col1Ave (4 peaks):				250.5		Total Col2Ave (4 peaks):			241.9	RPD = 3
Corrected Ave (3 peaks):				247.3		Corrected Ave (3 peaks):			237.2	RPD = 4
Aroclor-1260	1	10.446	-0.002	19875608	205.9	1	10.420	-0.002	8107116	223.1
Aroclor-1260	2	10.820	-0.002	50272985	211.4	2	10.870	-0.003	11072565	240.9
Aroclor-1260	3	11.221	-0.002	26806357	207.5	3	11.142	-0.002	23904131	264.9
Aroclor-1260	4	11.337	-0.002	10701152	186.9	4	11.664	-0.002	6356371	239.1
Aroclor-1260	5	11.411	-0.002	12598642	182.9	NS	---			----
Total Col1Ave (5 peaks):				198.9		Total Col2Ave (4 peaks):			242.0	RPD = 20
Corrected Ave (4 peaks):				195.8		Corrected Ave (3 peaks):			234.4	RPD = 18

Total PCB Area Col1 (4.709 - 12.894) = 643414306 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 338754615 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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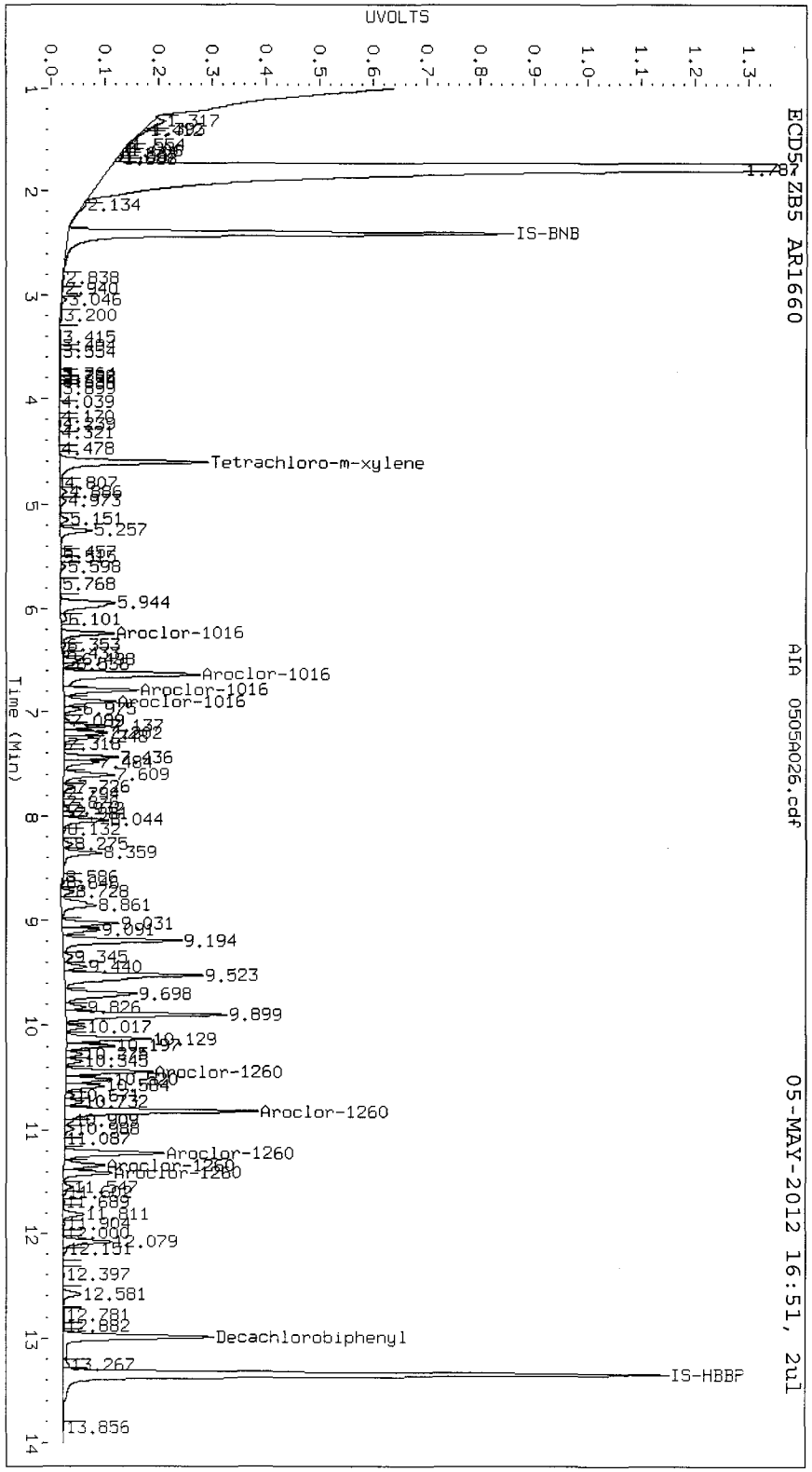
05-MAY-2012 16:51, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
Time (Min)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IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A027.d
Data file 2: 20120409.B/0505-2.b/0505A027.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93N
Client ID:
Injection Date: 05-MAY-2012 17:10
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.604	-0.005	65611859	4.600	-0.004	40767696	27.7	30.1	8.2	Tetrachloro-m-xylene
12.992	-0.002	74636959	13.365	0.000	28445919	25.0	26.4	5.5	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	69.3	75.2
Decachlorobiphenyl	62.4	65.9

JL 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	145684834	3.8
Hexabromobiphenyl	198372884	183130256	-7.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	99253508	-3.3
Hexabromobiphenyl	81487087	73424886	-9.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.209	-0.034	842916	13.8	1	6.341	-0.002	27544	0.5
Aroclor-1016	2	6.636	-0.007	119102	0.6	2	7.025	0.051	256053	2.4
Aroclor-1016	3	6.802	0.011	153732	1.9	3	7.362	0.009	32072	1.1
Aroclor-1016	4	6.898	-0.004	871648	15.3	4	7.455	-0.006	148879	4.9
Total Col1Ave (4 peaks):				7.9		Total Col2Ave (4 peaks):			2.2	RPD = 112*
Corrected Ave (3 peaks):				5.4		Corrected Ave (3 peaks):			1.4	RPD = 120*
Aroclor-1221	1	4.886	-0.004	4457265	645.7	1	5.306	0.010	623082	40.7
Aroclor-1221	2	5.138	-0.022	1053553	61.1	2	5.533	-0.009	290491	32.4
Aroclor-1221	3	5.277	0.012	128589	2.3	3	5.657	0.003	366843	13.2
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				256.4		Total Col2Ave (3 peaks):			28.7	RPD = 157*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.209	-0.035	842916	33.5	1	6.341	-0.007	27544	1.2
Aroclor-1232	2	6.636	-0.008	119102	1.5	2	7.025	0.050	256053	5.7
Aroclor-1232	3	6.802	0.009	153732	4.6	3	7.178	-0.005	41282	2.7
Aroclor-1232	4	7.988	0.002	257755	8.4	4	8.323	-0.006	348937	21.8
Total Col1Ave (4 peaks):				12.0		Total Col2Ave (4 peaks):			7.8	RPD = 42*
Corrected Ave (3 peaks):				4.8		Corrected Ave (3 peaks):			3.2	RPD = 41*
Aroclor-1242	1	6.209	-0.034	842916	18.8	1	6.341	-0.002	27544	0.7
Aroclor-1242	2	6.636	-0.007	119102	0.8	2	7.025	0.051	256053	3.1
Aroclor-1242	3	6.802	0.011	153732	2.6	3	7.178	-0.001	41282	1.3
Aroclor-1242	4	7.988	0.003	257755	5.0	4	8.323	-0.003	348937	12.9
Total Col1Ave (4 peaks):				6.8		Total Col2Ave (4 peaks):			4.5	RPD = 41*
Corrected Ave (3 peaks):				2.8		Corrected Ave (3 peaks):			1.7	RPD = 48*
Aroclor-1248	1	6.636	0.000	119102	1.3	1	7.025	0.057	256053	4.9
Aroclor-1248	2	7.427	-0.009	514994	7.1	2	7.879	0.008	68959	1.7
Aroclor-1248	3	7.988	0.006	257755	2.9	3	8.323	0.001	348937	7.5
Aroclor-1248	4	8.272	0.000	317382	3.6	4	8.726	-0.018	264088	5.1
Total Col1Ave (4 peaks):				3.7		Total Col2Ave (4 peaks):			4.8	RPD = 26
Corrected Ave (3 peaks):				2.6		Corrected Ave (3 peaks):			3.9	RPD = 41*
Aroclor-1254	1	8.354	-0.002	728354	5.2	1	8.461	0.000	425738	10.9
Aroclor-1254	2	8.726	-0.001	346151	3.8	2	8.636	0.002	339945	6.8
Aroclor-1254	3	8.861	-0.002	1647249	10.0	3	9.174	0.017	1209121	31.5
Aroclor-1254	4	9.196	-0.017	1660970	10.0	4	9.307	0.000	478102	5.8
Aroclor-1254	5	9.563	-0.012	646512	5.7	5	10.098	0.009	339417	6.9
Total Col1Ave (5 peaks):				6.9		Total Col2Ave (5 peaks):			12.4	RPD = 56*
Corrected Ave (4 peaks):				6.2		Corrected Ave (4 peaks):			7.6	RPD = 20
Aroclor-1260	1	10.447	-0.002	739344	7.3	1	10.419	-0.003	401422	10.1
Aroclor-1260	2	10.820	-0.003	2862737	11.5	2	10.868	-0.004	524815	10.4
Aroclor-1260	3	11.219	-0.003	1015200	7.5	3	11.144	-0.001	999062	10.1
Aroclor-1260	4	11.335	-0.004	1061469	17.7	4	11.665	-0.001	422667	14.5
Aroclor-1260	5	11.409	-0.004	992661	13.8	NS	---			----
Total Col1Ave (5 peaks):				11.6		Total Col2Ave (4 peaks):			11.3	RPD = 3
Corrected Ave (4 peaks):				10.0		Corrected Ave (3 peaks):			10.2	RPD = 2
Aroclor-1262	1	10.127	-0.007	1073826	7.2	1	10.419	-0.006	401422	6.6
Aroclor-1262	2	10.447	-0.004	739344	6.7	2	10.868	-0.009	524815	10.1
Aroclor-1262	3	10.820	-0.005	2862737	9.8	3	11.144	-0.005	999062	8.5
Aroclor-1262	4	11.335	-0.007	1061469	9.9	4	11.665	-0.006	422667	9.0
Aroclor-1262	5	11.409	-0.006	992661	8.2	5	12.464	-0.006	458451	10.2
Total Col1Ave (5 peaks):				8.3		Total Col2Ave (5 peaks):			8.9	RPD = 6
Corrected Ave (4 peaks):				8.0		Corrected Ave (4 peaks):			8.6	RPD = 7
Aroclor-1268	1	11.335	-0.007	1061469	3.5	1	11.665	-0.007	422667	3.4
Aroclor-1268	2	11.409	-0.004	992661	3.3	2	11.726	-0.013	771482	6.6

Aroclor-1268	3	11.796	-0.004	776546	3.0	3	12.128	-0.008	176074	1.7
Aroclor-1268	4	12.583	-0.008	1420992	1.8	4	12.950	-0.008	558199	1.8

Total Col1Ave (4 peaks): 2.9 Total Col2Ave (4 peaks): 3.4 RPD = 17

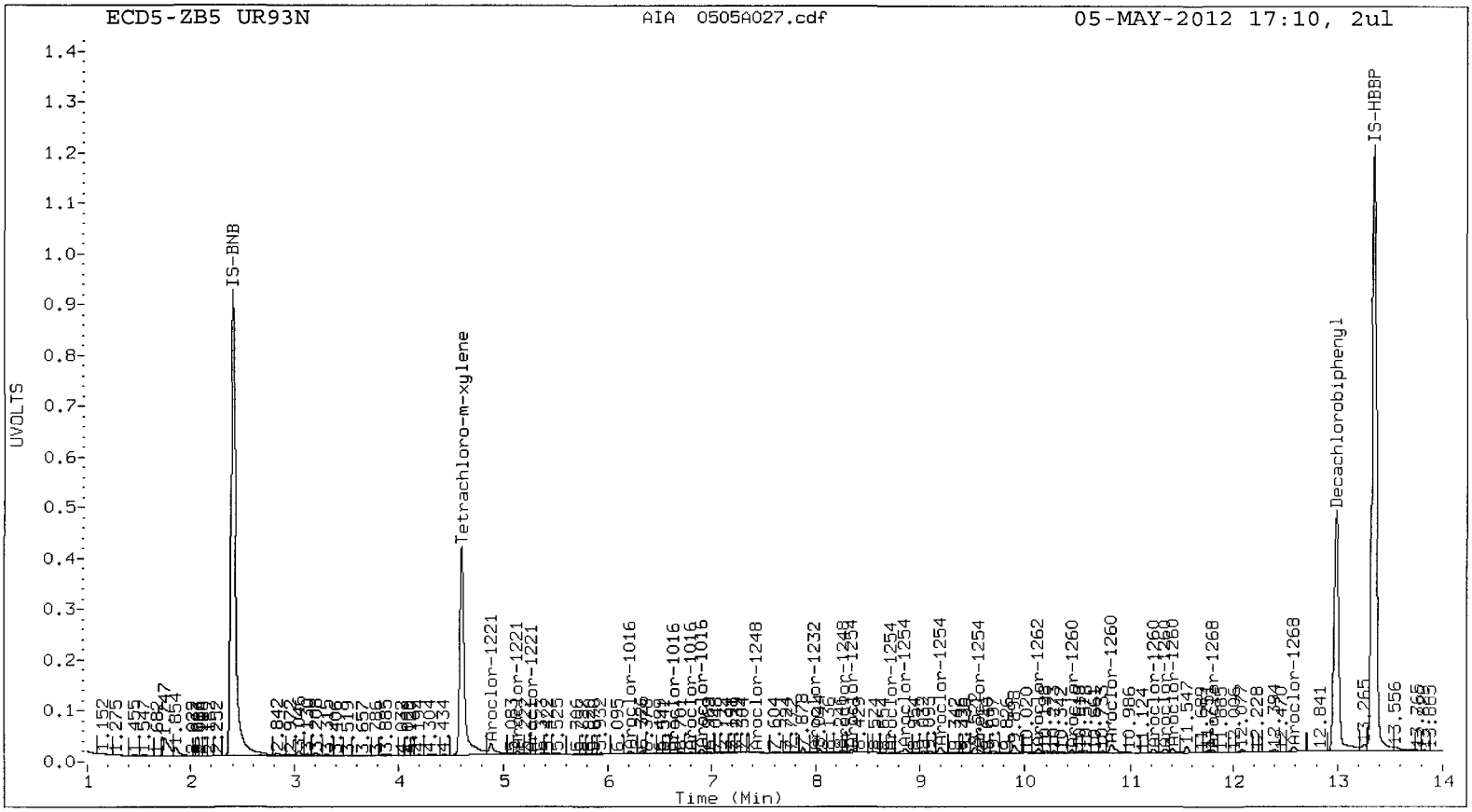
Corrected Ave (3 peaks): 2.7 Corrected Ave (3 peaks): 2.3 RPD = 14

Total PCB Area Col1 (4.709 - 12.894) = 47468956 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 24954466 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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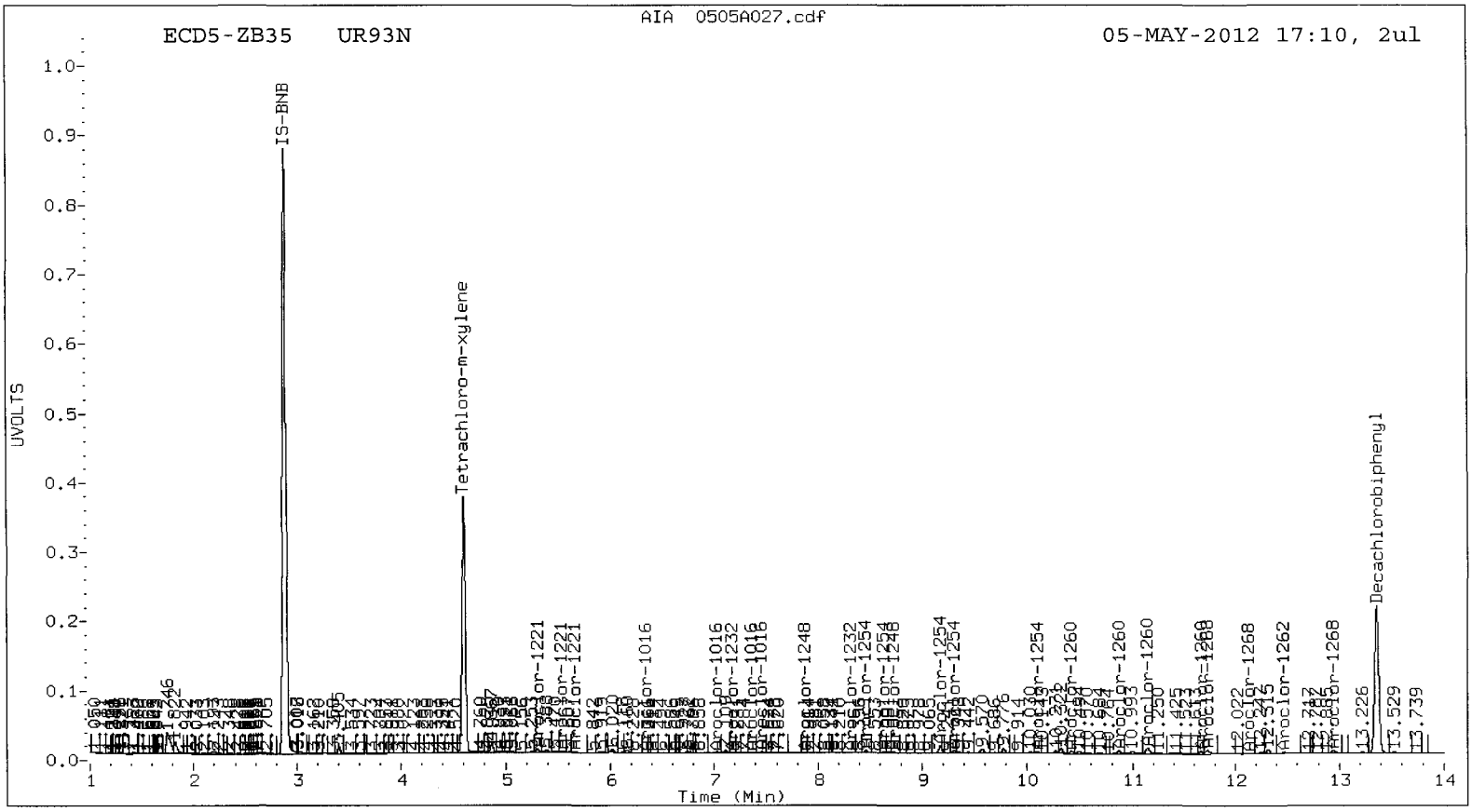
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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Time (Min)
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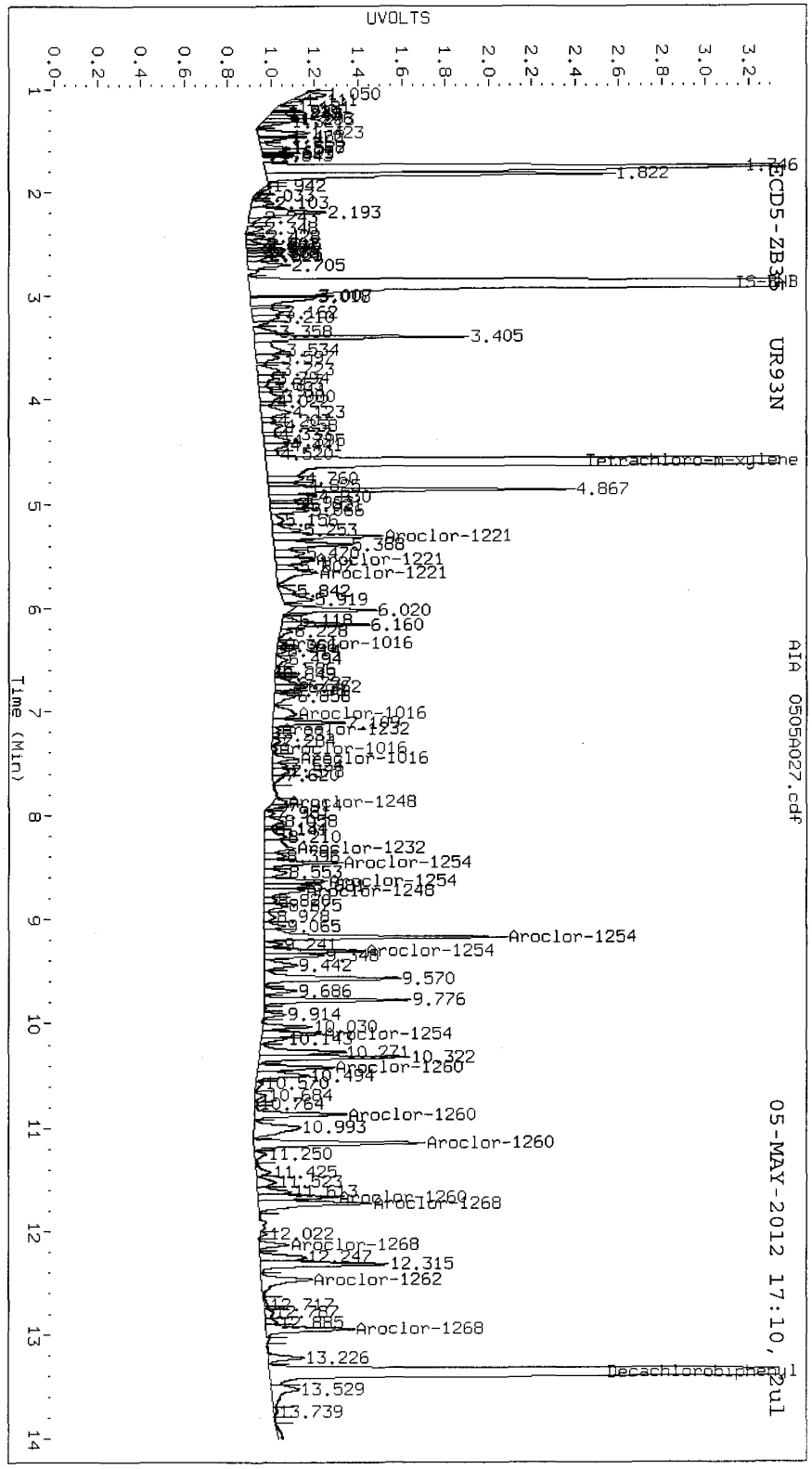
Tetrachloro-m-xylene
Decachlorobiphenyl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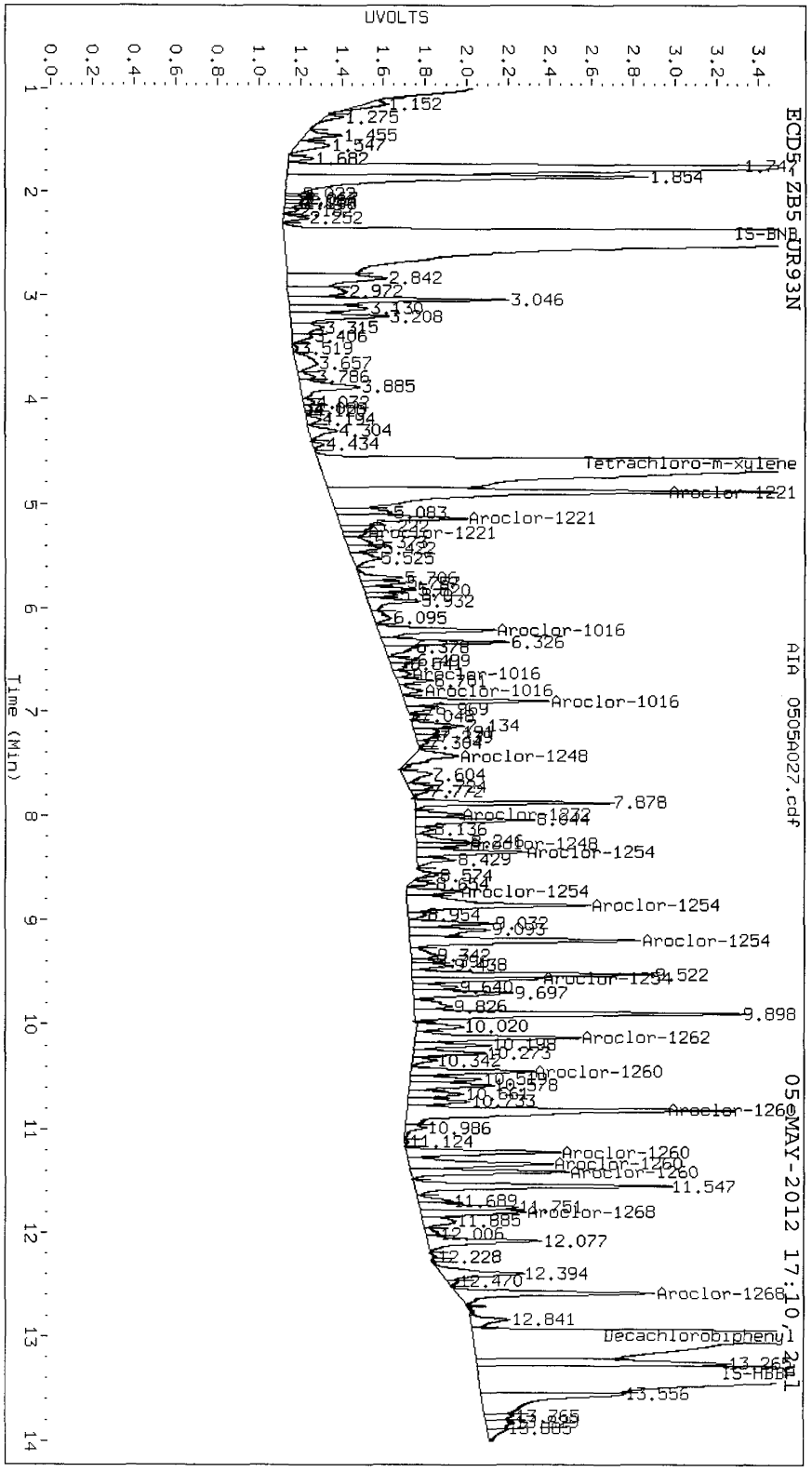
UR93N
AIA 0505A027.cdf
05-MAY-2012 17:10, 2ul
Time (Min)
1.822
2.193
2.705
IS-BNB
3.405
Tetrachloro-m-xylene
4.867
Aroclor-1221
6.020
6.160
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
9.570
9.686
9.776
9.914
10.993
11.250
12.022
12.247
12.315
13.226
13.529
13.739


UVOLTS
ECD5-ZB5
UR93N
AIA 0505A027.cdf
05-MAY-2012 17:10, 2ul
Time (Min)
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1.275
1.455
1.682
1.854
IS-BNB
2.842
2.972
3.046
3.130
3.208
3.885
Tetrachloro-m-xylene
Aroclor-1221
5.083
6.095
Aroclor-1016
6.326
Aroclor-1248
7.878
Aroclor-1254
9.032
9.522
9.697
9.898
10.020
Aroclor-1262
10.342
Aroclor-1260
10.986
11.124
11.547
11.689
Aroclor-1268
11.885
12.006
12.077
12.228
12.394
12.841
Decachlorobiphenyl
13.556

URS3:00308

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A028.d
Data file 2: 20120409.B/0505-2.b/0505A028.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93O
Client ID:
Injection Date: 05-MAY-2012 17:29
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.608	0.000	65870584	4.604	-0.001	39019568	32.4	32.8	1.3	Tetrachloro-m-xylene
12.999	0.005	76644598	13.372	0.007	30202864	33.7	31.2	7.8	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

JL 05/07/12

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	80.9	82.0
Decachlorobiphenyl	84.2	77.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	125200230	-10.8
Hexabromobiphenyl	198372884	139301540	-29.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	87154281	-15.0
Hexabromobiphenyl	81487087	65960008	-19.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.241	-0.001	91910	1.7	1	6.365	0.022	55835	1.2
Aroclor-1016	2	6.587	-0.056	127215	0.8	2	6.940	-0.034	667726	7.1
Aroclor-1016	3	6.708	-0.083	85056	1.2	3	7.359	0.006	77814	3.2
Aroclor-1016	4	6.880	-0.021	458283	9.4	4	7.458	-0.003	117816	4.4
Total Col1Ave (4 peaks):				3.3		Total Col2Ave (4 peaks):			4.0	RPD = 19
Corrected Ave (3 peaks):				1.2		Corrected Ave (3 peaks):			2.9	RPD = 81*
Aroclor-1221	1	4.888	-0.002	10103065	1703.0	1	5.307	0.012	500068	37.2
Aroclor-1221	2	5.144	-0.016	3000944	202.5	2	5.543	0.001	647940	82.2
Aroclor-1221	3	5.280	0.014	414162	8.5	3	5.669	0.015	2168102	88.7
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				639.0		Total Col2Ave (3 peaks):			69.4	RPD = 161*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.241	-0.002	91910	4.3	1	6.365	0.017	55835	2.8
Aroclor-1232	2	6.587	-0.057	127215	1.8	2	6.940	-0.034	667726	16.9
Aroclor-1232	3	6.708	-0.085	85056	3.0	3	7.205	0.022	238542	17.6
Aroclor-1232	4	7.986	0.000	71539	2.7	4	8.321	-0.008	101112	7.2
Total Col1Ave (4 peaks):				2.9		Total Col2Ave (4 peaks):			11.1	RPD = 116*
Corrected Ave (3 peaks):				2.5		Corrected Ave (3 peaks):			8.9	RPD = 112*
Aroclor-1242	1	6.241	-0.001	91910	2.4	1	6.365	0.022	55835	1.7
Aroclor-1242	2	6.587	-0.056	127215	1.0	2	6.940	-0.034	667726	9.3
Aroclor-1242	3	6.708	-0.083	85056	1.7	3	7.205	0.026	238542	8.3
Aroclor-1242	4	7.986	0.002	71539	1.6	4	8.321	-0.005	101112	4.3
Total Col1Ave (4 peaks):				1.7		Total Col2Ave (4 peaks):			5.9	RPD = 111*
Corrected Ave (3 peaks):				1.4		Corrected Ave (3 peaks):			4.7	RPD = 107*
Aroclor-1248	1	6.587	-0.049	127215	1.6	1	6.940	-0.028	667726	14.6
Aroclor-1248	2	7.435	-0.001	103513	1.7	2	7.874	0.003	102492	2.9
Aroclor-1248	3	7.986	0.004	71539	0.9	3	8.321	-0.002	101112	2.5
Aroclor-1248	4	8.274	0.001	1563655	20.5	4	8.728	-0.016	770060	17.0
Total Col1Ave (4 peaks):				6.2		Total Col2Ave (4 peaks):			9.2	RPD = 40*
Corrected Ave (3 peaks):				1.4		Corrected Ave (3 peaks):			6.7	RPD = 131*
Aroclor-1254	1	8.352	-0.003	3141038	26.3	1	8.463	0.001	1777674	51.7
Aroclor-1254	2	8.731	0.004	1734601	22.3	2	8.638	0.003	1287130	29.5
Aroclor-1254	3	8.863	0.000	11706783	82.4	3	9.173	0.016	1484013	44.0
Aroclor-1254	4	9.196	-0.017	7632417	53.2	4	9.308	0.001	6256558	86.9
Aroclor-1254	5	9.565	-0.009	4582061	47.4	5	10.100	0.011	2125608	48.9
Total Col1Ave (5 peaks):				46.3		Total Col2Ave (5 peaks):			52.2	RPD = 12
Corrected Ave (4 peaks):				37.3		Corrected Ave (4 peaks):			43.5	RPD = 15
				40					40	
Aroclor-1260	1	10.448	0.000	1783966	23.2	1	10.421	0.000	1113271	31.1
Aroclor-1260	2	10.822	0.000	5211307	27.5	2	10.867	-0.005	2647430	58.5
Aroclor-1260	3	11.222	0.000	3012401	29.3	3	11.147	0.002	3434564	38.6
Aroclor-1260	4	11.339	0.001	3731051	81.8	4	11.668	0.002	1473038	56.2
Aroclor-1260	5	11.412	-0.001	2972111	54.2	NS	---			----
Total Col1Ave (5 peaks):				43.2		Total Col2Ave (4 peaks):			46.1	RPD = 6
Corrected Ave (4 peaks):				33.6		Corrected Ave (3 peaks):			42.0	RPD = 22
Aroclor-1262	1	10.127	-0.006	2945272	25.8	1	10.421	-0.004	1113271	20.4
Aroclor-1262	2	10.448	-0.002	1783966	21.1	2	10.867	-0.010	2647430	56.9
Aroclor-1262	3	10.822	-0.002	5211307	23.4	3	11.147	-0.002	3434564	32.6
Aroclor-1262	4	11.339	-0.002	3731051	45.8	4	11.668	-0.003	1473038	34.9
Aroclor-1262	5	11.412	-0.003	2972111	32.4	5	12.469	0.000	1089597	26.9
Total Col1Ave (5 peaks):				29.7		Total Col2Ave (5 peaks):			34.3	RPD = 15
Corrected Ave (4 peaks):				25.7		Corrected Ave (4 peaks):			28.7	RPD = 11
Aroclor-1268	1	11.339	-0.002	3731051	16.1	1	11.668	-0.004	1473038	13.2
Aroclor-1268	2	11.412	-0.001	2972111	13.0	2	11.728	-0.010	2490118	23.7

? mix 60/6

Aroclor-1268	3	11.799	-0.001	2846135	14.3	3	12.134	-0.002	769810	8.5
Aroclor-1268	4	12.591	0.000	7210455	11.8	4	12.958	0.001	2845489	10.4

Total Col1Ave (4 peaks): 13.8 Total Col2Ave (4 peaks): 14.0 RPD = 1

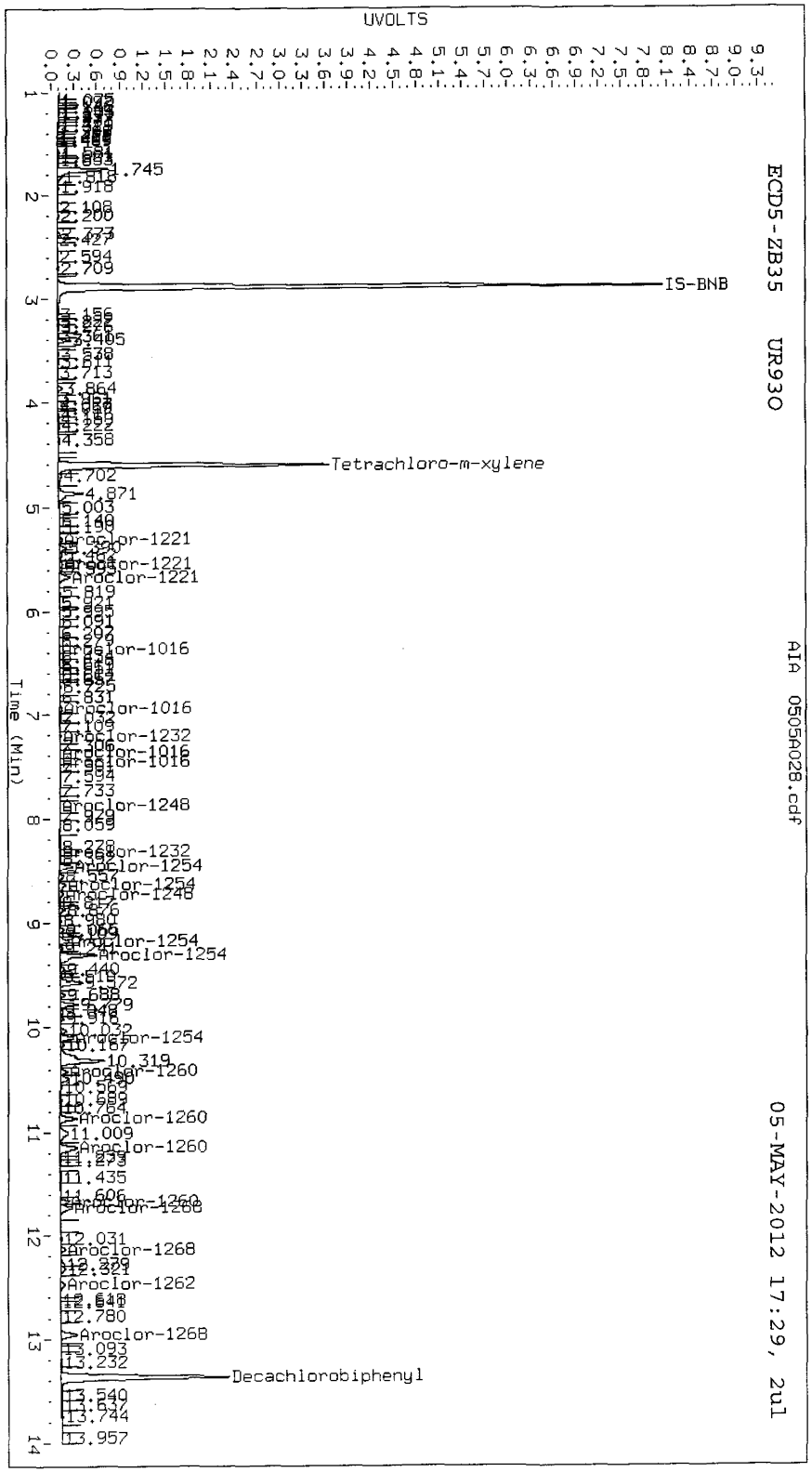
Corrected Ave (3 peaks): 13.0 Corrected Ave (3 peaks): 10.7 RPD = 20

Total PCB Area Col1 (4.709 - 12.894) = 149966419 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 74401270 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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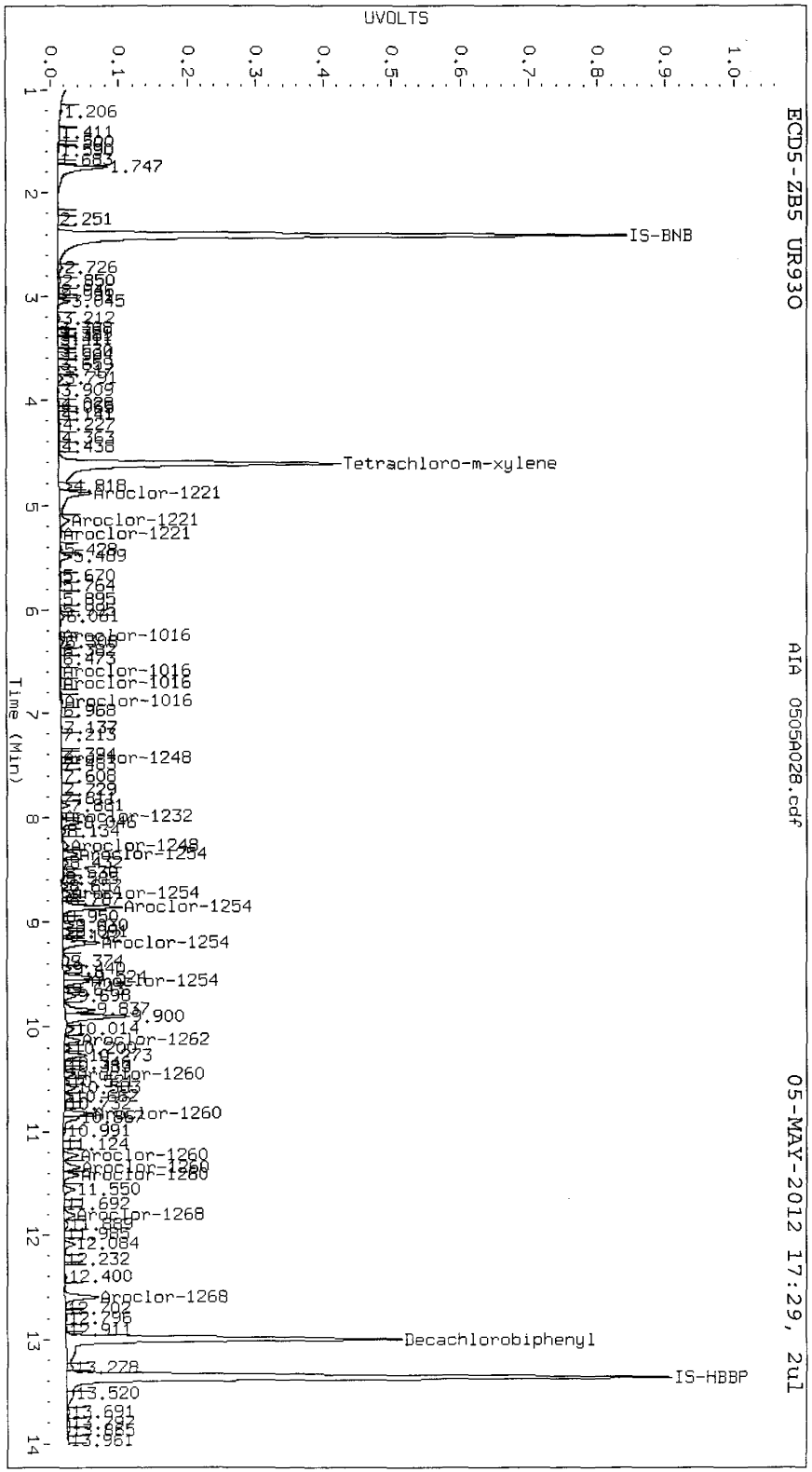
05-MAY-2012 17:29, 2ul
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Time (Min)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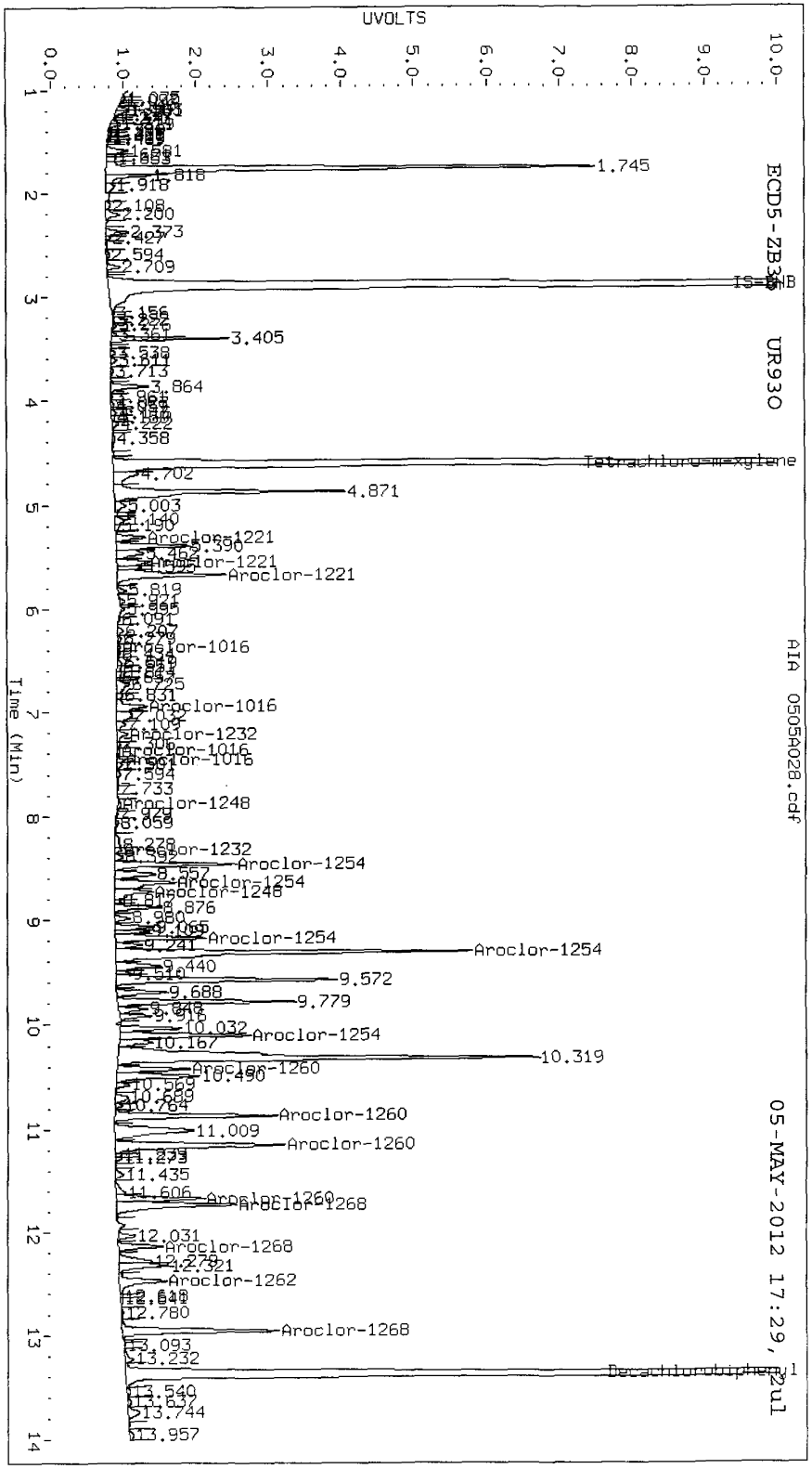
05-MAY-2012 17:29, 2ul
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Time (Min)

UR93 : 00312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UR93O
AIA 0505A028.cdf
05-MAY-2012 17:29, 2ul
Time (Min)
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IS=NB
3.405
3.864
Tetrachloro-m-xylene
4.702
4.871
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
9.572
9.688
9.779
10.032
10.167
10.319
Aroclor-1260
10.764
11.009
11.435
Aroclor-1268
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Aroclor-1262
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13.232
Decachlorobiphenyl
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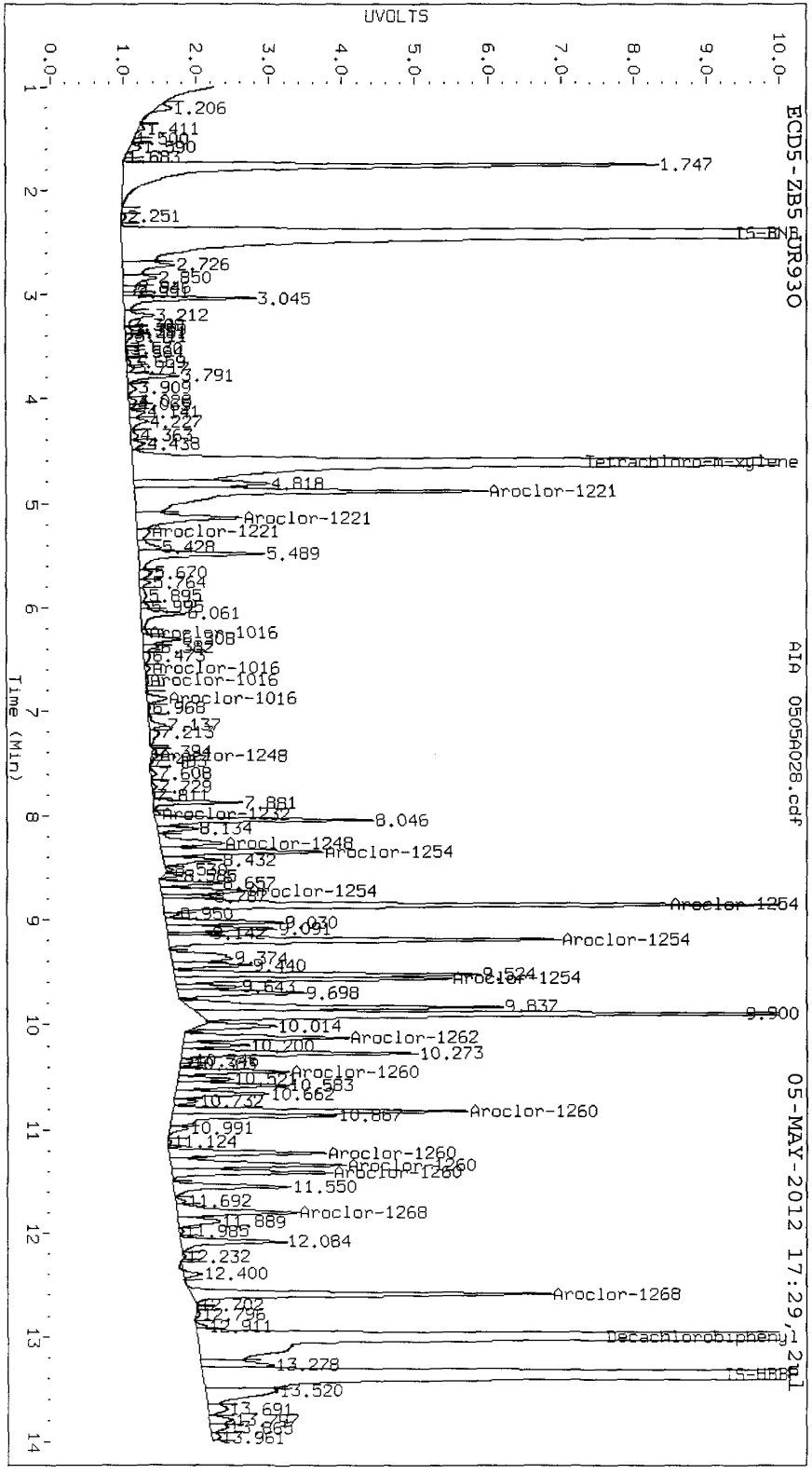
13.744
13.957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UR93O
AIA 0505A028.cdf
05-MAY-2012 17:29, 2ul
Time (Min)
1.206
1.411
1.747
2.251
IS=BN
2.726
3.045
3.212
3.791
Tetrachloro-m-xylene
4.818
Aroclor-1221
5.428
5.489
8.061
Aroclor-1016
Aroclor-1248
7.881
8.046
8.134
Aroclor-1254
9.030
9.091
9.374
9.524
9.643
9.698
9.837
9.900
10.014
Aroclor-1262
10.200
10.273
Aroclor-1260
10.662
10.732
10.887
10.991
11.124
11.550
11.692
Aroclor-1268
11.889
12.084
12.232
12.400
12.911
Decachlorobiphenyl
13.278
IS=HRB
13.520
13.691
13.961

UR93:00343

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A029.d
Data file 2: 20120409.B/0505-2.b/0505A029.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93P
Client ID:
Injection Date: 05-MAY-2012 17:48
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.610	0.002	55177252	4.605	0.000	32267331	26.6	27.3	2.6	Tetrachloro-m-xylene
13.002	0.008	77337834	13.373	0.007	31243179	38.3	36.6	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	66.6	68.3
Decachlorobiphenyl	95.7	91.5

A 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	127485669	-9.1
Hexabromobiphenyl	198372884	123649634	-37.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	86503383	-15.7
Hexabromobiphenyl	81487087	58096436	-28.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.240	-0.003	157490	2.9	1	6.343	0.000	88673	2.0
Aroclor-1016	2	6.638	-0.005	299493	1.7	2	6.943	-0.031	938996	10.0
Aroclor-1016	3	6.794	0.003	68226	1.0	3	7.355	0.001	45781	1.9
Aroclor-1016	4	6.894	-0.008	249531	5.0	4	7.459	-0.002	177297	6.7
Total Col1Ave (4 peaks):				2.7		Total Col2Ave (4 peaks):			5.1	RPD = 63*
Corrected Ave (3 peaks):				1.9		Corrected Ave (3 peaks):			3.5	RPD = 60*
Aroclor-1221	1	4.889	0.000	8415497	1393.1	1	5.311	0.016	547636	41.0
Aroclor-1221	2	5.147	-0.014	2327754	154.3	2	5.543	0.001	645337	82.5
Aroclor-1221	3	5.274	0.009	320426	6.5	3	5.670	0.016	2078694	85.7
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				518.0		Total Col2Ave (3 peaks):			69.7	RPD = 153*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.240	-0.004	157490	7.2	1	6.343	-0.005	88673	4.4
Aroclor-1232	2	6.638	-0.006	299493	4.2	2	6.943	-0.031	938996	23.9
Aroclor-1232	3	6.794	0.002	68226	2.3	3	7.182	-0.001	132621	9.9
Aroclor-1232	4	7.984	-0.002	302841	11.3	4	8.324	-0.005	256839	18.4
Total Col1Ave (4 peaks):				6.3		Total Col2Ave (4 peaks):			14.1	RPD = 77*
Corrected Ave (3 peaks):				4.6		Corrected Ave (3 peaks):			10.9	RPD = 82*
Aroclor-1242	1	6.240	-0.003	157490	4.0	1	6.343	0.000	88673	2.7
Aroclor-1242	2	6.638	-0.005	299493	2.4	2	6.943	-0.031	938996	13.2
Aroclor-1242	3	6.794	0.003	68226	1.3	3	7.182	0.003	132621	4.7
Aroclor-1242	4	7.984	0.000	302841	6.7	4	8.324	-0.002	256839	10.9
Total Col1Ave (4 peaks):				3.6		Total Col2Ave (4 peaks):			7.9	RPD = 74*
Corrected Ave (3 peaks):				2.6		Corrected Ave (3 peaks):			6.1	RPD = 81*
Aroclor-1248	1	6.638	0.002	299493	3.6	1	6.943	-0.025	938996	20.7
Aroclor-1248	2	7.439	0.003	295087	4.6	2	7.873	0.003	193393	5.5
Aroclor-1248	3	7.984	0.002	302841	3.9	3	8.324	0.001	256839	6.3
Aroclor-1248	4	8.277	0.005	1116404	14.4	4	8.730	-0.014	1062524	23.7
Total Col1Ave (4 peaks):				6.6		Total Col2Ave (4 peaks):			14.0	RPD = 72*
Corrected Ave (3 peaks):				4.0		Corrected Ave (3 peaks):			10.8	RPD = 91*
Aroclor-1254	1	8.357	0.001	3616997	29.7	1	8.464	0.003	1720295	50.4
Aroclor-1254	2	8.731	0.004	2307527	29.2	2	8.638	0.003	1612277	37.2
Aroclor-1254	3	8.865	0.002	8514834	58.9	3	9.172	0.016	1987062	59.4
Aroclor-1254	4	9.199	-0.013	7675532	52.6	4	9.309	0.002	3902323	54.6
Aroclor-1254	5	9.568	-0.007	4656130	47.3	5	10.099	0.010	2284310	53.0
Total Col1Ave (5 peaks):				43.5		Total Col2Ave (5 peaks):			50.9	RPD = 16
Corrected Ave (4 peaks):				39.7		Corrected Ave (4 peaks):			48.8	RPD = 21
Aroclor-1260	1	10.449	0.000	2025523	29.7	1	10.422	0.001	3188083	101.1
Aroclor-1260	2	10.824	0.001	9216356	54.8	2	10.871	-0.001	4752271	119.1
Aroclor-1260	3	11.224	0.002	3139211	34.4	3	11.146	0.002	3952316	50.5
Aroclor-1260	4	11.342	0.003	28675478	708.5	4	11.669	0.003	12376952	526.2
Aroclor-1260	5	11.413	0.001	29908328	614.5	NS	---			----
Total Col1Ave (5 peaks):				288.4		Total Col2Ave (4 peaks):			201.7	RPD = 35
Corrected Ave (4 peaks):				183.4		Corrected Ave (3 peaks):			90.2	RPD = 68*
Aroclor-1262	1	10.132	-0.002	6789678	67.0	1	10.422	-0.003	3188083	66.5
Aroclor-1262	2	10.449	-0.002	2025523	27.1	2	10.871	-0.006	4752271	116.0
Aroclor-1262	3	10.824	-0.001	9216356	46.5	3	11.146	-0.002	3952316	42.6
Aroclor-1262	4	11.342	0.000	28675478	396.3	4	11.669	-0.002	12376952	332.9
Aroclor-1262	5	11.413	-0.001	29908328	367.1	5	12.471	0.002	5194638	145.4
Total Col1Ave (5 peaks):				180.8		Total Col2Ave (5 peaks):			140.7	RPD = 25
Corrected Ave (4 peaks):				126.9		Corrected Ave (4 peaks):			92.6	RPD = 31
Aroclor-1268	1	11.342	0.000	28675478	139.0	1	11.669	-0.003	12376952	126.2
Aroclor-1268	2	11.413	0.000	29908328	147.2	2	11.737	-0.002	13799732	149.2

looks like 68

See next page

Aroclor-1268	3	11.800	0.000	24506210	138.9	3	12.135	-0.001	9639764	120.9
Aroclor-1268	4	12.594	0.003	80883502	149.0	4	12.959	0.002	34444026	142.8

Total Col1Ave (4 peaks): 143.5 Total Col2Ave (4 peaks): 134.8 RPD = 6

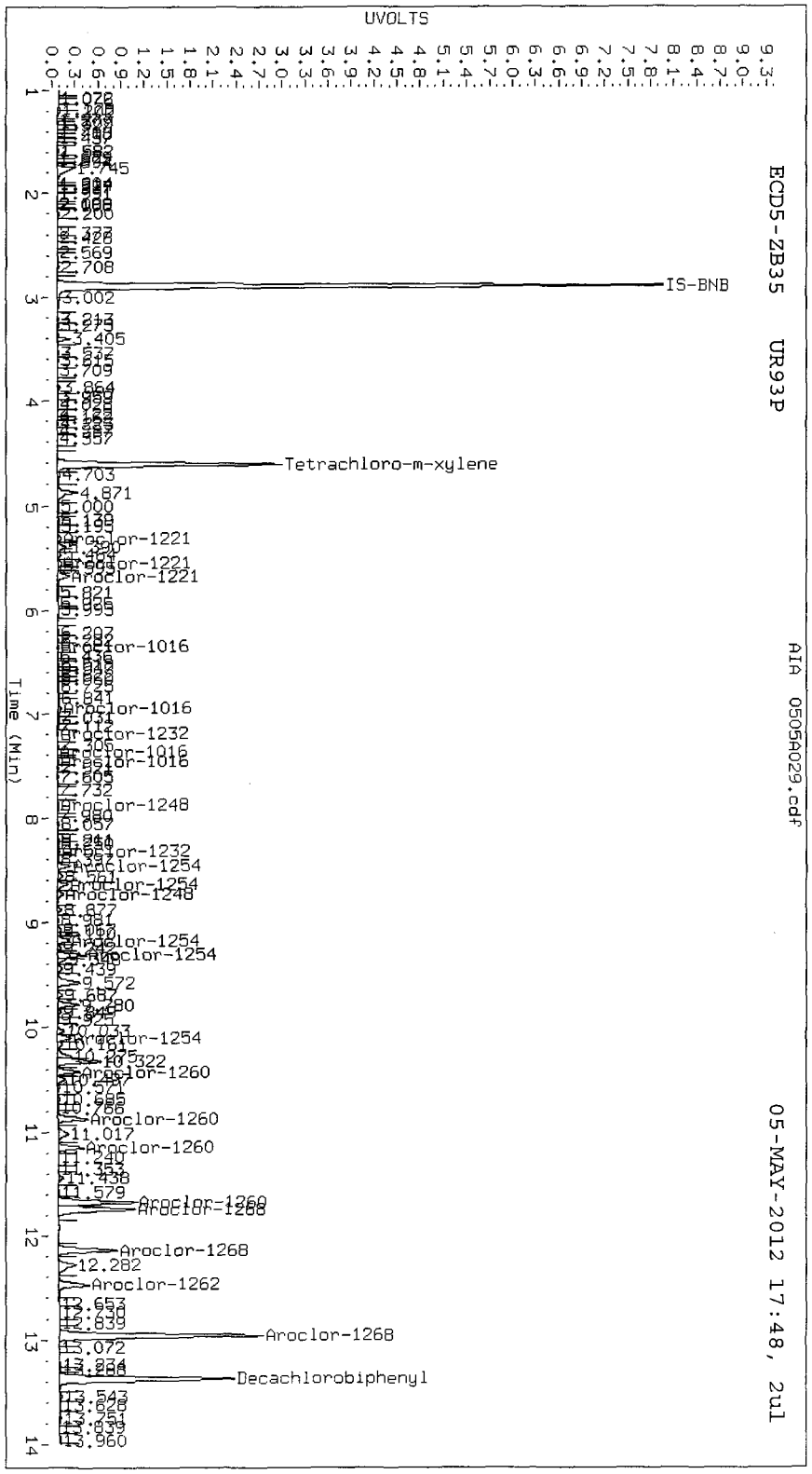
Corrected Ave (3 peaks): 141.7 Corrected Ave (3 peaks): 130.0 RPD = 9

Total PCB Area Col1 (4.709 - 12.894) = 319105564 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 146857930 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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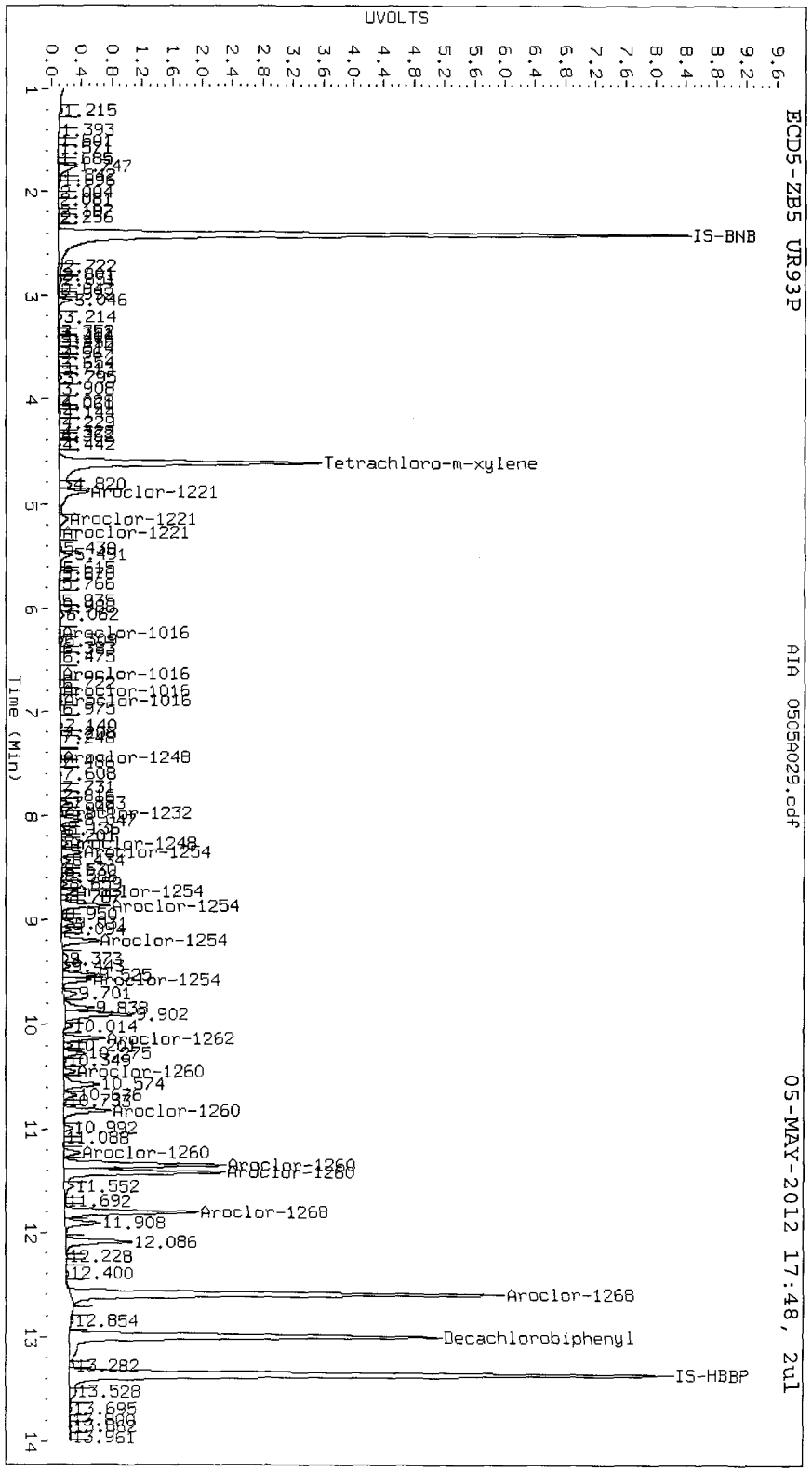
05-MAY-2012 17:48, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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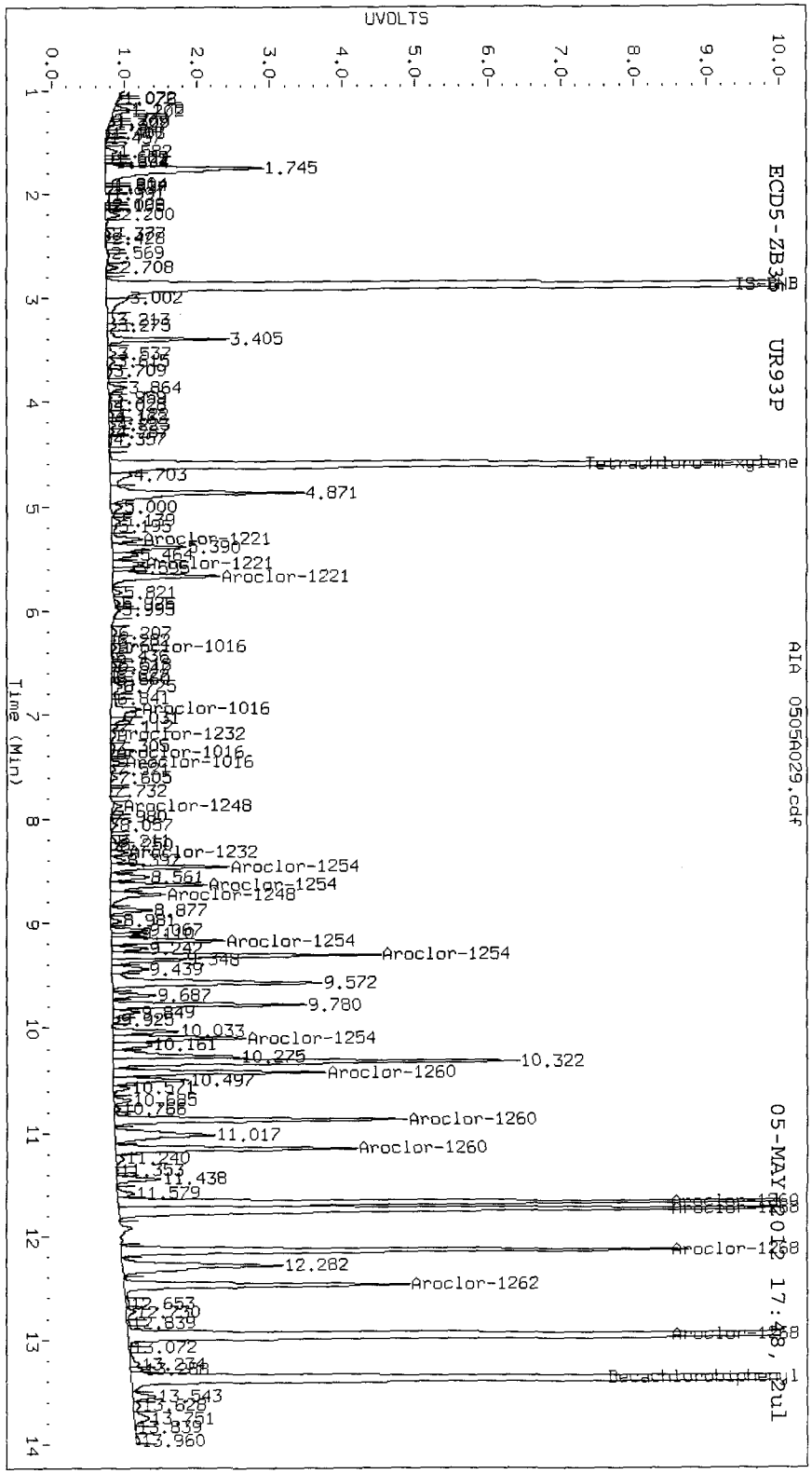
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

UR93 : 00317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UR93P
AIA 0505A029.cdf
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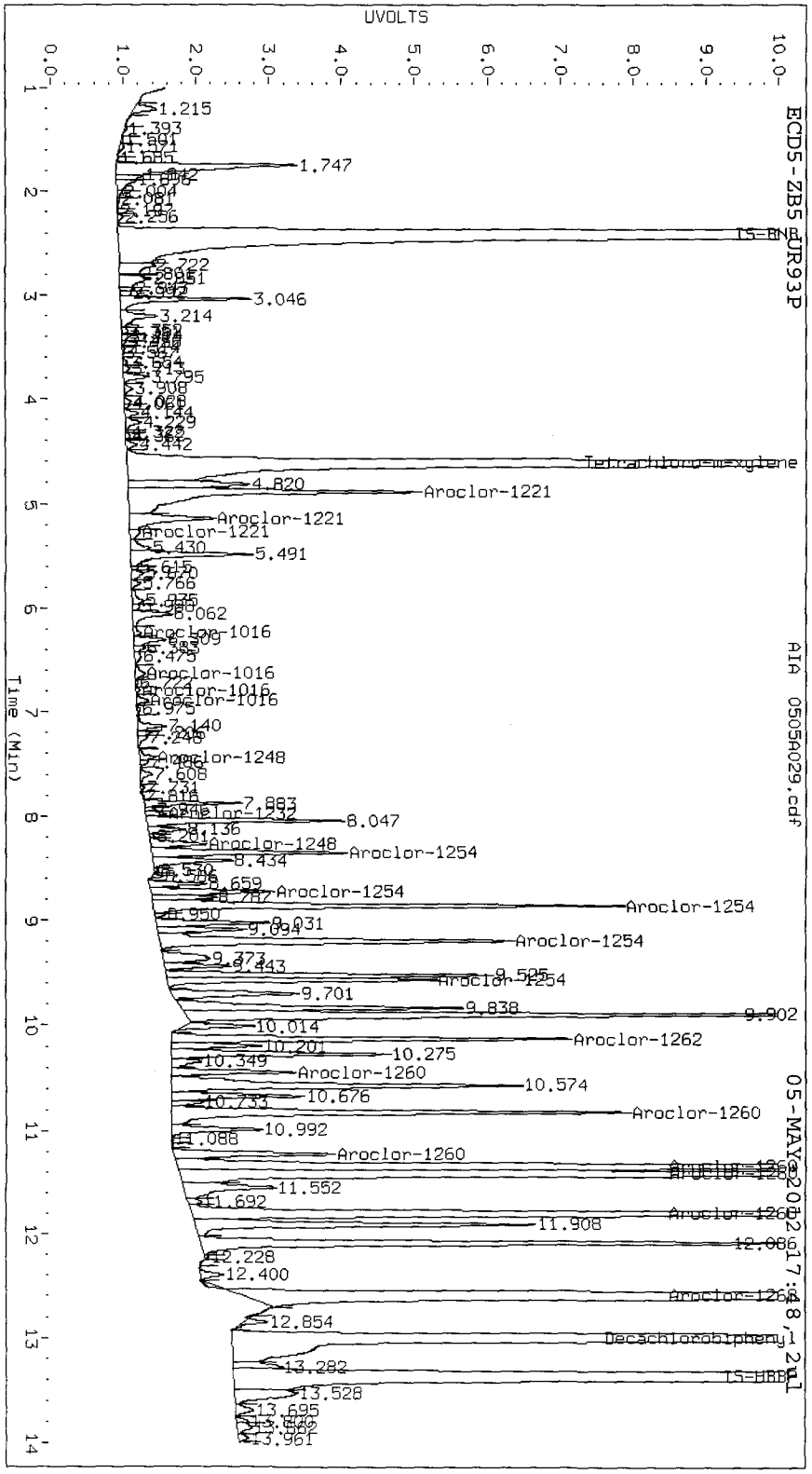
Time (Min)
IS-HNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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UR93P
AIA 0505A029.cdf
05-MAY-2012 17:48, 2ul
Time (Min)
IS-HNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A030.d
Data file 2: 20120409.B/0505-2.b/0505A030.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93Q
Client ID:
Injection Date: 05-MAY-2012 18:07
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.611	0.002	60276664	4.606	0.002	35821281	27.7	28.5	3.0	Tetrachloro-m-xylene
12.997	0.003	69961991	13.370	0.004	26821693	33.5	32.6	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

JK 05/07/12

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	69.2	71.3
Decachlorobiphenyl	83.9	81.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	134013143	-4.5
Hexabromobiphenyl	198372884	127696165	-35.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	92009029	-10.3
Hexabromobiphenyl	81487087	56077362	-31.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.242	-0.001	36007	0.6	1	6.358	0.015	37591	0.8
Aroclor-1016	2	6.620	-0.022	96032	0.5	2	6.946	-0.028	268661	2.7
Aroclor-1016	3	6.799	0.008	70680	1.0	3	7.365	0.012	48456	1.9
Aroclor-1016	4	6.896	-0.005	151695	2.9	4	7.459	-0.002	533619	18.8
Total Col1Ave (4 peaks):				1.3		Total Col2Ave (4 peaks):			6.0	RPD = 131*
Corrected Ave (3 peaks):				0.7		Corrected Ave (3 peaks):			1.8	RPD = 86*
Aroclor-1221	1	4.889	0.000	6992013	1101.1	1	5.310	0.015	478344	33.7
Aroclor-1221	2	5.146	-0.014	1738336	109.6	2	5.559	0.017	623239	74.9
Aroclor-1221	3	5.274	0.009	188991	3.6	3	5.671	0.017	1317189	51.1
Aroclor-1221	NS	---			----	4	5.747	0.025	57579	12.4
Total Col1Ave (3 peaks):				404.8		Total Col2Ave (4 peaks):			43.0	RPD = 162*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			32.4	
Aroclor-1232	1	6.242	-0.002	36007	1.6	1	6.358	0.010	37591	1.8
Aroclor-1232	2	6.620	-0.023	96032	1.3	2	6.946	-0.028	268661	6.4
Aroclor-1232	3	6.799	0.007	70680	2.3	3	7.111	-0.072	154747	10.8
Aroclor-1232	4	7.985	-0.001	1294920	46.1	4	8.325	-0.003	631952	42.6
Total Col1Ave (4 peaks):				12.8		Total Col2Ave (4 peaks):			15.4	RPD = 18
Corrected Ave (3 peaks):				1.7		Corrected Ave (3 peaks):			6.3	RPD = 115*
Aroclor-1242	1	6.242	-0.001	36007	0.9	1	6.358	0.015	37591	1.1
Aroclor-1242	2	6.620	-0.022	96032	0.7	2	6.946	-0.028	268661	3.6
Aroclor-1242	3	6.799	0.008	70680	1.3	3	7.111	-0.068	154747	5.1
Aroclor-1242	4	7.985	0.000	1294920	27.1	4	8.325	0.000	631952	25.2
Total Col1Ave (4 peaks):				7.5		Total Col2Ave (4 peaks):			8.7	RPD = 15
Corrected Ave (3 peaks):				1.0		Corrected Ave (3 peaks):			3.2	RPD = 108*
Aroclor-1248	1	6.620	-0.015	96032	1.1	1	6.946	-0.022	268661	5.6
Aroclor-1248	2	7.441	0.005	1117700	16.6	2	7.874	0.003	454259	12.2
Aroclor-1248	3	7.985	0.003	1294920	15.8	3	8.325	0.003	631952	14.6
Aroclor-1248	4	8.281	0.009	2377251	29.1	4	8.730	-0.014	1712461	35.9
Total Col1Ave (4 peaks):				15.7		Total Col2Ave (4 peaks):			17.0	RPD = 9
Corrected Ave (3 peaks):				11.2		Corrected Ave (3 peaks):			10.8	RPD = 4
Aroclor-1254	1	8.358	0.003	9406895	73.6	1	8.464	0.003	6006289	165.3
Aroclor-1254	2	8.730	0.003	3060669	36.8	2	8.638	0.004	3418151	74.2
Aroclor-1254	3	8.866	0.003	22468701	147.8	3	9.161	0.004	1516839	42.6
Aroclor-1254	4	9.198	-0.014	26469678	172.5	4	9.310	0.003	9292680	122.2
Aroclor-1254	5	9.564	-0.010	12036532	116.3	5	10.102	0.013	6632412	144.7
Total Col1Ave (5 peaks):				109.4		Total Col2Ave (5 peaks):			109.8	RPD = 0
Corrected Ave (4 peaks):				93.6		Corrected Ave (4 peaks):			95.9	RPD = 2
Aroclor-1260	1	10.450	0.001	15294655	217.1	1	10.422	0.000	8475678	278.4
Aroclor-1260	2	10.824	0.001	48296310	278.3	2	10.871	-0.001	12011355	311.9
Aroclor-1260	3	11.224	0.002	22734501	241.1	3	11.146	0.001	21085859	278.9
Aroclor-1260	4	11.341	0.002	21516327	514.8	4	11.668	0.002	9957981	447.0
Aroclor-1260	5	11.414	0.001	25213875	501.7	NS	---			----
Total Col1Ave (5 peaks):				350.6		Total Col2Ave (4 peaks):			329.0	RPD = 6
Corrected Ave (4 peaks):				309.6		Corrected Ave (3 peaks):			289.7	RPD = 7
Aroclor-1262	1	10.133	-0.001	18282966	174.8	1	10.422	-0.004	8475678	183.1
Aroclor-1262	2	10.450	-0.001	15294655	197.8	2	10.871	-0.006	12011355	303.7
Aroclor-1262	3	10.824	0.000	48296310	236.2	3	11.146	-0.003	21085859	235.5
Aroclor-1262	4	11.341	0.000	21516327	287.9	4	11.668	-0.002	9957981	277.5
Aroclor-1262	5	11.414	0.001	25213875	299.7	5	12.468	-0.001	7000804	203.0
Total Col1Ave (5 peaks):				239.3		Total Col2Ave (5 peaks):			240.6	RPD = 1
Corrected Ave (4 peaks):				224.2		Corrected Ave (4 peaks):			224.8	RPD = 0
Aroclor-1268	1	11.341	-0.001	21516327	101.0	1	11.668	-0.004	9957981	105.2
Aroclor-1268	2	11.414	0.001	25213875	120.1	2	11.729	-0.009	17754474	198.8

106 90

mix of 60/62?

Aroclor-1268	3	11.806	0.006	12912831	70.8	3	12.132	-0.004	3235597	42.0
Aroclor-1268	4	12.589	-0.002	28211445	50.3	4	12.955	-0.003	11246392	48.3

Total Col1Ave (4 peaks): 85.6 Total Col2Ave (4 peaks): 98.6 RPD = 14

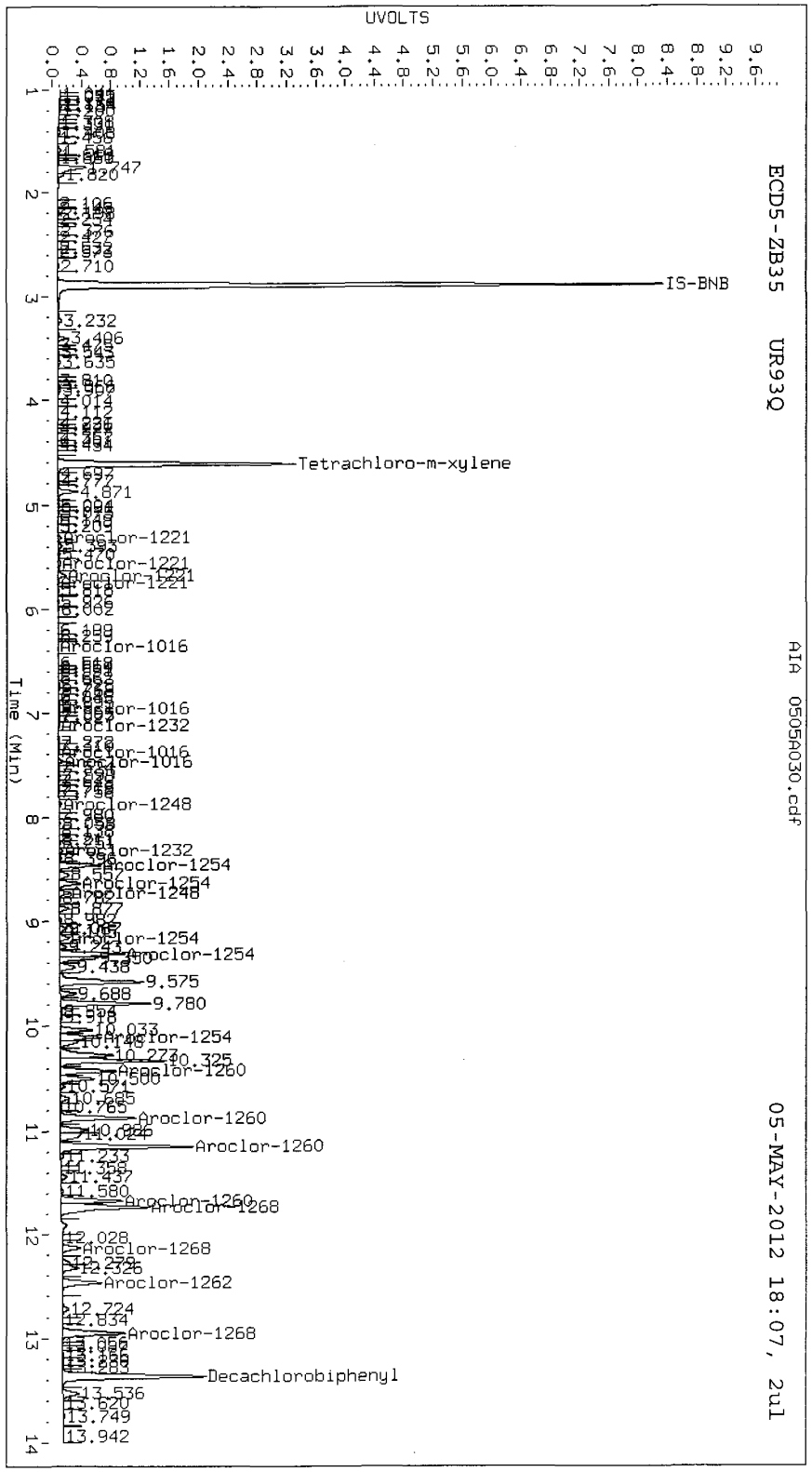
Corrected Ave (3 peaks): 74.0 Corrected Ave (3 peaks): 65.2 RPD = 13

Total PCB Area Col1 (4.709 - 12.894) = 503013511 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 234347208 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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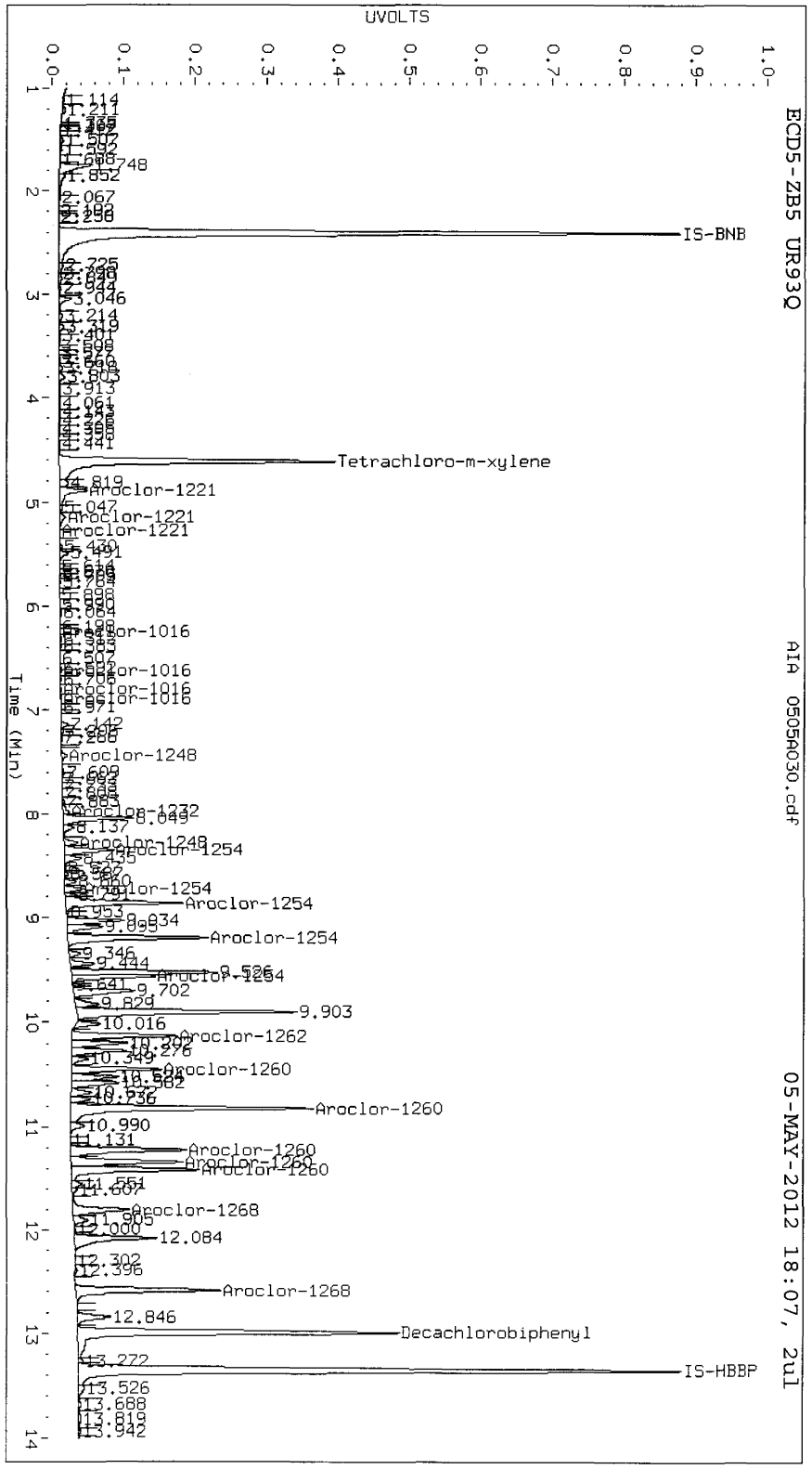
05-MAY-2012 18:07, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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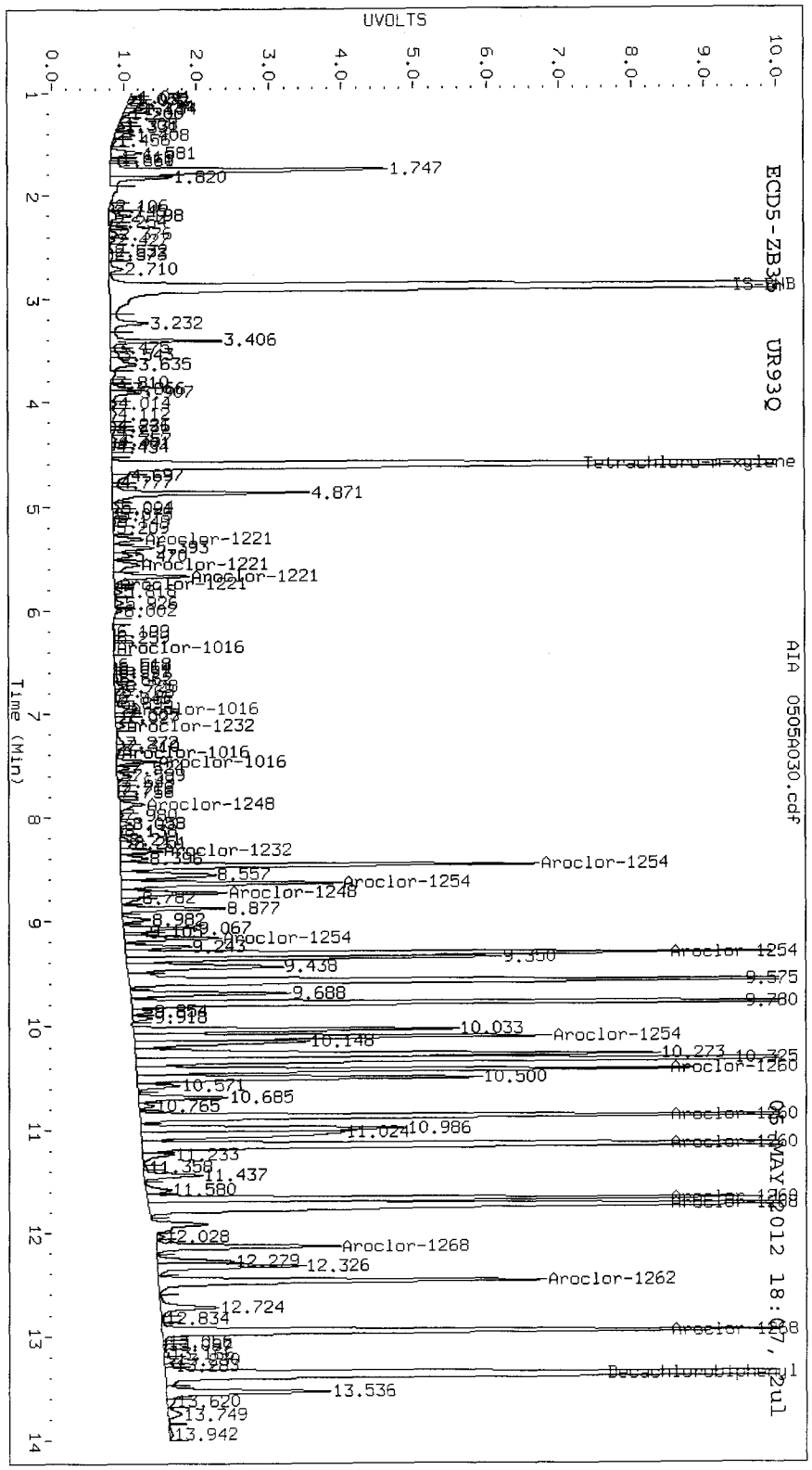
05-MAY-2012 18:07, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

UR93:00322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UR93Q
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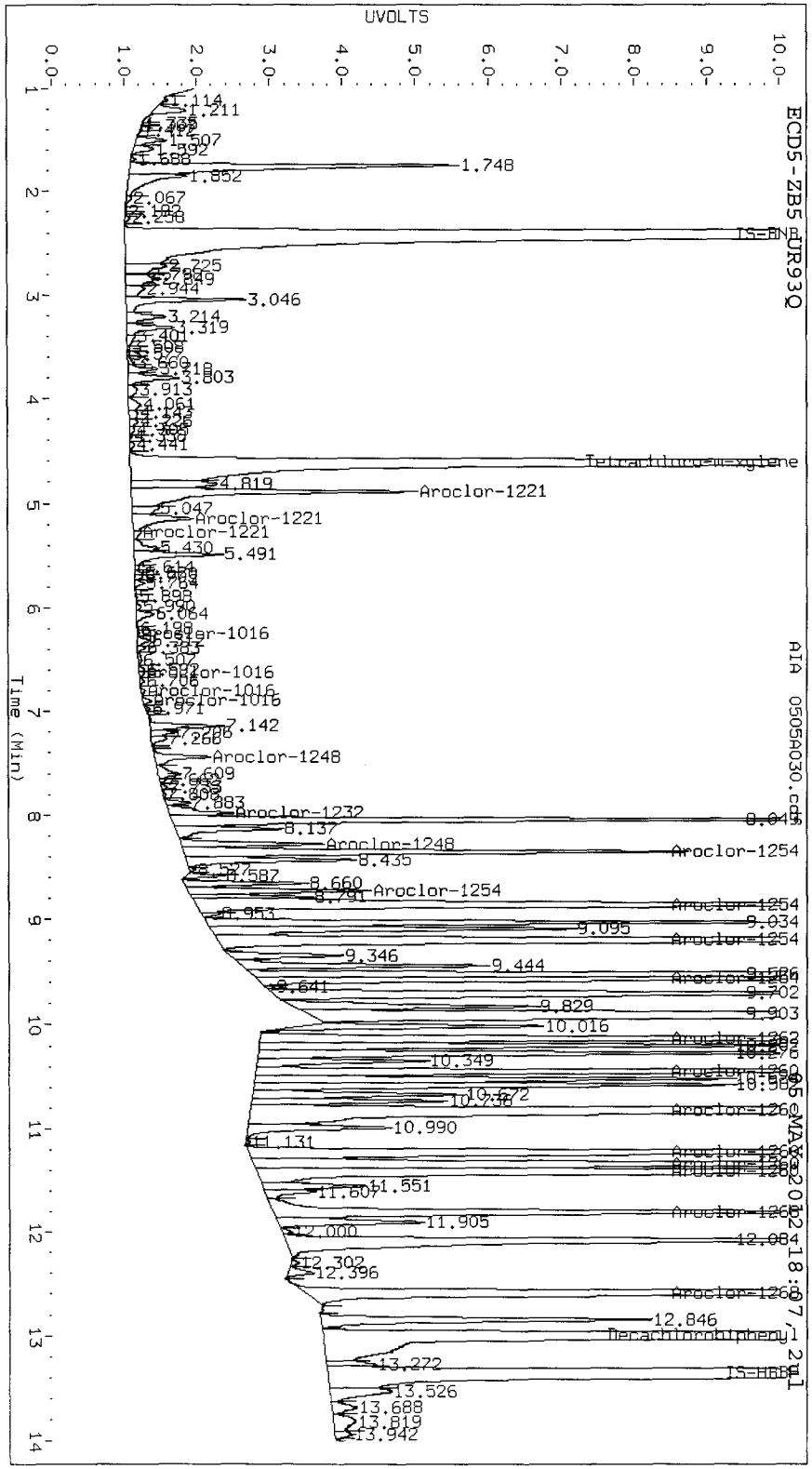
Time (Min)
IS-HB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Time (Min)
IS-HB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl

UR93:00328

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A031.d
Data file 2: 20120409.B/0505-2.b/0505A031.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93R
Client ID:
Injection Date: 05-MAY-2012 18:26
Ical Date: 09-APR-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
4.609	0.000	58188316	4.605	0.000	34789730	27.0	28.5	5.3	Tetrachloro-m-xylene
12.994	0.000	56148745	13.366	0.000	21103325	27.4	28.6	4.2	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	67.6	71.3
Decachlorobiphenyl	68.6	71.5

05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	132473430	-5.6
Hexabromobiphenyl	198372884	125340906	-36.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	89419572	-12.8
Hexabromobiphenyl	81487087	50191899	-38.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.213	-0.029	594133	10.7	1	6.342	-0.001	122234	2.6
Aroclor-1016	2	6.638	-0.004	550563	3.1	2	6.967	-0.007	395300	4.1
Aroclor-1016	3	6.800	0.009	166189	2.3	3	7.355	0.001	45720	1.8
Aroclor-1016	4	6.899	-0.002	709353	13.7	4	7.459	-0.002	1707314	62.0
Total Col1Ave (4 peaks):		7.4				Total Col2Ave (4 peaks):			17.6	RPD = 81*
Corrected Ave (3 peaks):		5.3				Corrected Ave (3 peaks):			2.8	RPD = 61*
Aroclor-1221	1	4.888	-0.002	5816370	926.6	1	5.310	0.015	568145	41.2
Aroclor-1221	2	5.144	-0.017	1118983	71.4	2	5.560	0.018	433111	53.6
Aroclor-1221	3	5.275	0.009	415990	8.1	3	5.658	0.004	255874	10.2
Aroclor-1221	NS	---			----	4	5.720	-0.003	71785	15.9
Total Col1Ave (3 peaks):		335.4				Total Col2Ave (4 peaks):			30.2	RPD = 167*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			22.4	
Aroclor-1232	1	6.213	-0.031	594133	26.0	1	6.342	-0.006	122234	5.9
Aroclor-1232	2	6.638	-0.005	550563	7.5	2	6.967	-0.007	395300	9.7
Aroclor-1232	3	6.800	0.008	166189	5.5	3	7.177	-0.006	52334	3.8
Aroclor-1232	4	7.984	-0.002	2676476	96.5	4	8.324	-0.004	1565677	108.7
Total Col1Ave (4 peaks):		33.9				Total Col2Ave (4 peaks):			32.0	RPD = 6
Corrected Ave (3 peaks):		13.0				Corrected Ave (3 peaks):			6.5	RPD = 67*
Aroclor-1242	1	6.213	-0.029	594133	14.6	1	6.342	-0.001	122234	3.6
Aroclor-1242	2	6.638	-0.004	550563	4.2	2	6.967	-0.007	395300	5.4
Aroclor-1242	3	6.800	0.010	166189	3.1	3	7.177	-0.002	52334	1.8
Aroclor-1242	4	7.984	-0.001	2676476	56.6	4	8.324	-0.001	1565677	64.2
Total Col1Ave (4 peaks):		19.6				Total Col2Ave (4 peaks):			18.7	RPD = 5
Corrected Ave (3 peaks):		7.3				Corrected Ave (3 peaks):			3.6	RPD = 69*
Aroclor-1248	1	6.638	0.003	550563	6.4	1	6.967	-0.001	395300	8.4
Aroclor-1248	2	7.438	0.002	1917261	28.9	2	7.873	0.002	982262	27.1
Aroclor-1248	3	7.984	0.002	2676476	33.0	3	8.324	0.002	1565677	37.2
Aroclor-1248	4	8.280	0.008	3327966	41.2	4	8.730	-0.013	2313133	49.8
Total Col1Ave (4 peaks):		27.4				Total Col2Ave (4 peaks):			30.6	RPD = 11
Corrected Ave (3 peaks):		22.8				Corrected Ave (3 peaks):			24.2	RPD = 6
Aroclor-1254	1	8.359	0.004	12184242	96.4	1	8.464	0.003	4285923	121.4
Aroclor-1254	2	8.729	0.002	4679671	56.9	2	8.638	0.003	5351884	119.6
Aroclor-1254	3	8.865	0.002	15369960	102.3	3	9.160	0.003	2200019	63.6
Aroclor-1254	4	9.201	-0.011	22378941	147.5	4	9.309	0.002	5577998	75.5
Aroclor-1254	5	9.566	-0.008	8693241	85.0	5	10.099	0.010	4569800	102.6
Total Col1Ave (5 peaks):		97.6				Total Col2Ave (5 peaks):			96.5	RPD = 1
Corrected Ave (4 peaks):		85.1				Corrected Ave (4 peaks):			90.3	RPD = 6
Aroclor-1260	1	10.449	0.000	8730350	126.3	1	10.422	0.000	4492171	164.8
Aroclor-1260	2	10.822	0.000	24804489	145.6	2	10.871	-0.002	5913463	171.6
Aroclor-1260	3	11.222	0.000	12675283	136.9	3	11.144	-0.001	10599702	156.7
Aroclor-1260	4	11.339	0.000	7387589	180.1	4	11.666	0.000	3724927	186.8
Aroclor-1260	5	11.413	0.000	8621186	174.8	NS	---			----
Total Col1Ave (5 peaks):		152.7				Total Col2Ave (4 peaks):			170.0	RPD = 11
Corrected Ave (4 peaks):		145.9				Corrected Ave (3 peaks):			164.4	RPD = 12
Aroclor-1262	1	10.132	-0.002	9647721	94.0	1	10.422	-0.004	4492171	108.4
Aroclor-1262	2	10.449	-0.002	8730350	115.0	2	10.871	-0.007	5913463	167.0
Aroclor-1262	3	10.822	-0.002	24804489	123.6	3	11.144	-0.004	10599702	132.2
Aroclor-1262	4	11.339	-0.002	7387589	100.7	4	11.666	-0.005	3724927	116.0
Aroclor-1262	5	11.413	-0.002	8621186	104.4	5	12.465	-0.005	3016615	97.7
Total Col1Ave (5 peaks):		107.5				Total Col2Ave (5 peaks):			124.3	RPD = 14
Corrected Ave (4 peaks):		103.5				Corrected Ave (4 peaks):			113.6	RPD = 9
Aroclor-1268	1	11.339	-0.003	7387589	35.3	1	11.666	-0.006	3724927	44.0
Aroclor-1268	2	11.413	0.000	8621186	41.8	2	11.726	-0.012	7718972	96.6

Aroclor-1268	3	11.807	0.007	4221741	23.6	3	12.131	-0.005	677028	9.8
Aroclor-1268	4	12.586	-0.005	7459429	13.6	4	12.952	-0.006	2856242	13.7

Total Col1Ave (4 peaks): 28.6 Total Col2Ave (4 peaks): 41.0 RPD = 36

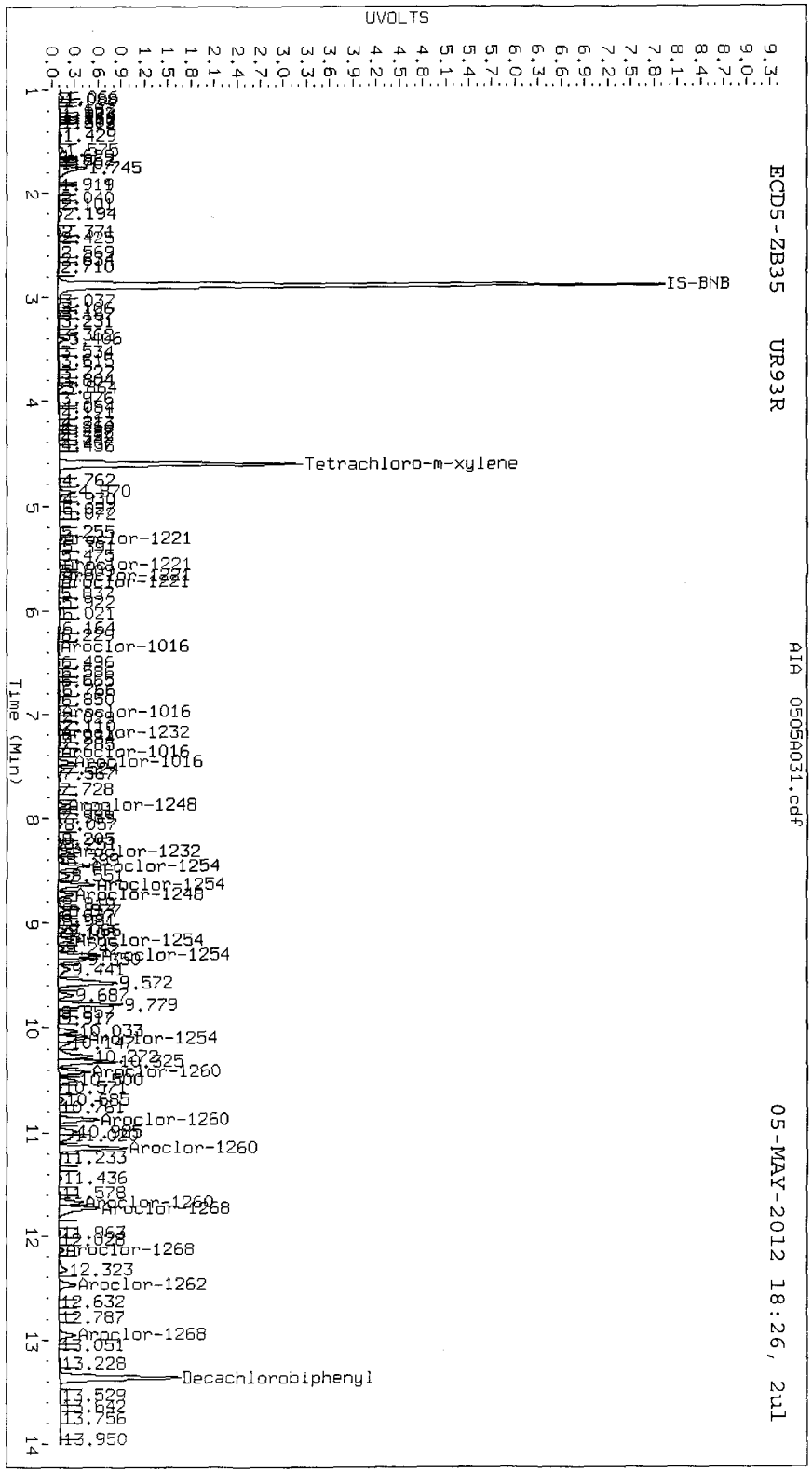
Corrected Ave (3 peaks): 24.2 Corrected Ave (3 peaks): 22.5 RPD = 7

Total PCB Area Col1 (4.709 - 12.894) = 303858869 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 144684132 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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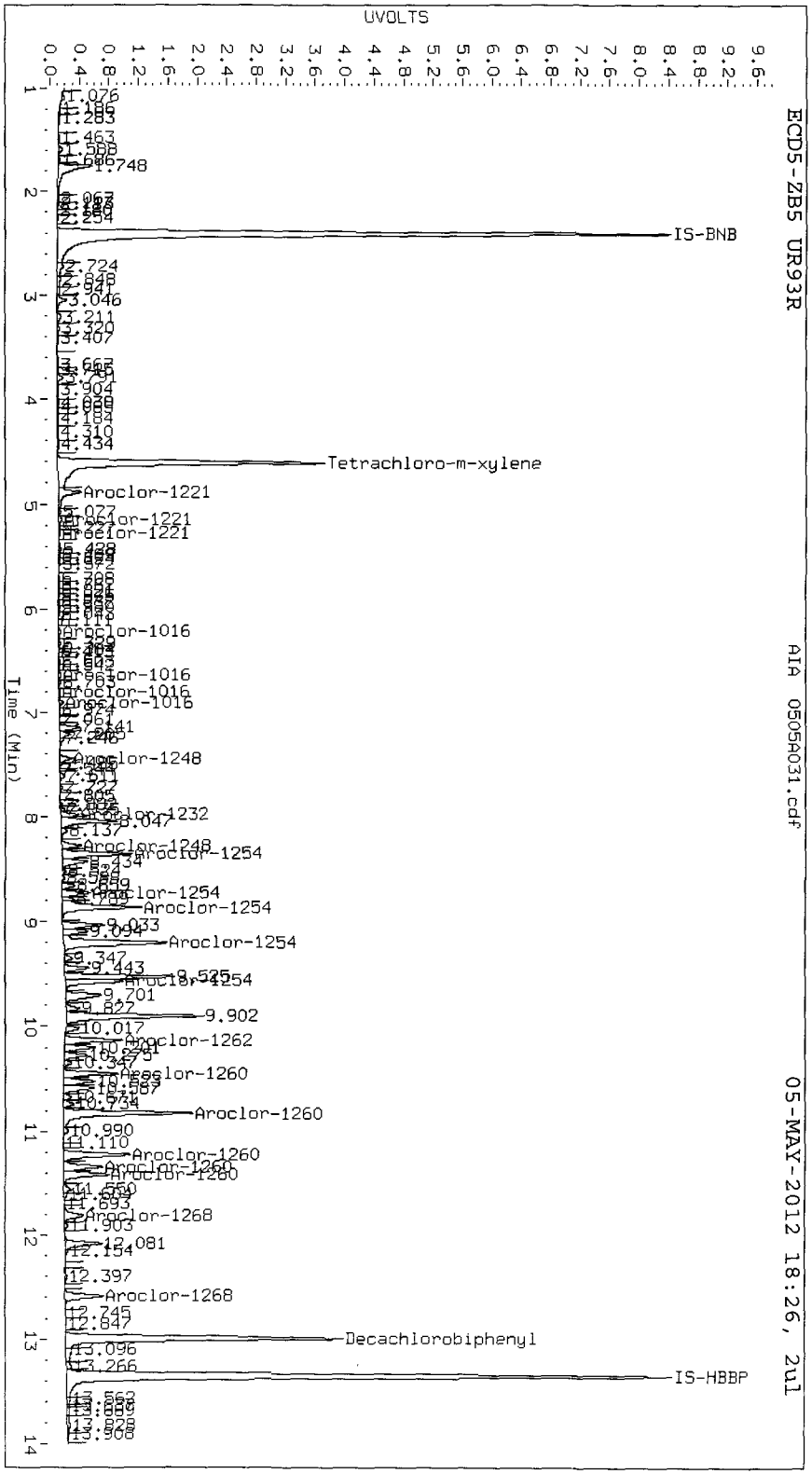
05-MAY-2012 18:26, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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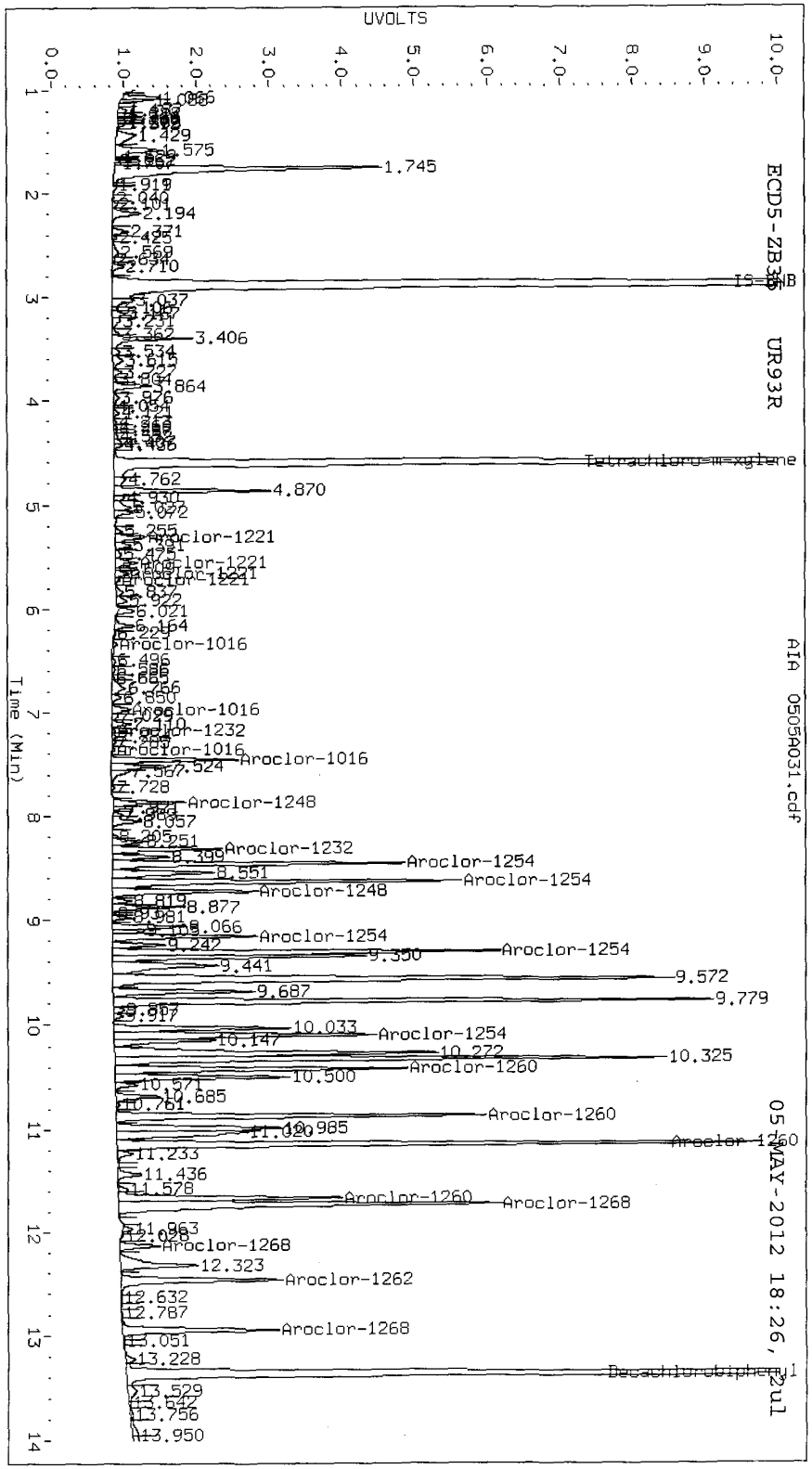
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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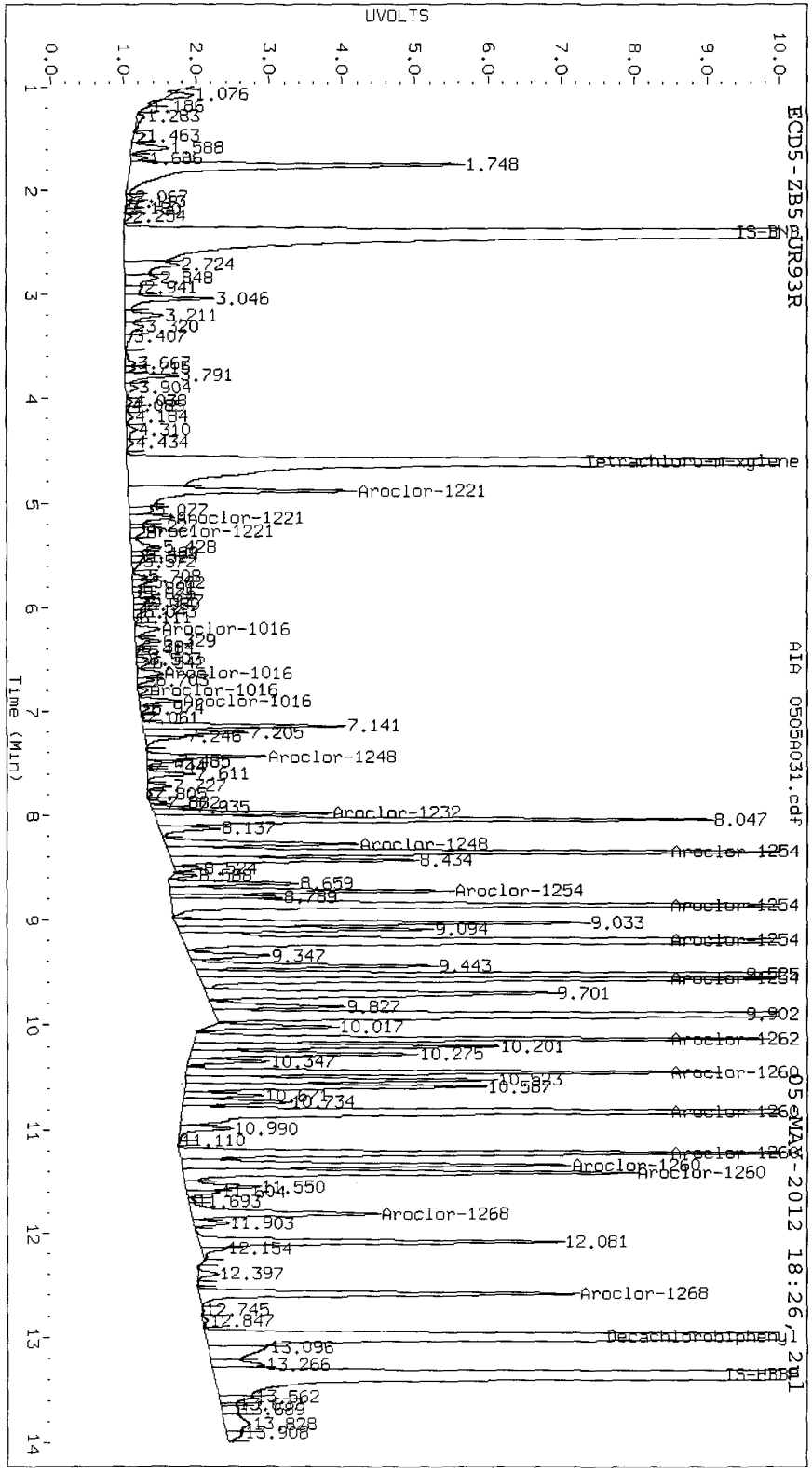
Time (Min)
IS-HB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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Time (Min)
IS-HB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HRB

UR93:00328

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A032.d
Data file 2: 20120409.B/0505-2.b/0505A032.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93S
Client ID:
Injection Date: 05-MAY-2012 18:45
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.609	0.000	66123890	4.604	0.000	41178800	27.9	29.6	5.7	Tetrachloro-m-xylene
12.994	0.000	67117020	13.366	0.000	23304710	29.7	29.9	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	69.8	73.9
Decachlorobiphenyl	74.2	74.7

JC 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	145687638	3.8
Hexabromobiphenyl	198372884	138513382	-30.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	102017537	-0.6
Hexabromobiphenyl	81487087	53063596	-34.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.240	-0.002	341917	5.6	1	6.382	0.039	32441	0.6
Aroclor-1016	2	6.627	-0.015	122222	0.6	2	6.956	-0.017	136401	1.2
Aroclor-1016	3	6.791	0.000	56601	0.7	3	7.361	0.008	17146	0.6
Aroclor-1016	4	6.900	-0.001	177335	3.1	4	7.459	-0.002	256616	8.2
Total Col1Ave (4 peaks):				2.5		Total Col2Ave (4 peaks):			2.7	RPD = 6
Corrected Ave (3 peaks):				1.5		Corrected Ave (3 peaks):			0.8	RPD = 58*
Aroclor-1221	1	4.888	-0.001	6068683	879.1	1	5.310	0.015	660217	41.9
Aroclor-1221	2	5.138	-0.022	1488272	86.3	2	5.562	0.020	110839	12.0
Aroclor-1221	3	5.242	-0.023	622828	11.0	3	5.656	0.002	93331	3.3
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				325.5		Total Col2Ave (3 peaks):			19.1	RPD = 178*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.240	-0.004	341917	13.6	1	6.382	0.034	32441	1.4
Aroclor-1232	2	6.627	-0.016	122222	1.5	2	6.956	-0.018	136401	2.9
Aroclor-1232	3	6.791	-0.002	56601	1.7	3	7.214	0.031	19810	1.2
Aroclor-1232	4	7.985	-0.001	620095	20.3	4	8.325	-0.004	542783	33.0
Total Col1Ave (4 peaks):				9.3		Total Col2Ave (4 peaks):			9.6	RPD = 4
Corrected Ave (3 peaks):				5.6		Corrected Ave (3 peaks):			1.9	RPD = 101*
Aroclor-1242	1	6.240	-0.002	341917	7.6	1	6.382	0.039	32441	0.8
Aroclor-1242	2	6.627	-0.015	122222	0.8	2	6.956	-0.018	136401	1.6
Aroclor-1242	3	6.791	0.000	56601	1.0	3	7.214	0.035	19810	0.6
Aroclor-1242	4	7.985	0.001	620095	11.9	4	8.325	-0.001	542783	19.5
Total Col1Ave (4 peaks):				5.3		Total Col2Ave (4 peaks):			5.6	RPD = 5
Corrected Ave (3 peaks):				3.1		Corrected Ave (3 peaks):			1.0	RPD = 102*
Aroclor-1248	1	6.627	-0.008	122222	1.3	1	6.956	-0.012	136401	2.5
Aroclor-1248	2	7.435	-0.001	424436	5.8	2	7.873	0.002	229261	5.5
Aroclor-1248	3	7.985	0.003	620095	7.0	3	8.325	0.003	542783	11.3
Aroclor-1248	4	8.275	0.003	716764	8.1	4	8.731	-0.013	414241	7.8
Total Col1Ave (4 peaks):				5.5		Total Col2Ave (4 peaks):			6.8	RPD = 21
Corrected Ave (3 peaks):				4.7		Corrected Ave (3 peaks):			5.3	RPD = 12
Aroclor-1254	1	8.359	0.003	1147813	8.3	1	8.464	0.003	449186	11.2
Aroclor-1254	2	8.730	0.003	521501	5.8	2	8.638	0.003	541333	10.6
Aroclor-1254	3	8.866	0.003	1800470	10.9	3	9.172	0.015	526349	13.3
Aroclor-1254	4	9.215	0.002	1288924	7.7	4	9.309	0.002	811104	9.6
Aroclor-1254	5	9.573	-0.002	691592	6.1	5	10.097	0.008	251960	5.0
Total Col1Ave (5 peaks):				7.8		Total Col2Ave (5 peaks):			9.9	RPD = 25
Corrected Ave (4 peaks):				7.0		Corrected Ave (4 peaks):			9.1	RPD = 26
Aroclor-1260	1	10.450	0.001	111595	1.5	1	10.460	0.038	108706	3.8
Aroclor-1260	2	10.859	0.036	446914	2.4	2	10.866	-0.006	203721	5.6
Aroclor-1260	3	11.224	0.002	95006	0.9	3	11.145	0.000	128661	1.8
Aroclor-1260	4	11.328	-0.010	129665	2.9	4	11.669	0.004	28281	1.3
Aroclor-1260	5	11.412	-0.001	41887	0.8	NS	---			----
Total Col1Ave (5 peaks):				1.7		Total Col2Ave (4 peaks):			3.1	RPD = 60*
Corrected Ave (4 peaks):				1.4		Corrected Ave (3 peaks):			2.3	RPD = 50*
Aroclor-1262	1	10.133	-0.001	199332	1.8	1	10.460	0.034	108706	2.5
Aroclor-1262	2	10.450	-0.001	111595	1.3	2	10.866	-0.011	203721	5.4
Aroclor-1262	3	10.859	0.035	446914	2.0	3	11.145	-0.004	128661	1.5
Aroclor-1262	4	11.328	-0.013	129665	1.6	4	11.669	-0.001	28281	0.8
Aroclor-1262	5	11.412	-0.003	41887	0.5	5	12.505	0.036	247009	7.6
Total Col1Ave (5 peaks):				1.4		Total Col2Ave (5 peaks):			3.6	RPD = 85*
Corrected Ave (4 peaks):				1.3		Corrected Ave (4 peaks):			2.6	RPD = 67*
Aroclor-1268	1	11.328	-0.013	129665	0.6	1	11.669	-0.003	28281	0.3
Aroclor-1268	2	11.412	-0.001	41887	0.2	2	11.726	-0.013	82148	1.0

Aroclor-1268	3	11.753	-0.047	385306	1.9	3	12.126	-0.010	27373	0.4
Aroclor-1268	4	12.582	-0.009	82175	0.1	4	12.949	-0.009	55029	0.2

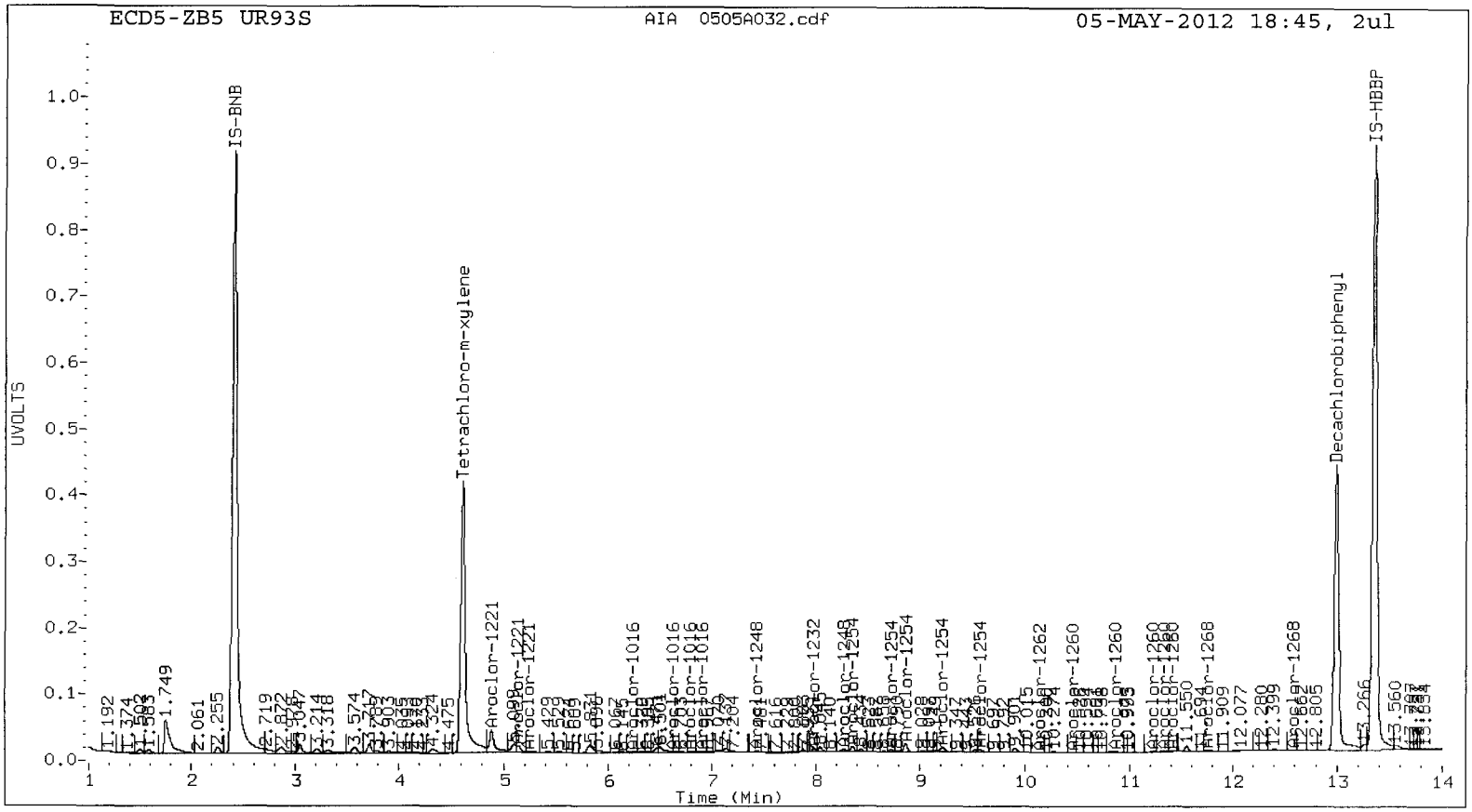
Total Col1Ave (4 peaks): 0.7 Total Col2Ave (4 peaks): 0.5 RPD = 39

Corrected Ave (3 peaks): 0.3 Corrected Ave (3 peaks): 0.3 RPD = 7

Total PCB Area Col1 (4.709 - 12.894) = 38152515 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 15412431 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical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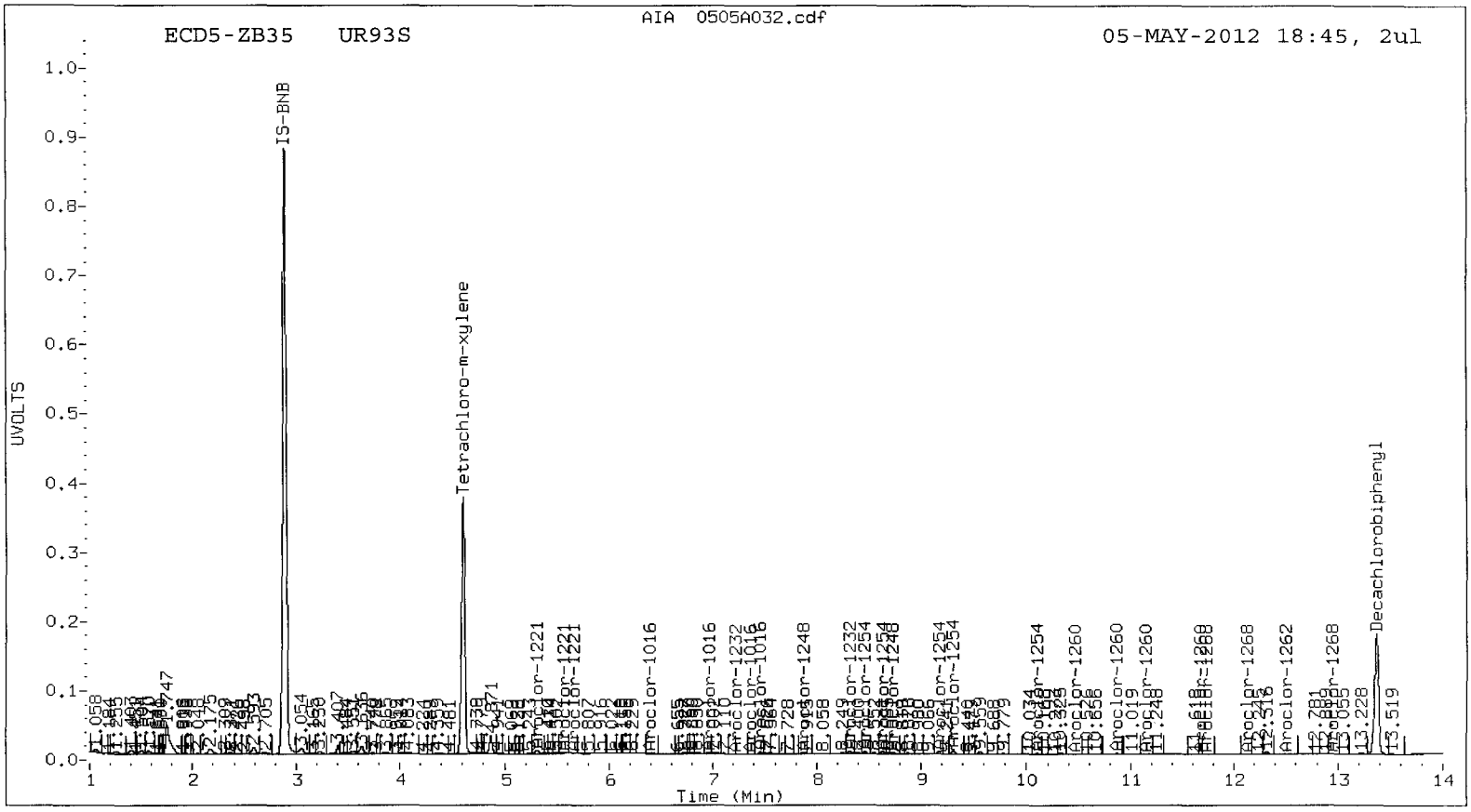
05-MAY-2012 18:45, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Time (Min)
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Tetrachloro-m-xylene
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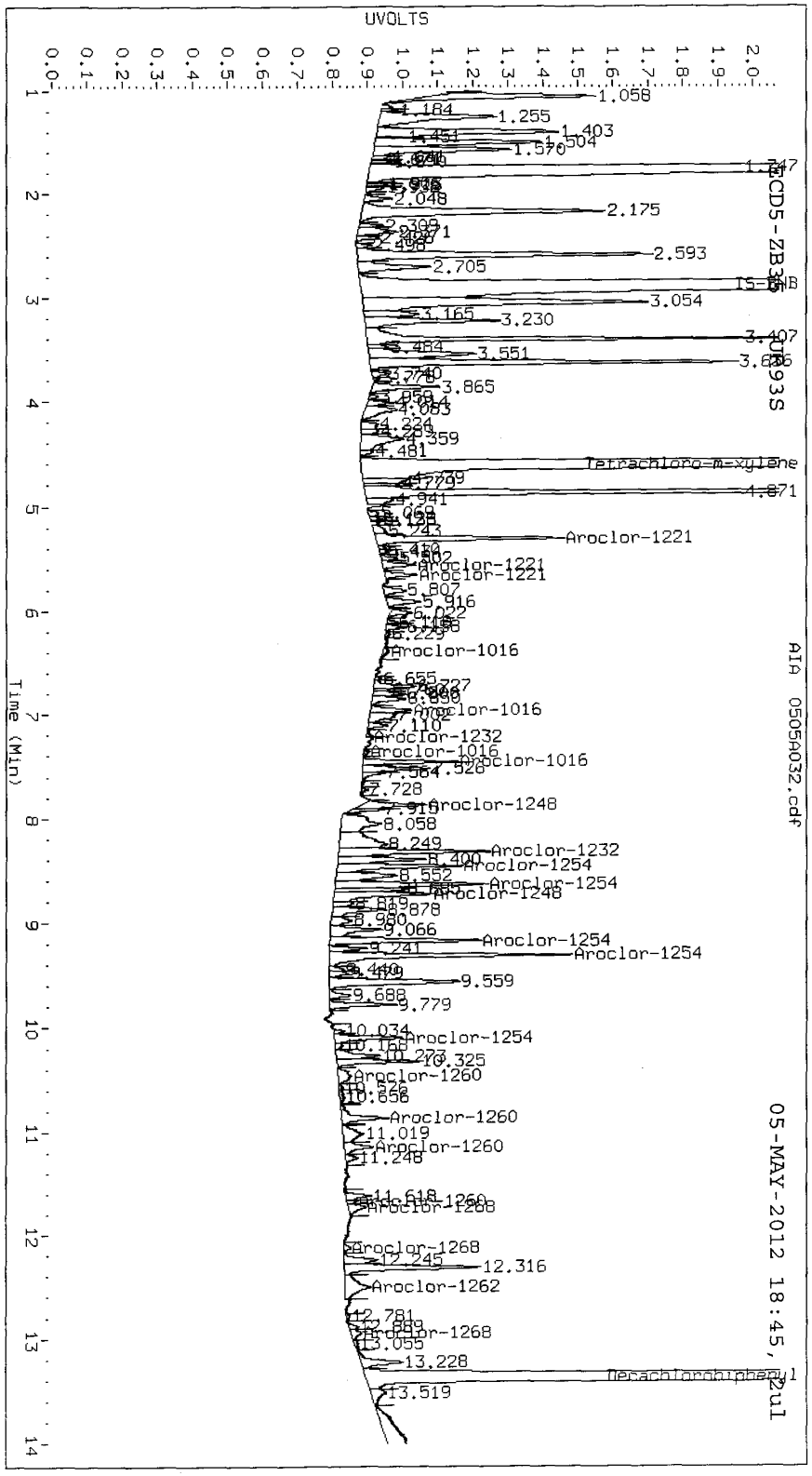
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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Time (Min)
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IS-BNB
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3.165
3.230
3.407
3.551
3.865
4.083
4.481
Tetrachloro-m-xylene
4.871
Aroclor-1221
Aroclor-1016
Aroclor-1232
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Decachlorobiphenyl
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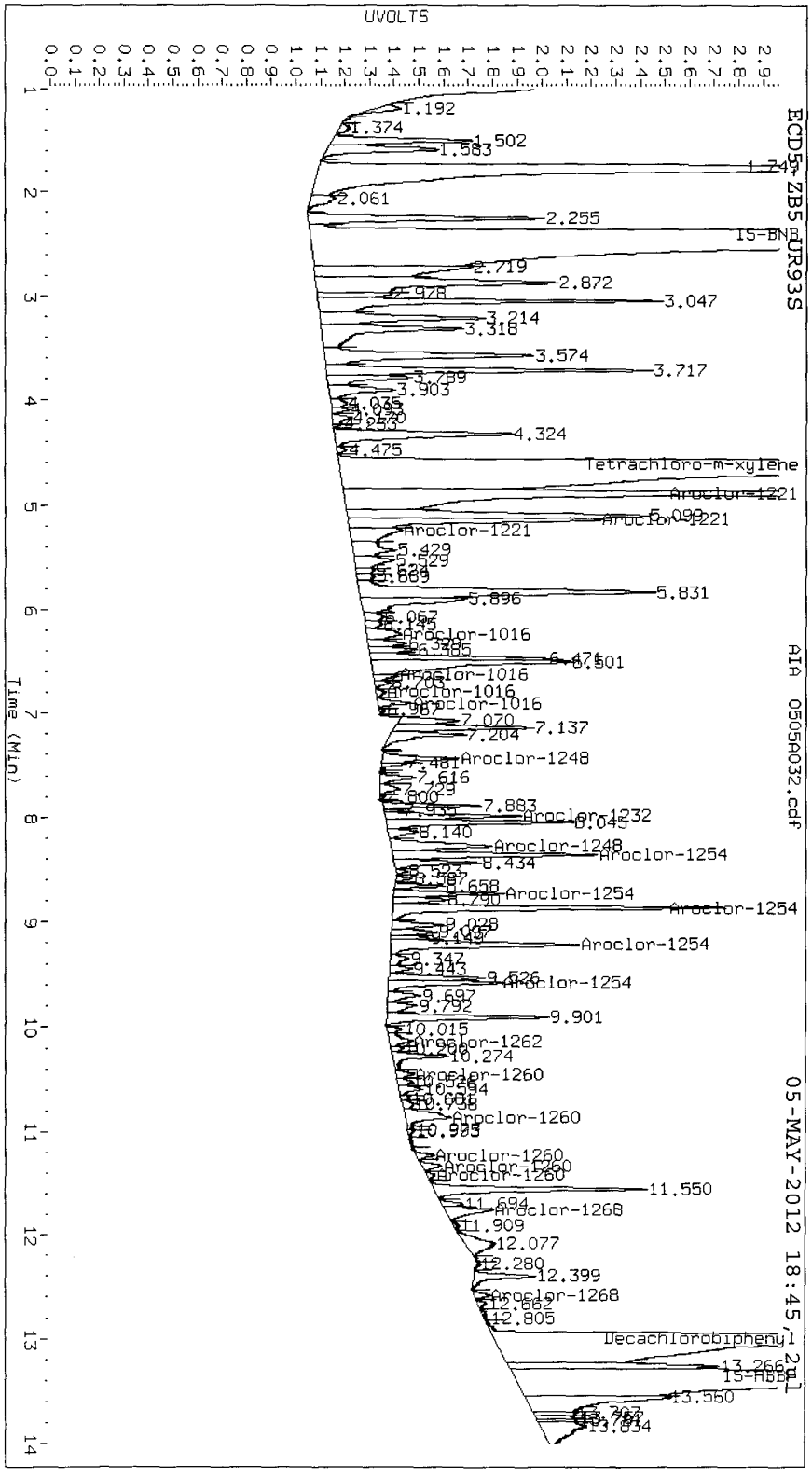
13.519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Tetrachloro-m-xylene
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Aroclor-1016
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Aroclor-1248
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Decachlorobiphenyl
13.266
13.560
13.834

UR93:00033

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A033.d
Data file 2: 20120409.B/0505-2.b/0505A033.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UR93T
Client ID:
Injection Date: 05-MAY-2012 19:04
Ical Date: 09-APR-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
4.599	-0.010	160393659	4.604	-0.001	47289351	69.0	30.2	78.3*	Tetrachloro-m-xylene
12.994	0.000	63878646	13.367	0.001	23943113	26.4	28.7	8.4	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	172.5	75.4
Decachlorobiphenyl	65.9	71.7

M 05/07/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	143033941	2.0
Hexabromobiphenyl	198372884	148358570	-25.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	114863385	12.0
Hexabromobiphenyl	81487087	56844955	-30.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.166	-0.077	5852407	97.4	1	6.342	-0.001	1020509	17.2
Aroclor-1016	2	6.651	0.009	4155190	21.5	2	7.015	0.041	24280986	194.8
Aroclor-1016	3	6.755	-0.036	20270181	256.6	3	7.385	0.032	3352513	103.8
Aroclor-1016	4	6.935	0.034	2495896	44.6	4	7.490	0.029	36504478	1032.2
Total Col1Ave (4 peaks):				105.0		Total Col2Ave (4 peaks):			337.0	RPD = 105*
Corrected Ave (3 peaks):				54.5		Corrected Ave (3 peaks):			105.2	RPD = 64*
Aroclor-1221	1	4.870	-0.020	14953512	2206.3	1	5.324	0.029	1994572	112.5
Aroclor-1221	2	5.150	-0.010	2148451	126.9	2	5.524	-0.018	4343092	418.0
Aroclor-1221	3	5.270	0.004	984044	17.8	3	5.657	0.003	5180450	160.8
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				783.7		Total Col2Ave (3 peaks):			230.5	RPD = 109*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.166	-0.078	5852407	237.2	1	6.342	-0.005	1020509	38.2
Aroclor-1232	2	6.651	0.008	4155190	52.2	2	7.015	0.041	24280986	465.1
Aroclor-1232	3	6.755	-0.037	20270181	620.8	3	7.124	-0.059	3117322	174.4
Aroclor-1232	4	7.982	-0.004	6831998	228.0	4	8.325	-0.004	5046436	272.8
Total Col1Ave (4 peaks):				284.6		Total Col2Ave (4 peaks):			237.6	RPD = 18
Corrected Ave (3 peaks):				172.5		Corrected Ave (3 peaks):			161.8	RPD = 6
Aroclor-1242	1	6.166	-0.077	5852407	133.1	1	6.342	-0.001	1020509	23.1
Aroclor-1242	2	6.651	0.009	4155190	29.4	2	7.015	0.041	24280986	257.9
Aroclor-1242	3	6.755	-0.035	20270181	352.2	3	7.124	-0.055	3117322	82.5
Aroclor-1242	4	7.982	-0.002	6831998	133.9	4	8.325	-0.001	5046436	161.0
Total Col1Ave (4 peaks):				162.1		Total Col2Ave (4 peaks):			131.1	RPD = 21
Corrected Ave (3 peaks):				98.8		Corrected Ave (3 peaks):			88.9	RPD = 11
Aroclor-1248	1	6.651	0.015	4155190	44.7	1	7.015	0.047	24280986	402.5
Aroclor-1248	2	7.440	0.003	9152693	127.7	2	7.870	0.000	6737754	144.8
Aroclor-1248	3	7.982	0.000	6831998	78.1	3	8.325	0.003	5046436	93.3
Aroclor-1248	4	8.314	0.042	67470248	773.6	4	8.762	0.018	17687450	296.7
Total Col1Ave (4 peaks):				256.0		Total Col2Ave (4 peaks):			234.3	RPD = 9
Corrected Ave (3 peaks):				83.9		Corrected Ave (3 peaks):			178.3	RPD = 72*
Aroclor-1254	1	8.314	-0.042	67470248	494.4	1	8.464	0.002	13041537	287.6
Aroclor-1254	2	8.728	0.000	8540155	96.2	2	8.643	0.008	16165159	281.2
Aroclor-1254	3	8.864	0.001	19324513	119.1	3	9.165	0.008	11208656	252.3
Aroclor-1254	4	9.209	-0.003	17765499	108.5	4	9.312	0.005	18629386	196.3
Aroclor-1254	5	9.525	-0.049	30485545	275.9	5	10.102	0.013	2658356	46.4
Total Col1Ave (5 peaks):				218.8		Total Col2Ave (5 peaks):			212.8	RPD = 3
Corrected Ave (4 peaks):				149.9		Corrected Ave (4 peaks):			194.1	RPD = 26
Aroclor-1260	1	10.484	0.036	6695868	81.8	1	10.413	-0.009	685331	22.2
Aroclor-1260	2	10.814	-0.009	4097261	20.3	2	10.839	-0.033	851593	21.8
Aroclor-1260	3	11.235	0.013	975244	8.9	3	11.176	0.031	2019357	26.4
Aroclor-1260	4	11.364	0.025	1674792	34.5	4	11.674	0.008	507360	22.5
Aroclor-1260	5	11.416	0.004	1031150	17.7	NS	---			----
Total Col1Ave (5 peaks):				32.6		Total Col2Ave (4 peaks):			23.2	RPD = 34
Corrected Ave (4 peaks):				20.3		Corrected Ave (3 peaks):			22.2	RPD = 9
Aroclor-1262	1	10.172	0.039	16203020	133.3	1	10.413	-0.012	685331	14.6
Aroclor-1262	2	10.484	0.034	6695868	74.5	2	10.912	0.035	3206085	80.0
Aroclor-1262	3	10.814	-0.011	4097261	17.2	3	11.176	0.027	2019357	22.2
Aroclor-1262	4	11.364	0.002	1674792	19.3	4	11.674	0.003	507360	13.9
Aroclor-1262	5	11.416	0.002	1031150	10.5	5	12.505	0.035	1611052	46.1
Total Col1Ave (5 peaks):				51.0		Total Col2Ave (5 peaks):			35.4	RPD = 36
Corrected Ave (4 peaks):				30.4		Corrected Ave (4 peaks):			24.2	RPD = 23
Aroclor-1268	1	11.364	0.022	1674792	6.8	1	11.674	0.002	507360	5.3
Aroclor-1268	2	11.416	0.003	1031150	4.2	2	11.726	-0.013	182883	2.0

Aroclor-1268	3	11.894	0.094	1844778	8.7	3	12.128	-0.008	219442	2.8
Aroclor-1268	4	12.574	-0.017	1852723	2.8	4	12.953	-0.005	807783	3.4

Total Col1Ave (4 peaks): 5.6 Total Col2Ave (4 peaks): 3.4 RPD = 50*

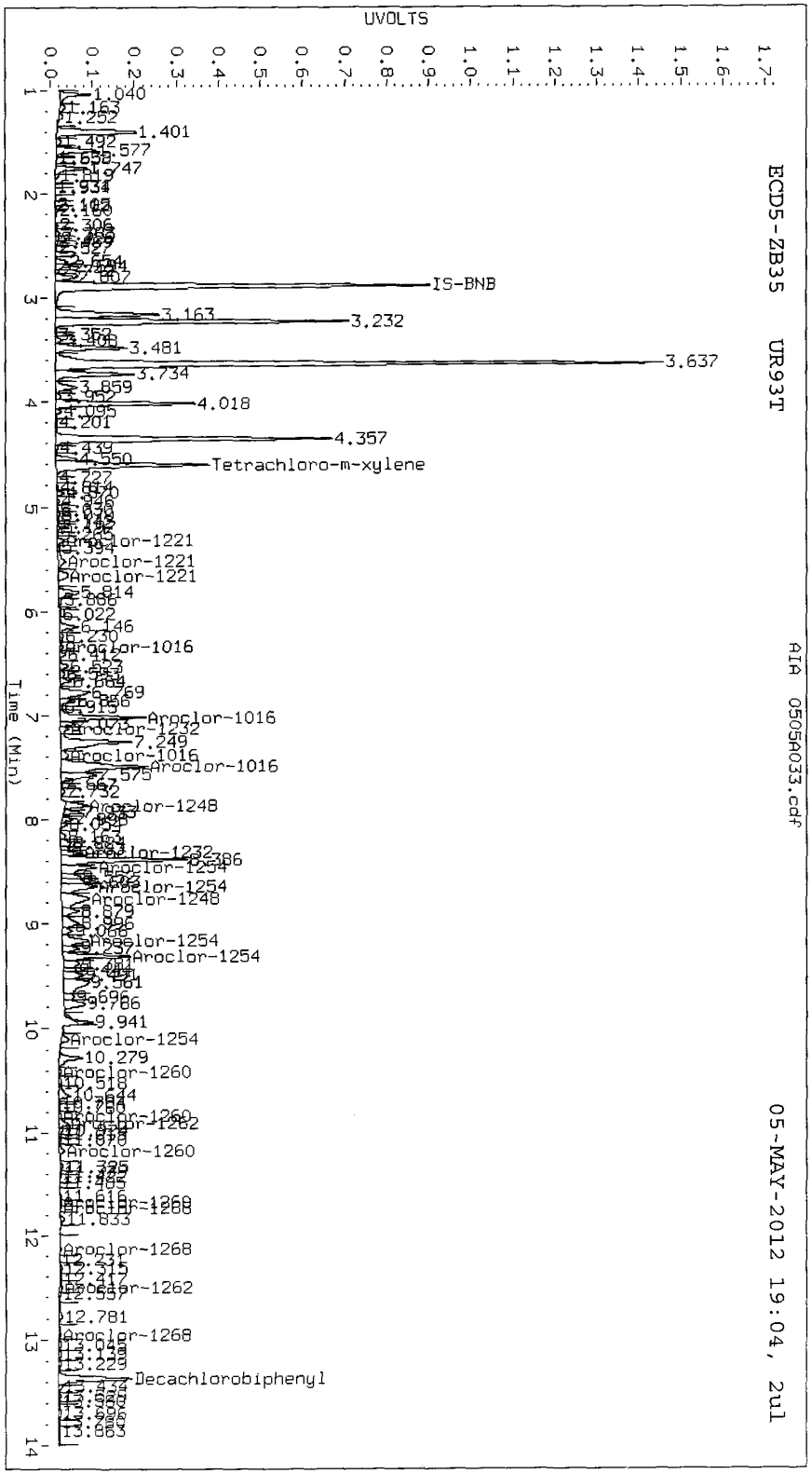
Corrected Ave (3 peaks): 4.6 Corrected Ave (3 peaks): 2.8 RPD = 51*

Total PCB Area Col1 (4.709 - 12.894) = 646409181 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 443288432 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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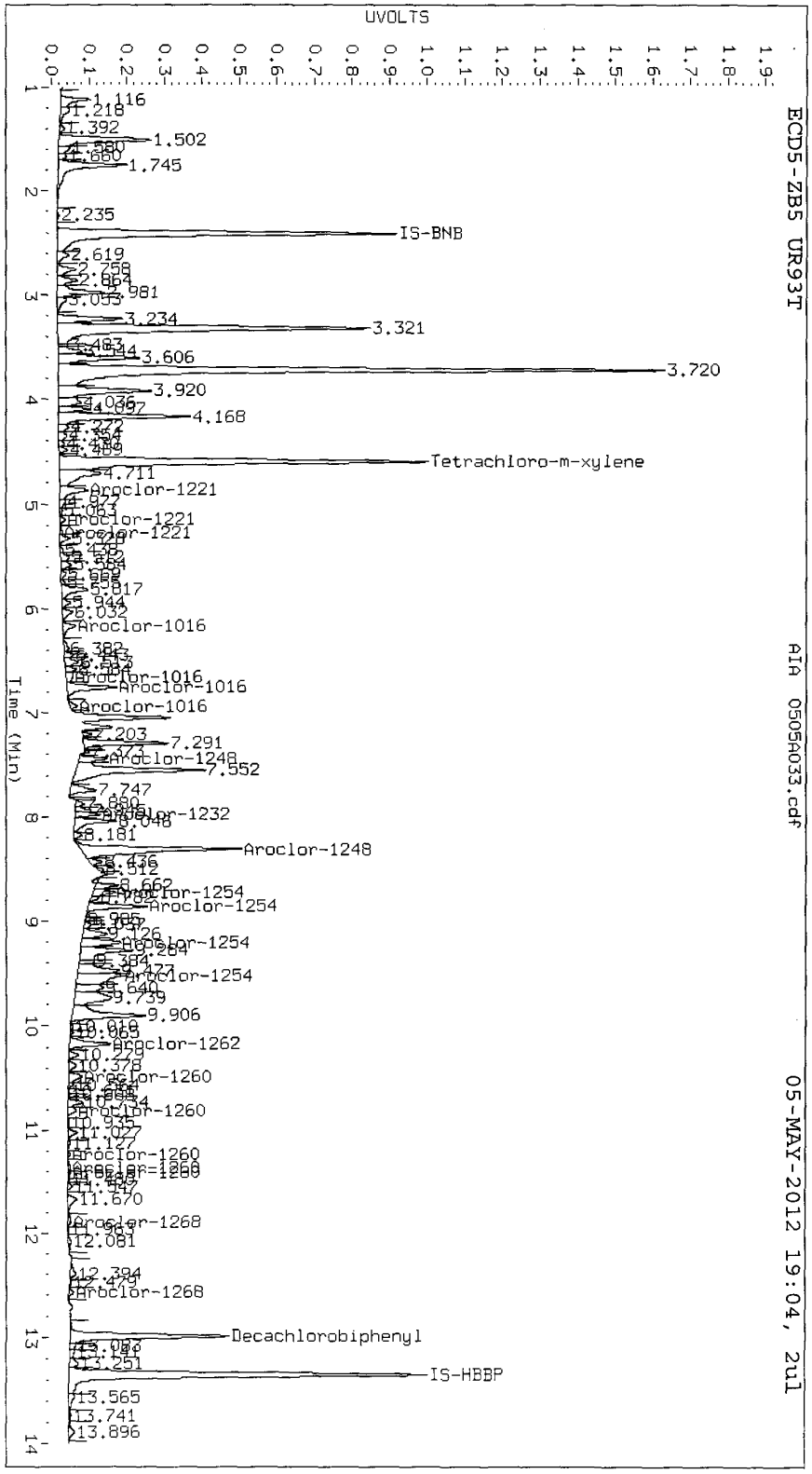
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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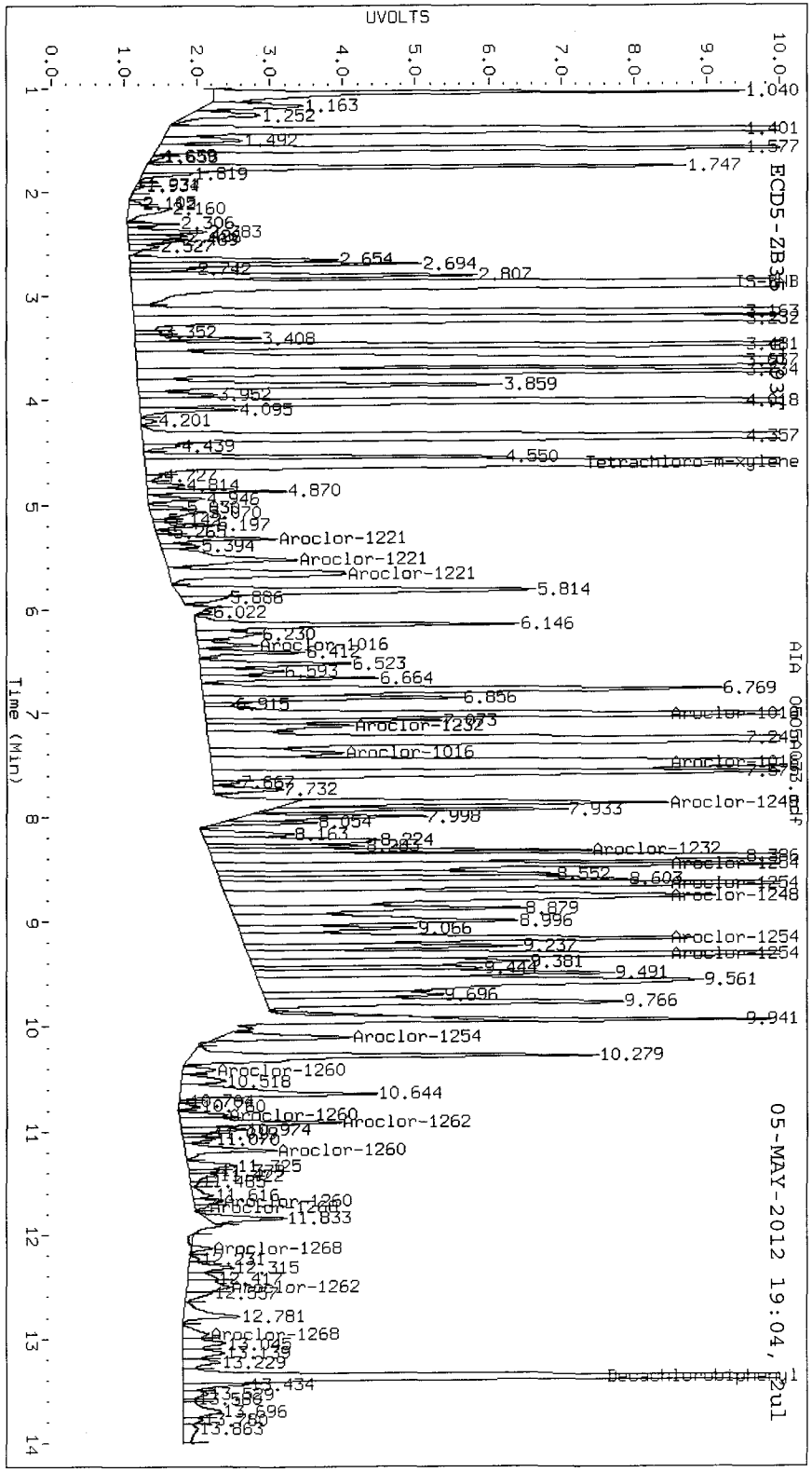
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP

UR93:00337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1.747
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2.654
2.694
2.742
2.807
IS-HB
3.232
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3.408
3.859
3.952
4.095
4.201
4.357
4.439
4.550
Tetrachloro-m-xylene
4.870
5.197
Aroclor-1221
5.394
Aroclor-1221
Aroclor-1221
5.814
5.886
6.022
6.146
Aroclor-1016
6.523
6.664
6.769
6.856
6.915
Aroclor-1016
Aroclor-1232
7.073
7.240
Aroclor-1016
7.663
7.732
7.933
Aroclor-1248
7.998
8.054
8.163
8.224
Aroclor-1232
Aroclor-1254
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8.607
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Aroclor-1248
8.879
8.996
9.066
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9.237
Aroclor-1254
9.381
9.444
9.491
9.561
9.696
9.766
9.941
Aroclor-1254
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Decachlorobiphenyl
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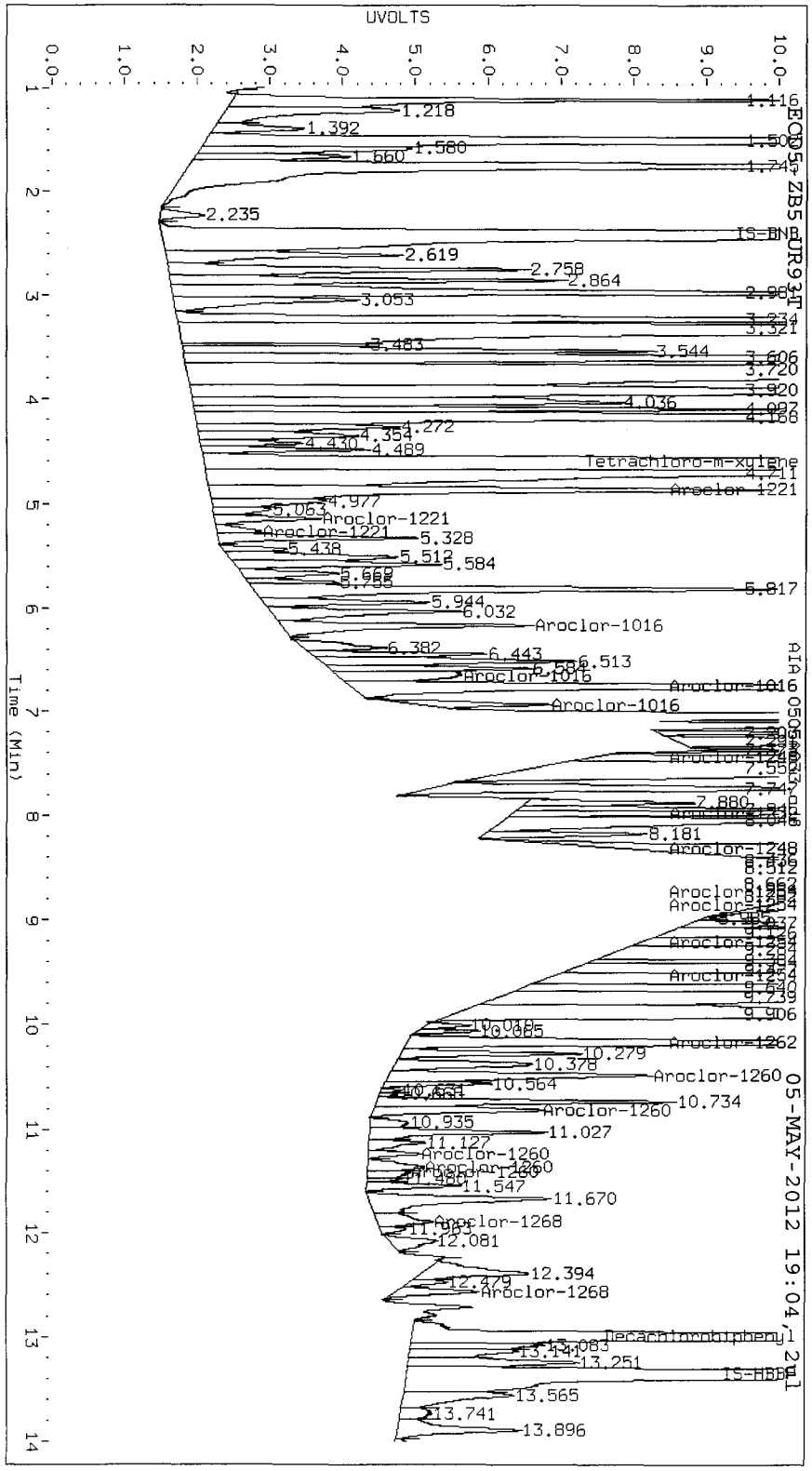
13.863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05-MAY-2012 19:04, 2ul
Time (Min)
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IS-HB
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2.758
2.864
3.053
3.321
3.483
3.544
3.720
3.920
4.036
4.272
4.354
4.430
4.489
Tetrachloro-m-xylene
Aroclor-1221
4.977
5.063
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Aroclor-1221
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5.512
5.584
5.817
5.944
6.032
Aroclor-1016
6.382
6.443
6.513
Aroclor-1016
Aroclor-1016
Aroclor-1016
7.880
8.181
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10.279
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10.734
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11.547
11.670
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12.081
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12.479
Aroclor-1268
Decachlorobiphenyl
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13.141
13.251
IS-HB
13.565
13.741
13.896

UR93:06338

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A034.d
Data file 2: 20120409.B/0505-2.b/0505A034.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 05-MAY-2012 19:23
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.608	-0.001	43914787	4.604	-0.001	29590410	18.9	20.0	6.0	Tetrachloro-m-xylene
12.994	0.000	37654419	13.365	0.000	13171799	15.1	15.8	4.8	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	47.2	50.1
Decachlorobiphenyl	37.7	39.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	143178157	2.1
Hexabromobiphenyl	198372884	152948295	-22.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	108231274	5.5
Hexabromobiphenyl	81487087	56693600	-30.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.243	0.000	10269192	233.4	1	6.343	0.000	10907979	261.9
Aroclor-1242	2	6.642	0.000	36332505	256.4	2	6.974	0.000	18674182	210.5
Aroclor-1242	3	6.791	0.000	14314009	248.5	3	7.179	0.000	7795429	219.1
Aroclor-1242	4	7.984	0.000	9769687	191.3	4	8.325	0.000	6298707	213.3

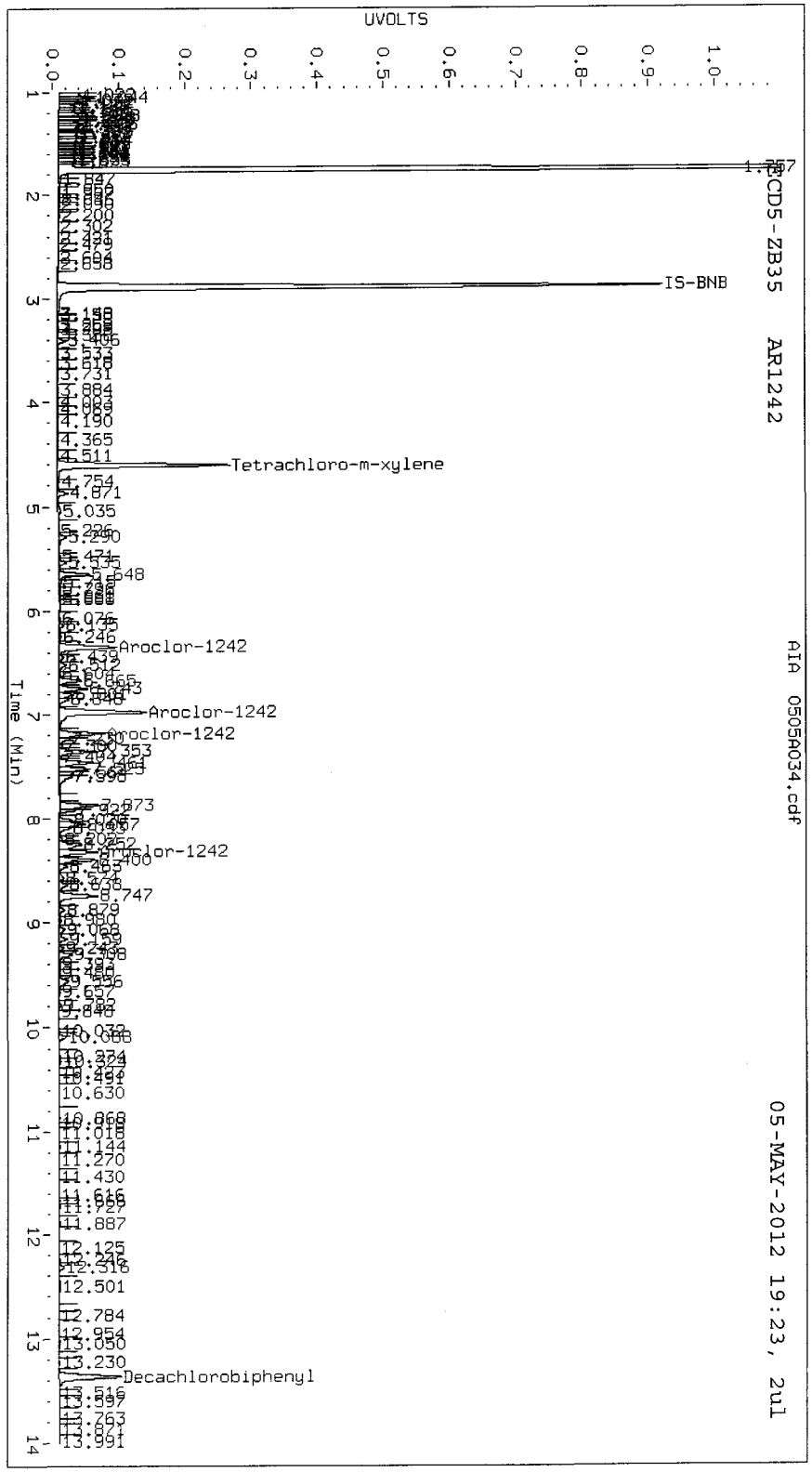
Total Col1Ave (4 peaks): 232.4 Total Col2Ave (4 peaks): 226.2 RPD = 3

Corrected Ave (3 peaks): 224.4 Corrected Ave (3 peaks): 214.3 RPD = 5

Total PCB Area Col1 (4.709 - 12.894) = 248524789 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 152620272 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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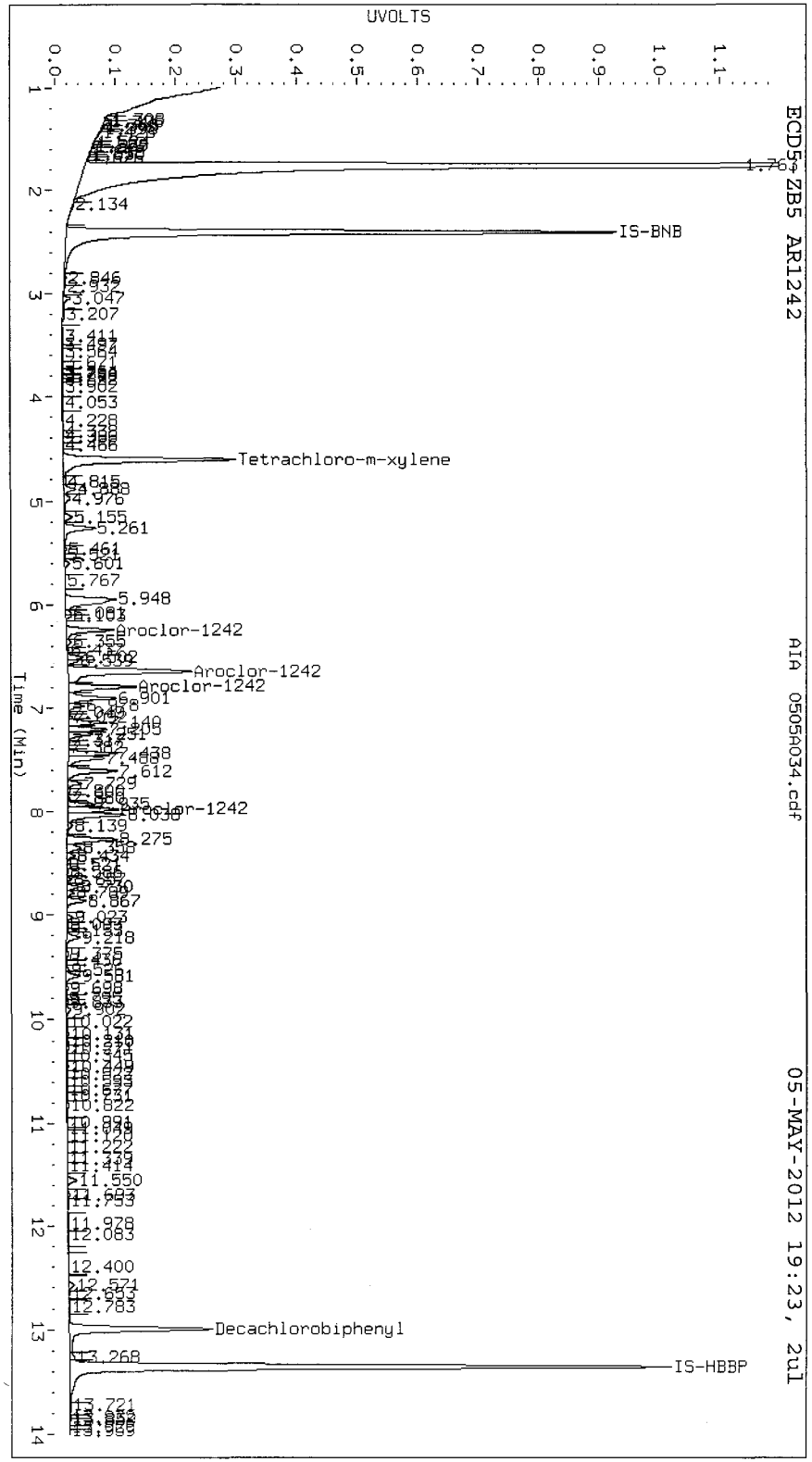
AIA 0505A034.cdf
05-MAY-2012 19:23, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
Time (Min)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05-MAY-2012 19:23, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
Time (Min)

UR393 : 00311

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A035.d
Data file 2: 20120409.B/0505-2.b/0505A035.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 05-MAY-2012 19:42
Ical Date: 09-APR-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
4.609	0.000	41212638	4.605	0.000	27824840	20.0	20.3	1.3	Tetrachloro-m-xylene
12.994	0.000	38137541	13.366	0.000	13377346	15.8	16.6	4.8	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	50.0	50.7
Decachlorobiphenyl	39.6	41.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	126745506	-9.7
Hexabromobiphenyl	198372884	147462340	-25.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	100613435	-1.9
Hexabromobiphenyl	81487087	54787183	-32.8

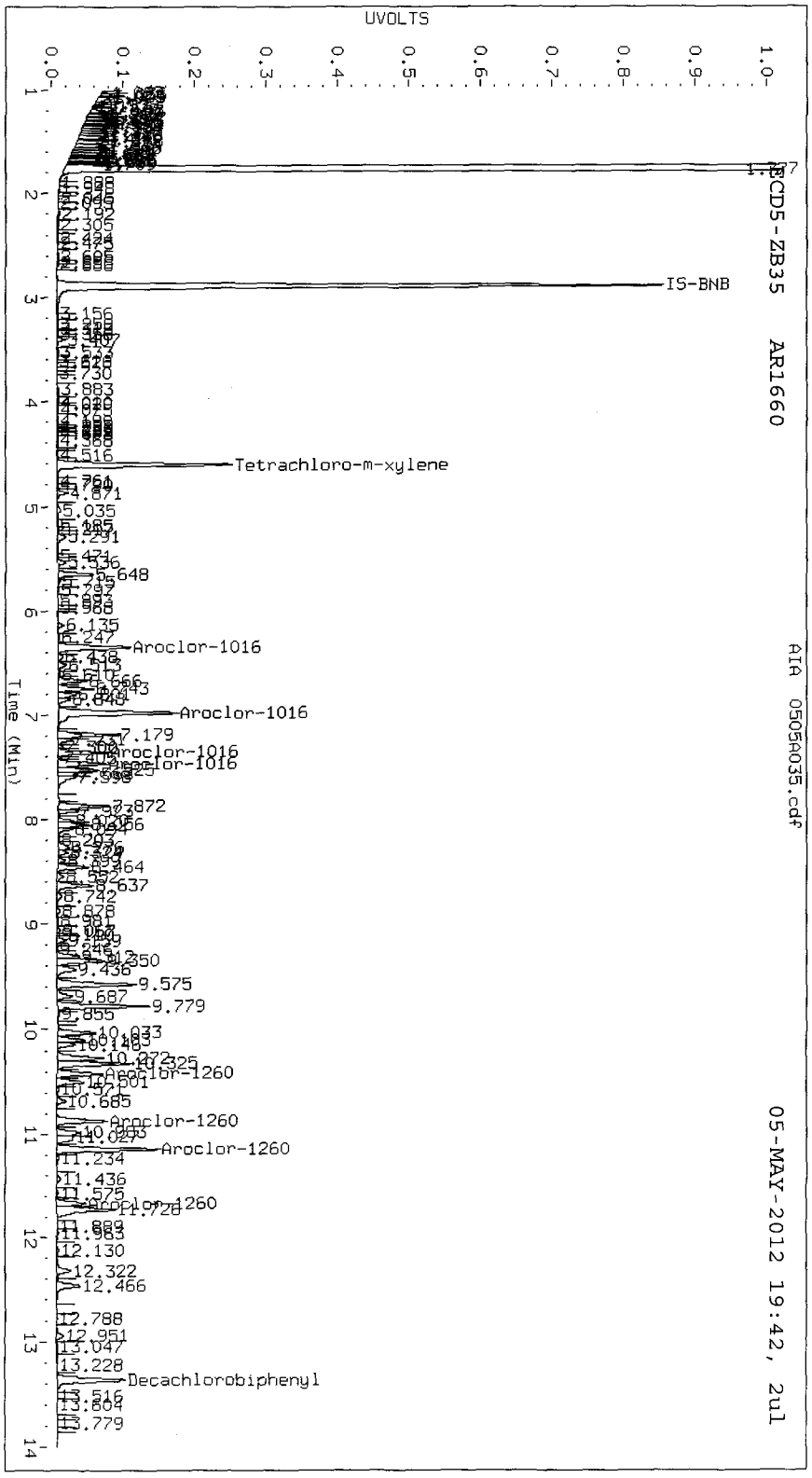
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT (ZB5 Col)	Shift	Area	Amount	Peak#	RT (ZB35 Col)	Shift	Area	Amount
Aroclor-1016	1	6.243	0.000	12115095	227.4	1	6.343	0.000	12951805	249.4
Aroclor-1016	2	6.643	0.000	43861561	256.2	2	6.974	0.000	23338426	213.7
Aroclor-1016	3	6.791	0.000	17261422	246.6	3	7.353	0.000	6930328	244.9
Aroclor-1016	4	6.901	0.000	12256496	247.3	4	7.461	0.000	7647059	246.8
Total Col1Ave (4 peaks):				244.4		Total Col2Ave (4 peaks):			238.7	RPD = 2
Corrected Ave (3 peaks):				240.4		Corrected Ave (3 peaks):			235.1	RPD = 2
Aroclor-1260	1	10.449	0.000	17420254	214.2	1	10.422	0.000	7328405	246.3
Aroclor-1260	2	10.823	0.000	43118056	215.2	2	10.873	0.000	8312379	221.0
Aroclor-1260	3	11.222	0.000	22270138	204.5	3	11.145	0.000	16631382	225.2
Aroclor-1260	4	11.339	0.000	8876938	183.9	4	11.666	0.000	4761567	218.8
Aroclor-1260	5	11.413	0.000	10782146	185.8	NS	---			----
Total Col1Ave (5 peaks):				200.7		Total Col2Ave (4 peaks):			227.8	RPD = 13
Corrected Ave (4 peaks):				197.1		Corrected Ave (3 peaks):			221.6	RPD = 12

Total PCB Area Col1 (4.709 - 12.894) = 564139104 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 299930529 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical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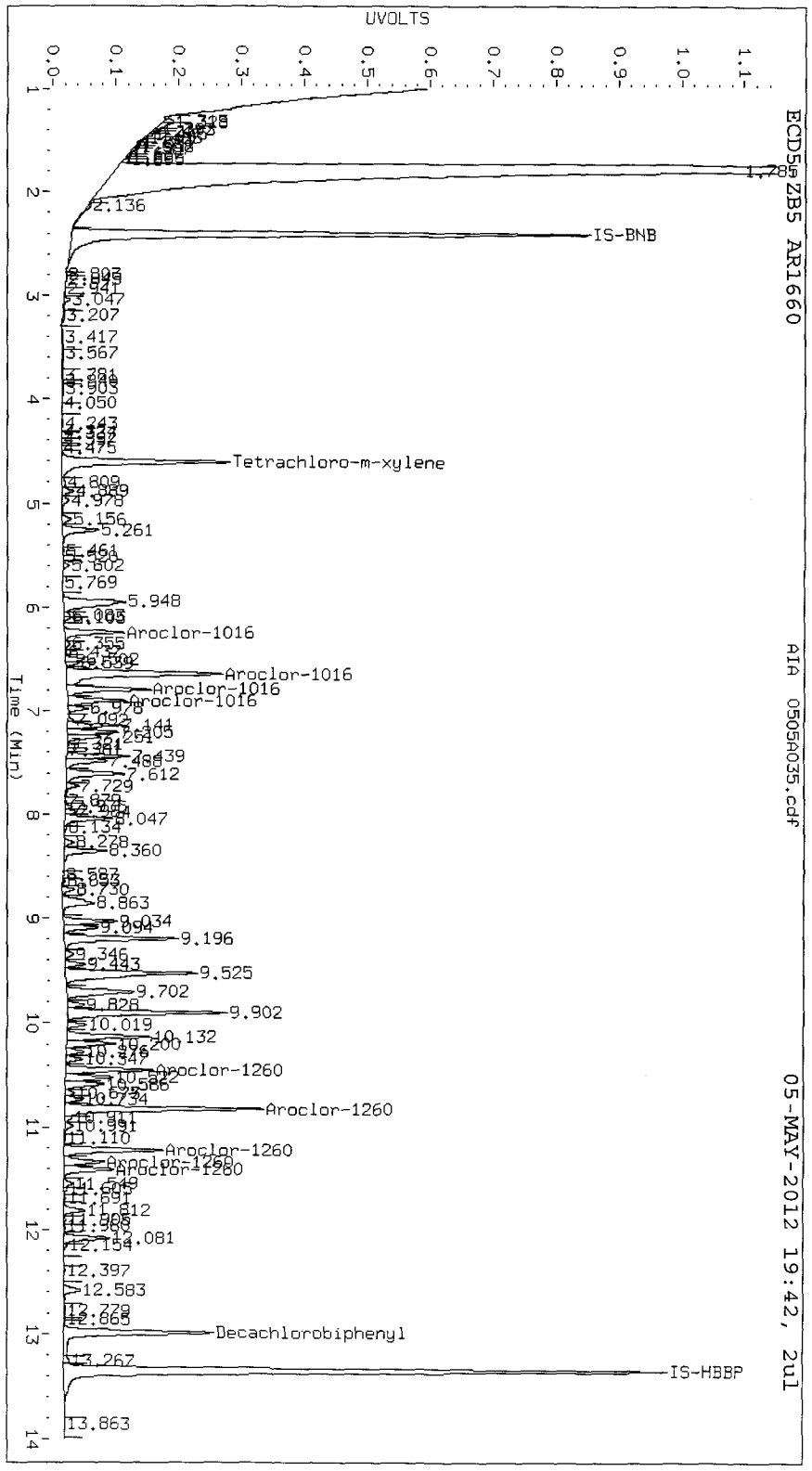
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
Time (Min)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05-MAY-2012 19:42, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)

U2593:00341

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A036.d
Data file 2: 20120409.B/0505-2.b/0505A036.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 05-MAY-2012 20:01
Ical Date: 09-APR-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
4.607	-0.001	44519339	4.603	-0.001	29885055	19.0	19.9	4.3	Tetrachloro-m-xylene
12.993	-0.001	39964434	13.366	0.000	13988762	15.2	15.9	4.4	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	47.6	49.7
Decachlorobiphenyl	37.9	39.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	143813950	2.5
Hexabromobiphenyl	198372884	161209749	-18.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	110124143	7.3
Hexabromobiphenyl	81487087	60033325	-26.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	-0.001	10349978	171.2	1	6.342	-0.001	11072948	194.8
Aroclor-1016	2	6.642	-0.001	37038644	190.7	2	6.973	0.000	19323029	161.7
Aroclor-1016	3	6.790	-0.001	14880470	187.4	3	7.353	0.000	6210597	200.5
Aroclor-1016	4	6.901	-0.001	10900852	193.8	4	7.460	-0.001	6504866	191.8
Total Col1Ave (4 peaks):				185.8		Total Col2Ave (4 peaks):			187.2	RPD = 1
Corrected Ave (3 peaks):				183.1		Corrected Ave (3 peaks):			182.8	RPD = 0
Aroclor-1221	1	4.888	-0.002	2550649	374.3	1	5.290	-0.005	1667243	98.1
Aroclor-1221	2	5.154	-0.006	2143064	125.9	2	5.534	-0.008	1254399	125.9
Aroclor-1221	3	5.261	-0.005	8455920	151.8	3	5.647	-0.007	5069086	164.2
Aroclor-1221	NS	---			----	4	5.713	-0.009	408096	73.6
Total Col1Ave (3 peaks):				217.3		Total Col2Ave (4 peaks):			115.4	RPD = 61*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			99.2	
Aroclor-1232	1	6.242	-0.002	10349978	417.3	1	6.342	-0.006	11072948	432.6
Aroclor-1232	2	6.642	-0.002	37038644	462.7	2	6.973	-0.001	19323029	386.0
Aroclor-1232	3	6.790	-0.002	14880470	453.2	3	7.178	-0.005	9888992	577.2
Aroclor-1232	4	7.983	-0.002	11706743	388.6	4	8.324	-0.004	7135891	402.3
Total Col1Ave (4 peaks):				430.5		Total Col2Ave (4 peaks):			449.5	RPD = 4
Corrected Ave (3 peaks):				419.7		Corrected Ave (3 peaks):			407.0	RPD = 3
Aroclor-1242	1	6.242	-0.001	10349978	234.2	1	6.342	-0.001	11072948	261.3
Aroclor-1242	2	6.642	-0.001	37038644	260.3	2	6.973	-0.001	19323029	214.1
Aroclor-1242	3	6.790	0.000	14880470	257.2	3	7.178	-0.001	9888992	273.1
Aroclor-1242	4	7.983	-0.001	11706743	228.2	4	8.324	-0.001	7135891	237.4
Total Col1Ave (4 peaks):				244.9		Total Col2Ave (4 peaks):			246.5	RPD = 1
Corrected Ave (3 peaks):				239.8		Corrected Ave (3 peaks):			237.6	RPD = 1
Aroclor-1248	1	6.642	0.006	37038644	396.6	1	6.973	0.005	19323029	334.1
Aroclor-1248	2	7.438	0.002	10468437	145.3	2	7.872	0.002	8162781	182.9
Aroclor-1248	3	7.983	0.001	11706743	133.0	3	8.324	0.002	7135891	137.6
Aroclor-1248	4	8.274	0.002	12232088	139.5	4	8.746	0.002	8198624	143.5
Total Col1Ave (4 peaks):				203.6		Total Col2Ave (4 peaks):			199.5	RPD = 2
Corrected Ave (3 peaks):				139.3		Corrected Ave (3 peaks):			154.7	RPD = 10
Aroclor-1254	1	8.358	0.002	3607554	26.3	1	8.463	0.001	1589512	36.6
Aroclor-1254	2	8.730	0.003	2354445	26.4	2	8.637	0.003	1983429	36.0
Aroclor-1254	3	8.866	0.003	4607355	28.2	3	9.158	0.002	1873527	44.0
Aroclor-1254	4	9.218	0.006	3776498	22.9	4	9.308	0.001	3166943	34.8
Aroclor-1254	5	9.581	0.007	3516510	31.7	5	10.087	-0.002	1649351	30.1
Total Col1Ave (5 peaks):				27.1		Total Col2Ave (5 peaks):			36.3	RPD = 29
Corrected Ave (4 peaks):				26.0		Corrected Ave (4 peaks):			34.4	RPD = 28
Aroclor-1260	1	10.449	0.000	761575	8.6	1	10.422	0.000	130085	4.0
Aroclor-1260	2	10.821	-0.002	1287828	5.9	2	10.868	-0.004	234091	5.7
Aroclor-1260	3	11.222	0.000	390029	3.3	3	11.144	0.000	190959	2.4
Aroclor-1260	4	11.338	0.000	275788	5.2	4	11.665	-0.001	61687	2.6
Aroclor-1260	5	11.413	0.001	220242	3.5	NS	---			----
Total Col1Ave (5 peaks):				5.3		Total Col2Ave (4 peaks):			3.7	RPD = 36
Corrected Ave (4 peaks):				4.5		Corrected Ave (3 peaks):			3.0	RPD = 40
Aroclor-1262	1	10.131	-0.002	929704	7.0	1	10.422	-0.004	130085	2.6
Aroclor-1262	2	10.449	-0.002	761575	7.8	2	10.868	-0.009	234091	5.5
Aroclor-1262	3	10.821	-0.003	1287828	5.0	3	11.144	-0.004	190959	2.0
Aroclor-1262	4	11.338	-0.003	275788	2.9	4	11.665	-0.005	61687	1.6
Aroclor-1262	5	11.413	-0.001	220242	2.1	5	12.503	0.033	536657	14.5
Total Col1Ave (5 peaks):				5.0		Total Col2Ave (5 peaks):			5.3	RPD = 6
Corrected Ave (4 peaks):				4.3		Corrected Ave (4 peaks):			2.9	RPD = 37
Aroclor-1268	1	11.338	-0.004	275788	1.0	1	11.665	-0.007	61687	0.6
Aroclor-1268	2	11.413	0.000	220242	0.8	2	11.726	-0.013	122552	1.3

Aroclor-1268	3	11.753	-0.047	611228	2.7	3	12.128	-0.008	33221	0.4
Aroclor-1268	4	12.570	-0.021	1387786	2.0	4	12.953	-0.004	44732	0.2

Total Col1Ave (4 peaks): 1.6 Total Col2Ave (4 peaks): 0.6 RPD = 89*

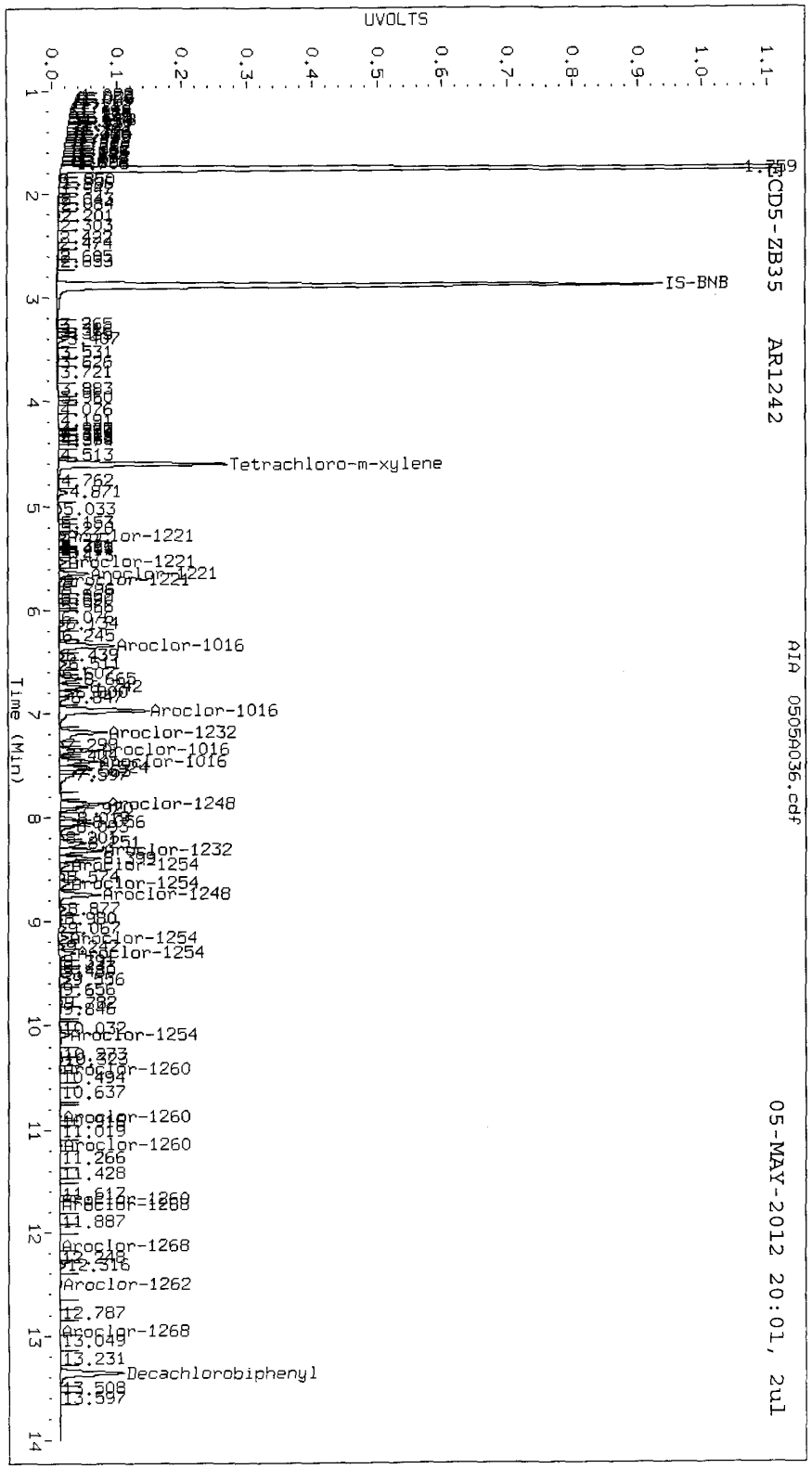
Corrected Ave (3 peaks): 1.3 Corrected Ave (3 peaks): 0.4 RPD = 105*

Total PCB Area Col1 (4.709 - 12.894) = 271857158 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 166575622 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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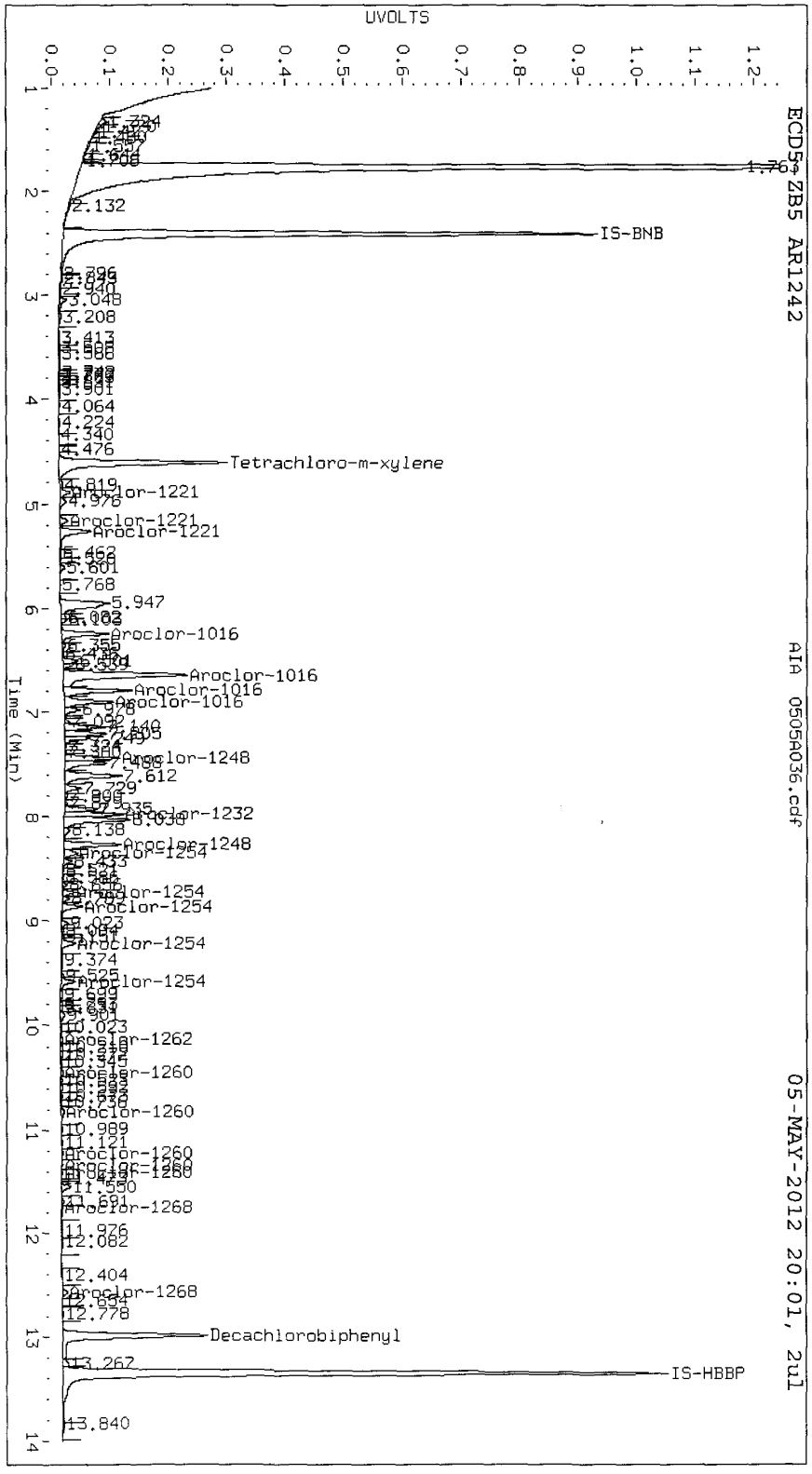
Decachlorobiphenyl
Time (Min)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Time (Min)

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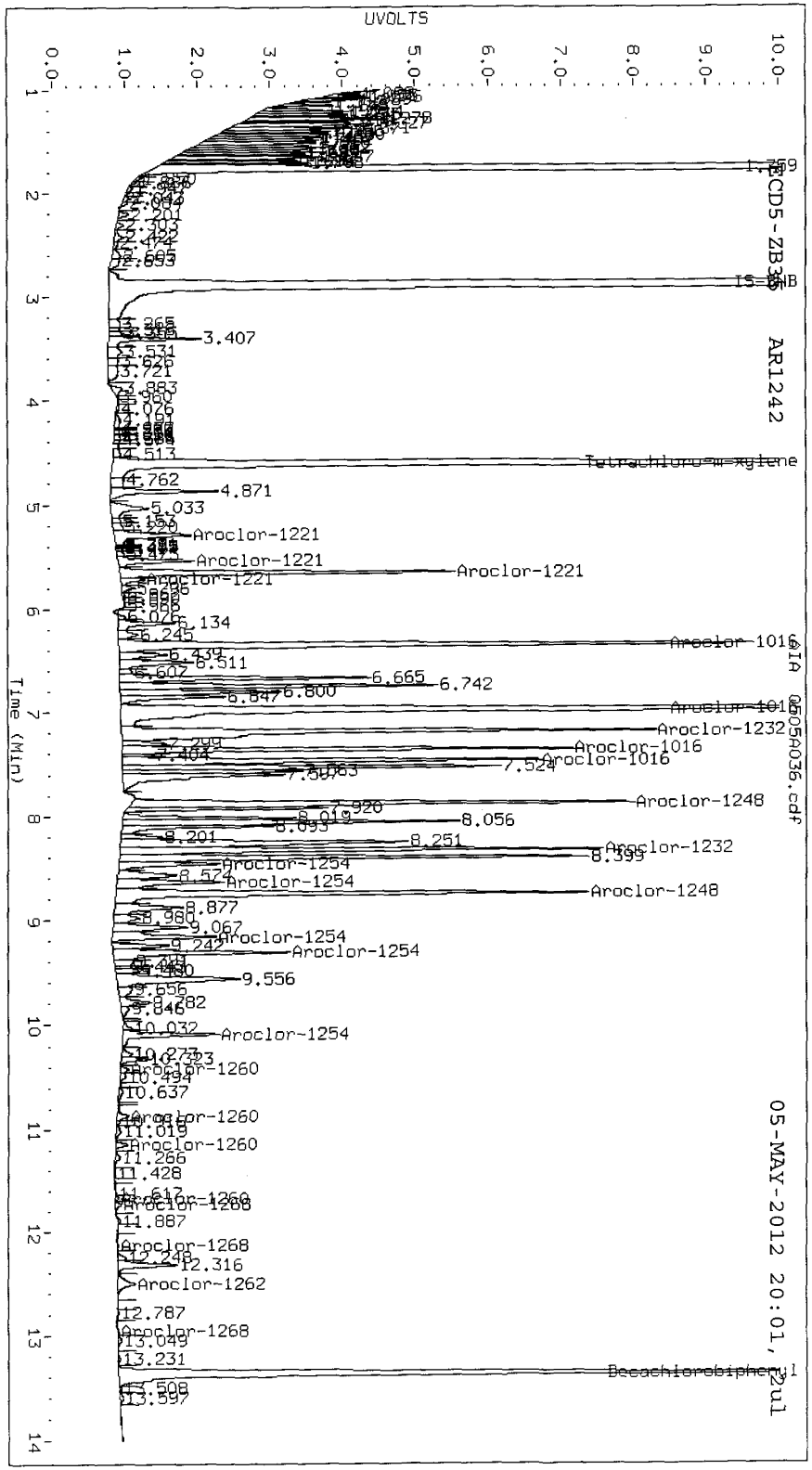
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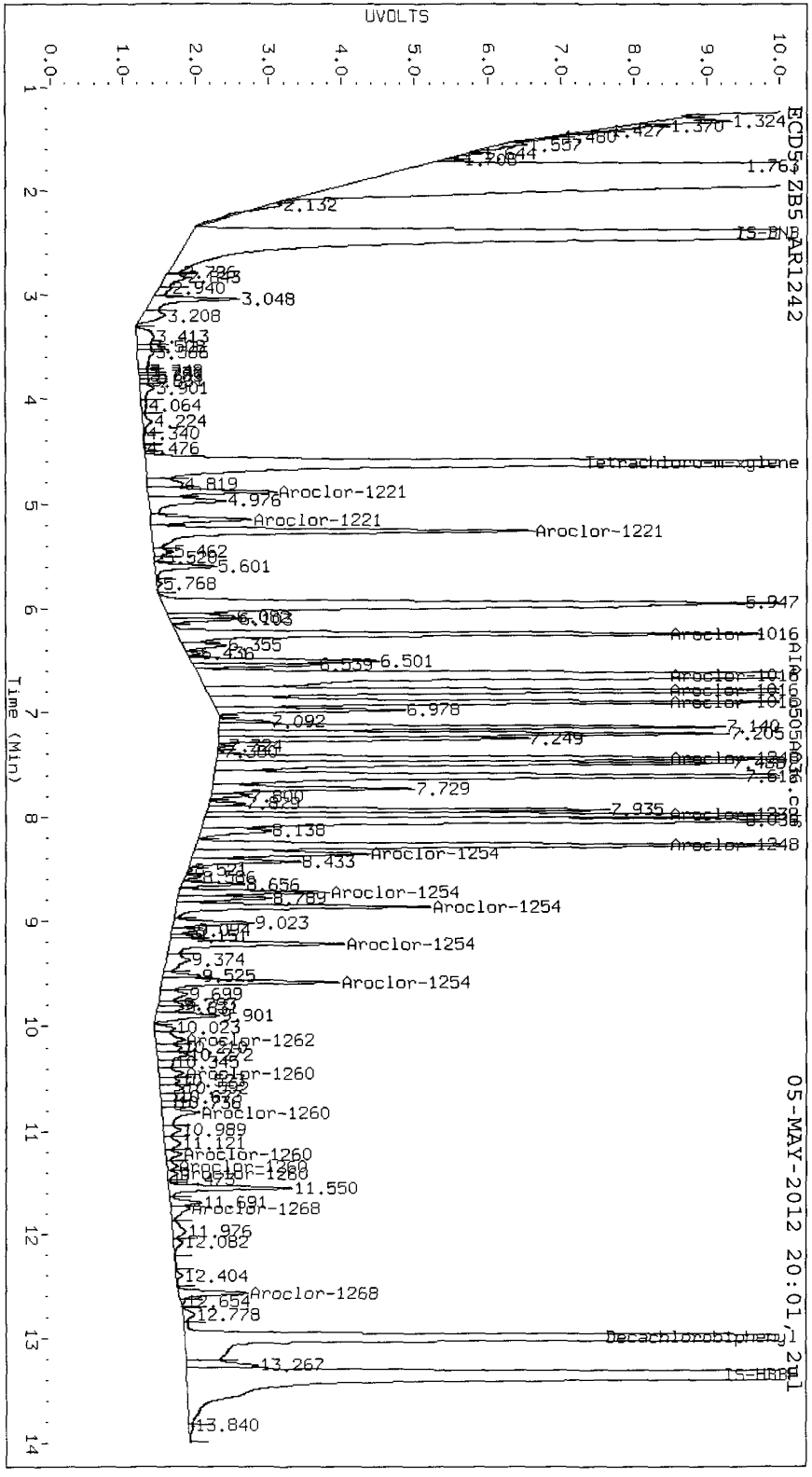
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Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

L2593:00319

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120409.B/0505-1.b/0505A037.d
Data file 2: 20120409.B/0505-2.b/0505A037.d
Method: /chem2/ecd5.i/20120409.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 05-MAY-2012 20:20
Ical Date: 09-APR-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.608	-0.001	41348146	4.603	-0.001	27970679	20.1	20.3	0.9	Tetrachloro-m-xylene
12.993	-0.001	39400114	13.365	0.000	13703763	15.8	16.2	2.6	Decachlorobiphenyl

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

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.3	50.8
Decachlorobiphenyl	39.5	40.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	140291259	126337669	-9.9
Hexabromobiphenyl	198372884	152791255	-23.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	102590725	100815428	-1.7
Hexabromobiphenyl	81487087	57532629	-29.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 09-APR-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	6.243	0.000	12194311	229.7	1	6.343	0.000	13047459	250.8
Aroclor-1016	2	6.643	0.000	43857737	257.0	2	6.973	0.000	23553087	215.3
Aroclor-1016	3	6.791	0.000	17403754	249.5	3	7.353	0.000	7190198	253.5
Aroclor-1016	4	6.901	0.000	12373887	250.4	4	7.460	-0.001	8002145	257.8
Total Col1Ave (4 peaks):				246.6		Total Col2Ave (4 peaks):			244.3	RPD = 1
Corrected Ave (3 peaks):				243.2		Corrected Ave (3 peaks):			239.9	RPD = 1
Aroclor-1221	1	4.889	-0.001	2372601	396.3	1	5.291	-0.004	2349700	151.0
Aroclor-1221	2	5.155	-0.005	2066700	138.2	2	5.535	-0.007	1356663	148.8
Aroclor-1221	3	5.261	-0.004	8937431	182.6	3	5.648	-0.006	5589259	197.7
Aroclor-1221	NS	---			----	4	5.714	-0.008	425169	83.7
Total Col1Ave (3 peaks):				239.1		Total Col2Ave (4 peaks):			145.3	RPD = 49*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			127.8	
Aroclor-1232	1	6.243	-0.001	12194311	559.6	1	6.343	-0.005	13047459	556.9
Aroclor-1232	2	6.643	0.000	43857737	623.7	2	6.973	-0.001	23553087	514.0
Aroclor-1232	3	6.791	-0.001	17403754	603.4	3	7.178	-0.005	9730059	620.4
Aroclor-1232	4	7.984	-0.001	2412706	91.2	4	8.324	-0.004	1812091	111.6
Total Col1Ave (4 peaks):				469.5		Total Col2Ave (4 peaks):			450.7	RPD = 4
Corrected Ave (3 peaks):				418.1		Corrected Ave (3 peaks):			394.1	RPD = 6
Aroclor-1242	1	6.243	0.000	12194311	314.1	1	6.343	0.000	13047459	336.4
Aroclor-1242	2	6.643	0.000	43857737	350.8	2	6.973	-0.001	23553087	285.1
Aroclor-1242	3	6.791	0.000	17403754	342.4	3	7.178	-0.001	9730059	293.6
Aroclor-1242	4	7.984	0.000	2412706	53.5	4	8.324	-0.001	1812091	65.9
Total Col1Ave (4 peaks):				265.2		Total Col2Ave (4 peaks):			245.2	RPD = 8
Corrected Ave (3 peaks):				236.7		Corrected Ave (3 peaks):			214.8	RPD = 10
Aroclor-1248	1	6.643	0.007	43857737	534.6	1	6.973	0.005	23553087	444.9
Aroclor-1248	2	7.439	0.002	12267121	193.8	2	7.872	0.002	8621163	211.1
Aroclor-1248	3	7.984	0.002	2412706	31.2	3	8.324	0.002	1812091	38.2
Aroclor-1248	4	8.279	0.006	2219062	28.8	4	8.742	-0.002	1445906	27.6
Total Col1Ave (4 peaks):				197.1		Total Col2Ave (4 peaks):			180.4	RPD = 9
Corrected Ave (3 peaks):				84.6		Corrected Ave (3 peaks):			92.3	RPD = 9
Aroclor-1254	1	8.362	0.006	10003345	83.0	1	8.464	0.002	5097023	128.0
Aroclor-1254	2	8.730	0.003	2886373	36.8	2	8.637	0.002	6223815	123.4
Aroclor-1254	3	8.864	0.001	11185486	78.0	3	9.159	0.002	1612812	41.4
Aroclor-1254	4	9.197	-0.016	26049523	180.1	4	9.310	0.003	3021696	36.3
Aroclor-1254	5	9.525	-0.049	36347761	372.5	5	10.102	0.013	5099577	101.5
Total Col1Ave (5 peaks):				150.1		Total Col2Ave (5 peaks):			86.1	RPD = 54*
Corrected Ave (4 peaks):				94.5		Corrected Ave (4 peaks):			75.6	RPD = 22
Aroclor-1260	1	10.448	0.000	17859619	211.9	1	10.421	-0.001	8582498	274.7
Aroclor-1260	2	10.823	0.000	46430961	223.6	2	10.871	-0.001	9864995	249.7
Aroclor-1260	3	11.222	0.000	24268748	215.1	3	11.144	-0.001	18813133	242.6
Aroclor-1260	4	11.338	0.000	9714037	194.2	4	11.665	-0.001	4765959	208.5
Aroclor-1260	5	11.412	0.000	11557881	192.2	NS	---			----
Total Col1Ave (5 peaks):				207.4		Total Col2Ave (4 peaks):			243.9	RPD = 16
Corrected Ave (4 peaks):				203.4		Corrected Ave (3 peaks):			233.6	RPD = 14
Aroclor-1262	1	10.132	-0.002	17040897	136.2	1	10.421	-0.004	8582498	180.7
Aroclor-1262	2	10.448	-0.002	17859619	193.0	2	10.871	-0.006	9864995	243.1
Aroclor-1262	3	10.823	-0.002	46430961	189.7	3	11.144	-0.005	18813133	204.8
Aroclor-1262	4	11.338	-0.003	9714037	108.6	4	11.665	-0.006	4765959	129.5
Aroclor-1262	5	11.412	-0.002	11557881	114.8	5	12.464	-0.005	5301705	149.9
Total Col1Ave (5 peaks):				148.5		Total Col2Ave (5 peaks):			181.6	RPD = 20
Corrected Ave (4 peaks):				137.3		Corrected Ave (4 peaks):			166.2	RPD = 19
Aroclor-1268	1	11.338	-0.003	9714037	38.1	1	11.665	-0.007	4765959	49.1
Aroclor-1268	2	11.412	-0.001	11557881	46.0	2	11.724	-0.015	11529052	125.9

Aroclor-1268	3	11.812	0.012	5170675	23.7	3	12.129	-0.007	317398	4.0
Aroclor-1268	4	12.582	-0.009	4542920	6.8	4	12.951	-0.007	1325790	5.5

Total Col1Ave (4 peaks): 28.7 Total Col2Ave (4 peaks): 46.1 RPD = 47*

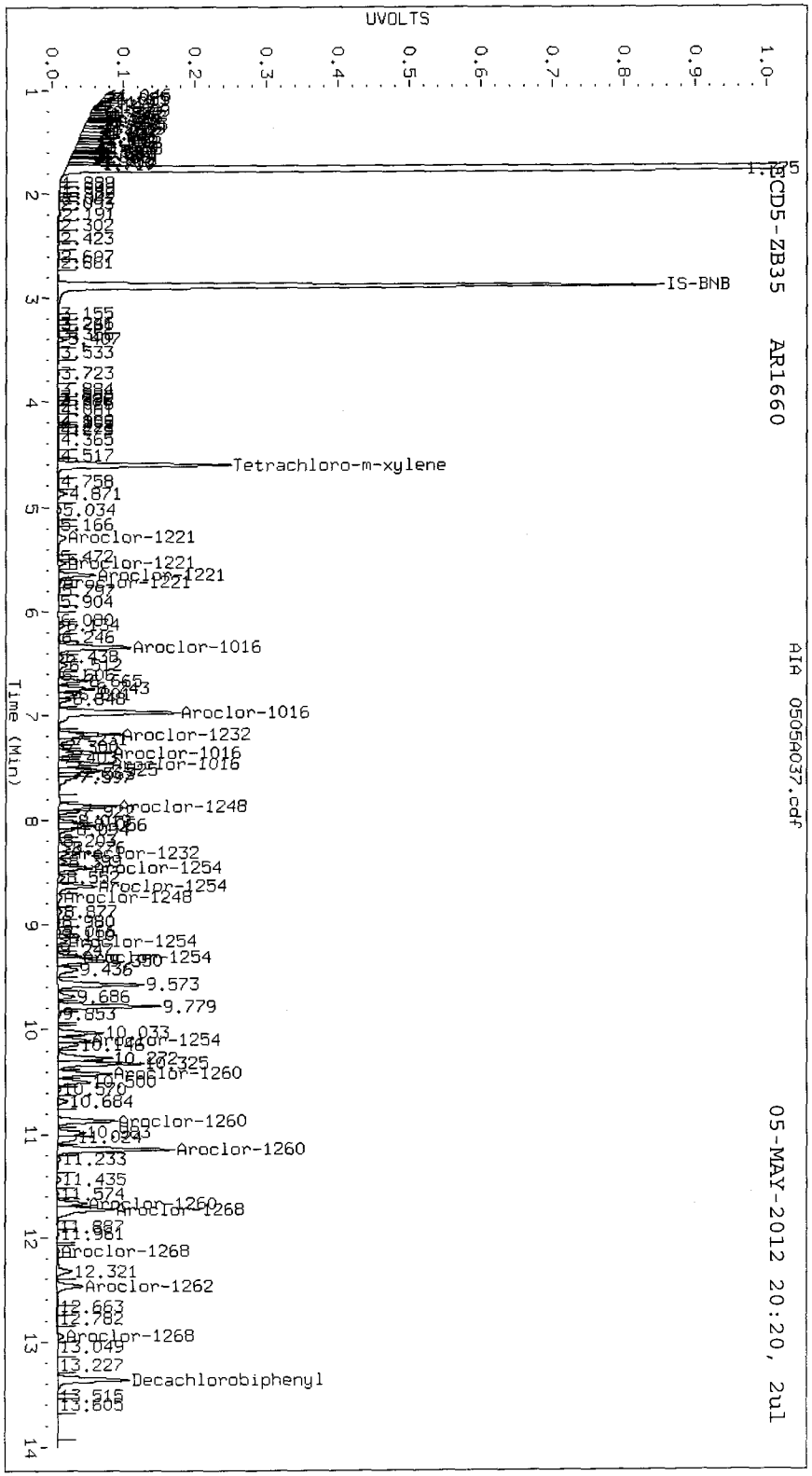
Corrected Ave (3 peaks): 22.9 Corrected Ave (3 peaks): 19.5 RPD = 16

Total PCB Area Col1 (4.709 - 12.894) = 591815822 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.705 - 13.266) = 324349099 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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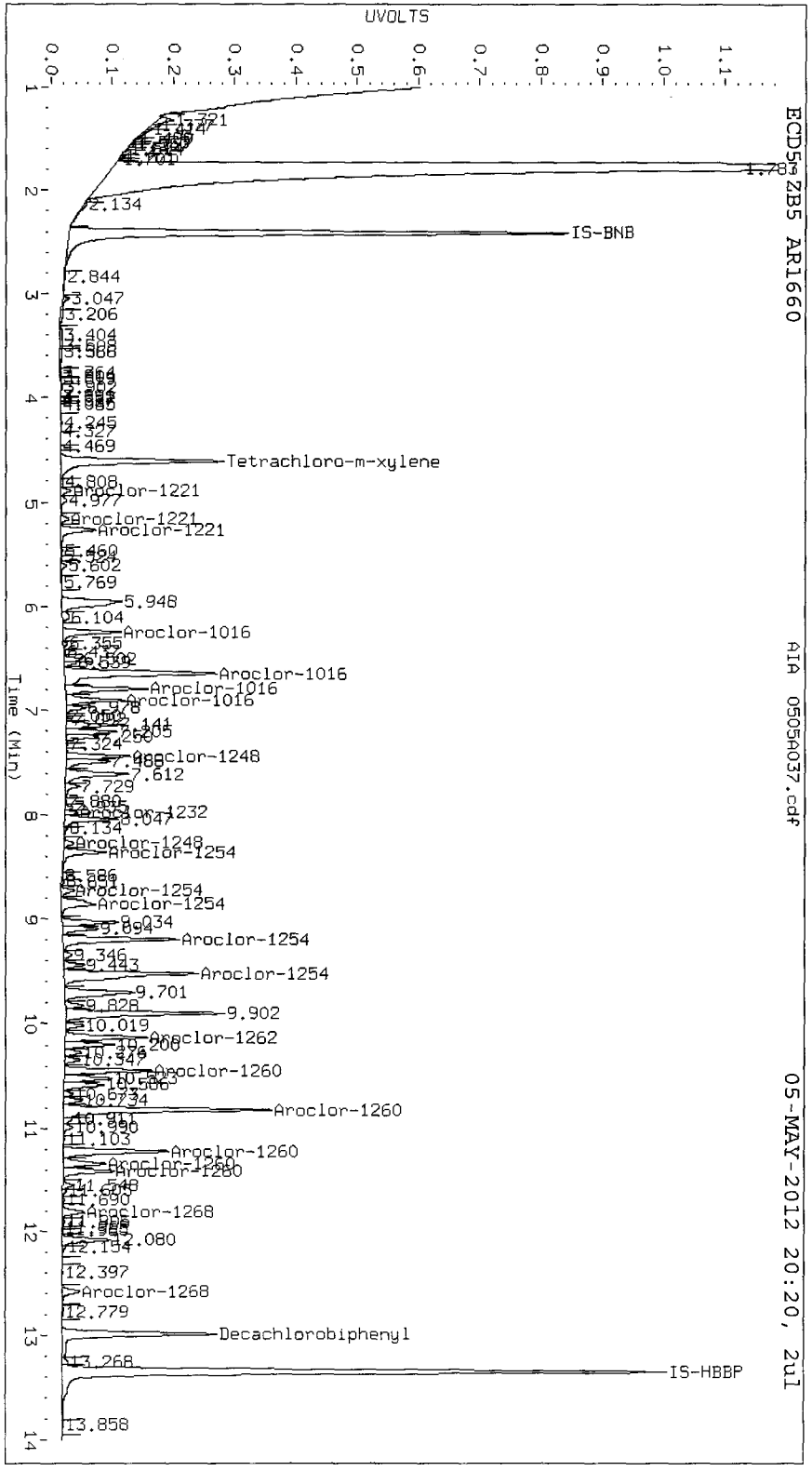
Decachlorobiphenyl
Time (Min)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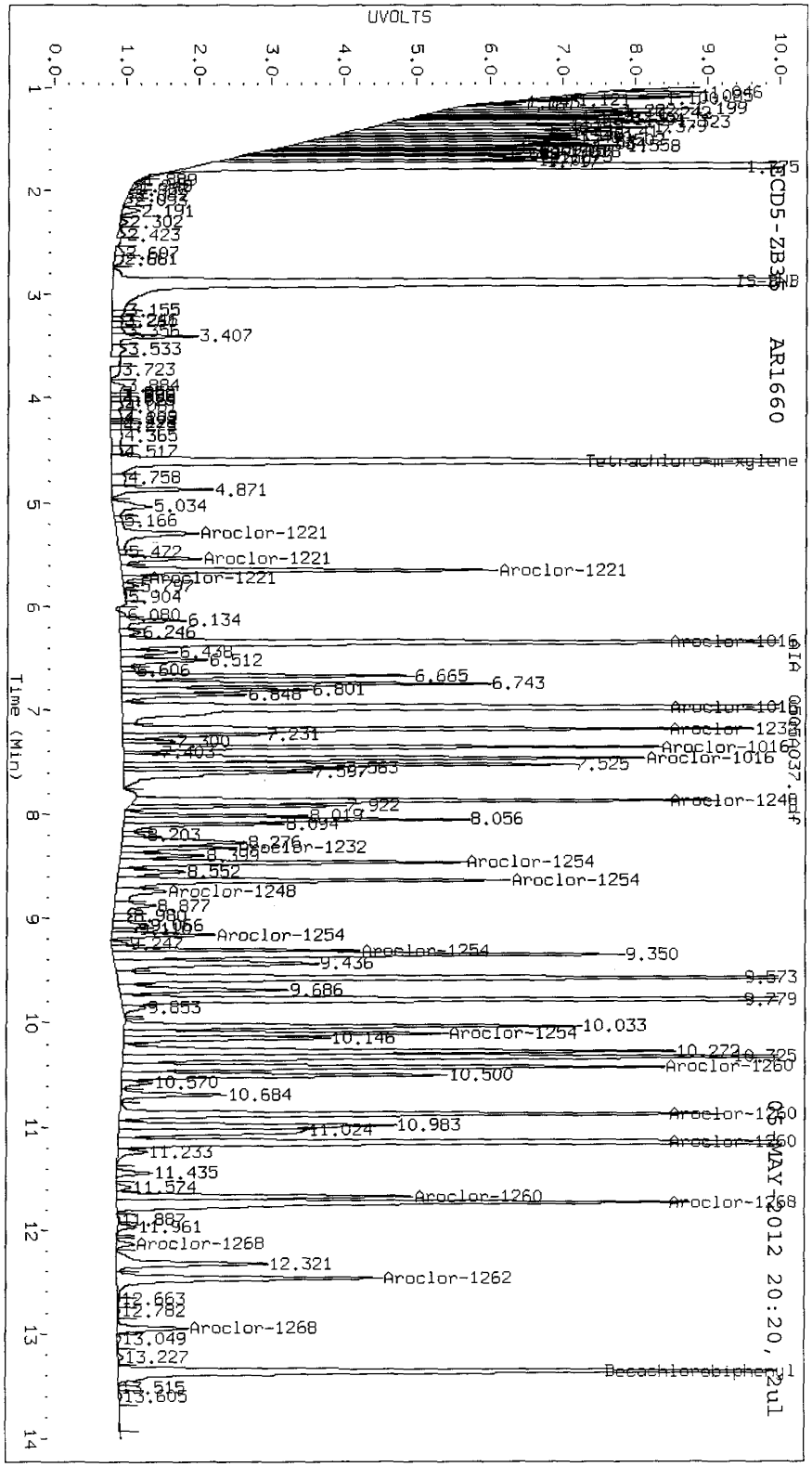
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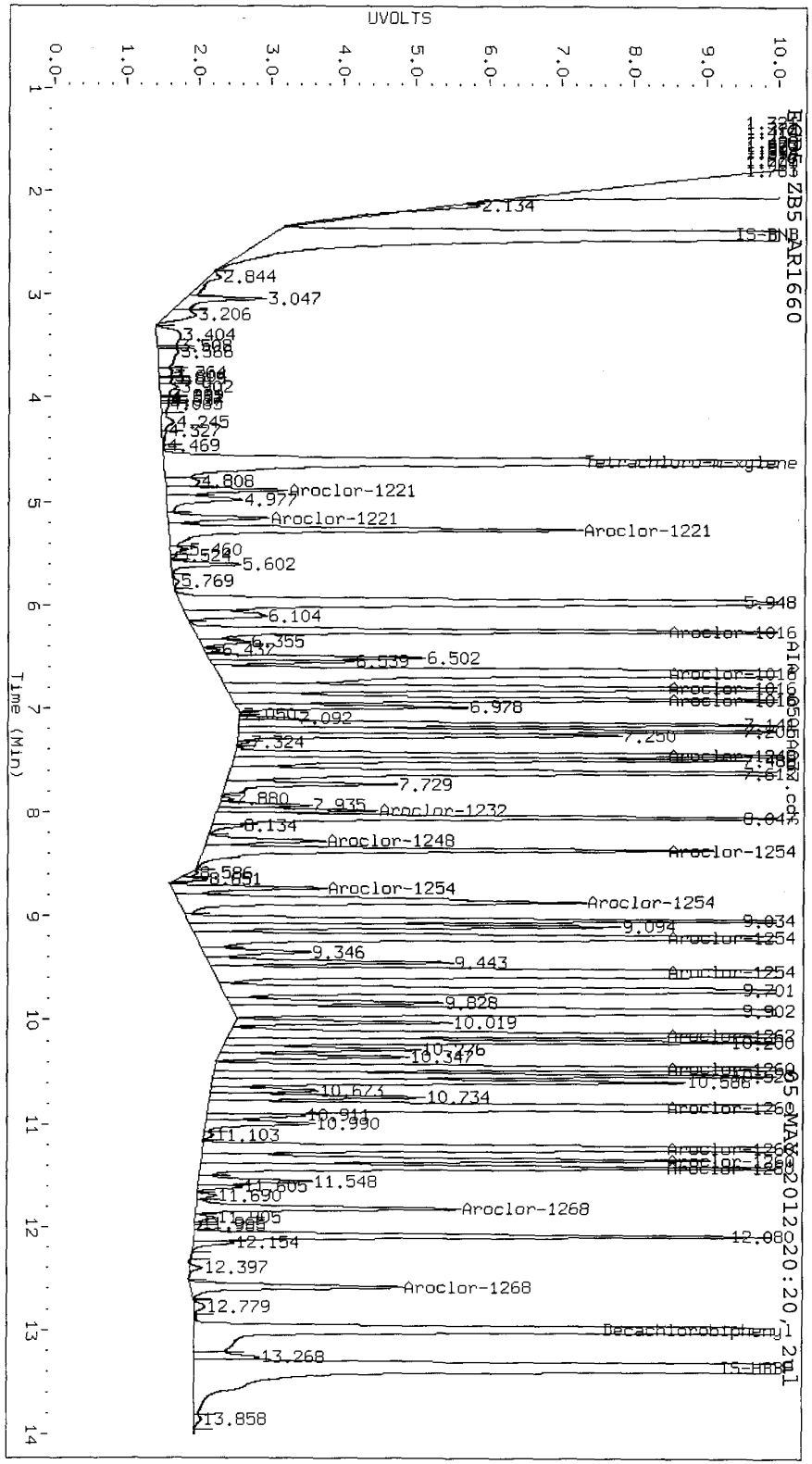
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